TRAVERSE CITY LIGHT & POWER

CUSTOMER SERVICE CENTER AT HALL STREET

BID SET - 10.16.2023

GENERAL NOTES

OWNERSHIP AND USE OF DOCUMENTS:

- THIS IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND SHALL REMAIN THE PROPERTY OF CORNERSTONE ARCHITECTS, INC. WHETHER THE PROJECT FOR WHICH IT IS MADE IS EXECUTED OR NOT. NO CHANGES, ALTERATIONS, ADDITIONS OR DELETIONS MAY BE MADE HERETO EXCEPT BY THE ARCHITECT AND SHALL NOT BE USED OR REPRODUCED BY ANYONE ON OTHER PROJECTS OR FOR COMPLETION OF THIS PROJECT BY OTHERS WITHOUT THE EXPRESS WRITTEN CONSENT OF CORNERSTONE ARCHITECTS, INC.. SUBMISSION OR DISTRIBUTION TO MEET REGULATORY REQUIREMENTS OR FOR PURPOSES IN CONNECTION WITH THIS PROJECT IS NOT TO BE CONSTRUED AS PUBLICATION IN DEROGATION OF THE RIGHTS OF CORNERSTONE ARCHITECTS, INC. C COPYRIGHT 2015 CORNERSTONE ARCHITECTS, INC.
- ALL WORK AND MATERIALS SHALL BE IN FULL CONFORMANCE WITH THE LATEST FEDERAL, STATE AND LOCAL LAWS, CODES AND ORDINANCES, INCLUDING THEIR MOST RECENT REVISIONS, ADDITIONS, AMENDMENTS, AND INTERPRETATIONS. ALL SUCH CODES AND COMPLIANCE ARE TO BE DEEMED AS PART OF THIS CONTRACT AND PART OF THE CONSTRUCTION DOCUMENTS AS THEY HAVE BEEN WRITTEN IN FULL. IN THE EVENT OF CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.
- · ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE.
- HOLD INDICATED DIMENSIONS. DO NOT SCALE DRAWINGS. RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT BEFORE BEGINNING WORK.
- IN THE CASE OF AN INCONSISTENCY BETWEEN THE DRAWINGS AND SPECIFICATIONS, OR WITHIN EITHER DOCUMENT NOT CLARIFIED BY ADDENDUM, THE BETTER QUALITY, MORE EXPENSIVE, OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE ARCHITECTS INTERPRETATION.
- ALL CONSTRUCTION THAT IS ALREADY IN PLACE THAT IS TO REMAIN AS PART OF THE PROJECT SHALL BE PROTECTED FROM DAMAGE SHALL BE PROTECTED THROUGHOUT THE PERIOD OF CONSTRUCTION WORK. ANY DAMAGED CONSTRUCTION OR FEATURES SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER WITH MATERIALS EQUIVALENT OR SUPERIOR TO THE ORIGINAL ITEM(S).
- IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO VERIFY ALL DIMENSIONS AND INSPECT CONDITIONS OF PRIOR WORK OF THE OTHER TRADES BEFORE STARTING WORK. PROCEEDING WITH THE WORK SHALL CONSTITUTE ACCEPTANCE OF PRIOR WORK.
- ALL ELECTRICAL OUTLETS, DATA & TELEPHONE OUTLETS/JACKS, SWITCHES, PULL STATIONS, THERMOSTATS, EXIT LIGHTS, AND ALL OTHER WALL MOUNTED ACCESSORIES SHALL BE ALIGNED VERTICALLY AND HORIZONTALLY WHEN IN PROXIMITY.
- UNLESS OTHERWISE SHOWN, PLACING OF ACCESS DOORS IN GYPSUM CEILINGS SHALL NOT BE ACCEPTED. LOCATE AND INSTALL ALL WORK AS REQUIRED TO PRECLUDE THE NEED FOR ACCESS THROUGH THE CEILINGS. COORDINATION OF THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- PROVIDE BLOCKING IN PARTITIONS AS REQUIRED FOR ALL MILLWORK, CASEWORK, ACCESSORIES OR OTHER SIMILAR ITEMS ATTACHED TO WALLS. ALL WOOD BLOCKING TO BE FIRE-RETARDENT TREATED AS REQUIRED BY CODE, CONTINUOUS FROM STUD TO STUD.
- ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED PER MANUFACTURE'S WRITTEN INSTRUCTIONS.
- SEALANT, CAULKING, AND FLASHING LOCATIONS SHOWN ON DRAWINGS ARE NOT INTENDED TO BE INCLUSIVE. FOLLOW MANUFACTURE'S INSTALLATION RECOMMENDATIONS AND STANDARD INDUSTRY AND BUILDING PRACTICE.
- IN ALL CASES WHERE WORK DEPICTED IN THESE DRAWINGS REPRESENTS A COMPLETE SYSTEM COMPOSED OF SEPARATE PARTS, IT IS THE RESPONSIBILITY
 OF THE CM/GENERAL CONTRACTOR TO PROVIDE ALL OF THE PARTS, COMPONENTS, ACCESSORIES, HARDWARE, FASTENERS, ETC. REQUIRED FOR A
 COMPLETE AND FULLY FUNCTIONING ASSEMBLY WITHIN THE DEFINITIONS OF NORMAL INDUSTRY STANDARDS, WHETHER OR NOT THESE MISCELLANEOUS
 ITEMS ARE DIRECTLY SPECIFIED IN THE CONSTRUCTION DOCUMENTS.

ABBREVIATIONS

ADL	TIEVIATION				
A.F.F. ABV. AC ADJ. ALUM. ALT. ASPH. B.O. BLKG. BLW. BM. BTW. CMU CONC. CAB. CLO. CLR. CONT. COORD. CTR DEMO DIA. DR. DIM. DTL. ELEV. EQ. EQUIP. EXIST. EXT. F.G. F.O.C.	ABOVE FINISHED FLOOR ABOVE AIR CONDITIONING ADJUSTABLE ALUMINUM ALTERNATE ASPHALT BOTTOM OF BOARD BUILDING BLOCKING BELOW BEAM BETWEEN CONCRETE MASONRY UNIT COLUMN CONCRETE CABINET CLOSET CLEAR CONTINUOUS COORDINATE CENTER DEMOLITION DIAMETER DOOR DOWN DIMENSION DETAIL ELEVATINO EQUAL EQUIPMENT EXISTING EXTERIOR FINISHED GRADE FACE OF CONCRETE	FIN. FLR. FRPR. FTG. GALV. GWB GL. GC H.W. H.C. HM HB HDR. HDW I.D. INSUL. INT. J.H. JB JST. K.D. LAV. LT. MAT MAX MFR. MIN. MO MIR. MTL. (N) N.T.S. NIC OPNG. OPP. P.T.	FINISH FLOOR FIREPROOFING FOOTING GALVANIZED GYPSUM WALLBOARD GLASS GENERAL CONTRACTOR HOT WATER HOLLOW CORE HOLLOW METAL HOSEBIB HEADER HARDWARE INSIDE DIAMETER INSULATION INTERIOR JOIST HANGER JUNCTION BOX JOIST KILN-DRIED LAVATORY LIGHT MATERIAL MAXIMUM MANUFACTURER MINIMUM MASONRY OPENING MIRROR METAL NEW NOT TO SCALE NOT IN CONTRACT OVER ON CENTER OPENING OPPOSITE PRESSURE TREATED	PNL. PTD. RO R.W.L. RESIL. REQ'D RM. RTG RAD./R. S.A.D. S.A.S.F. S.C. S.C.D. S.L.D. S.S. S.S.D. SIM. SPEC STL. STN. SQ. SFTY T&G T.O.C. T.O.C. T.O.S. T.O.P TYP. U.O.N. V.I.F. W.O. W/ WC WDW. WD.	PANEL PAINTED ROUGH OPENING RAINWATER LEADER RESILIENT REQUIRED ROOM RATING RADIUS SEE ARCHITECTURAL DWGS SELF-ADHERED SHEET FLASHING SOLID CORE SEE CIVIL DRAWINGS SEE LANDSCAPE DWGS STAINLESS STEEL SEE STRUCTURAL DWGS SIMILAR SPECIFICATIONS STEEL STAIN SQUARE SAFETY TONGUE AND GROOVE TOP OF TOP OF CONCRETE TOP OF STEEL TOP OF STEEL TOP OF PLATE TYPICAL UNLESS OTHERWISE NOTED VERIFY IN FIELD WHERE OCCURS WITH WATER CLOSET WINDOW WOOD
F.O.F.	FACE OF FINISH				
F.O.M.	FACE OF MASONRY	PL.	PLATE	WH	WATER HEATER
F.O.S.	FACE OF STUD	PLAM.	PLASTIC LAMINATE		
FDN.	FOUNDATION	PLYWD	PLYWOOD		
		5	· = · · · · · · · ·		
FR.	FRAME				

SHEET INDEX

REFERENCE

ATS TITLE SHEET

CODE

ADA BARRIER-FREE DETAILS

CODE-1 CODE COMPLIANCE PLANS & NOTES

ARCHITECTURAL

AD100 ARCHITECTURAL DEMO PLAN
A101 FIRST FLOOR PLAN & RCP
A130 DOOR /FRAME SCHEDULE & FINISH PLANS
A300 INTERIOR ELEVATIONS
A301 INTERIOR ELEVATIONS
A600 INTERIOR SECTIONS
A601 INTERIOR SECTIONS
A602 INTERIOR SECTIONS
A700 CASEWORK & MILLWORK DETAILS
A701 CASEWORK & MILLWORK DETAILS
A800 3D INTERIOR VIEW (REFERENCE ONLY)

PLUMBING

P101 PLUMBING FLOOR PLAN
P200 PLUMBING SCHEDULES & DETAILS

MECHANICAL

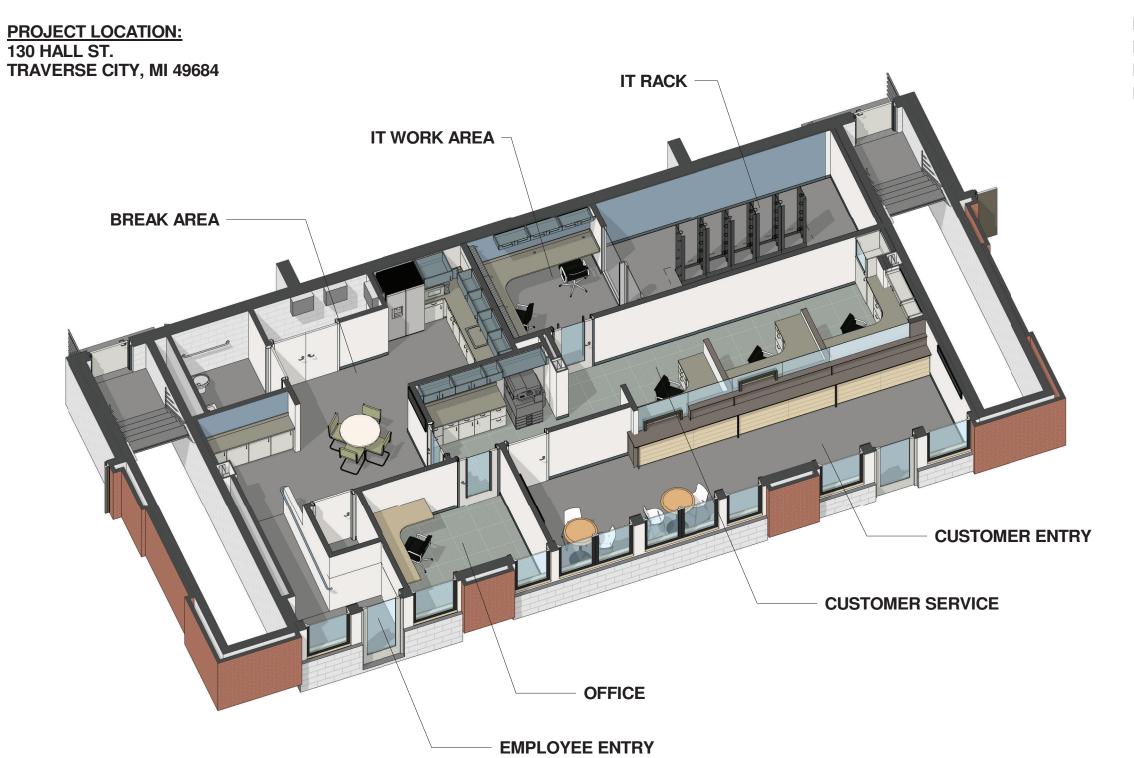
M101 MECHANICAL FLOOR PLAN
M200 MECHANICAL SCHEDULES & DETAILS

ELECTRICAL

E000 ELECTRICAL SCHEDULES & DETAILS
E101 ELECTRICAL FLOOR PLANS
E300 ELECTRICAL SCHEDULES & DETAILS
E301 ELECTRICAL SPECIFICATIONS & DETAILS

LOCATION MAP





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ARCHITECTURAL

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Traverse City, MI 49686 ph: 231.922.4940 contact: Jacob Hardy

CORNERSTONE
ARCHITECTS

122 S. Union, Ste. 200 440 Bridge St. NW



ECENTER

K SEKVICE T HALL STREET

JOHN DANCER ARCHITECT TO ARCHIT

10/16/23 BID SET

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SHEET TITLE:
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ADA BARRIER FREE TYPICAL DETAILS



MER SERVICE CENTER

Date Issued For
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DANCER

ARCHITECT

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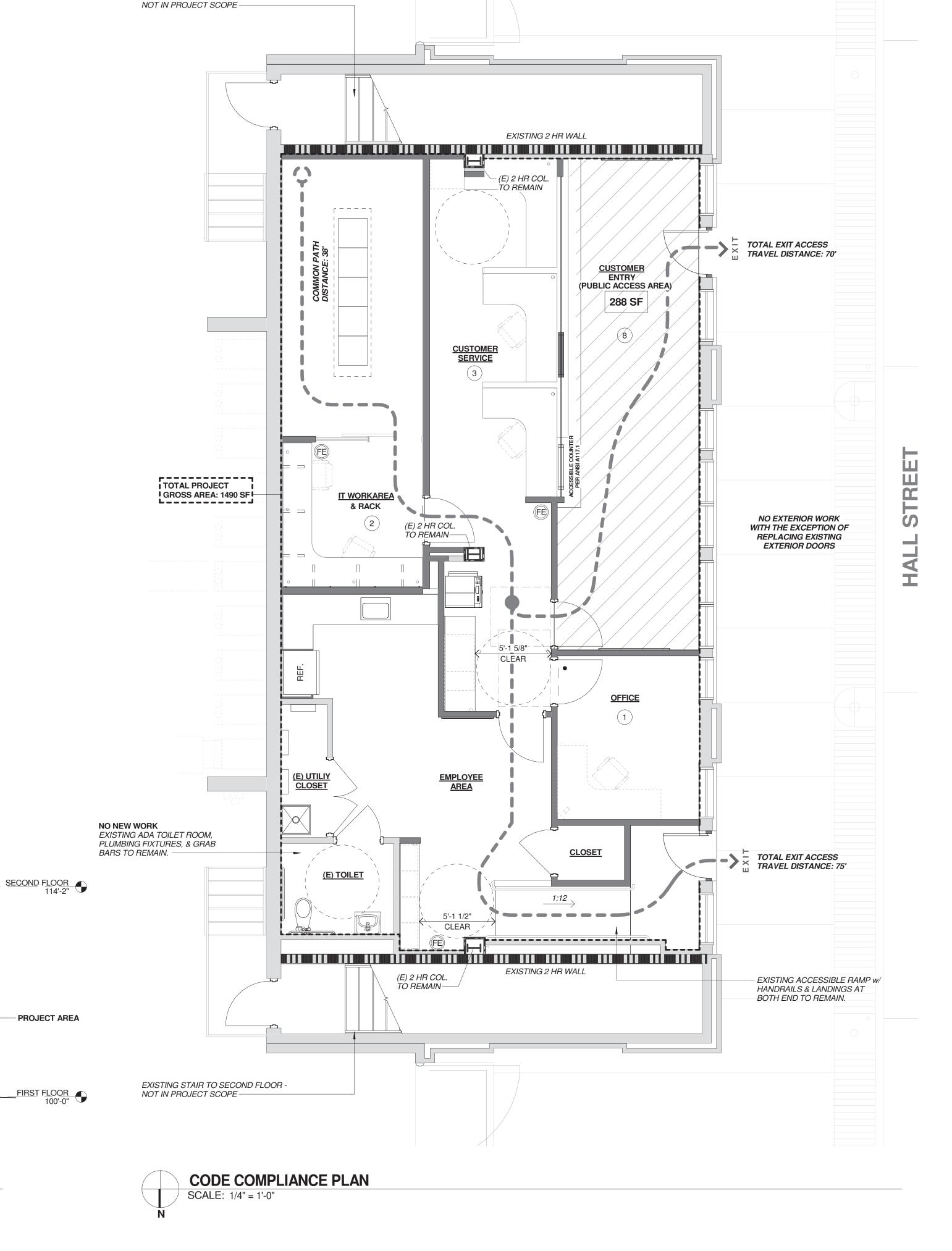
ARCHITECT

PM:

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BARRIER-FREE DETAILS

ADA



EXISTING STAIR TO SECOND FLOOR -



CODE SYMBOL LEGEND

EGRESS EXIT OCCUPANT LOAD EXISTING 2 HR WALL CONSTRUCTION NEW WALL CONSTRUCTION EXISTING WALL CONSTRUCTION REMAIN

> THIS RENOVATION TO AN EXISITNG TENANT SPACE IS DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES THAT GOVERN STATE OF MICHIGAN PROJECTS:

FIRE EXTINGUISHER

(MBC) MICHIGAN BUILDING CODE......2015 (MRC)MICHIGAN REHABILITION CODE...2015 (MMC)MICHIGAN MECHANICAL CODE....2015 (MPC)MICHIGAN PLUMBING CODE......2018 (MEC)MICHIGAN ELECTRICAL CODE.....2017

SCOPE OF WORK: RENOVATION TO EXISTING 1490 SF FIRST FLOOR TENANT SPACE FOR NEW CUSTOMER SERVICE CENTER

CONSTRUCTION TYPE (PER MBC) EXISTING TYPE <u>IIB</u>

FIRE SUPRESSION SYSTEM: EXISTING BUILDING NOT SPRINKLERED,

FIRE ALARM & SMOKE DETECTION PROVIDED AT EXISTING PER NFPA 72

EXISTING OCCUPANCY FOR ENTIRE BUILDING: SEPARATED MIXED USE - (B) AT FIRST FLOOR / (S2) AT SECOND FLOOR • EXISTING 2 HOUR FIRE-RESISTANCE RATED HORIZONTAL ASSEMBLY, UL

J931, SEPARATING OCCUPANCIES, REFER TO SECTIONS. NEW WORK WILL NOT DISTURB OR THROUGH-PENETRATE EXISTING HORIZONTAL ASSEMBLY OR ANCILLARY SPRAY-FIRE PROOFING

• EXISTING SUPPORTING CONSTRUCTION/COLUMNS ARE 2 HOUR FIRE-RESISTANCE RATED ASSEMBLIES, UL X524, AND SHALL REMAIN INTACT OR RECONSTRUCTED AS REQUIRED TO MAINTAIN FIRE-RESISTANCE

USE & OCCUPANCY CLASSIFICATION - MBC CHAPTER 3 FIRST FLOOR [PROJECT AREA]: (B) BUSINESS - SERVICE TYPE TRANSACTION/OFFICES

EXISTING BUILDING HEIGHT: 27'-4", 2 STORIES

TOTAL OVERALL AREA OF EXISTING BUILDING (BOTH FLOORS): 3680 SF

MRC ALTERATION LEVEL

WORK IS CLASSIFIED AS A LEVEL 2-ALTERATION AND SHALL COMPLY w/ MRC CHAPTER 8

BUILDING AREAS PER OCCUPANCY

FIRST FLOOR (B) TENANT SPACE......1490 GROSS SF

OCCUPANT LOAD - MBC 1004.1.2

(B) CUSTOMER SERVICE CENTER.... (SÉE ATTACHED OWNER LETTER)

COMMON PATH OF EGRESS TRAVEL - MBC 1006.2.1

(B) OCCUPANCY: 75 FT w/o SPRINKLER SYSTEM FOR ONE EXIT -(2) EXITS PROVIDED

DOOR SWING - MBC 1010.1.2

EXCEPTION 1: SWINGING TYP DOORS ARE NOT REQUIRED FOR OFFICE AREAS w/ OCCUPANT LOAD OF 10 OR LESS

EXIT ACCESS TRAVEL DISTANCE - MBC 1017.2

(B) 200' w/o SPRINKLER SYSTEM

ACCESSIBILITY - MRC 806 ALL ALTERED SPACES SHALL COMPLY w/ MRC 410.6 AND BE ACCESSIBLE PER CHAPTER 11 OF MBC

MINIMUM PLUMBING FIXTURES - MPC 403 FOR (B) BUSINESS: 1 PER 25 WCs REQUIRED, 1 PER 40 LAVs REQUIRED -1 WC & 1 LAV REQUIRED & PROVIDED. REFER TO MPC 403.2 EXCEPTION 2 REGARDING SEPARATE FACILITES

MPC 403.2 EXCEPTION 2: SEPARATE FACILITES SHALL NOT BE REQUIRED w/ A TOTAL OCCUPANT LOAD, INCLUDING EMPLOYEES AND CUSTOMERS, OF

-OCCUPANT LOAD FOR ENTIRE TENANT SPACE WILL BE LESS THAN 15. SEE ATTACHED OWNER LETTER

MPC 403.3 EXCEPTION 2: TENANT SPACES INTENDED FOR QUICK TRANSACTIONS HAVING A PUBLIC ACCESS AREA LESS THAN OR EQUAL TO 300 SF SHALL NOT REQUIRE PUBLIC TOILET FACILITIES.

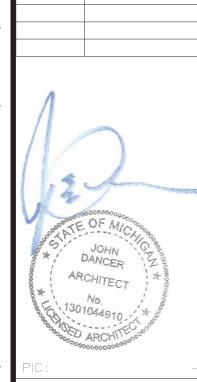
MRC 810.1 MINIMUM FIXTURES: WHERE OCCUPANT LOAD OF STORY IS INCREASED BY MORE THAN 20%, FIXTURES SHALL BE BASED ON

INCREASED OCCUPANT LOAD. -NO INCREASE TO EXSITING OCCUPANT LOAD.

-PUBLIC ACCESS AREA IS LESS THAN 300 SF

DRINKING FOUNTAINS - MPC 410.2

DRINKING FOUNATINS SHALL NOT BE REQUIRED FOR AN OCCUPANT LOAD OF 15 OR FEWER



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CODE COMPLIANCE PLANS & NOTES

SECTION DIAGRAM CODE-1 SCALE: 1/4" = 1'-0"

SECOND FLOOR S2-USE

(NOT IN PROJECT SCOPE)

CUSTOMER

SERVICE

- EXISTING SOLID 4" CMU EQ. TO 2 HR

CUSTOMER ENTRY

FIRE-RESISTANCE RATING PER

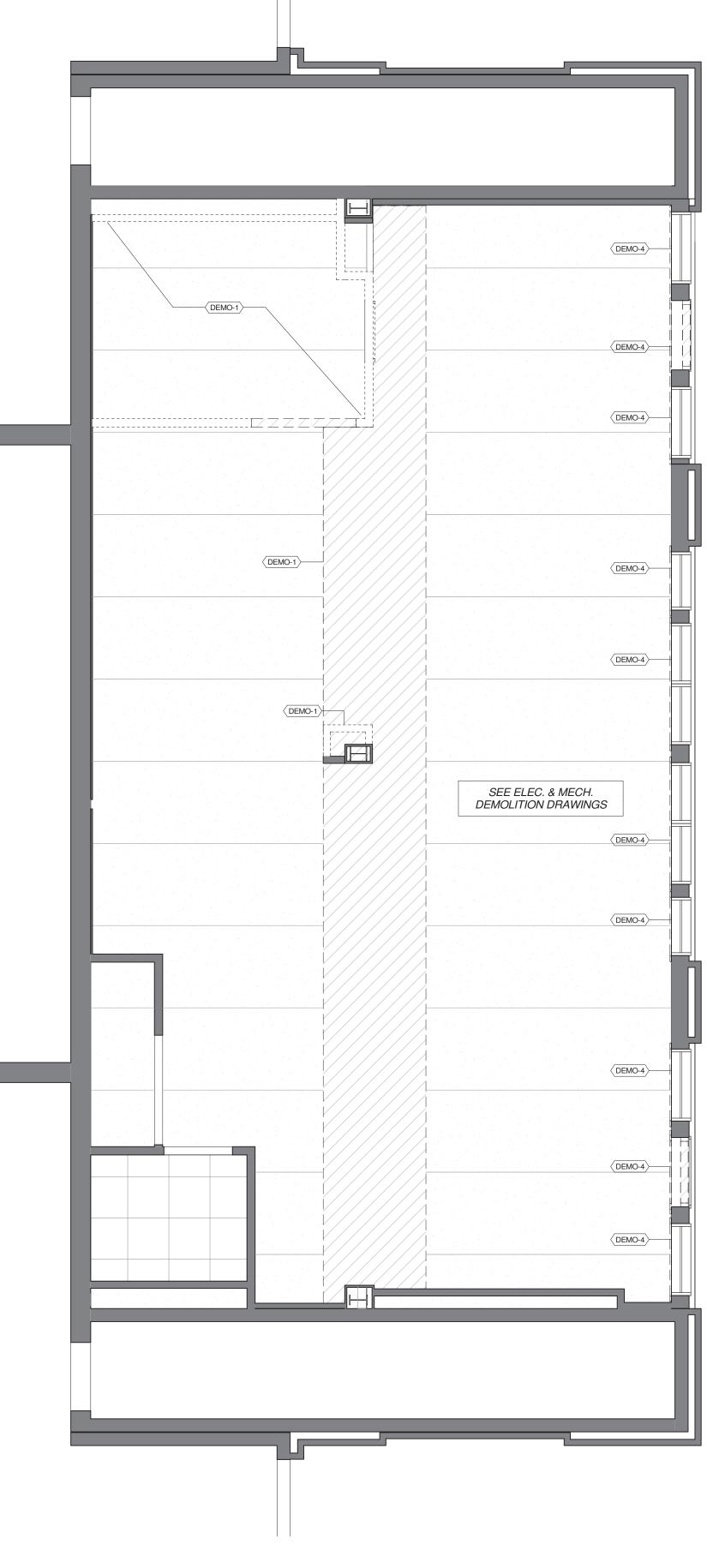
722.3.2. TO REMAIN INTACT

- EXISTING 2 HR HORIZONTAL ASSEMBLY -

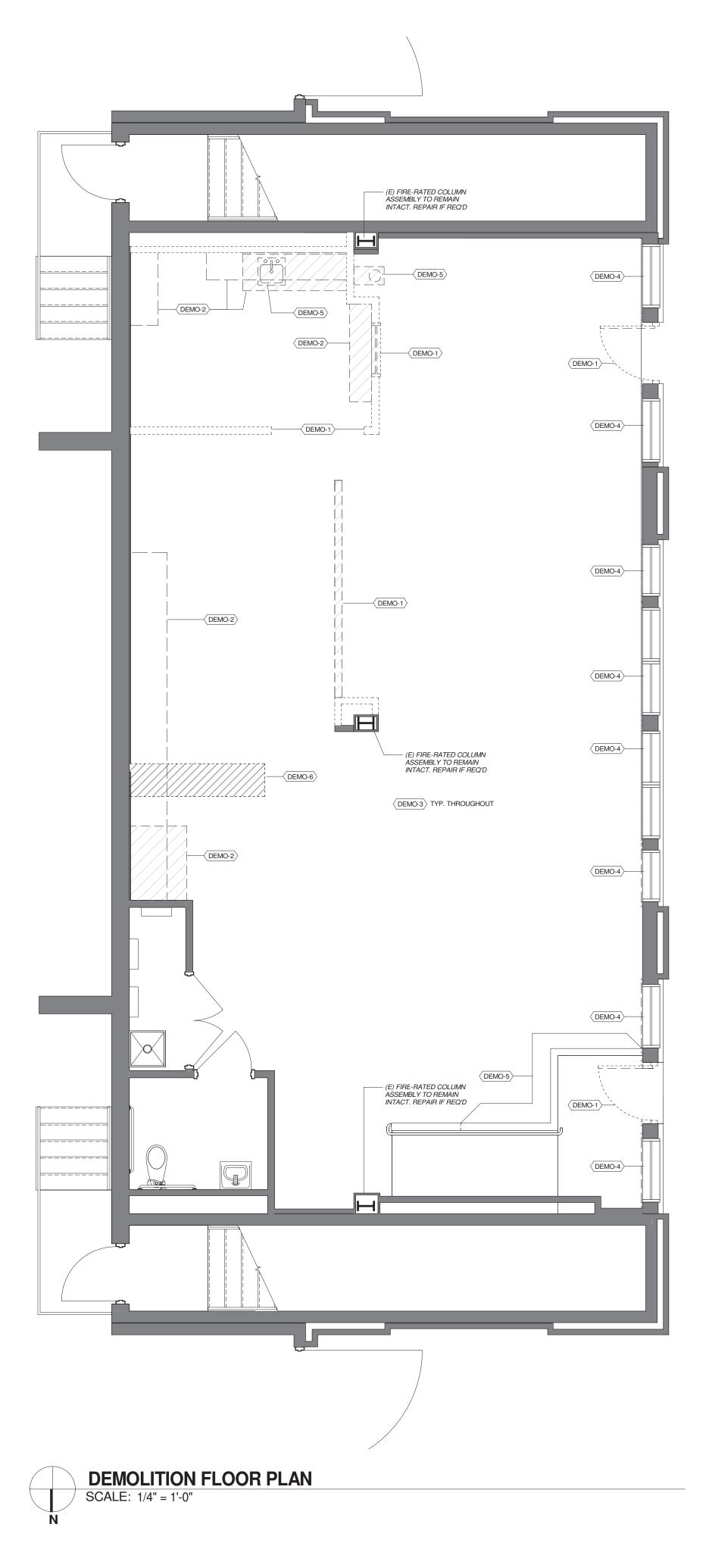
UL J931 - TO REMAIN INTACT

8" CONC. PLANK

EMPLOYEE







GENERAL DEMO NOTES

- THE GENERAL CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS
 REQUIRED TO COMPLETE DEMOLITION, REMOVAL AND RE-USE OF ALL ITEMS SHOWN ON DRAWINGS.
- OBTAIN PROPER PERMITS PRIOR TO THE COMMENCEMENT OF DEMOLITION.
 ALL SUBMITTAL AND FEES ARE THE RESPONSIBILITY OF THE G.C.
- ALL WORK DEMOLISHED SHALL BE REMOVED FROM THE PREMISES DAILY, EXCEPT ITEMS TO BE REUSED OR RETURNED TO THE OWNER, OR AS DIRECTED OTHERWISE. REMOVE AND DISPOSE OF ALL MATERIALS IN A LEGAL MANNER, USING LABOR, MATERIALS AND EQUIPMENT AS NECESSARY.
- REFER TO ATTACHED FLOOR PLANS FOR EXISTING CONSTRUCTION TO REMAIN, EXTENT OF DEMOLITION, AND SCHEDULED ITEMS FOR RELOCATION. THE OWNER RETAINS ALL SALVAGE RIGHTS. REVIEW WITH THE OWNER ALL ITEMS OF POTENTIAL SALVAGE AND STORE APPROPRIATELY. THE USE OF NON-SALVAGED ITEMS IN NEW CONSTRUCTION NOT PERMITTED WITHOUT WRITTEN PERMISSION FROM THE OWNER AND THE ARCHITECT. ITEMS NOT APPROVED FOR SALVAGE BY THE OWNER, ARE TO BE PROPERLY DISPOSED OF BY THE G.C. ALL EXISTING DOORS, FRAMES, HARDWARE, ELECTRICAL FIXTURES, CABINETRY, AND OTHER BUILDING STANDARD COMPONENTS REMOVED DURING DEMOLITION AND NOT REUSED FOR THIS PROJECT SHALL BE TAGGED AND STORED AS DIRECTED BY BUILDING MANAGEMENT/OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ADEQUATE PRECAUTIONS TO PROTECT BUILDING OCCUPANTS, MATERIALS AND EXISTING FINISHES THROUGHOUT ALL PHASES OF CONSTRUCTION AREAS AND OCCUPIED OR PUBLIC AREAS TO BE MAINTAINED BY CONTRACTOR. PROTECT OR TEMPORARILY REMOVE ALL ITEMS THAT ARE EXISTING TO REMAIN. RESET TEMPORARY REMOVALS ACCURATELY AND SECURELY. DAMAGE TO EXISTING TO REMAIN CONSTRUCTION, MATERIALS OR EQUIPMENT TO BE RESTORED TO ORIGINAL CONDITION OR AS OUTLINED IN THE CONSTRUCTION DOCUMENTS.
- THE GENERAL CONTRACTOR SHALL ERECT ALL NECESSARY PLASTIC DROP CLOTH PARTITIONS, BARRICADES, AND OTHER METHODS OF DUST CONTROL TO ASSURE A SAFE AND NEAT DEMOLITION PROCESS AND TO PROTECT ADJACENT BUILDING PROPERTIES. THE USE OF EXPLOSIVES AND BURNING ARE NOT PERMITTED.
- TEMPORARILY SHORE AND SUPPORT ANY AREA OF DEMOLITION IN WALLS, FLOORS, CEILING ASSEMBLIES, THAT ARE STRUCTURAL. PROTECT ALL WORK IN PLACE.
- DEMOLITION AND TRENCHING, CUTTING, BORING, AND REPAIR ASSOCIATED WITH TRADES IS THE RESPONSIBILITY OF THAT TRADE. COORDINATE WITH THE G.C. PRIOR TO DEMOLITION WORK.
- ALL TRADES ARE TO REVIEW EXISTING CONDITIONS AND INCLUDE DEMOLITION OF EXISTING SYSTEMS AS REQUIRED BY SCOPE OF NEW WORK.
- THE GENERAL CONTRACTOR SHALL REMOVE ALL WALL CONDUITS, SWITCH PLATES, TELEPHONE OR ELECTRICAL WIRING OR EQUIPMENT, ETC.. TO THE SOURCE AFTER WALL DEMOLITION.
- REMOVE EXISTING MECHANICAL COMPONENTS AS REQUIRED TO ACCOMMODATE NEW HVAC DESIGN AND DUE TO CEILING RELATED WORK, SALVAGE DEVICES AS PRACTICAL FOR REUSE. CLEAN/REPLACE SUPPLY AIR DIFFUSERS AND RETURN AIR GRILLES, CALIBRATE AND RELOCATE THERMOSTATS, AND INSTALL NEW DUCTWORK AS REQUIRED.
- REMOVE EXISTING AND/OR RELOCATE EXISTING LIGHT FIXTURES AND OTHER CEILING DEVICES AS REQUIRED TO ACCOMMODATE REFLECTED CEILING PLAN, ALL EXISTING FIXTURES DEVICES SHALL BE CLEANED, (INCLUDING LENS), DAMAGED PARTS REPAIRED OR REPLACED, AND RELAMPED AS NECESSARY.
- REMOVE EXISTING CEILING AND FLOORING FINISH AS REQUIRED FOR INSTALLATION OF NEW.
- COORDINATE WALL DEMO WITH LOCATION OF NEW COLUMN GRID.

DEMOLITION LEGEND

THE FOLLOWING SCOPE OF WORK APPLIES TO ALL AREAS OF DEMOLITION WORK. CONSTRUCTION MANAGER TO FIELD VERIFY THE EXTENT OF THE WORK AND THE EXISITING CONDITIONS PRIOR TO THE START OF WORK

DEMO-1 REMOVE EXISTING WALLS, COLUMNS, DOORS, WINDOWS, ETC. AS SHOWN DASHED. PATCH AND REPAIR FLOORS, WALLS, CEILINGS, ETC TO REMAIN IN PREPARATION FOR NEW CONSTRUCTION. PROVIDE TEMPORARY SHORING FOR BEARING WALLS AS REQ'D. SALVAGE AND PROTECT ALL DOORS/WINDOWS AND COORDINATE STORAGE/DISPOSAL w/ OWNER COORDINATE DEMO WORK w/ NEW CONSTRUCTION, REFER TO NEW CONSTRUCTION DRAWINGS

DEMO-2 REMOVE EXISITNG CASEWORK & SHELVING AS ASSOCIATED SUPPORTS

DEMO-3 REMOVE EXISTING WALL BASE

(DEMO-4) REMOVE EXISTING WOOD WINDOW CASING & JAMB TRIM

DEMO-5 PARTIALLY REMOVE EXISTING WALL CAP & PREP FOR NEW WALL CONSTRUCTION

SAWCUT EXISTING CONCRETE FLOOR AS REQ'D FOR MODIFICATION TO (E) SANITARY. PATCH AS REQ'D. SEE PLUMBING DRAWINGS.

-REFER TO ELECTRICAL DEMOLITION DRAWINGS FOR REMOVAL OF EXISTING ELECTRICAL COMPONENTS AND LIGHT FIXTURES

-REFER TO PLUMBING DEMOLITION DRAWINGS FOR REMOVAL OF EXISTING PIPING, FIXTURES, ETC.

-REFER TO MECHANICAL DEMOLITION DRAWINGS FOR REMOVAL OF EXISTING DUCTWORK

DEMOLITION SYMBOL LEGEND

EXISTING TO BE DEMOLISHED

EXISTING WALL TO REMAIN

CORNERSTONE

CORNERSTONE ARCHITECTS

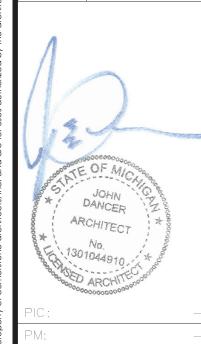


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AT HALL STREET

Date Issued For

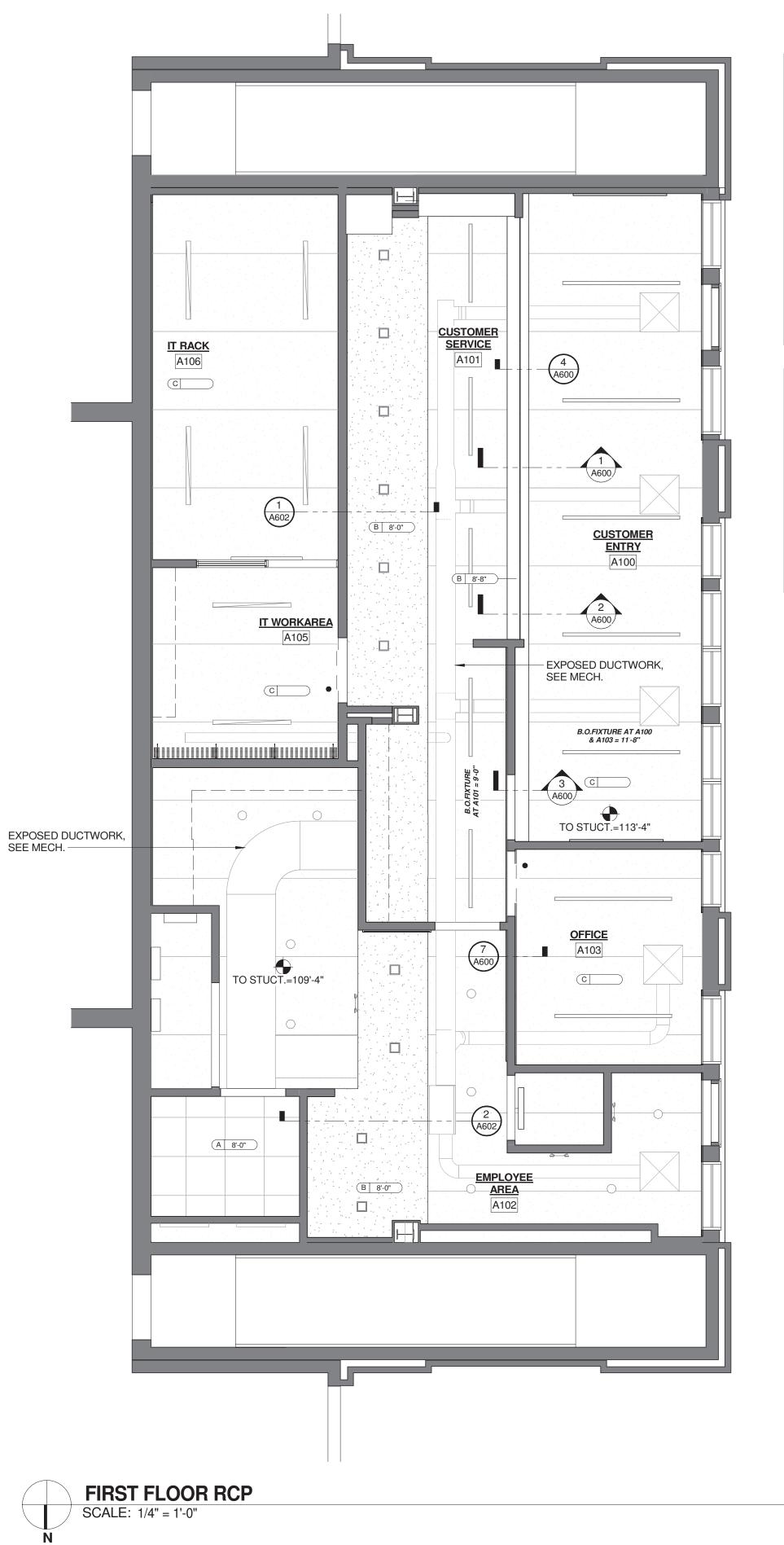
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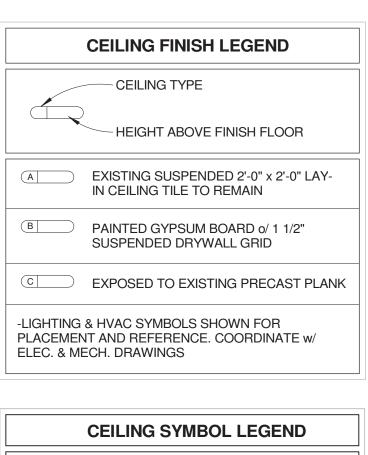


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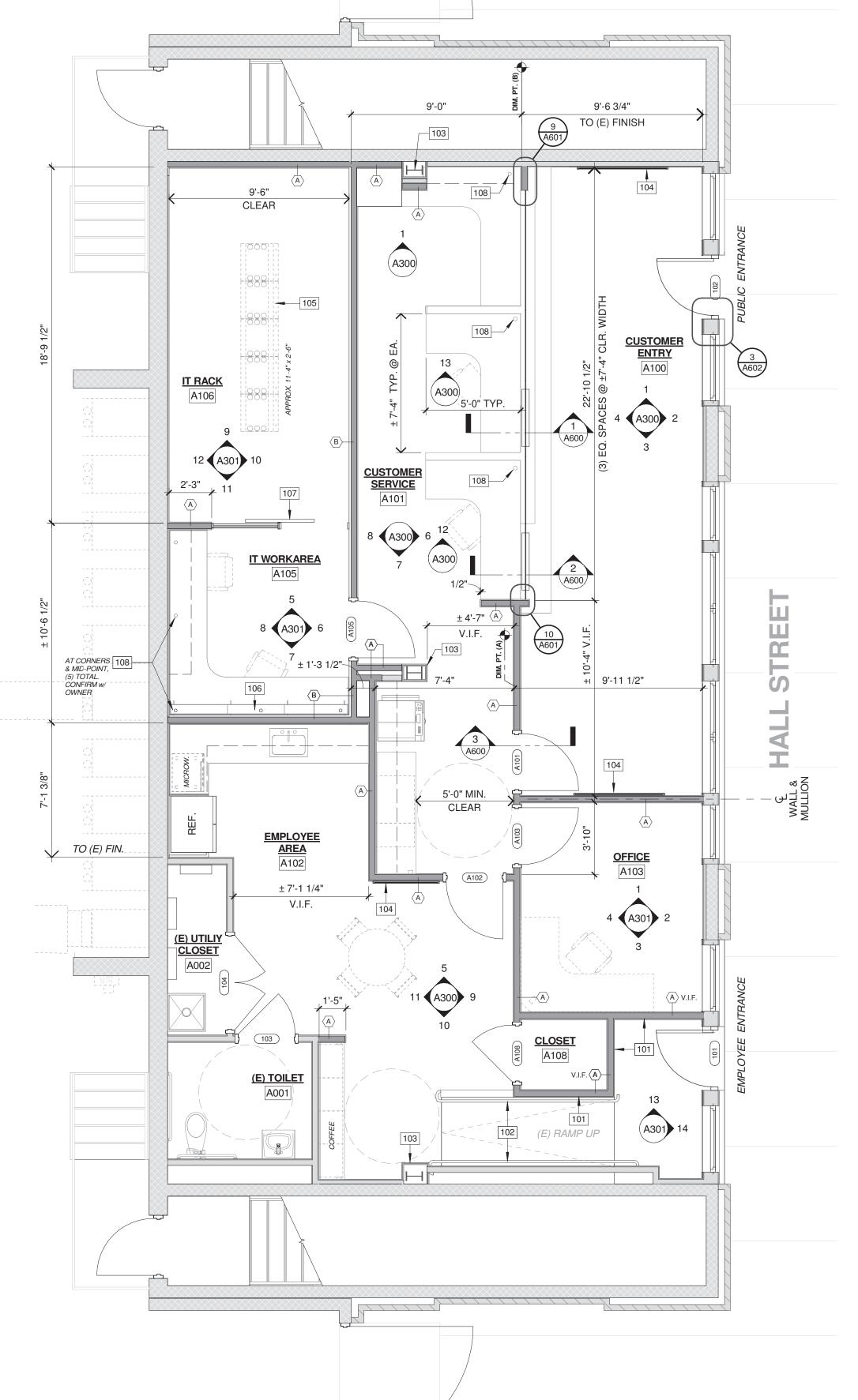
ARCHITECTURAL DEMO PLAN

AD100





SUSPENDED MOUNTED LINEAR PENDANT LIGHT FIXTURE SURFACE MOUNTED LINEAR LIGHT FIXTURE SURFACE FLAT LED LIGHT FIXTURE



GENERAL FLOOR PLAN NOTES

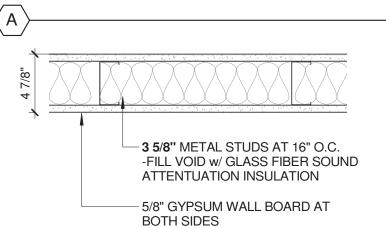
- DRAWINGS REFLECT WHAT WAS KNOW ABOUT THE EXISTING BUILDING AND ABLE TO BE FIELD VERIFIED PRIOR TO ANY DEMOLTITION. THE CONTRACTOR SHALL FIELD VERIFY WALL EXISTING DIMENSIONS PRIOR TO FRAMING & REVIEW w ARCHITECT & OWNER IF ANY DISCREPANCIES/CONFLICTS PRIOR TO WALL FRAMING.
- ALL INTERIOR DIMENSIONS ARE TO FACE OF FRAMING, U.O.N.
- REFER TO WALL SECTION AND WALL TYPE LEGEND FOR WALL
- CONSTRUCTION FURNITURE SHOWN DASHED TO BE PROVIDED AND BY OWNER
- REFER TO MECHANICAL & ELECTRICAL DRAWINGS FOR EQUIPMENT MOUNTING REQUIREMENTS

FLOOR PLAN KEYNOTE LEGEND

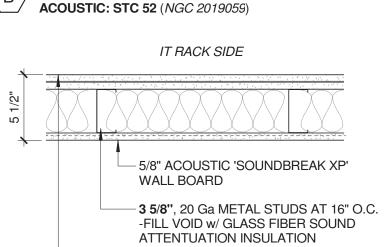
- 101 ALIGN (N) WALL FRAMING w/ (E) WALL FRAMING BELOW. FIELD VERIFY CONSTRUCTION & THICKNESS TO MATCH.
- 102 (E) HANDRAILS & RAMP TO REMAIN. REPAINT HANDRAILING
- 103 (E) 2-HR FIRE RATED COLUMN WRAP, UL DESIGN X524. PATCH & REPAIR PER DESIGN AS REQ'D IF DISRUPTED OR DAMAGED DURING CONSTRUCTION
- 104 WALL-MOUNTED TV DISPLAY, BY OWNER. REFER TO INT. ELEVATIONS & PROVIDE SOLID BLOCKING AS REQ'D.
- 105 IT/FIBER RACK BY OWNER
- 106 WALL -MOUNTED ADJ. METAL SHELVING ON STANDARDS (BASIS: KV 87/186/187 STEEL SERIES)
- 107 GLAZED INTERIOR WALL SYSTEM w/ SLIDING DOOR, SEE INT. ELEVATIONS.
- 108 PROVIDE GROMMET AT COUNTERTOP AS SHOWN. VERIFY IN FIELD w/ OWNER/ARCHITECT

INTERIOR WALL TYPE LEGEND

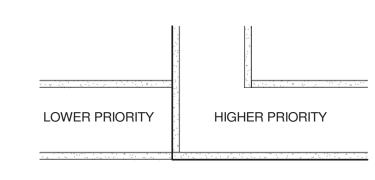
- DIMENSIONS SHOWN ARE TO FACE OF FRAMING, U.O.N.
- PROVIDE FRTW BLOCKING AT ALL CASEWORK, FRAMES, TRIM, ETC. AS PER PLANS & ELEVATIONS
- REFER TO INTERIOR ELEVATIONS AND DETAILS FOR FINISH AND FINISH BUILD UP
- ALL FIRE RATED ASSEMBLIES SHALL BE CONSTRUCTED FULL HEIGHT TO AND SEALED AGAINST UNDERSIDE OF STRUCTURE. SEAL ALL EDGES w/ FIRE RATED SEALANT



(AT DOUBLE FRAMED WALLS GYP. BOARD ONLY REQ'D AT FINISHED SIDE)



(2) LAYERS OF 5/8" GYPSUM WALL BOARD



HIGHEST PRIORITY 1 - TWO HOUR FIRE & SMOKE WALL

2 - TWO HOUR FIRE WALL/SHAFT WALL 3 - ONE HOUR FIRE & SMOKE WALL

4 - ONE HOUR FIR WALL

LOWEST PRIORITY 5 - NON-RATED WALL

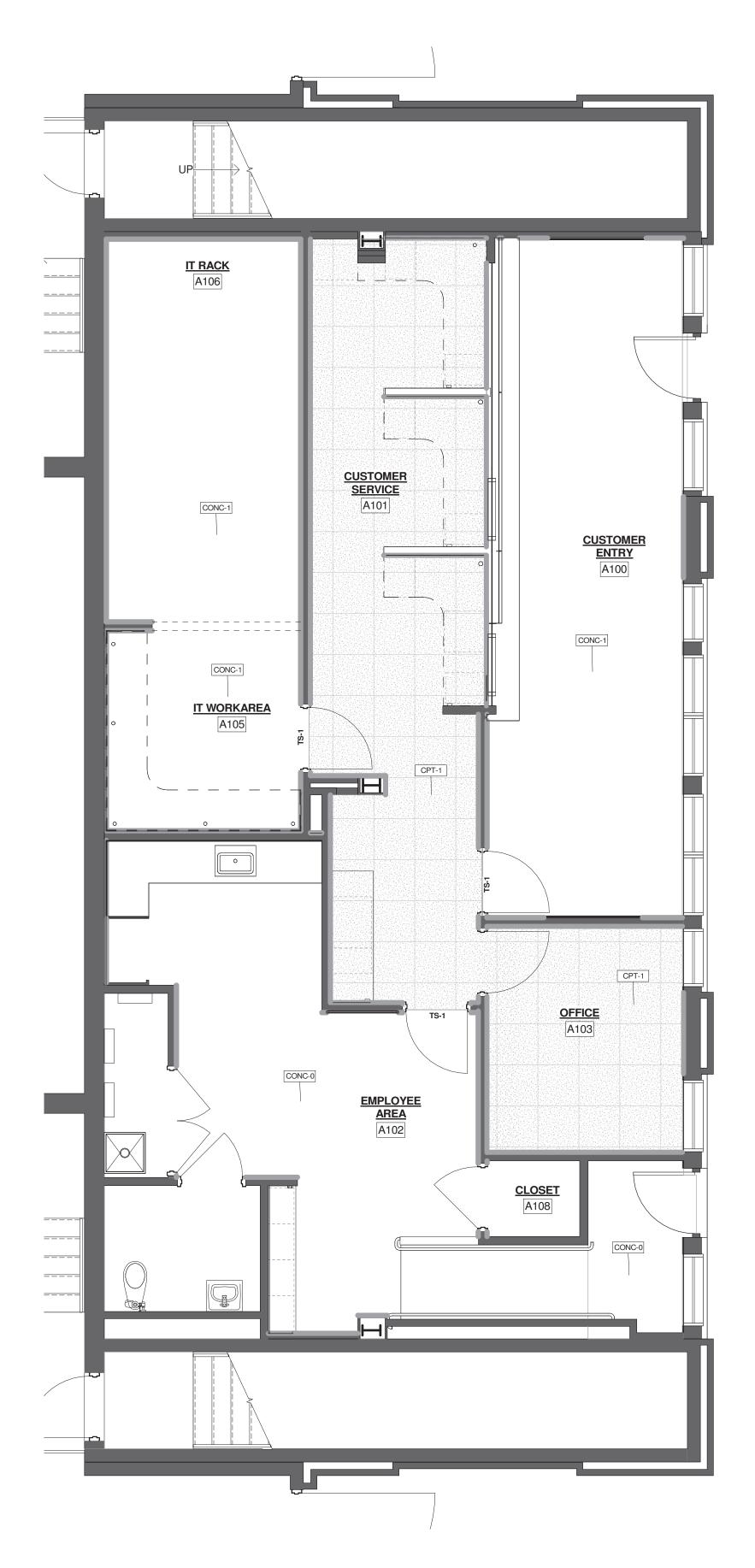
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FIRST FLOOR PLAN & RCP

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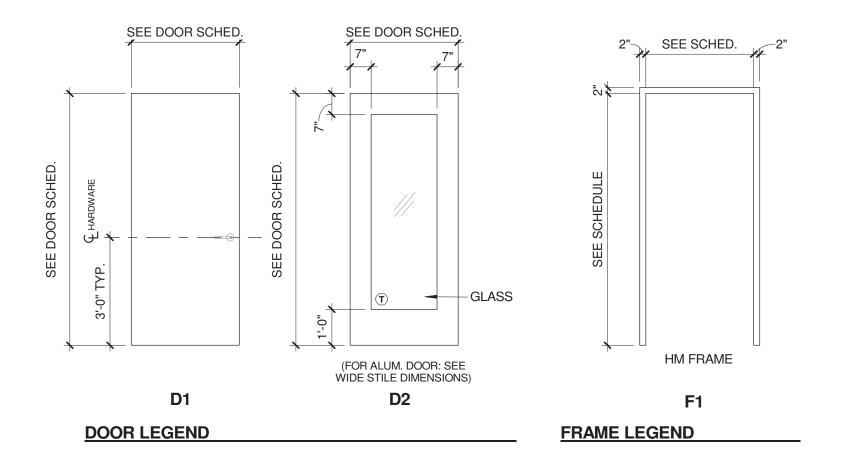
FLOOR PLAN SCALE: 1/4" = 1'-0"





	DOOR AND FRAME SCHEDULE																
				DOOR				F	RAME	FIDE			DETAILS		CARD		
#	LOCATION	H S	IZE W	SINGLE/ PAIR	THICK.	TYPE	MATERIAL	TYPE	MATERIAL	FIRE RATING	HW SETS	HEAD JAMB	THRESH.	CARD ACCESS	PWR. REMARKS	REMARKS	
FIR	FIRST FLOOR																
101	EMPLOYEE AREA	8'-6"	3'-0"	SINGLE	1 3/4"	D2	AL		AL		01	3/A602 SIM.	3/A602	6/A602		MATCH SIZE OF EXIST	ST. V.I.F.
102	CUSTOMER ENTRY	7'-8"	3'-0"	SINGLE	1 3/4"	D2	AL		AL		01	3/A602 SIM.	3/A602	6/A602		MATCH SIZE OF EXIST	ST. V.I.F.
103	(E) TOILET	7'-0"	3'-0"	SINGLE	1 3/4"	D1	HM	F1	HM		02					EXISTING DOOR, (N)	HDW.
104	(E) UTILIY CLOSET	7'-0"	5'-0"	PAIR	1 3/4"	D1	НМ	F1	HM		06					EXISTING DOOR, (N)	HDW.
A101	CUSTOMER SERVICE	7'-0"	3'-0"	SINGLE	1 3/4"	D1	HM	F1	HM		03	4/A602	5/A602			•	
A102	EMPLOYEE AREA	7'-0"	3'-0"	SINGLE	1 3/4"	D2	HM	F1	HM		05	4/A602	5/A602				
A103	OFFICE	7'-0"	3'-0"	SINGLE	1 3/4"	D2	HM	F1	HM		04	7/A602	7/A602			SURFACE MOUNTED	SHADE, SEE DETAILS
A105	IT WORKAREA	7'-0"	3'-0"	SINGLE	1 3/4"	D2	HM	F1	HM		03	7/A602	7/A602			 SURFACE MOUNTED 	SHADE, SEE DETAILS
A108	CLOSET	7'-0"	3'-0"	SINGLE	1 3/4"	D1	НМ	F1	HM		03	3/A602 SIM.	5/A602			•	

- <u>DOOR SCHEDULE GENERAL NOTES</u>
 ALL ROUGH OPENINGS TO BE FIELD VERIFIED BY CONTRACTOR
 REFER TO ELECTRICAL DRAWINGS FOR DOORS TO RECEIVE POWER
- SEE FINISH SCHEDULE & PLANS FOR FRAMES & DOORS TO BE PAINTED KEYING SHALL BE COORDINATED WITH OWNER'S EXISTING KEYING SYSTEM
 HM = HOLLOW METAL
- AL = ALUMINUM



TYPE	PRODUCT	MANUFACTURER	STYLE	COLOR	SIZE	REMARKS
	11102001		91122			1.2
ASE						
B-1	RUBBER BASE	TARKETT	TS	72 HARBOUR	4"	
ASEWORK						
ML-1	METAL LAMINATE	CHEMETAL		606 BLACKENED ALUMINUM	.025" THICK	
PL-1	PLASTIC LAMINATE	FORMICA	MATTE	WINTER SKY		
PL-2	PLASTIC LAMINATE	FORMICA	MATTE	OTTER		
SS-1	SOLID SURFACE	CORIAN		SERENE SAGE		
CONC-0	EXISTING CONC. SLAB	 CLIDDOCTORS OR SIM		 CLEAR		CONTRACTOR TO VERIEVEY CONDITIONS
CONC-1	RESEALED (E) CONC. SLAB	SLIPDOCTORS, OR SIM.	DECK GRIP (NON-SLIP SEALER)		0.4"0.4"	CONTRACTOR TO VERIFY EX. CONDITIONS
CPT-1	CARPET TILE	PATCRAFT	TRANSVERSE I0520	REBAR 00500	24"x24"	QUARTER TURN
AINT						
PTD-1	PAINT	SHERWIN WILLIAMS OR EQ.	EGGSHELL	SW 9165 GOSSAMER VEIL		
PTD-2	PAINT	SHERWIN WILLIAMS OR EQ.	EGGSHELL	SW 7639 ETHEREAL MOOD		
PTD-3	PAINT	SHERWIN WILLIAMS OR EQ.	EGGSHELL	SW 9140 BLUSTERY SKY		
PTD-4	PAINT	SHERWIN WILLIAMS OR EQ.	EGGSHELL	SW 6236 GRAY'S HARBOR		
ANELING &	TRIM					
	ASH		CLEAR	CLEAR MATTE (WATER-BASED)	SEE DRAWINGS	

FLOORING TRANSITIONS: TS-1 'TARKETT' SLIMLINE, OR SIM; COLOR: MATCH BASE CONTRACTOR TO FIELD VERIFY MATERIAL THICKNESSES AT TRANSITION

GENERAL FINISH NOTES

1. PROJECT CLEAN UP SHALL INCLUDE A "VACUUM CLEAN" INTERIOR SPACE WITH RESTORATION TO "LIKE NEW" CONDITIONS OF ALL DAMAGED SURFACES AND ITEMS.

2. ALL FASTENINGS AND ATTACHMENTS OF LIKE AND DIFFERENT MATERIALS SHALL BE FULLY CONCEALED FROM VIEW.

3. ALL MATERIAL FINISH SELECTIONS (COLORS, MANUFACTURERS, PATTERNS, ETC.) TO BE DETERMINED BY ARCHITECT AND APPROVED BY BUILDING OWNER. SAMPLES OF ALL FINISHES SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO ORDERING AND INSTALLING. SHOP DRAWINGS (MIN 3 SETS) SHALL INCLUDE LOCATIONS FOR ALL FINISHES.

4. PROVIDE AFFIDAVITS FOR ALL FINISH MATERIALS TO VERIFY FLAME SPREAD AND SMOKE DEVELOPMENT IN ACCORDANCE WITH NFPA.

5. CONTRACTOR TO PREPARE ALL EXISTING SURFACES FOR NEW FINISH - INCLUDING INFILL OF FLOOR IMPERFECTIONS AND FLOOR LEVELING.

6. INSTALL TRANSITION STRIP OR TERMINATION EDGE BETWEEN ALL DISSIMILAR FLOORING MATERIALS. REFER TO FLOOR FINISH PLANS AND LEGEND. LOCATE UNDER DOOR WHERE TRANSITION HAPPENS BETWEEN

7. CONTRACTOR TO PROVIDE A MINIMUM QUANTITY OF 10% OVERAGE (IN ADDITION TO THE AMOUNT DETERMINED FOR INSTALLATION PURPOSES) OF EACH MATERIAL SPECIFIED FOR THIS PROJECT FOR THE OWNER'S USE AFTER COMPLETION OF THE PROJECT.

8. THE FLOORING CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF EXISTING FLOOR MATERIALS AND FOR FOLLOWING MANUFACTURER RECOMMENDED FLOOR PREP FOR A PROPER, SMOOTH AND LEVEL INSTALLATION OF THE NEW FLOOR MATERIALS IN IT'S PLACE. NO EXCEPTIONS A FIELD VISIT IS REQUIRED TO ASSESS CURRENT CONDITIONS.

9. THE GENERAL CONTRACTOR AND THE SUBCONTRACTOR(S) RESPONSIBLE FOR SUPPLY AND INSTALLATION OF THESE FINISH MATERIALS ARE RESPONSIBLE FOR VERIFYING THE LEAD TIME AND FOR ORDERING/RECEIVING THE MATERIAL TO INSURE AN INSTALLATION DATE THAT DOES NOT DELAY CONSTRUCTION SCHEDULE. THESE MATERIALS HAVE BEEN REVIEWED AND APPROVED BY THE OWNER. NO SUBSTITUTIONS WILL BE ACCEPTED DUE TO UNTIMELY ORDER ENTRY/RECEIPT



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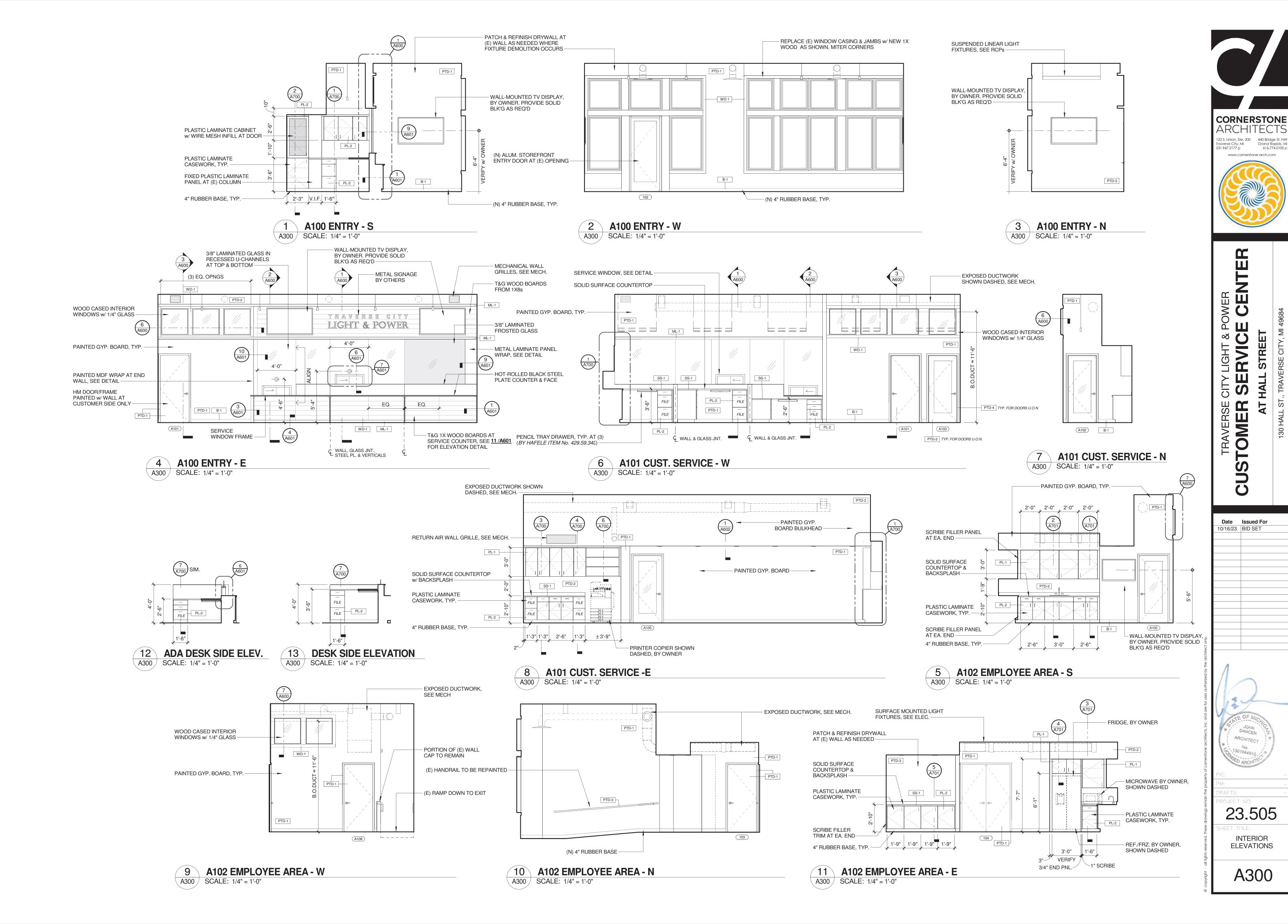


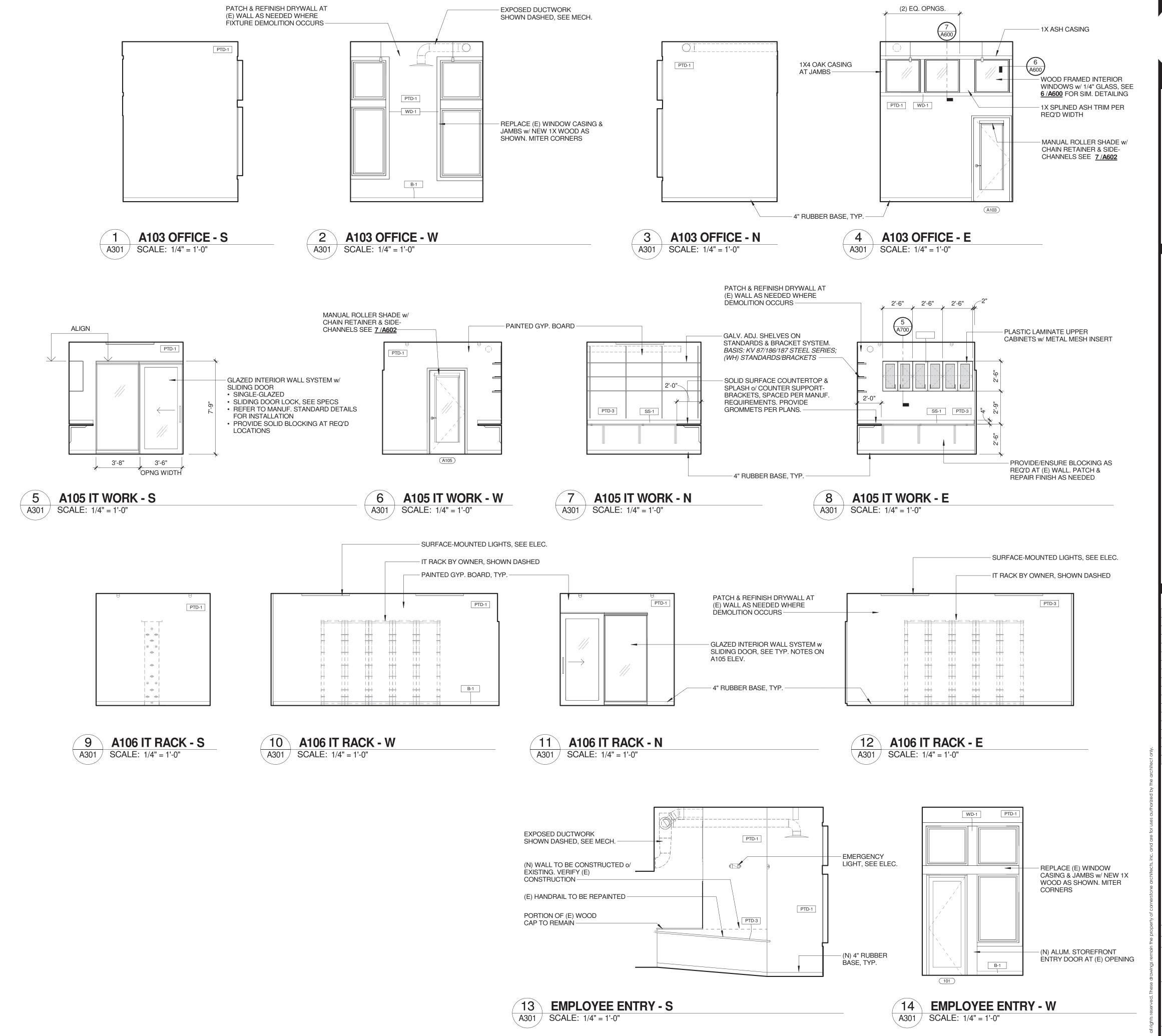
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DOOR /FRAME SCHEDULE & FINISH PLANS

A130







TOMER SERVICE CENT

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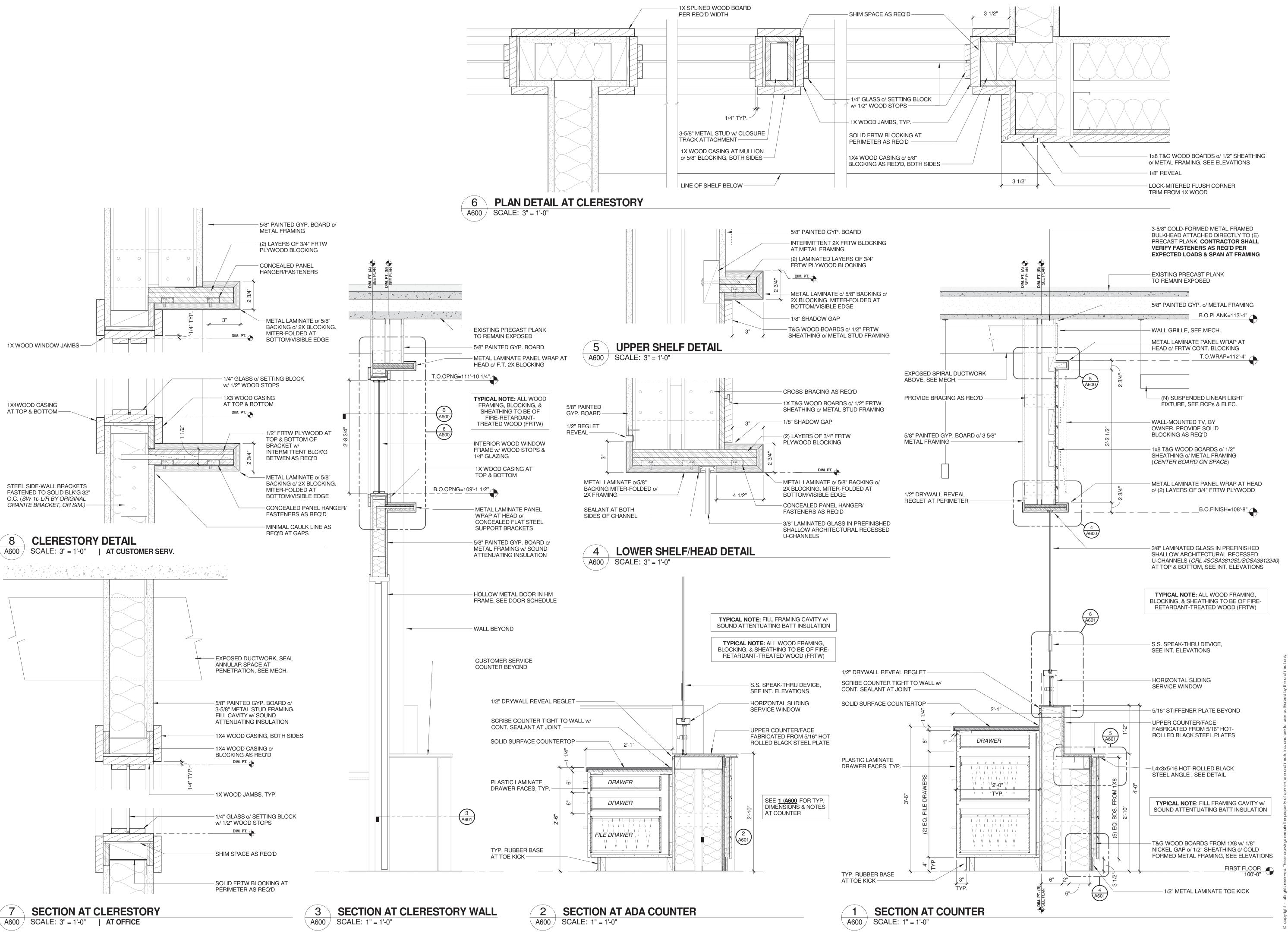
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PROJECT NO:

23.505
SHEET TITLE:
INTERIOR

A301

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TOMER SERVICE CENT

10/16/23 BID SET

BID SET

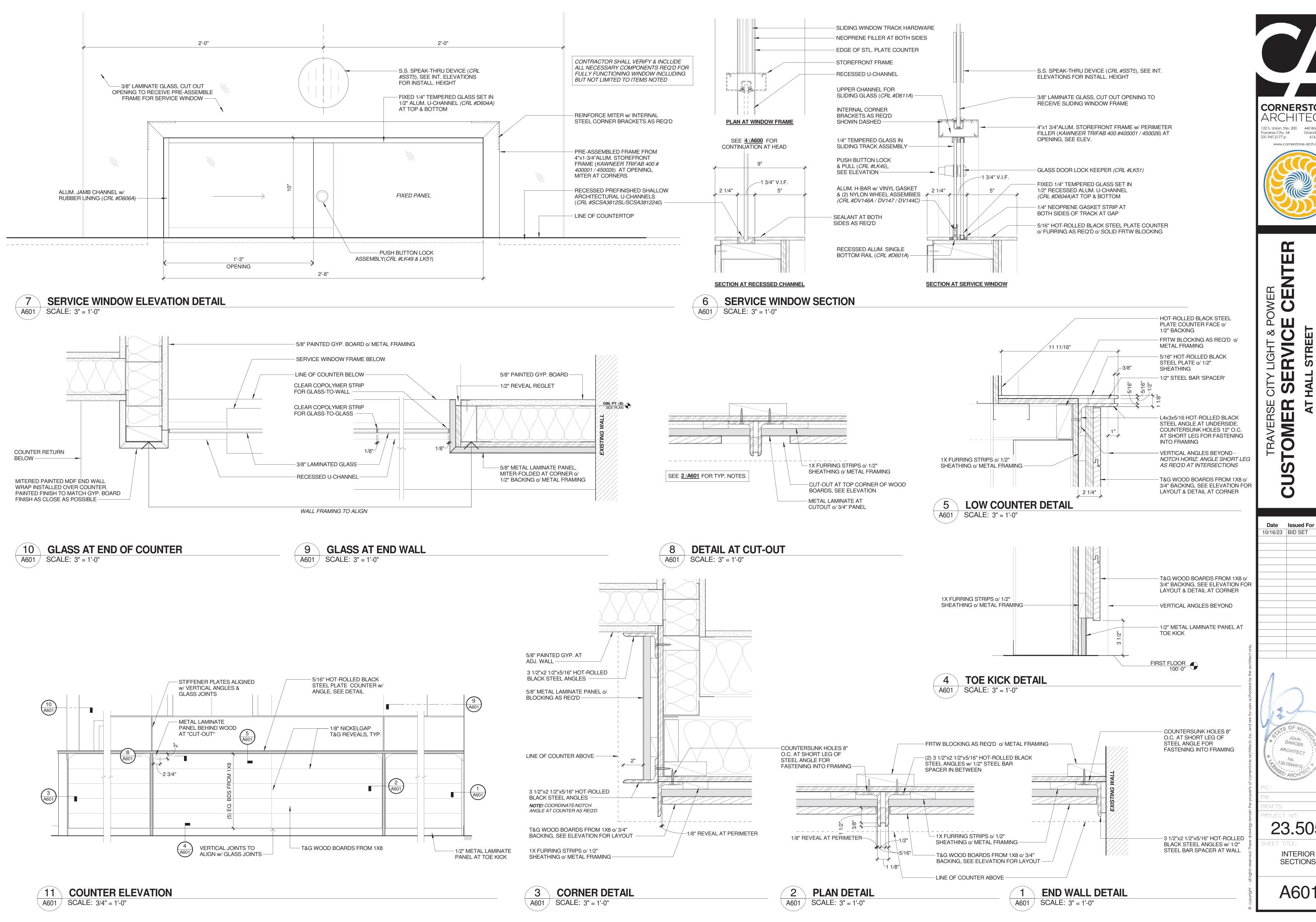
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INTERIOR SECTIONS

A600



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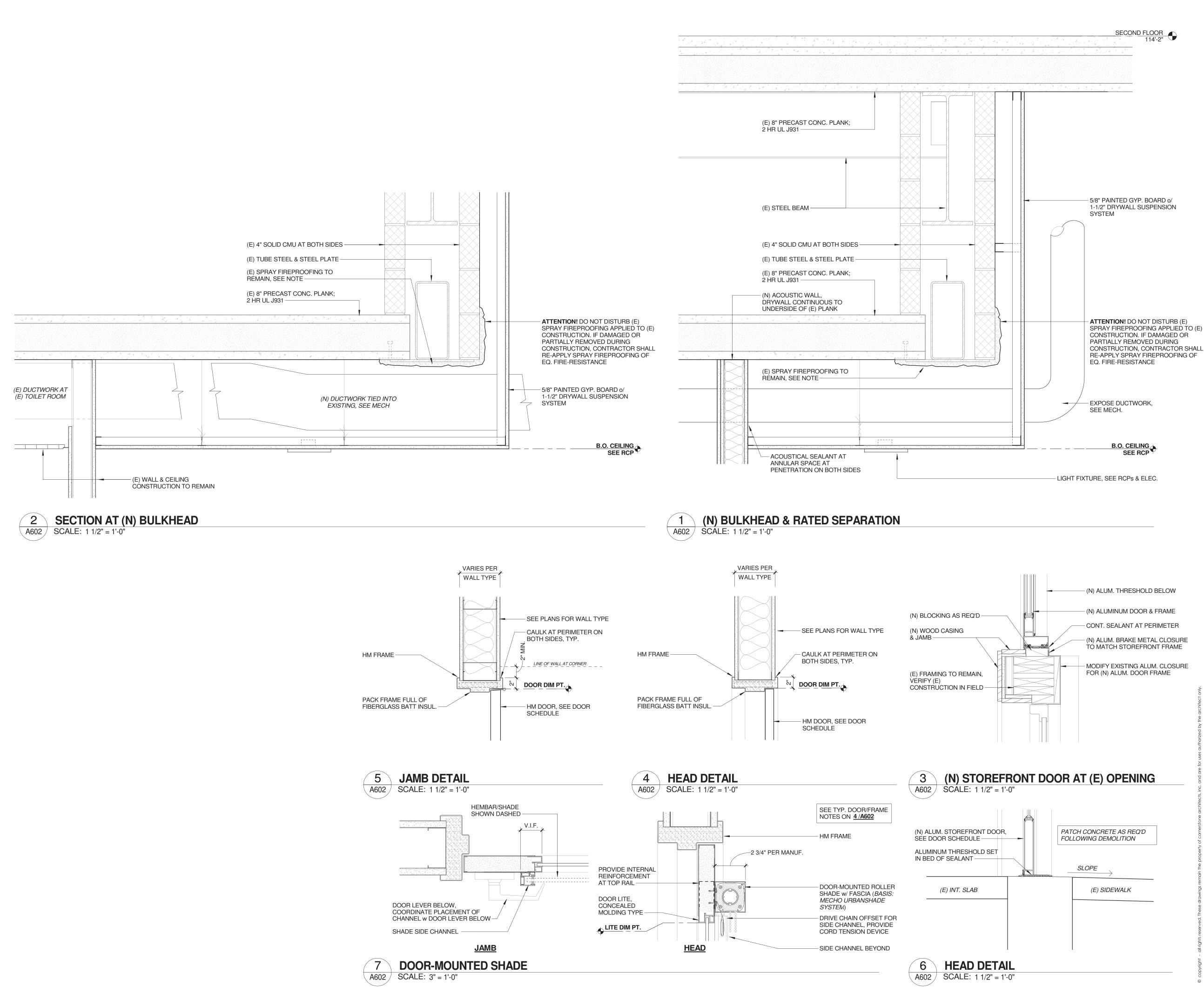


JOHN DANCER

23.505 **INTERIOR**

SECTIONS

A601



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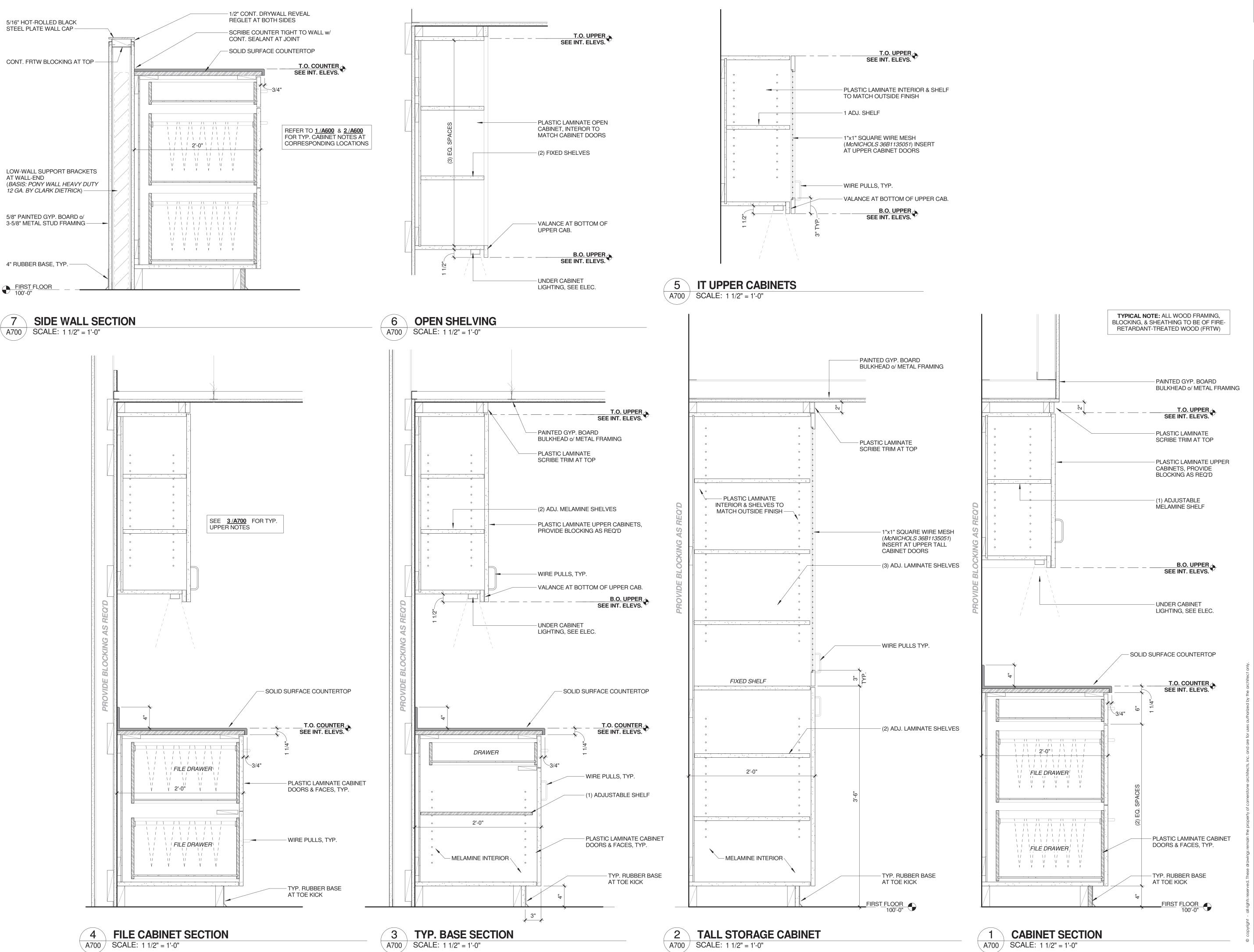
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A602

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WICE CENTER

AT HALL STREET

130 HALL ST., TRAVERSE CITY, MI

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10/16/23 BID SET

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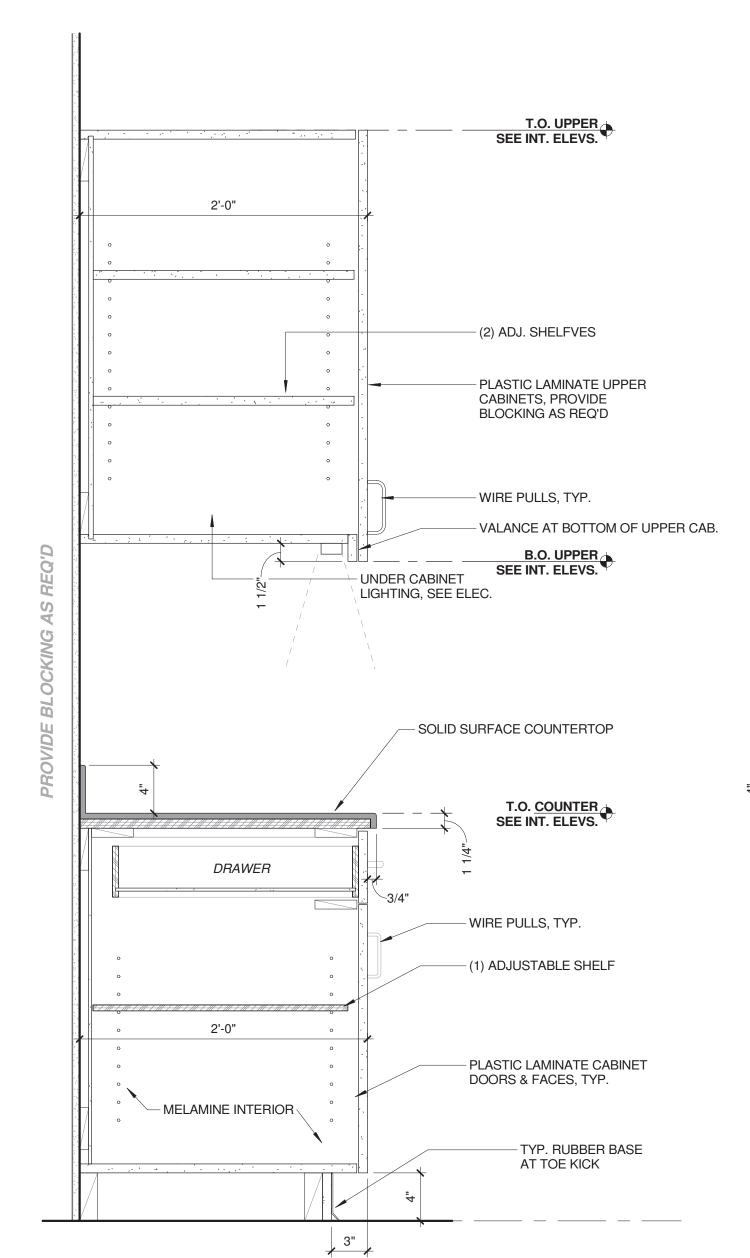
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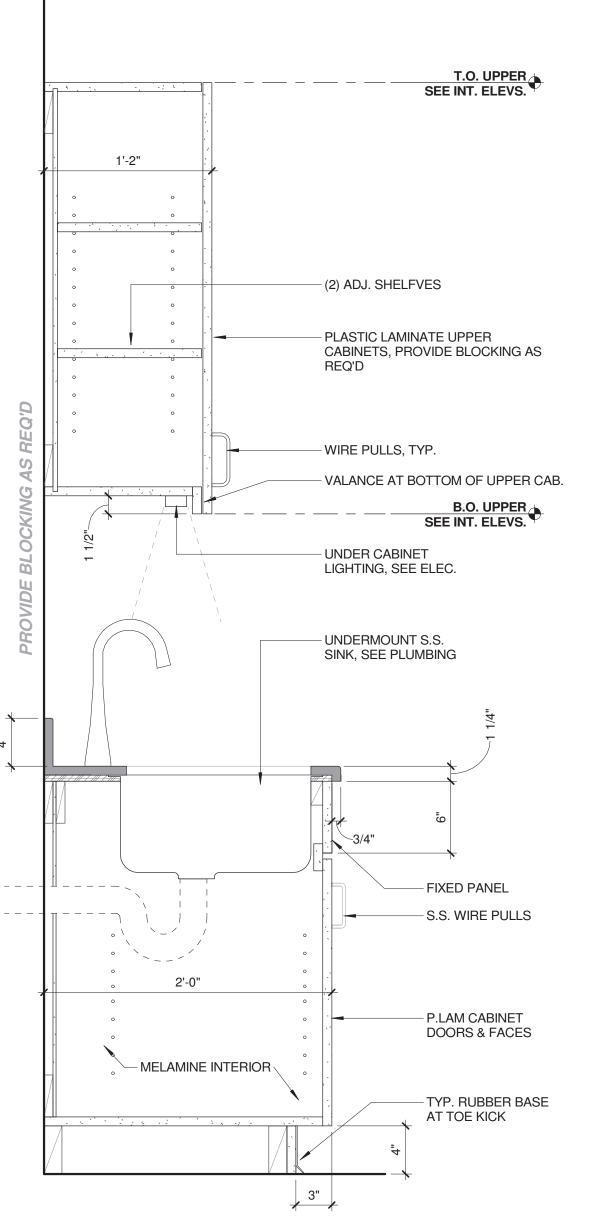
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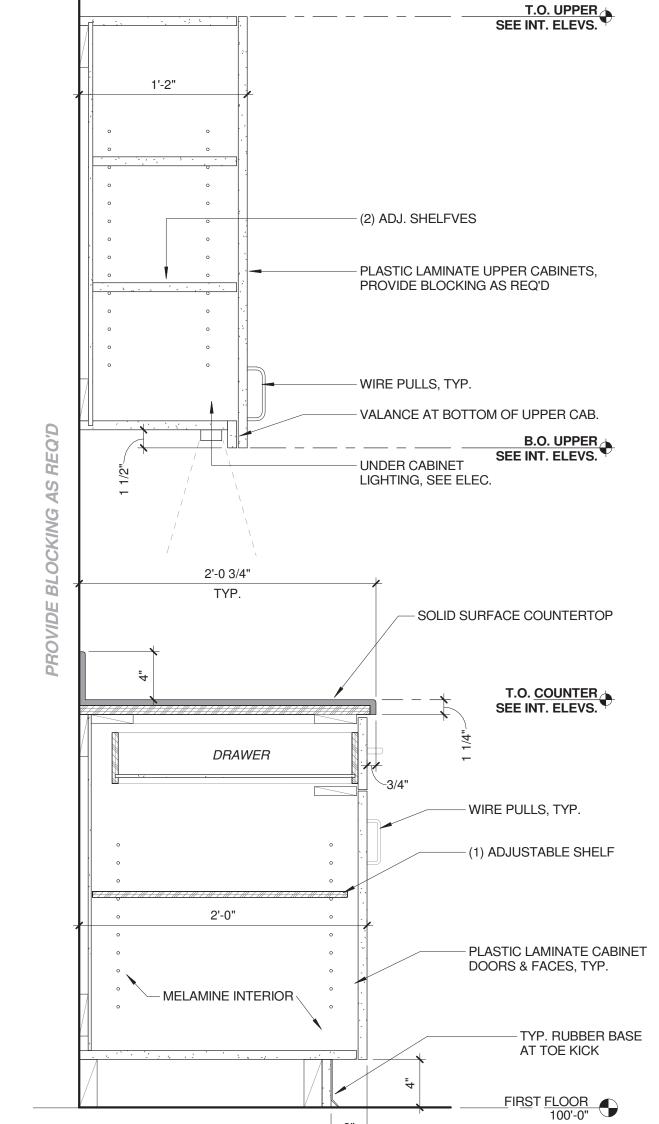
CASEWORK & MILLWORK DETAILS

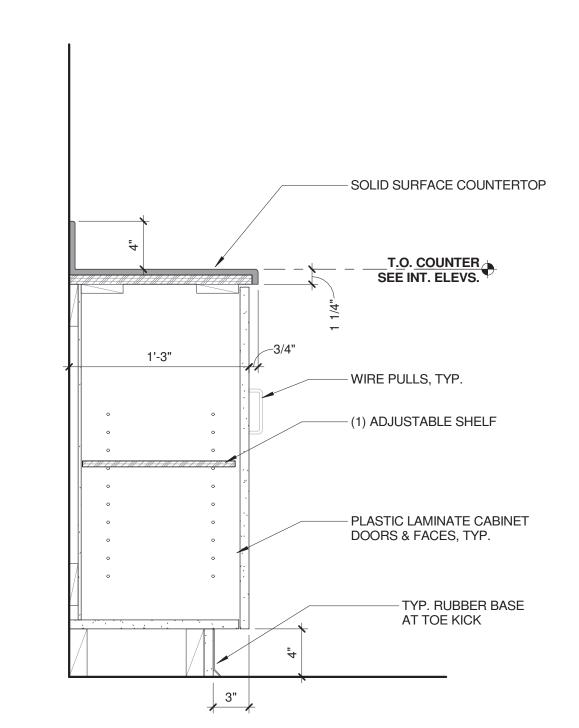
A700

4 FRIDGE UPPER
A701 SCALE: 1 1/2" = 1'-0"









5 COFFEE COUNTER
A701 SCALE: 1 1/2" = 1'-0"

3 **DEEP CAB. SECTION**A701 SCALE: 1 1/2" = 1'-0"

2 SINK CABINET
A701 SCALE: 1 1/2" = 1'-0"

1 TYP. KITCHEN CABINET
A701 SCALE: 1 1/2" = 1'-0"

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OMER SERVICE CENATURE AT HALL STREET

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ARCHITECT

ARCHITECT

No.

CASEWORK & MILLWORK

A701

DETAILS









3D VIEWS ARE FOR REFERENCE ONLY. PLEASE REFER TO DRAWINGS & SPECIFICATIONS FOR ACTUAL CONSTRUCTION INFORMATION











TOMER SERVICE CENT AT HALL STREET

Date Issued For 10/16/23 BID SET

10/16/23 BID SET

BID SET

PROJECT NO: 23.505

SHEET TITLE: 3D INTERIOR VIEW (REFERENCE ONLY)

A800

EXTG |-|/2" V UP | 3" VTR

TIE NEW 1-1/2" V TO EXT'G VENT

CUSTOMER

SERVICE

CUSTOMER ENTRY

CLOSET A108

(E) RAMP UP

PLUMBING FLOOR PLAN SCALE: 1/4" = 1'-0"

CAP FOR | | STORAGE

FUTURE HUMIDIFIER

IT WORKAREA

TIE NEW SAN

TO EXTG SAN-

TIE NEW CW, HW

EMPLOYEE

(E) TOILET

(E) UTILIY CLOSET

EXTG \
CAP 4"





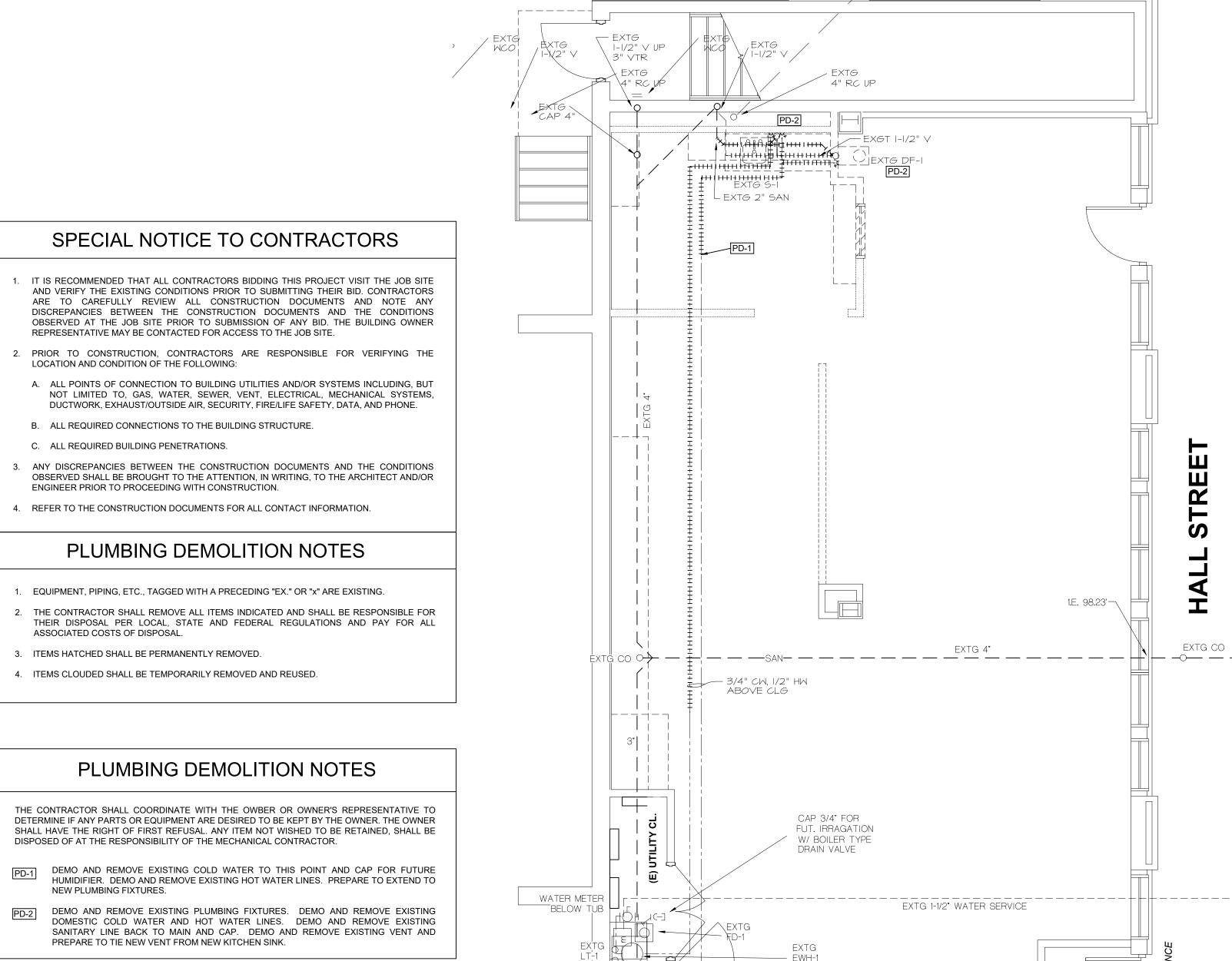


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PLUMBING FLOOR PLANS

P101



SPECIAL NOTICE TO CONTRACTORS

DUCTWORK, EXHAUST/OUTSIDE AIR, SECURITY, FIRE/LIFE SAFETY, DATA, AND PHONE.

REPRESENTATIVE MAY BE CONTACTED FOR ACCESS TO THE JOB SITE.

B. ALL REQUIRED CONNECTIONS TO THE BUILDING STRUCTURE.

4. REFER TO THE CONSTRUCTION DOCUMENTS FOR ALL CONTACT INFORMATION.

PLUMBING DEMOLITION NOTES

PLUMBING DEMOLITION NOTES

1. EQUIPMENT, PIPING, ETC., TAGGED WITH A PRECEDING "EX." OR "x" ARE EXISTING.

ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

LOCATION AND CONDITION OF THE FOLLOWING:

C. ALL REQUIRED BUILDING PENETRATIONS.

ASSOCIATED COSTS OF DISPOSAL.

NEW PLUMBING FIXTURES.

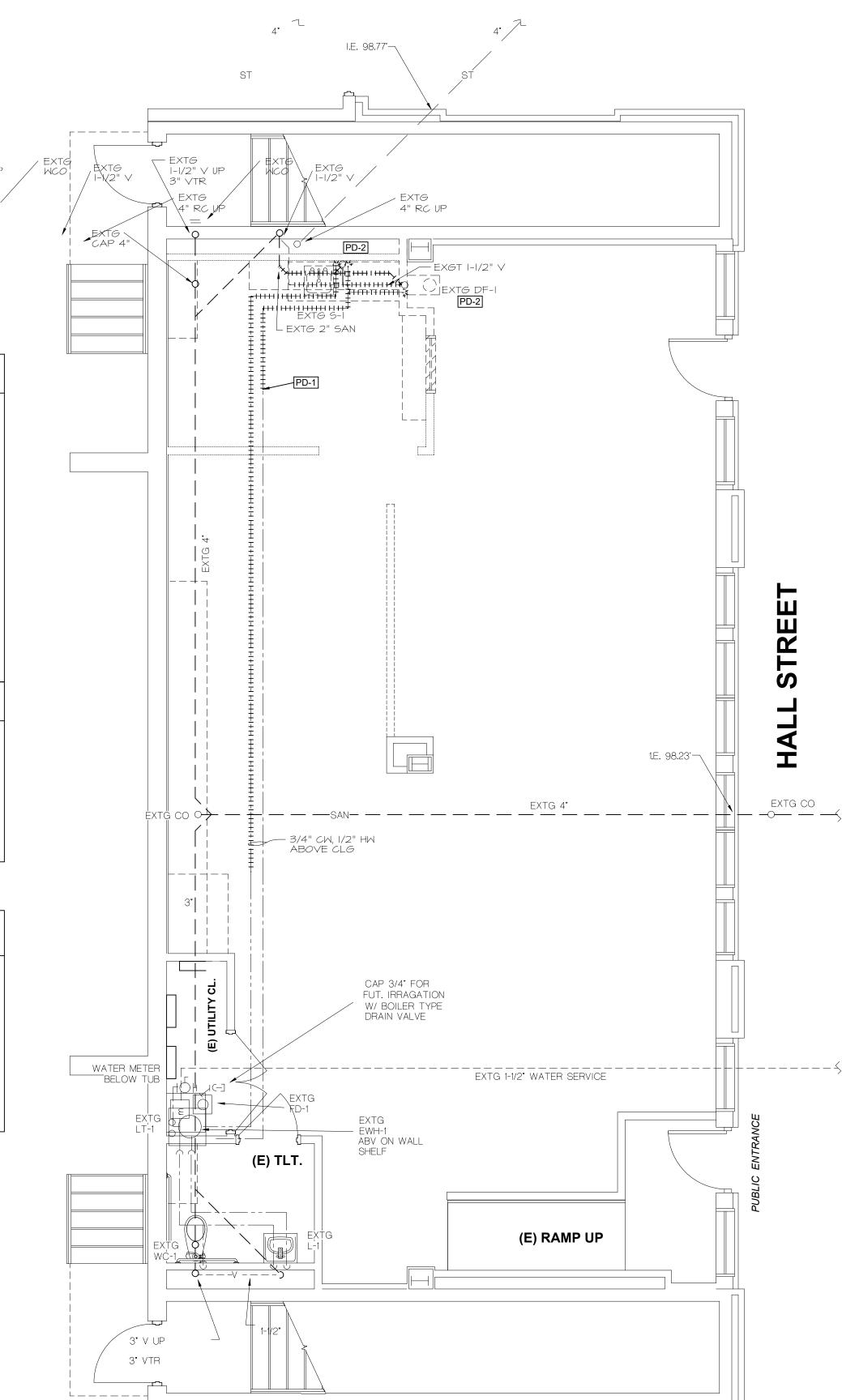
3. ITEMS HATCHED SHALL BE PERMANENTLY REMOVED.

4. ITEMS CLOUDED SHALL BE TEMPORARILY REMOVED AND REUSED.

DISPOSED OF AT THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.

PREPARE TO TIE NEW VENT FROM NEW KITCHEN SINK.

PLUMBING DEMOLITION FLOOR PLAN



PLUMBING FIXTURE SCHEDULE										
TAG	DESCRIPTION	MANUFACTURER	MODEL		ROUGH (INC			TRIM	REMARKS	
				CW	HW	WASTE	VENT			
KS-1	1-COMP S.S. SINK 18-1/2" x 18-1/2" x 9", 18 GA	ELKAY	ECTRU17179T	1/2"	1/2"	1-1/2"	1-1/2"	ELKAY LK6000 FAUCET W/ REMOVABLE STRAINER BASKET	CHROME STOPS, 1/4 TURN SUPPLIES AND P-TRAP	
VB-1	ICE MAKER VALVE BOX	GUY GRAY	W9700	1/2"	-	-	-	1/4" TURN BALL VALVES	INCLUDE BACKFLOW PREVENTER	

SECTION	PLUMBING SPECIFICATIONS
21 00 00 MODIFICATION TO EXISTING SPRINKLER SYS.	1. REWORK THE EXISTING FIRE PROTECTION SPRINKLER SYSTEM AS DEFINED BY THE INTERNATIONAL BUILDING CODE AND NFPA NO. 13. INSTALL NEW SPRINKLER HEADS AND BRANCH PIPING. EXISTING MAINS AND BRANCHES MAY BE USED TO MEET SPRINKLER REQUIREMENTS. NEW PIPING SHALL BE COPPER TYPE L WITH WROUGHT FITTINGS OR SCHEDULE 40 BLACK IRON WITH C1 SCREWED FITTINGS. SPRINKLER HEADS SHALL BE NOMINAL 1/2" BRONZE FINISH UPRIGHT IN EXPOSED AREAS AND (CHROME PLATED OR WHITE POLYESTER COATED) WITH ESCUTCHEON IN FINISHED AREAS. FUSIBLE SOLDER LINK TYPE RATED FOR SPECIFIC AREA HAZARD. PROVIDE SPRINKLER WRENCH AND (2) SPARE HEADS IN CABINET MOUNTED IN MECHANICAL ROOM.
22 00 00 BASIC PLUMBING REQUIREMENTS	 ALL WORK TO BE DONE AND MATERIALS FURNISHED COMPLYING WITH APPLICABLE LAWS AND REGULATIONS, INCLUDING THE STATE OF MICHIGAN MECHANICAL, PLUMBING AND FIRE SAFETY CODES. OBTAIN AND PAY FOR REQUIRED PERMITS AND FEES. ALL MATERIALS USED SHALL BE NEW AND UNDAMAGED. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH CURRENT CONSTRUCTION INDUSTRY STANDARDS AND WORKMANSHIP. FURNISH SHOP DRAWINGS TO ARCH/ENGINEER FOR APPROVAL PRIOR TO PLACING DELIVERY ORDERS. PROVIDE SHOP DRAWINGS OF ALL MANUFACTURED EQUIPMENT AND MATERIALS EXCEPT PIPE, PIPE FITTINGS AND GALVANIZED DUCTWORK. FURNISH AND MATERIALS EXCEPT PIPE, PIPE FITTINGS AND GALVANIZED DUCTWORK. FURNISH ACCESS DOORS (RATED OR NON-RATED AS REQUIRED) WHERE VALVES OR EQUIPMENT ARE CONCEALED BEHIND A NON-ACCESSIBLE CEILING OR WALL. FURNISH ACCESS DOORS TO GENERAL CONTRACTOR FOR INSTALLATION. FURNISH STEEL PIPE SLEEVES WHERE PIPES PENETRATE RATED WALLS. PROVIDE FIRESTOPPING MATERIALS AND SYSTEM TO MAINTAIN THE REQUIRED RATING OF THE WALL PENETRATED. PROVIDE SHOP DRAWINGS SHOWING LISTING AND RATING OF FIRESTOPPING MATERIALS. ALL MANUFACTURED EQUIPMENT, ACCESSORIES AND MATERIALS SHALL BE USED AS INTENDED BY THE MANUFACTURER IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS. CONTRACTOR SHALL PROVIDE IN ADDITION TO ANY OTHER WARRANTIES SPECIFIED, A ONE YEAR FULL LABOR AND MATERIAL WARRANTY ON ALL WORKMANSHIP, MATERIAL AND EQUIPMENT FURNISHED FOR TICHER PROJECT. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL OPENINGS AND REQUIRED LINTELS NEEDED FOR THE GENERAL CONTRACTOR, FOR THE INSTALLATION OF MECHANICAL EQUIPMENT. SAWCUTTS, LINTELS, HEADERS, AND STRUCTURAL MODIFICATIONS TO THE BUILDING STRUCTURE NEEDED FOR THE INSTALLATION OF MECHANICAL EQUIPMENT. SAWCUTTS, LINTELS, HEADERS, AND STRUCTURAL MODIFICATIONS TO THE BUILDING STRUCTURE NEEDED FOR THE INSTALLATION OF ME
22 07 19 PLUMBING INSULATION	 INSULATE ABOVE FLOOR HOT & COLD WATER PIPING WITH ELECTROMETRIC PLASTIC PREFORMED PIPE INSULATION WITHOUT JACKETING. ALL INSULATING MATERIALS TO HAVE FLAME SPREAD RATING OF 25 OR LESS AND SMOKE DEVELOPMENT RATING OF 50 OR LESS AS TESTED BY ANSI/ASTM E 84 (NFPA 233) METHOD. INSULATE ALL PIPING 1/2" TO 1-1/4" WITH 1/2" INSULATION. INSULATE ALL PIPING 1-1/2" AND LARGER WITH 1" THICK INSULATION. JOINTS IN INSULATION SHALL BE GLUED, NOT TAPED. WHERE EXISTING INSULATED PIPES ARE CONNECTED TO, REPAIR EXISTING INSULATION WITH NEW INSULATION OF THE SAME THICKNESS AS EXISTING.
22 10 00 WATER DISTRIBUTION SYSTEM	 ABOVE GRADE: WATER PIPING SHALL BE TYPE CROSS-LINKED POLYETHYLENE TUBING CSA B137.5, ASTM F876, ASTM F877, NSF-14 WITH BRASS CRIMP OR COMPRESSION FITTINGS, BRASS ELBOWS AND COPPER TYPE 'L' VALVED MAINFOLD. CSA B137.5, ASTM F1807. THOROUGHLY FLUSH AND CLEAN ALL NEW AND EXISTING WATER PIPING SYSTEMS. TEST ALL PIPING SYSTEMS PER REGULATIONS IN ITEM NO.1 OR AT 225 PSI FOR A MINIMUM OF 2 HOURS WITH NO PRESSURE DROP INDICATED PRIOR TO INSULATING. STERILIZE ALL DOMESTIC WATER PIPING PER REQUIREMENTS OF LOCAL HEALTH DEPARTMENT. INSTALL WATER HAMMER ARRESTORS AT EACH FLUSH VALVE AND SOLENOID VALVE. INSTALL IN UPRIGHT POSITION, IN LOCATIONS AND SIZES REQURIRED BY PDI STANDARD WH-201.
22 10 05 VALVES	 BALL VALVES SHALL BE CLASS 125 FOR WATER AND 200 FOR C.A. WITH ENDS AND MATERIALS TO MATCH PIPING SYSTEMS. BALL VALVES 2" AND SMALLER SHALL HAVE BRONZE BODY, STAINLESS STEEL BALL, TEFLON SEATS AND STUFFING BOX RING, LEVER HANDLE AND BALANCING STOPS, ENDS TO MATCH PIPING SYSTEM.
22 10 05 SUPPORTS & ANCHORS	 FURNISH PIPE HANGERS, WHERE REQUIRED, FIRMLY SUPPORTED FROM BUILDING STEEL, WOOD OR MASONRY STRUCTURE. SUPPORT CROSS-LINKED POLYETHYLENE TUBING SYSTEMS SECURELY WHILE ALLOWING FOR PIPE AND BUILDING EXPANSION AND CONTRACTION. PROVIDE PLASTIC INSULATING AND SUSPENSION CLAMPS. MAXIMUM SPACING SHALL BE 32" FOR HORIZONTAL AND 4' FOR VERTICAL PIPING. FURNISH PLUMBING EQUIPMENT SUPPORTS AS DETAILED OR AS REQUIRED TO SAFELY AND PERMANENTLY CARRY THE WEIGHT.
22 10 00 DRAINAGE & VENT SYSTEMS	 WITHIN BUILDING, SCHEDULE 40 PVC, DWV TYPE PIPE AND SOLVENT WELDED PIPE FITTINGS, SCHEDULE 30 PVC PIPE MAY BE USED FOR VENT PIPING WHERE PERMITTED BY CODE. HORIZONTAL PIPE SHALL BE SUPPORTED BY ADJUSTABLE RING HANGERS EQUAL TO ITT-GRINNEL FIG. 97. VERTICAL PIPING SHALL BE SUPPORTED AT EACH FLOOR OR ATTIC LEVEL BY RISER CLAMPS EQUAL TO ITT-GRINNEL FIG. 261. OUTSIDE OF BUILDING, PIPING MAY BE ONE OF THE FOLLOWING: PVC - MEETING ANSI/ASTM D3033, TYPE PSP OR D3034, TYPE PSM; ABS, MEETING ANSI/ASTM D2751. MANHOLES SHALL BE PRECAST MEETING ANSI/ASTM C478. MANHOLES SHALL BE C1 WITH "SANITARY" CAST INTO SOLID 20" DIAMETER LID. BOTTOM OF MANHOLES SHALL HAVE HAND FORMED CONCRETE FLOW CHANNELS. PIPE AND MANHOLES SHALL BE SET TO GRADES INDICATED AND SLOPES SHALL BE ACCURATELY CHECKED AND MAINTAINED. BACKFILL, COMPACT AND RE-SEED ALL TRENCHING.
22 40 00 PLUMBING FIXTURES	 PLUMBING FIXTURES SHALL BE INSTALLED WHERE SHOWN ON THE ARCHITECTURAL DRAWINGS. INSTALL FIXTURES LEVEL AND PLUMB. FURNISH TRAPS WHERE REQUIRED. FIXTURES SHALL BE EASILY REMOVABLE FOR SERVICE AND CLEANING. PROVIDE CHROME PLATED RIGID OR FLEXIBLE SUPPLIES TO FIXTURES WITH STOP VALVES, CHROME PLATED 17 GAUGE BRASS TRAPS WITH CHROME PLATED ESCUTCHEONS IN EXPOSED AREAS. BRAIDED NYLON FLEXIBLE SUPPLIES AND PVC SLIP JOINT TRAPS MAY BE USED IN HIDDEN AREAS LIKE CABINETS. SEAL ALL FIXTURES TO WALL AND FLOOR USING SILICONE SEALANT. MATCH SEALANT COLOR TO FIXTURE COLOR. FIXTURES DESIGNED BARRIER FREE SHALL BE INSTALLED IN COMPLIANCE WITH AMERICAN'S WITH DISABILITIES ACT.





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CENTER

LL STREET

AT HALL

 Date
 Issued For

 09/11/23
 DD Set

 10/16/23
 Bid Set

AFTS:
OJECT NO:

23.505

PLUMBING SCHEDULES & DETAILS

D200





TRAVERSE OMER

Date Issued For 09/11/23 DD Set 10/16/23 Bid Set

MECHANICAL FIRST FLOOR PLAN

M101

SPECIAL NOTICE TO CONTRACTORS

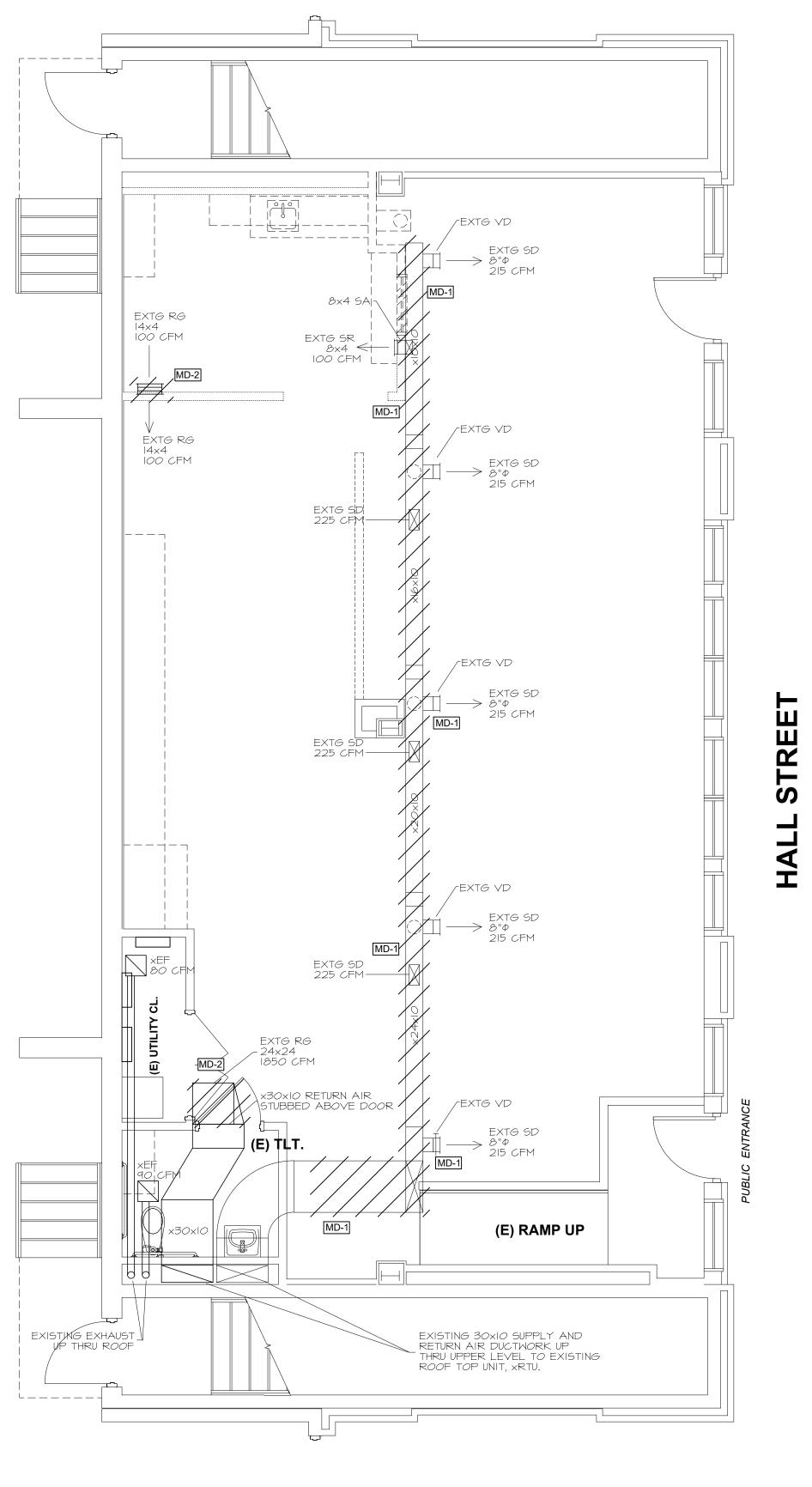
- 1. IT IS RECOMMENDED THAT ALL CONTRACTORS BIDDING THIS PROJECT VISIT THE JOB SITE AND VERIFY THE EXISTING CONDITIONS PRIOR TO SUBMITTING THEIR BID. CONTRACTORS ARE TO CAREFULLY REVIEW ALL CONSTRUCTION DOCUMENTS AND NOTE ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CONDITIONS OBSERVED AT THE JOB SITE PRIOR TO SUBMISSION OF ANY BID. THE BUILDING OWNER REPRESENTATIVE MAY BE CONTACTED FOR ACCESS TO THE JOB SITE.
- 2. PRIOR TO CONSTRUCTION, CONTRACTORS ARE RESPONSIBLE FOR VERIFYING THE LOCATION AND CONDITION OF THE FOLLOWING:
- A. ALL POINTS OF CONNECTION TO BUILDING UTILITIES AND/OR SYSTEMS INCLUDING, BUT NOT LIMITED TO, GAS, WATER, SEWER, VENT, ELECTRICAL, MECHANICAL SYSTEMS, DUCTWORK, EXHAUST/OUTSIDE AIR, SECURITY, FIRE/LIFE SAFETY, DATA, AND PHONE.
- B. ALL REQUIRED CONNECTIONS TO THE BUILDING STRUCTURE.
- C. ALL REQUIRED BUILDING PENETRATIONS.
- 3. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CONDITIONS OBSERVED SHALL BE BROUGHT TO THE ATTENTION, IN WRITING, TO THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 4. REFER TO THE CONSTRUCTION DOCUMENTS FOR ALL CONTACT INFORMATION.

MECHANICAL DEMOLITION NOTES

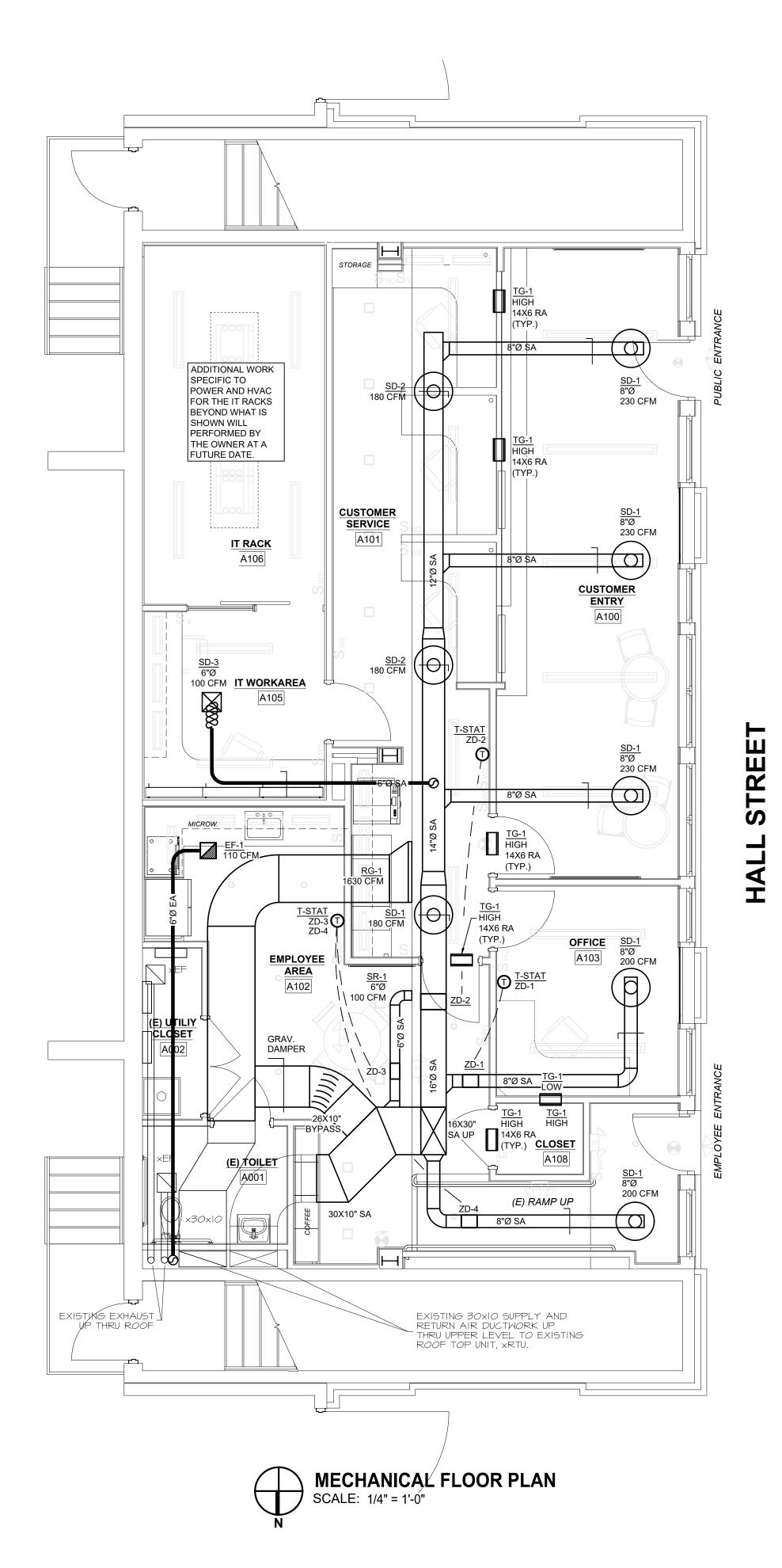
- 1. EQUIPMENT, PIPING, DUCTWORK, ETC., TAGGED WITH A PRECEDING "EX." OR "x" ARE
- 2. BEFORE COMMENCING WORK ENSURE GAS IS OFF, AND ELECTRICAL POWER IS TURNED OFF
- 3. THE MECHANICAL CONTRACTOR SHALL REMOVE ALL ITEMS INDICATED AND SHALL BE RESPONSIBLE FOR THEIR DISPOSAL PER LOCAL, STATE AND FEDERAL REGULATIONS AND PAY FOR ALL ASSOCIATED COSTS OF DISPOSAL.
- 4. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE TO DETERMINE IF ANY PARTS OR EQUIPMENT ARE DESIRED TO BE KEPT BY THE OWNER. THE OWNER SHALL HAVE THE RIGHT OF FIRST REFUSAL. ANY ITEM NOT WISHED TO BE RETAINED, SHALL BE DISPOSED OF AT THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
- 5. ITEMS HATCHED SHALL BE PERMANENTLY REMOVED.
- 6. ITEMS CLOUDED SHALL BE TEMPORARILY REMOVED AND REUSED.

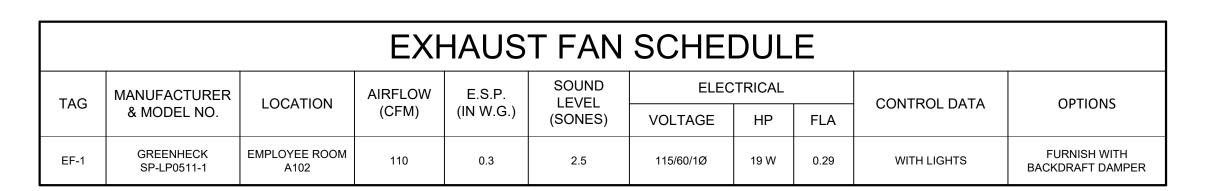
MECHANICAL DEMOLITION NOTES

- MD-1 DEMO AND REMOVE EXISTING SUPPLY AIR DUCTWORK AND ASSOCIATED SUPPLY AIR DIFFUSERS, REGISTERS, VOLUME DAMPERS, ETC. PREPARE TO TIE IN NEW SUPPLY AIR
- MD-2 DEMO AND REMOVE EXISTING RETURN GRILLE AND ASSOCIATED VOLUME DAMPERS, SLEEVES, ETC.



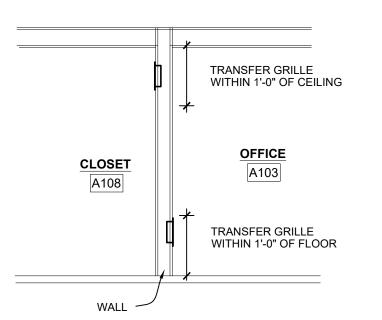




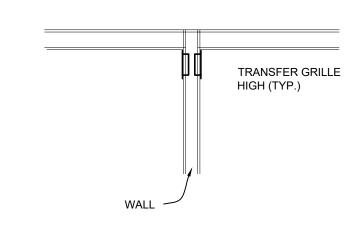


	DIFFUSER AND GRILLE SCHEDULE								
TAG	DESCRIPTION	MANUFACTURER & MODEL	SIZE (INCHES)	VOLUME DAMPER (TYPE, LOCATION)	MATERIAL	COLOR & FINISH	ACCESSORIES/ NOTES:		
SD-1	SUPPLY AIR DIFFUSER ROUND INDUSTRIAL DIFFUSER DUCT MOUNT	PRICE RID	10"Ø VERTICAL PATTERN	EXTERNAL	ALUMINUM	PC12 PRIME COAT	FIELD PAINT/ COORD. WITH ARCHITECT		
SD-2	SUPPLY AIR DIFFUSER ROUND INDUSTRIAL DIFFUSER DUCT MOUNT	PRICE RID	10"Ø HORIZONTAL PATTERN	EXTERNAL	ALUMINUM	PC12 PRIME COAT	FIELD PAINT/ COORD. WITH ARCHITECT		
SD-3	SUPPLY AIR DIFFUSER 360°F THROW, PLAQUE STYLE SURFACE MOUNT FRAME	PRICE SPD	12x12 6"Ø	EXTERNAL	ALUMINUM	PC12 PRIME COAT	FIELD PAINT/ COORD. WITH ARCHITECT		
SR-1	SUPPLY REGISTER 0 DEG. BLADES PARALLEL TO LONG DIM. 3/4" SPACING SURFACE MOUNT FRAME	PRICE 640	14x4	SPLIT LOUVER DAMPER	ALUMINUM	PC12 PRIME COAT	FIELD PAINT/ COORD. WITH ARCHITECT		
RG-1	RETURN AIR GRILLE EGGRATE STYLE STANDARD CORE (1/2"x1/2"x1/2") SURFACE MOUNT FRAME	PRICE 80	32x20	OPPOSED BLADE DAMPER	ALUMINUM	PC12 PRIME COAT	FIELD PAINT/ COORD. WITH ARCHITECT		
TG-1	TRANSFER AIR GRILLE 45 DEG. FIXED BLADES, 3/4" SPACING SURFACE MOUNT FRAME	PRICE 20	14x6	EXTERNAL	ALUMINUM	PC12 PRIME COAT	FIELD PAINT/ COORD. WITH ARCHITECT		

FURNISH MECHANICAL EQUIPMENT SUPPORTS AS DETAILED OR AS REQUIRED TO SAFELY AND PERMANENTLY CARRY THE WEIGHT OF THE



OFFICE-TO-CLOSET TRANSFER GRILLE DETAIL



TYPICAL TRANSFER GRILLE DETAIL

MECHANICAL SPECIFICATIONS ALL WORK TO BE DONE AND MATERIALS FURNISHED COMPLYING WITH APPLICABLE LAWS AND REGULATIONS, INCLUDING THE 2015 MICHIGAN THE MECHANICAL CONTRACTOR SHALL SUBCONTRACT A TEST AND BALANCE CONTRACTOR TO BALANCE THE SYSTEMS DESCRIBED BELOW. MECHANICAL CODE (M.M.C.), ASHRAE 90.1-2013 "ENERGY STANDARDS FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS". ASHRAE 62.1-2013 VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY", 2015 INTERNATIONAL PLUMBING CODE (M.P.C.), CURRENTLY ENFORCED MICHIGAN 23 00 00 BUILDING CODE (M.B.C.). AND LOCAL, STATE, AND FEDERAL FIRE SAFETY CODES (NFPA) MECHANICAL ADJUSTING, THE BALANCE REPORT SHALL SHOW PROOF THAT THE SYSTEM HAS BEEN BALANCED TO +/- 10% OF THE DESIGNED FLOW RATE. IT IS THI MECHANICAL CONTRACTOR AND TEST AND BALANCER'S DUTY TO PROVIDE ACCURATE DATA, SO AREAS OF INCORRECT FLOW MAY E BALANCING 4.1. PROVIDE PROFESSIONAL ENGRAVED PLASTIC EQUIPMENT NAMEPLATES FOR ALL HVAC EQUIPMENT IDENTIFYING EQUIPMENT TAG AND NUMBER. SEE PLANS FOR EQUIPMENT TAG NUMBERS (FOR EXAMPLE, B-1, P-1, AHU-1, ... ETC.) ALL AIRSIDE SYSTEMS, COMPONENTS, ETC. INCLUDING SUPPLY, RETURN, OUTDOOR, AND EXHAUST AIR SYSTEMS SHALL BE BALANCED. THE BALANCER SHALL PROVIDE SHEAVES AND BELTS AS NEEDED TO PROPERLY BALANCE EQUIPMENT TO +/- 10% OF THE DESIGNED AIRFLOWS. AI 5. FURNISH ALL ACCESS DOORS (RATED OR NON-RATED AS REQUIRED) WHERE VALVES OR EQUIPMENT ARE CONCEALED BEHIND A NON-ACCESSIBLE DIFFUSERS, REGISTERS, GRILLES, AND LOUVERS SHALL BE INDIVIDUALLY BALANCED AND LISTED IN THE BALANCE REPORT. ALL AIRSIDE CEILING OR WALL. FURNISH ACCESS DOORS TO GENERAL CONTRACTOR FOR INSTALLATION. EQUIPMENT, SUPPLY, RETURN, AND OUTDOOR AIR FLOWRATES SHALL BE LISTED IN THE BALANCE REPORT. 6. FURNISH STEEL SLEEVES WHERE PIPES PENETRATE RATED WALLS. PROVIDE FIRESTOPPING MATERIALS AND SYSTEM TO MAINTAIN THE ALL HVAC MOTOR DATA INCLUDING FREQUENCY (RPM), AMP DRAW, HORSEPOWER, EXTERNAL STATIC PRESSURE, HEAD PRESSURE, ETC., SHALL REQUIRED RATING OF THE WALL PENETRATED. PROVIDE SHOP DRAWINGS SHOWING LISTING AND RATING OF FIRESTOPPING MATERIALS. BE INCLUDED IN THE BALANCE REPORT. 7. THE CONTRACTOR SHALL ARRANGE TO MEET AND INSTRUCT THE OWNER IN THE USE AND MAINTENANCE OF SYSTEMS AND EQUIPMENT. THIS INSTRUCTION SHALL BE FOR A MINIMUM OF (1) HOURS. AN ADDITIONAL (1) HOURS OF INSTRUCTION FOR THE OWNER WILL BE GIVEN IN THE OPERATION OF THE TEMPERATURE CONTROLS BY THE INSTALLER OF THE TEMPERATURE CONTROLS. THE MECHANICAL CONTRACTOR OR CONTRACTED TEMPERATURE CONTROL CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY 3. ALL MANUFACTURED EQUIPMENT, ACCESSORIES AND MATERIALS SHALL BE USED AS INTENDED BY THE MANUFACTURER, IN STRICT ACCORDANCE THERMOSTATS, CONTROL RELAYS, SENSORS, CONTROL WIRING, DAMPERS, ACTUATORS, ETC., REQUIRED TO PROVIDE A FULLY OPERATIONAL INSTRUMENTA-WITH THE MANUFACTURER'S WRITTEN INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS.). THE CONTRACTOR SHALL PROVIDE, IN ADDITION TO ANY OTHER WARRANTIES SPECIFIED, A ONE (1) YEAR FULL LABOR AND MATERIAL WARRANTY THE THERMOSTAT SHALL BE DIGITAL-ELECTRONIC, WITH BACKLIT LCD DISPLAY, 7-DAY PROGRAMMABLE, WITH PROGRAMMABLE OCCUPIED AND CONTROL FOR ON ALL WORKMANSHIP, MATERIAL AND EQUIPMENT FURNISHED FOR THIS PROJECT. UNOCCUPIED "CONTINUOUS FAN" AND "AUTO FAN" FUNCTIONALITY. 10.THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL OPENINGS AND REQUIRED LINTELS NEEDED FOR THE GENERAL CONTRACTOR FOR THE INSTALLATION OF MECHANICAL EQUIPMENT. 11. SAWCUTS, LINTELS. HEADERS. AND STRUCTURAL MODIFICATIONS TO THE BUILDING STRUCTURE NEEDED FOR THE INSTALLATION OF MECHANICAL EQUIPMENT SHALL BE APPROVED BY THE GENERAL CONTRACTOR, BEFORE INSTALLATION. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN COMPLIANCE WITH 2015 M.M.C. CHAPTER 6, AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS. ALL DUCTWORK SHALL BE SEALED AND INSULATED IN ACCORDANCE WITH ASHRAE 90.1-2013. 12.IN GENERAL, OPENINGS AND REQUIRED LINTELS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILS AND TEMPLATES OF ALL OPENINGS NECESSARY FOR MECHANICAL EQUIPMENT INSTALLATION INCLUDING: | HVAC DUCTS ROUND FLEX DUCT SHALL BE USED FOR DIFFUSER-GRILLE CONNECTIONS ABOVE LAY-IN CEILINGS. FLEX DUCT MAY BE USED IN OTHER AREAS HOUSING, ACCESS DOORS, INSPECTION DOORS, AND PASSAGEWAYS FOR MECHANICAL EQUIPMENT. THE MECHANICAL CONTRACTOR IS AND CASINGS WHERE THE DUCT AND GRILLE ARE PERMANENTLY AND REASONABLY ACCESSIBLE. MAXIMUM FLEX DUCT LENGTH IS 6'-0". PERFORMANCE OF RESPONSIBLE FOR SEALING CRACKS AND FINISHING ROUGH EDGES LEFT FOLLOWING MECHANICAL INSTALLATION. FLEXIBLE DUCT SHALL MEET OR EXCEED THE RIGID DUCTWORK. 13. THE USE OF THE MECHANICAL EQUIPMENT FOR HEATING, COOLING, OR DRYING DURING CONSTRUCTION IS PROHIBITED, UNLESS APPROVED BY DUCTBOARD MAY BE SUBSTITUTED FOR METAL DUCT FOR ALL DUCT UNDER 36 INCHES WIDE/DEEP, EXCEPT AS OUTDOOR OR EXHAUST AIR. WRITTEN DOCUMENTATION BY THE OWNER. OWNER AND ENGINEER MUST APPROVE SUBSTITUTE. 14. APPROVED EQUALS: MECHANICAL EQUIPMENT MANUFACTURED BY A COMPANY OTHER THAN THAT WHICH WAS SPECIFIED IN THE SCHEDULE MAY UNLESS OTHERWISE NOTED ON PLANS, ALL SUPPLY AND RETURN DUCTWORK LOCATED WITHIN TEN (10) FEET OF THE EQUIPMENT FAN SHALL BE BE SUBSTITUTED BY APPROVED SHOP DRAWINGS CONTINENT UPON MEETING THE DESIGN, APPEARANCE, AND FUNCTIONAL STANDARDS LINED WITH 1/2" ACOUSTICAL DUCT LINER. DUCT DIMENSIONS SHOWN ON MECHANICAL PLANS ARE INTERIOR DIMENSIONS. ESTABLISHED BY THE ORIGINALLY SPECIFIED ITEM(S). THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING DIMENSIONS, DUCTWORK LOCATED OUTDOORS: ALL DUCTWORK LOCATED OUTDOORS SHALL BE LINED WITH 2" DUCT LINER, AND SEALED WATER-TIGHT WITH CLEARANCES, ASSEMBLY, FIT, ETC. OF THE APPROVED EQUAL(S) AND THEIR AFFECT ON OTHER EQUIPMENT FIT AND OPERATION. THE MECH. 100% SILICONE CAULK. ALL OUTDOOR DUCTWORK SHALL HAVE INSIDE DIMENSIONS AS LISTED ON THE MECHANICAL DRAWINGS. ALL DUCT LINER CONTRACTOR IS LIABLE FOR ANY ADDED COSTS TO HIMSELF OR OTHERS CAUSED BY THE APPROVED EQUALS. 15. SUBMITTALS ALL DUCT LINER SHALL HAVE A FLAME SPREAD AND SMOKE DEVELOPMENT 25 OR LESS AND 50 OR LESS WHEN TESTED BY ASTM E-84 (NFPA 255) 15.1. FURNISH SHOP DRAWINGS TO ARCH/ENGINEER FOR APPROVAL PRIOR TO PLACING DELIVERY ORDERS. PROVIDE SHOP DRAWINGS OF ALL MANUFACTURED EQUIPMENT AND MATERIALS EXCEPT PIPE, PIPE FITTINGS, AND GALVANIZED DUCTWORK. 15.2. AT SUBSTANTIAL COMPLETION OF CONSTRUCTION, FURNISH AS-BUILT PLANS TO ARCH/ENGINEER FOR APPROVAL. WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE, APPROVED AS-BUILT PLANS SHALL BE PROVIDED TO THE BUILDING OWNER. RECORD DRAWINGS SHALL INCLUDE, AS A MINIMUM, THE LOCATION AND PERFORMANCE DATA ON EACH PIECE OF EQUIPMENT, GENERAL CONFIGURATION OF THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL VENTILATOR(S) AND/OR EXHAUST FAN(S) AS SHOWN AND SCHEDULED. THE DUCT AND PIPE DISTRIBUTION SYSTEM INCLUDING SIZES, AND THE TERMINAL AIR OR WATER DESIGN FLOW RATES. UNIT(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, AND SHALL PERFORM AT THE CONDITIONS 15.3. AN OPERATING MANUAL AND MAINTENANCE MANUAL SHALL BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS OF SYSTEM ACCEPTANCE. THESE MANUALS SHALL BE IN ACCORDANCE WITH INDUSTRY-ACCEPTED STANDARDS AND SHALL INCLUDE, AT THE MINIMUM: POWER INSTALL VENTILATOR(S) AND/OR EXHAUST FAN(S) WITH CLEARANCES FOR SERVICE AND MAINTENANCE. 15.3.1. SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. VENTILATORS | 3 THE MECHANICAL CONTRACTOR SHALL PROVIDE ONE (1) BACKDRAFT DAMPER FOR EACH VENTILATOR AND/OR EXHAUST FAN, OR SHALL VERIFY OPERATION AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. REQUIRED ROUTINE A BACKDRAFT DAMPER HAS BEEN FACTORY INSTALLED. MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED. NAMES AND ADDRESSES OF AT LEAST ONE SERVICE AGENCY. 15.3.4. HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OR FIELD-DETERMINED SET POINTS SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS AT CONTROL DEVICES OR IN PROGRAMMING COMMENTS. 15.3.5. A COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING SUGGESTED SET POINTS. FURNISH PIPE AND DUCT HANGERS, WHERE REQUIRED, FIRMLY SUPPORTED FROM THE BUILDING CONSTRUCTION, IN AN APPROVED MANNER. 23 05 29 SUPPORT PIPING SYSTEMS SECURELY WHILE ALLOWING FOR PIPE AND BUILDING EXPANSION AND CONTRACTION. HANGERS AND 2.1. USE ADJUSTABLE CLEVIS HANGERS OR ADJUSTABLE STEEL BAND HANGERS. SUPPORTS OF 2.2. MAXIMUM HORIZONTAL SPACING FOR HYDRONIC PIPING SHALL BE IN ACCORDANCE WITH THE MMC - SECTION 305: **HVAC PIPING** 2.2.1. COPPER TUBING: 1-1/4" AND SMALLER - 6'-0". 1-1/2" AND LARGER - 10'-0". COPPER PIPE: 12'-0". EQUIPMENT 2.2.2. CAST-IRON PIPE: 5'-0" (MAY BE EVERY 10'-0" IF 10-FOOT LENGTH PIPE IS INSTALLED). 2.2.3. PVC PIPE: 4'-0". 2.2.4. PEX TUBING: 2'-8". 2.2.5. STEEL PIPE: 12'-0". STEEL TUBING: 8'-0". 2.2. MAXIMUM HORIZONTAL SPACING FOR GAS PIPING SHALL BE IN ACCORDANCE WITH THE IFGC - SECTION 415: 2.2.1. STEEL PIPE: 1/2" PIPE EVERY 6'-0". 3/4"-1" PIPE EVERY 8'-0". 1-1/4" PIPE AND LARGER EVERY 10'-0". SUPPORT DUCTWORK WITH APPROVED DUCT HANGERS AT INTERVALS NOT EXCEEDING 10'-0" OR BY OTHER APPROVED DUCT SUPPORT SYSTEMS DESIGNED IN ACCORDANCE WITH THE MBC. FLEXIBLE AND OTHER FACTORY-MADE DUCTWORK SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION



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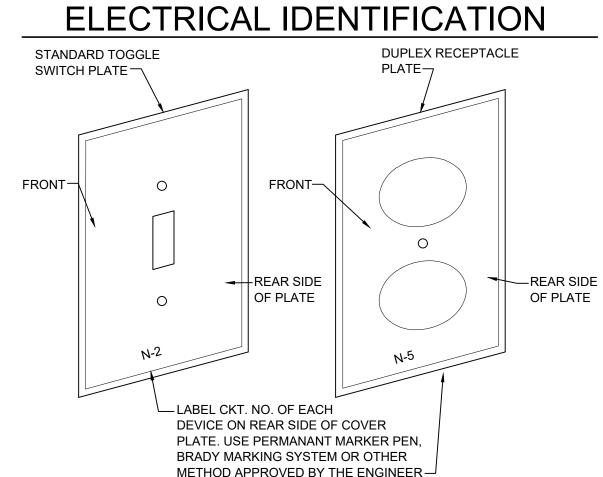
W www.nealisengineering.com

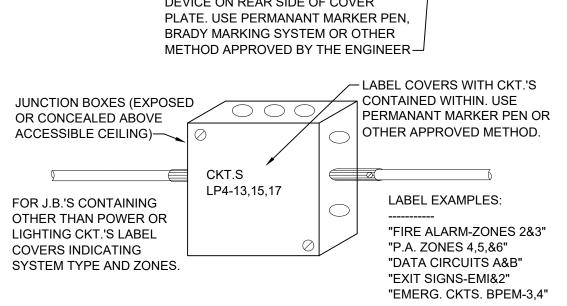


Date Issued For 09/11/23 DD Set 10/16/23 Bid Set

> **MECHANICAL** SCHEDULES & DETAILS

	ABBREV	IATIO	NS
1-21	PANEL 1, CIRCUIT 21	KW	KILOWATTS
Α	AMPERES	MC	MECHANICAL CONTRACTOR
AC	ABOVE COUNTER	МСВ	MAIN CIRCUIT BREAKER
ACL	ABOVE CEILING	MDP	MAIN DISTRIBUTION PANEL
AFF	ABOVE FINISH FLOOR	MLO	MAIN LUG ONLY
AFG	ABOVE FINISH GRADE	NIC	NOT IN CONTRACT
ATS	AUTOMATIC TRANSFER SWITCH	NL	NIGHT LIGHT
ВС	BELOW COUNTER	NTS	NOT TO SCALE
С	CONDUIT	Р	PUMP
C/B, CB	CIRCUIT BREAKER	PC	PHOTOCELL
CLG	CEILING	PNL	PANEL
CM	CEILING MOUNT	PS	PRIMARY SWITCH
СО	CARBON MONOXIDE	PT	PRIMARY TRANSFORMER
DF	DEAD FRONT	PVC	POLYVINYL CHLORIDE
DWG	DRAWING	Q	QUAD-PLEX (DOUBLE DUPLEX)
E	EXISTING TO REMAIN	RA	REMOTE ANNUNCIATOR
EC	ELECTRICAL CONTRACTOR	RGS	RIGID GALVANIZED STEEL
EF	EXHAUST FAN	SB	SOUNDER BASE
EGC	EQUIPMENT GROUNDING CONDUCTOR	SM	SURFACE MOUNT
EGC	EQUIPMENT GROUNDING CONDUCTOR	SP	SPEAKER
EHD	ELECTRIC HAND DRYER	SS	SPEAKER/STROBE
EMT	ELECTRICAL METALLIC TUBING	TR	TAMPER RESISTANT
ERV	ENERGY RECOVERY VENTILATOR	TSM	TOUCH SCREEN MONITOR
E-R	EXISTING TO BE RELOCATED	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
EWC	ELECTRIC WATER COOLER	UGRD or U/G	UNDERGROUND
EWH	ELECTRIC WATER HEATER	UON	UNLESS OTHERWISE NOTED
FAP	FIRE ALARM PANEL	V	VOLT
G	GROUND	VFD	VARIABLE FREQUENCY DRIVE
GEC	GROUNDING ELECTRODE CONDUCTOR	VIF	VERIFY IN THE FIELD
GEN	GENERATOR	W	WIRE
GFI	GROUND FAULT CIRCUIT INTERRUPTER	W1-A2.1	WAC-1, AREA 2, ZONE 1
НС	HI-CANDELA	WG	WIREGUARD
KCMIL	THOUSAND CIRCULAR MILS	WR	WEATHER RESISTANT
KVA	KILOVOLT-AMPERES	XFMR	TRANSFORMER





ELECTRICAL CVMPOL LECEND

		ELECTRICAL SY	MBOI	_ LEGEND	wec.
SYMBOL	DESCRIPTION	NOTES	SYMBOL	DESCRIPTION	NOTES
S	SINGLE POLE SWITCH	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED	\bigcirc	SINGLE-PHASE SPECIAL PURPOSE OUTLET, AS NOTED	REFER TO SHOP DRAWINGS FOR CONNECTION REQUIREMENTS
S ₃	THREE-WAY TOGGLE SWITCH	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UON		THREE-PHASE SPECIAL PURPOSE OUTLET, AS NOTED	REFER TO SHOP DRAWINGS FOR CONNECTION REQUIREMENTS
Ss	PASSIVE INFRARED OCCUPANCY SENSOR (GREENGATE #OSW-P-1001-X)	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED PROGRAM SWITCH AS A OCCUPANCY SENSOR (AUTO ON/AUTO OFF)	J	JUNCTION BOX	
S_{V}	PASSIVE INFRARED VACANCY SENSOR (GREENGATE #OSW-P-1001-X)	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED PROGRAM SWITCH AS A VACANCY SENSOR (MANUAL ON/AUTO OFF)		SINGLE-PHASE MOTOR, AS SPECIFIED	
S⊤	ELECTRONIC PROGRAMMABLE TIMER SWITCH	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED		THREE-PHASE MOTOR, AS SPECIFIED SINGLE-PHASE FUSED OR NON-FUSED DISCONNECT	
S _{w*}	(GREENGATE #TSW-MV-W) 120V WIRELESS DIGITAL-NETWORK SWITCH	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UON		SINGLE-PHASE MANUAL STARTER OR COMB. DISC./STARTER	
	120V WIRELESS BIGHTAL-NET WORK SWITCH	SEE DETAIL ON SHEET E300 FOR DETAILS.		THREE-PHASE FUSED OR NON-FUSED DISCONNECT	
S _{VD}	COMBINATION VACANCY SENSOR/0-10V DIMMER SWITCH	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UON		THREE-PHASE MANUAL STARTER OR COMB. DISC./STARTER	
(OS*)	OCCUPANCY SENSOR, TYPE-* (AUTOMATIC-ON / AUTOMATIC-OFF)	SEE OCCUPANCY/VACANCY SENSOR SCHEDULE ON SHEET E300 FOR TYPES	S _M	MOTOR TOGGLE SWITCH WITH THERMAL OVERLOAD AND LOCKOUT	SQUARE D #CLASS 2510 FGJ5P (SINGLE POLE)
(WS1)	WIRELESS OCCUPANCY SENSOR	DETAIL ON SHEET E300 FOR TYPE		3Ø BRANCH CIRCUIT PANELS (120/208V-3Ø-4W)	REFER TO SPECIFICATIONS AND RISER DIAGRAM.
SP)	120V-20A SWITCHPACK RELAY LIGHTING CONTROL	MOUNTED IN JUNCTION BOX (ABOVE ACCESSIBLE CEILING IF APPLICABLE) CONNECT TO OCCUPANCY SENSORS AND ACCESSORIES AS INDICATED	fiiii	3Ø DISTRIBUTION PANELS	REFER TO SPECIFICATIONS AND RISER DIAGRAM.
X	2'x4' FIXTURE, TYPE X	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES		ELECTRICAL UTILITY METER	COORDINATE WITH ELECTRIC UTILITY COMPANY
X	2'x2' FIXTURE, TYPE X	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES	H	ELECTRICAL TRANSFER SWITCH	REFER TO SPECIFICATIONS AND RISER DIAGRAM.
X	2'x2' FIXTURE w/ CENTER TRIM/REFLECTOR, TYPE X	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES		ELECTRICAL UTILITY TRANSFOMER	COORDINATE WITH ELECTRIC UTILITY COMPANY
	ROUND RECESSED DOWNLIGHT FIXTURE	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES		LOW VOLTAGE OUTLET	E.C. TO PROVIDE AND INSTALL 4" SQ. x 2-1/8" DEEP BOX WITH SINGLE GANG
$\mathbf{\Theta}$ X	EXIT SIGN, TYPE X	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		PLASTER RING AT 18" AFF WITH ONE (1) 1" CONDUIT HOMERUN TO IT RACK #A106, UNLESS OTHERWISE NOTED.
A X	EXIT SIGN WITH DUAL HEAD EMERGENCY LIGHTING, TYPE X	SEE LIGHT FIXTURE SCHEDULE FOR TYPES			OWNER WILL PROVIDE CAT6E CABLING, AND E.C. IS TO INSTALL CABLING TO IT RACK #A106, AND TERMINATE AND LABEL EACH END, AND TEST CABLING. QUANTITIES OF CABLES TO BE TERMINATED IN EACH OUTLET ARE NOTED ON
LE X	EMERGENCY LIGHT FIXTURE, TYPE X	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES			THE PLANS.
WAC-x	DIGITAL NETWORK WIRELESS AREA CONTROLLER	MOUNT POWER SUPPLY 6" BELOW CEILING. SEE DETAIL ON SHEET E300 FOR FOR MORE INFORMATION.	TV	2-GANG TELEVISION OUTLET	E.C. TO PROVIDE AND INSTALL A 2-GANG RECESSED TV-BOX (BASED ON LEGRAND #TV2MW @ 72" AFF (UON), WITH ONE (1) FOR A DUPLEX RECEPTACLE AND ONE (1) WITH A 1" CONDUIT HOMERUN TO IT RACK #A106, UNLESS
WD	DIGITAL NETWORK RELAY WITH 0-10V DIMMING	MOUNTED ABOVE ACCESSIBLE CEILING. SEE DETAIL ON SHEET E300 FOR FOR MORE INFORMATION.			OTHERWISE NOTED. OWNER WILL PROVIDE CAT6E CABLING, AND E.C. IS TO INSTALL CABLING TO IT RACK #A106, AND TERMINATE AND LABEL EACH END, AND TEST CABLING.
$\stackrel{\frown}{\mathbb{E}}_{\chi}$	EMERGENCY LTG. UL924 LOAD CONTROL RELAY (LCR) S - LVS CONTROLS #EPC-A-1 D - LVS CONTROLS #EPC-1-D	MOUNTED IN JUNCTION BOX (ABOVE ACCESSIBLE CEILING IF APPLICABLE) CONNECT TO OCCUPANCY SENSORS AND ACCESSORIES AS INDICATED		WIRELESS ACCESS DEVICE (WIFI) OUTLET	ONE (1) CABLE PER TELEVISION OUTLET IS REQUIRED. E.C. TO PROVIDE AND INSTALL 4" SQ. x 2-1/8" DEEP BOX WITH SINGLE GANG
Ф	DUPLEX OUTLET - 20 AMP	MOUNT @ 16" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED		(WIFI PROVIDED AND INSTALLED BY THE OWNER)	PLASTER RING AT CEILING WITH ONE (1) 1" CONDUIT HOMERUN TO IT RACK #A106, UNLESS OTHERWISE NOTED. OWNER WILL PROVIDE CAT6E CABLING, AND E.C. IS TO INSTALL CABLING TO
 	QUADPLEX OUTLET - 20 AMP	MOUNT @ 16" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED			IT RACK #A106, AND TERMINATE AND LABEL EACH END, AND TEST CABLING. ONE (1) CABLE PER WIFI OUTLET IS REQUIRED.
•	DUPLEX OUTLET - 20 AMP - GROUND FAULT	MOUNT @ 16" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED	(s)	FLUSH SPEAKERS	OWNER WILL PROVIDE, INSTALL, AND TERMINATE ANY CABLING REQUIRED.
WP	WD OFOLDUDES OUTLET WITH MEATUED DDOOF IN LIGH			VIDEO SURVEILLANCE CAMERA OUTLET (CAMERA PROVIDED AND INSTALLED BY THE OWNER)	E.C. TO PROVIDE AND INSTALL 4" SQ. x 2-1/8" DEEP BOX WITH SINGLE GANG PLASTER RING 12" BELOW THE CEILING WITH ONE (1) 1" CONDUIT HOMERUN
₩P •	WR GFCI DUPLEX OUTLET WITH WEATHER PROOF IN-USE COVER	MOUNT @ 24" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED		(5=	TO IT RACK #A106, UNLESS OTHERWISE NOTED. OWNER WILL PROVIDE CAT6E CABLING, AND E.C. IS TO INSTALL CABLING TO
E*	ELECTRICAL ACCESS CONTROLS KEY NOTE. REFER TO DOOR HARDWARE SPECIFICATIONS AND	SEE ELECTRICAL DRAWING SHEET E101P FOR MORE INFORMATION.M IN ELECTRICAL/SECURITY SYSTEM DETAILS ON THIS SHEET.			IT RACK #A106, AND TERMINATE AND LABEL EACH END, AND TEST CABLING. ONE (1) CABLE PER SECURITY CAMERA OUTLET IS REQUIRED.
	MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR MORE INFORMATION.		FAP	FIRE ALARM CONTROL PANEL	MOUNT @ 44" A.F.F., EQUAL TO EDWARDS #FX-10RD
• _{CB}	PUSH BUTTON CONTROLS FOR LOCAL CALL BUTTON (CB).	COORDINATE WITH ACCESS CONTROLS SHOP DRAWINGS AND OWNER'S DIV. 28	DOC	FIRE ALARM DOCUMENT STORAGE CABINET	MOUNT @ 44" A.F.F.
• CBE	REFER TO ELECTRICAL KEY NOTES FOR MORE INFO. PUSH BUTTON CONTROLS FOR EMERGENCY CALL	CONTRACTOR (EPS SECURITY). COORDINATE WITH ACCESS CONTROLS SHOP DRAWINGS AND OWNER'S DIV. 28	RA F	FIRE ALARM REMOTE ANNUNCIATOR	MOUNT @ 44" A.F.F.; EQUAL TO EDWARDS #K-FSRA10
□CRE	BUTTON (CBE). REFER TO ELECTRICAL KEY NOTES FOR MORE INFORMATION.	CONTRACTOR (EPS SECURITY).		FIRE ALARM PULL STATION FIRE ALARM WALL MOUNTED STROBE DEVICE	MOUNT @ 44" A.F.F.; EQUAL TO EDWARDS #270-SPO MOUNT @ MIN. 80", MAX. 96" A.F.F.; EQUAL TO EDWARDS GENESIS SERIES
• LD	PUSH BUTTON CONTROLS FOR MASTER LOCK DOWN (LD) OF DOOR A100B IN VESTIBULE A100.	COORDINATE WITH ACCESS CONTROLS SHOP DRAWINGS AND OWNER'S DIV. 28 CONTRACTOR (EPS SECURITY).		FIRE ALARM WALL MOUNTED HORN/STROBE DEVICE	MOUNT @ MIN. 80", MAX. 96" A.F.F. ; EQUAL TO EDWARDS GENESIS SERIES
• UL	PUSH BUTTON CONTROLS FOR REMOTE UNLOCK (UL) OF ELECTRIC STRIKE (ES) IN DOOR A102 IN LOBBY A102.	COORDINATE WITH ACCESS CONTROLS SHOP DRAWINGS AND OWNER'S DIV. 28 CONTRACTOR (EPS SECURITY).			
R	CARD READER LOCATION - COORDINATE WITH OWNER'S DIV. 28 CONTRACTOR (EPS SECURITY). REFER TO ELECTRICAL KEY NOTES FOR MORE INFORMATION.	E.C. TO PROVIDE BOX, CONDUITS, AND CABLING AS DESCRIBED IN ELECTRICAL/SECURITY SYSTEM DETAILS ON THIS SHEET. THE E.C. IS TO INSTALL CABLING TO IT RACK #A106, AND TERMINATE AND LABEL EACH END, AND TEST CABLING.			
ES	DOOR ACCESS CONTROL - ELECTRIC STRIKE REFER TO DOOR HARDWARE SPECIFICATIONS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR	E.C. TO PROVIDE BOX, CONDUITS, AND CABLING AS DESCRIBED IN ELECTRICAL/SECURITY SYSTEM DETAILS ON THIS SHEET. THE E.C. IS TO INSTALL CABLING TO IT RACK #A106, AND TERMINATE AND LABEL			

WIRE SIZE REQUIREMENTS

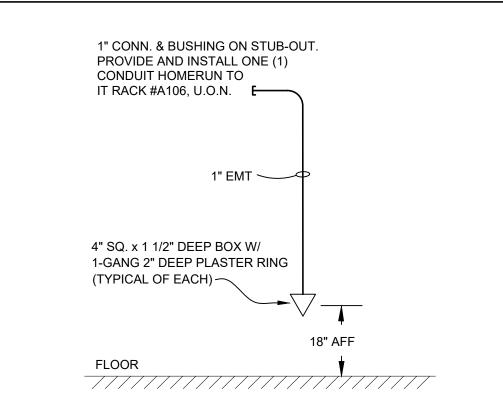
MORE INFORMATION.

NOTE:
BASED ON A MAXIMUM OF 3.6-VOLT DROP (3%) ON 120V CIRCUITS. WIRES FOR RUNS
OVER 100'-0" SHALL BE DETERMINED ON THIS A MAXIMUM OF A 3% DROP ALLOWED.

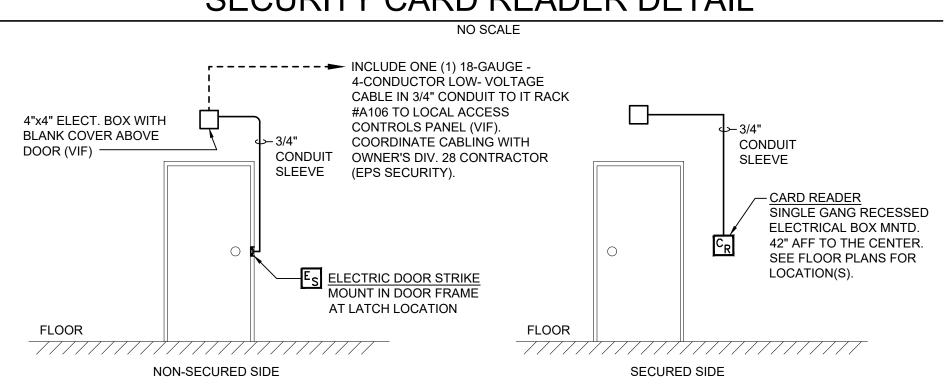
	BRANCH CIRCUIT AMPS		LENGTH OF RUN - FROM PANEL TO FIRST CONNECTION - FEET							
	AMPS	50'	60'	70'	80'	90'	100'	110'	120'	130'
	15	#12	#12	#12	#10	#10	#10	#10	#10	#8
	20	#12	#10	#10	#10	#10	#8	#8	#8	#8
_	30	#10	#10	#8	#8	#8	#6	#6	#6	#6

LOW-VOLTAGE OUTLET DETAIL

THE E.C. IS TO INSTALL CABLING TO IT RACK #A106, AND TERMINATE AND LABEL EACH END, AND TEST CABLING.



SECURITY CARD READER DETAIL



P 231.933.0510 F 231.933.3215 W www.nealisengineering.com

CORNERSTONE

1419 Industry Drive Traverse City, MI 49696



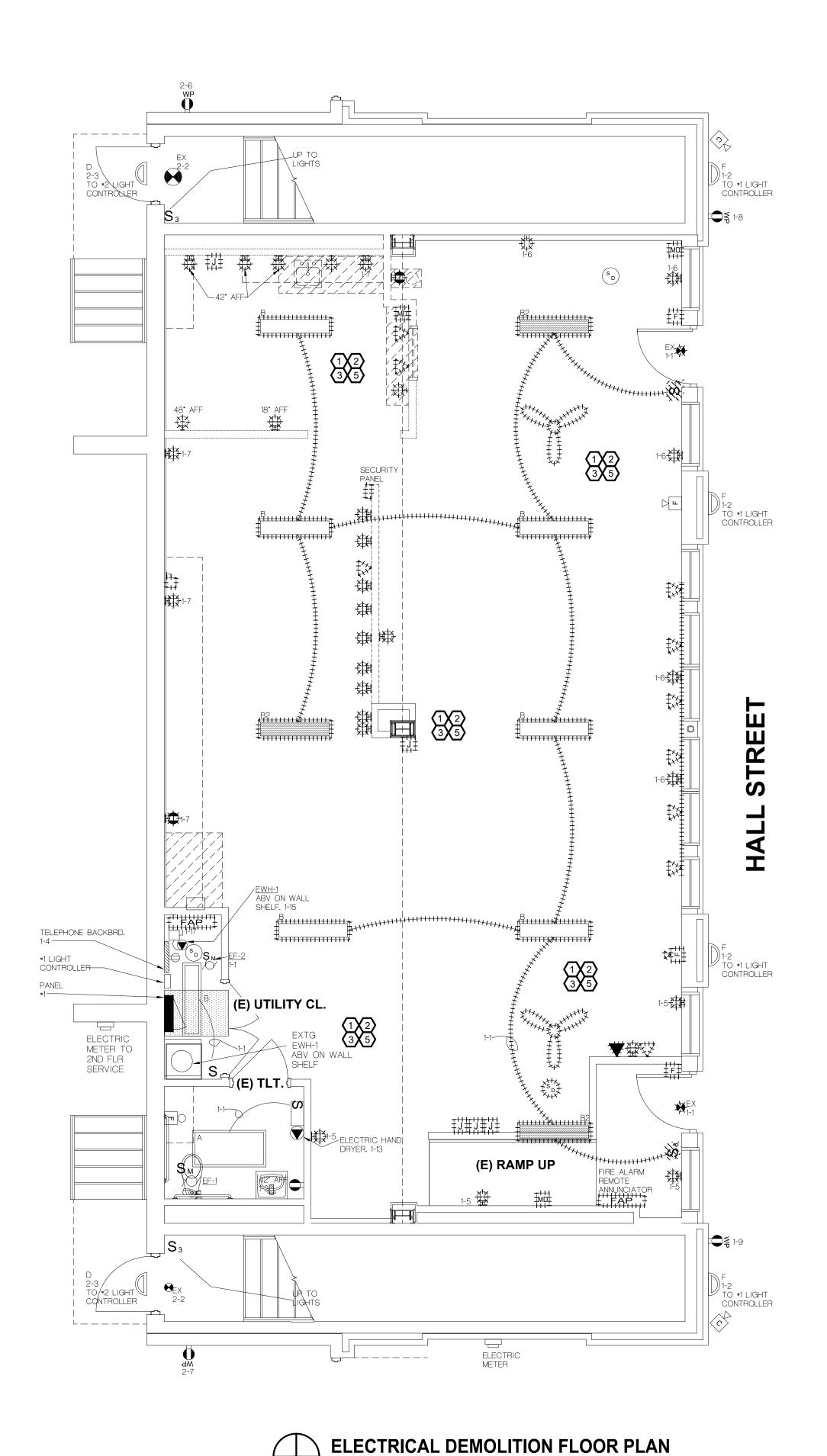
HALL STREET TRAVERSE (

Date Issued For 09/11/23 DD Set 10/16/23 Bid Set

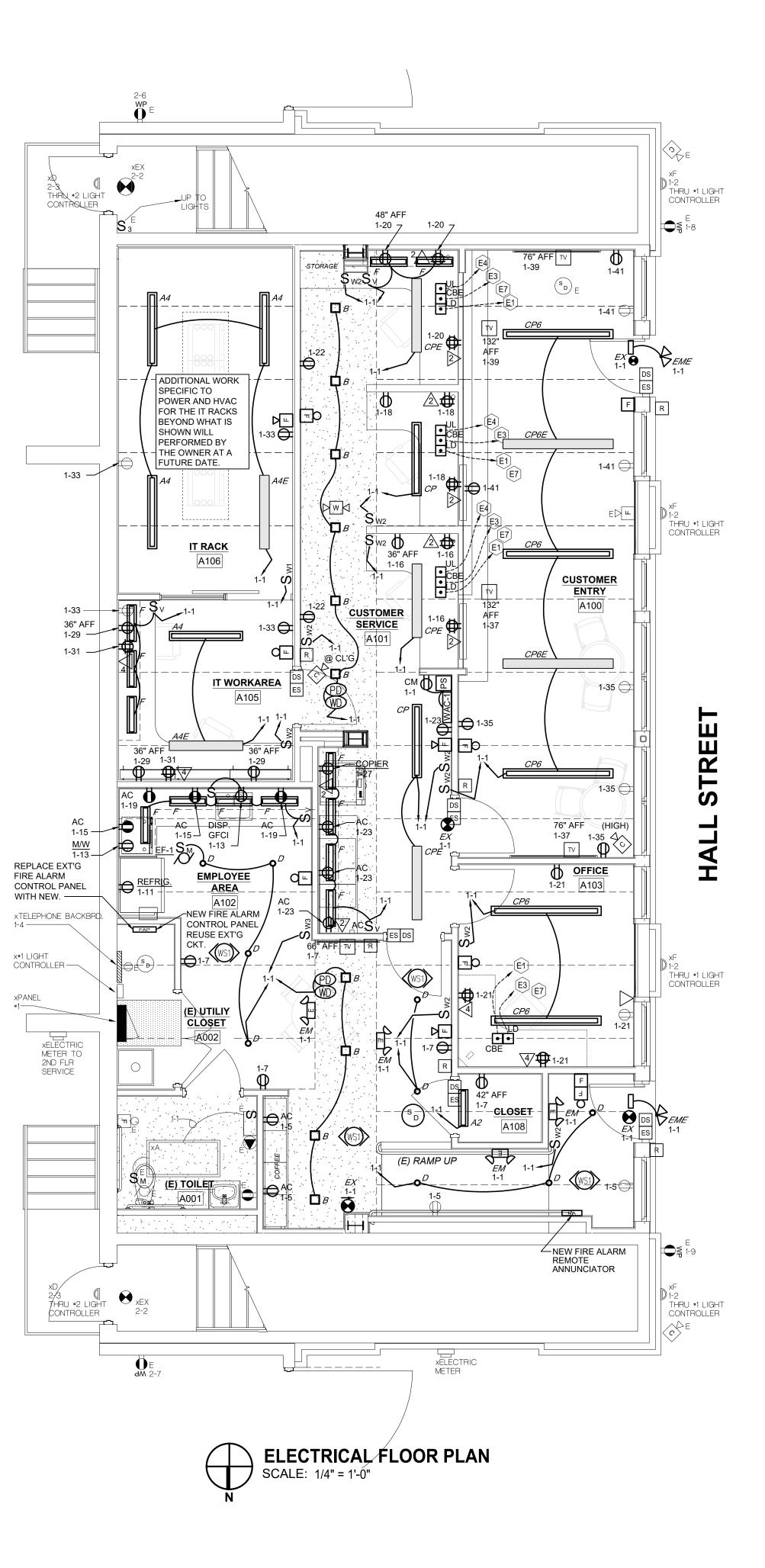
> 23.505 ELECTRICAL

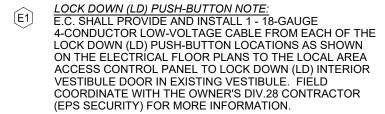
SCHEDULES & **DETAILS**

E000



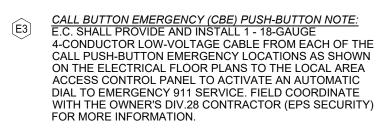
SCALE: 1/4" = 1'-0"





LOCAL CALL PUSH-BUTTON (CB) NOTE:

E.C. SHALL PROVIDE AND INSTALL 1 - 18-GAUGE
4-CONDUCTOR LOW-VOLTAGE CABLE FROM EACH OF THE
LOCAL CALL PUSH-BUTTON LOCATIONS AS SHOWN ON
THE ELECTRICAL FLOOR PLANS TO THE LOCAL AREA
ACCESS CONTROL PANEL TO ACTIVATE A DESIGNATED
CALL BUTTON (CB) SOUNDER WITHIN THE EXISTING CALL
CENTER ROOM AS SHOWN ON ELECTRICAL DRAWING
E100. FIELD COORDINATE WITH THE OWNER'S DIV.28
CONTRACTOR (EPS SECURITY) FOR MORE INFORMATION.



- REMOTE UNLOCK (UL) PUSH-BUTTON NOTE:

 E.C. SHALL PROVIDE AND INSTALL 1 18-GAUGE
 4-CONDUCTOR LOW-VOLTAGE CABLE FROM THE REMOTE
 UNLOCK PUSH-BUTTON LOCATIONS AS SHOWN ON THE
 ELECTRICAL FLOOR PLAN TO THE LOCAL AREA ACCESS
 CONTROL PANEL TO UNLOCK DOOR-101 IN ENTRY. FIELD
 COORDINATE WITH THE OWNER'S DIV.28 CONTRACTOR
 (EPS SECURITY) FOR MORE INFORMATION.
- DESIGNATED MASTER LOCK DOWN (LD) DOOR NOTE:

 E.C. SHALL PROVIDE AND INSTALL 1 18-GAUGE
 4-CONDUCTOR LOW-VOLTAGE CABLE FROM THE
 DESIGNATED DOOR 101 LOCATION AS SHOWN ON THE
 ELECTRICAL FLOOR PLAN TO THE LOCAL AREA ACCESS
 CONTROL PANEL TO LOCK THE INTERIOR VESTIBULE DOOR
 IN EXISTING VESTIBULE WHEN ANY OF THE REMOTE LOCK
 DOWN (LD) PUSH BUTTONS ARE PRESSED. REFER TO THE
 MAG-LOCK DOOR DETAIL ON DRAWING SHEET E000 AND
 FIELD COORDINATE WITH THE OWNER AND THE OWNER'S
 DIV.28 CONTRACTOR (EPS SECURITY) FOR MORE
 INFORMATION
- DOOR 101 ACCESS CONTROLS NOTE:

 E.C. SHALL PROVIDE AND INSTALL ALL LOW-VOLTAGE
 CABLING AND ASSOCIATED CONDUIT SLEEVES FROM THE
 REMOTE POWER SUPPLY TO THE ELECTRIC STRIKES AS
 SHOWN. FIELD COORDINATE WITH THE DOOR HARDWARE
 SPECIFICATIONS AND ASSOCIATED INSTALLATION
 INSTRUCTIONS FOR MORE INFORMATION.
- REMOTE PUSHBUTTON INSTALLATION NOTE:
 E.C. AND OWNER'S DIV. 28 CONTRACTOR (EPS SECURITY)
 SHALL FIELD COORDINATE INSTALLATION OF THE REMOTE
 PUSHBUTTONS BELOW THE BUILT-IN COUNTERTOPS OR
 OWNER FURNISHED CASEWORK. ALL CABLING AND
 FLEXIBLE CONDUIT UNDER THE COUNTERTOP/CASEWORK
 SHALL BE SECURED AND INSTALLED TO PREVENT
 CONFLICT WITH THE END USERS.
- REMOTE POWER SUPPLY NOTE:

 E.C. AND OWNER'S DIV. 28 CONTRACTOR (EPS SECURITY)

 SHALL FIELD COORDINATE INSTALLATION OF THE ACCESS

 CONTROL REMOTE POWER SUPPLIES REQUIRED PER THE

 DOOR HARDWARE SPECIFICATIONS.



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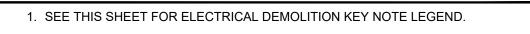
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11/23	DD Set	
16/23	Bid Set	

10/16/23 Bid Set

23.505

ELECTRICAL FLOOR PLANS

E101



GENERAL ELECTRICAL DEMOLITION NOTES

- 2. ELECTRICAL CONTRACTOR (E.C.) SHALL REMOVE ALL LIGHT FIXTURES AS INDICATED ON DRAWINGS. IF ANY LIGHT FIXTURE BALLASTS ARE FOUND TO CONTAIN PCB'S THE ELECTRICAL CONTRACTOR SHALL REMOVE BALLAST FROM LIGHT FIXTURES AND DISPOSE OF IN APPROVED DISPOSAL CONTAINERS PROVIDED BY THE OWNER. THE OWNER SHALL BE RESPONSIBLE FOR PROPER DISPOSAL PER LOCAL, STATE AND FEDERAL LAWS AND PAY FOR ALL ASSOCIATED COSTS OF DISPOSAL.
- 3. E.C. SHALL BE RESPONSIBLE FOR DISPOSAL OF REMAINING LUMINARE PARTS & ANY NON-PCB FIXTURES PER LOCAL, STATE, AND FEDERAL REGULATIONS AND PAY FOR ALL ASSOCIATED COSTS OF DISPOSAL.
- 4. CAUTION!!!!

 E.C. SHALL DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT,
 (WHICH INCLUDES BUT IS NOT LIMITED TO DEVICES, FIXTURES,
 WIRING (CIRCUITRY), CABLING, CONDUIT, ETC.), AS DESCRIBED
 AND SHALL GIVE THE OWNER AN OPPORTUNITY TO KEEP DEMOLISHED
 ELECTRICAL EQUIPMENT PRIOR TO THEM BEING DISCARDED.
- 5. EXISTING ELECTRICAL AND LOW VOLTAGE DEVICES SHOWN ON PLANS WITH AN "E-R" ARE TO BE RELOCATED, AS INDICATED. REUSE EXISTING CIRCUITRY (WIRING) AND CONDUIT AND PROVIDE NEW AS REQUIRED TO CONNECT TO ELECTRICAL AND LOW VOLTAGE DEVICES PER THE NEW ELECTRICAL FLOOR PLANES. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- 6. EXISTING ELECTRICAL AND LOW VOLTAGE DEVICES SHOWN ON PLANS WITH AN "XRP" ARE TO BE REPLACED WITH NEW DEVICES, AS INDICATED, REUSE EXISTING CIRCUITRY (WIRING) AND CONDUIT AND PROVIDE NEW AS REQUIRED TO CONNECT TO ELECTRICAL AND LOW VOLTAGE DEVICES PER THE NEW ELECTRICAL FLOOR PLANS. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- 7. DEVICES SHOWN ON THE NEW FLOOR PLANS WITH AN ADJACENT "E" OR AN "ETR", INDICATE THE DEVICE IS EXISTING FROM OLD DRAWINGS OR A TAKEOFF E.C. SHALL FIELD VERIFY ACTUAL DEVICE LOCATIONS WHICH ARE TO REMAIN.

ELECTRICAL DEMOLITION KEY NOTES

- DISCONNECT AND REMOVE ELECTRICAL DEVICE(S) WHICH WILL INTERFERE WITH THE DEMOLITION AND REMOVAL OF WALLS, FLOORING, AND/OR CEILING AS DESCRIBED IN THE ARCHITECTURAL DEMOLITION PLANS. REMOVE EXISTING CIRCUITRY (WIRING) AND CONDUIT BACK TO SOURCE OR PANEL AND DISCARD.
- DISCONNECT AND REMOVE ALL EXISTING LIGHTS AND LIGHTING CONTROLS IN THIS AREA, AS INDICATED. REMOVE EXISTING CIRCUITRY (WIRING) AND CONDUIT BACK TO PANEL OR SOURCE AND DISCARD. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- DISCONNECT AND REMOVE ALL EXISTING RECEPTACLES AND POWER DEVICES IN THIS AREA, AS INDICATED. REMOVE EXISTING CIRCUITRY (WIRING) AND CONDUIT BACK TO PANEL OR SOURCE AND DISCARD. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTIONS TO EXISTING MECHANICAL EQUIPMENT WHICH IS TO BE REMOVED. COORDINATE DISCONNECTION WITH MECHANICAL CONTRACTOR. REMOVE CIRCUITRY (WIRING) AND CONDUIT BACK TO PANEL OR SOURCE AND DISCARD, UNLESS IT CAN BE REUSED.
- DISCONNECT AND REMOVE ALL EXISTING DATA, TELEPHONE/PAGING, TELEVISION, FIRE ALARM SYSTEMS, SECURITY SYSTEMS & AV SYSTEM DEVICES WIRING AND EQUIPMENT, AS INDICATED. REMOVE EXISTING WIRING AND CONDUIT BACK TO SOURCE AND DISCARD, UNLESS IT CAN BE REUSED. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTIONS TO EXISTING MECHANICAL EQUIPMENT WHICH IS TO BE RELOCAATED. COORDINATE DISCONNECTION WITH MECHANICAL CONTRACTOR. REUSE, TRIM, AND/OR EXTEND CIRCUITRY (WIRING) TO NEW LOCATION AS SHOWN ON SHEET E101.

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BW77d . 1	YOUR ENG	INEERIN	G

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CITY LIGHT & POWER SERVICE CEI STREE

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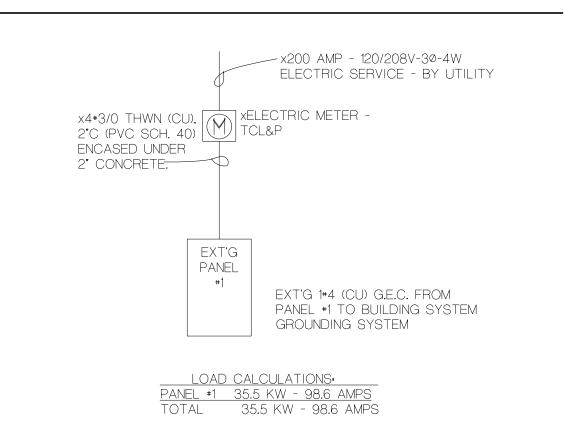
ELECTRICAL SCHEDULES & **DETAILS**

Туре	Mount	Ceiling	Description	Lumen	Temp	CRI	Watts	Volt	Dim	Manufacturer	Catalog #	Notes
A2	Surface	Open	2' LED Lensed StripLight w/ WaveLinx Pro Sensor	3,727	4000	90	27.6	UNV	0-10v	Metalux	2SNX-40HL-SLW-UNV-L940-CD1-WAA-U	Mount directly to ceiling
A4	Surface	Open	4' LED Lensed StripLight w/ WaveLinx Pro Sensor		4000				0-10v	Metalux	4SNX-48SL-SLW-UNV-L940-CD1-WAA-U	Mount directly to ceiling
A4E	Surface	Open	4' LED Lensed StripLight w/ WaveLinx Pro Sensor - w/Battery Pack	4,586	4000	90	32.1	UNV	0-10v	Metalux	4SNX-48SL-SLW-UNV-L940-CD1-EL14W-WAA-U	Mount directly to ceiling
В	Recessed	Drywall	4" Square LED Downlight	1,345	Select	90	15	UNV	0-10v	Halo	SMD6S-12-9S-WHE	Set Selectable CCT to 4000K
CP	Pendant	Open	2"x4"x4' Rectangular LED Pendant Direct/Indirect Fixture, Satin White Diffuse Down Lens, Widespread Batwing Optic Up light, single circuit, cord suspension w? WaveLinx Pro Sensor	2700 D 2900 I	4000	90	46.8	UNV	0-10v 1%	Neo-Ray	S122DIP-C675D725U-940-C10JB-4FO-1UDD-F4-C-WAA	Mount directly to ceiling and suspend to 12'-0" (or 9'-6") AFF; See architectural elevations for more details. Custom Color as selected by the Architect
CPE	Pendant	Open	2"x4"x4' Rectangular LED Pendant Direct/Indirect Fixture, Satin White Diffuser Down Lens, Widespread Batwing Optic Up light, single circuit, cord suspension w/ WaveLinx Pro Sensor - w/ Battery Pack	2700 D 2900 I	4000	90	46.8	UNV	0-10v 1%	Neo-Ray	S122DIP-C675D725U-940-C10JB-4FO-1B3UDD-F4-C-WAA	Mount directly to ceiling and suspend to 12'-0" (or 9'-6") AFF; See architectural elevations for more details. Custom Color as selected by the Architect
CP6	Pendant	Open	2"x4"x6' Rectangular LED Pendant Direct/Indirect Fixture, Satin White Diffuse Down Lens, Widespread Batwing Optic Up light, single circuit, cord suspension w? WaveLinx Pro Sensor	4050 D 4350 I	4000	90	70.2	UNV	0-10v 1%	Neo-Ray	S122DIP-C675D725U-940-C10JB-6FO-1UDD-F4-C-WAA	Mount directly to ceiling and suspend to 12'-0" (or 9'-6") AFF; See architectural elevations for more details. Custom Color as selected by the Architect
CP6E	Pendant	Open	2"x4"x6' Rectangular LED Pendant Direct/Indirect Fixture, Satin White Diffuser Down Lens, Widespread Batwing Optic Up light, single circuit, cord suspension w/ WaveLinx Pro Sensor - w/ Battery Pack	4050 D 4350 I	4000	90	70.2	UNV	0-10v 1%	Neo-Ray	S122DIP-C675D725U-940-C10JB-6FO-1B3UDD-F4-C-WAA	Mount directly to ceiling and suspend to 12'-0" (or 9'-6") AFF; See architectural elevations for more details. Custom Color as selected by the Architect
D	Surface	Open	4" Round Surface Mounted Cylinder with 75-degree distribution w/ WaveLinx Pro Sensor	1,551	4000	90	16.17	UNV	0-10v 1%	Portfolio	LER4C-15-D010-xx-WPN-EC4C-1020-9040-4LBWLI	xx denotes standard color as selected by the Architect
EM	Surface	Wall	Emergency Egress Fixture with Circular Heads	300/hd			1.2	UNV	No	Isolite	BUG-3W-WH-SD	
EX	Universal	Wall/Ceiling/Edge	Alum ThinLine Die Cast LED Exit	-			2	UNV	No	Isolite	TL2-EM-R-U-WH-MTEB-EB	
EME	Surface	Exterior	Architectural Mullion Mount Outdoor Wet Location EM Light		-	-	-		No	Isolite	ODLM-10-EM-xx-MMR-SD-3200K	Architect shall select the finish from the standard list of finishes; locate remote power supply on interior wall above door as inconspicuously as possible
F	Surface	NA	2' LED Undercabinet Light	627	Select	90	11.1	UNV	Phase	Halo	HU30-SCT-24"-P w/HU1010/HU103	Includes SelectableCCT (set at 4000K); white finish; include appropriate length daisy chain connector as needed

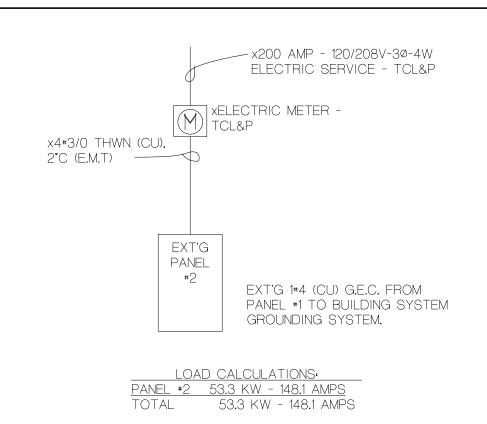
225A MCB, 208/120V-3PH.-4W EXT'G PANEL #1 SURFACE MOUNTED, SQUARE D CIR. CB/P DESCRIPTION CB/P CIR. LOAD P LOAD DESCRIPTION 1 20/1 INTERIOR LIGHTING/FANS 3 20/1 RECEPTS BATHROOM 5 20/20 RECEPTS 20/2 2 RECEPTS KILN RECEPTS TELEPHONE 20/1 6 7 20/1 RECEPTS RECEPTS EXTERIOR 20/1 8 9 20/1 EXTERIOR RECEPTS 50/3 12 14 11 20/1 RECEPTS DISPLAY COOLER ROOF TOP UNIT RECEPTS ICE CREAM STATION 15 20/1 RECEPTS REGISTERS/DISPLAY CABINETS 20/1 16 17 20/1 FIRE ALARM PANEL 20/1 18 RECEPTS DISHWASHER 20/1 20 19 20/1 RECEPTS RECEPTS KITCHEN AREA 21 20/1 RECEPTS 23 20/1 RECEPTS 20/1 RECEPTS 20/1 RECEPTS 25 30/1 RECEPTS HAND DRYER 27 20/1 RECEPTS 29 20/1 RECEPTS RECEPTS RECEPTS HALF WALL RECEPTS HALF WALL 31 20/2 RECEPTS HALF WALL RECEPTS HALF WALL 30/2 RECEPTS WATER HEATER 35 20/1 RECEPTS HALF WALL 37 20/20 RECEPTS HALF WALL 40/3 40 42 39 20/1 RECEPTS HALF WALL RECEPTS OVEN 41 20/1 RECEPTS HALF WALL

EX	T'G I	PANEL #2				400A MCB, 240/48V-3PH4W SURFACE MOUNTED, SQUARE D		
CIR.	CB/P	DESCRIPTION	LOAD	P	LOAD	DESCRIPTION	CB/P	CIR.
1				Α		LIGHTING STAIR	20/1	2
3				В		RECEPTS	20/1	4
5	105/0	RTU-2		С		RECEPTS EXTERIOR	20/1	6
7	125/3			Α		RECEPTS ROOFTOP	20/1	8
9				В		LIGHTING EXTERIOR	20/1	10
11			200	С		LIGHTING EXTERIOR & CONTROL BOX	20/1	12
13	20/1	LIGHTING INTERIOR	555	Α		RECEPTS IRRIGATION (NORTH WALL)	20/1	14
15	20/1	LIGHTING EXTERIOR		В		SCADA RTU CABINET #216	20/1	16
17	20/1	RECEPTS		C		SER FEED #208	20/1	18
19	20/1	RECEPTS EXTERIOR		Α		TRANSF #1 SUMP PUMP #231	20/1	20
21	20/1	RECEPTS		В		TRANSF #2 SUMP PUMP #232	20/1	22
23	30/1	RECEPTS HL122 BKR LGT		С		DECTIFIED D. FEED 4 "D. 4"	50/2	24
25	30/1	RECEPTS HL222 BKR LGT		Α		RECTIFIER B - FEED 1 "B-1"		26
27	30/1	RECEPTS LL322 BKR LGT		В		RECTIFIER B - FEED 2 "B-2"	50/2	28
29	E0/0	RECTIFIER A - FEED 1 "A-1"	u.u.	C		RECTIFIER B - FEED 2 B-2	30/2	30
31	50/2	RECTIFIER A - FEED T A-T		Α		RECTIFIER B - FEED 3 "B-3"	50/2	32
33	50/2	RECTIFIER A - FEED 2 "A-2"		В		RECTIFIER B - FEED 3 B-3		34
35	30/2	RECTIFIER A - FEED 2 A-2		С		DECTIFIED B FFFD 4 "D 4"	50/2	36
37	50/2	RECTIFIER A - FEED 3 "A-3"		Α		RECTIFIER B - FEED 4 "B-4"	50/2	38
39	30/2	RECTIFIER A - FEED 3 A-3	222	В		DECTIFIED D. FEED 5 "D. 5"	50/0	40
41	50/2	RECTIFIER A - FEED 4 "A-4"				RECTIFIER B - FEED 5 "B-5"	50/2	42
43	30/2	RECTIFIER A - FEED 4 A-4				SPACE	(###C)	44
45	50/2	RECTIFIER A - FEED 5 "A-5"				SPACE		46
47	30/2	REGIIFIER A - FEED 5 A-5				SPACE	(**************************************	48
49		SPACE				SPACE		50
51		SPACE				SPACE		52
53		SPACE		C		SPACE		54

EXISTING ONE-LINE DIAGRAM #1



EXISTING ONE-LINE DIAGRAM #2

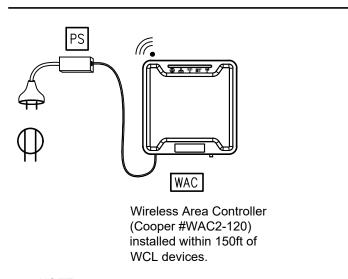


RE	VISE	D PANEL #1				225A MCB, 208/120V-3PH4W SURFACE MOUNTED, SQUARE D		
CIR.	CB/P	DESCRIPTION	LOAD	Р	LOAD	DESCRIPTION	CB/P	CIR.
1	20/1	INTERIOR LIGHTING/FANS & WAC	1575	Α		CDADE	20/2	2
3	20/1	RECEPTS BATHROOM	180	В		SPARE	20/2	4
5	20/1*	RECEPTACLES - A102 ENTRY, COFFEE	720	С	360	RECEPTS TELEPHONE	20/1	6
7	20/1	RECEPTACLES - A102, A108, TV	900	Α	180	RECEPTS EXTERIOR	20/1	8
9	20/1	EXTERIOR RECEPTS	180	В	8167			10
11	20/1	RECEPTACLES - A102 REFRIGERATOR	1000	C	8167	ROOF TOP UNIT	50/3	12
13	20/1	RECEPTACLES - A102 M/W & DISPOSAL	1500	Α	8167			14
15	20/1	RECEPTACLES - A102 COUNTER	720	В	900	RECEPTACLES - A101 NORTH	20/1	16
17	20/1	FIRE ALARM PANEL	1000	C	900	RECEPTACLES - A101 CENTER	20/1	18
19	20/1	RECEPTACLES - A102 COUNTER	720	Α	900	RECEPTACLES - A101 SOUTH	20/1	20
21	20/1	RECEPTACLES - A103	1080	В	360	RECEPTACLES - A101 BACKWALL	20/1	22
23	20/1	RECEPTACLES - A101 COUNTER	720	C		SPARE	20/1	24
25	30/1	RECEPTS HAND DRYER	2300	Α		SPARE	20/1	26
27	20/1	RECEPTACLES - A101 COPIER	1000	В		SPARE	20/1	28
29	20/1	RECEPTACLES - A105	540	C		SPARE	20/1	30
31	20/1*	RECEPTACLES - A105	720	A	222	SPARE	20/1	32
33	20/1*	RECEPTACLES - A105, A106	720	В	1000	WATER HEATER	30/2	34
35	20/1	RECEPTACLES - A100 NORTH	720	C	1000	N. P. P. S. C. Charles V. F. San C. S.	00/2	36
37	20/1*	RECEPTACLES - A100 NORTH TVs	360	Α				38
39	20/1	RECEPTACLES - A100 SOUTH TVs	360	В		SPARE	40/3	40
41	20/1	RECEPTACLES - A100 SOUTH	720	С				42
		LIGHTS	196	8	VA			
		RECEPTS.	1646	60	VA	TOTAL CALCULATED LOAD		
		MOTORS	2680	00	VA	48.2 kVA		
		MISC	300	0	VA	133.9		

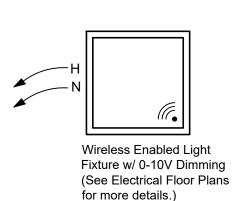
LIGHTING CONTROLS LIGHTING FUNCTION CHART

		Energy Code Area	ASHRAE 2013 9.4.1.1(a-i)										
Location(s)	Room Name	Energy Code Area classification	Local control	Manual on	Partial Auto-On	Bi-Level Lighting	Daylight side Lighting	Daylight Top Lighting	Partial Auto-Off	Full Auto-off	Scheduled Off		
A100, A101	Customer Entry, Customer Service	Office (open plan)	х	ADD1	ADD1	Х	X	х	***	ADD2	ADD2		
A102	Employee Area	Lounge/Breakroom (all other lounges/breakrooms)	х	ADD1	ADD1	Х	x	х		Х			
A103, A105	Office, IT WorkArea	enclosed and <250 sq.ft.	Х	ADD1	ADD1	Х	X	х	(***)	ADD2	ADD2		
A106	IT Rack	Electrical/Mechanical Room	X				x	X			<u> </u>		
A108	Closet	Storage Room <50 sq.ft.	Х	(ADD2	ADD2		

WIRELESS LIGHTING CONTROLS DETAIL



<u>NOTE:</u> WIRELESS AREA CONTROLLER (WAC) AND ASSOCIATED WIRELESS CONTROLS SHALL BE PROGRAMMED BY THE E.C. TO THE OWNER'S SPECIFICATIONS. E.C. SHALL TRAIN THE OWNER HOW TO PROGRAM/ADJUST THE CONTROL SETTINGS.



NO SCALE

Wireless Sensor w/ 10-year integral battery

(Cooper #CWPD-1500)

Wireless Wallstation Sw1: 1-BUTTON (#WW1-x) Sw2: 2-BUTTON w/ RAISE/LOWER (#WW3-RL-x) Sw3: 4-BUTTON w/ RAISE/LOWER (#WW5-RL-x)

Wireless 20A Relay w/

(Cooper #RSP-P-010-347)

0-10V Dimming

S_{TS}: TOUCHSCREEN (TSE57-WLX-B) (REQUIRES CAT6 CABLE IN LIEU OF HOT & NEUTRAL) WIRELESS TILEMOUNT SENSOR KIT (GREENGATE #WTA)

TO NON-WIRELESS

➤ ENABLED LIGHT

FIXTURES

WIRELESS POWER DIMMING MODULE (GREENGATE #PD216-AN10-120)

GENERAL ELECTRICAL NOTES

- CAUTION!!!!!!!! E.C. SHALL VERIFY ALL ROUGH-IN ELEVATIONS, LOCATIONS AND/OR HEIGHTS OF ALL LIGHT FIXTURES, RECEPTACLE OUTLETS, T.V., COMPUTER, CLOCK OUTLETS, ETC. WITH ARCHITECT/ENGINEER. FAILURE TO DO SO WILL REQUIRE E.C. TO RELOCATE RESPECTIVE ITEMS AT THE E.C.'S EXPENSE.
- 2. THE DESIGNATED EMERGENCY LIGHTS SHALL OPERATE AT LOSS OF NORMAL POWER, BY HAVING A DIRECT (HOT) CONNECTION TO THE INTERGRAL BATTERY -OR- TO THE EMERGENCY REMOTE MINI-INVERTER AS INDICATED.
- 3. CONNECT ALL EXIT SIGNS AND EMERGENCY ONLY LIGHT FIXTURES AHEAD OF THE LOCAL AREA LIGHTING'S SWITCH (i.e., HAVING A DIRECT (HOT) CONNECTION TO THE INTEGRAL BATTERY).
- 4. FEEDS TO NEW POWER, LIGHTING, LOW VOLTAGE AND FIRE ALARM DEVICES IN EXISTING WALLS SHALL BE ATTEMPTED IN EVERY WAY TO BE INSTALLED FLUSH-MOUNT.
- 5. THERE SHALL BE NO EXPOSED CONDUITS ON THE WALLS. EXPOSED CONDUITS ARE PERMISSIBLE IN FINISHED SPACES WITH EXPOSED CEILINGS. ALL EXPOSED CONDUIT SHALL BE PAINTED TO MATCH ASSOCIATED SURFACE (WALL, CEILING, ETC.) IN FINISHED SPACES.

PANEL SCHEDULE KEY NOTES	
A - DENOTES ARC FAULT CIRCUIT INTERRUPTER (AFCI) CIRCUIT BREAKER REQUIRED	
B - DENOTES BREAKER LOCK REQUIRED ON CIRCUIT BREAKER	
E - DENOTES 30mA GROUND FAULT EQUIPMENT PROTECTION (GFEP) CIRCUIT BREAKER REQUIRED	
G - DENOTES GROUND FAULT CIRCUIT INTERRUPTER (GFCI) CIRCUIT BREAKER REQUIRED	
L - DENOTES CIRCUIT REQUIRED TO PASS THRU LIGHTING CONTROL PANEL	

S - DENOTES CIRCUIT BREAKER WILL REQUIRE SHUNT-TRIP OR TO BE RUN THRU SHUNT-TRIP CONTACTOR

- DENOTES REPLACE EXISTING CIRCUIT BREAKER WITH NEW CIRCUIT BREAKER SIZED AS NOTED.

SECTION

260000

ELECTRICAL SPECIFICATIONS

BASIC ELECTRICAL

REQUIREMENTS

- 1. PRIOR TO SUBMITTING A PROPOSAL, BIDDER SHALL HAVE VISITED THE CONSTRUCTION SITE. HE SHALL BE FAMILIAR WITH THE EXISTING CONDITIONS UNDER WHICH HE WILL IN ANY WAY AFFECT THE WORK UNDER THIS CONTRACT. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.
- 2. ELECTRICAL WORK SHALL COMPLY WITH THE LATEST ENFORCEABLE EDITION OF THE N.E.C., LOCAL AND STATE CODES, ORDINANCES, REGULATIONS, INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA), AND ADA GUIDELINES WITH THE LOCAL CODE AUTHORITIES HAVING JURISDICTION.
- 3. ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY ALL FEES, AND ARRANGE FOR ALL INSPECTION OF ELECTRICAL WORK, THE ELECTRICAL CONTRACTOR SHALL FURNISH THE OWNER WITH ALL CERTIFICATES OF FINAL INSPECTION AND APPROVALS.
- 4. THE CONTRACTOR SHALL EMPLOY QUALIFIED AND EXPERIENCED WORKMEN FOR THIS WORK.
- 5. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK INSTALLED UNDER HIS CONTRACT TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER THE ACCEPTANCE OF THE BUILDING BY THE OWNER. SHOULD DEFECTS OCCUR WITHIN THIS PERIOD, REPAIR AND/OR REPLACE DEFECTIVE ITEMS AT NO EXPENSE TO THE OWNER.
- 6. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE (1) HOUR OF TRAINING AS NECESSARY TO THE OWNER ON THE LIGHTING CONTROLS, AND ALL OTHER ELECTRICAL EQUIPMENT AND/OR DEVICES.
- 7. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL OPERATING AND MAINTENANCE INSTRUCTION MANUALS, CERTIFICATES OF INSPECTION, TEST REPORTS, SPARE PARTS, AND RECORD DRAWINGS (AS-BUILTS) TO THE OWNER PRIOR TO CLOSEOUT. FINAL PAYMENT WILL ONLY BE MADE AFTER THE FINAL PUNCH LIST COMPLETION AND RECEIPT OF THE ABOVE CLOSEOUT DOCUMENTATION.
- 8. ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATIONS OF HIS EQUIPMENT AND WORK WITH OTHER BUILDING TRADES TO AVOID ANY INTERFERENCES BETWEEN HIS WORK OF OTHER BUILDING TRADES. IF ANY DISCREPANCIES OCCUR, CONSULT WITH THE ARCHITECT, ENGINEER AND/OR OWNER BEFORE CONTINUING.
- 9. THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES, ETC. AS REQUIRED.
- 9. CUTTING AND/OR PATCHING THAT MAY BE REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL SYSTEM(S) SHALL BE DONE AND/OR REPAIRED BY THE ELECTRICAL CONTRACTOR. NO CUTTING OF THE BUILDING STRUCTURAL SYSTEM SHALL BE DONE WITHOUT THE WRITTEN CONSENT OF AN ARCHITECT OR STRUCTURAL ENGINEER.
- 10. CERTAIN REMODELING OF ELECTRICAL FACILITIES WILL BE REQUIRED IN THE EXISTING BUILDING. EXISTING CONDUIT RUNS ARE GENERALLY NOT SHOWN ALTHOUGH AN ATTEMPT HAS BEEN MADE TO SHOW SOME EXISTING CONDITIONS FOR WHICH THE INFORMATION HAS BEEN TAKEN FROM FIELD OBSERVATIONS OF THIS PROJECT. THE DRAWINGS SHOWING LOCATIONS OF EXISTING EQUIPMENT, OUTLETS, FIXTURES, ETC., IN EXISTING AREAS ARE APPROXIMATE ONLY (FIELD VERIFY). VERIFY ALL EXISTING CONDITIONS ARE FOUND THAT VIOLATE INSTALLATION OR SAFETY CODES.
- 11. EXISTING ELECTRICAL WIRING WHICH WILL NOT BE MADE OBSOLETE AND WHICH WILL BE DISTURBED DUE TO CONSTRUCTION CHANGES REQUIRED BY THIS CONTRACT SHALL BE RESTORED TO OPERATING CONDITION AS REQUIRED AND/OR DIRECTED. WHERE REQUIRED, SHOWN AND/OR DIRECTED, OUTLETS AND CONDUIT RUNS SHALL BE RELOCATED. IN SOME CASES IT MAY BE NECESSARY TO EXTEND CONDUITS AND PULL IN NEW WIRING, INSTALL JUNCTION BOXES AND SPLICE IN NEW WIRING, OR REPLACE OLD WIRING WITH NEW.
- 12. OUTLETS FROM WHICH FIXTURES, SWITCHES, RECEPTACLES, AND/OR OTHER ELECTRICAL DEVICES ARE MOVED AND WHICH ARE NOT REPLACED OR REUSED SHALL BE REMOVED OR, IF IT IS NOT POSSIBLE TO REMOVE, HAVE A BLANK COVER PLACED ON THE OUTLET BOX. WHERE OUTLETS, BOXES, ETC. ARE COMPLETELY REMOVED, THE CONTRACTOR SHALL CUT OFF AND CAP CONDUITS AND REMOVE WIRING.
- 13. WHERE EXISTING CONDUIT IS TO BE ABANDONED, THE CONDUIT SHALL BE REMOVED IF IT IS EXPOSED, IN A CRAWL SPACE OR IN AN ACCESSIBLE CEILING. WHERE IT IS IMPOSSIBLE TO REMOVE THE CONDUIT, IT SHALL BE CUT OFF AND CAPPED OR PLUGGED.
- 14. THE ELECTRICAL CONTRACTOR SHALL PERIODICALLY REMOVE FROM THE SITE ALL DEBRIS AND RUBBISH ACCUMULATING AS A RESULT OF THE ELECTRICAL INSTALLATION. UPON COMPLETION OF THE PROJECT, THEY SHALL DISPOSE OF ALL DEBRIS AND RUBBISH AND SHALL LEAVE ALL AREAS CLEAN. THE INTERIORS OF ALL CABINETS, PULL BOXES, AND EQUIPMENT ENCLOSURES SHALL BE FREE OF ANY DEBRIS.
- 15. BRANCH CIRCUITS SHALL BE REUSED WHERE PRACTICAL AND SHALL, IN ADDITION, BE REMODELED AS REQUIRED.
- 16. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SHALL WORK WITH EXISTING SYSTEMS IN AN "AS FOUND" CONDITION.
- 17. DRAWINGS ARE DIAGRAMMATIC ONLY AND SHOW OBSERVATIONS FROM CASUAL FIELD INVESTIGATIONS AND EXISTING CONDITIONS, DIMENSIONS AND MOUNTING LOCATIONS. NOTIFY ENGINEER IF ANY DISCREPANCIES ARE FOUND THAT AFFECT THE WORK TO BE PERFORMED, PRIOR TO PROCEEDING.
- 18. ELECTRICAL JOINTS WILL BE PERMITTED ONLY IN JUNCTION AND OUTLET BOXES. ALL JOINTS SHALL BE FIRMLY BONDED TOGETHER AND TAPED OR SHALL BE MADE WITH MECHANICAL CONNECTORS.
- 19. WITHIN THIRTY (30) DAYS AFTER THE ELECTRICAL CONTRACTOR HAS BEEN NOTIFIED TO PROCEED WITH THE WORK, HE SHALL SUBMIT TO THE ENGINEER EIGHT (8) PRINTED AND BOUND COPIES -OR- ONE (1) ELECTRONIC COPY IN PDF FORMAT OF EACH OF THE FOLLOWING DRAWINGS AND DATA SHEETS FOR REVIEW. ALL EQUIPMENT FOR WHICH SHOP DRAWINGS ARE BEING SUBMITTED SHALL NOT BE ORDERED UNTIL APPROVED DRAWINGS HAVE BEEN RETURNED. SUCH SUBMITTALS SHALL INCLUDE:
 - * ELECTRICAL DISTRIBUTION EQUIPMENT, INCLUDING CIRCUIT BREAKERS

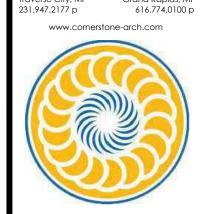
 * LIGHT FIXTURES, LIGHTING CONTROLS
 - * WIRING DEVICES, INCLUDING SWITCHES, RECEPTACLES, ETC.
- * FIRE ALARM EQUIPMENT AND DEVICES
- 18. ELECTRICAL MATERIALS SHALL BE NEW, AND BEAR THE "UL" LABEL OR LISTING.
- 19. BRANCH CIRCUIT WIRE FOR LIGHTING, RECEPTACLE AND SMALL POWER SHALL BE COPPER, RATED 75 DEGREES C, MINIMUM SIZE #12 AWG,
- (a) TYPE "MC", "AC" CABLE (5 FT. MAXIMUM UNLESS OTHERWISE NOTED APPROVED BY ARCHITECT/ENGINEER/OWNER), OR (b) TYPE "THWN" OR "THHN" WIRING IN CONDUIT, MINIMUM SIZE 1/2" UON OR REQUIRED BY CODE.
- 20. ALL NEW BRANCH WIRING SHALL BE COLOR CODED BY THE FOLLOWING VOLTAGE SYSTMES AND LABELED AT THEIR SOURCE PER 2017 NEC SECTION #210.5:
 - 120/208V-3Ø-4W SYSTEM:
 277/480V-3Ø-4W SYSTEM

 ØA BLACK
 ØA BROWN

 ØB RED
 ØB ORANGE

 ØC BLUE
 ØC YELLOW
 - NEUTRAL WHITE NEUTRAL GRAY
 E.G.C. GREEN E.G.C. GREEN WITH YELLOW STRIPE
- L.G.C. GILLIN WITH TELLOW STRIFE
- 21. ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE DELIVERED TO PROJECT IN UNBROKEN AND UNDAMAGED CARTONS AND REELS.
- 22. FUSES SHALL BE "UL" LISTED, DUAL-ELEMENT AS MANUFACTURED BY BUSSMAN CO., OR APPROVED EQUAL (200,000 AIC).
- 23. SWITCHES SHALL BE RATED 20A, 120/277V, COMMERCIAL SPECIFICATION GRADE, SINGLE, DOUBLE-POLE, THREE-WAY, ETC. AS INDICATED, AND EQUAL TO HUBBELL, GE, LEVITON, COOPER, ARROW-HART OR P&S.
- 24. RECEPTACLES SHALL BE RATED 20A, 125AMP, COMMERCIAL GRADE GROUNDED TYPE (NEMA 5-20R), EQUAL TO HUBBELL, GE, LEVITON, COOPER, ARROW-HART OR P&S. ALL RECEPTACLES ARE TO BE INSTALLED WITH THE GROUND PRONG UP (AT THE TOP).
- 25. PLATES FOR SWITCHES AND RECEPTACLES SHALL BE NYLON./THERMOPLASTIC COLOR SHALL MATCH THE DEVICE. COORDINATE DEVICE COLOR WITH OWNER/ARCHITECT.
- 26. PROJECT HAS BEEN DESIGNED TO COMPLY WITH AUTOMATIC LIGHTING SHUTOFF REQUIREMENTS OF THE CURRENTLY ADOPTED MI ENERGY CODE (REFERENCING ASHRAE 90.1-2013). ASHRAE LIGHTING COMPLIANCE DOCUMENTATION CAN BE PROVIDED BY THE ENGINEER UPON REQUEST.
- 27. PROVIDE LIGHTING CONTROLS PROGRAMMING, INSTALLATION, AND TRAINING AS REQUIRED TO SATISFY THE OWNER.
- 28. DISCONNECT SWITCHES SHALL BE RATED 250V, OR 600V, FUSED OR NON-FUSED AS NOTED, HEAVY-DUTY, NEMA-1, FOR INDOOR USE, AND NEMA-3R FOR OUTDOOR USE BY SQUARE D OR SIMILAR.
- 29. SINGLE PHASE MOTOR STARTERS SHALL HAVE MANUAL TOGGLE SWITCH WITH THERMAL OVERLOADS AND PILOT LIGHT, SURFACE OR FLUSH MOUNTED AS NOTED BY SQUARE D CLASS 2510 OR SIMILAR.
- 30. FIRE ALARM SYSTEM MODIFICATIONS SHALL CONSIST OF ALL LABOR, EQUIPMENT, MATERIALS AND SERVICES TO DEMOLISH, FURNISH, AND INSTALL ANY AND ALL ADDITIONAL FIRE ALARM INITIATING AND/OR NOTIFICATIONS DEVICES FOR THE BUILDING MODIFICATIONS TO PROVIDE A COMPLETE, OPERATIONAL, AND CODE COMPLIANT SYSTEM. THERE IS AN EXISTING EDWARDS FIRE ALARM CONTROL PANEL THAT IS OBSOLETE AND REMOVED. A NEW FIRE ALARM CONTROL PANEL EQUAL TO EDWARDS #FX-10RD SHALL BE INSTALLED IN ITS PLACE COMPLETE WITH ALL NECESSARY HARDWARE, SOFTWARE, MEMORY AND MONITORING EQUIPMENT. THE SYSTEM SHALL BE INSTALLED AND SATISFY ALL APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO NFPA 72 AND 101, NEC, AND ALL LOCAL CODES. THE BASIS OF DESIGN FOR THE MATERIALS USED FOR THIS SYSTEM ARE THOSE OF EDWARDS AND CONSTITUTE THE TYPE AND QUALITY OF EQUIPMENT TO BE FURNISHED. THE SYSTEM SHALL BE INSTALLED AND FULLY TESTED UNDER THE SUPERVISION OF A TRAINED MANUFACTURER'S REPRESENTATIVE. THE SYSTEM SHALL BE INSTALLING COMPANY SHALL PREPARE AND SUBMIT APPROPRIATE PLANS AND DOCUMENTATION FOR PLAN REVIEW(S) TO THE AUTHORITY(IES) HAVING JURISDICTION. ALL ASSOCIATED PLAN REVIEW FEES SHALL BE INCLUDED.
- 31. FIRE CAULKING REQUIRED WHERE ANY PENETRATIONS ARE MADE THROUGH FIRE RATED WALLS, BY. E.C.
- 32. PROVIDE AN UPDATED, ACCURATE AND TYPED PANEL SCHEDULE FOR ALL NEW ELECTRICAL PANELS THAT ARE AFFECTED BY THE WORK IN THIS PROJECT. DOCUMENT ALL EXISTING LOADS AND WIRING NOTIFY THE ARCHITECT/ENGINEER IF EXISTING CONDITIONS ARE FOUND THAT VIOLATE INSTALLATION OR SAFETY CODES.
- 33. ALL NEW EQUIPMENT (DISCONNECTS, VARIABLE FREQUENCY DRIVES (VFD), ETC.) IDENTIFICATION SHALL BE IDENTIFIED AND LABELED WITH LAMACOID LABELS.
- 34. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A BOX AND RACEWAY SYSTEM FOR THE LOW-VOLTAGE CABLING SYSTEMS (TELEPHONE, DATA, TELEVISION, SOUND, ETC.) THAT ARE BEING PROVIDED BY THE OWNER. THESE DRAWINGS ARE DIAGRAMMATICAL AND THE LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED WITH THE OWNER/OWNER'S CONTRACTORS IN THE FIELD. PROVIDE AND INSTALL RACEWAY SLEEVES THRU FLOORS, FIRE WALLS, AND NON-ACCESSIBLE CEILINGS AS REQUIRED.
- 35. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING, TERMINATING, AND TESTING ALL NEW LOW VOLTAGE CAT6E CABLING WILL BE PROVIDED BY THE OWNER. THE CABLES SHALL BE TERMINATED AT THE OUTLET AND BACK AT THE PATCH PANEL, WHICH IS LOCATED IN THE IT RACK #A106. ALL CABLES SHALL BE APPROPRIATELY IDENTIFIED WITH TYPEWRITTEN LABELS BY MEANS OF WRAP AROUND "BRADY" TYPE LABELS AT BOTH ENDS. EACH CABLE SHALL BE TESTED END-TO-END (FROM JACK FACEPLATE TO ASSOCIATED PATCH PANEL) FOR LENGTH, CONTINUITY, NEXT (NEAR END CROSSTALK), IMPEDANCE, RESISTANCE AND ATTENUATION. UPON COMPLETION, THE TEST RESULTS SHALL BE PROVIDED TO THE OWNER FOR APPROVAL.

CORNERSTONE



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ELECTRICAL SPECIFICATIONS & DETAILS

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