GENERAL NOTES

- Execution of the contract by the contractor is a representation the contractor has visited the site and become familiar with local conditions under which the work is to be performed and correlated personal observations with requirements of the contract documents.
- Inspect portions of work already performed under this contract to determine that such portions are in proper condition to receive subsequent work. Where assembly involving several trades is called for on drawings, submit shop drawings showing the proposed interaction of related elements for architect's review. Contractor responsible for proper operation of all systems.
- 3. Do not scale the printed version of drawings. calculate dimensions from the dimension strings indicated; use in conjunction with the details. Notify architect immediately in the event the drawings do not contain sufficient information to calculate necessary dimensions. Carefully review site conditions as well as dimensions indicated on drawings prior to constructing the work.
- Prior to ordering materials for of each portion of the work, investigate and verify site conditions and 4. dimensions to ascertain that work is feasible as shown. Immediately notify architect and owner of problems with site conditions. Horizontal dimensions are to building grid lines or face of concrete/cmu or face of gypsum board unless 5.
- noted otherwise. Heights are dimensioned from top of slab in concrete unless noted otherwise. Verify slab conditions.
- "Align" means to accurately locate finished faces in same plane. 8 The contract documents are complementary documents used by the architect to describe the building project and by the contractor to develop an understanding of the architect's intent and what is required by one shall be as binding as if required by all. The contract documents include, but are not limited to these drawings. Before starting each portion of the work, carefully study and compare various drawings and
- other contract documents relative to that portion of the work, as well as information furnished by the owner. Take site measurements of existing conditions related to that portion of the work and observe conditions at the site affecting it. These obligations are for the purpose of facilitating construction by contractor and not for the purpose of discovering discrepancies, errors, omissions, or inconsistencies in the contract documents. However, report discrepancies, errors, omissions, or inconsistencies discovered by the contractor promptly to architect as a request for interpretation (rfi). During bidding phase, contractor's failure to report discrepancies or omissions in contract documents, or contractor- or subcontractor-generated assumptions, in absence of architect-issued interpretations or clarifications regarding intent of the contract documents, shall not be used a basis for future claims once the apparent
- discrepancies or omissions have been reconciled by appropriate interpretation issued by the architect in accordance with contract documents. In case of conflict, the contract documents shall be governed by the following hierarchy of authority, from 9
 - highest to lowest: the agreement between the owner and the contractor. •
 - drawings •
 - the definitions • the supplemental conditions
 - the general conditions
 - division 01 of the specifications divisions 02 through 48 of the specifications
 - materials and finish schedules
- Drawings of larger scale shall govern over those of smaller scale of the same date.
- Dimensions shown in drawings shall govern over dimensions scaled from drawings.
- 12. Later dated documents shall govern over earlier documents of the same type. Structural drawings govern over architectural in matters of structural design. 13.
- Manufacturer's specifications and installation requirements govern over the specifications. 14.
- Coordinate sizes and locations of floor and wall openings, penetrations and sleeve locations for work prior 15. to construction, including but not limited to plumbing, mechanical and electrical work.
- Provide a weather-tight and waterproofed building envelope complete with required water-resistive 16. barriers, flashings, sealants, waterproof membranes, roofing membrane and exterior cladding in accordance with building code, industry standards, manufacturer specifications and the requirements of the owner's building envelope consultant. Install sealants, materials and systems in strict conformance with manufacturer's printed specifications and installation requirements. Install sheet metal flashings and trims in strict conformance with national roofing contractor's association (nrca), smacna, or as directed by the architect's drawings.
- Install fire extinguishers at locations indicated unless otherwise required by local building inspection jurisdiction or fire department. Promptly notify the architect and owner in writing in the event indicated locations are unacceptable to the local building inspection jurisdiction or fire department.
- The architect will not have control over or charge of, and will not be responsible for construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the work. These duties belong exclusively to the contractor.
- When construction details are not shown or noted for parts of the work, details shall be the same as for 19. other similar work. If questions cannot be resolved in this manner, contact the architect prior to proceeding.
- Repetitive features not shown in drawings shall be completely provided as if drawn in full. Trade contractors and delegated design-build contractors are responsible for the layout their own work, 21. and to see that it's work comes together with that of others. Report discrepancies on drawings to the
- architect for decisions. Trade contractors and delegated design-build contractors must assure themselves that they have the latest 22. drawings issued for construction in the contractor's site offices.
- Employ original journeyman tradesmen or installers of new work to perform cutting and patching in new 23. work.
- 24. Take precautions to maintain and protect new work as well as existing systems and elements which are to remain. Any damage to such systems and elements are to be immediately repaired in a manner acceptable to the architect. If satifactory repairs cannot be made replace systems and elements with "like new" guality acceptable to architect. All repair and replacement costs are the financial responsibility of the contractor.
- coordinate previously issued permit submittals with additional information issued in this submittal. The 25. multiple permit packages constitute a complete project.
- Coordinate and provide all block-outs, sleeves, inserts, bolts, plates, etc. for all trades prior to placing 26. concrete or masonry.

VICINITY MAP



EAST Morten Avenue

ABS	acrylonitrile butadiene styrene (plumbing pipe)	S	south
AFF	above finish floor	SC	solid core
ACI	american concrete institute	SCHED	schedule
AHJ	authority having jurisdiction	SIM	similar
AWG	american wire gauge standard	SHT	sheet
		SPEC	specifications
BEE	helow finish floor	SO	square
		S Q S F	square foot/feet
CMIL	concrete maconny unit	STOR	storago
CMO	concrete masoniny unit	STOR	storage
CONIC	carbon monoxide	STRUCT	structure(ural)
CONC	concrete	SIL	STEEL
-		SV	sheet vinyl
DL	dead load	SYM	symbol
DN	down		
DWG	drawing	Т.О.В.	top of beam
		Т&В	top and bottom
ELEC	electrical	TG	tempered glass
ESR	icc evaluation service	T&G	tongue and groove
		ТНК	thickness
Н	high	ТО	top of
ЦВ	hosa bib	Т.О.	top of concrete or surb
		Т.О.С.	
HC	nollow core	T.O.P.	top of parapet
HDWD	hardwood	T.O.STL.	top of steel
HP	horse power	IOW	top of wall
HW	hot water	TPTN	toilet partition
HT	height	TEL	telephone
HORIZ	horizontal	TYP	typical
HR	hour		
НМ	hollow metal	UL	underwriters laboratories
НМІ	hollow metal insulated		unless noted otherwise
224	hollow structural steel	0110	
	hoting ventilation & air conditioning		Varios
IIVAC	heating vermation of an conditioning		varies
		VEIN	veneer
LAM	laminate	VERI	vertical
LH	left hand	VEST	vestibule
LL	live load	VIF	verify in field
LLH	long leg horizontal	VR	vapor retarder
LLV	long leg vertical		
LAV	lavatory	W	west or wide or width
LBS	pounds	W/	with
LVL	level	W/O	without
		WIN	window
	manufacturer	W/C	water closet
	manuracionen		water closer
	maximum madium danaitu fibarbaard		wood
			waterproof(ing)
MECH	mechanical	VV KB	water resistive barrier
NFPA	national fire protection association	WWF	welded wire fabric
NTS	not to scale	WT	weight
PT	paint	YD	yard
PVC	polyvinyl chloride		
		XPS	extruded polystyrene (insulation)
ΟΤΥ	quantity		
RCP	reflected ceiling plan	"brand" any bra	and or manufacturer of a product will be
RD/O	roof drain /overvlow		nded by quotes
RECEPT	recentacle	Surrou	naca by quores
	receptucie		
	remnorced		
K/M	room		
кU	rough opening		



PROJECT DESCRIPTION:

DESCRIPTION: PT LOT 6 S2 SE4 NE4 EX W 30F & EX E 40F & EX S 30 & EX N 25F RDS & EX RD P/D 85-213302 & TH PT ABAND RD P/D 86-405887

LOT SIZE (ACRE): 19.72

ZONING: R-4

An assisted living and retirement home.

SCOPE OF WORK:

Remodel a private dining space. Remove walls that enter into the large dining space and dance floor. Add a low bartop and seating to the space.

AUTHORITY HAVING JURISDICTION:

CITY OF PHOENIX - PLANNING AND DEVELOPMENT DEPARTMENT 602-262-7811 2nd Floor, Phoenix City Hall 200 W Washington Street Phoenix, AZ 85003

ADOPTED CODES:

- INTERNATIONAL RESIDENTIAL CODE (IRC) 2018
- National Electric Code (NEC) 2017 • INTERNATIONAL PLUMBING CODE (IPC) - 2018
- INTERNATIONAL FUEL GAS CODE (IFGC) 2018
- International Mechanical Code (IMC) 2018 International Swimming Pool and Spa Code (ISPSC) - 2018
- INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2018
- International Fire Code (IFC) 2012 • International Existing Building Code (IEBC) - 2018
- INTERNATIONAL GREEN CONSTRUCTION CODE (IGCC) 2018 *For Voluntary Use Only* • Phoenix Zoning Ordinance - Current

DEFERRED SUBMITTALS:

- None

SPECIAL INSPECTIONS:

- None

STRUCTURAL DESIGN CRITERIA:

- BASIC WIND SPEED: 90 MPH (3 SECOND GUST) - SEISMIC DESIGN CATEGORY: B - ROOF LIVE LOAD: 20 LB

CONSTRUCTION TYPE:

VВ

PERSPECTIVE VIEW OF EXISTING HOME:



• INTERNATIONAL BUILDING CODE (IBC) - 2018 *FOR USE AS REFERENCED IN THE IRC*

PROJECT TEAM:

OWNER: American Baptist St Est Inc (925) 924-7141 Contact: Russell Mauk Rmauk@abhow.com 6120 Stoneridge Mall Rd Ste 100 Pleasanton Ca USA 94588 ARCHITECT: Trevor Pan Architects, PLLC AZ Architect #60475 (480) 277-3499 projects@trevorpan.com Trevor Pan, Principal 4310 N 75th St, Ste 145 Scottsdale, Arizona 85251



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<u>Sheet List</u>						
Sheet Number	Sheet Name					
A900	Perspective - Option 1					
A901	Perspective 2 - Option 1					
A902	Perspective - Option 2					
A903	Perspective 2 - Option 2					
CS	Cover Sheet					
C100	C					
G100	SPECIFICATIONS					
GTUT	SPECIFICATIONS					
A110	Existing Floor Plan					
A111	Existing Dimension Plan					
A112	New Floor Plan					
A113	New Dimension Plan					
A121	New Reflected Ceiling Plan					
A201	New Elevations					
A202	New Elevations					
A203	New Elevations					
A204	New Elevations					
A205	New Elevations					
A206	New Elevations					
A500	DETAILS					
G110	Perspective Views					
G111	Perspective View					



# Description	Date



JOB #	22019
DATE	3-16-2023
SCALE	As indicated
DRAWN BY	JD
CHECKED BY	ТР
Cover Sheet	



SPECIFICATIONS TABLE OF CONTENTS

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DIVISION 05 - METALS

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Section 061100 Framing and Sheathing

DIVISION 07 - THERMAL AND MOISTURE PROTECTION Section 076500 Flexible Flashings Section 079200 Joint Sealants

DIVISION 08 - OPENINGS

Section 081400 Flush Wood Doors Section 083513 Folding Glass Doors Section 087100 Door Hardware Section 088000 Glazing

DIVISION 09 - FINISHES

Section 092110 Gypsum Board Assemblies Section 099000 Painting and Coating

DIVISION 22 - PLUMBING Section 220000 Plumbing

DIVISION 23 - HEATING, VENTILATING AND AIR CONDITIONING Section 230000 Heating, Ventilating, and Air Conditioning

DIVISION 26 - ELECTRICAL Section 260000 Electrical

End

SECTION 011000 - PROJECT REQUIREMENTS

Summary:

tiles. Minor demolition will be required inside to remove cabinets, old fixtures, small portions of walls.

Contracting Requirements:

1. Owner's Instructions For Bidding: General contractor will provide bids for demolition, heating, cooling, plumbing and electrical modifications and new cabinetry, flooring, finishes as shown on the drawings.

1. Drawings and specifications are intended to provide the basis for the proper completion of the Project suitable for the intended use of the Owner. 2. Items not expressly set forth but which are reasonably implied or necessary for the proper performance of this work shall be included.

Coordination:

Drawings.

- 1. Coordinate the work of all trades.
- 2. Verify location of utilities and existing conditions. Notify Architect of conditions 7. differing from those indicated on the Drawings. 3. Verify dimensions on Drawings with dimensions at the Project. Do not scale
- Cutting and Patching:
- Provide cutting and patching work to properly complete the Project.
- 2. Do not remove or alter structural components without written approval.
- Cut with tools appropriate for materials to be cut. Patch with materials and methods to produce patch which is not visible from a **Demolition**
- distance of five feet.

5. Do not cut and patch in a manner that would result in a failure of the work to perform as intended, decrease fire performance, decrease acoustical performance, decrease energy performance, decrease operational life, or decrease safety factors.

Field Engineering:

Verify and locate utilities, existing facilities, and equipment. 2. Survey and layout improvements, utilities, structures, and components.

Project Meetings:

1. Arrange for a preconstruction conference prior to start of construction. Meeting Provide chutes as required to control dust and debris. shall be attended by Owner, Architect, Contractor, and major subcontractors. 2. Arrange for progress updates once a week via email or telephone via email or demolition remain the property of the Owner. telephone(minimum) during construction.

7. Include details of construction and adjacent construction in shop drawings. Clearly indicate any deviations from requirements of the contract documents. Fabricate materials from approved shop drawings only.

Request For Interpretation (RFIs):

1. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.

- 2. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
- 3. Content of the RFI shall include a detailed, legible description of item needing interpretation.

4. Architect will review each RFI, determine action required, and return it. Allow 2 working days for Architect's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.

- The following RFIs will be returned without action: 5.
- Requests for approval of submittals. Requests for approval of substitutions.
- Requests for coordination information already indicated in the Contract
- Documents.
- Requests for adjustments in the Contract Time or the Contract Sum. d.
- Requests for interpretation of Architect's actions on submittals. e.

Incomplete RFIs or RFIs with numerous errors. f.

Quality Assurance:

Comply with applicable codes, regulations, ordinances and requirements of authorities having jurisdiction, including accessibility guidelines where applicable. Submit copies of inspection reports, notices and similar documents to Architect. 2. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years.

- 3. Use experienced installers. Furnish evidence of experience if requested. 4. Deliver, handle, and store materials in strict accordance with manufacturer's instructions.
- 5. Use of any supplier or subcontractor is subject to Owner's approval. 6. Engage and pay for testing agencies as required. Refer to individual sections for
- additional requirements.

Temporary Provisions:

- Provide and maintain temporary utility services.
- Meter and pay for utility service. Do not waste.
- Provide temporary protection for adjacent areas to prevent contamination by a. construction dust and debris.
- Provide temporary barricades as necessary to ensure protection of the public. 4 Provide suitable waste disposal units and empty regularly. Do not permit 5. accumulation of trash and waste materials.
- Provide temporary sanitary facilities if use of existing is infeasible.
- Maintain egress within and around construction areas.

Maintain fire alarm systems in operation during construction.

Provide fire extinguishers in work areas during construction. 10. Provide temporary protection for adjacent construction. Promptly repair any damage at no additional cost to the Owner.

Products and Substitutions:

1. Provide products and materials specified. Request Owner's selection of colors and accessories in sufficient time to avoid delaying progress of the Work. Submit requests for substitutions shall be in writing, including reasons. 2 Submit sufficient information for Architect to evaluate proposed substitution. Remove and replace work which does not conform to the contract 3 documents at no additional expense to the Owner.

Installation

1.	Inspect substrates and report unsatisfactory conditions in writing.
2.	Do not proceed until unsatisfactory conditions have been corrected.
3.	Take field measurements prior to fabrication where practical. Form to
required	shapes and sizes with true edges, lines and angles. Provide inserts and
template	es as needed for work of other trades.
4.	Install materials in exact accordance with manufacturer's instructions and
approved	d submittals.
5.	Install materials in proper relation with adjacent construction and with
proper a	ppearance.
6.	Restore units damaged during installation. Replace units which cannot be
restored	at no additional expense to the Owner.
7.	Refer to additional installation requirements and tolerances specified under
individua	al specification sections.
-	
Closeout	
1.	Prepare punchlist for remaining work for review by the Architect.
2.	Complete punchlist items promptly at no additional expense to the Owner
3.	Submit accurate record documents of building and site.

- 4. Submit operating manuals, maintenance manuals, and warranty information. 5.
- Obtain and submit copy of occupancy permits.
- Train Owner's personnel in use of building systems. Remove temporary facilities and provide final cleaning and touch up. Restore portions of building, site improvements, landscaping and other 8. items damaged by construction operations to the satisfaction of the Architect at no

additional expense to the Owner. SECTION 012300 - ALTERNATES

Summary

The Project consists of an existing slump block home with wood roof trusses, and clay roof 1. Submit price for each alternate. Include cost of modifications to other work to accommodate alternate. Include statement of impact on schedule, if any. Architect and Owner will determine which alternates are accepted.

Alternates

Alternate No. 1: ((describe alternate in sufficient detail for pricing)) Alternate No. 2: ((describe alternate in sufficient detail for pricing)) 2.

SECTION 024100 - DEMOLITION

Summary:

- Provide complete demolition of designated interior/exterior walls. Provide selective demolition of components designated to be removed. Protect portions of building, site and adjacent structures affected by demolition operations.
- Remove hollow items or items which could collapse.
- Remove abandoned utilities and wiring systems.
- Provide temporary protection for the owner from demolition operations. Provide pollution control during demolition operations.
- Provide removal and legal disposal of materials. 9
- 10. Refer to Construction Documents for additional demolition requirements.
- 11. Notify Owner in writing of schedule of shut off of utilities which serve occupied spaces, if any.
- 12. Notify Owner in writing if hazardous materials are encountered or suspected and stop work in that area until determination is made.

Survey existing conditions and correlate with Drawings and specifications to verify extent of demolition required. Provide videotape of existing conditions if clarification of existing damage may be construed as damage done by construction operations.

- 2. Verify conditions at site to determine whether demolition methods proposed for use will not endanger existing structures by overloading, failure, or unplanned collapse.
- 3. Perform demolition operations by methods which do not endanger adjacent spaces, structures, or the public.
- 4. Perform demolition operations to prevent dust and pollutant hazards.
- 5. Historic items, relics, and other objects of interest or value found during

1. Items to be Salvaged for Reinstallation: refer to the Drawings.

SECTION 033000 - CAST-IN-PLACE CONCRETE, includes elements from **SECTION 033200**

Summary:

- Provide site mixed cast-in-place concrete for interior infill slabs as 1. applicable; plant mixed cast-in-place for work unforeseen.
- Remodel existing concrete work as required for new construction. 2.

4

b.

setting bed.

Products:	
1. Concrete Design Mixes, Re	inforcing Materials, Concrete Materials and
Admixtures as follows.	
2. Foundations	3,000 psi
3. Slabs on grade	3,000 psi
4. Curbs and sidewalks	2,500 psi
5. Wire Mesh: Welded plain s	teel wire fabric, ASTM A 185.
6. Reinforcing Bars: Deforme	ed steel bars, ASTM A 615, Grade 60 #5 and
larger, Grade 40 #4 and smaller.	
7. Joint Dowel Bars: Plain ste	el bars, ASTM A 615, Grade 60.
8. Hook Bolts: ASTM A 307,	Grade A threaded bolts, galvanized.
9. Liquid Membrane Forming	and Sealing Curing Compound: ASTM C 309
Type I, Class A.	5 5 1
10. Bonding Compound: Polyv	inyl acetate or acrylic base.
1. Epoxy Adhesive: ASTM C	881.
Installation:	
1. Comply with requirements	of Section 011000 - Project Requirements.
2. Comply with ASTM C 94,	CRSI Manual of Standard Practice, and ACI
publications.	
3. Comply with ACI 301, Spe	cifications for structural Concrete for Buildings
ACI 318, Building Code Requiremen	ts for Reinforced Concrete, and CRSI Manual
of Standard Practice.	
4. Provide Concrete Finishes F	For Formed Surfaces:
a. Surfaces Not Exposed To V	'iew: As cast form finish.

В

Surfaces Exposed To View: Smooth form. b.

Surfaces Exposed To View: Grout cleaned.

Surfaces Exposed To View: Special textured finish.

Scratch finish for surfaces to receive concrete floor topping or mortar

Trowel finish for surfaces to be exposed to view or covered with resilient

Provide Concrete Finishes for Monolithic Slabs:

Surfaces Exposed To View: Smooth rubbed.

flooring, carpet, tile, or other thin finish system.

c. Trowel and fine broom finish for surfaces to receive thin set ceramic or quarry	R Earast Stewardship Council (ESC) (HYPERLINIK "http://www.fscus.org"	SECTION 076500 - FLEXIBLE FLASHING	c. AAMA 611, Voluntary Specification for Anodized
 Nonslip broom finish for exterior concrete platforms, steps, and ramps. Nonslip approaches finish for concrete stair troads, platforms, ramps, and cloped 	www.fscus.org) STD-40-004 - Chain of Custody Standard.	Summary:	d. AAMA 1204 Voluntary Specification for Encode Entry
walks.	"http://www.nist.gov" <u>www.nist.gov</u>) - Product Standard PS 20 - American Softwood	where indicated on drawings.	Resistance of Side-Hinged Door Systems.
 Conform to ACI 301 and ACI 318. Free of chloride and fly ash additive. 	Lumber Standard. D. National Lumber Grades Authority (NLGA) (HYPERLINK	Products:	t. AAMA 2604, Voluntary Specifications, Performance Requirements and Test Procedures for High Performance
5. Mechanically vibrate all concrete when placed. Slabs on grade only need be vibrated near penetrations. If applicable, place controls joints shown on foundation plan.	"http://www.nlga.org" <u>www.nlga.org</u>) - Standard Grading Rules for Canadian Lumber. E. West Coast Lumber Inspection Bureau (WCLIB) (HYPERLINK	1. 3M Acrylic flashing tape 8067.	Organic Coatings on Aluminum Extrusions and Panels. g. AAMA 2605, Voluntary Specifications, Performance
6. Concrete which has contained water for more than 90 minutes (60 minutes if air temperature exceeds 85 degrees) cannot be used. Do not retemper concrete after initial	"http://www.wclib.org" <u>www.wclib.org</u>) - Standard Grading Rules for West Coast Lumber.	Installation: 1. Comply with requirements of Section 011000– Project Requirements.	Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
set has occurred.	F. Western Wood Products Association (WWPA) (HYPERLINK "http://www.wwpa.org" www.wwpa.org) G-5 - Western Lumber Grading Rules	2. Apply evenly and neatly using roller to remove air bubble and ensuring a solid water proof seal	h. AAMA/WDMA/CSA 101/I.S.2/A440, NAFS, North American Eenestration Standard - Specification for Windows
procedures to prevent cracking. Cure with curing and sealing compound, moist curing,		 Follow manufacturer's directions in applying tape. Ensure compatibility with stucce system water resistive barrier. 	Doors and Skylights.
 Test concrete compressive strength and slump per ASTM C31 and C39. Provide 	A. Lumber Grading Agency: Certified to NIST PS 20.	sideco system water resistive barrier.	a. ANSI Z97.1, Safety Performance Specifications and Methods
3 cylinders per fest for each day's concrete placement or as directed by the Architect. Test one cylinder at 7 days and two at 28 days. Test executed by a qualified testing laboratory.	B. Identity lumber and sheet products by official grade mark.	SECTION 079200 - JOINT SEALANTS	of Test for Safety Glazing Material Used in Buildings. 3. ASTM. ASTM International; www.astm.org
9. Bend reinforcing bars cold, place bars, wire fabric on chairs, spacers or hangers. Provide the following minimum clear concrete coverage:	 DELIVERY, STORAGE AND HANDLING A. Store materials minimum 6 inches above ground on framework or blocking and 	Summary:	 a. ASTM C1036, Standard Specification for Flat Glass. b. ASTM C1048, Standard Specification for Heat-Strengthened
Cast against earth & permanently exposed to earth 3" Exposed to earth or weather	cover with protective waterproof covering providing for adequate air circulation. B. Do not store seasoned or treated materials in damp location.	1. Provide joint sealers at interior and exterior vertical and horizontal joints.	and Fully Tempered Flat Glass. c. ASTM E90-09, Standard Test Method for Laboratory
#5 and smaller 1 ½" 10. Lap splices Class B tension lap splices 2'-0" minimum per AC 318. Stagger	C. Protect edges and corners of sheet materials from damage.	Products: 1. Silicone Elastomeric Joint Sealants:	Measurements of Airborne Sound Transmission Loss if Building Partitions and Elements.
alternate splices a minimum of one lap length. Extend all horizontal reinforcing continuous	PART 2 PRODUCTS	a. Type: Multi part nonacid curing silicone sealant, ASTM C 920, for	d. ASTM E283, Test Method for Rate of Air Leakage through
walls.		b. Application: Joints in exterior walls and soffits.	Air Pressure Difference.
cover. Securely tie all bars in position before placing concrete.	 A. Sneet Products: 1. Type: APA Oriented Strand Board, 3/8" thick at walls, ¾" thick at 	 a. Acrylic Type: Acrylic emulsion, ASTM C 834. 	e. ASTM E330, Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static
12. Reinforcing bar hooks bent to ACI standards.	roof. 2. Panel grade:	b. Application: Interior joints in vertical and overhead surfaces with limited movement.	Air Pressure Difference. f. ASTM E331, Standard Test Method for Water Penetration of
SECTION 055000 - METAL FABRICATIONS (if applicable for repairs or additions	a. Wall and roof sheathing: APA Structural I Rated Sheathing.3. Exposure:	3. Sanitary Silicone Elastomeric Joint Sealants:	Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
during construction)	 a. Exterior applications: Exterior. b. Interior applications: Interior. 	 a. Type: One part mildew resistant silicone sealant, ASTM C 920. b. Application: Sanitary applications, interior use. 	g. ASTM E413, Classification for Rating Sound Insulation.
Summary:		 Compression Seals: Type: Preformed form sealant 	h. ASTM E547, Test Method for Water Penetration of Exterior Windows Curtain Walls, and Doors by Cyclic Static Air
a. Rough hardware.	A. Fasteners:	 b. Application: Wide exterior joints in vertical surfaces. 	Pressure Differential.
d. Miscellaneous aluminum trim.	 Type and size: As required by conditions of use. Exterior locations and treated products: Hot-dip galvanized steel, 	a. Pourable Type: Multi part pourable urethane sealant, ASTM C 920.	I. ASTME1332, Standard Classification for Rating Outdoor- Indoor Sound Attenuation.
2. Remodel existing metal fabrications as required for new construction.	ASTM A153/A153M, G90 coating class – for non treated conditions. Stainless steel, ASTM F593, Type 304 – for treated conditions.	 Application: Exterior paving joints. Paving Joint Fillers: 	j. ASTM E2268, Standard Test Method for Water Penetration of Exterior Windows, Skylights, and Doors by Rapid Pulsed Air
Tolerances: Fabrication tolerance 1/8 inch in 10 feet; erection tolerance, 1/16 inch.	3. Other interior locations: Plain steel.	a. Rubber Type: Sponge rubber.b. Application: Filler for exterior paving joints.	Pressure Difference. k. ASTM F842, Standard Test Methods for Measuring the
Products	B. Metal Connectors: Joist Hangers, Clips:	7. Auxiliary Materials:	Forced Entry Resistance of Sliding Door Assemblies.
 Steel Plates, Shapes and Bars: ASTM A 36. Steel Tubies - ASTM A 500 or A 501 	coating class – at treated.	b. Elastomeric tubing backer rods.	4. CPSC. Consumer Product Safety Commission; www.cpsc.gov
 Steel Pipe, Black Finish: ASTM A 500 or A 501. Steel Pipe, Black Finish: ASTM A 53. 	2. Size and snape: To sull framing conditions.	Installation:	A. CPSC TOCPR-T201, Safety Standard for Architectural Glazing Materials
 Aluminum Extruded Bars and Shapes: ASTM B 221 aluminum alloy. Fasteners: non corrosive, suitable for service intended. 	PART 2 EXECUTION	 Comply with requirements of Section 011000 - Project Requirements. Test sealant adhesion for each substrate required. 	5. CSA Group (Canadian Standards Association);
6. Zinc Coating: Hot dip galvanized coating for materials in exterior assemblies or exterior walls.	2.1 INSTALLATION	 Install in proper relation with adjacent work. Clean adjacent surfaces soiled with sealant immediately. 	www.csagroup.org/global/en/home a. CSA A440S1 - The Canadian supplement to North
7. Steel Finish: Primed.	 A. Set members level, plumb, and rigid. B. Make provisions for erection loads, and for temporary bracing to maintain 	END OF SECTION	American (NAFS) standards
Installation:	structure is safe, plumb, and in true alignment until completion of erection and installation of permanent bracing	SECTION 081400 - FLUSH WOOD DOORS	6. DIN. "Deutsches Institut für Normung" (German institute for standardization): www.en-standard.eu/din-standards
 Comply with AISC codes and specifications and with AWS Structural Welding Code 	C. Place beams, joists, and rafters with crown edge up.		a. DIN EN 1191, Windows and doors – Resistance to repeated
Code.	 Root Sneathing: Place panels perpendicular to framing members with ends staggered 	1. Provide interior solid core flush wood doors.	2000.
SECTION 061000 - ROUGH CARPENTRY	and sheet ends over firm bearing. 2. Leave 1/8 inch expansion space at panel ends and edges.	Submittals:	 DIN EN ISO 717-1, Acoustics – Rating of sound insulation in buildings and building elements.
Summary: 1. Provide Rough Carpentry:	 3. Secure to supports with nails spaced per details. E. Wall Sheathing: 	1. Submit product data, samples, shop drawings, warranty.	 DIN EN ISO 9001, 2015 quality management system registration.
a. Framing with dimension lumber, use preservative treatment lumber where noted on drawings.	 Place panels with ends over firm bearing and staggered joints. Leave 1/8 inch expansion space at panel ends and edges. 	Products: 1. Products: As selected by Architect complying with the following.	d. DIN EN ISO 10140-1, 2, 4 & 5, Airborne sound measurement.
 b. Framing with engineered wood products. Wood grounds, pailers, and blocking. 	 Secure to supports with nails spaced per details. Provide blocking, pailers, grounds, furring, and other similar items required to 	 AWI Quality Standards: NWWDA I.S. 1 A, and AWI Architectural Quality Standards 	e. DIN EN ISO 12400, Window and pedestrian doors-
 e. Wood furring, use preservative treatment lumber where noted on drawings. 	receive and support work.	 Fire Rated Wood Doors: Meeting ASTM E 152 requirements. 	f. DIN EN ISO 14001, 2015 environmental management
2. Remodel existing rough carpentry.	G. I reat field cuts and holes in preservative treated members providing structural support in accordance with AWPA M4.	4. Interior Solid Core Doors: a. Grade: Premium.	g. DIN 52210-3, Testing of acoustics in buildings - Airborne and
Products:1. Lumber Standards and Grade Stamps: PS 20, American Softwood Lumber	2.2 TOLERANCES	b. Construction: 5 ply.c. Core: Structural composite lumber core.	impact sound insulation - Laboratory measurements of sound insulation of building elements and field measurements
Standard and inspection agency grade stamps. 2. Construction Panel Standards: PS 1, U.S. Product Standard for Construction and	A. Framing Members: 1/4 inch from true position, maximum.	d. Species, Grain Matching and Transparent Finish: As selected by Owner.	between rooms. h. DIN 52210-4, Tests in Building Acoustics - Airborne and
Industrial Plywood; APA PRP 108. Wood Framing Standards: NEPA House Framing Manual	PART 3 EXECUTION	e. Species, Grain Matching and Transparent Finish: Match existing.	Impact Sound.
 Preservative Treatment: AWPA C2 for lumber and AWPA C9 for plywood; 	1. INSTALLATION OF UNDERLAYMENT	a. Fitting: Factory prefit and premachine doors.	7. Energy Star, U.S. Environmental Protection Agency (EPA) Program;
5. Dimension Lumber:	Weatherlap each sheet 4 inches over preceding sheet. Lap ends 6 inches minimum.	b. Filling: Remodel existing doors as required.	www.energystar.gov
a. Light Framing: Stud, No. 3 or Standard grade.b. Structural Framing: No. 1 grade.	B. Press to full bond with substrate without voids, wrinkles, bridging, or fishmouths. Seal ends and edges.	Installation: 1. Comply with requirements of Section 011000 - Project Requirements.	8. Metro-Dade County, FL Building Code Compliance Office Protocols; HYPERLINK
c. Species: Any species of grade indicated.d. Exposed Framing: Appearance grade.	C. Lap underlayment minimum 12 inches over hips and ridges from both sides. Apply 36 inch wide strip centered lengthwise over ridge.	 Comply with NWMA IS 1 and AWI Quality Standards. Prefit doors to frames, premachine doors for hardware, and factory bevel. 	 a. TAS 201, Impact Test Procedures b. TAS 202, Criteria for Testing Impact and Non-Impact
 Miscellaneous Lumber, Blocking and Nailers: a. Moisture Content: 19 percent. 	D. Extend minimum 4 inches up abutting vertical surfaces.	4. Install with not more than 1/8 inch clearance at top and sides, 1/4 inch at bottom unless undercut is required.	Resistant Building Envelope Components Using Uniform Static Air Pressure
b. Grade: Standard grade light framing.	2. FLASHINGS	5. Comply with NFPA 80 for rated assemblies.	c. TAS 203, Criteria for Testing Products Subject to Cyclic Wind
a. Sill Sealer Gaskets: <i>FoamSealR</i> TM Sill Gasket by Owens	1. Install metal drip edge at rake edges with top flange on top of	END OF SECTION	 FL. Florida Building Commission – Product Approval;
Corning. b. Framing Anchors and Fasteners: Non corrosive, suitable for load and	underlayment. 2. Weather lap ends 2 inches minimum and seal with plastic cement.	Section 083513 - Folding Glass Doors	10. NFRC. National Fenestration Rating Council; www.nfrc.org
exposure.	 Nail top flange to decking at 8 inches on center maximum. Apply plastic cement to cover nail heads and at edge of flashings for 	PART 1 GENERAL	a. NFRC 100, Procedure for Determining Fenestration Product U-factors
Installation:	entire length of metal. B. Drip Edges:	1.01 SUMMARYA. Related Documents and Sections: Contractor to examine Contract Documents for	 b. NFRC 200, Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at
 Comply with requirements of Section 011000 - Project Requirements. Comply with NFPA Manual for House Framina. NFPA Recommended Nailing 			
Schedule, and NFPA National Design Specifications for Wood Construction.	 Apply drip edge at eave with top flange directly on deck; extend underlayment to outer face of drip edge. 	requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to, the following:	Normal Incidence c. NFRC 400, Procedure for Determining Fenestration Product
Comply with APA Design and Construction Guide, Residential and Commercial Construction.	 Apply drip edge at eave with top flange directly on deck; extend underlayment to outer face of drip edge. Lap ends 2 inches minimum and seal with plastic cement. Neilling lagge t 8 inches on content requirement. 	requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to, the following: 1. Drawings and general provisions of the Contract, including	Normal Incidence c. NFRC 400, Procedure for Determining Fenestration Product Air Leakage
4. Provide nailers, blocking and grounds where required. Set work plumb, level and	 Apply drip edge at eave with top flange directly on deck; extend underlayment to outer face of drip edge. Lap ends 2 inches minimum and seal with plastic cement. Nail in place at 8 inches on center maximum. Apply plastic cement to cover nail heads and at edge of flashings for 	requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to, the following: 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, Specification Sections, apply to this	 Normal Incidence c. NFRC 400, Procedure for Determining Fenestration Product Air Leakage d. NFRC 500, Procedure for Determining Fenestration Product Condensation Resistance Rating Values
accurately cut.	 Apply drip edge at eave with top flange directly on deck; extend underlayment to outer face of drip edge. Lap ends 2 inches minimum and seal with plastic cement. Nail in place at 8 inches on center maximum. Apply plastic cement to cover nail heads and at edge of flashings for entire length of metal. Valleys: 	 requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to, the following: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, Specification Sections, apply to this Section. Section 06 10 00, Rough Carpentry: Wood framing 	Normal Incidence c. NFRC 400, Procedure for Determining Fenestration Product Air Leakage d. NFRC 500, Procedure for Determining Fenestration Product Condensation Resistance Rating Values 1.03 ADMINISTRATIVE REQUIREMENTS A. A. Coordination: Coordinate Folding Glass Storefront system and framing R.O.
accurately cut. 5. Comply with manufacturer's requirements for treated materials.	 Apply drip edge at eave with top flange directly on deck; extend underlayment to outer face of drip edge. Lap ends 2 inches minimum and seal with plastic cement. Nail in place at 8 inches on center maximum. Apply plastic cement to cover nail heads and at edge of flashings for entire length of metal. Valleys: Apply one layer of 36 inch wide underlayment centered over valleys. Weather lap joints 12 inches minimum. Nail at 18 inches on center, with nails located within 1 inch 	 requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to, the following: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, Specification Sections, apply to this Section. Section 06 10 00, Rough Carpentry: Wood framing R.O. and blocking. Section 06 20 00, Finish Carpentry. 	 Normal Incidence c. NFRC 400, Procedure for Determining Fenestration Product Air Leakage d. NFRC 500, Procedure for Determining Fenestration Product Condensation Resistance Rating Values 1.03 ADMINISTRATIVE REQUIREMENTS A. Coordination: Coordinate Folding Glass Storefront system and framing R.O. B. Pre-installation Meetings: See Section 01 30 00.
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r Pan Architects PLL) N 75th St, Ste 145 ottsdale Arizona 85251

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JOB #	22019
DATE	3-16-2023
SCALE	
DRAWN BY	ТР
CHECKED BY	TP
Specificatio	INS



1.06 A. 00 requ	DELIVERY, STORAGE, AND HANDLING Comply with manufacturer's instructions and recommendations, Section 01 60 irrements, and as follows:			Air infiltration and water testing results are only applicable if the unit matches the tested panel and unit size, direction of opening and type of sill.	Β.	Sliding- Folding Hardware: Provide manufacturer's standard and folding hardware with top and bottom tracks.
	 Deliver materials to job site in sealed, unopened cartons or crates. a. Upon receipt, inspect the shipment to ensure it is complete, in acod condition and mosts project requirements. 			Structural load testing results are only applicable for the test unit size and type of locking and rods.		For each pair of folding panels, provide independen suspension for four (4) wheeled rollers coated with polyamide upper running carriage and lower guide of Swing Panel Hinges: Staipless steel binges and secu
	 Store material under cover in a clean and dry location, protecting units against weather and defacement or damage from construction activities, 			Comparative analysis charts published by manufacturer shows which panel sizes, if any, meets the structural loading design pressures specifically required for the project.		 Swill g Failer Hinges. Stanless steel hinges and security set-screws. NOTE: Finishes to match are closest matches available by t
1 07	especially to the edges of panels.			Check for limitations on the use of these charts in the jurisdiction of the		Review for acceptability.
A. (R.O.) drawing	Field Measurements: Contractor to field verify dimensions of rough openings and threshold depressions to receive sill. Mark field measurements on product a submittal.			Forced entry testing results are only applicable for the test unit type of locking.	C.	without removing panels from tracks and without ne panels from tracks Weather stripping: Manufacturer's double laver EPDM betw
1.08	WARRANTY Warranty Period beginning with the earliest of 120 days from Date of Delivery or Date of Substantial Completion:			Check for requirements in the jurisdiction of the project.		gasket and Q-lon gasket, or brush seal between panel and fra with a two-layer fiberglass reinforced polyamide fin attached
	 a. Rollers and Glass Seal Failure: Ten (10) years b. All Other Components Except Screens: Ten (10) years 			See manufacturer's latest published data regarding performance.		between panels and between panel and frame.
Excepti certifie	on: Five (5) years if NOT installed by manufacturer's specific system approved or I trained installer.			than 2/3rds of the following certified laboratory test data in accordance with AAMA 502.		direction of swing, the panel configuration, the type of sill. UniverSILL available for SL70 only.
PART : 2.01 A.	2 PRODUCTS MANUFACTURERS Basis-of-Design Product by Manufacturer: NanaWall SL45, SL70 by NANA		NOTE:	Items below are common to all sill types, except as noted.		1. UniverSILL: For outswing low profile saddle sill, Un on available for additional air and water protection.
WALL	SYSTEMS, INC. (HYPERLINK "http://www.nanawall.com/' <u>www.nanawall.com</u>) NANA WALL SYSTEMS, INC. 100 Meadow Creek Drive, Corte Madera, CA 94925		1.	Structural Loading (ASTM E330): a. Load Structure: At 1.5 times design wind pressure with no glass breakage or permanent damage to fasteners or	D. 2.05	Fasteners: Tapered pins or stainless-steel screws for connecti components. FABRICATION
	Toll Free: (800) 873-5673 Telephone: (415) 383-3148 Fax: (415) 383-0312			storefront components. b. Design Pressure: Positive and Negative at 35 psf (1675 Pa)	Α.	Folding Glass Wall: Extruded aluminum frame and panel pro- connectors and hinges, sliding and folding hardware, locking handles, glass and glazing and weather stripping
	Email: HYPERLINK "mailto:info@nanawall.com" <u>info@nanawall.com</u> 1. Substitution Procedures: See Section 01 20 00; Submit, completed,		2.	Swing Panel - Operation / Cycling Performance (AAMA 920): 500,000 cycles		 Each unit factory pre-assembled and shipped with c components and installation instructions.
	and signed: a. Document 00 43 25, Substitution Request Form (During Procurement)		3.	Acoustical Performance (DIN 52210-3,4): With 40 dB glass, unit STC (Rw) of 36		 Exposed work to be carefully matched to produce condesign with all joints. No raw edges visible at joints.
2.02	 b. Document 00 63 25, Substitution Request Form (During Construction) PERFORMANCE / DESIGN CRITERIA 		NOTE:	Acoustical system STC and Rw ratings per ASTM E413 and DIN EN ISO 717-1 are testing of full panel systems by an independent and accredited acoustical laboratory in accordance with ASTM E90-09 and	PART 3 3.01	EXECUTION
	NOTE: Items below are common to all systems.			DIN EN ISO 10140-1, 2, 4 & 5 test procedure. A complete and unedited written test report is available upon request.	A.	Examination and Acceptance of Conditions per Section 01 70 1. Carefully examine rough openings with Installer pre
A.	Forced Entry (AAMA 1304 / ASTM F842): Meets requirements for +F1			See manufacturer's latest published data regarding performance.		with requirements affecting Work performance. a. Examine surfaces of openings and verify d rough openings are level plumb, and squa
Β.	Thermal Performance (U-factor): NFRC 100 rated, certified, and labeled			a. System STC (Rw) 35 (35) and OITC 30 with 5/16-inch (8 mm) STC 37 laminated glass.		unevenness, bowing, or bumps on the floo conditions as required by the manufacture
C.	NFRC 200 rated, certified, and labeled			5. System STC (Rw) 30 (31) and OTTC 27 with 1/4-inch (6 mm) STC 32 tempered glass.		receive Work. b. Verify structural integrity of the header fo and dead loads limited to the lesser of L/7
D.	NOTE: Applicable for SL70 only.		NOTE:	Acoustical system STC (Rw) ratings below are engineer-calculated conversion of European tests per ASTM E413 and ASTM E1332 for the full panel system with flush sill.		1/4 inch (6 mm). Provide structural suppo and both wind load and eccentric load whe stacked open.
E.	Condensation Resistance Factor (CRF): NFRC 500 rated, certified, and labeled			Calculations of the system STC (Rw) from the other glazing STC is		NOTE: Prior to installing NanaWall, it is recommended tha
	NOTE: The NFRC 100, 200, 400 and 500 ratings of the SL70 and SL73 Folding Glass Storefront System meet Prescriptive Method			c. System STC (Rw) 34 (34) with 1/4-inch (6 mm) STC 36		the dead load's effect on the header; only then can load be used to meet the above requirements of L/7
	requirements for U-factor, SHGC, Air Leakage and CRF of California Title 24, Chapter 3, Building Envelope Requirements.			enhanced laminated glass. d. System STC (Rw) 33 (33) with 1/4-inch (6 mm) STC 35 laminated glass.		mm). If this is not done, both dead and live loads no considered.
	For the listing of Nana Wall product NFRC testing reports go to the following website http://search.nfrc.org/search/searchdefault.aspx; click on Door (Find Ratings for Door Products); click on the Search by Manufacturer button; click		А	e. System STC (Rw) 30 (30) with 1/4-inch (6 mm) STC 31 tempered glass.	3 0 2	 Proceed with installation only after unsatisfactory concrected.
	Manufacturers, scroll down to and click on Nana Wall Systems, Inc., and click on the Find Products button.			3'-7" inch (1.07 m) wide x 10'-0" inch (3.05 m) high) subject to manufacturer size chart: FL 37258	A.	General: Install Folding Glass Storefront system in accordance approved submittals, manufacturer's recommendations, and
F.	EPA Energy Star: Meets requirements with specific glass.(SL70)		NOTE:	SL45 inswing and outswing systems are approved by the State of Florida.		 Properly flash, waterproof and seal around opening Securely attach anchorage devices to rigidly fit fram
	NOTE: Energy Star values for DOORS with > 50% glass can be achieved through the use of specific glass units meeting the following requirements: Northern & North-Central Region: < 0.30 U-factor 0.40 SHGC		FL 3725	58 weblink is:		straight, plumb, and square. Install frame in proper and location, and in proper alignment with other words.When lower track is designed to drain, provide connections.
	South-Central & Southern Region: < 0.30 U-factor 0.25 SHGC Energy Star Air Leakage Rating Requirements (ASTM E283 in accordance with NERC 400 or AAMA/WDMA/CSA 101/LS 2/A440-11).		https:// sojlg7y/	′floridabuilding.org/pr/pr_app_dtl.aspxparam=wGEVXQwtDqtSbRRiMA MtiGzZ9Kb2b0unxzPqWJ78u99619ag%3d%3d		 drainage. Install panels, handles, lockset, screens, and other a accordance with manufacture's recommendations a
	Swinging Door: ≤ 0.5 cfm/ (2.56 L/s/) For guidance only as Nana Wall Systems is not a participant of the Energy Star	C.	Glass aı 1.	nd Glazing Safety Glazing: In compliance with ASTM C1036, ASTM C1048, ANSI 797 1 and CDSC 16CED 1201	3.03 A.	FIELD QUALITY CONTROL Field Tests and Inspections per Section 01 40 00 of the follo
Н.	Design Criteria			a. Glass : Tempered 1/4" (6 mm) b. Glass Spacer: Black, standard	В.	properly. Adjust hardware for proper operation. Non-Conforming Work: Repair or replace non-conforming w
	 Sizes and Configurations: As indicated by the Drawings for selected number and size of panels, location of swing panels, and location of 	2.04	LOCKII 1.	NG HARDWARE AND HANDLES Main Entry Panel(s) for Models WITH a Swing Panel or Pair of Swing	3.04	the Architect; see General and Supplementary Conditions, ar General Requirements. CLEANING AND PROTECTION
	 track and stacking. Unit Operation: Sliding and folding hardware with top and bottom tracks 			Panel(s): a. A lockset with a lockable latch. b. Multi-point locking with a dead bolt and rods at the top and	A. B	Keep units closed and protect Folding Glass Storefront instal damage from construction activities. Remove protective coatings and use manufacturer recommer
2.03 SL45, S	ALUMINUM FRAMED FOLDING/PAIRED PANEL SYSTEM: NANAWALL SL70 Basis of Design: Model SL4E, SL70, Monumental tap, hung system designed for			bottom on primary panel only . c. Rods to be concealed and not edge mounted.		clean exposed surfaces.
straight and par	runs, segmented angle changes and center pivot. Manufacture's standard frame iel profiles, with head and floor tracks, side jambs and panels with dimension as			handles withdraws latch. Lifting handles engages rods and key or thumb turn engages deadbolts and operates lock.	DISCLA	AIMER:
shown (Drawings. 1. System Components: Aluminum frame, threshold, panels, sliding- folding and locking hardware, weather stripping, glass and glazing,		NOTE:	Hardware for Secondary Panel below is an option. e. Lever Handle Finish: Titanium black stainless-steel, standard.	applicat laws, or	Nana Wall Systems, Inc. takes no responsibility for product s ion, including, but not limited to, compliance with building cod fitness for a particular purpose. This guide specification is not
	insect screen (optional) and accessories.2. Mounting Type: Top-hung3. Panel Type: Hinged		2.	f. Locking: Standard profile cylinder Main Entry Panel for Models WITH a Swing Panel: Provide	verbatir intende	n as a project specification without appropriate modifications f d and the requirements of a specific construction project. HYPERLINK "http://www.nanawall.com'www.nanawall.com
	 4. Configuration a. Panel Configuration: Straight b. Stack Storage Configuration: Inswing type 			manufacturer's push/pull handles with separate lock set and dead bolt and one-point locking at the top and bottom consisting of locking rods operated by a 180° turn of a flat handles on the inside	SECTIC	DN 087100 - DOOR HARDWARE
	 5. Panel and Frame a. Panel: Single lite 		NOTE:	Option above recommended with a door closer, but note that, when	Summa 1.	ry: Provide hardware for swinging doors.
	 b. Panel Size (W x H): 716.86 X 2471 mm As indicated in drawing. 1). Rail Depth: 1-3/4 inch (45 mm) 			sliding the swing panel, the door closer will need to be disengaged if the swing panel is not attached to a side jamb.	2. 3.	Remodel existing hardware. Comply with code and accessibility requirements.
	 Top Rail and Stile Width: 2-1/8 inch (53 mm) Bottom Rail Width: 2-1/8 inch (53 mm) 			a. Push-pull handles in a brushed stainless-steel finishb. Stainless-steel flat handles: black titanium finish.	Submitt 1.	als: Submit product data, samples, proposed hardware schedule,
	c. Frame: Matching top track and side jambs 1). Top Track Width: 2-1/2 inch (64 mm) 2). Top Track and Side Jamb Depth: 1-3/4 inch (45		NOTE:	Below option is applicable to all systems.	Product 1. 2	s: Products: As selected by Owner complying with the followin Product Requirements:
	 a) Sill Type: Surface mounted sill for interior application b) Sill Type: Surface mounted sill for interior application 		2.	Standard secondary handles and concealed two-point locking hardware operated by 180° turn of handle between each pair. Face applied flush	۷.	a. Hardware for Fire Rated Openings: NFPA 80, and b. Handicapped Accessibility: ANSI A117.1, ADAAG
	 4). Window Sill Type: 5). Sill Finish: Aluminum with clear anodized finish 6). For ADA Compliance at Swing Panel: Provide gasket 			вонтноскинд INO Lacceptable. a. Standard Secondary Handle Finish: Titanium black stainless- steel, standard		c. Materials and Application: ANSI A156 series stand d. Quality Level: Commercial.
	to cover the channel in the sill at swing panels. d. Aluminum Extrusion: AlMaSi0.5 allov. 6063-T5 (F-22 -		10. 11.	Handle Height: 41-3/8 inch (105 cm) centered from bottom of panel. Aluminum locking rods with standard fiberglass reinforced polyamide end caps at the top and bottom. Rods to have a stroke of 15/16 inch	3. 4. 5.	Locksets and Latchsets: Cylinder type. Locksets and Latchsets: Mortise type. Lock Cylinders: Integral type.
	European standard) 1). Thickness: 0.078 inch (2.0 mm) nominal		12.	(24 mm). Additional profile cylinders: keyed differently .	6. 7. o	Keying: As required by Owner. Keying: Match existing keying and key control system. Hinges and Butts: Full mostics turge with recovery the system.
	6. Panel and Frame Aluminum Finish: One color inside and outside (AAMA 611- Anodized and AAMA 2604- Powder Coat)		NOTE:	Finishes to match are closest matches available by the manufacturer. Review for acceptability.	o. 9.	continuous hinges at entrances. Closers: High frequency type.
Β.	a. Finish Type: Graphite Black-RAL 9011 Performance Criteria		13.	Adjustment: Provide folding-sliding hardware capable of compensation and adjustments without needing to remove panels from tracks in	10. 11. 12.	Exit Devices: High frequency type. Hardware Finishes: Satin chrome and satin stainless steel. Door Trim Units: Kickplates, pulls.
	NOTE: Weeps, when provided, are to be drilled in the field by the installer to manufacturer's requirements.		NOTE	width, 1/16 inch (1.5 mm) per hinge and in height, 5/64 inch (2 mm) up and down. Below ontion is applicable to \$1.45	 13. 14	Stops: For each door; overhead door stops surface mounted as applicable.
					ı 	

2.02 MATERIALS Accessory Hardware: 16 iding-Folding Hardware: Provide manufacturer's standard combination sliding Flush bolts with dustproof strikes, automatic door bottoms. A. Fiberglass-Mat Faced Gypsum Backing Board: ASTM C1178: Soundstripping. nd folding hardware with top and bottom tracks. Thickness: 1/4 inch. For each pair of folding panels, provide independent cardanic Weatherstripping suspension for four (4) wheeled rollers coated with fiberglass reinforced Width: 4 feet. Thresholds. d. Length: 4 feet. polyamide upper running carriage and lower guide carriage. Weight: 1.6 lb/sq. ft. Swing Panel Hinges: Stainless steel hinges and security hinge pins with Installation: Edges: Square. Comply with requirements of Section 011000 - Project Requirements. set-screws. Comply with DHI "Recommended Locations for Builder's Hardware" and **IOTE:** Finishes to match are closest matches available by the manufacturer. hardware manufacturers instructions. Review for acceptability. 3. Hardware sets arowth Adjustment: Provide 1/16 inch (1.5 mm) in width per hinge adjustments END OF SECTION 10. without removing panels from tracks and without needing to remove Acceptable Products: panels from tracks SECTION 088000 - GLAZING a. 1/4 inch DensShield Tile Backer, Georgia-Pacific Gypsum. 'eather stripping: Manufacturer's double layer EPDM between panels, EPDM asket and Q-lon gasket, or brush seal between panel and frame, or brush seals Summary Fiberglass-Mat Faced Gypsum Backing Board: ASTM C1178: vith a two-layer fiberglass reinforced polyamide fin attached at both inner and Provide glass that is factory glazed. Thickness: 1/2 inch. uter edge of bottom of door panels with a recessed sill or on frame for sealing Exterior Units: 1/2 inch insulating glass, U-factor 0.65, SHGC 0.30. a. Width: [4 feet] [32 inches]. Mirrors: 1/4 inch mirror glass. etween panels and between panel and frame. b. Length: [5 feet] [8 feet]. Weight: 2.0 lb/sq. ft. **IOTE:** The manufacturer's weather stripping is determined at the factory by the Products: Edges: Square. direction of swing, the panel configuration, the type of locking and the Products: As selected by Owner complying with the following. type of sill. UniverSILL available for SL70 only. Glass: Primary Glass Products: Clear float, tinted float, patterned, and wire a. UniverSILL: For outswing low profile saddle sill, UniverSILL gasket add glass, ASTM C 1036. n available for additional air and water protection. Heat Treated Glass Products: Heat strengthened, tempered, coated, asteners: Tapered pins or stainless-steel screws for connecting frame and spandrel glass, ASTM C 1048. Robinson Floor Test Rating (ASTM C627): Light commercial. Laminated Glass Units: Polyvinyl butyral interlayer. Acceptable Products: ABRICATION Sealed Insulating Glass Units: ASTM E 774, Class A. olding Glass Wall: Extruded aluminum frame and panel profiles, corner Mirrors: Silvering and protective coatings. e. onnectors and hinges, sliding and folding hardware, locking hardware and High Performance Coatings: Low e (low emissivity) type. C. Fiberglass-Mat Faced Gypsum Backing Board: ASTM C1178, Type X: andles, glass and glazing and weather stripping. Thickness: 5/8 inch. Each unit factory pre-assembled and shipped with complete system 3. Glazing: Elastomeric glazing sealant glazing or preformed glazing tape; setting Width: 4 feet. components and installation instructions. blocks, spacers, and compressible filler rods. Length: 8 feet. Exposed work to be carefully matched to produce continuity of line and Weight: 2.5 lb/sq. ft. design with all joints. Edges: Square. Comply with requirements of Section 011000 - Project Requirements. No raw edges visible at joints. Comply with GANA Glazing Manual and manufacturer's recommendations. Set mirrors on stainless steel channels and adhere to wall with mastic. manufactured. EXAMINATION kamination and Acceptance of Conditions per Section 01 70 00 and as follows: END OF SECTION growth. Carefully examine rough openings with Installer present, for compliance Permeance (ASTM E96): Not more than 1.0 perms when tiled. SECTION 092110 - GYPSUM BOARD ASSEMBLIES with requirements affecting Work performance. 10 Examine surfaces of openings and verify dimensions; verify 11 Acceptable Products: rough openings are level, plumb, and square with no Provide Gypsum Board Assemblies: unevenness, bowing, or bumps on the floor; and other Gvpsum. conditions as required by the manufacturer for readiness to Interior walls, partitions, and ceilings for tape and joint compound finish. receive Work. Insulation and vapor barrier systems in gypsum drywall systems. 2.03 ACCESSORIES Gypsum backer units for application of tile. Verify structural integrity of the header for deflection with live and dead loads limited to the lesser of L/720 of the span or Remodeling gypsum drywall systems at areas of new construction. d. A. Screws: ASTM C1002, with corrosion resistant treatment. 1/4 inch (6 mm). Provide structural support for lateral loads, and both wind load and eccentric load when the panels are PART 3 EXECUTION stacked open. Products: As selected by Architect complying with the following. Gypsum Wallboard: ASTM C 36, regular, 1/2 inch typical thickness at walls; 3.01 EXAMINATION **NOTE:** Prior to installing NanaWall, it is recommended that all building dead ceilings with 24" o.c. supports use 5/8 inch typical thickness. ASTM C 1396, loads be applied to the header. Allow a reasonable amount of time for wet, 1/2 inch typical thickness in all areas other than shower stall. A. Verification of Conditions: the dead load's effect on the header; only then can the building's live Gypsum Backer Units: $\frac{1}{2}$ " DensShield Tile Backer, OR WEDI. load be used to meet the above requirements of L/720 or 1/4 inch (6 Trim Accessories: mm). If this is not done, both dead and live loads need to be Material: Metal. а. Types: Cornerbead, edge trim, and control joints. considered. 3.02 INSTALLATION Auxiliary Materials: Gypsum board screws, ASTM C 1002. Proceed with installation only after unsatisfactory conditions have been A. General: In accordance with ASTM C840, manufacturer's recommendations and Fastening adhesive. corrected. TCA Handbook for Ceramic Tile Installation. NSTALLATION Concealed acoustical sealant. General: Install Folding Glass Storefront system in accordance with the Drawings, Mineral fiber sound attenuation blankets. Manufacturer's Recommendations: pproved submittals, manufacturer's recommendations, and installation a. Current "Product Catalog", Georgia-Pacific Gypsum. Installation structions, and as follows: Comply with requirements of Section 011000 - Project Requirements. Properly flash, waterproof and seal around opening perimeter. 3.03 PROTECTION Comply with standards referenced above and ASTM C 840 and GA 216 Securely allach anchorage devices to rigidly ill frame in place, leve straight, plumb, and square. Install frame in proper elevation, plane, Install joints only over framing members. Do not allow butt to butt joints. A. Protect gypsum board installations from damage and deterioration until the date and location, and in proper alignment with other work. Provide blocking for items such as railings, grab bars, casework, toilet of Substantial Completion. When lower track is designed to drain, provide connections to allow for accessories, and similar items. Provide acoustical sealant at runner tracks, wall perimeters, openings, expansion, drainage. END OF SECTION Install panels, handles, lockset, screens, and other accessories in and control joints. Install gypsum board assemblies true, plumb, level and in proper relation to accordance with manufacturer's recommendations and instructions. SECTION 099000 - PAINTING AND COATING IELD QUALITY CONTROL adiacent surfaces. ield Tests and Inspections per Section 01 40 00 of the following: Where new partitions meet existing construction, remove existing cornerbeads to Verify the Folding Glass Storefront system operates and functions Summarv: provide smooth transition. . Provide painting and surface preparation for interior and exterior unfinished properly. Adjust hardware for proper operation. Provide 3 coat joint treatment such that, after finishing, joints are not visible. surfaces as scheduled Sand and leave ready for finish painting and wall treatment. on-Conforming Work: Repair or replace non-conforming work as directed by he Architect; see General and Supplementary Conditions, and Division 01, piping, conduit, ductwork, and equipment. END OF SECTION General Requirements. Provide repainting and surface preparation at areas of remodeling. **CLEANING AND PROTECTION** Provide painting of entire surface where patch painting is required. SECTION 09 28 16 - GLASS-MAT FACED GYPSUM BACKING BOARDS eep units closed and protect Folding Glass Storefront installation against amage from construction activities. Submittals: PART 1 GENERAL emove protective coatings and use manufacturer recommended methods to lean exposed surfaces. consisting of 1 unopened gallon of each type of paint used. 1.01 SUMMARY ND OF SECTION Section Includes: Fiberglass-mat faced, moisture resistant gypsum backer board. Products: Products: As selected by Owner complying with the following. Regulations: Compliance with VOC and environmental regulations. Nana Wall Systems, Inc. takes no responsibility for product selection or B Related Sections: First line commercial quality products for all coating systems. , including, but not limited to, compliance with building codes, safety codes, Section 09 21 16 Gypsum Board Assemblies. Schedule: ness for a particular purpose. This guide specification is not intended to be 1.02 REFERENCES s a project specification without appropriate modifications for the specific use 2 coats latex finish. nd the requirements of a specific construction project.

087100 - DOOR HARDWARE

ubmit product data, samples, proposed hardware schedule, maintenance data.

oducts: As selected by Owner complying with the following.

- roduct Requirements: Hardware for Fire Rated Openings: NFPA 80, and local requirements. Handicapped Accessibility: ANSI A117.1, ADAAG, and local
- requirements. Materials and Application: ANSI A156 series standards.
- Quality Level: Commercial.
- ocksets and Latchsets: Cylinder type.
- ocksets and Latchsets: Mortise type. _ock Cylinders: Integral type.
- leying: As required by Owner.
- eying: Match existing keying and key control system.
- inges and Butts: Full mortise type with nonremovable pins at security doors; ontinuous hinges at entrances.
- Closers: High frequency type.
- xit Devices: High frequency type.
- lardware Finishes: Satin chrome and satin stainless steel. oor Trim Units: Kickplates, pulls.
- tops: For each door; overhead door stops surface mounted and concealed types
- applicable.
- ilencers: At all frames.

- Fiberglass-Mat Faced Gypsum Backing Board: 1/4 inch DensShield Tile
- Fiberglass-Mat Faced Gypsum Backing Board: 1/2 inch DensShield Tile
- Fiberglass-Mat Faced Gypsum Backing Board: 5/8 inch DensShield Fireguard Tile Backer.
- 10. END OF SECTION

Installation:

- product specified.

Α.

Gypsum Backing Panel.

- on the Surface of Interior Coatings in an Environmental Chamber. ASTM D6329 Standard Guide for Developing Methodology for
- Evaluating the Ability of Indoor Materials to Support Microbial Growth
- 7. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.
- B. Tile Council of North America, Inc. (TCNA): TCA Handbook for Ceramic Tile Installation, Current Edition.
- 1.03 SUBMITTALS
- A
- PART 2 PRODUCTS

- ASTM International (ASTM): Α.
 - ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester. ASTM C840 Standard Specification for Application and Finishing of
 - Gypsum Board. ASTM C1002 Standard Specification for Steel Self-Piercing Tapping
 - Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs. ASTM C1178 Standard Specification for Glass Mat Water-Resistant
 - ASTM D3273 Standard Test Method for Resistance to Growth of Mold

 - Using Static Environmental Chambers.

- Product Data: Manufacturer's specifications and installation instructions for each
- 2.01 MANUFACTURERS
 - Georgia-Pacific Gypsum LLC:

Surfacing: Coated fiberglass mat on face, back, and long edges. Mold Resistance (ASTM D3273): 10, in a test as manufactured. Microbial Resistance (ASTM D6329): Will not support microbial

Permeance (ASTM E96): Not more than 1.0 perms when tiled. Robinson Floor Test Rating (ASTM C627): Light commercial.

Surfacing: Coated fiberglass mat on face, back, and long edges. Mold Resistance (ASTM D3273): 10, in a test as manufactured. Microbial Resistance (ASTM D6329): Will not support microbial

Permeance (ASTM E96): Not more than 1.0 perms when tiled.

a. 1/2 inch DensShield Tile Backer, Georgia-Pacific Gypsum.

Surfacing: Coated fiberglass mat on face, back, and long edges. Mold Resistance (ASTM D3273): Not less than 10, in a test as Microbial Resistance (ASTM D6329): Will not support microbial

Robinson Floor Test Rating (ASTM C627): Light commercial.

5/8 inch DensShield Fireguard Tile Backer, Georgia-Pacific Installation:

Inspection: Verify that project conditions and substrates are acceptable, 8. to the installer, to begin installation of work of this section.

coats latex finish.

coats alkvd enamel.

coats polyurethane.

alkyd finish.

thicknesses.

- Provide painting and surface preparation of exposed mechanical and electrical

. Submit product data, samples, 4 foot by 4 foot mockup of each color, extra stock

Gypsum board and plaster walls, eggshell finish, 1 coat latex primer and 3.

Gypsum board and plaster ceilings, flat finish, 1 coat latex primer and 2 5.

Gypsum board in bathrooms, kitchens and wet areas, semigloss finish, 1 6. coat latex primer, 2 coats alkyd finish. Ferrous metals, semigloss finish, 1 coat primer, 2 coats alkyd enamel.

Galvanized metal, semigloss finish, 1 coat galvanized metal primer, 2

Wood for transparent finish, site refinishing, match existing gloss, 2 Wood for opaque finish, site refinishing, match existing gloss, 1 coat

Comply with requirements of Section 011000 - Project Requirements. Provide field applied mock ups of each color and finish selected on actual surfaces to be painted.

Test sample area for adhesion for each type of paint. Remove cover plates and protect hardware and adjacent surfaces.

Sand before painting until smooth and flat and sand between coats. Apply paint to achieve manufacturer's recommended dry film

Paint entire surface where patch painting is required. Recoat areas which show bleed through or defects.

Clean paint spatter from adjacent surfaces and glass.

Touch up damaged surfaces at completion of construction.

SECTION 220000 - PLUMBING

Modify, relocate and extend existing service to accommodate new work. Do not cut structural elements without prior written approval.

Products:

- 1. Provide new materials suitable for service intended complying with approved submittals. Provide accessory materials such as hangers and pipe insulation. Provide fixtures complying with water consumption requirements and accessibility requirements.
- Provide new kitchen sink, guest bathroom sink, double master bathroom sink, new toilets, shower fixtures in guest/master bathroom.

Installation:

- Comply with requirements of Section 011000 Project Requirements. Comply with applicable codes, regulations, ordinances and requirements of
- authorities having jurisdiction. Vent all fixtures.
- Conceal piping to the greatest extent practical.
- Test all systems for proper operation.
- Instruct Owner's personnel in proper operation of systems.

SECTION 230000 - HEATING, VENTILATING AND AIR CONDITIONING

Summarv Refer to plan.

- Provide equipment, systems, and controls for heating, cooling.
- Modify, relocate and extend existing service to accommodate new work.
- Coordinate location of existing ductwork to avoid interference with location of designated lighting fixture locations.
- Do not cut structural elements without prior written approval.

Design Conditions:

- 1. Refer to submittal data at end of specifications. a. Systems: GOODMAN: Packaged Heat Pump, 3 Tons, 14.5 SEER / 11.0 HSPF, Cooling Capacity: 36,000 BTU/h, Heating Capacity: 32,200 BTU/h 2. Utility Service: match existing Submittals: Submit product data, warranties, operating and maintenance data, balancing reports. Products: Provide new materials suitable for service intended complying with approved shop drawings. Provide accessory items such as controls, anchors and insulation. Comply with requirements of Section 011000 - Project Requirements. Comply with applicable codes, regulations, ordinances and requirements of authorities having jurisdiction and SMACNA recommendations. Conceal piping and ductwork to the greatest extent practical. Maintain indicated fire ratings of walls, partitions, ceilings, and floors at penetrations. Seal with firestopping to maintain fire rating. Insulate piping and ductwork. Provide vapor barrier on insulated piping operating below 60 degrees F. Test all systems for proper operation. Commission and balance systems.
- Instruct Owner's personnel in proper operation of systems.
- END OF SECTION

SECTION 260000 - ELECTRICAL

Refer to Electrical Drawings for electrical requirements. Provide electrical systems for the following: Power. Lighting, interior and exterior. Power telephone cable TV and data outlets and wiring if required by owner Modify, relocate and extend existing service to accommodate new work. Relamp existing fixtures consistent with building standards. Maintain fire alarm system in operation during construction. Coordinate location of piping and fire protection systems to avoid interference with location of designated lighting fixture locations. Coordinate schedule of telephone and data outlet completion with Owner's communications requirements and installer as applicable. Do not cut structural elements without prior written approval.

Submittals

Submit product data, warranties, operating and maintenance data, circuit diagrams.

Submit signed and sealed shop drawings for review and as required for building permit.

Products

Refer to Electrical Drawings for electrical requirements. Provide new materials suitable for service intended complying with approved

submittals. Provide accessories such as controls, cover plates, and connections to equipment. Finish as selected by Owner.

Installation:

10

13.

14.

- Comply with requirements of Section 011000 Project Requirements. Comply with applicable codes, regulations, ordinances and requirements of
- authorities having jurisdiction and National Electrical Code. Provide core drilling as required for new work.
- Conceal conduit to the greatest extent practical. Install light switches at uniform height above finished floor. Locate switches
- within rooms at strike side of door unless noted otherwise. Install thermostats centered above light switches where applicable.
- Gang mount multiple switching locations. Mount multiple types of controls as
- close together as possible and in line with each other at uniform height above finished floor unless noted otherwise.
- Group multiple junction boxes, telephone and electrical outlets together on walls. Avoid back to back box locations. Mount electrical, data, and telephone outlets vertically, at uniform height above
- finished floor unless noted otherwise.
- Maintain indicated fire ratings of walls, partitions, ceilings, and floors at penetrations. Seal with firestopping to maintain fire rating.
- Test all systems for proper operation.
- Label circuits in electrical panels. Instruct Owner's personnel in proper operation of systems.

TREVOR PAN ARCHITECT

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	Door Schedule								
Mark	Model	Frame Finish	Frame Material	Glass Material	Description	Width	Height	Thickness	Comments
1	SL-45	Graphite Black-RAL 9011	Aluminum	Glass - NanaWall - Generic	Monumental Aluminum Framed Folding System	16' - 0"	9' - 6"	0' - 1 3/4"	Ball Bearing Hinge, LeverType , -Graphite Black-RAL 9011 Finish
3		Primed & Painted - Daltile - Black - K111	Steel		Single Lite Glass Door	3' - 0"	9' - 4"	0' - 1 3/4"	Keyed Lockset, Lever Type, Aluminum Finish
2	SL-70	Graphite Black-RAL 9011	Aluminum	Glass - NanaWall - Generic	Monumental Thermally Broken Folding System	19' - 8"	9' - 6"	0' - 3 5/32"	Ball Bearing Hinge, Lever Type, -Graphite Black-RAL 9011 Finish

Bar Equipment							
Equipment	Description	Model	Manufacturer	Size			
		AM-50BAJ-AD		Width: 14 7/8"			
Ice Machine	ADA compliant air cooled undercounter top hat cube ice machine		Hoshizaki	Depth: 22 5/8"			
				Height: 31 1/2"			
				Width: 48"			
Bar Refrigerator	Stainless steel underbar height glass door back bar refrigerator	BB48HC-1-G-S	Beverage-Air	Depth: 24 1/2"			
				Height: 34"			
	Drop-in commercial hand sink	HS-1317		Width: 17"			
Handwash Sink			Krowne	Depth: 13"			
				Height: 5 1/2"			
	Commercial three compartment drop-nn hand sink	HS-3819		Width: 36"			
Three Compartment Drop-In Sink			Krowne	Depth: 18"			
				Height: 10"			
				Width: 24"			
Bar Top Drainer	Bar top drainer with drip tray trough	KR-D24	Krowne	Depth: 14"			
				Drain Size: 1"			
				Width: 42"			
Stainless Steel Underbar Mount Beer Drip Tray	Stainless steel under bar mount, beer drip tray. Removable drip tray with pre-drilled mounting holes	190BDT42UM	Assure Parts	Depth: 8"			



1 New Floor Plan 3/4" = 1'-0"



Hall

_____ ____

_____ **└**

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SHEET

A113





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Existing Reflected Ceiling Plan



New puck light —

 $1 \frac{\text{New Reflected Ceiling Plan}}{3/4" = 1'-0"}$





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New Reflected Ceiling Plan







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New Elevati	ONS



$1 \frac{\text{West Elevation - Customer Side}}{1" = 1'-0"}$



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Provide adjustable shelving casework as shown.



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/~ Match existing painted gypsum board. - Typical



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New Elevations		





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GENERAL STRUCTURAL NOTES

APPLY UNLESS NOTED OTHERWISE

BUILDING CODE:

2012 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE AND STANDARDS REFERENCED THEREIN, WITH CITY OF PHOENIX AMENDMENTS.

LOADS: ROOFS: EXISTING

ROOF LIVE LOAD = 20 PSF (REDUCIBLE). ROOF DEAD LOAD = 20 PSF.

LATERAL: <u> WIND:</u>

ULTIMATE DESIGN WIND SPEED (3-SECOND GUST), V(ult) = 105MPH EXPOSURE 'C' RISK CATEGORY, II

<u>SEISMIC:</u>

SEISMIC IMPORTANCE FACTOR, I = 1.0RISK CATEGORY, II MAPPED SHORT PERIOD SPECTRAL ACCELERATION, Ss = 0.196MAPPED ONE SECOND SPECTRAL ACCELERATION, S1 = 0.062SOIL SITE CLASS, D. DESIGN SHORT PERIOD SPECTRAL ACCELERATION, Sds =0.209 DESIGN ONE SECOND SPECTRAL ACCELERATION, Sd1 = 0.100 SEISMIC DESIGN CATEGORY. B. BASIC SEISMIC-FORCE-RESISTING SYSTEM = PLYWOOD SHEAR WALLS.

<u>WOOD:</u> <u>GENERAL:</u>

WOOD FRAMING MEMBERS SHALL NOT BE NOTCHED OR DRILLED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT. ALL NAILING NOT NOTED SHALL BE PER TYPICAL DETAIL AND COMMON NAIL DIAMETER TABLE BELOW. ALL BOLTING SHALL BE PER STRUCTURAL STEEL SECTION ABOVE. WOOD CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. OR OTHER MANUFACTURER WITH CURRENT AND EQUIVALENT ICC APPROVAL. WHERE "TYPE" OF CONNECTOR IS INDICATED ON THE DRAWINGS, THE CONNECTOR AND ATTACHMENT SHALL BE PER THE MAXIMUM MODEL NUMBER BASED ON THE SIZE OF THE MEMBERS CONNECTED.

NAIL TYPE	REQ'D DIA	REQ'D GA	LENGTH	NAIL TYPE	REQ'D DIA	REQ'D GA	LENGTH
6d	0.113"	11 1/2	2"	12d	0.148"	9	3 1/4"
8d	0.131"	10 1/4	2 1/2"	16d	0.162"	8	3 1/2"
10d	0.148"	9	3 " .	20d	0.192"	6	4" [`]

IN STUD WALLS, UNLESS NOTED OTHERWISE, INSTALL DOUBLE STUDS AT ALL JAMBS, CORNERS, INTERSECTIONS AND AT ISOLATED BEARING POINTS OF FRAMING MEMBERS ABOVE. WOOD FRAME BEARING WALLS SHALL HAVE A SIMPSON RSP ANCHOR TOP AND BOTTOM OF STUDS AT 32" O.C. MAXIMUM, EXCEPT AT THOSE WALLS WHERE PLYWOOD SHEATHING IS NAILED DIRECTLY TO THE TOP AND BOTTOM PLATES. PROVIDE 2X SOLID BLOCKING AT MID-HEIGHT OF BEARING STUD WALLS.

PROVIDE A MINIMUM OF 0.229" X 3" X 3" GALVANIZED STEEL PLATE WASHER UNDER EACH NUT AT FOUNDATION ANCHOR BOLTS OF SHEAR WALLS. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDE A STANDARD CUT WASHER BETWEEN THE PLATE WASHER AND THE NUT.

SAWN LUMBER:

FRAMING LUMBER SHALL COMPLY WITH THE REFERENCED EDITION OF THE GRADING RULES OF THE WWPA OR THE WCLIB. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL HAVE MINIMUM PROPERTIES WHICH MEET OR EXCEED THE FOLLOWING WOOD TYPES:

	WOOD	TYF	Έ
JUISIS 2 X 6 OR LARGER PEANS	-— H.F	⁷ . #2	2
WDTH 4" OR LESS	D.f	F.L.	# 1
THAN 4"	D	.F.L.	#1
TOP PLATES	D.F	∹.L.	# 2
2 X 4	H.I H.F	F. #	2
POSTS 4 X 4	H.I	F. #	2
4 X 6 OR LARGER	-– H.F -– H.F	·#4	2 1

PLYWOOD:

ALL PLYWOOD SHALL BE APA "CDX" RATED SHEATHING OR BETTER AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. LAY UP PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. (ON ROOFS WHERE PLYWOOD IS LAID UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE A MINIMUM OF 5-PLY PLYWOOD). STAGGER JOINTS, ALL NAILING, COMMON NAILS, WHERE SCREWS ARE INDICATED FOR WOOD TO WOOD ATTACHMENTS, USE WOOD SCREWS. ALL PLYWOOD SHALL BE OF THE FOLLOWING NOMINAL THICKNESS, SPAN/INDEX RATIO AND SHALL BE ATTACHED AS FOLLOWS UNLESS NOTED OTHERWISE:

USE	THICKNESS NOTED	SPAN/INDEX	EDGE	INTE
	ON DRAWINGS	RATIO	ATTACHMENT	ATT
USE	THICKNESS NOTED	SPAN/INDEX	EDGE	INTI
	ON DRAWINGS	RATIO	ATTACHMENT	AT

ROOF ----- 1/2" (15/32" MIN) ---- 32/16 --- 8d AT 6" O.C. ---- 8d AT 12" O.C.

GENERAL NOTES:

THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. EXCEPT WHERE NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE INSPECTION OF THESE ITEMS).

WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE REFRENCED EDITION AND/OR ADDENDA. ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF A REGISTERED ENGINEER RECOGNIZED BY THE BUILDING CODE JURISDICTION OF THIS PROJECT.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.

CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL ITEMS WITH THE APPROPRIATE TRADE DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY UNLESS NOTED OTHERWISE. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS CHOSEN, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES, APPROVALS AND THE COORDINATION OF THE WORK WITH ALL RELATED TRADES AND SUPPLIERS.

SPECIAL INSPECTION - STRUCTURAL ONLY: FOR SPECIAL STRUCTURAL INSPECTIONS: CONTACT JTA Engineering, AT 480-442-2179 PRIOR TO CONSTRUCTION:

SPECIAL INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STATE REGISTERED STRUCTURAL ENGINEER WHO IS FAMILIAR WITH THE STRUCTURAL DESIGN OF THIS PROJECT. THE SUPERVISING STRUCTURAL ENGINEER SHALL SEAL THE SPECIAL INSPECTION CERTIFICATE.

SPECIAL INSPECTION IS TO BE PROVIDED FOR THE ITEMS LISTED BELOW IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE BUILDING JURISDICTION. "SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE BUILDING JURISDICTION INSPECTIONS REQUIRED BY SECTION 109 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTION IS REQUIRED PER CHAPTER 17 FOR THE FOLLOWING:

SPECIAL CASES:

- 1. EXPANSION, EPOXY, ADHESIVE, AND SCREW ANCHORS: DURING THE PLACEMENT OF ALL ANCHORS SHOWN ON STRUCTURAL DRAWINGS. ADDITIONAL INSPECTIONS REQUIRED FOR REPAIR DETAILS SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. A. INSPECTION OF HOLE DIAMETER, HOLE DEPTH AND DRILL BIT CONFORMANCE.
- B. INSPECTION OF HOLE CLEANING WITH WIRE BRUSH AND COMPRESSED AIR. C. INSPECTION OF ANCHOR INSTALLATION USING SPECIFIED PRODUCT AND MANUFACTURER'S
- RECOMMENDED INSTALLATION PROCEDURES. D. INSPECTION OF EXPANSION ANCHORS SHALL INCLUDE THE VERIFICATION OF THE TIGHTENING TORQUE THAT IS SPECIFIED BY THE ANCHOR MANUFACTURER.



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1. CONT. DOUBLE TOP PLATE W/ 16d NAILS AT 8" O.C. 3. SIMPSON 'RCKW3' AT EACH END 5. 1/2"ø x 4" LONG SIMPSON TITEN HD SCREW ANCHOR. 6. 1/2" PLYWOOD W/ SCREWS AT

NO SCALE

ADJACENT FRAMING NOT

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G.S.N. & DETA	AILS









drawings that are not signed, seal ed & dated by the engineer of record are considered preliminary and are not for construction. any requested changes after bid documents are issued will be considered a change order and will be billed hourly to the requesting party.

S1.2 SHEET

PARTIAL EXISTING FOUNDATION & ROOF FRAMING PLANS

MECHANICAL SPECIFICATIONS

<u>general</u>

- 1. THE MECHANICAL CONTRACTOR SHALL COORDINATE T-STAT (SENSOR) LOCATIONS WITH THE ARCHITECT & OWNER.
- 2. PROVIDE ALL NECESSARY MATERIALS, EQUIPMENT, FEES, PERMITS ETC. NEEDED FOR A COMPLETE INSTALLATION. 3. THIS CONTRACT SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES AND REGULATIONS BY
- WHICH IT HAS BEEN PERMITTED. 4. COORDINATE ALL MECHANICAL WORK WITH ARCHITECT AND OTHER TRADES PRIOR TO ANY CONSTRUCTION.
- 5. TERMINATE EXHAUST DUCTS AND PLUMBING VENTS MINIMUM 10 FEET HORIZONTALLY FROM OR 3 FEET ABOVE ALL AIR INTAKES. COORDINATE WITH PLUMBING CONTRACTOR.
- 6. EQUIPMENT AND APPLIANCES SHALL BE INSTALLED AS REQUIRED BY THE TERMS OF THEIR APPROVAL, IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING. THE MANUFACTURER'S INSTALLATION INSTRUCTION AND THE IMC MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT THE TIME OF INSPECTION.
- 7. MECHANICAL CONTRACTOR SHALL VERIFY AND COORDINATE SIZE AND LOCATION OF ALL EXISTING HVAC EQUIPMENT. EXISTING EQUIPMENT AND DUCTWORK SHALL BE CLEANED AND SERVICED. CONTRACTOR SHALL REPLACE ALL WORN OR DEFECTIVE PARTS AND RETURN ALL EXISTING EQUIPMENT AND REUSED DUCTS TO GOOD WORKING CONDITION. INFORM OWNER/LANDLORD OF MAJOR REPAIRS REQUIRED TO MAKE EXITING UNITS OPERATIONAL. EXISTING CONDITIONS SHALL BE VERIFIED PRIOR TO SUBMITTING BID.

<u>EQUIPMENT</u>

- 1. LOCATE ALL MECHANICAL EQUIPMENT IN COMPLIANCE WITH THE IMC.
- 2. ALL NEW HVAC EQUIPMENT SHALL BE U.L., E.T.L., AND /OR AGA LISTED.
- 3. PROVIDE FARR 24X24 DISPOSABLE FILTERS, FRAMES, HARDWARE AND ACCESSORIES FOR USE DURING CONSTRUCTION. PROVIDE NEW DISPOSABLE FILTERS PRIOR TO BALANCING THE SYSTEM.
- 4. MECHANICAL CONTRACTOR TO VERIFY AND COORDINATE AVAILABLE VOLTAGE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.

<u>DUCTWORK</u>

- 1. PROVIDE MANUAL SPIN-IN DAMPER AT EACH NEW BRANCH CONNECTION FOR DIFFUSERS IN LAY-IN CEILINGS AND OPPOSED BLADE DAMPER IN HARD LID MOUNTED DIFFUSERS.
- 2. BRANCH DUCTS SHALL BE RIGID ROUND. THE FINAL CONNECTION TO THE DIFFUSER MAY BE MADE WITH FLEX DUCT. FLEX DUCT LENGTH SHALL NOT EXCEED 8'0".
- 3. USE GALVANIZED SHEET METAL FOR ALL NEW DUCTWORK. CONSTRUCT AND INSTALL IN ACCORDANCE WITH ASHRAE
- GUIDELINES, CHAPTER 6 OF THE IMC AND THE LATEST SMACNA STANDARDS FOR LOW PRESSURE DESIGN.
- 4. USE THERMAFLEX TYPE KM OR APPROVED EQUAL FLEX DUCT CONFORMING TO UL 181, NFBA 90A AND 90B.
- 5. MECHANICAL CONTRACTOR TO VERIFY THAT ALL DUCTWORK WILL FIT AS DESIGNED.
- 6. DUCTS SHALL BE OF SIZES SHOWN ON THE DRAWINGS UNLESS LOCATION OF STRUCTURAL MEMBERS PROHIBIT. THE AREA OF THE DUCT SHALL BE MAINTAINED IF A CHANGE IS NEEDED. THE DUCT SIZES SHOWN ARE CLEAR INSIDE INCLUDING ANY DUCT LINERS.
- 7. SUPPORT ALL NEW & EXISTING DUCTS WITH HANGERS TO THE STRUCTURE. PLACE SUPPORTS NOT OVER 8 FEET APART ALONG THE LENGTH OF THE DUCT. SHEET METAL SHALL BE:
 - UP TO 12" WIDTH 26 GAUGE STEEL
 - 13" TO 30" WIDTH 24 GAUGE STEEL
 - 31" TO 60" WIDTH 22 GAUGE STEEL
- 8. FLEX DUCT SHALL BE SUPPORTED BY 1 1/2" 26 GAUGE STEEL STRAP NOT MORE THAN FOUR FEET ON CENTER.
- 9. EXHAUST DUCTS SHALL BE 26 GAUGE GALVANIZED STEEL.
- 10. USE CLASS "O" OR CLASS "1" FOR ALL "FACTORY MADE" DUCT.
- 11. INSTALL RADIUS ELBOWS, TURNING VANES, EXTRACTORS AND SPLITTER DAMPERS IN DUCTWORK WHERE APPLICABLE. 12. ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS AND CONNECTIONS IN DUCTWORK, SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS, MASTIC+EMBEDDED-FABRIC SYSTEMS OR TAPES. TAPES AND MASTICS USED TO SEAL DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A AND SHALL BE MARKED 181A-P FOR PRESSURE-SENSITIVE TAPE. TAPES AND MASTICS USED TO SEAL FLEXIBLE AIR DUCT AND FLEXIBLE CONNECTORS SHALL COMPLY WITH UL 181B AND SHALL BE MARKED 181B-FX FOR PRESSURE-SENSITIVE TAPE OR 181M FOR MASTIC. DUCT CONNECTIONS TO FLANGES OF AIR DISTRIBUTION SYSTEM EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED. UNLISTED DUCT TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS.
- 13. FOR UNCONDITIONED SPACE DUCT PROVIDE MINIMUM R=8 INSULATION.

<u>OUTLETS</u>

- 1. THE MECHANICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL AIR DISTRIBUTION DEVICES WITH ALL TRADES PRIOR TO ANY CONSTRUCTION.
- 2. THE MECHANICAL CONTRACTOR SHALL COORDINATE SPACE AVAILABILITY FOR DUCTWORK WITH STRUCTURAL AND ELECTRICAL CONTRACTORS PRIOR TO ANY CONSTRUCTION TO AVOID RELOCATING DUCTWORK AT THE MECHANICAL CONTRACTOR'S EXPENSE.
- 3. DIFFUSERS SHALL MATCH EXISTING OR APPROVED EQUAL. NECK SIZE AS INDICATED.
- 4. RETURN AIR GRILLES SHALL MATCH EXISTING OR APPROVED EQUAL

<u>DRAINS</u>

1. EXTEND SCHEDULE TYPE "M" COPPER CONDENSATE DRAIN AS SHOWN. MIN 2% SLOPE. ROUTE UNDER ROOF.

<u>INSULATION</u>

- 1. PROVIDE 1" ACOUSTIC INTERNAL LINER IN SUPPLY AND RETURN DUCTWORK FROM THE DUCT CONNECTION TO THE UNIT AND LINE THE FIRST 10 FEET.
- 2. ALL INSULATION, MATERIAL, COVERINGS, ADHESIVES, VAPOR-BARRIERS AND TAPES SHALL CONFORM TO NFPA 90A, FLAME SPREAD CLASSIFICATION NOT TO EXCEED 25 AND SMOKE DEVELOPMENT NOT TO EXCEED 50.
- 3. SHEET METAL DUCTWORK FOR A/C SUPPLY AND RETURN SHALL BE WRAPPED WITH 1-1/2", 3/4 LB. EXTERIOR INSULATION, WITH FSK JACKET AND VAPOR BARRIER.

<u>TESTING</u>

1. TEST AND BALANCE SYSTEM TO APPROXIMATE CFM INDICATED ON MECHANICAL FLOOR PLAN AND ADJUST TO THE TENANT'S SATISFACTION. MARK ALL FINAL DAMPER SETTINGS WITH A PAINT DOT. THE BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AABC CERTIFIED BALANCE CONTRACTOR. PROVIDE A COPY OF AIR BALANCE REPORT TO THE CITY BUILDING INSPECTOR PRIOR TO OR BEFORE FINAL MECHANICAL INSPECTION.

TEMPERATURE CONTROLS

1. PROVIDE A SYSTEM OF TEMPERATURE CONTROLS INCLUDING THERMOSTATS, TIME SWITCHES, OVERRIDE TIMERS, DAMPER MOTORS, AND RELAYS REQUIRED TO PROVIDE THE DESIRED SEQUENCE OF OPERATION. PROVIDE INTEGRATED WIRING DIAGRAMS SHOWING INTERCONNECTIONS BETWEEN FIELD INSTALLED EQUIPMENT AND PACKAGE WIRING FURNISHED WITH THE HVAC EQUIPMENT. CONTROL WIRING SHALL BE SIZED TO ACCOMMODATE THE VOLTAGE DROP ASSOCIATED WITH THE DISTANCE BETWEEN THE CONTROL DEVICE AND THE CONTROLLER.

<u>EQUIPMENT</u>

1. SEVEN DAY PROGRAMMABLE, OCCUPIED/UNOCCUPIED THERMOSTATS FOR HEATING, COOLING AND FOR CONTROL OF ECONOMIZER SHALL BE HONEYWELL SERIES T7351 OR EQUAL WITH INTEGRAL SUBBASE W7459A ECONOMIZER MODULE. INSTALL THERMOSTATS AT 48" AFF TO MEET ADA REQUIREMENTS UNLESS OTHERWISE NOTED ON THE PLANS.

INVESTIGATION OF CONDITIONS

2. EXAMINE THE CONTRACT DRAWINGS AND ALL AVAILABLE INFORMATION CONCERNING EXISTING INSTALLATION, STRUCTURE, AND LOCAL CONDITIONS. VISIT THE SITE TO UNDERSTAND THE NATURE AND SCOPE OF ALL WORK TO BE PERFORMED AND VERIFY EXISTING CONDITIONS. THE SUBMISSION OF A BID WILL BE TAKEN AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE AND THAT ALL EXISTING CONDITIONS HAVE BEEN CONSIDERED. NO ALLOWANCES WILL BE MADE AFTER THE PROJECT HAS BEEN AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THESE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.

GENERAL NOTES

- F. INDOOR AIR QUALITY MEASURES:

- AND DUCT INSTALLATION REQUIREMENTS.
- CONDUIT BY DIVISION 16.

- TO OCCUPANCY.

A. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITION REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS.

B. COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHERS TRADES TO ENSURE A NEAR AND ORDERLY INSTALLATIONS. INSTALL DUCTWORKS AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHERS TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK TO AVOID CONFLICTS WITH ELECTRICAL PLANES, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.

C. NEW MECHANICAL EQUIPMENT AND DUCTWORK ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THE FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.

D. REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTIONS DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY CHASES AND PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.

E. COORDINATE LOCATION ON ROOF MOUNTED HVAC EQUIPMENT AND ROOF PENETRATIONS WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

• PROTECT INSIDE OF (INSTALLED AND DELIVERED) DUCTWORK AND HVAC UNITS FROM EXPOSURE TO DUST, DIRT, PAINT AND MOISTURE. REPLACE INSULATION THAT HAS GOTTEN WE AT ANY TIME DURING

CONSTRUCTION; DRYING THE INSULATION IS NOT ACCEPTABLE.

• SEAL ANY OF JOINTS OF INTERNAL FIBERGLASS INSULATION. REMOVE DEBRIS FROM CEILING / RETURN AIR PLENUM INCLUDING DUST. • AN INDEPENDENT, PROFESSIONAL DUCT CLEANING COMPANY SHALL VACUUM CLEAN ANY DUCTWORK CONNECTED TO HVAC UNITS THAT WERE OPERATED DURING THE CONSTRUCTION PERIOD AFTER NEW FILTERS (MINIMUM MERV-8) ARE INSTALLED AND PRIOR TO TURNING SYSTEM SYSTEM OVER TO OWNER.

G. INSTALL DUCTWORK PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.

H. OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT, DUCTWORK SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGER AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.

COORDINATE LOCATION OF EQUIPMENT SUPPORT WITH LOCATION OF EQUIPMENT ACCESS PANELS / DOORS TO ENABLE SERVICE OF EQUIPMENT AND / OR FILTER REPLACEMENT.

J. SEAL PENETRATIONS THROUGH THE BUILDING COMPONENT IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH THE U.L. REQUIREMENTS.

K. COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL

L. ADJUST LOCATION OF CEILING GRID AND LIGHTING LOCATIONS.

M. LOCATE AND SET THERMOSTATS SENSORS AT LOCATIONS SHOWN ON PLANS. VERIFY EXACT LOCATION WITH ARCHITECT PRIOR INSTALLATION. INSTALL THERMOSTATS WITH TOP OF DEVICE AT MAXIMUM 48" A.F.F. TO MEET ADA REQUIREMENT UNLESS NOTED OTHERWISE ON PLANS. INSTALL WIRING IN

N. PROVIDE A MANUAL BALANCING DAMPER IN EACH BRANCH DUCT TAKE-OFF FROM MAIN SUPPLY, RETURN, OUTDOOR AND EXHAUST AIR DUCT

0. PROVIDE A PREFABRICATED 45 DEGREE, HIGH EFFICIENCY, RECTANGULAR / ROUND BRANCH DUCT TAKE-OFF WITH MANUAL BALANCING DAMPER AND LOCKING QUADRANT FRO BRANCH DUCT CONNECTIONS AND TAKE-OFFS TO INDIVIDUAL DIFFUSERS, REGISTERS AND GRILLES.

P. BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE NOTED.

Q. RIGID DUCTWORK INSULATION: PROVIDE 3/4 LB DENSITY, 2" (R-6), INSULATION WRAP OR RIGID ROUND, CONCEALED, SUPPLY AND RETURN AIR DUCTS. PROVIDE 1-1/2" (R-6) THICK 1-1/2 LB DENSITY INTERNAL DUCT LINER ON RECTANGULAR SUPPLY AND RETURN AIR DUCTS. DUCT SIZES ON MECHANICAL PLANS INDICATE CLEAR INSIDE AIRFLOW DIMENSIONS, INCREASE SHEET METAL SIZES ACCORDINGLY.

R. PROVIDE THERMANFLEX TYPE M-FE, FLEXMASTER TYPE 8, OR APPROVED EQUAL FLEXIBLE DUCTWORK, FLEXIBLE DUCTWORK SHALL BE LISTED UNDER UL 181 AS CLASS 1 AIR DUCT AND BE PROVIDED WITH INTEGRAL R-6, 3/4" LB DENSITY FIBERGLASS INSULATION. FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-O" IN LENGTH AND SHALL BE INSTALLED AND SUPPORTED TO AVOID SHARP BENDS AND SAGGING

S. THE HVAC, REFRIGERATION, AND FIRE SUPPRESSION SYSTEM SHALL NOT CONTAIN CFC OR HALONS.

T. ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENTS SHALL BE COVERED WITH TAPE, PLASTIC OR SHEET UNIT FINAL START-UP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT.

U. IF THE NEW HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MERV OF 8. REPLACE ALL FILTERS IMMEDIATELY PRIOR

V. AN OPERATION AND SYSTEM MANUAL SHALL BE PROVIDED TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTIONS.

W. REFER TO THE MECHANICAL SPECIFICATIONS FOR HVAC SYSTEM CONTROLS, SPECIFICATIONS AND TEST & BALANCE REQUIREMENTS. FINAL SYSTEM TESTING, BALANCING AND ADJUSTMENTS SHALL BE PERFORMED BY A CONTRACTOR CERTIFIED BY THE NATION ENVIRONMENTAL BALANCING BUREAU (NEBB) OR ASSOCIATED AIR BALANCE COUNCIL (AABC).

X. A FINAL REPORT FOR TESTING AND ADJUSTING OR ALL NEW SYSTEMS SHALL BE COMPLETED AND PROVIDED TO THE FIELD INSPECTOR PRIOR TO FINAL APPROVAL. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE OR PERFORMING THESE SERVICES.

Y. REFER TO MECHANICAL DETAILS FOR ROUND AND RECTANGULAR DUCT SUPPORT DETAILS AND CEILING DIFFUSER SUPPORT DETAILS.

Z. ALL MECHANICAL EQUIPMENT SHALL BE SCREENED FROM VIEW.

IECC COMPLIANCE NOTES

- A. DESIGN HEATING AND COOLING LOADS HAVE BEEN CALCULATED FOR THE BUILDING USING CARRIER HOURLY ANALYSIS PROGRAM THAT USES PROCEDURES RECOMMENDED BY ASHRAE.
- B. ALL EQUIPMENT AND SYSTEMS HAVE BEEN SIZED TO BE NO GREATER THAN NEEDED TO MEET CALCULATED LOADS.
- C. HUMIDIFICATION SYSTEMS HAVE NOT BEEN PROVIDED ON THIS PROJECT.
- D. EACH HEATING OR COOLING SYSTEM ZONE HAS BEEN PROVIDED WITH ITS OWN TEMPERATURE CONTROL DEVICE.
- E. OUTSIDE AIR SUPPLY SYSTEMS WITH DESIGN AIRFLOW RATES GREATER THAN 3000CFM AND ALL EXHAUST SYSTEMS HAVE DAMPERS THAT ARE AUTOMATICALLY CLOSED WHILE EQUIPMENT IS NOT OPERATING IF APPLICABLE
- F. OUTSIDE VENTILATION HAS BEEN DESIGNED PER 2018 IMC CHAPTER 4.
- G. ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS AND CONNECTIONS IN DUCTWORK, SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS, MASTIC+EMBEDDED-FABRIC SYSTEMS OR TAPES. TAPES AND MASTICS USED TO SEAL DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A AND SHALL BE MARKED 181A-P FOR PRESSURE-SENSITIVE TAPE. TAPES AND MASTICS USED TO SEAL FLEXIBLE AIR DUCT AND FLEXIBLE CONNECTORS SHALL COMPLY WITH UL 181B AND SHALL BE MARKED 181B-FX FOR PRESSURE-SENSITIVE TAPE OR 181M FOR MASTIC. DUCT CONNECTIONS TO FLANGES OF AIR DISTRIBUTION SYSTEM EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED. UNLISTED DUCT TAPE IS NOT PERMITTED.
- H. OPERATOR AND MAINTENANCE DOCUMENTATION MUST BE PROVIDED TO THE OWNER THAT INCLUDES EQUIPMENT INPUT AND OUTPUT CAPACITY AND REQUIRED MAINTENANCE ACTIONS, EQUIPMENT OPERATION AND MAINTENANCE MANUALS, HVAC SYSTEM CONTROL MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OR FIELD DETERMINED SET POINTS MUST BE PERMANENTLY RECORDED ON THE CONTROL DRAWINGS, AT CONTROL DEVICES, OR, FOR DIGITAL CONTROL SYSTEMS, IN PROGRAMMING COMMENTS. A COMPLETE NARRATIVE OR HOW EACH SYSTEM IS INTENDED TO OPERATE IS REQUIRED.
- I. EACH SUPPLY AIR OUTLET OR DIFFUSER MUST HAVE ITS OWN BALANCING DEVICE. ACCEPTABLE BALANCE DEVICES INCLUDE ADJUSTABLE DAMPERS LOCATED WITHIN THE DUCTWORK AND SUPPLY AIR DIFFUSERS.

					0	UTSIDE AIR	CALCULA	TION FOR	EXISITNO	GHP-1								
							2018 IMC	TABLE 403	.3									
ZONE	AZ	Occ. Density	Pz	Rp	RpPz	Ra	RaAz	EXHAUST	Vbz	Ez	Voz	Vpz	Zp	Ev	Ps	D	Vou	Vot
		Tab. 403.3		CFM/PERSON tab		CFM/SF Tab		CFM/SF Tab	Eq 4-1	Tab				Tab	Max.	1		
	SF		PEOPLE	403.3	CFM	403.3	CFM	403.3	CFM	403.3.1.2	Eq 4-2 CFM	CFM	Eq 4-5	403.3.2.3.2	Occupants	Eq 4-7	Eq 4-6	Eq 4-8
BARAREA	<mark>41</mark> 6	100	42	7.5	312	0.18	75	0	387	0.8	484	1300	0.37	0.8	18	0.43	210	262
TOTAL	416											1300			18	1		262

OSA NOTES:

ADJUST OSA AIR-FLOW TO 270 CFM

					ŀ	AIR CC	NDIT		IG UNIT	-						
									C,	APACITY			ELE	CTRICAL [ATA	
ID	DESCRIPTION	MANUFACTUER / MODEL		AIR CAF	PACITIES		MIN. SEER		COOLI	NG		HEATING		UNIT	MAX.	WEIGH (LBS) 727
			TOTAL CFM	OSA CFM	ESP W.G.	BLOWER HP		CAP (BTUH)	SENSIBLE (BTUH)	DBF	WBF	(BTUH)	VOLI-P	FLA	СВКА	
HP-1	4-TON PACKAGED HEAT PUMP	CARRIER / HCQ05	1,300	560	0.5	1	15	47,200	36,500	80	67	46,200	208/3	24	40	727

MECHANICAL SYMBOLS (NOT ALL USED)

EXHAUST AIR RELIEF VENT (T) THERMOSTAT

SUPPLY AIR DIFFUSER / REGISTER

- SUPPLY AIR DIFFUSER / REGISTER
- RETURN AIR GRILE
- 8" INDICATES SIZE OF DUCT
- (A) INDICATED REGISTER, DIFFUSER OR GRILLE TYPE
- , X^Ø, METAL ROUND DUCT
- METAL RECTANGULAR DUCT
- ADJUSTABLE VOLUME DAMPER
- FLEXIBLE ROUND DUCT
- (SD) DUCT SMOKE DETECTOR
- VENT THROUGH ROOF
- (XX-X) EQUIPMENT IDENTIFICATION TAG, SEE SCHEDULE AND KEYNOTES
- (MD) MOTORIZED DAMPER
- (CO2) CO2 SENSOR

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		BAR AT TERRAC 7550 N 16TH S ⁻ PHOFNIX A7 850	
	PROJECT:		

SHEET #:

SHEET TITLE:

MECHANICAL SPECIFICATIONS

PLAN INDEX

M 1 M2 МЗ

MECHANICAL SPECIFICATIONS MECHANICAL DEMOLITION PLAN MECHANICAL PLAN

REMARKS

EXISTING





ROOF AND VENT NOTES

- ALL VENTS MUST BE EXTENDED THRU ROOF ABOVE THE ROOF LINE.
 TENANT IS RESPONSIBLE FOR REMOVAL OF ANY UNUSED EQUIPMENT AND TO SEAL ANY UNUSED PENETRATIONS. PATCH ROOF ACCORDINGLY USING LANDLORD REQUIRED ROOF CONTRACTOR.
- ALL MECHANICAL EQUIPMENT MUST BE 3' AWAY FROM PARAPET.
 ALL MECHANICAL EQUIPMENT MUST BE FULLY-SCREEN BY THE PARAPET OR A SECONDARY MECHANICAL SCREEN WALL EQUAL TO, OR GREATER THAN THE
- HIGHEST POINT ON MECHANICAL EQUIPMENT. 5. THERE IS AN EXISTING 48" PARAPET AND ALL EXISTING AND NEW MECHANICAL EQUIPMENT WILL BE FULLY SCREENED.

KEYNOTES

- (1) EXISTING PIPE CEILING REMAINS.
- (2) EXISTING SUPPLY AIR CEILING DIFFUSER REMAINS.
- $\overline{(3)}$ EXISTING RETURN AIR CEILING GRID REMAINS.
- (4) WALL / PARTITIONS TO BE REMOVED BY OTHERS.
- (5) EXISTING WALL REMAINS.
- (6) EXISTING THERMOSTAT TO REMOVE AND RELOCATE.



PROJECT NO.: TP2301 DESIGNED BY: DG DRAWN BY: GB CHECKED BY: DG NO. REVISION DATE ENGINEERING SEAL DAVID GARCIA-ACOS EXPIRES 03/31/25 GARDEL engineering MECHANICAL & ELECTRICAL ENGINEERING 441 S. 48TH ST. SUITE 101 TEMPE, AZ 85281 OFFICE: (480)361-3667 MOBILE: (480)217-5853 WWW. GARDELENGINEERING.COM THE INFORMATION CONTAINED ON THESE DRAWINGS SUCH AS DATA, DESIGNS, AND CONCEPTS, ARE PROPERTY OF GARDEL ENGINEERING, LLC. AND SHALL NOT BE USED FOR ANY OTHER PURPOSE OTHER THAN ORIGINALLY INTENDED WITHOUT WRITTEN PERMISSION OF THE ENGINEER. BAR AT TERRACES 7550 N 16TH ST PHOENIX, AZ 85020 SHEET #: M2 SHEET TITLE:





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

KEYNOTES

- 1 EXISTING SUPPLY AIR CEILING DIFFUSER REMAINS, ADJUST AIR FLOE AS NOTED.
- (2) EXISTING RETURN AIR FILTER GRILLE REMAINS ON CEILING.
- (3) RELOCATED THERMOSTAT AS NOTED
- (4) EXISTING 4-TON HEAT PUMP PACKAGE UNIT TO REMAIN ON ROOFTOP.
- 5 PROVIDE NEW OUTSIDE AIR (OSA) INTAKE AT RETURN PLENUM OF A/C UNIT. INTAKE HOOD SHALL BE PROVIDED WITH SCREEN AND MANUAL DAMPER, ADJUST AIRFLOW AS NOTED.



SCALE: 1/64" = 1'-0"

KEY PLAN - COMMONS BUILDING

Existing Indep. Living Building

PROJECT LOCATION

EXISTING COMMONS BUILDING

	NEW PLUMBING FIXTURE SCHEDULE									
		MANUFACTURER/	FITTINGS		ROUG	GH-IN				DEMADIZE
	DESCRIPTION	MODEL	ACCESSORIES	VENT	CW	НW	WASTE	TRAP SIZE	MAX. FLOW	REWARKS
BS-1	BAR SINK	BY OWNER	BY OWNER	1-1/2"	1/2"	1/2"	1-1/2"	INDIRECT TO FLOORSINK	0.25	Lm
REMARKS 1. INSTA	REMARKS: 1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS									

WATER DEMAND SUMMARY

1. MINIMAL WATER DEMAND ADDED (ONE BAR SINK)

PLUMBING FIXTURE SCHEDULE

FIXTURES IN THIS SCHEDULE OR THEIR APPROVED EQUIVALENT ARE PROVIDED BY THE PLUMBING CONTRACTOR. SUBMIT SHOP DRAWING ON EACH OF THESE ITEMS. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION AND INSTALLATION REQUIREMENTS. VERIFY ROUGH-IN REQUIREMENTS WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE PLUMBING FIXTURE MOUNTING HEIGHTS

TMV THERMOSTATIC MIXING VALVE: POWERS #e480, SOLID BRASS BODY,

THERMOSTATIC WAX ELEMENT, CORROSION RESISTANT INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 COMPLIANT, CAPABLE OF 2.2 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.5 GPM. SET TEMPERATURE TO 110F FOR DUEL TEMPERATURE LAVATORIES AND HAND SINKS, 100F FOR SINGLE TEMPERATURE LAVATORIES AND HAND SINKS AND 120F FOR SINKS. MOUNTED BELOW THE PLUMBING FIXTURE WHERE INDICATED ON PLAN(S)

	NEW PLUME	BING SEWER	AND WATE	ER FI)	(TUF	RE S	SCH	EDULE		
FIXTURE NUMBER	DESCRIPTION	MANUFACTURER/ MODEL	FITTINGS ACCESSORIES	WASTE	ROUG VENT	H-IN CW	HW	SIZE TRAP	MAXIMUM FLOW	REMARKS
BS-1 B	BAR SINK	BY OWNER	BY OWNER	1-1/4"	1"	1/2"	1/2"	INDIRECT TO FLOORSINK	0.25 GPM	1
FS-1 F	FLOOR SINK	BY CONTRACTOR	BY CONTRACTOR	2"	1.5"	N/A	N/A	INDIRECT TO FLOORSINK	0.25 GPM	1

1. INSTALL PER MANUFACTURER'S RECOMENDATIONS

PLUMBING SPECIFICATIONS (NOT ALL USED)

- SCOPE: WORK UNDER THIS SECTION INCLUDES COORDINATING AND FURNISHING ALL LABOR AND MATERIAL NECESSARY TO INSTALL A COMPLETE PLUMBING SYSTEM AS SHOWN AND SPECIFIED AND IN ACCORDANCE WITH THE CODES. CONTRACTOR SHALL PAY FOR ALL PERMITS. METERS. FEES. CITY
- INSPECTIONS, LEGAL NOTICES, ETC., AS REQUIRED. SUBMITTALS: WITHIN 15 DAYS AFTER AWARD OF CONTRACT, SUBMIT 8 COPIES OF ALL ITEMS.
- 3. RECORD DRAWINGS: PROVIDE A SET TO THE ARCHITECT AT COMPLETION OF PROJECT. 4. INSTRUCTIONS: PROVIDE MAINTENANCE MANUAL AND INSTRUCT OWNER IN THE PROPER OPERATION AND
- MAINTENANCE OF THE EQUIPMENT.
- . GUARANTEE: ONE YEAR ON LABOR, MATERIAL AND EQUIPMENT.

PRODUCTS

WATER PIPING:

- COPPER: TYPE M FOR WATER PIPE SET IN OR UNDER CONCRETE OR IN THE GROUND. PROVIDE PLASTIC SLEEVE FOR EACH PIPING PENETRATION THROUGH CONCRETE SLAB. INSULATION: FOR AUTOMATIC CIRCULATING HOT WATER AND HEAT-TRACED SYSTEMS, HOT WATER PIPING SHALL BE INSULATED WITH NO LESS THAN 1 INCH OF INSULATION HAVING A CONDUCTIVITY NOT LESS THAN 0.27 BTU / HR X SF X °F. THE FIRST 8FT OF PIPING OF A NON-HOT-WATER SUPPLY TEMPERATURE MAINTENANCE SYSTEMS SERVED BY EQUIPMENT WITHOUT INTEGRAL HEAT TRAPS SHALL BE INSULATED WITH 0.5 OF MATERIAL HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU / HR X SF X °F
- FITTINGS: WROUGHT COPPER CONFORMING TO ANSI B16.22. TUBING: ABOVE AND BELOW GRADE, TYPE: WIRSBO AQUAPEX. CROSS-LINKED POLYETHYLENE (PEX) MANUFACTURED BY PEX-A OR ENGEL METHOD. MANUFACTURED IN ACCORDANCE WITH ASTM F876 AND ASTM F877 AND TESTED FOR COMPLIANCE BY AN INDEPENDENT THIRD PARTY AGENCY. STANDARD GRADE HYDROSTATIC DESIGN AND PRESSURE RATINGS FROM PPI. VERIFY PROPOSED INSTALLATION IS ACCEPTABLE TO AUTHORITY HAVING JURISDICTION PRIOR TO CONSTRUCTION.

SANITARY WASTE AND VENT PIPING:

- PLASTIC: SUBJECT TO OWNER APPROVAL, ABS PLASTIC PIPING CONFORMING TO ASTM D-2751-88, SCHEDULE 40, OR PVC PIPING CONFORMING TO ASTM D2665-88, ARE ACCEPTABLE FOR SANITARY WASTE AND VENT PIPING. FITTINGS: DRAINAGE FITTINGS TO MATCH PIPE. SLOPE ALL SANITARY DRAIN AND SEWER PIPES PER 2018 IPC TABLE 704.1
- 3. CLEANOUTS: CONCRETE AND TILE FLOORS: J.R. SMITH 4023, WITH SCORIATED NICKEL-BRONZE TOP. CLEANOUTS (EXPOSED VERTICAL PIPING): J.R. SMITH 4512 CAST IRON BRANCH CLEANOUT TEE WITH
- INTERIOR FINISHED WALLS: J.R. SMITH 4532. • EXTERIOR SURFACE CLEANOUTS: J.R. SMITH 4253. PROVIDE 18" X 18" X 6" CONCRETE PAD AT LANDSCAPE
- AREAS; PROVIDE CONCRETE RING BELOW GRADE AT ASPHALT AREAS. PROVIDE ALL CLEANOUTS WITH HEAVY THREADED BRONZE PLUGS.
- CONTRACTOR SHALL COORDINATE ALL CLEANOUT LOCATIONS WITH ARCHITECT AND LOCATE IN NON VISIBLE LOCATIONS.

4. FLOOR DRAINS, FLOOR SINKS:

FD FLOOR DRAINS: EQUAL TO J.R. SMITH 2005-A DUCO CAST IRON DRAIN BODY WITH 5" DIAMETER ADJUSTABLE NICKEL BRONZE STRAINER TRAP PRIMER CONNECTION AND NO-HUB OUTLET CONNECTION. FS FLOOR SINKS - EQUAL TO J.R. SMITH 3190-Y, 8-1/2" TOP, CAST IRON FLANGED RECEPTOR, WITH ACID RESISTANT COATED INTERIOR, ALUMINUM DOME BOTTOM STRAINER, SQUARE NICKEL BRONZE TOP WITH HALF GRATE; TRAP PRIMER CONNECTION WHERE INDICATED ON DRAWINGS.

. PLUMBING FIXTURES: USE POLISHED CHROME-PLATED, ADJUSTABLE BRASS P-TRAPS WITH WALL ESCUTCHEONS AT ALL EXPOSED

- LOCATIONS. USE POLISHED CHROME-PLATED FAUCETS WITH REMOVABLE TRIM, BRASS BODY AND BRASS HANDLES. FIXTURES AND SUPPLY FITTING SHALL BE OF ONE MANUFACTURER.
- PROVIDE DIAPHRAGM TYPE, POLISHED CHROME- PLATED FLUSH VALVES WITH INTEGRAL VACUUM BREAKERS AND SCREWDRIVER STOPS.
- PROVIDE FIXTURE STOPS OR VALVES AHEAD OF ALL EQUIPMENT OR FIXTURES. AFTER FIXTURES ARE SET IN PLACE AND SECURED TO WALLS, CAULK ALL AROUND BETWEEN FIXTURES AND WALL WITH EITHER DOW CORNING #780 OR G.E. CONSTRUCTION SEALANT WHITE SILICONE CAULKING

COMPOUND. FIXTURES TO BE SELECTED BY ARCHITECT / OWNER.

PIPE IDENTIFICATION

MARK SOFT WATER PIPING SYSTEMS WITH BRADY, SETON, BRIMAR OR SET MARK IDENTIFICATION MARKERS OF SNAP-ON TYPE AFTER PIPE HAS BEEN PAINTED OR INSULATED WHERE EXPOSED. INSTALL STENCILS AT ALL MAJOR BRANCH TAKEOFFS, RISERS AND AT 10-FOOT INTERVALS ON STRAIGHT RUNS AND AT EACH ENTRANCE OR EXIT FROM PIPE SHAFTS. MARKERS SHALL BE LOCATED FOR MAXIMUM VISIBILITY FROM EXPECTED APPROACH. IDENTIFICATION MATERIAL SIZES SHALL BE AS FOLLOWS:

2" AND UNDER 1/2" HIGH LETTERS

OVER 2" 1" HIGH LETTERS

- 4. ACCEPTABLE MANUFACTURERS: THE FOLLOWING IS A LIST OF MANUFACTURERS WHOSE EQUIPMENT IS ACCEPTABLE AS TO MANUFACTURER, SUBJECT TO CONFORMANCE WITH ALL DRAWINGS, SPECIFICATIONS AND ADDENDA ITEMS:
- WATER HEATERS: RHEEM, AMERICAN, A. O. SMITH, STATE, EEMAX, HOT AQUA, RINNAI. VALVES: CRANE, KENNEDY, STOCKHAM, GRINNELL, MILWAUKEE, WOLVERINE. HOSE BIBBS: ACORN, CHICAGO, WOODFORD.
- SUPPLIES, STOPS: EASTMAN, KOHLER, ELJER, BRASSCRAFT, MCGUIRE.
- P-TRAPS: CRANE. KOHLER, ELJER, FROST, MCGUIRE.
- DRAINS AND CLEANOUTS: J. R. SMITH, ZURN, JOSAM, WADE, WESTERN. • HANGERS: GRINNELL, FEE & MASON, ELCEN, KIN-LINE, F & S, B-LINE, MICHIGAN.

EXECUTION

- 1. TESTS AND INSPECTIONS: ALL WORK TO BE TESTED AND APPROVED BEFORE COVERING AS DIRECTED BY ARCHITECT. REMAKE ALL LEAKING JOINTS AND RETEST. • POTABLE WATER SYSTEMS: 150 PSI HYDROSTATIC PRESSURE HELD WITHOUT LOSS FOR FOUR HOURS.
- SANITARY WASTE AND VENT SYSTEM: FILL WITH WATER TO HIGHEST POINT IN THE SYSTEM AND LET STAND WITHOUT LOSS FOR TWO HOURS. STERILIZATION (DOMESTIC WATER SYSTEM): AFTER TESTS HAVE BEEN COMPLETED, THE ENTIRE DOMESTIC
- WATER DISTRIBUTION SYSTEM SHALL BE THOROUGHLY FLUSHED WITH WATER UNTIL ALL ENTRAINED DIRT AND MUD HAVE BEEN REMOVED, AND SHALL BE STERILIZED WITH SOLUTIONS OF EITHER LIQUID CHLORINE CONFORMING TO FEDERAL SPECIFICATION BB-B-120 OR HYPOCHLORITE CONFORMING TO FED. SPEC. O-C-114, TYPE II, GRADE G, OR FED. SPEC. O-S-602, GRADE A OR B. THE CHLORINATING MATERIAL SHALL PROVIDE A DOSAGE OF NOT LESS THAN 50 PARTS PER MILLION AND SHALL BE INTRODUCED INTO THE SYSTEM IN AN APPROVED MANNER, AND RETAINED IN THE SYSTEM FOR 8 HOURS BEFORE FLUSHING.

FLASHING, SLEEVES AND ESCUTCHEON PLATES:

- FLASHING: SUPPLY FLASHING FOR ALL VENT PIPE AND OTHER TYPES OF PIPING THROUGH ROOF TO BE INSTALLED WITH ROOFING. FLASH VENTS WITH STONEMAN S1300-4 OR WITH SHEET LEAD WEIGHING NOT LESS HAN 4 POUNDS PER SQUARE FOOT OR EQUAL. EXTEND FLASHING INTO ROOFING AT LEAST 10" FROM VENT AND TURN FLASHING OVER AND DOWN INTO VENT OPENING. SLEEVES: USE 20 GAUGE GALVANIZED STEEL SLEEVES AROUND PIPES PASSING THROUGH MASONRY WALLS
- AND CONCRETE SLABS. ESCUTCHEON PLATES: INSTALL CAST BRASS SPLIT RING WITH SETSCREW AT ALL LOCATIONS WHERE
- EXPOSED PIPES PASS THROUGH WALLS, FLOORS AND/OR CEILINGS. PROVIDE POLISHED CHROME-PLATED ESCUTCHEONS IN FINISHED ROOMS, ALL OTHERS POLISHED BRASS.

UNDERGROUND WATER PIPING:

BURY ALL UNDERGROUND WATER PIPING A MINIMUM OF 24" BELOW FINISHED GRADE. INSTALL COPPER LINES BELOW CONCRETE FLOORS SO THAT NO JOINTS OCCUR BELOW FLOOR AND WRAP WITH 20 MILS OF POLYETHYLENE TAPE WITH A MINIMUM OF 50% OVERLAP.

GENERAL NOTES

- A. ALL DESIGN AND CONSTRUCTION FOR SANITARY AND WATER SYSTEMS SHALL BE IN COMPLIANCE WITH 2018 INTERNATIONAL PLUMBING CODE, 2018 INTERNATIONAL RESIDENTIAL CODE AND ALL CITY AMENDMENTS AND REGULATIONS
- FURNISH ALL REQUIRED LABOR, MATERIALS, TOOLS, EQUIPMENT, FEES, PERMITS, CERTIFICATE OF INSPECTION, ETC. REQUIRED FOR THE COMPLETE INSTALLATION OF ALL PLUMBING WORK
- WORK SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES, LAWS, ACTS, ORDINANCES, REGULATIONS AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION
- THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL THE APPLICABLE INDUSTRY STANDARD OF GOOD PRACTICE, SAFETY, AND THE MANUFACTURERS STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION
- THESE DRAWINGS ARE DIAGRAMMATIC AND THE CONTRACTOR SHALL MAKE MODIFICATIONS INCLUDING OFFSETS, TURNS, AND RE-ROUTING REQUIRED TO COMPLETE THE INSTALLATION. DO NOT SCALE LOCATION OF EQUIPMENT OR PIPING
- EXACT LOCATION OF PLUMBING FIXTURES SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS
- VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW WASTE LINES ARE TO BE CONNECTED BEFORE MAKING UP OR INSTALLATION OF NEW WASTE SYSTEM
- VERIFY AND COORDINATE LOCATION OF ALL PLUMBING LINES WITH HVAC AND ELECTRICAL SERVICES
- THE INSTALLATION OF ALL VALVES, UNIONS, THERMOMETERS, GUAGERS, OR OTHER INDICATING OR RECORDING EQUIPMENT, OR SPECIALTIES REQUIRING FREQUENT READING, REPAIRS, ADJUSTMENT, INSPECTION REMOVAL OR REPLACEMENT SHALL BE CONVENIENTLY AND ACCESSIBLY LOCATED WITH REFERENCE TO THE FINISHED BUILDING
- ALL VENTS THRU ROOF SHALL BE 10'0" REMOVED FROM ALL AIR INTAKES
- ROUGH-IN ALL WASTES AND SUPPLIES TO SPECIAL EQUIPMENT ACCORDING TO MANUFACTURERS SHOP DRAWINGS AND MAKE FINAL CONNECTIONS. ALL SUPPLIES SHALL BE VALVED
- NO PIPING OR EQUIPMENT SHALL BE INSTALLED ABOVE ELECTRICAL EQUIPMENT OR INSTALLED IN ELECTRICAL ROOMS
- ALL FIXTURES FURNISHED AND INSTALLED SHALL MEET THE REQUIREMENTS FOR AMERICANS WITH DISABILITIES ACT
- ALL WASTE AND SOIL PIPING 4" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT UNLESS OTHERWISE NOTES ON PLANS
- ALL DOMESTIC HOT AND COLD WATER PIPING SHALL BE TYPE L SEAMLESS HARD-DRAWN COPPER TUBING. FITTINGS SHALL BE BRONZE OR COPPER. ALL VALVES SHALL BE BUTTERFLY TYPE. ALL WATER PIPING SHALL BE LOCATED ABOVE CEILING, EXCEPT AS NOTED OTHERWISE
- PROVIDE 1-INCH THICK FIBERGLASS INSULATION WITH ALL-SERVICE JACKET ON ALL HOT WATER PIPING AND RECIRCULATED HOT WATER PIPING
- PROVIDE DIELETRIC UNIONS ON ALL CONNECTIONS BETWEEN DISSIMILAR METALS PROVIDE PIPE HANGERS AND SUPPORTS PER 2018 IPC SECTION 314. SLOPE DRAIN PIPING 1/4" PER FOOT

PLUMBING LEGEND (NOT ALL USED)

- A.C. ABOVE CEILING U.S. UNDER SLAB POC POINT OF CONNECTION BFP BACKFLOW PREVENTER WC TOILET L LAVATORY KS KITCHEN SINK FS FLOOR SINK FD FLOOR DRAIN HB HOSE BIBB MS MOP SINK FCO FLOOR CLEANOUT
- G NATURAL GAS LINE
- CW COLD WATER HW HOT WATER
- RHW RECIRCULATING HOT WATER
- TB TRAP PRIMER VTR VENT THRU ROOF
- VL OR V VENT LINE V SEWER VENT
- RD ROOF DRAIN SD SEWER DRAIN
- SH SHOWER
- SOV SHUT-OFF VALVE WCO WALL CLEAN OUT
- DW DISH WASHER WH WATER HEATER
- CWM CLOTHES WASHING MACHINE GR-1 GLASS RINSER
- BEER BEER TAP BS BAR SINK

PLUMBING PLANS INDEX

P1 PLUMBING SPECIFICATIONS P2 SEWER PLUMBING PLAN P3 WATER PLUMBING PLAN

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PLUMBING SPECIFICATIONS





KEYNOTES

- (1) EXISTING BATHROOM REMAINS
- 2 EXISTING WALL REMAINS
- (3) REMOVAL OF FURNITURE, DOORS, AND PARTITIONS BY OTHERS
- (4) AREA REMAINS, NO CHANGES U.N.O.





, ____ *'*

EXISTING INDEP. LIVING BUILDING

KEY PLAN - COMMONS BUILDING

PROJECT LOCATION

EXISTING COMMONS BUILDING







SEWER ISOMETRIC DIAGRAM

SCALE: N.T.S.

KEYNOTES

1 NEW PLUMBING FIXTURE / EQUIPMENT

2 NEW FLOOR SINK

(3) NEW SCH 40 ABS SEWER LINE

(4) POINT OF CONNECTION OF NEW TO EXISTING SEWER PIPING. EXISTING INVERT IS

PROJECT NO.: TP2301 DESIGNED BY: DG

DRAWN BY: GB CHECKED BY: DG

NO. REVISION DATE

ENGINEERING SEAL

GARCIA→ACOSTA

EXPIRES 03/31/25

GARDEL

engineering

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(5) NEW 2" VENT THROUGH ROOF

- 6 NEW 1/2" VENT UNDER SLAB
- $\fboxspace{-1mu}{7}$ PROVIDE 3/4" SCH 40 PVC DRAIN TO DISCHARGE INDIRECTLY TO FLOOR SINK WITH 1-1/2" AIRGAP (TYP.)
- 8 PROVIDE 1-1/2" SCH 40 PVC DRAIN TO DISCHARGE INDIRECTLY TO FLOOR SINK WITH 3" AIRGAP (TYP.)







KEYNOTES

1 TAP NEW HOT AND COLD WATER LINES O EXISTING WATER PIPE ABOVE CEILING. FIELD VERIFY EXACT LOCATION

2 NEW PEX HOT AND COLD WATER LINES ROUTED ABOVE CEILING

(3) NEW TYPE "K" COPPER HOT AND OLD WATER LINES ROUTED UNDER SLAB

 $\overbrace{(4)}^{\smile}$ NEW PEX HOT AND COLD WATER LINES ROUTED IN BAR'S FRAME

5 PROVIDE 1/2" DOUBLE CHECK VALVE. VALVE SHALL BE NSF APPROVED AND MARICOPA COUNTY APPROVED

PROJECT NO.: TP2301 DESIGNED BY: DG DRAWN BY: GB CHECKED BY: DG NO. REVISION DATE ENGINEERING SEAL 50667 DAVID GARCIA-ACOSTA EXPIRES 03/31/25 GARDEL engineering MECHANICAL & ELECTRICAL ENGINEERING 441 S. 48TH ST. SUITE 101 TEMPE, AZ 85281 OFFICE: (480)361–3667 MOBILE: (480)217-5853 WWW. GARDELENGINEERING.COM THE INFORMATION CONTAINED ON THESE DRAWINGS SUCH AS DATA, DESIGNS, AND CONCEPTS, ARE PROPERTY OF GARDEL ENGINEERING, LLC. AND SHALL NOT BE USED FOR ANY OTHER PURPOSE OTHER THAN ORIGINALLY INTENDED WITHOUT WRITTEN PERMISSION OF THE ENGINEER. BAR AT TERRACES 7550 N 16TH ST PHOENIX, AZ 85020 SHEET #: **P4** SHEET TITLE:

WATER PLUMBING PLAN









LOCATE VTR MINIMUM THREE FEET FROM PROPERTY LINE, TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, AND ONE FOOT FROM ANY VERTICAL SURFACE. REFER TO LOCAL CODES FOR OTHER VENT TERMINATION REQUIREMENTS. LOCATE VTR MINIMUM 18" FROM ADJACENT WALL, PARAPET, EXPANSION JOINT, ROOF DRAIN, EQUIPMENT CURB, OR OTHER ROOF FEATURE. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS. INSULATE LAST SIX FEET OF VENT PIPE INSIDE BUILDING PER SPECIFICATIONS.

VENT THRU ROOF DETAIL SCALE: N.T.S.

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ELECTRICAL SPECIFICATIONS

- 1. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, TRANSPORTATION, TOOLS, PERMITS, FEES AND INCIDENTALS NECESSARY FOR THE INSTALLATION OF A COMPLETE ELECTRICAL SYSTEMS IN CLASS 'A' WORKING ORDER.
- 2. ALL WORK SHALL BE IN COMPLIANCE WITH THE 2017 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL CODES AND ORDINANCES. 3. THESE DRAWINGS ARE SCHEMATIC IN NATURE. CONTRACTOR SHALL PROVIDE ALL BOXES, FITTINGS, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION
- EVEN IF THOSE ITEMS ARE NOT CALLED OUT ON THE CONSTRUCTION DOCUMENTS. 4. CONTRACTOR SHALL FURNISH SIX COPIES OF THE MANUFACTURER'S LITERATURE AND DRAWINGS DESCRIBING ALL PROPOSED EQUIPMENT AND
- MATERIALS INDICATED IN THE DRAWINGS AND SPECIFICATIONS. SUBMITTALS SHALL INCLUDE DETAILED SPECIFICATIONS AND CONSTRUCTION DATA. 5. EQUIPMENT MANUFACTURER'S AND CATALOGUE NUMBERS CALLED OUT ON
- THESE DRAWINGS ARE INTENDED TO ESTABLISH A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. EQUAL PRODUCTS BY OTHER MANUFACTURER'S ARE ACCEPTABLE. 6. ALL MATERIAL FURNISHED BY THE CONTRACTOR SHALL BE NEW UNLESS
- OTHERWISE NOTED. 7. PROVIDE ENGRAVED PHENOLIC NAMEPLATES ON ALL PANELBOARDS, DISCONNECTS, ETC. NAMEPLATES SHALL BE 1/4" HIGH AND SHALL BE
- FASTENED TO THE EQUIPMENT WITH RIVETS OR SCREWS. 8. CONTRACTOR SHALL FURNISH A CLEAN SET OF DRAWINGS ON WHICH VARIATIONS TO THE ORIGINAL CONSTRUCTION DOCUMENTS ARE LEGIBLY RECORDED AND DESIGNATED AS "AS-BUILT" UPON COMPLETION AND ACCEPTANCE OF WORK.
- 9. CONTRACTOR SHALL GUARANTEE ALL LABOR AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER. ALL WORK / MATERIALS FOUND TO BE DEFECTIVE WITHIN THIS PERIOD SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER. THIS SHALL NOT INCLUDE DAMAGE DUE TO FIRE, STORMS, VANDALISM, OR OTHER FACTORS BEYOND THE CONTROL OF THE CONTRACTOR

BASIC MATERIALS CONDUIT

- 1.1. ELECTRICAL METALLIC CONDUIT (EMT) CONDUIT WITH COMPRESSION COUPLINGS AND FITTINGS MAY BE USED INDOORS OR OUTDOORS IN NON-HAZARDOUS AREAS AND IN AREAS NOT SUBJECT TO PHYSICAL DAMAGE, SET SCREW TYPE CONNECTORS ARE NOT ACCEPTABLE.
- 1.2. RIGID GALVANIZED STEEL (RGS) CONDUIT WITH THREADED COUPLINGS AND FITTINGS SHALL BE USED INDOORS OR OUTDOORS IN HAZARDOUS AREAS AND IN LOCATIONS SUBJECT TO PHYSICAL DAMAGE. 1.3. LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE USED IN OUTDOOR OR
- WET LOCATIONS, AND FLEXIBLE METAL CONDUIT SHALL BE USED INDOORS IN DRY LOCATIONS TO EXTEND CONDUIT CONNECTIONS TO MOTORS, LIGHT FIXTURES, ETC. MAXIMUM LENGTH SHALL NOT EXCEED 72" FOR RECESSED LIGHT FIXTURES OR 24" FOR ALL OTHER APPLICATIONS. 1.4. MINIMUM SIZE CONDUIT SHALL BE 1/2" UNLESS OTHERWISE NOTED.
- 1.5. CONDUITS SHALL BE CONCEALED IN ALL FINISHED PARTS OF THE BUILDING. CONDUITS SHALL BE ROUTED PARALLEL TO THE BUILDING LINES - DIAGONAL RUNS ARE NOT ACCEPTABLE. SECURE CONDUITS TO BUILDING STRUCTURES AT INTERVALS OF NOT MORE THAN 8 FEET.
- 2. CONDUCTORS 2.1. CONDUCTORS LOCATED INDOORS IN DRY LOCATIONS SHALL BE COPPER
- TYPE THHN / THWN. 2.2. CONDUCTORS LOCATED OUTDOORS OR IN WET LOCATIONS SHALL BE
- COPPER TYPE XHHW.
- 2.3. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED.
- 2.4. MINIMUM CONDUCTOR SIZE FOR POWER AND LIGHTING CIRCUITS SHALL BE #12 AWG. MINIMUM CONDUCTOR SIZE FOR CONTROL AND SIGNALING CIRCUITS SHALL BE #14 AWG.
- 2.5. CONDUCTORS FOR USE ON 120/208V SYSTEMS SHALL BE COLOR CODED BLACK, RED, BLUE AND WHITE FOR PHASES A, B, C, AND NEUTRAL RESPECTIVELY.
- 2.6. IN LIEU OF CONDUCTORS IN CONDUIT, CONTRACTOR MAY USE TYPE 'MC' CABLE IN LOCATIONS APPROVED BY THE NEC AND AS APPROVED BY THE OWNER / ARCHITECT. TYPE 'MC' CABLE SHALL BE USED FOR BRANCH ONCEALED RUNS ONLY. HOMERUNS AND EXPOSED INSTALLATIONS SHALL BE CONDUCTORS IN CONDUIT. 3. DISCONNECT SWITCHES
- 3.1. DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE 'HD'.
- 3.2. FUSIBLE DISCONNECTS SHALL HAVE PROVISIONS FOR CLASS 'R' FUSES. 3.3. LOCATE / MOUNT DISCONNECTS TO PROVIDE PROPER WORKING CLEARANCE AS REQUIRED BY THE NEC. DISCONNECTS FOR USE WITH HVAC EQUIPMENT SHALL NOT BE SUPPORTED BY OR MOUNTED TO THE EQUIPMENT. PROVIDE UNISTRUT BRACKETS, SHEET METAL STANDS, OR OTHER MOUNTING MEANS FOR MOUNTING DISCONNECT SWITCHES AS REQUIRED.

4. FUSES

- 4.1. FUSES SHALL BE 'BUSSMAN LOW PEAK' OR EQUAL. 4.2. FUSES RATE 1/10 AMP TO 600 AMPS SHALL BE UL CLASS R DUAL ELEMENT, CURRENT LIMITING, EQUAL TO BUSSMAN LPS-RK (600V) OR LPN-RK (250V).
- 4.3. FURNISH OWNER WITH ONE SPARE SET OF THREE OF EACH SIZE AND TYPE OF FUSE USED ON THIS PROJECT. 5. CIRCUIT BREAKERS
- 5.1. BREAKERS SHALL BE BOLT ON, THERMAL MAGNETIC, MOLDED CASE
- 5.2. BREAKERS SHALL BE QUICK MAKE QUICK BREAK. 5.3. BREAKERS SHALL BE FULLY RATED FOR THE AVAILABLE FAULT CURRENT
- (SERIES RATINGS ARE UNACCEPTABLE).
- 5.4. BREAKERS SHALL BE COMMON TRIP TYPE FOR ALL MULTI-POLE APPLICATIONS.
- 5.5. BREAKERS SHALL BE MARKED 'HACR' WHEN USED TO FEED AIR CONDITIONING EQUIPMENT 6. WIRING DEVICES
- 6.1. RECEPTACLES SHALL BE 20 AMP, 125 VOLT, SPECIFICATION GRADE, HUBBELL SERIES 5362 OR EQUAL. TAMPERPROOF RECEPTACLES SHALL BE 20 AMP, 125 VOLT, SPECIFICATION GRADE, HUBBELL SERIES 5362TR OR EQUAL
- 6.2. LIGHT SWITCHES SHALL BE 20 AMP, 120/277 VOLT, SPECIFICATION GRADE, HUBBELL SERIES 1221 (SINGLE POLE) OR 1223 (THREE WAY) OR EQUAL.
- 6.3. MANUAL MOTOR STARTERS SHALL HAVE "QUICK MAKE QUICK BREAK" TOGGLE MECHANISM, OVERLOAD HEATER(S) SIZED PER MOTOR NAMEPLATE AND/OR MANUFACTURER'S RECOMMENDATION, AND SUITABLE FOR THE VOLTAGE, HP AND NUMBER OF PHASES SHOWN ON THE DRAWINGS.
- 6.4. COLOR OF RECEPTACLES, SWITCHES, AND MANUAL MOTOR STARTERS SHALL BE PER THE ARCHITECT'S DIRECTION. 6.5. COVER PLATES IN FINISHED AREAS SHALL BE STAINLESS STEEL UNLESS OTHERWISE DIRECTED BY THE ARCHITECT. COVER PLATE IN UNFINISHED
- AREAS, OR FOR EXPOSED INSTALLATIONS SHALL BE RAISE STAMPED STEEL. 6.6. FLUSH MOUNT RECEPTACLES 18" TO BOTTOM OF BOX ABOVE FINISHED
- FLOOR WITH GROUND PIN AT TOP UNLESS OTHERWISE NOTED.
- 6.7. RECEPTACLES ABOVE COUNTERS SHALL BE HORIZONTALLY FLUSH MOUNTED AT 6" ABOVE COUNTER UNLESS OTHERWISE NOTED
- 6.8. SWITCHES SHALL BE FLUSH MOUNTED AT 42" TO BOTTOM OF BOX ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. TOGGLE HANDLE SHALL BE UP IN THE 'ON' POSITION AND DOWN IN THE 'OFF' POSITION 7. JUNCTION, PULL AND DEVICE BOXES
- 7.1. JUNCTION AND PULL BOXES SHALL BE OF CODE GALVANIZED STEEL. 7.2. JUNCTION AND PULL BOXES MOUNTED VERTICALLY SHALL HAVE HINGED COVER AND CATCH LOCKS. BOXES MOUNTED HORIZONTALLY OR IN THE
- CEILING SHALL BE FURNISHED WITH SCREW COVERS 7.3. DEVICE BOXES AND GENERAL PURPOSE JUNCTION BOXES SHALL BE ONE PIECE GALVANIZED PRESSED STEEL, KNOCK-OUT TYPE WITH SIMILAR COVER. MINIMUM SIZE SHALL BE 4" SQUARE.
- 7.4. DEVICE BOXES IN EXTERIOR LOCATIONS SHALL BE CASE IRON WITH GASKETED COVER, CROUSE HINDS FD OR EQUAL. 8. GROUNDING
- 8.1. 8.1. PROVIDE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAYS. GROUND CONDUCTOR SHALL BE SIZED PER NEC 250-122.

ELECTRICAL SPECIFICATIONS

LIGHTING FIXTURES

- 1. LED LAMPS SHALL HAVE THE LUMEN AND DEGREE KELVIN RATINGS AS CALLED OUT ON THE DRAWINGS. LED LAMPS SHALL BE ENERGY STAR RATED WITH A MINIMUM CRI OF 80. LED LAMPS WITH REPLACEABLE DRIVERS SHALL HAVE A MINIMUM WARRANTY OF THREE YEARS, WHILE LED LAMPS WITH NON-REPLACEABLE DRIVERS SHALL HAVE A MINIMUM WARRANTY OF FIVE YEARS. LED LAMPS SHALL DELIVER A MINIMUM OF 70% OF INITIAL LUMENS AFTER 50,000 HOURS.
- 2. LED DRIVERS SHALL BE ENERGY STAR RATED WITH A CLASS 'A' SOUND RATING, A MINIMUM OPERATING TEMPERATURE OF 20°C, AND AN OUTPUT OPERATING FREQUENCY OF 120HZ OR GREATER. LED DRIVERS SHALL PROVIDE A MINIMUM POWER FACTOR OF 0.7 FOR LAMPS WITH INPUT POWER GREATER THAN 5 WATTS OF LESS. WHERE DIMMING IS CALLED OUT ON THE DRAWINGS, LED DRIVERS SHALL ALLOW CONTINUOUS DIMMING FROM 100% TO 10% WITHOUT FLICKER OR NOISE. NON-REPLACEABLE DRIVERS SHALL HAVE A MINIMUM WARRANTY OF FIVE YEARS, WHILE REPLACEABLE DRIVERS SHALL HAVE A MINIMUM WARRANTY OF THREE YEARS.
- 3. TIME CLOCKS, CONTACTORS AND PHOTOCELLS SHALL BE AS SHOWN ON THE DRAWINGS. PHOTOCELLS SHALL BE FAIL IN THE 'ON' POSITION AND SHALL BE LOCATED ON ROOF FACING NORTH
- 4. DIMMERS SHALL BE SOLID STATE, SLIDE TYPE, FLUSH MOUNTED WITH POSITIVE 'ON'-'OFF' INDICATION. DIMMERS AT GANGED LOCATIONS SHALL BE DERATED PER MANUFACTURER'S INSTRUCTIONS. DIMMERS FOR LED FIXTURES SHALL BE COORDINATED WITH THE TYPE OF DRIVER TO BE USED TO ENSURE COMPATIBILITY. MOUNT DIMMERS AT WALL SWITCH HEIGHT. DIMMERS
- SHALL BE LUTRON OR EQUAL. 5. RECESSED FIXTURES SHALL BE FURNISHED WITH ALL ACCESSORIES
- REQUIRED TO FIT THE FIXTURE TO THE CEILING CONSTRUCTION 6. ALL LIGHT FIXTURES SHALL BE SECURELY SUPPORTED FROM BUILDING STRUCTURE. TROFFER STYLE FIXTURES IN EXPOSED T-BAR GRID CEILINGS SHALL BE SUPPORTED FROM THE STRUCTURE WITH #12 WIRE AT OPPOSITE CORNERS OF THE FIXTURE, AND SHALL BE SECURELY FASTENED TO THE
- GRID. 7. EXTERIOR LIGHTING FIXTURES SHALL BE 'FULL CUT OFF' WHERE REQUIRED
- BY LOCATED ORDINANCES 8. EXTERIOR LIGHTING FIXTURES SHALL BE FURNISHED COMPLETE WITH GASKETS AND SHALL BE RATED FOR DAMP OR WET LOCATIONS.

GENERAL NOTES

- A. CONTRACTOR TO PROVIDE AND INSTALL ELECTRICAL WORK, ACCORDING TO PLANS.
- B. CONTRACTOR TO COORDINATE ELECTRICAL REQUIREMENTS FOR MECHANICAL AND PLUMBING WORK, PER 2017 N.E.C. AND APPLICABLE RULES, REGULATIONS, AND ORDINANCES.
- C. GENERAL NOTE: CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY DIMENSIONS OF SPACE AND QUANTITIES, SIZES, ETC. PRIOR TO CONSTRUCTION.
- D. PROVIDE COPPER WIRE THHN/ THHN #12 MINIMUM. CONDUITS SHALL BE EITHER RIGID OR EMT AS ALLOWED BY CODE. CONDUIT EXPOSED TO THE ELEMENTS OR BURIED UNDERGROUND SHALL BE WRAPPED WITH SCOTCH 51 TAPE OR EQUAL.
- E. MC CABLE IS ACCEPTABLE
- F. ROMEX CABLE IS NOT ACCEPTABLE
- G. ALUMINUM CONDUCTORS ARE NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER IN WRITING BEFORE BIDDING THE JOB.
- H. FOR RECEPTACLE HOMERUNS OVER 65 LINEAL FEET, USE #10 AWG FOR RECEPTACLE HOMERUNS OVER 115 FEET IN LINEAL FEET USE #8 AWG WIRE.
- I. EQUIPMENT, RACEWAYS, ETC, SHALL HAVE PROPER GROUNDING PER NATIONAL ELECTRICAL CODE.

ELECTRICAL SYMBOLS (NOT ALL USED)

SES	SERVICE ENTRANCE SECTION
	PANEL BOARD
\bigcirc	CEILING MOUNTED LIGHT FIXTURE.
\bigcirc	WALL MOUNTED LIGHT FIXTURE.
∼]	JUNCTION BOX IN ACCESSIBLE LOCATION ABOVE REMOVABLE (WITH FLEXIBLE CONDUIT CONNECTION TO LIGHT FIXTURE.
	FLUORESCENT LIGHT FIXTURE.
	FLUORESCENT LIGHT FIXTURE. CONNECT TO NON-SWITCHED L CIRCUIT SERVING SAME AREA. SEE LIGHT FICTURE SCHEDULE
	FLUORESCENT STRIP FIXTURE.
-2	FLEX CONNECTION TO EQUIPMENT. LIQUID TIGHT FLEX WHERI EXPOSED TO WEATHER.
J	JUNCTION BOX IN ACCESSIBLE LOCATION. NEMA 3R WHERE EXTO WEATHER.
\Rightarrow	DUPLEX CONVENIENCE RECEPTABLE AT +18° OR AS NOTED.
\bigcirc	RECEPTACLE AT FLOOR.
	FOUR-PLEX CONVENIENCE RECEPTACLE AT 18°OR AS NOTED.
-	SPLIT WIRED DUPLEX CONVENIENCE RECEPTACLE AT +18° OR NOTED.
\$ \$ \$ \$ 3 K 4	TOGGLE SWITCH —SINGLE POLE, THREE WAY, KEYED, FOUR W. INDICATES ILLUMINATED
\bowtie	MOTOR CONTROLLER, FURNISHED WITH EQUIPMENT.
	DISCONNECT SWITCH H.P. RATED, WITH DUAL ELEMENT TIME—E FUSED (CLASS RK1), NEMA 3R ENCLOSURE WHERE EXPOSED WEATHER. FUSE PER EQUIPMENT MANUFACTURE'S RECOMMENE N.F. INDICATES NON—FUSED.
M	MOTOR, SIZE AND RATING AS NOTED.
	TELE/DATA OUTLET @ +18" WITH 3/4" STUD ABOVE CEILING.
M	TELE/DATA OUTLET @ 44" WITH 3/4" STUD ABOVE CEILING.
	CIRCUIT IN CONDUIT, CONCEALED IN OR UNDER FLOOR. HAS INDICATES QUANTITY OF CONDUCTORS. NO MARKS INDICATE CONDUCTORS, PLUS EQUIPMENT AND IG GROUNDS. (NOTE: V OR CONDUIT SIZE SHOWN AT HOMERUN IS MINIMUM SIZE FOF CIRCUIT: 12# MINIMUM). LONG STROKE(S) INDICATES NEUTRA CONDUCTOR(S), SHORT STROKES INDICATES PHASE OR SWITCH CONDUCTORS, (TYPICAL). EACH ISOLATED GROUND CIRCUIT S HAVE A SEPARATE NEUTRAL AND IG GROUND WIRE. GROUND ARE NOT SHOWN ON DRAWINGS. GROUND WIRES SHALL BE INSULATED COPPER.

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	ELECTRIC EQUIMENT SCHEDULE									
ID	QTY	DESCRIPTION	MODEL	V/Ø	кw	HP	FLA	Δ 125%	CONNECTION	REMARKS
HP-1	1	4-TON PACKAGED HEAT PUMP	CARRIER / HCQ05	208-3Ø	-	-1	24.0	30.0	DIRECT	EXISTING
BREF	1	BAR REFRIGERATOR	BYOWNER	120/1Ø	-	-	13.0	16.3	PLUG	NEW
ICE	1	ICE MAKER	BYOWNER	120/1Ø	-	-	10.0	12.5	PLUG	NEW

	LIGHTING FIXTURE SCHEDULE								
SYMBOL	DESCRIPTION	MAKE & MODEL	EXISTING OR NEW	v	QTY.	LAMP TYPE	WATTAGE PER FIXTURE	MOUNTING	REMARKS
+	4" LOW VOLTAGE DOWNLIGHT	LITON/LHS1499/LR1421	E	120	8	LED	37	RECESSED	MR16 LED BAFLE WITH INTEGRAL TRANSFORMER
	6"Ø DOWNLIGHT	LITON/LH7-LLF-120V-GU24-LBL12	E	120	3	LED	12	RECESSED	LED DOWNLIGHT, BAFLE
ο	PUCK LIGHT	BY CONTRACTOR	Ν	120	3	LED	7	RECESSED	NEW
◀◕	EMERGENCY LIGHT / EXIT SIGN COMBO	BY CONTRACTOR	Ν	120	4	LED	5	SURFACE	WITH 90 MIN. BATTERY BACKUP
ť	EMERGENCY LIGHT	BY CONTRACTOR	Ν	120	2	LED	5	SURFACE	WITH 90 MIN. BATTERY BACKUP

MENDATIONS,

PR DE Cł	OJECT NO.: T SIGNED BY: D DRAWN BY: G IECKED BY: D	P2301 9G 9B 9G
NO.	REVISION	DATE
	ENGINEERING	SEAL
E	Protessional Engine Protessional Engine Second Engine Second Engine Second Engine Second Engine GARCIA-ACOS GARCIA-ACOS GARCIA-ACOS CONA, U.S.	STA D/23
	C	
	GARDE engine	ering
MEC	HANICAL & EL ENGINEERIN S. 48TH ST.	ECTRICAL NG SUITE 101
OFI MO	TEMPE, AZ 8 FICE: (480)36 BILE: (480)21	5281 1–3667 7–5853
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ENGINEER FOR AN ORIGIN PI	ING, LLC. AND SHAL IY OTHER PURPOSE IALLY INTENDED WITH ERMISSION OF THE I	L NOT BE USED OTHER THAN HOUT WRITTEN ENGINEER.
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SPECIFICATIONS





DEMOLITION NOTES (WHERE APPLICABLE)

- 1. COMPLETE DEMOLITION SCOPE SHALL BE UNDERSTOOD BY REVIEWING THE COMPLETE PROJECT DRAWINGS (ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, FIRE PROTECTION, ETC.) PRIOR TO DEMOLITION OF ANY EQUIPMENT OR SYSTEMS.
- 2. DISPOSE OF ALL REMOVE SYSTEMS AND EQUIPMENT IN A LEGAL AND OWNER APPROVED MANNER.
- 3. COORDINATE WITH OWNER EQUIPMENT THAT IS TO BE RETURNED TO OWNER'S STOCK, SALVAGED, OR DISPOSED OF ITEMS LISTED TO BE DEMOLISHED SHALL BE COMPLETELY REMOVED INCLUDING ALL ACCESSORIES INCLUDING BUT NOT LIMITED TO: INSULATION, HANGERS, CONTROLS WIRING, FITTINGS, PIPES VALVES, DUCTWORK, ETC.
- 4. NOTHING SHALL BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED ON PLANS OR APPROVED BY OWNER.

GENERAL NOTES

A. ALL LIGHTING FIXTURES ARE EXISTING U.N.O. B. ALL NEW ELECTRICAL SYSTEM SHALL COMPLY WITH 2017 NEC AND 2018 IECC.

ELECTRICAL NOTES

A. EVERY CIRCUIT AND MODIFICATION SHALL BE LEGIBLE IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. NEC 408.4(A)

IECC NOTES

A. PROVIDE EMERGENCY LIGHT WITH BATTERIES. LOWER CONSUMPTION. B. PROVIDE AUTOMATIC LIGHTING CONTROL FOR ENTIRE BUILDING.

KEYNOTES

- (1) EXITING PANEL "HM" TO REMAIN
- 2) EXITING PANEL "H#2" TO REMAIN
- (3) EXITING PANEL "H" TO REMAIN
- 4 EXISTING PART OF WALL TO BE DEMOLISH BY OTHER, REMOVE ALL SWITCH, RECEPTACLES, AND ASSOCIATED WIRING AND BOXES PRIOR DEMOLITION.
- 5 EXISTING LIGHTING FIXTURE TO REMOVE
- 6 EXISTING LIGHTING FIXTURE TO REMAIN, RE ARRANGE LOADS PER PANEL SCHEDULE, SEE PANEL SCHEDULE.
- (7) NO WORK/CHANGES ON THIS AREA
- 8 EXISTING WALL REMAINS.



PR DE CH	OJECT NO.: T SIGNED BY: D DRAWN BY: G IECKED BY: D	P2301 G B G
NO.	REVISION	DATE
	ENGINEERING	SEAL
	Protessional Engine Protessional Engine CERTIFICATE S2650 DAVID GARCIA-ACOS	at the actrical
	Coned. St. A	
E	(PIRES 09/30)/23
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		ering
441	ENGINEERIN S. 48TH ST.	SUITE 101
OFF MOI	TEMPE, AZ 8 FICE: (480)36 BILE: (480)21	5281 1-3667 7-5853
THE IN DRAWIN CONCE	WW. GARDELENGINEE FORMATION CONTAIN GS SUCH AS DATA, PTS, ARE PROPERTY	RING.COM ED ON THESE DESIGNS, AND OF GARDEL
Engineer For An Origin Pe	ing, LLC. And Shal IY other purpose Ally intended with RMISSION of the e	L NOT BE USED OTHER THAN HOUT WRITTEN ENGINEER.
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	E2	
SHEE	T TITLE: ELECTRICA	

ELECTRICAL NOTES

A. EVERY CIRCUIT AND MODIFICATION SHALL BE LEGIBLE IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. NEC 408.4(A)

KEYNOTES POWER PLAN

- 1) EXITING PANEL "HM" RATED AT 225A 480/277, 3Ø, 4W NEMA1 SEE PANEL SCHEDULE
- 2) EXITING PANEL "H" RATED AT 400A 208/120, 3Ø, 4W NEMA1 SEE PANEL SCHEDULE

- 4 EXISTING LIGHTING FIXTURE (TYP.)
- 7 NEW EMERGENCY LIGHT WITH EXIT SING COMBO CONNECTED TO BRANCH CIRCUIT THAT SERVER
- (8) NEW LIGHTING FIXTURE.



3 EXITING PANEL "H2" RATED AT 400A 208/120, 30, 4W NEMA1 SEE PANEL SCHEDULE

(5) NEW LIGHTING FIXTURE CONNECTED TO BRANCH BISCUITS AS NOTED (TYP) (6) NEW EMERGENCY LIGHT CONNECTED TO BRANCH CIRCUIT THAT SERVER

ELECTRICAL POWER PLAN SCALE: 1/2" = 1'-0"

ELECTRICAL NOTES

A. EVERY CIRCUIT AND MODIFICATION SHALL BE LEGIBLE IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. NEC 408.4(A)

KEYNOTES ROOFTOP

- 1) EXITING PANEL "HM" RATED AT 400A 480/277, 3Ø, 4W NEMA1 SEE PANEL SCHEDULE
- 2 EXITING PANEL "H" RATED AT 400A 208/120, 3Ø, 4W NEMA1 SEE PANEL SCHEDULE
- 3 EXITING PANEL "H2" RATED AT 400A 208/120, 3Ø, 4W NEMA1 SEE PANEL SCHEDULE
- EXISTING 4-TON HEAT PUMP PACKAGE UNIT TO REMAIN ON ROOFTOP. NO WORK REQUIRED.
- 5 EXITING 20A, 120V GENERAL USE RECEPTACLE +18" AFF, CONNECTED AS BRANCH CIRCUIT AS NOTED.
- 6 NEW 120V, 20A, GFCI RECEPTACLE +42"AFF (TYP.) CONNECTED AS BRANCH CIRCUIT AS NOTED.
- 7 NEW 120V, 20A, GFCI RECEPTACLE CONNECTED AS BRANCH CIRCUIT AS NOTED.
- (8) NEW JUNCTION BOX AT CEILING AND BRANCH CIRCUIT CONNECTED AS SHOW

PROJECT NO.: TP2301
DESIGNED BY: DG DRAWN BY: GB CHECKED BY: DG
NO. REVISION DATE
ENGINEERING SEAL
Professional Engineer Professional Engineer CERTIFICATE NO 52650 DAVID CERTIFICATE NO 52650 TTI CARCIA-ACOSTA
EXPIRES 09/30/23
GARDEL engineering
MECHANICAL & ELECTRICAL ENGINEERING
441 S. 48TH ST. SUITE 101 TEMPE, AZ 85281 OFFICE: (480)361–3667
MOBILE: (480)217-5853 www. gardelengineering.com
THE INFORMATION CONTAINED ON THESE DRAWINGS SUCH AS DATA, DESIGNS, AND CONCEPTS, ARE PROPERTY OF GARDEL ENGINEERING, LLC. AND SHALL NOT BE USED FOR ANY OTHER PURPOSE OTHER THAN
ORIGINALLY INTENDED WITHOUT WRITTEN PERMISSION OF THE ENGINEER.
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SHEET TITLE:
ELECTRICAL LIGHTING AND POWER PLAN

PANEL "H2" SCHEDULE

CODITION: EXISTING VOLTAGE: 208/120 PHASES/WIRES: 3Ø, 4W LUG AMPS: 400

BREAKERS SCC: 10 KA RATED: FULLY NEMA: 1 MOUNTING: SURFACE TYPE: BOLT-ON

MAIN CB: M.L.O LOCATION: INTERIOR

FED FROM: PANEL H FEED THROUGH

***** EXISTING LOAD ON EXISTING BREAKER

NEW LOAD

 \triangle CONTINUOUS LOAD (125%)

O LOAD CONTROLLED VIA TIMER/PHOTOCELL					O LOAD CONTROLLED VIA TIMER/PHOTOCELL																
USE/AREA SERVED	C/B	WIR		CIR#	A AØ	AMPS BØ	cø	CIR# WIR	ING	C/B	USE/AREA SERVED	USE/AREA SERVED	C/B	WIRI	IG CIR#	A AØ	MPS BØ	CIR#	WIRING	C/B	USE/AREA SERVED
	25/2			1 :	18.2 8.7			2 _{EVIS}	TNC	20/2		* RCPT ADMIN AREA	20/1	EXISIT	NG 1	6.0 10.0		2	EXISITNG	20/1	★ LIGTHIING SITE
★ MECH EXISTING ROOFTOP A/C 35/2 EXISTING	3		3	_	18.2 8.7	_	4	ING	20/2		★ LIGTHING IN DINING AREA	20/1	EXISIT	NG 3	1	2.5 10.0	4	EXISITNG	20/1	★ LIGTHIING SITE	
* RCEPT ROOF GFCI	20/1	EXIT	'ING -	5			3.0 17.4	6				★ LIGTHING FINE DINING	20/1	EXISIT	NG 5		:	4.5 6	EXISITNG	20/1	* RCPT GENERAL
* RCPT	20/1	EXIT	ING	7	3.0 17.4			8 EXIS	TNG	25/3	★ MECH EXISTING ROOFTOP A/C	* RCPT ADMIN AREA	20/1	EXISIT	NG 7	7.5 3.0		8	EXISITNG	20/1	* RCPT GENERAL
★ MISC SALAD BAR	20/1	EXIT	'ING -	9	E	7.0 17.4		10				* RCPT ADMIN AREA	20/1	EXISIT	NG 9	1	7.5 10.6	10	EXISITNG	20/1	★ LIGTHING ENTRY/CLUBROOM
★ MISC SALAD BAR	20/1	EXIT	ING	11			8.0 4.5	12 EXIS	TNG	20/1	★ RCPT ROOF	* RCPT ADMIN AREA	20/1	EXISIT	NG 11	<u>.</u>		7.5 4.8 12	EXISITNG	20/1	★ LIGTHING DINING ROOM
★ MISC SALAD BAR	20/1	EXIT	ING	13	9.0 4.5			14 EXIS	TNG	20/1	★ RCPT ROOF	★ RCPT WATHER FOUNTAIN	20/1	EXISIT	NG 13	5.8 10.4		14	EXISITNG	20/1	★ LIGTHING SITE
★ MISC SALAD BAR	20/1	EXIT	'ING -	15		6.3 4.2		16 EXIS	TNG	20/1	★ MECH FAN	★ LIGTHING FINE DINING	20/1	EXISIT	NG 15	1	13.3 7.6	16	EXISITNG	20/1	★ MECH EXHUST FAN
* RCPT CLOSET	20/1	EXIT	'ING -	17			3.0 4.2	18 EXIS	TNG	20/1	★MECH FAN	★ LIGTHING BAR AREA	20/1	EXISIT	NG 17			8.2 7.5 18	EXISITNG	20/1	★ LIGTHING LOW VOLTAGE XFMR
★ RCPT	20/1	EXIT	'ING -	19	4.5 4.5			2# 20 1#3	12 2G	20/1	△● RCPT GFCI BAR AREA 1	* RCPT FLOOR 1	20/1	EXISIT	NG 19	7.5 3.0		20	EXISITNG	20/1	★ RCPT GENERAL
* RCPT	20/1	EXIT	ING -	21		4.5 4.5		2# 22 1#2	12 2G	20/1	△● RCPT GFCI BAR AREA 2	* RCPT FLOOR 2	20/1	EXISIT	NG 21	3	7.5 32.0	22	-		
★ RCPT	20/1	EXIT	'ING -	23			4.5 9.1	24 _{FXIS}	TNG	15/2		* RCPT FLOOR 3	20/1	EXISIT	NG 23			7.5 32.0 24	EXISITNG	50/3	★ MECH AIR MAKE UP UNIT
△● RCPT GFCI BAR AREA	20/1	2# 1#1	12 L2G	25	3.5 9.1			26		15/2		* RCPT GENERAL	20/1	EXISIT	NG 25	4.5 32.0		26	_		
△● RCPT GFCI BAR AREA (B-REF)	20/1	2# 1#1	12 L2G	27	L	11.9 16.6		28 EXIS	TNG	20/1	★ MISC SHADES MECHO	* RCPT GENERAL	20/1	EXISIT	NG 27		6.0 8.2	28	EXISITNG	20/1	★ LIGTHING CANOPY
△● RCPT GFCI BAR AREA (B-ICE)	20/1	2# 1#1	12 L2G	29			12.5 9.0	30 EXIS	TNG	20/1	★ RCPT AREA CLUBROOM	★ LIGTHING ADMIN BLDG 1	20/1	EXISIT	NG 29			8.7 7.9 30	EXISITNG	20/1	★ LIGTHING SOFFIT EXTERIOR
△● RCPT GFCI BAR AREA 3	20/1	2# 1#1	12 L2G	31	3.5 10.5			32 EXIS	TNG	20/1	★ RCPT PRIVATE DINING /HALL WAY	★ LIGTHING ADMIN BLDG 2	20/1	EXISIT	NG 31	9.6 6.0		32	EXISITNG	20/1	★ RCPT GENERAL
SPACE				33		12.0		34 EXIS	TNG	20/1	★ RCPT PRIVATE DINING /HALL WAY	SPARE	30/1		33		4.3	34	EXISITNG	20/1	★ RCPT GENERAL
SPACE			_	35			10.0	36 EXIS	TNG	20/1	* RCPT KITCHEN EQUIPMENT	✤ RCPT GFCI NEXT TO FOUNTAIN	20/1	EXISIT	NG 35			1.5 6.0 36	EXISITNG	20/1	★ RCPT GENERAL
$ riangle igoplus extsf{HANDICAP}$ door juction box	20/1	2# 1#1	12 L2G	37	3.5 10			38 EXIS	TNG	20/1	* RCPT KITCHEN EQUIPMENT	★ LIGTHING ADMIN BLDG 3	20/1	EXISIT	NG 37	8.7 4		38	EXISITNG	20/1	★ LIGTHING AT RESTROOMS
SPACE			_	38		10		40 EXIS	TNG	20/1	* RCPT KITCHEN EQUIPMENT	★ LIGTHING ADMIN BLDG 4	20/1	EXISIT	NG 39		10 3	40	EXISITNG	20/1	★ RCPT GENERAL
* MISC DUCT DETECT	20/1	EXIT	ING	41			2.91 6.6	42 EXIS	TNG	20/1	★ RCPT MUSIC SPEAKER SYSTEM	★ LIGTHING ADMIN BLDG 5	20/1	EXISIT	NG 41			8 14 42	EXISITNG	20/1	★ LIGTHING BUFFET AREA
EXISTING LOAD PER PHASE 94.8 105.0 82.3 ADD LOAD PER PHASE 15.0 16.3 12.4 MAX CONNECTED LOAD = 121 A NEW LOAD PER PHASE (TOTAL) 109 8 121 3 94 7					CONNECTED LOAD = 121 A	LOAD PER PHASE (TOTAL) 118.0 122.3 139.1 MAX CONNECTED I				CONNECTED LOAD = 139 A											

PANEL "H" SCHEDULE

CODITION: EXIXTING VOLTAGE: 208/120 PHASES/WIRES: 3Ø, 4W LUG AMPS: 400

BREAKERS SCC: 10KA RATED: FULLY NEMA: 1 MOUNTING: SURFACE

TYPE: BOLT-ON MAIN CB: 400/3 35KA LOCATION: INTERIOR FED FROM: E) XFMR

EXISTING LOAD ON EXISTING BREAKER

NEW LOAD

 \triangle CONTINUOUS LOAD (125%)

COM*check* Software Version 4.1.5.5 Interior Lighting Compliance Certificate

Project Information Energy Code: Project Title: Project Type:

2018 IECC BAR AT TRERRACES Alteration

Owner/Agent:

Construction Site: 7550 N 16TH ST PHOENIX, AZ 85020 Designer/Contractor: DAVID GARCIA ACOSTA GARDEL ENGINEERING LLC 441S 48th St Ste101 TEMPE AZ, AZ 85281 480-361-3667

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft	Allo 2 (D wed Watts B X C)
Dining: Cafeteria/Fast Food	467	0.79		369
reposed Interior Lighting Dower	То	tal Allowed W	/atts =	369
A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
ining: Cafeteria/Fast Food (467 sq.ft.)				
LED 1: LED Linear 33W:	1	8	37	296
LED 2: LED A Lamp 13W:	4	3	13	39
LED 3: LED A Lamp 7W:	1	4	7	28
		Total Propos	ed Watts =	363

nterior Lighting PASSES

Interior Lighting Compliance Statement		
Compliance Statement: The proposed interior I building plans, specifications, and other calcular systems have been designed to meet the 2018 applicable mandatory requirements listed in the	ighting alteration project represented in this docume tions submitted with this permit application. The pro IECC requirements in COMcheck Version 4.1.5.5 and e Ip spect ion Checklist.	ent is consistent with the posed interior lighting to comply with any
David Garcia-Acosta - PE	p()and mm	02/08/23
Name - Title	Signature	Date

KEY PLAN - COMMONS BUILDING

SCALE: 1/32" = 1'-0"

LOAD CALCULATION
LOAD CONNECTED PANEL H & H2 208 = 233A <u>NEW LOAD AT PANEL "H2" AT 120V = 16.3A (MINIMAL LOAD</u> ADDED) TOTAL = 249.3A
EXISTING S.E.S. IS RATED AT 2000A, 480/277V,3ø, 4W, NEMA, 3R.

		SHORT CIRCUIT	LINE			CONDUCTORS				
FAULT POINT	EQUIPMENT	AT BEGINNING OF RUN	VOLTAGE	LENGTH OF RUN	Remarks	NUM OF CONDUCTORS	SIZE	С	f	
F1	PANEL "DP1"	35000	480	100		2	#600	28033	0.225	
F2	PANEL "HM"	28565	480	80		2	3/0 Cu	12843	0.321	
F3	XFMR "T"	21624	480	8		1	4/0 Cu	8924	0.070	
F4	PANEL"H"	20210	480	3.75		2	3/0 Cu	12843	5.730	

KEYNOTES

- (1) EXISTING S.E.S. TO REMAIN RATED FOR 2000A, 480/277V, 30, 4W, NEMA 3R BRACED FOR 35KA.
- 2 EXISTING DISTRIBUTION PANEL BOARD "DP1", TO REMAIN RATED AT 800 A 480/277V, 3Ø, 4W, NEMA3R BRACED FOR 35KA.
- (3) EXITING PANEL "HM" RATED AT 400A 480/277, 30, 4W NEMA1 SEE PANEL SCHEDULE
- (4) EXITING PANEL "H" RATED AT 400A 208/120, 3Ø, 4W NEMA1 SEE PANEL SCHEDULE
- 5 EXITING PANEL "H2" RATED AT 400A 208/120, 30, 4W NEMA1 SEE PANEL SCHEDULE

SHEET TITLE: ELECTRICAL SITE PLAN & ONE LINE DIAGRAM

PROJECT NO.: TP2301

ENGINEERING SEAL

52650 DAVID Ž(GARCIA−ACOSTA)

DATE

DESIGNED BY: DG DRAWN BY: GB CHECKED BY: DG

NO. REVISION