



HEYDAY - ANN ARBOR-CRANBROOK VILLAGE

890 W. EISENHOWER PKWY.,
ANN ARBOR, MI. 48103
FACIAL SHOP - INTERIOR BUILDOUT

LANDLORD APPROVAL

YES DATE

CONTACT INFORMATION

ARCHITECT

PEAK PERFORMANCE SKINCARE,LLC dba HEYDAY 2521 HAWTHORNE RD. ANN ARBOR, MI 48104

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AVOLPE@DXUARCH.COM

CASE ENGINEERING, INC. 796 MERUS COURT ST. LOUIS, MO 63026 (P) 636.349.1600 CONTACT:

MPE ENGINEER

CONTACT: LUKE WILD PRINCIPAL SENIOR MECHANICAL ENGINEER LWILD@CASEENGINEERING.COM BUILDING CONTACT

MR. TOM GOLDBERG 6735 TELEGRAPH RD. SUITE 110, BLOOMFIELD HILLS, MI 48301

(P) 248-594-1000 (E) TGOLDBERG@SVPRT.COM

INSURANCE REQUIREMENTS

1a. TO THE FULLEST EXTENT PERMITTED BY LAW. THE CONTRACTO SHALL WAIVE ANY RIGHT OF CONTRIBUTION AND SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, ARCHITECT OF RECORD, AND ENGINEER AND THEIR AGENTS AND EMPLOYEES AND CONSULTANTS FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEYS FEES ARISING OUT OF OR RESULTING FROM OR IN CONNECTIONS WITH THE PERFORMANCE OF THE WORK PROVIDED THAT ANY SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY ANY NEGLIGENT ACT OR OMISSION OF THE CONTRACTOR OR ANY SUBCONTRACTOR. ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM OR ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE. REGARDLESS OF WHETHER OR NOT IT IS CAUSED IN PART BY A PARTY INDEMNIFIED HEREUNDER. SUCH OBLIGATION SHALL NOT BE CONSTRUED TO NEGATE, ABRIDGE, OR OTHERWISE REDUCE ANY OTHER RIGHT OR OBLIGATION OF INDEMNITY; WHICH WOULD OTHERWISE EXIST AS TO ANY PARTY OR PERSON DESCRIBED IN THIS

1b. IN ANY AND ALL CLAIMS AGAINST THE OWNER, ARCHITECT OF RECORD, AND ENGINEERS OR ANY OF THEIR AGENTS OR EMPLOYEES AND CONSULTANTS BY ANY EMPLOYEE OF THE CONTRACTOR, ANY SUBCONTRACTOR, ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM OR ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE. THE INDEMNIFICATION OBLIGATION UNDER THIS PARAGRAPH AGREEMENT SHALL NOT BE LIMITED IN ANY WAY BY AN LIMITATION ON THE AMOUNT OR TYPES OF DAMAGES; COMPENSATION OR BENEFITS PAYABLE BY OR FOR THE CONTRACTOR OR ANY SUBCONTRACTOR UNDER WORKS OR WORKMEN'S COMPENSATION ACTS. DISABILITY BENEFITS ACTS OR OTHER EMPLOYEE BENEFITS ACTS.

1c. "CLAIMS, DAMAGES, LOSSES AND EXPENSES" AS THESE WORDS ARE USED IN THIS AGREEMENT, SHALL BE CONSTRUED TO INCLUDE, BUT NOT LIMITED TO (1) INJURY OR DAMAGE CONSEQUENT UPON THE FAILURE OF OR USE OR MISUSE BY CONTRACTOR, IT'S SUBCONTRACTOR, AGENTS, SERVANTS OR EMPLOYEES OF ANY HOIST, RIGGING, BLOCKING, SCAFFOLDING, OR ANY AND ALL OTHER KINDS OF ITEMS OF EQUIPMENT, OWNED, FURNISHED OR LOANED BY OWNER; (2) ALL ATTORNEY'S FEES AND COSTS INCURRED IN BRINGING AN ACTION TO ENFORCE THE PROVISIONS OF THIS INDEMNITY OR ANY OTHER INDEMNITY CONTAINED IN THE GENERAL CONDITIONS, AS MODIFIED BY THE SUPPLEMENTARY GENERAL CONDITIONS, AND (3) TIME EXPENDED BY THE PARTY BEING INDEMNIFIED AND THEIR EMPLOYEES AT THEIR USUAL RATES PLUS COSTS OF TRAVEL, LONG DISTANCE TELEPHONE AND REPRODUCTION OF DOCUMENTS.

1d. IF THE PROJECT IS IN A STATE WHICH PROHIBITS PARTIES FROM BEING INDEMNIFIED AGAINST THEIR OWN NEGLIGENCE, AN ADDITIONAL MODIFICATION SHOULD BE:

"THE OBLIGATIONS OF THE CONTRACTOR UNDER THIS AGREEMENT SHALL NOT EXTEND TO THE LIABILITY OF THE OWNER, ARCHITECT/ ENGINEER, THEIR AGENTS OR EMPLOYEES ARISING OUT OF THEIR NEGLIGENCE".

DRAWING INDEX

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				ARCHITECTURAL			\top	+	\top	P2.0	PLUMBING SPECIFICATIONS
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BUILDING DEPARTMENT

301 EAST HURON ST.

ANN ARBOR, MI 48104

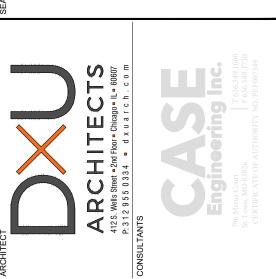
(P) 734-794-6263

ANN ARBOR- CRANBROOK
VILLAGE

MUNICIPAL APPROVAL STAMP

PROJECT
HEYDAY - ANI
890 W. E





PEKMII / BID	
Number: 22-067	
n By: Approved By: XX	×
Issue	Date
95% REVIEW	05/12/2022
ISSUED FOR PERMIT & BID	06/09/2022

TITLE & NUMBER

TITLE SHEET

T1-01

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I. SUPPLY & RETURN AIR REGISTERS

5.GAS TO (E) P.O.C.

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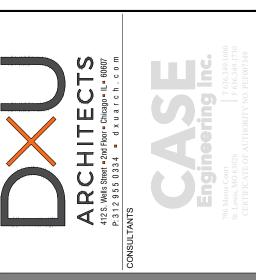
TENANT ENTITLED TO USE EXISTING GAS LINE AND METER

MUNICIPAL APPROVAL STAMP

ANN ARBOR- CRANBR

PROJECT





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	95% REVIEW	05/12/2
	ISSUED FOR PERMIT & BID	7/60/90

HEET TITLE & NUMBE

RESPONSIBILITY SCHEDULE

T1-02

B. SUSPENDED GYP. BD. CEILING & FRAMING

D. WINDOW AND GLAZING

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RESPONSIBILITY SCHEDULE CONT.

NOTE:
THIS SCHEDULE IS PROVIDED FOR QUICK REFERENCE
ONLY. THE GENERAL CONTRACTOR IS RESPONSIBLE
FOR ALL WORK DESCRIBED IN THE CONSTRUCTION
DOCUMENTS. CONFLICTS BETWEEN THIS SCHEDULE
AND THE REST OF THE CONTRACT DOCUMENTS SHALL
BE BROUGHT TO THE ARCHITECTS ATTENTION(IN

WRITING) PRIOR TO BEGINNING WORK.

FU	IRN	ISH	ED	IN:	STA	LLE	ΕD
TENANT	GENERAL CONTRACTOR	OWNER'S CONTRACTOR	LANDLORD	TENANT	GENERAL CONTRACTOR	OWNER'S CONTRACTOR	LANDLORD

DIVISION 16: ELECTRICAL

A. LIGHTING SYSTEMS (LIGHTING FIXTURES)								PROVIDED BY OWNER, GC TO INSTALL
1. FIXTURES: AS LISTED ON THE FIXTURE LEGEND A2-11	X				Х			
2. EXIT & EMERGENCY LIGHTING	X			X	Х		Х	SUPPLIED AND INSTALLED BY LANDLORD
3. DECORATIVE FIXTURES	X				Χ			
4. DIMMING SYSTEM, CONTROLS ON GC	X				Х			
5. LAMPS / BULBS FOR ALL FIXTURES	X				Χ			
B. POWER SYSTEMS								
1. ELECTRIC (E) TO PRIMARY P.O.C.	X	X			Х			AS DESIGNED BY LANDLORD
2. MAIN SERVICE WIRING		X			Χ			
3. TEN. DISTRIBUTION PANEL / TRANSFORMER		Х			Х			
4. OUTLETS, SWITCHES, CONDUITS		X			Х			
5. FINAL FIXTURE CONNECTIONS		X			Х			
C. TELEPHONE								
1. TELEPHONE OUTLETS		X			Х			GC TO COORDINATE LOCATIONS W/ OWNER'S VENDOR PRIOR TO INSTALLATION, TYP
2. TELEPHONE CONDUITS & PULL WIRE CONSULT WL		X		X	Х		Х	GC TO COORDINATE LOCATIONS W/ OWNER'S VENDOR PRIOR TO INSTALLATION, TYP
3. TELEPHONE SYSTEMS		X			Χ	Х		GC TO COORDINATE LOCATIONS W/ OWNER'S VENDOR PRIOR TO INSTALLATION, TYP
D. SECURITY SYSTEM								
1. CONDUITS AND PULL STRINGS		X			Χ			GC TO COORDINATE LOCATIONS W/ OWNER'S VENDOR PRIOR TO INSTALLATION, TYP
2. EQUIPMENT, HOOK-UP & WIRING			Х		Χ	Х		GC TO COORDINATE LOCATIONS W/ OWNER'S VENDOR PRIOR TO INSTALLATION, TYP
E. A/V SYSTEMS								
1. CONDUITS AND PULL STRINGS		X			Χ			GC TO COORDINATE LOCATIONS W/ OWNER'S VENDOR PRIOR TO INSTALLATION, TYP
2. STEREO & SPEAKERS			Х		Х	Х		GC TO COORDINATE LOCATIONS W/ OWNER'S VENDOR PRIOR TO INSTALLATION, TYP
3. CABLING			Х		Х	Х		GC TO COORDINATE LOCATIONS W/ OWNER'S VENDOR PRIOR TO INSTALLATION, TYP
G. FIRE SYSTEM								
1. INTERFACE W/ L.L. SYSTEM		X			Χ			GC TO PROVIDE CONDUIT, ELECTRICAL OWNER TO INSTALL

REMARKS / NOTES:

1. ALL ITEMS THAT ARE FURNISHED BY OWNER'S CONTRACTOR, G.C. TO COORDINATE.

2. ALL EXTERIOR & EXPOSED INTERIOR GAS PIPING TO BE PAINTED BY G.C.

3. REFER TO A9-10 FOR ADDITIONAL FINISH INFORMATION AND SPECIFICATIONS.

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Exhibit C Landlord Work Letter

Landlord shall provide the following, at Landlord's expense, prior to Tenant taking possession of Premises:

- (1) <u>Selective Demo</u> Demolish, remove and legally discard all prior tenant's improvements, including, but not limited to hazardous substances, partitions, ceilings, floor coverings (including adhesive and grout), electrical conduit, plumbing, mechanical ductwork and other fixtures and equipment. Tenant reserves the right to identify property items to remain prior to demolition.
- (2) <u>Façade Improvements</u> Landlord is to provide an allowance for Façade accents/improvements per Tenant's specification.
- (3) Floor Provide level reinforced, concrete slab in grade-street level, stable, dry condition. Concrete floor must be smooth and properly cured to a level below 5lbs of hydrostatic pressure. Relief joints must be sealed and ready to accept Tenant's finishes. All flooring must meet applicable dead and live load codes. The floor structure must have less than 1/8" per foot deflection in order to accept Tenant's floor finishes. Landlord to provide scanning of concrete floor slab to ensure existing conditions underneath slab before excavation
- (4) <u>Walls</u> All existing perimeter walls must comply with 20 gauge studs, 16" O.C. with R-II blanket insulation to deck. The finish level of the perimeter surfaces within the Tenant Premises shall be a minimum of level 4 with a 5/8" Type "X" gypsum wall board. Seal top joint tight with foam sealant unless otherwise required for fire protection. Any demising walls and insulation to remain shall meet current energy requirements and all local codes.
- (5) HVAC Landlord shall provide a fully functioning HVAC system, including thermostats and remote sensors, designed to a minimum of 1 ton per 250 square foot, including any/all fresh air requirements to meet code. Landlord shall also provide a general exhaust for toilets, BOH dryers and balancing the space. All equipment and systems shall be mutually agreed including all specific equipment and ducting locations. Landlord shall deliver the HVAC system fully tested and balanced with all required operating permits and in good working order.
- (6) Water minimum 1.5" diameter domestic water line stubbed to premises with separate meter, an approved, tested and certified backflow device with a maximum water pressure drop of 15 PSI static pressure at 50gpm, and shut off valve per Tenant's specified location and plans. Landlord to provide temporary domestic water if not available at time of possession. Permanent water is required prior to Tenant commencing construction. Landlord shall provide a meter and/or sub-meter if required by lease and/or the utility company.
- (7) <u>Sewer</u> -- Minimum 4" sanitary waste line stubbed to Premises as per Tenant's specified location. The invert elevation at the furthest point of connection shall be 24" below finished floor and maintain a minimum slope of 1/4" per lineal foot and shall be per local code. Septic tanks are not acceptable.
- (8) <u>Fire Protection</u> Fire sprinkler protection system including flow and tamper device as required by applicable building codes per Tenant's specified locations. Sprinkler coverage (drops and heads) distributed throughout Premises per Tenant's plans and code. Landlord to provide finalized shell permit for entire system. Provide smoke detectors, fire alarms and building connections as

Heyday LOI Page 9 of 10

required by applicable codes, manufacturer's specifications and building requirements. If required by applicable code, engineer and furnish 4" fire main within Tenant's Premises accessible via a main line connection.

- (9) <u>Fire Alarm</u> Fire alarm monitoring system including all sensors, strobes, horns and pull stations per Tenant's plans and sensors as required for the Premises, connected to building monitoring system and Tenant's equipment as required by building system requirements, code and all government agencies. Provide all coordination, testing and inspections for a fully functional fire alarm system able to obtain Tenant's permanent Certificate of Occupancy and to meet Tenant's opening schedule. If there is no fire alarm monitoring system, then Landlord will provide a test and reset station for the duct smoke detector.
- (10) Electrical Service Landlord shall provide a 277/480v 3PH 4W 200a service including main panel, disconnect and any transformer in mutual agreed location(s) for the Premises. Landlord shall provide any direct and/or submetering that would/might be required. Landlord to provide wire and conduit from service point into Premises connected to one 'Square-D' or equal NEMA PB1, Type 1, 200 Amp rated panel recessed mounted panels with no less than 54 circuits in one location designated by Tenant. Landlord to provide temporary power to the Premises sufficient to serve Tenant's construction until completion of Tenant's build out.
- (11)<u>Telephone</u> Furnish and install 2" conduit for telephone service with pull strings, stubbed to space as per tenant's specified location from property's joint telephone demarcation/space.
- (12)Internet Cabling Furnish and provide internet fiber to Premises.
- (13) Warranties Warranties for all improvements including but not limited to mechanical, electrical and plumbing systems for a period of at least one year (or longer if required by lease). All warranties shall be assigned and provided to tenant
- (14) <u>Handicap Accessibility</u> All municipal state and federal ADA requirements to be installed by Landlord. All means of ingress/egress shall be at street entry grade level. Handicap accessible lift or ramp must be approved by Tenant and installed per Federal handicap code with applicable landings, railings and clearances

MUNICIPAL APPROVAL STAMP

CRANBROOK

ANN ARBOR- CR VILLAGE W FISFNHOWER PI

PROJECT HEYDAY -





Project	Project Number: 22-067	
Draw	Drawn By: Approved By: XX	×
No.	Issue	Date
	95% REVIEW	05/12/2
	ISSUED FOR PERMIT & BID	06/09/2

HEET TITLE & NUMBE

RESPONSIBILITY SCHEDULE

T1-03

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PROXIMITY MAP 890 W. EISENHOWER PKWY. ANN ARBOR, MI 48103 SCALE = NTS

EGRESS CALCULATIONS

OCCUPANCY LOAD CALCULATIONS:	(TABLE 1004.1.2)		TOTAL
DESCRIPTION	AREA	AREA PER OCCUPANT	OCCUPANTS
TOTAL SQFT OF TENANT SPACE	2414 SF (GROSS)	100 SF (GROSS)	25
EXIT ACCESS TRAVEL DISTANCE:	MAX. ALLOWED 250'	MAX. DISTANCE PROVIDED 85' 2"	
COMMON PATH OF TRAVEL DISTANCE:	MAX. ALLOWED 75'	MAX. DISTANCE PROVIDED 11' 10"	
(TABLE 1016.2)	SPRINKLER SYSTEM PROVIDED		
	MINIMUM REQUIRED	PROVIDED	
EGRESS DOOR WIDTH:	32" 32"	EXIT 1 - 36" EXIT 2 - 36"	
EGRESS AISLE WIDTH:	32"	36"	
MINIMUM NUMBER OF EXITS:	REQUIRED	PROVIDED	
(TABLE 1006.3.1)	1	2	

PROJECT DESCRIPTION

INTERIOR BUILD-OUT OF AN EXISTING SPACE FOR A NEW FACIAL SHOP. WORK INCLUDES CARPENRY, MECHANICAL, PLUMBING AND ELECTRICAL DISCIPLINES.

MICHIGAN BLDG CODES

*	BUILDING	2015 MICHIGAN BUILDING CODE
*	MECHANICAL	2015 MICHIGAN MECHANICAL CODE
*	ELECTRICAL	NATIONAL ELECTRICAL CODE 2017 OF MICHIGAN
*	PLUMBING	2018 MICHIGAN PLUMBING CODE
*	FIRE PREVENTION	2015 INTERNATIONAL FIRE CODE - NFPA 72
*	ENERGY	2015 MICHIGAN ENERGY CODE
*	ACCESSIBILITY	2015 INTERNATIONAL ACCESSIBILITY CODE
*	ZONING	THE ZONING ORDINANCE OF MICHIGAN TOWNSHIP
*	FUEL GAS	2015 INTERNATIONAL FUEL GAS CODE

* AS AMENDED WITH ALL MICHIGAN STATE AMENDMENTS

PLUMBING REQUIREMENTS (UPC 2018)

OCCUPANT LOAD	25 TOTAL OCCUPANTS		
MIN. NO. OF PLUMBING FIXTURES	REQUIREMEN	IT CALCULATION	PROVIDED UNISEX
WATER CLOSETS:		1 PER 25 :: 1 PER 40	2 SINGLE USE
URINALS:	N/A	N/A	N/A
LAVATORIES:	1 F	PER 40	2
DRINKING FOUNTAINS:	1 P	ER 100	1
SERVICE SINK:		1	1
SEPARATE FACIL	MICHIGAN PLUMBING CODE, SECTI ITIES SHALL NOT BE REQUIRED IN I WHICH THE MAXIMUM OCCUPAN	BUSINESS	

ADA COMPLIANCE NOTES

PROJECT MUST FULLY COMPLY & MEET ALL ACCESSIBILITY REQUIREMENTS OF THE AMERICAN DISABILITIES ACT AND THE 2010 ADA STANDARDS

EGRESS / ACCESS DIAGRAM

EXIT ACCESS TRAVEL DISTANCE

MAX. DISTANCE = X'-X" A TO 1 = 85'-2" B TO 2 = 70'-10"

REFER TO A1-21 FLOOR PLAN FOR EGRESS AISLE WIDTHS & REFER TO A2-11 REFLECTED CEILING PLAN FOR EMERGENCY LIGHTS & EXIT SIGN LOCATIONS.

LEGEND

ABC⊗ ABC CLASS FIRE EXTINGUISHER

COORDINATE ALL FIRE EXTINGUISHER LOCATIONS WITH LOCAL FIRE DEPARTMENT.

IBC 2018 CODE MATRIX

MUNICIPAL APPROVAL STAMP

SCOPE OF WORK: BUSINESS - INTERIOR BUILDOUT

ZONING CLASSIFICATION: C1B- COMMUNITY CONVENIENCE CENTER

CONSTRUCTION TYPE: TYPE II-B (FIRE SPRINKLERED THROUGHOUT) (TABLE 503)

OCCUPANCY CLASSIFICATION: B, BUSINESS (SECTION 309.1)

ALLOWABLE HEIGHT: EXISTING BUILDING, NO CHANGE ACTUAL HEIGHT: ONE STORY W/O BASEMENT (EXISTING, NO CHANGE)

ALLOWABLE AREA: EXISTING BUILDING, NO CHANGE ACTUAL AREA: EXISTING BUILDING, NO CHANGE

TENANT SPACE GROSS AREA: 2,414 SF

SEPARATION - USES: B TO B (ADJACENT), 2 HR REQUIRED B TO B (ADJACENT), 2 HR REQUIRED

BUILDING ELEMENT FIRE RESISTANCE RATING REQUIREMENT (TABLE 601)

PROVIDED

STRUCTURAL FRAME: 0 HR **EXISTING** BEARING WALLS, EXTERIOR: 0 HR **EXISTING** BEARING WALLS, INTERIOR: 0 HR **EXISTING** NON-BEARING WALLS, EXT.: 0 HR **EXISTING** NON-BEARING WALLS, INT.: 0 HR 0 HR FLOOR CONSTRUCTION: 0 HR **EXISTING EXISTING** ROOF CONSTRUCTION: 0 HR

> ALL INTERIOR FINISHES/MATERIALS SHALL COMPLY WITH CHAPTER 8 OF THE 2018 MICHIGAN STATE MIN. STANDARD

EXISTING **EXISTING** RETAIL RETAIL TENANT TENANT EXIT #1 (1)

SCALE = $\frac{1}{8}$ " = 1'-0" GROUND FLOOR PLAN

PROJECT INFO &

CODE ANALYSIS

GENERAL REQUIREMENTS

LANDLORD'S INSTRUCTIONS

PURPOSE:

THE FOLLOWING IS A LIST OF SOME OF THE LANDLORD'S INSTRUCTIONS TO GENERAL CONTRACTORS AND HIS/HER SUBCONTRACTORS. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN LANDLORD'S COMPLETE REQUIREMENTS AND MAKE SURE THAT THE LANDLORD'S POLICIES ARE MET.

ROOF PENETRATIONS:

INSTRUCT ALL SUB-CONTRACTORS THAT ANYTHING THAT NEEDS TO BE ATTACHED ABOVE THE CEILING SHOULD BE ATTACHED TO THE ROOF STRUCTURE, NOT THE DECKING. ALL ROOF PENETRATIONS SHALL BE DONE BY LANDLORDS ROOFING CONTRACTOR TO MAINTAIN WARRANTY.

STRUCTURAL ELEMENTS:

DO NOT MAKE ANY CUTS TO ANY OF THE BUILDING ELEMENTS WITHOUT VERIFYING WHETHER OR NOT IT IS A STRUCTURAL ELEMENT. THIS INCLUDES ROOF BEAMS, ROOF DECK, MASONRY WALLS AND THE CONCRETE SLAB.

IF YOU HAVE ANY QUESTIONS REGARDING THE ABOVE INFORMATION, PLEASE CONTACT THE LANDLORD.

A/C STARTUP:

CONTACT THE LANDLORD FOR ANY REQUIREMENTS ON THE START-UP OF LANDLORD PROVIDED HVAC UNITS.

FIRE SYSTEM MONITORING: (IF REQUIRED)

VERIFY IF THE LANDLORD IS MONITORING THE FLOW AND TAMPER SWITCHES FOR THE SHELL BUILDING. IF THE SYSTEM IS OPERATIONAL, YOU MUST CONTACT THE LANDLORD PRIOR TO TAKING DOWN THE SYSTEM.

ANY FINES CHARGED BY THE FIRE DEPARTMENT FOR FALSE ALARMS WILL BE CHARGED BACK TO THE TENANT'S GENERAL CONTRACTOR.

ARCHITECT'S INSTRUCTIONS

SUBMITTALS:

IF ALTERNATE EQUIPMENT IS PROPOSED DUE TO LEAD TIME, THE ARCHITECT OR ENGINEER MAY REQUEST PAYMENT FROM G.C. FOR REVIEW OF THE SUBMITTAL. GENERAL CONTRACTOR MUST VERIFY LONG LEAD ITEMS AT START OF PROJECT TO AVOID DELAYS & ALTERNATES.

AS BUILTS:

THE GENERAL CONTRACTOR SHALL RED LINE ALL FIELD CHANGES ON A SET OF PRINTS TO REMAIN ON SITE THROUGHOUT THE CONSTRUCTION OF THE PROJECT. IT IS THE GC'S RESPONSIBILITY TO RECORD ALL FIELD CHANGES AND SUBMIT THE 'AS BUILTS' TO THE FG RCM AT TURNOVER.

G.C. COMPLIANCE

OWNER'S GENERAL CONTRACTOR SHALL VISIT THE PREMISES AND VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION AND SHALL REPORT ALL DISCREPANCIES TO TENANT'S ARCHITECT. TENANT'S GENERAL CONTRACTOR SHALL CONFORM TO ALL REQUIREMENTS REGARDING CONSTRUCTION PROCEDURES, INSURANCE, ETC., AS SET FORTH BY THE LANDLORD. GC TO VERIFY THE EXACT LOCATION OF ALL EXISTING LANDLORD FEATURES I.E. METAL BRACE FRAME, STOREFRONT OPENINGS, CORRIDOR ACCESS DOOR, DEMISING WALLS, UTILITY P.O.C., ETC.

FIRE SPRINKLERS (IF REQUIRED)

- 1. IF AN AUTOMATIC FIRE SPRINKLER SYSTEM EXISTS WITHIN THE SPACE. THE GENERAL CONTRACTOR SHALL EMPLOY THE SERVICES OF THE LANDLORD'S, OR ANOTHER LICENSED FIRE SPRINKLER CONTRACTOR TO DESIGN AND INSTALL THE NEW SYSTEM TO CONFORM WITH THE NEW ROOM AND CEILING HEIGHTS AS SHOWN IN THESE DRAWINGS. THE SPRINKLER CONTRACTOR SHALL DESIGN AND PREPARE SHOP DRAWINGS FOR THE PROPOSED SYSTEM MODIFICATIONS & SUBMIT THESE DRAWINGS TO THE BLDG./FIRE DEPT. & THE ARCHITECT TO GAIN APPROVALS PRIOR TO COMMENCING ANY WORK. PUBLIC AREA HEADS TO BE CONCEALED TYPE W/ BLACK COVERS AT DARK CEILINGS, WHITE AT LIGHT CEILINGS & CHROME IN TOILETS. HEADS IN NON-PUBLIC AREAS ARE TO BE SEMI-RECESSED. INSTALLATION IS TO INCLUDE ALL SITE WORK.
- 2. COMPLETE PLANS AND SPECIFICATIONS FOR FIRE-EXTINGUISHING SYSTEMS, INCLUDING AUTOMATIC SPRINKLERS AND WET AND DRY STANDPIPES; HALON SYSTEMS AND OTHER SPECIAL TYPES OF AUTOMATIC FIRE-EXTINGUISHING SYSTEMS; BASEMENT PIPE INLETS; AND OTHER FIRE PROTECTION SYSTEMS AND APPURTENANCES THERETO SHALL BE SUBMITTED TO FIRE AND LIFE SAFETY FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 3. FIRE EXTINGUISHING SYSTEM SHALL BE IN ACCORDANCE WITH 2015 INTERNATIONAL FIRE CODE SECTION 903.

FIRE ALARM (IF REQUIRED)

- EXISTING FIRE PANEL TO REMAIN IF PRESENT. FIRE CONTRACTOR TO TIE INTO BUILDING SYSTEM OR PROVIDE NEW SYSTEM AS REQ'D BY CITY APPROVAL. F.C. TO PROVIDE DRAWINGS AND SPECIFICATIONS FOR CITY APPROVAL.
- THE GENERAL CONTRACTOR SHALL EMPLOY THE SERVICES OF THE LANDLORD'S, OR ANOTHER LICENSED FIRE ALARM CONTRACTOR TO DESIGN AND INSTALL NEW SYSTEM W/ ALL REQUIRED DEVICES.

SIGNAGE

OWNER'S SIGNAGE CONTRACTOR SHALL PREPARE SIGNAGE SHOP DRAWINGS AND SUBMIT TO BUILDING DEPT. & LANDLORD FOR APPROVAL. ALL SIGNAGE IS UNDER SEPARATE PERMIT.

SPRINKLER NOTES

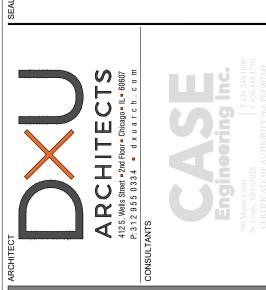
- 1. EXISTING SPRINKLER SYSTEM TO REMAIN.
- 2. SPRINKLER CONTRACTOR TO ADJUST AND/OR ADD HEADS AS REQ'D FOR NEW LAYOUT.
- 3. S.C. TO PROVIDE DRAWINGS AND CALCS FOR CITY APPROVAL.

MUNICIPAL APPROVAL STAMP

N ARBOR- CRANBROOK
VILLAGE
EISENHOWER PKWY

HEYDAY -





 PERMIT / BID

 Approved By: XX

 awn By:
 Approved By: XX

 Issue
 Date

 95% REVIEW
 05/12/20

 ISSUED FOR PERMIT & BID
 06/09/20

GENERAL
INFORMATION

G1-02

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DxU 2021

GROUND WORK.

2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON DRAWINGS FOR

CONFLICTS PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL NOTIFY THE

3. BIDDERS ARE INSTRUCTED TO CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS & SITE.

ARCHITECT OF ANY DISCREPANCIES. DO <u>NOT</u> SCALE DRAWINGS.

- 4. NO STRUCTURE OF ANY KIND TO BE CONSTRUCTED ON, OVER OR PLACED WITHIN THE PUBLIC UTILITY EASEMENTS EXCEPT WOOD, WIRE OR REMOVABLE SECTION TYPE FENCING AND/OR PAVING.
- 5. CONTRACTOR TO COORDINATE STAGING AREAS AS REQUIRED WITH LANDLORD & OWNER.
- 6. ANY DAMAGE BY G.C. OR SUBCONTRACTOR TO EXISTING ASPHALT PAVEMENT AND/OR EXISTING LANDSCAPING OUTSIDE OF CONSTRUCTION LIMIT LINE SHALL BE REPAIRED AT NO COST TO OWNER.
- 7. SIDEWALK ELEVATIONS TO BE COORDINATED WITH SITE AS-BUILT CONDITIONS. ARCHITECT TO BE NOTIFIED OF ANY DISCREPANCIES.
- 8. G.C. TO COORDINATE LOCATION & PLACEMENT OF GREASE REMOVAL SYSTEM WITH PLUMBING CONTRACTOR. FIELD VERIFY ANY (E) SITE CONDITIONS THAT MAY IMPEDE INSTALLATION AND/OR OPERATION OF
- 9. APPROVED NUMBERS OR ADDRESSES SHALL BE MAINTAINED & AS CURRENTLY PLACED ON BUILDING.
- 10. NO MATERIALS SHALL BE STORED ON PUBLIC PROPERTY UNLESS AN ENCROACHMENT PERMIT IS FIRST OBTAINED FROM THE PUBLIC WORKS DEPARTMENT
- 11. ALL DIMENSIONS ARE TO FACE OF GYPSUM BOARD AT FRAMED WALLS & SOFFITS, TYPICAL UNLESS OTHERWISE NOTED. AT MILLWORK LOW WALLS, DIMENSIONS ARE TO FACE OF FINISHED WALL, TYPICAL.
- 12. CONTRACTOR SHALL PROVIDE CONSTRUCTION FENCE FOR PEDESTRIAN PROTECTION ACCORDING TO LOCAL REGULATIONS & BUILDING CODE.
- 13. TEMPORARY TOILET FACILITIES SHALL BE PROVIDED.
- 14. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE SECURITY & SAFETY OF THE SITE WHILE THE JOB IS IN PROGRESS & UNTIL THE JOB IS COMPLETE.
- 15. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS & WORKERS AT ALL TIMES
- 16. ALL DEBRIS SHALL BE REMOVED FROM THE PREMISES DAILY & WORK AREAS SHALL BE LEFT IN A CLEAN (BROOM) CONDITION AT ALL TIMES.
- 17. CONTRACTOR SHALL PROVIDE A LIST OF SUBCONTRACTORS TO THE
- 18. CONTRACTOR SHALL COMPLY WITH ALL STATE & LOCAL RULES & REGULATIONS CONCERNING LICENSING WHICH THE APPLICABLE GOVERNING AUTHORITY MAY HAVE ADOPTED.
- 19. ALL WEATHER-EXPOSED SURFACES SHALL HAVE A WEATHER-RESISTIVE BARRIER TO PROTECT THE INTERIOR WALL COVERING. EXTERIOR OPENINGS SHALL BE FLASHED IN SUCH A MANNER AS TO MAKE THEM
- 20. GENERAL CONTRACTOR SHALL PLACE ORDERS FOR ALL FINISHES, ALL MATERIALS, EQUIPMENT; ETC. AT THE START OF THE PROJECT. SUBSTITUTIONS ARE NOT ACCEPTED FOR ANY ITEMS, UNLESS NOTED OTHERWISE. OWNER & ARCHITECT MUST BE INFORMED OF LEAD TIME PROBLEMS WITHIN THE FIRST TWO WEEKS OF THE PROJECT.
- 21. PROVIDE VENTILATION FOR KITCHEN & FOOD PREPARATION AREAS PER MECHANICAL DRAWINGS.
- 22. SIGNS ARE REQUIRED FOR ALL MP&E ROOMS & SPRINKLER CONTROL VALVE ROOMS.
- 23. PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, THE APPLICANT SHALL HAVE EVIDENCE OF CURRENT WORKMAN'S COMPENSATION INSURANCE COVERAGE ON FILE WITH THE DEPARTMENT IN COMPLIANCE WITH THE LOCAL LABOR CODE.
- 24. AFTER OBTAINING BUILDING PERMIT AND BEFORE COMMENCING WITH THE WORK, THE GENERAL CONTRACTOR SHALL SHOW EVIDENCE OF ALL THE INSURANCE REQUIREMENTS.
- 25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND OBTAIN ALL PERMITS AND LICENSES AND PAY REQUIRED FEES.
- 26. CONTRACTOR SHALL BE FAMILIAR WITH ALL LANDLORD REQUIREMENTS AND SHALL BE RESPONSIBLE FOR COMPLIANCE WITH SAME. CONTRACTOR SHALL INVESTIGATE LOCAL CODES AND PROCEDURES AND SHALL COMPLY WITH ALL REQUIREMENTS.
- 27. A COPY OF LANDLORD'S FINAL APPROVED PLANS MUST BE ON SITE DURING CONSTRUCTION.
- 28. REMOVE ALL ABANDONED IMPROVEMENTS, INCLUDING ELECTRICAL AND MECHANICAL, IF ANY.
- 29. INSPECT SITE: VERIFY FIELD DIMENSIONS BEFORE COMMENCING CONSTRUCTION. NOTIFY TENANT AND LANDLORD IMMEDIATELY IF THERE ARE ANY SIGNIFICANT DISCREPANCIES.
- 30. WHERE FACTORY FINISHED OR FACTORY PRIMED ITEMS OCCUR, SUCH AS GRILLES, DIFFUSERS, METAL TRIM AND ACCESSORIES, ETC. THEY SHALL BE PAINTED TO MATCH THE ADJACENT SURFACE AND AS DIRECTED BY THE OWNER.
- 31. CONTRACTOR SHALL, IN THE WORK OF ALL TRADES, PERFORM ANY AND ALL CUTTING, PATCHING, REPAIRING, RESTORING AND THE LIKE NECESSARY TO COMPLETE THE WORK AND TO RESTORE ANY DAMAGED OR AFFECTED SURFACES RESULTING FROM THE WORK OF THIS CONTRACT TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE
- 32. THERE SHALL BE NO EXPOSED PIPE, CONDUITS, ETC. IN PUBLIC AREAS, UNO. ALL SUCH LINES SHALL BE CONCEALED OR FURRED AND FINISHED.

- 33. GENERAL CONTRACTOR SHALL COORDINATE WORK PERFORMED BY OTHER CONTRACTORS. DISCREPANCIES IF ANY, SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- 34. SHOULD THE DRAWINGS DISAGREE WITH THEMSELVES OR WITH THE SPECIFICATIONS OR SHOULD THE SPECIFICATIONS DISAGREE WITH THEMSELVES, THE BETTER QUALITY AND/OR GREATER QUANTITY OF WORK OR MATERIAL SHALL BE ESTIMATED UPON AND UNLESS OTHERWIS
- ORDERED IN WRITING SHALL BE FURNISHED AND INSTALLED.

 35. NO SUBSTITUTIONS ARE PERMITTED UNLESS PRIOR APPROVAL BY THE
- 36. IF ANY DISCREPANCIES APPEAR IN CONTRACT DOCUMENTS, CONTRACTOR SHALL NOTIFY ARCHITECT IN WRITING OF SUCH DISCREPANCIES PRIOR TO BID.
- 37. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY ARRIVAL OF ALL SPECIFIED FINISH MATERIALS EQUIPMENT, LIGHT FIXTURES AND ANY OTHER SUCH MATERIAL (S) TO BE UTILIZED ON THE PROJECT. THE GENERAL CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING WITHIN 10 DAYS OF THE DATE OF CONTRACT OF THOSE SPECIFIED ITEMS THAT MAY NOT BE READILY AVAILABLE. IF NOTIFICATION IS NOT RECEIVED BY THE OWNER THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR THE PROPER ORDERING AND FOLLOW-UP OF SPECIFIED ITEMS AND WILL PURSUE WHATEVER MEANS NECESSARY AT NO ADDITIONAL COST TO THE OWNER, INSURE AVAILABILITY OF ALL SPECIFIED ITEMS SO AS NOT TO CREATE A HARDSHIP ON THE OWNER AND NOT DELAY PROGRESS OF THE WORK. NO EXTENSION OF TIME TO THE CONTRACT WILL BE ALLOWED.
- 38. MECHANICAL CONTRACTORS SHALL VERIFY EXACT DIMENSIONS WITH EQUIPMENT MANUFACTURERS. MECHANICAL CONTRACTOR SHALL VERIFY ALL SIZES AND LOCATIONS OF DUCT OPENINGS BEFORE INSTALLATION AND VERIFY DISCREPANCIES, IF ANY.
- 39. ALL EXTERIOR WALL OPENINGS, FLASHING, COUNTER FLASHING, COPING AND EXPANSION JOINTS SHALL BE WEATHERPROOF.
- 40. CAULKING AND SEALANTS: ALL OPEN JOINTS PENETRATIONS AND OTHER OPENINGS IN THE BUILDING ENVELOPE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED TO LIMIT AIR AND WATER LEAKAGE.
- 41. USE ACOUSTICAL SEALANT AROUND ALL PIPES, DUCTS CONDUITS, OUTLETS, SWITCHES, ETC. ON BOTH SIDES OF CROSSING/PENETRATING WALLS WITH THERMAL AND ACOUSTIC INSULATION.
- 42. ALL NOISE BARRIER BATTS (SOUND INSULATION) SHALL BE
- 43. EACH CONTRACTOR SHALL LEAVE THE SITE IN A NEAT, CLEAN AND ORDERLY CONDITION ON A DAILY BASIS AND UPON CONCLUSION OF HIS WORK. ALL WASTE, RUBBISH AND EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE PROMPTLY. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL TRASH GENERATED BY OWNERS CONTRACTORS FOR THE DURATION OF THE PROJECT.
- 44. SAFETY: ALL CONDUIT, WORK EQUIPMENT AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST SAFETY RULES AND REGULATIONS OF ALL AUTHORITIES AND AGENCIES HAVING JURISDICTION OVER THE WORK.
- 45. CONSULT PROPERTY UTILITY PLANS BEFORE SAW CUTTING CONCRETE SLAB, IF ANY.
- 46. THE ARCHITECT WILL NEITHER HAVE CONTROL OVER OR CHARGE OF, NOR BE RESPONSIBLE FOR, THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, SINCE THESE ARE SOLELY THE CONTRACTOR'S RIGHTS AND RESPONSIBILITIES.

FIRE DEPARTMENT NOTES

- 1. CONTRACTOR TO PROVIDE A SUFFICIENT NUMBER OF 2A10BC RATED FIRE EXTINGUISHERS DURING CONSTRUCTION SO THAT ALL PORTIONS OF THE BUILDING ARE WITHIN 75 FT. TRAVEL DISTANCE OF SAID EXTINGUISHER & SO THAT AT LEAST ONE 2A10BC RATED FIRE EXTINGUISHER IS PROVIDED FOR EACH 3,000 SQ. FT. OF FLOOR SPACE OR PORTION THEREOF.
- 2. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 40-B FOR KITCHEN. LOCATE EXTINGUISHERS PER LOCAL FIRE DEPARTMENT INSPECTOR.
- 3. PROVIDE FIRE EXTINGUISHERS AS REQUIRED BY FIRE DEPARTMENT FIELD
- INSPECTOR DURING CONSTRUCTION & FOR COMPLETED PROJECT.

 4. ALL EXIT DOORS SHALL SWING IN THE DIRECTION OF TRAVEL.
- 5. ALL EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT SPECIAL KNOWLEDGE OR EFFORT (NO DEAD BOLTS, NO SLIDING BOLTS, ETC.)
- 6. AN OCCUPANT LOAD SIGN SHALL BE POSTED IN EACH ASSEMBLY ROOM HAVING AN OCCUPANT CONTENT OF 50 OR MORE. SIGN IS TO BE POSTED NEAR ENTRANCE, COORDINATE LOCATION OF SUCH SIGN WITH FIRE MARSHAL. SIGN TO BE PROVIDED & INSTALLED BY OWNER VENDOR.
- 7. MAINTAIN MIN. 44" AISLES TO EXIT OR PUBLIC WAY.
- 8. PROVIDE EXIT SIGNS ABOVE EXITS WITH MIN. 3/4"x6" LETTERS LIGHTED ON CONTRASTING BACKGROUND.
- 9. EXIT SIGNS MUST BE INTERNALLY ILLUMINATED.
- 10. PROVIDE TWO (2) SEPARATE POWER SUPPLIES FOR EXIT SIGNS CONFORMING TO CODE SECTION.
- 11. PROVIDE EMERGENCY EXIT LIGHTING PROVIDING A VALUE OF ONE FOOT CANDLE AT FLOOR LEVEL.
- 12. ADDITIONAL EXIT SIGNS WILL BE PROVIDED AS/IF DIRECTED BY THE CITY INSPECTOR.
- 13. SEE "ROOM FINISH SCHEDULE" FOR SMOKE DENSITY RATING & FLAME SPREAD RATING OF MATERIALS USED.

14. INTERIOR WALL & CEILING FINISHES FOR ASSEMBLY AREAS SHALL NOT

15. ANY DECORATIONS USED SHALL BE NON-COMBUSTIBLE OR FLAME PROOFED IN AN APPROVED MANNER.

EXCEED AN END POINT FLAME SPREAD RATING OF 20.

16. DRAPES & OTHER DECORATIVE MATERIALS SHALL BE FLAME RETARDANT CERTIFICATION THEREOF SHALL BE PROVIDED. EXITS, EXIT SIGNS, FIRE ALARM STATIONS, HOSE CABINETS & EXTINGUISHER LOCATIONS SHALL NOT BE CONCEALED BY DECORATIVE MATERIALS.

GENERAL NOTES

- 17. FINISHES SHALL NOT EXCEED CLASS A, B OR C AS INDICATED IN THE BUILDING CODE.
- WORK OR MATERIAL SHALL BE ESTIMATED UPON AND UNLESS OTHERWISE 18. PROVIDE OUTSIDE GAS SHUT OFF VALVE CONSPICUOUSLY MARKED.
 - 19. UNLESS ALREADY EXISTING, AN APPROVED SET OF NUMERALS, MINIMUM 4" HIGH WITH A STROKE WIDTH OF NOT LESS THAN 1/2 INCH, SHALL BE PLACED ON THE BUILDING. THE NUMBERING SHALL BE PLACED IN SUCH A POSITION AS TO BE PLAINLY VISIBLE & LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. SAID NUMERALS SHALL CONTRAST W/ THEIR BACKGROUND. IF THE ADDRESS THAT IS POSTED NEAR THE INTERSECTION OF THE DRIVEWAY & THE PUBLIC STREET OR ROAD FRONTING THE PROPERTY IS NOT VISIBLE, ADDITIONAL ADDRESSES POSTED NEAR THE INTERSECTION OF THE DRIVEWAY & THE PUBLIC STREET ARE REQUIRED. (VERIFY REQUIREMENTS.)
 - 20. PROVIDE A KNOX BOX FOR FIRE DEPT. ACCESS & KEY ACCESS, LOCATION AS DETERMINED BY FIRE MARSHAL.
 - 21. EXIT SIGNAGE SHALL BE PROVIDED & MAINTAINED FOR CORRIDORS & AISLE WAYS LEADING TO EXITS IN ACCORDANCE WITH STATE CODE. SIGNAGE SHALL STATE: "OBSTRUCTIONS, INCLUDING STORAGE, SHALL NOT BE PLACED IN THE REQUIRED WIDTH OF AN EXIT OR EXIT PASSAGEWAY."
 - 22. GENERAL CONTRACTOR SHALL SECURE PERMITS REQUIRED BY THE FIRE DEPARTMENT FROM THE FIRE DEPARTMENT PRIOR TO OCCUPYING THIS BUILDING.
 - 23. FIRE DEPARTMENT FINAL INSPECTION REQUIRED. G.C. TO VERIFY INSPECTION SCHEDULING REQUIREMENTS AT LEAST 14 DAYS PRIOR TO COMPLETION OF WORK.
 - 24. STORAGE, DISPENSING OR USE OF ANY FLAMMABLE & COMBUSTIBLE LIQUIDS, FLAMMABLE & COMPRESSED GASES & OTHER HAZARDOUS MATERIALS SHALL COMPLY WITH STATE BUILDING CODE REGULATIONS.
 - 25. ANY TYPE I HOOD INSTALLATION & SHAFT CONSTRUCTION MUST COMPLY WITH THE STATE & MECH CODE.
 - 26. WHEN ALLOWED BY FIRE MARSHAL AND/OR BUILDING INSPECTOR, FIRE BLOCKS CAN BE SUBSTITUTED WITH APPROVED FIRE SPRINKLER SYSTEM.
 - 27. IN ADDITION TO THE SPRINKLER MONITORING SYSTEM, A FIRE SYSTEM PER NFPA #13 SPECIFICATIONS MUST BE INSTALLED. PLANS FOR THE FIRE ALARM MUST BE SUBMITTED TO THE BUILDING DEPARTMENT FOR FIRE DEPARTMENT REVIEW PRIOR TO INSTALLATION. THE KITCHEN HOOD FIRE PROTECTION SYSTEM WILL CAUSE INITIATION OF AN ALARM SIGNAL.
 - 28. ALL EXIT DOORS & INTERVENING DOORS ON THE EXIT PATH, IF PROVIDED WITH A LOCK OR LATCH, MUST BE PROVIDED WITH PANIC HARDWARE.
 - 29. PLANS FOR THE KITCHEN HOOD FIRE PROTECTION SYSTEM MUST BE SUBMITTED TO THE BUILDING DEPARTMENT FOR REVIEW BY THE FIRE DEPARTMENT PRIOR TO INSTALLATION.
 - 30. THE FIRE SPRINKLER SYSTEM DESIGN CRITERIA IS AS SET FORTH BY THE FIRE MARSHAL.
 - 31. PREMISES IDENTIFICATION TO BE LEGIBLE FROM STREET OR DRIVE & MUST BE ON ALL PLANS.
 - 32. IT IS THE DEVELOPERS RESPONSIBILITY TO DETERMINE ULTIMATE COMPLIANCE WITH THE FAIR HOUSING AMENDMENTS ACT & AMERICANS WITH DISABILITIES ACT & INCORPORATE SAME INTO THEIR BUILDING PLANS (PER C.O.S. 91-3)
 - 33. BACK FLOW PREVENTION WILL BE REQUIRED ON VERTICAL RISER ON CLASS I & II FIRE SPRINKLER SYSTEM PER CITY OF ANN ARBOR CODE.
 - 34. PROVIDE ALL WEATHER ACCESS ROAD (MIN 20') TO ALL BUILDINGS & HYDRANTS FROM PUBLIC WAY DURING CONSTRUCTION.
 - 35. NUMBER OF REQUIRED FIRE HYDRANTS EX. DEVELOPER SHALL HAVE THE REQUIRED HYDRANTS INSTALLED & OPERABLE PRIOR TO THE FOOTING INSPECTION. DEVELOPER TO PROVIDE WAIVER OF FIRE DEPARTMENT RESPONSIBILITY OR COPY OF CURRENT CITY APPROVED CIVIL WATER PLANS TO FIRE SPRINKLER CONTRACTOR FOR LOCATING NEW AND/OR EXISTING HYDRANT WATER MAIN SUPPLY DATA. SPACED MAX O/C 500' AT 1,500 GPM.
 - 36. EXIT & EMERGENCY LIGHTING SHALL COMPLY WITH THE CITY ORDINANCE & 2006 IFC.
 - 37. FIRELINE, SPRINKLER & STANDPIPE SYSTEM TO BE FLUSHED & PRESSURE TESTED PER NFPA STANDARDS & ANN ARBOR CITY CODES.
 - 38. FDC SIAMESE CONNECTIONS FOR SPRINKLERS AND/OR STANDPIPES WILL BE LOCATED PER ORDINANCE OR AT AN APPROVED LOCATION MIN. SIZE 2 1/2" X 2 1/2" X 4" (NHST) BUILDING MOUTED.
 - 39. SPRINKLER SYSTEM SHALL BE INSTALLED TO COMPLY WITH MINIMUM NFPA CRITERIA & CITY ORDINANCE. SYSTEMS WITH 20 HEADS OR MORE SHALL HAVE OFF-SITE MONITORING. AFTER BUILDING PLAN REVIEW, INSTALLING CONTRACTOR SHALL SUBMIT (3) COMPLETE SETS OF DRAWINGS & HYDRAULIC CALCULATIONS.
 - 40. REVIEWED BY MINIMUM NICET III DESIGN TECHNICIAN. NFPA COMMERCIAL SYSTEM / DESIGN CRITERIA: ORD. GR. II 0.20/1500 (1996 EDITION) PE STAMP REQUIRED
 - 41. CONSTRUCTION WITHIN *CITY OF ANN ARBOR* SHALL COMPLY WITH THE *MICHIGAN* FIRE CODE STANDARDS, AS AMENDED BY THE COUNTY CONSTRUCTION ORDINANCE, SUBTITLE 11.
 - 42. THE APPLICANT IS RESPONSIBLE TO IDENTIFY & COORDINATE DEFERRED SUBMITTALS.
 - 43. THE FIRE SPRINKLER RISER SHALL BE LOCATED INSIDE BUILDING WITH DIRECT EXTERIOR ACCESS. ALL OCCUPANCIES ARE REQUIRED TO PROVIDE EXTERIOR ACCESS TO A FIRE RISER ROOM DESIGNED FOR THE FIRE SYSTEMS ONLY.
 - 44. FIRE DEPARTMENT INLET CONNECTIONS (FDC) SHALL BE LOCATED ON THE WALL OF THE ADDRESS SIDE OR NATURAL APPROACH OF THE BUILDING IT SERVES & SHALL IDENTIFY THE BUILDING(S) SERVED WITH PERMANENT SIGNAGE.
 - 45. ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC

SPRINKLER SYSTEMS & WATER-FLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE ELECTRICALLY MONITORED WHERE THE NUMBER OF SPRINKLER HEADS EXCEEDS 19. IBC SECTION 903.4.

- 46. IN ADDITION TO THE EXTERIOR BELL OR HORN, AN APPROVED AUDIBLE/VISUAL FIRE SPRINKLER FLOW ALARM SHALL BE PROVIDED IN THE INTERIOR OF ALL BUILDINGS IN A NORMALLY OCCUPIED LOCATION. THE A/V DEVICE SHALL BE A MINIMUM OF 75 CD LUMENS & 15 DB ABOVE THE AMBIENT SOUND LEVEL. IFC SECTION 907.10 & ADAAG SECTION 4.28.
- 47. A FIRE HYDRANT SHALL BE LOCATED WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION (FDC). THE ROUTE IS TO BE MEASURED AS THE FIRE HOSE WOULD BE LAID OUT & IS NOT MEASURED IN A CIRCLE AROUND THE FIRE HYDRANT, & DOES NOT GO THROUGH WATER RETENTION BASINS, OVER WALLS OR SIMILAR OBSTRUCTIONS.
- 48. THE MINIMUM NUMBER OF FIRE HYDRANTS SHALL NOT BE LESS THAN REQUIRED PER 2003 IFC APPENDIX B & C. THE MINIMUM REQUIRED FIRE FLOW IS 1500 (GPM) AT 20 (PSI) RESIDUAL PRESSURE. WHEN ANY PORTION OF THE FACILITY OR BUILDING IS IN EXCESS OF 150' OF AN APPROVED WATER SUPPLY ON A PUBLIC STREET, AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE FACILITY OR BUILDING, ON-SITE FIRE HYDRANTS & MAINS CAPABLE OF SUPPLYING THE REQUIRED FIRE FLOW SHALL BE PROVIDED. FIRE HYDRANTS SHALL BE LOCATED ALONG THE ROUTE OF THE FIRE APPARATUS ACCESS ROADWAY. FIRE HYDRANTS SUBJECTED TO VEHICULAR DAMAGE SHALL BE PROTECTED WITH GUARD POSTS.
- 49. PLANS & SPECIFICATIONS FOR FIRE SPRINKLER SYSTEMS EXCEEDING 19 HEADS SUBMITTED FOR REVIEW SHALL BE SEALED BY A QUALIFIED CITY OF ANN ARBOR REGISTRANT IN FIRE SPRINKLER DESIGN. THE INSTALLING CONTRACTOR'S NAME, ADDRESS & PHONE NUMBER ARE TO BE INCLUDED ON THE DRAWINGS & CALCULATIONS SUBMITTED FOR REVIEW & APPROVAL. AS-BUILT DRAWINGS WILL BE REQUIRED WHERE FIELD CHANGES ARE MADE TO THE DESIGNED DRAWINGS.
- 50. FIRE SPRINKLERS SHALL BE INSTALLED IN ALL CONCEALED SPACES ENCLOSED WHOLLY OR PARTLY BY EXPOSED COMBUSTIBLE CONSTRUCTION.
- 51. A FIRE ACCESS ROAD SHALL BE PROVIDED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE 1ST STORY IS LOCATED MORE THAN 150' FROM FIRE APPARATUS ACCESS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING. THE ROUTE IS TO BE MEASURED AROUND THE BUILDING AS THE FIRE HOSE WOULD BE LAID OUT & IS NOT MEASURED THROUGH INTERIOR OR COVERED WALKWAYS OR WATER RETENTION BASINS. THE ROUTE OF THE FIRE APPARATUS ACCESS ROAD SHALL BE APPROVED BY THE FIRE DEPARTMENT.
- 52. APPARATUS ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 20 FEET. (FOC). A MIN. VERTICAL CLEARANCE OF 15 FEET 0 INCHES SHALL BE PROVIDED FOR THE APPARATUS ACCESS ROADS. CONFIRM FIRE APPARATUS TURNING RADIUS 35 FEET INSIDE & 55 FEET OUTSIDE (FOC).
- 53. FIRE LANES SHALL BE MARKED BY SIGNS PER TOG DETAIL #63, AND/OR CURB PAINTED RED & LABELED "FIRE LANE NO PARKING", PLACED NOT GREATER THAN 75' APART AT THE BEGINNING & END OF THE DESIGNATED FIRE LANE.
- 54. DEAD-END FIRE APPARATUS ACCESS ROADS IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED MEANS FOR TURNING THE APPARATUS AROUND.
- 55. AN APPROVED KEY BOX IS REQUIRED ON ALL COMMERCIAL STRUCTURES THAT CONTAIN OFF SITE MONITORED FIRE SPRINKLERS, A FIRE ALARM SYSTEM OR WHEN ACCESS IS DIFFICULT & WHERE IMMEDIATE ACCESS IS REQUIRED FOR LIFE SAVING OR FIREFIGHTING.
- 56. PLANS & SPECIFICATIONS FOR FIRE ALARM SYSTEMS, AUTOMATIC FIRE-EXTINGUISHING SYSTEMS, STANDPIPES & THEIR APPURTENANCES SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT FOR REVIEW & APPROVAL PRIOR TO INSTALLATION.

GENERAL FIRE ALARM SYSTEM NOTES

- PLANS AND SPECIFICATIONS FOR FIRE ALARM SYSTEMS SUBMITTED FOR REVIEW SHALL BE SEALED BY A QUALIFIED TEXAS REGISTRANT IN FIRE ALARM SYSTEM DESIGN.
- 2. ALARM INITIATING DEVICES, ALARM SIGNALING DEVICES, AND OTHER FIRE ALARM SYSTEM COMPONENTS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH IFC SECTION 907.
- 3. WHEN DUCT DETECTORS, REQUIRED BY IMC 606 OR IFC AND IBC SECTION 909, ARE CONCEALED FROM VIEW OR INSTALLED MORE THAN 10 FEET ABOVE FINISHED FLOOR OR IN ARRANGEMENTS WHERE THE DETECTOR'S ALARM INDICATOR IS NOT READILY VISIBLE TO RESPONDING PERSONNEL, AN LED SHALL BE PROVIDED THROUGH THE CEILING LEVEL OR SIGHT OBSTRUCTION AT EACH DETECTOR. ALL DETECTION DEVICES PROVIDED SHALL BE MONITORED FOR INTEGRITY BY THE FIRE ALARM SYSTEM WHERE A FIRE ALARM IS INSTALLED.

FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION OF A BUILDING

- 1. DURING CONSTRUCTION, YOU MUST PROVIDE AND MAINTAIN AN ALL WEATHER ROAD DESIGNED TO SUPPORT THE IMPOSED LOAD OF FIRE APPARATUS WEIGHING UP TO 85,000 POUNDS. SITES SHALL HAVE TWO POINTS OF ACCESS OR AS INDICATED AT PLAN REVIEW OR BY THE FIRE INSPECTOR. UNPAVED SURFACES SHALL HAVE A MINIMUM ABC 6" DEPTH COMPACTION TO 95% AND 20' WIDE. NO VEHICLE PARKING OR BUILDING MATERIAL OFF-LOADING ALLOWED ON THE EMERGENCY ACCESS ROAD. FIRE LANE SIGNS ARE REQUIRED TO BE POSTED ALONG THE ROAD.
- 2. A SIGN SHALL BE POSTED AT THE MAIN STREET ENTRANCE INDICATING EMERGENCY VEHICLE ENTRANCE, THE PROJECT NAME, THE PROJECT ADDRESS, AND AN EMERGENCY CONTACT NUMBER OF A COMPANY REPRESENTATIVE. THE SIGN SHALL BE A MINIMUM OF 24" HIGH X 36" WIDE WITH WHITE REFLECTIVE BACKGROUND AND 3" RED REFLECTIVE LETTERS. IN ADDITION ALL OFF-SITE WORK SHALL HAVE A SIGN POSTED AT THE MAIN STREET ENTRANCE THAT IS REFLECTIVE OF THE GEOGRAPHICAL LOCATION TO THE PROJECT. THE SIGN SHALL INCLUDE THE PROJECT NAME FOLLOWED BY THE CAPTION "OFF SITE" AND THE GEOGRAPHICAL LOCATION.
- ALL SITE HYDRANTS SHALL BE INSTALLED AND ACCEPTED BY THE TOWN ENGINEERING DEPARTMENT PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE CONSTRUCTION SITE.
- 4. BUILDINGS UNDERGOING CONSTRUCTION, ALTERATION OR DEMOLITION

SHALL BE IN ACCORDNCE WITH CFC CHAPTER 14.

ACCESSIBILITY NOTES

- ACCESS TO THESE FACILITIES SHALL BE PROVIDED AT PRIMARY ENTRANCES, AS REQUIRED BY ADA.
- 2. WALKS & SIDEWALKS SHALL HAVE A CONTINUOUS COMMON SURFACE NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2" & SHALL BE A MIN. OF 48" IN WIDTH.
- 3. SURFACES WITH A SLOPE OF LESS THAN 6% GRADIENT SHALL BE AT LEAST AS SLIP RESISTANT AS THAT DESCRIBED AS A MEDIUM SALTED
- 4. SURFACES WITH A SLOPE OF 6% GRADIENT OR GREATER SHALL BE SLIP RESISTANT.
- 5. SURFACE CROSS SLOPES SHALL NOT EXCEED 1/4" PER FOOT.
- 6. WALKS, SIDEWALKS & PEDESTRIAN WAYS SHALL BE FREE OF GRATING WHENEVER POSSIBLE. FOR GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE AREAS, GRID OPENINGS IN THE GRATINGS SHALL BE LIMITED TO 1/2" IN THE DIRECTION OF TRAFFIC FLOW.
- 7. WHEN THE SLOPE IN THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 1 VERTICAL TO 20 HORIZONTAL, IT SHALL COMPLY WITH THE PROVISIONS OF A PEDESTRIAN RAMP.
- 8. ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE SHALL NOT EXCEED 1/2". WHEN CHANGES IN LEVEL DO OCCUR, THEY SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2, EXCEPT THAT LEVEL CHANGES NOT EXCEEDING 1/4" MAY BE VERTICAL. WHEN CHANGES IN LEVELS GREATER THAN 1/2" ARE NECESSARY, THEY SHALL COMPLY WITH THE REQUIREMENTS FOR CURB RAMPS.
- 9. EVERY REQUIRED EXIT DOORWAY SHALL BE SIZED FOR A DOOR NOT LESS THAN 3 FT. WIDE BY NOT LESS THAN 6'-8" HIGH CAPABLE OF OPENING 90° & MOUNTED SO THAT THE CLEAR WIDTH OF THE EXIT WAY IS 32" MIN.
- 10. THRESHOLDS TO BE A MAX. 1/2" ABOVE ADJACENT FINISH FLOOR.
- 11. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS FOR ALL DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED TO THE MAXIMUM ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 LBS.
- 12. THE BOTTOM 10" OF ALL DOORS EXCEPT AUTOMATIC & SLIDING SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE.
- 13. PROVIDE LEVER-TYPE HARDWARE PANIC BARS, PUSH PULL ACTIVATING BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. (30" TO 44" A.F.F.)
- 14. ALL DOORWAYS LEADING TO SANITARY FACILITIES SHALL HAVE 32" CLEAR UNOBSTRUCTED OPENING & A LEVEL & CLEAR AREA FOR A MINIMUM DEPTH OF 60" IN THE DIRECTION OF THE DOOR SWING.
- 15. PROVIDE 18" FROM WALL TO CENTERLINE OF W.C. & 32" FROM A WALL AT ONE SIDE & 48" IN FRONT OF W.C.
- 16. PROVIDE 30"X48" LONG SPACE IN FRONT OF TOILET & WITHIN THE TOILET ROOM THAT ALLOWS THE DOOR TO CLOSE
- 17. GRAB BARS LOCATED ON EACH SIDE, OR ONE SIDE & THE BACK OF PHYSICALLY DISABLED TOILET STALL OR COMPARTMENT SHALL BE SECURELY ATTACHED 33" (36" FOR TANK-TYPE TOILETS) ABOVE AND PARALLEL TO THE FLOOR. GRAB BARS AT THE SIDE SHALL BE LOCATED 15" TO 16 1/2" FROM THE CENTERLINE OF THE WATER CLOSET STOOL & SHALL BE AT LEAST 42" LONG WITH THE FRONT END POSITIONED 24" IN FRONT OF THE WATER CLOSET STOOL. GRAB BARS AT THE BACK SHALL BE NOT LESS THAN 36" LONG. THE DIAMETER OR WIDTH OF THE GRIPPING SURFACES OF A GRAB BAR SHALL BE 1 1/4" TO 1 1/2" OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE. IF GRAB BARS ARE MOUNTED ADJACENT TO A WALL, THE SPACE BETWEEN THE WALL & THE
- 18. WATER CLOSET HEIGHT SHALL BE 17" (MIN) & A 19" (MAX) MEASURED TO THE TOP OF THE TOILET SEAT. CONTROLS SHALL BE OPERABLE WITH ONE HAND & SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS, NO MORE THAN 44" A.F.F. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. OF FORCE.

GRAB BARS SHALL BE 1 1/2".

FROM THE FLOOR.

- 19. PROVIDE 30"X48" CLEAR SPACE IN FRONT OF LAVATORY WITH MIN. 19" CLEAR KNEE SPACE UNDER COUNTER & 29" CLEAR FROM FLOOR TO BOTTOM OF APRON WITH KNEE.
- 20. LAVATORIES ADJACENT TO A WALL SHALL BE MOUNTED WITH A MINIMUM DISTANCE OF 18" TO THE FIXTURE. ALL ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO HIGHER THAN 34" A.F.F. & WITH A CLEARANCE OF AT LEAST 29" FROM THE FLOOR TO THE BOTTOM OF THE APRON WITH KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30" IN WIDTH, WITH 8" MINIMUM DEPTH AT THE

TOP. TOE CLEARANCE SHALL BE THE SAME WIDTH & SHALL BE A MINIMUM

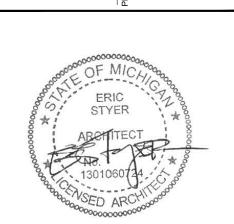
OF 17" DEEP FROM THE FRONT OF THE LAVATORY & A MINIMUM 9" HIGH

- 21. HOT WATER & DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
- 22. FAUCET CONTROLS & OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND & SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. LEVER-OPERATED, PUSH-TYPE & ELECTRONIC CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET IS OPEN FOR AT LEAST 10 SECS.

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MUNICIPAL APPROVAL STAMP

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GENERAL NOTES

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- 24. LOCATE TOWEL, SANITARY NAPKIN & WASTE RECEPTACLES WITH ALL OPERABLE PARTS WITHIN 40" FROM FINISH FLOOR.
- 25. LOCATE TISSUE DISPENSERS ON THE WALL WITHIN 12" OF THE FRONT EDGE OF THE TOILET SEAT.
- 26. WHERE APPLICABLE, LOCATE EMPLOYEE LOCKERS AS NOTED ON PLANS.
- 27. 1/4" THICK IDENTIFICATION SYMBOLS (A 12" TRIANGLE FOR MEN, A 12" DIAMETER CIRCLE FOR WOMEN OR A TRIANGLE SUPERIMPOSED ON A 12" DIAMETER CIRCLE FOR UNISEX) CENTERED AT HEIGHT OF 60" A.F.F, SHALL BE PROVIDED ON DOORS TO SANITARY FACILITIES.
- 28. THERE SHALL BE A LEVEL & CLEAR FLOOR OR LANDING ON EACH SIDE OF A DOOR. THE LEVEL ARE SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 60" & THE LENGTH OPPOSITE THE DIRECTION OF DOOR SWING OF 48" AS MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN THE CLOSED POSITION. SUBMIT FOR ARCHITECTS
- 29. ALL WALKS WITH CONTINUOUS GRADIENTS SHALL HAVE LEVEL AREAS AT LEAST 5'-0" IN LENGTH AT INTERVALS OF AT LEAST EVERY 400'.
- 30. ABRUPT CHANGES IN LEVEL, EXCEPT BETWEEN A WALK OR SIDEWALK & AN ADJACENT STREET OR DRIVEWAY, EXCEEDING 4" IN A VERTICAL DIMENSION SHALL BE IDENTIFIED BY CURBS PROJECTING AT LEAST 6" IN HEIGHT ABOVE THE WALK OR SIDEWALK SURFACE TO WARN THE BLIND OF A POTENTIAL DROP OFF. WHEN A GUARDRAIL OR HANDRAIL IS PROVIDED, NO CURB IS REQUIRED. WHEN A GUIDE RAIL IS PROVIDED, CENTER 3" (PLUS OR MINUS 1"), ABOVE THE SURFACE OF THE WALK OR SIDEWALK, THE WALK IS 5% OR LESS GRADIENT OR NO ADJACENT HAZARD EXISTS.
- 31. WALKS, HALLS, CORRIDORS, PASSAGEWAYS, AISLES OR OTHER CIRCULATION SPACES SHALL HAVE 80" MINIMUM CLEAR HEADROOM.
- 32. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE. HAND-ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 30" & 44" ABOVE THE FLOOR. LATCHING & LOCKING DOORS THAT ARE HAND-ACTIVATED & WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPENABLE WITH A SINGLE EFFORT BY LEVER- TYPE HARDWARE, BY PANIC BARS, PUSH/PULL ACTIVATING BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION.
- 33. GROUND & FLOOR SURFACES ALONG ACCESSIBLE ROUTES & IN ACCESSIBLE ROOMS & SPACES, INCLUDING FLOORS, WALKS, RAMPS, STAIRS & CURB RAMPS, SHALL BE STABLE, FIRM, & SLIP-RESISTANT.
- 34. OBJECTS PROJECTING FROM WALLS WITH THEIR LEADING EDGES BETWEEN 27" & 80" ABOVE THE FINISH FLOOR SHALL PROTRUDE NO MORE THAN 4" INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS OR AISLES. OBJECTS MOUNTED AT OR BELOW 27" ABOVE FINISH FLOOR MAY PROTRUDE ANY AMOUNT.
- 35. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 599B. PROVIDE & INSTALL PER MANUFACTURER'S RECOMMENDATIONS & CODE REQUIREMENTS. SUBMIT FOR ARCHITECTS REVIEW.
- 36. IF RAMP EXCEEDS 10' IN LENGTH & RAMP IS NOT BOUNDED BY WALLS OR CURBS, WHEEL GUIDES SHALL BE PROVIDED.
- 37. IF CARPET OR CARPET TILE IS USED ON A GROUND OR FLOOR SURFACE IN A COMMON USE AREA, IT SHALL HAVE FIRM BACKING OR NO BACKING. THE MAXIMUM PILE HEIGHT SHALL BE 1/2". EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES & HAVE TRIM ALONG THE EXPOSED EDGE & TRIM SHALL COMPLY WITH THE REQUIREMENTS FOR CHANGES IN LEVEL.
- 38. THE UPPER APPROACH & THE LOWER TREAD OF EACH STAIR SHALL BE MARKED BY A STRIP OF CLEARLY CONTRASTING COLOR AT LEAST 2" WIDE & PLACED PARALLEL TO & NOT MORE THAN 1" FROM THE NOSE OF THE STEP OR LANDING. THE STRIP SHALL BE AS SLIP- RESISTANT AS THE OTHER TREADS OF THE STAIRS. FOR EXTERIOR STAIRS, THE UPPER APPROACH & ALL TREADS SHALL BE MARKED.
- 39. TELEPHONES SHALL BE EQUIPPED WITH A RECEIVER THAT GENERATES A MAGNETIC FIELD IN THE AREA OF THE RECEIVER CAP. IF BANKS OF PUBLIC PHONES ARE PROVIDED, THEN AT LEAST 25%, BUT ALWAYS AT LEAST ONE PER BANK, INCLUDING CLOSED CIRCUIT TELEPHONES IN A BUILDING FACILITY, SHALL BE EQUIPPED WITH A VOLUME CONTROL CAPABLE OF PRODUCING A MIN. OF 12 D.B.A. & A MAXIMUM OF 18 D.B.A. ABOVE NORMAL. PUBLIC TELEPHONES WITH VOLUME CONTROL SHALL BE HEARING AID COMPATIBLE & SHALL BE IDENTIFIED BY A SIGN CONTAINING A DEPICTION OF A TELEPHONE HAND SET WITH RADIATING SOUND WAVES.
- 40. WALL SURFACES ADJACENT TO HANDRAILS SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS.

MUNICIPAL APPROVAL STAMP

BOR- CRANBROOK

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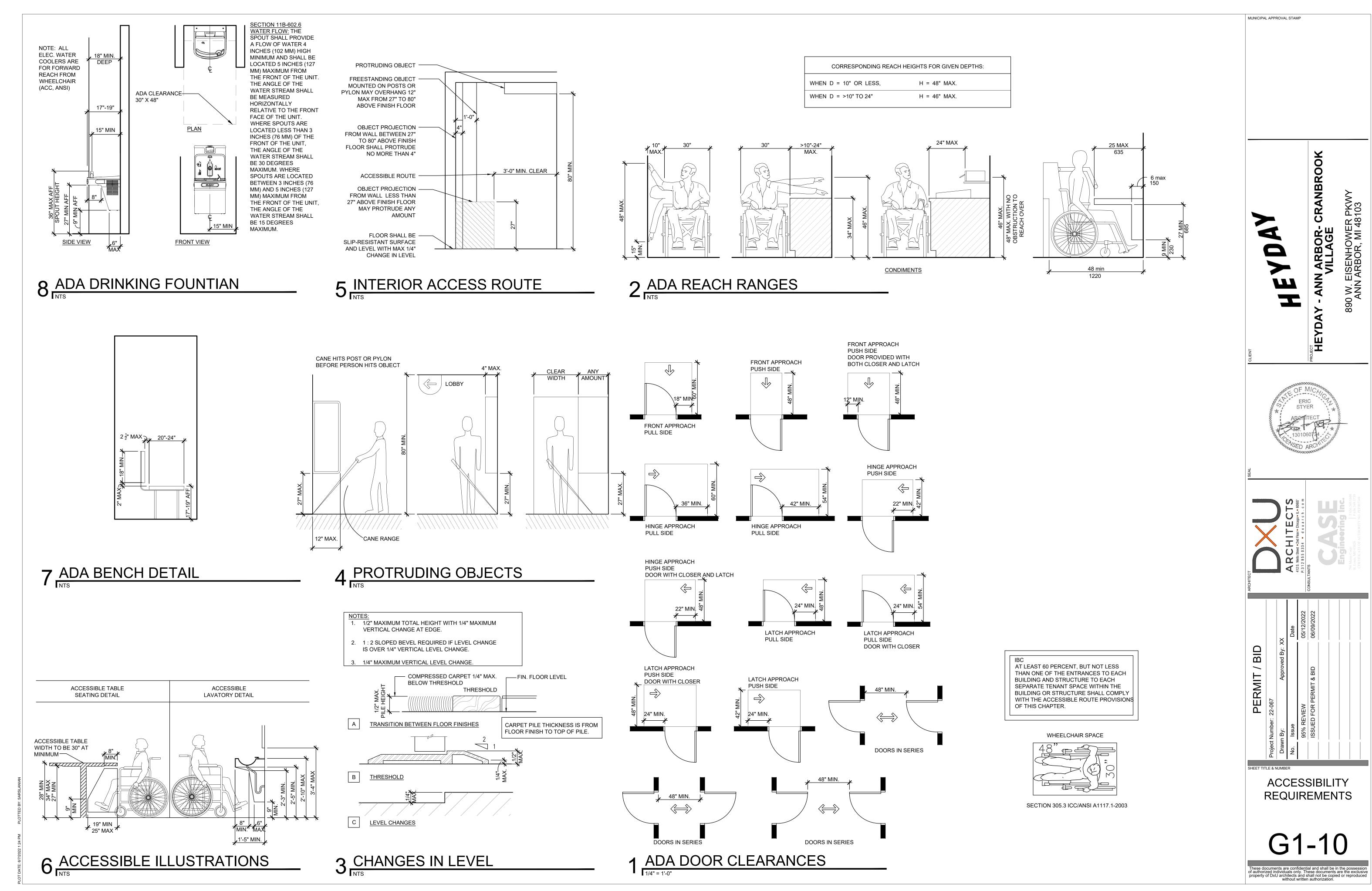
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GENERAL NOTES

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2. CONTRACTORS SHALL VISIT THE PREMISES WHILE BIDDING & SHALL FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS & THE REQUIREMENTS OF THE PROJECT PRIOR TO DEVELOPING THEIR BID. MATERIAL QUANTITIES SHALL BE BASED ON ACTUAL FIELD CONDITIONS & MEASUREMENTS. DO NOT RELY ON SCALING PLANS FOR ACCURATE DIMENSIONING.

PRIOR TO BEGINNING THE WORK, VERIFY ALL EXISTING DIMENSIONS & SQUARE FOOTAGES. NOTIFY THE OWNER OF COMPLIANCE OR DISCREPANCIES, COMPARING THOSE DISCREPANCIES TO THE NUMBERS ON THE TITLE SHEET.

4. CONTRACTORS SHALL TAKE CARE TO PROTECT ADJACENT AREAS FROM DUST & DAMAGE DURING THE CONSTRUCTION PROCESS & SHALL CLEAN UP AFTER THEMSELVES AT THE END OF EACH WORKING DAY. ANY DAMAGE DONE TO ADJACENT AREAS MUST BE REPAIRED TO MATCH ORIGINAL CONDITIONS.

5. ALL RUBBISH & TRASH SHALL BE REMOVED FROM THE PREMISES & PROPERLY DISPOSED OF EACH DAY. NO RUBBISH SHALL BE LEFT IN THE PREMISES AFTER WORK IS COMPLETED EACH DAY.

6. ALL DRAWINGS HEREIN CREATE AN ENTIRE PACKAGE. ALL TRADES SHALL BE RESPONSIBLE FOR REVIEWING THEIR RESPECTIVE REQUIREMENTS & COORDINATING THEIR HIDDEN OR EXPOSED WORK WITH OTHER RELATED TRADES. COORDINATE ALL WORK OF THE VARIOUS TRADES & SUBCONTRACTORS TO ASSURE EFFICIENT & ORDERLY INSTALLATION.

PROVIDE ACCOMMODATION FOR ITEMS INSTALLED AT A LATER DATE. VERIFY THAT CHARACTERISTICS OF ELEMENTS OF INTERRELATED OPERATING EQUIPMENT ARE COMPATIBLE; COORDINATE WORK OF VARIOUS SECTIONS WHICH HAVE INTERDEPENDANT RESPONSIBILITIES FOR INSTALLING, CONNECTING TO, & PLACING IN SERVICE, SUCH EQUIPMENT. COORDINATE SPACE REQUIREMENTS & INSTALLATION OF MECHANICAL & ELECTRICAL WORK & FIRE SPRINKLER SYSTEM WHICH ARE INDICATED, DETAILED, OR IMPLIED DIAGRAM- MATICALLY ON DRAWINGS.

8. UNLESS SPECIFICALLY NOTED, PROVIDE & PAY FOR LABOR, MATERIALS & EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT & MACHINERY & OTHER FACILITIES & SERVICES NECESSARY FOR PROPER EXECUTION & COMPLETION OF ` WORK, INCLUDING PERMITS. TEMPORARY UTILITIES SHALL BE ARRANGED & PAID FOR BY GENERAL CONTRACTOR.

GENERAL CONTRACTOR SHALL PURCHASE & MAINTAIN INSURANCE COVERAGE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LANDLORD & THE TENANT. VERIFY & COORDINATE WITH THE TENANT'S PROJECT MANAGER ANY ADDITIONAL REQUIREMENTS.

10. FURNISH ALL REQUIRED TEMPORARY FACILITIES & ALL TEMPORARY UTILITIES IMMEDIATELY AFTER RECEIPT OF NOTICE TO PROCEED FOR USE IN CONVENIENCE OF ALL THOSE ENGAGED IN THE PROJECT WORK.

11. ALL CONTRACTORS MUST STAY BEHIND THE BARRIERS & MAINTAIN ACCESS TO SUCH AREAS CLEAN & FREE OF CONSTRUCTION MATERIALS & DEBRIS. FAILURE TO MAINTAIN CLEAN STOREFRONT WILL RESULT IN BUILDING MANAGEMENT HAVING SUCH MATERIALS & DEBRIS REMOVED & ALL CHARGES FOR MAINTENANCE BILLED TO GENERAL CONTRACTOR.

12. COORDINATE ALL CONSTRUCTION & SCHEDULING WITH THE BUILDING MANAGER REVIEWING ALL SCHEDULED ACTIVITIES AT OUTSET OF CONSTRUCTION.

13. THE OWNER OR THE OWNER'S SUBCONTRACTORS MAY OCCUPY PORTIONS OF THE PROJECT DURING THE FINAL STAGE OF CONSTRUCTION. COORDINATE & COOPERATE WITH THE OWNER TO MINIMIZE CONFLICT & FACILITATE THE OWNER'S OPERATION.

14. ALL DIMENSIONS & FINISHES SHALL BE VERIFIED & COORDINATED WITH EXISTING CONDITIONS PRIOR TO CONSTRUCTION, FABRICATION, OR PURCHASING. IN CASE OF CONFLICT BETWEEN THE PROJECT REQUIREMENTS AND/OR EXISTING CONDITIONS. THE ARCHITECT OR OWNER SHALL BE CONTACTED FOR DIRECTION.

15. PERFORM ALL WORK IN ACCORDANCE WITH ACCEPTABLE TRADE PRACTICE TO INSURE THE HIGHEST QUALITY FINISHED PRODUCT - EXPRESSED OR IMPLIED. PERFORM ALL WORK BY SKILLED MECHANICS IN ACCORDANCE WITH ESTABLISHED STANDARDS OF WORKMANSHIP IN EACH OF THE VARIOUS TRADES.

16. COORDINATE BLOCKING REQUIREMENTS WITH ADJACENT OR RELATED TRADES, ACCESSORIES, EQUIPMENT & FIXTURES. INSTALL REQUIRED BLOCKING AT NO ADDITIONAL COST TO THE CONTRACT.

17. REPAIR PROPERTY DAMAGE BY THE INSTALLERS TO A LIKE NEW CONDITION OR REPLACE DAMAGED SURFACES & MATERIALS OF THE PREVIOUSLY INSTALLED WORK BY OTHER TRADES, INSTALLERS & SUBCONTRACTORS

18. WHERE REQUESTED BY THE OWNER TO CERTIFY CONFORMANCE TO TRADE STANDARDS OR THE PROJECT REQUIREMENTS, THE CONTRACTOR SHALL ENLIST A TESTING LABORATORY AT THE OWNER'S COST. IF THE REQUESTED TEST SHOWS NON-CONFORMANCE TO GENERALLY ACCEPTED TRADE STANDARDS OR DIVISION 03 - CONCRETE REPAIR & REPLACEMENT THE PROJECT REQUIREMENTS, THE CONTRACTOR SHALL CORRECT THE DEFICIENCY AT NO ADDITIONAL COSTS TO THE OWNER & REIMBURSE ALL THE 1 COSTS OF THE TESTING TO THE OWNER, UNLESS THE CONTRACTOR HAS USED PRODUCTS INCORRECTLY LABELED BY THE MANUFACTURER OR HAS MADE PREVIOUSLY APPROVED CHANGES.

19. PROVIDE SECURITY OF THE WORK, INCLUDING TOOLS & UNINSTALLED MATERIALS. PROTECT THE WORK, STORED PRODUCTS, CONSTRUCTION EQUIPMENT & OWNER'S PROPERTY FROM THEFT & VANDALISM & THE PREMISES FROM ENTRY BY UNAUTHORIZED PERSONNEL UNTIL FINAL ACCEPTANCE BY

20. MAINTAIN AN ACTIVE FIRE EXTINGUISHER AT THE PROJECT.

21. DO NOT USE MATERIAL OR EQUIPMENT FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY DESIGNED OR SPECIFIED. ALL MATERIALS & EQUIPMENT THAT ARE SIMILAR SHALL BE THE SAME TYPE, MODEL, & STYLE FOR 1. CONCRETE MASONRY UNITS ARE TO BE SQUARE-EDGED UNITS FOR OUTSIDE THE SAME USE THROUGHOUT THE PROJECT OR THEY SHALL BE REJECTED.

22. WHEN THE PROJECT REQUIREMENTS REQUIRE THAT THE INSTALLATION OF WORK SHALL COMPLY WITH MANUFACTURER'S INSTRUCTIONS, PERFORM THE WORK IN STRICT ACCORDANCE WITH THE MOST CURRENT WRITTEN MANUFACTURER'S INSTRUCTIONS.

23. ALL PRODUCTS & EQUIPMENT SHALL BE DELIVERED IN UNDAMAGED CONDITION FACE BRICK & STORED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO AVOID DISRUPTION OF THE WORK OR DAMAGE TO THE ITEMS. REPLACE DAMAGED OR UNFIT MATERIALS, AT NO COST TO THE OWNER.

24. NOTIFY THE OWNER WHEN THE WORK IS SUBSTANTIALLY COMPLETE & READY

FOR INSPECTION. UPON INSPECTION, PROVIDE WRITTEN OPERATION & MAINTENANCE INSTRUCTIONS & GUARANTEES FOR ALL EQUIPMENT & MATERIALS INSTALLED. PROVIDE WRITTEN GUARANTEES FOR A PERIOD OF ONE 3. SPECIAL SHAPES ARE TO BE USED IN APPLICATIONS WHERE SAW CUTTING (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

25. PROVIDE FINAL CLEAN-UP & DAMAGE REPAIR AT THE PROJECT CONCLUSION. MORTAR LEAVE THE PREMISES NEAT, CLEAN & CLEAR OF TOOLS, EQUIPMENT & SURPLUS MATERIALS, UNLESS REQUESTED BY THE OWNER. CLEAN-UP SHALL INCLUDE & NOT BE LIMITED TO:

a. POWER VACUUMING THE ENTIRE SPACE. b. HAND DUSTING & CLEANING OF ALL SHELVING, CABINETRY, CASEWORK,

GLASS & MIRRORS BOTH INSTALLED UNDER THIS CONTRACT OR EXISTING WALLS, CEILINGS, FIXTURES, ETC. c. REPAIR OR REPLACEMENT OF PROPERTY DAMAGED DURING FINAL

COMPLETION OF THE PROJECT. d. G.C. TO HIRE & PAY FOR PROFESSIONAL CLEANING ON (2) OCCASIONS: ONCE BEFORE TURNOVER TO TENANT (MERCHANDISING) & AGAIN BEFORE OPENING.

26. GENEAL CONTRACTOR SHALL PLACE ORDERS FOR ALL FINISHES, ALL MATERIALS, EQUIPMENT; ETC. ATTHE START OF THE PROJECT. SUBSTITUTIONS ARE NOT ACCEPTED FOR ANY ITEMS, UNLESS NOTED OTHERWISE. OWNER & ARCHITECT MUST BE INFORMED OF LEAD TIME PROBLEMS WITHIN THE FIRST TWO WEEKS OF THE PROJECT.

DIVISION 02 - DEMOLITION / BUILDING ALTERATIONS

THE WORK MAY INCLUDE DEMOLITION OF EXISTING CONSTRUCTION, REMOVAL OF VARIOUS ITEMS OF EQUIPMENT & CONSTRUCTION & THE CUTTING OR ALTERATION OF EXISTING CONSTRUCTION AS SHOWN, NOTED OR IMPLIED ON THE DRAWINGS. CONTRACTOR SHALL DETERMINE & INVENTORY ALL NECESSARY DEMOLITION & ALTERATION OF ITEMS TO PROVIDE FOR A COMPLETE INSTALLATION OF NEW WORK. ALL COSTS OF REMOVAL, REPAIR OR 1. REPLACEMENT SHALL BE INCLUDED IN THE BID. ADDITIONAL COSTS FOR DEMOLITION OF ITEMS HIDDEN OR INACCESSIBLE DURING THE BIDDING PHASE, SHALL BE SUBMITTED FOR APPROVAL PRIOR TO BEGINNING THE WORK.

.. AT ALTERED CONSTRUCTION, REPAIR CUT EDGES, REPLACE CONSTRUCTION & FIT NEW TO EXISTING CONSTRUCTION TO MATCH EXISTING WORK. MAKE JOINTS 3. COURSING, BONDING, COLOR & TEXTURE OF NEW MASONRY IS TO MATCH OF NEW & EXISTING PATCHES VERY SMOOTH, EVEN & PRACTICALLY INVISIBLE. COORDINATE ALL REPLACEMENT & REPAIR REQUIREMENTS WITH LANDLORD'S CONSTRUCTION CRITERIA & TENANT'S COORDINATOR.

SAW-CUT CONCRETE WITH DIAMOND SAW; JACKHAMMERING WILL NOT BE PERMITTED EXCEPT WITH THE EXPRESSED WRITTEN APPROVAL OF THE LANDLORD. CUT IN ACCURATELY LOCATED, STRAIGHT LINES & BREAK OUT SECTIONS. FLOOR MAY BE CORE DRILLED WHERE APPROPRIATE FOR INSTALLATION OF PIPES & SIMILAR ITEMS. COORDINATE ALL CORE LOCATIONS & SLAB MODIFICATIONS WITH LANDLORD'S STRUCTURAL ENGINEER. WHERE EXISTING PIPING & OTHER SIMILAR ITEMS ARE UNDER EXISTING SLABS, EXERCISE CARE TO PROTECT FROM DAMAGE. EXERCISE CARE WHEN CUTTING ADJACENT TO EXISTING WALLS TO AVOID DAMAGE TO WALLS. IF DAMAGED, REPAIR AS REQUIRED TO ORIGINAL CONDITION.

4. DOORS & FRAMES: IF DOORS & FRAMES ARE TO BE REUSED ON THE WORK, CAREFULLY REMOVE DOOR FROM FRAMES & REMOVE FRAMES FROM OPENING, TAKING CARE TO AVOID DAMAGE. REMOVE HARDWARE, CLEAN, REFURBISH & STORE FOR REINSTALLATION WHERE INDICATED. FOR DOORS & FRAMES TO BE DIVISION 05 - METAL FABRICATIONS SALVAGED, CAREFULLY REMOVE FROM OPENING & DELIVER FOR STORAGE WHERE INDICATED.

5. PREVENT MOVEMENT OR SETTLEMENT OF STRUCTURE. PROVIDE & PLACE BRACING & SHORING & BE RESPONSIBLE FOR SAFETY & SUPPORT OF STRUCTURE, AS DETERMINED BY G.C. ENLISTED STRUCTURAL ENGINEER. ASSUME LIABILITY FOR SUCH MOVEMENT, SETTLEMENT DAMAGE OR INJURY.

ARRANGE & PAY FOR DISCONNECTING, REMOVING & CAPPING UTILITY SERVICES 3 WITHIN AREAS AFFECTED BY DEMOLITION. PLACE MARKERS TO INDICATE LOCATION OF DISCONNECTED SERVICES. LOCATE SPRINKLER SHUT-OFF VALVE & SMOKE ALARM PRIOR TO COMMENCING WORK; COORDINATE REQUIRED MODIFICATION WITH LANDLORD.

7. CAREFULLY REMOVE MATERIALS & EQUIPMENT WHICH ARE INTENDED TO BE REUSED. STORE IN A SECURE LOCATION. REMOVE DEBRIS, REFUSE & MATERIALS BEING DEMOLISHED IMMEDIATELY FROM THE SITE.

8. ERECT & MAINTAIN WEATHERPROOF & DUSTPROOF CLOSURES & PARTITIONS TO 6 PREVENT WEATHER DAMAGE OR SPREAD OF DUST, FUMES & SMOKE TO OTHER PARTS OF THE BUILDING, IN ACCORDANCE WITH MALL GUIDELINES & STIPULATIONS.

PERFORM DEMOLITION IN ACCORDANCE WITH APPLICABLE AUTHORITIES HAVING 8 JURISDICTION.

10. REPAIR ALL DEMOLITION IN EXCESS OF THAT REQUIRED AT NO COST TO THE

11. REMOVE FROM SITE CONTAMINATED, VERMIN INFESTED OR DANGEROUS MATERIALS ENCOUNTERED; DISPOSE OF BY SAFE MEANS TO PROTECT HEALTH OF WORKERS & PUBLIC.

WORK INCLUDES: PATCHING OF SLAB AFTER DEMOLITION & REMOVAL OF FINISHES; FILLING & LEVELING JOINTS & CRACKS; FILLING ABANDONED ELECTRICAL BOXES & ANY HOLES GREATER THAN 1/2".

2. USE RAECO-LITH "R-35" AS UNDERLAYMENT FOR PATCHING OR APPROVED EQUAL. MIX SHALL BE TWO PARTS - MORTAR MIX & LATEX BINDER. MIX & INSTALL PER MANUFACTURER'S LATEST WRITTEN & RECOMMENDED DIRECTIONS.

DIVISION 04 - MASONRY

CONCRETE MASONRY UNITS

CORNERS, UNLESS OTHERWISE INDICATED.

WHERE REQUIRED, USE DECORATIVE CONCRETE MASONRY UNITS TO MATCH EXISTING SHELL FINISH: a. EXPOSED FACES TO BE GROUND FINISH, SPLIT-FACE FINISH OR

SPLIT-RIBBED FINISH TO MATCH EXISTING

SHELL SPACE.

2. CONTRACTOR IS TO USE SOLID BRICK WITH FINISHED SURFACES AT ENDS &

CAPS.

ASTM 270, ASTM C 1142 & UBC STANDARD 21-15 ARE ACCEPTABLE.

CALCIUM CHLORIDE SHALL NOT BE USED IN MORTAR MIXTURE.

FOR MASONRY BELOW GRADE, IN CONTACT WITH EARTH, REINFORCED MASONRY TYPE S OR RS SHALL BE USED (MATCH EXISTING). FOR EXTERIOR ABOVE GRADE, LOAD

BEARING, NON-LOAD BEARING & PARAPET WALLS TYPE N OR RN SHALL BE USED (MATCH EXISTING).

JOINT & CELL REINFORCEMENT, TIES & ANCHORS

PROVIDE JOINT REINFORCEMENT FORMED FROM GALVANIZED CARBON-STEEL 5. WIRE (ASTM A 153, CLASS B-2 FOR BOTH INTERIOR & EXTERIOR WALLS)

2. FOR SINGLE-WYTHE MASONRY, PROVIDE LADDER OR TRUSS DESIGN

INSTALL #4 BARS MIN. AT ENDS OF WALLS & 48" O.C. MIN. IN SOLID GROUTED CELLS OVERLAP BARS 18" MIN. & TIE, AS REQUIRED.

EXECUTION

CUT MASONRY UNITS WITH MOTOR-DRIVEN SWAS. INSTALL CUT UNITS WITH CUT 9. SURFACE CONCEALED.

MASONRY UNITS TO BE MIXED FROM SEVERAL PALLETS AS THEY ARE PLACED TO CREATE UNIFORM BLEND OF COLOR & TEXTURE.

EXISTING.

4. EXPOSED JOINTS ARE TO BE TOOLED SLIGHTLY WHEN THUMBPRINT HARD.

ALL CAVITIES ARE TO BE KEPT CLEAN OF MORTOR DROPPINGS & OTHER MATERIALS DURING CONSTRUCTION. CAVITY JOINTS ARE TO BE TOOLED FLUSH.

CLEANING

MASONRY BLOCK, FACE BRICK & VENNER TO BE CLEANED AS WORK PROGRESSES. MORTOR FINS, SMUDGES & SMEARS ARE TO BE REMOVED PRIOR TO TOOLING JOINTS.

2. AFTER MORTOR HAS COMPLETELY SET & CURED, ALL LARGE MORTOR PARTICLES ARE TO BE REMOVED & UNITS MASONRY IS TO BE SCRUBED THOROUGHLY.

PROVIDE ALL MISCELLANEOUS METAL ITEMS INCLUDING MATERIALS, FABRICATIONS, FASTENINGS & ACCESSORIES REQUIRED FOR FINISHED INSTALLATION AS INDICATED & SPECIFIED.

STEEL SHALL BE ASTM A366 AMERICAN OPEN HEARTH SHEET STEEL, FREE FROM SCALE & PITTING & OTHER DEFECTS AFFECTING APPEARANCE.

TUBING SHALL CONFORM TO REQUIREMENTS OF ASTM A500 OR A501 AS APPROVED.

WHERE METAL ITEMS ARE TO BE ERECTED & IN CONTACT WITH DISSIMILAR MATERIALS, PROVIDE CONTACT SURFACES WITH COATING OF AN IMPROVED ZINC CHROMATE PRIMER IN A MANNER TO OBTAIN NOT LESS THAN 1.0 MIL DRY FILM THICKNESS

SHEET STEEL SHALL CONFORM TO REQUIREMENTS OF ASTM A606.

CARBON STEEL BARS SHALL CONFORM TO REQUIREMENTS OF ASTM A321 7. ALUMINUM EXTRUSIONS SHALL CONFORM TO ASTM B221. REVEALS TO BE

CLEAR ANODIZED FINISH (UNLESS OTHERWISE NOTED). FASTENERS SHALL BE AS REQUIRED FOR ASSEMBLY & INSTALLATION OF

FABRICATED ITEMS.

BOLTS SHALL BE LOW CARBON STEEL EXTERNALLY & INTERNALLY THREADED FASTENERS CONFORMING WITH REQUIREMENTS OF ASTM A307; INCLUDE NECESSARY NUTS & PLAIN HARDENED WASHERS. FOR MEMBERS FOR SUPPORT OF STRUCTURAL MEMBERS OR CONNECTION THERETO, USE FASTENERS CONFORMING WITH ASTM A325. FOR STAINLESS STEEL & NON- FERROUS ITEMS. USE TYPE 302 & 304 STAINLESS STEEL FASTENERS.

TOOLS, METHODS & EQUIPMENT REQUIRED FOR FABRICATION & INSTALLATION OF MISCELLANEOUS METAL ITEMS AS INDICATED ON DRAWINGS.

11. VERIFY DIMENSIONS PRIOR TO FABRICATION OR CASTING. FORM METAL ITEMS TO ACCURATE SIZES & CONFIGURATIONS AS INDICATED ON DRAWINGS & OTHERWISE REQUIRED FOR PROPER INSTALLATION; FABRICATE WITH ALL LINES STRAIGHT & ANGLES SHARP, CLEAN & TRUE; DRILL, COUNTERSINK, TAP & OTHERWISE PREPARE ITEMS FOR CONNECTION WITH WORK OF OTHER TRADES. MAKE PERMANENT CONNECTIONS BY WELDING & GRIND ALL EXPOSED WELDS SMOOTH TO MATCH ADJACENT SURFACES; ROUGH JOINT SURFACES NOT PERMITTED. AVOID USING BOLTS & SCREWS UNLESS SPECIFICALLY INDICATED OR APPROVED; WHEN USED, DRAW UP TIGHT & TIE THREADS TO PREVENT LOOSENING.

12. ALL FERROUS METAL ITEMS SHALL BE SHOP FINISHED. TOUCH-UP OR REPAIR DAMAGED AREAS PRIOR TO INSTALLATION WITH SAME MATERIAL.

13. PROVIDE CONTACT SURFACES WITH CONCRETE MASONRY OR OTHER DISSIMILAR MATERIALS WITH A MINIMUM ONE POINT ZERO (1.0) MIL DRY THICKNESS OF AN APPROVED ZINC CHROMATE PRIMER.

14. PROVIDE ALL STEEL BLOCKING & BRACING IN METAL STUD FRAMED PARTITIONS NECESSARY FOR A COMPLETE INSTALLATION. INCLUDE AS REQUIRED FOR SUPPORT OF ALL WALL-MOUNTED EQUIPMENT & FABRICATIONS AS INDICATED ON DRAWINGS. PROVIDE SUPPORTS AT JAMBS OF DOORS & ELSEWHERE, AS REQUIRED.

15. FABRICATE ALL MISCELLANEOUS FRAMING & BRACING ITEMS TO DETAIL OF STRUCTURAL SHAPES, PLATES & BARS; WELD JOINTS WHERE PRACTICAL; PROVIDE BOLTS & OTHER CONNECTION DEVICES REQUIRED. INCLUDE

ANCHORAGES, CLIP ANGLES, SLEEVES, ANCHOR PLATE & SIMILAR DEVICES, WHETHER IMPLIED OR INDICATED. SET ACCURATELY IN POSITION AS REQUIRED 9. PREPARE DOORS FOR FINISH HARDWARE. OBTAIN TEMPLATES FROM & ANCHOR SECURELY TO BUILDING CONSTRUCTION WITH FASTENERS APPROP-RIATE TO THE INSTALLATION

1. PROVIDE ROUGH LUMBER & PLYWOOD IN STANDARD DIMENSIONS. MOISTURE CONTENT NOT MORE THAN 19%.

2. PROVIDE ALL NECESSARY ROUGH HARDWARE IN SIZES & QUANTITIES REQUIRED

RELIEVE BACKS OF WOOD TRIM; KERF BACKS OF MEMBERS MORE THAN 5" WIDE & 1" NOMINAL THICKNESS; EASE ALL EXTERNAL CORNERS.

CONDITION FOR INSTALLATION.

6. PROTECT FROM DAMAGE BY OTHER TRADES WORKING ADJACENT TO THE INSTALLATION. REPLACE DAMAGED SURFACES.

REMOVE EXCESS ADHESIVE & CLEAN SURFACES USING MANUFACTURER'S RECOMMENDED SOLVENT & CLEANING PROCEDURES.

INSTALL WOODS & PLASTICS IN CONFORMANCE WITH DETAILS WITH THE FOLLOWING CONSIDERATIONS & REQUIREMENTS:

c. ALL RUNNING TRIM ONE (1) PIECE UP TO 10'-0". MATCH GRAIN & COLOR PIECE TO PIECE.

d. USE FINISH NAILS EXCEPT WHERE SCREWS ARE SPECIFICALLY CALLED FOR OR WHERE SCREWS DO NOT SHOW.

e. SET FASTENERS FOR PUTTYING. f. WHERE SCREW ATTACHMENT REQUIRED, SPACE SCREWS AT EQUAL

h. SELECT & CUT MATERIAL TO EXCLUDE DAMAGED, MARKED OR DEFECTIVE

i. FINISH EXPOSED SURFACES SMOOTH, FREE FROM TOOL & MACHINE

 EASE ALL EXPOSED WOOD EDGES 1/8" MINIMUM RADIUS k. INSTALL FIRE RATED DOORS IN ACCORDANCE WITH REQUIREMENTS OF

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RECOMMENDATIONS.

PROVIDE NON-SAG SEALANT COMPLYING WITH REQUIREMENTS OF FEDERAL SPECIFICATIONS TTS-1543 OR FS TT-S-230 TYPE "II", CLASS "A". PROVIDE ACOUSTICAL SEALANT WHICH SHALL BE NON-HARDENING, NON-DRYING SYNTHETIC RUBBER SEALING COMPOUND WITH MINIMUM 90% SOLIDS. USE AT ALL INTERIOR JOINTS AT INTERSECTIONS BETWEEN PLANES. AROUND DOOR & WINDOW FRAMES PRIMER SHALL BE MADE OR RECOMMENDED BY SEALANT MANUFACTURER FOR THE SPECIFIC CONDITIONS & SUBSTRATES.

PROVIDE BACKING MATERIAL BY DOW "ETHAFOAM" OR APPROVED EQUAL. APPLY SEALANT OVER BACKING TO UNIFORM THICKNESS IN CONTINUOUS BEADS 8. INSTALL EACH HARDWARE ITEM IN ACCORDANCE WITH THE MANUFACTURER'S FILLING ALL JOINTS & VOIDS, SOLID. SUPERFICIAL POINTING WITH THE SKIM BEAD WILL NOT BE ACCEPTED. JOINTS OVER 1/4" IN WIDTH MUST BE REDUCED / ADJUSTED PRIOR TO SEALING. ALL GAPS WIDE ENOUGH TO ACCEPT A SLIP OF PAPER MUST BE SEALED.

ALL SURFACES SHALL BE ADEQUATELY CLEANED & PREPARED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS PRIOR TO INSTALLATION.

FRAMES

PROVIDE FULLY WELDED DOOR FRAMES AT ALL G.C. PROVIDED DOORS, FREE FROM SCALE & PITTING & OTHER SURFACE DEFECTS, UNLESS OTHERWISE

PROVIDE HOLLOW METAL EXIT DOOR CONSTRUCTED WITH THE FOLLOWING

- MINIMUM 18 GA. FOR FACE SHEETS OF INTERIOR DOORS. - 16 GA. FOR EDGE CHANNELS.

- MINIMUM 22 GA. FOR FACE STIFFENERS.

- MINIMUM 16 GA. FOR INTERIOR FRAMES.

10. MISCELLANEOUS MATERIALS: PROVIDE ALL INCIDENTAL ACCESSORY MATERIALS, 3. PROVIDE DOORS OF SIZES & TYPES INDICATED ON DRAWINGS, FULLY WELDED SEAMLESS CONSTRUCTION WITH NO VISIBLE SEAMS OR JOINTS ON FACES OR VERTICAL EDGES; THICKNESSES AS SCHEDULED ON DRAWINGS. DOOR TOPS TO BE ENCLOSED W/ NO OPEN CHANNEL

WITH BEST TRADE PRACTICE & MANUFACTURER'S WRITTEN RECOMMENDATIONS

HARDWARE REINFORCEMENT & ANCHORS (ERECTION, FLOOR & JAMB) SHALL BE AS REQUIRED FOR A SECURE INSTALLATION & SHALL BE IN ACCORDANCE WITH TRADE REQUIRE- MENTS FOR THE SPECIFIED HARDWARE & INTENDED USE.

AFTER FABRICATION, DRESS, FILL & SAND EXPOSED SURFACES, BODY-PUTTY HOLES & IMPERFECTIONS. APPLY UNIFORM COAT OF MANUFACTURER'S STANDARD PRIME COAT TO ALL EXPOSED SURFACES. LEAVE READY TO RECEIVE

INSTALL FRAMES IN ACCURATE LOCATIONS AS INDICATED ON DRAWINGS. INSTALL RIGID, PLUMB, LEVEL & TRUE. ALIGN WITH ADJACENT CONSTRUCTION. SECURE FLOOR ANCHORS TO FLOOR CONSTRUCTION WITH APPROVED TYPE MECHANICAL FASTENINGS; ANCHOR TO ADJOINING WALLS WITH SPECIFIED ANCHORS. BRACE FRAMES TO RETAIN POSITION & CONTINUOUSLY CHECK ALIGNMENT DURING CONSTRUCTION OF ADJACENT WALLS. ADJUST FRAME LOCATIONS AS NECESSARY USING SHIMS BEFORE FASTENING. LEAVE READY TO RECEIVE SEALANT AS REQUIRED. INSTALL DOOR SILENCERS AT ALL INTERIOR FRAMES.

HARDWARE MANUFACTURER & CONFIRM TYPE, LOCATION & SPECIAL REQUIREMENTS OF HARDWARE FOR EACH DOOR PRIOR TO CUTTING.

10. HANG DOORS AS SCHEDULED ON DRAWINGS, IN ACCURATE LOCATIONS WITH 1/8" CLEARANCE AT TOPS & 3/8" CLEARANCE AT BOTTOM, UNLESS SPECIFICALLY NOTED FOR "UNDERCUTS" OR OTHER DEVIATIONS IN FIT. MAKE NO JOIST FIT IN CUTS UNLESS APPROVED. HANG PAIRS OF DOORS AS SPECIFIED WITH 3/32" CLEARANCE AT MEETING EDGES. DEMONSTRATE THAT DOORS OPEN FREELY WITHOUT BINDING, & WHEN CLOSED, WILL LATCH PROPERLY.

11. ACCESS DOORS TO BE PROVIDED BY GENERAL CONTRACTOR AS REQUIRED. PROVIDE ACCESS DOORS BY MILCOR OR EQUAL. USE STYLE DW AT WALLS & CEILINGS, (OR AS REQUIRED FOR RATING). SIZE AS INDICATED. FRAME SHALL BE GALVANIZED STEEL DRYWALL BEAD FOR FRAME CONCEALMENT. PANEL SHALL BE 14GA. STEEL WITH SPRINT TYPE CONCEALED HINGES OPENING TO 175 DEGREES. LOCKS SHALL BE FLUSH, SCREWDRIVER OPERATED WITH METAL CAN. PRIME COAT SHALL BE FACTORY APPLIED.

12. PROVIDE WEATHERSTRIPPING AT ALL EXTERIOR DOORS, AS REQUIRED TO PROVIDE NO VISIBLE LIGHT LEAKS, WEATHERSTRIPPNG IS TO BE FASTENED TYPE. ADHERED RUBBER TYPE STRIPS ARE NOT ACCEPTABLE. PROVIDE VERTICAL BRUSH TYPE STRIP BETWEEN LEADING EDGES AT DOUBLE DOORS.

13. THRESHOLDS ARE TO BE SEALED TO FLOOR AT ALL LOCATIONS.

HARDWARE

FOR HARDWARE.

COMPLETION OF PROJECT.

ALL FINISH HARDWARE FOR COMPLETE WORK SHALL BE FURNISHED & INSTALLED IN ACCORDANCE WITH DRAWINGS & SPECIFICATIONS. QUANTITIES LISTED, IN ANY INSTANCE, ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY & ARE NOT GUARANTEED. ITEMS NOT SPECIFICALLY MENTIONED BUT NECESSARY TO COMPLETE THE WORK SHALL BE FURNISHED MATCHING THE QUALITY & FINISH OF THE ITEMS SPECIFIED.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER OPERATION & FITTING OF HARDWARE IN LOCATIONS SPECIFIED. THE CONTRACTOR MUST SUPPLY A ROOM UNDER LOCK & KEY TO STORE ALL FINISH HARDWARE UNTIL INSTALLATION IS MADE. THE HARDWARE SUPPLIER MUST MARK EACH ITEM OF HARDWARE AS TO DESCRIPTION & LOCATION OF INSTALLATION IN ACCORDANCE WITH APPROVED HARDWARE SCHEDULE. EXPOSED SURFACES OF HARDWARE SHALL BE COVERED & WELL PROTECTED DURING INSTALLATION, SO AS TO AVOID DAMAGE TO FINISHES.

3. PROVIDE HARDWARE FOR FIRE-RATED OPENINGS IN COMPLIANCE WITH REQUIREMENTS OF NFPA 80. THIS REQUIREMENT TAKES PRECEDENCE OVER OTHER REQUIREMENTS FOR SUCH HARDWARE.

4. HARDWARE FINISH SHALL BE DARK BRONZE US -10B IN PUBLIC AREAS & SATIN CHROME IN NON-PUBLIC AREAS, U.N.O. 5. HARDWARE SUPPLIER WILL PROVIDE APPROVED SCHEDULED & PAPER

TEMPLATES TO VARIOUS OTHER SUPPLIERS FOR DOOR & FRAME PREPARATION

FURNISH & FINISH HARDWARE, CYLINDERS & KEYS: "BEST" SEVEN PIN ROD.

EACH ITEM OF HARDWARE SHALL BE PACKAGED SEPARATELY WITH ALL NECESSARY SCREWS, BOLTS, TAMPINS, KEYS & INSTALLATION TEMPLATES. DELIVER PACKAGES, CLEARLY IDENTIFIED, WITH HEADING NUMBER AS APPROVED ON HARDWARE SCHEDULE.

WRITTEN INSTRUCTIONS & RECOMMENDATIONS.

MAKE FINAL ADJUSTMENT & CHECK OF HARDWARE DURING THE WEEK IMMEDIATELY PRIOR TO ACCEPTANCE. CLEAN & RELUBRICATE OPERATING ITEMS AS NECESSARY, TO RESTORE PROPER FUNCTIONING & FINISH OF HARDWARE & DOORS. MAKE FINAL ADJUSTMENT OF LOCKSETS & THE CLOSURES TO COMPENSATE FOR OPERATION OF HEATING & VENTILATION SYSTEMS UNDER THE SUPERVISION OF MANUFACTURER'S REPRESENTATIVE

10. LUBRICATE ALL MOVING PARTS WITH GRAPHITE-TYPE LUBRICANT. UNLESS OTHERWISE RECOM- MENDED BY MANUFACTURER. REPLACE ALL HARDWARE WHICH CANNOT BE LUBRICATED & ADJUSTED TO OPERATE FREELY & SMOOTHLY.

11. THE CONTRACTOR IS REQUIRED TO RE-KEY TENANT DOORS AT THE

MUNICIPAL APPROVAL STAMP

NB ARBOR-VILLAGE



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SPECIFICATIONS

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FACE BRICK (ASTM C 216) IS TO BE OF STANDARD SIZE TO MATCH EXISTING

WOULD LEAVE EXPOSED END UNFINISHED EXPOSED TO VIEW.

DIVISION 06 - WOOD & PLASTICS

BY LOCAL CODE OR APPROVED BY ARCHITECT.

USE FINISH OR CASING NAILS FOR EXPOSED WORK; USE TYPE "S" TRIM HEAD SCREWS FOR ATTACHMENT OF WOOD TRIM TO METAL STUDS, RUNNERS OR

INSTALL LAMINATES ONLY WHEN RECEIVING SURFACES ARE IN A SATISFACTORY

FILL IN ALL SEAMS WITH MANUFACTURER'S APPROPRIATE COLOR SEAM

a. INSTALL ALL MATERIAL WITH TIGHT JOINTS. b. MITER CASINGS & MOLDINGS.

INTERVALS; SINK & PUTTY IN FINISH WOOD SURFACES. g. ALL MEMBERS & LINES LEVEL & PLUMB

DIVISION 07 - SEALANTS & CAULKING

ALL PENETRATIONS IN MILLWORK ARE TO BE SEALED BY G.C. EXPOSED WOOD SURFACES IN CABINETS / COUNTERS ARE TO BE SEALED BY MILLWORK CONTRACTOR

DIVISION 08 - WOOD & HOLLOW METAL DOORS &

4. FACE STIFFENERS, EDGES & HARDWARE REINFORCEMENT SHALL BE THE HIGHEST QUALITY WORKMANSHIP & MATERIALS. PROVIDE IN ACCORDANCE FOR THE USE INTENDED.

INSTALL WOOD DOORS, FRAMES, & TRIM. SIZES & THICKNESS AS SCHEDULED ON THE DRAWINGS.

EQUIPMENT, INCLUDING DOOR STOPS.

APPLICABLE CODES & AS INDICATED ON DRAWINGS.

METAL SUPPORT SYSTEM (WALL STUDS)

- 1. PROVIDE CHANNEL-SHAPED ROLL FORMED SHEET STEEL MEMBERS CONFORMING WITH ASTM C640, HOT DIPPED FINISH WHERE EXPOSED TO MOISTURE NOT LESS THAN 20 GAUGE. PROVIDE 16 GAUGE AT DOOR JAMBS.
- 2. PROVIDE COLD, ROLLED STEEL CHANNELS NOT LESS THAN 16 GAUGE.
- 3. PROVIDE ROLL HAT-SHAPED CHANNELS MINIMUM 25 GAUGE, 7/8" DEEP WITH 1/2" HEMMED EDGES. HOT DIPPED FINISH WHERE NOTED.
- 4. PROVIDE TIE WIRES OF GALVANIZED ANNEALED WIRES NOT LESS THAN 16
- 5. PROVIDE GALVANIZED HANGERS OF STEEL WIRE IN ACCORDANCE WITH ASTM
- 6. PROVIDE JACK STUDS BETWEEN BOTTOM TRACK & WINDOW AND/OR RELIEF SILLS BETWEEN LINTELS & HEADERS IN TOP TRACKS.
- PROVIDE BLOCKING & FRAMING FOR ALL WALL MOUNTED FINISH HARDWARE &
- 8. PROVIDE CEILING SEISMIC BRACING IN ACCORDANCE WITH REQUIREMENTS OF
- 9. PROVIDE DOUBLE BEAD TO BUTYL SEALANT AT FLOOR TRACKS. APPLY DOUBLE BEAD TO CEILING TRACK & TO STUDS ABUTTING OTHER CONSTRUCTION.
- 10. PROVIDE CHANNEL SHAPED BLOCKING SUPPORT OR GALVANIZED STRIP SUPPORT OF WALL-HUNG CABINETS, EQUIPMENT, FIXTURES & ACCESSORIES OF NOT LESS THAN 22 GA. MATERIAL. PROVIDE SUPPORT IN WALL OR PARTITION FRAMING SYSTEM WHEREVER WALL HUNG CABINETS & EQUIPMENT ARE INDICATED ON DRAWINGS, & WHERE REQUIRED FOR MOUNTING OF MISCELLANEOUS ITEMS REQUIRING BACKING.
- SET FLOOR TRACKS IN ACCURATE LOCATIONS & SECURELY ANCHOR IN ACCORDANCE WITH ASTM STANDARDS. ERECT STUDS ON 16" OR 24" (AS INDICATED) CENTERS & SECURE TO TRACK. INSTALL HEAD TRACK IN ACCORDANCE WITH DETAILS. INSTALL BLOCKING, BRACING & ANCHOR STRIPS; LEAVE READY TO RECEIVE FINISH MATERIALS.
- 12. ERECT ALL COMPONENTS FOR CEILING & SOFFIT FRAMING IN ACCURATE LOCATIONS AS INDICATED, TRUE TO LINE, LEVEL & PLUMB & IN ACCORDANCE WITH APPLICABLE ASTM STANDARDS AS REFERENCED ABOVE, USING A LASER LEVEL. ADJUST SUPPORTS, SPANS OR OTHERWISE FOR INSTALLATION WITHIN SPECIFIED TOLERANCES.
- 13. PROVIDE KICK BRACING IN ACCORDANCE WITH INDUSTRY STANDARDS FOR WALL STUDS, CEILING MEMBERS, DRAFT OR SMOKE STOPS & CURTAIN WALLS.

GYPSUM WALL BOARD

- PROVIDE GYPSUM WALL PANELS MANUFACTURED IN ACCORDANCE WITH REQUIREMENTS OF ASTM 336.
- 2. PROVIDE TYPE 'X' FIRE RETARDANT GYPSUM WALL BOARD PANELS 5/8" THICK, TESTED & QUALIFIED FOR 1-HR. RATING, TAPERED & ROUNDED AT EDGES AS INDICATED ON DRAWINGS.
- 3. PROVIDE METAL EDGE & CORNER BEADS AT ENDS, EDGES & CORNERS.
- 4. WATER RESISTANT GYPSUM WALL BOARD SHALL BE 5/8" THICK, QUALIFIED FOR 1-HR. RATING, TAPERED & ROUNDED EDGES & SHALL BE INSTALLED IN ALL WET AREAS AS INDICATED ON DRAWINGS.
- 5. PROVIDE FASTENERS IN ACCORDANCE W/ ASTM C646; UNLESS OTHERWISE NOTED OR INDICATED. PROVIDE TYPE 'S' BUGLE HEAD SCREWS FOR ATTACHMENT OF WALL BOARD TO METAL FRAMING & TYPE 'S' PAN HEAD SCREWS FOR ATTACHMENT OF FRAMING TO DOOR FRAMES.
- PROVIDE ALL INCIDENTAL & ACCESSORY MATERIALS, TOOLS, EQUIPMENT & METHODS REQ'D FOR SATISFACTORY COMPLETION OF GYPSUM WALL BOARD CONSTRUCTION INCLUDING ACCESS DOORS & PNLS.
- APPLY CONTINUOUS BEAD SEALANT AT ALL JOINTS OF WALL BOARD ABUTTING ADJACENT CONSTRUCTION, INCLUDING AROUND FRAMED OPENINGS & OTHER PROTRUSIONS THROUGH WALL BOARD WHERE SEALANT IS EXPOSED. PROVIDE POLY-SULFIDE SEALANT; WHERE UNEXPOSED. PROVIDE ACOUSTIC SEALANT.
- 8. APPLY PRE-FILL COMPOUND TO JOINTS IN ACCORDANCE WITH INDUSTRY STANDARDS. APPLY EMBEDDING COMPOUND REINFORCING TAPE CENTERED OVER JOINT; APPLY SKIM COAT. AFTER TAPING & EMBEDDING COMPOUND IS DRY, APPLY SECOND COAT FILLING & TAPER FLUSH WITH SURFACE; FIRE TAPE PENETRATIONS AT DEMISING WALLS, CORRIDOR ENVELOPE & OTHER RATED ASSEMBLIES.
- PROVIDE FINAL FINISH THAT IS SMOOTH, WITHOUT DIVOTS, BUMPS, BOWS OR ANY OTHER SURFACE BLEMISH, READY TO RECEIVE PAINT
- 10. CUSTOM SKIP TROWELED FINISH WHERE SPECIFIED ON PLANS. COORDINATE FINISH WITH ARCHITECT.

CEMENTITIOUS TILE BACKER BOARD

- BACKER BOARD SHALL BE 5/8" "DUROCK", BY USG OR FGO APPROVED EQUIVALENT. INSTALL SHALL BE PER MANUF.'S WRITTEN SPEC.
- 2. BACKER BOARD SHALL BE USED AT BASE OF WALLS THROUGHOUT REST ROOM
- 3. INSTALL WITH "DUROCK" FASTENERS & JOINT REINFORCEMENT TAPE

PAINTING

- PROVIDE PAINT FINISHES FOR BUILDING & OTHER SURFACES AS SCHEDULED ON DRAWINGS OR AS SPECIFIED HEREINAFTER INCLUDING SEALING OF CONCRETE 11. INSTALL IN ACCORDANCE WITH FGMA RECOMMENDATIONS UNLESS NOTED FLOOR AT CORRIDOR & STOCKROOM. NO PAINT FINISH IS REQUIRED ON ITEMS HAVING COMPLETE FACTORY FINISH, EXCEPT AS MAY BE SPECIFIED HEREINAFTER; PUTTY AND/OR SEALANT AT ALUMINUM WINDOWS; NON-FERROUS 12. VERIFY THAT FRAMES TO RECEIVE GLAZING ARE SQUARE & TRUE, THAT METAL UNLESS SPECIFICALLY MENTIONED IN THE PAINTING SCHEDULE; STAINLESS STEEL; INTERIOR OR EXTERIOR OF EXISTING BUILDING, EXCEPT WHERE ALTERATIONS OCCUR OR WHERE SCHEDULED. PAINT GRILLES & DIFFUSERS. NO PAINTING IS REQUIRED FOR INSUL- ATING PIPING, EXCEPT WHERE EXPOSED IN FINISH, NON-MECHANICAL ROOM SPACES.
- 2. PROTECT WORK OF OTHER TRADES FROM DAMAGE & DEFACEMENT CAUSED BY

THIS WORK. REPAIR ANY DAMAGE CAUSED BY THE WORK OF THIS SECTION. REMOVE ELECTRICAL OUTLET & SWITCH PLATES, MECHANICAL DIFFUSERS, GRILLES, ESCUTCHEONS, REGISTERS, SURFACE HARDWARE, FITTINGS & FASTENINGS PRIOR TO COMMENCING THE WORK. STORE, CLEAN, & REPLACE UPON COMPLETION.

- 3. PAINT CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR IF ANY SURFACE TO BE PAINTED OR STAINED IS FOUND TO BE UNSUITABLE TO PRODUCE PROPER FINISH. APPLY NO FINISH MATERIAL UNTIL THE UNSUITABLE SURFACES HAVE BEEN MADE SATISFACTORY.
- FINISH WORK SHALL BE UNIFORM, OF APPROVED COLOR, SMOOTH & FREE FROM RUNS. MAKE ENDS OF PAINT ADJOINING OTHER MATERIALS OR COLORS SHARP & CLEAN. WHERE HIGH GLOSS ENAMEL IS USED, LIGHTLY SAND UNDERCOAT TO OBTAIN A SMOOTH FINISH COAT.
- PROVIDE ALL NEWLY PAINTED SURFACES WITH (1) COAT TINTED PRIMER & (2) COATS FINAL COLOR COAT, UNLESS OTHERWISE RECOMMENDED BY MANUFACTURER'S SPECIFICATIONS.
- 6. DELIVER ALL PAINT TO JOBSITE IN UNOPENED CONTAINERS BEARING THE MANUFACTURER'S LABEL, & SHOWING PAINT TYPE, SHEEN & COLOR.
- 7. PAINT TYPES USED SHALL BE THOSE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE MATERIAL TO WHICH THEY WILL BE APPLIED. PAINTING CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS FOR PROPER APPLICATION OF THE PAINT.
- 8. ALL SURFACES TO BE PAINTED SHALL BE THOROUGHLY CLEANED, & PREPARED FOR PAINTING PRIOR TO APPLICATION OF PAINT. PROVIDE VENTILATORS AS REQUIRED TO PREVENT BUILD-UP OF FUMES.
- 9. SANDPAPER ALL NEW WOOD TO SMOOTH & EVEN SURFACE & DUST OFF. AFTER PRIMING COAT HAS BEEN APPLIED, THOROUGHLY FILL ALL NAIL HOLES & OTHER SURFACE IMPERFEC- TIONS WITH PUTTY TINTED WITH PRIMER OR STAIN TO MATCH WOOD COLOR. SAND ALL WOOD- WORK BETWEEN COATS TO A SMOOTH
- 10. PRIME ALL SURFACES, WHICH RECEIVE PAINT PRIOR TO APPLICATION OF FINAL FINISH, IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- 11. BACK PRIME ALL EXTERIOR & INTERIOR WOOD & TRIM PRIOR TO INSTALLATION. THOR- OUGHLY CLEAN SURFACES & APPLY NO FINISH UNLESS SURFACES ARE DRY & READY FOR APPLICATION. SANDPAPER SURFACES OF TRIM SMOOTH & WIPE CLEAN. AFTER STAIN COAT HAS BEEN APPLIED, FILL CRACKS & HOLES WITH PLASTIC WOOD OR PUTTY. IF STAIN HAS BEEN USED, TINT CRACK FILLER 1. TO MATCH; PRIME BACKS OF TRIM. PRIME BARE WOOD SCHEDULED TO RECEIVE PAINT FINISH; FINISH NAIL HOLES, CRACKS & OTHER IMPERFECTIONS WITH PUTTY & SAND SMOOTH.
- 12. AT COMPLETION, TOUCH-UP & RESTORE FINISH WHERE DAMAGED & LEAVE ALL SURFACES IN GOOD & CLEAN CONDITION. PROVIDE FOR MULTIPLE SITE VISITS AS REQUIRED FOR TOUCH-UP & REFINISHING.
- 13. OTHER PAINT MANUFACTURER'S MAY NOT BE SUBSTITUTED.
- 14. FINISH INTERIOR SURFACES, AS SCHEDULED ON DRAWINGS, EXCEPT AS MODIFIED & SUPPLEMENTED HEREINAFTER & UPON WRITTEN OWNER APPROVAL. 3. SUSPEND MAIN RUNNERS FROM STRUCTURE ABOVE WITH ONE (1) NO. 8 GAUGE IN GENERAL, USE EGGSHELL SHEEN FOR WALL BOARD SURFACES; SEMI-GLOSS FOR HOLLOW METAL & WOOD TRIM; & FLAT FOR DUCTWORK.

RESILIENT BASE

- 1. INSTALL COVE BASE IN AREAS AS CALLED FOR IN PLANS AND/OR ELEVATIONS.
- 2. PROVIDE PREMOLDED INSIDE & OUTSIDE CORNERS FOR ALL CONDITIONS AT WHICH CORNERS ARE TO BE USED. JOB MITERING SHALL BE PERMITTED ONLY UPON OWNER'S APPROVAL.
- 3. USE ADHESIVES ONLY AS RECOMMENDED BY THE MANUFACTURER OF THE MATERIAL TO WHICH IT IS APPLIED.
- CAREFULLY INSPECT ALL SURFACES TO RECEIVE BASE PRIOR TO INSTALLATION. REPAIR DAMAGED SURFACES PRIOR TO INSTALLATION.
- 5. UPON COMPLETION, IMMEDIATELY REMOVE ALL SURPLUS ADHESIVE FROM ADJACENT SURFACE, IN ACCORDANCE WITH THE TIMING RECOMMENDED BY THE MANUFACTURER, USING MATERIALS RECOMMENDED FOR THAT PURPOSE BY THE MANUFACTURER.

GLASS & GLAZING

- PROVIDE TEMPERED GLASS, GRADE "B", STYLE #1, TYPE "1", QUALITY 03, THICKNESS PER PLANS.
- ALL GLASS EDGES SHALL BE GROUND SMOOTH & POLISHED.
- GENERAL GLASS SHALL BE Q3 IN ACCORDANCE WITH FEDERAL SPECIFICATIONS DD-G-451 & FGMA GLAZING MANUAL.
- 4. STOREFRONT GLASS SHALL BE AS REQUIRED FOR THE SIZES & CONDITIONS DETAILED. FRAME SECTION SHALL BE CONCEALED WHERE INDICATED.
- PROVIDE RESILIENT NEOPRENE BLOCKS 70 TO 90 SHORE A DUROMETER HARDNESS & RESILIENT ACCESSORIES DESIGNED FOR POSITIONING GLASS IN
- 6. PROVIDE CLIPS OF NON-CORROSIVE METAL WITH ROUNDED EDGES DESIGNED FOR CONTACT BLOCKS, NOT GLASS.
- 7. PROVIDE STANDARD PREFORMED GLAZING TAPE, STANLOCKE 400, TRIMCO 440, OR APPROVED.
- 8. PROVIDE NON-SHRINKING ELASTOMERIC TAPE WHERE REQUIRED.
- 9. USE SILICONE SEALANT DOW #795 OR GE SILPRUF, COLOR AS SPECIFIED, OR APPROVED EQUAL.
- 10. ALL EDGES, DRILLED HOLES & NOTCHES SHALL BE FACTORY CUT AND/OR FACTORY FORMED. TOUCH-UP "RAW" EDGES TO MATCH FRAME.
- OTHERWISE.
- PERIMETER CLEARANCES ARE SUFFICIENT TO PREVENT "POINT LOADING", & THAT SURFACES ARE CLEAN, DRY & READY TO RECEIVE GLAZING MATERIALS. REMOVE ALL PROTECTIVE COATINGS FROM FRAMING SURFACES.
- 13. CENTER GLASS IN RABBETS & POSITION SO AS TO MAINTAIN CLEARANCES ON ALL SIDES, INDOORS & OUT, IN ACCORDANCE WITH FGMA RECOMMENDATIONS. SHIM AS REQUIRED TO POSITION AGAINST FIXED STOPS & FRAME BARS.

- 14. SET ALL EXTRUSIONS IN CORRECT LOCATIONS AS SHOWN IN THE DETAILS. THEY SHALL BE LEVEL, FLUSH, SQUARE, PLUMB & IN ALIGNMENT WITH OTHER WORK.
- 15. UPON COMPLETION, REMOVE ALL EXCESS SEALANT & MATERIALS FROM SURFACES; WASH & CLEAN ALL GLASS FRAMING MEMBERS.

CEILING METAL SUSPENDED SYSTEM

QUALITY ASSURANCE

USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED & EXPERIENCED IN THE NECESSARY CRAFTS & WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS & THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION.

METAL CHANNELS, RUNNERS & ACCESSORIES

- FURRING CHANNELS: SHALL BE MINIMUM 25 GAUGE X 7/8" DEEP X 2-5/8" HAT SHAPED GALVANIZED STEEL CHANNELS.
- MAIN RUNNER CHANNELS: SHALL BE 1-1/2" COLD ROLLED, 16 GAUGE STEEL CHANNELS, COATED WITH A RUST INHIBITIVE PAINT.
- HANGER WIRES: SHALL BE OF SIZE/GAUGE INDICATED, DOUBLE ANNEALED & GALVANIZED, CONFORMING TO TYPE 1, FS QQ-W-461.
- SCREWS: (FOR GYPSUM WALLBOARD APPLICATION) SHALL BE TYPE S, 1-1/4", 1-5/8" 1-7/8" OR LENGTH AS REQUIRED FOR PENETRATION OF GYPSUM BOARD & CONNECTION TO SUPPORT CHANNELS, & AS RECOMMENDED BY MANUFACTURER.

SURFACE CONDITIONS

EXAMINE THE AREAS & CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE PERFORMED. CORRECTION CONDITIONS DETRIMENTAL TO TIMELY & PROPER 2 COMPLETION OF THE WORK. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

INSTALLATION

- PROVIDE 1-1/2" MAIN RUNNER CHANNELS SPACED ON 4 FOOT CENTERS & METAL FURRING CHANNELS SPACED ON NOT OVER 16" CENTERS. NEITHER MAIN RUNNERS NOR CROSS FURRING SHALL BE LET INTO NOR COME IN CONTACT WITH ABUTTING MASONRY WALLS OR PARTITIONS. LOCATE A MAIN RUNNER WITHIN 6" OF THE WALL TO SUPPORT THE ENDS OF THE FURRING CHANNELS, & LOCATE HANGERS TO SUPPORT THE ENDS OF THE MAIN RUNNERS.
- ALLOW 1" CLEARANCE BETWEEN END OF FURRING CHANNELS & ABUTTING WALLS. WHERE MAIN RUNNERS OR FURRING CHANNELS ARE SPLICED, OVERLAP 2. THE ENDS NOT LESS THAN 8" & SECURELY TIE NEAR EACH END OF THE SPLICE WITH TWO (2) LOOPS OF 16 GAUGE GALVANIZED WIRE.
- HANGER WIRE AT 48" O.C. ALONG CARRYING CHANNEL & WITHIN 6" OF EACH END. ALL WIRE HANGERS SHALL BE OF SUCH LENGTH SO THAT THE LOWER ENDS MAY BE SADDLETIED OR WRAPPED AROUND THE MAIN RUNNERS SO AS TO PREVENT TURNING OR TWISTING OF THE RUNNERS
- 4. SECURELY CLIP METAL FURRING CHANNELS AT RIGHT ANGLES TO MAIN RUNNERS, USING FURRING CHANNEL CLIPS OR SADDLETIE WITH 2 STRANDS OF 16 GAUGE TIRE WIRE. INSTALL FURRING CHANNEL CLIPS ON ALTERNATE SIDES OF THE MAIN CHANNEL RUNNER.
- AT LIGHTS OR OTHER OPENINGS THAT INTERRUPT THE MAIN RUNNER OR FURRING CHANNELS, REINFORCE GRILLAGE WITH 3/4" COLD-ROLLED CHANNELS, WIRE TIRED ATOP & PARALLEL TO THE MAIN RUNNER CHANNELS. PROVIDE NECESSARY REINFORCING TO MAINTAIN INTEGRITY OF CEILING & TO SUPPORT
- CHANNELS, WITH ALL ABUTTING ENDS & EDGES OCCURRING OVER THE WEB SURFACE OF THE FURRING CHANNEL. USE WALLBOARD OF MAXIMUM POSSIBLE LENGTH TO MINIMIZE END JOINTS. NEATLY FIT & STAGGER END JOINTS. INSTALL WALLBOARD WITH 1-5/8" SCREWS SPACED 8" ON CENTER IN THE FIELD OF THE BOARD, AT ALL BEARINGS, & LONG ABUTTING EDGES.

LEVELING

CEILING GRID SYSTEM SHALL BE HUNG TRUE & LEVEL AT HEIGHT AS INDICATED 2 ON DRAWINGS, SO THAT AFTER GYPSUM WALLBOARD HAS BEEN HUNG & FINISHED, IT WILL BE PERFECTLY LEVEL WITH NO SAGGING OR BOWS IN CEILING.

TILE - CERAMIC, QUARRY, TERRAZZO & BRICK VENEER

- INSTALL TILE IN AREAS INDICATED FROM LEASE LINE TO TRANSITION. USE ADHESIVES & APPLY ONLY AS RECOMMENDED BY MANUFACTURER & IN ACCORDANCE WITH INDUSTRY STANDARDS.
- 2. INSTALLERS MUST BE SPECIALISTS WITH A MINIMUM OF TWO (2) YEARS EXPERIENCE.
- 3. ALL INSTALLATION SHALL CONFORM TO THE LATEST APPLICABLE TILE COUNCIL OF AMERICA & ANSI STANDARDS.
- FOR TILE INSTALLATION. REVIEW ALL AREAS TO RECEIVE TILE FLOORING (PRIOR TO SUBMITTING ESTIMATE) TO DETER- MINE THE REQUIRED EXTENT OF SUBFLOOR
- PREPARATION. 6. SET & GROUT TILE WHEN AMBIENT TEMPERATURE IS AT LEAST 50° & RISING.

ALIGN ALL JOINTS & CORNERS.

- 7. CLEAN CONCRETE FLOORS, REMOVING ALL FOREIGN MATTER & CONTAMINANTS DIVISION 13 NOT USED SUCH AS GREASE, OIL, DUST, WATER, SURFACE DIRT, OLD SEALANTS OR GLAZING COMPOUNDS & AND PROTECTIVE COATINGS. METAL SHALL BE CLEANED BY MECHANICAL OR SOLVENT PROCEDURES.
- INSTALL TILE TO CONCRETE SUBSTRATE PER TCA STANDARDS FOR GROUT, W/ DIVISION 15 MECHANICAL UNIFORMLY SPACED JOINTS, TO PATTERN INDICATED IN DRAWINGS. VERIFY LAYOUT & CUTS WITH PROJECT MANAGER PRIOR TO COMMENCEMENT OF WORK. REFER TO MECHANICAL DRAWINGS FOR SPECIFICATIONS. CUT TILE AT WALL INTERSECTIONS FOR CONCEALMENT BY BASE WHERE APPLICABLE. VARY MORTAR THICKNESS, AS NECESSARY, TO ACCOMMODATE VARIATIONS IN THE TILE THICKNESS.
- 9. CLOSE AREAS IN WHICH TILE IS BEING PLACED TO TRAFFIC & OTHER WORK.

KEEP AREA CLOSED UNTIL TILE IS FIRMLY SET. PROTECT FLOORING FROM DAMAGE. REPLACE DAMAGED TILE AT NO ADDITIONAL COST TO OWNER.

- INSTALL TILE TO ALUMINUM GLAZING CHANNEL & METAL BASE WITH DOW CORNING 795 SILICONE BUILDING SEALANT, BEADS AT 6" ON CENTER MAXIMUM.
- 11. GROUT FLUSH WITH TILE EDGES. BUFF TILES WITH CHEESE CLOTH AFTER FINAL
- 12. DAMP CURE PER MORTAR & GROUT MANUFACTURER'S RECOMMENDATIONS.
- 13. SEAL ALL GROUT JOINTS PER MANUFACTURER'S WRITTEN INSTRUCTIONS WITH SEALER AS RECOMMENDED.
- . REFER TO "FLOOR PREP / SETTING MATERIALS" SPECIFICATIONS FOR SPECIFIC SUB-FLOOR LEVELING MATERIALS, PRIMERS, WATERPROOFING MEMBRANE & SETTING MATERIALS. REFER TO TILE GROUT SPECIFICATIONS FOR SPECIFIC GROUT MANUFACTURER.

WATER PROOFING

SPONGING.

- 1. WATERPROOF MEMBRANE SHALL BE INSTALLED AT WALLS AND THROUGHOUT AREAS NOTED ON THE FINISH PLAN. WATER PROOF MEMBRANE SHALL BE INSTALLED AT WALLS AND FLOORS THROUGHOUT RESTROOM AREAS.
- WATERPROOF MEMBRANE SHALL BE "MAPELASTIC T" TROWEL APPLIED, POLYMER MODIFIED, FLEXIBLE CEMENTITIOUS FIBER WATERPROOF MEMBRANE BY "MAPEI". EXTEND MEMBRANE 12" UP WALL, & 48" OUT ACROSS FLOOR, AS DETAILED IN PLANS. INSTALL OVER CEMENT BACKER BOARD & CONCRETE FLOOR.

DIVISION 10 - SPECIALTIES

- 1. TENANT'S G.C. SHALL PROVIDE ADEQUATE BACKING FOR SECURE INSTALLATION OF ACCESSORIES.
- ALL ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH ALL GOVERNING NATIONAL, STATE & LOCAL CODES PERTAINING TO HANDICAP ACCESSIBILITY.

ACCESSORIES

 REFER TO SHEET A1.1 FOR RESTROOM ACCESSORY SPECIFICATIONS, & PLUMBING DRAWINGS FOR PLUMBING FIXTURE SPECIFICATIONS.

INSTALLATION

- DELIVER INSERTS & ROUGH-IN FRAMES TO JOBSITE AT APPROPRIATE TIME FOR INSTALLATION.
- FASTENINGS: FURNISH TOILET ACCESSORIES TO COMPLETE WITH ALL REQUIRED MOUNTING DEVICES, FASTENINGS & ACCESSORIES AS REQUIRED FOR A FINISHED INSTALLATION, PROPERLY PACKAGED & TAGGED FOR READY IDENTIFICATION. FASTEN ALL ITEMS WITH SCREWS OR BOLTS EXTENDING AT LEAST 1" INTO SOLID BACKING IF NO OTHER FASTENING IS SPECIFIED.
- INSTALLATION OF TOILET ACCESSORIES SHALL BE IN ACCORDANCE WITH THE DRAWINGS, REVIEWED SHOP DRAWINGS & THE MANUFACTURER'S INSTALLATIONS & RECOMMENDATIONS.
- TENANT'S G.C. SHALL SUPPLY & INSTALL ADEQUATE BACKING FOR SECURE INSTALLATION OF ALL ACCESSORIES.

LOCATIONS & HEIGHTS SHALL BE AS SHOWN ON DRAWINGS & IN CONFORMANCE WITH 'HANDICAP' ORDINANCES.

APPLY WALLBOARD WITH LONG DIMENSION AT RIGHT ANGLES TO THE FURRING 1. SIGNS ARE SUPPLIED & INSTALLED BY OWNER'S SIGN CONTRACTOR. G.C. SHALL PROVIDE POWER SOURCE & REQUIRED DISCONNECTS, TIME CLOCKS ETC. COORDINATE WITH SIGN CONTRACTOR AS REQUIRED.

FIRE EXTINGUISHERS (PROVIDED BY G.C.)

1. EXTINGUISHERS SHALL BE 10-POUND CAPACITY, U.L. LABELS, ENAMEL, STEEL

CONTAINER WITH PRESSURE INDICATING GAUGE FOR CLASS A, B, OR C FIRES.

- INSTALL ON WALL MOUNTED HOOKS AS INDICATED OR DIRECTED BY THE MARSHALL, NEATLY FITTING TO FINISH SURFACES. PLACE FULLY CHARGED EXTINGUISHERS ON HOOKS PRIOR TO OCCUPANCY.
- SEE FIXTURE PLAN FOR ARCHITECTS SUGGESTED LOCATIONS.

AUDIO/VIDEO

- 1. ALL AUDIO & VIDEO CABLES SHALL BE RUN IN CONDUIT (UNLESS OTHERWISE NOTED).
- 2. LEAVE ADEQUATE AMOUNT OF SLACK IN AUDIO & VIDEO CABLES FOR PROPER POSITIONING OF EQUIPMENT AFTER INSTALLATION.
- EXCESS LENGTHS OF CABLE SHALL BE CONCEALED IN BRACKETS OR CEILING.

4. DO NOT COMMENCE INSTALLATION UNTIL SUBSTRATE HAS BEEN MADE SUITABLE DIVISION 11 - EQUIPMENT

REFER TO FOOD SERVICE DRAWINGS FOR SPECIFICATIONS

DIVISION 12 - FURNISHINGS

REFER TO FIXTURE PLAN FOR SPECIFICATIONS.

DIVISION 14 - NOT USED

DIVISION 16 - PLUMBING

REFER TO PLUMBING DRAWINGS FOR SPECIFICATIONS.

DIVISION 17 - ELECTRICAL

REFER TO ELECTRICAL DRAWINGS FOR SPECIFICATIONS

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SPECIFICATIONS

DEMOLITION NOTES

- 1. DEMOLISH EXISTING CONSTRUCTION
 AS INDICATED ON THE DRAWINGS AND
 REQUIRED BY JOB CONDITIONS.
 CONTRACTOR SHALL NOTIFY
 ARCHITECT OF ANY DISCREPANCIES
 OR CONFLICTS THAT WOULD PREVENT
 REMOVAL OF ANY ELEMENTS
- 2. PROTECT EXISTING CONSTRUCTION AND EQUIPMENT DESIGNATED TO
- 3. CONTRACTOR SHALL ENDEAVOR TO IDENTIFY ANY HAZARDOUS MATERIALS WITHIN THE SPACE, INCLUDING BUT NOT LIMITED TO ASBESTOS BEARING MATERIALS, AND WHERE REQUIRED BY LAW, PROVIDE REQUIRED TESTING. WHERE HAZARDOUS MATERIALS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ARRANGE FOR PROPER REMEDIATION.
- 4. UNLESS INDICATED OTHERWISE BY OWNER OR THESE DRAWINGS, ALL REMOVED MATERIAL AND ALL DEBRIS BECOMES THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE DEMOLISHED ITEMS FROM THE SITE AND DISPOSE OF THEM IN A LEGAL MANNER.
- 5. THE CONTRACTOR SHALL ADHERE TO ANSI A10.6 SAFETY REQUIREMENTS FOR DEMOLITION PUBLISHED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE.

- 6. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE ADEQUACY AND INSTALLATION OF ALL TEMPORARY SHORING SYSTEMS USED DURING THE REMOVAL OF ALL STRUCTURAL ELEMENTS, EXCEPT, AS OTHERWISE AGREED BY THE BUILDING DEPT. AND THE ARCHITECT.
- 7. IF THE SAFETY OF EXISTING
 CONSTRUCTION APPEARS TO BE
 ENDANGERED AT ANY TIME, CEASE
 OPERATIONS AND IMMEDIATELY
 NOTIFY THE OWNER AND ARCHITECT.
 THE CONTRACTOR SHALL DEVISE A
 PLAN TO MAKE SAFE THE JOB SITE,
 TAKING PRECAUTIONS TO PROTECT
 LIFE SAFETY FIRST AND FOREMOST.
 WORK SHALL NOT RESUME UNTIL
 DANGEROUS CONDITIONS HAVE BEEN
 REMEDIATED TO THE ARCHITECT'S
 SATISFACTION.
- 8. THE DRAWING DO NOT NECESSARILY INDICATE THE FULL EXTENT OF THE WORK REQUIRED TO BE PERFORMED. INSPECT THE EXISTING CONSTRUCTION CAREFULLY TO DETERMINE THE FULL EXTENT OF WORK TO BE PERFORMED AND THE PROBLEMS INVOLVED. NO EXTRA COMPENSATION WILL BE ALLOWED BECAUSE OF FAILURE TO ESTIMATE THE FULL EXTENT OF THE WORK OR FOR ANY CONTINGENCIES IN CONNECTION THEREWITH.

- 9. ALL WORK SHALL BE PERFORMED BY SKILLED AND PROPERLY EQUIPPED PERSONNEL, AND LICENSED WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION
- 10. DEMOLITION OR REMOVAL OF ITEMS WHEN A SCAFFOLD, LADDER, OR OTHER VERTICAL ACCESS IS REQUIRED SHALL BE LOWERED BY CONTROLLED METHODS, NOT BY THROWING OR DROPPING.
 11. PERFORM ANY CUTTING AND STRIPPING SO THAT THE WORK TO
- STRIPPING SO THAT THE WORK TO REMAIN IS UNDAMAGED AND IN SUCH MANNER THAT NEW WORK CAN BE PROPERLY CONNECTED WITH EXISTING WORK TO REMAIN.

 12. DEMOLISH EXISTING CONSTRUCTION ONLY TO THE EXTENT NECESSARY FOR THE PROPER INSTALLATION OF

LIQUID AND DUST PROTECTION AS

- NEW CONSTRUCTION AND JUNCTION WITH EXISTING WORK. CUT BACK FINISHED SURFACES TO STRAIGHT, PLUMB AND LEVEL AS REQUIRED.

 13. SAWING SHALL BE PERFORMED BY EXPERIENCED CRAFTSMEN CUSTOMARILY ENGAGE IN AND PROPERLY EQUIPPED FOR THE PERFORMANCE OF THE TYPE OF WORK REQUIRED BY JOB CONDITIONS. PROVIDE WET VACCUM EQUIPMENT FOR CONTROL OF WASTE COOLING
- 14. WHEN REQUIRED FOR NEW WORK, INCIDENTAL DEMOLITION OF EXISTING ELEMENTS MAY BE REQUIRED FOR INSTALLATION OF PIPING, CONDUIT, TUBING, DUCTWORK, OR OTHER CONVEYANCE ELEMENTS AS REQUIRED BY MECHANICAL, PLUMBING, AND ELECTRICAL SCOPE. THE DRAWINGS MAY NOT INDICATE ANY SUCH INCIDENTIAL DEMOLITION, HOWEVER IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY AND PERFORM SUCH.
- 15. DRILLING AND INSTALLING SLEEVES FOR PASSAGE OF PIPING, CONDUIT, AND TUBING SHALL BE PERFORMED BY THE TRADE INSTALLING THE PIPING, CONDUIT, OR TUBING.
 - 6. REPAIR, RESTORE, REPLACE, OR MAKE GOOD ANY DAMAGE TO EXISTING CONSTRUCTION WHICH OCCURS AS A RESULT OF DEMOLITION OPERATIONS AT NO ADDITIONAL COST TO THE OWNER. THESE REPAIR SHALL INCLUDE ANY ROOF PATCHING REQUIRED DUE TO DEMOLITION AND SHALL BE COORDINATED WITH THE LANDLORD AND LANDLORD'S ROOFER.
 - 17. DO NOT ALLOW MATERIALS AND DEBRIS GENERATED BY DEMOLITION ACTIVITIES TO ACCUMULATE. REMOVE DAILY AND DISPOSE OF IN A LEGAL MATTER. NO ON-SITE SALE, BURNING, OR BURYING OF DEMOLISHED MATERIALS WILL BE PERMITTED.

- DEBRIS SHALL NOT BE STORED OR STAGED NEAR ANY BACKFILL MATERIAL TO PREVENT CONTAMINATION OF BACKFILL WITH UNSUITABLE FILL.
- 18. LEAVE ALL SPACES BROOM CLEAN WITH ALL LEDGES AND CORNERS PROPERLY CLEANED AT THE END OF EACH WORK DAY.
- 19. PROVIDE PROTECTION TO PREVENT GLASS BREAKAGE AS MAY BE REQUIRED, REPLACE IN KIND ANY GLASS BROKEN BY CONSTRUCTION OPERATIONS AT NO ADDITIONAL COST.
- 20. PROVIDE HOIST AND CHUTES AS REQUIRED TO CONVEY REMOVED MATERIAL. THROWING, DROPPING, OR PERMITTING THE FREE FALL OF MATERIAL AND DEBRIS FROM HEIGHTS WHICH WOULD CAUSE DAMAGE TO WORK, CAUSE EXCESSIVE NOISE OR NUISANCE, CREATE UNSAFE CONDITIONS, OR CAUSE EXCESSIVE DUST IS EXPRESSLY PROHIBITED.
- 21. WHERE REQUIRED, ERECT SIGNS, BARRICADES, AND SUCH OTHER FORMS OF WARNING TO PREVENT PERSONNEL FROM BEING PUT AT RISK OF INJURY.
- 22. DOORS AND HARDWARE: REMOVE CAREFULLY TO AVOID DAMAGE, INSOFAR AS POSSIBLE, LEAVE HARDWARE ATTACHED TO THE DOOR. WHERE THIS IS NOT PRACTICAL, PLACE ITEMS OF HARDWARE IN A CLOTH BAG ATTACHED TO THE DOOR.
- 23. PARTITION: REMOVE PARTITION FINISH, STUDS, PLATES, AND SILLS. WHERE ONLY A PARTIAL RUN IS

- REMOVED, CUT BACK FINISH MATERIAL TO THE CENTERLINE OF THE NEXT ADJACENT SUPPORT MEMBER TO REMAIN. LEAVE
- MEMBER TO REMAIN. LEAVE REMAINING MATERIAL WITH A CLEAN TERMINAL LINE WITH NO LOOSE MATERIAL ADHERING.
- 24. MECHANICAL, ELECTRICAL, PLUMBING: CAREFULLY REVIEW PLANS AND DETERMINE LINES TO BE REMOVED AND THOSE TO BE KEPT ACTIVE OR TO BE REACTIVATED PROTECT LINES TO REMAIN. PROVIDE FOR MINIMUM SERVICES INTERRUPTION OF LINES TO REMAIN.
- 25. REMOVE FIXTURES AND EQUIPMENT AS INDICATED.
 WHEN INDICATED FOR REUSE: CLEAN, STORE AS DIRECTED, PROTECT, AND CLEARLY LABEL FOR REUSE.
- 26. REMOVE EXISTING FLOOR FINISHES AND PREPARE SUB-SURFACE TO RECEIVE NEW FLOOR AS INDICATED. WORK SHALL BE DEEMED ACCEPTABLE PROVIDED THAT THE SUBSTRATE WILL ACCEPT THE NEW FINISH WITH NO NOTICEABLE ALTERATION HAVING BEEN MADE. PROVIDE LEVELING AGENT OR GAP FILL IF REQUIRED.
- 27. WHERE CONCRETE TOPPING OR OTHER LEVELING AGENTS ARE REQUIRED FOR A PROPER INSTALLATION OF A FINISH, THE SUBSTRATE SHALL BE CLEANED AND PREPARED AS ALLOW PROPER ADHESION OF THE LEVELING AGENTS.
- 28. CONTRACTOR SHALL PROTECT LOW VOLTAGE WIRING TO REMAIN AND CLEARLY LABEL WIRING CONNECTIONS AT EACH END TO ALLOW FOR REUSE IN NEW LAYOUT SUCH THAT OTHERS MAY QUICKLY IDENTIFY WIRING RUNS FOR RECONNECTION.
- 29. NOTIFY ARCHITECT IMMEDIATELY IF ANY COLUMNS, OTHER STRUCTURAL ELEMENTS, OR UTILITY RISERS ARE DISCOVERED THAT WILL INTERFERE WITH THE CONSTRUCTION PLAN AND ARE NOT ALREADY IDENTIFIED ON PLANS.

KEYNOTES

- REMOVE ANY EXISTING FLOOR FINISH (SEE DEMO NOTE 26), CEILINGS, SOFFITS, MECH, ELEC & PLBG EQUIPMENT INCLUDING BUT NOT LIMITED TO CONDUIT/WIRING, DUCTWORK, PIPING, FIXTURES, ETC. UNO.
- VERIFY EXISTING SPACE DIMENSIONS AFTER DEMOLITION & VERIFY LOCATION OF ALL UTILITIES TO/THRU THE SPACE IN FIELD. NOTIFY ARCHITECT IMMEDIATELY WITH ANY DISCREPANCIES WITH PLAN. SEE SHEET A1-31 FOR DIMENSIONS.
- NOTIFY ARCHITECT IMMEDIATELY IF ANY COLUMNS OR STRUCTURAL MEMBERS ARE FOUND IN FIELD THAT WILL INTERFERE WITH THE CONSTRUCTION PLAN & ARE NOT ALREADY NOTED ON PLANS.
- REMOVE ALL INTERIOR PARTITIONS & ASSOCIATED CONSTRUCTION AS INDICATED
- VERIFY SLAB IS LEVEL AND READY TO ACCEPT FINISH FLOOR. FIX/REPAIR CONCRETE SLAB AS REQUIRED.
- REMOVE EXISTING FLOOR DRAINS, FLOOR SINKS, CLEANOUTS ETC. CAP OFF BELOW FLOOR. FILL OPENING IN CONCRETE SLAB & ENSURE SMOOTH FINISH
- EXISTING STOREFRONT DOORS TO REMAIN, PROTECT DURING
- © EXISTING EXTERIOR TO REMAIN. PREP TO ACCEPT NEW PAINT FINISH. SEE EXTERIOR ELEVATIONS FOR THE EXTENT OF WORK
- ©7 EXISTING ELECTRICAL PANEL TO REMAIN. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
- EXISTING RTU ABOVE. GC TO CONFIRM PROPER WORKING CONDITION AT THE BEGINNING OF THE PROJECT. NOTIFY THE ARCHITECT AND ENGINEER OF ANY ISSUES. SEE MECH. DWGS FOR ADDITIONAL INFORMATION.
- ©9 EXISTING DEMISING WALL TO REMAIN, MAINTAIN EXISTING FIRE RATING
- EXISTING DOOR TO REMAIN, PROTECT DURING CONSTRUCTION.
- > NOT USED
- NOT USED
- 13 NOT USED
- REMOVE EXISTING WALLS TO EXTENT SHOWN.
- (15) REMOVE EXISTING SINK AND CABINETRY
- REMOVE EXISTING TOILET.
- 17) REMOVE EXISTING TOILET DOOR.
- (18) EXISTING FD TO REMAIN BE REMOVED.
- 9 NOT USED
- 20 REMOVE EXISTING MOP SINK.
- EXISTING STRUCTURAL COLUMNS TO REMAIN, PROTECT DURING CONSTRUCTION.
- 22> EXISTING ELECTRICAL TRANSFORMER TO REMAIN. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

LEGEND

EXISTING TO REMAIN

NON-BEARING PARTITIONS, FIXTURES, SOFFITS, EQUIPMENT & DOORS TO BE REMOVED.

EXISTING AREA N.I.C.

■ EXISTING FIRE RATED PARTITION WALL

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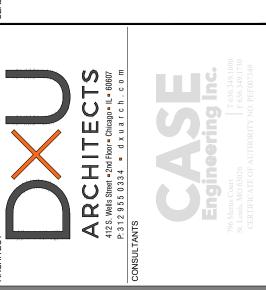
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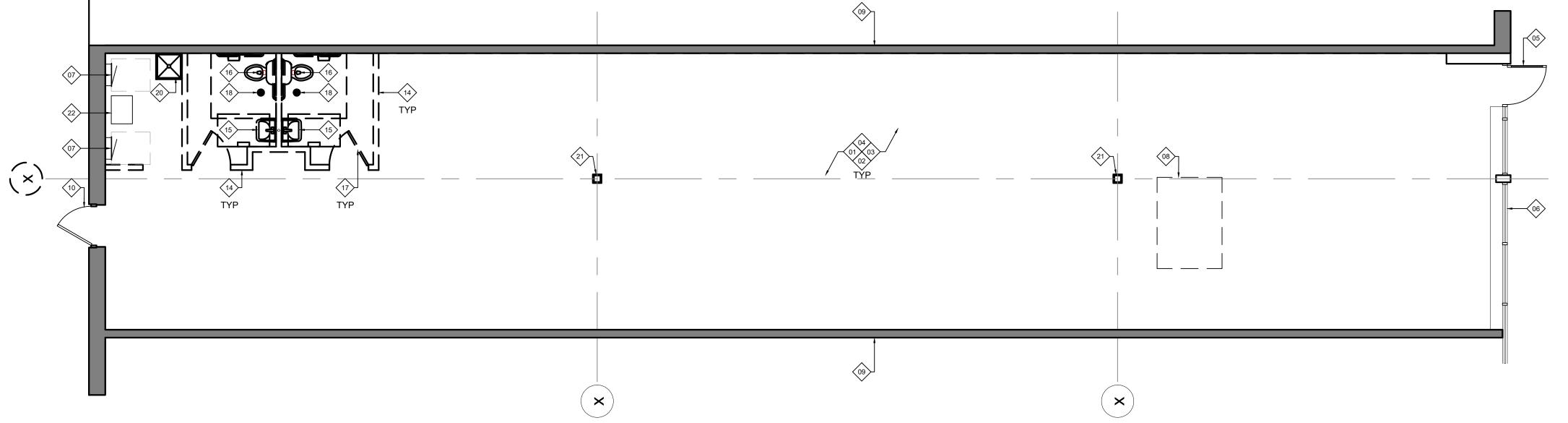
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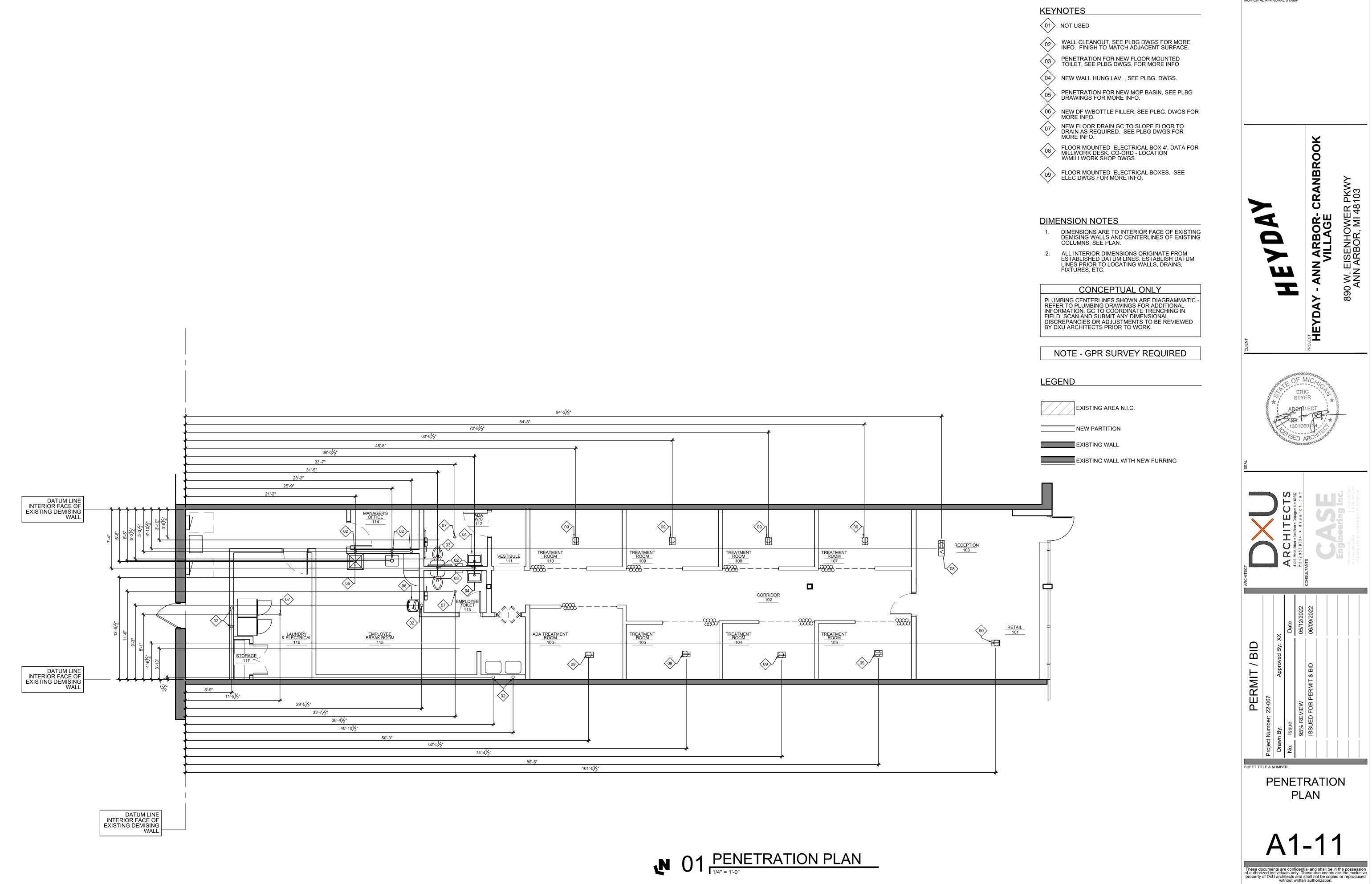


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DEMO/EXISTING PLAN





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GENERAL NOTES

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THE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH MECHANICAL, ELECTRICAL, PLUMBING, & OTHER CONSULTANT'S DRAWINGS & SPECIFICATIONS & WITH SUCH OTHER WRITTEN INSTRUCTIONS OR SKETCHES AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT & ARIA GROUP ARCHITECTS, INC. BEFORE PROCEEDING WITH ANY WORK.

2. ALL DIMENSIONS ARE NOMINAL AND ARE FROM FACE OF SUBSTRATE U.N.O.

3. ALL CONTRACTORS TO VERIFY EXISTING SITE CONDITIONS BEFORE ANY WORK IS TO BEGIN. NOTIFY ARCHITECT OF ANY DISCREPANCIES (TYPICAL).

4. ALL WORK TO BE DONE IN ACCORDANCE WITH ALL GOVERNING STATE AND LOCAL CODES AND ORDINANCES. G.C. TO INSTALL MOISTURE RESISTANT GYP. BD. AT ALL TOILET ROOMS, AND LAUNDRY AREAS.

G.C. TO FURNISH & INSTALL IN-WALL FIRE TREATED BLOCKING FOR ALL MILLWORK, SHELVING AND FURNITURE. FIRE EXTINGUISHER, SUPPLIED BY G.C., QUANTITY &

LOCATIONS TO BE COORDINATED WITH THE FIRE DEPARTMENT.

8. COORDINATE OUTLETS (PHONE, DATA, ETC) AT MILLWORK WITH MILLWORKER AND ELECTRICAL DRAWINGS. PROVIDE SHOP DRAWINGS FOR REVIEW.

MOUNT ALL FIXTURES AND ACCESSORIES AT HEIGHTS TO CONFORM TO ALL GOVERNING CODES AND ADA REQUIREMENTS.

10. REVIEW ALL WORK HOURS, PROJECT PHASING

REQUIREMENTS AND/OR SEQUENCING WITH OWNER. 11. ALL WOOD THAT IS USED ON THE PROJECT SHALL CONFORM W/ SECTIONS 805 & 806 OF THE APPLICABLE INTERNATIONAL BUILDING CODE W/ RELATION TO FIRE TREATED WOOD CONSTRUCTION. PER THIS SECTION IT INCLUDES: INTERIOR FINISHES, TRIM AND MILLWORK SUCH AS DOORS, DOOR FRAMES, WINDOW SASHES AND WINDOW

12. THE GENERAL CONTRACTOR SHALL PROVIDE BLOCKS, OPENINGS, CORES, ETC. NOT SPECIFICALLY SHOWN ON THE DRAWINGS AS NECESSARY FOR PLUMBING, MECHANICAL AND ELECTRICAL EQUIPMENT, VENTS, DUCTS, AND TYPICAL DETAILS. ALL CORES AND PENETRATIONS SHOULD BE INSPECTED PER LANDLORD REQUIREMENTS. GROUND PENETRATING RADAR IS ACCEPTABLE.

13. REFER TO THE PROJECT SPECIFICATIONS ON THE G-SHEETS FOR FURTHER INFORMATION.

LEGEND

NEW PARTITION

EXISTING WALL

FURNITURE SCHEDULE

TAG	DESCRIPTION	QTY.	DIMENSIONS	NOTES	RESPONSIBILITY
F-1	TREATMENT ROOM CLIENT CHAIR	8	OVERALL: 33["W X 34"D X 30]"H SEAT HEIGHT: 17]"SH	CLIENT CHAIRS IN TREATMENT ROOMS	BY TENANT

GENERAL NOTES

ANY ITEMS THAT NEED CLARIFICATION SHALL BE SUBMITTED IN WRITING TO THE DESIGNER
 MINOR OMISSIONS OR DISCREPANCIES WILL NOT BE THE RESPONSIBILITY OF THE DESIGNER.
 VERIFY NEW WALL CONSTRUCTION WITH BUILDING

MANAGEMENT

MANAGEMENT. VERIFY PERIODS OF CONSTRUCTION WITH

BUILDING MANAGEMENT ALL MILLWORK TO BE DETAILED BY MILLWORK CONTRACTOR. PLEASE REFER TO INTERIOR

ELEVATIONS AND ENLARGED PLANS. VERIFY ALL EQUIPMENT NEEDS WITH TENANT. PREPARE EXISTING FLOORS/WALLS AS REQUIRED FOR NEW FINISHES, TYP.

WINDOW COVERINGS THROUGHOUT ARE N.I.C SEE A7-10 FOR TYPICAL DETAIL AT TREATMENT 10. PROVIDE OPENINGS IN PARTITIONS AS REQUIRED (06)

FOR RECESSED TOILET ROOM ACCESSORIES. SEE ELEVATIONS AND PLUMBING ACCESSORY SCHEDULE 11. NEW PARTITIONS SHALL NOT PENETRATE EXISTING 07

PARTITIONS, TYPICAL. 12. CAULK AN SEAL ALL PENETRATIONS AT EXISTING PARTITIONS, TYPICAL 13. PAINT ALL EXPOSED PIPES. PAINT COLOR SHOULD

MATCH THAT OF ADJACENT WALL

14. VERIFY WALL DIMENSION REQUIRED AT ALL STUDIO WALLS AND CONFIRM STUDIO HOLD DIMENSIONS 09 BEFORE START OF CONSTRUCTION

15. GC TO INSTALL FURRING ON ALL WALL SURFACES
BELOW AND ABOVE WINDOW SILLS AS REQUIRED

16. GC TO PROVIDE ALL BACKING/BRACING REQUIRED
BY CODE AND STRUCTURAL NECESSITY 17. PROVIDE WATERPROOFING MEMBRANE WITH COVED RETURN UP WALLS AT LAUNDRY ROOM FLOORS. MEMBRANE TO EXTEND FULL HEIGHT IN

WALLS AROUND MOP SINK, AND 12" MIN. IN

ALL MILLWORK TO BE PROVIDED BY OWNER & INSTALLED BY GC. GC TO COORDINATE BLOCKING

LAUNDRY ROOM.

<u>KEYNOTES</u>

RECEPTION DESK. SEE DETAILS ON A7-10 SHEET FOR MORE INFO.

ISLAND RETAIL DISPLAY. SEE DETAILS ON A7-11 SHEET FOR MORE INFO.

RETAIL SHELVES. SEE DETAILS ON A7-13 SHEET FOR MORE INFO.

TERRACYCLE RECYCLING BINS.

DIGITAL DISPLAY PROVIDE F.T. BLOCKING FOR MOUNTING, PROVIDE POWER & DATA IN WALL.SEE ELEC DWGS.

ONLINE PICK UP. ON 3/4" BRAND PAINTED PLYWOOD SHAPE. PROVIDE F.T. BLOCKING FOR MOUNTING. AS REQ'D

BACKLIT PROVIDE POWER, SEE EXT. ELEVAYIONS

HEYDAY BRAND INTERIOR SIGNAGE. PROVIDE F.T. BLOCKING FOR MOUNTING. AS REQ'D HEYDAY BRAND EXTERIOR SIGNAGE. SIGN TO BE

BACKBAR MILLWORK TYP. IN TREATMENT ROOMS. SEE DETAILS ON A7-13 SHEET FOR MORE INFO.

MAG LAMP MAX. 45" EXTENSION

MIRROR PROVIDED BY G.C. PROVIDE F.T. BLOCKING FOR MOUNTING.

BREAKROOM MILLWORK

WHITE LAMINATE BASE CABINETS WITH WHITE LAMINATE COUNTERTOP AND WHITE LAMINATE

EMPLOYEE FRIDGE

EMPLOYEE LOCKERS, GC TO PROVIDE IN-WALL

STACKED WASHER & DRYER

ROLLING LAUNDRY CART

CLOSET SHELVING,

NOT USED

48" MILLWORK COUNTER AND SHELVES ABOVE

(33) TOILET ROOM CABINET

DRAPERY FOR TREATMENT ROOMS

36" COUNTER

ST. SINK ,SEE PLBG DWGS PLANS FOR MORE

WALL CABINETS ABOVE

EMPLOYEE STORAGE

BLOCKING AS REQ'D

DRINKING FOUNTAIN

22 EMPLOYEE TABLE

ELECTRIC PANELS, MAINTAIN 36" CLEAR SPACE IN FRONT OF PANEL, SEE ELECTRICAL DWGS PLANS FOR MORE INFO.

METAL CABINETS

(27) ROLLING LAUNDRY BINS

ELECTRICAL TRANSFORMER. SEE ELECTRICAL DRAWINGS FOR MORE INFO.

5 (A5-40) (09)

THERMOSTAT IN OFFICE, TEMP SENSORS IN REST OF UNIT, SEE MECH. PLANS FOR MORE INFO.

N 02 FLOOR PLAN

MUNICIPAL APPROVAL STAMP

CRANBROOK ARBOR-VILLAGE



FLOOR PLAN

A1-21

KEYNOTES

EXISTING DEMISING WALL TO REMAIN. GC TO PROVIDE NEW LAYER OF SUBSTRATE, SEE PARTITION TYPE FOR TYPE OF SUBSTRATE TO BE

02 EXISTING EXTERIOR WALL TO REMAIN.

EXISTING STOREFRONT TO REMAIN. CLEAN & PAINT TO MATCH. PROVIDE NEW WEATHER STOPPING TO MATCH EXISTING STOREFRONT

CONCRETE NOTES

CONCRETE

- 1. CONCRETE WORK SHALL CONFORM TO THE CURRENTLY ADOPTED ACI 318, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE; ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS; ACI 302. 1R, GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION.
- 2. ULTIMATE COMPRESSIVE STRENGTH OF PORTLAND CEMENT CONCRETE, STANDARD WEIGHT AT TWENTY-EIGHT DAYS SHALL BE 4000 PSI FOR ALL CONCRETE WORK. DESIGN AND SUBMITTAL FOR CONCRETE MIX SHALL BE IN ACCORDANCE WITH ACI318, CHAPTER 5 AND ACI 301, SECTION 4 AND SHALL BE SUBMITTED IN ADVANCE TO STRUCTURAL ENGINEER FOR APPROVAL.
- CALCIUM CHLORIDE AND/OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE INCLUDED IN CONCRETE MIX.

CONCRETE REINFORCEMENT

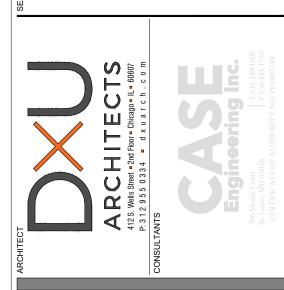
- REINFORCING BARS SHALL CONFORM TO ASTM SPECIFICATIONS A615; ALL BARS, GRADE 60
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM SPECIFICATIONS A185 AND A82 PLAIN BARS.
- 3. DETAILING AND ACCESSORIES SHALL
 CONFORM TO THE ACI DETAILING MANUAL AND
 TO THE CRSI MANUAL OF STANDARD PRACTICE,
 CURRENT EDITIONS, UNLESS NOTED
 OTHERWISE HERE, ON DRAWINGS, OR IN
 SPECIFICATIONS.
- 4. ALL LAPS, WHEN NOT DIMENSIONED ON DRAWINGS, SHALL BE 48 BAR DIAMETERS AND NOT LESS THAN 24".
- REINFORCING BARS ARE TO BE PLACED ON CHAIRS OR OTHER ACCESSORIES TO INSURE PROPER PLACEMENT. REINFORCING SHALL NOT BE PULLED OR MUDDED IN PLACE.

HEYDAY
- ANN ARBOR- CRANBROOK
VILLAGE

MUNICIPAL APPROVAL STAMP

PROJECT HEYDAY





| | | | |

DIMENSIONED PLAN

A1-31

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EXTENT OF WATERPROOF MEMBRANE BENEATH WALL FINISH -SEE WATERPROOFING NOTES

— — WALL FINISHES

/ XX \ WALL FINISH XX BASE FINISH

WATERPROOFING NOTE

PROVIDE LATICRETE HYRDO BAN WATERPROOFING MEMBRANE SYSTEM BENEATH ALL TILE IN RESTROOMS AND UTILITY ROOM.

WATERPROOF MEMBRANE TO WRAP WALL 6" AFF AND TERMINATE UNDER BASE IN AREAS WITH NO TILE FLOORING.

WATER SLOGETO: WATERPROOF MEMBRANE TO RETURN UP WALL AND TERMINATE AT 47" AFF

UTILITY ROOM WALLS: EXTEND 6" ABOVE FLOOR TYPICAL AND EXTEND 12" ABOVE FLOOR AT MOP SINK

GENERAL NOTES

- 1. ALL CUT TILES TO BE PUMICED SMOOTH.
- 2. ALL FLOOR PENETRATIONS TO BE WATERPROOFED
- 3. PROVIDE MOVEMENT JOINTS @ 32" CENTERS AND AROUND ALL WALLS, DRAINS (RIGID OBSTACLES)
- 4. SUBMIT SAMPLE AND VERIFY ALL FINISHES WITH OWNER BEFORE ORDERING.
- 5. PATCH AND REPAIR EXISTING FLOOR AS NECESSARY.

KEYNOTES

NOT USED

 $\langle 02 \rangle$ NO FLOORING UNDER MOP SINK

03 NOT USED.

(04) NOT USED

GC TO PROVIDE DUR-A-FLEX AS ALTERNATIVE FOR ARDEX IN AREAS WHERE ARDEX APPLIED

FINISH NOTES

- 1. REFER TO FINISH PLAN, REFLECTED CEILING PLAN, ELEVATIONS AND DETAILS FOR ACCENT FINISH LOCATIONS, APPLICATION AND TERMINATION.
- 2. REFER TO REFLECTED CEILING PLAN FOR LAYOUT OF SUSPENDED ACOUSTICAL CEILING TILE.
- 3. REFER TO DOOR SCHEDULE FOR DOOR TYPES, FRAME TYPES AND FINISH REQUIREMENTS.
- 4. ALL FLOORING FINISH TRANSITIONS TO BE MADE AT
- CENTERLINE OF DOORS AND CASED OPENING FRAMES, UNLESS OTHERWISE SHOWN.
- 5. PAINT ALL UNDER-COUNTER SUPPORTS TO MATCH ADJACENT WALL FINISH.
- 6. PAINT ALL EXPOSED CONDUIT AT UNDER-CABINET TASK LIGHTING TO MATCH CABINET FINISH. 7. PAINT FINISHES ON GYPSUM WALL BOARD CEILINGS
- TO BE FLAT FINISH ON LEVEL 5 SMOOTH GYP. BOARD
- 8. PAINT SPECIFICATIONS: BY BENJAMIN MOORE.
- 9. SCHLUTER JOLLY EDGE, DILEX/BRASS ALUMINUM, ON OUTSIDE CORNERS OF TILE WHERE APPLICABLE.
- 10. PRIOR TO STARTING CONSTRUCTION, GENERAL CONTRACTOR TO COORDINATE ALL WALL PAINT COLOR SELECTIONS WITH OWNER. GYPSUM BOARD PARTITIONS: EGGSHELL INTERIOR LATEX ENAMEL DOORS: SATIN INTERIOR LATEX ENAMEL
 GYPSUM BOARD CEILINGS: FLAT INTERIOR WALL PROVIDE MANUFACTURER'S RECOMMENDED PRIMERS AND UNDERCOATS.
- 11. IN THE AREAS WHERE FLOOR DRAINS OCCUR, THE FLOOR SLOPE SHALL NOT EXCEED 1:48 IN ANY DIRECTION.

SEE SHEET A9-10 FOR FINISH SCHEDULE

MUNICIPAL APPROVAL STAMP

CRANBROOK

I ARBOR-VILLAGE

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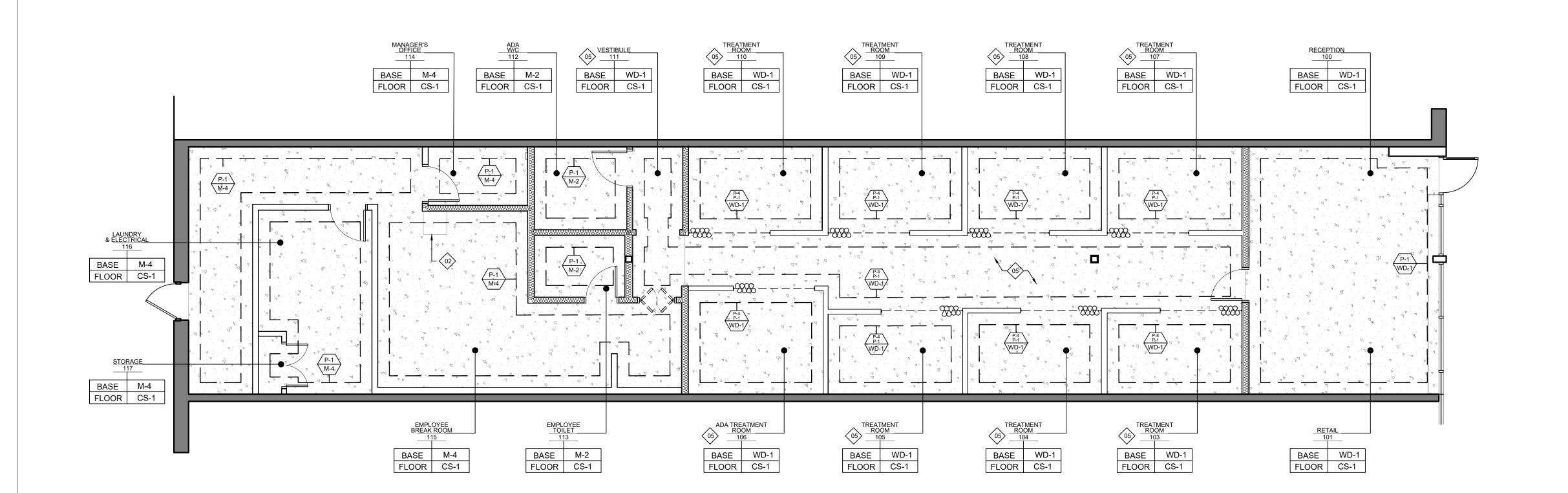
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890 W. EISENHOWER ANN ARBOR, MI 48

/BID PERMIT

FINISH PLAN



MECHANICAL CONTRACTOR & G.C. TO COORDINATE & PROVIDE ACCESS TO ALL MECH. UNITTS FOR SERVICING. MECH. CONTRACTOR & G.C. TO REVIEW ACCESS SCOPE AND REPORT ANY CONFLICTS OR ACCESS CONCERNS TO ARCHITECT & ENGINEER IMMEDIATELY.

SEE SHEET A9-10 FOR LIGHTING SCHEDULE

LIGHTING NOTES

- CONTRACTOR SHALL VERIFY FIXTURE MOUNTING & COORDINATION w/ FINAL SPECIFIED CEILING SYSTEM.
- 2. ALL FIXTURES SHALL BE U.L. LISTED.
- 3. ELECTRICAL ENGINEER TO COORDINATE
- VOLTAGES. 4. ALL TRACK AND LOW VOLTAGE STRIP LIGHTS TO BE FURNISHED WITH ALL NECESSARY FEEDS, SPLICES, CONNECTIONS, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION.
- 5. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING DIMENSIONS AND/ OR DETAILS.
- 6. NO SUBSTITUTION OF SPECIFIED FIXTURE, LAMP OR CONTROLS MANUFACTURER WILL BE ACCEPTABLE WITHOUT SPECIFIC PRIOR APPROVAL OF THE ARCHITECT. IF CONTRACTOR MAKES A SUBSTITUTION WITHOUT SAID PRIOR APPROVAL, HE SHALL REPLACE THE SUBSTITUTED ITEM WITH THE SPECIFIED ITEM AND SHALL BEAR THE ALL ASSOCIATED COSTS (INCLUDING BUT NOT LIMITED TO THE ARCHITECT'S LABOR COSTS INVOLVED IN RE-AIMING FIXTURES, TRAVELING TO THE SITE, ETC.) WITHOUT ANY ADDITIONAL CHARGE TO THE OWNER.
- 7. ANY NON-FLUORESCENT OR NON-LED LAMP USED DURING THE COURSE OF THE CONSTRUCTION SHALL BE REPLACED AND RELAMPED PRIOR TO PROJECT TURNOVER TO OWNER. COST OF LAMP REPLACEMENT SHALL BE INCURRED BY CONTRACTOR.
- 8. ALL EXTERIOR LIGHTS TO BE TIED INTO DIMMING SYSTEM. ALL TO BE ON PHOTOCELL & TIME CLOCK & WILL BE SYNCHRONIZED WITH THE EXTERIOR SIGNAGE.
- 9. REMOTE TRANSFORMERS AND BALLAST TO BE LOCATED IN WELL VENTILATED LOCATION AS NECESSARY. REMOTE TRANSFORMERS SHALL BE UL LISTED W/ RE-SETTABLE SECONDARY SIDE CIRCUIT BREAKER PROTECTION PER NEC. TRANSFORMER SIZE AND SECONDARY BREAKER CAPACITY TO BE DETERMINED BY ELECTRICAL CONTRACTOR FOR EACH CONDITION. AT REMOTE TRANSFORMERS, MINIMUM SECONDARY WIRE SIZE SHALL BE #10 STRANDED THHN UNLESS NOTED OTHERWISE. MAXIMUM SECONDARY RUN SHALL BE LESS THAN 20LF FOR 150VA LOAD. FOR GREATER LOAD OR LONGER RUN, PROVIDE VOLTAGE DROP CALCULATION INDICATES A SMALLER WIRE SIZE TO BE ACCEPTABLE.
- 10. ALL EM-FIXTURES IN GYP. BOARD CEILINGS TO MATCH SURROUNDING CEILING COLOR.
- 11. ALL LIGHTING TO BE DIMMABLE, REFER TO E-SHEETS.

KEYNOTES

- O1) DIGITAL DISPLAY. G.C. TO PROVIDE POWER.
- HEYDAY BRAND INTERIOR SIGNAGE, G.C. TO PROVIDE POWER.

MUNICIPAL APPROVAL STAMP

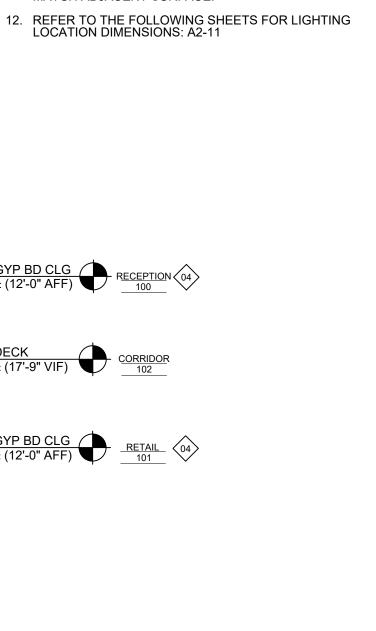
CRANBROOK

ARBOR-VILLAGE

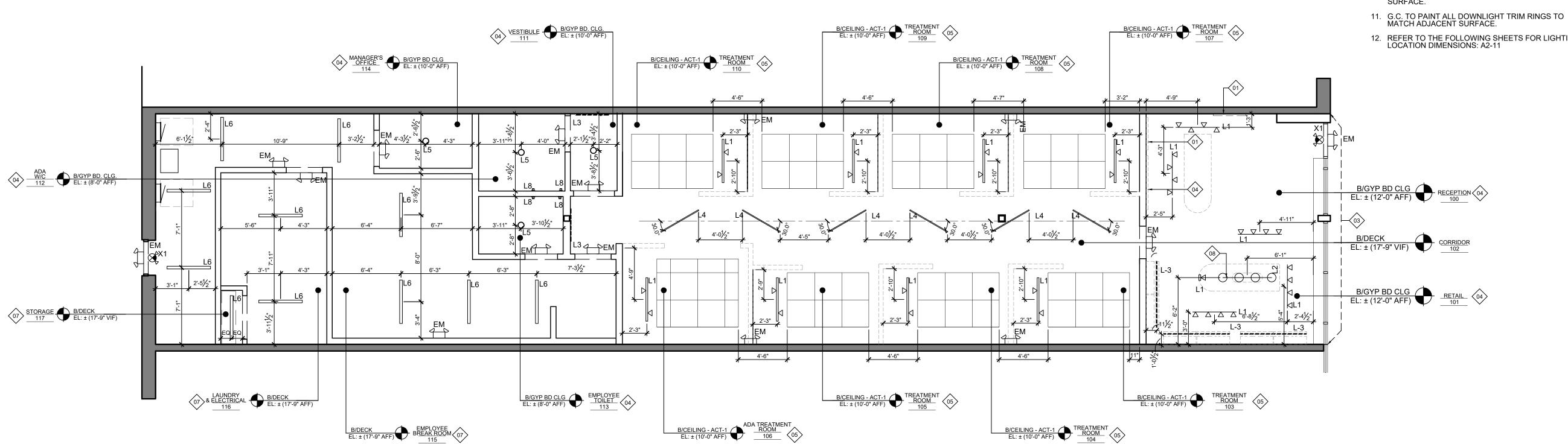
- HEYDAY BRAND EXTERIOR BACKLIT SIGNAGE. G.C. TO PROVIDE POWER.
- 5/8" GYP. BOARD, TAPED & PAINTED. REFER TO DETAILS FOR F.T. BACKING AND BLOCKING LOCATIONS
- √05
 30"x30" ECOPHON
- (06) NOT USED
- OPEN TO STRUCTURE ABOVE
- (08) CENTER FIXTURE OVER ROOM/CASEEORK BELOW

RCP GENERAL NOTES

- CENTER ALL FIXTURES IN CEILING TILES AT FRONT OF HOUSE & FIELD VERIFY GRID LAYOUT FOR PROPER FIXTURE LAYOUT (TO MATCH DRAWINGS).
- G.C. TO DEVELOP COORDINATION DRAWINGS FOR EXISTING CEILING AND PIPING HEIGHTS IN CONJUNCTION WITH HEIGHTS OF NEW CEILING SUSPENDED UNITS, DUCTWORK, LIGHTING, ETC. & NOTIFY ARCHITECT OF CONFLICTS.
- ALL ACCESS PANELS IN GYP. BD. CEILING TO BE COORDINATED w/ ARCHITECT. PROPOSED LOCATIONS TO BE LOCATED ON DRAWINGS &
 EMAILED TO ARCHITECT FOR REVIEW AND
 APPROVAL PRIOR TO PROCEEDING. ALLOW (1) WEEK
 FOR RESPONDE. ACCESS PANELS IN PUBLIC GYP BD TO BE GRFG TYPE.
- E.C. TO VERIFY ALL LOCATIONS OF WALL MOUNTED J-BOXES FOR SCONCES AND CLOCK OUTLETS w/ OWNER PRIOR TO INSTALLATION.
- SEE FIRE PROTECTION SHEETS FOR SPRINKLER FIRE PROTECTION SYSTEM REQUIREMENTS.
 - A. GYP. BD. CEILINGS AT PUBLIC AREAS AND COOKLINES - RECESSED HEADS WITH FLUSH COVER PLATES TO MATCH CEILING COLOR WHERE LOCATED - SHOP FINISHED.
- CEILING HEIGHTS GIVEN ARE FROM HEIGHT OF FINISH FLOOR BELOW. COORDINATE WITH INTERIOR
- G.C. TO INSTALL ALL OWNER SUPPLIED CUSTOM LIGHT FIXTURES & PROVIDE LAMPS UNO.
- G.C. TO COORDINATE OWNER SUPPLIED AUDIO/VISUAL INSTALLATION AND WIRING.
- 9. G.C. TO PAINT ALL GYP. BD. CEILINGS AND SOFFITS.
- 10. G.C. TO PAINT ALL DIFFUSERS TO MATCH ADJACENT SURFACE.



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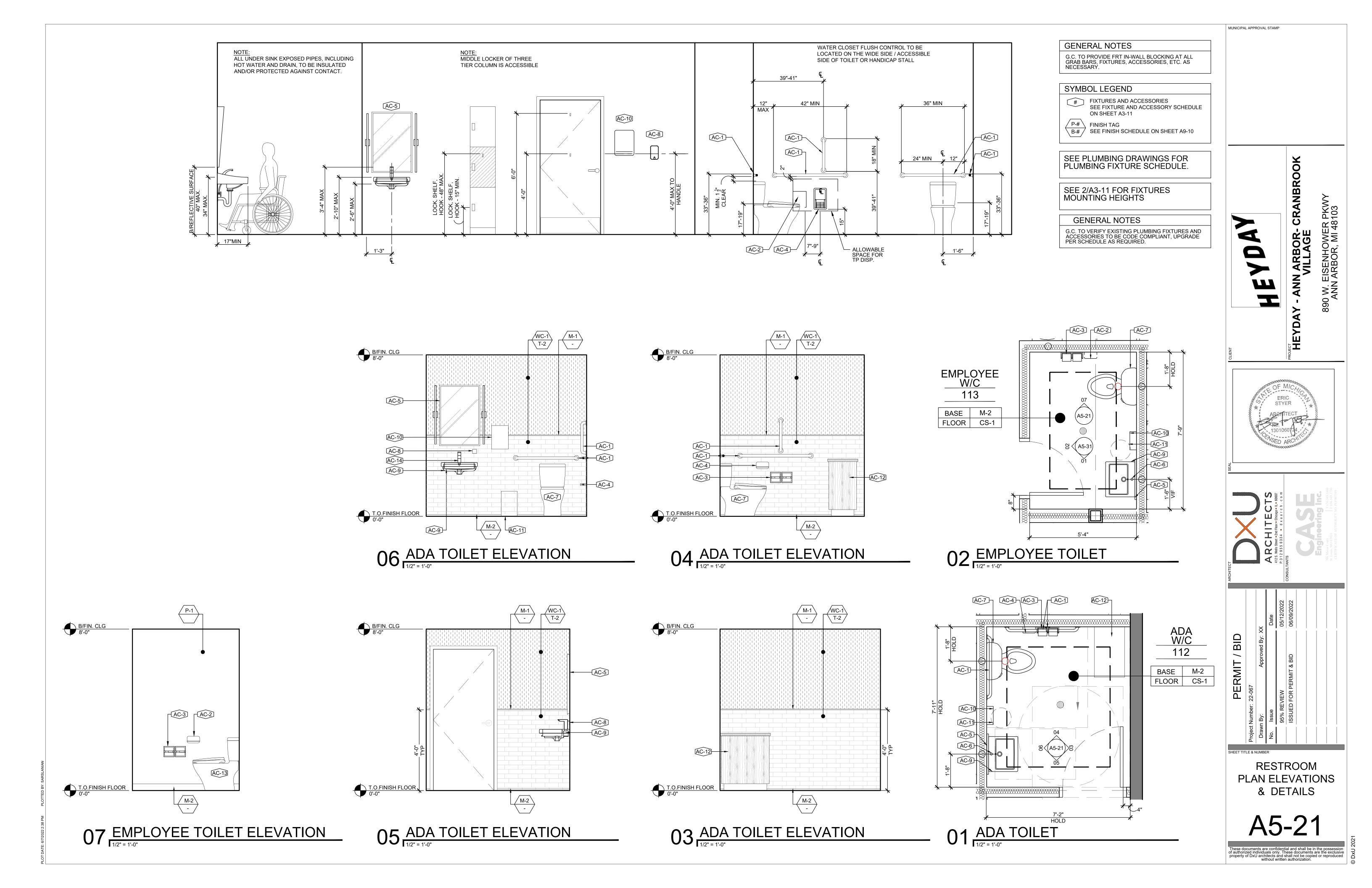
01 REFLECTED CLG PLAN

/ BID

PERMIT

REFLECTED **CEILING PLAN**

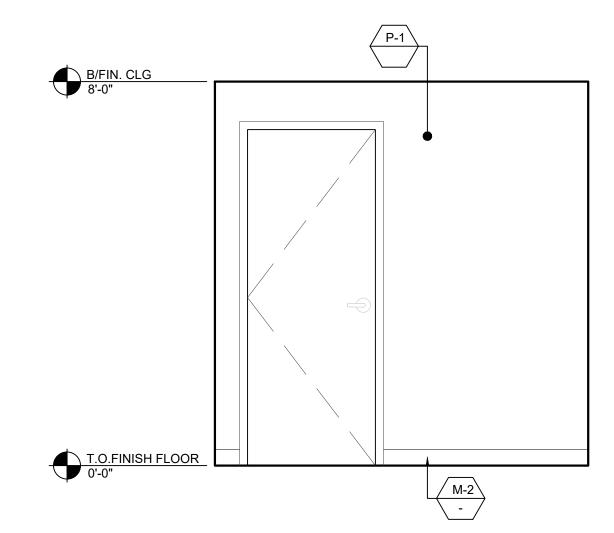
A2-11



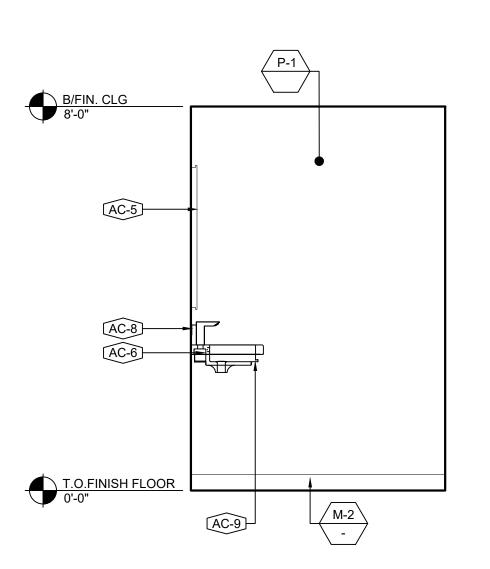
		101	LET ACCESSORIE	S SCHEDULE	1	
KEY	DESCRIPTION	MANUF	MODEL	FINISH	MOUNTING	REMARKS
AC-1	GRAB BARS. 42" GRAB BAR @ SIDE 36" GRAB BAR @ BACK 18" VERTICAL GRAB BAR @ SIDE	GRAB BAR SPECIALISTS	1-1/4" BRUSHED BRASS STRAIGHT GRAB BAR	BRUSHED BRASS	SURFACE MOUNT	G.C. TO PROVIDE IN-WALL BACKING
AC-2	SANITARY NAPKIN DISPOSAL	BOBRICK	CONTURA SERIES-B-270	STAINLESS STEEL	MIN. 1\" CLEAR OF HANDRAIL	EMPLOYEE TOILET
AC-3	TOILET TISSUE DISPENSER	BOBRICK	#b-6637	STAINLESS STEEL	RECESSED	EMPLOYEE TOILET
AC-4	TOILET TISSUE HOLDER	DELTA	#77750-CZ VERO TISSUE HOLDER	CHAMPAGNE BRONZE	SURFACE MOUNT	ADA TOILET, GC TO PROVIDE BLOCKIN
AC-5	24"X36" MIRROR	BOBRICK	-	STAINLESS STEEL	WALL MOUNT	G.C. TO PROVIDE IN-WALL BACKING EMPLOYEE TOILET
AC-6	FAUCET	MAC FAUCETS	#FA444-22	SATIN BRASS	SURFACE MOUNT	-
AC-7	TOILET - ADA	тото	CT705-ELN WITH TMTILN32 CP FLUSH VALVE	WHITE	FLOOR	PROVIDE CHURCH #9500ssc OPEN FRONT COUNTOURED HEAVY DUTY SET
AC-8	SOAP PUMP HOLDER	MATT ALFORD STUDIO	BRASS PUMP BOTTLE HOLDER		WALL MOUNT	-
AC-9	LAVATORY	DURAVIT	031555 VERO VANITY BASIN	WHITE	DROP IN BASIN	-
AC-10	PAPER TOWEL DISPENSER	KATOM	ALPINE INDUSTRIES 480-AN WALL MOUNT	STAINLESS STEEL, NICKEL	WALL MOUNT	G.C. TO PROVIDE IN-WALL BACKING
(AC-11)	TRASH CAN	PARADIGM TRENDS	MADISON WASTE BASKET	ANTIQUE BRASS	-	
AC-12	CABINET				-	
AC-13	TOILET	тото	CT705-ELN WITH TMTILN32 CP FLUSH VALVE	WHITE	FLOOR	PROVIDE CHURCH #9500ssc OPEN FRONT COUNTOURED HEAVY DUTY SET
AC-14	FAUCET	DELTA	559LF-CZMPU	CHAMPAGNE BRONZE	SURFACE MOUNT	

NOTES:

- G.C. TO ENSURE THAT FLUSH VALVES ARE COORDINATED WITH GRAB BAR LOCATIONS.
 ALL FAUCETS SHALL CONFORM TO ASME/ANSI A1 12.18.1. PER CODE.



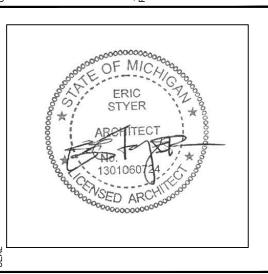
02 EMPLOYEE TOILET ELEVATION

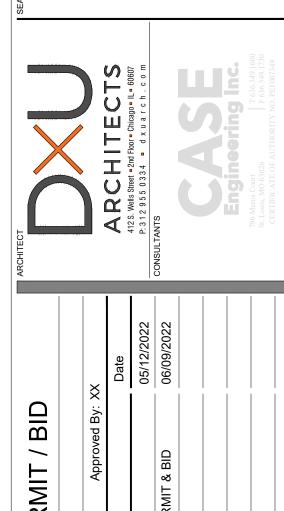


01 EMPLOYEE TOILET ELEVATION



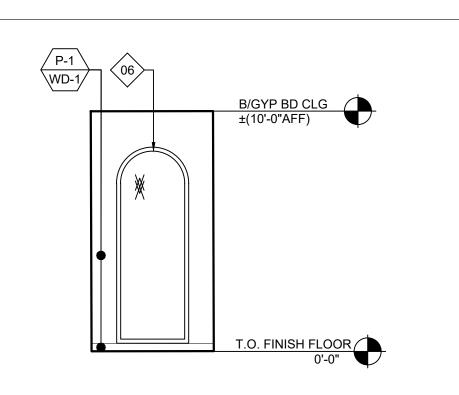
MUNICIPAL APPROVAL STAMP





RESTROOM PLAN ELEVATIONS & DETAILS

A5-31



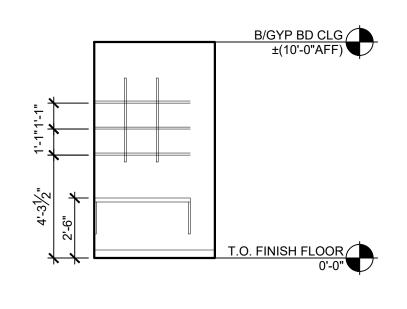
10 MIRROR HALL ELEVATION

P-4 P-1 WD-1

03

P-4 P-1 WD-1

07 CORRIDOR ELEVATION



09 MANAGER'S OFFICE ELEVATION

16

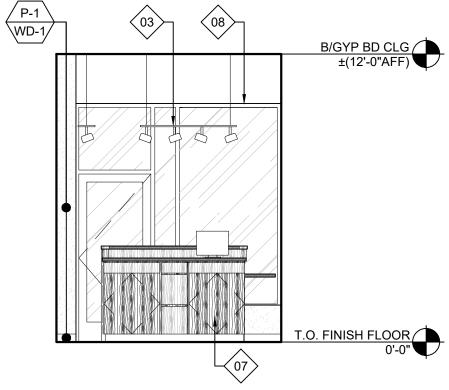
08 BREAKROOM ELEVATION

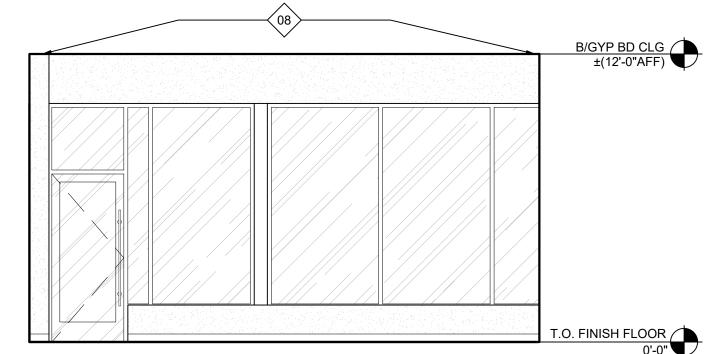
03

OPÉN BEYOND <u>DECK</u> ±(17'-9"AFF)

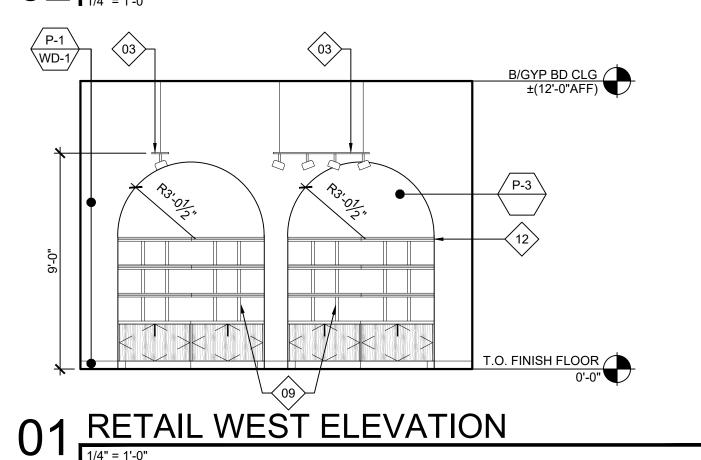
T.O. FINISH FLOOR 0'-0"

T.O. FINISH FLOOR 0'-0"

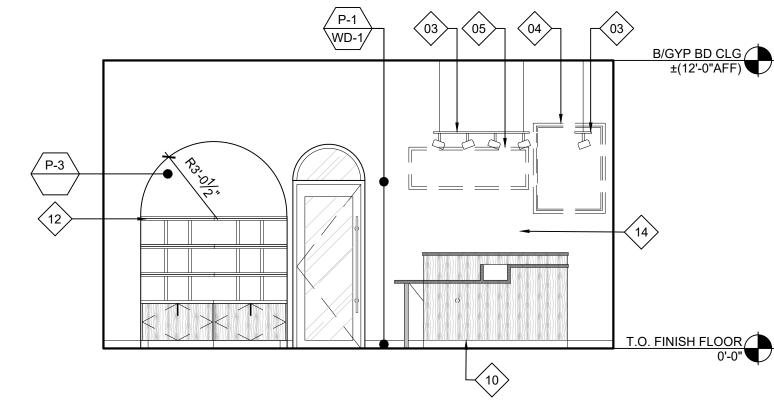




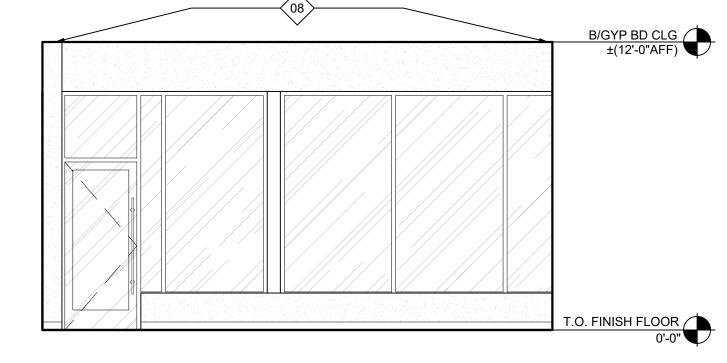
02 STOREFRONT ELEVATION



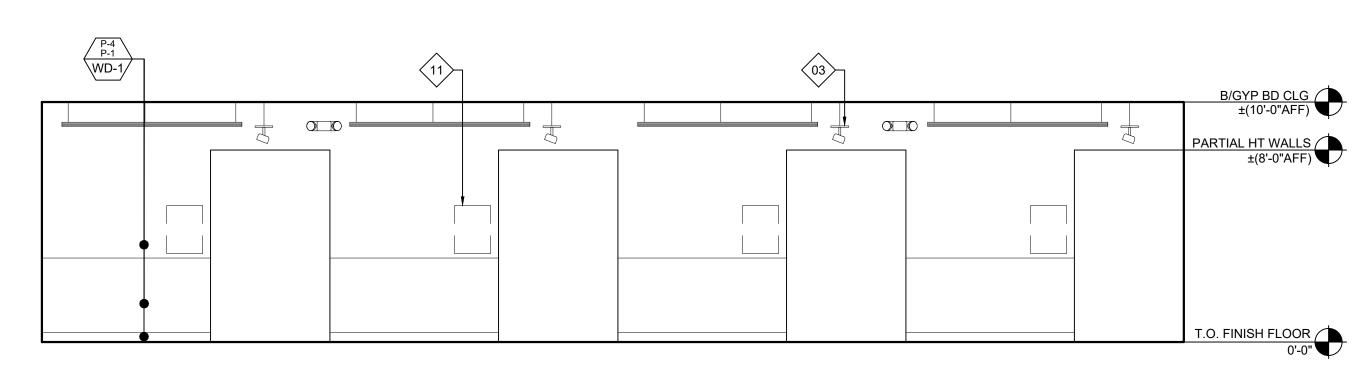
04 RECEPTION WEST ELEVATION



03 RECEPTION EAST ELEVATION



06 TREATMENT ROOM ELEVATION



B/GYP BD CLG ±(12'-0"AFF)

PARTIAL HT WALLS ±(8'-0"AFF)

05 TREATMENT ROOM ELEVATION

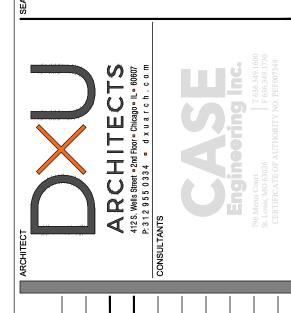
KEYNOTES

- TREATMENT ROOM BACK BAR FINISHES SEE DETAIL 1/A7-12 FOR MORE INFORMATION
- BENCH SEE DETAIL 07/A7-13 FOR MORE INFORMATION
- LIGHT FIXTURES SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION
- DIGITAL DISPLAY SHOWN DASHED FOR CLARITY. PROVIDE F.T. BLOCKING FOR WALL MOUNT. PROVIDE POWER.
- INTERIOR SIGNAGE, PROVIDE POWER & F.T. BLOCKING
- RECEPTION DESK. SEE A7-11 FOR MORE INFORMATION.
- 08 EXISTING STOREFRONT TO REMAIN.
- RETAIL SHELF SEE A7-13 FOR MORE INFORMATION
- RETAIL DESK. SEE A7-13 FOR MORE INFORMATION
- 11 18"X24" ARTWORK. PROVIDED BY OWNER & INSTALLED BY GC
- 12 PAINT FINISH TRANSITION LINE
- 13 MOP SINK
- 0NLINE PICK UP
- 15 EMPLOYEE FRIDGE
- 16 BREAKROOM MILLWORK AND COUNTER

CRANBROOK 890 W. EISENHOWER PKWY ANN ARBOR, MI 48103 ANN ARBOR-

MUNICIPAL APPROVAL STAMP





INTERIOR **ELEVATIONS**

A5-41

HEYDAY

BIGYP BD CLG
±(12-0"AFF)

T.O. FINISH FLOOR
0-0"

KEYNOTES

01 HEYDAY BLACK HALO LIT SIGNAGE MOUNTED ON STOREFRONT PANEL

02 EXISTING STOREFRONT TO REMAIN.

03 MURAL PAINTING ON A CUSTOM PANEL MOUNTED ONTO EXISTING FACADE

NOTE

VERIFY ALL PAINT COLORS, FINISHES AND RESPECTIVE LOCATIONS WITH OWNER

HEYDAY

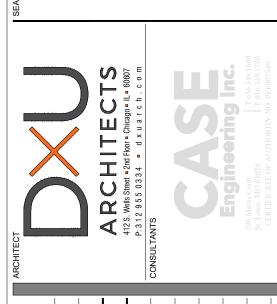
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PROJECT





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 Opect Number: 22-067

 Drawn By:
 Approved By: XX

 No.
 Issue
 Date

 95% REVIEW
 05/12/2022

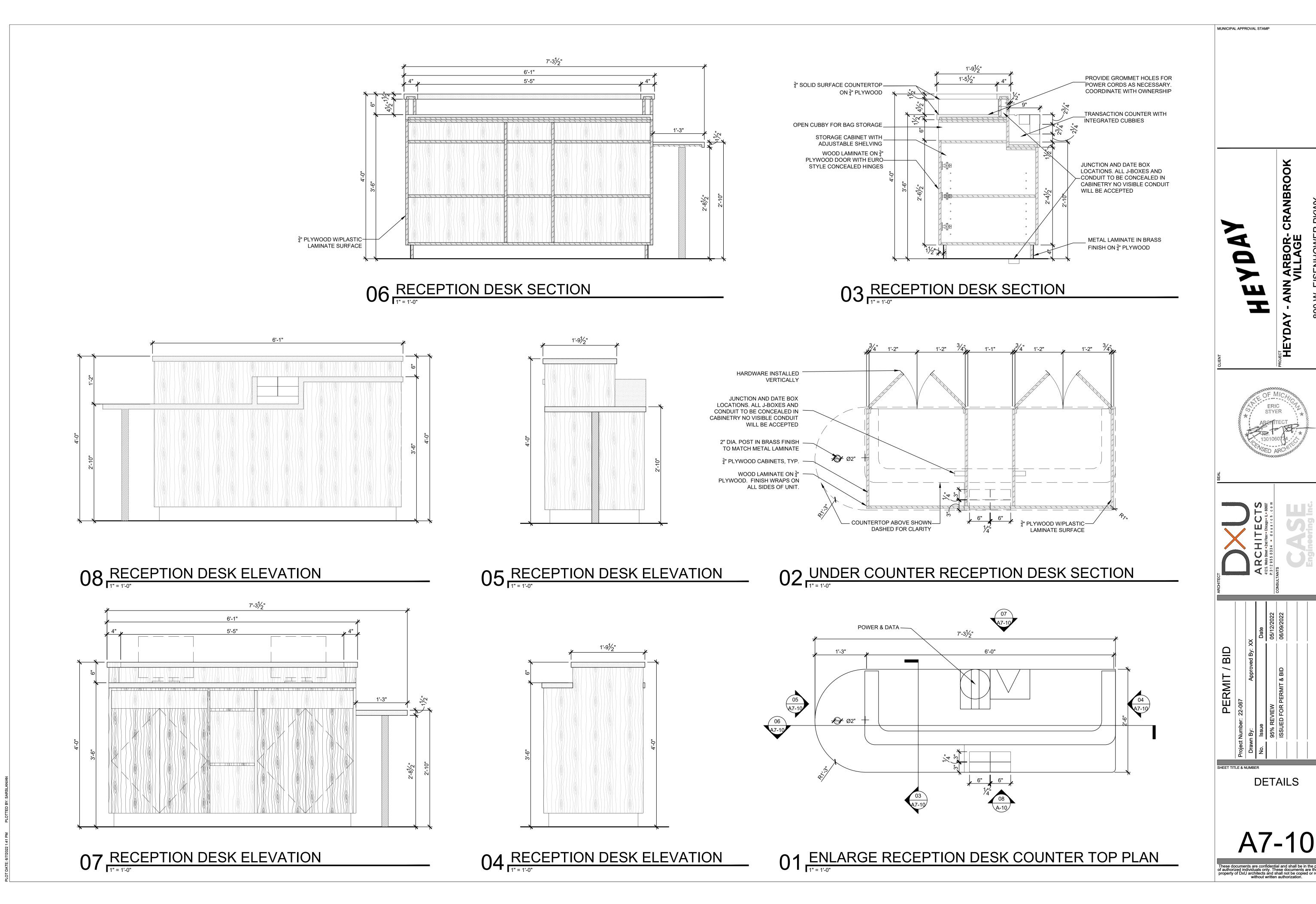
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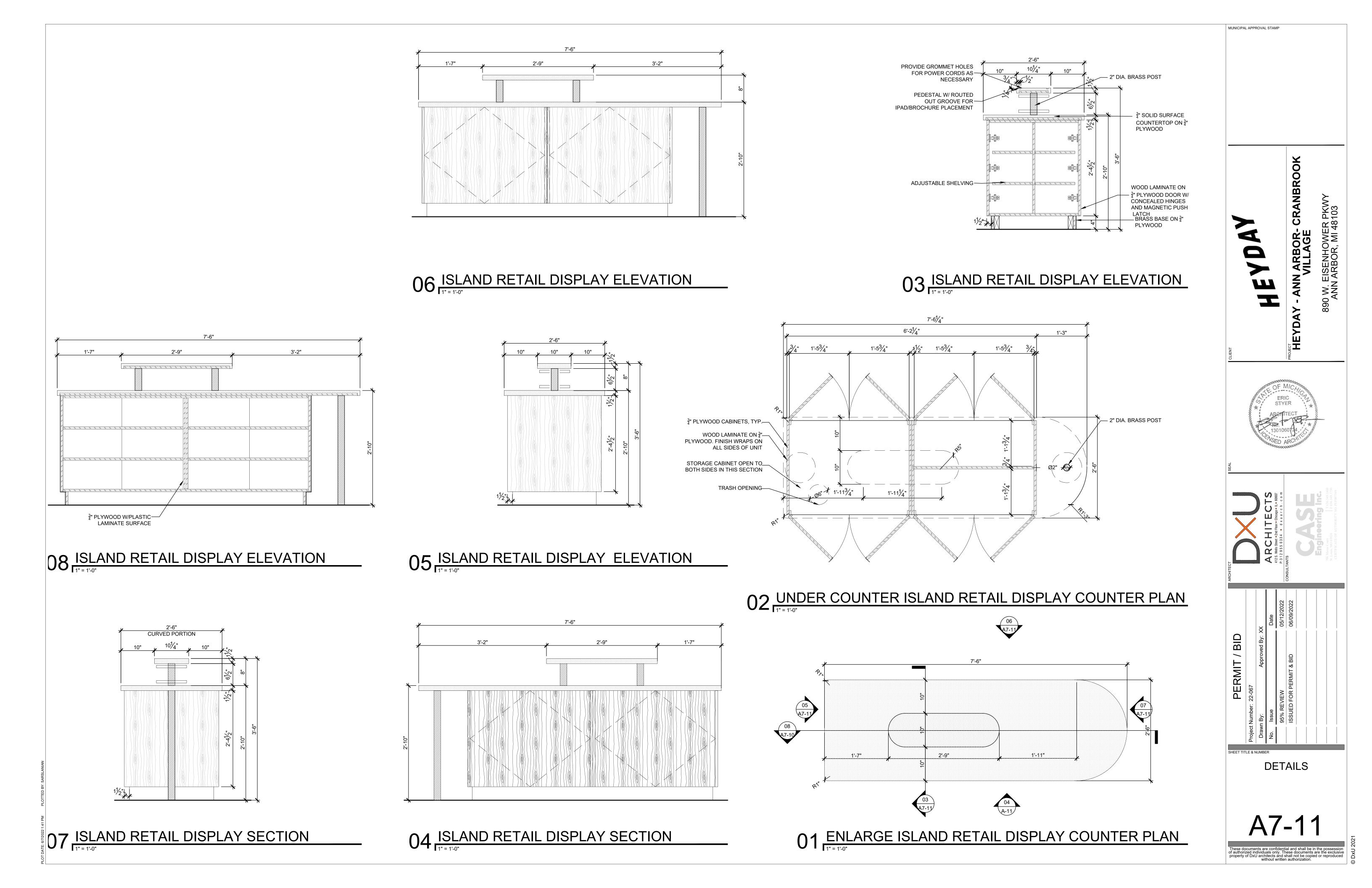
EXTERIOR ELEVATION

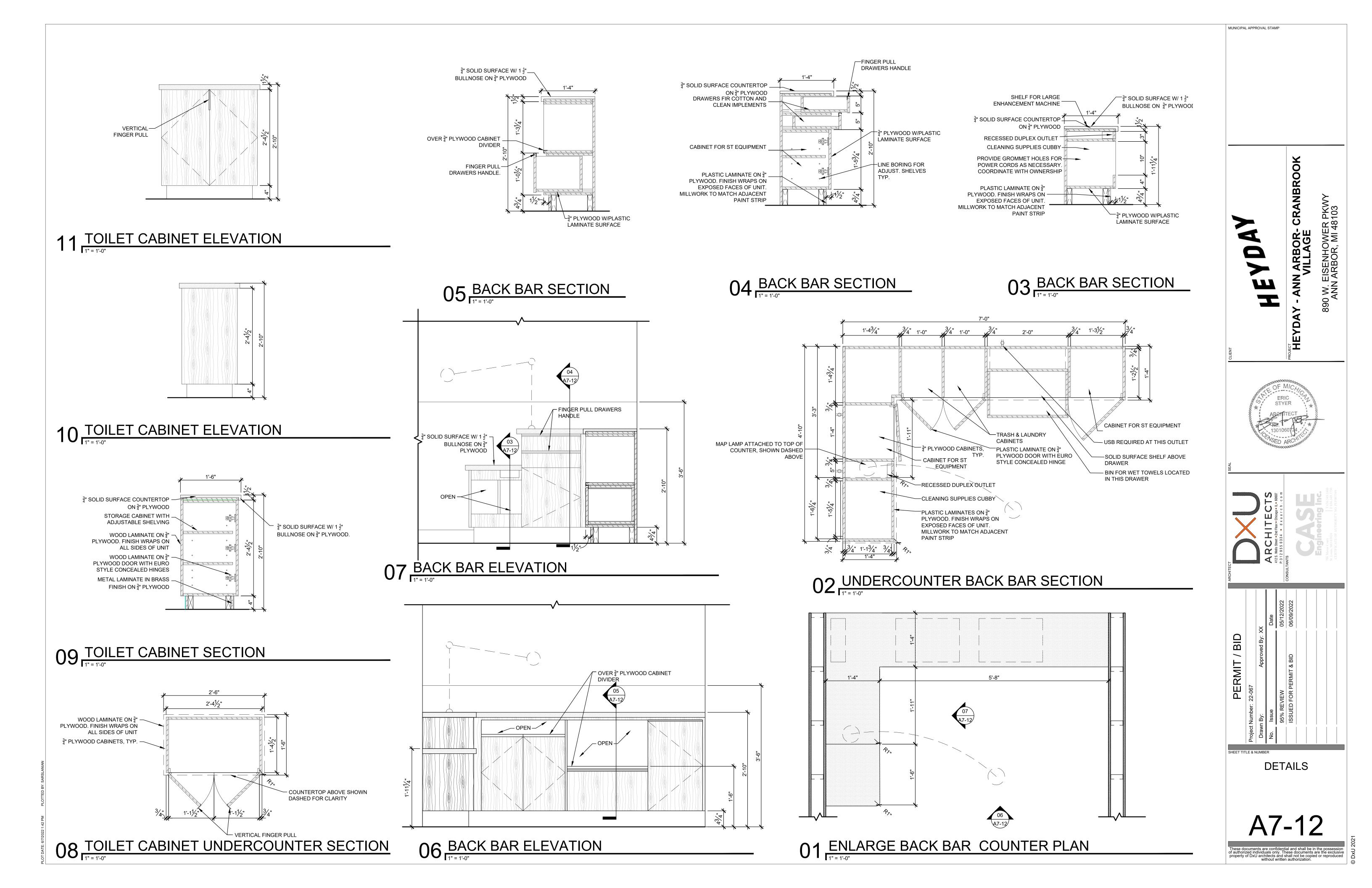
A6-41

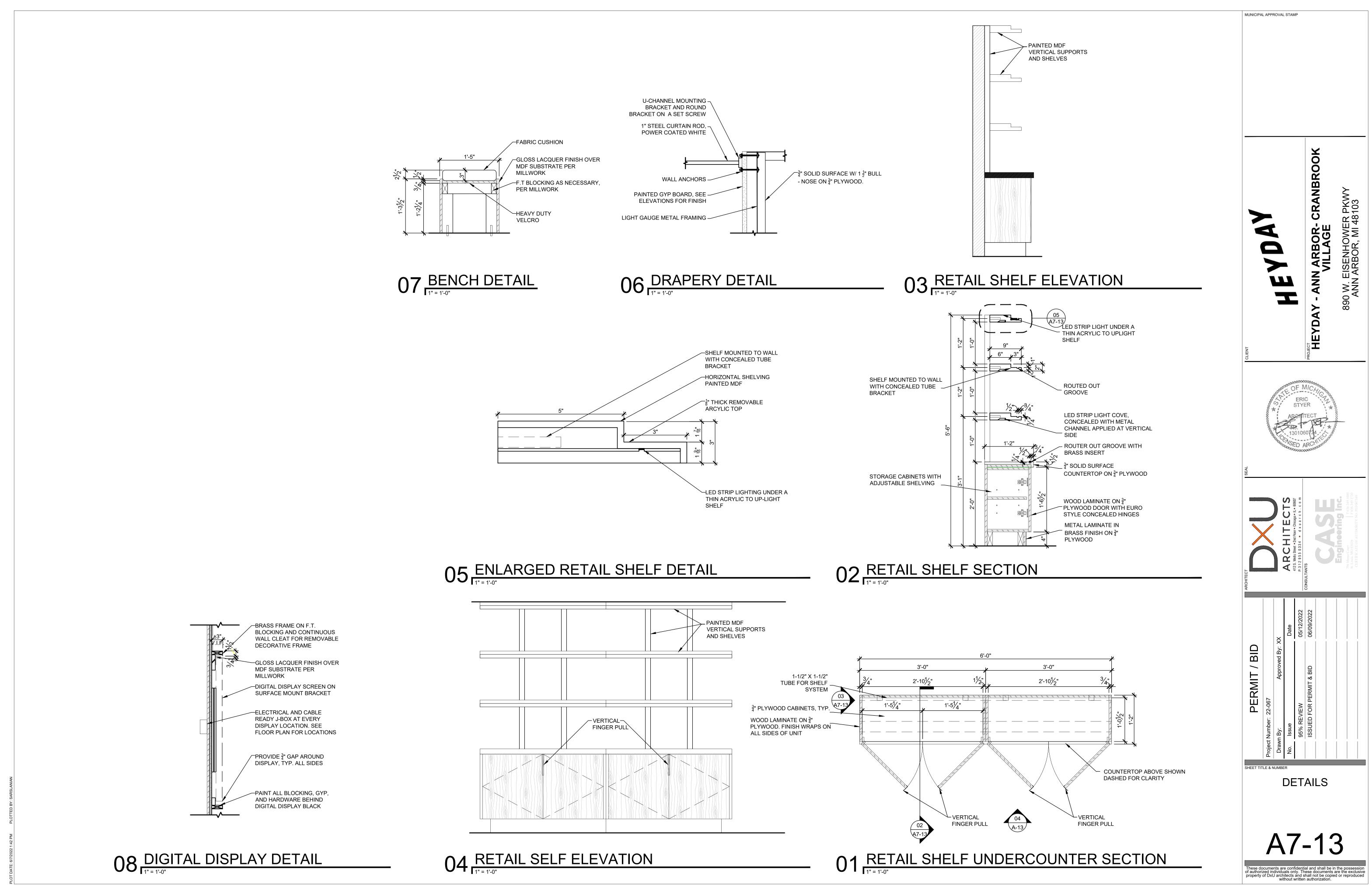
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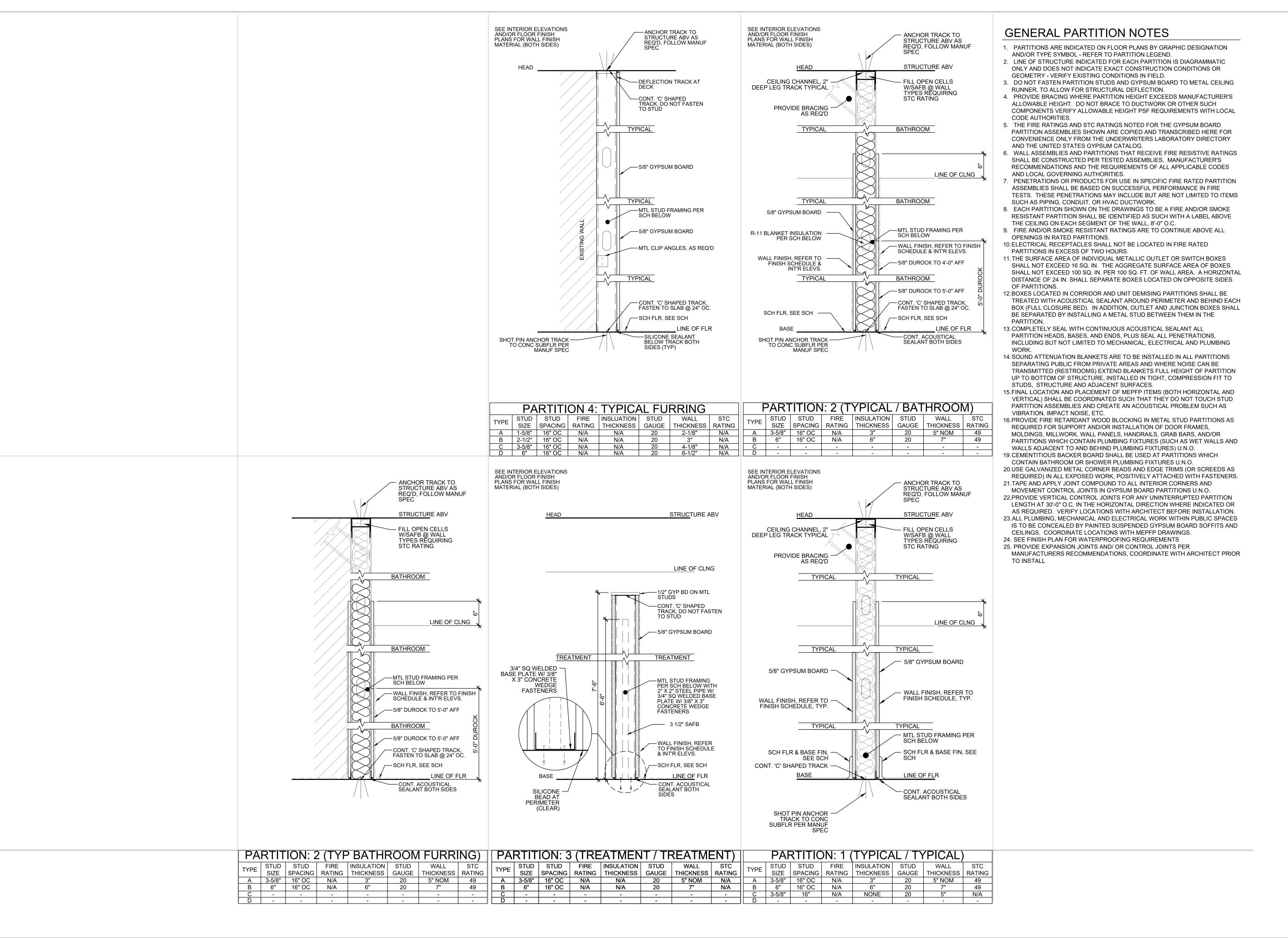
01 STOREFRONT ELEVATION











I ARBOR- CRANBRAVILLAGE

00K

MUNICIPAL APPROVAL STAMP

YDAY - ANN AI

ARCHITECT

A R C H I T E C T S

412 S. Wells Street = 2nd Floor = Chicago = IL = 60807
P: 312 955 0334 = d x u a r c h . c o m

CONSULTANTS

CONSULTANTS

To Mems Court

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 bject Number: 22-067
 Approved By: XX

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 Date

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 05/12/202

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 06/09/202

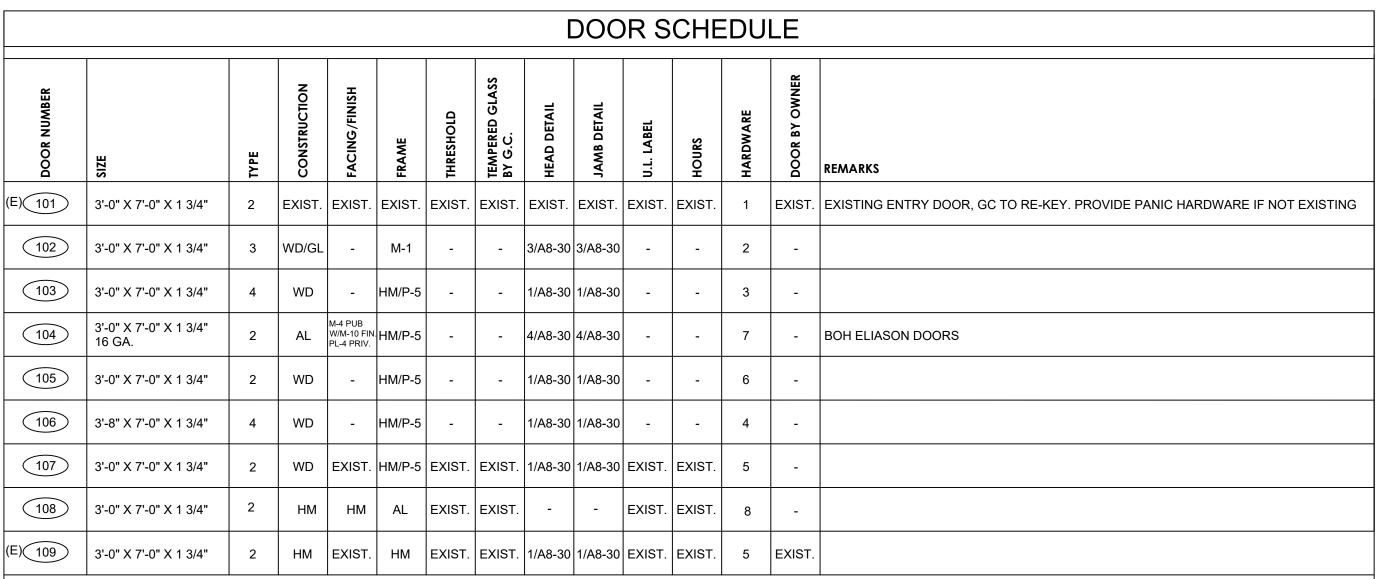
EET TITLE & NUMBER

PARTITION SCHEDULE

A8-10

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NOTES:

- TEMPERED GLASS REQUIRED IF GLAZING IS LESS THAN 18" A.F.F. OR ADJACENT TO DOORS. G.C. TO REPLACE ALL UNTEMPERED GLASS WITH TEMPERED GLASS AS REQUIRED.
- 2. KICKPLATES TO BE INSTALLED ON ACTION SIDE.
 3. PROVIDE ADA SIGNS PER CODE @ PUBLIC TOILET ROOM, SEE T1.4
- 4. TE TEMPERED, PT = PAINT, HM= HOLLOW METAL, ST = STAIN SC= SOLID CORE WOOD, WD = HOLLOW WOOD, AL = ALUMINUM, GL = GLASS, LDW = LESS DOOR WIDTH, SS = STAINLESS STEEL, EXST = EXISTING, STL
- 5. EXISTING DOOR TO BE RE-KEYED

HARDWARE SCHEDULE												
SET	LOCATION	QTY.	DESCRIPTION	MODEL#	FINISH	MANUFACTURER						
1	EXTERIOR FRONT ENTRY	- - - - -	CARNEGIE DOOR HANDLE CONCEALED OH CLOSERS PERMANENT CORE HINGES THUMB TURN MS HOOKBOLT LOCK & FACE PLATE	KT3001-1500-38-07 LCN 2030 CY-1 BH-1 CY-3 1850 FP-1	MATTE BLACK PAINTED 622 622 622 622 622 622	KEY TIGER LCN 2030 CY-1 BH-1 CY-3 1850 FP-1						
2	RETAIL AREA/ TREATMENT AREA	1 1 6 3	ROCKWOOD 18" PULL CONCEALED CLOSER HINGES SILENCER	RM5240 2010 SERIES 5BBI 4.5 X 4.5 SR64	BSP 693 622 622	- - - -						
3	ADA TOILET	3 1 1	HINGES PRIVACY SET/LEVER DESIGN KICK DOWN FLOOR STOP	5BBI 4.5 X 4.5 ND40S TLR H.B. IVES 452	626 606 -	SCHLAGE						
4	TOILET	3 1 1	HINGES PRIVACY SET/LEVER DESIGN KICK DOWN FLOOR STOP	5BBI 4.5 X 4.5 - H.B. IVES 452	626 606 -	BALDWIN 5137 ESTATE LEVER						
5	OFFICE	3 1 1	HINGES PRIVACY SET/LEVER DESIGN KICK DOWN FLOOR STOP	5BBI 4.5 X 4.5 - H.B. IVES 452	626 606 -	BALDWIN 5137 ESTATE LEVER - 5137-606-PRV						
6	UTILITIES STORAGE/CLOSET	3 1 1	HINGES PASSAGE KICK DOWN FLOOR STOP	5BBI 4.5 X 4.5 2137-606-PASS H.B. IVES 452	622 606 BLK	BALDWIN 5137 ESTATE LEVER						
7	ELIASON SWING BOH DOOR (PER LEAF)	1 2 1	ELIASON HARDWARE FLOOR BUMPERS 1'-9" x 10" WINDOW		STAINLESS STEEL FAUX FINISHED BLACKENED STEEL BY G.C.	BY DOOR MANUFACTURER						
8	EXTERIOR BACK ENTRY/EXIT	3 1 1 1 1	HINGES PANIC HARDWARE SURFACE CLOSER KICK PLATE DOOR SWEEP	5BBI 4.5 X 4.5 NRP DETEX V40 X W 4040XP HOLD OPEN 8400 8" X 34" LDW B4E 97V	626 626 626 626 626	- - - -						

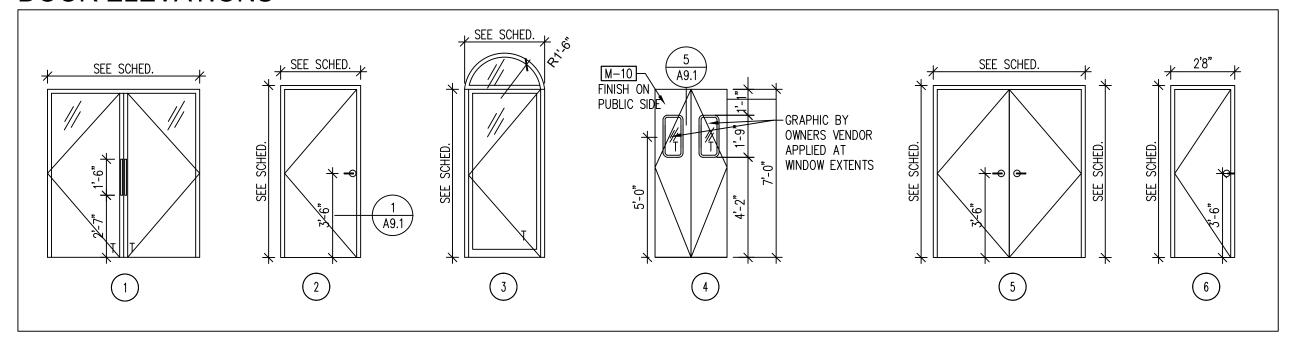
HARDWARE SCHEDULE NOTES:

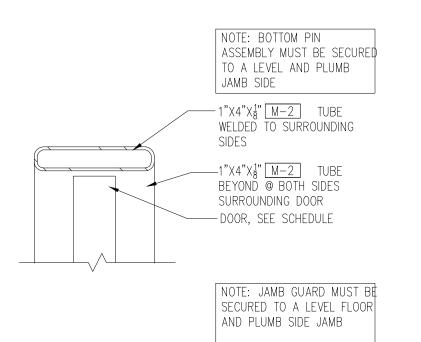
- . SUPPLY HARDWARE IN ACCORDANCE WITH BBHMA GRADE 1 QUALITY STANDARDS.
- 2. HARDWARE FINISH TO BE BRUSHED STAINLESS.
- 3. WOOD DOORS TO BE PAINTED.
- DOOR FRAMES TO BE PAINTED.
 ALL DOORS AND HARDWARE TO COMPLY WITH ANSI A117.1-404. ADJUST CLOSERS AS REQUIRED.
- ALL DOORS AND HARDWARE TO COMPLY WITH ANSI ATTY: 1-404. ADJUST CLOSERS AS REQUIRED.
 PANIC HARDWARE IN ACCORDANCE WITH ALL APPLICABLE CODES TO MATCH EXISTING STOREFRONT
- 7. CAULK BOTH SIDES OF ALL DOOR FRAMES.

 8. POCKET DOOR FRAMES SIZE SUCH THAT TH
- 8. POCKET DOOR FRAMES SIZE SUCH THAT THE CLEAR OPENING WITH THE DOOR PULL IS 32" MIN. AND CLEARANCE BETWEEN PULL AND THE FRAME IS 1.5" MIN. 9. ALL INTERIOR DOOR FRAMES TO BE PAINTED HOLLOW METAL UNLESS NOTED OTHERWISE.
- ALL INTERIOR DOOR FRAMES TO BE PAINTED HOLLOW METAL UNLESS NOTED OTHERWIS
 FOR LOCKING POCKET DOORS USE ADA COMPLIANT C-92L-HLDP BY KNC OR EQUAL.
- 10. FOR LOCKING POCKET DOORS USE ADA COMPLIANT C-92L-HLDP BY KNC OR EQUAL.

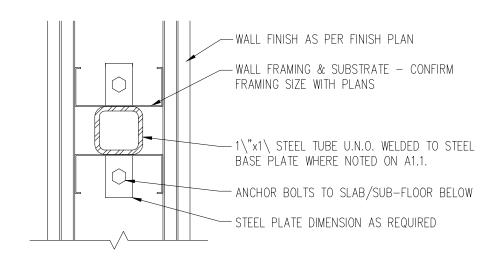
 11. FOR LOCKING SURFACE SLIDING DOORS USE ADA COMPLIANT C-94BL-HLDP BY KNC OR EQUAL.
- 12. ALL DOORS ON THE ACCESSIBLE ROUTE OR CIRCULATION PATH TO BE TESTED FOR A MAX OPENING FORCE OF 5 LBS.

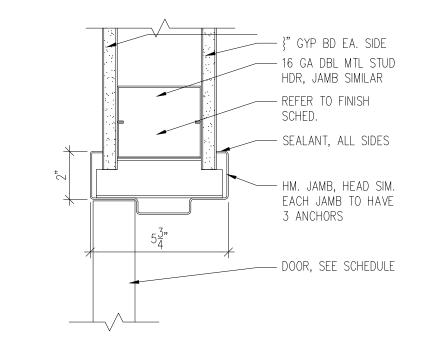
DOOR ELEVATIONS



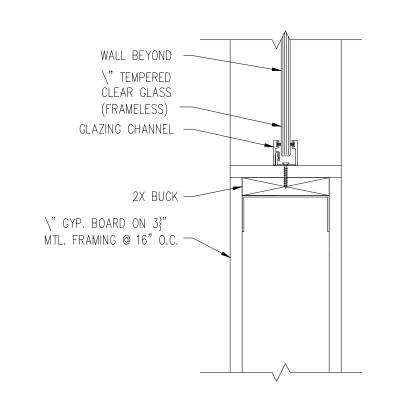


04 HEAD / JAMB METAL

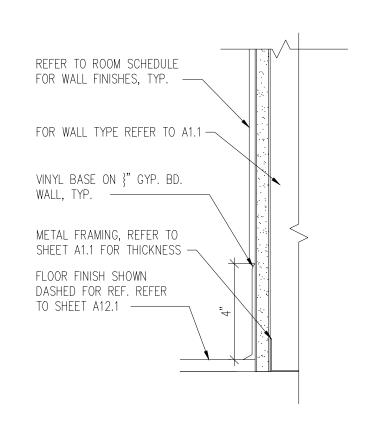




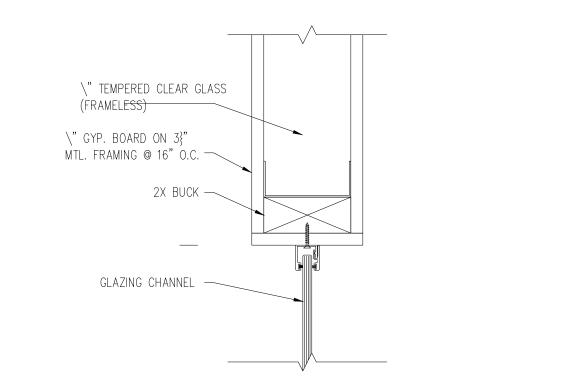
07 SUPPORT DETAIL



03 HEAD / JAMB SIMILAR MTL

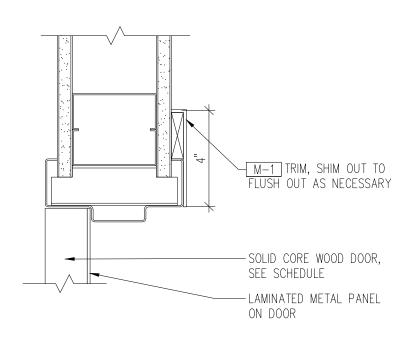


06 WINDOW SILL DETAIL



05 WOOD HEAD DETAIL

02 TYPICAL BASE DETAIL



01 HEAD / JAMB SIMILAR WOOD

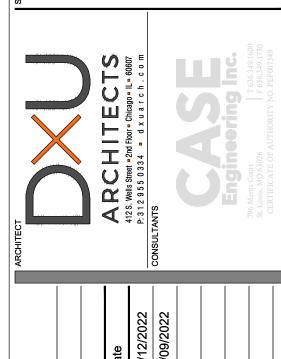
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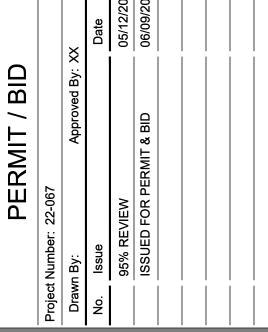
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VILLAGE

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PROJECT PROJEC







DOOR SCHEDULE & DETAILS

A8-30

			FINISI	H SCHE	EDULE	
CONC	ERETE			• •		
KEY	MATERIAL	MANUFACTURER	COLOR NUMBER	NUMBER /SIZE	FINISH	NOTES AND LOCATION
CS-1	CONCRETE TOPPING	ARDEX OR EQUAL	COLON NOMBER	/SIZE -	MOTTLING AND VARIATION TO ACHIEVE MOVEMENT THROUGHOUT. SEALANT REQUIRED.	FLOORING THROUGHOUT
WOOI	D					
WD-1	WOOD BASE	G.C.	TO MATCH PL-1	4"		WOOD BASE THROUGHOUT
WD-2	PAINTED MDF	MILLWORKER	PAINTED WHITE	-	COMMERCIAL GRADE WATERBOURNE MATTE SEALER. SEAL ALL SIDES, TYP.	SHELVING & VERTICAL SUPPORTS @ RETAIL SHELVES. PROVIDE SAMPLE FOR ARCHITECT'S APPROVAL.
TILE						
T-1	CERAMIC WALL TILE	EMSER TILE	HUES / EBONY	3" x 10"	GROUT: MAPEI BONE _" JOINTS	ADA TOILET ROOM WAINSCOT
T-2	WALL TILE	NEMO TILE	METRO / TENDER TAN	2" x 8"	GLOSSY GROUT: MAPEI BONE _" JOINTS	EMPLOYEE TOILET ROOM WAINSCOT
PAINT	Ţ					
P-1	PAINT	BENJAMIN MOORE	CHANTILLY LACE OC-65	-	EGGSHELL	WALLS & CEILINGS
P-2	PAINT	BENJAMIN MOORE	BALBOA MIST OC-27	-	SEMI-GLOSS	INTERIOR DOORS
P-3	PAINT	BENJAMIN MOORE	BASKING RIDGE BEIGE 1158	-	MATTE	RETAIL ARCHES
P-4	PAINT	BENJAMIN MOORE	ROMAN SHADE 1228	-	EGGSHELL	TREATMENT ROOM WAINSCOT
P-5	PAINT	BENJAMIN MOORE	GALAPAGOS GREEN 475	-	EGGSHELL	TREATMENT ROOM WAINSCOT
P-6	PAINT	BENJAMIN MOORE	BLUE NOTE 2129-30	-	EGGSHELL	
P-7	PAINT	BENJAMIN MOORE	SOOT 2129-20	-	EXTERIOR SEMI-GLOSS	STOREFRONT
P-8	MASONRY PAINT	ROMABIO	TO MATCH P-1	-	MASONRY FLAT	
META	LS					
M-1	SCHLUTER	SCHLUTER SYSTEMS	SCHIENE / BRASS	-		MATERIAL TRANSITIONS
M-2	SCHLUTER	SCHLUTER SYSTEMS	DILEX / BRASS	-		
M-3	METAL FINISH	STYLMARK	BUFFED SATIN BRASS	-	FINISH CODE: 121	BRASS FINISH THROUGHOUT
M-4	RUNNING TRIM, ORNAMENTAL METAL		BLACKENED STEEL	-	APPLY 2 COATS CLEAR POLYURETHANE FINISH	BOH WALL BASE, ELIASON DOORS
MISC.					T INIOTT	
AC-1	ACRYLIC	3M OR EQUAL	CLEAR			CUBBY DIVIDER @ RECEPTION DESK
ACT-1	ACOUSTICAL CEILING TILE	CERTAINTEED OR SIMILAR	ECOPHON FOCUS DG - SEMI REVEALED GRID w/ FOCUS WING FRAME WHITE	30" x 30"		TREATMENT AREA
ACY-1	EPOXY RESIN	DUR-A-FLEX	CUSTOM BLEND TERAZZO LOOK	-		TREATMENT AREA FLOORING OPTION
B-1	BRICK VENEER	BRICKS, INC.	ANTHRO RECLAIMED BRICK FLATS NOMINAL	-	PAINTED w/ P-8	
CB-1	BAG HOOK		3" BRUSHED BRASS BIN PULL	3"		ONLINE PICKUP
CB-2	ROOM NUMBERS		AURELE HOUSE NUMBER BRUSHED BRASS	4" H		TREATMENT ROOM
CM-1	WALK-OFF MAT	MATS INC. OR EQUAL	LOOSE LAY NATURAL COLOR			
EX-1	EXTERIOR STOREFRONT SYSTEM	KAWNEER OR SIMILAR	MATTE BLACK ANODIZED	-		STOREFRONT
F-1	FABRIC	KRAVET	SMART - 35121-111 w/ BRUSHED BRASS GROMMETS	-		TREATMENT ROOM DRAPERY FABRIC NFPA 701 TREATMENT REQUIRED
F-2	FABRIC	KRAVET	CHESSFORD / THYME	-		ENTRY WAITING BENCH FABRIC
FS-1	STUCCO	GC OR EXISTING	TO MATCH P-1	-		
HDW-1	CABINET HARDWARE	McMASTER-CARR	CHEMICAL RESISTANT SLIPPERY PTFE 90 DEGREE ANGLES COLOR: WHITE	-		TREATMENT ROOM BACK BAR CABINET FINGER PULL
	CABINET HARDWARE	McMASTER-CARR	SLIPPERY UHMW POLYETHYLENE U-CHANNELS COLOR: WHITE	-		TREATMENT ROOM BACK BAR CABINET DOOR TRIM
	CABINET HARDWARE	RICHELIEU	BP9898128166 SATIN GOLD	5-13/16"		MILLWORK CABINET FINGER PULLS INSTALLED VERTICALLY
PL-1	PLASTIC LAMINATE	FORMICA	8843 NATURAL ASH	-		CABINETRY THROUGHOUT
PL-2	PLASTIC LAMINATE	ABET LAMINATI	1826 CAPPUCCINO	-	SEI FINISH	TREATMENT ROOM BACKBAR LAMINATE CABINETRY / BASE OPTION
PL-3	PLASTIC LAMINATE	ARBORITE	S583 FERN	-	STANDARD FINISH	TREATMENT ROOM BACKBAR LAMINATE CABINETRY / BASE OPTION
PL-4	PLASTIC LAMINATE	ABET LAMINATI	879 SEI	_	MATTE FINISH	ELIASON DOOR
PL-5	PLASTIC LAMINATE	FORMICA	949 WHITE	_		BACK OF HOUSE COUNTERTOPS
RF-1		ARMSTRONG	COALESCE NONA	18" x 18"		BOH FLOORING
SS-1	SOLID SURFACE	CORIAN	ST776 RAVENNA RAIN CLOUD	-		TOILET ROOM VANITY TOP
SS-2	SOLID SURFACE	CORIAN	DESIGNER WHITE	_		COUNTERTOP THROUGHOUT
WC-1	WALLCOVERING		CUSTOM HEYDAY BRAND GRAPHIC	_		WALLS ABOVE WAINSCOT
VVC-1	VVALLOUVLINING		WALLCOVERING			

	FIXTURE I	LEGEND		NOTES:
SYMBOL	DESCRIPTION	LAMP/ LENS	COMMENT	1. REUSE EXISTING EM/EX FIXTURES AS NECESSARY.
<u>▽ ▽</u>	LUMENTURE LIGHTING ADJUSTABLE TRACK HEAD T50-30H-1100-22-W-J FINISH: WHITE	15 WATTS 3000K		REFER TO A1-21 FOR SIGNAGE LOCATIONS.
φ φ φ φ L-2	TIM RUNDLE TR SUSPENSION LAMP MODEL: CATALOG#: COR-LS4LEF435LTGC(950)UNVDBSILVERACSD FINISH: BLACK/ MATTE BULBS	VOLTAGE: LAMP: 6W WATT, 2700KI MOUNTING: 6'-0" AFF	LOCATION: SEE RCP AND ELEC. DWGS.	3. NO SUBSTITUTIONS ON FIXTURE TYPE OR MFR. U.N.O. 4. ALL FIXTURES TO BE DIMMABLE. 5. CONTACT REP/NAME AS NOTED PER
<u>L</u> -3	NOVAFLEX DESIGN 160 LED STRIP LIGHT MODEL: NF-DS-O-160-24V-3000K	VOLTAGE: 24V 3000K 4.4 WATTS / LINEAR FOOT	LOCATION: SEE RCP AND ELEC. DWGS.	FIXTURE AS CONTACT NAME IS FAMILIAR W/ CUSTOM APPLICATIONS ON JOB.
/ L-4	KUZCO LIGHTING VEGA MINOR LED LINEAR SUSPENSION MODEL: CATALOG: FINISH: GOLD	VOLTAGE: LAMP: 40 WATT, 3000K MOUNTING: MOUNTED 8'-0" AFF OPTICS: STANDARD DIFFUSER	LOCATION: SEE RCP AND ELEC. DWGS.	6. LUMINAIRES MUST BE CHECKED IN AN ACCOUNTED FOR BY CONTRACTOR. ANY MISSING PARTS OR DAMAGES MUST BE REPORTED LIGHTING DISTRIBUTOR WITHIN 48 HOURS.
O L-5	ROUND DOWNLIGHT MFR: ALPHABET BY LEDRA BRANDS, INC. MODEL: ALPHABET ECO NU4 RD DOWNLIGHT CATALOG#:ALP-NU4RDSW20LM35K80D60NLUNVDIM10(ELV)NCMCMC FINISH: LED STATIC WHITE, MATTE CHROME TRIM/BEZEL DIMENSIONS: 4" DIAMETER	VOLTAGE: 120-277V LAMP: LED STATIC WHITE 1600 LUMENS, 3500K, 80 CRI MOUNTING: NEW CONSTRUCTION W/ CEILING FITTING PLATE	LOCATION: SEE RCP. IP65 WITH LENS RATED.	7. ALL VENDORS TO ENSURE UL CERTIFICATION FOR ALL FIXTURES.
L-6	4' LED STRIP LUMINAIRES SERIES: TCPGPS4UZDA8XXK		LOCATION: SEE RCP. BACK OF HOUSE/EMPLOYEE BREAK ROOM	
∑ L-7	LUMENTURE LIGHTING JT SINGLE CIRCUIT LINE VOTAGE TRACK w/ MONO-POINT ADAPTER JA-18 FINISH: W	15 WATTS 3000K	LOCATION: MONOPOINT ABOVE RETAIL ISLAND DISPLAY	
≅ X1	EXIT SIGN MFR: COMMERCIAL LIGHTING INDUSTRIES MODEL: PLELRXTEU EDGELIT THERMOPLASTIC EXIT SIGN CATALOG#: BEA-PLEXRXTEU1RMAEM FINISH: SINGLE FACE, RED LETTER, MIRROR PANEL, SILVER HOUSING PANEL DIMENSIONS: 10"X 147/16" - SEE SPEC.	VOLTAGE: 120/277 4.8V BATTERY BATTERY: 90 MIN EM BATTERY BACKUP	LOCATION: SEE RCP AND ELEC. DWGS.	
EM	EMERGENCY EGRESS LIGHTS MFR: EXITRONIX MODEL: LED-95 CATALOG#: LED-95-WH-G2 FINISH: WHITE	VOLTAGE: 120-277VAC, 60 HZ WATTAGE: 1.5 W LED LAMP HEADS MOUNTING: WALL MOUNT	LOCATION: SEE RCP AND ELEC. DWGS.	
===	SIGNAGE	-		
7 ∇ Δ Δ T1	LUMENTURE LIGHTING ADJUSTABLE TRACK HEAD T50-30H-1100-22-W-J FINISH: WHITE			
□ _{L8}	KUZCO LIGHTING VEGA WALL LIGHT FINISH: GOLD	WATTAGE: 15 WATT, 3000K MOUNTING: 5'-0" AFF FROM CENTER		

MUNICIPAL APPROVAL STAMP

HEYDAY

ABOUTTECT

A R C H I T E C T S

412 S. Wells Street = 2nd Floor = Chicago = IL = 60607
P. 3 1 2 9 5 5 0 33 4 = d x u a r c h . c o m

CONSULTANTS

CONSULTANTS

PS Merus Court
PS Merus Court
SEL Louis, MO GND/S
CERTIFICATE OF AUTHORITY NO PERO7349

SHEET TITLE & NUMBER

FINISH & LIGHTING SCHEDULE

A9-10

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T DATE: 6/70002 1-50 DM DI OTTED RV. SABSI ANIAN

DxU 2021

- BIDDERS SHALL BE PART OF THESE SPECIFICATIONS. THE WORD "PROVIDE" AS USED HEREIN MEANS TO FURNISH AND INSTALL COMPLETE
- THE TERM "CONTRACTOR" AS USED HEREIN MEANS ANY CONTRACTOR OR SUBCONTRACTOR CONTRACTED TO

APPLICABLE LOCAL ORDINANCES, STATE LAWS AND FEDERAL LAWS.

PERFORM WORK INCLUDED IN AND DEFINED BY THIS SECTION. MECHANICAL WORK SHALL BE PROVIDED IN STRICT COMPLIANCE WITH THE INTERNATIONAL MECHANICAL CODE, INTERNATIONAL ENERGY CONSERVATION CODE, NATIONAL ELECTRICAL CODE (NEC), AND ALL

- A. THOROUGHLY REVIEW THE BID INSTRUCTIONS INCLUDING ALL CIVIL, ARCHITECTURAL, STRUCTURAL, AND MEP CONSTRUCTION DOCUMENTS. OBTAIN AND THOROUGHLY EXAMINE THE MANUFACTURERS'S WRITTEN INSTALLATION INSTRUCTIONS, DETAILS, AND REQUIREMENTS FOR THE SCHEDULED AND SPECIFIED EQUIPMENT AND MATERIALS. FOR AMBIGUOUS, CONTRADICTORY, OR CONFLICTING ITEMS WITHIN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL REQUEST CLARIFICATION IN A WRITTEN "REQUEST FOR INFORMATION" (RFI), AT LEAST FIVE (5) WORKING DAYS PRIOR TO BID DATE. RFI NOT CLARIFIED PRIOR TO BID SHALL BE PROVIDED PER THE ARCHITECT (ENGINEER) IN STRICT ACCORDANCE WITH THE MOST STRINGENT MATERIALS, EQUIPMENT, AND SCOPE OF WORK.
- EXISTING CONDITIONS: THE CONTRACT DOCUMENTS ARE BASED ON INFORMATION PROVIDED TO CASE ENGINEERING AT THE TIME OF DESIGN. THIS CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO: EXISTING HVAC SYSTEM LOCATIONS, EXISTING DUCT AND PIPING LAYOUTS, CLEARANCES, ETC. REPORT IN WRITING ANY DISCREPANCIES TO THE ARCHITECT (ENGINEER) AT LEAST FIVE (5) BUSINESS DAYS PRIOR TO BID. DISCREPANCIES NOT CLARIFIED PRIOR TO BID SHALL BE PROVIDED PER THE ARCHITECT (ENGINEER) IN STRICT ACCORDANCE WITH THE MOST STRINGENT MATERIALS, EQUIPMENT,
- IF THE CONTRACTOR BELIEVES THE DRAWINGS AND SPECIFICATIONS CONFLICT WITH CODE REQUIREMENTS, IMMEDIATELY NOTIFY THE ARCHITECT (ENGINEER) IN WRITING.
- NO ALLOWANCES WILL BE MADE DUE TO CONTRACTOR'S UNFAMILIARITY WITH THE CONSTRUCTION DOCUMENTS OR FOR THE FAILURE OF THE CONTRACTOR TO OBTAIN CLARIFICATIONS PRIOR TO BID
- VISIT THE JOB SITE AND THOROUGHLY INVESTIGATE CONDITIONS. THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.
- REFER TO APPLICABLE CODES CITED IN CONSTRUCTION DOCUMENTS, EXAMINE GOVERNING STATE AND LOCAL CODES, AND LOCAL REGULATIONS AND ORDINANCES, AND PROVIDE ALL EQUIPMENT AND INSTALLATION IN STRICT ACCORDANCE WITH SAME
- REFER TO CONSTRUCTION DOCUMENTS FOR SCHEDULED AND SPECIFIED MATERIALS AND EQUIPMENT INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND

A. SUBMISSION OF A BID ACKNOWLEDGES THAT THE CONTRACTOR HAS REVIEWED THE BID INSTRUCTIONS, HAS VISITED THE SITE, EXAMINED ALL CONSTRUCTION DOCUMENTS, AND AGREES TO ALL ITEMS AND CONDITIONS WITHIN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR'S BID SHALL INCLUDE ALL MECHANICAL WORK IN THE CONSTRUCTION DOCUMENTS, INCLUDING MECHANICAL WORK RELATED TO EQUIPMENT FURNISHED/PROVIDED BY OTHERS.

A. SECURE AND PAY FOR ALL PERMITS, LICENSES, AND INSPECTIONS REQUIRED BY THE AHJ FOR THIS WORK.

A. MANUFACTURERS' EQUIPMENT AND MATERIALS SCHEDULED, NOTED, AND SPECIFIED IN THE CONSTRUCTION DOCUMENTS ARE THE DESIGN STANDARD. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT OR ENGINEER. IN BIDDING, DO NOT ASSUME ACCEPTANCE OF SUBSTITUTIONS. CONTRACTOR MUST STATE IN SUBSTITUTION REQUEST: "PROPOSED SUBSTITUTIONS ARE EQUAL OR OF HIGHER QUALITY, EFFICIENCY AND DEPENDABILITY COMPARED TO THE SPECIFIED EQUIPMENT AND MATERIAL. CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ADDITIONAL ENGINEERING COSTS AND COSTS TO OTHER CONTRACTORS DUE TO SUBSTITUTIONS." IF DEEMED NECESSARY BY THE ARCHITECT OR ENGINEER, SUBSTITUTIONS WHICH ARE NOT APPROVED OR NOT EQUAL TO DESIGN STANDARD SHALL BE REMOVED AND THE SCHEDULED, NOTED, AND SPECIFIED EQUIPMENT AND MATERIALS SHALL BE INSTALLED AT CONTRACTOR'S EXPENSE. SUBMITTING CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ADDITIONAL ENGINEERING COSTS AND COSTS TO OTHER CONTRACTORS DUE TO SUBSTITUTIONS.

- A. ALL PERFORMANCE OF CONSTRUCTION SHALL BE AS REQUIRED BY THE PACE OF THE GENERAL CONSTRUCTION, AS SCHEDULED BY THE GC. PROVIDE COMPLETE INFORMATION AND FULL COOPERATION WITH OTHER CONTRACTORS AND TRADES, AS REQUIRED FOR THE TIMELY COMPLETION AND COORDINATION OF THE COMPLETE PROJECT.
- B. PROVIDE ALL TESTS AND INSPECTIONS REQUIRED BY AHJ.
- PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE PROJECT COMPLETION.

- A. PROVIDE PERMIT(S), INSPECTIONS, FINAL CERTIFICATE(S) OF INSPECTION BY AHJ, PERMIT AND INSPECTION FEES, AND ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR A COMPLETE AND FULLY OPERATING
- INSTALL ALL WORK AND EQUIPMENT RIGID, DEAD LEVEL, PLUMB, AND TRUE-TO-LINE. UNLESS NOTED OTHERWISE, SUPPORT AND MOUNTING OF EQUIPMENT, DUCT, PIPING, ETC., ARE THIS CONTRACTOR'S MEANS AND METHODS. THE CONTRACTOR SHALL UNDERSTAND THE SPECIFIED AND SCHEDULED EQUIPMENT AND MATERIALS AND MEANS AND METHODS OF INSTALLATION. THIS CONTRACTOR SHALL PROVIDE ALL ACCESSORIES REQUIRED FOR PROPER SUPPORT WHETHER SHOWN ON THE DRAWINGS OR NOT. IF SUPPORTS ARE REQUIRED, CONTRACTOR SHALL SUBMIT DRAWINGS TO THE ARCHITECT FOR APPROVAL
- PROVIDE ACCESSORY MOUNTING HARDWARE INCLUDING BUT NOT LIMITED TO STRUCTURAL STEEL, STRUT SYSTEMS, ALL THREAD RODS, AND BRACES, AS REQUIRED TO MOUNT EQUIPMENT, PROVIDE STEEL SHAPES AND FRAMES TO SUPPORT EQUIPMENT WHERE NEEDED. ALL SYSTEMS SHALL BE SUPPORTED INDEPENDENT OF AND ISOLATED FROM EQUIPMENT VIBRATION.
- D. PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' PRINTED INSTALLATION AND MAINTENANCE LITERATURE. COMPONENTS REQUIRING PERIODIC MAINTENANCE OR ADJUSTMENTS SHALL BE INSTALLED AS TO PERMIT ACCESS WITHOUT DAMAGE TO STRUCTURE, FINISHES, OR OTHER EQUIPMENT.
- DEMOLITION: REFER TO THE ARCHITECTURAL DRAWINGS FOR THE GENERAL SCOPE OF DEMOLITION. THIS CONTRACTOR SHALL DISCONNECT AND CAREFULLY REMOVE ALL EXISTING HVAC EQUIPMENT LOCATED IN DEMOLISHED AREAS INCLUDING ROOF PLENUMS CEILINGS WALLS AND FLOORS LLN O. DISCONNECT AND REMOVE EXISTING HVAC SYSTEMS COMPLETE, INCLUDING EQUIPMENT, CURBS, DUCTS, INSULATION, AIR DEVICES, AND PIPING LOCATED IN THESE AREAS. ALL HVAC SYSTEM COMPONENTS INCLUDING AIR TERMINAL UNITS, FANS, MOTORS, CONTROL DEVICES AND SENSORS, DAMPERS, ACTUATORS, HANGERS, RESTRAINTS, MOUNTING HARDWARE, ETC., SHALL BE REMOVED AND LEGALLY DISPOSED OF BY THIS CONTRACTOR.
- UNLESS NOTED OTHERWISE, ABANDONMENT IN PLACE (AIP) IS NOT ACCEPTABLE. UNUSED EQUIPMENT, DUCT, PIPING. AND OTHER COMPONENTS WITHIN OR SERVING THIS SPACE MUST BE COMPLETELY REMOVED TO POINT OF ORIGIN. ENDS OF SYSTEMS BEYOND GENERAL SCOPE OF DEMOLITION MAY BE ABANDONED ONLY WITH WRITTEN APPROVAL OF ARCHITECT (ENGINEER). WHERE THESE ABANDONED ENDS TERMINATE, TRIM CLEANLY AND PROPERLY CAP OR SEAL IN AN APPROVED MANNER, LEAVING TERMINATION SAFE AND SECURE BEHIND NEW FINISHES. MAINTAIN SYSTEM CONTINUITY TO HVAC SYSTEMS SERVING AREAS BEYOND GENERAL DEMOLITION, AS NEEDED. THIS INCLUDES BUT IS NOT LIMITED TO REMOVAL, MODIFICATION AND/OR REINSTALLATION OF EQUIPMENT, AS NEEDED. COMPLETION OF THIS PROJECT SHALL INCLUDE RETURNING
- THESE ADJACENT AREAS TO FULLY FUNCTIONING OPERATION. CONTRACTOR SHALL PROVIDE DAILY CLEAN-UP, REMOVAL AND LEGAL DISPOSAL OF ALL RUBBISH GENERATED BY THIS WORK.
- AS-BUILT DRAWINGS: DURING CONSTRUCTION, AS WORK PROCEEDS, MAINTAIN AS-BUILT MARK-UPS OF ACTUAL INSTALLATION. AT CONSTRUCTION COMPLETION AND PRIOR TO TURNOVER TO OWNER (TENANT), PROVIDE FINAL MARK-UPS IN PDF FORMAT TO ARCHITECT AND ENGINEER.
- PROVIDE FINAL CONNECTIONS TO EQUIPMENT FURNISHED/PROVIDED BY OTHERS, AS NOTED (GAS FIRED EQUIPMENT, COMMERCIAL KITCHEN EQUIPMENT, ETC.).
- DO NOT ROUTE ANY PIPING OR DUCTWORK ABOVE ELECTRICAL PANELS
- UNLESS NOTED OTHERWISE, ALL DUCT AND PIPE SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES TO WALLS, BEAMS, OR COLUMNS. PIPE SHALL BE RUN AS DIRECT AS POSSIBLE - AVOID UNNECESSARY OFFSETS AND MAXIMIZE HEADROOM.
- PRIOR TO ORDERING EQUIPMENT, THIS CONTRACTOR SHALL PROVIDE FINAL COORDINATION OF ELECTRICAL POWER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
- CONTRACTOR SHALL MAINTAIN ACTIVITIES WITHIN AREA APPROVED BY OWNER OR GC. CONTRACTOR'S
- ACTIVITIES SHALL NOT INTERFERE WITH THE OWNER'S OPERATIONS, EXCEPT AS APPROVED. EXCEPT THOSE COORDINATED AND APPROVED BY THE G.C., CONTINUITY OF ALL BUILDING SERVICES AND
- UTILITIES SERVING BUILDING FACILITIES SHALL BE MAINTAINED UNINTERRUPTED AT NO ADDITIONAL COST. PROVIDE ALL NECESSARY CROSS CONNECTIONS AND TEMPORARY CONNECTIONS REQUIRED TO PERFORM THE CONSTRUCTION, AS DETERMINED BY THE G.C., AND NEEDED TO MAINTAIN CONTINUITY OF THE BUILDING SERVICE(S). THIS CONTRACTOR SHALL SCHEDULE WORK SUCH THAT ANY AND ALL CONNECTIONS, AND/OR REARRANGEMENT OF EXISTING EQUIPMENT, PIPING, ETC., SHALL ASSURE FULL RESUMPTION OF SERVICE(S) AT THE G.C.'S DESIGNATED TIME.

CODE REQUIREMENTS

ALL WORK SHALL COMPLY WITH THE CONSTRUCTION DOCUMENTS OR, AS DIRECTED BY THE ARCHITECT (ENGINEER). AND SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS OF THE AHJ, WHETHER SO SHOWN OR NOT. CONTRACTOR SHALL BE FAMILIAR WITH PROVISIONS OF ALL APPLICABLE CODES AND SHALL INSURE THE WORK COMPLIES WITH ALL LOCAL, STATE AND FEDERAL CODES, TRADE STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. IF CONTRACTOR BELIEVES THE DRAWINGS AND/OR SPECIFICATIONS CONFLICT WITH CODE REQUIREMENTS, IMMEDIATELY NOTIFY THE G.C. IN WRITING. DO NOT INSTALL WORK NOT COMPLYING WITH CODE REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CODES AND ORDINANCES, THE HIGHEST STANDARD SHALL APPLY. AS A MINIMUM STANDARD, CONTRACTOR SHALL SATISFY CODE REQUIREMENTS. ALL MODIFICATIONS REQUIRED BY AHJ SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE

OWNER. BEFORE COMMENCING WORK NOT SHOWN IN DOCUMENTS BUT REQUIRED TO ACHIEVE FULL COMPLIANCE WITH CODES, CONTRACTOR SHALL NOTIFY ARCHITECT (ENGINEER).

A. CORE-DRILL OR SAW-CUT EXISTING FLOORS, WALLS, ROOF, ETC., AS REQUIRED FOR EQUIPMENT, PIPE, OR DUCTWORK. PRIOR TO CUTTING, PERFORM NON-DESTRUCTIVE TESTING TO VERIFY LOCATION OF STRUCTURAL COMPONENTS. NOTIFY ARCHITECT (ENGINEER) OF ANY DISCREPANCIES. PATCH SURROUNDING AREAS FLUSH WITH ADJACENT SURFACE AND READY TO RECEIVE FINISH. PATCH AND REPAIR ROOF TO MATCH EXISTING ROOFING. ALL ROOF WORK SHALL MEET WARRANTY REQUIREMENTS OF EXISTING ROOFING COORDINATE REQUIRED OPENINGS AND PENETRATIONS WITH THE GC AND OTHER TRADES. (OPENINGS IN FOUNDATIONS, FLOORS, WALLS, CEILINGS, AND ROOF SHALL BE BUILT INTO THE STRUCTURE WITH SLEEVES,

A. PROVIDE FIRE STOPPING FOR PENETRATIONS OF DUCT, PIPING, AND OTHER MECHANICAL EQUIPMENT THROUGH FIRE-RATED VERTICAL BARRIERS (WALLS AND PARTITIONS), HORIZONTAL BARRIERS (FLOOR/CEILING ASSEMBLIES), AND VERTICAL SERVICE SHAFT WALLS AND PARTITIONS. FIRESTOP SYSTEM INSTALLATION MUST MEET REQUIREMENTS OF ASTM E 814 OR UL 1479 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO OR GREATER THAN THAT OF CONSTRUCTION BEING PENETRATED. INSTALL IN STRICT ACCORDANCE WITH UL FIRE RESISTANCE DIRECTORY, AHJ, AND MANUFACTURER'S SPECIFIED REQUIREMENTS. ONLY TESTED FIRESTOP SYSTEMS BY "3M", "HILTI", OR EQUAL SHALL BE USED. REFER TO ARCHITECTURAL DRAWINGS FOR ASSEMBLY RATING.

MATERIALS AND WORKMANSHIP

- A. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE NEW U.N.O., FREE OF DEFECTS, AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND DETAILS, AND INDEPENDENTLY TESTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY UNDERWRITERS LABORATORIES (UL) OR INTERTEK (ETL). ALL LIKE MATERIALS USED SHALL BE OF THE SAME MANUFACTURE AND QUALITY U.N.O.
- B. ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE 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 E84 OR UL 723. ALL MATERIALS INSTALLED IN PLENUM SPACES SHALL BE LISTED AND LABELED FOR
- C. ALL WORK SHALL BE SUPERVISED BY THE INSTALLING CONTRACTOR'S COMPETENT AND SKILLED FOREMAN ALL WORK SHALL BE PERFORMED BY COMPETENT AND SKILLED WORKERS, WITH ALL TRADE AND MANUFACTURER REQUIRED TRAINING, AND EXECUTED IN A NEAT AND WORKMANLIKE MANNER. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE BEST QUALITY STANDARDS OF THE TRADE AND IN CONFORMANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND STANDARDS, INCLUDING APPLICABLE OSHA REGULATIONS. PROPERLY PROTECT WORK DURING CONSTRUCTION. AT CONSTRUCTION COMPLETION, THOROUGHLY CLEAN WORK AND REMOVE ALL DEBRIS FROM THE PREMISES.

PROTECTION OF WORK AND PROPERTY

- A. PROTECT ALL WORK FROM DAMAGE AND PROTECT THE OWNER'S PROPERTY FROM DIRT, DAMAGE, OR LOSS ARISING FROM CONTRACTOR WORK.
- COMPLY WITH OSHA REQUIREMENTS AND TAKE ALL NECESSARY PRECAUTIONS FOR EMPLOYEE SAFETY.
- PROTECT ALL OPEN PIPING, DUCT, AND EQUIPMENT, EXISTING AND NEW FROM CONSTRUCTION DIRT AND DUST. COVER, CAP, OR PLUG OPEN ENDS OF PIPING AND DUCT. KEEP EQUIPMENT CLOSED OR COVER AND SEAL EQUIPMENT OPENINGS. ANY MECHANICAL SYSTEMS, NEW AND/OR EXISTING OPERATED DURING CONSTRUCTION SHALL BE PROTECTED BY COVERING EACH RETURN AIR DUCT OPENING WITH MERV 8 FILTERS
- FILTERS FROM FILTER RACKS AND INSTALL NEW MERV 8 FILTERS. D. AT COMPLETION OF WORK, PRIOR TO EQUIPMENT START-UP, REMOVE COVERS, CAPS, OR PLUGS ON DUCT

AND INSTALLING MERV 8 FILTER(S) IN EQUIPMENT FILTER RACK. PRIOR TO TESTING AND BALANCING, REMOVE

THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGES TO THE PROPERTY (GROUNDS, WALKS, ROADS, BUILDING COMPONENTS, FINISHES, PIPING SYSTEMS, ELECTRICAL SYSTEMS, HVAC SYSTEMS, AND THEIR EQUIPMENT AND CONTENT) CAUSED BY LEAKS IN THE SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED AS PART OF THIS WORK. ALL REPAIRS WILL BE MADE AT THIS CONTRACTOR'S EXPENSE.

- A. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW GENERAL LOCATIONS OF DUCTS, PIPES, AND EQUIPMENT AND THE METHODS OF CONNECTING AND CONTROL. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONDITIONS AND THE WORK OF OTHER TRADES PERMIT. THE DRAWINGS ARE NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL OR ALL OFFSETS, TRANSITIONS, OR FITTINGS REQUIRED FOR A COMPLETE SYSTEM NOR IS IT IMPLIED THAT ALL CONFLICTS BETWEEN BUILDING ELEMENTS AND/OR OTHER TRADES ARE INDICATED. DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXACT LOCATION OF DOORS, WINDOWS, LIGHTS, ETC.
- THE DRAWINGS AND SPECIFICATIONS ARE MUTUALLY COMPLEMENTARY, AND ANY WORK REQUIRED BY ONE BUT NOT BY THE OTHER SHALL BE REQUIRED BY BOTH.
- PRIOR TO INSTALLING EQUIPMENT, DUCT, OR PIPE COORDINATE PROPOSED LOCATIONS WITH EACH TRADE/DISCIPLINE AND GC. EXAMINE EACH DISCIPLINE'S DRAWINGS FOR CONSTRUCTION DETAILS, CEILING HEIGHTS, REQUIRED CLEARANCES, AND SPACE CONSTRAINTS, PROVIDE SYSTEMS INSTALLATION BASED ON THIS EXAMINATION AND COORDINATION. IMMEDIATELY REPORT INSTALLATION CONFLICTS IN WRITING TO THE GC. RESOLVE ALL CONFLICTS WITH GC AND OTHER TRADES PRIOR TO PROCEEDING. INSTALLING CONTRACTOR IS FULLY RESPONSIBLE FOR CORRECT INTERPRETATION AND APPLICATION OF ALL SIZES AND
- SIGNIFICANT DEVIATIONS OR CHANGES FROM THE DRAWINGS, WHICH ARE REQUIRED TO ACCOMPLISH THE INTENT OF THE CONTRACT DOCUMENTS MUST BE REVIEWED AND APPROVED BY THE ARCHITECT (ENGINEER) BEFORE PROCEEDING. IF THE CONTRACTOR BELIEVES CHANGES TO THE CONTRACT DRAWINGS ARE NECESSARY, SHOP DRAWINGS WITH WRITTEN DESCRIPTIONS OF THE PROPOSED CHANGES SHALL BE SUBMITTED TO THE ARCHITECT (ENGINEER) FOR APPROVAL
- ALL PIPE, DUCTS, VENTS, ETC., EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED WATERPROOF. PROVIDE ALL FLASHING FOR PIPE AND DUCTWORK PENETRATING BUILDING ENVELOPE. PROVIDE DUCT AND/OR PIPE SLEEVES AT WALL PENETRATIONS. SEAL ANNULAR SPACE WEATHER TIGHT.

15. <u>CONTROLS</u>

A. PROVIDE COMPLETE EQUIPMENT CONTROLS, INCLUSIVE OF ALL COMPONENTS, VOLTAGES, PROGRAMMING (PNEUMATIC TUBING), WIRING ETC. FOR COMPLETE AND OPERATIONAL SYSTEMS, MOUNT THERMOSTATS AND SWITCHES 4'-0" ABOVE FINISHED FLOOR. MOUNT OTHER SENSORS (HUMIDITY, CO2, CO, NOX, ETC.) PER MANUFACTURER'S IOM, PRIOR TO MOUNTING, COORDINATE THERMOSTAT LOCATION(S) WITH FINAL FIXTURES AND EQUIPMENT. DO NOT MOUNT THERMOSTATS IN DIRECT SUNLIGHT, IN DISCHARGE OF SUPPLY GRILLE(S), NEAR HEAT PRODUCING APPLIANCES OR EQUIPMENT, ON WALLS WITH INTERNAL HEAT SOURCES (DUCT OR PIPING). OR ON EXTERIOR WALLS. IF EXTERIOR WALL MOUNTING IS NECESSARY, PROVIDE INSULATED MOUNTING BASE. WHERE THERMOSTAT LOCATION IS SUBJECT TO DAMAGE, PROVIDE LOCKABLE HIGH-IMPACT GUARD.

- A. IN FINISHED AREAS, ALL PIPING SHALL BE CONCEALED UNLESS NOTED OTHERWISE
- B. SEE PIPE SCHEDULE FOR PIPE MATERIALS AND PIPE INSULATION.
- C. DO NOT INSTALL PVC PIPING IN PLENUM AREAS.

CONTINUOUS 30 MIL PVC JACKET.

- D. BRANCH TAKE-OFFS SHALL BE MADE WITH SWING CONNECTIONS AS REQUIRED TO AVOID STRESS AT THESE
- E. DO NOT INSTALL ANY PIPING ABOVE ELECTRICAL PANELS AND/OR TRANSFORMERS
- F. LABEL PIPE PER BUILDING STANDARD OR AS SCHEDULED.
- G. PAINT PIPE TO MATCH OWNER'S OR BUILDING STANDARD.
- H. INSTALL AND SIZE REFRIGERANT PIPE IN STRICT ACCORDANCE WITH EQUIPMENT/APPLIANCE MANUFACTURER'S IOM. DO NOT INSTALL REFRIGERANT PIPE BELOW GROUND. REFRIGERANT PIPE INSTALLED ON BUILDING EXTERIOR SHALL BE ROUTED TO MINIMIZE EXTERIOR EXPOSURE. INSULATE REFRIGERANT PIPE PER MANUFACTURER'S IOM. PROVIDE INSULATION EXPOSED TO AMBIENT CONDITIONS SHALL WITH
- ROUTE PIPE THROUGH ROOF WITH ALUMINUM PIPE HOOD, PATE CURB MODEL "PHA-2" WITH 14" TALL MODEL 'PC-2" CURB. SEAL PIPE THROUGH CURB WEATHER-TIGHT.
- ON HYDRONIC PIPING, PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS TO ALLOW BLEEDING OF AIR FROM THE SYSTEM, AND BALL VALVES WITH HOSE END DRAIN FITTINGS AT ALL LOW POINTS TO ALLOW DRAINING THE SYSTEM.
- PRIOR TO INSTALLING EQUIPMENT/APPLIANCES, CAREFULLY CONSIDER FALL REQUIREMENTS OF CONDENSATE DRAIN PIPE. PROVIDE MINIMUM 1/8" / FOOT SLOPE. EXTEND CONDENSATE DRAIN PIPE TO AN APPROVED RECEPTOR AND TERMINATE VIA AN INDIRECT CONNECTION.
- ALL HOLES REQUIRED THROUGH EXISTING FLOORS AND MASONRY WALLS SHALL BE CORE DRILLED.

17. <u>DUCT MOUNTED SMOKE DETECTORS</u>

A. RETURN AIR DUCT MOUNTED SMOKE DETECTORS SHALL BE PROVIDED BY E.C. AND UPON DETECTING SMOKE, SHALL SHUT DOWN PROTECTED AIR SYSTEM (APPLICABLE TO UNITS >2000 CFM).

A. SUBMIT SHOP DRAWINGS ON SCHEDULED AND NOTED EQUIPMENT AND MATERIALS. PRIOR TO SUBMITTAL. EACH SHOP DRAWING SHALL BE REVIEWED BY THE CONTRACTOR TO ASSURE THAT THE PROPOSED EQUIPMENT IS CLEARLY MARKED, HIGHLIGHTED, AND NOTED. ALL DIMENSIONS, QUANTITIES, CONNECTIONS, CAPACITATES AND ACCESSORIES SHALL BE CLEARLY SHOWN IN CONFORMANCE WITH THE CONTRACT

DOCUMENTS, AND SHALL BE MARKED OR STAMPED TO CONFIRM THAT SUCH REVIEW WAS MADE AND COMPLIANCE WAS CONFIRMED. SHOP DRAWING SUBMITTED WITHOUT BEING MARKED, HIGHLIGHTED, AND

NOTED WILL BE REJECTED WITHOUT REVIEW. PROVIDE ADEQUATE TIME FOR REVIEW AND CORRECTIONS, IF ANY, TO PREVENT CONSTRUCTION DELAY.

REVIEW OF SHOP DRAWINGS BY THE OWNER, OWNER'S AGENT, ARCHITECT, OR ENGINEER IS FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBILITY FOR COMPLYING WITH ALL TERMS OF THE CONTRACT DOCUMENTS AND FOR PERFORMANCE OF ALL EQUIPMENT AND MATERIALS PURCHASED, FOR QUANTITIES, PROPER FIT, AND OTHER DIMENSIONAL REQUIREMENTS.

- REFER TO DUCT INSULATION SCHEDULE FOR CLARIFICATION OF DUCT DIMENSIONS. PROVIDE ALL DUCTWORK IN STRICT ACCORDANCE WITH THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE", LATEST EDITION. U.N.O. ALL RIGID DUCTWORK SHALL BE GALVANIZED SHEET METAL. NO FIBERGLASS DUCTBOARD WILL BE ALLOWED. ALL EXPOSED DUCTWORK SHALL HAVE A MILL-PHOSPHATIZED FINISH FOR PAINT ADHESION. EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM TYPE.
- REMOVE UNUSED SECTIONS OF DUCTWORK AS DESIGNATED. UNUSED OPENINGS IN EXISTING DUCT SHALL BE SEALED WITH GALVANIZED SHEET METAL OF THE SAME GAUGE AS THE DUCT. INSULATE AND/OR LINE WITH INSULATION TO MATCH EXISTING. SEAL GALVANIZED SHEET METAL CAP TO EXISTING DUCT WITH APPROVED MASTIC. EXISTING DUCT INSULATION AND/OR INSULATION SCRIM DAMAGED BY THIS WORK SHALL BE REPAIRED. SEAL ALL INSULATION SEAMS AND JOINTS.
- PROVIDE DAMPERS AT EACH BRANCH DUCT SERVING AIR DEVICES AND AS SHOWN AND DETAILED. ALL FLEXIBLE DUCT SHALL BE THERMAFLEX TYPE MKE, MAXIMUM 8'-0" LONG. FLEXDUCT SHALL BE INSTALLED IN ACCESSIBLE CONCEALED SPACES ONLY AND WITHOUT SAGS. INSTALLATION ABOVE INACCESSIBLE CEILINGS IS UNACCEPTABLE.

- IN CONDITIONED AREAS, SEAL ALL LONGITUDINAL AND TRANSVERSE JOINTS WITH A NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT, WITH VOC CONTENT NO GREATER THAN 250G/L AND RECOMMENDED BY THE MANUFACTURER FOR SEALING SHEET METAL DUCT. SEAL ALL JOINTS, SPIN-IN FITTINGS, AND FASTENING SCREWS WITH MASTIC. HVAC SYSTEM LEAKAGE SHALL NOT EXCEED 5% OF DESIGN
- B. IN UNCONDITIONED AREAS (INCLUDING BUT NOT LIMITED TO EXTERIOR OF BUILDING, ATTIC, CRAWL SPACES, ETC.): SEAL ALL LONGITUDINAL AND TRANSVERSE JOINTS WITH CARLISLE'S "HARDCAST FOIL-SEALANT DUCT SEALING SYSTEM" - NO EXCEPTIONS. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE INITIAL SEALANT OF HARDCAST'S IRON-GRIP 601, SPRAY-SEAL, OR VERSA-GRIP 181 LIQUID MASTIC SEALANT. AFTER SEALANT HAS CURED COMPLETELY, OVERLAY THE MASTIC WITH 4" WIDE STRIP OF AFT-701 ROLLED SEALANT. SEAL ALL JOINTS, SPIN-IN FITTINGS, AND FASTENERS. HVAC SYSTEM LEAKAGE SHALL NOT EXCEED 5% OF DESIGN FLOW.

CLOTHES DRYER EXHAUST DUCT SHALL BE ALUMINUM DUCT SEALED WATER TIGHT. FABRICATE DRYER DUCT WITH NO FASTENERS PROTRUDING INTO INSIDE OF DUCT. TERMINATE DRYER DUCT WITH BACKDRAFT DAMPER AND WITHOUT A SCREEN.

22. <u>DUCT INSULATION</u>

A. SEE DUCT INSULATION SCHEDULE.

- INSTALL ALL EQUIPMENT AND MATERIALS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION AND OPERATIONS MANUAL AND IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS.
- B. U.N.O. PROVIDE ALL MOTORIZED EQUIPMENT WITH VIBRATION ISOLATION MOUNTING AND FLEXIBLE DUCT AND FLEXIBLE PIPE CONNECTIONS
- LABEL EQUIPMENT WITH ENGRAVED PHENOLIC RESIN NAMEPLATES ADHERED TO UNIT CABINET WITH RTV SILICONE. LETTERING SHALL BE 1" HIGH BLACK ON WHITE BACKGROUND.
- ALL EQUIPMENT, DUCT, PIPE, ETC. MOUNTED FROM BOLTED CONNECTIONS SHALL HAVE DOUBLE NUTS AT ATTACHMENT TO STRUCTURE AND HANGER, NO EXCEPTIONS.

24. FIRE AND FIRE-SMOKE DAMPERS

PROVIDE FIRE DAMPERS AND/OR FIRE SMOKE DAMPERS AT DUCT PENETRATIONS OF RATED ASSEMBLIES AND AS REQUIRED BY AHJ. REFER TO ARCHITECTURAL DRAWINGS FOR ASSEMBLY RATINGS. INSTALL DAMPERS IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILS AND MAINTAIN MANUFACTURER'S DETAILS ONSITE FOR AHJ REVIEW. PROVIDE ACCESS PANELS OF ADEQUATE SIZE TO FACILITATE SERVICE ACCESS OF DAMPER. IN LIEU OF ACCESS PANELS, A REMOVABLE DUCT SECTION IS ACCEPTABLE

PROVIDE A MINIMUM (10'-0") HORIZONTAL CLEARANCE BETWEEN MECHANICAL EQUIPMENT OUTDOOR AIR INTAKES AND EXHAUST FAN DISCHARGES, COMBUSTION EXHAUST, PLUMBING VENTS, AND ANY OTHER HAZARDOUS OR NOXIOUS CONTAMINANT.

PROVIDE THREE (3) SETS OF NEW MERV 8 DISPOSABLE AIR FILTERS. PER THE FOLLOWING: FOR HVAC SYSTEMS OPERATED DURING CONSTRUCTION, PROVIDE FILTERS IN EQUIPMENT AND ON RETURN AIR DUCT PFNINGS TO PROTECT DUCT FROM DIRT: IN HVAC EQUIPMENT PRIOR TO AIR TESTING, ADJUSTING, AND BALANCING; AND AT PROJECT COMPLETION - ONE (1) SPARE SET FOR HVAC EQUIPMENT.

27. COMPLETION OF WORK

UPON COMPLETION OF WORK, INSPECT INSTALLATION OF ALL EQUIPMENT AND SYSTEMS. OPEN ALL ACCESS COVERS ON EQUIPMENT. REMOVE ALL SURPLUS MATERIALS AND DEBRIS AND PROPERLY DISPOSE OF SAME.

28. TESTING, ADJUSTING, & BALANCING

- A. PRIOR TO EQUIPMENT START-UP, REMOVE COVERS, CAPS, OR PLUGS ON DUCT AND PIPING.
- UPON COMPLETION OF WORK, MC SHALL PROVIDE HVAC TESTING:
- i. AFTER INSTALLING EQUIPMENT AND AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, TEST UNITS FOR COMPLIANCE WITH REQUIREMENTS.
- ii. INSPECT FOR AND REMOVE SHIPPING BOLTS, BLOCKS, AND TIE-DOWN STRAPS.
- iii. OPERATIONAL TEST: AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED. START UNITS TO CONFIRM PROPER MOTOR ROTATION, BELT TENSION, DAMPER FUNCTION, COOLING FUNCTION, HEATING FUNCTION, AND UNIT OPERATION.
- iv. TEST AND ADJUST CONTROLS AND SAFETIES. REPLACE DAMAGED AND MALFUNCTIONING CONTROLS AND EQUIPMENT.
- v. REMOVE AND REPLACE MALFUNCTIONING UNITS AND RETEST AS SPECIFIED ABOVE.
- vi. SUBMIT TESTING REPORT TO ARCHITECT (ENGINEER). UPON COMPLETION OF WORK, PROVIDE AN HVAC TESTING, ADJUSTING, AND BALANCING REPORT PERFORMED BY A(N INDEPENDENT) CONTRACTOR CERTIFIED BY AABC, NEBB, OR TABB, BALANCE SYSTEMS WITHIN 10% OF DESIGN FLOW. TAB SHALL BE PERFORMED IN STRICT ACCORDANCE WITH SMACNA'S "TAB PROCEDURAL GUIDE", LATEST EDITION. MC SHALL BE PRESENT DURING TAB SHOULD ANY CORRECTIONS BE REQUIRED. (EXISTING HVAC SYSTEMS: PRIOR TO START OF WORK, TEST AND RECORD FLOW OF EXISTING DEVICES AND

SYSTEMS. AT COMPLETION OF WORK ADJUST FLOW TO NEW DEVICES, AS INDICATED ON DRAWINGS. RESTORE

29. CLOSEOUT - AT CONSTRUCTION COMPLETION AND PRIOR TO TURNOVER TO OWNER (TENANT):

EXISTING DEVICES NOT IN SCOPE OF WORK TO ORIGINAL VOLUMETRIC FLOW RATES.)

- PROVIDE FINAL MARK-UPS IN PDF (DWG) FORMAT TO ARCHITECT AND ENGINEER. PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE PROJECT COMPLETION
- C. PROVIDE THE OWNER WITH A BOUND OWNER'S MANUAL. THE MANUAL SHALL CONSIST OF A THREE-RING LOOSE-LEAF BINDER CONTAINING ALL PRINTED MATERIAL FOR INSTALLED EQUIPMENT INCLUDING BUT NOT LIMITED TO: WARRANTY INFORMATION, SERVICE AND CLEANING INSTRUCTIONS, NOTICES TO OWNER, OPERATING MANUALS, AND MAINTENANCE INSTRUCTIONS.
- TRAIN THE OWNER IN THE THERMOSTATS FUNCTIONS AND OPERATING THE EQUIPMENT USING THE THERMOSTATS. CONTRACTOR SHALL PROGRAM THE THERMOSTATS PER THE OWNER'S TIME SCHEDULES AND

30. WARRANTY

- ON ALL WORK INCLUDED IN THIS CONTRACT, PROVIDE ONE (1) YEAR UNCONDITIONAL WRITTEN WARRANTY FOR LABOR, EQUIPMENT, AND MATERIALS TO REPLACE ALL FAULTY MATERIALS AND/OR LABOR, AT NO COST TO OWNER, BEGINNING ON DATE OF ACCEPTANCE BY OWNER.
- WITHIN THE WARRANTY PERIOD, DURING THE OPPOSITE SEASON (HEATING/COOLING) FROM THAT IN WHICH THE INITIAL ADJUSTMENTS WERE MADE. THIS CONTRACTOR SHALL MAKE AN INSPECTION OF THE INSTALLED BUILDING SYSTEMS. AT THIS INSPECTION, WITH SYSTEMS OPERATING, THIS CONTRACTOR SHALL MAKE ANY NECESSARY MODIFICATIONS TO THE INITIAL ADJUSTMENTS REQUIRED TO PRODUCE OPTIMUM OPERATION OF THE SYSTEM COMPONENTS, TO PRODUCE THE PROPER CONDITIONS IN EACH SPACE.

-- END OF SPECIFICATIONS --

MECHANICAL SYMBOLS LEGEND EXHAUST AIR GRILLE RETURN AIR GRILLE SUPPLY AIR DIFFUSER RETURN AIR GRILLE, SIDEWALI SUPPLY AIR GRILLE, SIDEWALL AUTOMATIC TEMPERATURE CONTROL VALVE AIR DEVICE, CEILING SLOT HUMIDISTAT PRESSURE SENSOR, (DUCT, BLDG) SENSOR, CARBON DIOXIDE SENSOR, CARBON MONOXIDE SENSOR, NITROGEN OXIDE THERMOSTAT, EQUIPMENT ID GENERAL CONNECTION OF NEW TO EXISTING CONNECTION OF NEW TO EXISTING, NOTED **EXISTING TO BE DEMOLISHED** EXISTING TO BE DEMOLISHED EXISTING TO BE DEMOLISHED CRAC COMPUTER ROOM AIR CONDITIONING UNIT DUCT DIMENSIONS_INSULATION TAG, SEE DUCT NSULATION SCHEDULE FIRE DAMPER MOTORIZED DAMPER VOLUME DAMPER, MANUA LEXIBLE DUCT RANSFER AIR OPENING THROUGH WALL ABOVE CEILING, 14x14 U.N.O. RANSFER AIR OPENING THROUGH WALL ABOVE CEILING, 10x10 U.N.O. RADIUS ELBOW, ROUND OR RECTANGULAR RECTANGULAR ELBOW WITH TURNING VANES ROUND DUCT VERTICAL OFFSET CHANGE IN DUCT ELEVATION, DIRECTION OF FLOW TRANSITION IN DUCT SIZE E.A. 90° ELBOW DOWN, RECTANGULAR / ROUND E.A. 90° ELBOW UP. RECTANGULAR / ROUND R.A. 90° ELBOW DOWN, RECTANGULAR / ROUND R.A. 90° ELBOW UP, RECTANGULAR / ROUND S.A. 90° ELBOW DOWN, RECTANGULAR / ROUND S.A. 90° ELBOW UP, RECTANGULAR / ROUND DUCT, PIPE, EQPT. IN ATTIC DUCT, PIPE, EQPT, ABOVE CEILING **DUCT EXPOSED** DUCT, PIPE BELOW FLOOR DUCT, PIPE ON ROOF AIR DEVICE TAG S - SUPPLY E - EXHAUST
TYPE# R - RETURN T - TRANSFER **BOTTOM OF DUCT** HEIGHT ABOVE FINISHED FLOOR **BOTTOM OF GRILLE** ±11'-4" HEIGHT ABOVE FINISHED FLOOR MECHANICAL UNIT SUPPORT

MECHANICAL ABBREVIATIONS

AUTHORITIES HAVING JURISDICTION

AAV AUTOMATIC AIR VENT

ACH AIR CHANGES PER HOUR

AIR HANDLING UNIT

ABANDON(ED) IN PLACE

BACK FLOW PREVENTER

BUILDING MANAGEMENT SYSTEM

BUTTERFLY VALVE

BOTTOM OF GRILLE

BOTTOM OF PIPE

COMPRESSED AIR

CFM CUBIC FEET PER MINUTE

CHILLER

CAST IRON

CO2 CARBON DIOXIDE

DEMO DEMOLISH

FXISTING

FXHAUST AIR

EXHAUST FAN

EXPANSION TANK

ELECTRIC UNIT HEATER

EXHAUST VENTILATOR

EWH ELECTRIC WATER HEATER

FIRE/SMOKE DAMPER

FT.HD. FEET OF HEAD (PRESSURE DROP)

GBDD GRAVITY BACK DRAFT DAMPER

FAN COIL UNIT

FIRE DAMPER

FULL LOAD AMPS

FLOAT SWITCH

FTU FAN TERMINAL UNIT

FIELD VERIFY

GUH GAS UNIT HEATER

GWH GAS WATER HEATER

HEAT PUMP

GC GENERAL CONTRACTOR

HUMIDITY SENSOR

HOSE END VALVE HORSEPOWER

HPRTU HEAT PUMP ROOF TOP UNIT

HEAT EXCHANGER

INTAKE AIR HOOD

INSIDE DIAMETER

INDIRECT WASTE

KILOWATT

MAX MAXIMUM

MBH 1000 BTU/HR

MTD MOUNTED

MUA MAKE UP AIF

MUW MAKE UP WATER

INTAKE VENTILATOR

KITCHEN EXHAUST FAN

LOW LEAK TYPE DAMPER

LOW PRESSURE STEAM

MANUAL AIR VENT

MANUFACTURE

LOW PRESSURE CONDENSATE

MECHANICAL CONTRACTOR

MINIMUM CIRCUIT AMPERES

MOCP MAXIMUM OVER CURRENT PROTECTION

MOTORIZED DAMPER

MOUNTING HEIGHT

NEUTRAL AIR UNIT

NORMALLY CLOSED

NOT IN CONTRACT

OUTSIDE DIAMETER

OVERFLOW DRAIN (ROOF)

PLUMBING CONTRACTOR

POUNDS PER CUBIC FOOT

POINT OF CONNECTION

PUMP SUCTION GUIDE

POLYVINYL CHLORIDE

REFRIGERANT HOT GAS

REFRIGERANT SUCTION

REFRIGERANT LIQUID

RELIEF AIR HOOD

ROOF TOP UNIT

SMOKE DETECTOR

STAINLESS STEEL

TRIPLE DUTY VALVE

TUBULAR RADIANT HEATER

UNLESS NOTED OTHERWISE

VARIABLE FREQUENCY DRIVE

VARIABLE REFRIGERANT FLOW

VARIABLE REFRIGERANT VOLUME

VARIABLE AIR VOLUME

VARIABLE SPEED DRIVE

WSHP WATER SOURCE HEAT PUMP

VOLUME DAMPER

THERMOSTAT

TRANSFER AIR

SHEET METAL SCREW

SENSOR

TYPICAL

VOLTS

WITH

WET SWITCH

ZONE DAMPER

EXISTING

UNIT HEATER

SUPPLY AIR

PRESSURE REDUCING VALVE

REFRIGERATION CONTRACTOR

PACKAGED TERMINAL AIR CONDITIONING

RESISTANCE TEMPERATURE DETECTOR

POUNDS PER SQUARE INCH

NORMALLY OPEN

NOT TO SCALE

OUTSIDE AIR

OVFRFI OW

POLYETHYLENE

RETURN AIR

OFD

PCF

RTU

TYP

VSD

MINIMUM

INTAKE BACK DRAFT DAMPER

INFRARED RADIANT HEATER

INSTALLATION AND OPERATION MANUAL

KITCHEN EQUIPMENT CONTRACTOR

ELECTRIC WATER COOLER

EQUIPMEN'

CONDENSATE DRAIN

CARBON MONOXIDE

CONDENSING UNIT

DLSS DUCTLESS SPLIT SYSTEM

DIRECT EXPANSION

CABINET UNIT HEATER

DIRECT DIGITAL CONTROL

DOAS DEDICATED OUTDOOR AIR SYSTEM

ELECTRIC BASEBOARD HEATER

ENERGY MANAGEMENT SYSTEM

ENERGY RECOVERY VENTILATOR

FIRE RETARDANT TREATED (WOOD)

ELECTRICAL CONTRACTOR

CPVC CHLORINATED POLYVINYL CHLORIDE

CRCU COMPUTER ROOM CONDENSING UNIT

CUBIC FEET PER HOUR

BUFFER TANK

BTUH BTU/HR

AFF ABOVE FINISHED FLOOR

ACCESS PANEI

BOD BOTTOM OF DUCT

AIR SEPARATOR

ALL THREAD ROD AIR TERMINAL UNI

ACCU AIR COOLED CONDENSING UNIT

RELATED TO STRUCTURAL SUPPORT: ALL NEW, REPLACEMENT AND RELOCATED MECHANICAL UNIT(S), KITCHEN EXHAUST HOOD(S), MAKE-UP AIR UNIT(S), ELECTRICAL TRANSFORMER(S), WATER HEATER(S), INCLUDING ANY CURB(S) AND/OR CURB ADAPTOR(S)/TRANSITION CURB(S) (WHERE APPLICABLE), ARE SHOWN FOR

ADEQUACY OF THE STRUCTURE'S ABILITY TO SUPPORT ANY OR ALL OF THESE SYSTEMS OR COMPONENT WEIGHTS, INCLUDING THE EFFECTS OF DEFLECTION POTENTIAL FOR PONDING, SNOW DRIFTING (AS APPLICABLE), WIND LOADING AND SEISMIC LOADING; SHALL BE DETERMINED BY STRUCTURAL ENGINEER(S) OUTSIDE OF MECHANICAL SCOPE/DRAWINGS BY CASE ENGINEERING, INC.

THESE SYSTEMS AND/OR COMPONENTS SHALL NOT BE INSTALLED UNTIL LANDLORD'S ENGINEER AND GENERAL CONTRACTOR ARE IN RECEIPT OF WRITTEN DOCUMENTATION <u>STATING ADEQUACY OF THE EXISTING CONSTRUCTION TO SUPPORT LOADS NOTED ABOVE.</u> THESE DOCUMENTS MUST BE SIGNED AND SEALED/STAMPED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.

ENGINEER

MUNICIPAL APPROVAL STAMP

 $\mathbf{\Omega}$

ARBOR-VILLAGE

"REFERÊNCE-ONLY".

MECHANICAL

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MECHANICAL KEYED NOTES

- FURNISH AND INSTALL GALVANIZED STEEL DUCTWORK, SIZES AS NOTED ON DRAWINGS. ALL SIZES SHOWN ARE CLEAR INTERNAL DIMENSIONS. SEE DUCT CONSTRUCTION SCHEDULE FOR INSULATION REQUIREMENTS.
- FURNISH AND INSTALL SEVEN-DAY PROGRAMMABLE THERMOSTAT WITH AUTO CHANGEOVER AND RELATED WIRING TO CONTROL AIR HANDING UNIT. MOUNT AT 48" AFF. VERIFY PROPER OPERATION IN FIELD. COORDINATE TYPE AND FINAL LOCATION WITH OWNER.
- (3) MAINTAIN CODE REQUIRED CLEAR SPACE ABOVE ELECTRICAL PANELS.
- LANDLORD TO FURNISH AND INSTALL ROOFTOP UNIT. VERIFY EXACT LOCATION IN FIELD. CONTRACTOR SHALL PROVIDE NEW DUCTWORK TRANSITIONS FROM LANDLORD PROVIDED DUCT OPENINGS IN SPACE TO NEW DUCTWORK SHOWN. LANDLORD WORK TO INCLUDE NEW GAS METER AND ASSOCIATED GAS PIPING CONNECTIONS TO LANDLORD PROVIDED ROOFTOP UNIT.
- ROUTE RIGID DRYER EXHAUST DUCTWORK FROM DRYER UP THROUGH ROOF TO ROOF CAP. EXHAUST MUST TERMINATE A MINIMUM OF 10'-0" FROM ALL BUILDING INTAKES. VERIFY SIZING AND MAX LENGTH WITH MANUFACTURER.
- 6 FURNISH AND INSTALL NEW ROOF MOUNTED EXHAUST FAN. FAN TO BE MOUNTED A MINIMUM OF 10'-0" FROM ALL BUILDING INTAKES. VERIFY EXACT LOCATION IN FIELD.
- 7 FURNISH AND INSTALL THERMOSTAT COMPATIBLE REMOTE TEMPERATURE SENSOR. WIRE SENSOR BACK TO THERMOSTAT IN OFFICE. COORDINATE TYPE AND FINAL LOCATION WITH OWNER.
- FURNISH AND INSTALL NEW RETURN DUCT MOUNTED SMOKE DETECTOR. SMOKE DETECTOR SHALL DE-ENERGIZE UNIT UPON DETECTION OF SMOKE. COORDINATE WIRING REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
- 9 ELBOW DUCT UP TOWARDS STRUCTURE AND TERMINATE OPEN ENDED WITH WIRE MESH ON END.

MECHANICAL GENERAL NOTES

- 1. DUCTWORK SHALL BE RUN ABOVE CEILING AS HIGH AS POSSIBLE IN GENERAL LOCATIONS SHOWN, BUT SHALL CONFORM TO ALL STRUCTURAL AND FINISH CONDITIONS OF BUILDINGS. COORDINATE WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS PRIOR TO ANY INSTALLATION.
- 2. LOCATE EQUIPMENT AND FIXTURES APPROXIMATELY AS SHOWN CONFORMING TO ALL ARCHITECTURAL AND STRUCTURAL ITEMS. PROVIDE ALL SUPPORTS, HANGERS AND OPENINGS AS REQUIRED FOR A COMPLETE INSTALLATION. CONTRACTOR SHALL COORDINATE WITH ALL TRADES FOR CLEARANCES, AND EXACT LOCATIONS OF EQUIPMENT. ALL EQUIPMENT AND FIXTURES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND IN FULL ACCORDANCE WITH ALL APPLICABLE CODES.
- CEILING MOUNTED AIR DEVICES SHALL BE APPROXIMATELY AS SHOWN. FOR EXACT LOCATION AND FRAME MOUNTING TYPES, REFER TO ARCHITECTURAL REFLECTED CEILING PLAN. ALL CEILING DIFFUSERS TO BE 4-WAY UNLESS NOTED OTHERWISE BY AIRFLOW ARROWS, ON FLOOR PLAN. EXTEND FLEX DUCTWORK FROM DIFFUSERS. INSTALL STRAIGHT AS POSSIBLE WITH LONG RADIUS BENDS AND CLAMPS TO BE USED AT BOTH ENDS.
- 4. DUCTWORK WITH TURNING VANES INSTALLED IN ALL ELBOWS OF SUPPLY AIR DUCTS, AIR EXTRACTORS AT ALL RECTANGULAR TAKE—OFFS, AND TWIST—IN TAP WITH MANUAL VOLUME DAMPER AT ALL ROUND BRANCH TAKE—OFFS TO AIR DEVICES.
- 5. DUCT SMOKE DETECTORS REQUIRED IN UNIT RETURN AIR DUCT SHALL BE IONIZATION TYPE AND SHALL BE APPROVED AND LISTED BY UL OR FM FOR DUCT INSTALLATION. ACTIVATION OF A DUCT DETECTOR SHALL CAUSE SHUTDOWN OF UNIT. CONTROL AND INTERLOCK WIRING SHALL RUN IN CONDUIT WHICH SHALL BE SIZED TO SUIT THE NUMBER, TYPE AND SIZE OF CONDUCTORS AND SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. CONTROL AND INTERLOCK WIRING SHALL BE IN SEPARATE CONDUIT FROM POWER WIRING PER NEC. ALL WIRING SHALL BE IN ACCORDANCE WITH NEC. PROVIDE ALL APPROPRIATE ACCESS PANELS.
- 6. PROVIDE ELECTRONIC PROGRAMMABLE THERMOSTAT WITH SUB-BASE AS NOTED ON PLAN. TRANSFORMERS AND 24 VOLT CONTROL WIRING. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER WIRING. THERMOSTATS SHALL BE MOUNTED 48" A.F.F. AND SET POINT SHALL BE AS FOLLOWS: COOLING 75°F; HEATING 70°F. VERIFY FINAL LOCATION AND SETPOINTS WITH OWNER.
- 7. BUILDING AIR SYSTEMS SHALL BE BALANCED PER DATA INCLUDED ON THE DRAWINGS TO ACHIEVE RELATIVE AIR VOLUMES AS INDICATED ON THE DRAWINGS AND SCHEDULED HEREIN.
- 8. ALL DUCT SIZES INDICATED ON DRAWINGS ARE CLEAR INTERNAL DIMENSIONS.
- 9. WHERE SHOWN ON THE DRAWINGS, PROVIDE VOLUME DAMPERS WITH LOCKING QUADRANTS OR SPLITTERS WITH HINGE AND ROD THRU SIDE OF DUCT WITH SET SCREW. VOLUME DAMPER HANDLES SHALL BE INSTALLED ON THE BOTTOM OF THE SPIN—IN FITTING AND SHALL HAVE RING SET IN FULL OPEN POSITION.
- 10. ALL EXHAUST OUTLETS WILL BE A MINIMUM OF 10'-0" FROM ANY AIR INTAKE.
- 11. ALL ROOF WORK SHALL BE PERFORMED BY LANDLORD'S DESIGNATED ROOFER AT TENANT'S EXPENSE.
- 12. ALL SUPPLY AND RETURN DUCTWORK VISIBLE TO THE PUBLIC SHALL BE INTERNALLY LINED AND PAINTED BLACK.
- 13. SEE MECHANICAL CONTRACTOR SCOPE OF WORK DETAIL REGARDING CRYO EQUIPMENT.



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RANBRO

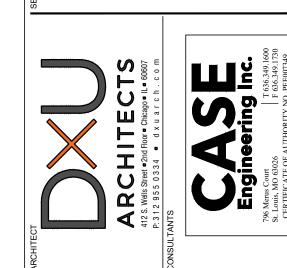
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DARRELL R.

CASE
ENGINEER

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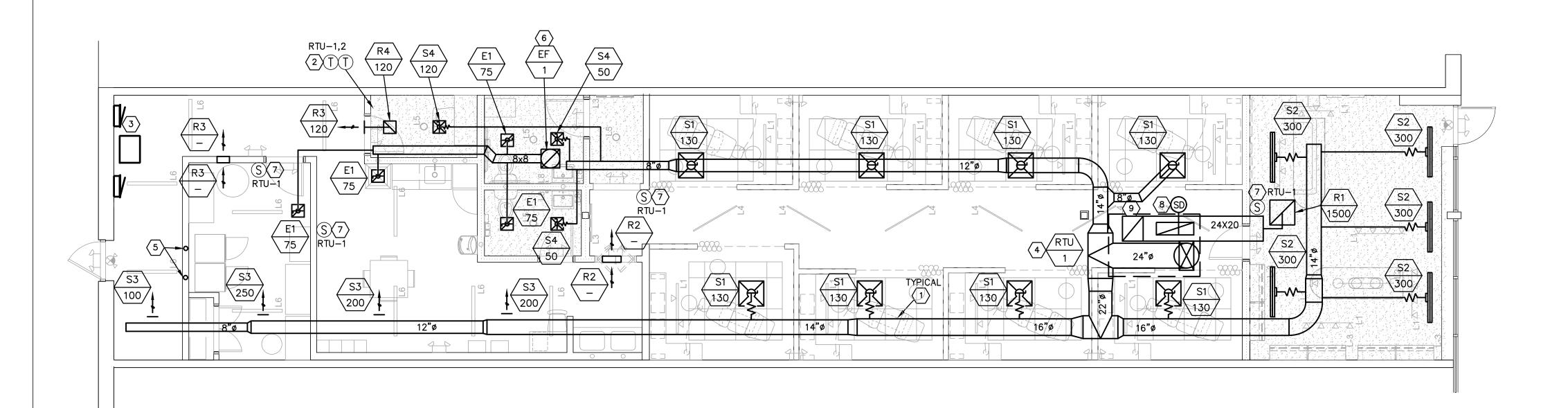
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PERMIT / BID	Project Number: 22-067	Drawn By: Approved By: XX	No. Issue	95% REVIEW	ISSUED FOR PERMIT & BID		

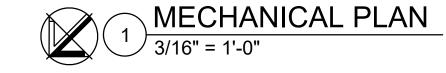
SHEET TITLE & NUMBER

MECHANICAL PLAN

M1-01

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ROOFING

SEE ARCH.

DWGS. —

Ç TURN RADIUS 6" MIN. -

CEILING —

4"Ø RIGID DRYER -

RESIDENTIAL CLOTHES

EXHAUST AIR DUCT

EXHAUST AIRFLOW

UP THROUGH ROOF

TO GOOSENECK

									COOLING			HEATIN	G						
					O.A.			М	ВН	EAT	LAT	ELEC	GAS MBH			ELECT	RICAL		
MARK	MFR	MODEL NO.	TONS	CFM	CFM	ESP	HP	TOT.	SENS.	DB/WB	DB/WB	KW	IN/OUT	EAT/LAT	мса	моср	VOLT/PHASE	WEIGHT	REMARKS
RTU-1	BRYANT	580JE12D	10	3510	350	0.8	2.5	124.1	96.2	80/67	55/55	N/A	180/148	60/90	24	30	460/3	1000	1,2,3
	FAN WITH V	O FURNISH AND INS FD, ROOF CURB OR R SHALL REBALANCE	ROOF CURI	B ADAP1	TER.				•	, NON-FUS	SED DISCONN	ECT, UNPOWE	RED CONVENIE	NCE OUTLET	, 2 SPE	ED SUPP	LY		
		CT LOCATION AND PE					o, , o,		20										

					FAN SCH	EDULE						
MARK	MANUF	MODEL	SERVES	СҒМ	E.S.P. (" WC)	MOTOR RPM	TYPE	DRIVE	ΞP	VOLT/PH	WEIGHT	NOTES
EF-1	COOK	100C17DEC	RESTROOMS	300	0.6	1725	ROOF	ECM DIRECT	1/4	120/1	50	1,2,3

PIPE PER PLAN

1" WATER

C.O. @ EVERY CHANGE IN |

DIRECTION GREATER THAN

45 AND AT MAX. OF 25

INTERVALS.

T.S.P. OF FAN PLUS

1. VERIFY ELECTRICAL VOLTAGE WITH EC. PROVIDE ROOFTOP UNIT WITH ROOF CURB AND BACKDRAFT DAMPER.

CONDENSATE DRAIN

SUFFICIENT TRAP

SEAL TO OFFSET

PRESSURE AT

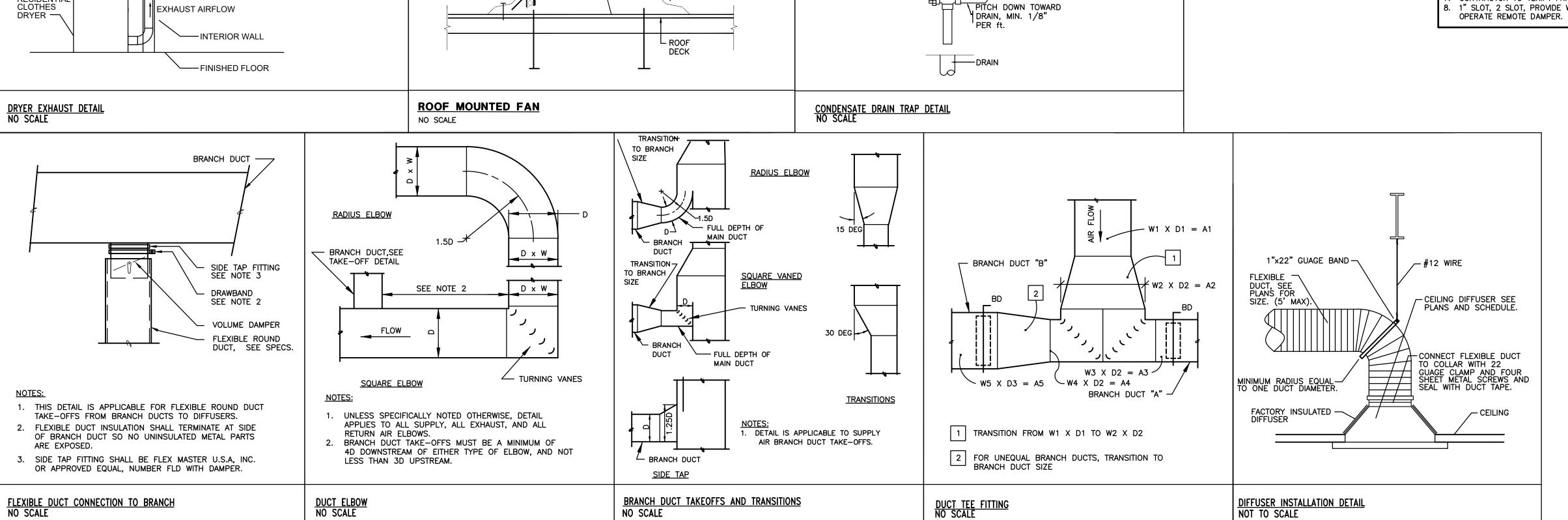
DRAIN PAN.

TRAP WITH

FAN TO BE CONNECTED TO TIMECLOCK AND RUN DURING ALL OCCUPIED HOURS.

			A	AIR DEV	CE S	CHEDUL	.E		
6"ø 8"ø 15 10"ø 26 12"ø 45	SCHEDULE	PLAN MARK	MANUFACTURER	MODEL	MATL.	NECK SIZE	FRAME TYPE	PANEL SIZE	NOTES
SIZE	CFM	S1	TITUS	OMNI	AL	SCHED.	LAY-IN	24"x24"	1,2,4,5,7
6"ø	0 - 140	S2	TITUS	ML-39	AL	SCHED.	FLANGED	48"x3"	1,2,5,7,8
0"d	450 050	S3	TITUS	300RL	ST	10"x6"	FLANGED	12"x8"	1,2,3,5,6
٥٧	150 – 250	S4	TITUS	OMNI	AL	SCHED.	FLANGED	12"x12"	1,2,4,5,7
10 " ø	260 - 440								
12"ø	450 - 600	R1	TITUS	350RL	ST	SCHED.	FLANGED	24"x24"	1,2,5,6,7
		R2	TITUS	350RL	ST	18"x14"	FLANGED	20"x16"	1,2,5,6,7
14 0	610 — 1000	R3	TITUS	350RL	ST	12"x6"	FLANGED	14"x8"	1,2,3,5,6
16"ø	1010 — 1400	R4	TITUS	350RL	ST	SCHED.	FLANGED	12"x12"	1,2,5,6,7
18"ø	1410 - 1900	E1	TITUS	350RL	ST	SCHED	FLANGED	12"x12"	1,2,5,6,7

- AIR DEVICE RUN-OUT SHALL BE SAME SIZE AS DIFFUSER NECK.
- FLEX DUCT, MAXIMUM LENGTH 5'-0". ALL AIR DEVICES TO BE WHITE UNLESS OTHERWISE NOTED. ALL AIR DEVICES TO BE PAINTED TO MATCH THE CEILING/WALL/DUCT, VERIFY COLOR WITH ARCHITECT.
- WALL/DUCT MOUNTED GRILLE. PROVIDE INSULATED BACKPAN. . MAX NC LEVELS OF 30 OR LESS.
- . ALL SURFACE MOUNTED DIFFUSERS TO INCLUDE OPPOSED BLADE
- CONTRACTOR TO VERIFY FRAME TYPES REQUIRED PRIOR TO ORDERING.
- 1" SLOT, 2 SLOT, PROVIDE WITH INSULATED PLENUM AND FACE OPERATÉ REMOTÉ DAMPER.



BACKDRAFT

DAMPER

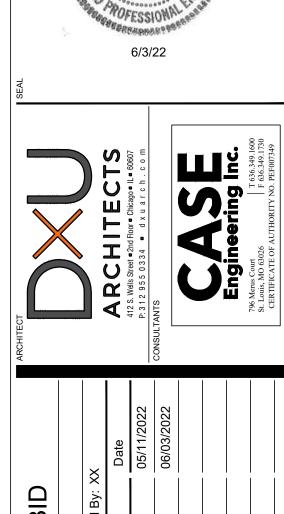
ROOFING,

BLOCKING,

& INSUL.

DWGS.

SEE ARCH.



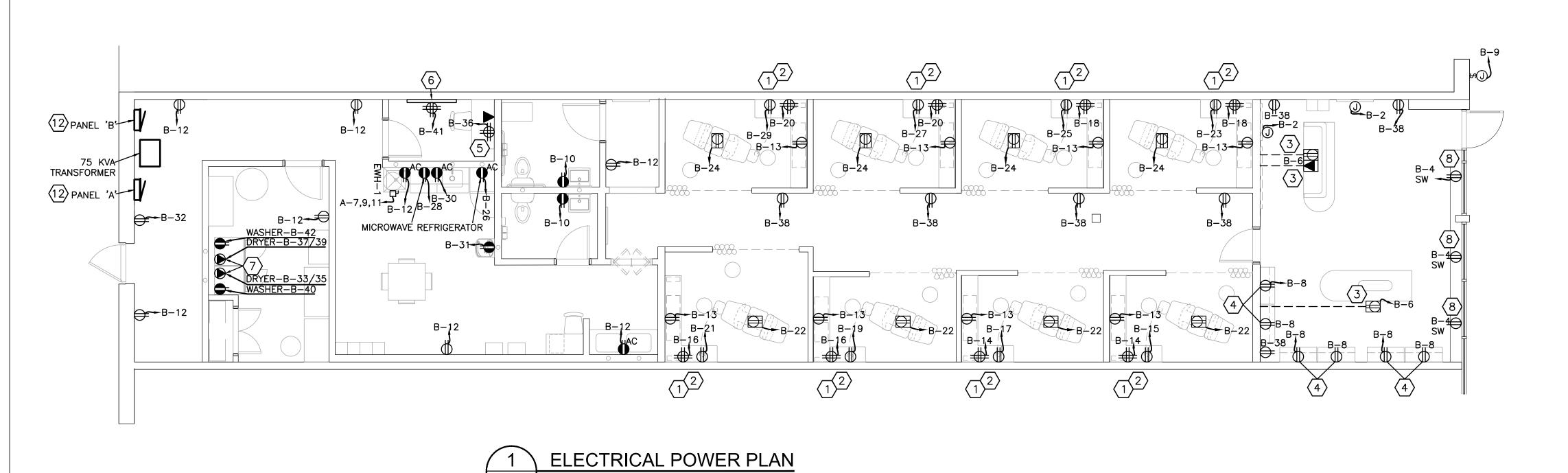
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MECHANICAL DETAILS AND SCHEDULES

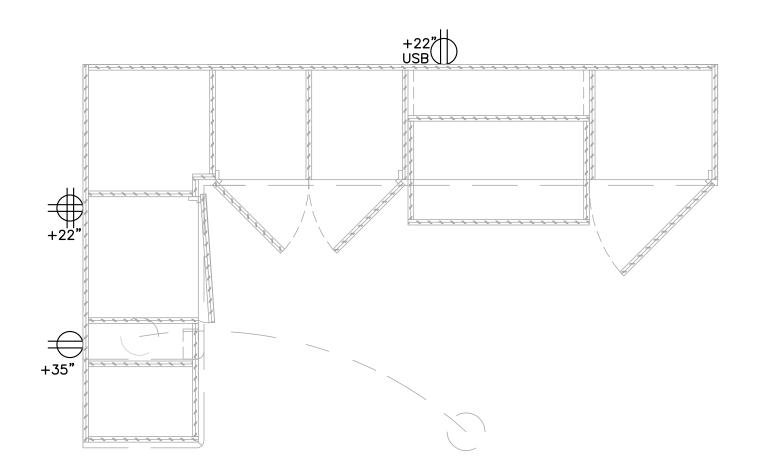
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PANEL 'B' **TRANSFORMER** PANEL

ELECTRICAL ROOF TOP PLAN E1-01 SCALE: 3/16" = 1'-0"

SCALE: 3/16" = 1'-0"



MILLWORK ELECTRICAL DIAGRAM SCALE: NOT TO SCALE

1) GC TO PROVIDE "APC" SURGE ARREST DEDICATED RECEPTACLE IN TREATMENT ROOMS. G.C. TO VERIFY EXACT WATTAGE OF HIGH FREQUENCY WANDS, AND SIZE SURGE ARRESTER ACCORDINGLY.

KEYED ELECTRICAL NOTES

- 2 EC TO REFER TO ARCHITECTURAL MILLWORK PLAN FOR RECEPTACLE LOCATIONS. REFER TO MILLWORK ELECTRICAL PLAN ON THIS SHEET FOR RECEPTACLE MOUNTING HEIGHTS.
- 3 GC TO PROVIDE AN ELECTRICAL TRENCH IN EXISTING FLOOR FROM WALL INTO DUPLEX RECEPTACLE AND DATA MOUNT INSIDE OF BOTTOM CABINET. EC SHALL PATCH AND REPAIR AS NECESSARY. PRIOR TO CUTTING/TRENCHING THE EXISTING FLOOR SLAB, THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES IN THE WORK AREA. COORDINATE ALL EXISTING UNDERGROUND UTILITY LOCATION WORK AND ALL CUTTING/TRENCHING WORK WITH THE GENERAL CONTRACTOR AND THE LANDLORD.
- 4 GC TO COORDINATE WITH MILLWORK ON ALL POWER LOCATIONS. HEYDAY TO CONFIRM FIXTURE OUTLETS TO BE LOCATED AT BOTTOM OF MILLWORK CAPPING.
- $\langle 5 \rangle$ STAFF DESK TO RECEIVE DATA (3 CAT6) AND DUPLEX / QUAD.
- $\langle 6 \rangle$ EC TO PROVIDE 3/4"X4'X4' FIRE RATED TELECOM BACKBOARD WITH PREDRILLED, 12"X4" BICSI, TELECOM GROUND BUS. PROVIDE 1#6AWG GROUND BACK TO MAIN BUILDING SERVICE GROUND. MOUNT BACKBOARD TIGHT TO UNDERSIDE OF CEILING. EXTEND LANDLORD PROVIDED EMPTY CONDUIT TO THIS LOCATION
- $\langle 7 \rangle$ EC TO PROVIDE A NEMA 14-30R RECEPTACLE FOR ELECTRIC DRYERS PROVIDE 3#10, 1#10G.
- 8 EC TO PROVIDE DUPLEX RECEPTACLE ABOVE STORE FRONT FENESTRATION PER NEC 210,62.
- $\langle\, 9\,
 angle$ existing rtu to remain, existing conduit and conductors, AND MEANS OF DISCONNECT TO REMAIN. EC TO FIELD VERIFY RTU, CONDUCTORS/CONDUIT, AND DISCONNECT SWITCH ARE NEC
- (10) EXISTING RTU CONVENIENCE RECEPTACLE TO REMAIN, EC TO FEILD VERIFY EXISTING RECEPTACLE IS WEATHER PROOF TO COMPILE WITH
- (11) EC TO FIELD VERIFY EXISTING SMOKE DETECTOR TO REMAIN, EC TO FIELD VERIFY TO EXISTING SMOKE DETECTOR IS IN WORKING CONDITION AS SPECIFIED BY MANUFACTURER, EC TO PROVIDE SMOKE DETECTOR AND WORK AS NECCESSARY FOR A FULLY FUNCTIONAL SYSTEM.
- (12) EXISTING PANELS 'A' & 'B' TO NEW LOCATIONS SHOWN. EC TO PROVIDE WORK AS NECESSARY TO ENSURE FULLY FUNCTIONAL

ELECTRICAL SYMBOLS

DESCRIPTION ABOVE COUNTER GENERAL CONTRACTOR ELECTRICAL CONTRACTOR MECHANICAL CONTRACTOR **WEATHERPROOF** NIGHT LIGHT (CONNECT TO UNSWITCHED LEG OF CIRCUIT NOTED) GROUND FAULT CURRENT INTERRUPTER PROTECTED DEVICE ST SHUNT TRIP CIRCUIT ABOVE FINISHED FLOOR UNO UNLESS NOTED OTHERWISE TELEPHONE TERMINAL BOARD PROVIDE FURNISH AND INSTALL COMPLETE JUNCTION BOX, MOUNTING HEIGHT 20A, 1P, 125V, GROUNDING TYPE DUPLEX RECEPTACLE (+18" AFF UNO)

> 20A, 1P, 125V, GFCI TYPE DUPLEX RECEPTACLE SPECIAL USE RECEPTACLE, COORDINATE WITH EQUIPMENT SUPPLIER

20A, 1P, 125V, GROUNDING TYPE DOUBLE DUPLEX RECEPTACLE

CEILING MOUNTED EXHAUST FAN WITH MANUAL DISCONNECT

U30/NF/3 DISCONNECT SWITCH: 30 AMP, NON-FUSED, 3 POLE

LIGHT SWITCH (3 WAY)

LIGHT SWITCH (4 WAY)

LIGHT SWITCH

WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH AT 3'-6" AFF TO CENTERLINE (WATT STOPPER #DW100-WH OR EQUAL)

CEILING MOUNTED DAYLIGHT SENSOR SWITCH

CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH (WATT STOPPER #DT-355 OR EQUAL)

DIMMER SWITCH: LUTRON NOVA SERIES DIMMERS COMPATIBLE WITH LOW VOLTAGE LIGHTING FIXTURES AND RATED FOR LOAD NOTED IN PANEL SCHEDULE. REFER TO LOADS AT PANELBOARD SCHEDULE. MOUNTING HEIGHT AS INDICATED PER PLAN.

COMMUNICATIONS JUNCTION BOX FOR DATA/COMM. DEVICE PLATE. EC TO ROUTE 3/4" CONDUIT WITH PULL STRING TO 6" ABOVE ACCESSIBLE CEILING AND BEND AT 90° TOWARDS TTB. EC TO PROVIDE PLASTIC BUSHING ON END OF CONDUIT.

CONDUIT RUN CONCEALED IN CEILING OR WALL. NUMBER OF HASH MARKS INDICATE NUMBER OF #12 WIRES WHEN MORE THAN TWO ARE REQUIRED UNLESS NOTED OTHERWISE. ALL CIRCUITS SHALL INCLUDE EQUIPMENT GROUND SIZED PER CEC. HASH MARK AHEAD OF NEUTRAL INDICATES UNSWITCHED LEG. CURLED HASH MARK INDICATES DEDICATED GROUND WIRE REQUIRED.

12" ABOVE FINISHED FLOOR TO CENTERLINE

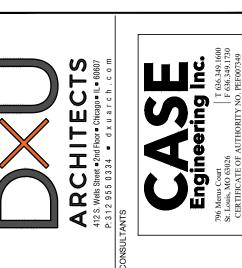
PANELBOARD

LIGHTING FIXTURE SWITCHING DESIGNATION - LETTER ${}^{\prime}{}$ F ${}^{\prime}$ INDICATES THE FIXTURE TYPE (SEE FIXTURE SCHEDULE) THE NUMBER '5' INDICATES THE CIRCUIT IN THE PANEL NOTED AND THE LOWER CASE LETTER 'a' INDICATES THE SWITCH LEG TO CONNECT THE FIXTURE TO.

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ELECTRICAL

POWER PLAN

EC SHALL VERIFY THE VOLTAGE AND AMPERAGE REQUIREMENTS OF ALL EQUIPMENT DELIVERED TO THE SITE PRIOR TO CONNECTION. EC SHALL NOTIFY OWNER OF ANY DIFFERENCE.

GENERAL NOTES 1. EC TO PROVIDE HANDLE TIE ON ALL MULTIWIRE

BRANCH CIRCUITS PER NEC 210.4(B).

RECEPTACLE NOTES

FEED THE CIRCUIT NOTED.

NEUTRAL WIRE.

2. ALL SPARE CIRCUIT BREAKERS AND DISCONNECT SWITCHES SHALL BE LEFT IN THE OFF POSITION.

ALL GFCI RECEPTACLES SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION OR A GFCI CIRCUIT

A READILY ACCESSIBLE LOCATION SHALL USED TO

ALL 125V, 15A AND 20A CIRCUITS TO KITCHEN

EQUIPMENT SHALL BE FED WITH A DEDICATED

BREAKER OR A DEAD FRONT GFI DEVICE INSTALLED IN

ELECTRICAL LIGHTING PLAN

B-9

B-3

B-7

GENERAL NOTES

- PLACEMENT OF LIGHT FIXTURES SHALL BE SET AS DIMENSIONED & AS
- 2. LIGHT FIXTURES SHALL BE SUPPLIED AS SCHEDULED WITH NO
- 3. MINIMUM WIRE SIZE SHALL BE NO. 12 COPPER.
- ALL EMERGENCY AND EXIT LIGHTING SHALL BE WIRED AHEAD OF THE SWITCHING. EMERGENCY LIGHTING SHALL BE ON THE SAME CIRCUITRY AS THE GENERAL LIGHTING IN THE AREA THEY SERVE. EMERGENCY LIGHTING WIRING SHALL BE IDENTIFIED (MARKED) PER NEC 700.9. PROVIDE GENERAL LIGHTING CIRCUITS, WHICH HAVE EMERGENCY LIGHTING CONNECTIONS, WITH LOCK-OUT ON BREAKER.

KEYED NOTES

- CONNECT EXIT SIGN WITH REMOTE EGRESS DUAL HEAD FIXTURE AHEAD OF ALL LIGHTING CONTROLS OF GENERAL LIGHTING CIRCUIT SERVING THIS AREA.
- CONNECT NIGHT/EXIT/EMERGENCY LIGHT AHEAD OF ALL LIGHTING CONTROLS OF GENERAL LIGHTING CIRCUIT SERVING THIS AREA.
- 3 EC TO PROVIDE OCCUPANCY SENSOR SWITCH, SEE ELECTRIC SYMBOLS.
- 4 ROUTE CIRCUIT THRU SWITCH/DIMMER AT SALES COUNTER AND BACK THRU TIME SWITCH CONTROLLED CÓNTACTOR. EC TO PROVIDE UNSWITCHED HOT LEG TO ALL EMERGENCY AND EXIT LIGHTS ON CIRCUIT AS NOTED.
- 5 EC TO PROVIDE INTERMATIC ET2125C TIME SWITCH AND CONTACTORS AS REQUIRED TO CONTROL LIGHTS AND SIGNAGE.
- (6) VERIFY FINAL LOCATION OF SWITCHBANK WITH OWNER PRIOR TO ROUGH-IN.
- EC TO PROVIDE 120 VOLT, 10 POWER FOR SIGN. PROVIDE NON-FUSED DISCONNECT SWITCH ABOVE ACCESSIBLE CEILING. PROVIDE DEDICATED #10 COPPER GROUND WIRE FROM EQUIPMENT GROUND BUS IN PANEL FOR CIRCUIT SERVING SIGN. DO NOT USE CONDUIT AS A GROUND. FIELD VERIFY EXACT LOCATION OF ROUGH-IN WITH OWNER REPRESENTATIVE. RUN THE CIRCUIT THROUGH THE TIME SWITCH.
- (8) EC TO PROVIDE NOVA FLEX 120VAC-24VDC POWER SUPPLY #NF-PS-96W-24V-0/10V FOR CONNECTION TO LED STRIP LIGHTING IN ACCESSIBLE LOCATION.
- 9 EC TO PROVIDE NOVA FLEX 120VAC-24VDC POWER SUPPLY #NF-PS-MAXX-30W-24V-0/10V. FOR CONNECTION TO LED STRIP LIGHTING IN ACCESSIBLE LOCATION.
- EC TO PROVIDE CEILING MOUNTED DAYLIGHT HARVESTING SENSOR COMPATIBLE WITH LIGHT FIXTURES BEING CONTROLLED AS NOTED ON PLAN.

WATTS

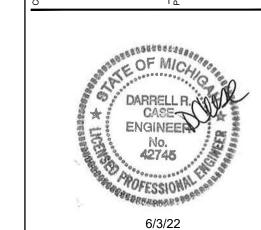
FIXTURE DESCRIPTION

122F

- EC TO PROVIDE LOW VOLTAGE CEILING MOUNTED OCCUPANCY AT LOCATIONS SHOWN ON PLAN. OCCUPANCY SENSOR SHALL BE COMPATIBLE WITH LIGHT FIXTURES BEING CONTROLLED.
- 2 EC TO PROVIDE CAT6 CABLE AS REQUIRED PER MANUFACTURER'S REQUIREMENTS.

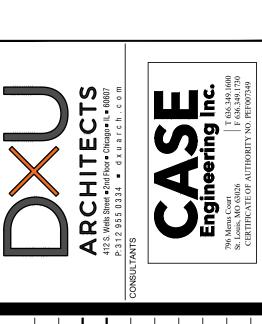
MOUNTING

VOLTAGE



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No.	Issue	Date
	95% REVIEW	05/11/2022
	ISSUED FOR PERMIT & BID	06/03/2022

ELECTRICAL LIGHTING PLAN

STOREFRONT EXTERIOR SIGN <u></u> — ბ ბ— - MANUAL OVERRIDE SWITCH (2 HOUR MAX.) FOR OVERRIDING TIME-SWITCH <u> 1a RETAIL TRACK LIGHTS</u> 16 RETAIL TIM RUNDLE 3c TREATMENT TRACK LIGHTS ______3d TREATMENT HALLWAY LIGHTS −6>− 7f HALLWAY LED TAPE PANEL "B"

TYPE

MANUFACTURER

CATALOG NUMBER

TIMECLOCK DIAGRAM SCALE: NOT TO SCALE

QTY TYPES VARIABLE SIZED TRACKS WITH (2-4) L1 LUMENTURE T50-30H-1100-22-W-J LED 120 SUSPENSION 15 TRACK HEADS (WHITE) PER COR-LS4LEF435LTGC(950) L2 TIM RUNDLE 100/130 SUSPENSION LED 24 HANGING MOUNTED 6'-0" AFF UNVDBSILVERACSD 90+ CRI LED STRIP LIGHTING, 4.4 4.4W/FT NOVAFLEX NF-DS-0-160-24V-3000K LED SUSPENSION MINOR LED LINEAR SUSPENSION, VEGA MINOR LED LIGHTING SUSPENSION 120 SUSPENSION 40 KUZCO 5 LED MOUNTED 8'-0" AFF ALP-NU4RDSW20LM35K80D60N ALPHABET LED 120/277 RECESSED 22 MOUNTED FLUSH TO CEILING LUNVDIM10(ELV)NCMCMC 2'X4' LED STRIP LIGHT AT ROOMS LUMINAIRES TCPGPS2UZDA8xxK LED 120/277 CEILING MOUNTED w/ NO CEILING FIXTURE KUZCO VEGA WALL LIGHT: FINISH GOLD LED 120/277 WALL MOUNTED 15 EMERGENCY EXIT SIGNS MOUNTED X1 LITHONIA LIGHTING LHQM-LED-R-HO-BAA 3 120/277 WALL MOUNTED OVER ENTRANCES EΜ EXITRONIX LED-95-WH-G2 11 120/277 WALL MOUNTED EMERGENCY LIGHTS LED OUTSIDE EMERGENCY LIGHT WITH MINIMUM 90 MINUTE BATTERY ELMRW LP220L DWHXD T 120/277 LITHONIA LED WALL MOUNTED BACKUP AND HEATER FOR OPERATING TEMP RANGE OF OF AND of auti

LIGHTING FIXTURE SCHEDULE

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A. CIRCUIT BREAKER GFCI - INDICATES 5mA TRIP GFCI TYPE CIRCUIT BREAKER.

B. PROVIDE LOCK ON DEVICE FOR UNIT EQUIPMENT

C. ASSUMED EXISITNG LIGHTING LOADS. EC TO VERIFY NUMBER OF EXISTING LIGHTING CIRCUITS AND PROVIDE NEW CONDUIT AND WIRING AS REQUIRED

TO RECIRCUIT BACK TO NEW PANEL.

D. NEW LOADS SHOWN IN BOLD AND ITALIC.

E. EXISTING LOADS TO BE EXTENDED BACK TO PANEL.

S	МС	DUNT:	SURF	ACE	120/	/208	3-PHASE, 4W	P	ANEL		E	3	CAPACITY:	200A		INT	CAP:	10KA		S
NOTES	LOCA	TION:	ELEC	ROOM	1			LU	JGS:		MLC	0	DEMAND LOAD:	82A		AV. F	AULT:	3.1KA		отеѕ
Z	СКТ	LTG	REC	HVAC	MISC	KIT	DESCRIPTION	AMP	AMP POLE DESCRIPTION LTG R				REC	HVAC	MISC	KIT	СКТ	Z		
	1	0.6					LTG - FOH	20	1	Α	20	1	FOH DISPLAY		0.7				2	
	3	0.4					LTG - TREATMENT ROOMS	20	1	В	20	1	SHOW WINDOW REC.		0.7				4	
	5	0.5					LTG - BOH	20	1	С	20	1	FOH DESK REC./DISPLAYREC.		0.4				6	
	7	0.1					LTG - LED STRIPES	20	1	Α	20	1	RETAIL REC.		1.1				8	
	9	1.2					LTG - EXTERIOR SIGN	20	1	В	20	1	RESTROOM REC.		0.4				10	
	11				0.3		TIMECLOCK	20	1	С	20	1	BOH CONV. REC.		1.1				12	
	13		1.4				TREATMENT RM. USB: 103-110	20	1	Α	20	1	TREATMENT RM REC 103-104		0.7				14	
	15		0.2				HIGH FRQ. WAND - RM 103	20	1	В	20	1	TREATMENT RM REC 105-106		0.7				16	
	17		0.2				HIGH FRQ. WAND - RM 104	20	1	С	20	1	TREATMENT RM REC 107-108		0.7				18	
	19		0.2				HIGH FRQ. WAND - RM 105	20	1	Α	20	1	TREATMENT RM REC 109-110		0.7				20	
	21		0.2				HIGH FRQ. WAND - RM 106	20	1	В	20	1	TREATMENT ROOM CHAIR - 103		0.7				22	
	23		0.2				HIGH FRQ. WAND - RM 107	20	1	С	20	1	TREATMENT ROOM CHAIR - 104		0.7				24	
	25		0.2				HIGH FRQ. WAND - RM 108	20	1	Α	20	1	FRIDGE REC.				0.5		26	
	27		0.2				HIGH FRQ. WAND - RM 109	20	1	В	20	1	MICROWAVE REC.				1.2		28	
	29		0.2				HIGH FRQ. WAND - RM 110	20	1	С	20	1	KITCHENETT REC.				0.4		30	
	31				0.5		WATER FOUNTAIN	20	1	Α	20	1	PANEL REC.		0.2				32	
	33				2.5		ELECTRIC DRYER	30	2	В	20	1	SPARE						34	
	35				2.5		ELECTRIC DR TER	30		С	20	1	MANAGERS DESK REC.		0.4				36	
	37				2.5		ELECTRIC DRYER	30	2	Α	20	1	HALLWAY CONV. REC.		1.3				38	
	39				2.5		ELECTRIC DR TER	30		В	20	1	ELECTRIC WASHER			0.8			40	
	41		0.4				TELEPHONE BOARD REC.	20	1	С	20	1	ELECTRIC WASHER			0.8			42	
	DI	IACE	BALAN	CE	LOAD	TYPE	CONNECTED		DEM/	ND		DEM	AND FORMULA			1	TOTAL	LOAD		
			OALAN	CE	LIGH	TING	2.8 KVA		3.4 K	VA	•	LOAD X 125% NEC 210.19 CONTINUOUS				CONNECTED DEMAND		AND		
	ф	LO	AD	%	RECEP	TACLE	13.7 KVA		11.8 k	(VA		10KV	A+ 50% REMAINDER NEC 220.44			30.8	KVA	29.7	(VA	1

A. CIRCUIT BREAKER GFCI - INDICATES 5mA TRIP GFCI TYPE CIRCUIT BREAKER.

1.6 KVA

B. PROVIDE LOCK ON DEVICE FOR UNIT EQUIPMENT

C. ASSUMED EXISITNG LIGHTING LOADS. EC TO VERIFY NUMBER OF EXISTING LIGHTING CIRCUITS AND PROVIDE NEW CONDUIT AND WIRING AS REQUIRED

LOAD X 100% (USED MCAIN CALCULATION)

12.8 KVA LOAD X 100% NEC 210.19 NON-CONT.

0.0 KVA 80% PER NEC TABLE 220.56

85.5A

CASE Engineering Inc.

TO RECIRCUIT BACK TO NEW PANEL.

10.6 KVA 35%

B | 11.7 KVA | 38% |

C 8.5 KVA 28%

D. NEW LOADS SHOWN IN BOLD AND ITALIC. E. EXISTING LOADS TO BE EXTENDED BACK TO PANEL.

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PLAN MARK	EQUIPMENT SERVED	LOAD	VOLT/ PHASE	FED BY	DISC BY	MCA	MOCPD	FEEDER	REMARKS
EWH-1	ELECTRIC WATER HEATER	12.06KVA	480/3	Α	SWITCH	14.5A	20A	(3)#12,#12G 3/4"C	
RTU-1	ROOFTOP UNIT - 1	19.95KVA	480/3	Α	BUILT IN	24.0A	30A	(3)#10,#10G 3/4"C	2
E-DRY	ELECTRIC DRYER	4.99KVA	208/1	В	SWITCH	24.0A	30A	(2)#10,#10G 3/4"C	
E-WASH	ELECTRIC WASHER	0.79KVA	120/1	В	SWITCH	6.6A	20A	(2)#12,#12G 3/4"C	

1. RECIRCUIT EXISTING MECHANICAL EQUIPMENT AS SHOWN ON PLANS AND PANEL SCHEDULE. 2. CIRCUIT MECHANICAL EQUIPMENT AS SHOWN ON PLANS AND PANEL SCHEDULE, CONFIRM WITH MECHANICAL PLANS.



FAULT CURRENT CALCULATIONS WERE PERFORMED BY CASE ENGINEERING BASED ON AN ASSUMED TRANSFORMER KVA RATING AND ASSUMED TRANSFORMER IMPEDANCE VALUE FOR THE UTILITY COMPANY TRANSFORMER TO ESTABLISH BASIS OF DESIGN AIC RATINGS AS IDENTIFIED ON THE DRAWINGS. PRIOR TO SUBMITTING THE POWER DISTRIBUTION EQUIPMENT PRODUCT DATA FOR REVIEW, THE ELECTRICAL CONTRACTOR SHALL CONTACT THE SERVING UTILITY COMPANY TO VERIFY THE FAULT CURRENT VALUES AVAILABLE FROM THE UTILITY COMPANY. CONTRACTOR SHALL SUBMIT THE UTILITY

WITH NEC REQUIREMENTS.

ALL INFORMATION REGARDING CURRENT CONDITIONS OF THE ELECTRICAL

FIELD VERIFICATION OF SITE CONDITIONS AND REPORTING ANY

BID. NO EXTRAS OR CHANGE ORDERS SHALL BE GIVEN FOR

SERVICE ARE VIA SECOND PARTY FIELD SURVEY. EC IS RESPONSIBLE FOR

DIFFERENCES OR DISCREPANCIES TO OWNERS REPRESENTATIVE PRIOR TO

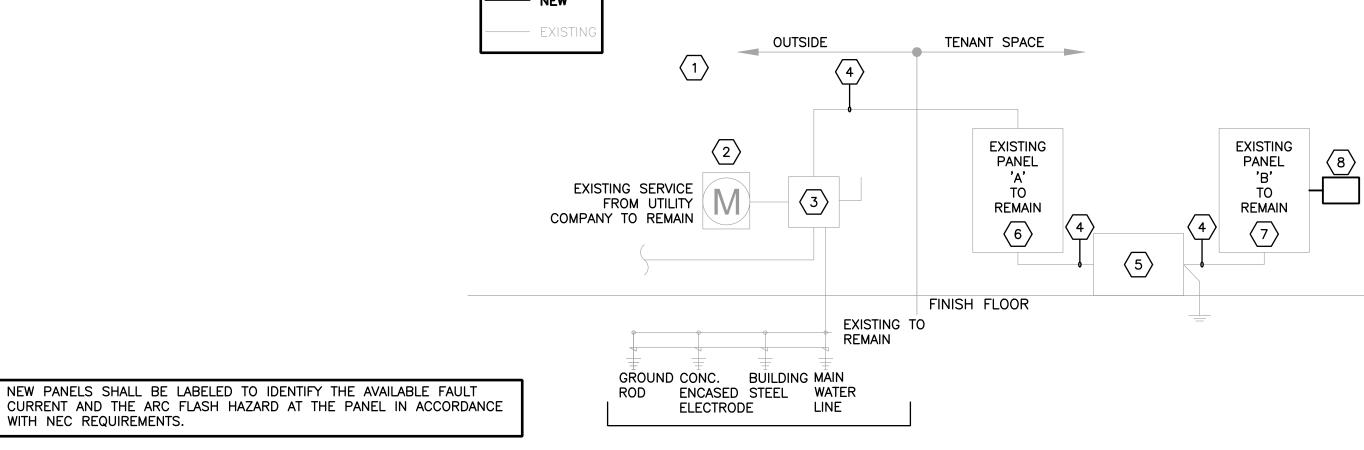
CONTRACTOR'S FAILURE TO VERIFY SITE CONDITIONS PRIOR TO BIDDING.

AFTER THE UTILITY FAULT CURRENT INFORMATION PROVIDED BY THE CONTRACTOR HAS BEEN REVIEWED AND EVALUATED BY THE ENGINEER, ANY REVISIONS TO THE BASIS OF DESIGN AIC VALUES IDENTIFIED ON THE DRAWINGS THAT MAY BE REQUIRED SHALL BE COMMUNICATED BY THE ENGINEER TO THE ELECTRICAL CONTRACTOR.

COMPANY FAULT CURRENT INFORMATION TO THE ENGINEER

FOR REVIEW AND EVALUATION.

CONTRACTOR SHALL NOT SUBMIT THE POWER DISTRIBUTION EQUIPMENT FOR REVIEW OR ORDER THE POWER DISTRIBUTION EQUIPMENT UNTIL THE FAULT CURRENT INFORMATION FROM THE UTILITY COMPANY HAS BEEN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR AND THE ENGINEER HAS EVALUATED THE INFORMATION AND PROVIDED FINAL DIRECTION REGARDING THE AIC RATING OF THE POWER DISTRIBUTION EQUIPMENT.



ONE-LINE DIAGRAM

NOT TO SCALE

E3-01

ONE-LINE DIAGRAM KEYED NOTES

- (1) EC TO FIELD VERIFY CONFIGURATION AND CHARACTERISTICS OF EXISTING EQUIPMENT. IF DIFFERENT THAN REPRESENTED HERE NOTIFY ENGINEER FOR ADDITIONAL DIRECTION.
- (2) EXISTING 200A 3P, 4W, ELECTRICAL METER TO REMAIN.
- $\langle 3 \rangle$ EXISTING 200A DISCONNECT SWITCH TO REMAIN.
- 4 EXISTING CONDUIT AND CONDUCTORS TO REMAIN.
- (5) EXISTING 75 kVA 480V DELTA PRIMARY, 120/208V WYE SECONDARY TRANSFORMER TO REMAIN.
- (6) EXISTING PANEL 'A' TO REMAIN.
- (7) EXISTING PANEL 'B' TO REMAIN.
- 8 EC TO PROVIDE NEW DIGITAL TIME CLOCK, SEE SHEET E2 FOR

MUNICIPAL APPROVAL STAMP

CRANBROO

I ARBOR-VILLAGE

ERMIT

SCHEDULE

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ELECTRICAL PANEL

B. PRIOR TO SUBMISSION OF A BID PROPOSAL, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS AND LIMITATIONS THAT IMPACT THE WORK OF THIS CONTRACT. NO ADDITIONAL COSTS TO THE OWNER SHALL BE PERMITTED FOR CHANGES TO THE WORK AS A RESULT OF THE CONTRACTORS FAILURE TO VISIT THE SITE PRIOR TO BIDDING AND IDENTIFY ITEMS THAT WERE ABLE TO BE VERIFIED DURING A SITE VISIT PRIOR TO THE SUBMISSION OF A BID PROPOSAL.

C. CONTRACTOR SHALL PROVIDE ALL LABOR MATERIAL FOLLIPMENT RIGGING AND MISCELLANEOUS ITEMS AS REQUIRED FOR A COMPLETE, OPERATIONAL AND FUNCTIONAL ELECTRICAL INSTALLATION AS SHOWN ON THE DRAWINGS AND AS SPECIFIED IN THESE

A. ALL WORK OF THIS CONTRACT SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE TENANT/LANDLORD AGREEMENT. THIS CONTRACTOR SHALL EXAMINE THE LANDLORD DIRECTED BY THE GENERAL CONTRACTOR.

B. ALL APPLICABLE REQUIREMENTS OF THE LANDLORDS CONSTRUCTION CRITERIA AND/OR THE

ELECTRICAL WORK WITH THE WORK OF EACH DISCIPLINE AND TO OBTAIN INFORMATION TENANT/LANDLORD AGREEMENT DOCUMENTS SHALL BE CONSIDERED PART OF THESE SPECIFICATIONS.

EXISTING CONDITIONS

A. THE CONTRACT DOCUMENTS ARE BASED ON INFORMATION PROVIDED TO THE CONSULTANT AT THE TIME OF DESIGN. THIS CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS,

A. PRIOR TO SUBMISSION OF A BID PROPOSAL, CONTRACTOR SHALL THOROUGHLY REVIEW THE BID INSTRUCTIONS AND ALL CIVIL, ARCHITECTURAL, STRUCTURAL, AND MEPFP

MANUFACTURERS NAMED IN THESE SPECIFICATIONS OR ON THE DRAWINGS FOR ANY EQUIPMENT, THE CONTRACTOR SHALL SUBMIT A VOLUNTARY ALTERNATIVE A MINIMUM OF

NUMBER, WRITTEN, DETAILED PRODUCT DATA. C. WORK PERFORMED OR CONSTRUCTED WITH UNAPPROVED EQUALS IS AT CONTRACTOR'S RISK AND ANY REQUIRED CORRECTION OF WORK INCORPORATING UNAPPROVED EQUALS SHALL BE AT CONTRACTOR'S SOLE COST AND EXPENSE

D. NO SUBSTITUTIONS PERMITTED FOR LIGHTING FIXTURES.

A. ALL MATERIALS AND EQUIPMENT SHALL BE NEW.

B. PROVIDE PERMITS, INSPECTIONS, FINAL CERTIFICATES OF INSPECTION BY THE AUTHORITY HAVING JURISDICTION, PERMIT AND INSPECTION FEES AND ALL MATERIALS, EQUIPMENT AND LABOR AS REQUIRED FOR A COMPLETE, FUNCTIONAL AND FULLY OPERATIONAL ELECTRICAL SYSTEM

C. THIS CONTRACTOR SHALL PROVIDE ALL MATERIALS AND ACCESSORIES FOR CODE COMPLIANT SUPPORT OF THE ELECTRICAL WORK, WHETHER OR NOT SHOWN ON THE DRAWINGS OR SPECIFIED IN THESE SPECIFICATIONS

D. REQUIREMENTS OF REGULATORY AGENCIES:

1. PERMITS: ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS AND UTILITY 2. PROVIDE ALL TESTS AND INSPECTIONS REQUIRED BY THE AUTHORITY HAVING

3. PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE COMPLETION OF THE PROJECT.

SHORT CIRCUIT STUDY INCLUDE IN OPERATION AND MAINTENANCE MANUALS.

1. COMPLY WITH SPECIFIED CODES AND STANDARDS. IF CONFLICT EXISTS BETWEEN CODES B. FOR NEW EQUIPMENT, USE CHARACTERISTICS SUBMITTED UNDER THE PROVISIONS OF OR STANDARDS AND DRAWINGS, PROJECT MANUAL OR ADDENDA REQUIREMENTS, REQUEST CLARIFICATION FROM ARCHITECT/ENGINEER.

2. CONFORM TO THE INSTALLATION RULES AND REGULATIONS OF THE CODES AND STANDARDS LISTED INCLUDING ALL SUBSEQUENTLY PUBLISHED AMENDMENTS THERETO ISSUED PRIOR TO THE DATE OF THE BIDDING DOCUMENTS. 3. CONFORM TO THE REQUIREMENTS OF ALL LOCAL, STATE AND FEDERAL AGENCIES WHICH

4. COMPLY WITH THE APPLICABLE EDITION OF THE FOLLOWING CODES AND STANDARDS

THAT HAVE BEEN ADOPTED BY AND ARE ENFORCED BY THE AUTHORITY HAVING JURISDICTION:

a. INTERNATIONAL BUILDING CODE b. INTERNATIONAL ENERGY CONSERVATION CODE

c. INTERNATIONAL MECHANICAL COD d. INTERNATIONAL ELECTRICAL CODE

e. INTERNATIONAL FIRE CODE f. LIFE SAFETY CODE, NFPA 101

g. AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES

h. ALL LOCAL CODES AND ORDINANCES ADOPTED AND ENFORCED BY THE AUTHORITY HAVING JURISDICTION.

F. UNDERWRITERS LABORATORIES, INC. (UL) REFERENCED STANDARDS:

1. ALL EQUIPMENT, APPARATUS, MATERIALS AND SYSTEMS SHALL BE RATED, TESTED, C. FOR NEW EQUIPMENT, USE CHARACTERISTICS SUBMITTED UNDER THE PROVISIONS OF

2. ALL EQUIPMENT, APPARATUS, MATERIALS AND SYSTEMS SHALL BE UL LISTED AND D. FOR EXISTING EQUIPMENT, WHETHER OR NOT RELOCATED, OBTAIN REQUIRED ELECTRICAL

ELECTRICAL CONTRACT DOCUMENTS

E. HAZARD LABELS SHALL HAVE AN ORANGE HEADER WITH THE WORDING, "WARNING A. THE ELECTRICAL DRAWINGS (DRAWINGS) AND THE SPECIFICATIONS SHALL TOGETHER FORM A SET OF CONTRACT DOCLIMENTS FOR THE FLECTRICAL WORK. NEITHER THE DRAWINGS OR THE SPECIFICATIONS SHALL BE COMPLETE WITHOUT THE OTHER. ANY ITEM SHOWN ON THE DRAWINGS OR SPECIFIED IN THE SPECIFICATIONS SHALL BE CONSIDERED AS IF SHOWN AND SPECIFIED IN BOTH.

B. ELECTRICAL DRAWINGS AND SPECIFICATIONS: COMPLY WITH THE FOLLOWING

1. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL DRAWINGS AND SPECIFICATIONS WITHIN THE CONTRACT DOCUMENTS, INCLUDING, BUT NOT NECESSARILY LIMITED TO, GEOTECHNICAL, LANDSCAPE, CIVIL, ARCHITECTURAL STRUCTURAL, FOOD SERVICE, MECHANICAL, PLUMBING AND FIRE PROTECTION

2. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO F. ARC FLASH HAZARD WARNING LABELS SHALL BE A 3.5-BY-5-INCH THERMAL TRANSFER LABEL INDICATE APPROXIMATE LOCATION ONLY OF ELECTRICAL WORK. THE ACTUAL LOCATION OF ANY ELECTRICAL WORK SHALL NOT INTERFERE WITH THE LOCATION, CLEARANCES, ETC. REQUIRED BY THE WORK OF OTHER TRADES.

3. PRIOR TO ROUGH-IN, CONTRACTOR SHALL COORDINATE ALL DEVICE LOCATIONS WITH THE ARCHITECTURAL WALL ELEVATIONS AND THE FINAL, APPROVED FOOD SERVICE SHOP RECORD DOCUMENTS

A. DURING THE PROGRESS OF THE WORK, CONTRACTOR SHALL MAINTAIN A CURRENT (DAILY) C. DEFINITIONS: THE FOLLOWING TERMS ARE USED ON THE ELECTRICAL DRAWINGS AND IN THE SPECIFICATIONS AND SHALL BE DEFINED AS FOLLOWS:

1. CONTRACTOR - THE ELECTRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS.

2. WORK - ALL MATERIAL, LABOR, TRANSPORTATION OF THE ELECRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS. 3. FURNISH - PURCHASE, SUBMIT FOR REVIEW AND APPROVAL, COORDINATE WITH THE

CONTRACT DOCUMENTS AND DELIVER TO THE PROJECT SITE IN NEW, UNDAMAGED COORDINATION WITH LANDLORD AND UTILITY COMPANIES 4. INSTALL - TO STORE AS DIRECTED, PROTECT FROM DAMAGE, INSTALL IN PLACE, MAKE

READY FOR CONNECTION TO THE REQUIRED SERVICE. CONNECT TO THE REQUIRED SERVICE AS REQUIRED FOR PROPER OPERATION, TEST FOR PROPER AND SPECIFIED FUNCTIONALITY AND TURN OVER TO THE OWNER IN FULL OPERATING CONDITION. 5. CONNECT - CONNECT TO THE REQUIRED SERVICE AS REQUIRED FOR PROPER OPERATION. TEST FOR PROPER OPERATION AND FUNCTIONALITY IN ACCORDANCE WITH

MANUFACTURER'S REQUIREMENTS AND REQUIREMENTS SPECIFIED WITHIN THESE SPECIFICATIONS AND TURN OVER TO THE OWNER IN FULL OPERATING CONDITION. 6. PROVIDE - FURNISH, INSTALL AND CONNECT AS DEFINED ABOVE FOR A COMPLETE AND COORDINATION WITH OTHER TRADES

FUNCTIONAL INSTALLATION. 7. FINISHED SPACE - SPACES HAVING WALLS PAINTED OR FINISHED WITH WALL COVERING, A. ELECTRICAL WORK SHALL BE INSTALLED SO AS TO NOT CONFLICT WIH THE WORK OF OTHER

FINISHED SPACES INCLUDE. BUT ARE NOT NECESSARILY LIMITED TO, ALL SPACES IN A DWELLING UNIT, OFFICES, LOBBIES, CORRIDORS, TOILET ROOMS, ETC. 8. UNFINISHED SPACES - SPACES WITH UNFINISHED WALLS AND FLOORS AND TYPICALLY

LAY-IN OR DRYWALL CEILINGS, AND FINISHED FLOORING MATERIALS. EXAMPLES OF

ARE NOT EQUIPPED WITH A CEILING. EXAMPLES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, MECHANICAL ROOMS, ELECTRICAL ROOMS, SERVICE AREAS, ETC.

D. ALL LINE VOLTAGE WIRING AND FINAL CONNECTIONS TO COMPLETE MECHANICAL SYSTEMS A. REVIEW OF THE SHOP DRAWINGS IS RENDERED AS A SERVICE ONLY AND SHALL NOT BE CONSIDERED AS A GUARANTEE OF MEASUREMENTS OR OF BUILDING CONDITIONS: NOR SHALL IT BE CONSTRUED AS RELIEVING THE CONTRACTOR'S OF BASIC RESPONSIBILITIES E. PROVIDE FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT FURNISHED/PROVIDED BY UNDER HIS CONTRACT. ARCHITECT/ENGINEER WILL REVIEW SHOP DRAWINGS ONLY FOR CONFORMANCE WITH DESIGN CONCEPT OF THE PROJECT. REVIEW BY THE ARCHITECT/ENGINEER SHALL NOT BE CONSTRUED:

1. AS PERMITTING ANY DEPARTURE FROM THE CONTRACT REQUIREMENTS.

2. AS RELIEVING THE CONTRACTOR OF THE RESPONSIBILITY FOR ANY ERROR IN DETAILS,

DIMENSIONS OR OTHERWISE THAT MAY EXIST

3. AS APPROVED DEPARTURES FROM ADDITIONAL DETAILS OR INSTRUCTIONS PREVIOUSLY FURNISHED BY THE ARCHITECT/ENGINEER.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESCRIPTIVE LITERATURE OF EQUIPMENT TO BE FURNISHED UNDER THIS CONTRACT. DRAWINGS SHALL STATE A. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY POWER AND LIGHTING TO

THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK REQUIRING SUBMITTAL AND

REVIEW OF SHOP DRAWINGS. PRODUCT DATA. SAMPLES OR SIMILAR SUBMITTALS UNTIL

CAPACITIES, SIZES, ETC., OF ALL EQUIPMENT AND SHALL BE CERTIFIED. SEE GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS FOR ADDITIONAL REQUIREMENTS.

REQUIREMENTS OF THE LANDLORD'S CONSTRUCTION CRITERIA AND/OR THE A. PREPARE ELETRICAL COORDINATION DRAWINGS AS REQUIRED BY THE WORK AND AS B. MEET WITH REPRESENTATIVES OF THE OTHER DISCIPLINES/TRADES TO COORDINATE THE A. PROVIDE ALL EQUIPMENT REQUIRED FOR ELECTRICITY METERING BY UTILITY COMPANY.

> REGARDING THEIR WORK THAT IS TO BE INDICATED ON THE COORDINATION DRAWINGS. POWER SYSTEM STUDIES - GENERAL

A. PROVIDE COMPUTER-BASED, POWER SYSTEM STUDIES THAT INCLUDES

PANEL, CONTACTORS, WIRING DEVICES, POWER SYSTEM STUDY

THE RESPECTIVE SUBMITTALS HAS BEEN APPROVED BY THE ENGINEER.

1. A SHORT CIRCUIT STUDY TO DETERMINE THE MINIMUM INTERRUPTING CAPACITY OF CIRCUIT PROTECTIVE DEVICES: 2. AN ARC-FLASH STUDY TO DETERMINE THE ARC-FLASH HAZARD DISTANCE AND THE

NEAR ELECTRICAL EQUIPMENT. B. STUDIES SHALL BE PERFORMED UTILIZING COMPUTER PROGRAMS THAT ARE DISTRIBUTED E. INSTALL ALL CONDUITS AND EQUIPMENT ACCORDING TO UTILITY COMPANY'S WRITTEN NATIONALLY AND ARE IN WIDE USE. SOFTWARE ALGORITHMS SHALL COMPLY WITH REQUIREMENTS. PROVIDE EMPTY CONDUITS FOR METERING LEADS AND EXTEND REQUIREMENTS OF STANDARDS AND GUIDES SPECIFIED IN THIS SECTION. MANUAL CALCULATIONS ARE UNACCEPTABLE

INCIDENT ENERGY TO WHICH PERSONNEL COULD BE EXPOSED DURING WORK ON OR

SEVEN (7) CALENDAR DAYS PRIOR TO BID, STATING THE MANUFACTURER'S NAME, MODEL C. SOFTWARE DEVELOPERS: SUBJECT TO COMPLIANCE WITH SPECIFIED REQUIREMENTS, PERFORM STUDIES UTILIZING SOFTWARE PRODUCTS BY ONE OF THE FOLLOWING:

POWER ANALYTICS CORPORATION

D. ALL STUDIES SHALL BE BASED ON THE DEVICE CHARACTERISTICS OF ACTUAL EXISTING COMPONENTS AND THE NEW COMPONENTS BEING INSTALLED.

E. PROVIDE ALL FIELD LABOR AS REQUIRED TO OBTAIN ALL DATA NECESSARY TO CONDUCT THE SEISMIC RESTRAINT SUBMIT STUDIES FOR REVIEW BEFORE SUBMITTING THE SYSTEM OVERCURRENT PROTECTIVE DEVICE AND POWER DISTRIBUTION EQUIPMENT SUBMITTALS. SUBMIT STUDY REPORT FOR REVIEW PRIOR TO RECEIVING FINAL APPROVAL OF THE OVERCURRENT ROTECTIVE DEVICE

AND DISTRIBUTION EQUIPMENT SUBMITTALS. G. WHERE FORMAL COMPLETION OF STUDIES WILL CAUSE A DELAY IN THE ORDERING AND MANUFACTURING OF OVERCURRENT PROTECTIVE DEVICES AND POWER DISTRIBUTION CUTTING & PATCHING SUFFICIENT STUDY DATA TO ENSURE THAT THE SELECTION OF DEVICES AND ASSOCIATED A. CORE-DRILL OR SAW-CUT EXISTING FLOORS, WALLS, ROOF, ETC., AS REQUIRED FOR THE CHARACTERISTICS IS SATISFACTORY AND IN COMPLIANCE WITH THE RESULTS OF THE

ARC FLASH HAZARD STUDY

QUALIFIED TECHNICIANS AND ENGINEERS.

FROM THE ARC-FLASH HAZARD ANALYSIS:

. LOCATION DESIGNATION.

3. FLASH PROTECTION BOUNDARY

THE COMPLETION OF THE WORK.

COMPANY STANDARDS TO BE COMPLIED WITH, ETC.

CONVENIENT AND PROPER INSTALLATION OF THE WORK.

WORK OF ANY CONTRACTOR ON THE PROJECT

HAZARD RISK CATEGORY

NOMINAL VOLTAGE.

INCIDENT ENERGY.

A. PROVIDE A COMPUTER-BASED, SHORT CIRCUIT STUDY TO DETERMINE THE MINIMUM INTERRUPTING CAPACITY OF CIRCUIT PROTECTIVE DEVICES

THE QUALIFICATIONS OF TECHNICIANS AND ENGINEERS SHALL BE QUALIFIED AS DEFINED BY

ACTION SUBMITTALS AND INFORMATION SUBMITTALS FOR THIS PROJECT C. FOR EXISTING RELOCATED EQUIPMENT AND EXISTING EQUIPMENT THAT IS EXISTING TO REMAIN, OBTAIN REQUIRED ELECTRICAL DISTRIBUTION SYSTEM DATA BY FIELD INVESTIGATION AND SURVEYS, CONDUCTED BY QUALIFIED TECHNICIANS AND ENGINEERS. B. PROVIDE AN INSULATED EQUIPMENT GROUND CONDUCTOR WITHIN ALL FEEDERS AND

D. GATHER AND TABULATE ALL REQUIRED DATA TO SUPPORT THE SHORT-CIRCUIT STUDY. COMPLY WITH RECOMMENDATIONS IN IEEE 551 AS TO THE AMOUNT OF DETAIL THAT IS REQUIRED TO BE ACQUIRED IN THE FIELD.

E. BEGIN SHORT-CIRCUIT CURRENT ANALYSIS AT THE SERVICE, EXTENDING DOWN TO THE SYSTEM OVERCURRENT PROTECTIVE DEVICES AS FOLLOWS

1. TO NORMAL SYSTEM LOW-VOLTAGE LOAD BUSES WHERE FAULT CURRENT IS 10 KA OR

DISTRIBUTION SYSTEM DATA BY FIELD INVESTIGATION AND SURVEYS, CONDUCTED BY

ARC-FLASH HAZARD," AND SHALL INCLUDE THE FOLLOWING INFORMATION TAKEN DIRECTLY

OF HIGH-ADHESION POLYESTER FOR EACH WORK LOCATION INCLUDED IN THE ANALYSIS.

INSTALLED AT VARIANCE WITH SUCH CONTRACT DOCUMENTS INCLUDING, WITHOUT

A. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL COORDINATE THE WORK OF

THIS CONTRACT WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE AND AUTHORIZED

REPRESENTATIVES OF EACH SERVING UTILITY THAT WILL PROVIDE SERVICE TO THIS SITE.

EACH UTILITY TO DISCUSS UTILITY COMPANY SCOPE OF WORK, CONTRACTOR SCOPE OF

WORK, POINT OF SERVICE PICK-UP, DETAILS REGARDING SYSTEM INTERFACE, UTILITY

B. SET ALL SLEEVES AND CUT AND PATCH ALL MISCELLANEOUS HOLES NECESSARY FOR THE

CONFER WITH THE OTHER CONTRACTORS REGARDING THE LOCATION AND SIZE OF PIPES.

EQUIPMENT. DUCTS. OPENINGS AND SPECIAL ARCHITECTURAL TREATMENTS IN ORDER THA

F. COORDINATE THE NEMA CONFIGURATION OF THE RECEPTACLE TO BE PROVIDED WITH THE

NEMA PLUG CONFIGURATION OF THE CORD/PLUG ASSEMBLY FURNISHED WITH THE

THERE MAY BE NO INTERFERENCES BETWEEN THE INSTALLATION OR THE PROGRESS OF THE

ENGINEERING REPORT NUMBER, REVISION NUMBER, AND ISSUE DATE.

G. LABELS SHALL BE MACHINE PRINTED, WITH NO FIELD-APPLIED MARKINGS

A. PROVIDE A COMPUTER-BASED, ARC-FLASH HAZARD STUDY TO DETERMINE THE ARC-FLASH

AZARD DISTANCE AND THE INCIDENT ENERGY TO WHICH PERSONNEL COULD BE EXPOSED A. PROVIDE EQUIPMENT LABELS ON PANELBOARDS, DISCONNECT SWITCHES, CONTACTORS, CONTROLS, ETC. EQUIPMENT LABELS SHALL BE ENGRAVED PHENOLIC RESIN NAMEPLATES DURING WORK ON OR NEAR EXISTING AND NEW ELECTRICAL EQUIPMENT. ATTACHED TO ENCLOSURE WITH MECHANICAL FASTENERS. SELF-ADHESIVE NAMEPLATES B. ELECTRICAL SURVEY DATA: GATHER AND TABULATE ALL REQUIRED INPUT DATA TO SUPPORT ARE NOT ACCEPTABLE. LETTERING SHALL BE 1/2" HIGH, BLACK TEXT ON WHITE STUDY. COMPLY WITH RECOMMENDATIONS IN IEEE 1584 AND NFPA 70E AS TO THE AMOUNT OF DETAIL THAT IS REQUIRED TO BE ACQUIRED IN THE FIELD.

CHATSWORTH PRODUCTS 10622-012 OR APPROVED EQUAL.

B. THE COVERS OF ALL OUTLET AND JUNCTION BOXES INSTALLED ABOVE CEILINGS AND SHALL BE LEGIBLY HANDWRITTEN WITH BLACK, FELT TIP PERMANENT MARKER.

THAT MATCHES THE NEMA CONFIGURATION OF THE PLUG ON THE EQUIPMENT.

B. ELECTRICAL SERVICE CONNECTIONS: COORDINATE WITH UTILITY COMPANIES AND

1. COMPLY WITH REQUIREMENTS OF UTILITIES PROVIDING ELECTRICAL POWER SERVICES.

D. METER SOCKETS: COMPLY WITH REQUIREMENTS OF ELECTRICAL-POWER UTILITY COMPANY

A. PROVIDE FIRE STOPPING FOR PENETRATIONS BY CONDUIT OR CABLES AND OTHER

OR UL 1479 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO OR GREATER THAN

INSTALLATION OF THE ELECTRICAL WORK. STRUCTURAL COMPONENTS, INCLUDING BUT

NOT NECESSARILY LIMITED TO, COLUMNS, BEAMS, GIRDIRS, PLATES OR JOISTS SHALL NOT BE

B. PATCH SURROUNDING AREAS FLUSH WITH ADJACENT SURFACES AND PREPARE TO RECEIVE

SPECIFIED FINISHES. PATCH AND REPAIR ROOF TO MATCH EXISTING ROOFING SYSTEM. ALL

A. PROVIDE ELECTRICAL SYSTEM AND EQUIPMENT GROUNDING IN ACCORDANCE WITH

PROVIDE AN ISOLATED GROUND CONDUCTOR IN ADDITION TO THE EQUIPMENT

. PROVIDE A #6 AWG GREEN INSULATED GROUNDING CONDUCTOR FROM THE GROUND BAR

E. PROVIDE A COPPER GROUNDING BAR AT THE TELEPHONE TERMINAL BACKBOARD.

GROUNDING BAR SHALL BE 1/4 INCH X 4 INCHES X 12 INCHES, PRE-DRILLED FOR CONDUCTOR

TERMINATIONS, WITH NON-METALLIC STAND-OFF BRACKETS WITH INSULATORS.

GROUNDING CONDUCTOR IN SELECT BRANCH CIRCUITS AS NOTED ON THE DRAWINGS.

AT TELEPHONE TERMINAL BOARD TO THE ELECTRICAL SERVICE GROUNI

TRADES PRIOR TO THEIR ORDERING OF EQUIPMENT.

SEQUENCING AND SCHEDULING

CONTRACTOR.

AND THE PROJECT PHASING PLAN.

UTILITY COMPANY METERING EQUIPMENT

COMPONENTS THEY FURNISH AS FOLLOWS

PROVISION FOR ELECTRICITY-METERING COMPONENTS.

GROUNDING CONNECTIONS AS REQUIRED BY UTILITY COMPANY

THAT OF THE CONSTRUCTION BEING PENETRATED.

THE AUTHORITY HAVING JURISDICTION.

APPLICABLE NEC REQUIREMENTS.

BRANCH CIRCUITS.

EQUIPMENT IDENTIFICATION

THE COVER PLATES OF ALL WIRING DEVICES SHALL BE LABELED TO IDENTIFY THE SERVING PANEL AND THE CIRCUITS SERVING THE DEVICE. LABELS SHALL BE MACHINE PRINTED, BLACK TEXT ON A CLEAR, SELF ADHESIVE LABEL.

CONDUIT AND FITTINGS A. ALL INTERIOR AND EXTERIOR CONDUITS SHALL BE INSTALLED AND SUPPORTED IN

ACCORDANCE WITH NEC REQUIREMENTS. B. MINIMUM CONDUIT SIZE SHALL BE $rac{3}{4}$ " TRADE SIZE. SWITCH LEGS SHALL BE $rac{1}{2}$ " TRADE SIZE. C. WITHIN INTERIOR FINISHED AREAS, ALL CONDUIT SHALL BE INSTALLED CONCEALED WITHIN

NEW AND EXISITNG WALLS AND ABOVE NEW AND EXISTING CEILINGS. D. CONDUIT INSTALLED WITHIN THE INTERIOR OF THE BUILDING SHALL BE GALVANIZED ELECTRICAL METALLIC TUBING (EMT). CONDUIT FITTINGS FOR INDOOR EMT CONDUITS SHALL BE CAST METAL, COMPRESSION TYPE.

E. EMT SHALL BE USED FOR INTERIOR FEEDERS AND BRANCH CIRCUITS INSTALLED CONCEALED ABOVE CEILINGS OR CONCEALED WITHIN EXISTING AND NEW INTERIOR PARTITIONS. F. CONDUITS INSTALLED EXPOSED ON THE EXTERIOR OF THE BUILDING SHALL BE GALVANIZED

G. CONDUITS INSTALLED UNDER SLAB ON GRADE CONSTRUCTION SHALL BE RIGID NON-METALLIC (RNC), SCHEDULE 40 PVC. RNC COMPLYING WITH NEMA TC 2 AND UL 651 UNLESS OTHERWISE INDICATED. FITTINGS FOR RIGID NON-METALLIC CONDUIT SHALL COMPLY WITH NEMA TC 3; MATCH TO CONDUIT TYPE AND MATERIAL.

AS-BUILT SET OF THE DRAWINGS AND SPECIFICATIONS, INDICATING THEREON ALL WORK

H. PROVIDE CONDUIT EXPANSION FITTINGS IN ALL CONDUIT RUNS THAT EXTEND ACROSS BUILDING EXPANSION JOINTS AND WHERE MOVEMENT MAY BE ENCOUNTERED. LIMITATION, WORK COVERED BY ADDENDA, FIELD WORK ORDERS, CHANGE ORDERS, AND CONDUIT SHALL BE SUPPORTED FROM STRUCTURE ONLY

B. CONTRACTOR SHALL PROVIDE THE TENANT WITH THE FINAL AS-BUILT SET OF DRAWINGS AT J. PVC CONDUIT SHALL ONLY BE USED BELOW GRADE

RIGID STEEL. FITTINGS SHALL BE THREADED TYPE.

K. PROVIDE FLEXIBLE METAL CONDUIT FOR CONNECTIONS TO VIBRATING EQUIPMENT. MAXIMUM CONDUIT LENGTH SHALL BE 36 INCHES. PROVIDE LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR CONNECTIONS TO VIBRATING EQUIPMENT IN WET OR OUTDOOR LOCATIONS. MAXIMUM CONDUIT LENGTH SHALL BE 36

INCLUDING BUT NOT NECESSARILY LIMITED TO, ELECTRIC, TELEPHONE AND CABLE/SATELLITE M. PROVIDE FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO RECESSED LIGHT FIXTURES SWITCHES (FIXTURE WHIPS). MAXIMUM CONDUIT LENGTH SHALL BE 72 INCHES. B. CONTRACTOR SHALL MEET WITH AUTHORIZED REPRESENTATIVES OF THE LANDLORD AND N. PROVIDE LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR FINAL ELECTRICAL CONNECTIONS TO FOOD SERVICE EQUIPMENT.

> O. CONDUITS THAT EXTEND UP TO THE ROOF LEVEL TO SERVE ROOF MOUNTED MECHANICAL EQUIPMENT INSTALLED ON A CURB SHALL BE ROUTED WITHIN THE EQUIPMENT CURB. COORDINATE ELECTRICAL WORK WITH MECHANICAL EQUIPMENT INSTALLER. PROVIDE CONDUIT SEALING FITTINGS IN ALL CONDUITS THAT EXTEND FROM

> NON-REFRIGERATED SPACES TO REFRIGERATED SPACES. O. ALL CONDUITS INSTALLED IN ASSOCIATION WITH THE WALK-IN COOLER FREEZER SHALL BE INSTALLED IN ACCORDANCE WITH THE WALK-IN MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS. COORDINATE ALL CONDUIT INSTALLATION WITH WALK-IN EQUIPMENT INSTALLER.

WHEATLAND, ELECTRI-FLEX AND ANACONDA. . ACCEPTABLE MANUFACTURERS FOR CONDUIT FITTINGS SHALL BE THOMAS AND BETTS OF APPROVED EQUAL.

ACCEPTABLE MANUFACTURERS FOR GALVANIZED RIGID CONDUIT, EMT, FLEXIBLE METAL

CONDUITS AND LIQUID-TIGHT FLEXIBLE METAL CONDUITS SHALL BE ALLIED, REPUBLIC,

OTHERS, (HVAC EQUIPMENT, PLUMBING EQUIPMENT, COMMERCIAL KITCHEN EQUIPMENT, CONDUCTORS A. ALL CONDUCTORS SHALL BE SOFT DRAWN, ANNEALED COPPER, #12 AWG MINIMUM. STRANDED.

G. PROVIDE FINAL COORDINATION OF AVAILABLE POWER (VOLTAGE/PHASE) WITH OTHER C. THE USE OF ALUMINUM CONDUCTORS IS NOT ACCEPTABLE D. EXPOSED, INTERIOR FEEDERS: TYPE THHN-THWN, SINGLE CONDUCTORS IN CONDUIT. E. FEEDERS INSTALLED CONCEALED IN CEILINGS, WALLS, PARTITIONS: TYPE THHN-THWN, F. DEVICE COLOR SHALL BE AS SELECTED BY THE OWNER/ARCHITECT.

AND BETTS LOCK-TITE FOR #6 AND LARGER.

COMPANY, CAROL, ANACONDA, ROME, SOUTHWIRE.

ALLOW ALL CONTRACTORS AND SUB-CONTRACTORS TO PERFORM THE WORK OF THEIR F. FEEDERS INSTALLED CONCEALED IN CONCRETE, BELOW SLABS-ON-GRADE AND UNDERGROUND: TYPE THHN-THWN, SINGLE CONDUCTORS IN PVC CONDUIT.

PROVIDE SUBMITTALS FOR LIGHTING FIXTURES, PANELBOARDS, LIGHTING CONTROL B. PRIOR TO THE SUBMISSION OF A BID PROPOSAL, THE CONTRACTOR SHALL CONTACT THE G. EXPOSED, INTERIOR, BRANCH CIRCUITS: TYPE THHN-THWN, SINGLE CONDUCTORS IN COVER PLATES FOR TOGGLE SWITCHES AND RECEPTACLES GENERAL CONTRACTOR TO COORDINATE THE TYPE OF EQUIPMENT TO BE UTILIZED DURING H. BRANCH CIRCUITS CONCEALED IN EXISTING AND NEW CEILINGS, WALLS, AND PARTITIONS: MATCH THE WIRING DEVICE.

BRANCH CIRCUITS CONCEALED BELOW SLABS-ON-GRADE, AND UNDERGROUND: STEEL HARDWARE, UNLESS OTHERWISE NOTED. A. COORDINATE ELECTRICAL EQUIPMENT INSTALLATION WITH OTHER BUILDING COMPONENTS TYPE THHN-THWN, SINGLE CONDUCTORS IN CONDUIT.

> J. ACCEPTABLE MANUFACTURERS FOR CONDUCTORS: GENERAL CABLE COMPANY, CAROL, ANACONDA, ROME, SOUTHWIRE. K. CLASS 1 CONTROL CIRCUITS: TYPE THHN-THWN. IN CONDUIT CLASS 2 CONTROL CIRCUITS: POWER-LIMITED PLENUM RATED CABLE, CONCEALED IN

M. THE USE OF NON-METALLIC-SHEATHED CABLE (TYPE NM) AND METAL CLAD CABLE (TYPE MC)

A. DEVICES AND EQUIPMENT SHALL BE INSTALLED AT THE MOUNTING HEIGHTS NOTED BELOW IS NOT ACCEPTABLE 2. COORDINATE INSTALLATION AND CONNECTION OF UTILITIES AND SERVICES, INCLUDING N. WIRE CONNECTORS SHALL BE EQUAL TO SCOTCH LOCK FOR #8 AWG AND SMALLER, THOMAS

METERS SHALL BE FURNISHED BY UTILITY COMPANY; INSTALLED BY ELECTRICAL O. PROVIDE #10 AWG CONDUCTORS FOR BRANCH CIRCUITS HAVING A CONDUCTOR LENGTH P. ACCEPTABLE MANUFACTURERS FOR CONDUCTORS AND MC CABLE: GENERAL CABLE

> CONDUCTOR COLOR CODING A. PROVIDE COLOR CODING SYSTEM AS LISTED BELOW FOR ALL FEEDERS AND BRANCH

CIRCUITS AND USED AS A BASIS FOR BALANCING LOAD ON PANELS. EQUIPMENT THROUGH FIRE-RATED VERTICAL BARRIERS (WALLS AND PARTITIONS), B. COLOR CODING FOR CONDUCTOR #12 AWG THROUGH #6 AWG SHALL CONSIST OF COLOR CODED THERMOPLASTIC INSULATION OF THE COLORS SPECIFIED HEREIN HORIZONTAL BARRIERS (FLOOR/CEILING ASSEMBLIES) AND VERTICAL SHAFT WALLS AND C. COLOR CODING FOR CONDUCTORS #8 AWG AND LARGER SHALL BE FIELD APPLIED SELF ADHESIVE TAPE OF THE COLOR SPECIFIED HEREIN FOR THE PARTICULAR PHASE B. FIRESTOP SYSTEM INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF ASTM E 814

> D. 120/208V: PHASE A--BLACK, PHASE B--RED, PHASE C--BLUE, NEUTRAL--WHITE, EQUIPMENT GROUND--GREEN, ISOLATED GROUND--GREEN WITH DISTINCTIVE WHITE OR YELLOW A. DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE, UL LISTED AND LABELED, EQUIPPED TRAINING OF OWNER'S DESIGNATED PERSONNEL

A. PROVIDE SEISMIC RESTRAINT FOR ELECTRICAL WORK AND SYSTEMS AND EQUIPMENT IN BOXES AND FITTINGS STRICT ACCORDANCE WITH THE APPLICABLE BUILDING CODE AND THE REQUIREMENTS OF A. ALL OUTLET BOXES SHALL BE UL LISTED AND LABELED FOR USE IN THE SPACE THEY OCCUPY

C. DISCONNECT SWITCHES INSTALLED EXPOSED IN FOOR SERVICE AREAS SHALL BE NEMA 4X 3. SUBMIT ALL REQUIRED DETAILS TO THE AUTHORITY HAVING JURISDICTION FOR REVIEW AND

B. SHEET METAL OUTLET AND DEVICE BOXES FOR DRY, INTERIOR APPLICATIONS: COMPLY WITH C. CAST-METAL OUTLET AND DEVICE BOXES FOR EXTERIOR APPLICATIONS: COMPLY WITH NEMA FB 1, FERROUS ALLOY, TYPE FS OR FD, WITH GASKETED COVER. D. OUTLET BOXES INSTALLED WITHIN FIRE RATED ASSEMBLIES SHALL HAVE A FIRE RATING

EQUAL TO OR GREATER THAN THE RATING OF THE WALL IN WHICH IT IS INSTALLED. OUTLET BOXES SHALL BE 4 INCHES SQUARE BY 2 1/8 INCHES DEEP , EXCEPT FOR 2" A. PROVIDE ENCLOSED MOTOR CONTROLLERS AS SPECIFIED HEREIN FOR CONTROL OF MOTORS PARTITIONS SHALL BE AT LEAST 1-1/2" DEEP.

G. ALL PULLBOXES SHALL BE CONSTRUCTED OF GALVANIZED STEEL, OF METAL GAUGE AND HYSICAL SIZE AS REQUIRED BY THE N.E.C. FOR THE NUMBER AND SIZE OF CONDUITS AND CONDUCTORS ASSOCIATED WITH THE PULLBOX. H. FIXTURE OUTLET BOXES IN/OR ON CEILINGS SHALL NOT BE LESS THAN 1-1/2" DEEP OR LESS

THAN 4" SQUARE. ALL OUTLET BOXES INTENDED TO SUPPORT FIXTURES SHALL BE EQUIPPED WITH 3/8" FIXTURE STUDS FASTENED THROUGH THE BOTTOM OF THE BOX WITH FOUR

. ACCEPTABLE MANUFACTURERS FOR BOXES: APPLETON, STEEL CITY, RACO.

PANELBOARDS SHALL BE LIGHTING AND APPLIANCE TYPE, DEAD FRONT, SAFETY TYPE, FUSES FURNISHED WITH BRANCH CIRCUIT BREAKER OVERCURRENT PROTECTIVE DEVICES COPPER PHASE, NEUTRAL AND EQUIPMENT GROUNDING BUS BARS, MAIN CIRCUIT BREAKER OR MAIN LUG ONLY AS NOTED ON THE DRAWINGS. MAIN BUSES AND CONNECTORS SHALL BE HARD DRAWN COPPER OF 98% CONDUCTIVITY, LOAD CENTERS ARE NOT ACCEPTABLE FOR B. COORDINATE FUSE RATINGS WITH UTILIZATION EQUIPMENT NAMEPLATE LIMITATIONS OF

B. CIRCUIT BREAKERS SHALL BE MOLDED CASE, BOLT-ON TYPE SUITABLE FOR VOLTAGE AND C. CARTRIDGE FUSE APPLICATIONS: AMPERE RATINGS INDICATED ON DRAWINGS AND IN PANEL SCHEDULES. REFER TO THE PANEL SCHEDULES ON THE DRAWINGS FOR ADDITIONAL ACCESSORIES TO BE PROVIDED AT C. CIRCUIT BREAKERS SHALL HAVE A MINIMUM AMPERE INTERRUPTING CAPACITY (AIC) OF 2. CONTROL POWER TRANSFORMER (CPT) CIRCUITS: CLASS CC, TIME DELAY, CONTROL

22.000 AMPERES FOR 120/208V SYSTEMS. INSTALLED EXPOSED IN UNFINISHED SPACES SHALL BE LABELED TO IDENTIFY THE SERVING D. WHERE THE POWER SYSTEM STUDY IDENTIFIES AVAILABLE FAULT CURRENT VALUES AT 3. BASIS OF DESIGN FOR FUSES SHALL BE BUSSMANN. ADDITIONAL ACCEPTABLE HEREIN, PROVIDE CIRCUIT BREAKERS IN THE PANELS THAT HAVE AIC RATINGS GREATEF THAN THE AVAILABLE FAULT CURRENT AT THE PANEL AS DETERMINED BY THE POWEF

SYSTEM STUDY. PROVIDE NEMA 1 ENCLOSURES FOR INTERIOR PANELS.

F. PANELBOARDS SHALL BE EQUIPPED WITH FLUSH TYPE LOCK AND CATCH. ALL LOCKS SHALL BE KEYED ALIKE, WITH TWO KEYS SUPPLIED WITH EACH LOCK.

G. CIRCUIT BREAKERS SERVING LIGHTING CIRCUITS SHALL BE RATED FOR SWITCH DUTY H. CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE HACR RATED ALL LUGS SHALL BE OF THE SOLDERLESS TYPE AND RATED AT A MINIMUM OF 75°C.

PROVIDE NEW CIRCUIT DIRECTORIES WITHIN NEW PANELS TO REFLECT THE WORK OF THIS CONTRACT. DIRECTORY SHALL BE TYPEWRITTEN OR COMPUTER GENERATED. HANDWRITTEN CIRCUIT DIRECTORIES ARE NOT ACCEPTABLE. K. UTILIZE FINAL, OWNER ASSIGNED ROOM NAMES AND NUMBERS TO IDENTIFY SPACES

WITHIN THE CIRCUIT DIRECTORIES. L. PANEL CIRCUITS SHALL BE CONFIGURED SUCH THAT THE LOAD IS DISTRUBUTED EVENLY A. TIME SWITCHES, PHOTOCELLS AND CONTACTORS SHALL BE AS DETAILED ON DRAWINGS. ACROSS ALL THREE PHASES TO WITHIN 10% IN ACCORDANCE WITH NEC REQUIREMENTS. M. ALL NEW PANELBOARDS SHALL BE LABELED TO IDENTIFY THE AMOUNT OF FAULT CURRENT AVAILABLE AT THE PANEL AS DETERMINED BY THE POWER SYSTEM STUDY TO BI PFRFORMED. LABEL SHALL BE MACHINE PRINTED, BLACK TEXT ON CLEAR, SELF ADHESIVE

TAPE. INSTALL LABEL ADJACENT TO PANELBOARDS ENGRAVED NAMEPLATE. N. ALL NEW PANELBOARDS SHALL BE LABELED TO IDENTIFY THE ARC FLASH HAZARD A. PROVIDE A DATA STRUCTURED CABLING SYSTEM AS SPECIFIED HEREIN FOR SERVICE TO THE CHARACTERISTICS AT THE PANEL AS DETERMINED BY THE POWER SYSTEM STUDY TO BE O. ALL "SPARE" CIRCUIT BREAKERS SHALL BE SET TO THE "OFF" POSITION.

P. PROVIDE THREE (3) EMPTY 1 INCH CONDUITS FROM EACH FLUSH MOUNTED PANEL STUBBED Q. ACCEPTABLE MANUFACTURERS FOR PANELBOARDS BY SQUARE D (SCHNEIDER), ABB (GENERAL ELECTRIC), SIEMENS OR EATON.

R. BASIS OF DESIGN PRODUCT: SQUARE D TYPE NOOD WITH TYOE QO-VH (22.000 AIC) BOLT ON

CIRCUIT BREAKERS. A. TOGGLE SWITCHES SHALL BE SINGLE POLE, 3-WAY OR 4-WAY AS NOTED ON THE DRAWINGS, 20 AMPERES, 120/277 VOLT AC TYPE. SPECIFICATION GRADE WITH SCREW TERMINALS

HUBBELL 1221-X, 1223-X OR 1224-X OR APPROVED EQUIVALENT BY ONE OF THE ADDITIONAL TOGGLE SWITCHES SHALL BE MOUNTED AT DOORS, INSTALLED ADJACENT TO THE TRIM ON THE STRIKING SIDE OF THE DOOR, REGARDLESS OF THE LOCATION INDICATED ON THE DRAWINGS. VERIFY ALL DOOR SWINGS PRIOR TO INSTALLATION OF OUTLET BOXES FOR

C. DEVICE COLOR SHALL BE AS SELECTED BY THE OWNER/ARCHITECT. D. ADDITIONAL ACCEPTABLE MANUFACTURERS FOR SWITCHES: LEGRAND, LEVITON.

A. RECEPTACLES SHALL BE 20 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING TYPE, NEMA 5-20R WITH SCREW TERMINALS. HUBBELL 5362-W OR APPROVED EQUAL BY ONE OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN. B. GELRECEPTACIES SHALL BE 20 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING TYPE, FFED THROUGH TYPE CAPABLE OF PROTECTING DOWNSTREAM RECEPTACLES ON A SINGLE CIRCUIT, SOLID STATE GROUND FAULT SENSING AND SIGNALING, 5 MILLIAMP TRIP LEVEL

NEMA 5-20R WITH SCREW TERMINALS. HUBBELL GF5362-X OR APPREOVED EQUAL BY ONE

OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN. C. ISOLATED GROUND RECEPTACLES SHALL BE ORANGE, 20 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING TYPE, NEMA 5-20R WITH SCREW TERMINALS. HUBBELL IG-5362-W OR DUCT MOUNTED SMOKE DETECTORS APPREOVED EQUAL BY ONE OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN.

EQUIPMENT TO BE INSTALLED. PROVIDE RECEPTACLES HAVING A NEMA CONFIGURATION B. CONDUCTORS #12 AND #10 AWG SHALL BE SOLID; #8 AWG AND LARGER SHA MATCH THE NEMA PLUG CONFIGURATION PROVIDED WITH THE EQUIPMENT TO BE INSTALLED WITHIN NEW AND EXISTING ROOF TOP UNITS.

E. COVER PLATES FOR EXTERIOR RECEPTACLES SHALL BE RATED FOR "WEATHERPROOF WHILE

6. ADDITIONAL ACCEPTABLE MANUFACTURERS FOR SWITCHES AND RECEPTACLES: LEGRAND,

A. COVER PLATES WITHIN NON-FOOD SERVICE AREAS SHALL BE NYLON, OF CONFIGURATION TO

E. REFER TO DETAILS ON MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION. B. COVER PLATES WITHIN THE FOOD SERVICE AREA SHALL BE STAINLESS STEEL WTH STAINLESS TESTING

C. CONFIGURATION AND COLOR OF COVER PLATE SHALL MATCH THAT OF THE WIRNG DEVICE THAT THE PLATE WILL BE INSTALLED ON.

D. COVER PLATE COLOR SHALL BE AS SELECTED BY THE OWNER/ARCHITECT E. ADDITIONAL ACCEPTABLE MANUFACTURERS FOR COVER PLATES: LEGRAND, LEVITON.

MOUNTING HEIGHTS FOR ELECTRICAL DEVICES AND EQUIPMENT

UNLESS NOTED OTHERWISE ON THE DRAWINGS OR REQUIRED BY APPLICABLE CODES AND D. NEW PANELBOARDS SHALL HAVE PHASE CURRENTS BALANCED TO WITHIN +/- 10% CONTROL - TOP OF DEVICE 48" AFF

2. CONVENIENCE RECEPTACLES -TOP OF DEVICE 18" AFF 3. CONVENIENCE RECEPTACLES AT COUNTERTOPS - BOTTOM OF DEVICE 44" AFF OR AS

FOOD SERVICE SHOP DRAWINGS. . TELEPHONE AND DATA OUTLETS - TOP OF DEVICE 18" AFF OR AS REQUIRED BY THE

6. DISCONNECT SWITCHES - TOP OF ENCLOSURE 66" AFF 7. PANELBOARDS - TOP OF ENCLOSURE 72" AFF

WITH A LUG FOR TERMINATION OF THE EQUIPMENT GROUNDING CONDUCTOR.

NEMA 3R ENCLOSURES FOR OUTDOOR OR WET LOCATION APPLICATIONS. A. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS. EQUIPMENT AND THE INSTALLATION

). ALL DISCONNECT SWITCHES SHALL BE EQUIPPED WITH AN ENGRAVED NAMEPLATE TO

DENTIFY THE SERVING PANEL, CIRCUIT NUMBERS AND THE LOAD SERVED BY THE SWITCH.

ACCEPTABLE MANUFACTURERS FOR DISCONNECT SWITCHES: SQUARE D (SCHNEIDER), ABB (GENERAL ELECTRIC), SIEMENS OR EATON.

ROOF WORK SHALL BE PERFORMED TO MEET THE WARRANTY REQUIREMENTS OF THE EXISTING ROOFING SYSTEM.

F. OUTLET BOXES FOR VOICE AND DATA DEVICES SHALL BE 4 11/16 INCHES SQUARE BY 2 1/8

F. OUTLET BOXES FOR VOICE AND DATA DEVICES SHALL BE 4 11/16 INCHES SQUARE BY 2 1/8

INCHES DEEP.

B. FRACTIONAL HORSEPOWER MANUAL CONTROLLERS: "QUICK-MAKE, QUICK-BREAK" TOGGLE OR PUSH-BUTTON ACTION; PILOT LIGHT TO INDICATE "MOTOR RUNNING", MARKED TO SHOW WHETHER UNIT IS OFF, ON, OR TRIPPED. CONFIGURATION: NON-REVERSING

> OVERLOAD RELAYS: INVERSE-TIME-CURRENT CHARACTERISTICS; NEMA ICS 2, CLASS 10 TRIPPING CHARACTERISTICS; HEATERS MATCHED TO NAMEPLATE FULL-LOAD CURRENT OF ACTUAL PROTECTED MOTOR; EXTERNAL RESET PUSH BUTTON.

> 3. FLUSH MOUNTED WITHIN FINISHED SPACES; SURFACE MOUNTED WITHIN UNFINISHED 4. ACCEPTABLE MANUFACTURERS: SQUARE D (SCHNEIDER), ABB (GENERAL ELECTRIC),

. PROVIDE CARTRIDGE FUSES RATED FOR 250 V AC AND 600 V AC AND LESS FOR USE AS SPECIFIED HEREIN.

1. FEEDERS, UP TO AND INCLUDING 600 AMPS: CLASS RK1, BUSSMANN LPN-RK-SP FOR 250 VOLTS, BUSSMANN LPS-RK-SP FOR 600 VOLTS.

LIGHTING FIXTURES

A. ALL LIGHTING FIXTURES AND LIGHT SOURCES SHALL BE FURNISHED, INSTALLED AND CONNECTED BY THE ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISI

B. THIS CONTRACTOR SHALL INSTALL LIGHTING FIXTURES AND LIGHT SOURCES AS INDICATED ON THE DRAWINGS AND AS SPECIFIED BELOW. PROVIDE LIGHTING FIXTURES COMPLETE WITH HANGERS, PLASTER FRAMES, AND ALL OTHER NECESSARY ACCESSORIES C. LED DRIVERS SHALL BE SOLID STATE AND ACCEPT 120 THROUGH 277 VAC AT 60 HZ INPUT.

D. THE LED LIGHT SOURCE SHALL BE FULLY DIMMABLE WITH USE OF COMPATIBLE DIMMER SWITCH DESIGNATED FOR LOW VOLTAGE LOADS. THE CONTRACTOR SHALL PROVIDE LIGHTING CONTROL DEVICES (DIMMERS) THA ARE COMPATIBLE WITH LED DRIVER BEING PROVIDED WITH THE FIXTURE.

B. WALL SWITCH OCCUPANCY SENSORS SHALL BE WATT STOPPER WS-250 OR APPROVED

OWNER'S VOICE AND DATA NETWORK.

STRUCTURED CABLING SYSTEM FOR VOICE AND DATA

DISTRIBUTION COMPONENTS. PLYWOOD BACKBOARD SHALL BE 2' X 3' X 3/4", FIRE RATED, PAINTED WITH TWO (2) COATS OF LIGHT GRAY ENAMEL PAINT. MASK FIRE RATED LABEL TO PREVENT THE LABEL FROM BEING PAINTED OVER C. OUTLET BOXES FOR TELEPHONE AND DATA DEVICES SHALL CONSIST OF 4 11/16 IN SQUARE

B. PROVIDE A PLYWOOD BACKBOARD FOR TERMINATION OF TELEPHONE SERVICE AND

D. PROVIDE A 1 1/4" EMPTY CONDUIT WITH PULLSTRING FROM THE WALL MOUNTED PLYWOOD TELEPHONE TERMINAL BOARD IN THE TENANT SPACE TO THE LANDLORDS TELEPHONE DISTRIBUTION OR POINT OF SERVICE DELIVERY. PROVIDE A NYLON BUSHING ON EACH END OF CONDUIT FOR CABLE PROTECTION.

E. UNSHIELDED TWISTED PAIR (UTP) CABLE FOR VOICE AND DATA HORIZONTAL CABLES SHALL BE CATEGORY 6, 100-OHM, FOUR-PAIR UTP, COVERED WITH A PLENUM RATED THERMOPLASTIC JACKET. JACKET COLOR SHALL BE BLUE FOR DATA CABLES. YELLOW FOR VOICE CABLES. COMPLY WITH ICEA S-90-661 FOR MECHANICAL PROPERTIES. COMPLY WITH TIA/EIA-568-B.1 FOR PERFORMANCE SPECIFICATIONS. ACCEPTABLE MANUFACTURERS FOR JTP CABLE: BELDEN, BERK TEK, MOHAWK, SUPERIOR ESSEX

WHEN INSTALLED ABOVE CEILINGS. HORIZONTAL VOICE AND DATA CABLE SHALL BE

INSTALLED "OPEN" (NOT WITHIN CONDUIT). SUPPORT OPEN CABLES USING J-HOOKS OR

OTHER SUPPORT COMPONENTS DESIGNED AND RATED FOR USE WITH PLENUM RATED TELECOMMUNICATION CABLES. INSTALL CABLE SUPPORT COMPONENTS AT 60" ON CENTER MAXIMUM SPACING. G. WIRING DROPS TO WALL MOUNTED VOICE AND DATA DEVICES SHALL BE INSTALLED WITHIN EMT CONDUIT. 1". PROVIDE A CONDUIT STUB FROM THE DEVICE BOX TO ABOVE ACCESSIBLE CEILING. PROVIDE A PLENUM RATED NYLON BUSHING ON THE END OF THE CONDUIT STUB

FOR PROTECTION OF THE WIRING. H. PRIOR TO BEGINNING WORK, THIS CONTRACTOR SHALL FULLY COORDINATE HIS CONSTRUCTION OPERATIONS AND ALL TERMINATION LOCATIONS WITH AUTHORIZED REPRESENTATIVE OF THE TELEPHONE UTILITY COMPANY AND THE OWNER'S DATA NETWORK PROVIDER BY TIMELY NOTICE OR SCHEDULING OF SERVICE EQUIPMENT DATES, SERVICE MODIFICATION DATES AND NOTIFICATION OF REQUIRED OWNER AUTHORIZATIONS INVOLVING THE UTILITY COMPANY.

AT THE COMPLETION OF THE WORK, ALL CABLES SHALL BE TESTED IN ACCORDANCE WITH

INDUSTRY STANDARDS FOR TESTING CAT 6 CABLES

EQUIPMENT AS REQUIRED BY APPLICABLE CODES. FINAL ELECTRICAL CONNECTION AND ALL INTERLOCK WIRING BY THE ELECTRICAL CONTRACTOR. C. PROVIDE ALL INTERLOCK WIRING IN CONDUIT BETWEEN ALL DUCT DETECTORS SUCH THAT UPON DETECTING SMOKE IN ANY ONE DETECTOR, ALL ROOF TOP UNITS SHALL BE SHUT

D. PROVIDE TEST/RESET SWITCH AND PIEZO ALERT SOUNDER AND REMOTE ANNUNCIATOR ALARM LED MOUNTED AS DIRECTED BY LOCATION AHJ. EC TO PROVIDE ALL REQUIRED INTERLOCK WIRING BETWEEN DUCT DETECTOR AND REMOTE SWITCH.

. PROVIDE ALL TESTS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION B. PROVIDE THE TESTS AS OUTLINED HEREINAFTER AND OTHER TESTS REQUIRED TO ESATBLISH THE ADEQUACY, QUALITY, SAFETY, COMPLETED STATUS AND SUITABLE OPERATION OF EACH

PROMPTLY CORRECT ANY FAILURES, DEFICIENCIES AND/OR DEFECTS REVEALED BY THESE TESTS. AFTER CORRECTING FAILURES, DEFICIENCIES OF DEFECTS, CONDUCT NEW TESTING TO VERIFY THAT THE DEFICIENCY HAS BEEN RECTIFIED AND THE SYSTEM IS FUNCTIONING

VARIATION BETWEEN AVERAGE PHASE CURRENT AND MEASURED INDIVIDUAL PHASE. 1. TOGGLE SWITCHES, WALL SWITCH OCCUPANCY SENSORS AND DIMMERS FOR LIGHTING E. AN OPERATIONAL TEST OF THE EMERGENCY LIGHTING/EXIT SIGNAGE SYSTEM SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER AND THE AUTHORITY HAVING JURISDICTION TO DEMONSTRATE PROPER OPERATION AND COMPLIANCE WITH APPLICABLE CODES AND SPECIFIED REQUIREMENTS.

OPERATION AND MAINTENANCE MANUALS

4. RECEPTACLES AT FOOD SERVICE EQUIPMENT - AS INDICATED ON THE FINAL, APPROVED A. THIRTY (30) DAYS PRIOR TO SUBSTANTIAL COMPLETION, SUBMIT OPERATING AND MAINTENANCE MANUALS FOR EQUIPMENT TO ENGINEER FOR APPROVAL. INCLUDE ONE COPY OF EACH FINAL APPROVED SUBMITTAL FOR RECORD PURPOSES. INDICATING THE ACTUAL PRODUCT INSTALLED. INCLUDE SIGNIFICANT CHANGES IN THE PRODUCT DELIVERED) PROJECT SITE AND CHANGES IN MANUFACTURER'S WRITTEN INSTRUCTIONS FOR

> B. PROVIDE COMPREHENSIVE CONTACT LIST INCLUDING CONTRACTOR AND SUBCONTRACTOR'S NAMES, ADDRESSES, TELEPHONE AND CONTACT PERSON FOR OWNER'S

A. PREPARE AND SUBMIT OPERATING INSTRUCTIONS AND PROVIDE ON-SITE TRAINING OF OWNER'S PERSONNEL IN USE AND MAINTENANCE OF OPERATING EQUIPMENT

FAULTY WORKMANSHIP, MATERIAL OR EQUIPMENT FAILURES, FOR A MINIMUM OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OR FOR AS LONG AS NORMAL EQUIPMENT MANUFACTURER WARRANTIES ARE IN EFFECT FROM THE DATE OF OWNER ACCEPTANCE OF THE PROJECT, WHICHEVER IS LATER. B. DURING THE ONE (1) YEAR WARRANTY PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE

FOR ANY DAMAGE TO THE PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR DEFECTS IN

THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED UNDER THEOWORK OF THE

TO BE FREE OF DEFECTS THAT MAY DEVELOP IN ANY PART OF THEIR WORK CAUSED BY

MUNICIPAL APPROVAL STAMP

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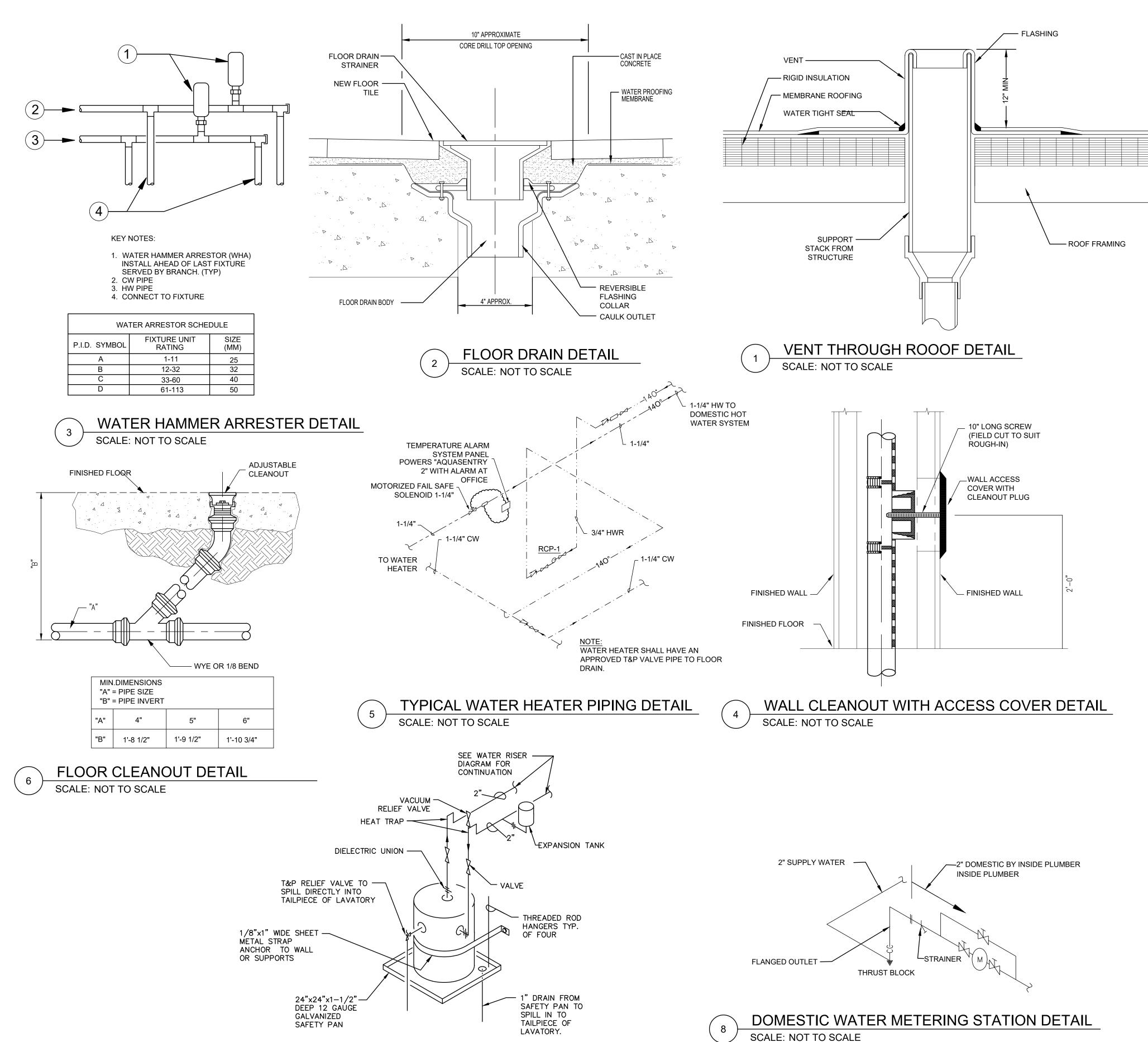
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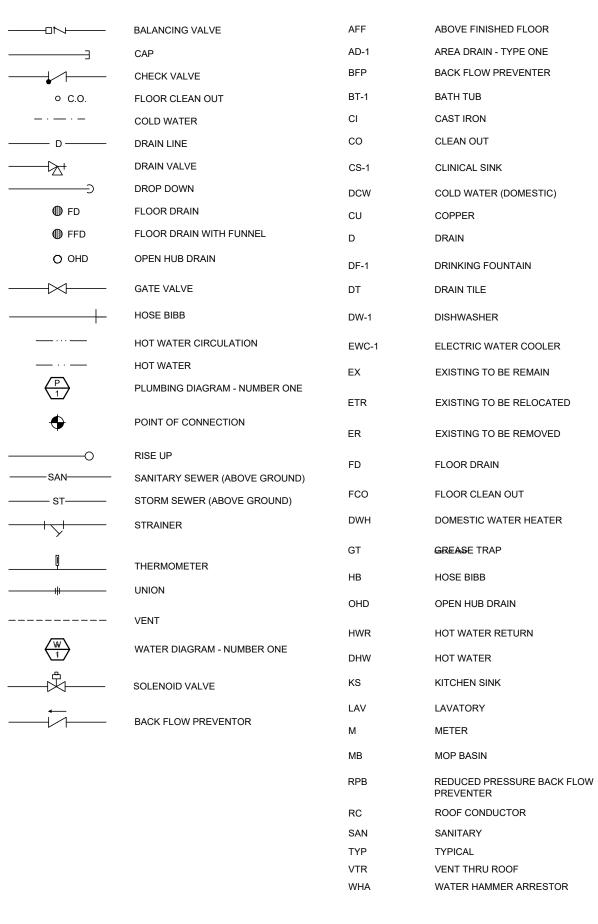


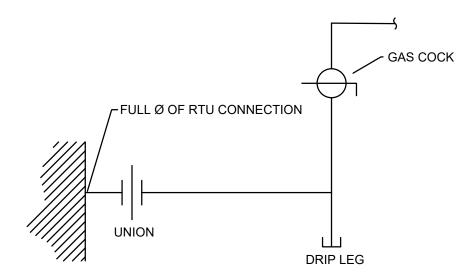


SUSPENDED ELECTRIC WATER HEATER DETAIL

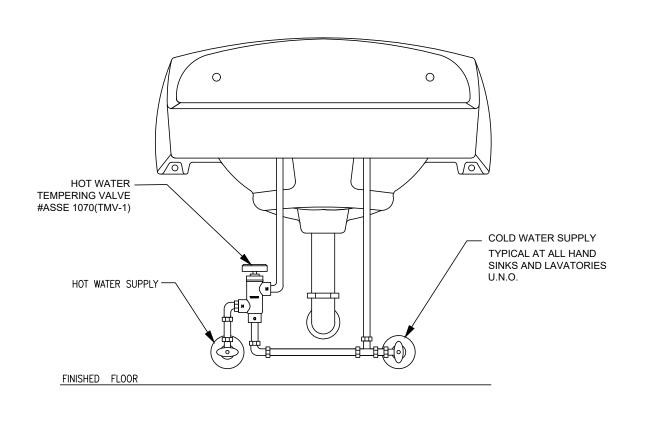
SCALE: NOT TO SCALE

PLUMBING LEGEND





GAS EQUIPMENT CONNECTION DETAIL SCALE: NOT TO SCALE



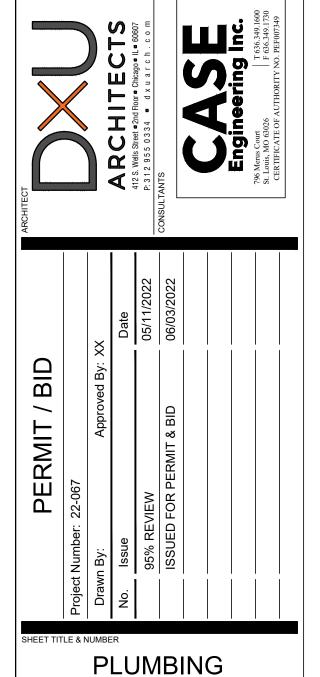
NOTE: PROVIDE TRAP AND SUPPLY INSULATION AS REQUIRED.

LOCAL MIXING VALVE DETAILS SCALE: NOT TO SCALE

CRANBROOK ARBOR-VILLAGE

MUNICIPAL APPROVAL STAMP

6/3/22



DETAILS

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2. CONTRACT DOCUMENTS MAY INCLUDE, BUT NOT LIMITED TO THE 4.2. ASME COMPLIANCE FOR FERROUS VALVES: ASME B16.10 FOLLOWING: ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL, FIRE PROTECTION, AND CIVIL

DEFINITIONS:

- 1. TERMINOLOGY: AS DEFINED IN MSS SP-90, "GUIDELINES ON TERMINOLOGY FOR PIPE HANGERS AND SUPPORTS."
- WATER DISTRIBUTION PIPING: INTERIOR DOMESTIC WATER
- 3. WATER SERVICE: EXTERIOR DOMESTIC WATER PIPING.
- 4. ACCESSIBLE FIXTURE: PLUMBING FIXTURE THAT CAN BE APPROACHED, ENTERED, AND USED BY PEOPLE WITH DISABILITIES.

PERFORMANCE REQUIREMENTS:

- . DESIGN SUPPORTS FOR MULTIPLE PIPES CAPABLE OF SUPPORTING COMBINED WEIGHT OF SUPPORTED SYSTEMS, SYSTEM CONTENTS, AND COMPONENTS.
- 2. DESIGN EQUIPMENT SUPPORTS CAPABLE OF SUPPORTING COMBINED OPERATING WEIGHT OF SUPPORTED EQUIPMENT AND CONNECTED SYSTEMS AND COMPONENTS.
- 3. DESIGN SEISMIC-RESTRAINT (IF APPLICABLE) HANGERS AND SUPPORTS FOR PIPING AND EQUIPMENT, AND OBTAIN APPROVAL FROM AUTHORITIES HAVING JURISDICTION.
- 4. COMPONENTS AND INSTALLATION SHALL BE CAPABLE OF WITHSTANDING THE FOLLOWING WORKING PRESSURE, UNLESS OTHERWISE INDICATED:
- 4.1. DOMESTIC WATER PIPING: 125 PSIG. 4.2. SANITARY WASTE AND VENT PIPING: 10-FOOT HEAD OF
- 4.3. STORM DRAINAGE PIPING: 10-FOOT HEAD OF WATER. 4.4. FORCE-MAIN: 100 PSIG.

- . CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE ARCHITECT/ENGINEER A COMPLETE LIST OF ITEMS TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. INCLUDING, BUT NOT BE LIMITED TO THE FOLLOWING
- 1.1. DIMENSIONED SHOP DRAWINGS OF MATERIALS, FIXTURES 5. ANY CONFLICTING INFORMATION DEPICTED OR IMPLIED ON THE AND EQUIPMENT
- 1.2. DIMENSIONED SHOP DRAWINGS OF EQUIPMENT AND PIPING PLAN LAYOUT(S)
- 1.3. PRODUCT DATA
- 1.4. FIELD-QUALITY CONTROL INSPECTION AND TEST REPORTS 1.5. FIELD TEST CERTIFICATES.
- 1.6. OPERATION AND MAINTENANCE DATA.
- 1.7. EQUIPMENT MANUALS. 1.8. VALVE TAGS.
- 1.9. WELDING CERTIFICATES.
- REQUIRED BY THE LOCAL AHJ, IN ORDER TO OBTAIN OCCUPANCY SHALL BE PROVIDED THE PLUMBING CONTRACTOR. EXPENSE. ALL SUBMITTALS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER, LICENSED IN THE PROJECT JURISDICTION, AS REQUIRED BY THE LOCAL AHJ. THE CONTRACTORS ENGINEER SHALL PREPARE PLANS, CUT SHEETS, PRIOR TO SUBMITTING BID PROPOSAL, CONTRACTOR SHALL VISIT PLUMBING FIXTURES: THE ELECTRICAL CONTRACTOR SHALL INCLUDE ANY FEES REQUIRED FOR SUCH SUBMISSION IN HIS BID.

CODES AND STANDARDS:

1. APPLICABLE CODES:

- 1.1. LOCAL PLUMBING CODE
- 1.2. LOCAL DEPARTMENT OF PUBLIC HEALTH.
- 1.3. LOCAL AMENDMENTS TO PLUMBING CODE. 1.4. LOCAL ORDINANCES.
- 2. SYSTEMS SHALL BE DESIGNED, MANUFACTURED, TESTED AND INSTALLED IN ACCORDANCE WITH FOLLOWING STANDARDS:
- AMERICAN NATIONAL STANDARDS INSTITUTE. AIR CONDITIONING AND REFRIGERATION INSTITUTE. ARI ASHRAE AIR CONDITIONING ENGINEERS. AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
- AMERICAN SOCIETY OF PLUMBING ENGINEERS. ASSE AMERICAN SOCIETY OF SANITARY ENGINEERS. ASTM AMERICAN SOCIETY OF TESTING AND MATERIALS. CISPI CAST IRON SOIL AND PIPE INSTITUTE.
- INTERNATIONAL ASSOCIATION OF PLUMBING AND IAPMO MECHANICAL OFFICIALS. INTERNATIONAL CODE COUNCIL FACTORY MUTUAL STANDARD.
- NFPA NATIONAL FIRE PROTECTION ASSOCIATION OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. PLUMBING AND DRAINAGE INSTITUTE. UNDERWRITERS LABORATORIES.

QUALITY ASSURANCE:

- . WELDING: QUALITY PROCEDURES AND PERSONNEL ACCORDING TO ASME BOILER AND PRESSURE VESSEL CODE: SECTION IX.
- 2. FIRE TEST RESPONSE CHARACTERISTICS: INSULATION AND RELATED MATERIALS SHALL HAVE FIRE TEST RESPONSE CHARACTERISTICS INDICATED. AS DETERMINED BY TESTING IDENTICAL PRODUCTS PER ASTM E 84, BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. FACTORY LABEL INSULATION AND JACKET MATERIALS AND ADHESIVE, MASTIC, AND CEMENT MATERIAL CONTAINERS. WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AND INSPECTING AGENCY.

- 2.1. INSULATION INSTALLED INDOORS: FLAME SPREAD INDEX OF
- 2.2. INSULATION INSTALLED OUTDOORS: FLAME SPREAD INDEX OF 75 OR LESS, AND SMOKE DEVELOPED INDEX OF 150 OR

- 4.1. ASME B31.9 FOR BUILDING SERVICES PIPING VALVES.
- AND ASME B16.34 FOR DIMENSION AND DESIGN CRITERIA.

5. NSF COMPLIANCE:

- 5.1. NSF 14, "PLASTIC PIPING SYSTEM COMPONENTS AND RELATED MATERIALS."
- 5.2. NSF 61, "DRINKING WATER SYSTEM COMPONENTS HEALTH EFFECTS; SECTIONS 1 THROUGH 9."
- 6. ELECTRICAL COMPONENTS, DEVICES AND ACCESSORIES: LISTED COORDINATION OF WORK: AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE.

7. REGULATORY REQUIREMENTS:

- 7.1. COMPLY WITH PUBLIC LAW 101-336, "AMERICAN WITH DISABILITIES ACT," AND "UNIFORM FEDERAL ACCESSIBILITY CUTTING AND PATCHING: STANDARDS."
- 7.2. COMPLY WITH PUBLIC LAW 102-486, "ENERGY POLICY ACT."

CONTRACT DOCUMENTS:

- 1. CONTRACTOR SHALL REVIEW CONTRACT DOCUMENTS AND BECOME FAMILIAR WITH THE SITE AND LOCAL CONDITIONS RELATING TO WORK AS DESCRIBED HEREIN PRIOR TO SUBMITTING BID PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT. IDENTIFY ALL DISCREPANCIES AND NOTIFY ARCHITECT/ENGINEER. IN WRITING.
- 2. THE DRAWINGS INDICATE THE GENERAL LAYOUT OF THE VARIOUS SYSTEM(S) AND EQUIPMENT. THE LAYOUT OF THE SYSTEM(S) EQUIPMENT, ACCESSORIES AND OTHER COMPONENTS ARE DIAGRAMMATIC UNLESS SPECIFICALLY SHOWN OR DIMENSIONED.
- 3. CONTRACTOR SHALL BID ALL WORK AS SHOWN, AND MATERIAL AND EQUIPMENT AS SPECIFIED HEREIN. ANY SUBSTITUTION (NOT APPROVED) DURING THE BIDDING PROCESS TO SECURE AWARD OF THE CONTRACT WILL NOT BE ACKNOWLEDGED.
- 4. CONTRACTOR SHALL BE FINANCIALLY LIABLE FOR ANY REQUIRED ENGINEERING REVIEW DUE TO ANY PROPOSED PRODUCT CHANGE AND/OR VOLUNTARY "VALUE ENGINEERING" MATERIALS: DURING THE BIDDING PROCEDURE AND THE SUBMITTAL
- DRAWINGS IDENTIFIED DURING THE BIDDING PROCESS SHALL BE SUBMITTED FOR CLARIFICATION OF INTENT. FAILURE TO CLARIFY THE ARCHITECT/ENGINEER INTENT. MAY MAKE THE CONTRACTOR LIABLE FOR ANY ASSOCIATED COSTS RELATIVE TO CHANGES DURING THE CONSTRUCTION PROCESS.

SPECIFICATIONS AND DRAWINGS:

SPECIFICATIONS AND DRAWINGS ARE INTENDED TO BE COOPERATIVE. WHAT IS CALLED FOR BY EITHER SHALL BE AS BINDING AS IF CALLED FOR BY BOTH. ANY WORK OR MATERIALS 2. ANY DEFERRED CONTRACTOR SUBMITTALS OR CALCULATIONS NOT SPECIFICALLY MENTIONED THOUGH REQUIRED TO MAKE THE JOB COMPLETE, SHALL BE FURNISHED AT THE CONTRACTOR'S

VISITING THE SITE:

CALCULATIONS. ETC. AS REQUIRED, ALL DEFERRED SUBMITTALS - THE SITE AND BECOME FAMILIAR WITH THE SITE AND EXISTING SHALL BE SIGNED AND STAMPED BY THE PREPARING ENGINEER. CONDITIONS FOR DOING WORK AS SHOWN ON DRAWINGS AND SPECIFIED HEREIN. FAILURE TO COMPLY SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT. CONTRACTOR SHALL IDENTIFY ALL DISCREPANCIES AND NOTIFY ARCHITECT/ENGINEER, IN WRITING.

PERMITS, FEES & INSPECTIONS:

- 1. CONTRACTOR SHALL PREPARE AND SUBMIT ALL DATA, DRAWINGS AND DETAILS REQUIRED, SECURE AND PAY FOR ALL PERMITS, GOVERNMENTAL FEES, TAXES, INSPECTIONS AND LICENSES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.
- 2. CONTRACTOR SHALL PAY FOR ALL APPLICABLE FEES FOR TEST AND INSPECTIONS REQUIRED BY LOCAL AUTHORITIES HAVING JURISDICTION.
- AMERICAN SOCIETY OF HEATING REFRIGERATION AND 3. WHERE REGULATIONS OF UTILITY COMPANIES APPLY. CONFORMANCE WITH THEIR REGULATIONS IS MANDATORY AND 4. CAULK ALL FIXTURES WATER TIGHT TO WALL AND FLOOR USING ANY COSTS INVOLVED SHALL BE INCLUDED IN THE CONTRACT.

LAWS AND ORDINANCES:

CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF WORK AS SHOWN ON DRAWINGS AND SPECIFIED HEREIN. IF CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, CONTRACTOR SHALL PROMPTLY NOTIFY ARCHITECT/ENGINEER IN WRITING WHEN SUBMITTING BID AND ANY NECESSARY CHANGES SHALL BE WORK. IF CONTRACTOR PERFORMS ANY WORK, CONTRARY TO SUCH LAWS, ORDINANCES, RULES AND REGULATIONS, CONTRACTOR SHALL BEAR ALL COSTS FOR CORRECTING THE

TRADE JURISDICTION:

WHEN IT BECOMES NECESSARY FOR THE COMPLETE FULFILLMENT OF THIS WORK FOR THIS CONTRACTOR TO FURNISH LABOR OR MATERIALS OTHER THAN THAT WHICH IS GENERALLY ACCEPTED BY THIS TRADE OR BRANCH OF WORK, THE CONTRACTOR SHALL SUBLET SAME TO A CONTRACTOR ENGAGED IN THE TRADE OR BRANCH OF WORK INVOLVED. THERE SHALL BE NO DELAY TO OR STOPPAGE OF WORK DUE TO THE INFRINGEMENT OR ALLEGED INFRINGEMENT TO TRADE AGREEMENTS AS TO THE JURISDICTION.

REQUESTS FOR INFORMATION (RFI'S):

- 25 OR LESS, AND SMOKE DEVELOPED INDEX OF 50 OR LESS. 1. ALL REQUESTS FOR INFORMATION (RFI'S) SHALL BE SUBMITTED IN WRITING TO THE GENERAL CONTRACTOR OR CONSTRUCTION 4. THERMAL HANGER SHIELD INSERTS: 100-PSIG MINIMUM,
 - 2. IF THERE IS NO CONSTRUCTION MANAGER OR GENERAL CONTRACTOR. SUBMIT RFI'S TO THE ARCHITECT/ENGINEER.
 - 3. THERE WILL BE NO RESPONSE TO RFI'S THAT ARE NOT
 - 4. ANY FORMAL OR INFORMAL, OR PHONE CONVERSATION DOES NOT CONSTITUTE THE AUTHORIZATION TO PROCEED.

ALL LABOR SHALL BE EXECUTED IN A NEAT, WORKMANLIKE MANNER AND SHALL BE PERFORMED BY PERSONS SKILLED IN THEIR RESPECTIVE THE ARCHITECT/ENGINEER SHALL DECIDE ALL MATTERS PERTAINING TO THE QUALITY OF WORKMANSHIP AND

SUBMITTED IN WRITTEN FORM.

CONTRACTOR SHALL COORDINATE WITH OTHER CONSTRUCTION TO AVOID INTERFERENCE BEFORE STARTING ANY INSTALLATION. ANY NEGLECT BY THE CONTRACTOR TO COORDINATE WITH OTHER CONSTRUCTION SHALL BE MADE AT THE CONTRACTOR'S OWN EXPENSE.

CONTRACTOR SHALL INCLUDE ALL CUTTING AND PATCHING, AS REQUIRED. ALL CORES THROUGH SLABS AND FOUNDATION WALLS SHALL BE APPROVED IN WRITING BY THE ARCHITECT/ENGINEER. 8. PROVIDE SEISMIC BRACING OF PIPING BASED ON SEISMIC CONTRACTOR SHALL ASSUME ALL LIABILITIES FOR CORES WHICH HAVE NOT BEE APPROVED. PATCH ALL DISTURBED WALL, FLOORS, PARTITIONS, CEILINGS, ETC., RESTORE TO ORIGINAL CONDITION. INSULATION:

OPERATING INSTRUCTIONS:

CONTRACTOR SHALL PREPARE A TYPEWRITTEN LIST IN DUPLICATE, OF INSTRUCTIONS OF THE OPERATION OF ALL FOLIPMENT AND SHALL INSTRUCT IN ITS OPERATION. ALL VALVES AND EQUIPMENT SHALL BE MARKED WITH A METAL TAG AND A TYPEWRITTEN SCHEDULE SHALL BE GIVEN TO THE OWNER.

CONTRACTOR SHALL GUARANTEE WORK TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL CERTIFICATE. ANY REPAIRS OR REPLACEMENT DURING THIS PERIOD SHALL BE MADE WITHOUT COST TO THE OWNER, UPON OWNER'S REQUEST.

- 1. ALL MATERIALS SHALL BE NEW AND OF FIRST CLASS PRODUCTS OF MANUFACTURERS SPECIFIED HEREIN AND OR AS APPROVED BY THE ARCHITECT/ENGINEER OF RECORD.
- 2. THE DESIGN INTENT, SPACE REQUIREMENTS, PERFORMANCE ETC., ARE BASED ON PRODUCTS OF THE MANUFACTURER(S) INDICATED IN THESE SPECIFICATIONS. UNLESS NOTED OTHERWISE COMPARABLE PRODUCTS OF OTHER MANUFACTURER(S) MAY BE SUBMITTED FOR REVIEW TO THE ARCHITECT/ENGINEER OF RECORD. PRODUCTS INSTALLED WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- . MANUFACTURER(S) IDENTIFICATION OF MATERIAL: EACH LENGTH OF PIPE, PIPE FITTING, EQUIPMENT, DEVICE AND APPURTENANCE IN THE FIRE PROTECTION SYSTEM SHALL HAVE CAST, STAMPED OR INDELIBLY MARKED ON IT THE MARKER'S MARK OR NAME, WEIGHT, CLASS OF PRODUCT AND STANDARD

- 1. PLUMBING FIXTURES AND TRIMMINGS HAVE BEEN SELECTED AS A BASE FOR THIS INSTALLATION, EXCEPT WHERE OTHERWISE SPECIFIED, BUT OTHER MAKES WHICH ARE EQUAL AND APPROVED MAY BE USED. CONTRACTOR SHALL SUBMIT FOR ARCHITECT/ENGINEER'S APPROVAL PORTFOLIO ILLUSTRATING AND DESCRIBING IN DETAIL THE FIXTURES, TRIMMINGS AND VALVES CONTRACTOR CONTEMPLATES USING, GIVING NAMES AND CATALOG NUMBERS OR IDENTIFYING DESCRIPTION.
- LABEL OR TRADEMARK INDICTING FIRST QUALITY.

1.1. PLUMBING FIXTURES SHALL BE OF THE BEST QUALITY,

- 2. INSTALL/PROVIDE FLUSH VALVES AND/OR FLUSH TANKS WITH HANDLE ON OPEN SIDE OF FIXTURE.
- 3. SET ALL FLOOR FIXTURES ON A WHITE TILE SETTERS GROUT TO FORM A SOLID WATER TIGHT BASE
- CLEAR SILICONE CAULK NEAT AND SMOOTHLY SET IN PLACE SCOPE OF WORK: AND EXCESS CLEANED FROM WALL OR FIXTURE.
- 5. ALL FIXTURES SHALL BE WATERSENSE LABELED.
- 6. THERMOSTATIC MIXING VALVES, SHALL BE INSTALLED ON ALL SINKS AND LAVATORIES WITHOUT EXCEPTION.

HANGERS AND SUPPORTS:

1. STEEL PIPE HANGERS AND SUPPORTS: MSS SP-58, TYPES 1 EXECUTION SECTION "HANGER AND SUPPORT APPLICATIONS."

- 1.1. GALVANIZED, METALLIC COATINGS: PRE-GALVANIZED OR HOT DIPPED
- 1.2. NON-METALLIC COATINGS: PLASTIC COATING, JACKET, OR 1.3. PADDED HANGERS: HANGER WITH FIBERGLASS OR OTHER
- PIPE INSULATION PAD OR CUSHION FOR SUPPORT OF BEARING SURFACE OF PIPING. 2. TRAPEZE PIPE HANGERS: MSS SP-69, TYPE 69, SHOP OR FIELD

FABRICATED PIPE-SUPPORT ASSEMBLY MADE FROM

NUTS, SADDLES, AND U-BOLTS. 3. METAL FRAMING SYSTEMS: MFMA-3, SHOP OR FIELD FABRICATED PIPE SUPPORT ASSEMBLY MADE OF STEEL CHANNELS AND

OTHER COMPONENTS.

COMPRESSIVE STRENGTH INSULATION INSERT ENCASED IN SHEET METAL SHIELD.

5. FASTENER SYSTEMS:

- 5.1. POWDER ACTUATED FASTENERS: THREADED STEEL STUD, FOR USE IN HARDENED PORTLAND CEMENT CONCRETE WITH PULLOUT, TENSION, AND SHEAR CAPACITIES APPROPRIATE FOR SUPPORTED LOADS AND BUILDING MATERIALS WHERE USED
- 5.2. MECHANICAL EXPANSION ANCHORS: INSERT WEDGE TYPE PORTLAND CEMENT CONCRETE WITH PULLOUT, TENSION, AND SHEAR CAPACITIES APPROPRIATE FOR SUPPORTED LOADS AND BUILDING MATERIALS WHERE USED.
- EQUIPMENT SUPPORTS: WELDED, SHOP OR FIELD FABRICATED EQUIPMENT SUPPORT MADE FROM STRUCTURAL STEEL SHAPES.

7. MISCELLANEOUS MATERIALS:

- 7.1. STRUCTURAL STEEL: ASTM A 46/A 36M, STEEL PLATES, AND BARS: BLACK AND GALVANIZED 7.2. GROUT: ASTM C 1107, FACTORY-MIXED AND PACKAGED, DRY HYDRAULIC-CEMENT, NON-SHRINK AND NON-METALLIC
- 7.3. PROPERTIES: NON-STAINING, NON-CORROSIVE, AND NON-GASEOUS.

GROUT; SUITABLE FOR INTERIOR AND EXTERIOR

7.4. DESIGN MIX: 5000-PSI, 28-DAY COMPRESSIVE STRENGTH.

CATEGORY OF ZONE PROJECT IS BEING CONSTRUCTED.

1. THERMAL INSULATION MATERIALS SHALL MEET THE PROPERTY REQUIREMENTS OF THE FOLLOWING SPECIFICATIONS AS APPLICABLE TO THE SPECIFIC PRODUCT OR END USE:

- 1.1. ASTM C547, ASTM C585, AND ASTM C1136.
- 2. INSULATION MATERIALS SHALL MEET THE MINIMUM REQUIREMENTS OF ASHRAE 90.1 (LATEST EDITION).
- 3. INSULATION MATERIALS SHALL HAVE A MAXIMUM FLAME SPREAD INDEX OF 25 AND A MAXIMUM SMOKE DEVELOPED INDEX OF 50 WHEN TESTED IN ACCORDANCE WITH THE FOLLOWING TESTING STANDARDS:

3.1. ASTM E84, UL 723 AND NFPA 255.

DOMESTIC COLD WATER

PIPE 2 INCH AND SMALLER

PIPE 2-1/2 INCH AND LARGER

- 4. INSULATION SHALL BE FIBERGLASS PIPE INSULATION ONE-PIECE, HINGED SECTION, WITH FACTORY APPLIED WHITE POLYMER FACING, TWO-COMPONENT ADHESIVE CLOSURE SYSTEM, AND MATCHING PRESSURE SENSITIVE TAPE. MANUFACTURER'S DATA REGARDING THICKNESS CONSTRAINTS IN RELATION TO OPERATING TEMPERATURE SHALL BE FOLLOWED. STAPLING IS NOT ALLOWED TO COMPLETE THE
- 5. MOLDED CLOSED CELL POLYETHYLENE FOAM INSULATION IN NOT ALLOWED OR APPROVED.
- 6. COVER ALL OF THE FOLLOWING PIPE TYPES LISTED WITH PREMOLDED PIPE INSULATION OF THICKNESS INDICATED, 4 LB. DENSITY AND ASJ JACKET.

INSULATION THICKNESS

PIPE 1 INCH AND SMALLER	1/2
PIPE 1-1/4 INCH TO 2 INCH	3/4
PIPE 2-1/2 INCH AND LARGER	1
DOMESTIC HOT WATER	
PIPE 2 INCH AND SMALLER	1
PIPE 2-1/2 INCH LARGER	1-1/2
DOMESTIC HOT WATER (CIRCUL	<u>.ATING)</u>

FIRESTOPPING:

GRADE "A", AND SHALL HAVE MANUFACTURER'S GUARANTEE 1. CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE STOPPING, FIRE CAULKING AND INSTALLING ALL SYSTEMS WHERE PLUMBING PIPING AND EQUIPMENT PENETRATE FIRE RATED SYSTEMS. SEE ARCHITECTURAL PLANS FOR LOCATIONS OF FIRE 4. AIR TEST: AIR TEST SHALL BE MADE BY ATTACHING AN AIR RATED WALLS, FLOORS AND STRUCTURES. MATERIAL SHALL STOP AND PREVENT FIRE AND SMOKE FROM PASSING/PENTRATING FIRE BARRIER.

1-1/2

EXECUTION

- 1. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, FACILITIES, TRANSPORTATION, FEES AND SERVICES NECESSARY FOR A COMPLETE PLUMBING SYSTEM(S) AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. WORKMANSHIP SHALL BE COMPLETE IN EVERY ASPECT, TESTED, APPROVED AND SATISFACTORY TO THE ARCHITECT/ENGINEER AND IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAWS HAVING JURISDICTION.
- ADJUSTED AS PROVIDED IN THE CONTRACT FOR SUCH CHANGES IN THROUGH 58, FACTORY-FABRICATED COMPONENTS. REFER TO 2. IT IS THE DECLARED AND ACKNOWLEDGED INTENT OF THESE SPECIFICATIONS TO PROVIDE A COMPLETE PLUMBING SYSTEM(S), INCLUSIVE OF ALL REQUIRED PARTS AND ACCESSORIES COMPLETE AND READY FOR USE AS DESCRIBED, BUT NOT LIMITED TO THE FOLLOWING:
 - 2.1. DOMESTIC WATER SERVICE AND DISTRIBUTION.
 - 2.2. DOMESTIC HOT WATER.
 - 2.3. SANITARY DRAINAGE SYSTEM 2.4. PLUMBING FIXTURES.
 - 2.5. PLUMBING EQUIPMENT 2.6. PLUMBING SPECIALTIES.
 - STRUCTURAL STEEL SHAPES WITH MSS-SP-58 HANGER RODS, 3. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE EXTENT AND LOCATION OF THE WORK INCLUDED. WORK INDICATED, BUT HAVING MINOR DETAILS OBVIOUSLY OMITTED, SHALL BE PROVIDED, INCLUDING THESE DETAILS, WITHOUT EXTRA COST TO THE OWNER

SUBMITTALS AND SHOP DRAWINGS:

- 1. SHOP DRAWING LAYOUT SUBMITTAL(S) SHALL BE A MINIMUM OF 1/8 INCH PER FOOT SCALE, SHOWING ALL PIPING TO BE INSTALLED. DETAILED LAYOUT(S) OF TOILETS, KITCHENS AND EQUIPMENT ROOMS SHALL BE NOT LESS THAN 1/4 INCH PER FOOT SCALE. THE DRAWING SHALL ALSO SHOW THE WORK COORDINATED WITH ALL OTHER TRADES, ALL DRAWINGS SHALL BE SUBMITTED PRIOR TO STARTING ANY WORK, AND IN ACCORDANCE WITH AN APPROVED SCHEDULE, PROVIDED BY THE GENERAL CONTRACTOR, TO AVOID ANY DELAY ON THE
- ZINC COATED OR STAINLESS STEEL, FOR USE IN HARDENED 2. EQUIPMENT, FIXTURES AND OTHER RELATED APPURTENANCES SHALL BE SUBMITTED IN BOUNDED BOOKLETS. ALL DATA MUST
 - 3. CONTRACTOR SHALL SUBMIT TO GOVERNMENTAL AGENCIES AND UTILITY COMPANIES, SHOP DRAWINGS WHICH ARE REQUIRED BY THESE AGENCIES FOR THEIR APPROVAL.
 - 4. CONTRACTOR SHALL PREPARE AND FURNISH TO THE OWNER, AN ELECTRONIC SUBMITTAL CONTAINING A COMPLETE LIST OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT. EACH PIECE OF EQUIPMENT LISTED SHALL ALSO BE DESCRIBED BY MANUFACTURER(S) MODEL NUMBER, FIGURE NUMBER AND THE COMPONENTS THEREIN WHICH MAKE UP THE PART(S) LIST. ELECTRONIC VERSION OF SHOP DRAWINGS MAY ALSO BE SUBMITTED TO THE ARCHITECT IN PDF FORM VIA EMAIL.
 - 5. SHOP DRAWINGS SHALL INCLUDE CONTRACTOR'S NAME, JOB ADDRESS, MANUFACTURER'S NAME, CATALOG NUMBERS, CUTS, DIAGRAMS AND OTHER SUCH DESCRIPTIVE DATA AS REQUIRED TO IDENTIFY AND REVIEW THE EQUIPMENT.
 - 6. SUBMITTAL REVIEWS ARE A COURTESY REVIEW FOR GENERAL CONFORMANCE AND DO NOT IMPLY A GUARANTEE OF EXISTING CONDITIONS OR BUILDING MEASUREMENTS. A SUBMITTAL REVIEW IN NO WAY ALLEVIATES THE CONTRACTOR OF ENSURING COMPATIBILITY AND FUNCTIONALITY SYSTEMS, COMPONENTS, OR OTHER RESPONSIBILITIES UNDER THE CONTRACT.
 - 7. SHOP DRAWINGS WILL REQUIRE A MINIMUM OF (5) BUSINESS DAYS FOR REVIEW. THE CONTRACTOR SHALL INCLUDE THE REQUIRED REVIEW TIME IN ALL PROJECT AND CONSTRUCTION SCHEDULES. THERE SHALL BE NO ADDITIONAL COMPENSATION OR CONSIDERATION FOR FAILURE TO INCLUDE THE PROPER REVIEW TIME.
 - 8. NO EQUIPMENT SHALL BE PURCHASED OR INSTALLED WITHOUT DOMESTIC WATER DISTRIBUTION AN APPROVED SHOP DRAWING SUBMITTED. FAILURE TO COMPLY 1. DOMESTIC WATER DISTRIBUTION (3 INCH AND SMALLER): HARD WITH THIS PROVISION, THE CONTRACTOR DOES AT HIS OWN
 - ARCHITECT/ENGINEER TYPEWRITTEN COPIES OF EACH OF THE 9.1. CERTIFICATION FROM CONTRACTOR THAT ALL EQUIPMENT

9. ONE (1) WEEK PRIOR TO FINAL INSPECTION, DELIVER TO THE

- AND SYSTEM(S) HAVE BEEN PROPERLY INSTALLED, ADJUSTED AND TESTED 9.2. CERTIFICATION FROM RESPECTIVE MANUFACTURER(S) AUTHORIZED REPRESENTATIVE THAT EQUIPMENT AND SYSTEM(S) HAVE BEEN PROPERLY INSTALLED, ADJUSTED
- AND TESTED. 9.3. CERTIFICATION FROM AUTHORITY HAVING JURISDICTION THAT ALL EQUIPMENT AND SYSTEM(S) HAVE BEEN PROPERLY INSTALLED, ADJUSTED, TESTED AND ACCEPTED 2.1. SCHEDULE 40, LEAD AND OAKUM JOINTS FROM THE AUTHORITY HAVING JURISDICTION.

INSPECTIONS AND TESTS:

1. TESTING SHALL BE DONE IN THE PRESENCE OF GOVERNING AUTHORITY AND OWNER'S REPRESENTATIVE. PROVIDE FIVE (5) DAYS NOTICE TO THE OWNER, ARCHITECT OF RECORD AND GOVERNING AUTHORITY. PROVIDE ALL NECESSARY EQUIPMENT, 2. ALL WORK AND MATERIAL SHALL CONFORM TO THE MATERIAL AND LABOR TO PERFORM TESTS.

2. ROUGHED-IN PLUMBING: THE DRAINAGE AND VENT PIPING

- SYSTEMS SHALL BE TESTED UPON COMPLETION OF ROUGHED-IN 3. THE INTENT OF THESE DRAWINGS IS TO FURNISH THE OWNER PIPING INSTALLATION, BY USING WATER OR AIR TO PROVE WATERTIGHT. 3. WATER TEST: WATER TEST SHALL BE APPLIED TO THE DRAINAGE 4. FURNISH AND INSTALL A COMPLETE AND OPERABLE SOIL, SYSTEM EITHER IN ITS ENTIRETY OR IN SECTIONS AFTER PIPING HAS BEEN ROUGHED-IN. DRAINAGE SYSTEM SHALL NOT BE TESTED WITH LESS THAN TEN (10) FOOT HEAD OF WATER. THE
- THAT THE SYSTEM IS TIGHT AT ALL POINTS. COMPRESSOR TESTING APPARATUS TO A SUITABLE OPENING AFTER CLOSING ALL OTHER INLETS AND OUTLETS TO THE SYSTEM. FORCE AIR INTO THE SYSTEM UNTIL THERE IS A UNIFORM GAUGE PRESSURE OF FIVE (5) PI OR SUFFICIENT TO BALANCE A COLUMN OF MERCURY TEN (10) INCHES IN HEIGHT. PRESSURE SHALL BE HELD WITHOUT INTRODUCTION OF

WATER SHALL BE KEPT IN THE SYSTEM OR SECTION BEING

TESTED FOR AT LEAST FIFTEEN (15) MINUTES BEFORE

WATER SUPPLY SYSTEM: WATER SUPPLY SYSTEM SHALL BE TESTED AND PROVED WATERTIGHT UPON COMPLETION OF A SECTION OR THE ENTIRE SYSTEM. SYSTEM SHALL BE TESTED UNDER A WATER PRESSURE OF AT LEAST 1.5 TIMES THE SYSTEM PRESSURE, BUT AT LEAST 100 PSI AT A MINIMUM BY AIR OR WATER. TESTING PRESSURE SHALL BE MAINTAINED FOR A LEAST FIFTEEN (15) MINUTES AND WATER USED FOR TEST SHALL BE FROM POTABLE WATER.

ADDITIONAL AIR FOR A PERIOD OF AT LEAST FIFTEEN (15)

DISINFECTION OF POTABLE WATER SYSTEM:

1. DISINFECT AND FLUSH POTABLE WATER SYSTEM PER LOCAL PLUMBING, BUILDING, AND HEALTH DEPARTMENT REQUIREMENTS.

FLUSHING:

- 1. CHLORINATED WATER SUPPLY: IF WATER SUPPLY SERVING SYSTEM IS CHLORINATED FROM COMMUNITY WATER SYSTEM. SYSTEM SHALL BE FLUSHED WITH CLEAN, POTABLE WATER UNTIL NO DIRTY WATER APPEARS AT THE POINT OF OUTLET.
- 2. NON-CHLORINATED WATER SUPPLY: WATER SUPPLY SYSTEM SHALL BE FLUSHED WITH CLEAN, POTABLE WATER UNTIL NO DIRTY WATER APPEARS AT THE POINT OF OUTLET.

LABEL AND IDENTIFICATION:

- IDENTIFICATION FOR ALL PIPING SYSTEM(S) SHALL COMPLY WITH ANSI A13.1 FOR SIZE OF LETTERING AND BACKGROUND COLOR FIELD.
- 2. PIPING SYSTEM(S): IDENTIFICATION SHALL INCLUDE THE CONTENTS OF THE PIPING SYSTEM(S) AND AN ARROW INDICATING THE DIRECTION OF FLOW. HAZARDOUS PIPING SYSTEM(S) SHALL ALSO CONTAIN INFORMATION ADDRESSING THE NATURE OF THE HAZARD. IDENTIFICATION SHALL BE REPEATED AT MAXIMUM INTERVALS OF TWENTY-FIVE (25) FEET AND AT EACH POINT WHERE PIPING PASSES THROUGH A WALL, FLOOR OR ROOF. COLOR OF THE PIPE IDENTIFICATION SHALL BE DISCERNIBLE AND CONSISTENT THROUGHOUT THE BUILDING.
- BE CLEARLY LEGIBLE. SUBMIT SIX (6) COPIES MINIMUM OF EACH. 3. EQUIPMENT: IDENTIFICATION SHALL INCLUDE SYSTEM NUMBER, CAPACITY, FLOW, RATE, STATIC PRESSURE, PUMP HEAD, HORSEPOWER, VOLTAGE, ETC.
 - 4. VALVE TAGS: PROVIDE BRASS VALVE TAGS AND BRASS "S" HOOK 2. FCO (UNFINISHED AREAS): ADJUSTABLE FLOOR CLEANOUT FASTENERS WITH VALVE NUMBER AND TYPE OF SERVICE NOTED ON TAG. PROVIDE DUPLICATE CHARTS, THE CHART SHALL BE FOR ALL VALVES AND SHALL INDICATE VALVE IDENTIFICATION NUMBER, LOCATION AND PURPOSE

RECORD DRAWING SUBMITTALS:

- . AT PROJECT CLOSE-OUT, CONTRACTOR SHALL SUBMIT RECORD DRAWINGS (CERTIFIED OR APPROVED) ALSO KNOWN AS "AS-BUILT" DRAWINGS. LAYOUT SUBMITTALS SHALL BE SUBMITTED FOR RECORDS PRIOR TO FINAL ACCEPTANCE IN ELECTRONIC FORM ON COMPACT DISC(S), USING AUTOCAD VERSION 2010 "DWG" FORMAT OR ADOBE ACROBAT "PDF" FORMAT VIEWABLE FROM ADOBE. RECORD DATA EQUIPMENT. FIXTURE AND RELATED APPURTENANCES MAY BE SUBMITTED AS BOUND HARDCOPY OR ELECTRONIC ADOBE ACROBAT "PDF"
- 2. PROVIDE RECORD SUBMITTALS AS FOLLOWS:
- 2.1. OWNER: 1 COPY. 2.2. ARCHITECT OF RECORD: 1 COPY.

2.3. ENGINEER OF RECORD: 1 COPY.

3. CONTRACTOR IS NOT ALLOWED TO USE THE CONTRACT

BE IN THE LATEST RELEASE OF AUTOCAD. PIPING MATERIALS:

COPPER TUBE, ASTM B88, TYPE L, WATER TUBE, DRAWN

1.1. PRESSURE FITTINGS: ASME B16.18 OR B16.22.

- 1.2. BRONZE FLANGES: ASME B16.24, CLASS 150. 1.3. UNIONS: MSS SP-123 1.4. GROOVED-END FITTINGS: ASTM B75 COPPER TUBE OR ASTM
- B584 BRONZE CASTINGS. SOIL, WASTE AND VENT PIPING ABOVEGROUND SOIL, WASTE AND VENT PIPING: NO HUB AND HEAVY DUTY COUPLINGS WITH LEAD AND OAKUM JOINTS, PIPE
- ABOVEGROUND SOIL, WASTE AND VENT PIPING: CAST IRON PIPE

AND FITTINGS.

- PLUMBING GENERAL NOTES 1. PLUMBING GENERAL NOTES ON THESE DRAWINGS ARE A PART OF THE PLUMBING SPECIFICATIONS TO THE SAME EXTENT AS IF WRITTEN HEREIN FULL.
- REQUIREMENTS OF LOCAL AND STATE GOVERNING CODES. ORDINANCES AND HEALTH DEPARTMENT REGULATIONS.

WITH A PLUMBING INSTALLATION READY FOR USE AND

COMPLETE IN EVERY ASPECT. WASTE AND VENT SYSTEM WITH FINAL CONNECTIONS TO ALL FIXTURES, APPLIANCES, DRAINS, EQUIPMENT, STRUCTURES, ETC., REQUIRING DRAINAGE. CONNECTIONS THERETO TO

CONVEYANCE TO THE PUBLIC SEWER SYSTEM.

- INSPECTION STARTS. TESTING OF THE SYSTEM SHALL CONFIRM 4.1. HORIZONTAL DRAINAGE PIPING SHALL BE INSTALLED AT UNIFORM SLOPES NOT LESS THAN THE FOLLOWING: 4.1.1. PIPING LESS THAN FOUR (4) INCHES: 1/4 INCH PER LINEAL
 - 4.1.2. PIPING FOUR (4) INCHES AND LARGER: 1/8 INCH PER
 - LINEAL FOOT 4.1.3. UNLESS OTHERWISE INDICATED ON DRAWINGS,
 - UNDERGROUND DRAINAGE 4.1.4. PIPING SHALL BE A MINIMUM OF FOUR (4) INCHES. 4.1.5. VENT PIPING SHALL BE MINIMALLY SLOPED BACK TO DRAINAGE PIPING.

5. FURNISH AND INSTALL A COMPLETE AND OPERABLE DOMESTIC

WATER DISTRIBUTION SYSTEM WITH FINAL CONNECTIONS TO

ALL PLUMBING FIXTURES, APPLIANCES, EQUIPMENT, WALL HYDRANTS, ETC., REQUIRING DOMESTIC WATER CONNECTIONS THERETO FROM THE DOMESTIC WATER SERVICE. 8. FURNISH AND INSTALL ALL PLUMBING FIXTURES, EQUIPMENT APPLIANCES, COMPLETE WITH ALL NECESSARY AND REQUIRED TRIMMINGS, ACCESSORIES, COMPONENTS AND

APPURTENANCES INCLUDING BUT NOT LIMITED TO P-TRAPS,

BACKFLOW DEVICES, AIR CHAMBERS, STOPS AND SUPPLIES,

HANGERS, SUPPORTS, ANCHORS, CARRIERS, TAILPIPES,

- TEMPERING VALVES, ETC. 9. ALL PIPING SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS OF THE BUILDING, OR AS APPROVED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE. PLACE ALL HANGERS ON EIGHT (8)
- 9.1. PIPES ONE (1) INCH IN DIAMETER OR LESS: SOLID OR SPLIT RING TYPE
- 9.2. PIPES LARGER THAN ONE (1) INCH: STANDARD WEIGHT CLEVIS HANGERS 9.3. INSULATED PIPING: SEMI-CIRCULAR SHIELD.

FOOT CENTERS.

10. CONTRACTOR SHALL PROVIDE ACCESS PANELS TO ACCESS ANY VALVES OR ANY PLUMBING ITEMS REQUIRING ACCESS FOR

MAINTENANCE. CONTRACTOR SHALL PROVIDE TO THE GENERAL CONTRACTOR ALL LOCATION AND SIZES OF ACCESS PANELS FOR APPROVAL BY THE ARCHITECT. CONTRACTOR SHALL PROVIDE ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION.

PLUMBING PRODUCTS AND MATERIALS

- 1. FCO (FINISHED AREAS): ADJUSTABLE FLOOR CLEANOUT, LACQUERED CAST IRON BODY, SECONDARY CLOSURE PLUG, STAINLESS STEEL COMBINED ROUND (SQUARE IN TILED AREAS) COVER AND PLUG TOP ASSEMBLY, STAINLESS STEEL VANDAL RESISTANT SECURITY SCREWS.
- 1.1. MANUFACTURER: MIFAB SERIES C1220-3-6-34B 1.2. MANUFACTURER: MIFAB SERIES C1220-S-6-34B (TILED
- LACQUERED CAST IRON BODY, SECONDARY BRASS CLOSURE PLUG, SCORIATED COMBINED DUCTILE IRON ROUND COVER AND PLUG TOP ASSEMBLY, STAINLESS STEEL VANDAL RESISTANT

2.1. MANUFACTURER: MIFAB SERIES C1220-4-6-34B.

3.1. MANUFACTURER: MIFAB SERIES C1460-R6-3-6.

3. WCO (FINISHED AREAS): LACQUERED CAST IRON CLEANOUT WITH LARGE ACCESS AREA AND THREADED PLUG, STAINLESS STEEL 6 INCH ROUND (SQUARE IN TILED AREAS) COVER AND FRAME ASSEMBLY, STAINLESS STEEL VANDAL RESISTANT SECURITY SCREWS.

3.2. MANUFACTURER: MIFAB SERIES C1460-S7-3-6 (TILED AREAS). 1. BALL VALVE (1/2 INCH TO 2-1/2 INCH) FULL PORT OPENING, 2

PIECE BRASS BODY. BLOW OUT PROOF STEM. TFE SEATS. TFE

WITH ADJUSTABLE STEM PACKING GLAND, FREE-FLOATING

CHROME PLATED BRASS BALL, 100 PERCENT FACTORY TESTED.

1.1. MANUFACTURER: HAMMOND VALVE SERVICE 8300.

DOCUMENTS FOR "AS-BUILT" DRAWINGS. BACKGROUNDS SHALL 2. BALANCING VALVE: DEZINCIFICATION RESISTANT BRASS BODY, BONNET AND TRIM, NON-RISING STEM, SCREWED BONNET, PARABOLIC REGULATING DISK, DOUBLE REGULATING (MEMORY STOP) DEVICE, FLOW MEASUREMENT ACCURACY, SUPPLIED FITTED WITH TWO DUSEAL TEST POINTS, END CONNECTIONS THREADED TO ANSI B1.20 AND SOLDER END TO ANSI B16.18, DRAIN PLUG, PRE-FORMED INSULATION.

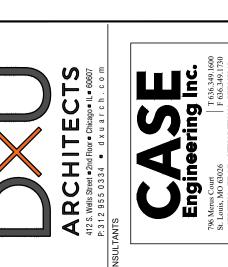
WATER PRESSURE

1. THE CONTRACTOR SHALL PROVIDE A FLOW TEST ON THE INCOMING WATER SERVICE PRIOR TO START OF CONSTRUCTION AND REPORT THE FINDINGS TO THE ENGINEER AND ARCHITECT OF RECORD PRIOR TO THE ORDERING OR RELEASING OF ANY EQUIPMENT OR THE INSTALLATION OR ORDERING OF ANY PLUMBING MATERIALS. THE NEED TO MODIFY ANY EXISTING INSTALLATIONS, OR RE-ORDER/RETURN OF ANY EQUIPMENT DUE TO THE FAILURE TO PERFORM THE REQUIRED PRESSURE TEST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE PRESSURE REDUCING VALVE IF PRESSURE EXCEEDS 80 PSI, PROVIDE ALTERNATE BID FOR BOOSTER PUMP IF PRESSURE IS LESS THAN 65 PSI.

 $\mathbf{\omega}$ RBOR-

MUNICIPAL APPROVAL STAMP





PLUMBING

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PLUMBING FIXTURE SCHEDULE (FINAL FIXTURE SELECTION SHALL BE BY ARCHITECT) CONNECTION DESCRIPTION ACCESSORIES MANUFACTURER & MODEL NO. COMMENTS WASTE VENT COLD HOT 4" 2" 1/2" FIXTURE REFER TO ARCHITECTURAL FIXTURE SCHEDULE, SHEET FLOOR MOUNTED WATER CLOSET, ADA, ELONGATED WC-1 FRONT, FLUSH TANK TYPE, (1.28 GPF) REFER TO ARCHITECTURAL FIXTURE | ECOPOWER SENSOR OPERATED WITH SCHEDULE, SHEET MANUAL OVERRIDE BUTTON REFER TO ARCHITECTURAL FIXTURE ANITMICROBIALLY TREATED, OPEN SCHEDULE, SHEET FRONT, LESS COVER 1 1/2" | 1 1/2" | 1/2" | 1/2" | FIXTURE | DURAVIT SINK # D04546000271 L-1 2 LAVATORY, ADA (0.5GPM) WALL MOUNTED FAUCET MAC FAUCET #FA444-22 SUPPLIES AND STOPS-MCGUIRE OR APPROVED EQUAL SUPPLIES AND STOPS-MCGUIRE OR CAST GRID DRAIN WITH OFF SET P TRAP APPROVED EQUAL COMMERCIAL HEAVY DUTY CHAIR CARRIER JAY R. SMITH CARRIER STRAINER CAST GRID DRAIN 3" | 2" | 3/4" | 5/4" | FIXTURE | FAIT # MSB2424 1 MOP SINK FAUCET TRIM FAIT # 830-AA FAUCET, CHROME, 832-AA HOSE & BRACKET WITH VACUUM BREAKER ACCESSORY FAIT # 889-CC MOP BRACKET SUPLIES AND STOPS-MCGUIRE OR APPROVED EQUIL EWC-1 1 ELECTRIC WATER5 COOLER (ADA) FIXTURE ELKAY LZSTL8 6 FLA, 120V, 8 GPH SUPPLIES AND STOPS-MCGUIRE OR WITH VACUUM BREAKER SUPLIES APPROVED EQUIL TRAP PROFLO 1 1/4" SS P-TRAP 2" | 1 1/2" | 1/2" | FIXTURE | KOHLER # K-5798-1 ST-1 2 SINK FAUCET MAC FAUCET #FA444-22 SUPPLIES AND STOPS-MCGUIRE OR APPROVED EQUAL SUPPLIES AND STOPS-MCGUIRE OR TRAP APPROVED EQUAL CARRIER JAY R. SMITH STRAINER CAST GRID DRAIN 2" | 1 1/2" | 1/2" | FIXTURE | KOHLER # K-2822 1 COUNTER MOUNTED HAND SINK FAUCET MAC FAUCET #FA444-22 SUPPLIES AND STOPS-MCGUIRE OR APPROVED EQUAL SUPPLIES AND STOPS-MCGUIRE OR APPROVED EQUAL CARRIER JAY R. SMITH STRAINER CAST GRID DRAIN

					REC	IRCULATING PUM	P SC	HEDULE						
				FLOW	HEAD	FLANGE SIZE		E	LECTRIC	CAL		WEIGHT		
MARK	DESCRIPTION	LOCATION	QTY.	(GPM)	(FEET)	NPT(IN)	HP	VOLTAGE	PHASE	RPM	F.L.A (AMPS)	(LBS)	MODEL	MANUFACTURER
RCP-1	RECIRCULATING PUMP	UITILITY/STORAGE ROOM	1	2	8	3/4	1/12	120	1	1725	1.75	21	ALPHA 15-5	GRUNDFOS

REMARKS:

NOTE: ALL PIPING SIZED IN ACCORDANCE WITH THE 2006 UNIFORM STATEWIDE BUILDING CODE AND THE 2006 INTERNATIONAL BUILDING CODE.

TAC NO	DESCRIPTION	C	ONNEC	TION *		ACCESSORIES	MANUFACTURED & MODEL NO	COMMENTS
TAG NO.	DESCRIPTION	WASTE	VENT	COLD	нот	ACCESSURIES	MANUFACTURER & MODEL NO.	COMMENTS
WHA-1	WATER HAMMER ARRESTOR						SIOUX CHIER #650 SERIES HY DRAARRESTOR	MEETS ASSE# 101 SIZE BASED EQUIPMENT SERVED. PROVIDE ALL EQUIPMENT AND DEVICES V QUICK ACTION CLOSING MECHA
RPZ-1	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER			1 1/2"			ZURN WILKINS #375XL UP TO 2M	ASSE #1013; UP TO 10"
TMV-1	THERMOSTATIC MIXING VALVE (LOCAL)			3/8"	3/8"		WATTS #LFUSG-B	ASSE #1070
CONNECT	TION SHALL BE AS NOTED BELOW, OR AS SIZED (ON THE [DRAWIN	NGS		<u> </u>		
EMARKS:								

						ELEC	CTRICAL DA	TA		
MARK	MFR	MODEL	STORAGE	RECOVERY	°F. RISE	VOLTAGE	PHASE	ĸw	UNIT LOCATION	REMARKS
WH-1	AO SMITH	DEL-40	40	54 GPH	90	480	3	6	ABOVE MOP SERVICE BASIN	1,2,3
MARKS SET O		ATURE TO 120	°F. INSTALL PE	R MANUFACT	URERS RECOMM	IENDATIONS A	ND GUIDEL	INES.		

3. ADJUST CHARGE PRESSURE IN FIELD.

MARK DIAMETER LENGTH CAPACITY CONNECTION VALVE CERT. (INCHES) (INCHES) (GALLONS) SIZE (INCHES) CHARGING VALVE (LBS) CERT.			EMBT\/	0)/07514	TANK	MENSIONS	TANK DIN	
	REMARKS	UNIT SERVES		 		-		MARK
T-1 8" 13" 2 3/4" 5 X GWH-1	THERM-X-TROL MODEL #ST-5	GWH-1	5	3/4"	2	13"	8"	T-1

						DRAIN AND	CLEAN OUT SCHEE	DULE	
	FIN	ISH	PRIMAR'	Y STRAINER	TYPE OF	TYPE OF			
TAG	BODY	ТОР	SIZE	TYPE	SECONDARY STRAINER	BACKWATE R VALVE	LOCATION	MANUFACTURER AND MODEL	REMARKS
FD-1	CAST IRON	NICKLE BRONZE	6"	ADJUSTABLE			TOILET ROOMS	JAY R. SMITH #2010-A JOSAM SERIES #30000-6A ZURN #415-6B	PROVIDE WITH FLASHING CLAMP 8 SURE SEALTRAP SEAL
FD-2	CAST IRON	NICKLE BRONZE	6"	ADJUSTABLE	HUB EXTENSION		UTILITY/STORAGE ROOM	JAY R. SMITH# JOSAM SERIES #30000-2W ZURN #415	PROVIDE WITH FLASHING CLAMP 8 SURE SEALTRAP SEAL
СО	CAST IRON	NICKLE BRONZE	4"	SCORIATED			AS SHOWN ON DRAWING	JAY R. SMITH #4020 JOSAM SERIES #55000-1 ZURN #ZN-1400	

FD-1	CAST IRON	NICKLE BRONZE	6"	ADJUSTABLE		TOILET ROOMS	JAY R. SMITH #2010-A JOSAM SERIES #30000-6A ZURN #415-6B	PROVIDE WITH FLASHING CLAMP & SURE SEALTRAP SEAL
FD-2	CAST IRON	NICKLE BRONZE	6"	ADJUSTABLE	HUB EXTENSION	UTILITY/STORAGE ROOM	JAY R. SMITH# JOSAM SERIES #30000-2W ZURN #415	PROVIDE WITH FLASHING CLAMP & SURE SEALTRAP SEAL
СО	CAST IRON	NICKLE BRONZE	4"	SCORIATED		AS SHOWN ON DRAWING	JAY R. SMITH #4020 JOSAM SERIES #55000-1 ZURN #ZN-1400	
REMARKS	S:							
1. 4" IN C	GENERAL, C	OR AS SHOW	/N ON THE	DRAWINGS.				13-07-2021

PLUMBING SYSTEM	COPPER / COPPER ALLOY TUBING AND FITTINGS TYPE "L"	CAST (DUCTILE) IRON WATER PIPE AND FITTINGS	CAST IRON SOIL PIPE AND FITTINGS	POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS	REMARKS
	(ASTM B 88)	(ASTM A 377)	(ASTM A 74) (CISPI 301)	(ASTM D 2665)	
		WATER SI	JPPLY SYSTEM		
BUILDING DISTRIBUTION WATER SUPPLY	Х				FOR UNDER GROUND PIPING PROVIDE TYPE K PIPING
		PLUMBING DE	RAINAGE SYSTEMS		
BUILDING SANITARY WASTE SEWER			X	×	CAST IRON NO HUB PIPING WITH STAINLESS STEEL FITTING
		PLUMBING	VENT SYSTEMS		
BUILDING SANITARY WASTE VENT			×	×	COPPER TYPE L WITH DRAINAGE FITTING ORCAST IRON NO HUB PIPING WITH STAINLESS STEEL FITTING
NOTES:	1		ı	l	1

PLUMBING SCHEDULES

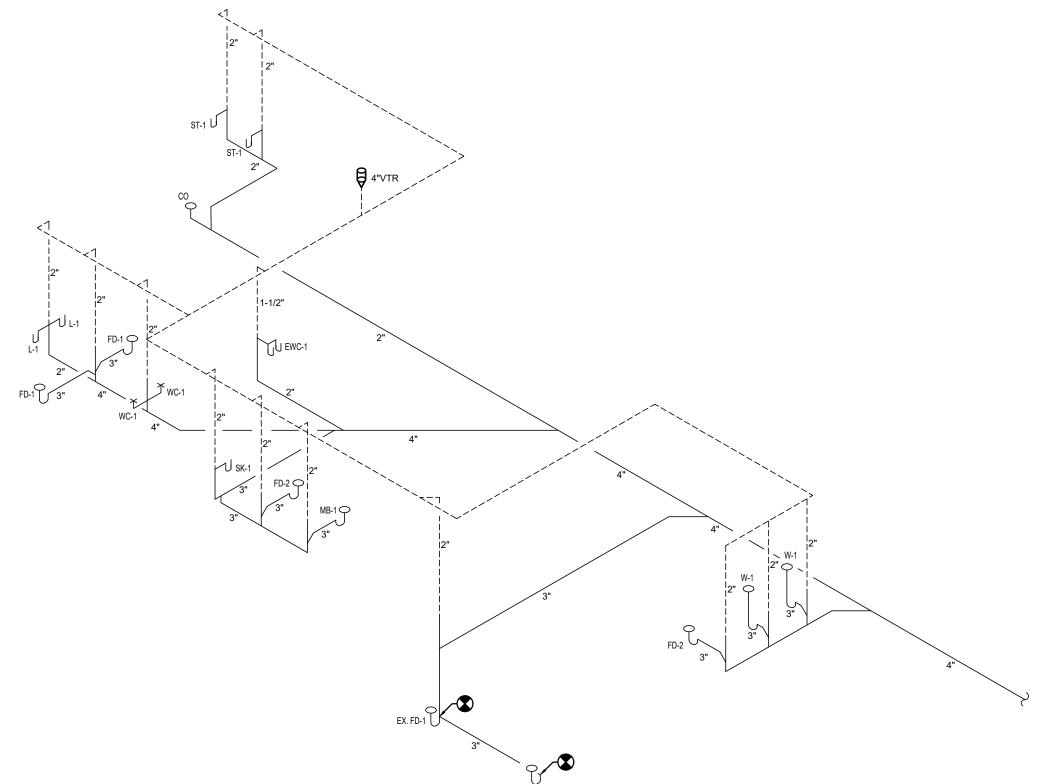
MUNICIPAL APPROVAL STAMP

CRANBROOK

I ARBOR-VILLAGE

PLUMBING FLOOR PLAN - SANITARY

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



2 RISER DIAGRAM- WASTE AND VENT SCALE: NTS

KEYED PLUMBING NOTES

1) 4"SW UP TO WATER CLOSET.

2 3"SW UP TO FLOOR DRAIN.

3 2" SW AND 2" VENT UP IN WALL TO SERVE EWC.

3" SW AND 2"V UP TO MOP BASIN.

5 2" SW AND 2"V UP TO SINK.

6 2"SW AND 2"V UP TO ST SINK (ST-1).7 2"SW WALL UP TO SERVE 2 WASHER BOX.

8 2"V UP TO SERVE FLOOR DRAIN.

9 2" SAN AND 2" UP TO LAV.

(10) 2" V UP TO SERVE WATER CLOSET.

(11) EXTEND NEW PIPING AND CONNECT TO EXISTING SANITARY PIPING. FIELD VERIFY LOCATION.

12) NEW 4" VTR.

(13) 3" EXISTING SW UP TO FLOOR DRAIN.

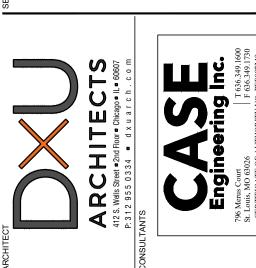
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Y - ANN ARBOR- CRANBROOK

VILLAGE

MUNICIPAL APPROVAL STAMP

DARRELL R. CASE ENGINEER No. 42745



PERMIT / BID

Project Number: 22-067

Drawn By: Approved By: XX

No. Issue Date

95% REVIEW

1SSUED FOR PERMIT & BID

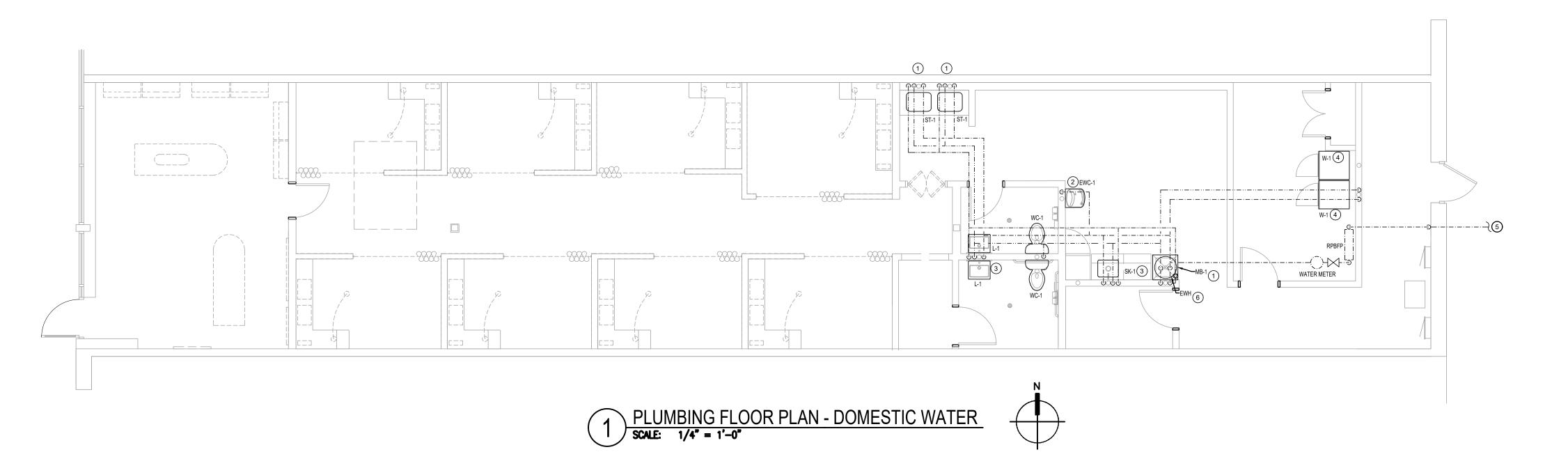
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PLUMBING SANITARY FLOOR PLAN AND RISERS

P4.0

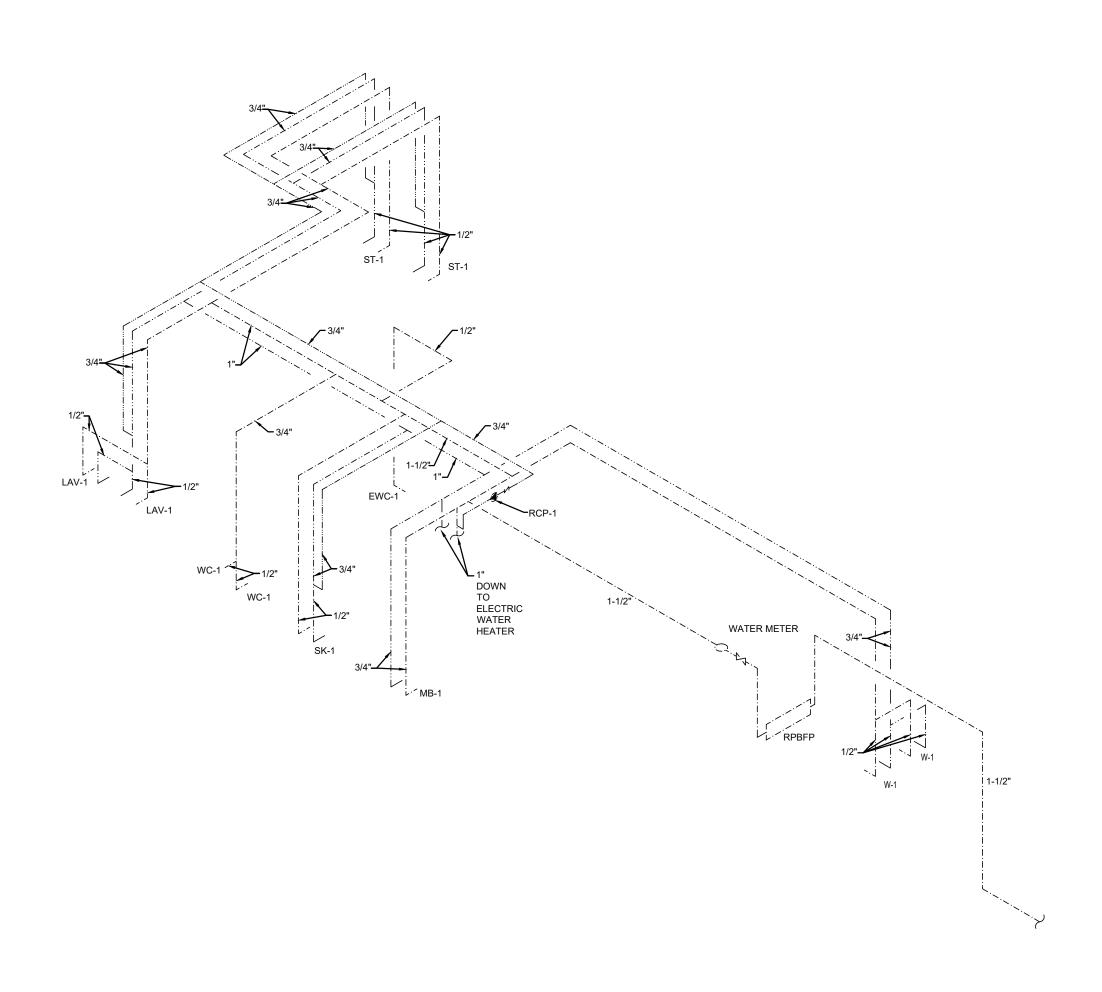
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		F	IXTURE	E UNIT	CALCU	LATIONS				
				TOTAL		COMBINED	TOTAL		TOTAL	
FIXTURE TYPE	QTY	CWSFU	HWSFU	CWSFU	HWSFU	WSFU	WSFU	DFU	DFU	REMARKS
WATER CLOSET (FT)	2	5	0	10	0		10	4	8	
LAV	2	1.5	1.5	3	3	2	4	1	2	
ST. SINK	2	1.5	1.5	3	3	2	4	2	4	
SINK	1	1	1	1	1	1.4	1.4	2	2	
ELECTRIC WATER COOL	1	0.25		0.25		0.25	0.25	0.5	0.5	
MOP BASIN	1	2.25	2.25	2.25	2.25	3	3	2	2	
FLOOR DRAIN	3	0	0	0	0	0	0	2	6	
WASHING MACHINE	2	2.25	2.25	4.5	4.5	3	6	1	2	
										_
				24	13.75		28.65		26.5	
TOTAL GPM							21.5	GPM		=
PIPE SIZE							1-1/4"		4" SAN	

		(BASED ON ASHRAE/ASPE SERVICE WA	TER HEATING CHAPTER)	
MARK	QTY	FIXTURE/EQUIPMENT	INDIVIDUAL DEMAND GAL/HR/FIXTURE (140 DEGREE, F.)	TOTAL DEMAND GAL/HR/FIXTURE (140 DEGREE, F.)
		GENERAL SERVICE LOAD:		
LAV	2	LAVATORY - PUBLIC	6	12
SINK	1	SINK	20	20
МОР	1	MOP SINK	20	20
WASHER	2	WASHING MACHINE	20	40
ST. SINK	2	ST. SINK	10	20
		TOTAL GENERAL SERVICE DEMAND (140 DEGREE, F.)		112
		GENERAL SERVICE LOAD (CLUB CLASSIFICATION):		
		TOTAL DEMAND (140 DEGREE, F.):	0.30 FACTOR:	33.6
		TOTAL STORAGE (140 DEGREE, F.):	0.9 FACTOR:	30.24



2 RISER DIAGRAM- DOMESTIC WATER SCALE: NTS

KEYED PLUMBING NOTES

1) 3/4"CW, 3/4"HW - DN.

2) 1/2"CW - DN3) 1/2"CW & 1/2"HW - DN

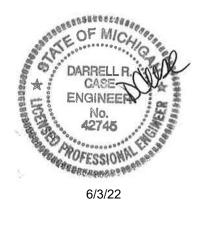
(4) 1/2"CW & 1/2"HW - CONTRACTOR SUPPLIED WASHER BOX WITH HAMMER ARRESTORS

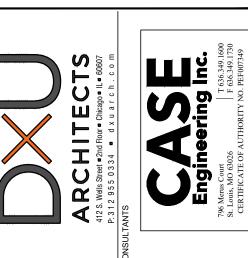
(5) 1-1/2" LANDLORD PROVIDE WATER CONNECTION ROUTE WITH WATER METER AND BACKFLOW ASSEMBLY.

6 SEE WATER HEATER DETAIL P-1.

HEYDAY

HEYDAY - ANN AR





T TITLE & NUMBER

PLUMBING SUPPLY PLAN RISER AND CACLS

P4.1

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TE: 6/3/2022 5:05 PM PLOTTED BY: LUKE WILL