# **RIVERSIDE SCHOOL DISTRICT** FIT-OUT OF CONCESSION AREA & RESTROOMS



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# Client : Riverside School District

# APPLICABLE CODE | CODE ANALYSIS

PLY TO THIS PROJECT:	<u>M</u>	EANS OF EGRESS:				
NATIONAL BUILDING CODE		HORZ. EGRESS WIDTH REQUIRED:	3 x 0.20 in = 0.6" (IBC Section 1005.3.2)			
RNATIONAL ENERGY CONS	ERVATION CODE	HORZ. EGRESS WIDTH PROVIDED:	2 Exits Provided = 32" x 2 = 64"			
NATIONAL MECHANICAL CO	DDE	EXIT ACCESS TRAVEL DISTANCE:	300' Without Sprinkler (IBC Table 1017.2)			
NATIONAL PLUMBING CODE	E		Max. Travel Distance Provided = 40'			
RNATIONAL FUEL GAS COD	E	EXITS REQUIRED:	(1) Exit Req'd (IBC Section 1006.3.3(2))			
ONAL ELECTRICAL CODE			(2) Exits Provided			
2017 ACCESSIBLE AND USA	ABLE BLDGS & FACILITIES & 2018 IBC - CH. 11					
	<u>A</u>	CCESSIBILITY:				
INFORMATION:		ACCESSIBLE ROUTE:	Accessible Route is Provided to All			
RIES:	1 Level		Areas of Bldg Suite, to All Exits and to			
	1,280 SF		Accessible Parking Spaces			
TRUCTION TYPE:	V-B (IBC Table 503)	THRESHOLDS @ DOORS & FLR CHANGES:	S: 1/2" Max. Signage to be Provided at <u>ALL</u> Accessible Entrances, Toilet Rooms			
GHT & BUILDING AREA:	NS - 1 Stories and 40 feet	SIGNAGE:				
	(IBC Table 504.3 504.4)					
	NS - 5,500 SF Max.		and Parking Spaces.			
	(IBC Table 506.2)					
	<u>E</u>	NERGY CONSERVATION:				
		* IEBC Section 711: Alterations to existing bldgs are permitted without rec	quiring the entire bldg. to comply with the energy requirements of th	ne IECC.		
UPANCY GROUP:	U (Utility And Miscellaneous) (IBC Section 312)	The alterations shall conform to the requirements of the IECC as they rela	ate to new construction only			
UNT:	Utility: 1,280 / 500 G = 3		Luzerne County - 54			
	3 Occupants (IBC Table 1004.5)	BOOES (Attin & Other):				
		NOURS (Allic & Other).	R - 30			
		WALLS, ABOVE GRADE (Wood Framed):	R-13 + R-3.801 OF R-20			
		ci = Continuous Insulation				
DN:	NOT SPRINKLERED					
INKLER SYSTEMS:						
	Not Required (IBC Section 903)					
E RATINGS:	Not Required (IBC Section 903) Building Elements <i>(IBC Table 601)</i>		Qtv x Max Occupancy	Total Occ.		
E RATINGS:	Not Required (IBC Section 903) Building Elements ( <i>IBC Table 601)</i> Primary Structural Frame - 0hr	MAXIMUM OCCUPANCY PER FIXTURES:	Qty x Max Occupancy (A-5) (IBC Section 2902.1)	Total Occ.		
E RATINGS:	Not Required (IBC Section 903) Building Elements <i>(IBC Table 601)</i> Primary Structural Frame - 0hr Nonbearing Interior Walls - 0hr	MAXIMUM OCCUPANCY PER FIXTURES:	<u>Qty x Max Occupancy</u> (A-5) <i>(IBC Section 2902.1)</i>	<u>Total Occ.</u> 345		
E RATINGS:	Not Required (IBC Section 903) Building Elements <i>(IBC Table 601)</i> Primary Structural Frame - 0hr Nonbearing Interior Walls - 0hr Floor / Ceiling Construction - 0hr	MAXIMUM OCCUPANCY PER FIXTURES:	Qty x Max Occupancy (A-5) (IBC Section 2902.1)	<u>Total Occ.</u> 345		
E RATINGS:	Not Required (IBC Section 903) Building Elements <i>(IBC Table 601)</i> Primary Structural Frame - 0hr Nonbearing Interior Walls - 0hr Floor / Ceiling Construction - 0hr Roof Construction - 0hr	MAXIMUM OCCUPANCY PER FIXTURES:	Qty x Max Occupancy (A-5) (IBC Section 2902.1) 3 / 75	<u>Total Occ.</u> 345 225		
E RATINGS: EXTINGUISHERS:	Not Required (IBC Section 903) Building Elements <i>(IBC Table 601)</i> Primary Structural Frame - 0hr Nonbearing Interior Walls - 0hr Floor / Ceiling Construction - 0hr Roof Construction - 0hr (2) Provided, Tavel Distance Not Greater Than 75'	MAXIMUM OCCUPANCY PER FIXTURES: WC MALE: WC FEMALE:	<u>Qty x Max Occupancy</u> (A-5) <i>(IBC Section 2902.1)</i> 3 / 75 3 / 40	<u>Total Occ.</u> 345 225 120		
E RATINGS: EXTINGUISHERS: ON:	Not Required (IBC Section 903) Building Elements <i>(IBC Table 601)</i> Primary Structural Frame - 0hr Nonbearing Interior Walls - 0hr Floor / Ceiling Construction - 0hr Roof Construction - 0hr (2) Provided, Tavel Distance Not Greater Than 75' Hard Wired Smoke Detectors To Be Provided	MAXIMUM OCCUPANCY PER FIXTURES: WC MALE: WC FEMALE: LAVS (MALE)	Qty x Max Occupancy (A-5) (IBC Section 2902.1) 3 / 75 3 / 40 2 / 200	<u>Total Occ.</u> 345 225 120 400		
E RATINGS: EXTINGUISHERS: ON:	Not Required (IBC Section 903) Building Elements <i>(IBC Table 601)</i> Primary Structural Frame - 0hr Nonbearing Interior Walls - 0hr Floor / Ceiling Construction - 0hr Roof Construction - 0hr (2) Provided, Tavel Distance Not Greater Than 75' Hard Wired Smoke Detectors To Be Provided Illuminated Exit Signs To Be Provided as Req'd	MAXIMUM OCCUPANCY PER FIXTURES: WC MALE: WC FEMALE: LAVS (MALE):	Qty x Max Occupancy (A-5) (IBC Section 2902.1) 3 / 75 3 / 40 2 / 200 2 / 150	<u>Total Occ.</u> 345 225 120 400 300		

# **ABBREVIATIONS**

						<b>- v</b> 1		<u></u>					
BSMT	BASEMENT	DIM	DIMENSION	EXIST	EXISTING	IC	IN CONTRACT	OPNG	OPENING	REF	REFRIGERATOR	TSSP	TAPED SPACKLED SANDED & PAIN
СН	CEILING HEIGHT	DN	DOWN	EXT	EXTERIOR	INSUL	INSULATION	OSB	ORIENTED STRAND BOARD	REQ'D	REQUIRED	TYP	TYPICAL
CJ	CONTROL JOINT	DR	DOOR	FD	FLOOR DRAIN	INT	INTERIOR	OTB	OPEN TO BELOW	RM(S)	ROOM(S)	UNO	UNLESS NOTED OTHERWISE
CL	CENTER LINE	DWG(S)	DRAWING(S)	FE	FIRE EXTINGUISHER & CABINET	LAV	LAVATORY	Р	PAINT	RO	ROUGH OPENING	UL	UNDERWRITERS LABORATORIES
CLOS	CLOSET	DWLS	DOWELS	FF	FINISH FLOOR	мо	MASONRY OPENING	PC	PLUMBING CONTRACTOR	S	SOUTH	VB	VAPOR BARRIER
CS	COURSE	Е	EAST	FIN	FINISH	MFR	MANUFACTURER	PERF	PERFORATED	SHT	SHEET	VCT	VINYL COMPOSITION TILE
CMU	CONCRETE MASONRY UNIT	EA	EACH	FLR	FLOOR	MIN	MINIMUM	PLF	POUNDS PER LINEAR FOOT	SPEC	SPECIFICATIONS	VERT	VERTICAL
CONC	CONCRETE	EC	ELECTRICAL CONTRACTOR	GC	GENERAL CONTRACTOR	MISC	MISCELLANEOUS	PLYWD	PLYWOOD	SQ	SQUARE	VIF	VERIFY IN FIELD
CONT	CONTINUOUS	EIFS	EXTERIOR INSULATED	GWB	GYPSUM WALL BOARD	MTL	METAL	PMF	PRE MOLDED FILLER	STD	STANDARD	VTR	VENT TO ROOF
CPT	CARPET		FINISH SYSTEM	НВ	HOSE BIB	Ν	NORTH	PSF	POUNDS PER SQUARE FOOT	STL	STEEL	W	WEST
СТ	CERAMIC TILE	ELEV	ELEVATION	HC	HANICAPPED	NA	NOT APPLICABLE	PT	PRESSURE TREATED	STRUCT	STRUCTURAL	W/	WITH
DBL	DOUBLE	EPX	EPOXY	HDR	HEADER	NIC	NOT IN CONTRACT	PVC	POLYVINYL CHLORIDE	SUSP	SUSPENDED	W/O	WITHOUT
DEMO	DEMOLITION	EQ	EQUAL	НМ	HOLLOW METAL	NTS	NOT TO SCALE	RAD	RADIUS	TBD	TO BE DETERMINED	WD	WOOD
DS	DOWNSPOUT	EQUIP	EQUIPMENT	HORIZ	HORIZONTAL	ос	ON CENTER	RCP	REFLECTED CEILING PLAN	TBR	TO BE REMOVED	WP	WATERPROOF
DIA	DIAMETER	EXH	EXHAUST	НТ	HEIGHT	OFE	OWNER FURNISHED EQUIPMENT	RD	ROOF DRAIN	T&G	TONGUE & GROOVE	WWF	WELDED WIRE FABRIC

# GENERAL NOTES

- 10. COORDINATION OF ALL WORK BETWEEN DIFFERENT TRADES IS THE
  - RESPONSIBILITY OF THE GENERAL CONTRACTOR 11. DIMENSIONS ARE TO BE COORDINATED WITH ALL DISCIPLINES, VENDORS, AND DEVICES TO ASSURE PROPER PLACEMENT AND WARRANTY
  - REQUIREMENTS. 12. THE DRYWALL SYSTEM IS BASED ON THE DETAILS OF THE U.S. GYPSUM
  - COMPANY. 13. ALL GYPSUM ABUTTING OTHER MATERIALS IS TO BE FINISHED WITH METAL
  - EDGES. 14. WATER RESISTANT GYPSUM BOARD DENS ARMOR PLUS IS TO BE USED BEHIND
  - ALL PLUMBING FIXTURES. 15. ALL GWB IS TO BE PAINTED (2) COATS PRIME, (1) COAT FINISH.
  - 16. FOR EASE OF PARTITION LAYOUT, ALL STANDARD DRYWALL PARTITIONS ARE DIMENSIONED TO FINISHED FACE OF PARTITION. 17. ALL FRAMING LUMBER TO BE 16" O.C. UNLESS SPECIFIED OTHERWISE.
- 18. ALL EXTERIOR WALLS ARE TO BE 2X6 FRAMING, ALL INTERIOR WALLS TO BE 2X4 FRAMING. ALL FRAMING SPECIFIED SAHLL BE SPF (NORTH) #1 / #2 OR BETTER. WALL STUDS TO BE MIN. SPF #3 STANDARD OR STUD GRADE AS SPECIFIED IN CODE.
- 19. PROVIDE DOUBLE STUDS AT ALL DOOR, WINDOW AND DRYWALL OPENINGS. 20. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROVIDING ALL NECESSARY BLOCKING WITHIN ANY WALLS FOR WALL MOUNTED CABINETS, MILLWORK, GRAB BARS, AND OWNER
- FURNISHED EQUIPMENT. ALL FLOORING MATERIAL CHANGES SHALL (UNLESS OTHERWISE NOTED) SHALL OCCUR AT THE CENTERLINE OF A DOOR WITH A DIVIDER STRIP OR T-MOLD. COLOR AS SELECTED BY OWNER.





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ACCOMMODATING ITEMS INSTALLED LATER.

1. THE FOLLOWING APPLY TO ALL SUBSEQUENT SECTIONS AND WORK ON THE

2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE

WORK OF THE PROJECT. IF A CODES, REGULATIONS, AND/OR DRAWINGS

3. CONTRACTOR SHALL THROUGHLY STUDY THE DRAWINGS AND SHALL VISIT

THE SITE TO AQUAINT THEMSELVES WITH ALL EXISTING CONDITIONS

AFFECTING THE INSTALLATION OF WORK IN ACCORDANCE WITH THE

DESIGN INTENT OF THESE DOCUMENTS. ANY CONFLICTS SHOULD BE

BROUGHT TO THE ARCHITECTS ATTENTION FOR CLARIFICATION PRIOR

TO SUBMITTING A BID OR SIGNING A CONTRACT TO PERFORM THE WORK.

4. SUBMIT ALTERNATES OR PROPOSED SUBSTITUTION WITH A FULL DESCRIPTION

OF THE PROPOSED CHANGE AND THE AFFECT ON ADJACENT AND/OR RELATED

WORK. PROVIDE DETAILED DESCRIPTION OF SUBSTITUTIONS TO FACILITATE

5. COORDINATE SCHEDULING, SUBMITTALS, AND WORK OF THE VARIOUS TRADES

TO ASSURE EFFICIENT AND ORDERLY SEQUENCE OF INSTALLATION OF

INTERDEPENDENT CONSTRUCTION ELEMENTS, WITH PROVISIONS FOR

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION

FROM THE ARCHITECT BEFORE PROCEEDING. LARGE SCALE DRAWINGS

OR VARIANCES FROM APPROVED PLANS MUST BE SUBMITTED TO LOCAL

TO ACCUMULATE ON THE SITE DURING CONSTRUCTION. SAFE WORKING

CONDITIONS SHALL BE MAINTAINED AT ALL TIMES. WHEN ANY PART OF

THE STRUCTURE IS OPEN TO THE EXTERIOR, PROTECT INTERIOR FROM

COORDINATE COMPLETION AND CLEAN UP OF WORK OF SEPARATE TRADES.

12. SHOP DRAWINGS: SUBMITTED FOR REVIEW FOR THE LIMITED PURPOSE OF

13. MARK EACH SHOP DRAWING TO IDENTIFY APPLICABLE PRODUCTS, MODELS,

INTERFACING WORK. COLORS TO BE SELECTED FROM MANUFACTURER'S

ASSESSING CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN

DELIVERY, STORAGE, ASSEMBLY, INSTALLATION, START-UP (IF APPLICABLE)

17. MONITOR QUALITY CONTROL OVER SUPPLIERS, MANUFACTURERS, PRODUCTS,

18. COMPLY WITH SPECIFIED STANDARDS AS MINIMUM QUALITY FOR THE WORK

EXCEPT WHERE MORE STRINGENT TOLERANCES, CODES, OR SPECIFIED

19. FOR PRODUCTS OR WORKMANSHIP SPECIFIED BY ASSOCIATION, TRADE, OR

STANDARD, EXCEPT WHEN MORE RIGID REQUIREMENTS ARE SPECIFIED

THIS PROJECT SHALL COMPLY WITH THE STATE HANDICAP CODE. THE

21. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL DELIVER TO

ADA REQUIREMENTS ARE FEDERAL AND CANNOT BE ENFORCED LOCALLY.

THIS PROJECT MAY BE SUBJECT TO THE ARCHITECTURAL STANDARDS OF

PERMIT DOES NOT CERTIFY COMPLIANCE WITH THE FEDERAL GUIDELINES.

THE AMERICANS WITH DISABILITIES ACT OF 1990. INSURANCE OF A BUILDING

THE OWNER A COMPLETE SET OF AS-BUILT DRAWINGS SHOWING LOCATIONS

OF WORK INSTALLED, INCLUDING CHANGES TO ALL UNDERGROUND UTILITIES,

INSURANCE: THE CONTRACTOR & SUB-CONTRACTORS MUST CARRY \$1,000,000

INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURE'S INSTRUCTIONS AND

MINIMUM COVERAGE OF WORKMAN'S COMPENSATION & GENERAL LIABILITY

WORKMANSHIP & CODES: ALL WORK SHALL CONFORM TO BEST INDUSTRY

RECOMMENDATIONS. ALL STANDARDS PROVIDED AND WORK PERFORMED

MUST CONFORM AND / OR BE ADJUSTED TO CONFORM TO ANY AND ALL

STANDARDS, AND ALL MATERIALS SHALL BE NEW, FIRST QUALITY AND

CERTIFICATES, AFFIDAVITS, OPERATION INSTRUCTIONS, MANUFACTURE'S

INSTRUCTIONS ON ALL EQUIPMENT, AND DEMONSTRATE THAT ALL IS IN

OTHER CONSENSUS STANDARDS, COMPLY WITH REQUIREMENTS OF THE

REQUIREMENTS INDICATE HIGHER STANDARDS OR MORE PRECISE

20. ALL HANDICAP REQUIREMENTS (INCLUDING DOOR HARDWARE) FOR

SERVICES, SITE CONDITIONS, AND WORKMANSHIP, TO PRODUCE WORK OF

15. SUBMIT TEST REPORTS FOR INFORMATION FOR THE LIMITED PURPOSE OF

16. SUBMIT AND FOLLOW MANUFACTURER'S PRINTED INSTRUCTIONS FOR

10. VERIFY THAT SITE CONDITIONS AND SUBSTRATE SURFACES ARE ACCEPTABLE

FOR SUBSEQUENT WORK. BEGINNING NEW WORK MEANS ACCEPTANCE OF

11. VERIFY THAT EXISTING OR INSTALLED SUBSTRATE IS CAPABLE OF STRUCTURAL

CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN

OPTIONS, AND OTHER DATA. SUPPLEMENT MANUFACTURERS' STANDARD DATA

FULL RANGE OF STANDARD COLORS AND FINISHES UNLESS NOTED OTHERWISE.

6. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE

7. ANY DEVIATION FROM THE PLANS AND SPECIFICATIONS MUST

OR DETAILS SHALL GOVERN OVER SMALLER SCALED DRAWINGS.

BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. ANY CHANGES

CODE ENFORCEMENT FOR REVIEW AND APPROVAL, PRIOR TO ANY

8. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE PREMISES

ATTACHMENT OF NEW WORK BEING APPLIED OR ATTACHED.

CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.

TO PROVIDE INFORMATION SPECIFIC TO THIS PROJECT.

CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.

14. SUBMIT SAMPLES TO ILLUSTRATE FUNCTIONAL AND AESTHETIC

CHARACTERISTICS OF THE PRODUCT, WITH INTEGRAL PARTS AND

ATTACHMENT DEVICES. COORDINATE SAMPLE SUBMITTALS FOR

CLEAN DURING CONSTRUCTION. TRASH WILL NOT BE ALLOWED

AND LOCAL CODES AND REGULATIONS WHEN CARRYING OUT THE

CONFLICT THE MOST STRINGENT SHALL TAKE PRECEDENCE.

GENERAL

PROJECT.

APPROVAL

WORK COMMENCING.

WIND, RAIN AND VANDALISM.

ADJUSTING, AND FINISHING.

OR ARE REQUIRED BY APPLICABLE CODES.

SPECIFIED QUALITY.

WORKMANSHIP.

EXISTING CONDITIONS

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### SECTION 033000 - CAST-IN-PLACE CONCRETE

1.1 QUALITY ASSURANCE A. QUALITY STANDARD: ACI 301.

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- B. MOCKUPS TO DEMONSTRATE TYPICAL JOINTS, SURFACE FINISH, TEXTURE TOLERANCES, FLOOR TREATMENTS, AND STANDARD OF WORKMANSHIP.
- 1.2 PRODUCTS
- A. FORM FACING MATERIALS. B. STEEL REINFORCEMENT:
- REINFORCING BARS: DEFORMED.
- WELDED WIRE REINFORCEMENT: PLAIN. C. CONCRETE MATERIALS
- PORTLAND CEMENT: ASTM C 150, REFER TO STRUCTURAL DESIGN SPECIFICATIONS FOR INFORMATION, GRAY, SUPPLEMENT WITH FLY ASH.
- 2. BLENDED HYDRAULIC CEMENT: ASTM C 595, REFER TO STRUCTURAL DESIGN SPECIFICATIONS FOR INFORMATION.
- SILICA FUME AGGREGATE: NORMAL WEIGHT.
- WATER. D. MIXING: READY MIXED
- 1.3 CONCRETE MIXTURES
- A. COMPRESSIVE STRENGTH (28 DAYS): 1. FOOTINGS: REFER TO STRUCTURAL DESIGN SPECIFICATIONS FOR
- INFORMATION.
- 2. FOUNDATION WALLS: REFER TO STRUCTURAL DESIGN SPECIFICATIONS FOR INFORMATION. 3. SLABS-ON-GRADE: REFER TO STRUCTURAL DESIGN SPECIFICATIONS FOR
- INFORMATION.
- 1.4 INSTALLATION A. FORMED FINISHES: SMOOTH.
- B. FLOOR AND SLAB FINISHES:
- TROWEL: SURFACES EXPOSED TO VIEW OR TO BE COVERED WITH RESILIENT
- FLOORING, CARPET OR CERAMIC/PORCELAIN TILE. BROOM: EXTERIOR CONCRETE PLATFORMS, STEPS, AND RAMPS. DRY-SHAKE FLOOR HARDENER: ALL INTERIOR SLAB AREAS, LAPIDOLITH OR
- SUBSTITUTIONS APPROVED BY OWNER.
- 1.5 FIELD QUALITY CONTROL A TESTING: BY CONTRACTOR/CM AGENCY.
- B. SPECIAL INSPECTIONS: BY CONTRACTOR/CM SPECIAL INSPECTOR.

SECTION 061000 - ROUGH CARPENTRY

- 1.1 MATERIALS
- A. WOOD PRODUCTS, GENERAL: ROUGH CARPENTRY MATERIALS FSC-CERTIFIED.
  - A. DIMENSION LUMBER FRAMING.
- B. MISCELLANEOUS LUMBER. 2. MAXIMUM MOISTURE CONTENT OF LUMBER: 15 PERCENT FOR 2-INCH NOMINAL (38-MM ACTUAL) THICKNESS OR LESS.
- B. FIRE-RETARDANT-TREATED MATERIALS EXTERIOR TYPE BLOCKING FOR EXTERIOR ROOF LOCATIONS AND WHERE
- INDICATED. 2. APPLICATION: ITEMS INDICATED AND AS FOLLOWS:
- A. CONCEALED BLOCKING.
- B. PLYWOOD BACKING PANELS.

# SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK

- 1.1 SUMMARY A. CABINETS
- 1.2 QUALITY ASSURANCE
- A. QUALITY STANDARD: AWI QUALITY CERTIFICATION PROGRAM, INCLUDING
- INSTALLATION. 1.3 MATERIALS
- A. CABINET HARDWARE:
- HINGES: BUTT, SEMI-CONCEALED. PULLS: CENTER BAR.
- EXPOSED HARDWARE FINISHES: OIL RUBBED BRONZE.
- B. CABINETS: GRADE: CUSTOM.
- AWI TYPE OF CABINET CONSTRUCTION: FLUSH OVERLAY. WIC DOOR AND DRAWER FRONT STYLE: FLUSH OVERLAY.
- CABINET INTERIOR: PLASTIC LAMINATE.
- C. SOLID SURFACE COUNTERTOPS: EDGE TREATMENT: SELF-EDGED OR AS INDICATED.

SECTION 07210 - THERMAL INSULATION 1.1 MATERIALS

- A. INSULATION:
- EXTRUDED-POLYSTYRENE BOARD: TYPE IV, 25 PSI (173) KPA) MOLDED-POLYSTYRENE BOARD: TYPE VIII, 20 PSI (138 KPA), EXCLUDING EIFS SYSTEM
- FOIL-FACED, POLYISOCYANURATE BOARD: TYPE I, CLASS 1.
- UN-FACED GLASS-FIBER BLANKET: TYPE I.
- KRAFT-FACED, GLASS-FIBER BLANKET: TYPE II, CLASS C; CATEGORY 1. FOIL-FACED, GLASS-FIBER BLANKET: TYPE III, CLASS B; CATEGORY 1.
- UN-FACED, MINERAL-WOOL BLANKET: TYPE I. CLOSED-CELL SPRAY POLYURETHANE FOAM: TYPE II, MINIMUM DENSITY OF 1.5
- LB/CU. FT. (24 KG/CU. M). B. VAPOR RETARDERS: POLYETHYLENE OR REINFORCED POLYETHYLENE. C. AUXILIARY INSULATING MATERIALS:
- 1. INSULATION FASTENERS.

SECTION 07920 - JOINT SEALANTS

- 1.1 PRE-CONSTRUCTION TESTING A. PRE-CONSTRUCTION COMPATIBILITY AND ADHESION TESTING.
- B. PRE-CONSTRUCTION FIELD-ADHESION TESTING.
- 1.2 WARRANTY
- A. INSTALLER WARRANTY: TWO YEARS.
- 1.3 MATERIALS A. VOC CONTENT OF INTERIOR SEALANTS:
- ARCHITECTURAL SEALANTS: 250 G/L.
- SEALANT PRIMERS FOR NONPOROUS SUBSTRATES: 250 G/L. SEALANT PRIMERS FOR POROUS SUBSTRATES: 775 G/L.
- B. STAIN TEST: ASTM C 1248.
- 1.4 JOINT SEALANTS A. MILDEW-RESISTANT, NEUTRAL-CURING, SILICONE JOINT SEALANT: TYPE: SINGLE COMPONENT.
- GRADE: NON-SAG. CLASS: 100/50. SECTION 017419 - CONSTR. WASTE MANAGEMENT & DISPOSAL
  - USES RELATED TO EXPOSURE: NON-TRAFFIC. B. URETHANE JOINT SEALANT:
    - TYPE: MULTI-COMPONENT.
    - GRADE: POURABLE. CLASS: 100/50
  - USES RELATED TO EXPOSURE: TRAFFIC.
  - C. IMMERSIBLE POLYSULFIDE JOINT SEALANT: TYPE: MULTI-COMPONENT.
    - GRADE: POURABLE
  - CLASS: 25. USES RELATED TO EXPOSURE: IMMERSIBLE.
  - D. LATEX JOINT SEALANT: ACRYLIC LATEX OR SILICONIZED ACRYLIC LATEX. E. SOLVENT-RELEASE-CURING JOINT SEALANT: BUTYL RUBBER.
  - PREFORMED JOINT SEALANT: PREFORMED SILICONE.
  - ACOUSTICAL JOINT SEALANT: NON-SAG, PAINTABLE, NON-STAINING LATEX. H. JOINT-SEALANT BACKING: BOND-BREAKER TAPE.
  - 1.5 FIELD QUALITY CONTROL A. FIELD-ADHESION TESTING
  - 1.6 PRODUCT: GE SILICONE (50 YEAR) OR APPROVED EQUAL.

RECYCLING NON-HAZARDOUS CONSTRUCTION WASTE. C. DISPOSING OF NON-HAZARDOUS CONSTRUCTION WASTE.

AND FEES NECESSARY FOR COMPLETE CONSTRUCTION.

- 1.2 WASTE MANAGEMENT PLAN
- A. TYPES AND QUANTITIES OF SITE-CLEARING AND CONSTRUCTION WASTE.
- LANDFILL OR INCINERATOR. C. NET ADDITIONAL COST OR NET SAVINGS RESULTING FROM WASTE MANAGEMENT
- 1.3 PLAN IMPLEMENTATION
- MANAGEMENT PROCEDURES.
- BE SHARED EQUALLY TO OWNER AND CONTRACTOR.

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- SALVAGING NON-HAZARDOUS CONSTRUCTION WASTE.

- B. TYPE OF WASTE AND WHETHER IT WILL BE SALVAGED, RECYCLED, OR DISPOSED OF IN

- ENGAGE A WASTE MANAGEMENT COORDINATOR.
- B. TRAIN WORKERS, SUBCONTRACTORS, AND SUPPLIERS ON PROPER WASTE
- RECYCLING INCENTIVES: REVENUES AND OTHER INCENTIVES FOR RECYCLING WILL

APPLICABLE CODES. PERMITS & FEES: THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS

PROPER WORKING ORDER.

SPECIAL GENERAL CONDITIONS

INSURANCE.

	- 5 -		- 6 -
SE	CTION 08110 - DOORS A	ND FRAMES	
1.1	SUMMARY		
А.	STANDARD HOLLOW METAL INS	ULATED DOORS AND FF	RAMES.
1.2	QUALITY ASSURANCE		
Α.	STANDARD HOLLOW METAL QU	ALITY STANDARD: ANSI	/SDI A250.8 (OR LOCAL CODE).
1.3	PRODUCTS		
А.	STANDARD HOLLOW METAL INS	ULATED DOORS:	
	1. DESIGN: FLUSH PANEL C	R AS INDICATED.	
	2. THERMAL-RATED DOORS	: EXTERIOR, THERMAL	RESISTANCE U-0.34
В.	EXTERIOR DOORS:		
	1. NON-FERROUS SHEET FACE	S, 16 GAUGE.	
		EORMANCE LEVEL & (HE	

- LEVEL 1 AND PHYSICAL PERFORMANCE LEVEL A (HEAVY DUTY). C. STANDARD HOLLOW METAL FRAMES: 1. EXTERIOR FRAMES: GALVANIZED STEEL; FULL PROFILE WELDED.
- 2. FRAMES FOR STEEL DOORS: 14 GAUGE. HOLLOW METAL PANELS: SAME MATERIALS, CONSTRUCTION, AND FINISH AS ADJOINING HOLLOW METAL WORK.
- DOOR HARDWARE: PANIC TYPE EXIT DEVICE G. DOOR THRESHOLDS: 1/4" HIGH, HEAVY DUTY FOR DELIVERY DOOR. H ACCESSORIES: MOLDINGS AND STOPS FOR GLAZED LITES.
- LOUVERS: SIGHT-PROOF STEEL.
- A. FINISHES: FACTORY PRIMING FOR FIELD PAINTING. 1.4 WOOD DOORS: INTERIOR WOOD DOORS SHALL BE SOLID CORE AND COMPLY WITH THE FOLLOWING, INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS:
- FACE: PRE-FINISHED MAPLE
- GRADE: PREMIUM - STYLE: PANEL DOORS AS SELECTED BY OWNER.
- CORE CONSTRUCTION: GLUED BLOCK CORE
- THICKNESS: 1-3/4" THK. WARRANTY 5 YEARS
- MANUFACTURER: GRAHAM OR APPROVED EQUAL
- FIRE RATING: AS INDICATED ON DOOR SCHEDULE. 1.5 STEEL DOORS AND HOLLOW METAL FRAMES: PROVIDE STEEL DOORS AND HOLLOW METAL FRAMES COMPLYING WITH 501-100 - RECOMMENDED SPECIFICATIONS: STANDARD STEEL DOORS AND FRAMES. DOORS AND
- FRAMES SHALL BE MANUFACTURED BY BENCHMARK, CECO, REPUBLIC STEEL OR APPROVED EQUAL. 1.6 INSTALLATION: INSTALL ACCORDING TO MANUFACTURE INSTRUCTIONS AND PROCEDURES.

### SECTION 08710 - DOOR HARDWARE

- 1.1 SUMMARY
- MECHANICAL DOOR HARDWARE FOR SWINGING DOORS. Α.
- CYLINDERS FOR DOOR HARDWARE. C. ELECTRIFIED LOCAL (AUDIBLE) ALARM DOOR HARDWARE.
- 1.2 WARRANTY
- MATERIALS AND WORKMANSHIP: THREE YEARS. 1.3 MAINTENANCE SERVICE
- A. FULL-MAINTENANCE SERVICE: SIX MONTHS.
- 1.4 PRODUCTS SCHEDULED DOOR HARDWARE: PRODUCTS SCHEDULED IN "DOOR HARDWARE Α. SCHEDULE" ON DRAWINGS.
- 1.5 FIELD QUALITY CONTROL
- INDEPENDENT ARCHITECTURAL HARDWARE CONSULTANT: CONTRACTOR -ENGAGED TO PERFORM INSPECTIONS.
- OCCUPANCY ADJUSTMENT: AFTER THREE AND ELEVEN MONTHS.
- 1.6 DOOR HARDWARE SCHEDULE: A. AS INDICATED ON DRAWINGS.
- 1.7 KEYING
- PROVIDE TEMPORARY CONSTRUCTION CORES, CHANGE OUT TO PERMANENT CORES AT COMPLETION OF PROJECT. KEY TO MASTER AND COORDINATE WITH OWNER SPECIFICATIONS. PROVIDE 5 SETS OF EACH KEY INCLUDING MASTER AT COMPLETION OF PROJECT.

#### SECTION 09000 - FINISHES

1.1 FINISHES SHALL BE OF THE SIZE, STYLE AND MANUFACTURER INDICATED ON THE FINISH SCHEDULE AND DRAWINGS. PROVIDE (1) EXTRA CARTON OF EACH FLOOR & CEILING TILE OF EACH TYPE. ALL INTERIOR FINISHES SHALL BE INSTALLED IN ACCORDANCE W/ MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL VERIFY IF SPECIAL SURFACE PREPARATION IS REQUIRED.

#### SECTION 09290 - GYPSUM BOARD

- 1.1 MATERIALS
- A. INTERIOR GYPSUM BOARD: GYPSUM WALLBOARD.
- MOISTURE- RESISTANT GYPSUM BOARD.
- B. TRIM ACCESSORIES: INTERIOR.
- ALUMINUM: EXTRUDED PROFILES.
- C. TEXTURE FINISHES: NON-AGGREGATE FINISH.
- D. AUXILIARY MATERIALS
- LAMINATING ADHESIVE: LOW VOC.
- ACOUSTICAL JOINT SEALANT: LOW VOC. E. CONTROL JOINTS:
- LOCATE AT WINDOW CORNERS, COLUMN CORNERS WHERE POSSIBLE. MAX. SPACING 50'-0" ON CENTER. DO NOT INSTALL CONTROL JOINTS IN AREAS SCHEDULED TO RECEIVE VINYL GRAPHICS. 2. DETAIL PER DRYWALL MANUFACTURER'S RECOMMENDATIONS
- F. LEVELS OF GYPSUM BOARD FINISH
- 1. PER GYPSUM ASSOCIATION 214-10
- 2. LEVEL 1 ABOVE CEILINGS AND IN AREAS CONCEALED FROM VIEW 3. LEVEL 4 - ALL AREAS EXPOSED TO VIEW EXCLUDING WALLS SCHEDULED TO RECEIVE VINYL GRAPHICS
- 4. LEVEL 5 WALL AREAS SCHEDULED TO RECEIVE VINYL GRAPHICS METAL STUD FRAMING G
- 1. FRAMING INSTALLATION PER ASTM C-745, DEFLECTION L/360.
- 2. MIN. 20 GAUGE STUD FRAMING AT 16" O.C. 3. PROVIDE STEEL BAR BRACING AT 48" O.C.

#### SECTION 093000 - TILING

- 1.1 QUALITY ASSURANCE MOCKUP FOR FLOOR TILE INSTALLATION.
- 1.2 SUMMARY
- PORCELAIN TILE
- SURFACE PREPARATION
- WATERPROOFING AND CRACK ISOLATION MEMBRANE SYSTEM
- SETTING MORTAR GROUT AND ACCESSORIES
- 1.3 TILE PRODUCTS
- A. TILE TYPE: GLAZED PORCELAIN TILE. I. BASIS-OF-DESIGN PRODUCT: AS INDICATED ON DRAWINGS.
- 2. SIZE: AS INDICATED ON DRAWINGS.
- 1.4 ACCESSORY MATERIALS A. CRACK ISOLATION MEMBRANE: URETHANE CRACK ISOLATION MEMBRANE
- AND TILE-SETTING ADHESIVE.
- B. SEALANTS: USE SEALANT COMPLYING WITH ASTM C920 ACCORDING TO TYPE, GRADE, CLASS AND USES REQUIRED. COLOR TO MATCH GROUT.
- 1.5 INTERIOR TILE INSTALLATION SCHEDULE
- INTERIOR FLOORS ON CONCRETE: 1. INSTALL FLOOR TILE PER TCNA F-125-FULL-12: THIN-SET MORTAR ON CRACK ISOLATION MEMBRANE.
- TILE TYPE: AS INDICATED ON DRAWINGS.
- LATEX-MODIFIED CEMENT MORTAR: ONE PART, FLEXIBLE LATEX THIN SET MORTAR CONFORMING TO ANSI A118.4 & A118.11 (OR LOCAL CODE). GROUT: STAIN RESISTANT, CRACK RESISTANT, CEMENTITIOUS GROUT.
- PROVIDE GROUT WITH 4% MAXIUM WATER ABSORPTION CONFORMING TO ANSI A118.7 (OR LOCAL CODE). 1.6 WARRANTY
- THE MANUFACTURER OF THE INSTALLATION MATERIAL SHALL WARRANT FOR 15 YEARS UNPON COMPLETION OF THE INSTALLATION, WHEN INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

# SECTION 095113 - ACOUSTICAL PANEL CEILINGS

-7-

- 1.1 SUMMARY
- A. ACOUSTICAL PANELS AND EXPOSED SUSPENSION SYSTEMS. 1.2 QUALITY ASSURANCE
- A. ACOUSTICAL PANEL QUALITY STANDARD: ASTM E 1264.
- B. METAL SUSPENSION SYSTEM QUALITY STANDARD: ASTM C 635. C. MOCKUPS FOR EACH FORM OF CONSTRUCTION.
- 1.3 MATERIALS
- A. ACOUSTICAL CEILING PANELS: 1. TYPE AND FORM: REFER TO DRAWING - LIST OF FINISHES - FOR PRODUCT INFORMATION.

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- LR: NOT LESS THAN: 0.85.
- NRC: NOT LESS THAN: 0.55. CAC: NOT LESS THAN: 35.
- THICKNESS: 5/8" INCH (15MM)
- MODULAR SIZE: 24 BY 48 INCHES (610 BY 1220 MM). B. METAL SUSPENSION SYSTEMS:
- WIRE HANGERS, BRACES, AND TIES.
- HANGER RODS OR FLAT HANGERS ANGLE HANGERS.
- SEISMIC PERIMETER STABILIZER BARS, STRUTS, AND CLIPS.
- HOLD-DOWN CLIPS. IMPACT CLIPS.
- WIDE-FACE, CAPPED, DOUBLE-WEB STEEL: INTERMEDIATE DUTY. REFER TO
- DRAWING A-1.2 FOR OTHER PRODUCT INFORMATION.
- METAL EDGE MOLDINGS AND TRIM: EXTRUDED D. ACOUSTICAL SEALANTS.
- 1.4 INSTALLATION
- A. INSTALLATION: ASTM C 636 1.5 FIELD QUALITY CONTROL
- A. TESTING: BY CONTRACTOR/ CONSTRUCTION MANAGER -ENGAGED AGENCY TO TEST ACOUSTICAL PANEL CEILING HANGER FASTENERS.

#### **SECTION 09920 - INTERIOR PAINTING**

- 1.1 SUMMARY A. SURFACE PREPARATION AND THE APPLICATION OF PAINT SYSTEMS ON INTERIOR
- SUBSTRATES.
- 1.2 QUALITY ASSURANCE A. QUALITY STANDARDS: "MPI APPROVED PRODUCTS LIST" AND "MPI ARCHITECTURAL PAINTING SPECIFICATION MANUAL."

HIGH-PERFORMANCE ARCHITECTURAL LATEX SYSTEM: MPI INT 5.3M.

HIGH-PERFORMANCE ARCHITECTURAL LATEX SYSTEM: MPI INT 5.4F.

3. HIGH-PERFORMANCE ARCHITECTURAL LATEX SYSTEM: MPI INT 9.2B.

- 1.3 INTERIOR PAINTING SCHEDULE
- A. CONCRETE SUBSTRATES, NON-TRAFFIC SURFACES: LATEX SYSTEM: MPI INT 3.1E.
- LATEX OVER SEALER SYSTEM: MPI INT 3.1A.
- LATEX OVER LATEX AGGREGATE SYSTEM: MPI INT 3.1B. ALKYD SYSTEM: MPI INT 3.1D.
- B. CONCRETE SUBSTRATES, TRAFFIC SURFACES:
- CLEAR SEALER SYSTEM: MPI INT 3.2F.
- WATER-BASED CLEAR SEALER SYSTEM: MPI INT 3.2G. C. STEEL SUBSTRATES:
- QUICK-DRYING ENAMEL SYSTEM: MPI INT 5.1A.

ALUMINUM PAINT SYSTEM: MPI INT 5.1M.

ALKYD DRY-FALL SYSTEM: MPI INT 5.3F.

ALUMINUM PAINT SYSTEM: MPI INT 5.4D.

E. ALUMINUM (NOT ANODIZED OR OTHERWISE COATED) SUBSTRATES:

1. ALKYD OVER VINYL WASH PRIMER SYSTEM: MPI INT 5.4A.

ALKYD OVER LATEX PRIMER SYSTEM: MPI INT 9.2C.

ALKYD OVER QUICK-DRYING PRIMER SYSTEM: MPI INT 5.4J.

ALKYD DRY-FALL SYSTEM: MPI INT 5.1D. ALKYD SYSTEM: MPI INT 5.1E.

ALKYD SYSTEM: MPI INT 5.3C.

LATEX SYSTEM: MPI INT 9.2A.

SECTION 102113 - TOILET COMPARTMENTS

A. TOILET COMPARTMENTS CONFIGURED AS FOLLOWS:

D. HARDWARE AND ACCESSORIES: STAINLESS STEEL.

1. URINAL-SCREEN STYLE: WALL HUNG, FLAT PANEL.

1. FULL-HEIGHT (CONTINUOUS) TYPE: STAINLESS STEEL.

CONTRACTOR TO FURNISH AND INSTALL SIGNAGE PER LOCAL, STATE

AND FEDERAL CODES. SEE DRAWINGS FOR FURTHER REQUIREMENTS.

A. FIRE EXTINGUISHERS: NFPA 10 AND FMG LISTED OR PER LOCAL JURISDICTION.

1.1 ALL FURNISHINGS (TABLES, CHAIRS, BENCHES, ETC.) SHALL BE PROVIDED

1. MULTIPURPOSE DRY-CHEMICAL TYPE, RECHARGABLE, 10 LBS, UL RATING

D. GALVANIZED-METAL SUBSTRATES:

F. GYPSUM BOARD SUBSTRATES:

A. PANEL CONSTRUCTION: HDPE

SECTION 10425 - SIGNAGE

MATERIALS - PLASTIC, SELF ADHESIVE

B. RAISED TEXT AND TACTILE PER A.D.A. AND ANSI

SECTION 10520 - FIRE EXTINGUISHERS

A. MATERIALS AND WORKMANSHIP: SIX YEARS.

4A:60B:C OR PER LOCAL CODE.

SECTION 14000-FURNISHINGS

A. PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS:

AND INSTALLED BY OWNER. FURNISHINGS N.I.C.

A. FURNISHED MATERIAL: HAND-CARRIED FIRE EXTINGUISHERS.

BRACKETS (FITTINGS):

URINAL-SCREEN POST: NONE.

1.1 SUMMARY

1.1 SUMMARY

1.1 SUMMARY

1.3 WARRANTY

1.4 PRODUCTS

1.2 QUALITY ASSURANCE

1.2 COMPONENTS

1.2 COMPONENTS



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NOTE: WATER CLOSET FLUSH CONTROLS ON OPEN SIDE PER CODE REQUIREMENTS.

TYP. WALL TYPES



#### DOOR & FRAME GENERAL NOTES:

- ALL DOOR SIZES ARE NOMINAL. ALL DOORS ARE 1-3/4" THICK & 7'-0" HIGH UNLESS OTHERWISE NOTED.
- ALL DOORS ARE FLUSH, COORDINATE STYLE / PROFILE WITH OWNER. EXTERIOR DOORS TO BE INSULATED METAL DOORS AND METAL FRAMES. INTERIOR DOORS TO BE SOLID CORE BIRCH WOOD DOORS WITH HOLLOW METAL FRAMES. COORDINATE FRAME THROAT DEPTHS WITH WALL
- TYPES SEE DRWGS. GLAZING IN DOOR TO BE 1" THICK INSULATED 5.
- TEMPERED GLASS.
- PROVIDE TEMPERED GLASS WHERE REQ'D BY CODE. ALL FRAMES SHALL BE SHIMMED / CAULKED IN ACCORDANCE WITH ACCEPTED PRACTICES.
- GENERAL CONTRACTOR SHALL VERIFY ALL DOOR 8. UNDERCUT AND LOUVER LOCATIONS WITH

#### MECHANICAL DRAWINGS. DOOR HARDWARE GENERAL NOTES:

- 1. GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE ALL DOOR HARDWARE REQUIREMENTS FOR ALL FRAMES INDICATED. ALL SUBMITTALS ISSUED TO THE ARCHITECT SHALL REFLECT THIS FIELD VERIFIED COORDINATION.
- ALL HARDWARE SHALL BE HEAVY DUTY, GRADE 2, WITH US 26D FINISH. PROVIDE ALL PLATES, STRIKES, ETC. AS REQ'D FOR A 3.
- COMPLETE ASSEMBLY. 4. PROVIDE CONCAVE STYLE WALL STOPS OR FLOOR STOPS
- WHERE REQ'D. ALL EXTERIOR DOORS ARE TO BE PREPPED TO OWNER SPECIFICATIONS TO ACCEPT ELECTRICAL DOOR STRIKES, CLOSERS AND AUTOMATIC DOOR OPENERS.

Kľ	TCHEN EQUIPMEN	т
ITEM #	EQUIPMENT	QTY.
0001	CHECKOUT MILLWORK & COUNTER	1
0002	POS SYSTEM	1
0003	CONDIMENTS COUNTER - MOBILE	1
0004	PLASTICWARE DISPENSER	1
0005	SNACK / CANDY DISPLAY	1
0006	BOTTLED BEV. MERCHANDISER	1
0007	DIGITAL MENU DISPLAY, CLNG MTD.	1
0008	COFFEE BREWER	1
0009	C.T. ICE/BEVERAGE DISPENSER	1
0010	MICROWAVE	1
0011	REFRIGERATOR, REACH-IN	1
0012	FREEZER, REACH-IN	1
0013	HOT DOG ROLLER / GRILL	1
0014	HOT WELLS, C.T.	2
0015	WARMER, C.T. BUFFET	1
0016	WORK TABLE (36" x 72")	1
0017	SHELVING (18" x 36")	1

NOTE: KITCHEN PLANS ARE PRELIMINARY FOR LAYOUT PURPOSES ONLY. KITCHEN EQUIPMENT TO BE PROVIDED BY KITCHEN EQUIPMEN VENDOR OWNER. CASEWORK & COUNTERTOPS WITH EQUIPMENT IN THEM ARE PART OF THIS CONTRACT AND TO BE PROVIDED BY GENERAL CONTRACTOR AND COORDINATED WITH KITCHEN EQUIPMENT CONTRACTOR [K.E.C.]. MAKE PLUMBING & ELECTRICAL FINALS TO EQUIPMENT PLACED BY K.E.C., IS PART OF THIS CONTRACT. SEE MECHANICAL AND ELECTRICAL DRAWINGS.



Exterior Wall FIRE RATING: NON-RATED UL DESIGN NO:

STC: --

EXISTING CORRUGATED METAL SIDING EXISTING 2 X 4 HORIZONTAL GIRT @ 24" O.C. PROVIDE BATT INSULATION (R-20) MIN. EXISTING 2 X 4 HORIZONTAL GIRT @ 24" O.C. PROVIDE 5/8 MR GYPSUM WALLBOARD FRP REINFORCED PLASTIC (FRP) 4' AFF. FRP FULL HIEGHT IN CONCESSION

	- 6 -	- 7 -	- 8 -	- 9 -	- 10 -
			LIST OF FINISHES		
FINISH	MANUFACTURER	STYLE	#/COLOR	LOCATION	NOTES
ACOUSTIC	AL CEILING TILE, ACT		L	1	1
ACT-1	ARMSTRONG	2x2 SQUARE LAY-IN, PRELUDE 15/16" GRID	#2712 DUNE SECOND LOOK II; WHITE		
ACT-2	ARMSTRONG	2x2 SQUARE LAY-IN, PRELUDE 15/16" GRID	#673 KITCHEN ZONE; WHITE	KITCHEN	UNPERFORATED; WASHABLE FINISH
CERAMIC /	PORCELAIN TILE, CT / PT				
PT-1	GARDEN STATE TILE	12" X 24" OVERDRIVE	EXCALIBUR	RESTROOM FLOOR, LOCKER ROOMS	
PT-2	GARDEN STATE TILE	6" X 24" OVERDRIVE	EXCALIBUR	RESTROOM WALL BASE	
FIBERGLAS	S REINFORCED PLASTIC, FRP				
FRP-1	CRANE COMPOSITES	GLASBORD CLASS A	4X8 PANELS, SMOOTH GRAY	KITCHEN, BACK KITCHEN	
PAINT, P					
P-1	SHERWIN WILLIAMS	TBD	TBD		
SPECIALTI	ES, SP				
SP-1	SCRANTON PRODUCTS	HINY HIDERS	GRIP EX , TBD	RESTROOM TOILET PARTITIONS	

NOTE: PROVIDE SUBMITTALS & SAMPLES OF ALL FINISHES FOR OWNER / ARCHITECT APPROVAL. INSTALL ALL PRODUCTS PER MANFACTURER'S SUGGESTED DETAILS & INSTRUCTIONS.

ROOM FINISH SCHEDULE										
				WALLS				CEILIN	١G	DEMADKS
		FLOOR	DASE	N	E	S	W	FINISH	HEIGHT	REWARKS
101	CONCESSION	CONC.	1 X 6 WOOD	FRP-1	FRP-1	FRP-1	FRP-1	ACT-2	8'-6"	
102	MEN'S	PT-1	PT-2	PAINT	PAINT	PAINT	PAINT	ACT-1	8'-6"	WALLS: FRP-1 4' AFF
103	WOMEN'S	PT-1	PT-2	PAINT	PAINT	PAINT	PAINT	ACT-1	8'-6"	WALLS: FRP-1 4' AFF
104	STORAGE	X	X	X	X	X	X	X	X	PROVIDE INSULATION ABOVE EXIST. METAL PANELS

GENERAL ROOM FINISH NOTES: 1. ALL DIMENSIONS TO FACE OF FINISH MATERIAL U.O.N.

2. ALL GWB IS TO BE PAINTED (1) COAT PRIME, (2) COATS FINISH. 3. M. R. GWB IS TO BE USED IN A MOISTURE / STEAM LOCATIONS.

4. ALL FLOORING MATERIAL CHANGES SHALL (U.N.O.) SHALL OCCUR AT THE CENTERLINE OF A DOOR WITH A DIVIDER STRIP OR T-MOLD. 5. PROVIDE UP TO FOUR (4) ROWS OF 2X6 WOOD BLOCKING BETWEEN STUDS FOR MILLWORK - BASE AND/OR OVERHEAD CABINETS - COORDINATE EXACT HEIGHTS AND LENGTHS OF BLOCKING WITH MILLWORK DRAWINGS (GENERALLY BLOCKING TO BE CENTERED AT 8", 36", 56" AND 84" A.F.F.). SEE & COORDINATE WITH KITCHEN EQUIPMENT DRAWINGS & CUT SHEETS.





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PLASTIC LAMINATE FINISH 3/4" PLYWOOD · CONSTUCTION W/ REMOVABLE APRON / PANEL

UNDERMOUNT S.S. SINK \_\_ (SEE PLUMBING)

EDGE PROFILE — CONFIRM WITH OWNER

COUNTERTOP — (SEE FINISH SCHEDULE)

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1 TYP. SINK DETAIL SCALE: 1-1/2" = 1'-0"



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MECHANIC	CAL ABBREVIATIONS	
AC	ALTERNATING CURRENT	
ACC	AIR COOLED CONDENSER	
ACU	AIR CONDITIONING UNIT	
AD	ACCESS DOOR	
ADJ	ADJUSTABLE	
AF	AIR FOIL	
AFF	ABOVE FINISHED FLOOR	
AHU	AIR HANDLING UNIT	
AP	ACCESS PANEL	
ARCH	ARCHITECTURE	

AUTOMATIC TEMPERATURE CONTROL

ATMOSPHERE

AMERICAN WIRE GAUGE

BACKDRAFT DAMPER

BRAKE HORSEPOWER

BRITISH THERMAL UNIT

CONSTANT AIR VOLUME

CUBIC FEET PER MINUTE

CONCRETE MASONRY UNIT

CARBON MONOXIDE

CARBON DIOXIDE

CONDENSATE

CONNECTION

CORRIDOR

CUBIC FFFT

DIAMFTFR

DIMENSION

DRAWING

FXHAUST

EXHAUST AIR

EXHAUST FAN EFFICIENCY

ELEVATION

FACE AREA

FAN COIL UNIT

FIRE PROTECTION

FEET PER MINUTE

FACE VELOCITY

GAUGE OR GAGE GALLON

GALVANIZED

GRAVITY HOOD

HEATING COIL

HORSEPOWER

HEAT EXCHANGER

INVERTED BUCKET TRAP

INTEGRAL FACE & BYPASS

HOUR

INCH IRON PIPE SIZE

FINNED RADIATION

FLOAT AND THERMOSTATIC

GENERAL CONTRACTOR

GALLONS PER MINUTE

HAND-OFF-AUTOMATIC

HEATING & VENTILATING UNIT

HOT WATER SUPPLY TEMPERATURE

DETAIL DESIGNATION OR ENLARGED PLAN

-SECTION DESIGNATION

----EQUIPMENT TAG

BALANCING CFM

POINT OF NEW CONNECTION

POINT OF DISCONNECTION

GRILLE/REGISTER/DIFFUSER

GRILLE/REGISTER/DIFFUSER TAG

GRILLE/REGISTER/DIFFUSER NUMBER

-HVAC DRAWING NUMBER WHERE DETAIL IS SHOWN

-HVAC DRAWING NUMBER WHERE SECTION IS SHOWN

FLOOR DRAIN FLOOR

FFFT

EXPANSION TANK

FORWARD CURVED

DIRECT EXPANSION

DOWN

CONTINUATION

COOLING TOWER

CONDENSING UNI

CONTROL VALVE

CABINET UNIT HEATER

CONTROL VALVE STATION

DIFFUSER OR REGISTER DECIBEL, RE 10 WATT

DRY BULB TEMPERATURE (°F)

DIRECT DIGITAL CONTROL

DEGREE FAHRENHEIT (°F)

DEW POINT TEMPERATURE (°F)

ENTERING AIR TEMPERATURE (°F)

ELECTRICAL CONTRACTOR

ENERGY EFFICIENCY RATIO

EXTERNAL STATIC PRESSURE

ENTERING WATER TEMPERATURE (°F)

CONTROLS & INSTRUMENTATION

BOTTOM OF DUCT

BOTTOM OF STEEL

BTU PER HOUR

COOLING COIL

CHILLER

CEILING

AUXILIARY

AVERAGE

BOILER

- 1 -

ARCH

ATC

ATM

AUX

AVG

BDD

BHP

BOD

BOS

BTU

BTUH

CAV

CFM/ (

C&I

CLG

CMU

C02

COND CONN

CONT.

CORR

CUH

CU FT

CVS

DB1

DDC

DEG

DIA

DIM

DWG

FAT

FFF

ELEV

FSP

EWT

FLR

FPM

FVF

F&T

GALV

GPM

HOA

HVU HWST

ΗХ

IFB

IPS

DRAWING SYMBOLS

AWG

KW	KILOWATTS
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE (°F)
LBS/#	POUNDS
LD	LINEAR DIFFUSER
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE (°F)
MOD	MOTOR OPERATED DAMPER
MAU	MAKEUP AIR UNIT
MAX	MAXIMUM
MB	MIXING BOX
MBH	1000 BTUH
MC	MECHANICAL CONTRACTOR
MCC	MOTOR CONTROL CENTER
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MMBH	1,000,000 BTUH
NA	NOT APPLICABLE
NC	NOISE CRITERIA, dB RE 20 uPa
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
OAD	OUTSIDE AIR DAMPER
OBD	OPPOSED BLADE DAMPER
OZ	OUNCE
P	PUMP
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PH	PHASE
PHC	PREHEAT COIL
PROP	PROPELLER
PSI	POUNDS PER SQUARE INCH
PSIG	PSI, GAUGE
P+F	PITCH AND FLOW
QTY	QUANTITY
R	REGISTER
RA	RETURN AIR
RC	ROOM CRITERIA, dB RE 20 uPa
RF	RETURN/RELIEF AIR FAN
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RPM	REVOLUTIONS PER MINUTE
S	SMOKE DETECTOR
SA	SUPPLY AIR
SEER	SEASONAL ENERGY EFFICIENCY RATH
SENS	SENSIBLE
SF	SQUARE FEET
SP	STATIC PRESSURE (IN. WG.)
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
SV	SOLENOID VALVE
T	THERMOSTAT
TEMP	TEMPERATURE (°F)
TOD	TOP OF DUCT
TOP	TOP OF PIPE
TOS	TOP OF STEEL
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TXD	TRANSFER DUCT
TYP	TYPICAL
UC	UNDERCUT
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORY
UV	UNIT VENTILATOR
UVL	ULTRA VIOLET LIGHT
V VA VEL VFD VFV VOL	VALVE, VOLT VOLT-AMPERE VOLUME DAMPER VELOCITY VARIABLE FREQUENCY DRIVE VAV, WITH FAN VOLUME
W	WATT
WB	WET BULB TEMPERATURE (°F)
WC	WATER COLUMN
WG	WATER GAUGE
WMS	WIRE MESH SCREEN

- 2 -



#### <u>General Piping Notes:</u>

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INSTALL PIPING TO ALLOW ACCESS VALVES, AIR VENTS, EQUIPMENT REQUIRING ACCESS, AND TO PROVIDE MAXIMUM HEADROOM.

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- 2. PROVIDE OFFSETS TO MAINTAIN CEILING HEIGHT AND TO COORDINATE WITH OTHER TRADES.
- 3. INSTALL VALVES IN HORIZONTAL PIPING WITH VALVE STEMS AT OR ABOVE THE PIPE CENTERLINE.
- 4. ARRANGE PIPING FOR VENTING OF AIR AND DRAINAGE OF THE ENTIRE SYSTEM.
- 5. INSTALL CONDENSATE DRAIN PIPING PITCHED AT 1/8" PER FOOT IN DIRECTION OF FLOW.

GENERAL DUCTWORK NOTES:

- 1. CHANGES IN SHAPE OR DIMENSION SHALL BE MADE WITH MAXIMUM TRANSITION OF 1 TO 7.
- 2. SEPARATE GALVANIZED SHEET METAL FROM ALUMINUM OR COPPER WITH LEAD OR FELT GASKETS.
- 3. PROVIDE SUPPLEMENTAL STIFFENING AND SUPPORT TO DUCTS AND APPARATUS CASINGS TO PREVENT DRUMMING, SAGGING, AND TO PROVIDE A STRUCTURALLY SOUND ASSEMBLY.
- 4. INSTALL DUCT FROM SHOWER EXHAUST GRILLES GRADING DOWN TO EXHAUST GRILLE, WITHOUT DIPS OR TRAPS.
- 5. PROVIDE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER WORK.
- 6. PROVIDE DUCTWORK AND TRANSITIONS TO CONNECT DUCTWORK TO EQUIPMENT AND COILS.
- INSTALL FLEXIBLE DUCTWORK IN A FULLY EXTENDED CONDITION WITHOUT SAGS OR KINKS.
- 8. INSTALL DUCT MOUNTED SMOKE DETECTORS IN ACCESSIBLE LOCATIONS.
- UNLESS NOTED OTHERWISE, PROVIDE 1" THICK DUCT LINING FOR A MINIMUM OF 10 FEET OF DUCTWORK FROM THE SUPPLY AIR DISCHARGE AND RETURN AIR INLET OF AIR HANDLING UNITS, ENERGY RECOVERY UNITS, AND BLOWER COILS. FOR ALL LINED DUCTWORK, DIMENSIONS INDICATED ON DRAWINGS SHALL BE INSIDE CLEAR DIMENSIONS MEASURED FROM FACE-OF-LINER TO FACE-OF-LINER. LINING IS NOT REQUIRED FOR TOILET EXHAUST FANS. ROOF MOUNTED DUCTS ARE TO BE LINED AS DESCRIBED ABOVE AND ARE TO BE INSULATED WITH 2" THICK RIGID INSULATION AND WRAPPED WITH EPDM MATERIAL, SAME COLOR AS ROOF.
- 10. INSTALL DUCTS CONVEYING GREASE LADEN AIR AT A PITCH OF 1/4" PER FOOT OPPOSITE THE DIRECTION OF FLOW

#### GENERAL AUTOMATIC TEMPERATURE CONTROLS NOTES:

- TRANSFORMERS OR FILTERS FOR OPERATION OF AUTOMATIC TEMPERATURE CONTROLS FROM BUILDING POWER CIRCUITS SHALL BE PROVIDED UNDER DIVISION 23.
- WIRING LOWER THAN 110 VOLTS FOR INTERLOCKED DEVICES, DDC CONTROLLERS, TERMINAL CONTROL UNITS, FLOW MEASURING DEVICES, AND OTHER POWER CONSUMING CONTROL DEVICES SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 23. WIRING 110 VOLTS AND HIGHER FOR INTERLOCKED DEVICES, DDC CONTROLLERS, TERMINAL CONTROL UNITS, FLOW MEASURING DEVICES, AND OTHER POWER CONSUMING CONTROL DEVICES SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 26.
- PROVIDE SUPPLEMENTAL STIFFENING AND SUPPORTS TO DUCTS AND APPARATUS CASINGS TO PREVENT DRUMMING, SAGGING AND TO PROVIDE A STRUCTURALLY SOUND ASSEMBLY.
- 4. BRANCH CIRCUIT WIRING AND CONDUIT FURNISHED FOR CONTROL EQUIPMENT POWER SHALL BE SEPARATE FROM OTHER POWER WIRING. EACH CIRCUIT SHALL EXTEND TO A 120V BRANCH CIRCUIT PANEL, AND IDENTIFIED 120V, 20 AMPERE, SINGLE POLE BRANCH CIRCUIT BREAKER FURNISHED IN THE PANEL TO SERVE THE CIRCUIT. NO MORE THAN 2 DDC CONTROLLER INSTALLATIONS SHALL OPERATE FROM A SINGLE 120V BRANCH CIRCUIT, UNLESS INDICATED OTHERWISE.
- 5. WHERE SYSTEMS ARE SERVED BY EMERGENCY POWER, CONTROLS FOR OPERATION OF THOSE SYSTEMS SHALL ALSO BE SERVED BY EMERGENCY POWER.
- WHERE DAMPERS PREVENT AIRFLOW THROUGH AN AIR HANDLING UNIT OR FAN, THOSE DAMPERS SHALL BE PROVEN OPEN PRIOR TO STARTING THE UNIT OR FAN. PROOF SHALL BE BY MECHANICAL SAFETY LIMIT SWITCH ACTIVATED BY THE DAMPER BLADE. FOR SERVICE WITH VARIABLE FREQUENCY DRIVES THE SWITCH SHALL BE WIRED IN THE AUTOMATIC AND HAND/TEST POSITIONS AND IN THE BYPASS POSITION FOR VARIABLE FREQUENCY DRIVES WITH BYPASS.
- ALL LOW VOLTAGE WIRING AND AIR PIPING OR TUBING SHALL BE PLENUM RATED. MECHANICAL CONTRACTOR SHALL FURNISH ALL LOW VOLTAGE WIRING, AIR PIPING, AND TUBING REQUIRED FOR AUTOMATIC TEMPERATURE CONTROLS SYSTEMS. LOW VOLTAGE WIRING IS ALL WIRE OPERATING AT A VOLTAGE LOWER THAN 110 VOLTS.
- 8. ALL TEMPERATURE CONTROL SHALL HAVE A 5 DEGREE DEAD-BAND WITH OVERLAP RESTRICTIONS. EQUIPMENT SHALL BE PROVIDED WITH AT LEASE ONE MEANS OF EMERGENCY SHUT DOWN. SET BACK CONTROL SHALL ALLOW FOR AUTOMATIC RESTART AS WELL AS TEMPORARY OPERATION AS REQUIRED BY MAINTENANCE.

#### DDITIONAL MECHANICAL REQUIREMENTS:

- DRAWINGS ARE SCHEMATIC IN NATURE INTENDED TO EXEMPLIFY CODE COMPLIANCE FOR THE PURPOSE OF OBTAINING A CONSTRUCTION PERMIT. THE CONTRACTOR SHALL ASSURE THE PROPER INSTALLATION AND OPERATION OF ALL ASSOCIATED SYSTEMS.
- 2. THE INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL CODES.
- PROVIDE R-6 (INSTALLED VALUE) DUCTWORK INSULATION WITH VAPOR BARRIER IN INTERIOR SPACES. INSTALL PER THE MANUFACTURER'S WRITTEN INSTRUCTIONS. INSULATION SHALL BE PROVIDED ON RETURN AIR SYSTEMS WHERE THE DUCTWORK IS NOT LOCATED WITHIN CONDITIONED SPACES. WHERE DUCTWORK IS INSTALLED OUTSIDE. PROVIDE R-12 BOARD WITH WEATHER PROOF JACKET. MATERIALS SHALL BE COMPLIANCE WITH ALL APPLICABLE ASTM TESTS AS WELL AS NFPA 90A AND 90B.
- DUCTWORK SHALL BE GALVANIZED SHEET STEEL IN THE GAUGE AS REQUIRED PER THE LATEST VERSION OF SMACNA GUIDELINES.
- PROVIDE SUPPLEMENTAL STIFFENING AND SUPPORTS TO DUCTS AND APPARATUS CASINGS TO PREVENT DRUMMING, SAGGING AND TO PROVIDE A STRUCTURALLY SOUND ASSEMBLY.
- 6. PROVIDE ALL DUCTWORK FITTINGS INCLUDING BUT NOT LIMITED TO TEES, TAPS, ELBOWS, VOLUME DAMPERS ETC IN ACCORDANCE WITH THE LATEST VERSION OF SMACNA GUIDELINES.
- COORDINATE ELECTRICAL POWER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR. PROVIDE MEANS OF DISCONNECT FOR EQIPMENT AS REQUIRED.
- 8. THE CONTRACTOR SHALL ADJUST DUCTWORK AND EQUIPMENT LAYOUT IN FIELD AS REQUIRED TO FACILITATE A NEAT AND HIGH QUALITY INSTALLATION.
- 9. PROVIDE CONTROL WIRING AND DEVICES IN COMPLIANCE WITH THE CURRENTLY ADOPTED VERSION OF THE NATIONAL ELECTRIC CODE.
- 10. DO NOT INSTALL SERVICEABLE EQUIPMENT WITHIN 10' OF ROOF EDGES
- 11. DO NOT INSTALL AIR INTAKES WITHIN 10' OF EXHAUST TERMINALS OR PLUMBING VENTS
- 12. FURNISH IOM MANUALS AND AS-BUILT DRAWINGS WITH 90 DAYS OF COMPLETION OF WORK
- 13. ALL EXPOSED DUCTWORK SHALL BE DOUBLE WALLED OR INTERNALLY LINED TO PREVENT THE FORMATION OF CONDENSATION.
- 14. ALL REFRIGERATION PIPING SHALL BE ACR TYPE COPPER TUBE WITH BRAZED FITTINGS. SIZED IN ACCORDANCE WITH ASSOCIATED EQUIPMENT MANUFACTURER'S WRITTEN INSTRUCTIONS. INSULATE ALL REFRIGERANT PIPING WITH 1" FLEXIBLE ELASTOMERIC LINER. PROVIDE INSULATION MANUFACTURER'S WEATHER-PROOF MASTIC FOR ALL OUTDOOR INSTALLATIONS.

#### GENERAL MECHANICAL NOTES:

- CODES AND STANDARDS LISTED IN SPECIFICATIONS AND DRAWINGS ARE MINIMUM STANDARDS. WHERE REQUIREMENTS ON THE DRAWINGS OR SPECIFICATIONS EXCEED THE MINIMUM CODE REQUIREMENTS, THE DRAWINGS OR SPECIFICATIONS SHALL GOVERN.
- THE POWER RATING OF MOTORS AND OTHER MECHANICAL EQUIPMENT AND THE ELECTRICAL CHARACTERISTICS OF ELECTRICAL SYSTEMS SERVING THEM HAVE BEEN ESTABLISHED AS MINIMUMS WHICH ALLOW THAT EQUIPMENT TO FUNCTION PROPERLY TO PRODUCE THE REQUIRED CAPACITIES. POWER RATINGS INCLUDE REASONABLE SAFETY FACTORS TO ACCOMMODATE COMMON DIFFERENCES BETWEEN DESIGN PARAMETERS AND FIELD CONSTRUCTION PRACTICES. EQUIPMENT WITH POWER RATINGS LESS THAN THOSE INDICATED ON THE DRAWINGS SHALL NOT BE PERMITTED.
- REASONABLE EFFORTS HAVE BEEN MADE TO COORDINATE ELECTRICAL REQUIREMENTS OF MECHANICAL EQUIPMENT W THE ELECTRICAL SYSTEMS SERVING THAT EQUIPMENT. DIFFERENCES AMONG MANUFACTURERS OF MECHANICAL EQUIPMENT MAKE IT IMPOSSIBLE TO PRODUCE A SINGLE ELECTRICAL DESIGN WHICH WILL SATISFY THE VARYING ELECTRICAL REQUIREMENTS OF THE THOSE MANUFACTURERS. CONSEQUENTLY, THE CONTRACTOR SHALL COORDINATION AND ADDRESS AN ELECTRICAL REQUIREMENTS OF THE MECHANICAL EQUIPMENT ACTUALLY FURNISHED ON THIS PROJECT WITH THE EQUIPMENT ACTUALLY FURNISHED ON THIS PROJECT AND PROVIDE ELECTRICAL SYSTEMS REQUIRED BY THAT EQUIPM THIS COORDINATION EFFORT SHALL BE COMPLETED PRIOR TO THE INSTALLATION OF EITHER THE MECHANICAL EQUIPM OR THE ELECTRICAL SYSTEMS SERVING THAT EQUIPMENT. ELECTRICAL SYSTEM REVISIONS REQUIRED TO COORDINAT WITH THE MECHANICAL EQUIPMENT ACTUALLY FURNISHED SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNI
- DRAWINGS INDICATE GENERAL LOCATIONS OF FIXTURES, APPARATUS, EQUIPMENT, PIPING, AND DUCTWORK. CHANGES LOCATION SHALL BE MADE TO ACCOMMODATE EXISTING OR NEW BUILDING CONDITIONS AND COORDINATION WITH OTHER TRADES, INCLUDING HVAC, PLUMBING, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, AND ARCHITECTURAL, SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
- THOROUGHLY CLEAN/FLUSH EXISTING AND NEW HYDRONIC PIPING SYSTEMS WITH CLEAN WATER. AFTERWARDS, REMOVE AND CLEAN OR REPLACE STRAINER SCREENS.
- 6. ALL HVAC SYSTEMS SHALL BE TESTED AND BALANCED ACCORDING TO NEBB AND SMACNA STANDARDS. PROVIDE REPORT UPON COMPLETION.
- 7. PROVIDE ACCESS TO EQUIPMENT AND PORTIONS OF BUILDING SYSTEMS REQUIRING SERVICE.
- 8. DO NOT INSTALL DUCTWORK, PIPING, OR EQUIPMENT IN ELECTRICAL ROOMS, ELEVATOR ROOMS, OR ELEVATOR SHAFTS, UNLESS EXPLICITLY INDICATED ON THE DRAWINGS. PIPING, DUCTWORK, AND EQUIPMENT (SWITCHGEAR, SWITCHBOARDS, PANELS, MOTOR CONTROL CENTERS, VARIABLE FREQUENCY DRIVES, TRANSFORMERS, OR STARTERS) SHALL NOT BE INSTALLED DIRECTLY ABOVE OR 42" IN FRONT OF ELECTRICAL EQUIPMENT FROM THE FLOOR TO THE STRUCTURE ABOVE.
- PROVIDE START UP AND COMMISSIONING OF ALL EQUIPMENT PROVIDED IN COMPLIANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS. PROVIDE START UP AND WARRANTEE PAPERWORK AT THE COMPLETION OF WORK. WORK SHALL BE COMPLETED BY THE MANUFACTURER OR A MANUFACTURERS' CERTIFIED FIRM OR TECHNICIAN. CONFIRM CALIBRATION OF ALL SENSORS AND ADJUST AS REQUIRED.
- 10. UNLESS INDICATED OTHERWISE, EQUIPMENT AND MATERIALS SHALL BE NEW AND OF THE CUSTOMARY STANDARD AND QUALITY FURNISHED BY THE DESIGNATED MANUFACTURER FOR THAT CATALOG NUMBER.
- 11. AIR SYSTEMS SHALL OPERATE WITHOUT AERODYNAMIC NOISE GENERATED FROM FAULTY INSTALLATION OF DUCTWORK, DIFFUSERS, OR ANY PORTION OF THE AIR DISTRIBUTION SYSTEM.
- 12. SUPPORT PIPING INDEPENDENTLY OF EQUIPMENT. HANGER RODS SHALL BE SUSPENDED FROM THE STRUCTURE. DO NOT SUSPEND FROM OTHER PIPING, CONDUIT, EQUIPMENT, OR DUCTWORK.
- 13. ALL WORK REFERENCED UNDER DIVISION 23 SHALL BE DONE BY THE MECHANICAL CONTRACTOR.
- RESPONSIBLE FOR COORDINATION BETWEEN OTHER TRADES TO ASSURE THE PROPER INSTALLATION OF ALL EQUIPMENT. 15. ALL PIPING, DUCTWORK, INSULATION, CONDUITS, SUPPORTS AND HVAC EQUIPMENT EXPOSED TO VIEW SHALL BE PAINTED. COLOR SHALL BE SELECTED BY ARCHITECT.
- 16. WHERE DUCTWORK IS EXPOSED DUCT SEAMS SHALL BE MINIMIZED AND SHALL BE OF HIGH QUALITY WORKMANSHIP. ALL DUCTWORK SHALL BE CONSTRUCTED AND SEALED IN ACCORDANCE WITH SMACNA STANDARDS.
- 17. ALL MATERIALS EXPOSED WITHIN THE PLENUM SHALL BE NON COMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM F-84

### CONTROL SYMBOLS

Т

F

#### (T) THERMOSTAT $\bigcirc$ CO2 SENSOR $\bigcirc$ CO SENSOR $(\mathbb{S})$ TEMPERATURE SENSOR (E)

- DUCT OR PIPE MOUNTED TEMPERATURE SENSOR
- DP DIFFERENTIAL PRESSURE SENSOR Ρ STATIC PRESSURE SENSOR SMOKE DETECTOR MOTOR STARTER CONTACT CONTROL RELAY MOTORIZED ACTUATOR
- EMERGENCY BOILER SHUTOFF
- FREEZE STAT

- SS MS R М
- Me

-9-

ALL INSTALLATIONS AND MATERIALS SHALL MEET THE FOLLOWING:

INTERNATIONAL ENERGY CONSERVATION CODE; 2018

INTERNATIONAL BUILDING CODE; 2018

INTERNATIONAL FUEL GAS CODE; 2018

INTERNATIONAL MECHANICAL CODE; 2018

6. ALL FEDERAL, STATE AND LOCAL ORDINANCES

INTERNATIONAL FIRE CODE; 2018

- 10 -

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	ARCHITECT	
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No	Revisions   Issues	



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MENT. MENT TE NER.	
ES ON	

14. DRAWINGS INDICATE DESIGN INTENT. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL INSTALLATIONS. CONTRACTOR IS

AF LS LS Тх MOTORIZED ACTUATOR W/ END SWITCH

AIR FLOW SENSOR WATER FLOW SENSOR CURRENT SENSING RELAY

TRANSFORMER W/ LOAD SIDE DISCONNECT

LIMIT SWITCH

LIMIT SWITCH

UN FUSED DISCONNECT

FUSED DISCONNECT MOTOR STARTER

USER DEFINED

COMBINATION STARTER DISCONNECT USER DEFINED

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- 2 -	- 3 -

					GA	AS FIR	ed un	NIT H	EATE	R SCH	IEDULE	E					
TAG NO.	BASIS	OF DESIGN	AREA SERVE	D CFN	ИНР	AMPS		PUT	OUTPUT	GAS CONN.	VENT/CO	OMBUSTION	ТҮРЕ	WEIGHT	VOLTS/ PH/	Hz	NOTES
	MANUFACTURER	MODEL					M	IBH	MBH	SIZE		R SIZE					
GUH-1	REZNOR	UDZ-30	STORAGE	450	00. 06	1.9	3	30	24.6	1/2"		4"	SEE NOTES	60 LBS.	115/1/60		1,2,3
<u>NOTES</u> : 1. TYPES: H=HOF LP=PR 2. PROVID 3. PROVID -VERTIO -THERN -DISCO -CEILIN	RIZONTAL BLOW OPANE DE WITH PROPANE GAS DE UNIT WITH THE FOLI CAL CONCENTRIC AIR/ MOSTAT NNECT SWITCH G SUSPENSION KIT	5 VALVE. LOWING OPTIONS AND AC	CESSORIES:														
	BAS	IS OF DESIGN			ELECT	RICAL	HEA	TER S	SCHEI	DULE				DIMENCI			
TAG NO.	MANUFACTURE	R MODEL	AREA SERV	/ED	TYPE	M	DUNTING	CF	M	(W A	MP VOI	LTS/ PH/Hz	THERMOSTAT	DIVIENSI	(IN)	NOTES	
EH-1A,B	MARLEY	CWH1101DSF	SEE PLAN	1	FAN-FORCED		WALL	10	00	.5 4	4.2	120/1	ON UNIT	10-5/8";	(12-1/8"x1"	1,2	
EH-2A,B	MARLEY	CWH3404F	SEE PLAN		FAN-FORCED		WALL	10	00 3	3.0 1	4.5	208/1	ON UNIT	15-3/4"x1	8-1/4"x3-3/4"	1,2	
EH-3	MARLEY	CDF-548	CONCESSIO	DN	FAN-FORCED	(	CEILING	30	00 2	2.0 9	9.6	208/1	SEE NOTE	24";	(8"x24"	1,3	
<u>NOTES</u> : 1. INSTA 2. PROVI 3. PROVI	LL IN ACCORDANCE W DE COMPLETE WITH R DE COMPLETE WITH C	ITH MANUFACTURER'S W ECESSED MOUNTING FRA EILING RECESSED MOUNT	RITTEN INSTRUCTIO ME, BUILT-IN THERM FING KIT, WALL MOL	NS. COORDIN NOSTAT AND INTED THERI	NATE INSTALLA DISCONNECT S MOSTAT, AND D EXHAUS	TION WITH A SWITCH. ISCONNECT ST FAN	ILL OTHER SWITCH.	TRADES.	.E								
MARK	AREA SERVED	BASE OF DE	SIGN MODEL	FAN TYPE	DRIVE	CFM	ESP	RPM	MOT HP/	OR V	/OLTAGE	ROOF/WAL OPENING (IN	L WEIGHT N.) (LBS.)	NOT	ES		
			MODEL		l	L	ļ	<u> </u>	_								

350 0.30 1000 119 W 115V/1Ø

- 4 -

- 1 -

INSTALL IN ACCORDANCE WITH MANUFACTURER WRITTEN INSTRUCTIONS. COORDINATE INSTALLATION WITH ALL TRADES.

PROVIDE BACK DRAFT DAMPER AND SPRING HANGER KIT.

GREENHECK

SEE PLAN

PROVIDE ECM MOTOR WITH SPEED CONTROL DIAL AND STARTER CONTACTS/RELAY AND LOCAL DISCONNECT SWITCH.

PROVIDE MANUFACTURER'S18X6 WALL LOUVER DISCHARGE ACCESSORY. COORDINATE LOUVER COLOR WITH ARCHITECT PRIOR TO PURCHASE.

CSP-A410

FAN TO ENERGIZE WHEN EITHER RESTROOM OCCUPANCY SENSOR ACTIVATES. PROVIDE WITH MANUFACTURER'S TIME DELAY SWITCH AND MOUNT IN CONCESSION AREA.

INLINE

DIRECT

			DIFFUSE	R, GRILLE, AN	D REGIST	ER SCH	EDULE			
MARK	CFM	BASE OF DE	SIGN	ТҮРЕ	THROW	NECK SIZE (IN)	MODULE SIZE (IN)	MAX. NC	MAX. SP	NOTES
		MANUFACTURER	MODEL			()				
E-1	50-150	PRICE	80	EGG CRATE	NA	10X10	10X10	25	0.1	1,2,3,4

INSTALL IN ACCORDANCE WITH MANUFACTURER WRITTEN INSTRUCTIONS. COORDINATE WITH ALL TRADES.

PROVIDE WITH FACTORY INSTALLED OPPOSED BLADE DAMPER.

COORDINATE MOUNTING HARDWARE WITH ARCHITECTURAL CEILING AND WALL FINISHES

DUCT RUNNOUT SIZES SHALL MATCH DIFFUSER OR GRILLE CONNECTION DIMENSIONS UNLESS OTHERWISE NOTED.



18X6

50

1,2,3,4,5

- 5 -



### **KEYED CONSTRUCTION NOTES**

- SUSPEND FROM CEILING USING MOUNTING KIT ACCESSORY. ANGLE DISCHARGE LOUVERS DOWNWARD TOWARD FLOOR SPACE. PROVIDE WITH MANUFACTURER'S COMBUSTION CONCENTRIC VENTING KIT AND TERMINATE UP THROUGH ROOF. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND MAINTAIN CODE AND EQUIPMENT MANUFACTURER REQUIRED CLEARANCES FROM OUTSIDE AIR INTAKES.

- (4) INLINE FAN SUSPENDED ABOVE CEILING. PROVIDE FLEXIBLE CONNECTIONS ON FAN INLET AND OUTLET. FAN TO BE SET TO RUN WHEN EITHER RESTROOM OCCUPANCY SENSOR
- PROTOCOL WILL REQUIRE CONCESSION STAND ATTENDANT(S) TO OPEN WINDOWS







ANGER TYPE	ROD DIA.	ANGLE SIZE	MAX SPACING	
Α	1" STRAP		8'-0"	
В	5/16"	1-1/2" x 1-1/2" x 1/8"	8'-0"	
С	3/8"	1-1/2" X 1-1/2" x 3/16"	8'-0"	
D	1/2"	2" x 2" x 1/4"	4'-0"	

-	1	-			

[E].....

[F].....

[N].....

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AF.....

AFF.....

AFG.....

AHU.....

AIC.....

ASY.....

ATC.....

ATS.....

AUX.....

AT.....

AWG.....

BFC.....

BFG.....

EXISTING

FUTURE

NEW

DELTA

PHASE

WYE

1/C..... SINGLE CONDUCTOR

AC..... ALTERNATING CURRENT

ADA..... AMERICANS WITH DISABILITIES ACT

AMP FRAME/AMP FUSE

ABOVE FINISHED FLOOR

ABOVE FINISHED GRADE

INTERRUPTING CAPACITY (AMPERES)

AUTOMATIC TEMPERATURE CONTROL

AUTOMATIC TRANSFER SWITCH

AMERICAN WIRE GAUGE

BELOW FINISHED CEILING

BELOW FINISHED GRADE

AHJ..... AUTHORITY HAVING JURISDICTION

AIR HANDLING UNIT

ANSI..... AMERICAN NATIONAL STANDARDS

INSTITUTE

ASYMMETRICAL

AUXILIARY

AMP TRIP

3/C..... THREE CONDUCTOR

A/C..... AIR CONDITIONER

A, AMP..... AMPERE

ADDTL..... ADDITIONAL

AL..... ALUMINUM

APPROX..... APPROXIMATELY

ARCH..... ARCHITECTURAL

AS..... AMP SWITCH

BATT..... BATTERY

.....

[ETR]..... EXISTING TO REMAIN

- 2 -

GENERAL ABBREVIATIONS

- 4 -

- 3 -

RREAIY	HONS		ELEC
GEN GFI GND, G	GENERATOR GROUND FAULT INTERRUPTER GROUND	1.	THE ENTIRE INSTALLATION SHALL BE IN 70, NEMA, UL LISTINGS, MANUFACTUREF
GRMC GRS	GALVANIZED RIGID METAL CONDUIT GALVANIZED RIGID STEEL		
GSR	GROUND SENSING RELAY	2.	GENERAL WORK PRACTICES FOR ELECTE
HGT HID	HIGH INTENSITY DISCHARGE		BE PERFORMED IN A NEAT AND WORKMA
HOA HP	HAND OFF AUTO HORSEPOWER		
HPS	HIGH PRESSURE SODIUM	3.	ALL MATERIAL AND EQUIPMENT SHALL E
HZ IEEE	INSTITUTE OF ELECTRICAL AND		AND INSTALLED ACCORDING TO ITS LIST
IMC	ELECTRONICS ENGINEERS	4.	ALL DEVICES SHOWN ON DRAWINGS ARE
INCAND	INCANDESCENT		CHARACTER, AND GENERAL WIRING REC
INSUL INT	INSULATION INTERIOR/INTERLOCK	5.	THE TERM "FURNISH" SHALL MEAN TO O
JB	JUNCTION BOX		POSITION AND CONNECT FOR USE. THE MEAN ALL LABOR. MATERIAL, EQUIPMEN
KW	KILOWATT		AND OTHER INCIDENTALS NECESSARY FO
KWH KV	KILOWATT HOUR KILOVOLT	6.	THE CONTRACTOR SHALL PROVIDE ALL
KVA			ELECTRICAL SYSTEMS AS INDICATED OR
LA LAB	LABORATORY	7.	THE CONTRACTOR SHALL REVIEW ALL C
LF I FMC	Linear Feet Liquidtight fi exibi e metal: conduit		FOR ALL TRADES AND PROVIDE ALL ELEC
LT	LIGHT	8	THE CONTRACTOR SHALL COORDINATE
LTG MC/M.C	LIGHTING METAL CLAD/MECHANICAL CONTRACTOR	0.	EQUIPMENT, CASEWORK, DEVICES, FIXTL
MCB			ALL TRADES IN THE FIELD PRIOR TO PRO
MDP	MAIN DISTRIBUTION PANEL	9.	THE CONTRACTOR IS HEREBY CAUTIONE
MH MIN	METAL HALIDE MINIMUM		AMPERAGE, ETC.) OF EQUIPMENT ARE BA
MISC	MISCELLANEOUS		OR PERFORMING ANY ROUGH-IN WORK.
MLO MTD	MAIN LUGS ONLY MOUNTED	10.	DEVICES INDICATED TO BE INSTALLED IN
N	NEUTRAL		AND HORIZONTALLY. FOR ALL MOUNTIN
NC NEC	NATIONAL ELECTRIC CODE		DEVICES, FIRE ALARM PULL STATIONS, S DRAWINGS AND COORDINATE ALL LOCA
NEMA	NATIONAL ELECTRICAL MANUEACTURERS ASSOCIATION		
NESC	NATIONAL ELECTRICAL SAFETY CODE	11.	ADJUSTMENTS TO WIRING DEVICES TO A MINOR DETAILS OMITTED SHALL BE PRO
NFPA NIC	NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT		
NO	NORMALLY OPEN	12.	ANY CHANGES AND/OR MODIFICATIONS I REPRESENTATIVE PRIOR TO CONSTRUCT
NTS 0.C	ON CENTER		
Р Ра	POLE PUBLIC ADDRESS	13.	REMOVE ALL TRASH, DEBRIS, AND DEMO SHALL BE KEPT IN "BROOM CLEAN" CONI
PB	PULL BOX/PUSH BUTTON		
P.C PCU	PLUMBING CONTRACTOR POWER CONDITIONING UNIT	14.	ELECTRICAL PANELS AND DISCONNECTS THE EQUIPMENT AND BEARING THE VOLT
РН DNI	PHASE		
PRI	PRIMARY	15.	PROVIDE ALL PANELBOARD SCHEDULES BREAKER LABELS SHALL BE SPECIFIC TO
PSI PT	POUNDS PER SQUARE INCH POTENTIAL TRANSFORMER		LOCATION.
PVC		16.	ALL RECEPTACLES AND BRANCH CIRCUI
REQEPT	REQUIRED		SERVING ELECTRIC WATER FOUNTAINS, A
RGS RM	RIGID GALVANIZED STEEL		GROUND FAULT PROTECTION.
RMC	RIGID METALLIC CONDUIT	17.	ALL EQUIPMENT SHALL BE NEMA RATED
SEC	SECONDARY	18.	IN THE EVENT THAT LOCAL EQUIPMENT [
SECT	SECTION SOLIABE FEFT		MAINTAINED, THE NEXT UPSTREAM OVER
SN	SOLID NEUTRAL		
SP SPECS	SPARE SPECIFICATIONS	19.	ALL FIRE/SMOKE RATINGS SHALL BE MA
SUSP sw	SUSPENDED SWITCH	20.	FLASH ALL ROOF PENETRATIONS IN ACC
SWBD	SWITCHBOARD		DOCUMENTS.
SYM TEL	SYMMETRICAL TELEPHONE	21.	PROVIDE ALL WORK REQUIRED FOR A CO
THRU	THROUGH		OTHER SPECIAL SYSTEMS. COORDINATE
TS	TAMPER SWITCH	22.	WHERE NO CIRCUIT IS DESIGNATED FOR
TYP U.G., U/G	TYPICAL UNDERGROUND		CIRCUIT TO THE NEAREST AVAILABLE PA
UL			
U.U.N UPS	UNINTERRUPTIBLE POWER SUPPLY	23.	ALL WIRE AND CONDUIT SHALL BE CONC
V VD	VOLT/VOLTAGE VOLTAGE DROP		ASSOCIATED STRUCTURES. ANY OTHER
VCR	VACUUM CIRCUIT RECLOSER		ENGINEER BEFORE INSTALLATION CAN P
W W/	WITH	24.	PRIOR TO SUBMITTING A BID, THE CONTR
WP	WEATHERPROOF		CONDITIONS PERTAINING TO THIS WORK MAKE ALLOWANCES IN HIS BID FOR ALL
			COMPLY WITH THIS SHALL NOT CONSTIT
ONS.		25.	MAKE ALL NECESSARY ARRANGEMENTS
			SERVICES TAILORED FOR THIS PROJECT.
CONVENT	IONS		CONDUITS, WIRE, SWITCHES, FUSE BOXE
			GROUND FAULT INTERRUPTION EQUIPME REQUIRED TO PROVIDE SUFFICIENT ILLUI
IENT DESIGNATIO	N, BOTTOM INDICATES EQUIPMENT NUMBER, SEE M/P		
			OF THE VARIOUS VOLTAGE/AMPERAGE/H
T REFERENCE NUM	MBER, BOTTOM INDICATES SHEET NUMBER		CONTRACTORS IN CONSTRUCTION WOR
			AFTER CUT-OVER.
LLOUT REFERENC	E NUMBER, BOTTOM INDICATES SHEET NUMBER		
	NUMBER, BOTTOM INDICATES SHEET NUMBER		

ILDING EAKER LANCED MAGNETIC SWITCH ANCH LOW RAISED FLOOR NDUIT RCUIT BREAKER OSED CIRCUIT TELEVISION NTIGRADE DEGREE NCRETE ENCASED RCUIT RCUITED ILING AXIAL NCRETE NTRACTOR BRENT LUMITING EUSES	MISC MLO MTD NC NEC NEC NEMA NESC NFPA NIC NO NTS O.C	MISCELLANEOUS MAIN LUGS ONLY MOUNTED NEUTRAL NORMALLY CLOSED NATIONAL ELECTRIC CODE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NATIONAL ELECTRICAL SAFETY CODE NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
LANCEN LANCED MAGNETIC SWITCH ANCH LOW RAISED FLOOR NDUIT RCUIT BREAKER OSED CIRCUIT TELEVISION NTIGRADE DEGREE NCRETE ENCASED RCUIT RCUITED ILING AXIAL NCRETE NTRACTOR BRENT LUMITING EUSES	MED MTD NC NEC NEC NEMA NESC NFPA NIC NO NTS O.C	MAIN LUGS ONLY MOUNTED NEUTRAL NORMALLY CLOSED NATIONAL ELECTRIC CODE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NATIONAL ELECTRICAL SAFETY CODE NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
ANCH LOW RAISED FLOOR NDUIT RCUIT BREAKER OSED CIRCUIT TELEVISION NTIGRADE DEGREE NCRETE ENCASED RCUIT RCUITED ILING AXIAL NCRETE NTRACTOR PRENT LIMITING EUSES	N NC NEC NEMA NESC NFPA NIC NO NTS O.C	NEUTRAL NORMALLY CLOSED NATIONAL ELECTRIC CODE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NATIONAL ELECTRICAL SAFETY CODE NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
LOW RAISED FLOOR NDUIT RCUIT BREAKER OSED CIRCUIT TELEVISION NTIGRADE DEGREE NCRETE ENCASED RCUIT RCUITED ILING AXIAL NCRETE NTRACTOR PRENT LIMITING EUSES	NC NEC NEMA NESC NFPA NIC NO NTS D.C	NORMALLY CLOSED NATIONAL ELECTRIC CODE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NATIONAL ELECTRICAL SAFETY CODE NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
NDUIT RCUIT BREAKER OSED CIRCUIT TELEVISION NTIGRADE DEGREE NCRETE ENCASED RCUIT RCUITED ILING AXIAL NCRETE NTRACTOR PRENT LIMITING EUSES	NEC NEMA NESC NFPA NIC NO NTS O.C.	NATIONAL ELECTRIC CODE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NATIONAL ELECTRICAL SAFETY CODE NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
RCUIT BREAKER OSED CIRCUIT TELEVISION NTIGRADE DEGREE NCRETE ENCASED RCUIT RCUITED ILING AXIAL NCRETE NTRACTOR PRENT LIMITING EUSES	NEMA NFPA NIC NO NTS D	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NATIONAL ELECTRICAL SAFETY CODE NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
NTIGRADE DEGREE NCRETE ENCASED RCUIT RCUITED ILING AXIAL NCRETE NTRACTOR PRENT LIMITING EUSES	NESC NFPA NIC NO NTS O.C	NATIONAL ELECTRICAL SAFETY CODE NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
NTRIABLE DEGINEE NCRETE ENCASED RCUIT RCUITED ILING AXIAL NCRETE NTRACTOR REPORT LIMITING EUSES	NFPA NIC NO NTS O.C.	NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
RCUIT RCUITED ILING AXIAL NCRETE NTRACTOR REENT LIMITING EUSES	NIC NO NTS O.C	NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
RCUITED ILING AXIAL NCRETE NTRACTOR REENT LIMITING EUSES	NO NTS O.C	NORMALLY OPEN NOT TO SCALE
ILING AXIAL NCRETE NTRACTOR PRENT LIMITING EUSES	NTS O.C	NOT TO SCALE
AXIAL NCRETE NTRACTOR REENT LIMITING EUSES	0.0.	AN AFNTER
NORE TE NTRACTOR DENT LIMITING EUSES		
	PA	PUBLIC ADDRESS
	РВ	PULL BOX/PUSH BUTTON
RRENT TRANSFORMER	P.C	PLUMBING CONTRACTOR
PPER	PCU	
	PH PNI	ΡΑΝΕΙ
SCONNECT	PRI	PRIMARY
STRIBUTION	PSI	POUNDS PER SQUARE INCH
/ISION	РТ	POTENTIAL TRANSFORMER
AWING	PVC	
CTRONIC BALLAST	RECEPT	RECEPTAGLE
ECTRICAL CONTRACTOR	RGS	RIGID GALVANIZED STEEL
HAUST FAN	RM	ROOM
UIPMENT GROUNDING CONDUCTOR	RMC	RIGID METALLIC CONDUIT
EVATION	RNC	RIGID NONMETALLIC CONDUIT
EUTRIU IERGENCY	SEC	SECUNDARY
ECTRICAL METALLIC TUBING	SF	SQUARE FEET
CLOSURE	SN	SOLID NEUTRAL
IERGENCY POWER OFF	SP	SPARE
HYLENE PROPYLENE RUBBER	SPECS	SPECIFICATIONS
	SUSP	
ECTRIC WATER HEATER	SWBD	SWITCHBOARD
AMPLE	SYM	SYMMETRICAL
STING	TEL	TELEPHONE
TERNAL/EXTERIOR	THRU	THROUGH
SE/FRAME E ALARM	IК те	
EDER	TYP	TYPICAL
IISHED	U.G., U/G	UNDERGROUND
TURE	UL	UNDERWRITERS LABORATORY
DOR	U.O.N	UNLESS OTHERWISE NOTED
LL LUAD AMPS	UPS V	
JORESCENT	VD	VOLTAGE DROP
EXIBLE METAL CONDUIT	VCR	VACUUM CIRCUIT RECLOSER
DW SWITCH	W	WATT
ET/FOOT	W/	WITH
SE NERAL CONTRACTOR	VYP XFMR	
OUNDING ELECTRODE CONDUCTOR		
	10	
TIONS MAT BE DEFINED IN THE SPECIFICATION	13.	
GRAPHIC C		ONS
EQUIPMENT TAG, TOP INDICATES EQUIPME	NT DESIGNATION,	BOTTOM INDICATES EQUIPMENT NUMBER, SEE N
DRAWINGS FOR FORTHER INFORMATION		
PLAN CALLOUT, TOP INDICATES CALLOUT	REFERENCE NUME	BER, BOTTOM INDICATES SHEET NUMBER
ELEVATION CALLOUT TOP INDICATES CAL		
LEEVATION GALLOUT, TOT INDIGATES GAL		Nomber, bottom indicates sheet nomber
		IMBER BOTTOM INDICATES SHEET NUMBER
		SMBER, BOTTOM INDICATED SHEET NOMBER
REVISION AREA		
REVISION TAG		
CONSTRUCTION KEYED NOTE TAG		
CONSTRUCTION KEYED NOTE TAG		
CONSTRUCTION KEYED NOTE TAG DEMOLITION KEYED NOTE TAG		
CONSTRUCTION KEYED NOTE TAG DEMOLITION KEYED NOTE TAG POINT OF CONNECTION BETWEEN NEW ANI	) existing	
	RECT CURRENT SCONNECT STRIBUTION AWING CH ECTRONIC BALLAST ECTRICL CONTRACTOR HAUST FAN UIPMENT GROUNDING CONDUCTOR EVATION ECTRIC IERGENCY ECTRICAL METALLIC TUBING CLOSURE IERGENCY POWER OFF HYLENE PROPYLENE RUBBER UIPMENT ECTRIC WATER COOLER ECTRIC WATER COOLER ECTRIC WATER HEATER AMPLE STING TERNAL/EXTERIOR SE/FRAME IE ALARM EDER ISHED TURE DOR LL LOAD AMPS EXIBLE JORESCENT SXIBLE METAL CONDUIT DW SWITCH ET/FOOT SE NERAL CONTRACTOR OUNDING ELECTRODE CONDUCTOR TIONS MAY BE DEFINED IN THE SPECIFICATION <b>GRAPHIC C</b> EQUIPMENT TAG, TOP INDICATES EQUIPME DRAWINGS FOR FURTHER INFORMATION PLAN CALLOUT, TOP INDICATES CALLOUT I ELEVATION CALLOUT, TOP INDICATES CALLOUT REVISION AREA REVISION AREA	RECT CURRENT PNL

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### TRICAL GENERAL NOTES

STRICT ACCORDANCE WITH THE ENFORCED REVISIONS OF THE BUILDING CODE, NFPA RS' RECOMMENDATIONS, THE NATIONAL BOARD OF UNDERWRITERS, STATE CODES, AVING JURISDICTION.

RICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NECA 1, GOOD WORKMANSHIP HED BY THE NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION. ALL WORK SHALL IANLIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE. CARE SHALL BE EXERCISED DISTURBANCE TO SPACES OUTSIDE THE AREA OF WORK.

. BE LISTED AND LABELLED FOR THE APPLICATION BY UNDERWRITERS LABORATORIES ING.

E DIAGRAMMATIC IN LOCATION AND SHOWN TO INDICATE THE EXTENT, GENERAL QUIREMENTS ONLY.

OBTAIN AND SUPPLY TO THE JOB SITE. THE TERM "INSTALL" SHALL MEAN TO FIX IN TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL. THE TERM "WORK" SHALL NT, SCAFFOLDING, RIGGING, TOOLS, SUPERVISION, SERVICES, SETUP, PROGRAMMING, FOR COMPLETE AND OPERABLE INSTALLATION.

WORK REQUIRED FOR A COMPLETE AND OPERATIONAL INSTALLATION OF THE IMPLIED BY THE DESIGN DOCUMENTS.

CONTRACT DOCUMENTS (DRAWINGS, SPECIFICATIONS, EQUIPMENT CUT SHEETS, ETC.) CTRICAL WORK REQUIRED FOR COMPLETE AND OPERABLE INSTALLATION.

E ALL WORK, ELECTRICAL REQUIREMENTS, AND THE ACTUAL LOCATIONS OF ALL URES, SWITCHES, SENSORS, ETC., WITH ALL DRAWINGS, SPECIFICATIONS, AND WITH OVIDING PRICING AND PERFORMING ANY ROUGH-IN WORK.

IED THAT THE ELECTRICAL POWER CHARACTERISTICS (VOLTAGE, PHASE, HORSEPOWER, ASED ON INFORMATION AVAILABLE AT THE TIME OF PROJECT DESIGN. CONTRACTOR ICS FOR EACH PIECE OF EQUIPMENT TO BE INSTALLED PRIOR TO ORDERING EQUIPMENT

I THE SAME LOCATIONS WITH DIFFERENT ELEVATIONS SHALL BE ALIGNED VERTICALLY NG HEIGHTS AND LOCATIONS (SWITCHES, OUTLETS, FIRE ALARM AUDIBLE AND VISUAL SECURITY DEVICES, CARD READERS, SENSORS, ETC.), REFER TO THE ARCHITECTURAL TIONS BETWEEN TRADES.

AVOID STRUCTURAL OR OTHER INTERFERENCES AS WELL AS WORK INDICATED WITH VIDED WITHOUT EXTRA COST.

MUST BE REVIEWED AND APPROVED BY THE ENGINEER AND/OR OWNER'S FION.

IOLITION MATERIAL FROM THE PREMISES AT THE END OF EACH WORK DAY. JOB SITE IDITION.

SHALL BE LABELED WITH ENGRAVED PLASTIC TAGS MOUNTED ON THE OUTSIDE OF TAGE AND DESIGNATION OF THE EQUIPMENT.

S IN AN EDITABLE ELECTRONIC FORMAT (MS WORD OR EXCEL). LIGHTING CIRCUIT ) THE AREA. USE BUILDING COLUMNS, ROOM NAMES, ETC. FOR A MORE ACCURATE

JITS WITHIN 6 FEET OF SINKS, 20 FEET OF WATER TANKS, IN KITCHENS, IN GARAGES, AND ALL OTHER LOCATIONS REQUIRED BY THE NEC SHALL BE PROVIDED WITH

AND LISTED FOR THE APPLICATION AND ENVIRONMENT.

DISCONNECTS CANNOT BE LOCATED SUCH THAT WORKING CLEARANCES ARE RCURRENT DEVICE SHALL BE INDIVIDUALLY CAPABLE OF BEING LOCKED IN THE OPEN AND 430.102.

AINTAINED. APPLY FIRESTOPPING AND SEALANT AS REQUIRED.

ORDANCE WITH THE ROOFING SYSTEM MANUFACTURER AND THE CONTRACT

OMPLETE AND OPERABLE INSTALLATION OF THE FIRE ALARM, SECURITY, AND ANY E EXACT REQUIREMENTS WITH OWNER'S VENDORS.

R A DEVICE (INCLUDING EQUIPMENT NOT SHOWN ON DRAWINGS), THE E.C. SHALL ANEL WITH CONDUCTOR, RACEWAY, AND BREAKER SIZED PER THE LATEST ADOPTED

CEALED IN WALLS, CEILING PLENUMS, BULKHEADS AND IN ROOF STRUCTURAL AREAS, JLLY WITH ALL OTHER TRADES TO INSTALL ALL CONDUIT AND WIRING IN THESE R MEANS OF PATHWAY SUGGESTED MUST FIRST BE APPROVED FROM THE ELECTRICAL ROCEED.

RACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH ALL EXISTING . THE CONTRACTOR SHALL INVESTIGATE ALL RELOCATIONS AND NEW WORK AND . CHANGES TO THE ELECTRICAL SYSTEM WHICH ARE NECESSARY. FAILURE TO TUTE A REASON FOR PAYMENT OF EXTRA MONIES DURING THE CONSTRUCTION PHASE.

WITH THE OWNER FOR THE INSTALLATION OF TEMPORARY LIGHTING AND POWER SET TEMPORARY METERS IN ACCORDANCE WITH THE UTILITY PROVIDER'S AIN ALL TEMPORARY LIGHT AND POWER WIRING, INCLUDING, BUT NOT LIMITED TO KES, RECEPTACLES, DISTRIBUTION PANELBOARDS, FUSED DISCONNECT SWITCHES, ENT, FIXTURES, LAMPS, FUSES AND ANY OTHER MATERIAL AND/OR EQUIPMENT MINATION AND POWER, AS REQUIRED BY THE STATE LABOR BOARD, O.S.H.A., OR ALL TION FOR ALL AREAS OF THE SITE WHERE WORK WILL BE PERFORMED BY ANY POWER CIRCUITS, OUTLETS, ETC. IN ACCORDANCE WITH THE POWER REQUIREMENTS IORSEPOWER RATINGS OF THE EQUIPMENT AND TOOLS TO BE USED BY THE . ONCE THE PERMANENT LIGHTING AND POWER SYSTEMS ARE INSTALLED AND EMOVE ALL TEMPORARY ELECTRICAL DISTRIBUTION COMPONENTS AND SYSTEM

	LIGHTING	
A a LP1-X	LUMINAIRE WITH OUTLET BOX. EMERGENCY SUPPLY/NIGHT LIGHTING CIRCUIT. "A" INDICATES FIXTURE TYPE. (SEE FIXTURE SCHEDULE. TYP.) "LP1-X" INDICATES CIRCUIT NUMBER. (TYP.) SWITCH CONTROL. (TYP.)	SHADING INDICATES "a" INDICATES
	CEILING-MOUNTED LUMINAIRE	
	WALL-MOUNTED LUMINAIRE	
●□	POLE, BASE, ARM, AND SITE LIGHTING LUMINAIRE	
ৠৠ৾৾ৠ৾	CEILING OR WALL-MOUNTED EXIT SIGN (SHADED QUADRANT IND AND EMERGENCY HEADS AS INDICATED ON FLOOR PLANS	ICATES FACE) WITH CHEVRONS
	BATTERY OPERATED EMERGENCY LIGHTING UNIT WITH DUAL HEA	ADS
Ŕ	DUAL REMOTE HEAD FOR BATTERY OPERATED EMERGENCY LIGH	TING UNIT

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	SWITCHES
S	WALL OUTLET BOX AND SINGLE POLE SWITCH (20 AMP)
S <sup>3</sup>	WALL OUTLET BOX AND THREE-WAY SWITCH (20 AMP)
S <sup>4</sup>	WALL OUTLET BOX AND FOUR-WAY SWITCH (20 AMP)
S <sup>WP</sup>	WALL OUTLET BOX AND SINGLE-POLE SWITCH (20 AMP, NON-LOCK, WITH WEATHERPROOF COVER)
S <sup>K</sup>	WALL OUTLET BOX SINGLE POLE KEY SWITCH (20 AMP)
S <sup>K3</sup>	WALL OUTLET BOX AND THREE-WAY KEY SWITCH (20 AMP)
S <sup>K4</sup>	WALL OUTLET BOX AND FOUR-WAY KEY SWITCH (20 AMP)
S <sup>D</sup>	WALL OUTLET BOX AND DIMMER SWITCH
S LV	LOW VOLTAGE LIGHTING SWITCH
ST	TIME SWITCH
$\langle 0S \rangle$	WALL-MOUNTED OCCUPANCY SENSOR
(OS)	CEILING-MOUNTED OCCUPANCY SENSOR
D	AUTOMATIC DAYLIGHTING CONTROL SENSOR
RC	ROOM CONTROLLER
SWITCHING NOTES:	
1.	MOUNT SWITCHES AT 42" U.O.N.
2.	SWITCHES SHALL BE RATED FOR LOAD CONTROLLED.
3.	DIMMERS SHALL BE COMPATIBLE FOR LIGHTING FIXTURE LAMP SOURCE AND BALLAST/DRIVER BEING CONTROLLED.
4.	WHERE MULTIPLE SWITCHES ARE SHOWN, PROVIDE GANG SWITCH IN SINGLE ENCLOSURE WITH SINGLE FACEPLATE.

LOWERCASE LETTER DENOTES SWITCH CONTROL. 5.

	WIRING DEVICES
-	WALL OUTLET BOX AND 20 AMP DUPLEX RECEPTACLE
-	WALL OUTLET BOX AND 20 AMP DUPLEX RECEPTACLE, MOUNTED 6" ABOVE COUNTER BACKSPLASH
<b>#</b>	TWO GANG WALL OUTLET BOX AND TWO 20 AMP DUPLEX RECEPTACLES
	TWO GANG WALL OUTLET BOX AND TWO 20 AMP DUPLEX RECEPTACLES, MOUNTED 6" ABOVE COUNTER BACKSPLASH
÷	WALL OUTLET BOX AND 20 AMP SINGLE RECEPTACLE
H	WALL OUTLET BOX AND SPECIAL PURPOSE RECEPTACLE
()) ()()()()()()()()()()()()()()()()()(	FLUSH FLOOR BOX WITH FIRE/SMOKE RATED PENETRATION, COVER, AND 20 AMP RECEPTACLE(S)/DATA OUTLET(S) CONFIGURATION AS INDICATED. PROVIDE MINIMUM 3/4" CONDUIT(2) TO NEAREST WALL AND UP TO ACCESSIBLE FINISHED CEILING U.O.N.
∲ ∳	CEILING OUTLET BOX AND 20 AMP RECEPTACLE CONFIGURATION AS INDICATED
	PLUGMOLD WITH DIVIDER. PROVIDE RECEPTACLES AND TELE/DATA OUTLETS AS INDICATED.
J	FLUSH WALL JUNCTION BOX OR JUNCTION BOX ABOVE CEILING.
WIRING DEVICES NOT	ATIONS
+XX	DIMENSIONED HEIGHT A.F.F.
"a"	LOWERCASE LETTER DENOTES SWITCH CONTROL.
"EX"	EXISTING DEVICE
"GFI"	GROUND FAULT CIRCUIT INTERRUPTER PERSONAL PROTECTION
"GFP"	GROUND FAULT PROTECTION OF EQUIPMENT
"IG"	ISOLATED GROUND (RECEPTACLES INCLUDE SEPARATE GREEN GROUND CONDUCTOR TO ISOLATED GROUND BUS IN PANEL)
"WP"	WEATHERPROOF

# SYMBOLS LEGEND NOTE

NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED ARE APPLICABLE TO THIS PROJECT. INDIVIDUAL DRAWINGS MAY DEFINE UNIQUE SYMBOLS FOR CONVENIENCE.



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### EQUIPMENT

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208/120V PANELBOARD
480/277V BRANCH CIRCUIT PANELBOARD
UNFUSED DISCONNECT SWITCH
FUSED DISCONNECT SWITCH
COMBINATION DISCONNECT SWITCH AND MAGNETIC MOTOR CONTROLLER
MAGNETIC MOTOR STARTER OR CONTACTOR
MOTOR CONNECTION
MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOADS
TRANSFORMER
MOTORIZED DAMPER LOCATION (FURNISHED UNDER DIVISION 23)
TIME CLOCK
EMERGENCY POWER OFF SWITCH
ENCAPSULATED RELAY/SHUTDOWN RELAY
SURGE PROTECTION DEVICE
VARIABLE FREQUENCY DRIVE

### FIRE ALARM

WALL-MOUNTED FLUSH MANUAL PULL STATION

WALL-MOUNTED AUDIO AND VISUAL ALARM WITH CANDELA RATING AS NOTED

WALL-MOUNTED VISUAL ALARM WITH CANDELA RATING AS NOTED

CEILING-MOUNTED SMOKE DETECTOR, "CO" DENOTES COMBINATION CARBON MONOXIDE/SMOKE DETECTOR

CEILING-MOUNTED HEAT DETECTOR, "CO" DENOTES COMBINATION CARBON MONOXIDE/SMOKE DETECTOR

DUCT-MOUNTED SMOKE DETECTOR, "CO" DENOTES COMBINATION CARBON MONOXIDE/SMOKE DETECTOR

SPRINKLER SYSTEM FLOW SWITCH CONNECTION

SPRINKLER SYSTEM PRESSURE SWITCH CONNECTION

SPRINKLER SYSTEM TAMPER SWITCH CONNECTION

FIRE ADDRESSABLE INTERFACE MODULE

REMOTE TEST STATION WITH LED INDICATOR AND KEY SWITCH

FIRE ALARM SYSTEM CONTROL MODULE

FIRE ALARM SYSTEM MONITOR MODULE

FIRE ALARM SYSTEM CONTROL PANEL

FIRE ALARM SYSTEM ANNUNCIATOR PANEL

### TELECOMMUNICATIONS

COMBINATION TELE/DATA WALL OUTLET BOX WITH MINIMUM 1" CONDUIT TO ABOVE ACCESSIBLE FINISHED CEILING (PROVIDE PULL CORD AND END BUSHING) MOUNTED AT 18" A.F.F. U.O.N. SEE DRAWINGS FOR CABLE TYPE, QTY. ETC.

FLUSH FLOOR BOX FOR ONE TELEPHONE AND ONE DATA JACK WITH COVER. PROVIDE MINIMUM 1" CONDUIT TO NEAREST WALL AND UP TO ABOVE ACCESSIBLE CEILING (PROVIDE PULL CORD AND END BUSHING) U.O.N. SEE DRAWINGS FOR CABLE TYPE, QTY. ETC.

FLUSH-MOUNTED TELEVISION CABLE LOCATION WITH RECESSED FLAT PANEL MOUNTING ENCLOSURE EQUIPPED WITH RECEPTACLE, DATA DROP, AND CABLE TV COAX CONNECTION (COORDINATE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.) SEE DRAWINGS FOR CABLE TYPE, QTY. ETC.

### RACEWAYS

HOMERUN TO PANEL

CONDUIT TURNING UP

CONDUIT TURNING DOWN

CONDUIT WITH CAP

LADDER TYPE CABLE TRAY (NUMBER INDICATES WIDTH)

OVERHEAD CONDUCTORS UNDERGROUND DUCTBANK SYSTEM

DUCTBANK SYSTEM SECTION CALLOUT, "X-X" INDICATES CORRESPONDING SECTION

### **COORDINATION NOTE**

THE HVAC, PLUMBING, AND ELECTRICAL CONTRACTORS SHALL BE AWARE THAT THE CEILING HEIGHTS, SOFFITS AND SPACE CONDITIONS ON THIS PROJECT ARE CRITICAL AND SPACE ALLOCATION MUST BE COORDINATED BETWEEN ALL TRADES AND MAINTAINED. EACH CONTRACTOR OR TRADE SHALL REFER TO THE STRUCTURAL AND ARCHITECTURAL DRAWINGS IN ADDITION TO THE HVAC, PLUMBING, AND ELECTRICAL DRAWINGS TO DETERMINE ACCEPTABLE LAYERING OF ALL EQUIPMENT.











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# T ELECTRICAL LIGHTING PLAN E-2 SCALE: 1/4" = 1'-0"

BUILDING LIGHTING FIXTURE SCHEDULE									
TYPE	CATALOG No.	DESCRIPTION	LAMP	VOLTS	REMARKS				
A	COLUMBIA LIGHTING OR EQUAL CFP24-55/41/3440	2'x4' FLAT PANEL FIXTURE	50W LED	UNV					
A2	COLUMBIA LIGHTING OR EQUAL CFP22-40/33/2840	2'x2' FLAT PANEL FIXTURE	40W LED	UNV					
B4	COLUMBIA LIGHTING OR EQUAL MPS4-40ML-FW-E-U	4' LINEAR STRIP LIGHT	32W LED	UNV					
B8	COLUMBIA LIGHTING OR EQUAL MPS8-40HL-FW-ED-U-NXS	8' LINEAR STRIP LIGHT	83W LED	UNV	PROVIDE WITH OCCUPANCY SENSOR				
EB	DUAL LITE OR EQUAL EV2	EMERGENCY BATTERY PACK WITH HEADS	(2) 1W LED	UNV					
EX2	DUAL LITE OR EQUAL EVCURWD4	EMERGENCY EXIT SIGN WITH HEADS AND REMOTE CAPACITY	(2) 1W LED	UNV					
WP	LSI LIGHTING OR EQUAL XWS-LED-5L-FTW-UNV-DIM-40-80-PCI120-XX	SMALL WALL SCONCE	39W LED	UNV	PROVIDE WITH PHOTOCELL				
WP2	LSI LIGHTING OR EQUAL XWS-LED-6L-FTW-UNV-DIM-40-80-PCI120-XX	SMALL WALL SCONCE	52W LED	UNV	PROVIDE WITH PHOTOCELL				
Z	DUAL LITE OR EQUAL EVO	EXTERIOR DUAL REMOTE HEADS	(2) 1W LED	UNV					
ØS	HUBBELL CONTROL SOLUTIONS CAT. No. OMNIDT2000BP1277	LINE VOLTAGE, DUAL TECH. OCCUPANCY & VACANCY CEILING MOUNTED SENSOR	NA	UNV					
HOS	HUBBELL CONTROL SOLUTIONS CAT. No. LHMTS1-X	LINE VOLTAGE, DUAL TECH. OCCUPANCY & VACANCY WALL MOUNTED SENSOR	NA	UNV					
NOTES: 1. COORDI 2. PROVID COMPLI 3. LOCATIO 4. TO PRE	NOTES:         1.       COORDINATE FINAL FIXTURE SELECTIONS, COLOR TEMPERATURE, AND FINISHES WITH ARCHITECT AND OWNER.         2.       PROVIDE ALL REQUIRED POWER PACKS AND MOUNTING DEVICES FOR OCCUPANCY SENSORS. INCLUDE ALL MOUNTING, DRIVERS, FILTERS, POWER PACKS, AND OTHER SUPPORTING PARTS FOR A COMPLETE AND WORKING SYSTEM.         3.       LOCATION OF ALL OCCUPANCY SENSORS IS APPROXIMATE. REVIEW MANUFACTURER'S WRITTEN INSTRUCTIONS BEFORE INSTALLING.         4.       TO PREVENT FALSE ACTIVATION, MOUNT ULTRASONIC CEILING-MOUNT SENSORS AT LEAST SIX FEET AWAY FROM DIFFUSERS.								





**KEYED CONSTRUCTION NOTES** 

① RECEPTACLE FOR DOMESTIC WATER HEAT TRACE. COORDINATE FINAL LOCATION WITH P.C. PRIOR TO ROUGH-IN.

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- ② RECEPTACLES IN MILLWORK. COORDINATE FINAL LOCATION AND HEIGHT WITH OWNER PRIOR TO ROUGH-IN.
- ③ PROVIDE 24"x24"x3/4" PLYWOOD BACKBOARD FOR COMMUNICATION.
- (4) UNDERGROUND COMMUNICATION CONDUIT FROM SITE TO BACKBOARD. SEE DRAWING E-3 FOR CONTINUATION. E.C. SHALL USE EXISTING SLEEVES AND COORDINATE LAYOUT WITH P.C. ON OTHER UTILITIES.
- 5 UNDERGROUND CPOWER CONDUIT FROM SITE TO PANELBOARD. SEE DRAWING E-3 FOR CONTINUATION. E.C. SHALL USE EXISTING SLEEVES AND COORDINATE LAYOUT WITH P.C. ON OTHER UTILITIES.
- 6 COORDINATE ALL RECEPTACLE LOCATIONS AND HEIGHT WITH OWNER AND KITCHEN EQUIPMENT VENDOR PRIOR TO ROUGH-IN.
- PROVIDE RECEPTACLE FOR OVERHEAD DOOR MOTOR. COORDINATE FINAL LOCATION WITH DOOR INSTALLER PRIOR TO ROUGH-IN.
- 8 NEW RECEPTACLE ON EXISTING WALL. POWER DROPPED DOWN FROM CEILING IN EMT CONDUIT SEAL PENETRATION. COORDINATE FINAL LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH-IN.

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1 ELECTRICAL POWER PLAN

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- 10 -

E-2 SCALE: 1/4" = 1'-0"

**NCESSIONS** School District 0 rside 851 S Ri< Client: 300 Da Taylor, E E E E E B ChiteCt LANNERS PA 18705 824.3320 606.4966 chus.com en Mullins archi Architects | PLAN ain St, Wilkes-Barre, PA 2022 C ALLEN T | 570 | F | 570 | Ú REGISTERED PROFESSIONAL / KURTIS JOSEPH SEA \ENGINEE Revisions | Issues No: Date: Phase: PERMIT/BID SET Project: Track Concessions Building Date: 03/12/2024 DP Drawn: Checked: KS AS NOTED Scale: Sheet: ELECTRICAL LIGHTING & POWER PLANS E-2



PROVIDE 1 1/2" CONDUIT WITH PULL STRING FOR IT/COMMUNICATION ACROSS BACK OF MAINTENANCE AREA HIGH ALONG STRUCTURE TO EXTERIOR WALL. CONTINUE DOWN WALL TO EXTERIOR JUNCTION BOX. PROVIDE JUNCTION/PULL BOX AT LOCATION OF UNDERGROUND FEED. PROVIDE UNDERGROUND CONDUIT FROM EXTERIOR JUNCTION BOX UP TO NEW BUILDING TO IT LOCATION. SEE DRAWING E-2 FOR MORE DETAILS.

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Existing ——

PANEL M

/MIN. BURIAL DEPTH

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/ OF 18"

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ND HOLE SCHEDULE						
ENGTH	DEPTH	DESCRIPTION	Cover Engraving			
12"	36"	PULL BOX FOR SITE CABLING	POWER OR COMM.			





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DISCONNECTS, ETC. GREATER THAN 60A, AND MINI SUBSTATIONS. NAMEPLATE TO BE 1/16" THICK BLACK BAKELITE PLASTIC WITH WHITE RECESSED ENGRAVED

LETTERS.

SHALL NOT BE ALLOWED. FROM.

2. PROVIDE UNISTRUT MOUNTING ARRANGEMENT DICTATED BY FIELD CONDITIONS. SECURELY FASTEN ALL SUPPORT POINTS INTO THE SLAB, WALL OR BEAM. 3. PROVIDE ARC FLASH AND SHOCK HAZARD EQUIPMENT LABELS PER THE LATEST REVISION OF NFPA 70E.

TYPICAL PANELBOARD ELEVATION

1. ALL BOLTS SHALL HAVE LARGE (3/8") ROUND HEAD. NO WASHERS ALLOWED.

- 1 -

- 2 -

6'-6"

OUTER LOCK —

FLUSH LATCH

AND LOCK -

OUTER LOCK —

£\_\_\_\_

AFF ——





- 1. SEE SPECIFICATIONS FOR ADDITIONAL LABELING INFORMATION AND COLORS OF LABELS FOR DIFFERENT SYSTEMS.
- 2. MODIFY TEXT AS REQUIRED 3. LABEL DEVICES IN SURFACE METAL RACEWAYS, POWER POLES, FLOOR BOXES, CONCEALED MULTI-SERVICE POWER BOXES, ETC. SIMILARLY.



# 111 XXXXX - XXXXX $\Box$ $\oslash$ $\Box$

# 5. NAMEPLATE INFORMATION SHALL INCLUDE NAME, VOLTAGE, AMPERAGE AND EQUIPMENT FED

4. SECURE NAMEPLATE TO SURFACES WITH (2) FLAT HEAD BRASS SCREWS. ADHESIVE CEMENT

LABEL ALL PANELBOARDS, TRANSFER SWITCHES, TRANSFORMERS, CONTROL PANELS, REFER TO SPECIFICATIONS FOR ADDITIONAL LABELING REQUIREMENTS.

# ackslash rated penetration detail E-4 SCALE: N.T.S.

1. PROVIDE FIRESTOPPING AT ALL PENETRATIONS THROUGH RATED ASSEMBLIES IN A

4. IN FINISHED AREAS, TERMINATE SLEEVE AND SEALANT FLUSH WITH WALL SURFACE.



### - NEUTRAL BUS ---- NEATLY FAN CONDUCTORS INTO CIRCUIT BREAKERS AND SECURE TOGETHER WITH RATED CABLE TIES. TYPICAL FOR ALL WIRING. — MAIN CIRCUIT BREAKER OR LUGS -TOP OR BOTTOM FEED AS REQ'D. PHASE LEGS NEUTRAL — PANEL FEEDER

ALL WIRE AND CONDUIT SHALL BE CONCEALED IN WALLS, CEILING PLENUMS, BULKHEADS AND IN ROOF STRUCTURAL AREAS, U.O.N. THE E.C. SHALL COORDINATE FULLY WITH ALL OTHER TRADES TO INSTALL ALL CONDUIT AND WIRING IN THESE ASSOCIATED STRUCTURES. ANY OTHER MEANS OF PATHWAY

SUGGESTED MUST FIRST BE APPROVED FROM THE ELECTRICAL ENGINEER BEFORE INSTALLATION CAN PROCEED.

2. ALL RACEWAYS AND MC CABLE SHALL BE RECTILINEAR TO BUILDING STRUCTURE AND SUPPORTED PER SPECIFICATIONS.

SMOKE-TIGHT MANNER AND TO MAINTAIN A UL 319 CLOSURE. FIRE RETARDING MATERIAL TO MAINTAIN RATING TO THAT OF SURFACE BEING PENETRATED. 2. PROVIDE PRE-FABRICATED, STANDARD WEIGHT, STEEL PIPE SLEEVAE. CONDUIT TO BE CENTERED IN SLEEVE. DO NOT SUPPORT CONDUIT FROM SLEEVE.

3. IN UNFINISHED AREAS, CAULK ALL AROUND ALL SIDES, UP 1" PAST PENETRATED SURFACE.

3. PROVIDE ARC FLASH STUDY AND CORRESPONDING ARC FLASH AND SHOCK HAZARD EQUIPMENT LABELS PER THE LATEST REVISIONS OF IEEE 1584 AND NFPA 70E.

TYP. PANEL WIRING DETAIL SCALE: N.T.S E-4

BRANCH CIRCUITS OUT TO LOADS



#### 1. THIS DETAIL IS MEANT AS A BRIEF SUMMARY OF WIRING METHODS. SEE ONE-LINE DIAGRAM AND SPECIFICATIONS FOR FURTHER REQUIREMENTS ALL CONDUIT SHALL BE CONCEALED ABOVE CEILINGS OR IN WALLS AND FLOORS, U.O.N. BRANCH CIRCUITS SERVING UNFINISHED AREAS SHALL BE ALLOWED TO BE SURFACE-MOUNTED IN RACEWAY.

- RACEWAY 2 TYPICAL JUNCTION BOX ABOVE— ACCESSIBLE CEILING £\_\_\_\_\_ PANELBOARD - USE RACEWAY WHEN TYPICAL OUTLET IN RUNNING SURFACE STUDDED PARTITION MOUNTED ON WALLS \_\_\_\_\_ -TYPICAL SURFACE OUTLET TYPICAL MC CABLE RUN -----CONCEALED IN STUDDED PARTITION FEEDERS IN RACEWAY NOTES:

MC CABLE RUN ABOVE ACCESSIBLE CEILINGS AND IN -----STUDDED PARTITIONS. RUN RECTILINEAR TO BUILDING PROVIDE RACEWAY OUT OF PANELBOARD STRUCTURE. SUPPORT PER SPECIFICATIONS. IN ELECTRICAL ROOMS ------

			P	•
		CKT	POLE	T
		1	1	2
		3	1	2
PROVIDE NEW 100A-3P BREAKER IN EXISTING PANEL. MATCH MANUFACTURE, TYPE, AIC RATING, ETC. E.C. SHALL REARRANGE BREAKERS, SPARES AS NECESSARY FOR NEW INSTALL. COORDINATE BREAKER REARRANGEMENT WITH MAINTENANCE DIRECTOR.		5	1	2
	225A	7	1	
	208/120V MAINTENANCE BLDG	9	1	
	3Ø-4W STORAGE	11	1	_2
PROVIDE NEW 100A-3P BREAKER IN EXISTING PANEL. MATCH MANUFACTURE, TYPE, AIC RATING, ETC. E.C. SHALL REARRANGE BREAKERS, SPARES AS NECESSARY FOR NEW INSTALL. COORDINATE BREAKER REARRANGEMENT WITH MAINTENANCE DIRECTOR.	ROOM	13	1	
	~	15	1	
		17	1	
BREAKER REARRANGEMENT WITH MAINTENANCE	PROVIDE 1 SET OF COPPER	19	1	
DIRECTOR.	THHN/THWN-2 (4) #2 AWG. WITH	21	2	
	#8GND. IN 2" CONDUIT.	23	/	
OVIDE NEW 100A-3P BREAKER IN EXISTING NEL. MATCH MANUFACTURE, TYPE, AIC RATING, C. E.C. SHALL REARRANGE BREAKERS, SPARES NECESSARY FOR NEW INSTALL. COORDINATE EAKER REARRANGEMENT WITH MAINTENANCE RECTOR.		25	2	
		27	/	
	208/120V	29	2	
		31	/	
		33	2	
	100A MCB	35	/	
		3/		4
	-I INF DIAGRAM	39	2	
		41	/	

- 6 -

						NE	WP	ANE	LBO.	ARD	SC	HED	ULE						
DESIG	NATIO	N:		MAINS	S:	100A	Voltage: 208/120V-3Ø-4W Location: SEE FLOOR PLAN		SEE FLOOR PLAN				singl	≣:	)	<b>(</b>			
		•		TYPE:			MIN. /	AIC	00.000			SUPPLY: EXISTING PANEL M		DOUBLE:		_E:			
	I	•		0.C. [	DEVICE	: 100A MCB	RATIN	G:		ΖΖ,	000		Mounting: Surface			TRIPLE	:		
CKT	POLE	TRIP	WIRE	GND	С	LOAD	KVA	٩ØA	KVA	ØB	KVA	ØC	LOAD	С	GND	W IRE	TRIP	POLE	CKT
1	1	20	12	12	**	COFFEE	1.20	0.18					COUNTER RECEPTACLE	**	12	12	20	1	2
3	1	20	12	12	**	COUNTER RECEPTACLE			0.18	0.18			COUNTER RECEPTACLE	**	12	12	20	1	4
5	1	20	12	12	**	FREEZER					1.50	1.20	REFRIGERATOR	**	12	12	20	1	6
7	1	20	12	12	**	RECEPTACLES	0.36	0.54					RECEPTACLES	**	12	12	20	1	8
9	1	20	12	12	**	DRINK MERCH.			1.00	0.36			COMM. BOARD RECEPT	**	12	12	20	1	10
11	1	20	12	12	**	UNDERCOUNTER RECEPTACLES					0.72	0.75	OVERHEAD DOOR	**	12	12	20	1	12
13	1	20	12	12	**	UNDERCOUNTER RECEPTACLES	0.72	0.75					OVERHEAD DOOR	**	12	12	20	1	14
15	1	20	12	12	**	UNDERCOUNTER RECEPTACLES			0.72	0.25			EF-1	**	12	12	20	1	16
17	1	20				SPARE						0.50	EH-1A	**	12	12	20	1	18
19	1	20				SPARE		0.50					EH-1B	**	12	12	20	1	20
21	2	20				SPARE				0.20			GUH-1	**	12	12	20	1	22
23	/											0.25	HEAT TRACE	**	12	12	20	1	24
25	2	20	12	12	**	EH-3	1.00	0.70					LIGHTING	**	12	12	20	1	26
27	/								11.00	0.60			LIGHTING	**	12	12	20	1	28
29	2	20	12	12	**	EW H-2A					1.50	0.30	EXTERIOR LIGHTING	**	12	12	20	1	30
31	/						1.50	0.36					RECEPTACLES	**	12	12	20	1	32
33	2	20	12	12	**	EW H-2B			1.50	0.36			RECEPTACLES	**	12	12	20	1	34
35	/										1.50	0.36	EXTERIOR RECEPTACLES	**	12	12	20	1	36
37	1	20	12	12	**	RESTROOM RECEPTACLES	0.36	0.36					EXTERIOR RECEPTACLES	**	12	12	20	1	38
39	2	30	10	10	**	W H-1			2.00	0.36			EXTERIOR RECEPTACLES	**	12	12	20	1	40
41	/										2.00	0.18	PANEL RECEPTACLE	3/4"	12	12	20	1	42
* SEE (	ONE-LI	NE DI	AGRAN	٨		total/phase	8.	.53	18.	.71	10	.76							
** CO	NDUC	ORS S	HALLE	BEINE	MT														
CONDUIT WHERE SUBJECT TO PHYSICAL DAMAGE. METAL CLAD (MC) CAN BE USED IN CONCELED					CONNE	CIED	LOAD	- 38	00	(kVA	)								
					AD ED				00		(	,							
PLACE	S ANE		SUBJEC			DEMAND LC	)AD @	0.80	30.	.40	(kVA	)							
PHYSIC	CALD	AMAG	Έ.																
							DEN	MAND	84.	.38	(A)								

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E-4 SCALE: N.T.S.

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E	LBO	0	A R	D	SC	H	EDI	JL	
-	LD				30		- 01		-



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E-4

SCALE: N.T.S.



## PLUMBING ABBREVIATIONS

- 4 -

OSD

0S&Y

PC

PD

PRV

PSI

PVC

RD

RI

RPM

RWC

SAN

SD

SH

SOV

SS SW

TEMP

TMV

TYP

UR

VTR

W

W/

WC

WF

WH

W/0

WCO

OPEN SITE DRAIN

PER SQUARE INCH

RISER

ROOF DRAIN

POLY VINYL CHLORIDE

RAINWATER LEADER

SOIL LINE/STACK

SHOWER DRAIN

SHUT-OFF VALVE

SANITARY

SHOWER

SPRINKLER

SERVICE SINK

STORM WATER

TEMPERATURE

VENT THRU ROOF

TYPICAL

URINAL

VENT

WASTE

WITH

WITHOUT

WATER CLOSET

WALL CLAENOUT

WASH FOUNTAIN

WALL HYDRANT

THERMOSTATIC MIXING VALVE

**REVOLUTION PER MINUTE** 

RAINWATER CONDUCTOR

OUTSIDE STEM AND YOKE

PLUMBING CONTRACTOR PUMPED DISCHARGE LINE

PRESSURE REDUCING VALVE

ABV	ABOVE	FC0	FLOOR CLEANOUT
ABV CLG	ABOVE CEILING	FD	FLOOR DRAIN
AD	AREA DRAIN	FFE	FINISHED FLOOR ELEVATIONS
AFF	ABOVE FINISHED FLOOR	FHC	FIRE HOSE CABINET
AFG	ABOVE FINISHED GRADE	FL	FLOOR
AP	ACCESS PANEL		
AV	ACID VENT	GC	GENERAL CONTRACTOR
AW	ACID WASTE	GH	GROUND HYDRANT
		GI	GREASE INTERCEPTOR LINE
BLW	BELOW	GPM	GALLON PER MINUTE
BF	BELOW FINISHED FLOOR	GW	GRAYWATER
BFG	BELOW FINISHED GRADE	GW-IR	GRAYWATER-IBRIGATION
BFP	BACKFLOW PREVENTER		
BOJ	BOTTOM OF JOIST	н	HANDICAPPED
BOP	BOTTOM OF PIPE	HB	HOSE BIBB
BOS	BOTTOM OF STEEL	HF	HOSE END
BTUB	BATHTUB	HC	HEATING CONTRACTOR
BTUH	BRITISH THERMAL UNITS PER HOUR	HP	HOBSEPOWER
BWV	BACKWATER VALVE	HW/	
		HW/H	HOT WATER HEATER
СВ	CATCH BASIN	HW/R	
CD	CONDENSATE DRAIN		Domeono nor water heronin
CFH	CUBIC FEET PER HOUR	חו	INSIDE DIAMETER
CIP	CAST IBON PIPE		
CLG	CEILING	I\A/	INDIBECT WASTE
CO	CLEANOUT	100	
CONC	CONCRETE	K/W	κιι οιναττ
CONN	CONNECT		MEGWATT
CONT	CONTINUATION	ΙΔ	ΙΔΛΑΤΟΒΥ
CS	COUNTERTOP SINK		
CW	DOMESTIC COLD WATER		
C	CENTER LINE	ΜΔΥ	
0		MR	
DFPT	DEPARTMENT	MBH	
DIP		MC	
DF		MU	
DELL			
	DIAMETER	IVIIIN	MINIMON
	DOWN	N/C	
DIN	boun		
FC	ELECTRICAL CONTRACTOR		
FI	FI EVATION		
EWC	ELECTRICAL WATER COOLER	IN/U	
EVVO		00	
LA		UD	

## **COORDINATION NOTE**

THE HVAC, PLUMBING, AND ELECTRICAL CONTRACTORS SHALL BE AWARE THAT THE CEILING HEIGHTS, SOFFITS AND SPACE CONDITIONS ON THIS PROJECT ARE CRITICAL AND SPACE ALLOCATION MUST BE COORDINATED BETWEEN ALL TRADES AND MAINTAINED. EACH CONTRACTOR OR TRADE SHALL REFER TO THE STRUCTURAL AND ARCHITECTURAL DRAWINGS IN ADDITION TO THE HVAC, PLUMBING, AND ELECTRICAL DRAWINGS TO DETERMINE ACCEPTABLE LAYERING OF ALL EQUIPMENT.

	GRAPHIC CONVENTIONS
$\left\langle \begin{array}{c} XX \\ X \end{array} \right\rangle$	EQUIPMENT TAG, TOP INDICATES EQUIPMENT DESIGNATION, BOTTOM INDICATES EQUIPMENT NUMBER
XX XX	PLAN CALLOUT, TOP INDICATES CALLOUT REFERENCE NUMBER, BOTTOM INDICATES SHEET NUMBER
XX XX	ELEVATION CALLOUT, TOP INDICATES CALLOUT REFERENCE NUMBER, BOTTOM INDICATES SHEET NUMBER
	SECTION CALLOUT, TOP INDICATES CALLOUT REFERENCE NUMBER, BOTTOM INDICATES SHEET NUMBER
$\square$	REVISION AREA
<u> </u>	REVISION TAG
$\bigotimes$	CONSTRUCTION KEYED NOTE TAG
Х	DEMOLITION KEYED NOTE TAG
•	POINT OF CONNECTION BETWEEN NEW AND EXISTING
	LIMIT OF DEMOLITION BETWEEN EXISTING TO REMAIN AND TO BE REMOVED

# PLUMBING LEGEND

NOT ALL SYMBOLS ARE USED ON DRAWINGS

//	COLD WATER LINE (CW)
//	HOT WATER LINE (HW)
//	HOT WATER RETURN LINE (HWR)
/	140°F HOT WATER LINE (140°)
∕── − 140°R −	140°F HOT WATER RETURN LINE (140°R)
∕ GW∕	GRAYWATER (GW)
∕— — — GWR — - —∕	GRAYWATER RETURN (GWR)
/ GW-IR/	GRAYWATER IRRIGATION
⊬/	VENT LINE (V)
/ SAN/	SANITARY LINE (SAN)
/ SAN/	EXISTING SANITARY LINE BELOW SLAB OR FLOOR(SAN
/ A/	COMPRESSED AIR (A)
/ CD //	CONDENSATE DRAIN LINE MANUAL (CD)
/ PD //	CONDENSATE DRAIN LINE PUMPED (PD)
/ F/	FIRE; SPRINKLE SUPPLY LINE
/ DW/	DEIONIZED OR DISTILLED WATER (DW)
/ G/	NATURAL GAS (G)
/ LPG/	PROPANE OR LIQUEFIED PETROLEUM GAS (LPG)

	RAINWATER LINE (RWC)
ST/	STORM WATER LINE OUTSIDE BUILDING (ST)
TPL	TRAP PRIMER LINE (TPL)
— TW —	TEMPERED WATER LINE (TEMP °F)
V/	VACUUM (V)
AV	ACID VENT LINE (AV)
AW	ACID WASTE LINE (AW)
SOLV	SOLVENT WASTE LINE (SOLV)
AC	ACETYLENE LINE (AC)
AR	ARGON LINE (AR)
CO2	CARBON DIOXIDE LINE (CO2)
MA/	MEDICAL AIR LINE (MA)
MV/	MEDICAL VACUUM LINE (MV)
N2/	NITROGEN LINE (N2)
NO/	NITROGEN OXIDE (NO)

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<u> </u>		<u>000</u>	RDINATION
GENE	RAL PLUMBING NOTES:	1.	COORD
I.         PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE           PLUMBING SYSTEM AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.			INTERFE ACCOR
2	THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF WORK TO BE PERFORMED. THE DRAWINGS ARE NOT	2.	COORD
<b>-</b> .	INTENDED TO SHOW EVERY PIPE, FITTING, VALVE OR APPURTENANCE REQUIRED FOR A COMPLETE INSTALLATION. DO NOT SCALE LOCATION DIMENSIONS FROM THESE DRAWINGS. DRAWINGS ARE NOT TO BE SCALED FOR THE ACCURATE CUTTING OF PIPE OR ITS EXACT LOCATION. BEFORE ANY PIPING IS INSTALLED, CONFER WITH ALL OTHER CONTRACTORS IN ORDER TO ESTABLISH THE LOCATION OF THEIR PIPING, CONDUIT, DUCTWORK, GRILLES, FOUNDATIONS, STRUCTURAL STEEL, LIGHTING	3.	provid and siz requir
	FIXTURES AND OTHER EQUIPMENT SO AS TO AVOID INTERFERENCE. FAILURE TO COORDINATE SHALL NOT RESULT IN ANY ADDITIONAL EXPENSES TO THE OWNER AND ENGINEER.	<u>PLUI</u>	MBING INS
3.	THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AND VERIFYING ALL CONDITIONS AND DIMENSIONS AND FOR COORDINATION OF THEIR WORK WITH THAT OF ALL OTHER TRADES. PERFORM WORK IN A NEAT, ORDERLY MANNER AND WITH THE LEAST POSSIBLE INTERFERENCES.	1.	INSTALI AND RE VALVES
4.	WORK SHALL CONFORM TO OR MEET THE REQUIREMENTS OF THE MOST CURRENT PENNSYLVANIA EDITION OF:	2.	all ins Surfac
	<ul> <li>A. INTERNATIONAL PLUMBING CODE; 2018</li> <li>B. INTERNATIONAL ENERGY CONSERVATION CODE; 2018 IECC</li> <li>C. INTERNATIONAL BUILDING CODE; 2018 IBC</li> <li>D. NEC (NFPA 70); 2017</li> </ul>	3.	all equ Includ Requir Rods, F
	E. INTERNATIONAL FUEL GAS CODE; 2018 IFGC F. ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES	4.	PROVID
5.	CONTRACTOR SHALL CONFORM TO NSF 61 (605.4, 606.5, 702.1, 702.2, 703.3) FOR THE WATER DISTRIBUTION PIPING AND SANITARY DRAINAGE.	5.	providi Drill A
6.	VALVES AND FITTINGS UTILIZED IN THE WATER SUPPLY SYSTEM SHALL HAVE A MAXIMUM LEAD CONTENT OF 8% LEAD. LEAD FREE SOLDER THAT CONFORMS ASTM B32 AND FLUX THAT CONFORMS TO ASTM B 828. LEAD FREE SHALL MEAN A CHEMICAL COMPOSITION EQUAL TO OR LESS THAN 0.2% LEAD. PIPE, PIPE FITTINGS, JOINTS, VALVES, FAUCETS AND FIXTURE FITTINGS UTILIZED TO SUPPLY WATER FOR DRINKING OR COOKING PURPOSES SHALL COMPLY WITH NSF 372 AND SHALL HAVE A WEIGHTED AVERAGED LEAD CONTENT OF 0.25 PERCENT OR LESS	6.	THE MA PROJEC OF OTHI CONTRA
7		7.	PIPE SIZ
1.	FORM CORROSION AND STRESS/STRAIN TO CONFORM TO THE INTERNATIONAL PLUMBING CODE. REFER TO PIPING SUPPORT SPACING SCHEDULE OF THE CODE.	8.	SLOPE S LARGEF
8.	ALL MATERIALS, EQUIPMENT AND DEVICES SHALL, AS A MINIMUM, MEET THE REQUIREMENTS OF UL WHERE UL REQUIREMENTS ARE ESTABLISHED FOR THOSE ITEMS. ALL ITEMS SHALL BE CLASSIFIED BY UL AS SUITABLE FOR THE PURPOSE OF THE CODE.	9.	runou <sup>-</sup> Equipm
9.	ALL HOT WATER HEATERS TO CONFORM TO REQUIREMENTS OF INTERNATIONAL ENERGY CONSERVATION CODE - IECC (SECTION C404).	10. 11.	ALL SYS
10.	WHERE PIPES PENETRATE FIRE RATED OR SMOKE RATED BARRIERS (WALLS, FLOORS AND CEILINGS). SEAL PENETRATIONS IN ACCORDANCE WITH NFPA 90A WITH UL LISTED FIRE STOPPING SYSTEM.	12.	ALL PIP ALL CH
11.	REFER TO SCHEMATIC DIAGRAMS FOR ALL PIPE SIZES AND PIPING LOCATIONS NOT SHOWN ON THE PLANS UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL WASTE PIPING BELOW GRADE SHALL BE A MINIMUM OF 2" IN SIZE.	<u>PIPI</u>	INTERNA IG MATERI.
12.	INSTALL CLEANOUTS (TEST TEES) AT THE BASE OF ALL SOIL STACKS AND RAINWATER CONDUCTORS.	1.	REFER 1
13.	COORDINATE LOCATION OF PIPING ABOVE CEILING WITH ELECTRICAL PANELS BY ELECTRICAL CONTRACTOR. DO NOT INSTALL PIPING IN DEDICATED SPACE FOR ELECTRIC PANEL.	2.	ALL SY: ABOVE
14.	ANY REFERENCE TO "GC" OR "GENERAL CONTRACTOR" SHALL MEAN THE APPROPRIATE GENERAL TRADES CONTRACTOR, AS DEFINED IN DIVISION 1. THIS REFERENCE IS NOT TO OUTLINE WORK AMONG GENERAL TRADES CONTRACTOR, BUT TO NOTE WHAT WORK IS NOT A PART OF THE PLUMBING CONTRACT.		WITH C Shall I Plumbi Drawii
15.	ALL EQUIPMENT AND MATERIALS INCORPORATED IN THIS WORK SHALL BE NEW UNLESS NOTED OTHERWISE AND SHALL BE CURRENT PRODUCTS BY MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH PRODUCTS.	3.	UNDER HDPE W
16.	ALL FACTORY APPLIED COATINGS AND FINISHES SHALL BE PROVIDED WITHOUT RUST, SCRATCHES OR DENTS.	4.	ABOVE
17.	CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, APPROVALS AND INSPECTIONS AS REQUIRED TO COMPLETE INSTALLATIONS INDICATED ON THESE DRAWINGS.		FLEXIBL DO NOT
18.	PROVIDE OWNER WITH CERTIFICATES OF FINAL INSPECTION AND ACCEPTANCE FROM THE AUTHORITY HAVING JURISDICTION.	5.	UNDER(
19.	PROVIDE OWNER WITH TWO (2) SETS OF O&M (OPERATING AND MAINTENANCE) MANUALS WHICH SHALL INCLUDE:	6.	ABOVE
	A. ALL PRODUCT, EQUIPMENT AND FIXTURE DESCRIPTIONS AND SUBMITTAL DATA INCLUDING PARTS ORDERING INFORMATION.		CAST IR PLASTI(

- B. INSTALLATION INSTRUCTIONS.
- OPERATING AND MAINTENANCE INSTRUCTIONS. WARRANTIES AND GUARANTEES.
- RTS.

PROVIDE ALL	_ data in a	BOUND 8-	1/2"x11" 3	-RING BINDI	ER FOR 1	FEST AND	BALANCE	REPORT

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	OXYGEN LINE (O2)
	AUTOMATIC THREE-WAY ATC CONTROL VAL
	AUTOMATIC THREE-WAY ATC CONTROL VAL
	BACKFLOW PREVENTER
	BALANCING VALVE
	BALL VALVE
	BALL VALVE IN VERTICAL
	BUTTERFLY VALVE
	CHECK VALVE
	DOUBLE CHECK VALVE
	SOLENOID VALVE
	GATE VALVE IN VERTICAL
	GLOBE VALVE
-	
Р	KESSUKE KEDUCING VALVE



/	COMBINATION TEMPERATURE/PRESSURE RELIEF VALVE		PIPE
/	THERMOMETER		
/	TEMPERATURE GAUGE IN THERMOWELL	/ <del></del> /	DIRE
/	UNION	//	TO E
/	SHOCK ASSORBER/WATER HAMMER ARRESTOR "A" INDICATES SIZE; SEE SCHEDULE	/	LIMI
/	CIRCULATING OF IN-LINE PUMP (PLAN)	/÷/	TEE
/	CIRCULATING OF IN-LINE PUMP (SCHEMATIC)	∕	TEE
	GAS METER	G/	PIPE
	WATER METER	0/	PIPE
	AIR VENT; MANUAL & AUTOMATIC	∕——∞——∕	RUN
/	FLEXIBLE CONNECTOR		DIRE
/	EXPANSION JOINT	∞ <b></b> -∕	FIXTI
/	MOMENT GUIDE	FD G	FLOC
/	PIPE ANCHOR	FD 🗕	FLOC
/	MOMENT GUIDE	FCO O/	FLOC

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### I REQUIREMENTS

INATE LOCATIONS AND INSTALLATION OF PLUMBING WORK WITH OTHER TRADES TO AVOID CONFLICTS AND ERENCES, MODIFICATIONS DUE TO FIELD CONDITIONS SHALL BE COMPLETELY RESOLVED BY CONTRACTOR IN DANCE WITH RECOMMENDATIONS OF THE CONSTRUCTION MANAGER OR GENERAL CONTRACTOR.

DINATE FINAL LOCATIONS OF PLUMBING EQUIPMENT WITH ARCHITECTURAL PLANS.

TO THE CONSTRUCTION MANAGER, GENERAL CONTRACTOR AND ALL OTHER TRADES DIMENSIONED LOCATIONS ZES OF ALL REQUIRED FLOOR, WALL AND ROOF OPENINGS. PROVIDE FOR INSTALLATION OF SLEEVES AND FRAMING AS

TALLATION REQUIREMENTS:

ALL EQUIPMENT AND MATERIAL IN ACCORDANCE WITH MANUFACTURER PRINTED INSTALLATION INSTRUCTIONS COMMENDATIONS. MAINTAIN CLEARANCES FOR CLEARANCE ACCESS TO MAINTAIN AND SERVICE EQUIPMENT, AND CONTROLS.

TALLATION AND WORK SHALL BE PERFORMED IN A NEAT, WORKMANLIKE MANNER SO AS NOT TO DAMAGE ANY CES, EQUIPMENT OR MATERIALS.

UIPMENT AND PIPING SHALL BE SUPPORTED IN AN APPROVED MANNER FROM THE BUILDING STRUCTURE AND E HANGERS AND RESTRAINTS IN ACCORDANCE WITH ALL APPLICABLE CODES AND SEISMIC RESTRAINT EMENTS. PLUMBING CONTRACTOR SHALL PROVIDE ALL ROOF OPENINGS, FLASHING, AUXILIARY STEEL, THREADED ETC., TO SUPPORT EQUIPMENT ON OR FROM THE STRUCTURE.

E PIPE ESCUTCHEONS AT ALL EXPOSED PENETRATIONS OF FLOORS, WALLS AND CEILINGS.

E LINK-SEALS OR EQUAL WHEN PIPING PENETRATES AN EXTERIOR WALL OR FLOOR SLAB. INSTALL SLEEVES OR CORE T PROPER DIAMETER TO ASSURE WEATHERPROOF/MOISTER PROOF INSTALLATION.

ANUFACTURERS AND MODEL NUMBERS LISTED ON THE SCHEDULES AND DETAILS ARE THE BASIS OF DESIGN FOR THIS CT. THIS INFORMATION IS PROVIDED FOR REFERENCE PURPOSE ONLY AND IS NOT INTENDED TO PRECLUDE SUBMITTAL HER MANUFACTURERS OF EQUAL QUALITY SUBJECT TO APPROVAL BY THE CONSTRUCTION MANAGER OR GENERAL RACTOR.

IZES ARE IN INCHES UNLESS NOTED OTHERWISE.

SANITARY SEWER PIPING A MINIMUM OF 1/4" PER FOOT FOR PIPE 2" AND SMALLER AND 1/8" PER FOOT FOR PIPE THAN 2".

JTS TO EQUIPMENT SHALL BE SIZED AS INDICATED AND INCREASED OR REDUCED AT POINT OF FINAL CONNECTION TO

STEMS SHALL BE TESTED FOR PROPER OPERATION IN ACCORDANCE WITH APPLICABLE CODE OR REGULATION.

ING CONTRACTOR SHALL SEAL ALL PIPE PENETRATIONS THROUGH WALLS, FLOORS AND ROOF WATERTIGHT. SEAL E PENETRATIONS THROUGH FIRE-RATED PARTITIONS WITH UL RATED FIRE RETARDANT CAULKING COMPOUND.

ANGES IN PIPE DIRECTION MUST COMPLY WITH THE FITTING INDICATED IN THE APPROPIATE SECTION IF THE IATIONAL PLUMBING CODE.

#### ALS:

TO IPC 2015 FOR ALL APPLICABLE ASTM NUMBER/REQUIREMENTS AS WELL AS PIPING SUPPORT REQUIREMENTS. FOR STEMS AND MATERIALS.

GROUND DOMESTIC WATER MAY BE TYPE L COPPER WITH SOLDERED JOINTS AND FITTINGS, SCHEDULE 40 CPVC CHEMICAL WELD JOINTS AND FITTINGS OR PEX WITH ASSOCIATED COMPRESSION JOINTS AND FITTINGS. PEX SYSTEMS BE SUPPORTED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND INTERNATIONAL ING CODE (IPC). DO NOT INSTALL PLASTIC PIPING SYSTEMS IN RETURN AIR PLENUMS. REFER TO MECHANICAL INGS FOR MORE INFORMATION.

GROUND DOMESTIC WATER SHALL BE DUCTILE IRON, TYPE K COPPER WITH SOLDERED JOINTS AND FITTINGS OR WITH FUSION WELDED JOINTS AND FITTINGS. SERVICE PIPING MUST MEET THE UTILITY PROVIDERS REQUIREMENTS.

GROUND GAS PIPING SHALL BE SCHEDULE 40 STEEL THREADED AND COUPLED, WELDED OR FLANGED. LISTED E GAS PIPING IS ALLOWABLE FOR FINAL CONNECTIONS TO EQUIPMENT AND APPLIANCES UNLESS OTHERWISE NOTED. T INSTALL THREADED OR FLANGED FITTINGS IN WALLS, BELOW GROUND OR ANY OTHER NON ACCESSIBLE SPACES.

RGROUND GAS PIPING SHALL BE SCHEDULE 40 WELDED, OR HDPE FUSION WELDED. FLEXIBLE GAS PIPING IS VABLE IN USED IN PVC CONDUIT.

OR BELOW GROUND SANITARY AND VENT PIPING MAY BE SCHEDULE 40 SOLID CORE PVC OR STANDARD WEIGHT IRON SOIL PIPE. JOINTS AND FITTINGS MAY BE HUBLESS, HUB AND SPIGOT OR CHEMICAL WELDED. DO NOT INSTALL C PIPING IN RETURN AIR PLENUMS. REFER TO MECHANICAL DRAWINGS FOR MORE INFORMATION.

7. PRESSURIZED OR PUMPED SANITARY LINES SHALL BE CPVC OR TYPE L COPPER WITH SOLDERED JOINTS AND FITTINGS WHEN PLASTIC IS NOT PERMITTED.

PIPE REDUCER - CONCENTRIC	co I	CLEANOUT FLUSH (FC)
PIPE REDUCER - ECCENTRIC	wco I	WALL CLEANOUT (WCO)
PIPE PITCHING DOWNWARD IN DIRECTION OF ARROW	RD <b>O</b>	ROOF DRAIN (RD)
POINT OF NEW CONNECTION TO EXISTING	нв +-(/	HOSE BIBB (HB)
LIMIT OF DEMOLITION		NON FREEZE WALL HYDRANT (NFWH)
TEE OUTLET DROP	— Y	FUNNEL DRAIN
TEE OUTLET RISE	///////////////////////////////////////	
PIPE DROPPING		REMOVE EXISTING
PIPE RISING		OUTSIDE SCREW AND YOKE VALVE (OS&Y)
RUNNING TRAP		PLUG VALVE; NON-LUBRICATED TYPE
		"Y" STRAINER
FIXTURE DRAIN WITH TRAP	//×	"Y" STRAINER w/BLOWDOWN VALVE AND HOSE BIBB
FLOOR DRAIN WITH TRAP (FD)	∕6∕	GAS SHUT-OFF COCK
FLOOR DRAIN WITHOUT TRAP (FD)	,¥,	PRESSURE GAUGE w/SHUT-OFF COCK
FLOOR CLEANOUT (FCO)		









- 3 -

- 4 -

- 1 -

- 2 -



- 8 -

-9-

- 7 -

# GENERAL CONSTRUCTION NOTES

1. ALL DOMESTIC WATER / GAS LINES SHOWN ON THIS FLOOR PLAN TO BE INSTALLED ABOVE CEILING LEVEL, UNLESS OTHERWISE NOTED.

- 6 -

- 2. DOMESTIC WATER RISE/DROPS SHALL BE CONCEALED, UNLESS OTHERWISE DIRECTED BY THE OWNER/ARCHITECT. COORDINATE ANY REQUIRED DEMOLITION/REPAIR OF EXISTING WALLS, NEW WALL FUROUTS, PIPE CHASES, ETC. WITH OWNER, ARCHITECT, AND GC PRIOR TO CONSTRUCTION.
- 3. COORDINATE DIMENSIONS OF CHASES AND WALL TYPES FOR ALL FIXTURE CARRIERS OF WALL HUNG PLUMBING FIXTURES PRIOR TO CONSTRUCTION.
- 4. CONTRACTOR SHALL VERIFY ADEQUATE DRAIN-DOWNS FOR WINTERIZING ARE PROVIDED IN AREAS INSTALLED WITH WATER PIPING.
- 5. PLUMBING CONTRACTOR SHALL INSTALL ALL DOMESTIC WATER PIPING WITHIN THE BUILDING SUCH THAT IT CAN BE DRAINED AND WINTERIZED TO AVOID FREEZING. PITCH PIPING, PROVIDE ADDITIONAL SHUTOFF AND DRAIN VALVES, ETC. AS REQUIRED.
- 6. PLUMBING CONTRACTOR SHALL DETERMINE WATER SOURCE SUPPLY CHARACTERISTICS (STATIC PRESSURE, RESIDUAL PRESSURE, AND FLOW) NEAR FIELD IRRIGATION WATER CONNECTION DURING CONSTRUCTION PHASE FOLLOWING THE INSTALLATION OF WATER LINE EXTENSION TO NEW CONCESSION STAND. A STATIC PRESSURE READING SHALL BE OBTAINED, AND THE FULL FLOW FROM THE 1-1/2" DOMESTIC WATER LINE SHALL BE MEASURED WHILE A RESIDUAL PRESSURE READING IS OBTAINED. STATIC PRESSURE, RESIDUAL PRESSURE, AND FLOW VALUES SHALL BE REPORTED TO ENGINEER.

# P-2 / SCALE: 1/4" = 1'-0"

# **KEYED CONSTRUCTION NOTES**

- FOR SANITARY LINE CONTINUATION.
- ROOFTOP ABOVE.

# GENERAL CONSTRUCTION NOTES

- TO CONSTRUCTION.

# 🔿 PLUMBING PLAN - WASTE & VENT

 APPROXIMATE LOCATION OF SANITARY LINE OUT TO SITE. PROVIDE ADEQUATE COVER OVER INVERT OF PIPING TO BELOW LOCAL FROST LINE TO PREVENT FROM FROM FREEZING. SEE P-3

3" VENT STACK UP, 4" VENT THRU ROOF. COORDINATE ROOF PENETRATION LOCATION TO MAINTAIN 10'-0" CLEARANCE AWAY FROM ANY INTAKES OF MECHANICAL EQUIPMENT ON

1. ALL SANITARY LINES SHOWN ON THIS FLOOR PLAN TO BE INSTALLED BELOW FLOOR LEVEL AND VENT PIPING ABOVE CEILING LEVEL, UNLESS OTHERWISE NOTED. 2. SANITARY & VENT PIPE RISE/DROPS SHALL BE CONCEALED, UNLESS OTHERWISE DIRECTED BY THE OWNER/ARCHITECT. COORDINATE ANY REQUIRED DEMOLITION/REPAIR OF EXISTING WALLS, NEW WALL FUROUTS, PIPE CHASES, ETC. WITH OWNER, ARCHITECT, AND GC PRIOR

3. ALL DRAINAGE PIPING 2-1/2" DIAMETER AND SMALLER TO BE PITCHED AT MINIMUM OF 1/4" PER FOOT, 3" TO 6" DIAMETER AT 1/8" PER FOOT, AND 8" AND LARGER AT 1/16" PER FOOT. 4. COORDINATE DIMENSIONS OF CHASES AND WALL TYPES FOR ALL FIXTURE CARRIERS OF WALL HUNG PLUMBING FIXTURES PRIOR TO CONSTRUCTION.





![](_page_14_Figure_1.jpeg)

P-3 /	SCALE:	1" = 4' (VERT)
$\bigcirc$		1" = 16' (HORZ)

MAXIMUM HANGER SPACING PER IPC							
ITEM	MAXIMUM HORIZONTAL SPACING (FT.)	MAXIMUM VERTICAL SPACING (FT.)					
ABS PIPE	4	10					
	10	15					
BRASS PIPE	10	10					
CAST IRON	5	15					
COPPER OR COPPER-ALLOY PIPE	12	15					
COPPER OR COPPER-ALLOY TUBING 1 1/4" DIAMETER OR SMALLER	6	10					
COPPER OR COPPER-ALLOY TUBING 1 1/2" DIAMETER OR LARGER	10	10					
CROSS-LINKED POLYETHYLENE (PEX) PIPE	2.67 (32 INCHES)	10					
CROSS-LINKED POLYETHYLENE/ALUMINU,M/CORSS-LINKED POLYETHYLENE (PEX-AL-PEX) PIPE (PEX) PIPE	2.67 (32 INCHES)	4					
CPVC PIPE OR TUBING, 1" OR SMALLER	3	10					
CPVC PIPE OR TUBING, 1 1/4" OR LARGER	4	10					
STEEL PIPE	12	15					
PB PIPE OR TUBING	2.67	4					
POLYETHYLENE/ALUMINUM/POLYETHYKENE (PE-AL-PE) PIPE	2.67	4					
POLYPROPYLENE (PP) PIPE OR TUBING 1" OR SMALLER	2.67	10					
POLYPROPYLENE (PP) PIPE OR TUBING 1 1/4" OR LARGER	4	10					
	4	10					
STAINLESS STEEL DRAINAGE SYSTEMS	10	10					
NOTES	<u>,                                    </u>						

- 1 -

. PIPE HANGERS SHALL ENCIRCLE PIPE INSULATION.

2 PROVIDE MAXIMUM HANGER SPACING AS PER THE SCHEDULE ABOVE OF PER SPECIFICATIONS WHICH EVER IS MORE STRINGENT.

PLUMBING F	IXTURE	INSULA	TION SC	HEDUL	
		INSULATION			
PIPING	TYPE	LESS THAN 1 1/2" DIA.	1 1/2" DIA. AND LARGER	NOTES	
DOMESTIC COLD WATER	FIBERGLAS S	1/2"	1"	1, 2, 3, 4 & 5	
DOMESTIC HOT WATER	FIBERGLAS S	1"	1 1/2"	1, 2, 3, 4 & 5	
DOMESTIC HOT WATER RETURN	FIBERGLAS S	1"	1 1/2"	1, 2, 3, 4 & 5	

NOTES:

INSULATE PIPING PER SECTION OF THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC). CONDUCTIVITY NOT TO EXCEED 0.27 BTU PER/IN\*FT2\*F.

INSULATION SHALL BE APPLIED BY AN EXPERIENCED PERSONNEL IN ACCORDANCE WITH BEST TRADE PRACTICE GUIDED BY MANUFACTURER'S PRINTED INSTALLATION INSTRUCTION/DIRECTIONS

INSULATION SHALL BE MANVILLE MICRO-LOK FIBERGLASS PIPE INSULATION TYPE AP-T OR APPROVED EQUAL.

. ALL INSULATION JACKETS, FACING AND ADHESIVES USED TO ADHERE JACKET OR FACING TO THE INSULATION, INCLUDING FITTING AND BUTT STRIPS SHALL HAVE NON-COMBUSTIBLE FIRE AND SMOKE HAZARD RATING AND LABEL AS TESTED BY ASTM-84-91A, NFPA 255 AND UL 723 NOT EXCEEDING FLAME SPREAD OF 25 AND SMOKE DEVELOPED OF 50.

FITTING AND VALVES SHALL BE INSULATED WITH MANVILLE FACTORY PERCUT HI-LO TEMP FIBERGLASS INSULATION AND ZESTON 25/50 RATED OVC INSULATION FITTING COVERS. EPOLUX 670 WHITE VAPOR BARRIER COATING, OR APPROVED EQUAL, SHALL BE APPLIED AROUND THE EDGES OF THE ADJOINING PIPE INSULATION AND ON THE FITTING COVER THROAT OVERLAP SEAM. THE FITTING COVER SHALL BE SECURED WITH PRESSURE SENSITIVE PEARL GRAY Z-TAPE ALONG THE CIRCUMFERENTIAL EDGES. THE TAPE SHALL EXTEND ALL OVER THE ADJACENT PIPE INSULATION WITH AN OVERLAP ON ITSELF OF 2". ALL INSULATION MATERIAL SHALL COMPLY WITH THE NEW WORK BUILDING CODE REQUIREMENTS.

	PLUMBING FIXTURE SCHEDULE											
TAG NO.		FIXT	FIXTURE				TDAD		TDUA	TRIM		
	FIXTORE	MODEL	MODEL		□ <b>□.₩</b> .	<b>vv.</b>	IRAP	۷.		MANUFACTURER	MODEL	SPECIFICATION
WC-1	WATER CLOSET ADA (FLUSH TANK)	KOHLER	K-3493	1/2"	-	4"	-	2"	SEAT	CHURCH	94005C	ELONGATED PRESSURE-ASSISTED TOILET 1.6 GPF. VITREOUS CHINA, LOW CONSUMPTION, FULLY-GLAZED 2-1/4" TRAPWAY. EQUIPPED WITH SLOAN FLUSHMATE. ELONGATED OPEN FRONT SOLID PLASTIC SEAT. MOUNTED AT ADA COMPLIANT HEIGHT.
LAV-1	LAVATORY ADA	AMERICAN STD.	0355.012	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	FAUCET	AMERICAN STANDARD	6055.205	WALL-HUNG SINK ACCESSIBLE, VITREOUS CHINA WITH FRONT OVERFLOW. D-SHAPED BOWL AND SELF-DRAINING DECK AREA WITH CONTOURED BACK, SIDE SPLASH SHIELDS AND FAUCET LEDGE. FAUCET SHALL BE CENTER SET WITH 0.5 GPM AERATOR, TOUCHLESS. DC POWERED WITH 4-YEAR LI-ION BATTER. ASSEMBLY MUST MEET ADA.
UR-1	URINAL	AMERICAN STD.	6590.001	3/4"	_	2"	2"	2"	FLUSH VALVE	AMERICAN STANDARD	6063.101.002	WALL HUNG, VITREOUS CHINA, ULTRA HIGH EFFICIENCY, FLUSHING RIM, ELONGATED 14" RIM FROM FINISHED WALL, WASHOUT FLUSH ACTION, TOP SPUD UNIVERSAL URINAL. MATCHING EXPOSED BATTERY POWERED (CR-P2 LITHIUM), ELECTRONIC SENSOR OPERATED, SELF CLEANING PISTON WITH INTEGRAL WIPER SPRING, FULLY MECHANICAL MANUAL OVERRIDE BUTTON, 1.0 GPF FLUSH VALVE. MOUNTED AT ADA COMPLAINT HEIGHT.
KS-1	KITCHEN SINK	DAYTON SPECIFICATIONS	DPC1202010	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	FAUCET	KOHLER	K-10433	STAINLESS STEEL DROP IN SINK (20" X 20" X $10-1/8$ "). SINGLE FAUCET HOLE. FURNISH WITH TWO FUNCTION PULL OUT SPRAYHEAD (1.5 GPM). $10-1/8$ " SWING SPOUT REACH WITH SINGLE HANDLE.
MS-1	JANITORS SINK/MOP BASIN	ACORN	TDF-24	3/4"	3/4"	3"	3"	2"	FAUCET	AMERICAN STANDARD	8351.076	MOP SINK SHALL BE MADE OF PRECAST TERAZZO TO PRODUCE A COMPRESSIVE STRENGTH OF AT LEAST 3000 PSI SEVEN DAYS AFTER CASTING. ALL EXPOSED SURFACES SHALL BE GROUND SMOOTH AND SEALED. NO AIR HOLES OR PITS SHALL BE ALLOWED ON THE FINISHED SURFACE. SINK SHALL HAVE COVED CORNERS AND BE PITCHED TO THE DRAIN OUTLET FOR POSITIVE DRAINAGE. INTEGRAL DRAIN SHALL HAVE A STAINLESS STEEL STRAINER AND PROVIDE FOR AN INSIDE CAULKED CONNECTION TO A 3" PIPE. 3" CAST BRASS SPOUT, EXPOSED YOKE WALL-MOUNT UTILITY FAUCET SHALL FEATURE A CAST BRASS BODY WITH INTEGRAL STOPS. CAST BRASS SPOUT WITH BUCKET HOOK AND VANDAL-RESISTANT METAL LEVER HANDLES. SHALL ALSO FEATURE A 1/4 TURN WASHERLESS CERAMIC DISC VALVE CARTRIDGES.
HB-1	NON FREEZE HOSE BIB	JOSAM	71350	3/4"	_	-	-	-	_	-	_	VANDAL RESISTANT WALL HYDRANT IN STAINLESS STEEL WALL BOX WITH INTEGRAL VACUUM BREAKER/BACKFLOW PREVENTER. COORDINATE WALL DIMENSIONS WITH BUILDING OWNER AND P.C. PRIOR TO ORDERING.
HB-2	HOSE BIB	PRIER	C-244	1/2"	_	-	-	-	_	-	_	VANDAL RESISTANT NON FREEZE WALL HYDRANT WITH ANTI-SIPHON VACUUM BREAKER AND BACKFLOW CHECK VALVE. COORDINATE WALL DIMENSIONS AND INLET STYLES WITH BUILDING OWNER AND P.C. PRIOR TO ORDERING. USED TO DRAIN SYSTEM.
FD-1	FLOOR DRAIN (GENERAL USE, SHOWER)	JAY R. SMITH	2005	_	_	2"	2"	1 1/2"	_	_	_	GENERAL SERVICE FLOOR DRAIN FOR USE IN SHOWERS, TOILETS, KITCHENS AND OTHER FINISHED AREAS WHERE FOOT TRAFFIC IS EXPECTED. THE ROUND TOP STRAINER HEAD IS USED FOR ALL TYPES OF POURED FINISHED FLOORS. THE SQUARE TOP IS PARTICULARLY ADAPTABLE TO FLOORS THAT ARE FINISHED IN MATERIAL OF SQUARE OR STRAIGHT LINE PATTERN. REVERSIBLE FLASHING COLLAR PERMITS ADJUSTMENT OF THE STRAINER TO MEET FINISHED FLOOR LEVEL.
FCO	FLOOR CLEANOUT	JAY R. SMITH		-	_	VARIES	VARIES	_	_	_	_	DUCO CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORIATED SECURED NICKEL BRONZE TOP WITH BRONZE CLOSURE PLUG.
NOTES:												
1. ALL OR	ALL FIXTURES SHALL BE PROVIDED WITH SUPPLIES AND STOPS. PROVIDE DRAINS, STRAINERS, TRAPS AND TAIL PIECES AS REQUIRED. WHERE ADA ACCESSIBILITY IS INDICATED, PROVIDE OFFSET TAIL PIECES. ALL EXPOSED TRAP AND DRAIN PIPING SHALL BE INSULATED OR PROVIDED WITH AN INSUALATED SHROUDING SYSTEM AS MANUFACTURED BY TRUBERO OR EQUAL.											

EQUIPMENT.

NOTES: CONSTRUCTION SHALL BE FACTORY FABRICATED STEEL, WELDED TO TANK BEFORE TESTING AND LABELING. INCLUDING ASME B1.20.1, PIPE THREAD. COMPLY WITH NSF 61 BARRIER MATERIALS FOR POTABLE-WATER TANK LININGS, INCLUDING EXTENDING FINISH INTO AND THROUGH TANK FITTINGS. FACTORY INSTALLED AIR CHARGING VALVE. WORKING PRESSURE RATING 150 PSIG, AIR PRECHARGE PRESSURE: 55 PSIG

APPROX.

# -2- -3- -5- -6- -7- -8-

WATER CLOSETS SHALL BE PROVIDED WITH MATCHING SEATS WITH SELF SUSTAINING CHECK HINGES AND ANTI-MICROBIAL COATINGS

FLOOR DRAINS SHALL BE PROVIDED WITH TRAPS AND TRAP SEALS UNLESS A PRIMING SYSTEM IS EXPLICITLY INDICATED ON THE DRAWINGS.

ALL WALL HUNG FIXTURES SHALL BE PROVIDED WITH THE APPROPRIATE CARRYING DEVICE AS MANUFACTURED BY JAY R. SMITH OR EQUAL.

PROVIDE ACORN ST70 ASSE ANTI-SCALD VALVES (TEMPERED WATER/ MAX 110 'F) ON ALL HOT WATER FIXTURES EXCEPT FOR KITCHEN EQUIPMENT, MOP AND SERVICE SINKS, SPECIAL CLEANING DEVICES (HOT WATER HOSE BIBS OR HYDRANTS), OR LAUNDRY COORDINATE FINAL SELECTIONS AND FINISHES OF ALL PLUMBING FIXTURES WITH OWNER AND ARCHITECT PRIOR TO PURCHASE.

	EXPANSION TANK SCHEDULE										
	BASIS OF DESIGN			ACCEPTABLE			NOTES				
TAG NO.	MANUFACTURER	MODEL	SERVICE ZONE	VOLUME (GAL)	CONNECTION SIZE	SIZE DIA. XTI	NOTES				
ET-1	AMTROL	ST-12-C	WH-1	3.2	3/4"	12" x 8"	1,2,3,4				

PROPANE CALCULATIONS									
LONGEST RUN	UNIT/EQUIPMENT	QTY	MBH (EACH)	TOTAL MBH	BRANCH PIPE (IN)				
APPROX. 30	GAS FIRED UNIT HEATER	FIRED UNIT IEATER 1 30		30	1/2"				
11.			TOTAL	30.00	1/2"				
NOTES:									

SI7F

ALL GAS PIPING IS BASED ON SCHEDULE 40 METALLIC PIPE AT AN INLET PRESSURE OF 2.0 PSI, PRESSURE DROP OF 1.0 PSI, AND SPECIFIC GRAVITY OF 1.50. VERIFY INLET PRESSURE AND CONNECTED GAS LOAD WITH GAS UTILITY PROVIDER PRIOR TO ANY NEW WORK.

GAS PIPING SIZED IN ACCORDANCE WITH PIPE SIZING TABLE 402.4(25) AND PIPE LENGTHS DETERMINED IN ACCORDANCE WITH 402.4.2 BRANCH LENGTH METHOD OF THE 2018 INTERNATIONAL FUEL GAS CODE .

	ELECTRIC WATER HEATER SCHEDULE										
TAG NO.	BASIS OF DESIGN		TYDE	WATTAGE	GPM FLOW RATE @	CONNECTIONS			NOTES		
	MANUFACTURER	MODEL		INPUT	TEMP RISE *F	INLET	OUTLET	VOE1371 117112	NOTES		
WH-1	A.O.SMITH	DEL-30	STORAGE	4 KW	16 GPM @ 100°F	3/4"	3/4"	208/1/60	1,2,3,4,5,6		
<u>NOTES</u> :		•		•	•			•			

FURNISHED WITH ALL STANDARD EQUIPMENT INCLUDING TEMPERATURE AND PRESSURE (T&P) RELIEF VALVE (IF REQUIRED BY LOCAL AHJ). THE HEATER WILL BE FACTORY ASSEMBLED AND TESTED REQUIRING ONLY CONNECTIONS TO THE ELECTRIC AND PLUMBING SYSTEM. MAINTAIN ALL REQUIRED CLEARANCES AROUND HEATER IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION MANUAL (12" ABOVE AND BELOW,

6" IN FRONT AND TO THE SIDES OF HEATER)/

INCLUDE ALL HANGING BRACKETS AS REQUIRED. EXTEND RELIEF VALVE/DRAIN PIPING ALONG WALL TO NEAREST FLOOR DRAIN/MOP BASIN. PROVIDE ACORN MV-17-1 (TMV-1) MASTER MIXING VALVE ROUGH BRONZE WITH ALL STANDARD EQUIPMENT INCLUDING PARAFFIN COPPER ACTUATOR, HEAVY DUTY COMBINATIÓN STRAINER, CHECKSTOPS AND TAMPER RESISTANT TEMPERATURE ADJUSTABLE CONTROL. 6. VERIFY TEMPERATURE SETTING WITH OWNER.

- 9 -	- 10 -

COPPER IMMERSION HEATING ELEMENTS WITH BRASS TOP. 99.8% ENERGY EFFICIENT. THREADED FOR EAST REPLACEMENT.

![](_page_15_Figure_32.jpeg)

![](_page_16_Figure_0.jpeg)

![](_page_16_Figure_6.jpeg)

![](_page_16_Figure_12.jpeg)

![](_page_16_Figure_15.jpeg)

![](_page_16_Picture_16.jpeg)