TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

ISSUED - 04.15.2024

SCOPE OF WORK - TENANT IMPROVMENT

NO CHANGES PROPOSED FOR BUILDING TYPE OR OCCUPANCY GROUP

1. NEW
   - SALES AREA FIXTURES
   - FINISHES IN SALES AREA AND BACK OF HOUSE
   - WATER CLOSET FIXTURE REPLACMENT AND SINK FAUCET
   - LIGHTING, EM LIGHTING AND EXIT SIGNS IN SALES AREA AND BOH.
   - TOILET ROOM WALL SCONCE

2. EXISTING TO REMAIN
   - STOREFRONT
   - STOREFRONT DOOR(S)
   - INTERIOR PARTITIONS AND DOORS
   - EXTERIOR SERVICE DOOR(S)
   - LIGHTING, EM LIGHTING, AND EXIT SIGNS IN INVENTORY/TELCO
   - INTERIOR PARTITIONS AND DOORS
   - TOILET ROOM SINK(S)
   - MECHANICAL SYSTEM
   - ELECTICAL DATA RACK
   - FIRE SAFETY EQUIPMENT
   - DRINKING FOUNTAIN
   - UTILITY SINK
   - MOP SINK
   - WATER HEATER

T-Mobile
12920 SE 38th STREET
BELLEVUE, WA 98006
www.T-Mobile.com

ARCHITECT:

FUZION

9096 EAST BAHIA DRIVE
SUITE 103
SCOTTSDALE, AZ 85260

DESIGN@FUZIONVE.COM
WWW.FUZIONVE.COM

VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:

193

CORPORATE NEW CD

RMC

SHEET TITLE:

COVER SHEET

SHEET NUMBER:

G000

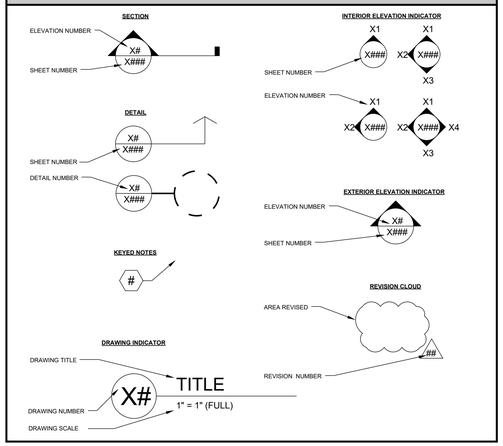
GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH ALL CODES HAVING JURISDICTION.
2. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE BUILDING MANAGEMENT'S RULES AND REGULATIONS.
3. MODIFICATIONS TO THE BASE BUILDING STRUCTURE, CORE AREAS, AND UTILITY SYSTEMS ARE NOT IN THIS CONTRACT, EXCEPT AS NOTED ON THESE DRAWINGS OR AS REQUIRED TO COMPLETE THE WORK INDICATED ON THESE DRAWINGS.
4. THE G.C. SHALL MAKE ALL ARRANGEMENTS AND PAY FOR ALL FEES AND PERMITS REQUIRED, AS WELL AS ANY ADDITIONAL CHARGES FOR HAULING, RIGGING, AND TRANSPORTATION CHARGES.
5. THE CONTRACT DOCUMENTS CONSIST OF THE AGREEMENT BETWEEN T-MOBILE AND G.C. (HEREINAFTER REFERRED TO AS THE AGREEMENT) WITH CONDITIONS OF THE CONTRACT (GENERAL, SUPPLEMENTARY, AND OTHER CONDITIONS), DRAWINGS, SPECIFICATIONS, ADDENDA ISSUED PRIOR TO THE EXECUTION OF THE AGREEMENT, OTHER DOCUMENTS LISTED IN THE AGREEMENT, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE AGREEMENT.
6. THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTORS. PERFORMANCE BY THE G.C. SHALL BE REQUIRED ONLY TO EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.
7. THE CONTRACT DOCUMENTS SHALL NOT BE CONSTRUED TO CREATE A CONTRACTUAL RELATIONSHIP OF ANY KIND (1 BETWEEN THE ARCHITECT AND G.C., (2) BETWEEN T-MOBILE AND A SUBCONTRACTOR OR SUB-SUBCONTRACTOR, OR (3) BETWEEN ANY PERSONS OR ENTITIES OTHER THAN T-MOBILE AND G.C.
8. EXECUTION OF THE CONTRACT BY G.C. IS A REPRESENTATION THAT THE G.C. HAS VISITED THE SITE AND HAS BECOME FAMILIAR WITH THE LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING WORK AND SHALL NOTIFY ARCHITECT AND/OR ENGINEER IF A CONDITION EXISTS WHICH PREVENTS THE CONTRACTOR FROM ACCOMPLISHING THE INTENT OF DRAWINGS.
9. THE TERM "WORK" MEANS THE CONSTRUCTION AND SERVICES REQUIRED BY THE CONTRACT DOCUMENTS, WHETHER COMPLETED OR PARTIALLY COMPLETED, INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES PROVIDED (OR TO BE PROVIDED) BY THE G.C. TO FULFILL THE G.C.'S OBLIGATIONS. THE WORK MAY CONSTITUTE THE WHOLE OR PART OF THE PROJECT.
10. G.C. SHALL NOT CUT OR DISTURB EXISTING STRUCTURAL SYSTEM. THE G.C. SHALL X-RAY/PACHOMETER SLAB TO DETERMINE IF POST TENSIONED SLAB OR IF DESIGN IS IN CONFLICT WITH EXISTING STRUCTURAL SYSTEMS WHEN THE FOLLOWING OCCURS:
    - 10.1. TENANT SPACE IS LOCATED ON SECOND FLOOR OR ABOVE
    - 10.2. LOWER LEVEL EXTENDS BELOW THE TENANT SPACE
    - 10.3. ABSENCE OF STRUCTURAL DRAWINGS FROM ARCHITECTS AND/OR LANDLORD
    - 10.4. ABSENCE OF STRUCTURAL DRAWINGS INCLUDED WITH CONTRACT DOCUMENTS
11. G.C. SHALL ONLY INCLUDE AN ALLOWANCE IN HIS BID FOR THE X-RAY/PACHOMETER WHEN ANY OR ALL OF THE ABOVE OCCUR, TYP.
12. PROVIDE CONTROL KEY AND MASTER KEY AS REQUIRED BY CONTRACT. PERFORM ALL REQUIRED CLEANINGS AS PER CONTRACT INCLUDING, BUT NOT LIMITED TO, ALL STOREFRONT WINDOWS, MULLIONS, CEILINGS, SUPPLY/RETURN AIR GRILLS, FLOORING AND FLOOR WAX, TOILET ROOMS, TOILET ROOM CAULKING, AND WALK-OFF MAT. REMOVE ALL TRASH AND DEBRIS FROM THE SITE.
13. ALL REFERENCES HEREAFTER TO CONSTRUCTION PM OR ARCHITECT REFER TO THE CONTACT LISTED IN PROJECT TEAM.
14. PROVIDE OCCUPANCY SIGNS CONFORMING TO APPLICABLE BUILDING CODE REQUIREMENTS.
15. PROVIDE ADDITIONAL EXIT SIGNS AND FIRE EXTINGUISHERS IN TYPE, NUMBER, AND LOCATION AS DIRECTED BY THE FIRE DEPARTMENT FIELD INSPECTOR.

ABBREVIATIONS

ACP.	ACOUSTICAL CEILING
ADJ.	ADJACENT
AL.,ALUM.	ALUMINUM
ALT.	ALTERNATE
A.P.	ACCESS PANEL
APPX.	APPROXIMATE
ARCH.	ARCHITECTURAL
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
CAB.	CABINET
CEM.	CEMENT
CKT.	CIRCUIT
CLG.	CEILING
CLR.	CLEAR
CMU.	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CPT.	CARPET
CTR.	CENTER
DET.	DETAIL
DIA.	DIAMETER
DIFF.	DIFFUSER
DIM.	DIMENSION
DWG(S).	DRAWING, DRAWINGS
EA.	EACH
E.I.F.S.	EXTERIOR INSULATION FINISH SYSTEM
ELEC.	ELECTRIC, ELECTRICAL
EM.	EMERGENCY
EQ.	EQUAL
EQUIP.	EQUIPMENT
EWC.	ELECTRIC WATER COOLER
EXH.	EXHAUST
EXIST.	EXISTING
EXTIR.	EXTINGUISHER
FIN.	FINISH
FIXT.	FIXTURE
FLR.	FLOOR
F.R.	FIRE RATED/RETARDANT
F.R.P.	FIBERGLASS REINFORCED POLYESTER PANEL
F.R.T.	FIRE RETARDANT TREATED
GA.	GAUGE
GALV.	GALVANIZED
GND,GRND	GROUND
GYP.	GYPSUM
HDW.	HARDWARE
H.M.	HOLLOW METAL
HR.	HOUR
HT.	HEIGHT
H.V.A.C.	HEATING, VENTILATING, AIR CONDITIONING
J.H.A.	JURISDICTION HAVING AUTHORITY
LAM.	LAMINATE
LAV.	LAVATORY
LL.	LANDLORD
LT.	LIGHT
L.V.T.	LUXURY VINYL TILE
MAX.	MAXIMUM
MECH.	MECHANICAL
MTL.	METAL
MGR.	MANAGER
MFR.	MANUFACTURER
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MTD.	MOUNTED
MTG.	MOUNTING
N.I.C.	NOT IN CONTRACT
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPP.	OPPOSITE
PLYWD.	PLYWOOD
PNL.	PANEL
PROP.	PROPERTY
P.T.	PRESSURE TREATED
PWR.	POWER
QTY.	QUANTITY
R.	RADIUS
REQ.	REQUIRED
R.O.	ROUGH OPENING
S.C.	SOLID CORE
SCHED.	SCHEDULE
SECT.	SECTION
SQ.FT.	SQUARE FEET
SIM.	SIMILAR
SPEC.	SPECIFICATION
SQ.	SQUARE
STD.	STANDARD
STL.	STEEL
STRUCT.	STRUCTURAL
SYM.	SYMMETRICAL
TEL.	TELEPHONE
TELCO.	TELE-COMMUNICATIONS
TMO.	T-MOBILE
TMP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VCT.	VINYL COMPOSITION
W/	WITH
WD.	WOOD
W/O	WITHOUT
WP.	WATERPROOF
W.R.	WATER RESISTANT
WT.	WEIGHT

SHEET SYMBOLS



RESPONSIBILITY SCHEDULE

ITEM	FURNISHED BY	INSTALLED BY
GENERAL		
OBTAIN ALL APPLICABLE PERMITS AND CERTIFICATE OF OCCUPANCY	TM GC	TM GC
UTILITY FEES (IF NEW CONSTRUCTION)	N/A	N/A
UTILITY SERVICE(S) AND METER(S)	EXISTING	EXISTING
ALL HAZARDOUS MATERIALS REPORTS (IF REQUIRED)	TM GC	TM GC
CORE, SHELL, AND SITE WORK		
EXTERIOR SIGNAGE BLOCKING	N/A	N/A
DEMOLITION – SITE/BUILDING	N/A	N/A
STRUCTURE AND ROOF	EXISTING	EXISTING
ROOF PENETRATIONS & REPAIRS, RARE, ONLY IF REQ'D for NEW PLUMBING VENTS	TM GC	TM GC
EXTERIOR WALLS/REPAIRS	N/A	N/A
EXIT DOOR NEW OR REPAIR AS NOTED PER PLANS	TM GC	TM GC
TRIDENT EXIT DOOR LOCK	TM DIRECT	TM DIRECT
TELEPHONE SERVICE ESTABLISHED BETWEEN THE STREET & DEMARC	EXISTING	EXISTING
PLUMBING MAIN SERVICE	EXISTING	EXISTING
SPRINKLER MAINS	EXISTING	EXISTING
FIRE ALARM PANEL	EXISTING	EXISTING
CONCRETE SLAB	EXISTING	EXISTING
EXTERIOR STOREFRONT SYSTEM AND GLAZING	EXISTING	EXISTING
OPAQUE WINDOW FILM - Installed on Glass Covered By Framing as Required	TM GC	TM GC
DEMISING WALL STUDS	EXISTING	EXISTING
DEMISING WALL SECURITY MESH	TM GC	TM GC
DEMISING WALL / GYP/ INSULATION/FIRE CAULKING	EXISTING	EXISTING
DEMISING WALL / PATCH & REPAIR AS REQUIRED	TM GC	TM GC
SITE ACCESSIBILITY & SIDEWALKS	EXISTING	EXISTING
PARKING LOT PAVING AND STRIPING	EXISTING	EXISTING
INTERIOR MALLS, AS REQUIRED		
BARRICADES	TM GC	TM GC
BARRICADE GRAPHICS	TM DIRECT	TM DIRECT
MALL TILE AROUND STOREFRONT	TM GC	TM GC
NEUTRAL PIERS, NEW or REPAIR EXISTING PER PLAN	TM GC	TM GC
REVEALS	TM GC	TM GC
MALL STOREFRONT SYSTEMS, INCLUDES GLAZING & FINISHES	TM GC	TM GC
INTERIOR TENANT BUILD-OUT		
DEMOLITION – INTERIOR	TM GC	TM GC
WALL PARTITION, SALES AREA TO BOH WITH DOOR & HDW	TM GC	TM GC
TRILOGY LOCK ON BOH PARTITION	TM DIRECT	TM DIRECT
INVENTORY ROOM WALLS/CEILINGS, INCLUDES: MESH, CEMENT BOARD, AND DOOR/HDW	TM GC	TM GC
POLICE LOCK & LEVER SET ON INVENTORY ROOM DOOR	TM DIRECT	TM DIRECT
TRAINING ROOM, OFFICE, CONFERENCE ROOM, As Required	TM GC	TM GC
ALL ADDITIONAL WALL PARTITIONS & FURRING	TM GC	TM GC
MISC. WOOD BLOCKING ,FIXTURE BACKING & UNISTRUT FOR BAFFELS	TM GC	TM GC
GYPSUM BOARD CURTAINS WALLS, CEILINGS, SOFFITS, ACCESS PANELS	TM GC	TM GC
ACOUSTICAL CEILING TILE & GRID, NOTE: Black on Sales Floor, White in BOH	TM GC	TM GC
ELECTRICAL TRANSFORMERS (IF REQUIRED)	EXISTING	EXISTING
ELECTRICAL SYSTEM - MAIN PANEL, Revise/Preplace as Required	TM GC	TM GC
ELECTRICAL SYSTEM - SUB PANEL(S) As Required	TM GC	TM GC
LIGHTING SYSTEM - SALES AREA	TM DIRECT	TM GC
LIGHTING SYSTEM - BACK OF HOUSE	TM DIRECT	TM GC
ELECTRICAL WIRING, OUTLETS	TM GC	TM GC
ELECTRICAL CONNECTIONS TO T-MOBILE SUPPLIED FIXTURES	TM GC	TM GC
LIGHTING INVERTER, LCP, TVSS, SWITCHES, SENSORS, DIMMERS	TM DIRECT	TM GC
ENERGY MANAGEMENT SYSTEM AND SENSORS (IF REQUIRED)	TM GC	TM GC
LOW VOLTAGE CONDUIT	TM GC	TM GC
LOW VOLTAGE WIRING	TM DIRECT	TM DIRECT
TELCO BACKER BOARD, Add new only if Req'd Per Plans	TM GC	TM GC
WINDOW SECURITY: FILM, GRILLS, DEFENSE LITE, or RIOT GLASS	TM DIRECT	TM DIRECT
HVAC SYSTEM - DISTRIBUTION, T-STATS, Adjust As Required, Paint Sales Area Difusers Black	TM GC	TM GC
HVAC SYSTEM - UNIT/CURBS/DROPS	EXISTING	EXISTING
FIRE ALARM DEVICES/CONNECTION TO PANEL, Adjust to New Layout as Req'd	TM GC	TM GC
PLUMBING (BRANCH LINES NEW AND/OR MODIFICATIONS)	TM GC	TM GC
SPRINKLER BRANCH LINES AND HEADS, Adjust to New Layout as Req'd	TM GC	TM GC
HOT WATER HEATER	TM GC	TM GC
FLOOR PREPARATION & TRANSITIONS	TM GC	TM GC
FLOORING/WALK OFF MATS/CARPET TILE, SALES FLOOR	TM DIRECT	TM GC
WOOD BASE ON SALES FLOOR	TM DIRECT	TM GC
FLOORING-RUBBER WALL BASE, BACK OF HOUSE	TM GC	TM GC
PAINTING	TM GC	TM GC
FIRE EXTINGUISHER(S)	TM GC	TM GC
CODE REQUIRED INTERIOR SIGNAGE & BOH CORNER GUARDS	TM GC	TM GC
BACK OF HOUSE ITEMS		
KITCHENETTE CASEWORK	TM GC	TM GC
KITCHENETTE SINK AND FAUCET	TM GC	TM GC
WALL SHELVING OVER KITCHENETTE, DESK, & UTILTY SINK	TM GC	TM GC
MOP/UTILITY SINK, New if Required	TM GC	TM GC
INVENTORY ROOM WIRE SHELVING UNITS & PEGBOARD	TM GC	TM GC
INSTA-KEY LOCK CORES, KEYS	TM DIRECT	TM DIRECT
TOILET ROOM-DRINKING FOUNTAINS		
TOILETS, URINALS, LAVATORIES, & FLOOR DRAINS	TM GC	TM GC
HIGH LOW DRINKING FOUNTAINS	TM GC	TM GC
WALL PARTITIONS, CEILINGS, PAINT, FRP	TM GC	TM GC
FLOORING: TM Direct Purchase of LVT, Rubber Base Supplied & Installed by GC	TM DIRECT	TM GC
AUTOMATIC HAND DRYER, FAN, LIGHTS & OCC SENSOR	TM DIRECT	TM GC
COAT HOOK/GRAB BARS/MIRROR/TP DISPENSERS/LOCKING CABINET	TM GC	TM GC
WASTE RECEPTACLE, TOILET SEAT COVER DISP (OFFICE DEPOT)	TM DIRECT	TM GC
OWNER SUPPLIED		
SIGNAGE: BUILDING, MOUNUMENT, PYLON, WINDOW GRAPHICS, ETC.	N/A	N/A
LOSS PREVENTION SYSTEM (BURGLAR)	TM DIRECT	TM DIRECT
SHOPPER TRAK & MUSIC SYSTEM	TM DIRECT	TM DIRECT
FIXTURES, CEILING BAFFLES, MERCHANDISING HARDWARE, TABLES, CHAIRS & STOOLS	TM DIRECT	TM DIRECT
HAND SET SECURITY-IN-VUE	TM DIRECT	TM DIRECT
OFFICE DEPOT: DESK, CHAIRS, TABLES, FILE CABS, WHITE BOARD, APPLIANCES	TM DIRECT	TM DIRECT
LOW VOLTAGE WIRING	TM DIRECT	TM DIRECT
NETWORK & COMPUTER INSTALLATION	TM DIRECT	TM DIRECT
MGR OFFICE/TRAINING ROOM FURNITURE & EQUIPMENT, As Req'd	TM DIRECT	TM DIRECT

CODE ANALYSIS

PROJECT DESCRIPTION

TENANT IMPROVEMENT

MOBILE PHONE & SERVICE SALES (RETAIL)

REFER TO EGRESS PLAN ON G101

PROJECT LOCATION

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

GOVERNING CODES

ALL WORK SHALL BE IN CONFORMANCE WITH, BUT NOT LIMITED TO, ANY STATE AND LOCAL CODES HAVING JURISDICTION AS WELL AS THE REQUIREMENTS OF THE FOLLOWING:

BUILDING	2021	INTERNATIONAL BUILDING CODE
MECHANICAL	2021	INTERNATIONAL MECHANICAL CODE
PLUMBING		ILLINOIS STATE PLUMBING CODE
ELECTRICAL	2020	NATIONAL ELECTRIC CODE
ENERGY	2021	INTERNATIONAL ENERGY CONSERVATIONS CODE
ACCESSIBILITY	2003	ICC/ANSI A117.1
	2010	ADA STANDARDS
FIRE	2021	INTERNATIONAL FIRE CODE

PROJECT INFORMATION

CONSTRUCTION TYPE	II-B
FULLY SPRINKLERED	YES
OCCUPANCY GROUP	M - MERCANTILE
GROSS LEASED PREMISES	2130 SQ. FT

OCCUPANT LOAD

ROOM NAME	SQ. FT.		LOAD FACTOR		OCCUPANT LOAD
SALES AREA	1336	÷	60		23
BACK OF HOUSE	429	÷	150		3
INVENTORY/TELCO	150	÷	300		2
TOILET ROOM	110	÷	150		1
ACCESSORY	105				0
TOTAL NUMBER OF OCCUPANTS					29

EXIT REQUIREMENTS

TWO EXITS REQUIRED WHEN OCCUPANT LOAD IS GREATER THAN 49 OR COMMON PATH OF TRAVEL EXCEEDS 75FT

	REQUIRED		PROVIDED
TOTAL NUMBER OF EXITS	1		2

MAXIMUM TRAVEL DISTANCE:	62' - 6"	<	200'

FOR EXIT PATH OF TRAVEL SEE EGRESS PLAN ON SHEET G101

PLUMBING FIXTURE REQUIREMENTS

MIN. # OF FIXTURES	29	÷ 2 =	15M		15 W

FIXTURE	LOAD FACTOR		REQUIRED		PROVIDED
WATER CLOSET	15 M	15 W	1		2
LAVATORY	15 M	15 W	1		2
SEPARATE FACILITIES	-	-	NO		NO
DRINKING FOUNTAIN	1000		1		1
SERVICE SINK	-		1		1

SEPARATE FACILITIES SHALL NOT BE REQUIRED IN MERCANTILE OCCUPANCIES IN WHICH THE MAXIMUM OCCUPANT LOAD IS 50 OR LESS

EXIT ILLUMINATION

EMERGENCY EXIT ILLUMINATION SHALL BE PROVIDED AS SHOWN ON SHEET E111.

MUNICIPAL REVIEW

NILES
BUILDING DIVISION
1000 CIVIC CENTER DRIVE
NILES, IL 60714
(847) 588-8000

WORK BY OTHERS UNDER SEPARATE PERMIT

FIRE SPRINKLER DRAWINGS

FIRE ALARM

IF BUILDING IS SPRINKLERED, G.C. IS TO PROVIDE SPRINKLER DESIGN/ BUILD DRAWINGS BY A CERTIFIED SPRINKLER INSTALLER AND OBTAIN PERMIT.

PROVIDE CONCEALED SPRINKLER HEADS, FINISH TO MATCH CEILING COLOR, PROVIDE PENDANT TYPE FOR OPEN CEILINGS.

ALL REQUIRED PERMITS AND APPROVALS MUST BE OBTAINED FROM THE FIRE DEPARTMENT BEFORE SPACE IS OCCUPIED.

DRAWING INDEX

PROJECT TEAM

CLIENT
T-MOBILE
12920 SE 38TH STREET
BELLEVUE, WA 98006
www.t-mobile.com

ARCHITECTURE
FUZION ARCHITECTURAL DESIGN
9096 EAST BAHIA DRIVE
SUITE 103
SCOTTSDALE, AZ 85260
WILLIAM PALUCH
(808) 797-4068
design@fuzionad.com
www.fuzionve.com

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ARCHITECT:

FUZION

9096 EAST BAHIA DRIVE
SUITE 103
SCOTTSDALE, AZ 85260

DESIGN@FUZIONVE.COM
WWW.FUZIONVE.COM

VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:

193

CORPORATE NEW CD

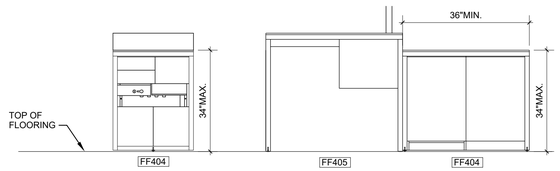
RMC

SHEET TITLE:

ARCHITECTURAL DATA SHEET

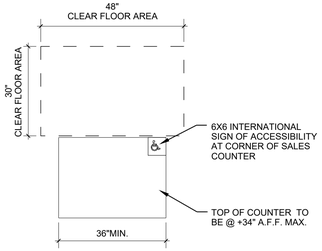
SHEET NUMBER:

G001



A SIDE ELEVATION

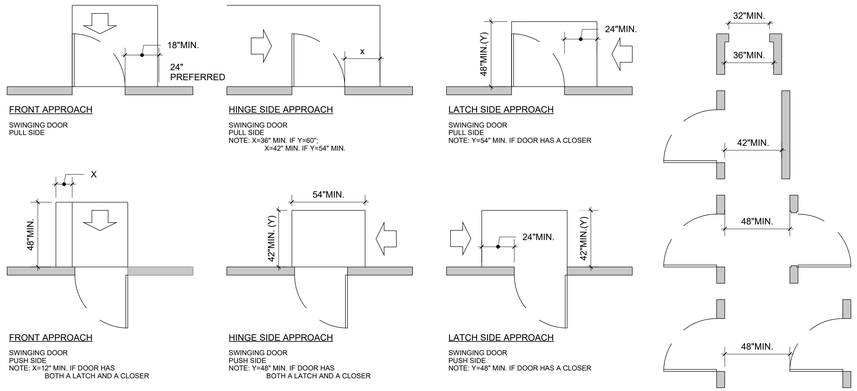
B FRONT ELEVATION



C ADA COUNTER PLAN

C4 ADA SERVICE COUNTER ELEVATIONS

1/2"=1'-0"

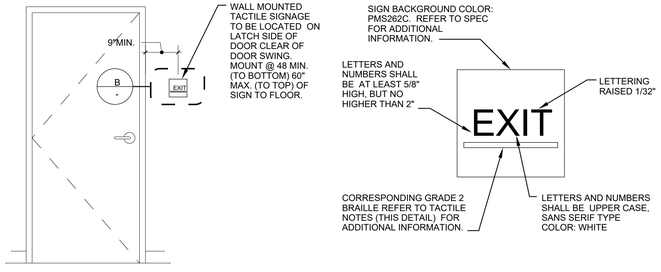


C2 MANEUVERING CLEARANCES AT DOORS

N.T.S.

NOTE:
1. TACTILE SIGNAGE SHALL BE ALLOWED ON THE PUSH SIDE OF A DOOR WHEN THE FOLLOWING CONDITIONS EXIST: DOOR HAS A CLOSER, DOOR DOES NOT HAVE A HOLD OPEN DEVICE THAT PREVENTS IT FROM CLOSING.

2. REFER TO ACCESSIBLE SIGNAGE TABLE ON SHEET A401



A TACTILE EXIT SIGNAGE (PLASTIC SIGN)

B EXIT SIGN DETAIL

TACTILE EXIT SIGNAGE REQUIREMENTS

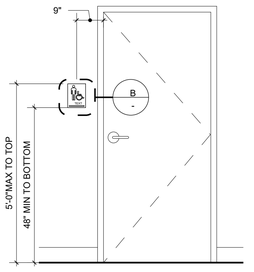
1. EACH GRADE-LEVEL EXTERIOR DOOR SHALL BE IDENTIFIED BY A TACTILE SIGN WITH THE WORD "EXIT".
2. EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF AN EXIT ENCLOSURE OR AN EXIT PASSAGEWAY IS IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS, "EXIT ROUTE".
3. EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE- LEVEL EXTERIOR EXIT BY MEANS OF A STAIRWAY OR RAMP IS IDENTIFIED BY A TACTILE EXIT SIGN THAT STATES "EXIT STAIR DOWN", "EXIT RAMP DOWN", "EXIT STAIR UP" OR "EXIT RAMP UP", AS APPROPRIATE.
4. EACH EXIT ACCESS DOOR FROM AN INTERIOR ROOM OR AREA TO A CORRIDOR OR HALLWAY THAT IS REQUIRED TO HAVE A VISUAL EXIT SIGN IS IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS, "EXIT ROUTE".
5. EACH EXIT DOOR THROUGH A HORIZONTAL EXIT SHALL BE IDENTIFIED BY A SIGN WITH THE WORDS, "TO EXIT".
6. LETTERS ON SIGNS ARE RAISED 1/32", SANS SERIF UPPERCASE CHARACTERS AND ARE ACCOMPANIED BY GRADE 2 BRAILLE.
7. RAISED CHARACTERS ARE BETWEEN 5/8" AND 2" HIGH.
8. BRAILLE DOTS ARE 1/10" ON CENTER IN EACH CELL WITH 2/10" SPACE BETWEEN CELLS, MEASURED FROM THE SECOND COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. [NOTE: CA AND OTHER JURISDICTIONS ONLY]
9. BRAILLE DOTS ARE RAISED A MINIMUM OF 1/40" ABOVE THE BACKGROUND.
10. CHARACTERS AND BACKGROUND OF SIGNS IS EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH.
11. CHARACTERS CONTRAST WITH THEIR BACKGROUND (LIGHT CHARACTERS ON A DARK BACKGROUND, OR DARK CHARACTERS ON A LIGHT BACKGROUND.)
12. LETTERS ON SIGNS HAVE A WIDTH-TO-HEIGHT RATIO BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT BETWEEN 1:5 AND 1:10.
13. SIGNS ARE TO BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. (AT DOUBLE LEAF DOORS AND WHEN THERE IS NO WALL SPACE AT THE LATCH SIDE, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT.)
14. MOUNTING HEIGHT IS 60" MAX. FROM THE FINISHED FLOOR TO THE TOP OF THE SIGN.
15. MOUNTING LOCATION ALLOWS A PERSON TO APPROACH WITHIN 3" OF THE SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.

B4 TACTILE EXIT SIGNAGE DETAILS

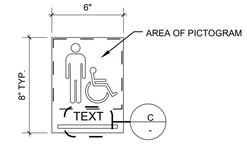
1/4"=1'-0"

NOTE:
1. ACCESSIBILITY SIGNAGE: PROVIDE ACRYLIC REVERSE SILK SCREENED SIGNS WITH INTERNATIONAL SYMBOL OF ACCESSIBILITY, RAISED LETTERS, AND BRAILLE, AT ACCESSIBLE TOILET FACILITIES; ONE FOR EACH SEX OR ONE UNISEX.

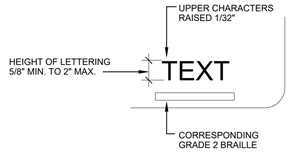
2. REFER TO ACCESSIBLE SIGNAGE TABLE ON SHEET A401



A ELEVATION VIEW



B RESTROOM PLAQUE

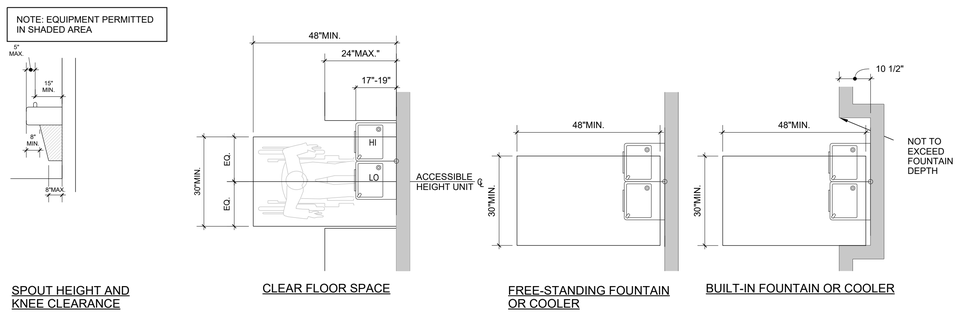


C SIGN VIEW

B2 ACCESSIBLE RESTROOM SIGNAGE

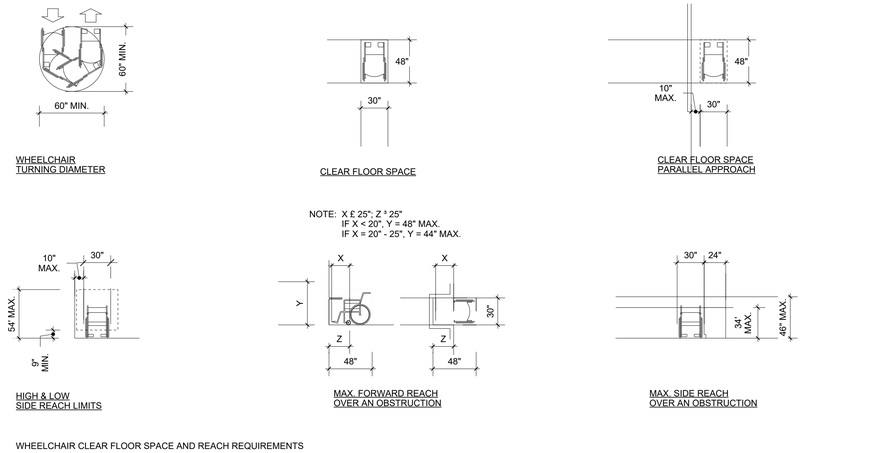
1/4"=1'-0"

NOTE: EQUIPMENT PERMITTED IN SHADED AREA



A4 DRINKING FOUNTAIN ADA CLEARANCES

N.T.S.



WHEELCHAIR CLEAR FLOOR SPACE AND REACH REQUIREMENTS

A2 ACCESSIBLE ROUTE

N.T.S.

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12920 SE 38th STREET
BELLEVUE, WA 98006
www.T-Mobile.com

ARCHITECT:
FUZION
9096 EAST BAHIA DRIVE
SUITE 103
SCOTTSDALE, AZ 85260
DESIGN@FUZIONVE.COM
WWW.FUZIONVE.COM

VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

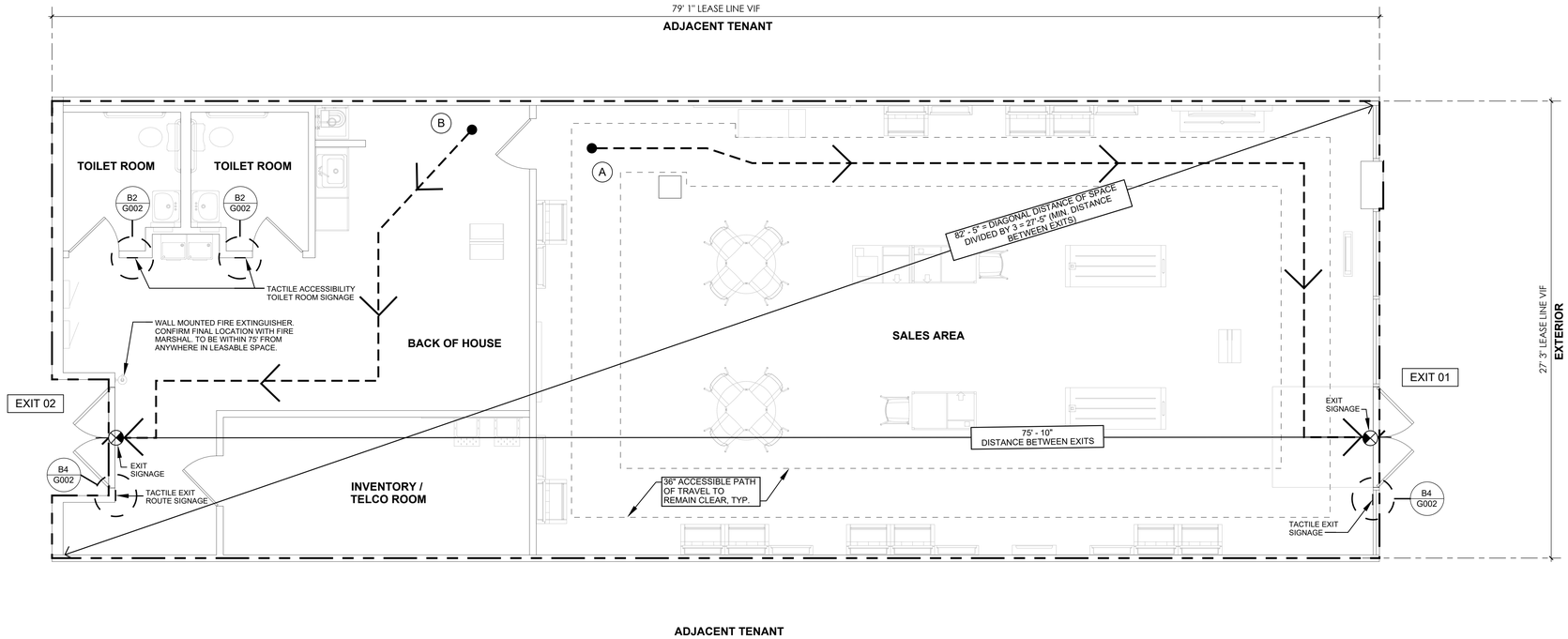
##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

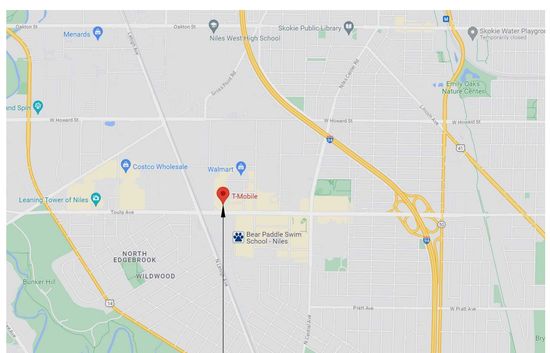
SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
ACCESSIBILITY DETAILS (ANSI)

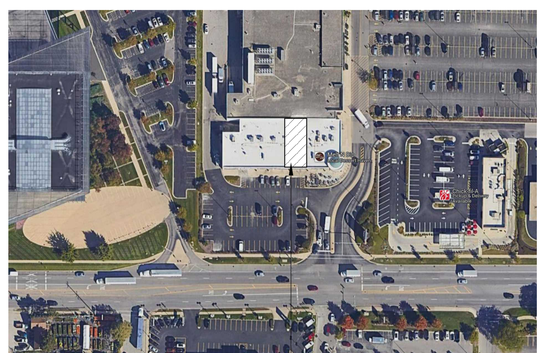
SHEET NUMBER:
G002



B4 LIFE SAFETY PLAN
1/4" = 1'-0"



A4 VICINITY MAP
NILES, IL



A3 KEY PLAN
LEVEL 1 OF 1

ACCESSIBLE ROUTE OF TRAVEL SUMMARY

PATH START POINT	PATH END POINT	DESCRIPTION	TRAVEL DISTANCE (X < 75'-0")	TRAVEL DISTANCE (X < 200'-0")
A	EXIT 01	EXIT ACCESS TRAVEL DISTANCE	NA	62' - 6"
B	EXIT 02	EXIT ACCESS TRAVEL DISTANCE	NA	36' - 3"
ACCESSIBLE ROUTE OF TRAVEL MAXIMUM TRAVEL DISTANCE				**62' - 6"**

LEGEND

TRAVEL PATH

EXIT SIGNAGE

GENERAL NOTES

1. SEE SHEET G001 FOR CODE ANALYSIS.
2. SEE SHEET G002 FOR ACCESSIBILITY SIGNAGE.
3. ACCESSIBILITY ROUTE OF TRAVEL SLOPES NOT TO EXCEED RUNNING SLOPE OF 1:20 (5%) MAXIMUM AND CROSS SLOPE OF 1:50 (2%).
4. SITE ACCESSIBILITY PROVIDED BY LANDLORD.
5. PROVIDE WALL MOUNTED FIRE EXTINGUISHER(S) PER FIRE MARSHAL'S INSTRUCTION.

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VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

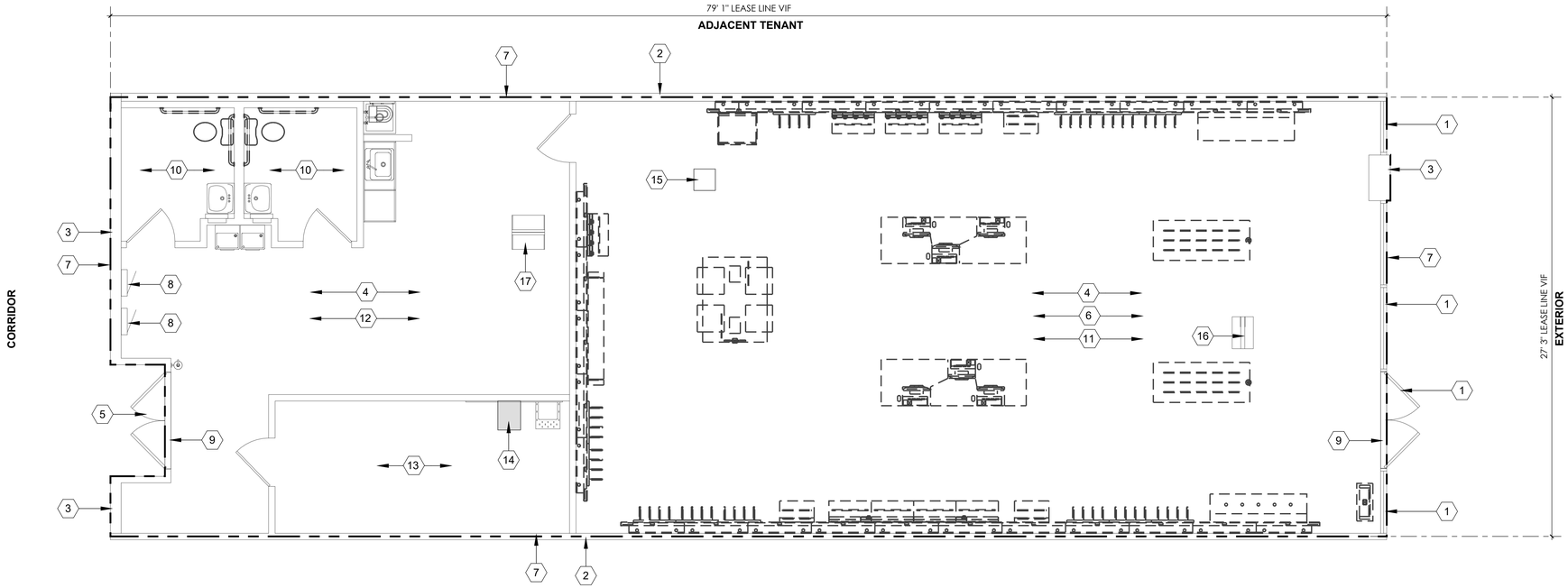
##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
KEY PLAN, VICINITY MAP AND EGRESS PLAN

SHEET NUMBER:
G101



B4 EXISTING CONDITIONS AND DEMOLITION PLAN

1/4" = 1'-0"

KEYED NOTES

##	NOTES
1	EXISTING STOREFRONT SYSTEM, GLAZING, AND DOOR(S) TO REMAIN.
2	EXISTING DEMISING WALL TO REMAIN. PATCH AND REPAIR AS REQUIRED.
3	EXISTING EXTERIOR WALL AND/OR CONSTRUCTION TO REMAIN. PATCH AND REPAIR AS REQUIRED.
4	EXISTING FLOOR FINISHES TO BE REMOVED DOWN TO SLAB. PREPARE EXISTING CONCRETE FLOOR SURFACE FOR INSTALLATION OF NEW FLOORING MATERIALS AS INDICATED IN THESE PLANS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5	EXISTING SERVICE DOOR TO REMAIN. SEE DOOR SCHEDULE FOR NEW HARDWARE.
6	EXISTING RETAIL DISPLAY FIXTURES, FURNITURE, SIGNAGE, AND ASSOCIATED EQUIPMENT TO BE REMOVED IN THEIR ENTIRETY UNLESS OTHERWISE NOTED. ANY T-MOBILE EQUPMENT DESIGNATED TO BE RETAINED FOR FUTURE USE IS TO BE DECOMMISHIONED BY OWNERS VENDOR AND STORED IN BACK OF HOUSE.
7	LEASE LINE
8	EXISTING ELECTRICAL PANEL(S) TO REMAIN. SEE ELECTRICAL DRAWINGS.
9	EXISTING THRESHOLD TO REMAIN. REPLACE IF IT EXCEEDS 1/2" IN HEIGHT.
10	EXISTING TOILET ROOM WALLS, DOOR, SINK, MIRROR, AND GYP CEILING TO REMAIN. EXISTING FLOOR AND WALL FINISHES TO BE REMOVED IN THEIR ENTIRETY. PREPARE FOR NEW FLOOR AND WALL FINISHES AS INDICATED IN THESE PLANS. EXISTING WALL MOUNTED PAPER TOWEL DISPENSER AND/OR HAND DRYER TO REMAIN. EXISTING LIGHTING, EM LIGHTING, AND EXHAUST FAN TO BE REMOVED IN THEIR ENTIRETY. PREPARE FOR INSTALLATION OF NEW COMBO FAN / LIGHT AND EMERGENCY LIGHTING AS INDICATED IN THESE PLANS. EXISTING TOILET AND SINK FAUCET TO BE REMOVED IN THEIR ENTIRETY. PREPARE TO INSTALL NEW TOILET AND SINK FAUCET PER T-MOBILE SPECIFICATIONS.
11	EXISTING CEILING SYSTEM TO REMAIN. GC TO REMOVE ALL CEILING TILES IN THEIR ENTIRETY. PROVIDE AND INSTALL NEW TILES AND PAINT ANY EXISTING GYP SOFFITS AS SPECIFIED ON SHEET A131. EXISTING LIGHTING, EMERGENCY LIGHTING, AND EXIT SIGNS TO BE REMOVED IN THEIR ENTIRETY. PREPARE FOR INSTALLATION OF NEW LIGHTING, EM LIGHTING, AND EXIT SIGNS AS SHOWN ON SHEET A131. EXISTING DIFUSERS TO REMAIN. RELOCATE AS REQ'D DUE TO NEW LIGHTING LAYOUT. PERFORM PRE-DEMO AND FINAL BALANCING TEST AND ADJUST ALL SYSTEM BALANCING DAMPERS AND/OR SUPPLY AIR FAN TO PROVIDE THE ORIGINAL AIR QUANTITIES AT EACH AIR DEVICE. IF AUXILLARY EQUIPMENT (TYCO, FIRE ALARM, SPRINKLERS, SHOPPER TRAK, ETC.) NEED TO BE REMOVED OR RELOCATED, COORDINATE WITH T-MOBILE'S VENDOR AND/OR APPROVED FIRE SPRINKLER SUB-CONTRACTOR. T-MOBILES VENDOR TO RELOCATE SECURITY CAMERAS AS NEEDED PER NEW FIXTURE LAYOUT.
12	EXISTING LIGHT FIXTURES, AND EM LIGHTING TO BE REMOVED IN THEIR ENTIRETY. PREPARE FOR INSTALLATION OF NEW SUSPENDED LIGHTING FIXTURES WALL MOUNTED EM LIGHTING AS INDICATED IN THESE PLANS.
13	EXISTING FLOOR, WALL, AND CEILING FINISHES TO REAMIN. LIGHT FIXTURES TO REMAIN.
14	EXISTING EQUIPMENT RACK TO REMAIN.
15	EXISTING STRUCTURAL COLUMN TO REMAIN. REMOVE ALL EXISTING FINISHES AND PREPARE FOR NEW FINISH AS INDICATED IN THESE PLANS.
16	EXISTING DISRUPTOR FIXTURE TO REMAIN.
17	EXISTING A-FRAME FIXTURE TO REMAIN

SCOPE SUMMARY

1. GENERAL CONTRACTOR AND/OR SUBCONTRACTORS SHALL REVIEW THE EXISTING FACILITY TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED TO INSTALL THE NEW WORK. A WRITTEN OUTLINE OF ALL REQUIRED DEMOLITION SHALL BE SUBMITTED TO T-MOBILE DESCRIBING THE FOLLOWING (BUT NOT LIMITED TO):

   1.1 CONDITION OF EXISTING POWER PANELS AND TRANSFORMERS; FEASIBILITY FOR RELOCATION AND REFURBISHING, OR NEED FOR REPLACEMENT DUE TO AGE OR EXISTING CONDITION.
   1.2 CONDITION OF EXISTING GYPSUM BOARD ON EXISTING DEMISING WALLS AND RECOMMENDATION OR WHETHER TO REMOVE EXISTING OR REUSE TO BE DETERMINED IN FIELD.
   1.3 SUMMARIZE RECOMMENDATIONS FOR REUSE OF EXISTING MATERIALS, EQUIPMENT, AND ACCESSORIES. ONCE REFURBISHED TO A LIKE-NEW CONDITION, ITEMIZE THE CREDIT TO THE CONTRACT.
   1.4 TENANT G.C. SHALL NOTIFY THE ARCHITECT OF ANY UN-NOTED EXISTING CONDITION WHICH CONFLICTS WITH THE PROJECT REQUIREMENTS AND MAY REQUIRE MODIFICATION, RELOCATION, OR REMOVAL TO COMPLETE THE PROJECT WITHIN 24 HOURS SO THAT THE NECESSARY DRAWING REVISIONS MAY BE INCORPORATED INTO THE PROJECT REQUIREMENTS.
   1.5 IN ADDITION TO THE ABOVE, REFER TO GENERAL DEMOLITION NOTES INDICATED IN SPECIFICATION DIVISION 2- EXISTING CONDITIONS.
   1.6 CONDITION OF EXISTING MECHANICAL SYSTEM; FEASIBILITY OF REUSING, RELOCATION, OR REFURBISHING EXISTING EQUIPMENT AND DUCTWORK; AND RECOMMENDATION OF REPLACEMENT, IF NECESSARY, PRIOR TO BID. SEE MECHANICAL DRAWINGS FOR SCOPE OF MECHANICAL WORK.

GENERAL NOTES

1. CHECK MECHANICAL AND ELECTRICAL DRAWINGS PRIOR TO DEMOLITION WITH REGARD TO UTILIZING ANY EXISTING WIRING, LINES, COMPONENTS, ETC.
2. PROVIDE TRASH CONTAINER AS REQUIRED AT LOCATION TO SUIT LANDLORD. REMOVE DEBRIS DAILY AND HAUL FROM THE SITE AT TIME TO SUIT LANDLORD.
3. NOTIFY ARCHITECTS IMMEDIATELY OF ANY DISCPRENANCIES OR UNFORESEEN ITEMS NOT SHOWN ON DRAWINGS.
4. ALL REMOVED MATERIAL AND DEBRIS, NOT OTHERWISE DESIGNATED, BECOMES THE PROPERTY OF THE CONTRACTOR, WHO SHALL REMOVE IT FROM THE SITE.
5. G.C. SHALL NOT DEMOLISH AND LOAD BEARING WALLS OR CONSTRUCTION THAT WILL COMPROMISE THE STRUCTURAL INTEGRITY OF THE EXISTING SPACE. G.C. TO NOTIFY THE ARCHITECT IMMEDIATELY OF ANY STRUCTURAL CONCERNS DURING CONSTRUCTION.
6. EXISTING EQUIPMENT NOT BEING USED MUST BE COMPLETELY REMOVED/DISPOSED OF PROPERLY. NOTHING CAN BE ABANDONED ABOVE THE CEILING.
7. REMOVE EXISTING ACCOUSTICAL CEILING GRID AND TILES, LIGHT FIXTURES, AND GYPSUM WALL BOARD SOFFITS AS SCHEDULED FOR DEMOLITION AND AS REQUIRED BY PARTITION DEMOLTION AND NEW CONSTRUCTION WORK. MAINTAIN EXISTING CEILING WIRE HANGERS FOR FUTURE USE.
8. REMOVE EXISTING ELECTRICAL DEVICES, OUTLETS, TELEPHONE AND DATA JACKS AND THERMOSTATS IN PARTITIONS SCHEDULED FOR DEMOLITION. MODIFY EXISTING WIRING AS REQUIRED BY NEW CONSTRUCTION OR, IF NOT REQUIRED, TERMINATE AND CAP OFF AT NEAREST PANEL OR SOURCE ABOVE CEILING.
9. REMOVE EXISTING FLOOR FINISHES SCHEDULED FOR REMOVAL AND AS REQUIRED BY PARTITION DEMOLITION AND NEW CONSTRUCTION. PREPARE EXISTING FLOOR SURFACE PER MANUFACTURER FOR INSTALLATION OF NEW FLOORING MATERIAL INDICATED IN THESE PLANS. G.C. MAY NEED TO PERFORM A MOISTURE TEST PRIOR TO ANY DEMOLITION OR NEW FLOORING INSTALLATION. NEWLY REPLACED OR LIKE-NEW FINISHES MAY REMAIN AT THE DISCRETION OF THE CONSTRUCTION PM. G.C. TO VERIFY PRIOR TO REMOVAL. PROTECT ALL NEW FLOOR FINISHES UNTIL FINAL CLEANING.
10. REMOVE ALL CONSTRUCTION DEBRIS FROM AREA. REPAIR ALL ADJACENT DAMAGED SURFACES, AS NECESSARY. PREPARE ALL DAMAGED SURFACES FOR FINISHES AS SCHEDULED OR REFINISH TO MATCH EXISTING.
11. PROVIDE A SMOOTH, NEAT, AND CONTIUOUS APPEARANCE WHERE DEMOLITION WORK MEETS ADJACENT EXISTING WORK. REMOVED EXISTING FINISHES AS REQUIRED TO PROVIDE NEAT, STRAIGHT SEAMS AND TRANSITIONS BETWEEN EXISTING AND MATCHING NEW FINISHES.
12. IN ACCORDANCE WITH LOCAL CODES, REPLACE ALL FIRE SUPPRESSION AND FIRE ALARM EQUIPMENT DISTURBED BY DEMOLITION WORK. MAINTAIN INTEGRITY OF FIRE SUPPRESSION AND FIRE ALARM SYSTEMS. VERIFY IN FIELD.
13. IN THE CASE THAT THE EXISTING CABLE LINE, PHONE LINE AND BLOCK, T-1 LINE AND DATA CABLING PRESENT, G.C. SHALL SALVAGE AND REWORK TO FACILITATE NEW INSTALLATION.
14. FIRE SPRINKLER SYSTEM TO REMAIN - G.C. TO RE-WORK/ MODIFY SYSTEM AS REQUIRED FOR NEWCONSTRUCTION. VERIFY IN FIELD.
15. WHERE REQUIRED BY THE LOCAL JURISDICTION, G.C. SHALL PREPARE A "RECYCLING PLAN" TO DIVERT DEBRIS FOR RECYCLING. G.C. SHALL KEEP RECORDS OF DIVERTED MATERIAL AS REQUIRED. G.C TO VERIFY REQUIREMENTS WITH JURISDICTION AND TO MALL OPERATIONS/ LANDLORD WHERE APLLICABLE.
16. REMOVE ALL EXISTING INTERIOR PARTITIONS, DOORS, AND DOOR FRAMES SCHEDULED FOR DEMOLITION. REMOVE ALL MILLWORK, EQUIPMENT, ETC. THAT IS ATTACHED TO PARTITIONS SCHEDULED FOR DEMOLITION.
17. REMOVE EXISTING HVAC CEILING DIFFUSERS AND RETURN GRILLES AS SCHEDULED FOR DEMOLITION AND AS REQUIRED BY PARTITION DEMOLITION AND NEW CONSTRUCTION. MODIFY EXISTING DUCTWORK AS REQUIRED BY NEW CONSTRUCTION, OR IF NOT REQUIRED, TERMINATE AND CAP OFF SUPPLY AND RETURN DUCTS AT NEAREST SOURCE ABOVE CEILING.
18. REMOVE ALL EXISTING PLUMBING FIXTURES, FITTINGS, AND PIPING AS SCHEDULED FOR DEMOLITION AS AS REQUIRED BY PARTITION DEMOLITION AND NEW CONSTRUCTION, OR IF NOT REQUIRED, TERMINATE AND CAP OFF AT WET STACK.
19. REMOVAL/ RELOCATION OF ALL CEILING EQUIPMENT (TYCO, FIRE ALARM, SPRINKLER, SHOPPER TRAK, ETC.) MUST BE PERFORMED BY THE REQUIRED VENDORS. T-MOBILE'S VENDOR TO RELOCATE SECURITY CAMERAS AS NEEDED PER NEW FIXTURE LAYOUT.
20. G.C. TO CONFIRM FLOOR SLAB IS SMOOTH AND LEVEL AND NOTIFY CONSTRUCTION PM OF ANY DISCREPANCIES.
21. MAINTAIN EXISTING EXITS, EMERGENCY LIGHTING, AND ILLUMINATION MEANS OF EGRESS DURING DEMOLITION AND CONSTRUCTION AS REQUIRED BY JHA AND ALL GOVERNING CODES.
22. SAW-CUTTING SHOWN ON PLANS IS AN INDICATION OF THE INTENDED WORK FOR BIDDING AND COORDINATION PUPOSES ONLY. IT IS NOT INTENDED FOR BE AS SPECIFICATION OR METHOD.
23. WHEN EXISTING MECHANICAL SYSTEM IS TO REMAIN, G.C. TO CLEAN DUCTWORK, DIFFUSERS, AND REPLACE HVAC AIR FILTERS AFTER CONSTRUCTION AND CLEANUP IS COMPLETE PRIOR TO TURNING PROJECT OVER TO T-MOBILE.
24. DURING CONSTRUCTION, THE G.C. IS TO PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A WITHING A 75 FOOR TRAVEL DISTANCE TO ALL PORTIONS OF THE SPACE.

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WWW.FUZIONVE.COM

VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

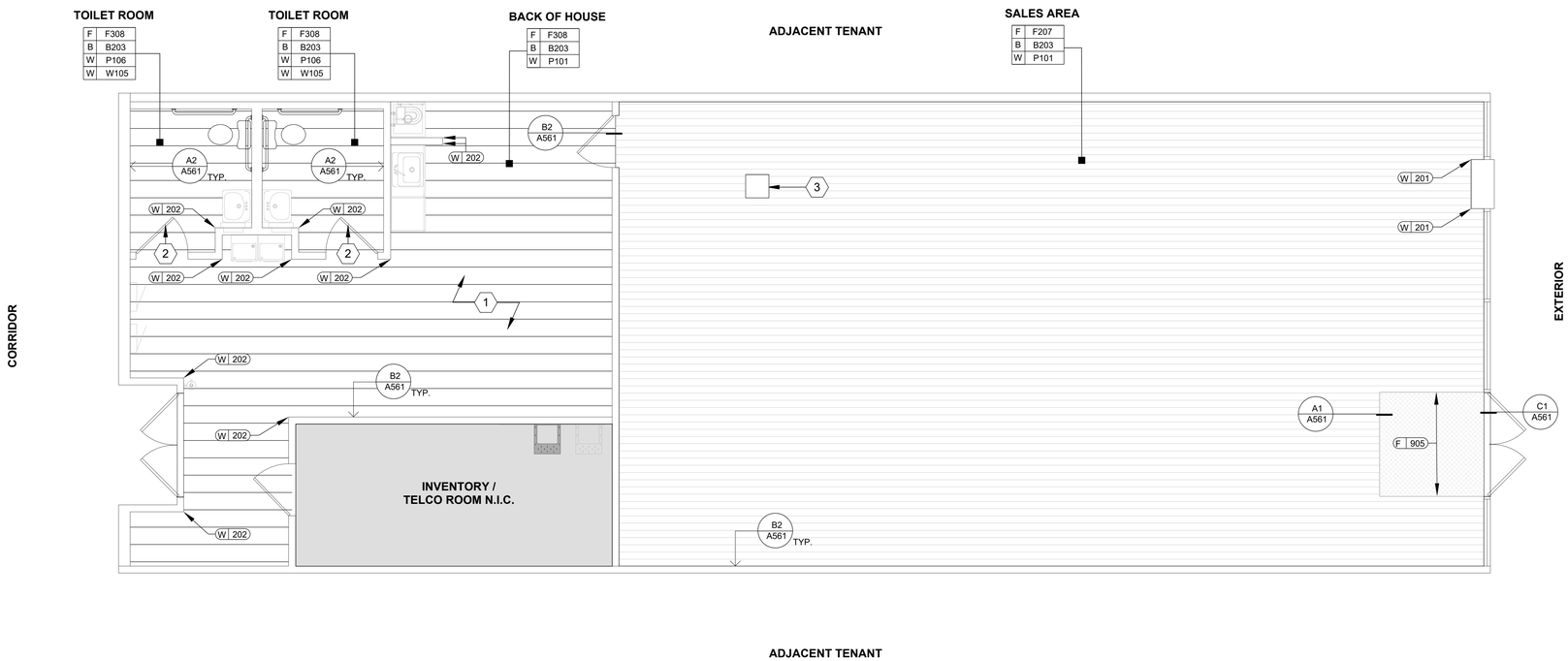
##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
EXISTING CONDITIONS AND DEMO PLAN

SHEET NUMBER:
A101



B4 FINISH FLOOR PLAN

1/4" = 1'-0"

KEY NOTES

##	NOTES
1	G.C. TO PAINT ACCENT WALL(S) P103 "PEONY". ALL OTHER WALLS TO BE PAINTED P101 "SIMPLY WHITE".
2	GC TO PAINT TOILET ROOM SIDE OF DOOR AND FRAME P106. PAINT VESTIBULE/ HALLWAY SIDE OF DOOR AND FRAME P101.
3	G.C. TP PAINT ALL SIDES OF FURRED OUT COLUMN P101 "WHITE DIAMOND". INSTALL ALL (4) CORNER GUARD W201 AT ALL FOUR CORNERS.

FINISH SUMMARY

SYMBOL	DESCRIPTION
B1##	BASE - RUBBER
B2##	BASE - WOOD
F0##	FLOORING - WOOD
F2##	FLOORING - VINYL TILE - SALES AREA
F3##	FLOORING - CERAMIC / PORCELAIN TILE
F4##	FLOORING - VINYL - BOH, HALLWAY, TELECOM, OTHER ENTRANCES
F5##	FLOORING - CARPET
F9##	FLOORING - WALK-OFF MATS - VESTIBULE, SALES AREA
P1##	PAINT
W1##	WALLCOVERING - WET AREA SURROUND
W2##	CORNER GUARD
W3##	WINDOW FILM

ALL EQUIPMENT, FINISHES, FIXTURES, FURNITURE, AND GRAPHICS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SEE A600 SERIES SHEETS FOR ALL SCHEDULES.

QUANTITY

SYMBOL	DESCRIPTION	QUANTITY
W201	CORNER GUARD -FRONT OF HOUSE	2
W202	CORNER GUARD -BACK OF HOUSE	10

CORNER GUARDS TO BE INSTALLED BY FIXTURE VENDOR

GENERAL NOTES

1. PREPARE EXISTING FLOOR SURFACE PER MANUFACTURER SPECIFICATIONS FOR INSTALLATION OF NEW FLOORING MATERIALS AS INDICATED IN THESE PLANS. SEE SPECIFICATIONS AND MANUFACTURER INSTRUCTIONS FOR ADDTIONAL FLOOR INSTALLATION NOTES. CLEAN AND FINISH FLOOR PER MANUFACTURER INSTRUCTIONS.
2. FOR FLOOR FINISHES, COMPLY WITH THESE RECOMMENDATIONS AT MINIMUM OR NOT LESS THAN MANUFACTURER'S WRITTEN INSTRUCTIONS. REFER TO MANUFACTUERER'S INSTALLATION SPECIFICATIONS FOR ALL FINISHES INCLUDING FLOOR LEVELING REQUIREMENTS, EXPANSION SPACES. VAPOR BARRIERS, UNDERLAYMENT, SITE CONDITIONS, ETC.
   - 2.1 SUBLFOOR PREPARATION: GRIND HIGH SPOTS AND FILL LOW SPOTS TO PRODUCE A MAXIMUM 1/8" (3MM) DEVIATION IN ANY DIRECTION WHEN CHECKED WITH A 10' (3-M) STRAIGHT EDGE.
   - 2.2 EXPANSION: PROVIDE EXPANSION SPACE AT WALLS AND OTHER OBSTRUCTIONS AND TERMINATIONS OF FLOORING OF NOT LESS THAN DIRECTED BY MANUFACTURER.
   - 2.3 PROTECTION: PROVIDE FLOOR PROTECTION UP UNTIL FINAL CLEANING.
3. CENTER FLOORING WITHIN EACH ROOM. FIRST PLANK SHOULD BE CENTERED BETWEEN THE DEMINSING WALLS AND PLACED SO THAT THE PARTIAL PLANKS ARE NEAR THE DEMISING WALLS AND UNDERNEATH WALL MOUNTED FIXTURES UNLESS OTHERWISE NOTED.
4. G.C. TO INSTALL SALES AREA FLOOR FINISHES WALL TO WALL U.O.N.

SHEET SYMBOLS

EXISTING AREA N.I.C.

X 000 FINISH TAG

ROOM FINISH TAG

F X###	FLOOR FINISH
B X###	BASE FINISH
W X###	WALL FINISH

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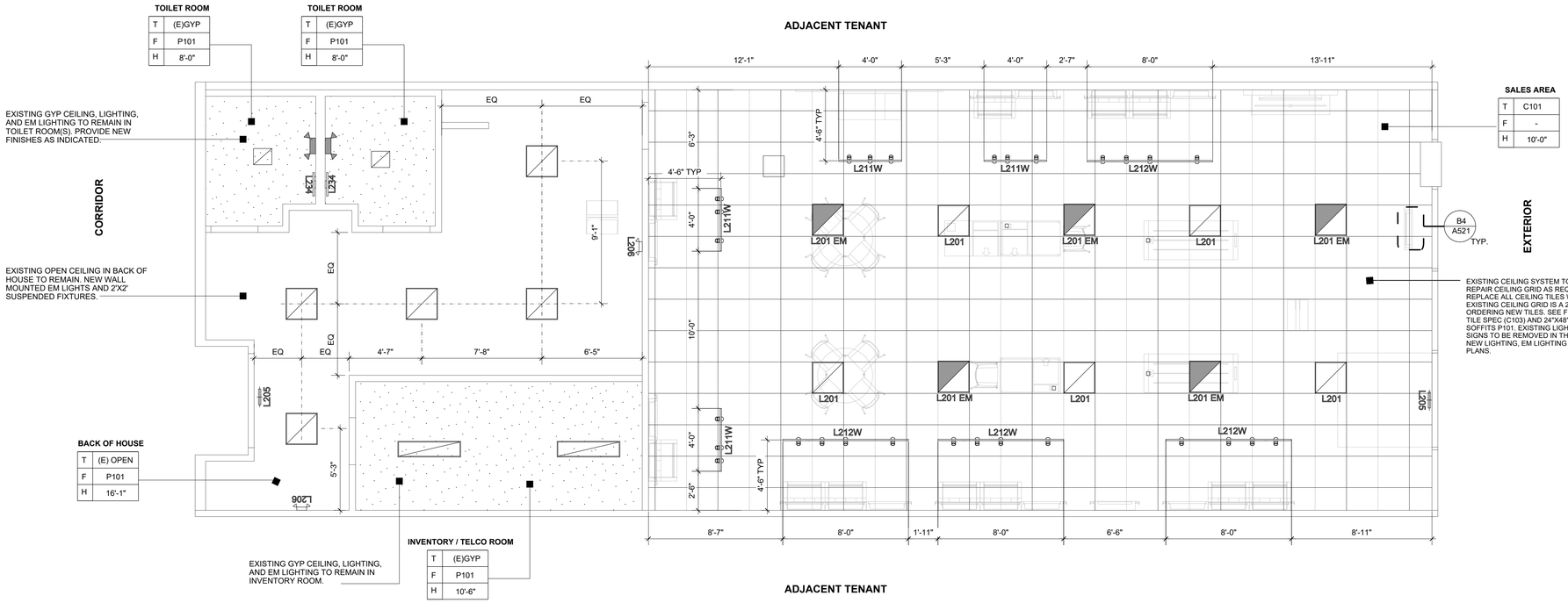
RMC

SHEET TITLE:

FINISH FLOOR PLAN

SHEET NUMBER:

A121



B4 REFLECTED CEILING PLAN

1/4" = 1'-0"

SHEET SYMBOLS

EXISTING AREA N.I.C.

GYP BOARD CEILING

ROOM TAG
CEILING TYPE
CEILING FINISH
CEILING HEIGHT

EMERGENCY LIGHTING

ADJUSTABLE LIGHTING

2' X 2' LIGHTING

VENT LIGHT COMBO

EXIT SIGNAGE

EMERGENCY LIGHTING NOTED WITH AN EM TAG. SEE ELECTRICAL DRAWINGS.

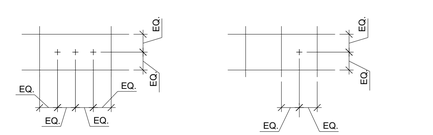
GENERAL NOTES

1. G.C. TO VERIFY ALL DIMENSIONS AND NOTIFY ARCHITECTS IMMEDIATELY OF ANY DISCREPENCIES OR UNFORESEEN ITEMS NOT SHOWN ON DRAWINGS, INCLUDING CEILING HEIGHT.
2. UNLESS OTHERWISE NOTED ON PLANS, ALL CEILING EQUIPMENT SHOULD FOLLOW THE LAYOUT GUIDE ON THIS SHEET.
3. G.C. SHALL FIELD VERIFY EXISTING EGRESS LIGHTING AND PROVIDE EMERGENCY LIGHT FIXTURES AS REQUIRED BY FIRE MARSHALL.
4. REFER TO MECHANICA; DRAWINGS FOR FURTHER INFORMATION ON SCOPE AND LOCATION OF MECHANICAL ITEMS.
5. REFER TO VENDOR INSTALLATION GUIDE AND MANUFACTURER INSTRUCTIONS FOR FIXTURE INSTALLATION.
6. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES AND LIGHT FIXTURE SCHEDULE.

FINISH SUMMARY

SYMBOL	DESCRIPTION
C1##	CEILING - LAY IN TILE
GYP	GYP BOARD CEILING, SEE DETAILS ON SHEET A541
P1##	PAINT

ALL EQUIPMENT, FINISHES, FIXTURES, FURNITURE, AND GRAPHICS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SEE A-600 SERIES SHEETS FOR ALL SCHEDULES.

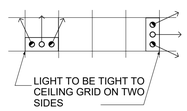


1 2X4 CEILING GRID
CENTER SPRINKLERS AND CEILING MOUNTED EQUIPMENT

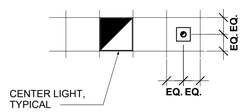
2 2X2 CEILING GRID OR SECOND LOOK TILES
CENTER SPRINKLERS AND CEILING MOUNTED EQUIPMENT

A3 EQUIPMENT PLACEMENT IN GRID

1/4" = 1'-0"

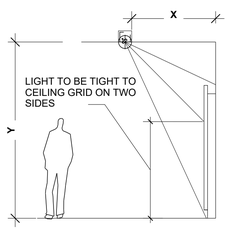


ADJUSTABLE HEAD LIGHTING PLACEMENT IN GRID



GENERAL LIGHTING PLACEMENT IN GRID

X	Y
3'-1 1/4"	9'-3"
3'- 7 3/4"	9'-6"
4'-6 1/2"	10'-0"
4'-11 5/8"	10'-6"



A2 LIGHT LAYOUT GUIDE

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VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
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##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

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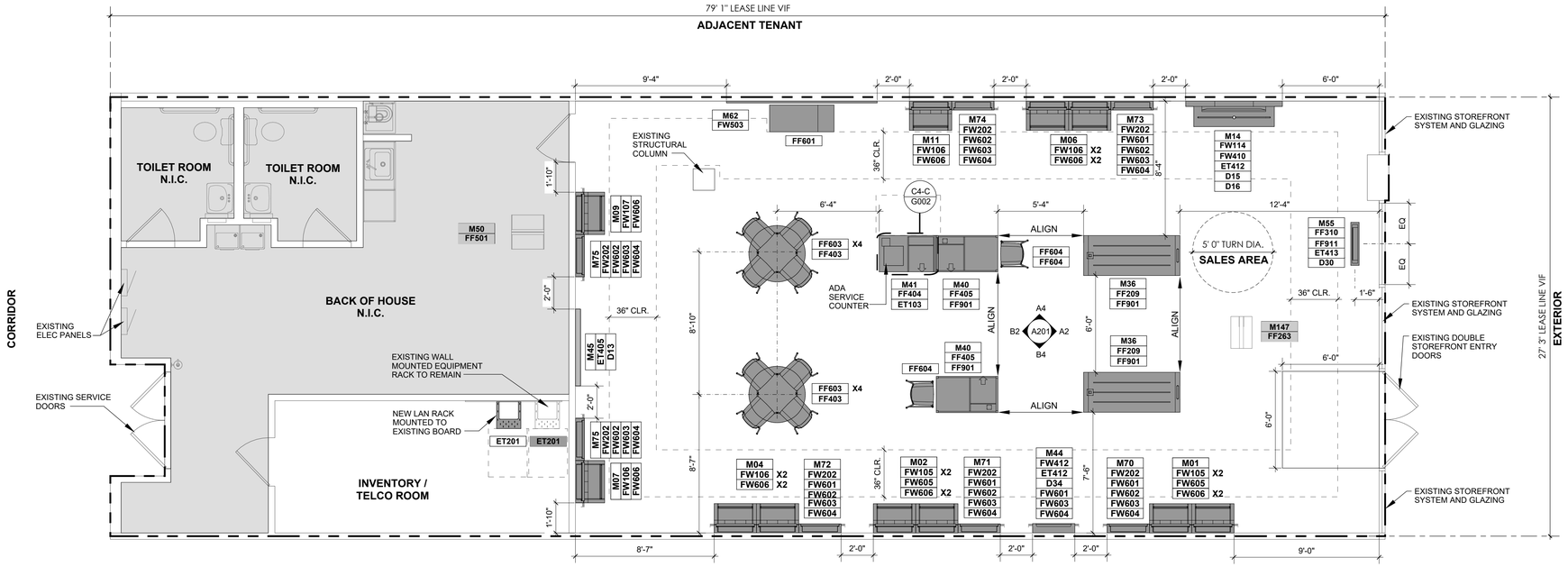
193
CORPORATE NEW CD
RMC

SHEET TITLE:
REFLECTED CEILING PLAN

SHEET NUMBER:
A131



B4 FIXTURE FLOOR PLAN

1/4" = 1'-0"

FIXTURE, FURNITURE AND EQUIPMENT LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
EG1##	EQUIPMENT GENERAL	FG1##	FURNITURE GENERAL - TABLE
ES1##	EQUIPMENT SECURITY	FG2##	FURNITURE GENERAL - SEATING
ET1##	EQUIPMENT TECHNOLOGY	FG3##	FURNITURE GENERAL - STORAGE
ET2##	EQUIPMENT TELCO COMMUNICATIONS	FG5##	FURNITURE GENERAL - WALL MOUNTED
FF1##	FLOOR FIXTURE - SALES COUNTER	FG6##	FURNITURE GENERAL - KITCHENETTE
FF2##	FLOOR FIXTURE - FEATURE TABLE	FW1##	FIXTURE WALL - DISPLAY WALL
FF3##	FLOOR FIXTURE - DIGITAL MONITOR	FW2##	FIXTURE WALL - ACCESSORY
FF4##	FLOOR FIXTURE - CONSULTATION TABLE	FW3##	FIXTURE WALL - SYSTEM WALL
FF5##	FLOOR FIXTURE - 2 SIDED FRAME	FW4##	FIXTURE WALL - DIGITAL MONITOR
FF6##	FLOOR FIXTURE - SEATING	FW5##	FIXTURE WALL - WALL GRAPHIC
FF9##	FLOOR FIXTURE - POWER POLE		
TOTAL NUMBER OF POS		0	
TOTAL NUMBER OF CASH DRAWER LOCATIONS		3	

ALL EQUIPMENT, FINISHES, FIXTURES, FURNITURE, AND GRAPHICS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SEE A600 SERIES SHEETS FOR ALL SCHEDULES.

GENERAL NOTES

1. G.C. TO FIELD VERIFY ALL DIMENSIONS AND NOTIFY ARCHITECTS IMMEDIATELY OF ANY DISCEPANCIES OR UNFORESEEN ITEMS NOT SHOWN ON DRAWINGS.
2. G.C. TO VERIFY THAT ADA COUNTERTOPS COMPLY WITH C4/G002.
3. FIXTURES FURNISHED BY T-MOBILE AND INSTALLED BY G.C. OR FIXTURE VENDOR. REFER TO FIXTURE MANUFACTURER INSTRUCTIONS FOR ALL ATTACHMENTS TO WALL AND FLOOR. PROVIDE ALL BLOCKING AND ANCHORS AS REQUIRED.
4. DIMENSIONS ON THIS SHEET ARE FOR FIXTURE LOCATIONS. G.C. TO COORDINATE FLOOR POWER AND/OR POWER POLE LOCATIONS WITH DIMENSIONS ON ELECTRICAL SHEETS.
5. RELOCATE ALL THERMOSTATS AND OTHER WALL MOUNTED DEVICES AS PER LOCAL CODE AS REQUIRED PER NEW FIXTURE LAYOUT. COORDINATE WITH CONSTRUCTION PM/ ARCHITECT.
6. SEE SHEET A621 FOR FIXTURE SCHEDULES. SCHEDULES WILL CLARIFY ANY EXISTING EQUIPMENT TO REMAIN VERSUS NEW FIXTURES TO BE INSTALLED.

SHEET SYMBOLS

EXISTING FIXTURES. NEW AND/OR EXISTING FURNITURE.

EXISTING AREA N.I.C.

NEW FIXTURES.

M_Tag
F_Tag
D_Tag

MERCHANDISING CONTENT TAG
FIXTURE TAG
DIGITAL CONTENT TAG

LINETYPE INDICATES ACCESSIBLE CLEARANCE

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DESIGN DEVELOPMENT

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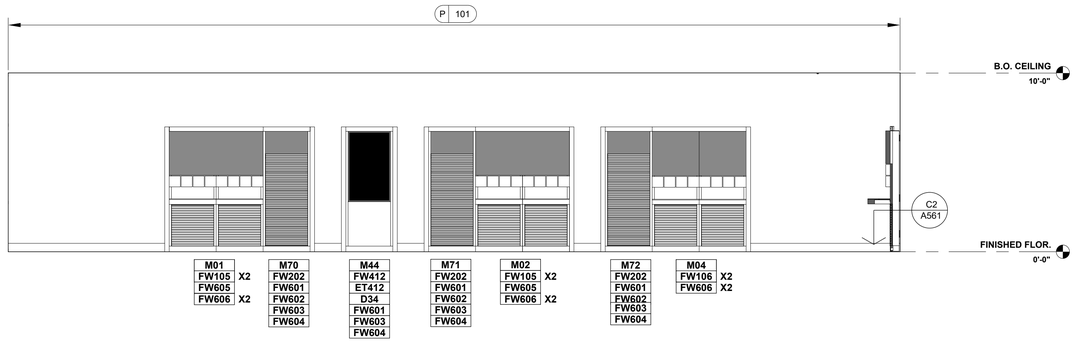
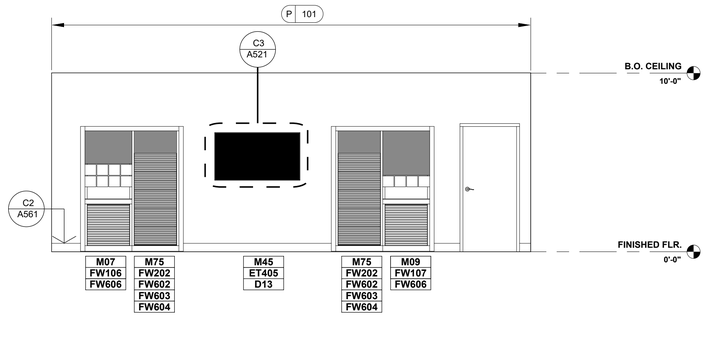
SHEET TITLE:
FIXTURE FLOOR PLAN

SHEET NUMBER:
A141



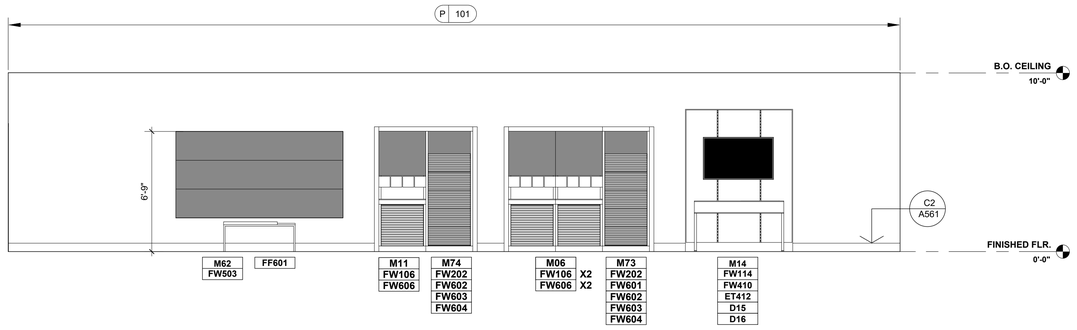
B4 INTERIOR ELEVATION

1/4" = 1'-0"



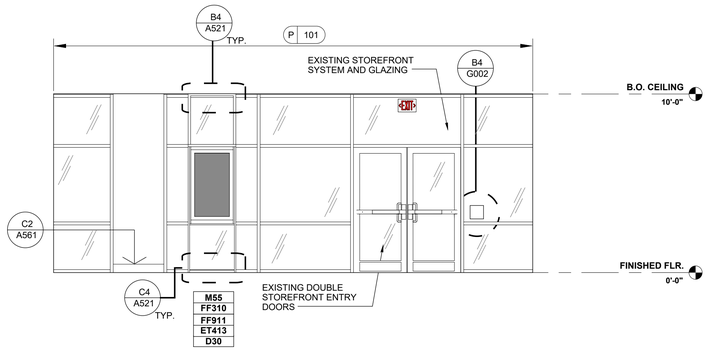
B2 INTERIOR ELEVATION

1/4" = 1'-0"



A4 INTERIOR ELEVATION

1/4" = 1'-0"



A2 INTERIOR ELEVATION

1/4" = 1'-0"

GENERAL NOTES

1. G.C. TO VERIFY ALL DIMENSIONS AND NOTIFY ARCHITECTS IMMEDIATELY OF ANY DISCREPANCIES OR UNFORESEEN ITEMS NOT SHOWN ON DRAWINGS.
2. REFER TO FIXTURE MANUFACTURER INSTRUCTIONS FOR ALL ATTACHMENTS TO WALL AND FLOOR. PROVIDE ALL BLOCKING AND ANCHORS AS REQUIRED.

SHEET SYMBOLS

M_Tag
F_Tag
D_Tag

MERCHANDISING CONTENT TAG
FIXTURE TAG
DIGITAL CONTENT TAG

SEE A141 FOR FIXTURE, FURNITURE AND EQUIPMENT SUMMARY

X 000

OR

X 000

FINISH TAGS - SEE A121 FOR FINISH SUMMARY

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CORPORATE NEW CD
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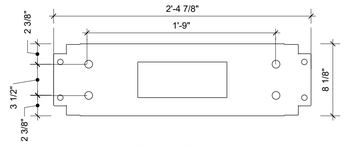
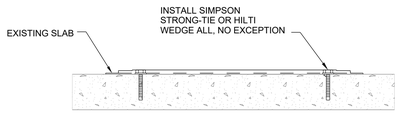
SHEET TITLE:
SALES FLOOR INTERIOR ELEVATIONS

SHEET NUMBER:
A201

VERIFY ALL DIMENSIONS PRIOR TO INSTALLATION FOR FIXTURE.

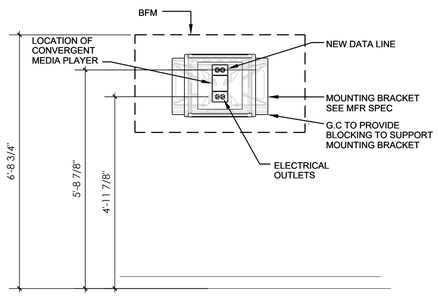


PLAN VIEW



SECTION

C4 BOTTOM FLOOR ANCHOR DETAIL
1 1/2"=1'-0"



C3 BRAND FOCAL MONITOR MOUNTING DETAIL
1/2"=1'-0"

ONLY WHEN REQUIRED FOR FF310 FULL HEIGHT FIXTURES

G.C. SHALL VERIFY THAT THE SHOWN METHOD OF ATTACHMENT IS ACCEPTABLE WITH THE ON-SITE COORDINATOR. IF NOT, CONTACT ARCHITECT FOR ALTERNATE DETAIL.

B4 DFM/DFW ATTACHMENT
1"=1'-0"

- ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT ABOVE CEILING TO J-BOXES.
- (1) 3/4" CONDUIT ABOVE CEILING FOR POWER
- (1) 3/4" CONDUIT ABOVE CEILING FOR DATA
- PROVIDE PULL STRING FROM PANEL FOR FUTURE DATE CABLING BY OWNER'S VENDOR
- (1) HUBBELL-RACO 674 HANDY BOX (4"x2", DEPTH: 2 1/8") WITH COVER PLATES FOR POWER.

NOTE: PROVIDE ADDITIONAL CEILING MOUNTED J-BOX FOR DATA IF REQUIRED BY LOCAL JURISDICTION.

A4 FF310 (DIGITAL FRONT MALL/WINDOW)
1"=1'-0"

A3 TYPICAL IN WALL BLOCKING DETAIL (GRAB BARS, ETC.)
6"=1'-0"

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CORPORATE NEW CD

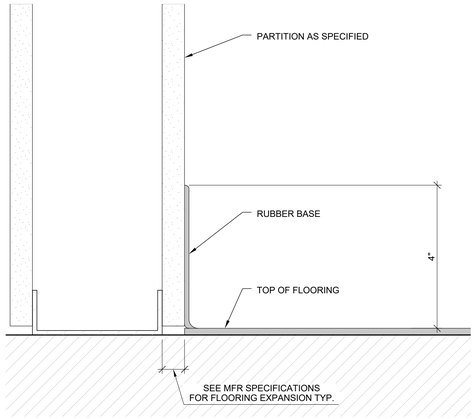
RMC

SHEET TITLE:

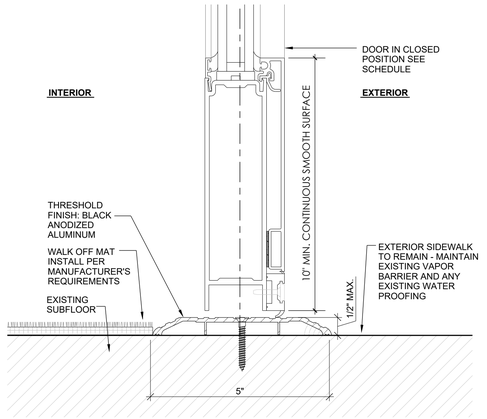
FIXTURE BLOCKING DETAILS

SHEET NUMBER:

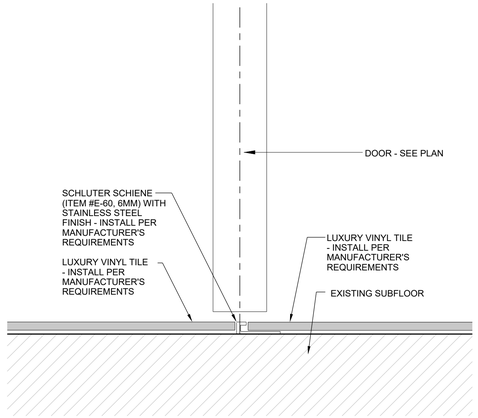
A521



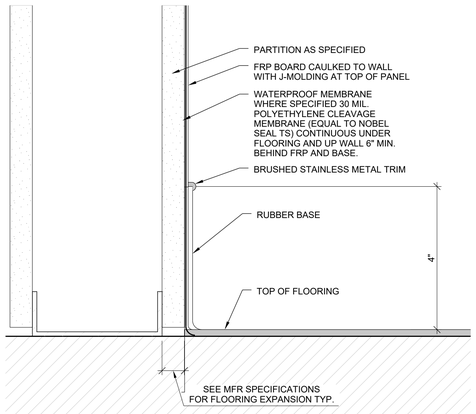
C2 RUBBER BASE
6"=1'-0"



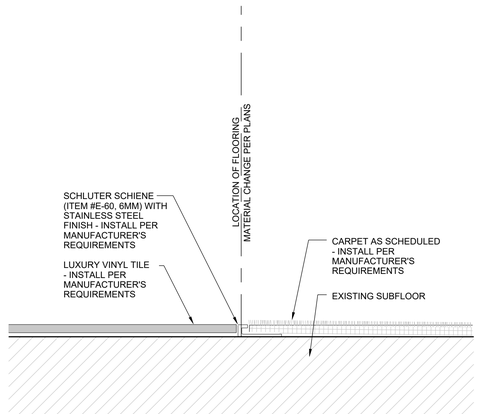
C1 EXTERIOR SIDEWALK TO WALK OFF MAT
6"=1'-0"



B2 LUXURY VINYL TILE TO LUXURY VINYL TILE
6"=1'-0"



A2 RUBBER BASE - WET AREAS
6"=1'-0"



A1 LUXURY VINYL TILE TO CARPET
6"=1'-0"

GENERAL NOTES

1. IF EXISTING CONDITIONS VARY, CONTACT ARCHITECT FOR ALTERNATE TRANSITION PROFILES.
2. FLOORING TRANSITIONS TO BE PROVIDED BY G.C. AS INDICATED IN THE RESPONSIBILTY SCHEDULE ON SHEET G001.
3. PREPARE EXISTING FLOOR SURFACE PER MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION OF NEW FLOORING MATERIALS AS INDICATED IN THESE PLANS.
4. SEE MANUFACTURER'S SPECIFICATIONS FOR FLOORING EXPANSION.
5. INSTALL SHEET VINYL WHERE INDICATED ON THE PLAN WHEN REQUIRED BY CODE AND/OR LANDLORD USING THE FOLLOWING INSTALLATION METHOD.
   1. BEFORE PROCEEDING, MAKE SURE THE SUBFLOOR AND WALL ARE SUITABLY PREPARED FOR THE FLOORING INSTALLATION.
   2. INSTALL THE COVE CAP TO THE WALL AT THE REQUIRED HEIGHT FROM THE FLOOR. DEPENDING ON THE CAP SYSTEM, THIS CAN BE EITHER INSTALLED WITH ADHESIVE OR NAILS/STAPLES.
   3. USE EITHER A PATTERN FORM OR TEMPLATE TO CUT THE INSIDE AND OUTSIDE CORNER OF THE WALL SECTION PIECES OF SHEET RUBBER.
   4. APPLY THE COVE BASE ADHESIVE TO BOTH THE WALL AND SUBFLOOR.
   5. LAY THE FLOORING ONTO THE ADHESIVE AND FORM THE COVE AT THE WALL INTERSECTION. MAKE SURE NO AIR IS TRAPPED BETWEEN THE SHEET RUBBER AND THE ADHESIVE.
   6. PRESS THE FLOORING INTO THE COVE CAP.
   7. ROLL THE ENTIRE FLOOR WITH A 34-35kg (75-100lb.) SECTION ROLLER. USE A HAND ROLLER FOR THE COVE SECTION.
   8. MAKE ANY FINAL TRIMS AND ADJUSTMENTS TO THE COVE AND CORNERS THEN ROLL AGAIN.
   9. THE SEAMS AND EDGES OF THE INSIDE AND OUTSIDE CORNERS CAN BE SEALED USING ONE OF THE FOLLOWING METHODS: HEAT WELDING OR CHEMICAL WELDING. THESE METHODS CAN BE USED WITH BOTH FLASH COVE AND PRO-TECH COVE SYSTEM INSTALLATIONS.

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193
CORPORATE NEW CD
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SHEET TITLE:
FLOORING AND BASE DETAILS

SHEET NUMBER:
A561

FLOORING FINISH SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	PRODUCT	STYLE	COLOR	SIZE	FLAME SPREAD / SMOKE DEVELOPMENT	FURNISHED BY	INSTALLED BY	NOTES
F207	WOOD LOOK LVT PLANKS	MOHAWK GROUP	HOT AND HEAVY	SECOYA (C0009)	148 ATWELL MILL	9"W X 59"L PLANK, 5mm THICK	CLASS A	T-MOBILE	G.C.	MAIN SALES FLOORING
F308	TERRAZZO LOOK LVT	MOHAWK GROUP	LIVING LOCAL COLLECTION	TERRAZZO	VALLE DE BOVE #989	12" X 24", 2.5mm THICK	CLASS A	T-MOBILE	G.C.	INSTALLATION: GLUE DOWN WITH MOHAWK M95.0, M99, OR M700 PLUS ADHESIVE
F905	WALK-OFF MAT - SALES AREA	MOHAWK GROUP	STEP UP II GT311	MODULAR	OBSIDIAN 989	24"X24"	CLASS 1	T-MOBILE	G.C.	INSTALLATION: GLUE DOWN WITH MOHAWK ENPRESS ADHESIVE. MONOLITHIC.

PAINT, WALLCOVERING, AND WINDOW FINISH SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	COLOR	FINISH	FLAME SPREAD / SMOKE DEVELOPMENT	FURNISHED BY	INSTALLED BY	NOTES
P101	PAINT - INTERIOR FIELD COLOR	BENJAMIN MOORE & COMPANY	WHITE DIAMOND OC-61"S	WALLS: EGGSHELL CEILING: FLAT DOOR AND FRAMES: SEMI-GLOSS	CLASS A	G.C.	G.C.	
P103	PAINT - ACCENT WALL	BENJAMIN MOORE & COMPANY	PEONY 2079-30	WALLS: EGGSHELL	CLASS A	G.C.	G.C.	
P106	MEDIUM GRAY PAINT	BENJAMIN MOORE & COMPANY	RAIN STORM CSP-50	RESTROOM: SATIN WALLS: EGGSHELL CEILING: FLAT DOOR AND FRAMES: SEMI-GLOSS	CLASS A	G.C.	G.C.	
W101	PANELS - WET AREA SURROUND	MARLITE	S 100G WHITE	STANDARD FRP - SMOOTH SURFACE	CLASS C	G.C.	G.C.	TO 4'-0" A.F.F. UNLESS OTHERWISE NOTED.
W105	FIBRE -REINFORCED PLASTIC - RESTROOM WALL TILE PANEL	MARLITE FRP	SMARTSEAM SYMMETRIX, SYM SS916 G63-R1	WHITE/BLACK SUBWAY, FINISH: SS916	-	G.C.	G.C.	INTERLOCKING PANELS WITH STAINLESS TRIM CAP
W201	CORNER GUARD - SALES AREA	WALLGUARD	WHITE	DEFENDER SERIES 2325.1	-	T-MOBILE	G.C.	INSTALLATION: MANUFACTURER RECOMMENDED ADHESIVE. MOUNTED ABOVE WALL BASE. 90° 1-1/2" CORNER GUARD, 4' LENGTH
W202	CORNER GUARD - HALLWAY, RESTROOM, BACK OF HOUSE, TRAINING ROOM	WALLGUARD	ALUMINUM	DEFENDER SERIES 2340	-	T-MOBILE	G.C.	INSTALLATION: MANUFACTURER RECOMMENDED ADHESIVE. MOUNTED ABOVE WALL BASE. 90° 2" CORNER GUARD, 4' LENGTH
W301	SECURITY FILM - CLEAR	LLUMAR	SCL SR PS7	.77" FILM THICKNESS		T-MOBILE	G.C.	TENSILE STRENGTH = 31050 PSI

TRIM FINISH SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	PRODUCT	COLOR	SIZE	FLAME SPREAD / SMOKE DEVELOPMENT	FURNISHED BY	INSTALLED BY	NOTES
B203	RUBBER WALL BASE	MOHAWK	ELEMENTAL EDGES	NIGHT SKIES 002	4" H X 120' CONTINUOUS ROLL X 1/8"	CLASS A	T-MOBILE	G.C.	WALL BASE

CEILING FINISH SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	PRODUCT	STYLE	COLOR	SIZE	FLAME SPREAD / SMOKE DEVELOPMENT	FURNISHED BY	INSTALLED BY	NOTES
C101	LAY-IN ACOUSTICAL CEILING SYSTEM - BACK OF HOUSE	ARMSTRONG	FINE FISSURED SECOND LOOK 1761C	FINE FISSURED SECOND LOOK, ANGLED TEGULAR 15/16"	WHITE	24" X 48"	CLASS A	G.C.	G.C.	ARMSTRONG PRELUDE XL 15/16" TEE GRID.

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CORPORATE NEW CD
RMC

SHEET TITLE:
FINISH SCHEDULE

SHEET NUMBER:
A601

FIXTURE SCHEDULE

ENTITY NAME	DESCRIPTION	QUANTITY	CONDITION	MANUFACTURER	MATERIAL	POWER	DATA	PROVIDED_BY	INSTALLED_BY	NOTES
FF209	6' FEATURE TABLE W/ KEY HOLE	2	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	WILSONART WHITE METAL POWDERCOAT	YES	NO	T-MOBILE	T-MOBILE	-
FF263	DISRUPTER FIXTURE	1	EXISTING	FIXTURE VENDOR		NO	NO	T-MOBILE	T-MOBILE	-
FF310	DFW FULL HEIGHT BLACK 55"	1	NEW	FIXTURE VENDOR	POWDERCOATED BLACK SAND	YES	YES	T-MOBILE	T-MOBILE	-
FF403	ROUND CONSULTATION TABLE	2	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	WHITE TOP, CHROME BASE	NO	NO	T-MOBILE	T-MOBILE	-
FF404	ADA CONSULTATION TABLE	1	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR		YES	NO	T-MOBILE	T-MOBILE	-
FF405	SINGLE CONSULTATION TABLE	2	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	WILSONART WHITE METAL POWDERCOAT	YES	NO	T-MOBILE	T-MOBILE	-
FF501	A-FRAME SIGN	1	EXISTING	TRIAD, FLEETWOOD, PREMIER, SYNSOR	SILVER SINTRA BACKER	NO	NO	T-MOBILE	T-MOBILE	-
FF601	4' BENCH W/ INSET SIDE TABLE	1	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	BLACK STEEL POWDER COAT	NO	NO	T-MOBILE	T-MOBILE	-
FF603	32" ADA CHAIR	8	NEW	ALLEMIUR	WHITE PLASTIC	NO	NO	T-MOBILE	T-MOBILE	-
FF604	STOOL	2	NEW	ALLEMIUR	WHITE PLASTIC	NO	NO	T-MOBILE	T-MOBILE	-
FF901	POWER POLE	4	NEW					T-MOBILE	T-MOBILE	-
FF911	DFW 55" EXTERIOR MONITOR KIT	1	NEW	-		NO	NO	T-MOBILE	T-MOBILE	-
FW105	DISPLAY WALL 1800X800	4	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	WHITE METAL POWDERCOAT	YES	NO	T-MOBILE	T-MOBILE	-
FW106	DISPLAY WALL 800X800	6	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	WHITE METAL POWDERCOAT	YES	NO	T-MOBILE	T-MOBILE	-
FW107	DISPLAY WALL 800X600	1	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	WHITE METAL POWDERCOAT	YES	NO	T-MOBILE	T-MOBILE	-
FW114	DISPLAY WALL - EMERGING PRODUCT	1	NEW	TRIAD	-	YES	YES	T-MOBILE	T-MOBILE	-
FW202	ACCESSORY PANEL - RMC	7	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	GLOSS LAMINATE, DESIGNER WHITE	NO	NO	T-MOBILE	T-MOBILE	-
FW410	TVISION 55" MONITOR BRACKET	1	NEW	-		NO	NO	T-MOBILE	T-MOBILE	-
FW412	55" DIGITAL MONITOR DISPLAY - RMC	1	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR		YES	YES	T-MOBILE	T-MOBILE	-
FW503	WALL GRAPHIC 112X58	1	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	ALUMINUM SATIN ANODIZED	NO	NO	T-MOBILE	T-MOBILE	-
FW601	LED CHANNEL - TOP SINGLE	5	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	POWDER COATED METAL	NO	NO	T-MOBILE	T-MOBILE	-
FW602	LED CHANNEL - TOP DOUBLE	7	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	POWDER COATED METAL	NO	NO	T-MOBILE	T-MOBILE	-
FW603	LED CHANNEL - LEFT	8	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	POWDER COATED METAL	NO	NO	T-MOBILE	T-MOBILE	-
FW604	LED CHANNEL - RIGHT	8	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	POWDER COATED METAL	NO	NO	T-MOBILE	T-MOBILE	-
FW605	FABRIC FRAME - OEM	2	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR		NO	NO	T-MOBILE	T-MOBILE	-
FW606	UNDER SHELF PANEL - SLATS	11	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR	WHITE METAL POWDERCOAT	NO	NO	T-MOBILE	T-MOBILE	-

FURNITURE AND EQUIPMENT SCHEDULE

ENTITY NAME	DESCRIPTION	QUANTITY	CONDITION	MANUFACTURER	MATERIAL	POWER	DATA	PROVIDED_BY	INSTALLED_BY	NOTES
ET103	COLOR PRINTER	1	NEW	XEROX		YES	YES	T-MOBILE	T-MOBILE	-
ET201	TELCO COMMUNICATION WALL RACK	1	EXISTING	HOFFMAN	BLACK STEEL	YES	YES	T-MOBILE	T-MOBILE	-
ET201	TELCO COMMUNICATION WALL RACK	1	NEW	HOFFMAN	BLACK STEEL	YES	YES	T-MOBILE	T-MOBILE	-
ET405	65" BFM W/ UNIVERSAL WALL MOUNT	1	NEW	TRIAD, FLEETWOOD, PREMIER, SYNSOR		YES	YES	T-MOBILE	T-MOBILE	-
ET412	55" INTERIOR MONITOR	2	NEW	null		YES	YES	T-MOBILE	T-MOBILE	-
ET413	55" EXTERIOR MONITOR	1	NEW	null		YES	YES	T-MOBILE	T-MOBILE	-

GRAPHIC SCHEDULE

ENTITY NAME	DESCRIPTION	QUANTITY
D13	Brand Focal Content	1
D15	EMERGING PRODUCTS MONITOR	1
D16	EMERGING PRODUCT TABLET (SP)	1
D30	DIGITAL FRONT WINDOW - COMBO	1
D34	DIGITAL SIGN - COMBO	1
M01	OEM PRIMARY	1
M02	OEM SECONDARY	1
M04	SMARTPICKS DISPLAY WALL DOUBLE	1
M06	AUDIO DISPLAY WALL DOUBLE	1
M07	TABLETS DISPLAY WALL SINGLE	1
M09	OVERFLOW DISPLAY SINGLE	1
M11	FLEX DISPLAY WALL SINGLE	1
M147	DISRUPTER FIXTURE	1
M14	EMERGING PRODUCTS	1
M36	6' Feature Table with PP/Key Holes	2
M40	RTF	2
M41	RTF ADA	1
M44	Digital Sign	1
M45	Brand Focal Monitor	1
M50	A-Frame	1
M55	DFW GRAPHIC LARGE	1
M62	Wall Graphic Large	1
M70	ACCESSORY WALL OEM PRIMARY-RMC	1
M71	ACCESSORY WALL OEM SECONDARY-RMC	1
M72	ACCESSORY WALL TABLETS-RMC	1
M73	ACCESSORY WALL ANDROID-RMC	1
M74	ACCESSORY WALL OVERFLOW-RMC	1
M75	ACCESSORY WALL FLEX/AUDIO-RMC	2

T-Mobile
12920 SE 38th STREET
BELLEVUE, WA 98006
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ARCHITECT:
FUZION
9096 EAST BAHIA DRIVE
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DESIGN@FUZIONVE.COM
WWW.FUZIONVE.COM

VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
FIXTURE, FURNITURE, EQUIPMENT AND GRAPHIC SCHEDULES

SHEET NUMBER:
A621

DIVISION 0 - CONTRACT REQUIREMENTS

007200 GENERAL CONDITIONS
A. UNLESS OTHERWISE AGREED UPON BY CONTRACTOR AND T-MOBILE, IN PART OR IN WHOLE, THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION," AIA DOCUMENT A201, 1997 EDITION, SHALL GOVERN THE WORK.

DIVISION 1 - GENERAL REQUIREMENTS

011000 SUMMARY
A. THIS SPECIFICATION IDENTIFIES REQUIREMENTS FOR SEVERAL PROJECTS, AND MAY CONTAIN ELEMENTS WHICH DO NOT APPLY TO THIS PARTICULAR PROJECT. REFER TO THE DRAWINGS TO DETERMINE WHETHER THE SPECIFIED ELEMENT APPLIES TO THIS PROJECT.
B. COMPLY WITH CODES, ORDINANCES, RULES, REGULATION, ORDERS AND OTHER LEGAL REQUIREMENTS OF PUBLIC AUTHORITIES WHICH GOVERN THE PERFORMANCE OF THE WORK.
C. DEFINITIONS:
1. LANDLORD: MALL DEVELOPER OR BUILDING OWNER.
2. T-MOBILE: T-MOBILE OR T-MOBILES REPRESENTATIVE (JLL), TENANT.
3. USE OF PREMISES: COORDINATE WITH T-MOBILE.
4. SPECIAL WORK REQUIREMENTS (INCLUDING ALLOWABLE TIMES FOR WORK): COORDINATE WITH T-MOBILE.
5. WORK PERFORMED BY T-MOBILE UNDER SEPARATE CONTRACTS (FOIO): COORDINATE WITH T-MOBILE.
6. T-MOBILE FURNISHED CONTRACTOR INSTALLED (FOIC) ITEMS: COORDINATE WITH T-MOBILE.
7. APPLICATIONS FOR PAYMENT: COORDINATE WITH T-MOBILE.
8. REQUESTS FOR INTERPRETATION (RFIS): RFIS SHALL BE SUBMITTED TO T-MOBILE'S REPRESENTATIVE WHO WILL CONTACT THE ARCHITECT ON AN AS-NEEDED BASIS.
9. "PROVIDE" MEANS TO FURNISH, FABRICATE, DELIVER, INSTALL AND ERECT, AND CONNECT, INCLUDING ALL LABOR, MATERIALS, EQUIPMENT, APPARATUS, APPURTENANCES AND EXPENSES NECESSARY TO COMPLETE IN PLACE, READY FOR OPERATION AND USE, UNDER THE TERMS OF THE CONTRACT DOCUMENTS.
10. "AS SHOWN", "AS DETAILED", "AS INDICATED" OR WORDS OF SIMILAR IMPORT MEAN AS INDICATED ON THE DRAWINGS.
11. "APPROVED EQUAL", "OR EQUAL", "OR APPROVED EQUAL" MEANS AS APPROVED AND ACCEPTED BY THE ARCHITECT AS DEFINED IN SECTION 01600 OF THE SPECIFICATIONS.
12. "SHALL" IS MANDATORY.

013119 PROJECT MEETINGS
A. PROJECT MEETINGS BETWEEN T-MOBILE AND CONTRACTOR WILL BE SCHEDULED BY T-MOBILE
B. ARCHITECT'S ATTENDANCE WILL BE UPON WRITTEN REQUEST OF T-MOBILE'S REPRESENTATIVE.

014000 - PROJECT COORDINATION
A. THE G.C. SHALL BE RESPONSIBLE FOR ALL PROJECT COORDINATION. COORDINATE THE WORK OF ALL SUBCONTRACTORS IN CONJUNCTION WITH T-MOBILE'S CONTRACTORS AND VENDORS.
B. PREPARE DETAILED SCHEDULE OF OPERATIONS OF ALL SUBCONTRACTORS ON THE PROJECT AND MONITOR SCHEDULES AS WORK PROGRESSES.
C. REPORT NON-COMPLIANCE TO ARCHITECT, WITH RECOMMENDATION TO REMEDY.
D. MAINTAIN COST ACCOUNTING RECORDS FOR AUTHORIZED WORK PERFORMED, ACTUAL COSTS FOR LABOR AND MATERIALS, AND OTHER WORK REQUIRING ACCOUNTING RECORDS.
E. REVIEW SUBCONTRACTOR'S REQUESTS FOR CHANGES AND FOR SUBSTITUTIONS; SUBMIT RECOMMENDATIONS TO T-MOBILE CONSTRUCTION PROJECT MANAGER AND PROCESS CHANGE ORDERS.
F. PERMITS AND FEES: VERIFY THAT SUBCONTRACTORS HAVE OBTAINED ALL PERMITS REQUIRED FOR INSPECTIONS AND TEMPORARY FACILITIES.
G. INTERPRETATIONS OF CONTRACT DOCUMENTS: CONSULT WITH ARCHITECT TO OBTAIN INTERPRETATIONS. ASSIST IN RESOLUTION OF QUESTIONS WHICH ARISE. TRANSMIT WRITTEN INTERPRETATIONS TO CONCERNED PARTIES.

SECTION 014500 - QUALITY CONTROL
A. STANDARDS: COMPLY WITH INDUSTRY STANDARDS EXCEPT WHEN MORE RESTRICTIVE TOLERANCES OR SPECIFIED REQUIREMENTS INDICATE MORE RIGID STANDARDS OR MORE PRECISE WORKMANSHIP.
B. PERFORM ALL WORK TO MEET OR EXCEED THE REQUIREMENTS OF ALL APPLICABLE CODES, ORDINANCES, LAWS, REGULATIONS, SAFETY ORDERS, AND DIRECTIVES FROM AUTHORITIES HAVING JURISDICTION OVER THE WORK.
C. PERFORM WORK WITH PERSONS QUALIFIED TO PRODUCE WORKMANSHIP OF SPECIFIED QUALITY.
D. INSTALL PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER / RECOMMENDATIONS. WHERE CONFLICT BETWEEN MANUFACTURER / RECOMMENDATIONS AND THE SPECIFIED REQUIREMENTS IS DISCOVERED, NOTIFY THE ARCHITECT IMMEDIATELY.

015000 TEMPORARY FACILITIES AND CONTROL
A. ALL TEMPORARY FACILITIES AND CONTROLS, INCLUDING THE FOLLOWING, ARE TO BE COORDINATED ENTIRELY WITH T-MOBILE.
1. TEMPORARY UTILITIES, INCLUDING ELECTRICITY, LIGHTING, HEATING AND VENTILATION, WATER AND TELEPHONE.
2. DUST CONTROL.
3. BARRIERS AND ENCLOSURES.
4. SECURITY.
5. CONTRACTOR DESIGNATED AREAS, INCLUDING PARKING AND STORAGE.

016000 PRODUCT REQUIREMENTS
A. SUBSTITUTIONS
1. SUBSTITUTIONS WILL NOT BE ALLOWED UNLESS APPROVED BY T-MOBILE.
2. ARCHITECT WILL DETERMINE ACCEPTABILITY OF PROPOSED SUBSTITUTION, AND WILL NOTIFY CONTRACTOR OF ACCEPTANCE OR REJECTION WITHIN A REASONABLE TIME IN WRITING.
3. SUBSTITUTIONS WILL NOT BE CONSIDERED IF THEY ARE INDICATED OR IMPLIED ON SHOP DRAWINGS OR PROJECT DATA SUBMITTALS WITHOUT FORMAL WRITTEN REQUEST, OR IF ACCEPTANCE WILL REQUIRE SUBSTANTIAL REVISION OF CONTRACT DOCUMENTS.
B. KEEP FINISHED SURFACES CLEAN AND UNMARRED UNTIL THE DATE OF ACCEPTANCE.
C. PRODUCTS SHALL BE NEW, OF THE TYPE SPECIFIED, AND FURNISHED IN AMPLE QUANTITIES TO FACILITATE PROPER AND TIMELY EXECUTION OF THE WORK.

017329 CUTTING AND PATCHING
A. REPAIR EXISTING SURFACES AND CONSTRUCTION AS NECESSARY TO MAKE WORK COMPLETE, WITH ALL COMPONENTS MATCHING AND CONSISTENT.
B. PROVIDE A SMOOTH, EVEN, AND INVISIBLE TRANSITION TO NEW CONSTRUCTION.
C. SEAL ALL PENETRATIONS IN WALLS, FLOORS AND CEILINGS AS REQUIRED TO MAINTAIN FIRE RATING AND BY JURISDICTION HAVING AUTHORITY. MAJOR PATCHING PROCEDURES SHALL BE REVIEWED WITH THE
D. T-MOBILE AND THE BUILDING OWNER, PRIOR TO PROCEEDING.
E. EXISTING SPRAYED FIREPROOFING WHERE OCCURS: PATCH AND REPAIR EXISTING SPRAYED FIREPROOFING TO MATCH THE FIRE-RATING OF THE EXISTING CONSTRUCTION. HAND PATCH USING UL-APPROVED MATERIALS AND PROCEDURES.
F. PATCHING OF EXISTING CONCRETE SLABS ON GRADE: IN ACCORDANCE WITH SECTION 030133.
G. X-RAY CONCRETE SLABS PRIOR TO ANY SAW-CUTTING FOR AREAS WITH POSSIBLE POST TENSIONED SLABS

017700 CLOSEOUT PROCEDURES
A. AS-BUILT DOCUMENTS: RECORD DOCUMENTS, PROVIDED BY THE CONTRACTOR, WHICH EXACTLY INDICATE "AS-BUILT" CONDITIONS, WILL BE AS REQUIRED BY T-MOBILE AND LOCATED PER NOTES ON THE FLOOR PLAN SHEETS.
B. OPERATION AND MAINTENANCE MANUALS WILL BE AS REQUIRED BY T-MOBILE.
C. PROJECT CLOSEOUT DOCUMENTS, INCLUDING WARRANTY, GUARANTEES AND REQUEST FOR FINAL PAYMENT, WILL BE AS REQUIRED BY T-MOBILE.

DIVISION 2 - EXISTING CONDITIONS

024119 SELECTIVE DEMOLITION
A. DEMOLISH IN AN ORDERLY AND CAREFUL MANNER AS REQUIRED TO ACCOMMODATE THE WORK. WHERE DEMOLITION EXCEEDS THAT INDICATED, VERIFY SUCH DEMOLITION WITH THE ARCHITECT PRIOR TO PROCEEDING.
B. PROTECT EXISTING STRUCTURAL MEMBERS. CONTACT THE ARCHITECT PRIOR TO MODIFYING STRUCTURAL MEMBERS BEYOND THE EXTENT INDICATED. CEASE OPERATIONS AND NOTIFY THE ARCHITECT IMMEDIATELY IF CONTINUED DEMOLITION OPERATIONS MIGHT ENDANGER THE EXISTING STRUCTURE.
C. DURING DEMOLITION OPERATIONS, NOTIFY THE ARCHITECT OF ALL CONDITIONS WHICH DIFFER SUBSTANTIALLY FROM THOSE INDICATED, SPECIFIED, OR EXPECTED. NOTIFY THE ARCHITECT IF PREVIOUSLY UNKNOWN OPERATIONAL, OR POTENTIALLY OPERATIONAL ELEMENTS, ARE UNCOVERED DURING DEMOLITION OPERATIONS. PERFORM NO DEMOLITION IN SUCH AREAS, UNLESS APPROVED BY THE ARCHITECT.
D. PROVIDE TEMPORARY SHORING AS REQUIRED TO SUPPORT EXISTING CONSTRUCTION AGAINST MOVEMENT OR OVERLOAD DURING DEMOLITION OPERATIONS, UNTIL PERMANENT SUPPORTS ARE IN PLACE.
E. EXCEPT WHERE NOTED OR SPECIFIED OTHERWISE, TAKE POSSESSION OF MATERIALS BEING DEMOLISHED, AND IMMEDIATELY REMOVE FROM SITE. DO NOT OVERLOAD EXISTING CONSTRUCTION TO REMAIN WITH DEMOLISHED MATERIALS.
F. CAREFULLY REMOVE, STORE, AND PROTECT ALL MATERIALS AND COMPONENTS TO BE REUSED.
G. WHERE POSSIBLE WITHOUT DAMAGE, REMOVE, STORE, AND PROTECT EXISTING MATERIALS AND COMPONENTS NOT NOTED FOR REMOVAL, WHICH IF REMOVED, WOULD FACILITATE THE NEW CONSTRUCTION AND RECONDITIONING.
H. CAREFULLY REMOVE, PROTECT, AND TURN OVER AS DIRECTED, MATERIALS AND COMPONENTS CLAIMED BY T-MOBILE FOR SALVAGE. PRIOR TO DEMOLITION, CONTACT THE T-MOBILE TO DETERMINE WHICH ITEMS WILL BE CLAIMED.
I. WHERE CUT EDGES OF THE EXISTING CONSTRUCTION WILL BE VISIBLE IN THE COMPLETED WORK, CUT IN UNIFORM STRAIGHT LINES. CONCRETE AND MASONRY SHALL BE SAW CUT OR CORE DRILLED.
J. REPAIR ALL DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED, AT NO ADDITIONAL COST TO T-MOBILE.
K. UTILITY LINE DEMOLITION:
1. VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO DEMOLITION.
2. ABANDONED UNDER-SLAB CONDUIT SHALL BE CUT OFF BELOW THE FINISHED SURFACE LINE, AND ALL CONDUCTORS SHALL BE REMOVED. PATCH AND FILL THE OPENING FLUSH WITH THE FINISH.
3. ABANDONED ELECTRICAL CONDUCTORS SHALL BE REMOVED BACK TO THE BRANCH CIRCUIT PANEL, UNLESS INDICATED OTHERWISE. ABANDONED CONDUIT WHICH IS EXPOSED AND READILY ACCESSIBLE SHALL BE REMOVED. LEAVE ABANDONED CONDUIT WHICH IS CONCEALED IN EXISTING CONSTRUCTION TO REMAIN.
4. ABANDONED UNDER-SLAB PIPING SHALL BE REMOVED AND CUT OFF FLUSH WITH THE FLOOR LINE. PATCH FLUSH WITH THE FLOOR.
5. ABANDONED PIPING WHICH IS EXPOSED AND READILY ACCESSIBLE SHALL BE REMOVED. LEAVE ABANDONED PIPING WHICH IS CONCEALED IN EXISTING CONSTRUCTION TO REMAIN. CAP ALL EXPOSED ENDS.
6. INDICATE LOCATION OF DISCONNECTED UTILITIES ON THE PROJECT RECORD DRAWINGS AS SPECIFIED IN DIVISION 01.
L. LEAVE SITE IN A CONDITION ACCEPTABLE TO T-MOBILE AT ALL TIMES. REMOVE DEMOLISHED MATERIALS FROM SITE DAILY AS WORK PROGRESSES. DO NOT OVERLOAD EXISTING STRUCTURE WITH DEMOLISHED MATERIALS.
M. REMOVAL OF BONDED FLOOR FINISHES:
1. SCRAPE, GRIND AND OTHERWISE REMOVE EXISTING FLOOR FINISH AND BONDING MATERIALS AS NECESSARY TO RECEIVE NEW FLOOR FINISHES.
2. PREPARED SURFACE SHALL PRESENT A UNIFORM FLAT SURFACE READY TO RECEIVE THE NEW FLOOR FINISHES FREE OF TELEGRAPHING AND OTHER SURFACE IRREGULARITIES.
3. SLOPE SHALL NOT TO EXCEED 1/8" IN 10 FEET. THE FLOOR STRUCTURE MUST HAVE LESS THAN 1/64" PER FOOT DEFLECTION IN ORDER TO ACCEPT TENANT'S FLOOR FINISHES.
1. FILL EXCESSIVE VOIDS OR VARIATIONS GREATER THAN IN THE SUBFLOOR 1/8" IN 10" AS SPECIFIED IN DIVISION 03.
2. NEW FLOOR FINISHES SHALL NOT BE INSTALLED OVER EXISTING FLOOR FINISH MATERIALS UNLESS APPROVED OTHERWISE.

DIVISION 3 - CONCRETE

030133 CONCRETE SLAB PATCHING
A. QUALITY ASSURANCE: PERFORM WORK IN ACCORDANCE WITH ACI 301, AS APPLICABLE.
B. CONCRETE MATERIALS:
1. CEMENT: ASTM C150, NORMAL - TYPE 1 PORTLAND CEMENT; GRAY COLOR.
2. NORMAL WEIGHT FINE AND COARSE AGGREGATES: ASTM C33
3. ACCELERATOR: ASTM C 494, TYPE CORE, NON-CORROSIVE, NON-CHLORIDE.
C. CONCRETE MIX: IN ACCORDANCE WITH ASTM C94, MINIMUM 3000 PSI 28 DAY COMPRESSIVE STRENGTH.
D. REINFORCING:
1. REINFORCING STEEL: ASTM C615, GRADE 40, UNLESS INDICATED OTHERWISE.
2. CHAIRS, BOLSTERS, BAR SUPPORTS, AND SPACERS: SIZED AND SHAPED FOR STRENGTH AND SUPPORT OF REINFORCEMENT DURING INSTALLATION AND PLACEMENT OF CONCRETE.
3. FABRICATE AS INDICATED AND IN ACCORDANCE WITH ACI 315.
4. DOWEL INTO EXISTING SLAB AT MINIMUM 18 INCHES ON CENTER BUT IN NOT LESS THAN 2 PLACES ALONG LONG SIDE OF CONCRETE PATCH AREA.DOWEL INTO EXISTING SLAB AT MINIMUM 18 INCHES ON CENTER BUT IN NOT LESS THAN 2 PLACES ALONG LONG SIDE OF CONCRETE PATCH AREA. EPOXY-COATED REINFORCING BARS: ASTM A 775/A 775M, EPOXY COATED, WITH LESS THAN 2 PERCENT DAMAGED COATING IN EACH 12-INCH (300-MM) BAR LENGTH.
4.1. EPOXY BONDING ADHESIVE: ASTM C 881, TWO-COMPONENT EPOXY RESIN, CAPABLE OF HUMID CURING AND BONDING TO DAMP SURFACES, OF CLASS SUITABLE FOR APPLICATION TEMPERATURE AND OF GRADE TO SUIT REQUIREMENTS, AND FOR BONDING HARDENED OR FRESHLY MIXED CONCRETE TO HARDENED CONCRETE.
4.2. PRODUCT: HILTI HIT-HY 200 EPOXY. INSTALL PER ICC-ES-3187
5. PLACE, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT.
6. LOCATE REINFORCING SPLICES NOT INDICATED ON THE DRAWINGS AT POINTS OF MINIMUM STRESS.
E. PLACEMENT:
1. COORDINATE WITH OTHER TRADES FOR INSTALLATION AND BEDDING OF UTILITIES.
2. ENSURE THAT BELOW GRADE CONSTRUCTION IS COMPLETE IN THE SLAB AREA TO BE PATCHED.
3. REPLACE EXISTING SUBGRADE MATERIALS TO MATCH EXISTING. REPLACE AND MAKE CONTINUOUS VAPOR BARRIERS AND OTHER SIMILAR CONSTRUCTION DISTURBED OR DAMAGED DURING DEMOLITION OR CONSTRUCTION OPERATIONS.
4. RECOMPACT EXISTING SUBGRADE TO 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
5. PATCH SLAB WITH CONCRETE HAVING A MINIMUM 28-DAY STRENGTH OF 3000 PSI; MAXIMUM WATER/CEMENT RATIO OF 0.40. USE SUPERPLASTICIZER ADMIXTURE AS NECESSARY FOR WORKABILITY.
6. FINISH CONCRETE TO MATCH ADJACENT SURFACES.
F. CURING: MOISTURE CURE CONCRETE FOR A MINIMUM OF 7 DAYS, UNLESS APPROVED OTHERWISE.
G. SEALING AND HARDENING CONCRETE FLOORS.
1. MANUFACTURERS
a. ACCEPTABLE MANUFACTURER: CURECRETE DISTRIBUTION, INC; 1203 WEST SPRING CREEK PLACE, SPRINGVILLE, UT 84663. ASD. TEL (800) 998-5664, FAX (801) 489-3307, EMAIL: TECHSUPPORT@ASHFORDFORMULA.COM. WWW.ASHFORDFORMULA.COM
2. MATERIALS
a. CURE-SEAL-HARDENER: ASHFORD FORMULA; WATER-BASED CHEMICALLY-REACTIVE PENETRATING SEALER AND HARDENER, THAT SEALS BY DENSIFYING CONCRETE SO THAT WATER MOLECULES CANNOT PASS THROUGH BUT AIR AND WATER VAPOR CAN, WHILE ALLOWING CONCRETE TO ACHIEVE FULL COMPRESSIVE STRENGTH, MINIMIZING SURFACE CRAZING, AND ELIMINATING DUSTING.
a.a. COLORLESS, TRANSPARENT, ODORLESS, NON-TOXIC, NON-FLAMMABLE.
a.b. CONTAINING NO SOLVENTS OR VOLATILE ORGANIC COMPOUNDS.
a.c. ALLOWING TRAFFIC ON FLOORS WITHIN 2 TO 3 HOURS, WHICH CHEMICAL PROCESS COMPLETE WITH 3 MONTHS.
a.d. NO CHANGE TO SURFACE APPEARANCE EXCEPT A SHEEN DEVELOPED DUE TO TRAFFIC AND CLEANING.

DIVISION 3 - CONCRETE, CONT.

3. WATER: CLEAN, POTABLE
4. PREPARATION
A. CLEAN SURFACES THOROUGHLY PRIOR TO INSTALLATION.
B. PREPARE SURFACES USING THE METHODS RECOMMENDED BY THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE SUBSTRATE UNDER THE PROJECT CONDITIONS.
5. INSTALLATION
A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
B. PREVENT DAMAGE TO AND SOILING OF ADJACENT WORK.
C. NEW CONCRETE: APPLY CURE-SEAL-HARDENER TO NEW CONCRETE AS SOON AS THE CONCRETE IS FIRM ENOUGH TO WORK ON AFTER TOWELING, EXCEPT ON COLORED CONCRETE WAIT MINIMUM OF 30 DAYS.
D. SPRAY ON AT RATE OF 200 SQUARE FEET PER GALLON
E. KEEP SURFACES WET WITH CURE-SEAL HARDENER FOR MINIMUM SOAK-IN PERIOD OF 30 MINUTES WITHOUT ALLOWING DRYING OUT OR BECOMING SLIPPERY. IN HOT WEATHER, SLIPPERINESS MAY APPEAR BEFORE THE 30 MINUTE TIME PERIOD HAS ELAPSED. IF THAT OCCURS, APPLY MORE CURE-SEAL-HARDENER AS REQUIRED TO KEEP ENTIRE SURFACE IN A NON-SLIPPERY STATE FOR THE FIRST 15 MINUTES. FOR THE REMAINING 15 MINUTES, MIST THE SURFACE AS NEEDED WITH WATER TO KEEP THE MATERIAL IN A NON-SLIPPERY STATE.
F. AFTER THIS PERIOD, WHEN TREATED SURFACE BECOMES SLIPPERY, LIGHTLY MIST WITH WATER UNTIL SLIPPERINESS DISAPPEARS.
G. WAIT FOR THE SURFACE TO BECOME SLIPPERY AGAIN AND THEN FLUSH ENTIRE SURFACE WITH WATER REMOVING ALL RESIDUE OF CURE-SEAL-HARDENER.
H. SQUEEGEE SURFACE COMPLETELY DRY, FLUSHING ANY REMAINING SLIPPERY AREAS UNTIL NO RESIDUE REMAINS.
I. WET VACUUM OR SCRUBBING MACHINES MAY BE USED TO REMOVE RESIDUE, PROVIDED MANUFACTURER'S INSTRUCTIONS ARE FOLLOWED.

035416 HYDRAULIC CEMENT UNDERLAYMENT
A. SUMMARY:
1. CEMENTITIOUS UNDERLAYMENTS AS NECESSARY FOR LEVELING OF NEW OR EXISTING CONCRETE FLOOR SUBSTRATES, AS NECESSARY TO MEET SPECIFIED TOLERANCES.
2. CEMENTITIOUS TOPPINGS AS NECESSARY FOR LEVELING NEW OR EXISTING SLABS AT LOCATIONS INDICATED TO RECEIVE CONCRETE SEALER ONLY.
3. RAMPS AND TAPERS AS NECESSARY TO ALIGN LEVELS BETWEEN DISSIMILAR FINISHES.
B. ENVIRONMENTAL REQUIREMENTS"
1. MAINTAIN SURFACE AND AMBIENT TEMPERATURE OF BETWEEN 50 AND 80 DEGREES F FOR 24 HOURS BEFORE, DURING, AND 24 HOURS AFTER UNDERLAYMENT INSTALLATION.
2. KEEP TRAFFIC OUT OF AREA IN WHICH UNDERLAYMENT IS BEING APPLIED OR CURED.
C. SELF-LEVELING UNDERLAYMENT SYSTEM: SELF-LEVELING, POURABLE, CEMENT BASED MATERIAL, MINIMUM 28 DAY COMPRESSIVE STRENGTH 2,000 PSI; MINIMUM BOND STRENGTH 200 PSI; ONE OF THE FOLLOWING AS RECOMMENDED BY MANUFACTURER FOR CONDITIONS, OR APPROVED.
1. MAPEI CORPORATION "ULTRAPLAN 1 PLUS" OR "NOVOPLAN 2 PLUS."
2. ARDEX INC. "K-15" SELF-LEVELING UNDERLAYMENT CONCRETE
3. LATICRETE INTERNATIONAL, INC. "LATICRETE 86 LATILEVEL THIN POUR UNDERLAYMENT."
D. TROWELABLE UNDERLAYMENT SYSTEM: AS RECOMMENDED BY MANUFACTURER FOR CONDITIONS, OR APPROVED:
1. MAPEI CORPORATION "MAPACEM 100" OR "PLANITOP 11".
2. ARDEX INC. "SD-P" FAST-SETTING UNDERLAYMENT.
3. LATICRETE INTERNATIONAL, INC. "LATICRETE 220 MEDIUM BED MORTAR' MIXED WITH "LATICRETE 3701 LATEX MORTAR ADMIX."
E. CEMENTITIOUS TOPPINGS: FOR CONCRETE SURFACES AT LOCATIONS INDICATED TO RECEIVE CONCRETE SEALER OR NOT OTHERWISE COVERED BY FLOORING MATERIAL; ONE OF THE FOLLOWING OR APPROVED:
1. SELF-LEVELING TYPES:
a. MAPEI CORPORATION "ULTRATOP" SELF-LEVELING ABRASION-RESISTANT TOPPING.
b. ARDEX INC. "K-500" SELF-LEVELING CONCRETE TOPPING.
2. TROWELABLE TYPES:
a. MAPEI CORPORATION "MARECEM 100" FAST-SETTING TOPPING MORTAR
b. ARDEX INC. "CD" SELF-DRYING CONCRETE DRESSING.
F. ACCESSORIES: FURNISH PRIMERS, PATCHING COMPOUNDS, AND SAND FILLERS AS RECOMMENDED BY THE UNDERLAYMENT MANUFACTURER FOR THE CONDITIONS OF THE PROJECT.
G. PREPARATION:
1. THOROUGHLY MIX UNDERLAYMENT MATERIALS FOR EACH TYPE OF PRODUCT IN PROPER PROPORTIONS TO ACHIEVE SMOOTH HOMOGENEOUS MIX, FREE OF LUMPS.
2. WITH THE EXCEPTION OF AREAS WHERE LEVELING CAN BE ACCOMPLISHED BY USE OF LATEX UNDERLAYMENT, AS SPECIFIED IN OTHER SECTIONS, INSTALL CEMENTITIOUS UNDERLAYMENT TO CONCRETE SLABS AS INDICATED ON THE DRAWINGS, AND AS NECESSARY TO LEVEL SLABS OR BRING SUBSTRATES TO PROPER ELEVATION.
3. INSPECT FLOOR TO VERIFY THAT DEMOLITION IS COMPLETE TO THE POINT WHERE WORK MAY PROGRESS.
4. SURVEY FLOOR AS NECESSARY TO SET SCREEDS AND REFERENCE POINTS. IDENTIFY CONSTRUCTION JOINTS. PREPARE FOR UNDERLAYMENT AT ALL LOCATIONS WHERE FLOOR DOES NOT MEET SPECIFIED TOLERANCE REQUIREMENTS.
5. ENSURE THAT SUBFLOOR IS CLEAN, DRY, HARD, SOUND, AND FREE OF OILS, OR OTHER SUBSTANCE THAT WOULD AFFECT PROPER BONDING AND CURING.
6. VERIFY THAT ALL AREAS TO BE LEVELED ARE AT OR BELOW FINAL DESIGN ELEVATION. GRIND DOWN HIGH SPOTS AS NECESSARY TO MEET SPECIFIED TOLERANCE REQUIREMENTS.
7. SET SCREEDS, MARKERS, AND REFERENCE BLOCKS. SET SCREEDS AT ALL CONSTRUCTION AND CONTROL JOINTS TO ESTABLISH WEAKENED PLANE JOINTS IN UNDERLAYMENT.
8. APPLY PRIMER TO ALL AREAS TO RECEIVE UNDERLAYMENT AND TOPPINGS; REPEAT APPLICATION IF NECESSARY TO ACHIEVE PROPER BUILD.
H. INSTALLATION:
1. INSTALL TROWELABLE UNDERLAYMENT AT LOCATIONS WHERE SLOPES ARE INDICATED AND AT OTHER LOCATIONS WHERE TAPERED FILL IS NECESSARY TO ALIGN THE FINISHED SURFACES OF THE VARIOUS FLOOR FINISH MATERIALS.
2. INSTALL SELF-LEVELING UNDERLAYMENT AT EXISTING CONCRETE SLAB SURFACES TO CORRECT SLAB FLATNESS AND LEVELNESS.
3. PROVIDE CEMENTITIOUS TOPPINGS AT LOCATIONS TO REMAIN EXPOSED IN THE FINISHED WORK.
4. INSTALL UNDERLAYMENTS AND TOPPINGS; FINISH TO A SMOOTH UNIFORM SURFACE.
5. CURE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
6. TOLERANCES: VERY FLAT; LEVEL TO WITHIN 1/16" IN 40"
I. CLEANING: AS WORK PROCEEDS, CLEAN UP EXCESS MATERIALS, RUBBISH, AND SPLASH.

DIVISION 4 - MASONRY (NOT USED)

DIVISION 5 - METALS

054000 COLD-FORMED METAL FRAMING
A. SUMMARY:
1. LIGHT GA STRUCTURAL STEEL METAL FRAMING AT EXTERIOR WALLS WHERE INDICATED ON THE DRAWINGS, AND AT SOFFIT CONSTRUCTION SUPPORTING STOREFRONTS, DISPLAY WINDOWS, AND SIGNAGE ELEMENTS.
2. STRUCTURAL DESIGN OF COLD FORMED METAL FRAMING SYSTEMS NOT INDICATED ON THE STRUCTURAL DRAWINGS.
B. SYSTEM DESCRIPTION:
1. STRUCTURAL DESIGN:
a. SIZE AND ARRANGE MEMBERS TO SUPPORT DEAD AND LIVE LOADS IN ACCORDANCE CODE REQUIREMENTS.
b. DESIGN SYSTEM TO RESIST DEAD AND LIVE LOADS FROM WINDOWS, DISPLAY CASES, AWNINGS, AND OTHER ITEMS INDICATED TO BE SUPPORTED BY COLD FORMED METAL FRAMING.
c. DESIGN SYSTEM TO RESIST 100 PERCENT OF THE DESIGN LOAD WITH A MAXIMUM DEFLECTION OF L/720.
d. ANCHORAGES SHALL BE DESIGNED TO SIMULTANEOUSLY RESIST ALL VERTICAL AND LATERAL LOADS, WITH A SAFETY FACTOR OF 2.

DIVISION 5 - METALS, CONT.

2. DESIGN SYSTEM TO ACCOMMODATE BUILDING DEFLECTION, DYNAMIC BUILDING MOVEMENT, AND TEMPERATURE VARIATIONS WITHOUT DAMAGE TO SYSTEM COMPONENTS.
3. CONFIGURATION:
a. PROVIDE FRAMING OF DEPTH INDICATED ON THE DRAWINGS.
b. WHERE STUD GA IS INDICATED ON THE DRAWINGS, PROVIDE STUDS OF INDICATED OR HEAVIER GA.
c. WHERE STUD SPACING IS INDICATED ON THE DRAWINGS, PROVIDE ADDITIONAL STUDS OR CLOSER SPACING AS NECESSARY TO MEET DESIGN REQUIREMENTS.
d. IN ADDITION TO COLD FORMED METAL FRAMING, PROVIDE ADDITIONAL STRUCTURAL STEEL MEMBERS AS REQUIRED TO SUPPORT THE LOADS IMPOSED.
C. QUALITY ASSURANCE:
1. USE ONLY CERTIFIED WELDERS.
2. CALCULATE STRUCTURAL PROPERTIES OF FRAMING MEMBERS IN ACCORDANCE WITH THE AISI "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL MEMBERS".
3. STRUCTURAL DESIGN: STRUCTURAL DESIGN OF THE FRAMING SYSTEM SHALL BE BY A STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE STATE WHERE THE PROJECT IS LOCATED.
4. REGULATORY REQUIREMENTS:
a. FRAMING SYSTEM SHALL MEET THE REQUIREMENTS OF THE JURISDICTIONAL CODE AUTHORITIES.
b. FURNISH ALL CALCULATIONS, ENGINEER'S STAMPS, DRAWINGS, AND OTHER ITEMS REQUIRED BY THE CODE AUTHORITIES TO OBTAIN APPROVAL OF THE INSTALLATION.
D. COMPONENTS:
1. COLD FORMED LIGHT-GA STEEL FRAMING: ASTM A653; TYPES AS INDICATED ON THE STRUCTURAL DRAWINGS; G60 GALVANIZED COATING.
2. SCREWS: ASTM C954; SELF-DRILLING, SELF-TAPPING; PAN HEAD; GALVANIZED OR FLUOROPOLYMER COATED STEEL.
3. ZINC RICH TOUCH-UP PAINT: "GALV-WELD," "GALVICAN," "ZRC COLD GALVANIZED COMPOUND," OR APPROVED.
E. INSTALLATION:
1. INSTALL LIGHT GA STRUCTURAL FRAMING IN ACCORDANCE WITH ASTM C1007, UNLESS INDICATED OR SPECIFIED OTHERWISE, AND AS INDICATED ON THE DRAWINGS.
2. SCREW OR WELD EACH JOINT. WELDS SHALL BE IN ACCORDANCE WITH AWS D1.3.
3. METAL FRAMING MEMBERS SHALL BE SAW OR SHEAR CUT. NO TORCH CUTTING IS PERMITTED.
4. CONSTRUCT CORNERS WITH A MINIMUM OF 3 STUDS PER CORNER.
5. FRAME BOTH SIDES OF EXPANSION AND SEISMIC JOINTS. DO NOT BRIDGE JOINTS WITH SYSTEM COMPONENTS OR ACCESSORIES.
6. PROVIDE FRAMING AS REQUIRED TO FORM SOLID BACKING FOR ALL EDGES OF SHEATHING, AND TRIM ACCESSORIES.
7. TOLERANCES:
a. PLUMBNESS: PLUMB WITHIN 1/8 INCH IN 10 FEET.
b. LOCATION: LOCATED WITHIN 1/4 INCH OF THE REQUIRED LOCATION.
c. ALIGNMENT: STUD AND RUNNER FACES TO RECEIVE FINISH MATERIALS SHALL NOT VARY GREATER THAN 1/8 INCH FROM THE REQUIRED PLANE, WITH NO ABRUPT JOGS OR BREAKS IN PLANE.
d. LEVEL: LEVEL WITHIN 1/8 INCH IN 10 FEET.
8. ERECT STUDS IN ONE PIECE FULL LENGTH. SPLICING AND WIRE TYING OF FRAMING COMPONENTS SHALL NOT BE USED.
9. TOUCH-UP FIELD WELDS AND SCRATCHED OR DAMAGED GALVANIZING WITH ZINC RICH PAINT.
10. ATTACH CROSS STUDS OR FURRING CHANNELS TO STUDS FOR ATTACHMENT OF WALL MOUNTED ITEMS.
11. INSTALL FRAMING BETWEEN STUDS FOR ATTACHMENT OF ELECTRICAL BOXES AND OTHER MECHANICAL AND ELECTRICAL ITEMS.
F. FIELD QUALITY CONTROL:
1. THE COLD FORMED METAL FRAMING DESIGN ENGINEER OR HIS AUTHORIZED REPRESENTATIVE SHALL VISIT THE SITE TO INSPECT THE WORK. VERIFY AND CERTIFY THAT FRAMING SIZES AND MATERIALS ARE AS REQUIRED, THAT CONNECTIONS ARE PROPERLY EXECUTED, AND THAT STRUCTURAL INTEGRITY OF MATERIALS HAS BEEN MAINTAINED.

DIVISION 6 - WOOD AND PLASTIC

061000 ROUGH CARPENTRY
A. DIMENSION LUMBER:
1. LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH PS 20, AND SHALL BE STAMPED AND GRADED IN ACCORDANCE WITH SPIB, WWPA, WCLIB, OR NLGA GRADING RULES.
2. MOISTURE CONTENT: KILN DRIED TO 19% MAXIMUM MOISTURE CONTENT, EXCEPT FOR MATERIAL WHOSE LEAST DIMENSION IS 4 INCHES THICK OR GREATER.
3. SPECIES: SOUTHERN PINE, HEM-FIR, SPRUCE-PINE-FIR (SPF), OR DOUGLAS FIR LARCH, UNLESS INDICATED OR SPECIFIED OTHERWISE.
4. ARCHITECTURAL LUMBER GRADES: UNEXPOSED NON-STRUCTURAL WOOD FRAMING AND BLOCKING INDICATED ON THE ARCHITECTURAL DRAWINGS SHALL BE GRADED AS FOLLOWS:
a. BLOCKING AND NAILERS: "UTILITY - LIGHT FRAMING," OR BETTER.
B. PANEL MATERIALS:
1. MISCELLANEOUS SHEATHING: APA RATED SHEATHING; CD GRADE; EXTERIOR; PLYWOOD OR ORIENTED STRAND BOARD, UNLESS APPROVED OTHERWISE; THICKNESS AS INDICATED.
2. TERMINAL BACKBOARDS: APA AC GRADE EXTERIOR; FIRE RETARDANT TREATED.
C. ACCESSORIES:
1. FASTENERS:
a. HOT-DIPPED GALVANIZED STEEL FOR EXTERIOR, HIGH HUMIDITY LOCATIONS.
b. G-185 GALVANIZED COATING OR STAINLESS STEEL FASTENERS AT TREATED WOOD LOCATIONS.
D. WOOD TREATMENT:
1. WOOD PRESERVATIVE (PRESSURE TREATMENT):
a. PRESERVATIVE TREAT ALL WOOD IN CONTACT WITH CONCRETE, MASONRY, AND MOIST CONDITIONS. SITE TREAT SAWN ENDS WITH PRESERVATIVE TREATMENT.
b. PRESERVATIVE TREAT ALL WOOD AND PLYWOOD AT ROOF CONSTRUCTION OR OTHER WOOD IN MOIST CONDITIONS. SITE TREAT SAWN ENDS WITH PRESERVATIVE TREATMENT.
c. FOR ABOVE GROUND USE, USE AWPA CERTIFIED AMMONIUM COPPER QUATERNIUM (ACQ) OR COPPER HYDROXIDE SODIUM DIMETHYLDITHIOCARBAMATE (CDDC) WATERBORNE PRESERVATIVE WITH 0.25 POUNDS PER CUBIC FOOT OF WOOD RETENTION.
d. TREATED WOOD SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19%.
e. TREATED WOOD SHALL BEAR THE QUALITY STAMP OF AN INSPECTION AGENCY APPROVED BY THE JURISDICTIONAL CODE AUTHORITIES.
2. FIRE RETARDANT TREATMENT (AT TYPES I AND II CONSTRUCTION ONLY):
a. FIRE RETARDANT TREAT ALL INTERIOR CONCEALED LUMBER AND PLYWOOD, AND OTHER WOOD AS INDICATED OR SPECIFIED. PROVIDE EXTERIOR FIREPROOFING AT ROOFTOP BLOCKING, NAILERS, CURBS, SHEATHING, AND OTHER LOCATIONS SUBJECT TO WETTING DURING CONSTRUCTION OPERATIONS.
b. ALL FIRE RETARDANT TREATED WOOD MATERIALS SHALL BEAR A UL "FR-S" LABEL, OR A LABEL FROM AN APPROVED INSPECTION AGENCY CERTIFYING THAT THE MATERIAL MEETS THE REQUIREMENTS OF AWPA C-20 TYPE A FOR LUMBER AND AWPA C-27 TYPE A FOR PLYWOOD.
c. TREATED LUMBER SHALL BE KILN DRIED TO A MAXIMUM MOISTURE CONTENT OF 19%, TREATED PLYWOOD SHALL BE KILN DRIED TO A MAXIMUM MOISTURE CONTENT OF 15%.
d. APPROVED PRODUCTS INTERIOR FIREPROOFING: CLEAR FINISH PRODUCT, HICKSON CORPORATION "DRICON," HOOVER TREATED WOOD PRODUCTS "PYRO-GUARD," OR OSMOSE WOOD PRESERVING CO. OF AMERICA, INC. "FLAME PROOF LHC."
E. BLOCKING AND NAILERS:
1. PROVIDE BLOCKING, NAILERS FOR ALL SHEATHING, ROOF CONSTRUCTION, METAL FLASHING, AND OTHER CONSTRUCTION AS INDICATED.
2. WOOD BLOCKING: INSTALL WOOD BLOCKING TO RECEIVE MECHANICAL FASTENERS FOR SUPPORT OF ELECTRICAL FIXTURES AND EQUIPMENT, CABINETS, DOORSTOP PLATES, WOOD BASE, WAINSCOTS, COAT HOOKS, AND ALL OTHER WALL AND CEILING MOUNTED COMPONENTS, UNLESS SPECIFIED OTHERWISE.
3. BACKING:
a. PLYWOOD BACKING SHALL BE USED IN LIEU OF BLOCKING AT LOCATIONS OF WALL-MOUNTED STANDARDS, SHELVING AND COUNTERS.
b. BACKING SHALL BE MOUNTED OVER FACE OF STUDS BENEATH GYPSUM BOARD AND SHALL BE CONTINUOUS OVER ENTIRE PLANE OF WALL; 1/2 INCH THICKNESS.
c. SECURE BACKING WITH ALL EDGES ON FIRM BEARING.

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DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
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SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
SPECIFICATIONS

SHEET NUMBER:
A701

DIVISION 6 - WOOD AND PLASTIC, CONT.

SECTION - 061643 - GYPSUM SHEATHING
A. SUMMARY:
1. SHEATHING USED IN LIEU OF PLYWOOD IN NON-COMBUSTIBLE BUILDING CONSTRUCTION.
B. MATERIALS
1. SCREWS: GALVANIZED; SELF-DRILLING; SELF-DRILLING, BUGLE HEAD SCREWS; MINIMUM 1-1/4 INCH LONG.
2. GYPSUM SHEATHING: ONE OF THE FOLLOWING:
a. G-P GYPSUM CORPORATION "DENS-GLASS GOLD;" GLASS MAT FACED; ASTM C1177; 1/2 INCH THICK
b. USG FIBEROCK BRAND SHEATHING WITH AQUA-TOUGH(TM); 1/2 INCH THICK.
C. INSTALLATION:
1. INSTALL SQUARE EDGE BOARDS PARALLEL OR PERPENDICULAR TO FRAMING. INSTALL BOARDS PARALLEL TO FRAMING AT FIRE RATED WALLS. APPLY SHEATHING WITH JOINTS STAGGERED. ALL EDGES SHALL BE FIRMLY SUPPORTED.
2. INSTALL SHEATHING WITH COATING TOWARDS EXTERIOR.
3. SCREW TO FRAMING. SPACE FASTENERS 8 INCHES O.C. IN FIELD AND 4 INCHES O.C. AT ENDS ALONG EACH FRAMING MEMBER.
4. DO NOT BRIDGE EXPANSION OR SEISMIC JOINTS.

DIVISION 7 - THERMAL AND MOISTURE

072100 THERMAL INSULATION
A. SUMMARY: BUILDING INSULATION WHEN INDICATED ON THE DRAWINGS.
B. MATERIALS
1. UNFACED BATT AND BLANKET INSULATION: ASTM C665, TYPE I; PREFORMED UNFACED GLASS FIBER ROLL; FLAME SPREAD OF 25 OR LESS AND SMOKE DEVELOPED OF 50 OR LESS WHEN TESTED IN ACCORDANCE WITH ASTM E84;OVERSIZE WIDTHS FOR FRICTION-FIT BETWEEN METAL FRAMING.
2. BOARD INSULATION: EXTRUDED POLYSTYRENE; DOW CHEMICAL COMPANY "STYROFOAM" OR OWENS CORNING "FOAMULAR 250."
C. ACCESSORIES:
1. SEPARATE VAPOR BARRIER FOR BATT INSULATION: FOIL SCRIM KRAFT FSK 25; FLAME SPREAD OF 25 OR LESS AND A SMOKE DEVELOPED OF 50 OR LESS WHEN TESTED IN ACCORDANCE WITH ASTM E84.
2. TAPE: TO MATCH INSULATION FACING; 2 INCH WIDTH.
3. ACOUSTIC INSULATION: SEE SECTION 098100.
D. INSTALLATION:
1. INSTALL INSULATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS INDICATED.
2. TRIM INSULATION NEATLY TO FIT SPACES. INSTALL WITHOUT GAPS OR VOIDS.
3. INSTALLATION OF THERMAL BATT INSULATION:
a. INSTALL INSULATION WITH VAPOR BARRIER TOWARD WARM SIDE OF BUILDING SPACES. VAPOR BARRIER SHALL BE CONTINUOUS. TAPE SEAL TEARS OR CUTS IN VAPOR BARRIER.
b. AT METAL STUD FRAMING, INSERT THE INSULATION EDGES TIGHTLY INTO THE STUD CHANNELS FOR A FRICTION FIT. WHERE INSULATION BUTTS THE BACKSIDE OF STUD CHANNELS, CONTINUOUSLY TAPE INSULATION FLANGES TO THE EXPOSED METAL STUD FLANGE.
c. MECHANICAL FASTENING:
4. AT LOCATIONS WHERE NO FRAMING IS PRESENT TO SUPPORT THE INSULATION, PROVIDE METAL IMPALING PINS AND RETAINERS TO HOLD THE INSULATION FIRMLY IN POSITION.
5. MECHANICALLY OR ADHESIVELY BOND THE RETAINING PINS TO THE SUBSTRATE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. SPACE PINS AT MAXIMUM 24 INCHES ON CENTER ALONG THE EDGES AND WITHIN THE FIELD OF THE BLANKET. PLACE EDGE PINS WITHIN 6 INCHES FROM THE EDGE OF THE BATT.
a. PACK BATT INSULATION IN SHIM SPACES AT PERIMETER OF WINDOW ASSEMBLY TO MAINTAIN CONTINUITY OF THERMAL BARRIER.
7. SEPARATE VAPOR BARRIER INSTALLATION:
a. INSTALL SEPARATE VAPOR BARRIER OVER UNFACED INSULATION.
b. INSTALL VAPOR BARRIER TOWARD WARM SIDE OF BUILDING SPACES.
c. VAPOR BARRIER SHALL BE CONTINUOUS.
d. AT LOCATIONS WHERE INSULATION IS MECHANICALLY FASTENED BY IMPALING PINS, PLACE VAPOR RETARDER OVER IMPALING PINS AND HOLD IN POSITION WITH ADDITIONAL RETAINERS. THE INSTALLATION SHALL PRESENT A TIGHT, CONTINUOUS, AND WRINKLE FREE APPEARANCE.
e. AT LIGHT GA SUPPORT FRAMING, SECURE TO STUDS WITH DOUBLE STICK TAPE OR SPRAY ADHESIVE.
f. LAP JOINTS IN VAPOR BARRIER 2 INCHES, EXCEPT PROVIDE TAPE SEALED JOINTS AT LOCATIONS WHERE VAPOR BARRIER WILL REMAIN EXPOSED IN THE FINISHED WORK.
g. TAPE SEAL VAPOR BARRIER TO ADJACENT CONSTRUCTION AT PERIMETER EDGES.
h. TAPE AND SEAL TEARS OR CUTS IN VAPOR BARRIER.
A. "R" VALUE SCHEDULE:
1. BATT INSULATION: PROVIDE MINIMUM 6 INCH INSULATION THICKNESS (R19) TO FILL STUD CAVITY OR GREATER TO MATCH EXISTING IN SIMILAR APPLICATIONS, OR AS INDICATED ON THE DRAWINGS.
2. RIGID INSULATION: PROVIDE MINIMUM 2 INCH INSULATION THICKNESS (R10) OR TO MATCH EXISTING IN SIMILAR APPLICATIONS.

072401 DIRECT APPLIED EXTERIOR FINISH SYSTEM (DEFS)
A. SUMMARY:
1. WHERE CEMENT PLASTER IS INDICATED ON THE DRAWINGS OVER EXISTING CMU, PROVIDE DIRECT APPLIED EXTERIOR FINISH SYSTEM (DEFS) OVER EXISTING CONCRETE MASONRY UNITS AS SPECIFIED.
B. APPLICATOR QUALIFICATIONS:
1. MINIMUM OF 5 YEARS EXPERIENCE IN THE APPLICATION OF DEFS OF SIMILAR SCOPE TO THE WORK INDICATED.
2. INSTALLER SHALL HAVE BEEN TRAINED BY THE PRODUCT MANUFACTURER PRIOR TO BIDDING, AND SHALL BE CURRENTLY APPROVED BY THE MANUFACTURER TO INSTALL WARRANTABLE DEFS SYSTEM AS SPECIFIED.
C. PROTECTION: PROTECT ADJACENT MATERIALS AND THIS SYSTEM FROM DAMAGE DURING INSTALLATION, WHILE CURING OR WHEN UNATTENDED.
D. APPROVED MANUFACTURERS:
1. DRYVIT SYSTEMS INC.
2. STO INDUSTRIES, INC.
3. SENERGY, INC.
E. MATERIALS:
1. PROVIDE MANUFACTURER'S STANDARD MATERIALS AS RECOMMENDED FOR THE INSTALLATION.
2. BASE COAT: MANUFACTURER'S STANDARD POLYMER MODIFIED CEMENTITIOUS BASE COAT; MAXIMUM 30% CEMENT; DRY FACTORY PRE-MIXED FORMULA, OR PRE-MEASURED PACKAGED MATERIALS FOR CONSISTENT SITE MIXING.
3. FINISH COAT: MANUFACTURER'S STANDARD; 100% ACRYLIC; CUSTOM INTEGRAL COLOR AS SELECTED BY THE ARCHITECT; LISTED BY UNDERWRITER'S LABORATORIES, INC. AS HAVING A FLAME SPREAD OF 25 OR LESS.
4. REINFORCING MESH: MANUFACTURER'S STANDARD ALKALINE RESISTANT OPEN WEAVE GLASS FIBER MESH; STANDARD DUTY AND HEAVY DUTY.
5. SUBSTRATE MESH TAPE: ALKALINE RESISTANT OPEN WEAVE GLASS FIBER MESH SURFACED ON ONE SIDE WITH PRESSURE SENSITIVEADHESIVE; TYPE AS RECOMMENDED BY SYSTEM MANUFACTURER.
6. DEFS TRIM:
a. PRODUCTS OF VINYL CORPORATION (800-648-4695) ARE LISTED AS A STANDARD OF APPROVAL. SIMILAR AND EQUAL PRODUCTS BY PLASTIC COMPONENTS (800-327-7077) MAY BE USED. FABRICATE FROM EXTERIOR GRADE VINYL; PROVIDE MANUFACTURER'S STANDARD SPLICE PLATES AND CONNECTOR CLIPS FOR BUTT JOINT CONNECTIONS.
b. CORNER BEAD: CB158E.
F. INSTALLATION:
1. PROTECT ADJACENT SURFACES FROM CONTACT WITH OVERSPRAY AND SPATTER OF PRIMERS, ADHESIVES, AND FINISH COATS.
2. AT CONCRETE AND CMU SURFACES TO RECEIVE FINISH COAT ONLY, REMOVE ALL DIRT, DUST, FORM RELEASE AGENTS, EFFLORESCENCE, AND OTHER ELEMENTS WHICH WOULD IMPAIR BOND. ACID ETCH WITH MURIATIC ACID.
3. INSTALL DEFS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
4. PROVIDE FINISH COAT ONLY OVER EXISTING CONCRETE BLOCK SURFACES AS INDICATED ON THE DRAWINGS.
5. FINISH COATING SHALL BE APPLIED AS RECOMMENDED BY THE EXTERIOR INSULATION AND FINISH SYSTEM MANUFACTURER.

DIVISION 7 - THERMAL AND MOISTURE, CONT.

6. TROWEL APPLY SKIM COAT OF MANUFACTURER'S RECOMMENDED FIBER REINFORCED POLYMER MODIFIED MORTAR TO OBTAIN SMOOTH AND FLAT SURFACES WITHIN A TOLERANCE OF 1/8 INCH IN 10 FEET, AND TO FILL SURFACE IMPERFECTIONS. USE BONDING AGENT AS NECESSARY FOR ADEQUATE BOND.
7. APPLY COLOR MATCH PRIMER.
8. PROVIDE FINISH COAT TO MATCH EXISTING.
G. CLEAN-UP: REMOVE DIRT AND STAINS FROM DEFS SURFACES AND ADJACENT SURFACES WITHOUT DAMAGING FINISHES.

07241 EXTERIOR INSULATION AND FINISH SYSTEMS - CLASS PB
A. SUMMARY
1. THIS SECTION INCLUDES CLASS PB EXTERIOR INSULATION AND FINISH SYSTEM (EIFS) [WITH DRAINAGE] APPLIED OVER SUBSTRATE AS INDICATED ON DRAWINGS.
a. USE, MANUFACTURER, EXTENT, TEXTURE AND COLOR ARE SUBJECT TO T-MOBILE REVIEW AND APPROVAL
2. ACCEPTABLE SUBSTRATES FOR OUTSULATION SYSTEMS.
a. UNGLAZED BRICK, CEMENT PLASTER, CONCRETE, OR MASONRY.
b. EXTERIOR GRADE GYPSUM SHEATHING MEETING ASTM C79 REQUIREMENTS FOR WATER-RESISTANT CORE OR TYPE X CORE AT THE TIME OF APPLICATION OF THE OUTSULATION SYSTEM.
c. SILICONE TREATED GYPSUM CORE SHEATHING SURFACED WITH INORGANIC FIBERGLASS MATS MEETING ASTM C1177.
d. EXTERIOR FIBER REINFORCED CEMENT AND CALCIUM SILICATE BOARDS.
e. APA EXTERIOR OR EXPOSURE 1 RATED PLYWOOD, GRADE C-D OR BETTER, NOMINAL 13 MM (1/2 IN.), MINIMUM PLY.
f. APA EXPOSURE 1 RATED ORIENTED STRAND BOARD (OSB), NOMINAL 13 MM (1/2 IN.)
g. GALVANIZED EXPANDED METAL LATH 1.4 OR 1.8 KG/M2 (2.6 OR 3.3 LBS/YD2) INSTALLED OVER A SOLID SUBSTRATE.
h. DEFLECTION OF SUBSTRATE SYSTEMS SHALL NOT EXCEED L/240.
i. THE SLOPE OF INCLINED SURFACES SHALL NOT BE LESS THEN 6:12.
j. THE LENGTH OF INCLINED SURFACES SHALL NOT EXCEED 305 MM (12IN).
B. PERFORMANCE REQUIREMENTS
1. CLASS PB EIFS: COMPLY WITH PERFORMANCE CHARACTERISTICS IN EIMA'S "EIMA GUIDELINE SPECIFICATION FOR EXTERIOR INSULATION AND FINISH SYSTEMS, CLASS PB."
a. STANDARD IMPACT RESISITANCE: 25-49 INCH-LB (2.8-5.6 J) FOR AREAS ABOVE 7'-0.”
b. HIGH IMPACT RESISTANCE: 90-150 INCH-LB (10.2 - 17 J) FOR AREAS BELOW 7'-0.”
c. POSITIVE AND NEGATIVE WIND-LOAD PERFORMANCE: CAPABILITY TO WITHSTAND WIND LOADS INDICATED WHEN TESTED PER ASTM E 330.
2. DRAINAGE: 3 SAMPLES CAPABLE OF DRAINING WATER, AND HAVING AN AVERAGE MINIMUM TRUE DRAINAGE EFFICIENCY OF [90] PERCENT WHEN TESTED PER EIMA 200.2.
3. WATER-/WEATHER-RESISTIVE-BARRIER COATING: COMPLY WITH ICBO-ES AC24.
C. SUBMITTALS
1. PRODUCT DATA: FOR EACH PRODUCT INDICATED.
2. SHOP DRAWINGS: INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, PENETRATIONS, TERMINATIONS, FASTENERS, AND ATTACHMENTS TO OTHER WORK.
3. SAMPLES: FOR EACH EIFS AND FOR EACH COLOR AND TEXTURE REQUIRED.
4. FIELD QUALITY-CONTROL TEST REPORTS.
5. PRODUCT [TEST REPORTS].
6. MAINTENANCE DATA.
A. QUALITY ASSURANCE
1. INSTALLER QUALIFICATIONS: CERTIFIED IN WRITING BY EIFS MANUFACTURER TO INSTALL MANUFACTURER'S SYSTEM USING TRAINED WORKERS.
2. SOURCE LIMITATIONS: OBTAIN EIFS THROUGH ONE SOURCE FROM A SINGLE EIFS MANUFACTURER AND FROM SOURCES APPROVED BY EIFS MANUFACTURER AS COMPATIBLE WITH SYSTEM COMPONENTS.
3. FIRE-TEST-RESPONSE CHARACTERISTICS: WHERE INDICATED, PROVIDE EIFS AND SYSTEM COMPONENTS IDENTICAL TO THOSE OF EIFS AND SYSTEM COMPONENTS TESTED PER TEST METHOD INDICATED BELOW BY UL OR ANOTHER TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. IDENTIFY PRODUCTS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AND INSPECTING AGENCY.
a. FLAME SPREAD OF INSULATION BOARD AND FINISH COATS: 25 OR LESS WHEN TESTED INDIVIDUALLY PER ASTM E 84.
b. SMOKE DEVELOPED OF INSULATION BOARD AND FINISH COATS; 450 OR LESS WHEN TESTED INDIVIDUALLY PER ASTM E 84.
E. MANUFACTURERS
1. AVAILABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
2. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
a. DRYVIT SYSTEMS, INC.
b. SENERGY INC.; SKW-MBT CONSTRUCTION CHEMICALS.
c. STO CORP.
3. BASIS-OF-DESIGN PRODUCT: THE DESIGN FOR EIFS[WITH DRAINAGE] IS BASED ON DRYVIT OUTSULATION SYSTEM REQUIREMENTS. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE NAMED PRODUCT OR A COMPARABLE PRODUCT BY ONE OF THE FOLLOWING MANUFACTURERS LISTED ABOVE.
F. MATERIALS
1. COMPATIBILITY: PROVIDE SUBSTRATES, ADHESIVE, FASTENERS, BOARD INSULATION, REINFORCING MESHES, BASE- AND FINISH-COAT SYSTEMS, SEALANTS, AND ACCESSORIES THAT ARE COMPATIBLE WITH ONE ANOTHER AND APPROVED FOR USE BY EIFS MANUFACTURER FOR PROJECT.
2. WATER-/WEATHER-RESISTIVE-BARRIER COATING: FORMULATION AND ACCESSORIES DESIGNED FOR INDICATED USE.
3. PRIMER/SEALER: SUBSTRATE CONDITIONER DESIGNED TO SEAL SUBSTRATES FROM MOISTURE PENETRATION AND TO IMPROVE THE BOND BETWEEN SUBSTRATE OF TYPE INDICATED AND ADHESIVE USED FOR APPLICATION OF INSULATION.
4. DRAINAGE MAT: DESIGNED TO DRAIN INCIDENTAL MOISTURE BY GRAVITY; EIFS MANUFACTURER'S STANDARD OR PRODUCT RECOMMENDED IN WRITING BY EIFS MANUFACTURER [WITH MANUFACTURER'S STANDARD CORROSION-RESISTANT MECHANICAL FASTENERS SUITABLE FOR INTENDED SUBSTRATE].
5. SPACERS: FURRING STRIPS; EIFS MANUFACTURER'S STANDARD OR PRODUCT RECOMMENDED IN WRITING BY EIFS MANUFACTURER [WITH MANUFACTURER'S STANDARD CORROSION-RESISTANT MECHANICAL FASTENERS SUITABLE FOR INTENDED SUBSTRATE].
6. ADHESIVE FOR APPLICATION OF INSULATION: MFR'S STANDARD.
7. MOLDED, RIGID CELLULAR POLYSTYRENE BOARD INSULATION: COMPLY WITH EIFS MANUFACTURER'S REQUIREMENTS, ASTM C 578 FOR TYPE I, AND EIMA'S "EIMA GUIDELINE SPECIFICATION FOR EXPANDED POLYSTYRENE (EPS) INSULATION BOARD."
a. CHANNELED BOARD INSULATION: EIFS MANUFACTURER'S STANDARD FACTORY-FABRICATED PROFILE WITH LINEAR VERTICAL DRAINAGE CHANNELS, SLOTS, OR WAVES ON THE BACK SIDE OF BOARD.
8. REINFORCING MESH: BALANCED, ALKALI-RESISTANT, OPEN-WEAVE GLASS-FIBER MESH TREATED FOR COMPATIBILITY WITH OTHER EIFS MATERIALS AND COMPLYING WITH EIMA 105.01 AND ASTM D 578.
a. STANDARD-IMPACT REINFORCING MESH: NOT LESS THAN [4.0 OZ./SQ. YD. (136 G/SQ. M)]
b. HIGH-IMPACT REINFORCING MESH: NOT LESS THAN [15 OZ./ SQ. YD. (509 G/SQ. M)] 7'-0" DOWN TO FF.
c. DETAIL REINFORCING MESH: NOT LESS THAN [4.0 OZ./SQ. YD. (136 G/SQ. M)].
d. CORNER REINFORCING MESH: NOT LESS THAN [7.2 OZ./SQ. YD. (244 G/SQ. M)].
9. BASE-COAT MATERIALS: STANDARD MIXTURE.
10. WATERPROOF ADHESIVE/BASE-COAT MATERIALS: WATERPROOF MIXTURE.
11. PRIMER: FACTORY-MIXED ELASTOMERIC-POLYMER PRIMER FOR PREPARING BASE-COAT SURFACE FOR APPLICATION OF FINISH COAT.
12. FINISH-COAT MATERIALS: [STANDARD ACRYLIC-BASED COATING WITH ENHANCED MILDEW RESISTANCE].COLORS, TEXTURES, AND PATTERNS: REFERENCE EXTERIOR FINISH SCHEDULE ON DRAWINGS.
13. MECHANICAL FASTENERS: CORROSION-RESISTANT FASTENERS CONSISTING OF THERMAL CAP, STANDARD WASHER AND SHAFT ATTACHMENTS, AND FASTENER SUITABLE FOR SUBSTRATE.
14. TRIM ACCESSORIES: MANUFACTURED FROM UV-STABILIZED PVC AND COMPLYING WITH ASTM D 1784 AND ASTM C 1063.
A. INSTALLATION
1. GENERAL: COMPLY WITH ASTM C 1397 AND EIFS MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLATION OF EIFS AS APPLICABLE TO EACH TYPE OF SUBSTRATE INDICATED.
2. INSULATION: [ADHESIVELY AND MECHANICALLY] ATTACH TO SUBSTRATE.
3. EXPANSION JOINTS: INSTALL AT LOCATIONS INDICATED; WHERE REQUIRED BY EIFS MANUFACTURER; WHERE EXPANSION JOINTS ARE INDICATED IN SUBSTRATES BEHIND EIFS; WHERE EIFS ADJOIN DISSIMILAR SUBSTRATES, MATERIALS, AND CONSTRUCTION; AT FLOOR LINES IN MULTILEVEL WOOD-FRAMED CONSTRUCTION; AND WHERE WALL HEIGHT CHANGES.

DIVISION 7 - THERMAL AND MOISTURE, CONT.

4. BASE COAT: APPLY TO EXPOSED SURFACES OF INSULATION IN MINIMUM THICKNESS RECOMMENDED IN WRITING BY EIFS MANUFACTURER, BUT NOT LESS THAN [1/16-INCH (1.6-MM)] DRY-COAT THICKNESS.
5. REINFORCING MESH: COMPLETELY EMBED MESH IN WET BASE COAT, APPLYING ADDITIONAL BASE-COAT MATERIAL IF NECESSARY, SO REINFORCING-MESH COLOR AND PATTERN ARE NOT VISIBLE.
6. DOUBLE-LAYER REINFORCING MESH APPLICATION: WHERE INDICATED, APPLY SECOND BASE COAT AND SECOND LAYER OF [STANDARD] IMPACT REINFORCING MESH.
7. DOUBLE BASE-COAT APPLICATION: WHERE INDICATED, APPLY IN SAME MANNER AND THICKNESS AS FIRST APPLICATION EXCEPT WITHOUT REINFORCING MESH.
8. FINISH COAT: APPLY OVER DRY [PRIMER] AND [BASE COAT], MAINTAINING A WET EDGE AT ALL TIMES FOR UNIFORM APPEARANCE, IN THICKNESS REQUIRED BY EIFS MANUFACTURER TO PRODUCE A UNIFORM FINISH OF COLOR AND TEXTURE MATCHING APPROVED SAMPLE AND FREE OF COLD JOINTS, SHADOW LINES, AND TEXTURE VARIATIONS. (FINE SAND TEXTURED FINISH).
H. FIELD QUALITY CONTROL
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION OF THE OUTSULATION MATERIALS.
2. MANUFACTURER ASSUMES NO RESPONSIBILITY FOR ON-SITE INSPECTIONS OR APPLICATION OF ITS PRODUCTS.
3. IF REQUIRED, THE CONTRACTOR SHALL CERTIFY IN WRITING THE QUALITY OF WORK PERFORMED RELATIVE TO THE SUBSTRATE SYSTEM,DETAILS, INSTALLATION PROCEDURES, WORKMANSHIP AND AS TO THE SPECIFIC PRODUCTS USED.
4. IF REQUIRED, THE EPS SUPPLIER SHALL CERTIFY IN WRITING THA THE EPS MEETS MANUFACTURER'S SPECIFICATIONS.
5. IF REQUIRED, THE SEALANT CONTRACTOR SHALL CERTIFY IN WRITING THAT THE SEALANT APPLICATION IS IN ACCORDANCE WITH THE SEALANT MANUFACTURER'S AND MANUFACTURER'S RECOMMENDATIONS.
I. CLEANING
1. ALL EXCESS OUTSULATION SYSTEM MATERIALS SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR IN ACCORDANCE WITH CONTRACT PROVISIONS AND AS REQUIRED BY APPLICABLE LAW.
2. ALL SURROUNDING AREAS, WHERE THE OUTSULATION SYSTEM HAS BEEN INSTALLED, SHALL BE LEFT FREE OF DEBRIS AND FOREIGN SUBSTANCES RESULTING FROM THE CONTRACTOR'S WORK.
J. PROTECTION
1. THE OUTSULATION SYSTEM SHALL BE PROTECTED FROM INCLEMENT WEATHER AND OTHER SOURCES OF DAMAGE UNTIL DRY AND PERMANENT PROTECTION IN THE FORM OF FLASHINGS, SEALANTS, ETC. ARE INSTALLED.

SECTION 07415 - COMPOSITE WALL PANELS OR BRAKE METAL (IF NOTED ON DRAWINGS)
A. PERFORMANCE REQUIREMENTS
1. DELEGATED DESIGN: DESIGN METAL-FACED COMPOSITE WALL PANEL OR BRAKE METAL ASSEMBLY, INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER.STRUCTURAL PERFORMANCE: PROVIDE METAL-FACED COMPOSITE WALL PANEL ASSEMBLIES CAPABLE OF WITHSTANDING THE EFFECTS OF THE FOLLOWING LOADS AND STRESSES WITHIN LIMITS ANDUNDER CONDITIONS INDICATED, BASED ON TESTING ACCORDING TO ASTM E 330:
2. WIND LOADS: DETERMINE LOADS BASED ON THE FOLLOWING MINIMUM DESIGN WIND PRESSURES: 20 LBF/SQ. FT. UNIFORM PRESSURE OF ACTING (957 PA) INWARD OR OUTWARD.
3. DEFLECTION LIMITS: METAL-FACED COMPOSITE WALL PANEL ASSEMBLIES SHALL WITHSTAND WIND LOADS WITH HORIZONTAL DEFLECTIONS NO GREATER THAN [1/175 OF THE SPAN AT THE PERIMETER AND 1/60 OF THE SPAN ANYWHERE IN THE PANEL] < OF THE SPAN.
B. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
1. SHOP DRAWINGS: SHOW FABRICATION AND INSTALLATION LAYOUTS OF METAL-FACED COMPOSITE WALL PANELS; DETAILS OF EDGE CONDITIONS, JOINTS, PANEL PROFILES, CORNERS, ANCHORAGES, ATTACHMENT SYSTEM, TRIM, FLASHINGS, CLOSURES, AND ACCESSORIES; AND SPECIAL DETAILS. DISTINGUISH AMONG FACTORY-, SHOP-, AND FIELD-ASSEMBLED WORK. SAMPLES: FOR EACH TYPE OF EXPOSED FINISH REQUIRED.
2. DELEGATED-DESIGN SUBMITTAL: FOR METAL-FACED COMPOSITE WALL PANEL ASSEMBLY INDICATED TO COMPLY WITH PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA, INCLUDING ANALYSIS DATA AND CALCULATIONS SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION. COORDINATION DRAWINGS: EXTERIOR ELEVATIONS, DRAWN TO SCALE, ON WHICH THE FOLLOWING ITEMS ARE SHOWN AND COORDINATED WITH EACH OTHER.
C. QUALITY ASSURANCE
1. MANUFACTURER QUALIFICATIONS: MINIMUM 5 YEARS CONTINUOUS EXPERIENCE MANUFACTURING THE PANEL MATERIAL SPECIFIED, WITH NO OUTSOURCED PRODUCTION PROCESSES.ISO 9001 CERTIFIED.
2. FABRICATOR QUALIFICATIONS: MINIMUM 3 YEARS EXPERIENCE ON PROJECTS OF COMPARABLE SCOPE AND SCALE, AND CAPABLE OF PROVIDING FIELD SERVICE REPRESENTATION DURING CONSTRUCTION. INSTALLER QUALIFICATIONS: MINIMUM 3 YEARS EXPERIENCE ON PROJECTS OF COMPARABLE SCOPE AND SCALE, AND CAPABLE OF PROVIDING FIELD SERVICE REPRESENTATION DURING CONSTRUCTION.
3. FIRE-RESISTANCE RATINGS: WHERE INDICATED, PROVIDE METAL-FACED COMPOSITE WALL PANELS IDENTICAL TO THOSE OF ASSEMBLIES TESTED FOR FIRE RESISTANCE PER ASTM E 119 BY A QUALIFIED TESTING AGENCY. IDENTIFY PRODUCTS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AGENCY.
D. WARRANTY
1. SPECIAL WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF METAL-FACED COMPOSITE WALL PANEL ASSEMBLIES THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.
2. WARRANTY PERIOD: [TEN] YEARS FROM DATE OF SUBSTANTIAL COMPLETION.
3. SPECIAL WARRANTY ON PANEL FINISHES: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR FINISH OR REPLACE METAL-FACED COMPOSITE WALL PANELS THAT SHOW EVIDENCE OF DETERIORATION OF FACTORY -APPLIED FINISHES WITHIN SPECIFIED WARRANTY PERIOD.
4. FINISH WARRANTY PERIOD: [20] > YEARS FROM DATE OF SUBSTANTIAL COMPLETION.
E. PRODUCTS
1. PANEL MATERIALS.
a. ALUMINUM SHEET: COIL-COATED SHEET, ASTM B 209), ALLOY AS STANDARD WITH MANUFACTURER, WITH TEMPER AS REQUIRED TO SUIT FORMING OPERATIONS AND STRUCTURAL PERFORMANCE REQUIRED.
2. SURFACE: SMOOTH, FLAT FINISH.
3. EXPOSED COIL-COATED FINISHES:
a. TWO-COAT FEVE FLUOROPOLYMER: AAMA 620.
b. TWO-COAT PVDF FLUOROPOLYMER: AAMA 620.
4. EXPOSED ANODIZED FINISHES:
a. COLOR ANODIC FINISH: AAMA 611, [AA-M12C22A42/A44, CLASS I, 0.018 MM] [AA-M12C22A32/A34, CLASS II, 0.010 MM] OR THICKER.
b. CONCEALED FINISH: APPLY PRETREATMENT AND MANUFACTURER'S STANDARD WHITE OR LIGHT-COLORED ACRYLIC OR POLYESTER BACKER FINISH, CONSISTING OF PRIME COAT AND WASH COAT 0.5 MIL WITH A MINIMUM TOTAL DRY FILM THICKNESS OF . (0.013 MM)
5. PANEL SEALANTS: ASTM C 920.
F. MISCELLANEOUS METAL FRAMING
1. MISCELLANEOUS METAL FRAMING, GENERAL: ASTM C 645, COLD-FORMED METALLIC-COATED STEEL SHEET, [ASTM A 653 /A 653M, G40 (Z120) HOT-DIP GALVANIZED] OR COATING WITH EQUIVALENT CORROSION RESISTANCE UNLESS OTHERWISE INDICATED.
2. SUBGIRTS: MANUFACTURER'S STANDARD C- OR Z-SHAPED SECTIONS 0.064-INCH (1.63-MM) NOMINAL THICKNESS.
3. ZEE CLIPS: 0.079-INCH (2.01-MM) NOMINAL THICKNESS.
4. BASE OR SILL [ANGLES] [CHANNELS]: 0.079-INCH (2.01-MM) NOMINAL THICKNESS.
5. HAT-SHAPED, RIGID FURRING CHANNELS: NOMINAL THICKNESS: [AS INDICATED] [AS REQUIRED TO MEET PERFORMANCE REQUIREMENTS] [0.025 INCH (0.64MM)] > DEPTH: [AS INDICATED] [1-1/2 INCHES (38 MM)]
6. COLD-ROLLED FURRING CHANNELS: MINIMUM 1/2-INCH- (13-MM-) WIDE FLANGE. NOMINAL THICKNESS: [AS INDICATED] [AS REQUIRED TO MEET PERFORMANCE REQUIREMENTS] [0.064 INCH (1.63MM)]< DEPTH: [AS INDICATED] [3/4 INCH (19 MM)] <
7. FURRING BRACKETS: ADJUSTABLE, CORRUGATED-EDGE TYPE OF STEEL SHEET WITH NOMINAL THICKNESS OF 0.040 INCH (1.02 . MM)
8. TIE WIRE: ASTM A 641/A 641M, CLASS 1 ZINC COATING, SOFT TEMPER, 0.062-INCH-(1.57-MM-) DIAMETER WIRE, OR DOUBLE STRAND OF 0.048-INCH- (1.22-MM-) DIAMETER WIRE.
G. MISCELLANEOUS MATERIALS
1. ALUMINUM EXTRUSIONS: ASTM B 221
2. FASTENERS: SELF-TAPPING SCREWS, BOLTS, NUTS, SELF-LOCKING RIVETS AND BOLTS, END-WELDED STUDS, AND OTHER SUITABLE FASTENERS DESIGNED TO WITHSTAND DESIGN LOADS. PROVIDE EXPOSED FASTENERS WITH HEADS MATCHING COLOR OF METAL-FACED COMPOSITE WALL PANELS BY MEANS OF PLASTIC CAPS OR FACTORY-APPLIED COATING. PROVIDE EPDM, PVC, OR NEOPRENE SEALING WASHERS. NO VISIBLE MECHANICAL FASTENERS.

DIVISION 7 - THERMAL AND MOISTURE, CONT.

H. METAL-FACED COMPOSITE WALL PANELS OR BRAKE METAL
1. GENERAL: PROVIDE FACTORY-FORMED AND -ASSEMBLED, METAL-FACED COMPOSITE WALL PANELS FABRICATED FROM TWO METAL FACINGS BONDED, USING NO GLUES OR ADHESIVES, TO SOLID, EXTRUDED THERMOPLASTIC CORE; FORMED INTO PROFILE FOR INSTALLATION METHOD INDICATED. INCLUDE ATTACHMENT SYSTEM COMPONENTS AND ACCESSORIES REQUIRED FOR WEATHERTIGHT SYSTEM.
2. FIRE-RETARDANT CORE: NONCOMBUSTIBLE, WITH THE FOLLOWING SURFACE-BURNING CHARACTERISTICS AS DETERMINED BY TESTING IDENTICAL PRODUCTS PER ASTM E 84 BY UL OR ANOTHER TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION:
3. FLAME-SPREAD INDEX: 25 OR LESS.
4. SMOKE-DEVELOPED INDEX: 450 OR LESS.
5. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE ALPOLIC, DIVISION OF MITSUBISHI CHEMICAL AMERICA, INC.; [ALPOLIC] [ALPOLIC/FR] OR A COMPARABLE PRODUCT FROM ONE OF THE FOLLOWING:
a. ALCAN COMPOSITES USA INC.; [ALUCOBOND]
b. AMERICAN PRODUCTS, INC.: [API]
c. ALCOA INC.; REYNOBOND [PE]
6. ALUMINUM-FACED COMPOSITE WALL PANELS: FORMED WITH 0.020-INCH- (0.50-MM-) THICK, COIL-COATED, ALUMINUM SHEET FACINGS.
a. PANEL THICKNESS: [0.157 INCH (4 MM)] - 20G STEEL INTERIOR APPLICATION / 18G STEEL EXTERIOR APPLICATION
b. EXTERIOR FINISH: 2-COAT FLUOROPOLYMER (TIGER DRYLAC OR EQUAL)
c. COLOR: AS NOTED ON DRAWINGS.
d. ATTACHMENT SYSTEM COMPONENTS: FORMED FROM MATERIAL COMPATIBLE WITH PANEL FACING.
I. ACCESSORIES
1. WALL PANEL ACCESSORIES: PROVIDE COMPONENTS REQUIRED FOR A COMPLETE METAL-FACED COMPOSITE WALL PANEL ASSEMBLY INCLUDING TRIM, COPINGS, FASCIA, MULLIONS, SILLS, CORNER UNITS, CLIPS, FLASHINGS, SEALANTS, GASKETS, FILLERS, CLOSURE STRIPS, AND SIMILAR ITEMS. MATCH MATERIAL AND FINISH OF METAL-FACED COMPOSITE WALL PANELS UNLESS OTHERWISE INDICATED.
2. FLASHING AND TRIM: FORMED FROM 0.018-INCH- (0.46-MM-) MINIMUM THICKNESS, ZINC-COATED (GALVANIZED) STEEL SHEET OR ALUMINUM-ZINC ALLOY-COATED STEEL SHEET PREPAINTED WITH COIL COATING. PROVIDE FLASHING AND TRIM AS REQUIRED TO SEAL AGAINST WEATHER AND TO PROVIDE FINISHED APPEARANCE. LOCATIONS INCLUDE, BUT ARE NOT LIMITED TO, BASES, DRIPS, SILLS, JAMBS, CORNERS, ENDWALLS, FRAMED OPENINGS, RAKES, FASCIA, PARAPET CAPS, SOFFITS, REVEALS, AND FILLERS. FINISH FLASHING AND TRIM WITH SAME FINISH SYSTEM AS ADJACENT METAL-FACED COMPOSITE WALL PANELS.
J. FABRICATION
1. GENERAL: FABRICATE AND FINISH METAL-FACED COMPOSITE WALL PANELS AND ACCESSORIES AT THE FACTORY TO GREATEST EXTENT POSSIBLE, BY MANUFACTURER'S STANDARD PROCEDURES AND PROCESSES, AS NECESSARY TO FULFILL INDICATED PERFORMANCE REQUIREMENTS DEMONSTRATED BY LABORATORY TESTING. COMPLY WITH INDICATED PROFILES AND WITH DIMENSIONAL AND STRUCTURAL REQUIREMENTS.
2. FABRICATE METAL-FACED COMPOSITE WALL OR BRAKE METAL PANELS IN A MANNER THAT ELIMINATES CONDENSATION ON INTERIOR SIDE OF PANEL AND WITH JOINTS BETWEEN PANELS DESIGNED TO FORM WEATHER TIGHT SEALS.
3. METAL-FACED COMPOSITE WALL PANELS: FACTORY FORM PANELS IN A CONTINUOUS PROCESS WITH NO GLUES OR ADHESIVES BETWEEN DISSIMILAR MATERIALS. TRIM AND SQUARE EDGES OF SHEETS WITH NO DISPLACEMENT OF FACE SHEETS OR PROTRUSION OF CORE MATERIAL.
4. FORM PANEL LINES, BREAKS, AND ANGLES TO BE SHARP AND TRUE, WITH SURFACES FREE FROM WARP AND BUCKLE.
5. FABRICATE PANELS WITH SHARPLY CUT EDGES, WITH NO DISPLACEMENT OF FACE SHEETS OR PROTRUSION OF CORE MATERIAL.
6. FABRICATE PANELS WITH PANEL STIFFENERS, AS REQUIRED TO COMPLY WITH DEFLECTION LIMITS, ATTACHED TO BACK OF PANELS WITH STRUCTURAL SILICONE SEALANT OR BOND TAPE.
7. DIMENSIONAL TOLERANCES:
a. PANEL BOW: 0.5 PERCENT MAXIMUM OF PANEL LENGTH OR WIDTH.
b. SQUARENESS: 0.25 INCH (5 MM) MAXIMUM.
c. SHEET METAL ACCESSORIES: FABRICATE FLASHING AND TRIM TO COMPLY WITH RECOMMENDATIONS IN SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL" THAT APPLY TO DESIGN, DIMENSIONS, METAL, AND OTHER CHARACTERISTICS OF ITEM INDICATED.
K. PREPARATION
1. MISCELLANEOUS FRAMING: INSTALL SUBGIRTS, BASE ANGLES, SILLS, FURRING, AND OTHER MISCELLANEOUS WALL PANEL SUPPORT MEMBERS AND ANCHORAGE ACCORDING TO ASTM C 754 AND METAL-FACED COMPOSITE WALL PANEL MANUFACTURER'S WRITTEN INSTRUCTIONS.
L. METAL-FACED COMPOSITE WALL PANEL AND BRAKE METAL INSTALLATION
1. ATTACHMENT SYSTEM INSTALLATION, GENERAL: INSTALL ATTACHMENT SYSTEM REQUIRED TO SUPPORT METAL-FACED COMPOSITE WALL PANELS AND TO PROVIDE A COMPLETE WEATHERTIGHT WALL SYSTEM, INCLUDING SUBGIRTS, PERIMETER EXTRUSIONS, TRACKS, DRAINAGE CHANNELS, PANEL CLIPS, AND ANCHOR CHANNELS.
2. INCLUDE ATTACHMENT TO SUPPORTS, PANEL-TO-PANEL JOINERY, PANEL-TO-DISSIMILAR-MATERIAL JOINERY, AND PANEL-SYSTEM JOINT SEALS.
3. DO NOT BEGIN INSTALLATION UNTIL WEATHER BARRIER AND FLASHINGS THAT WILL BE CONCEALED BY COMPOSITE PANELS ARE INSTALLED.
4. SEAL HORIZONTAL AND VERTICAL JOINTS BETWEEN ADJACENT PANELS WITH SEALANT BACKING AND SEALANT. INSTALL SEALANT BACKING AND SEALANT ACCORDING TO REQUIREMENTS SPECIFIED IN DIVISION 7 SECTION "JOINT SEALANTS."
5. ATTACH ROUTED-AND-RETURNED FLANGES OF WALL PANELS TO PERIMETER EXTRUSIONS WITH MANUFACTURER'S STANDARD FASTENERS. ATTACH FLUSH WALL PANELS TO PERIMETER EXTRUSIONS BY ENGAGING PANEL EDGES AND BY ATTACHING WITH MANUFACTURER'S STANDARD STRUCTURAL SILICONE ADHESIVE. INSTALL WALL PANELS TO ALLOW INDIVIDUAL PANELS TO "FREE FLOAT" AND BE INSTALLED AND REMOVED WITHOUT DISTURBING ADJACENT PANELS. DO NOT APPLY SEALANTS TO JOINTS UNLESS OTHERWISE INDICATED ON DRAWINGS.
M. ACCESSORY INSTALLATION
1. GENERAL: INSTALL ACCESSORIES WITH POSITIVE ANCHORAGE TO BUILDING AND WEATHERTIGHT MOUNTING AND PROVIDE FOR THERMAL EXPANSION. COORDINATE INSTALLATION WITH FLASHINGS AND OTHER COMPONENTS.
2. INSTALL COMPONENTS REQUIRED FOR A COMPLETE METAL-FACED COMPOSITE WALL PANEL ASSEMBLY INCLUDING TRIM, COPINGS, CORNERS, SEAM COVERS, FLASHINGS, SEALANTS, GASKETS, FILLERS, CLOSURE STRIPS, FRY REGLETS, AND SIMILAR ITEMS.
3. FLASHING AND TRIM: COMPLY WITH PERFORMANCE REQUIREMENTS, MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AND SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL." PROVIDE CONCEALED FASTENERS WHERE POSSIBLE, AND SET UNITS TRUE TO LINE AND LEVEL AS INDICATED. INSTALL WORK WITH LAPS, JOINTS, AND SEAMS THAT WILL BE PERMANENTLY WATERTIGHT AND WEATHER RESISTANT.
N. ERECTION TOLERANCES
1. 1. INSTALLATION TOLERANCES: SHIM AND ALIGN METAL-FACED COMPOSITE WALL PANEL UNITS WITHIN INSTALLED TOLERANCE
2. OF 1/4 INCH IN 20 FEET (6 MM IN 6 M), NONACCUMULATIVE, ON LEVEL, PLUMB, AND LOCATION LINES AS INDICATED
3. AND WITHIN 1/8 INCH (3-MM) OFFSET OF ADJOINING FACES AND OF ALIGNMENT OF MATCHING PROFILES.
O. CLEANING
1. REMOVE TEMPORARY PROTECTIVE COVERINGS AND STRIPPABLE FILMS, IF ANY, AS METAL-FACED COMPOSITE WALL PANELS ARE INSTALLED UNLESS OTHERWISE INDICATED IN MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. ON COMPLETION OF METAL-FACED COMPOSITE WALL PANEL INSTALLATION, CLEAN FINISHED SURFACES AS RECOMMENDED BY PANEL MANUFACTURER. MAINTAIN IN A CLEAN CONDITION DURING CONSTRUCTION.

079200 JOINT SEALANTS
A. QUALITY ASSURANCE: USE ONLY SKILLED INSTALLERS SPECIALLY TRAINED IN THE TECHNIQUES OF SEALING, AND FAMILIAR WITH THE PUBLISHED RECOMMENDATIONS OF THE MANUFACTURERS OF THE SEALANTS BEING USED.
B. SEALANTS:
TYPE S - NEUTRAL CURE SILICONE SEALANTS:
a. DOW CORNING, 790 SILICONE BUILDING SEALANT, OR 795 SILICONE STRUCTURAL GLAZING AND WEATHERPROOFING SEALANT.
b. PECORA, 890 ARCHITECTURAL SILICONE SEALANT.
c. TREMCO "SPECTREM" 1 OR 3.
2. TYPE PT: ASTM C920, TYPE S, GRADE P, CLASS 25; TREMCO "THC 901", SONNEBORN "SONOLASTIC SL 1", PECORA "UREXPAN NR-201", OR APPROVED.
3. TYPE PTNS: ASTM C920, TYPE M, GRADE NS, CLASS 25; PECORA "DYNATRED," TREMCO "HPL," OR APPROVED; CUSTOM COLORS TO MATCH ARCHITECT'S SAMPLES.

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ARCHITECT:
FUZION
9096 EAST BAHIA DRIVE
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DESIGN@FUZIONVE.COM
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VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
SPECIFICATIONS

SHEET NUMBER:
A702

DIVISION 7 - THERMAL AND MOISTURE, CONT.

4. TYPE A: ASTM C834; TREMCO "ACRYLIC LATEX CAULK", PECORA "AC-20", SONNEBORN "SONOLAC" OR APPROVED.
5. TYPE SM: MILDEW RESISTANT SILICONE SEALANT: USDA APPROVED; DOW CORNING 786 BY DOW CHEMICAL, GE SANITARY SEALANT OR APPROVED; CLEAR.

C. ACCESSORY MATERIALS:
1. PRIMER: NON-STAINING TYPE, RECOMMENDED BY SEALANT MANUFACTURER TO SUIT APPLICATION.
2. JOINT CLEANER: NON-CORROSIVE AND NON-STAINING TYPE, RECOMMENDED BY SEALANT MANUFACTURER; COMPATIBLE WITH JOINT FORMING MATERIALS.
3. JOINT FILLER: CLOSED CELL POLYETHYLENE FOAM; ROUND PROFILE; THICKNESS: 130%%% OF JOINT WIDTH.
4. BOND BREAKER: PRESSURE SENSITIVE TAPE RECOMMENDED BY SEALANT MANUFACTURER TO SUIT APPLICATION.
5. COMPRESSIBLE FOAM SEALANT: PRECOMPRESSED PREFACED SELF-ADHESIVE OPEN CELL POLYURETHANE FOAM TAPE; "BACKERSEAL" BY EMSEAL JOINT SYSTEMS, LTD., OR APPROVED.

D. PREPARATION:
1. CLEAN AND PREPARE JOINTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE LOOSE MATERIALS AND OTHER FOREIGN MATTER WHICH MIGHT IMPAIR ADHESION OF SEALANT.
2. APPLY MASKING TIGHTLY AROUND JOINTS TO PROTECT ADJACENT SURFACES FROM EXCESS SEALANT.
3. PRIME AS REQUIRED FOR PROPER BOND TO SUBSTRATE MATERIALS.

E. INSTALLATION:
1. PERFORM WORK IN ACCORDANCE WITH ASTM C1193, UNLESS SPECIFIED OTHERWISE OR RECOMMENDED OTHERWISE BY THE SEALANT MANUFACTURER.
2. SEALANT BEADS SHALL HAVE A SECTIONAL WIDTH TO DEPTH RATIO OF 2 TO 1, EXCEPT THAT SEALANT TYPE PT SHALL BE INSTALLED FULL DEPTH WITHOUT BACKING.
3. INSTALL TYPE PTNS SEALANT FULL DEPTH IN TILE EXPANSION JOINTS WITH NO BACKER ROD.
4. TOOL JOINTS CONCAVE, UNLESS INDICATED OTHERWISE. FINISH FREE OF AIR POCKETS, FOREIGN EMBEDDED MATTER, RIDGES, AND SAGS.
5. PROTECT SEALANT IN JOINTS SUBJECT TO DIRT, MOISTURE, AND TRAFFIC DURING THE SEALANT CURING PROCESS. PROTECTION SHALL BE ABLE TO RESIST TRAFFIC WHILE REMAINING SECURELY IN POSITION.

F. SCHEDULE:
1. TYPE S: PROVIDE AT ALL EXTERIOR JOINTS UNLESS SPECIFIED OTHERWISE; STANDARD COLORS AS SELECTED BY ARCHITECT.
2. TYPE PT: PROVIDE AT ALL EXTERIOR HORIZONTAL JOINTS SUBJECT TO TRAFFIC AND ABRASION; STANDARD COLORS AS SELECTED BY ARCHITECT.
3. TYPE PTNS: PROVIDE AT ALL EXPANSION JOINTS IN TILE; CUSTOM COLORS TO MATCH GROUT SAMPLES SUBMITTED BY TILE INSTALLER.
4. TYPE A: PROVIDE AT ALL INTERIOR JOINTS, UNLESS SPECIFIED OTHERWISE; STANDARD COLORS TO MATCH ADJACENT CONSTRUCTION.
5. TYPE SM: PROVIDE AT JOINTS AROUND COUNTERTOPS IN BACH OF HOUSE (BOH) AND RESTROOMS.

DIVISION 8 - OPENINGS

081113 HOLLOW METAL DOORS AND FRAMES

A. SUMMARY:
1. INTERIOR DOOR FRAMES TO BE NOTED ON DOOR SCHEDULE PROVIDE "TIMELY" (OR EQUAL) PRE-FINISHED DOOR FRAME SYSTEMS (METAL) FOR
2. EXTERIOR DOORS AND FRAMES, WHEN INDICATED ON THE DRAWINGS.

B. REGULATORY REQUIREMENTS:
1. WHERE REQUIRED, INSTALLED FRAME AND DOOR ASSEMBLY SHALL CONFORM TO NFPA 80 FOR FIRE RATED CLASS INDICATED.
2. WHERE DOORS ARE NOTED WITH AN HOURLY FIRE RESISTANCE RATING, PROVIDE DOOR AND FRAME ASSEMBLIES LABELED BY UNDERWRITER'S LABORATORY (UL), OR ANOTHER TESTING LABORATORY APPROVED BY THE LOCAL CODE AUTHORITIES, TO MEET THE HOURLY FIRE RATING NOTED. ASSEMBLIES SHALL MEET CODE REQUIREMENTS FOR POSITIVE PRESSURE WHEN REQUIRED.
3. INCLUDE "S" LABEL ON FIRE RATED DOOR ASSEMBLIES LOCATED AT 1 HOUR RATED EXIT CORRIDORS.

C. QUALITY ASSURANCE:
1. CONFORM TO REQUIREMENTS OF ANSI A250.8.

D. ACCEPTABLE MANUFACTURERS: MEMBERS OF THE STEEL DOOR INSTITUTE AND OF THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS, SUBJECT TO COMPLIANCE WITH SPECIFIED REQUIREMENTS.

E. MATERIALS: STEEL SHEET, COLD ROLLED ASTM A366, OR HOT ROLLED PICKLED AND OILED SHEET CONFORMING TO ASTM A 569, MINIMUM 30% RECYCLED CONTENT.

F. INTERIOR DOOR CONSTRUCTION:
1. ANSI A250.8; SEAMLESS; MINIMUM 18 GA FACE SHEETS, 16 GA AT INVENTORY ROOM.
2. CORE: VERTICAL STEEL STIFFENERS WITH SOUND DEADENING FILL BETWEEN STIFFENERS, OR RESIN IMPREGNATED KRAFT PAPER HONEY COMB CORE.
3. PROVIDE CONTINUOUSLY WELDED SEAMLESS EDGES. NO PLASTIC FILLERS WILL BE ACCEPTED.

G. EXTERIOR DOOR CONSTRUCTION:
1. ANSI A250.8; SEAMLESS; MINIMUM 16 GA FACE SHEETS.
2. CORE: POLYSTYRENE OR POLYURETHANE FOAM CORE.
3. SPECIAL CONSTRUCTION REQUIREMENTS:
a. PROVIDE CONTINUOUSLY WELDED SEAMLESS EDGES. NO PLASTIC FILLERS WILL BE ACCEPTED.
b. CLOSE TOP EDGES OF EXTERIOR DOORS FLUSH WITH STEEL FILLER CAP; SEAL JOINTS WATERTIGHT.
c. CUT MORTISES FOR BUTTS USING APPROPRIATE TEMPLATES; UNIVERSAL NON-HANDED PREPARATION OF DOORS IS NOT ACCEPTABLE.

H. FRAMES:
1. DESIGN: DOUBLE RABBET, EXCEPT FLAT, CASED OPENING FRAME WHERE INDICATED ON PLANS, UNLESS SPECIFIED OR INDICATED OTHERWISE; FULLY WELDED.
2. GAS:
a. EXTERIOR FRAMES: MINIMUM 14 GA.
b. INTERIOR FRAMES: MINIMUM 16 GA FOR FRAMES OF DOOR OPENINGS UP TO AND INCLUDING 4 FEET IN WIDTH;14 GA FOR FRAMES GREATER THAN 4 FEET IN WIDTH.

A. FINISH:
1. INTERIOR FRAMES: MANUFACTURER'S STANDARD RUST-INHIBITIVE PRIMER.
2. EXTERIOR FRAMES: HOT DIP GALVANIZED ZINC COATING CONFORMING TO ASTM A653 A60 (.60 OZ/SQ FT. COATING WEIGHT), WITH MANUFACTURER'S STANDARD PRIMER TO RECEIVE COATING SYSTEM SPECIFIED IN SECTION 099000.

J. INSTALLATION OF FRAMES:
1. INSTALL FRAMES IN ACCORDANCE WITH SDI-105 AND IN ACCORDANCE WITH LABELING REQUIREMENTS.
2. COORDINATE WITH WALL CONSTRUCTION FOR ANCHOR PLACEMENT.
3. INSTALLATION TOLERANCES; MAXIMUM DIAGONAL DISTORTION: 1/16 INCH MEASURED WITH STRAIGHT EDGE, CORNER TO CORNER.
4. DOOR AND HARDWARE INSTALLATION IS SPECIFIED IN SECTION 087300.

081400 WOOD DOORS

A. SOLID CORE FLUSH DOORS:
1. 1. APPROVED MANUFACTURERS: ONE OF THE FOLLOWING.
a. ALGOMA HARDWOODS, INC. (ALGOMA WI; 920-487-5221; 800-678-8910).
b. EGGERS INDUSTRIES (TWO RIVERS WI; 920-793-1351).
c. VANCOUVER DOOR (PUYALLUP WA, 800-999-3667)
d. OREGON DOOR (WINSTON OR, 800-722-7269)
2. AWI SECTION 1300, PREMIUM GRADE.
3. CORE: UREA-FORMALDEHYDE FREE, SOLID PARTICLE BOARD CORE, UNLESS REQUIRED OTHERWISE FOR FIRE LABELING REQUIREMENTS.
4. AWI PC-5 (5 OR 7 PLY CONSTRUCTION).
5. PROVIDE LABELED DOORS AS REQUIRED TO MEET THE HOURLY FIRE RATING INDICATED.
6. WHERE INTUMESCENT SEALS ARE REQUIRED TO MEET POSITIVE PRESSURE LABELING REQUIREMENTS, PROVIDE CONCEALED EDGE SEALING SYSTEM BUILT INTO THE DOOR EDGE.
7. 1-3/4 INCH THICK, UNLESS SCHEDULED OTHERWISE.
8. FRAMES: PROVIDED UNDER SECTION 081113.

B. FABRICATION:
1. FABRICATE DOORS TO THE CONFIGURATIONS INDICATED, IN ACCORDANCE WITH THE AWI STANDARDS SPECIFIED, AND TO FIRE RATED LABELING REQUIREMENTS. ATTACH FIRE RATING LABELS.
2. BEVEL LOCK AND HINGE EDGES 1/8 INCH IN 2 INCHES ON ALL SINGLE ACTING DOORS.

DIVISION 8 - OPENINGS, CONT.

3. BOND EDGE BANDING TO SOLID CORE WITH HOT MELT OR RF CURED ADHESIVE.
4. PRE-FIT AND PRE-MACHINE DOORS IN ACCORDANCE WITH AWI 1300-S-6. PRE-MACHINE FOR HARDWARE SPECIFIED IN SECTION 087000, AND LOCATE AS SPECIFIED IN SECTION 087300.
5. DOORS SHALL BE FACTORY PREFINISHED AS SCHEDULED TO MATCH ARCHITECT'S SAMPLE; AWI PREMIUM GRADE, LOW VOC, POLYURETHANE SYSTEM.
6. WHERE REQUIRED TO MEET LABELING REQUIREMENTS, PROVIDE METAL ASTRAGALS TO MEET RATING REQUIREMENTS FOR DOUBLE FIRE DOORS.
7. FACTORY PRE-GLAZE DOORS.
8. FLUSH DOOR BLOCKING: FOR FLUSH DOORS, PROVIDE SOLID LOCK BLOCKS AND SPECIAL BLOCKING AS REQUIRED FOR THE HARDWARE COMPONENTS SPECIFIED ELSEWHERE. BLOCKING FOR FIRE RATED DOORS SHALL MEET THE DOOR MANUFACTURER'S LABELING REQUIREMENTS.

C. INSTALLATION:
1. FIT AND PREPARE DOORS FOR INSTALLATION IN ACCORDANCE WITH THE DOOR MANUFACTURER'S PRINTED INSTRUCTIONS.
2. PROVIDE CLEARANCES OF 1/8 INCH AT JAMBS AND HEADS AND 3/8 INCH FROM BOTTOM OF DOOR TO TOP OF DECORATIVE FLOOR FINISH OR COVERING, EXCEPT WHERE THRESHOLD IS SHOWN OR SCHEDULED PROVIDE 1/4 INCH CLEARANCE FROM BOTTOM OF DOOR TO TOP OF THRESHOLD.

083100 ACCESS DOORS AND PANELS

A. QUALITY ASSURANCE:
1. WHERE ACCESS DOORS ARE INSTALLED IN CONSTRUCTION WITH AN HOURLY FIRE RESISTANCE RATING, PROVIDE DOOR AND FRAME ASSEMBLIES LABELED BY UNDERWRITER'S LABORATORY, WARNOCK HERSEY, OR ANY OTHER TESTING LABORATORY APPROVED BY THE LOCAL CODE AUTHORITIES TO MEET THE REQUIREMENTS OF THE FIRE RATED ASSEMBLY.

B. ACCEPTABLE MANUFACTURERS:
1. MILCOR, INC., LIMA, OH.
2. J.L. INDUSTRIES, BLOOMINGTON, MN.
3. KARP ASSOCIATES, INC., MASPETH, NY.
4. MM SYSTEMS CORPORATION, TUCKER, GA.
5. NYSTROM, MINNEAPOLIS, MN

C. DOOR TYPES:
1. FIRE RATED METAL ACCESS DOOR FOR USE AT RATED PARTITIONS:
a. FLUSH TYPE DESIGN.
b. 16 GA FRAME; MINIMUM 20 GA STEEL WELDED PAN DOOR PANEL INSULATED WITH NON-COMBUSTIBLE FILLER
c. SELF CLOSING AND SELF LATCHING, WITH INTERIOR LATCH RELEASE
d. FULLY CONCEALED PIN TYPE HINGES OR CONTINUOUS PIANO HINGE, 175 DEGREE OPENING.
e. RING TURN LATCH.
2. NON RATED METAL WALL AND CEILING ACCESS DOOR FOR USE AT BACK-OF-HOUSE (BOH) AREAS:
a. FLUSH TYPE DESIGN.
b. 16 GA STEEL FRAME; 14 GA STEEL DOOR PANEL.
c. FOR INSTALLATION IN DRYWALL: INTEGRAL ATTACHMENT FLANGE AND DRYWALL BEAD FOR FLUSH INSTALLATION.
d. FULLY CONCEALED PIN TYPE HINGES OR CONTINUOUS PIANO HINGE, 175 DEGREE OPENING.
e. HARDWARE: SCREW DRIVER SLOT, QUARTER TURN CAM LOCK FOR INTERIOR LOCATIONS; 2'-0" O.C., MAXIMUM.
3. NON RATED CONCEALED DRYWALL ACCESS DOOR FOR USE AT SALES FLOOR AREAS:
a. RECESSED TYPE DESIGN.
b. MINIMUM 13 GA STEEL FRAME; MINIMUM 16 GA STEEL DOOR PANEL RECESSED TO RECEIVE DRYWALL.
c. INTEGRAL ATTACHMENT FLANGE AND DRYWALL BEAD FOR FLUSH INSTALLATION.
d. FULLY CONCEALED PIVOT ROD HINGE.
e. LATCHES: SCREW DRIVER OPERATED CAM LATCH.

4. HIGH-SECURITY WALL ACCESS DOOR:
a. KARP ASSOCIATES, INC., "DSB-123SD SECURITY ACCESS DOOR," NYSTROM "HS-GMZ" OR APPROVED.
b. SIZE: 24 IN X 24 IN.
c. FRAMES: 3/16" X 2" X 2" ANGLE WELDED WITH JOINTS GROUND SMOOTH; APPLIED 1/8" X 1" X 1" STOP ON FOUR SIDES.
d. DOOR: 10 GA STEEL PLATE.
e. HINGES: PROVIDE FULLY CONCEALED HINGE(S).
f. LOCK: PREPARED FOR INTERCHANGEABLE 5-PIN CYLINDER LOCK, AS SPECIFIED IN SECTION 087100.
g. WEATHERSTRIP: PROVIDE CONTINUOUS SEAL AS NECESSARY TO MAINTAIN ASSEMBLY WATERTIGHT WHEN CLOSED.
h. FINISH: FACTORY PRIMED FOR FIELD FINISH WITH MANUFACTURER'S STANDARD RUST-INHIBITIVE POWDER COAT, COLOR TO MATCH ADJACENT CONSTRUCTION.

D. MINIMUM SIZES: PROVIDE ACCESS DOORS IN SIZES INDICATED. WHEN NOT INDICATED OR SPECIFIED OTHERWISE, PROVIDE 12" X 12" SIZE FOR HAND ACCESS, AND 24" X 24" SIZE FOR MAN ENTRY.

E. INSTALLATION:
1. PROVIDE ACCESS DOORS IN THE LOCATIONS INDICATED, AND FOR ACCESS TO BALANCING AND FIRE DAMPERS, TRAP PRIMERS, VALVES, FANS, TERMINAL UNITS, AND OTHER EQUIPMENT REQUIRING PERIODIC INSPECTION THROUGH FINISHED WALLS OR CEILING, WHETHER INDICATED OR NOT.
2. COORDINATE ACCESS REQUIREMENTS WITH OTHER TRADES.
3. PROVIDE CONCEALED DRYWALL ACCESS DOORS UNLESS FIRE RATED ACCESS DOORS ARE REQUIRED BECAUSE OF FIRE RATED CONSTRUCTION.

083326 OVERHEAD COILING SHUTTERS

A. OVERHEAD COILING SHUTTER ASSEMBLIES SHALL INCLUDE SHUTTERS, GUIDES, BRACKETS, COUNTERBALANCE, HOOD, MOTOR, CONTROL MECHANISMS, AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION.

B. QUALITY ASSURANCE
1. INSTALLERS: INSTALLATION SHALL BE PERFORMED BY A FACTORY TRAINED AND AUTHORIZED REPRESENTATIVE.

C. APPROVED MANUFACTURER (ONE OF THE FOLLOWING, NO SUBSTITUTIONS):
1. QMI SECURITY SOLUTIONS (ITASCA IL; 630-529-7111)
2. NSBS (800-804-0059) FOR EXTERIOR GRILLS ONLY.

D. SHUTTER TYPE: AS INDICATED AND IN ACCORDANCE WITH T-MOBILE NATIONAL ACCOUNT REQUIREMENTS.

E. EXAMINATION
1. PRIOR TO STARTING WORK, CAREFULLY INSPECT INSTALLED WORK OF OTHER TRADES AND VERIFY THAT SUCH WORK IS COMPLETE TO THE POINT WHERE WORK OF THIS SECTION MAY PROPERLY COMMENCE. NOTIFY THE ARCHITECT IN WRITING OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK.
2. DO NOT BEGIN INSTALLATION UNTIL UNSATISFACTORY CONDITIONS ARE RESOLVED. BEGINNING WORK CONSTITUTES ACCEPTANCE OF SITE CONDITIONS AND RESPONSIBILITY FOR DEFECTIVE INSTALLATION CAUSED BY PRIOR OBSERVABLE CONDITIONS.

F. INSTALLATION
1. INSTALL SHUTTER AND OPERATING EQUIPMENT COMPLETE WITH ACCESSORIES IN ACCORDANCE APPROVED SHOP DRAWINGS, AND MANUFACTURER'S RECOMMENDATIONS.

G. FIELD QUALITY CONTROL
1. VERIFY THAT MOVING PARTS OPERATE SMOOTHLY, COILING SHUTTERS ARE FREE FROM WARP, TWISTS, OR DISTORTION, SHUTTERS REMAIN IN REQUIRED POSITION, AND SAFETY FEATURES FUNCTION PROPERLY.
2. REPAIR DAMAGE TO OVERHEAD COILING SHUTTERS TO MATCH MANUFACTURER'S ORIGINAL FINISH. REPLACE COMPONENTS WHICH CANNOT BE PROPERLY REPAIRED.
3. ADJUST MECHANISM SO MOVING PARTS OPERATE SMOOTHLY.

H. COLOR
1. PROVIDE ANODIZED ALUMINUM FINISH, REGARDLESS OF STOREFRONT WINDOW COLOR.

084113 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

A. SUMMARY:
1. EXTERIOR ALUMINUM FRAMED STOREFRONT AND WINDOW SYSTEMS.
2. INTERIOR ALUMINUM FRAMED STOREFRONT SYSTEMS.
3. ALUMINUM FRAMED GLASS DOORS.

B. REFERENCES:
1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):
2. B209 - ALUMINUM AND ALUMINUM ALLOY SHEET AND PLATE.
3. B221 - ALUMINUM ALLOY EXTRUDED BARS, RODS, WIRE, SHAPES, AND TUBES.
4. E283 - RATE OF AIR LEAKAGE THROUGH EXTERIOR WINDOWS, CURTAIN WALLS, AND DOORS.
5. E330 - STRUCTURAL PERFORMANCE OF EXTERIOR WINDOWS, CURTAIN WALLS, AND DOORS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE.

DIVISION 8 - OPENINGS, CONT.

6. ARCHITECTURAL ALUMINUM MANUFACTURER'S ASSOCIATION (AAMA).

C. SYSTEM DESCRIPTION:
1. PERFORMANCE - EXTERIOR ALUMINUM WINDOW AND STOREFRONT SYSTEM:
a. SYSTEM SHALL ACCOMMODATE EXPANSION AND CONTRACTION CAUSED BY A TEMPERATURE RANGE OF 20 DEGREES TO 140 DEGREES F. WITHOUT DETRIMENTAL EFFECTS TO COMPONENTS, SEALING SYSTEMS, AND SURROUNDING CONSTRUCTION.
b. DESIGN SYSTEM WITH PROVISIONS TO DRAIN MOISTURE TO THE EXTERIOR OF THE SYSTEM.
c. AIR INFILTRATION: SHALL NOT EXCEED .05 CFM PER SQUARE FOOT OF FIXED AREA WHEN TESTED IN ACCORDANCE WITH ASTM E 283.
d. WATER INFILTRATION: NO WATER PENETRATION AT A TEST PRESSURE OF 6.24-LB/SQ FT. WHEN MEASURED IN ACCORDANCE WITH ASTM E 331.
2. WINDOW AND STOREFRONT STRUCTURAL DESIGN:
a. DESIGN AND SIZE MEMBERS TO WITHSTAND POSITIVE AND NEGATIVE WIND LOADS AS REQUIRED BY THE CURRENTLY ENFORCED EDITION OF THE BUILDING CODE.
b. LIMIT MULLION DEFLECTION TO 1/175, OR FLEXURE LIMIT OF GLASS WITH FULL RECOVERY OF GLAZING MATERIALS, WHICHEVER IS LESS.

D. WARRANTY: FURNISH FIVE YEAR WRITTEN WARRANTY EXECUTED TO T-MOBILE, FROM THE MANUFACTURER OF THE STOREFRONT SYSTEM, AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP, IN ACCORDANCE WITH DIVISION 1.

E. MATERIALS:
1. EXTRUDED ALUMINUM: ASTM B 221; 6063 T5 ALLOY AND TEMPER.
2. SHEET ALUMINUM: ASTM B 209; 5005-H32 ALLOY, OR APPROVED.

F. COMPONENTS:
1. EXTERIOR STOREFRONT AND WINDOW FRAMING:
a. PARTIAL REPLACEMENT: WHERE NEW ENTRANCE OR FRAMING IS INDICATED TO BE INSTALLED ALONG WITH EXISTING TO REMAIN, MATCH DIMENSIONS, PROFILE, GLAZING THICKNESS AND FINISH OF EXISTING ALUMINUM WINDOW FRAMING INDICATED TO REMAIN.
b. WHERE STOREFRONT SYSTEM AS INDICATED ON THE DRAWINGS IS NEW, PROVIDE MANUFACTURER'S STANDARD NOMINAL 2' X 4" CENTER-GLAZED THERMALLY BROKEN STOREFRONT FRAMING SYSTEM.
2. INTERIOR (MALL) STOREFRONT AND WINDOW FRAMING: MANUFACTURER'S STANDARD NOMINAL 2" X 4" CENTER-GLAZED NON-THERMALLY BROKEN STOREFRONT FRAMING SYSTEM.
3. ACCEPTABLE MANUFACTURERS: KAWNEER, YKK, EFCO, ARCADIA. UNLESS OTHERWISE SPECIFIED
4. DOORS: EXTRUDED ALUMINUM FRAME; MEDIUM STILE; PROVIDE WITH SPECIAL 10 INCH HIGH BOTTOM RAIL.
5. DOOR HARDWARE:
a. PROVIDE MANUFACTURER'S STANDARD OFFSET PIVOT HINGES, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
b. MANUFACTURER'S STANDARD WEATHERSTRIPPING, INCLUDING BOTTOM SWEEP.
c. BALANCE OF HARDWARE IS LISTED ON THE DRAWINGS.
d. GLAZING BEADS: MANUFACTURER'S STANDARD EPDM OR NEOPRENE GLAZING BEADS, FOR A COMPLETE WEATHERPROOF SEAL. FURNISH FOR INSTALLATION AS A PART OF THE WORK OF SECTION 088000.

G. FABRICATION:
1. FABRICATE FRAMES ALLOWING FOR SHIM SPACING AROUND PERIMETER OF ASSEMBLY, YET ENABLING INSTALLATION.
2. RIGIDLY FIT JOINTS AND CORNERS. ACCURATELY FIT AND SECURE CORNERS TIGHT. MAKE CORNER JOINTS FLUSH, HAIRLINE, AND WEATHERPROOF. SEAL JOINTS WITH SEALANT.
3. PROVIDE DRAINAGE HOLES TO ALLOW WATER TO FLOW TO EXTERIOR.
4. PREPARE COMPONENTS TO RECEIVE ANCHORAGE DEVICES. FABRICATE ANCHORAGE ITEMS.
5. PROVIDE INTERNAL REINFORCEMENT IN MULLIONS WITH MEMBERS TO MAINTAIN RIGIDITY. PROVIDE REINFORCING AT ALL DOOR STRIKE JAMBS.
6. FABRICATE STOREFRONT SYSTEM TO ACCOMMODATE HARDWARE USING TEMPLATES FURNISHED FROM SECTION 087100.
7. FABRICATE CUSTOM EXTRUSIONS, CLOSURES, AND SHEET MATERIALS TO THE SHAPES INDICATED; FABRICATE FOR ATTACHMENT WITH CONCEALED FASTENERS TO THE GREATEST POSSIBLE EXTENT.

H. FINISH:
1. ANODIZED FINISH: MANUFACTURER'S STANDARD ANODIZED FINISH; .7 MIL MINIMUM THICKNESS; CLEAR, UNLESS INDICATED OTHERWISE ON THE DRAWINGS. PROVIDE AT ALL EXPOSED ALUMINUM SURFACES.

I. INSTALLATION:
1. INSTALL FRAMES, DOORS, AND HARDWARE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. USE ANCHORAGE DEVICES TO SECURELY ATTACH FRAME TO STRUCTURE.
3. ALIGN FRAMES PLUMB AND LEVEL, FREE OF WARP OR TWIST. MAINTAIN DIMENSIONAL TOLERANCES, ALIGNING WITH ADJACENT WORK.
4. INSTALL ALUMINUM FLASHINGS AT HEAD AND SILL. FINISH TO MATCH STOREFRONT AND WINDOWS.
5. PERIMETER SEALANT IS PROVIDED UNDER SECTION 079200.
6. ADJUST HARDWARE INSTALLED IN THIS SECTION FOR SMOOTH OPERATION.
7. PROTECT ALUMINUM FROM DISSIMILAR MATERIALS WITH A COATING OF BITUMINOUS PAINT, A MINIMUM 1-MIL THICKNESS OF ZINC CHROMATE PRIMER, PLASTIC SEPARATOR MATERIALS, OR ISOLATION TAPE. KEEP ISOLATION MATERIALS UNEXPOSED TO VIEW.

087100 DOOR HARDWARE

A. SUPPLIER: FINISH HARDWARE SHALL BE SUPPLIED BY RECOGNIZED BUILDERS' HARDWARE SUPPLIER WHO HAS BEEN FURNISHING HARDWARE IN THE SAME AREA AS THE PROJECT FOR A PERIOD OF NOT LESS THAN TWO YEARS. THE SUPPLIER'S ORGANIZATION SHALL INCLUDE A MEMBER OF THE AMERICAN SOCIETY OF ARCHITECTURAL HARDWARE CONSULTANTS WHO IS AVAILABLE AT ALL REASONABLE TIMES DURING THE COURSE OF THE WORK TO MEET WITH T-MOBILE, ARCHITECT OR CONTRACTOR FOR PROJECT HARDWARE CONSULTATION.

B. INSTALLER: FINISH HARDWARE SHALL BE INSTALLED ONLY BY EXPERIENCED TRADESMEN IN COMPLIANCE WITH TRADE UNION JURISDICTIONS, EITHER AT THE DOOR AND FRAME FABRICATION PLANT OR AT THE PROJECT SITE.

C. CODES:
1. ALL FINISH HARDWARE SHALL COMPLY WITH APPLICABLE LOCAL AND/OR STATE CURRENT BUILDING CODES.
2. HARDWARE FOR FIRE-RATED OPENINGS SHALL ALSO BE IN COMPLIANCE WITH ALL FIRE BUILDING CODES APPLICABLE TO THE DISTRICT IN WHICH THE BUILDING IS LOCATED. PROVIDE ONLY HARDWARE WHICH HAS BEEN TESTED AND LISTED BY UL FOR THE TYPES AND SIZES OF DOORS REQUIRED, AND WHICH COMPLIES WITH THE REQUIREMENTS OF THE DOOR AND DOORFRAME LABELS.
3. PROVIDE SMOKE SEALS AS REQUIRED AT EACH FIRE-RATED OPENING.

D. DELIVERY: DELIVER ALL HARDWARE IN MANUFACTURERS' ORIGINAL UNOPENED UNDAMAGED PACKAGES, CLEARLY IDENTIFYING MANUFACTURER, BRAND NAME, AND CONTENTS.

E. IN ADDITION TO REQUIRED ONE YEAR WARRANTY UNDER CONDITIONS OF THE CONTRACT, FURNISH 5-YEAR UNCONDITIONAL GUARANTEES FOR ALL DOOR CLOSERS, UNDER PROVISIONS OF DIVISION 1.

F. FACTORY REPRESENTATIVES FOR DOOR CLOSERS, EXIT BOLTS, AND LOCKSETS SHALL BE AVAILABLE DURING THE CONSTRUCTION TO INSTRUCT THE CONTRACTOR ON THE PROPER METHOD OF INSTALLATION OF THEIR MATERIALS. THEY SHALL INSPECT AND ADJUST THEIR MATERIALS AT THE COMPLETION OF THE WORK, AND SUPPLY PROPER MAINTENANCE MANUALS TO T-MOBILE.

G. FURNISH 2 SETS OF SPECIAL TOOLS FOR INSTALLATION AND MAINTENANCE OF HARDWARE. TOOLS FOR MAINTENANCE AND ADJUSTMENTS ARE TO BE DELIVERED TO T-MOBILE UPON COMPLETION OF THE WORK.

H. IN GENERAL, UNLESS OTHERWISE INDICATED, FINISHES SHALL BE SATIN CHROME US26D.

I. GENERAL: CONSTRUCTION MASTERKEY ALL LOCKSETS AND CYLINDER ITEMS; PROVIDE 6 CONSTRUCTION MASTERKEYS.

J. KEYING: CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL KEYING, AS FOLLOWS:
1. CONSULT WITH T-MOBILE'S AUTHORIZED REPRESENTATIVE AND PREPARE DETAILED KEYING SCHEDULE ACCORDINGLY. T-MOBILE'S REPRESENTATIVE WILL COORDINATE KEYING REQUIREMENTS WITH AUTHORIZED REPRESENTATIVE OF HARDWARE SUPPLIER.
2. STAMP "DO NOT DUPLICATE" ON ALL KEYS.

K. BUTTS:
1. IN THE FOLLOWING PARAGRAPHS WHERE HAGER NUMBERS ARE LISTED, EQUIVALENT ITEMS OF LAWRENCE, MCKINNEY SALES COMPANY, OR THE STANLEY WORKS MAY BE SUPPLIED.
2. EXTERIOR DOORS (OUTSWING) 38" WIDE OR LESS SHALL HAVE HAGER BB1191 BUTTS, SIZE 4 1/2 X 4 1/2.
3. INTERIOR DOORS 38" WIDE OR LESS SHALL HAVE HAGER BB1279 BUTTS, SIZE 4 1/2 X 4 1/2.
4. PROVIDE BUTTS ON EXTERIOR DOORS WITH NON-REMOVABLE PINS (SET SCREW IN BARREL, PIN NON-REMOVABLE WHEN DOOR IS CLOSED), AND SAFETY STUD.
5. PROVIDE FULL THREADED WOOD SCREWS FOR WOOD DOORS AND/OR JAMBS.
6. BUTT WIDTHS LISTED ARE MINIMUM. PROVIDE BUTTS OF WIDER THROW TO SUITE CONDITIONS FOR 180° OPERATION OF DOORS, STRUCTURAL CONDITIONS PERMITTING.

DIVISION 8 - OPENINGS, CONT.

L. LOCKSETS, DEADLOCKS, CYLINDERS AND PADLOCKS:
1. MANUFACTURER:
A. LOCKS AND DEADLOCKS - AS NOTED IN HARDWARE SCHEDULE ON DRAWINGS
B. CYLINDERS AND PADLOCKS - AS NOTED IN HARDWARE SCHEDULE ON DRAWINGS
2. PROVIDE NEW CYLINDER AT EACH EXISTING DOOR THAT HAS DEADLOCK OR LOCKSET.
3. PROVIDE LOCK STRIKES WITH MINIMUM PROJECTION TO PROTECT TRIM.
4. PROVIDE WROUGHT BOXES FOR LOCKSETS AND DEADLOCKS.
5. PROVIDE DEADLOCKS WITH ARMORED FRONTS.
6. FUNCTION AS INDICATED IN HARDWARE GROUPS.
7. DEAD BOLTS AT EXTERIOR DOORS SHALL HAVE A MINIMUM THROW OF 1 INCH AND MINIMUM EMBEDMENT OF ¾ INCH.
8. TYPES: AS INDICATED ON THE DRAWINGS.

M. ELECTRONIC HARDWARE
1. TYPES: AS INDICATED ON THE DRAWINGS.

N. DOOR CLOSERS:
1. MANUFACTURERS:
a. OVERHEAD CLOSERS: LCN OR RIXSON.
b. FLOOR CLOSERS: LCN OR RIXSON.
2. ALL OVERHEAD CLOSERS TO BE MOUNTED ON INTERIOR SIDE OF DOOR. NO THRU BOLTS.
3. PROVIDE MOUNTING BRACKETS AND PROPER LENGTH ARMS TO SUIT ALL CONDITIONS. PROVIDE ARM OPTIONS AS SCHEDULED OR RECOMMENDED BY MANUFACTURER. FINISH SHALL MATCH LOCKSETS
4. SIZES SHALL BE AS RECOMMENDED BY THE MANUFACTURER. CLOSERS SHALL HAVE A 5-YEAR UNCONDITIONAL GUARANTEE.
5. PROVIDE STANDARD FULL COVERS AT OVERHEAD CLOSERS; FINISH TO MATCH ARMS, UNLESS OTHERWISE INDICATED.
6. CLOSURE PRESSURE: SET TO 5 POUNDS FOR BOTH EXTERIOR AND INTERIOR DOORS, PER CURRENT REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT, UNLESS REQUIRED OTHERWISE BY LOCAL JURISDICTIONAL AUTHORITIES.
7. TYPES: AS INDICATED ON THE DRAWINGS.

O. DOOR STOPS AND OVERHEAD STOPS: AS SCHEDULED.
1. LOCATE FLOOR STOPS FREE FROM FOOT TRAFFIC.
2. TYPES: AS INDICATED ON THE DRAWINGS.

P. PUSH/PULL BARS AND SETS:
1. TYPES: AS INDICATED ON THE DRAWINGS.

Q. WEATHERSTRIP, THRESHOLDS, DOOR BOTTOM AND GASKETS:
1. MANUFACTURER: PEMKO MFG. CO., OR APPROVED EQUAL BY RIXSON.
2. TYPES: AS INDICATED ON THE DRAWINGS.

R. MISCELLANEOUS:
1. PROVIDE SILENCERS FOR ALL DOORJAMBS, 3 FOR SINGLE JAMBS AND 4 FOR DOUBLE JAMBS.
2. TYPES: AS INDICATED ON THE DRAWINGS.

S. FURNISH FOR EACH DOOR THE ITEMS SCHEDULED WITHIN THE DESIGNATED HARDWARE GROUPS AS SHOWN ON THE DRAWINGS.

T. ADJUSTMENTS AND TESTING:
1. ADJUST AND CHECK EACH OPERATING ITEM OF HARDWARE AND EACH DOOR TO ENSURE PROPER OPERATION OF FUNCTION OF EVERY UNIT.
2. LUBRICATE MOVING PARTS WITH GRAPHITE TYPE LUBRICANT UNLESS OTHERWISE RECOMMENDED BY THE HARDWARE MANUFACTURER.
3. REPLACE UNITS WHICH CANNOT BE ADJUSTED AND LUBRICATED TO OPERATE FREELY AND SMOOTHLY AS INTENDED FOR THE APPLICATION MADE.
4. ADJUST CLOSER PRESSURES AS SPECIFIED IN SECTION 087100, UNLESS OTHERWISE REQUIRED BY JURISDICTIONAL AUTHORITIES.
5. TESTING:
a. TEST CLOSER FOR COMPLIANCE WITH REQUIREMENTS OF SECTION 087100, INCLUDING OPENING FORCE AND CLOSING SPEED REQUIRED BY JURISDICTIONAL AUTHORITIES.
b. PROVIDE TESTING DEVICE, OPERATE TEST AT EACH DOOR, AND PROVIDE A WRITTEN REPORT ON RESULTS OF TESTS.
c. TESTING DEVICE SHALL REMAIN IN THE POSSESSION OF T-MOBILE.

087300 DOOR AND HARDWARE INSTALLATION

A. QUALITY ASSURANCE: INSTALLERS OF DOORS AND FINISH HARDWARE SHALL BE SKILLED MECHANICS REGULARLY EMPLOYED IN THE DOOR HARDWARE INDUSTRY AND EXPERIENCED IN THE INSTALLATION OF DOORS AND DOOR HARDWARE.

B. DOORS, FRAMES, AND HARDWARE: SPECIFIED IN OTHER SECTIONS.

C. DOOR AND HARDWARE INSTALLATION
1. FIT AND PREPARE DOORS FOR INSTALLATION IN ACCORDANCE WITH THE DOOR MANUFACTURER'S PRINTED INSTRUCTIONS.
2. INSTALL DOORS PLUMB AND SQUARE.
3. PROVIDE CLEARANCES OF 1/8 INCH AT JAMBS AND HEADS, 1/8 INCH AT MEETING STILES FOR PAIRS OF DOORS, AND ½ INCH FROM BOTTOM OF DOOR TO TOP OF DECORATIVE FLOOR FINISH OR COVERING, EXCEPT WHERE THRESHOLD IS SHOWN OR SCHEDULED PROVIDE 1/4-INCH CLEARANCE FROM BOTTOM OF DOOR TO TOP OF THRESHOLD.
4. INSTALL ROSES, KICK PLATES, CLOSERS, AND OTHER SURFACE MOUNTED HARDWARE ONLY AFTER DOOR FINISHING IS COMPLETE AND FINISHES ARE COMPLETELY CURED.
5. FIT HOLLOW METAL DOORS IN ACCORDANCE WITH SDI 100.
6. FINISH HARDWARE INSTALLATION
a. INSTALLER SHALL RECEIVE DELIVERY AND UNPACK, TAG, INDEX, AND FILE ALL KEYS. KEEP HARDWARE IN A SEPARATE ROOM UNDER LOCK AND KEY AT THE SITE UNTIL INSTALLATION IS MADE.
b. VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR THE CORRECT INSTALLATION AND FIT OF HARDWARE AT THE LOCATIONS INDICATED ON THE DRAWINGS AND AS SPECIFIED.
c. INSTALL EACH HARDWARE ITEM IN COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
d. WHEREVER CUTTING AND FITTING ARE REQUIRED TO INSTALL HARDWARE ONTO OR INTO SURFACES WHICH ARE LATER TO BE PAINTED OR FINISHED IN ANOTHER WAY, INSTALL EACH ITEM COMPLETELY AND THEN REMOVE AND STORE IN A SECURE PLACE DURING THE FINISH APPLICATION. AFTER COMPLETION OF THE FINISHES, REINSTALL EACH ITEM. DO NOT INSTALL SURFACE-MOUNTED ITEMS UNTIL FINISHES HAVE BEEN COMPLETED ON THE SUBSTRATE.
e. HARDWARE MOUNTING HEIGHTS: AS INDICATED. WHERE NOT INDICATED, COMPLY WITH RECOMMENDATIONS OF THE NATIONAL BUILDERS HARDWARE ASSOCIATION (NBHA).
7. ADJUSTMENT AND CLEANING: ADJUST AND CHECK EACH OPERATING ITEM OF HARDWARE AND EACH DOOR TO ENSURE PROPER OPERATION OF FUNCTION OF EVERY UNIT. LUBRICATE MOVING PARTS WITH GRAPHITE TYPE LUBRICANT UNLESS OTHERWISE RECOMMENDED BY THE HARDWARE MANUFACTURER. REPLACE UNITS WHICH CANNOT BE ADJUSTED AND LUBRICATED TO OPERATE FREELY AND SMOOTHLY AS INTENDED FOR THE APPLICATION MADE.

088000 GLAZING

A. GLASS: PROVIDE THE FOLLOWING GLASS AS SCHEDULED ON THE DRAWINGS:
1. CLEAR GLASS: ASTM C1036, TYPE I, CLASS 1, CLEAR, QUALITY Q3 GLAZING SELECT.

B. PLASTIC GLAZING: ACRYLIC PANEL AS SCHEDULED ON THE DRAWINGS.

C. ACCESSORIES:
1. SILICONE SEALANT: DOW CORNING "795"; CLEAR COLOR.
2. SETTING BLOCKS: COMPATIBLE WITH SILICONE SEALANTS; 70-90 SHORE A HARDNESS.
3. SPACERS: COMPATIBLE WITH SILICONE SEALANT.
4. GLAZING TAPE: TREMCO "CCN" SPONGE, OR APPROVED.
5. GLAZING CHANNELS: EXTRUDED ALUMINUM; PROFILE AS INDICATED ON THE DRAWINGS; CLEAR ANODIZED FINISH.

D. FABRICATION:
1. INSULATING GLASS UNITS:
a. DUAL LITE UNITS FABRICATED FROM GLASS AS SCHEDULED; 1/2 INCH NOMINAL AIRSPACE; DUAL SEAL SYSTEM.
b. TWIN SEALS; POLYISOBUTYLENE PRIMARY SEAL AND SILICONE SECONDARY SEAL. OUTER SEAL SHALL BE COMPATIBLE WITH GLAZING SYSTEM.
c. SPACER BAR: MILL FINISH ALUMINUM; FILL WITH DESICCANT; CORNERS SHALL BE PARTIALLY MITER CUT AND BENT (NOT CUT THROUGH), OR FORMED WITH CORNER KEYS ULTRASONICALLY SOLDERED IN PLACE.
d. CERTIFIED THROUGH THE INSULATING GLASS CERTIFICATION COUNCIL (IG.C.C) IN ACCORDANCE WITH ASTM E773 AND E774; CERTIFIED TO LEVEL CBA.
e. EACH PIECE SHALL BEAR CERTIFICATION NUMBER, DATE, AND MANUFACTURER'S IDENTIFICATION MARK.
2. TEMPERED AND HEAT STRENGTHENED GLASS:
a. TEMPERED GLASS: GLASS WHICH HAS BEEN HEAT TREATED TO STRENGTHEN GLASS IN BENDING TO NOT LESS THAN 4 TIMES THE ANNEALED STRENGTH; CERTIFIED SAFETY GLASS IN ACCORDANCE WITH ANSI Z97.1.
b. HEAT STRENGTHENED GLASS: ASTM C1048; GLASS WHICH HAS BEEN HEAT TREATED TO STRENGTHEN GLASS IN BENDING TO NOT LESS THAN 2 TIMES ANNEALED STRENGTH.
c. FABRICATE TEMPERED AND HEAT STRENGTHENED GLASS UNITS SO THAT PRINCIPLE DISTORTION WILL BE IN THE HORIZONTAL DIRECTION IN THE FINISHED INSTALLATION.
d. UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL, PROVIDE MANUFACTURER'S LABEL ON EACH LIGHT, INDICATING TYPE AND THICKNESS OF GLASS.

T Mobile

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BELLEVUE, WA 98006
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ARCHITECT:

FUZION

9096 EAST BAHIA DRIVE
SUITE 103
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DESIGN@FUZIONVE.COM
WWW.FUZIONVE.COM

VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
SPECIFICATIONS

SHEET NUMBER:
A703

DIVISION 8 - OPENINGS, CONT.

E. COMPLY WITH UBC REQUIREMENTS FOR IDENTIFICATION AND LABELING OF SAFETY-GLAZING MATERIALS IN HAZARDOUS LOCATIONS SUBJECT TO HUMAN IMPACT LOADS.
3. GLAZING CLIPS:
a. PROVIDE GLAZING CLIPS AS INDICATED IN DRAWINGS
b. C.R. LAURENCE CO., INC.: 90 DEGREE; FINISH: POLISHED STAINLESS; PRODUCT: MFC34 - 2" DIA.
c. C.R. LAURENCE CO., INC.: 135 DEGREE; FINISH: POLISHED STAINLESS; PRODUCT: MFC38 - 2" DIA.
d. C.R. LAURENCE CO., INC.: 180 DEGREE; FINISH: POLISHED STAINLESS; PRODUCT: MFC30 - 2" DIA.
F. PREPARATION:
1. CLEAN CONTACT SURFACES AND WIPE DRY.
2. SEAL FRAME CORNER JOINTS, AND OTHER LEAKAGE POINTS WITH SEALANT. AT INSULATING GLASS UNITS THE SEALANT SHALL BE COMPATIBLE WITH THE SEAL OF THE UNIT. DO NOT PLUG WEEP HOLES.
3. PRIME SURFACES SCHEDULED TO RECEIVE SEALANT, UNLESS OTHERWISE RECOMMENDED BY THE SEALANT MANUFACTURER.
F. INSTALLATION:
1. UNLESS SPECIFIED OTHERWISE, GLAZE IN ACCORDANCE WITH THE CURRENT EDITION OF GLASS ASSOCIATION OF NORTH AMERICA (GANA): GLAZING MANUAL.
2. SETTING BLOCKS: PLACE SETTING BLOCKS IN FRAMES FOR SUPPORT OF GLASS. PLACE AT QUARTER POINTS UNLESS APPROVED OTHERWISE.
3. SET GLASS TIGHTLY IN POSITION WITH PROPER CLEARANCES IN ACCORDANCE WITH THE REFERENCED STANDARD.
4. UNLESS SPECIFIED OTHERWISE, GLAZE UNITS WITH GASKETS FURNISHED WITH THE FRAMING SYSTEMS SPECIFIED IN OTHER SECTIONS.
5. GLAZING FOR INTERIOR NON-RATED DOORS AND WINDOWS, WHERE GASKETS ARE NOT FURNISHED:
a. GLAZE WITH GLAZING TAPE.
b. PRE-MEASURE AND CUT TAPES TO REQUIRED LENGTHS; ADHERE TO FIXED STOPS, SETTING HORIZONTAL TAPE AT HEADS AND SILLS BEFORE VERTICAL TAPE.
c. INSTALL TAPE WITH TIGHT BUTT JOINTS; NO OVERLAPS WILL BE ACCEPTED. SET TAPE WITH STRAIGHT LINES LEVEL WITH FRAME SIGHT LINE.
d. POSITION GLASS, UNIFORMLY SEALING AGAINST TAPE. INSTALL INSIDE REMOVABLE STOPS AND PLACE TAPE IN STOPS FORMING A UNIFORM SEAL AGAINST GLASS, LEVEL WITH SIGHT LINES.
6. GLAZING FOR FIRE RATED DOORS AND WINDOWS: GLAZE IN ACCORDANCE WITH NFPA 80, UNLESS REQUIRED OTHERWISE BY THE LABELING REQUIREMENT OF THE FRAME.
7. ADJUST GLAZING MATERIALS TO FORM A UNIFORM SIGHT LINE.
G.SCHEDULE:
1. TYPE 1: CLEAR TEMPERED GLAZING WHERE INDICATED AND SPECIFIED.
2. TYPE 2: INSULATING GLASS, DOUBLE GLAZED UNITS WITH 1/2 INCH AIR SPACE BETWEEN TWO PANES OF 1/4 INCH GLASS; OUTER PANE SHALL BE TINTED HEAT STRENGTHENED OR TEMPERED GLASS; INNER PANE SHALL BE CLEAR GLASS.
3. PROVIDE TEMPERED WHERE INDICATED AND SPECIFIED. WHERE NOT REQUIRED BY CODE TO BE TEMPERED, PROVIDE ANNEALED, HEAT-STRENGTHENED OR TEMPERED GLASS AS DETERMINED BY GLASS MANUFACTURER'S GLASS ANALYSIS.
H. PROVIDE TEMPERED GLASS IN HAZARDOUS LOCATIONS TO MEET THE REQUIREMENTS OF THE JURISDICTIONAL CODE AUTHORITIES.

DIVISION 9 - FINISHES

090561.13 MOISTURE VAPOR EMISSIONG CONTROL
A.GENERAL: PRE-FORMED MOISTURE SUPPRESSION MEMBRANE INSTALLED OVER CONCRETE SUBFLOOR AS A FLOOR COVERING UNDERLAYMENT.
B. REFERENCES:
1. D3273-00- STANDARD TEST METHOD FOR RESISTANCE TO GROWTH OF MOLD ON THE SURFACE OF INTERIOR COATINGS IN AN ENVIRONMENTAL CHAMBER
2. E-96-05 - STANDARD TEST METHODS FOR WATER VAPOR TRANSMISSION OF MATERIALS
3. F 2170 - STANDARD TEST METHOD FOR DETERMINING RELATIVE HUMIDITY IN CONCRETE FLOOR SLABS USING IN SITU PROBES
C.SUBMITTALS:
1. MANUFACTURER'S CURRENT INSTALLATION INSTRUCTIONS
2. MANUFACTURER'S WARRANTY REGISTRATION WITH CONCRETE SUBFLOOR MOISTURE TEST RESULTS AND BUILDING AMBIENT AIR TEMPERATURE AND RELATIVE HUMIDITY TEST RESULTS.
D. COORDINATION: COORDINATE THIS SECTION OF WORK AND DIRECTLY RELATED SECTION S WITH CONCRETE FLOOR CONSTRUCTION AND REPAIR AND FINISH FLOORING WORK.
E. MATERIALS
1. MANUFACTURER: HALEX CORPORATION; VERSASHIELD. WWW.HALEXCORP.COM (800)576-1636
2. PRODUCT NAME: VERSASHIELD 95 FLOORING UNDERLAYMENT
a. MATERIAL: FREE-STANDING, DIMENSIONALLY STABLE, 4-PLY COMPOSITE PRODUCT, ENGINEERED AS A MOISTURE SUPPRESSION MEMBRANE TO BE USED ON CONCRETE FLOORS WHERE HIGH MOISTURE EXISTS.
b. DIMENSIONS: [144 FT LONG BY 5 FT WIDE] STANDARD ROLL.
c. MOLD, MILDEW & FUNGAL RESISTANCE, ASTM D3273: 10 RATING
d. MOISTURE VAPOR TRANSMISSION RATE, ASTM E96-05: LESS THAN 0.01 G/HR/ SQ M
e. NO SUBSTITUTIONS PERMITTED
3. PRODUCT NAME: VERSASHIELD MBX FLOORING UNDERLAYMENT
a. MATERIAL: FREE-STANDING, DIMENSIONALLY STABLE, 4-PLY COMPOSITE PRODUCT, ENGINEERED AS A MOISTURE SUPPRESSION MEMBRANE TO BE USED ON CONCRETE FLOORS WHERE HIGH MOISTURE EXISTS.
b. DIMENSIONS: [144 FT LONG BY 5 FT WIDE] STANDARD ROLL.
c. MOLD, MILDEW & FUNGAL RESISTANCE, ASTM D3273: 10 RATING
d. MOISTURE VAPOR TRANSMISSION RATE, ASTM E96-05: LESS THAN 0.01 G/HR/ SQ M
e. NO SUBSTITUTIONS PERMITTED
4. ACCESSORIES: VERSASHIELD TAPE
a. APPLICATION: JOINING OF MOISTURE SUPPRESSION UNDERLAYMENT SEAMS
b. DESCRIPTION: MEMBRANE MANUFACTURER'S MOISTURE SUPPRESSION TAPE WITH PRESSURE SENSITIVE ADHESIVE.
F. EXAMINATION
1. REFERENCE: SECTION 017000: VERIFY EXISTING CONDITIONS BEFORE STARTING WORK.
2. VERIFY THAT SUB-FLOOR SURFACES ARE SMOOTH AND FLAT WITHIN TOLERANCES SPECIFIED FOR THE TYPE OF WORK AND ARE READY TO RECEIVE FLOORING.
3. VERIFY THAT SUB-FLOOR IS PREPARED PER ASTM 710. REMOVE COATINGS, INCLUDING CURING COMPOUNDS, AND OTHER SUBSTANCES THAT ARE INCOMPATIBLE WITH ADHESIVES AND THAT CONTAIN SOAP, WAX, OILS, OR SILICONE, WITHOUT USING SOLVENTS. DO NO INSTALL FLOORING IF ALKALINITY EXCEEDS 9 PH.
4. VERIFY SUB-FLOOR MOISTURE TEST RESULTS BY CONDUCT RELATIVE HUMIDITY PER ASTM F2170. DO NOT INSTALL FLOORING IS RH EXCEED 75% RELATIVE HUMIDITY. REPORT MOISTURE TEST RESULTS TO ARCHITECT PRIOR TO FLOOR INSTALLATION.
a. IF SUB-FLOOR TEST RESULTS EXCEED 75% RELATIVE HUMIDITY AND 9 PH, PROVIDE AND INSTALL MOISTURE MITIGATION SYSTEM, VERSASHIELD 95 UP TO 95% RELATIVE HUMIDITY OR VERSASHIELD MBX UP TO 99% RELATIVE HUMIDITY.
b. DO NOT INSTALL IF RH WITHIN THE CONCRETE EXCEEDS 99%
G. INSTALLATION
1. INSTALL MOISTURE SUPPRESSION MEMBRANE WITH SMOOTH FILM SIDE FACING CONCRETE SLAB.
2. INSTALL IN ACCORDANCE WITH MEMBRANE MANUFACTURER'S CURRENT WRITTEN INSTALLATION INSTRUCTIONS.
3. IF ANY JOBSITE CONDITION INTERFERES WITH COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS, CONTACT MANUFACTURER AND OBTAIN WRITTEN JOB-SPECIFIC PROCEDURES. NOTIFY ARCHITECT OR T-MOBILE'S REPRESENTATIVE AS REQUIRED.
4. ADHESIVES - APPLY ADHESIVE TO MINERAL-COATED SURFACE OF MOISTURE SUPPRESSION MEMBRANE. USE ONLY WATER-BASED ADHESIVES. DO NOT USE SOLVENT-BASED ADHESIVES.
5. PROTECTION - PROTECT MOISTURE SUPPRESSION MEMBRANE FROM DAMAGE DURING FLOORING INSTALLATION. DO NOT TEAR, RIP, PUNCTURE, OR DELAMINATE MEMBRANE WHEN APPLYING TROWEL-ON ADHESIVE. REPAIR DAMAGED AREAS ACCORDING TO MEMBRANE MANUFACTURER'S INSTRUCTIONS BEFORE FLOORING INSTALLATION. PROVIDE CONTINUOUS, INTACT MOISTURE SUPPRESSION MEMBRANE UNDER ENTIRE DESIGNATED FLOORING AREA.
6. INSTALL FLOORING ACCORDING TO FLOORING MANUFACTURER'S INSTRUCTIONS

DIVISION 9 - FINISHES, CONT.

092200 LIGHT GAGE METAL SUPPORT FRAMING
A. SUMMARY: INTERIOR PARTITION, CEILING, AND SOFFIT CONSTRUCTION, NOT COVERED BY SECTION 054000.
B. SYSTEM DESCRIPTION:
1. STRUCTURAL DESIGN:
a. SELECT FRAMING SYSTEMS, GAGES, SUPPORTS, BRACING, AND CONNECTIONS AS NECESSARY TO MEET THE STRUCTURAL REQUIREMENTS SPECIFIED.
b. PARTITION FRAMING SHALL CONFORM TO THE WIDTHS INDICATED, UNLESS APPROVED OTHERWISE. PROVIDE THICKER GAGES AND DECREASED STUD SPACING AS NECESSARY TO MEET THE DESIGN REQUIREMENTS.
2. DESIGN LOADS:
a. INTERIOR CEILING ASSEMBLIES: 5 POUNDS PER SQUARE FOOT UNIFORM LIVE LOAD, PLUS DEAD LOADS.
b. INTERIOR PARTITIONS: 5 POUNDS PER SQUARE FOOT UNIFORM LIVE LATERAL LOAD.
c. EXTERIOR SOFFITS: 25 POUNDS PER SQUARE FOOT UNIFORM LIVE LOAD.
3. DEFLECTION REQUIREMENTS: MAXIMUM OF 1/240 THE SPAN, EXCEPT MAXIMUM 1/360 AT TILE.
C. CODE REQUIREMENTS:
1. PROVIDE ASSEMBLIES MEETING THE HOURLY FIRE RATINGS INDICATED AND SPECIFIED. ASSEMBLIES SHALL BEEN TESTED IN ACCORDANCE WITH ASTM E119, AND SHALL BE APPROVED BY THE LOCAL JURISDICTIONAL CODE AUTHORITIES.
2. COORDINATE INSTALLATION OF OTHER MATERIALS WHICH ARE A PART EACH ASSEMBLY.
3. FIRE RATING REQUIREMENTS TAKE PRECEDENCE OVER THE CONSTRUCTION REQUIREMENTS INDICATED. IN THE EVENT OF CONFLICT, NOTIFY THE ARCHITECT, AND DO NOT BEGIN CONSTRUCTION IN THE AREA OF CONFLICT UNTIL THE CONFLICT HAS BEEN RESOLVED.
4. PROVIDE ALL CALCULATIONS, DRAWINGS, PRODUCT DATA, AND OTHER VERIFICATION AS REQUIRED BY THE JURISDICTIONAL CODE AUTHORITY TO OBTAIN APPROVAL OF THE LIGHT GAGE METAL FRAMING INSTALLATION.
D. MATERIALS:
1. LIGHT GAGE METAL FRAMING: ASTM C645; GALVANIZED; PROVIDE "C" SHAPED STUDS, U SHAPED RUNNERS, HAT AND "Z" SHAPED FURRING CHANNELS, AND OTHER SIZES AND SHAPES AS NECESSARY. MINIMUM 25 GAGE, EXCEPT FURNISH THICKER GAGES AS REQUIRED TO MEET DEFLECTION REQUIREMENTS.
2. COLD ROLLED CHANNELS: RUST INHIBITIVE PAINT COATING; SIZES IN ACCORDANCE WITH ASTM C754.
3. SCREWS: SELF-TAPPING; LOW PROFILE HEAD.
4. SECURITY MESH: AMICO (ALABAMA METAL INDUSTRIES CORP) BIRMINGHAM AL (800/366-2642); ASM .50-13F, MINIMUM 13 GAGE, UNLESS APPROVED OTHERWISE.
5. PROPRIETARY CEILING SUSPENSION SYSTEM:
A. MANUFACTURER:
I. AS SPECIFIED: ARMSTRONG (800-207-2321).
II. ACCEPTABLE SUBSTITUTIONS:
III. USG INTERIORS, INC. (CHICAGO, IL; 800-874-4968).
IV. CHICAGO METALLIC (CHICAGO, IL LOS ANGELES, CA; 800-323-7164).
B. SUSPENSION SYSTEM: SIMILAR TO SYSTEM 650, OR 670; ASTM C635 HEAVY DUTY CLASSIFICATION.
I. FURRING RUNNERS: MANUFACTURED FROM 0.020 INCH THICK STEEL 1-3/8 INCH WIDE WITH KNURLED FACE BY 1-1/2 INCHES HIGH; FACTORY PUNCHED CROSS TEE SLOTS, HANGER HOLES, AND NON-DIRECTIONAL BAYONET END TAB COUPLINGS.
II. FURRING TEES: MANUFACTURED FROM 0.020 INCH THICK L-3/8 INCH WIDE WITH KNURLED FACE BY 1-1/2 INCHES HIGH; FACTORY PUNCHED CROSS TEE SLOTS AND HANGER HOLES.
III. FURRING CROSS CHANNEL: 0.020 INCH THICK STEEL; 1-3/8 INCH WIDE WITH KNURLED FACE BY 7/8 INCHES HIGH BY 48 INCHES LONG WITH STRAIGHT LOCKING END TABS.
IV. CROSS TEES: 0.020 INCH THICK STEEL 15/16 INCH WIDE BY 1-1/2 INCHES HIGH; WITH STAKED-ON DIP END TAB COUPLINGS, FACTORY PUNCHED CROSS TEE SLOTS.
V. MOLDINGS: MANUFACTURER'S STANDARD.
6. PARTITION HEAD COMPENSATING CHANNEL (NON-RATED): DESIGN FOR MINIMUM +/- ½" DEFLECTION. PROFILES AS INDICATED; ONE OF THE FOLLOWING:
a. 20 GAGE DEEP LEG TRACK; 2 INCH LEGS.
b. SLIP TRACK SYSTEMS INC. (ANAHEIM, CA; 714-761-1921) "SLP-TRK."
7. OTHER FRAMING MATERIALS: FURNISH IN ACCORDANCE WITH ASTM C 754.
E. PARTITION FRAMING:
1. RUNNERS:
a. SECURE RUNNERS WITH FASTENERS AT MAXIMUM 24 INCHES OC.
b. AT CONCRETE FLOORS, USE POWDER DRIVEN FASTENERS OR DRILLED IN CONCRETE ANCHORS.
c. TOP RUNNER: USE PROPRIETARY COMPENSATING CHANNEL OR DEEP LEG TRACK AT CONTRACTOR'S OPTION, AS NECESSARY TO ACCOMMODATE BUILDING DEFLECTION.
d. ALIGN TO TOLERANCES SPECIFIED.
2. UNLESS INDICATED OTHERWISE, INSTALL STUDS VERTICALLY AT 16 INCHES O.C., AND NOT MORE THAN 2 INCHES FROM ABUTTING CONSTRUCTION, AT EACH SIDE OF OPENINGS, AND AT CORNERS.
3. FIT RUNNERS UNDER AND ABOVE OPENINGS; SECURE INTERMEDIATE STUDS AT SPACING OF WALL STUDS.
4. BRACE PARTITION FRAMING SYSTEM AND MAKE RIGID.
5. INSTALL DOUBLE STUDS CONTINUOUS FROM FLOOR TO CEILING TRACK AT THE JAMB OF EACH DOOR FRAME AND CASED OPENING. STUDS SHALL BE THE SAME GAGE AS THE ADJACENT STUDS, BUT NO LESS THAN 20 GAGE. PROVIDE DIAGONAL STEEL STUD BRACING TO STRUCTURE AT EACH JAMB AT PARTITIONS WHICH DO NOT EXTEND TO STRUCTURE.
6. COORDINATE ERECTION OF STUD SYSTEM WITH REQUIREMENTS OF DOOR AND WINDOW FRAMES, FIRE EXTINGUISHER CABINETS, RECESSED TOILET ACCESSORIES, ACCESS DOORS, AND OTHER CONSTRUCTION WITHIN MOUNTED PARTITION CONSTRUCTION.
7. COORDINATE THE INSTALLATION OF FRAMING WITH THE GYPSUM BOARD INSTALLER TO ENSURE SUPPORT AT ALL BOARD EDGES. PROVIDE FRAMING IMMEDIATELY EITHER SIDE OF EXPANSION JOINTS.
8. STUD SPLICING NOT PERMISSIBLE.
9. AT NON-LOAD BEARING FULL HEIGHT PARTITIONS SUBJECT TO COMPRESSION CAUSED BY OVERHEAD STRUCTURAL DEFLECTION, CUT STUDS 1/2 INCH SHORT FROM FULL HEIGHT, EXCEPT AS OTHERWISE INDICATED. DO NOT RIGIDLY CONNECT STUD TO TOP RUNNER.
10. STUD BRIDGING:
a. AT INTERIOR PARTITIONS GREATER THAN 4 FEET IN LENGTH, AND WITH RIGID FACING MATERIAL ON ONE STUD FLANGE ONLY, PROVIDE 3/4" BRIDGING CHANNELS IN HORIZONTAL ROWS AT A MAXIMUM OF 5'-0" ON CENTER FOR THE FULL HEIGHT OF THE PARTITION.
b. INTERIOR FULL HEIGHT PARTITIONS (STUDS EXTENDING FROM THE FLOOR TO THE STRUCTURE ABOVE) WITH RIGID FACING MATERIAL STOPPING 3'-0" OR MORE BELOW TOP OF STUDS - PROVIDE ONE ROW 3/4" BRIDGING CHANNEL HORIZONTALLY AT TERMINATION OF GYPSUM BOARD MATERIAL, AND ONE ADDITIONAL ROW FOR EACH 5'-0" OF EXPOSED STUDS.
c. INSTALL STUD BRIDGING CHANNELS IN LONG LENGTHS, WIRE TYING AND LAPPING THE JOINTS A MINIMUM OF 12."
11. ATTACH BRIDGING CHANNEL TO EACH STUD AS SHOWN IN MANUFACTURER'S PRINTED INSTRUCTIONS.
12. INSTALL SECURITY MESH AT ALL WALLS OF THE INVENTORY ROOM PER SECTION 092200.
F. CEILING AND SOFFIT FRAMING:
1. COORDINATE LOCATIONS OF HANGERS AND SUPPORTS WITH THE WORK OF OTHER SECTIONS.
2. PROVIDE CEILING AND SOFFIT FRAMING AS INDICATED. WHERE NOT INDICATED PROVIDE, STUD AND RUNNER FRAMING, SUSPENDED FRAMING, OR PROPRIETARY SUSPENDED FRAMING.
3. PROPRIETARY SUSPENDED FRAMING: INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. STUD AND RUNNER FRAMING:
a. SECURE RUNNERS TO STRUCTURE ABOVE WITH FASTENERS AT A MAXIMUM OF 24 INCHES ON CENTER. SIZE FASTENERS AND USE REINFORCEMENTS AS NECESSARY TO SUPPORT THE DEAD LOADS APPLIED.
b. SCREW FASTEN FRAMING AT EACH FLANGE JOINT.
c. SPACE STUDS AT 16 INCHES ON CENTER AT HORIZONTAL LOCATIONS.
d. SELECT MEMBERS TO MEET THE STRUCTURAL REQUIREMENTS SPECIFIED.
5. LIGHT GAGE SUSPENDED FRAMING:
a. INSTALL IN ACCORDANCE WITH ASTM C754, UNLESS INDICATED OR SPECIFIED OTHERWISE.
b. SUSPEND CEILING FROM OVERHEAD STRUCTURAL ELEMENTS ONLY. DO NOT SUPPORT FROM ANY ELECTRICAL, HVAC, PLUMBING, OR SPRINKLER SYSTEM COMPONENTS.
c. SPACE CARRYING CHANNELS 4 FEET ON CENTER WITH SPLICES LAPPED 12 INCHES AND TIED.
d. SUPPORT COLD ROLLED CARRYING CHANNELS WITH HANGER WIRES SPACED AT 3 FEET ON CENTER FOR LATH AND PLASTER CEILINGS AND 4 FEET ON CENTER FOR GYPSUM BOARD CEILINGS. LOOP HANGER WIRE AROUND SUPPORT ELEMENT AND TIGHTLY WRAP AROUND VERTICAL WIRE 3 TIMES; CUT OFF NEATLY.

DIVISION 9 - FINISHES, CONT.

e. SPACE FURRING CHANNELS 16" O.C. WITH SPLICES LAPPED 12", MINIMUM AND TIED; CLIP OR SADDLE TIE TO RUNNER CHANNELS WITH 16-GAGE TIE WIRE.
f. WHERE OVERHEAD OBSTRUCTIONS PREVENT THE REGULAR SPACING OF HANGERS, PROVIDE SECONDARY CARRYING MEMBERS FOR INDIRECT SUPPORT OF THE SUSPENSION SYSTEM, OR REINFORCE THE NEAREST ADJACENT HANGERS AND RELATED FRAMING COMPONENTS AS REQUIRED TO SPAN THE REQUIRED DISTANCE.
6. STABILIZE SUSPENDED CEILING, SOFFIT, AND FASCIA FRAMING AGAINST LATERAL MOVEMENT BY MEANS OF DIAGONAL BRACING. AT LOCATIONS WHERE PARTITIONS EXTEND TO CEILING, ONLY, INSTALL SUPPLEMENTARY BRACING AT MAXIMUM 8'-0" O.C. ALONG LENGTH OF PARTITION, AND ABOVE EACH DOOR HINGE AND STRIKE JAMB.
7. FORM OPENINGS IN CEILINGS AND FRAME OPENINGS FOR RECESSED LIGHT FIXTURES, AIR DIFFUSERS, ACCESS DOORS, HATCHES, ETC.
8. INSTALL SUPPLEMENTARY HANGER WIRES FOR SUPPORT OF CEILING MOUNTED EQUIPMENT.
G.BACKING:
1. PROVIDE STEEL BACKING WHERE INDICATED. AT CONTRACTOR'S OPTION STEEL BACKING PLATES MAY BE SUBSTITUTED FOR WOOD BLOCKING, EXCEPT WOOD BLOCKING SHALL BE USED AT THE FOLLOWING LOCATIONS: HANDRAILS, GUARDRAILS, GRAB BARS, AND SIMILAR SAFETY ITEMS.
2. UNLESS INDICATED OTHERWISE, STEEL BACKING SHALL CONSIST OF MINIMUM 4 INCH WIDE 16 GAGE STEEL PLATE SCREWED RIGIDLY TO THE STUDS.
H. INSTALLATION TOLERANCES:
1. INSTALL MEMBERS TO PROVIDE SURFACE PLANE WITH MAXIMUM VARIATION OF 1/8 INCH IN 10 FEET IN ANY DIRECTION.
2. LOCATE ASSEMBLIES WITHIN 1/4 INCH OF REQUIRED LOCATIONS.

METAL STUD SCHEDULE

INTERIOR				
HEIGHT	STUD	FLANGE	GAGE	SPACING
12'-0"	3 5/8"	1 5/8"	20	24" O.C.
14'-0"	3 5/8"	1 5/8"	20	16" O.C.
16'-0"	3 5/8"	1 5/8"	18	16" O.C.
18'-0"	3 5/8"	1 5/8"	16	12" O.C.
EXTERIOR				
HEIGHT	STUD	FLANGE	GAGE	SPACING
12'-0"	6"	2"	18	16" O.C.
14'-0"	6"	2"	16	12" O.C.
16'-0"	6"	2 1/2"	14	12" O.C.
18'-0"	6"	2 1/2"	12	12" O.C.

092200 INVENTORY ROOM SPECIFICATIONS
A.WALLS AND CEILING
1. WALLS MUST BE DECK-TO-DECK, CEILING TO HARD DECK CEILING, OR 6" ABOVE CEILING AS DESCRIBED IN THE WALL TYPES ON SHEET A531.
2. HARDENING: EXPANDED CARBON STEEL AND FIBER-CEMENT BACKERBOARD MATERIALS MUST BE INSTALLED ON THE INTERIOR SIDE OF THE INVENTORY ROOM WALL STUDS.
a. EXPANDED CARBON STEEL SECURITY MESH: AMICO (ALABAMA METAL INDUSTRIES CORP) BIRMINGHAM AL (800/366-2642); ASM .50-13F, MINIMUM 13 GAGE, UNLESS APPROVED OTHERWISE. INSTALL ON THE INTERIOR SIDE OF THE WALL STUDS.
I. STEEL MUST MEET OR EXCEED ASTM A-569 HSLA STEEL. CONVENTIONAL EXPANDED CARBON STEEL THAT IS NOT MANUFACTURED SPECIFICALLY FOR SECURITY PURPOSES IS NOT ACCEPTABLE FOR THIS USE.
II. CARBON STEEL (MESH) SIZE OPENINGS MAY NOT EXCEED THE FOLLOWING DIMENSIONS: 0.5 INCH X 1.26 INCHES.
III.ANCHOR THE EXPANDED CARBON STEEL (INCLUDING ALL SEAMS) TO EACH STUD USING SECURE CLIPS [AMICO SECURA CLIPS] (FASTENERS WITH AN EXPANDED SURFACE AREA) WITH FLAT HEAD, PHILLIPS, ONE-WAY, STEEL SCREWS SPACED NO MORE THAN 12 INCHES APART VERTICALLY (DRYWALL SCREWS ARE UNACCEPTABLE). STEEL SCREWS MUST PENETRATE THROUGH THE STUDS BY AT LEAST 0.25 INCH, PER MANUFACTURER INSTRUCTIONS.
IV. END JOINTS MUST BE BUTTED AND OCCUR OVER STUDS. IF OVERLAPPING IS NECESSARY, A LONGER SCREW MUST BE USED TO MAINTAIN A 0.25 INCH STUD PENETRATION.
B. FIBER-CEMENT BACKERBOARD
I. INSTALL 0.5 INCH FIBER-CEMENT HARDIBACKER (JAMES HARDIE BUILDING PRODUCTS, INC.) BACKERBOARD ON THE INTERIOR SIDE OF THE WALL STUDS (BUT DIRECTLY OVER THE EXPANDED CARBON STEEL).
II. HARDIBACKER FIBER-CEMENT BACKERBOARD MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. HARDIBACKER INFORMATION CAN BE FOUND AT:
HTTP://WWW.JAMESHARDIE.COM/BACKERBOARD/HOMEOWNER/HARDIBACKER500.PHP
III.END JOINTS MUST BE BUTTED AND OCCUR OVER STUDS.
4. AVOID VENTS IN THE INVENTORY ROOMS. IF REQUIRED, VENTS OR LOUVERS MUST BE:
a. NO GREATER THAN 24 SQUARE INCHES AND LOCATED BEHIND (EXTERIOR SIDE OF) THE EXPANDED CARBON STEEL DESCRIBED IN SECTION 1.3.1 (ABOVE).
b. SUPPLY / RETURN DUCTS SHALL NOT EXCEED 24" SQUARE. INSTALL BURGLAR BARS IF OPENING EXCEEDS THE RECOMMENDED SIZES.
B. INVENTORY ROOM DOOR (SEE DOOR SCHEDULE AND BELOW)
1. INVENTORY ROOMS MAY ONLY HAVE ONE (1) ACCESS POINT/DOOR.
2. DUTCH DOORS MUST NOT BE INSTALLED.
3. THE DOOR MUST BE METAL OR OF SOLID CORE WOOD CONSTRUCTION, AND A MINIMUM OF 1.75 INCHES THICK.
a. A METAL DOOR MUST BE OF 16-GAUGE STEEL. E-016;
b. A SOLID CORE WOODEN DOOR REQUIRES A 16-GAUGE STEEL SKIN.
c. THE DOOR MAY NOT HAVE VENTS, LOUVERS, OR CONTAIN ANY OPENINGS OTHER THAN THOSE NECESSARY TO AFFIX THE DOOR HARDWARE/HANDLE.
4. THE DOOR FRAME MUST BE STEEL AND REINFORCED TO ENSURE DURABILITY.
a. THE STEEL FRAME MUST BE ANCHORED TO THE WALL IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS OR BEST PRACTICES;
b. SUPPORTING WALL STRUCTURES MUST CONSIST OF DOUBLE STUDDING OR FRAMING OF EQUIVALENT STRENGTH; AND
c. THERE MUST NOT BE MORE THAN 0.125 INCH CLEARANCE BETWEEN THE DOOR AND THE FRAME.
5. THE DOOR MUST BE EQUIPPED WITH A PROPERLY FUNCTIONING, COMMERCIAL GRADE, AUTOMATIC DOOR CLOSER DEVICE.
6. IF THE DOOR HINGES ARE ACCESSIBLE FROM THE EXTERIOR SIDE, THE HINGE MUST BE A HEAVY DUTY CONTINUOUS (PIANO OR ROTON) HINGE.
7. THE DOOR MUST BE EQUIPPED WITH A LATCH GUARD COVERING THE EXTERIOR LATCH EXPOSURE.
C.LOCKS/ KEYS
1. INVENTORY ROOM DOORS MUST BE EQUIPPED WITH HIGH QUALITY, COMMERCIAL GRADE LOCKS THAT:
a. USE MANUFACTURER-RESTRICTED KEYWAYS (INCLUDING INSTAKEY) AND
b. CANNOT BE SET IN AN UNLOCKED STATE (I.E., STOREROOM FUNCTION).
2. THE SECURITECH 4850 MP 5 POLICE LOCK (5-POINT SECURITY LOCK) LOCKING SYSTEM MUST BE INSTALLED ON THE INTERIOR SIDE OF THE INVENTORY ROOM TO SECURE THE INVENTORY ROOM DOOR AFTER HOURS. SECURITECH 4850 INFORMATION CAN BE FOUND AT:
a. HTTP://WWW.SECURITECH.COM/D01-MP-POLICE-LOCK.HTML AND
b.
HTTP://WWW.SECURITECH.COM/WE/20CATALOG/4/20MULTI-POINT/20LOCKING/D18.PDF

092813 GYPSUM SHEATHING
A.MATERIALS:
1. GYPSUM SHEATHING: ONE OF THE FOLLOWING:
A. G-P GYPSUM CORPORATION "DENS-GLASS GOLD"; GLASS MAT FACED; ASTM C1177; 1/2 INCH THICK
B. USG FIBEROCK BRAND SHEATHING WITH AQUA-TOUGH™; ½ INCH THICK.
2. SCREWS: GALVANIZED; SELF-DRILLING; SELF-DRILLING, BUGLE HEAD SCREWS; MINIMUM 1-1/4 INCH LONG.
B. INSTALLATION:
1. INSTALL SQUARE EDGE BOARDS PARALLEL OR PERPENDICULAR TO FRAMING. INSTALL BOARDS PARALLEL TO FRAMING AT FIRE RATED WALLS. APPLY SHEATHING WITH JOINTS STAGGERED. ALL EDGES SHALL BE FIRMLY SUPPORTED.
2. INSTALL SHEATHING WITH COATING TOWARDS EXTERIOR.
3. SCREW TO FRAMING. SPACE FASTENERS 8 INCHES O.C. IN FIELD AND 4 INCHES O.C. AT ENDS ALONG EACH FRAMING MEMBER.
4. 4. DO NOT BRIDGE EXPANSION OR SEISMIC JOINTS.

DIVISION 9 - FINISHES, CONT.

092900 GYPSUM BOARD
A. QUALITY CONTROL:
1. PROVIDE ASSEMBLIES MEETING THE HOURLY FIRE RATINGS INDICATED. ASSEMBLIES SHALL BE APPROVED BY THE LOCAL JURISDICTIONAL CODE AUTHORITIES.
B. MATERIALS:
1. SYNTHETIC GYPSUM BOARD:
a. MANUFACTURERS: NATIONAL GYPSUM CO."GOLD BOND BRAND"; USG CORPORATION, "SHEETROCK BRAND"; TEMPLE-INLAND GYPSUM, "SYNTHETIC GYPSUM."
b. 5/8 INCH THICK UNLESS NOTED OTHERWISE; PROVIDE TYPE X IN FIRE RATED PARTITIONS.
c. STANDARD BOARD: ASTM C36.
2. ACCESSORIES:
a. TRIM: CONCEALED FLANGE SCREW-ON TYPE; METAL; GA 216.
b. JOINT COMPOUND, TAPE, AND FINISHING COMPOUND: ASTM C475 AND GA 216.
c. SCREWS: ASTM C1002.
d. PROPRIETARY SKIM COAT: USG "TUFF-HIDE SHEETROCK BRAND PRIMER-SURFACER."
C. INSTALLATION:
1. INSTALLATION STANDARD: UNLESS SPECIFIED OTHERWISE, PERFORM WORK IN ACCORDANCE WITH GYPSUM ASSOCIATION 216, "RECOMMENDED SPECIFICATIONS FOR THE APPLICATION AND FINISHING OF GYPSUM WALLBOARD."
2. INSTALL WATER RESISTANT BOARD RESTROOM WALLS AS A SUBSTRATE FOR SURFACES
3. SCREW FASTEN BOARD TO FRAMING, UNLESS APPROVED OTHERWISE.
4. TRIM:
a. USE LONGEST PRACTICAL LENGTHS, WITH NO PIECE LESS THAN 2 FEET LONG FOR CONTINUOUS RUNS GREATER THAN 8 FEET. SECURELY FASTEN AND ALIGN TRIM ENDS AT JOINTS.
b. PLACE CONCEALED FLANGE CORNER BEADS AT ALL EXTERNAL CORNERS. AT ANGLES OTHER THAN 90 DEGREES, BEND THE FLANGE TO CONFORM TO THE ANGLE.
c. PLACE CONCEALED FLANGE TYPE L TRIM WHERE GYPSUM BOARD ABUTS DISSIMILAR MATERIALS.
d. USE J TRIM AT EXPOSED GYPSUM BOARD EDGES (INCLUDING LIGHT COVES) WHERE SEALANT JOINT IS INDICATED.
5. CONTROL JOINTS:
a. POSITION CONTROL JOINTS TO INTERSECT LIGHT FIXTURES, AIR DIFFUSERS, DOOR OPENINGS, AND OTHER AREAS OF STRESS CONCENTRATION.
b. POSITION CONTROL JOINTS AT LOCATIONS WHERE EXPANSION OR CONTROL JOINTS OCCUR IN THE BUILDING STRUCTURE.
c. LOCATE CONTROL JOINTS TO FORM RECTANGULAR OR SQUARE SECTIONS, IN "L," "U," "T," OR OTHER IRREGULARLY SHAPED AREAS.
6. FINISHING:
a. PROVIDE FINISHING IN ACCORDANCE WITH GA 214.
b. WHERE NECESSARY TO SAND, DO SO WITHOUT DAMAGING THE FACE OF THE GYPSUM BOARD.
c. LEVELS OF FINISH: PROVIDE AS NOTED IN DRAWINGS
c.a. LEVEL 4: SALES AREA. PROVIDE UNLESS INDICATED OR SPECIFIED OTHERWISE.
c.b. LEVEL 3: PUBLIC TOILET ROOMS & HALLWAYS OR AS NOTED ON DRAWINGS.
c.c. LEVEL 2: BACK OF HOUSE, STORAGE ROOMS, MECHANICAL ROOMS, JANITOR'S CLOSETS OR AS NOTED ON DRAWINGS.
c.d. LEVEL 1: PROVIDE AT THE FOLLOWING LOCATIONS:
c.d.a. SURFACES OF FIRE RATED ASSEMBLIES CONCEALED FROM VIEW IN THE FINISHED WORK ("FIRE TAPING").
c.d.b. SURFACES OF ACOUSTICAL ASSEMBLIES CONCEALED FORM VIEW IN THE FINISHED WORK
c.e. LEVEL 0: PROVIDE AT THE FOLLOWING LOCATIONS:SURFACES OF NON-FIRE RATED ASSEMBLIES CONCEALED FROM VIEW IN THE FINISHED WORKLEVEL 4 AND 5 FINISHES: RETURN TO THE SITE AFTER PRIMER IS APPLIED, AND TOUCH-UP SURFACE DEFECTS.
D. PROPRIETARY SKIM COAT MATERIAL MAY BE USED IN LIEU OF JOINT COMPOUND AS SKIM COAT AT LEVEL 5 SURFACES

093105 CERAMIC TILE
A. GENERAL
1. RELATED DOCUMENTS
a. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND OTHER DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
b. STATIC COEFFICIENT OF FRICTION: FOR TILE INSTALLED ON WALKWAY SURFACES, PROVIDE PRODUCTS WITH THE FOLLOWING VALUES AS DETERMINED BY TESTING IDENTICAL PRODUCTS PER ASTM C 1028:
c. LEVEL SURFACES: MINIMUM 0.6.
B. PRODUCTS
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS AS SHOWN ON FINISH MATERIAL SCHEDULE.
a. TILE-SETTING AND -GROUTING MATERIALS: AS SHOWN ON FINISH MATERIAL SCHEDULE.
2. ANSI CERAMIC TILE STANDARD: PROVIDE TILE THAT COMPLIES WITH STANDARD GRADE REQUIREMENTS OF ANSI A137.1, "SPECIFICATIONS FOR CERAMIC TILE," FOR TYPES, COMPOSITIONS, AND OTHER CHARACTERISTICS INDICATED.
3. ANSI STANDARDS FOR TILE INSTALLATION MATERIALS: PROVIDE MATERIALS COMPLYING WITH REFERENCED ANSI STANDARDS.
4. COLORS, TEXTURES, AND PATTERNS: FOR TILE, GROUT, AND OTHER PRODUCTS REQUIRING SELECTION OF COLORS, SURFACE TEXTURES, PATTERNS, AND OTHER APPEARANCE CHARACTERISTICS, COMPLY WITH THE FOLLOWING REQUIREMENTS:
a. MATCH COLORS, TEXTURES, AND PATTERNS INDICATED BY REFERENCING MANUFACTURER'S STANDARD DESIGNATIONS FOR THESE CHARACTERISTICS.
5. FACTORY BLENDING: FOR TILE EXHIBITING COLOR VARIATIONS WITHIN THE RANGES SELECTED DURING SAMPLE SUBMITTALS, BLEND TILE IN THE FACTORY AND PACKAGE SO TILE UNITS TAKEN FROM ONE PACKAGE SHOW THE SAME RANGE IN COLORS AS THOSE TAKEN FROM OTHER PACKAGES AND MATCH APPROVED SAMPLES.
6. FLOOR TILE: PROVIDE FLAT TILE COMPLYING WITH THE FOLLOWING REQUIREMENTS:
a. COMPOSITION: AS NOTED IN DRAWINGS.
b. FACIAL DIMENSIONS: AS NOTED IN DRAWINGS.
c. THICKNESS: AS NOTED IN DRAWINGS
d. FACE: AS NOTED IN DRAWINGS.
e. FOR LATEX-PORTLAND CEMENT MORTARED AND GROUTED PAVER TILE, PRE-COAT WITH TEMPORARY PROTECTIVE COATING.
7. 7. WALL TILE: PROVIDE FLAT TILE COMPLYING WITH THE FOLLOWING REQUIREMENTS:
a. MODULE SIZE: AS NOTED IN DRAWINGS
b. THICKNESS: AS NOTED IN DRAWINGS
c. FACE: AS NOTED IN DRAWINGS
d. MOUNTING: PRE-GROUTED SHEETS OF TILES FACTORY ASSEMBLED AND GROUTED WITH MANUFACTURER'S STANDARD SILICONE RUBBER COMPLYING WITH ANSI A118.6.
8. WATERPROOFING FOR THIN-SET TILE INSTALLATIONS: PROVIDE PRODUCTS THAT COMPLY WITH ANSI A118.10.
9. SETTING MATERIALS: AS FOLLOWS:
a. LATEX-PORTLAND CEMENT MORTAR: ANSI A118.4, COMPOSED AS FOLLOWS:
b. PREPACKAGED DRY-MORTAR MIX: FACTORY-PREPARED MIXTURE OF PORTLAND CEMENT; DRY, REDISPERSIBLE, ETHYLENE VINYL ACETATE ADDITIVE; AND OTHER INGREDIENTS TO WHICH ONLY WATER NEEDS TO BE ADDED AT PROJECT SITE.
c. MIXTURE OF DRY-MORTAR MIX AND LATEX ADDITIVE: MIXTURE OF PREPACKAGED DRY-MORTAR MIX AND LIQUID-LATEX ADDITIVE COMPLYING WITH THE FOLLOWING REQUIREMENTS:
10. LATEX ADDITIVE: STYRENE BUTADIENE RUBBER.
11. LATEX ADDITIVE: ACRYLIC RESIN.
a. CHEMICAL-RESISTANT, WATER-CLEANABLE, CERAMIC TILE-SETTING AND -GROUTING EPOXY: ANSI A118.3.
b. PROVIDE PRODUCT CAPABLE OF RESISTING CONTINUOUS AND INTERMITTENT EXPOSURE TO TEMPERATURES OF UP TO 140 DEG F (60 DEG C) AND 212 DEG F (100 DEG C), RESPECTIVELY, AS CERTIFIED BY MORTAR MANUFACTURER FOR INTENDED USE.
c. WATER-CLEANABLE, TILE-SETTING EPOXY ADHESIVE: ANSI A118.3.
d. GROUT FOR EXTERIOR: LATICRETE 4237 LATEX THIN SET MORTAR ADDITIVE WITH 211 CRETE FILLER POWDER OR LATICRETE 3701 LATEX ADMIXTURE WITH LATICRETE FLOOR AND WALL THIN SET. PROVIDE LATICRETE 9235 WATERPROOF MEMBRANE PER MFR. RECOMMENDATIONS.
12. GROUTING MATERIALS: AS FOLLOWS:
a. LATEX-PORTLAND CEMENT GROUT: ANSI A118.6 FOR MATERIALS DESCRIBED IN SECTION H-2.4, COMPOSED AS FOLLOWS:
a.a. MIXTURE OF DRY-GROUT MIX AND LATEX ADDITIVE: MIXTURE OF FACTORY-PREPARED, DRY-GROUT MIX AND LATEX ADDITIVE COMPLYING WITH THE FOLLOWING REQUIREMENTS:
13. UNSANDED DRY-GROUT MIX: DRY-SET GROUT COMPLYING WITH ANSI A118.6 FOR MATERIALS DESCRIBED IN SECTION H-2.3, FOR JOINTS 1/8 INCH (3.2 MM) AND NARROWER.
14. SANDED DRY-GROUT MIX: COMMERCIAL PORTLAND CEMENT GROUT COMPLYING WITH ANSI A118.6 FOR MATERIALS DESCRIBED IN SECTION H-2.1, FOR JOINTS 1/8 INCH (3.2 MM) AND WIDER.
15. LATEX ADDITIVE: STYRENE BUTADIENE RUBBER.
16. LATEX ADDITIVE: ACRYLIC RESIN.

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VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
SPECIFICATIONS

SHEET NUMBER:
A704

DIVISION 9 - FINISHES, CONT.

16.a. CHEMICAL-RESISTANT EPOXY GROUT: ANSI A118.3, COLOR AS INDICATED.
16.b. PROVIDE PRODUCT CAPABLE OF RESISTING CONTINUOUS AND INTERMITTENT EXPOSURE TO TEMPERATURES OF UP TO 140 DEG F (60 DEG C) AND 212 DEG F (100 DEG C), RESPECTIVELY, AS CERTIFIED BY MORTAR MANUFACTURER FOR INTENDED USE.
17. ELASTOMERIC SEALANTS: PROVIDE MANUFACTURER'S STANDARD CHEMICALLY CURING, ELASTOMERIC SEALANTS OF BASE POLYMER AND CHARACTERISTICS INDICATED THAT COMPLY WITH APPLICABLE REQUIREMENTS OF DIVISION 7 SECTION "JOINT SEALANTS."
17.a. ONE-PART, MILDEW-RESISTANT SILICONE SEALANT: ASTM C 920; TYPE S; GRADE NS; CLASS 25; USES NT, G, A, AND, AS APPLICABLE TO NONPOROUS JOINT SUBSTRATES INDICATED, O; FORMULATED WITH FUNGICIDE.
18. CEMENTITIOUS BACKER UNITS: PROVIDE PRODUCTS COMPLYING WITH ANSI A118.9, OF THICKNESS AND WIDTH INDICATED, AND IN MAXIMUM LENGTHS AVAILABLE TO MINIMIZE END-TO-END BUTT JOINTS.
19. MISCELLANEOUS MATERIALS: AS FOLLOWS:
a. TROWELABLE UNDERLAYMENTS AND PATCHING COMPOUNDS: LATEX-MODIFIED, PORTLAND-CEMENT-BASED FORMULATION PROVIDED OR APPROVED BY MANUFACTURER OF TILE-SETTING MATERIALS FOR INSTALLATIONS INDICATED.
b. METAL EDGE STRIPS: WHITE-ZINC-ALLOY TERRAZZO STRIPS, 1/8 INCH (3.2 MM) WIDE AT TOP EDGE WITH INTEGRAL PROVISION FOR ANCHORAGE TO MORTAR BED OR SUBSTRATE, UNLESS OTHERWISE INDICATED.
20. WATERPROOF MEMBRANE INSTALLATION: (COORDINATE WITH LANDLORD REQUIREMENTS)
a. INSTALL WATERPROOF MEMBRANES IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

C.PREPARATION: CLEAN SUBSTRATE SURFACES FREE OF GREASE, DIRT, DUST, ORGANIC IMPURITIES, CURING AGENTS, AND OTHER MATERIALS THAT WOULD IMPAIR BOND. CLEAN FLOORS WITH "BLAST-TRACK" UNIT IF NECESSARY.
1. SLAB LEVELING: (COORDINATE WITH LANDLORD REQUIREMENTS)
2. PRIOR TO INSTALLATION OF THINSET FLOOR TILE, WHERE LOCAL IRREGULARITIES IN THE SUBSTRATE SURFACE WOULD PREVENT LEVEL INSTALLATION OF THE TILE, THE SUBSTRATE SHALL BE BROUGHT TO PLANE SURFACE WITH VARIATIONS NOT TO EXCEED 1/8 INCH IN 4 FEET (CUMULATIVE) AND 1/4 INCH IN 10 FEET (NON-CUMULATIVE). SMOOTH ALL ABRUPT CHANGES IN PLANE.
3. USE THINSET MORTAR OR OTHER FILLER FOR SLAB LEVELING. OTHER FILLERS ARE SUBJECT TO ENDORSEMENT BY THE SETTING MORTAR MANUFACTURER.
4. SCREED OR FLOAT TO APPROPRIATE THICKNESS AND SPECIFIED SURFACE TOLERANCE. ALLOW TO SET PRIOR TO PROCEEDING WITH INSTALLATION. DO NOT EXCEED THE MAXIMUM THICKNESSES FOR THIN BED MORTAR AS RECOMMENDED BY THE MANUFACTURER.

D. EXECUTION
1. PROVIDE CONCRETE SUBSTRATES FOR TILE FLOORS INSTALLED WITH DRY-SET OR LATEX-PORTLAND CEMENT MORTARS THAT COMPLY WITH FLATNESS TOLERANCES SPECIFIED IN REFERENCED ANSI A108 SERIES OF TILE INSTALLATION STANDARDS FOR INSTALLATIONS INDICATED.
a. USE TROWELABLE LEVELING AND PATCHING COMPOUNDS PER TILE-SETTING MATERIAL MANUFACTURER'S WRITTEN INSTRUCTIONS TO FILL CRACKS, HOLES, AND DEPRESSIONS.
b. REMOVE PROTRUSIONS, BUMPS, AND RIDGES BY SANDING OR GRINDING.
2. BLENDING: FOR TILE EXHIBITING COLOR VARIATIONS WITHIN THE RANGES SELECTED DURING SAMPLE SUBMITTALS, VERIFY THAT TILE HAS BEEN BLENDED IN THE FACTORY AND PACKAGED SO TILE UNITS TAKEN FROM ONE PACKAGE SHOW THE SAME RANGE IN COLORS AS THOSE TAKEN FROM OTHER PACKAGES AND MATCH APPROVED SAMPLES.
3. ANSI TILE INSTALLATION STANDARDS: COMPLY WITH PARTS OF ANSI A108 SERIES OF TILE INSTALLATION STANDARDS IN "SPECIFICATIONS FOR INSTALLATION OF CERAMIC TILE" THAT APPLY TO TYPES OF SETTING AND GROUTING MATERIALS AND TO METHODS INDICATED OR REQUIRED.
4. TCA INSTALLATION GUIDELINES: TCA'S "HANDBOOK FOR CERAMIC TILE INSTALLATION." COMPLY WITH TCA INSTALLATION METHODS INDICATED OR REQUIRED.
5. EXTEND TILE WORK INTO RECESSES AND UNDER OR BEHIND EQUIPMENT AND FIXTURES TO FORM A COMPLETE COVERING WITHOUT INTERRUPTIONS, UNLESS OTHERWISE INDICATED. TERMINATE WORK NEATLY AT OBSTRUCTIONS, EDGES, AND CORNERS WITHOUT DISRUPTING PATTERN OR JOINT ALIGNMENTS.
6. ACCURATELY FORM INTERSECTIONS AND RETURNS. PERFORM CUTTING AND DRILLING OF TILE WITHOUT MARRING VISIBLE SURFACES. CAREFULLY GRIND CUT EDGES OF TILE ABUTTING TRIM, FINISH, OR BUILT-IN ITEMS FOR STRAIGHT ALIGNED JOINTS. FIT TILE CLOSELY TO ELECTRICAL OUTLETS, PIPING, FIXTURES, AND OTHER PENETRATIONS SO PLATES, COLLARS, OR COVERS OVERLAP TILE.
7. JOINTING PATTERN: LAY TILE IN GRID PATTERN, UNLESS OTHERWISE INDICATED. ALIGN JOINTS WHERE ADJOINING TILES ON FLOOR, BASE, WALLS, AND TRIM ARE THE SAME SIZE. LAY OUT TILE WORK AND CENTER TILE FIELDS IN BOTH DIRECTIONS IN EACH SPACE OR ON EACH WALL AREA. ADJUST TO MINIMIZE TILE CUTTING. PROVIDE UNIFORM JOINT WIDTHS, UNLESS OTHERWISE INDICATED.
8. EXPANSION JOINTS: LOCATE EXPANSION JOINTS AND OTHER SEALANT-FILLED JOINTS, INCLUDING CONTROL, CONTRACTION, AND ISOLATION JOINTS, WHERE INDICATED DURING INSTALLATION OF SETTING MATERIALS, MORTAR BEDS, AND TILE. DO NOT SAW-CUT JOINTS AFTER INSTALLING TILES.
9. LOCATE JOINTS IN TILE SURFACES DIRECTLY ABOVE JOINTS IN CONCRETE SUBSTRATES.
10. PREPARE JOINTS AND APPLY SEALANTS TO COMPLY WITH REQUIREMENTS OF DIVISION 7 SECTION "JOINT SEALANTS."
11. GROUT TILE TO COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING TILE INSTALLATION STANDARDS:
12. FOR CERAMIC TILE GROUTS (SAND-PORTLAND CEMENT, DRY-SET, COMMERCIAL PORTLAND CEMENT, AND LATEX-PORTLAND CEMENT GROUTS), COMPLY WITH ANSI A108.10.
13. FLOOR TILE INSTALLATION: INSTALL TILE TO COMPLY WITH REQUIREMENTS INDICATED, INCLUDING THOSE REFERENCING TCA INSTALLATION METHODS AND ANSI A108 SERIES OF TILE INSTALLATION STANDARDS.
14. JOINT WIDTHS: INSTALL TILE ON FLOORS WITH THE FOLLOWING JOINT WIDTHS:
15. PAVER TILE: 1/4 INCH (6.35 MM).
16. BACK BUTTERING: FOR INSTALLATIONS INDICATED, OBTAIN 100 PERCENT MORTAR COVERAGE BY COMPLYING WITH APPLICABLE SPECIAL REQUIREMENTS FOR BACK BUTTERING OF TILE IN REFERENCED ANSI A108 SERIES OF TILE INSTALLATION STANDARDS.
17. METAL EDGE STRIPS: INSTALL AT LOCATIONS INDICATED OR WHERE EXPOSED EDGE OF TILE FLOORING MEETS CARPET, WOOD, OR OTHER FLOORING THAT FINISHES FLUSH WITH TOP OF TILE.
18. WALL TILE INSTALLATION: INSTALL TYPES OF TILE DESIGNATED FOR WALL INSTALLATIONS TO COMPLY WITH MANUFACTURERS' REQUIREMENTS, INCLUDING THOSE REFERENCING TCA INSTALLATION METHODS AND ANSI SETTING-BED STANDARDS.
19. JOINT WIDTHS: INSTALL TILE ON WALLS WITH THE FOLLOWING JOINT WIDTHS:
20. WALL TILE: 1/16 INCH (1.6 MM).
21. BACK BUTTERING: FOR INSTALLATIONS INDICATED, OBTAIN 100 PERCENT MORTAR COVERAGE BY COMPLYING WITH APPLICABLE SPECIAL REQUIREMENTS FOR BACK BUTTERING OF TILE IN REFERENCED ANSI A108 SERIES OF TILE INSTALLATION STANDARDS.
22. CLEANING: ON COMPLETION OF PLACEMENT AND GROUTING, CLEAN ALL CERAMIC TILE SURFACES SO THEY ARE FREE OF FOREIGN MATTER. USE CLEANING MATERIALS AND METHODS THAT COMPLY WITH TILE AND GROUT MANUFACTURERS' WRITTEN INSTRUCTIONS.

096403 WOOD FLOORING

A.GENERAL
1. RELATED DOCUMENTS: DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
2. SUMMARY
a. ENGINEERED WOOD FLOOR.
3. QUALITY ASSURANCE
a. INSTALLER QUALIFICATIONS: INSTALLATION SHALL BE PERFORMED BY A FIRM EXPERIENCED IN THE APPLICATION OF SYSTEMS SIMILAR IN COMPLEXITY TO THOSE REQUIRED FOR THIS PROJECT. ADDITIONALLY, INSTALLERS SHALL BE IN POSSESSION OF THE MANUFACTURER'S INSTALLATION MANUAL AND ADHERE TO THE INSTRUCTIONS.
b. HARDWOOD FLOORING: COMPLY WITH NOFMA GRADING RULES FOR SPECIES, GRADE, AND CUT. CERTIFICATION: PROVIDE FLOORING THAT CARRIES NOFMA GRADE STAMP ON EACH BUNDLE OR PIECE.
c. MAPLE FLOORING: COMPLY WITH MFMA GRADING RULES FOR SPECIES, GRADE, AND CUT. CERTIFICATION: PROVIDE FLOORING THAT CARRIES MFMA MARK ON EACH BUNDLE OR PIECE.
d. SOUTHERN PINE FLOORING: COMPLY WITH SPIB GRADING RULES FOR SPECIES, GRADE, AND CUT.
e. SOFTWOOD FLOORING: COMPLY WITH WCLIB NO. 17 GRADING RULES FOR SPECIES, GRADE, AND CUT.
4. PROJECT CONDITIONS

DIVISION 9 - FINISHES, CONT.

a. CONDITIONING: MAINTAIN RELATIVE HUMIDITY PLANNED FOR BUILDING OCCUPANTS AND AN AMBIENT TEMPERATURE BETWEEN 65 AND 75 DEG F (18 AND 24 DEG C) IN SPACES TO RECEIVE WOOD FLOORING FOR AT LEAST SEVEN DAYS BEFORE INSTALLATION, DURING INSTALLATION, AND FOR AT LEAST SEVEN DAYS AFTER INSTALLATION. AFTER POST-INSTALLATION PERIOD, MAINTAIN RELATIVE HUMIDITY AND AMBIENT TEMPERATURE PLANNED FOR BUILDING OCCUPANTS.
b. MOVE WOOD FLOORING INTO SPACES WHERE IT WILL BE INSTALLED, AT LEAST SEVEN DAYS BEFORE INSTALLATION.
c. FOR UNFINISHED PRODUCTS, OPEN SEALED PACKAGES TO ALLOW WOOD FLOORING TO ACCLIMATIZE.
d. DO NOT INSTALL FLOORING UNTIL IT ADJUSTS TO THE RELATIVE HUMIDITY OF AND IS AT THE SAME TEMPERATURE AS THE SPACE WHERE IT IS TO BE INSTALLED.
e. INSTALL FACTORY-FINISHED WOOD FLOORING AFTER OTHER FINISHING OPERATIONS, INCLUDING PAINTING, HAVE BEEN COMPLETED.

B. PRODUCTS
1. ENGINEERED-WOOD STRIP OR PLANK FLOORING PRODUCTS: AS INDICATED ON THE FINISH MATERIAL SCHEDULE. NO SUBSTITUTIONS. ENGINEERED-WOOD STRIP OR PLANK FLOORING: ANSI/HPVA LF.
a. SPECIES: AS INDICATED ON DRAWINGS.
b. GRADE: MANUFACTURERS STANDARD.
c. THICKNESS: AS NOTED IN DRAWINGS
d. CONSTRUCTION: AS NOTED IN DRAWINGS
e. WIDTH: AS NOTED IN DRAWINGS
f. LENGTH: AS NOTED IN DRAWINGS.
g. EDGES: AS NOTED IN DRAWINGS.
h. FINISH: AS NOTED IN DRAWINGS.
2. ACCESSORY MATERIALS
a. WOOD FLOORING ADHESIVE: MASTIC RECOMMENDED BY FLOORING AND ADHESIVE MANUFACTURERS FOR APPLICATION INDICATED. (NOT USED IN FLOATING FLOOR SYSTEM)
b. FASTENERS: AS RECOMMENDED BY MANUFACTURER, BUT NOT LESS THAN THAT RECOMMENDED IN NOFMA'S "INSTALLING HARDWOOD FLOORING." (NOT USED IN FLOATING FLOOR SYSTEM)
c. VAPOR RETARDER: ASTM D 4397, POLYETHYLENE SHEET NOT LESS THAN [6.0 MILS (0.15 MM)] THICK.
d. VERSASHIELD FLOORING UNDERLAYMENT WITH VERSASSHIELD SEAM TAPE INSTALLED PER MANUFACTURER INSTRUCTIONS.
e. CORK EXPANSION STRIP: COMPOSITION CORK STRIP COMPLYING WITH FS HH-C-576, TYPE I-B, CLASS 2.
f. WOOD FEATURE STRIPS: 2-INCH- (51-MM-) WIDE, SQUARE-EDGED WALNUT STRIPS FURNISHED IN LENGTHS AS LONG AS PRACTICAL AND IN THICKNESS TO MATCH WOOD FLOORING.
g. METAL FEATURE STRIPS: 1/8-BY-1/8-INCH (3-BY-3-MM) SOLID BRASS STRIP, DESIGNED FOR INLAYING INTO ROUTED REVEAL IN WOOD FLOORING SURFACE.
h. WOOD TRIM: IN SAME SPECIES AND GRADE AS WOOD FLOORING, UNLESS OTHERWISE INDICATED.
i. WOOD BASE: 3/4 INCH (16 MM) THICK BY 2 INCHES (100 MM) HIGH.
j. BASE SHOE MOLDING: 1/2 BY 3/4 INCH (13 BY 19 MM).
k. THRESHOLD: TAPERED ON EACH SIDE AND ROUTED AT BOTTOM OF ONE SIDE TO ACCOMMODATE WOOD FLOORING.
l. REDUCER STRIP: AS NOTED IN DRAWINGS.

C. PREPARATION:
1. CONCRETE SLABS: GRIND HIGH SPOTS AND FILL LOW SPOTS TO PRODUCE A MAXIMUM 1/8-INCH (3-MM) DEVIATION IN ANY DIRECTION WHEN CHECKED WITH A 10-FOOT (3-M) STRAIGHT EDGE.
2. USE TROWELABLE LEVELING AND PATCHING COMPOUNDS, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, TO FILL CRACKS, HOLES, AND DEPRESSIONS IN SUBSTRATES.
3. REMOVE COATINGS, INCLUDING CURING COMPOUNDS, AND OTHER SUBSTANCES ON SUBSTRATES THAT ARE INCOMPATIBLE WITH INSTALLATION ADHESIVES AND THAT CONTAIN SOAP, WAX, OIL, OR SILICONE, USING MECHANICAL METHODS RECOMMENDED BY MANUFACTURER. DO NOT USE SOLVENTS.
4. BROOM OR VACUUM CLEAN SUBSTRATES TO BE COVERED IMMEDIATELY BEFORE PRODUCT INSTALLATION. AFTER CLEANING, EXAMINE SUBSTRATES FOR MOISTURE, ALKALINE SALTS, CARBONATION, OR DUST. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

D. EXECUTION
1. INSTALLATION
A. COMPLY WITH FLOORING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, BUT NOT LESS THAN RECOMMENDATIONS IN NOFMA'S "INSTALLING HARDWOOD FLOORING."
B. CONCRETE SUBSTRATES: VERIFY THAT SLABS ARE DRY ACCORDING TO TEST METHODS RECOMMENDED BY FLOORING MANUFACTURER OR, IF NONE, BY TEST METHODS IN NOFMA'S "INSTALLING HARDWOOD FLOORING."
C. WHERE WOOD FLOORING IS ADHESIVELY ATTACHED TO CONCRETE SLABS, VERIFY THAT SLABS ARE FREE OF CURING COMPOUNDS, SEALERS, HARDENERS, AND OTHER MATERIALS THAT MAY INTERFERE WITH ADHESIVE BOND.
D. PROVIDE EXPANSION SPACE AT WALLS AND OTHER OBSTRUCTIONS AND TERMINATIONS OF FLOORING OF NOT LESS THAN DIRECTED BY MANUFACTURER.
E. ENGINEERED-WOOD FLOORING: SET IN ADHESIVE PER MANUFACTURER'S INSTRUCTIONS.
F. WOOD TRIM: NAIL BASEBOARD TO WALL AND NAIL SHOE MOLDING OR OTHER TRIM TO BASEBOARD; DO NOT NAIL TO FLOORING.
G. PROVIDE EXPANSION SPACE AT WALLS AND OTHER OBSTRUCTIONS AND TERMINATIONS OF FLOORING

E. CLEANING AND PROTECTION
1. COVER WOOD FLOORING BEFORE AND AFTER FINISHING DURING REMAINDER OF CONSTRUCTION PERIOD. USE HEAVY KRAFT-PAPER OR OTHER SUITABLE COVERING. DO NOT USE PLASTIC SHEET OR FILM THAT COULD CAUSE CONDENSATION.
2. CLEAN AND BUFF PER MANUFACTURE'S RECOMMENDATION IMMEDIATELY PRIOR TO BUILDING OCCUPANCY.

095300 ACOUSTICAL PANEL CEILINGS

A. REFERENCES:
1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):
a. C635 - METAL SUSPENSION SYSTEMS FOR ACOUSTIC TILE AND LAY-IN PANEL CEILINGS.
b. C636 -RECOMMENDED PRACTICE FOR THE INSTALLATION OF METAL CEILING SUSPENSION SYSTEMS FOR ACOUSTIC TILE AND LAY-IN PANELS.

B. QUALITY ASSURANCE:
1. CODES: CONFORM TO THE REQUIREMENTS OF THE AHJ, SEISMIC ZONE AS INDICATED ON THE DRAWINGS, CISCA, AND THE REQUIREMENTS OF THE JURISDICTIONAL CODE AUTHORITIES.

PRODUCTS:
1. ACOUSTICAL PANELS: AS INDICATED ON THE DRAWINGS.
2. SUSPENSION SYSTEM: EXPOSED T SYSTEM: ASTM C635, HEAVY DUTY CLASSIFICATION; DIRECT HUNG; EXPOSED "T" DESIGN; FACTORY BAKED ON FINISH TO MATCH ACOUSTICAL PANELS. FURNISH STABILIZER BARS, SPLICES, EDGE AND WALL MOLDINGS, AND OTHER ITEMS AS NECESSARY TO COMPLETE SUSPENDED CEILING GRID SYSTEM.

D. INSTALLATION:
1. INSTALL AFTER MAJOR ABOVE-CEILING WORK IS COMPLETE.
2. INSTALL SYSTEM IN ACCORDANCE WITH ASTM C636, IBC 1621.2.5 AND CISCA, THE MANUFACTURER'S INSTRUCTIONS, AND AS SUPPLEMENTED IN THIS SECTION.
3. INSTALL GRID TO PRODUCE FINISHED CEILING TRUE TO LINES AND LEVELS INDICATED, WITHIN THE SPECIFIED TOLERANCES.
4. INSTALL SUSPENSION SYSTEMS IN A MANNER TO SUPPORT ALL SUPERIMPOSED LOADS, WITH MAXIMUM PERMISSIBLE DEFLECTION OF 1/270 OF SPAN. AT LOCATIONS WHERE PARTITIONS EXTEND TO CEILING, ONLY, INSTALL SUPPLEMENTARY DIAGONAL BRACING TO STRUCTURE AT MAXIMUM 8'-0" O.C. ALONG LENGTH OF PARTITION, AND ABOVE EACH DOOR HINGE AND STRIKE JAMB
5. HANG SYSTEM INDEPENDENT OF WALLS, COLUMNS, DUCTS, PIPES AND CONDUIT. WHERE DUCTS OR OTHER EQUIPMENT PREVENT THE REGULAR SPACING OF HANGERS, PROVIDE SECONDARY CARRYING MEMBERS FOR INDIRECT SUPPORT OF THE SUSPENSION SYSTEM, OR REINFORCE THE NEAREST ADJACENT HANGERS AND RELATED CARRYING CHANNELS AS REQUIRED TO SPAN THE REQUIRED DISTANCE.
6. CENTER SYSTEM ON ROOM AXIS ACCORDING TO REFLECTED CEILING PLANS.
7. ANCHORAGE:
a. PROVIDE ALL ANCHORS REQUIRED FOR THE INSTALLATION OF THE CEILING SYSTEM UNLESS OTHERWISE NOTED.
b. DO NOT FASTEN TO THE UPPER FLUTES OF METAL DECKING. DO NOT USE FASTENERS IN STEEL DECK WHICH PENETRATE MORE THAN 1 INCH.
c. VERIFY LOCATION OF ALL CONDUIT IN POURED CONCRETE CONSTRUCTION BEFORE MAKING ATTACHMENTS.
8. INSTALL EDGE MOLDING AT INTERSECTION OF CEILING AND VERTICAL SURFACES, USING LONGEST PRACTICAL LENGTHS. MITER CORNERS. PROVIDE EDGE MOLDINGS AT JUNCTIONS WITH OTHER INTERRUPTIONS. FABRICATE EDGE MOLDINGS TO FIT THE SURFACES ENCOUNTERED.

DIVISION 9 - FINISHES, CONT.

9. FORM EXPANSION JOINTS AS DETAILED. MAINTAIN VISUAL CLOSURE.
10. FIT ACOUSTIC LAY-IN PANELS IN PLACE, FREE FROM DAMAGED EDGES OR OTHER DEFECTS DETRIMENTAL TO APPEARANCE AND FUNCTION. FIT BORDER UNITS NEATLY AGAINST ABUTTING SURFACES. SCRIBE AND MILL RECESSED REGULAR EDGE INTO PARTIAL BORDER UNITS SUPPORTED AT EDGE BY WALL MOLDING.
11. ADJUST SAGS OR TWISTS WHICH DEVELOP IN THE CEILING SYSTEM AND REPLACE PARTS WHICH ARE DAMAGED OR DEFECTIVE.
12. INSTALL HOLD-DOWN CLIPS TO RETAIN PANELS TIGHT TO GRID SYSTEM WITHIN 20 FT OF AN EXTERIOR DOOR.
13. TOLERANCES:
14. VARIATION FROM FLAT AND LEVEL SURFACE: 1/8 INCH IN 12 FT.
15. VARIATION FROM PLUMB OF GRID MEMBERS CAUSED BY ECCENTRIC LOADS: TWO DEGREES MAXIMUM.

E. PERFORMANCE
1. SEISMIC PERFORMANCE: ACOUSTICAL CEILING SHALL WITHSTAND THE EFFECTS OF EARTHQUAKE MOTIONS DETERMINED ACCORDING TO ASCE/SEI 7.
2. SURFACE-BURNING CHARACTERISTICS: COMPLY WITH ASTM E 84; TESTING BY A QUALIFIED TESTING AGENCY. IDENTIFY PRODUCTS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AGENCY.
3. FLAME-SPREAD INDEX: COMPLY WITH ASTM E 1264 FOR CLASS A MATERIALS.
4. SMOKE-DEVELOPED INDEX: [50] [450] OR LESS.
5. FIRE-RESISTANCE RATINGS: COMPLY WITH ASTM E 119; TESTING BY A QUALIFIED TESTING AGENCY. IDENTIFY PRODUCTS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AGENCY.
6. SEISMIC STRUTS: MANUFACTURER'S STANDARD COMPRESSION STRUTS DESIGNED TO ACCOMMODATE LATERAL FORCES.
7. SEISMIC CLIPS: MANUFACTURER'S STANDARD SEISMIC CLIPS DESIGNED AND SPACED TO SECURE ACOUSTICAL TILES IN-PLACE.

096500 RESILIENT FLOORING

A. SUMMARY:
1. RESILIENT SHEET FLOORING.
2. RESILIENT BASE.

B. SUBMITTALS:
1. SUBMIT PRODUCT LITERATURE FOR EACH PRODUCT PROPOSED, INCLUDING BASE, RESILIENT FLOORING, TRANSITION STRIPS, AND ADHESIVES.
2. SUBMITTALS: SUBMIT SAMPLES OF EACH TYPE OF RESILIENT FLOORING, AND EACH TYPE OF RUBBER BASE FOR COLOR SELECTION BY THE INTERIOR DESIGNER.

C. MATERIALS:
1. RESILIENT SHEET FLOORING: AS INDICATED ON THE DRAWINGS
2. RUBBER BASE:
a. RESILIENT BASE: ASTM F1861, TYPE TPR THERMOPLASTIC RUBBER; 1/8 INCH THICK; ROLL STOCK; COVED AND STRAIGHT BASE AS SPECIFIED; 4 INCH HEIGHT, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
3. ACCESSORIES:
a. SUBFLOOR FILLER: PORTLAND CEMENT BASED LATEX FILLER, MIXED WITH WATER TO PRODUCE A SELF LEVELING UNDERLAYMENT, OR CEMENTITIOUS PASTE, AS APPROPRIATE TO PROJECT REQUIREMENTS.
b. ADHESIVES: TYPES RECOMMENDED BY RESILIENT FLOORING AND BASE MANUFACTURERS FOR SPECIFIC APPLICATION.
c. TRANSITION STRIPS: VINYL; PRODUCTS AS INDICATED; COLOR AS SELECTED BY THE ARCHITECT FROM MANUFACTURER'S STANDARD.
d. ALL OTHER MATERIALS NOT SPECIFICALLY DESCRIBED, BUT REQUIRED FOR A COMPLETE AND PROPER INSTALLATION OF RESILIENT FLOORING, SHALL BE ONLY AS RECOMMENDED BY THE MANUFACTURER OF THE MATERIAL TO WHICH IT IS APPLIED AND SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.

D. GENERAL RESILIENT FLOORING INSTALLATION REQUIREMENTS:
1. INSTALL SUBFLOOR FILLER TO FILL LOW SPOTS, CRACKS, CONSTRUCTION JOINTS, HOLES AND OTHER DEFECTS, AND AS REQUIRED TO ADJUST LEVEL TO MEET ADJACENT FINISHES. FEATHER TO MAXIMUM SLOPE OF 1/8 INCH IN 3 FEET; FLOAT TO SMOOTH, FLAT, HARD SURFACE. PROHIBIT TRAFFIC OVER FILLER.
2. INSTALL ALL RESILIENT FLOORING WHERE SCHEDULED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. UNLESS INDICATED OTHERWISE, INSTALL RESILIENT FLOORING WITH JOINTS AND SEAMS AS INDICATED ON THE DRAWINGS.
4. TERMINATE RESILIENT FLOORING AT CENTERLINE OF DOOR AT DOOR OPENINGS WHERE ADJACENT FLOOR FINISH IS DISSIMILAR, AND WHERE NO THRESHOLD IS INDICATED.
5. INSTALL EDGE STRIPS AT UNPROTECTED OR EXPOSED EDGES WHERE FLOORING TERMINATES.
6. SCRIBE FLOORING TO WALLS, COLUMNS, CABINETS, FLOOR OUTLETS AND OTHER APPURTENANCES TO PRODUCE TIGHT JOINTS.
7. CLEAN SUBSTRATE. SPREAD CEMENT EVENLY IN QUANTITY RECOMMENDED BY MANUFACTURER TO ENSURE ADHESION OVER ENTIRE AREA OF INSTALLATION. SPREAD ONLY ENOUGH ADHESIVE TO PERMIT INSTALLATION OF FLOORING BEFORE INITIAL SET.
8. SET FLOORING IN PLACE, PRESS WITH HEAVY ROLLER TO ENSURE FULL ADHESION.
9. SEAL JOINT BETWEEN FLOORING AND ADJACENT MATERIALS AT RESTROOMS, BATHROOMS, KITCHENS, AND OTHER MOIST AREAS WITH CLEAR SILICONE SEALANT.

E. SPECIAL REQUIREMENTS FOR SHEET FLOORING:
1. INSTALL SHEET FLOORING TO A MINIMUM 1/3 FULL MATERIAL WIDTH, WITH LENGTH OF SHEET PARALLEL TO LENGTH OF ROOM. WHERE CUTTING IS REQUIRED, DOUBLE CUT AND WELD AS SPECIFIED. TRIM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. SEAMS IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.
3. UNLESS INDICATED OTHERWISE, LAY FLOORING WITH SEAMS PARALLEL TO BUILDING LINES TO PRODUCE MINIMUM NUMBER OF SEAMS.
4. SPECIAL FLASHED COVED BASE REQUIREMENTS:
a. PROVIDE COVE FILLET AT INTERSECTION OF FLOOR AND WALL TO EASE TRANSITION.
b. MITER CUT, FIT, AND HEAT WELD ALL SEAMS, JOINTS, PENETRATIONS, AND TRANSITIONS. EXTEND FLOORING TO ELEVATION ABOVE FINISHED FLOOR LEVEL AS INDICATED.
c. CUT TOP EXPOSED EDGE STRAIGHT AND LEVEL.
d. CAP TOP EDGE WITH CAP TRIM. MITER ALL TRIM CORNER JOINTS. INSTALL TRIM IN MAXIMUM PRACTICAL LENGTHS WITH NO PIECE SHORTER THAN 18 INCHES FOR CONTINUOUS RUNS LONGER THAN 18 INCHES.

F. RUBBER BASE INSTALLATION:
1. ADHESIVELY INSTALL RESILIENT BASE TIGHTLY TO WALL AND FLOOR SURFACES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. FIT JOINTS TIGHT, VERTICAL, AND IN ACCURATE ALIGNMENT. INSTALL BASE IN MAXIMUM LENGTHS, WITH MINIMUM NUMBER OF JOINTS IN EACH RUN. NO SECTION MAY BE SHORTER THAN 48 INCHES, EXCEPT AS REQUIRED BY WALL CONDITIONS.
3. INSTALL BASE TO WALLS, COLUMNS, AND CASEWORK TOE KICKS IN ALL AREAS WHERE RESILIENT BASE IS SCHEDULED.
4. MITER OR COPE INSIDE CORNERS FOR ACCURATE FIT. SCRIBE AND FIT TO DOOR FRAMES AND OTHER OBSTRUCTIONS.
5. OUTSIDE CORNERS:
a. SCORE BACK OF BASE MATERIAL WITH GROOVING TOOL AND ACCURATELY ALIGN TO CORNER.
b. FIRMLY ADHERE TO WALL AT BOTH SIDES OF CORNER, WITH NO VISIBLE GAPS AT TOP OF BASE.
c. STRETCH TOE OF COVED BASE FOR SMOOTH TRANSITION AROUND CORNER, WITH TOE IN UNIFORM CONTACT WITH THE FINISH FLOORING.
6. REMOVE EXCESS ADHESIVE FROM SURFACES WITHOUT DAMAGE.

G. CLEANING
1. REMOVE EXCESS ADHESIVE FROM FLOOR, BASE, AND WALL SURFACES WITHOUT DAMAGE.
2. CLEAN BASE AND FLOOR IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

096813 CARPETING

A. QUALITY ASSURANCE: CARPET INSTALLER SHALL HAVE MINIMUM OF 3 YEARS EXPERIENCE IN CARPET INSTALLATIONS OF SIMILAR SIZE AND SCOPE.
B. WARRANTY: FURNISH MANUFACTURER'S STANDARD 5-YEAR WARRANTY AGAINST WEAR AND DETERIORATION.
C. MATERIALS:
1. CARPET: AS SCHEDULED ON THE DRAWINGS.
2. PAD: AS SCHEDULED ON THE DRAWINGS.
3. WALK-OFF MAT: AS SCHEDULED ON THE DRAWINGS.
4. ACCESSORIES:
a. CARPET GRIPPERS: ROBERTS ARCHITECTURAL "22-333", OR APPROVED.
b. PAD TAPE: NON-PAPER TAPE RECOMMENDED BY PAD MANUFACTURER.
c. EDGE STRIPS: REDUCER STRIPS; SIZE AND CONFIGURATION AS APPROPRIATE FOR CONDITIONS; COLOR AS SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD LINE.
d. WALK-OFF MAT SCREED: SCHLUTER; ALUMINUM; PROFILE AS INDICATED ON THE DRAWINGS, AND TO SUIT JOB CONDITIONS.

DIVISION 9 - FINISHES, CONT.

e. ADHESIVES: TYPE AS RECOMMENDED BY CARPET, MAT OR SCREED MANUFACTURER FOR INTENDED USE. USE WATERPROOF ADHESIVE AT WALK-OFF MAT.
f. LATEX UNDERLAYMENT: WHITE PREMIX LATEX FILLER.
g. BACKING: AS INDICATED ON THE DRAWINGS.

D. PREPARATION:
1. CLEAN FLOORS OF DUST, DIRT, SOLVENTS, OIL, GREASE, PAINT, PLASTER, AND OTHER SUBSTANCES WHICH WOULD BE DETRIMENTAL TO THE PROPER PERFORMANCE OF ADHESIVE AND CARPET.
2. FILL LOW SPOTS AND CRACKS OVER 1/8 INCH IN WIDTH WITH LATEX UNDERLAYMENT.

E. INSTALLATION:
1. INSTALL CARPETS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. VERIFY MATCHING OF CARPET PRIOR TO CUTTING AND ENSURE THAT THERE IS NO VISIBLE VARIATION BETWEEN DYE LOTS.
3. CUT CARPET, WHERE REQUIRED IN A MANNER TO ALLOW PROPER SEAM AND PATTERN MATCH. ENSURE CUTS ARE STRAIGHT AND TRUE AND UNFRAYED.
4. MAKE SEAMS STRAIGHT AND UNIFORM.
5. SEAMING SHALL BE BY HAND SEWING OR WITH HOT MELT TAPE METHODS.
6. DO NOT CHANGE RUN OF PILE IN ANY ONE ROOM.
7. ENSURE MONOLITHIC COLOR, PATTERN AND TEXTURE MATCH WITHIN EACH DISTINCT ROOM.
8. INSTALL EDGING STRIPS WHERE CARPET TERMINATES AT OTHER FLOOR COVERINGS. USE FULL LENGTH PIECES ONLY. BUTT TIGHT TO VERTICAL SURFACES. WHERE SPLICING CANNOT BE AVOIDED, BUTT ENDS TIGHT, FLUSH, AND ACCURATELY ALIGNED.

F. REMNANTS: UPON COMPLETION OF THE INSTALLATION, CONTACT THE ARCHITECT FOR SELECTION OF CARPET REMAINING AFTER TRIMMING. CAREFULLY WRAP AND MARK SEPARATELY THE SELECTED REMNANTS. REMOVE AND DISPOSE OF REMAINDER AT A LEGAL OFF-SITE LOCATION.

G.CLEANUP:
1. THE PREMISES SHALL BE KEPT FREE FROM UNNECESSARY ACCUMULATION OF TOOLS, EQUIPMENT AND SURPLUS MATERIALS DURING THE PROGRESS OF THE WORK.
2. REMOVE THREADS WITH SHARP SCISSORS. REMOVE SPOTS WITH MANUFACTURER'S RECOMMENDED SPOT REMOVER.
3. THOROUGHLY POWER VACUUM ENTIRE SURFACE USING EQUIPMENT WITH MOTOR DRIVEN BRUSHES.

097733 REINFORCED PLASTIC PANEL WALL COVERINGS

A.SUMMARY: FIBERGLASS REINFORCED POLYESTER PANEL (FRP) WALL COVERING.
B. SUBMITTALS: PRODUCT DATA, INCLUDING ADHESIVES AND SEALANTS.
C.PANEL SYSTEM COMPONENTS:
1. PANEL MATERIAL:
a. MARLITE (AS NOTED IN DRAWINGS).
b. PANEL TYPE: AS SCHEDULED IN THE FINISH LEGEND.
c. THICKNESS: 3/32 INCH.
d. SIZE: 48 INCHES X LENGTH REQUIRED FOR CONDITIONS INDICATED.
e. FIRE RATING: MAXIMUM 25/450 FLAME SPREAD / SMOKE DEVELOPED IN ACCORDANCE WITH ASTM E84.
2. MOLDINGS: MANUFACTURER'S STANDARD PVC CAP, CORNER, AND DIVISION MOLDINGS; COLOR TO MATCH PANELS. OMIT BOTTOM TRIM WHERE PANEL ABUTS FLASH COVED BASE.
3. PANEL AND MOLDING INSTALLATION ADHESIVE: AS RECOMMENDED BY THE FRP PANEL MANUFACTURER.
4. SEALANT: FLEXIBLE WATERPROOF SILICONE SEALANT FOR BEDDING PANEL EDGES; WHITE COLOR.

D. INSTALLATION
1. CUTTING AND FITTING
a. CUT PANELS ACCURATELY TO SIZE WITH PROPER ALLOWANCE FOR EXPANSION AND MOLDINGS.
b. SAND OR FILE ALL EDGES SMOOTH WITHOUT CHIPPING.
c. CUT OPENINGS FOR PENETRATIONS IN ACCURATE LOCATION WITH APPROXIMATE 1/8-INCH CLEARANCE AROUND PENETRATIONS.
2. ESTABLISH CENTERLINE OF EACH DISTINCT FLAT AREA TO BE COVERED. TRIM DIVISION MOLDINGS TO MATE WITH BASE MOLDINGS; INSTALL IN SOLID BED OF ADHESIVE, EITHER ON CENTERLINE, OR OFFSET 24 INCHES FROM CENTER, AS NECESSARY TO MAXIMIZE PANEL WIDTHS AT CORNERS. MOLDING SHALL BE INSTALLED STRAIGHT AND PLUMB.
3. CUT TOP CAP AND DIVISION OR CORNER MOLDINGS TO SHAPE, WITH EDGES TRIMMED TO FIT TO ADJACENT MOLDINGS.
4. APPLY SEALANT INTO INSTALLED MOLDINGS IN SEQUENCE WITH PANEL INSTALLATION.
5. APPLY ADHESIVE TO BACKS OF PANELS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. MAINTAIN LINES AND LEVELS OF PANEL EDGES AND MOLDINGS.
7. INSTALL PANELS TIGHT TO FLASH-COVED BASE TRIM.
8. ALLOW 1/8-INCH GAP BETWEEN TOP CAP, CORNER, OR DIVISION MOLDING POSTS, AND PANEL EDGE; ALL EDGES SHALL BE FIRMLY BEDDED TO THE MOLDINGS IN SEALANT.
9. PROMPTLY REMOVE SEALANT SQUEEZE OUT WITH A DAMP CLOTH, AS WORK PROGRESSES; REMOVE ADHESIVE WITH APPROPRIATE SOLVENT.
10. INSTALL SEALANT BEHIND FLANGES AND AT PENETRATIONS THROUGH PANELING, AND BETWEEN TOP CAP OF PANEL AND SUBSTRATE.
11. CLEANING: REMOVE EXCESS ADHESIVE FROM FACE OF LAMINATE USING SOLVENT RECOMMENDED B MANUFACTURER.

098100 ACOUSTIC INSULATION

A.SUMMARY: ACOUSTIC INSULATION AND SEALANTS.
B. MATERIALS:
1. MANUFACTURERS: JOHNS MANVILLE "SOUND CONTROL BATTS", CERTAINTEED "GREENGUARD CERTIFIED", OWNS CORNING "SOUND CONTROL BATTS."
2. ACOUSTIC INSULATION: ASTM C665, TYPE I; UNFACED GLASS FIBER BATTS, BLANKETS, OR ROLLS; MINIMUM FIRE HAZARD CLASSIFICATION RATING OF 25/50 PER ASTM E84; MINIMUM 3-INCH THICK, UNLESS REQUIRED OTHERWISE TO MEET THE STC REQUIREMENTS INDICATED OR SPECIFIED; WIDTHS TO FRICTION-FIT BETWEEN STUDS, WHERE INDICATED FOR INSTALLATION IN STUD WALLS.
3. ACOUSTICAL SEALANT: NON-HARDENING, NON-SKINNING, FOR USE IN CONJUNCTION WITH GYPSUM BOARD; SIMILAR TO USG "ACOUSTICAL SEALANT."
4. ACCESSORIES: FURNISH OTHER ACCESSORIES SUCH AS FASTENERS AND RETAINERS, NOT SPECIFICALLY DESCRIBED, BUT REQUIRED FOR A COMPLETE INSTALLATION.
C.INSULATION:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, AND AS INDICATED.
2. TRIM INSULATION NEATLY TO FIT SPACES. .INSTALL WITHOUT GAPS OR VOIDS.
D. SEAL PENETRATIONS THROUGH ACOUSTICAL ASSEMBLIES, EXCEPT FOR PENETRATIONS IN FIRE RATED CONSTRUCTION TO RECEIVE FIRESTOPPING.

099000 PAINTING AND COATING

A.SUMMARY: SITE APPLIED PAINT COATINGS, EXCEPT AS OTHERWISE NOTED.
B. QUALITY ASSURANCE:
1. APPLICATOR: COMPANY SPECIALIZING IN COMMERCIAL PAINTING AND FINISHING WITH A MINIMUM OF THREE YEARS DOCUMENTED EXPERIENCE.
2. VISUAL STANDARDS: EACH DISTINCT AREA OF THE FINISHED WORK SHALL BE FREE OF VARIATIONS IN COLOR AND SHEEN, ORANGE PEEL, RUNS, SAGS, BLISTERING, CHECKING, CRACKING, SCRATCHES, DUST, DIRT, BUGS, AND OTHER CONTAMINANTS.
C.SITE CONDITIONS:
1. WEATHER CONDITIONS:
a. DO NO EXTERIOR WORK ON UNPROTECTED SURFACES WHEN RAINING, OR OTHER MOISTURE IS PRESENT OR EXPECTED, OR BEFORE APPLIED PAINTS CAN DRY OR ATTAIN PROPER CURE.
b. ALLOW WETTED SURFACES TO DRY AND ATTAIN TEMPERATURES AND CONDITION SPECIFIED HEREINAFTER BEFORE PROCEEDING WITH PREVIOUSLY STARTED WORK.
2. TEMPERATURE:
a. DO NO PAINTING WORK WHEN SURFACE AND AIR TEMPERATURES ARE BELOW 40 DEGREES F OR BELOW THOSE TEMPERATURES RECOMMENDED BY THE MANUFACTURER FOR THE MATERIAL TYPE USED.
b. MINIMUM TEMPERATURES FOR LATEX FINISHES: 45 DEGREES F FOR INTERIOR WORK AND 50 DEGREES F. FOR EXTERIOR WORK, UNLESS APPROVED OTHERWISE.
3. LIGHTING: MAINTAIN A LIGHTING LEVEL OF MINIMUM 50 FOOT-CANDLES ON THE SURFACES TO BE PAINTED OR FINISHED.
4. VENTILATION: PROVIDE ADEQUATE CONTINUOUS VENTILATION.
D. MAINTENANCE:
1. FURNISH OVERAGE OF PAINT MATERIALS EQUAL TO 10 PERCENT MINIMUM OF QUANTITY OF EACH PAINT AND TRANSPARENT FINISH SYSTEM COMPONENT, COLOR AND SHEEN REQUIRED FOR THE WORK, BUT FURNISH NOT MORE THAN FIVE FULL ONE GALLON CANS, NOR LESS THAN TWO FULL ONE QUART CANS, OF EACH TYPE. OVERRUNS IN EXCESS OF FIVE GALLONS MAY BE FURNISHED TO T-MOBILE AT THE CONTRACTOR'S OPTION. OVERAGE SHALL BE TAKEN FROM THE BATCH MIX FURNISHED FOR THE WORK. OVERAGE SHALL BE FURNISHED IN COMPLETELY FILLED, PROPERLY LABELED, SEALED CANS.

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ARCHITECT:
FUZION
9096 EAST BAHIA DRIVE
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DESIGN@FUZIONVE.COM
WWW.FUZIONVE.COM

VENDOR PROJECT NO: 24.03.213351

DESIGN DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
SPECIFICATIONS

SHEET NUMBER:
A705

DIVISION 9 - FINISHES, CONT.

E. MATERIALS:
1. GENERAL REQUIREMENTS: PAINTS NOT SPECIFICALLY LISTED SHALL BE "FIRST QUALITY" COMMERCIAL PRODUCTS FROM ONE OF THE FOLLOWING:
a. BENJAMIN MOORE PAINT COMPANY.
b. ICI PAINTS NORTH AMERICA
2. ACRYLIC WALL SIZE: ONE OF THE FOLLOWING:
a. ICI DEVOE "WONDERPRIME" DR51701 VAPOR BARRIER PRIMER/SEALER.
b. ICI DULUX "ULTRA-HIDE" 1060 VAPOR BARRIER PRIMER/SEALER.
c. BENJAMIN MOORE PAINT COMPANY "MOORE'S WALL-GRIP 203."

F. SURFACE PREPARATION:
1. PREPARE SURFACES BY REMOVING ALL DIRT, DUST, GREASE, OIL, MOISTURE, AND OTHER CONTAMINANTS WHICH WILL IMPAIR THE PROPER ADHESION OF THE FINISH.
2. FERROUS METAL SHOP PRIMED UNDER OTHER SECTIONS: CLEAN PREVIOUSLY PRIMED SURFACES WITH NON-PETROLEUM BASED SOLVENT TO REMOVE OIL AND GREASE. REMOVE LOOSE RUST, BLISTERED AND PEELING PAINT TO BARE METAL BY SCRAPING, SANDING, AND WIRE BRUSHING IN ACCORDANCE WITH SSPC-SP2 AND SSPC-SP3. IMMEDIATELY APPLY TOUCH UP PRIME DAMAGED OR ABRADED SURFACES. LIGHTLY SAND ALL SHOP PRIME PAINTED SURFACES TO RECEIVE PAINT FINISH.
3. GALVANIZED FERROUS METAL: CLEAN WITH NON-PETROLEUM BASED IN ACCORDANCE WITH SSPC-SP1; ABRADE SURFACE WITH 3M "SCOTCHBRITE HEAVY DUTY" (BROWN) PAD, AS NECESSARY TO ACHIEVE SUFFICIENT PROFILE FOR PAINT ADHESION.
4. UNPRIMED FERROUS METAL:
a. SOLVENT CLEAN IN ACCORDANCE WITH SSPC SP-1.
b. COMMERCIAL BLAST PER SSPC SP6.
5. WOOD - OPAQUE PAINT FINISH:
a. SPOT COAT KNOTS, PITCH STREAKS, AND SAPPY SECTIONS WITH SEALER.
b. FILL ALL NAIL HOLES AND CRACKS. SAND FILLER SMOOTH AND LEVEL WITH WOOD SURFACE.
6. WOOD - TRANSPARENT FINISH: FILL ALL EXPOSED FINISH NAIL HOLES AND CRACKS WITH MATCHING COLOR FILLER AFTER PRIME COAT IS APPLIED. SAND FILLER SMOOTH AND LEVEL WITH ADJACENT SURFACES.
7. CONCRETE AND CONCRETE MASONRY UNITS: REMOVE ALL CONTAMINANTS BY WASHING AND WIRE BRUSHING. SANDBLAST IF NECESSARY.
8. GYPSUM PLASTER AND WALL BOARD: REMOVE ALL LIGHT DUST AND DIRT.
9. EXISTING FINISHED SURFACES TO BE REPAINTED:
a. REMOVE LOOSE, BLISTERED, SCALED, OR CRAZED FINISHES TO BARE SUBSTRATE; FEATHER NEW WORK INTO EXISTING WORK. PREPARE SURFACES TO THE NEAREST BREAK LINE IF NECESSARY TO BLEND NEW FINISHES WITH OLD FINISHES.
b. WASH AND RINSE SURFACES WITH TRISODIUM PHOSPHATE AND WATER OR OTHER SOLUTION REQUIRED TO REMOVE REMAINING FILM, WAX, OIL, GREASE, SMOKE OR FOREIGN MATTER WHICH WILL IMPAIR BOND, OR CAUSE BLEED THROUGH, OF NEWLY APPLIED FINISHES.
c. LIGHTLY SAND, OR APPLY A LIQUID DEGLOSSER ON EXISTING SEMI-GLOSS AND HIGH-GLOSS FINISHES BEFORE REFINISHING.

G. SPECIAL APPLICATION REQUIREMENTS:
1. UNLESS SPECIFIED OR INDICATED OTHERWISE, FOLLOW PAINT MANUFACTURER'S LABEL DIRECTIONS FOR GENERAL APPLICATION PROCEDURES AND COVERAGE RATES.
2. DO NOT APPLY FINISHES ON SURFACES THAT ARE NOT SUFFICIENTLY DRY. MAKE SURE EACH COAT OF FINISH IS DRY AND HARD BEFORE A FOLLOWING COAT IS APPLIED UNLESS THE MANUFACTURER'S DIRECTIONS STATE OTHERWISE.
3. TINT FILLER TO MATCH STAIN WHEN CLEAR FINISHES ARE SPECIFIED; WORK FILLER WELL INTO GRAIN AND, BEFORE IT HAS SET, WORKING PERPENDICULARLY TO THE GRAIN, WIPE THE EXCESS FROM THE SURFACE.
4. OPAQUE FINISHES:
a. APPLY NUMBER OF COATS SCHEDULED FOR EACH APPLICATION, EXCEPT THAT ADDITIONAL FINISH COATS SHALL BE APPLIED AS NECESSARY FOR COMPLETE HIDING OF SUBSTRATE COLORS.
b. APPLY PRIMER COATS UN-TINTED. WHERE MORE THAN ONE COAT OF PAINT IS REQUIRED, TINT EACH SUCCEEDING COAT UP TO THE FINAL COAT SIMILAR IN TINT, BUT SLIGHTLY LIGHTER IN VALUE (SHADE).
c. SAND LIGHTLY BETWEEN COATS IF NECESSARY TO ACHIEVE REQUIRED FINISH; SAND BETWEEN ALL COATS APPLIED TO WOOD SUBSTRATES.
5. ROLLERS FOR APPLICATION AND BACKROLLING OF LATEX PAINTS SHALL HAVE A NAP OF 3/8 INCH OR LESS.
6. WHERE ROLLER TEXTURE IS SCHEDULED FOR APPLICATION TO GYPSUM BOARD SURFACES, FINISH COATS MAY BE ROLLER APPLIED, OR SPRAY APPLIED AND BACKROLLED AT CONTRACTOR'S OPTION.
7. FACTORY PRIMED SURFACES: APPLY SCHEDULED FINISH SYSTEM, LESS PRIMER COAT, EXCEPT AS NECESSARY TO FOR PATCHING DAMAGE TO FACTORY PRIME COATING.
8. EXCEPT WHERE SCHEDULED OR INDICATED OTHERWISE, THE INTENT IS TO PAINT ALL NEW ROOMS AND AREAS.
9. EXISTING AREAS WHICH HAVE NOT BEEN REMODELED OR DO NOT HAVE PATCHED SURFACES ARE NOT TO BE REPAINTED. WHERE EXISTING SURFACES HAVE BEEN REMODELED OR PATCHED THE ENTIRE ROOM IS TO BE REPAINTED, INCLUDING THE ASSOCIATED ACCESS PANELS, ELECTRICAL PANELS, HOLLOW METAL DOORS AND FRAMES (BOTH SIDES), AND SIMILAR ELEMENTS WITHIN THE ROOM.

H. INTERIOR SYSTEMS:
1. GYPSUM BOARD - LATEX SYSTEM:
a. SYSTEM: THREE COATS - FIRST COAT LATEX PRIMER SEALER (UN-TINTED), SECOND AND THIRD COAT LATEX PAINT.
b. SHEEN: ROLLER TEXTURE, SATIN SHEEN, EXCEPT PROVIDE FLAT SHEEN AT LIGHT COVES, CEILINGS, SKYLIGHT AREAS, CLERESTORY AREAS, INTERIOR FASCIAS, AND OTHER LIGHT SENSITIVE SURFACES. VERIFY LOCATIONS OF EACH SHEEN WITH ARCHITECT BEFORE PROCEEDING WITH WORK.
c. APPLICATION:
i. USE ON ALL EXPOSED GYPSUM BOARD SURFACES, INCLUDING THE EXPOSED PORTIONS OF WALL SURFACES BETWEEN ADJACENT WALL-MOUNTED FIXTURES.
ii. PROVIDE PRIME COAT ONLY BEHIND PERMANENTLY MOUNTED MECHANICALLY WALL MOUNTED FIXTURES.
iii. DO NOT APPLY PRIMER OR PAINT COATINGS TO SURFACES TO RECEIVE ADHESIVELY MOUNTED MIRRORS OR TILE.
2. GYPSUM BOARD - SURFACES TO RECEIVE WALL COVERING: APPLY ONE COAT OF ACRYLIC WALL SIZE.

I. COLOR SCHEDULE: PROVIDE PAINT COLORS TO MATCH THOSE INDICATED ON THE DRAWINGS. WHERE A PAINT COLOR IS LISTED FROM A SPECIFIC MANUFACTURER, PAINT PRODUCTS FROM OTHER APPROVED MANUFACTURERS MAY BE USED, PROVIDED THE COLOR EXACTLY MATCHES THE SPECIFIED COLOR, AND THE PAINT SYSTEM MEETS THE SPECIFIED REQUIREMENTS. WHERE NO PAINT COLOR IS INDICATED, PROVIDE COLOR AND SHEEN AS SELECTED BY THE ARCHITECT.
1. INSTALL SEALANT BEHIND FLANGES AND AT PENETRATIONS THROUGH PANELING, AND BETWEEN TOP CAP OF PANEL AND SUBSTRATE.
2. CLEANING: REMOVE EXCESS ADHESIVE FROM FACE OF LAMINATE USING SOLVENT RECOMMENDED BY MANUFACTURER.

DIVISION 10 - SPECIALTIES

101402 REST ROOM SIGNAGE
A. SUMMARY:
1. CODE-REQUIRED INTERIOR SIGNAGE.
2. INSTALLATION OF SIGNAGE.
B. SYSTEM DESCRIPTION:
1. ACCESSIBILITY SIGNAGE: PROVIDE ACRYLIC PLASTIC REVERSE SILK SCREENED SIGNS WITH INTERNATIONAL SYMBOL OF ACCESSIBILITY, RAISED LETTERS, AND BRAILLE, AT ACCESSIBLE TOILET FACILITIES; ONE FOR EACH SEX.
C. QUALITY ASSURANCE:
1. REGULATORY REQUIREMENTS: SIGNAGE SHALL CONFORM TO THE REQUIREMENTS OF THE JURISDICTIONAL CODE AUTHORITIES.
D. MATERIALS:
1. PLASTIC SHEET: 1/8 INCH THICK ACRYLIC SHEET; LOW GLOSS FINISH.
2. DOUBLE STICK TAPE: 3M "SCOTCH BRAND #665" DOUBLE-STICK, DOUBLE-COATED TAPE, 1/4" WIDE.

SECTION 10810 - TOILET ACCESSORIES
A. QUALITY ASSURANCE
1. CONFORM TO APPLICABLE ACCESSIBILITY CODE FOR LOCATING ACCESSORIES.
B. MATERIALS
1. STAINLESS STEEL: SHEET - IN ACCORDANCE WITH ASTM A 167, TYPE 304.
2. STAINLESS STEEL: TUBING - IN ACCORDANCE WITH ASTM A 269.
3. GALVANIZED STEEL: IN ACCORDANCE WITH ASTM A 366.
4. MIRROR GLASS: IN ACCORDANCE WITH ASTM C 1036, TYPE L, CLASS 1, QUALITY Q1.

DIVISION 10 - SPECIALTIES, CONT.

C. ACCESSORIES
1. FASTENERS: STAINLESS STEEL WHERE EXPOSED, HOT DIP GALVANIZED WHERE CONCEALED; TYPE BEST SUITED TO SUBSTRATE CONDITIONS.
2. FRAMED MIRROR: BOBRICK B-1652436
3. WASTE RECEPTACLE: PROVIDED BY T-MOBILE, INSTALLED BY G.C..
4. SEAT COVER DISPENSER: HEALTH GUARDS ITEM# 420660, MODEL #HG12-FURNISHED BY T-MOBILES VENDOR, INSTALLED BY G.C.
5. GRAB BAR: BOBRICK B-6806
6. AUTOMATIC HAND DRYER: EXCEL XL-BW WITH ADA RECSEED MOUNTING KIT 40502. FIXED NOZZLE, WHITE FINISH. FURNISHED BY T-MOBILE'S VENDOR, INSTALLED BY G.C.
7. 7. TOILET PAPER DISPENSER: BOBRICK B-76857

D. FABRICATION
1. USE STAINLESS STEEL FOR EXPOSED SURFACES; GALVANIZED STEEL MAY BE USED IN CONCEALED LOCATIONS. FORM EXPOSED SURFACES FROM SINGLE SHEET OF STOCK, FREE FROM JOINTS, AND FLAT WITHOUT DISTORTION. WELD JOINTS OF FABRICATED COMPONENTS AND GRIND SMOOTH. FABRICATE GRAB BARS OF TUBING, FREE OF VISIBLE JOINTS, RETURN TO WALL WITH END ATTACHMENT FLANGES. KNURL GRIP SURFACES. FABRICATE SOAP DISPENSERS TO OPERATE WITH LESS THAN 5 POUND FORCE. PROVIDE HANGERS, ADAPTERS, ANCHOR PLATES AND ACCESSORIES REQUIRED FOR INSTALLATION. KEY LOCKS ALIKE; FURNISH SIX (6) KEYS.
2. FRAMED MIRRORS: ONE COAT OF ORGANIC MIRROR BACKING COMPOUND TO THE BACK SURFACE OF THE GLASS.
3. BACKING: GALVANIZED SHEET STEEL. ISOLATE GLASS FROM FRAME AND BACKING WITH RESILIENT, WATERPROOF PADDING
4. FINISHES:
a. STAINLESS STEEL: NO. 4 SATIN.
b. GALVANIZING: ASTM A 123 TO 1.25 OUNCES PER SQUARE FOOT.
c. CHROME PLATING: ASTM B 456, TYPE SC 2, POLISHED FINISH
5. SHOP ASSEMBLE UNITS AND PACKAGE COMPLETE WITH ANCHORS AND FITTINGS.

E. INSTALLATION
1. SET PLUMB AND LEVEL, SQUARE AND RIGIDLY ANCHORED. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

104416 FIRE EXTINGUISHERS AND CABINETS
A. SUBMITTALS: PRODUCT LITERATURE, INCLUDING EXTINGUISHER DIMENSIONS.
B. EXTINGUISHERS: MULTI-PURPOSE DRY CHEMICAL TYPE: HEAVY DUTY DOT STEEL TANK; UL RATING 2A-10B;C, 5 LB CAPACITY, FM APPROVED; RED ENAMEL FINISH; PRESSURE GAGE; METAL VALVES AND SIPHON TUBES.
C. FIRE EXTINGUISHER CABINETS:
1. TYPE (ONE OF THE FOLLOWING): POTTER-ROEMER, INC. #7023-DV-VB-RR OR #7023-DV-VB-RR-FRC AT RATED CONSTRUCTION, LARSEN'S MANUFACTURING COMPANY #2409-R3 OR #FS-2409-R3 AT RATED CONSTRUCTION, J.L INDUSTRIES #1817V17 OR #1817V17 FIRE-FX AT RATED CONSTRUCTION.
2. STYLE: SEMI-RECESSED (APPROXIMATELY 2-1/2" PROJECTION; ROLLED EDGE); STEEL FRAME AND DOOR WITH CONTEMPORARY 2 INCH WIDE DOUBLE STRENGTH GLASS INSERT.
3. FINISH: MANUFACTURER'S STANDARD BAKED WHITE ENAMEL INTERIOR; FURNISH TO SECTION 099000 FOR FIELD PAINTING.
4. LETTERING: BLACK LETTERING IN VERTICAL FORMAT.
D. FIRE EXTINGUISHER BRACKETS: MANUFACTURER'S STANDARD J-TYPE. PROVIDE AT FIRE EXTINGUISHER LOCATIONS WHERE NO CABINET IS INDICATED.
E. INSTALLATION:
1. INSTALL BRACKETS 48 INCHES FROM FINISHED FLOOR TO TOP OF BRACKET.
2. SECURE RIGIDLY IN PLACE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. INSTALL CABINETS PLUMB AND LEVEL IN WALL OPENINGS IN LOCATIONS AS INDICATED. UNLESS OTHERWISE INDICATED, INSTALL 30 INCHES FROM FINISHED FLOOR TO INSIDE BOTTOM OF CABINET.
4. WHEN RECESSED CABINETS ARE INSTALLED IN FIRE RATED WALLS, MAINTAIN FIRE RESISTANCE RATING CONTINUOUSLY BEHIND THE CABINET.
5. INSTALL IN LOCATIONS AS INDICATED ON THE DRAWINGS.

105623 WIRE STORAGE SHELVING
A. GENERAL: SHELVING SHALL CARRY THE APPROVAL OF THE NATIONAL SANITATION FOUNDATION (NSF)
B. PRODUCT: APPROVED PRODUCTS BELOW (OR EQUAL):
a. ALERA WIRE SHELVING 48" X 24" X 72"
b. METRO SUPER ERECTA® (SES) 48" X 24" X 72"
C. MATERIAL: SHELVES SHALL BE BRIGHT BASIC CARBON STEEL WIRE. POSTS SHALL BE COLD ROLLED CARBON STEEL TUBING, ELECTRIC WELDED. PLASTIC CLIPS MATERIAL SHALL BE ABS.
D. FINISH: BRIGHT PLATED
E. SHELVES: CONSTRUCTION SHALL BE OF OPEN WIRE DESIGN OFFERING GREATER LIGHT PENETRATION AND VISIBILITY, LIGHTER WEIGHT, AIR CIRCULATION AND MINIMAL DUST AND DIRT ACCUMULATION.
F. FABRICATION: FACE RIBS SHALL RUN FRONT TO BACK EQUALLY SPACED ON 20.6MM CENTERS AND TO BE OF 3.4MM WIRE. EACH SIDE (FOUR) OF SHELF SHALL CONSIST OF A CORRUGATED, REINFORCING TRUSS OF 4.5MM WIRE. AT THE FRONT AND BACK OF THE SHELF, THIS CORRUGATED REINFORCING SHALL BE WELDED TO 6.2MM RIB WIRE RUNNING PERPENDICULAR AND ABOVE THE FACE RIBS. A 6.2MM RIB WIRE SHALL BE WELDED TO THE BOTTOM OF THE TRUSS. AT THE ENDS OF THE SHELF, THE CORRUGATED REINFORCING TRUSS SHALL BE WELDED TO PARALLEL 6.2MM WIRE RIBS. DEPENDING UPON THE WIDTH AND LENGTH OF THE SHELF, IT SHALL HAVE THREE OR FIVE LONGITUDINAL RIBS (6.2 MM) WELDED TO THE FACE RIBS. IN ADDITION, CERTAIN LONGER LENGTHS SHALL HAVE ONE OR TWO CORRUGATED REINFORCING TRUSSES (6.2MM) WELDED TO THE UNDERSIDE. AT EACH CORNER OF THE SHELF THERE SHALL BE A TAPERED, CONICAL FITTING MADE OF 2.6MM COLD ROLLED STEEL TO THE PARALLEL RIB SUPPORTS. THE FITTING SHALL BE DESIGNED TO ACCOMMODATE THE VERTICAL SUPPORTS. THE CORRUGATED TRUSS SHALL BE IN THE SHAPE OF THE LETTER "W."
G. POSTS: SHALL OF 1" O.D. ROUND STEEL TUBING, 1.5 MM THICK. THEY SHALL HAVE ROLLED GROOVES SPACED AT 1" O.C. ALONG THEIR LENGTH. THE TOPOF THE POST SHALL HAVE A FINISHED PLASTIC CAP. A DIE CAST THREADED INSERT WITH AN ADJUSTABLE LEVELING FOOT SHALL BE SHIPPED LOOSE FOR LATER INSERTION INTO THE POST BOTTOM.
H. METHOD OF ASSEMBLY: SHALL BE OF THE FRUSTAL-CONICAL DESIGN INCORPORATING A TWO PART TAPERED PLASTIC CLIP. ENGAGEMENT AND LOCKING SHALL BE ACCOMPLISHED WITH A PROTRUDING BEAD ON THE INNER CIRCUMFERENCE OF THE PLASTIC CLIP WHICH WILL MATCH THE GROOVE IN THE POST. TWO PLASTIC CLIPS SHALL BE ATTACHED TO EACH CORNER POST FOR EACH SHELF. BOTH THE CLIPS AND THE CORNER FITTING OF THE SHELVES SHALL HAVE THE IDENTICAL TAPER TO CREATE A WEDGE EFFECT, THEREBY LOCKING THE SHELF SECURELY IN A RIGID POSITION. NO SCREWS OR OTHER FITTINGS SHALL BE REQUIRED TO EFFECT THIS ASSEMBLY. SHELVES SHALL BE VERTICALLY ADJUSTABLE IN 1" INCREMENTS.
I. LOAD CAPACITY: 800 LBS. PER SHELF EVENLY DISTRIBUTED. MAXIMUM LOAD PER ASSEMBLED UNIT NOT TO EXCEED 2,000 LBS.
J. CASTORS: SHALL BE ZINC PLATE ROUND STEM CASTER WITH POLYURETHANE TREAD AND WHEEL DIMENSIONS OF 5" X 1 ¼". WIRE SHELF CARTS ARE STANDARD WITH (2) SWIVEL AND (2) SWIVEL LOCKING CASTORS.
K. SEISMIC ANCHORAGE: WHERE REQUIRED BY CODE AND/OR JURISDICTION HAVING GOVERNANCE, PROVIDE CROSS-BRACING AND ANCHOR PLATES FOR SUPER ERECTA® (SES) PER MANUFACTURER'S SPECIFICATIONS.

DIVISION 11 - NOT USED

DIVISION 12 - FURNISHINGS

0124813 -ENTRANCE FLOOR MATS AND FRAMES
A. RELATED DOCUMENTS
1. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
B. PRODUCTS
1. REGULATORY REQUIREMENTS: COMPLY WITH APPLICABLE PROVISIONS IN [THE U.S. ARCHITECTURAL & TRANSPORTATION BARRIERS COMPLIANCE BOARD'S ADA-ABA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES] AND [ICC A117.1]

DIVISION 12 - FURNISHINGS, CONT.

2. RESILIENT ENTRANCE MAT: RETAIN "MANUFACTURERS" PARAGRAPH AND LIST OF MANUFACTURERS BELOW TO REQUIRE PRODUCTS FROM MANUFACTURERS LISTED OR A COMPARABLE PRODUCT FROM OTHER MANUFACTURERS.
3. MANUFACTURERS:
a. LEGACY NOP BY MATS INC., PO BOX 839, 37 SHUMAN AVENUE, STOUGHTON, MA, 02072; TELEPHONE 800-MATS-INC (800-628-7462) OR 781-344-1536; FAX 781-344-1537; WWW.MATSINC.COM.
b. FOR VESTIBULES OR WHERE LOWER PROFILE IS REQUIRED: SUPREME NOP BY MATS INC.
4. RECESSED FRAMES: AS SHOWN IN DRAWINGS.
5. COLOR: MILL FINISH

C. EXECUTION
1. EXAMINE SUBSTRATES AND CONDITIONS WHERE FLOOR MATS WILL BE INSTALLED. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED. SUB FLOOR SHALL BE CLEAN AND DRY, AND WITHIN ACCEPTABLE TOLERANCES.
2. INSTALLATION
a. INSTALL RECESSED MAT FRAMES TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. SET MAT TOPS AT HEIGHT RECOMMENDED BY MANUFACTURER FOR MOST EFFECTIVE CLEANING ACTION; COORDINATE TOPS OF MAT SURFACES WITH BOTTOMS OF DOORS THAT SWING ACROSS MATS TO PROVIDE CLEARANCE BETWEEN DOOR AND MAT.
b. INSTALL NECESSARY SHIMS, SPACERS, AND ANCHORAGES FOR PROPER LOCATION, AND SECURE ATTACHMENT OF FRAMES.
3. INSTALL GROUT AND FILL AROUND FRAMES AND, IF REQUIRED TO SET MAT TOPS AT PROPER ELEVATIONS, IN RECESSES UNDER MATS. FINISH GROUT AND FILL SMOOTH AND LEVEL.

D. PROTECTION
4. AFTER COMPLETING FRAME INSTALLATION AND CONCRETE WORK, PROVIDE TEMPORARY FILLER OF PLYWOOD OR FIBERBOARD IN RECESSES AND COVER FRAMES WITH PLYWOOD PROTECTIVE FLOORING. MAINTAIN PROTECTION UNTIL CONSTRUCTION TRAFFIC HAS ENDED AND PROJECT IS NEAR SUBSTANTIAL COMPLETION.

DIVISION 13 - NOT USED

DIVISION 14 - NOT USED

DIVISION 15 - MECH, PLUMB, FIRE

SECTION 15000 - MECHANICAL, PLUMBING & FIRE PROTECTION
A. MECHANICAL
1. INSTALLATION AND MATERIALS OF ALL SYSTEMS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY, COUNTY, STATE, AND NATIONAL CODES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND REQUIRED TO VISIT THE SITE, VERIFY DIMENSIONAL DATA AND REVIEW EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK. ANY CONFLICTS WITH THE EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
3. A COMPLETE AND OPERABLE SYSTEM SHALL BE PROVIDED. THIS IS DEFINED AS ONE WHICH HAS BEEN FURNISHED, MOUNTED, INSTALLED, AND PLACED IN OPERATION, BALANCED FOR AIR AND WATER, TESTED FOR CONFORMANCE TO THE CAPACITIES CORRESPONDING TO THE DESIGN CRITERIA.
4. THE SYSTEM SHALL BE INSTALLED AND ADJUSTED IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATIONS, TESTED FOR SEQUENCE OF CONTROL INCLUDING FAIL SAFE AND LIFE SAFETY CONSIDERATIONS AND AVAILABLE IN A CLEAN CONDITION.
5. COORDINATE LOCATIONS OF ALL VISIBLE DEVICES WITH THE LIGHTING PLAN.

B. DESIGN CRITERIA - HVAC SYSTEM
1. MAINTAIN AN AVERAGE TEMPERATURE OF 68 TO 70 DEGREES DURING THE WINTER. 75 TO 77 DEGREES DURING THE SUMMER.
2. INTERIOR ZONES SHALL BE DESIGNED TO SERVE 1,800 SQUARE FEET EACH. EXTERIOR ZONES SHALL BE DESIGNED TO SERVE 700 SQUARE FEET EACH.
3. EXHAUST ALL TOILET ROOMS TO THE OUTSIDE AT A RATE OF 2 CFM PER SQ. FT.

C. DESIGN CRITERIA - PLUMBING SYSTEM
1. PROVIDE COMPLETE PLUMBING SYSTEMS NECESSARY TO OPERATE THE DEVICES SHOWN IN THESE DOCUMENTS.

D. DESIGN CRITERIA - FIRE PROTECTION SYSTEM
1. PROVIDE THE NECESSARY FIRE SPRINKLER SYSTEMS AND FIRE ALARM SYSTEMS TO GIVE COMPLETE PROTECTION AS REQUIRED BY CODE.

E. MEP / SPRINKLER NOTES
1. ALL FIRE SPRINKLER WORK SHALL BE PERFORMED BY A BASE BUILDING APPROVED CONTRACTOR. SPRINKLER HEADS IN GYPSUM BOARD AND MALL FRONTS SHALL BE CONCEALED HEAD TYPE. SEMI-RECESSED OR CONCEALED TYPE MAY BE USED IN LAY-IN CEILINGS VISIBLE TO CUSTOMERS. SURFACE MOUNTED HEADS ARE ACCEPTABLE IN THE BACK AREA.
2. FIRE SPRINKLER DESIGN SHALL BE PERFORMED BY A STATE LICENSED DESIGNER.
3. PAINT ALL DIFFUSERS AND GRILLS TO MATCH ADJACENT SURFACES.
4. BATTERY PACKS FOR EMERGENCY LIGHTS SHALL BE REMOTE OR RECESSED.
5. IF CEILING ACCESS PANELS ARE REQUIRED, PAINT TO MATCH ADJACENT SURFACE.
6. ALL TRACK LIGHTS MOUNTED ON P1 FINISH SHALL BE WHITE.
7. VERIFY LOCATIONS OF DEMISING WALLS, CLEAR HEIGHTS, COLUMNS, MALL FRONTS AND ANY OTHER SIGNIFICANT COMPONENTS WITH THOSE INDICATED ON THE PLAN. NOTIFY THE ARCHITECT OF ANY DIFFERENCES.
8. CEILING HEIGHTS INDICATED ON SHEET A-3 ARE INTENDED TO REPRESENT AN "IF POSSIBLE" SCENARIO. IF THE EXISTING STRUCTURE, MAJOR DUCTWORK OR OTHER OBSTRUCTIONS PROHIBIT THE REFERENCED HEIGHTS, PROVIDE AS MUCH HEIGHT AS POSSIBLE, MAINTAINING A 6" DIFFERENCE FROM THE GYPSUM BOARD SURROUND TO THE LAY-IN CEILING. NOTIFY THE ARCHITECT OF THE DIFFERENCES PRIOR TO INSTALLATION.

DIVISION 16 - FIRE ALARM

DIVISION 16
SECTION 16720 - FIRE ALARM SYSTEM
A. GENERAL
1. CONDITIONS OF THE CONTRACT
A. THE GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS SHALL APPLY TO AND FORM PART OF THIS DIVISION.
2. SCOPE:
A. THIS SECTION INCLUDES ALL LABOR, MATERIAL, EQUIPMENT AND RELATED SERVICES NECESSARY TO FURNISH, INSTALL AND CONNECT A COMPLETE FIRE ALARM SYSTEM.
B. A FIRE ALARM SYSTEM SHALL BE PROVIDED WHERE REQUIRED BY LOCAL CODES AND/OR AS REQUIRED BY THE AHJ.
C. PROVIDE COMPLETE SYSTEM DESIGN AND SUBMITTAL INCLUDING PRODUCT DATA AND SHOP DRAWINGS AND SUBMIT TO T-MOBILE FOR APPROVAL. UPON T-MOBILE APPROVAL, SUBMIT TO THE AHJ FOR APPROVAL AND PERMIT. COORDINATE ALL INSPECTIONS AND PERFORM SYSTEM TESTING PER THE AHJ REQUIREMENTS.
B. PRODUCTS
1. COMPLY WITH NFPA 72 AND THE NEC AS APPLICABLE TO CONSTRUCTION AND INSTALLATION OF FIRE ALARM AND DETECTION SYSTEM COMPONENTS AND ACCESSORIES. PROVIDE COMPONENTS AND SYSTEMS WHICH ARE UL LISTED AND LABELED FOR FIRE ALARM. PROVIDE FIRE ALARM AND DETECTION SYSTEMS AND ACCESSORIES WHICH ARE FM APPROVED. COMPLY WITH STATE AND LOCAL REQUIREMENTS AS APPLICABLE.

DIVISION 16 - FIRE ALARM, CONT.

2. ACCEPTABLE MANUFACTURERS: EDWARDS, NOTIFIER, SIEMENS, SIMPLEX. WHERE PART OF THE LANDLORD SYSTEM PROVIDE DEVICES MANUFACTURED BY AND COMPATIBLE WITH LANDLORD SYSTEM.
3. WHERE PART OF THE LANDLORD SYSTEM PROVIDE DEVICES MANUFACTURED BY AND COMPATIBLE WITH LANDLORD SYSTEM. COMPLY WITH ALL REQUIREMENTS AS ESTABLISHED BY THE AHJ AND LANDLORD FOR TENANT SPACES.
4. THE SYSTEM SHALL OPERATE AS A LOW VOLTAGE, INTELLIGENT, POINT IDENTIFICATION FIRE MANAGEMENT SYSTEM. THE FIRE DETECTION AND CONTROL SYSTEM SHALL MONITOR INTELLIGENT (ANALOG) AND ADDRESSABLE (DIGITAL) DEVICES, TRADITIONAL INITIATING DEVICES, POINT IDENTIFY THE ALARM LOCATION AND TRANSMIT A SIGNAL TO THE MONITORING AGENCY.
5. AN ALARM SHALL BE DISPLAYED ON AN 80 CHARACTER ALPHANUMERIC DISPLAY AT THE MAIN PANEL. WHEN REQUIRED BY THE AHJ, PROVIDE REMOTE 80 CHARACTER KEYPAD ANNUNCIATOR AT APPROVED LOCATION.
6. PROVIDE REQUIRED INTERFACE CONNECTION TO FIRE SPRINKLER SYSTEM TAMPER SWITCHES, FLOW SWITCHES AND HIGH/LOW AIR PRESSURE ALARM SWITCHES. INCLUDE CONNECTION TO TAMPER SWITCHES IN EXTERIOR VAULTS.
7. PROVIDE CONNECTION FROM DUCT SMOKE DETECTORS TO FAN STARTER CONTROL CIRCUIT. FANS SHALL BE SHUT DOWN ON LOCAL DETECTION ONLY. PROVIDE INTERFACE RELAY TO CONTROL SYSTEM.
8. PROVIDE F.A. POWER AND FIRE CLOSURE SIGNAL CONNECTION TO ALL FIRE SHUTTERS IN CORRIDORS. SHUTTERS SHALL BE POWERED FROM FIRE ALARM PANEL.
9. PROVIDE MANUAL STATIONS WHERE REQUIRED. MANUAL STATIONS SHALL BE DIE-CAST ALUMINUM WITH WHITE LETTERING AND RED FINISH. EQUIP WITH PLASTIC GUARDS.
10. PROVIDE SMOKE DETECTORS WHERE REQUIRED. SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH VISUAL INDICATION OF DETECTOR ACTUATION. DETECTORS SHALL BE ADDRESSABLE AND INTELLIGENT TYPE.
11. DUCT SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE AND SHALL OPERATE AT AIR VELOCITIES OF 300 FEET PER MINUTE TO 2000 FEET PER MINUTE. AN INTEGRAL FILTER SYSTEM SHALL BE INCLUDED TO REDUCE DUST AND RESIDUE ACCUMULATION. AN AIR FLOW MONITOR SHALL BE INCLUDED TO INDICATE THE PRESENCE AND DIRECTION OF AIR FLOW THROUGH THE DETECTOR. PROVIDE FOR ALL FAN SUPPLYING AIR TO BUILDING WITH CFM TOTALS OF 2000 CFM OR GREATER. PROVIDE AT SUPPLY AND/OR RETURN DUCT AS REQUIRED BY LOCAL CODE.
12. HORN/STROBES SHALL BE SOLID STATE CONSTRUCTION AND SHALL PRODUCE A BROADBAND HORN SOUND OUTPUT OF 96 DBA (103 PEAK DBA) AT 10 FEET IN AN ANECHOIC CHAMBER. THE STROBES SHALL PRODUCE 8000 PEAK CANDLEPOWER AT ONE FLASH PER SECOND.

C. EXECUTION:
1. INSTALLATION:
a. PROVIDE THE SYSTEM IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, ALL APPLICABLE CODES AND THE MANUFACTURER'S RECOMMENDATIONS. ALL WIRING SHALL BE INSTALLED IN STRICT COMPLIANCE WITH ALL THE PROVISIONS OF NEC: ARTICLE 760 A AND C, POWER-LIMITED FIRE PROTECTIVE SIGNALING CIRCUITS OR, IF REQUIRED, MAY BE RECLASSIFIED AS NON-POWER LIMITED AND WIRED IN ACCORDANCE WITH NEC: ARTICLE 760 A AND B. UPON COMPLETION, THE CONTRACTOR SHALL SO CERTIFY IN WRITING TO T-MOBILE AND GENERAL CONTRACTOR.
b. THE SUPPLIER SHALL HAVE THE CAPABILITIES OF RESPONDING TO A SERVICE CALL WITH A FACTORY TRAINED TECHNICAL REPRESENTATIVE WITHIN 24 HOURS. ALSO, THIS SUPPLIER SHALL MAINTAIN AN ADEQUATE STOCK OF ALL PARTS NECESSARY FOR THE REPAIR OF THIS EQUIPMENT ON HAND AT ALL TIMES.
c. THE SYSTEM, UPON COMPLETION OF INSTALLATION BY THE CONTRACTOR, SHALL BE CHECKED OUT AND ALL CONNECTIONS TO INITIATING AND INDICATING DEVICES SHALL BE SUPERVISED BY FACTORY TRAINED TECHNICIANS IN THE EMPLOY OF A FACTORY FRANCHISED DEALER FOR THE PRODUCT INSTALLED. EACH INDIVIDUAL DEVICE SHALL BE CHECKED OUT AND TESTED FOR OPERATION BY A FACTORY TRAINED TECHNICIAN.
d. THE COMPLETED FIRE ALARM SYSTEM SHALL BE FULLY TESTED IN ACCORDANCE WITH NFPA 72H BY THE CONTRACTOR IN THE PRESENCE OF T-MOBILE'S REPRESENTATIVE AND THE LOCAL FIRE MARSHAL. UPON COMPLETION OF A SUCCESSFUL TEST, THE CONTRACTOR SHALL SO CERTIFY IN WRITING TO T-MOBILE.

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VENDOR PROJECT NO: 24.03.213351

DESIGN
DEVELOPMENT

CONSULTING ENGINEER:

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

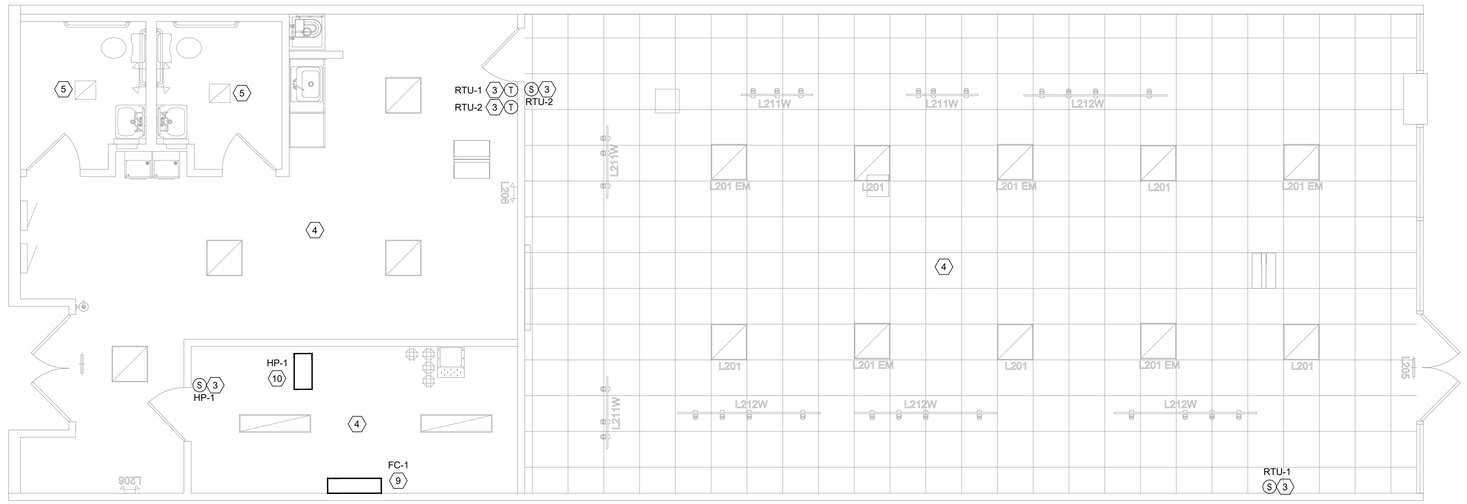
##	DESCRIPTION	DATE

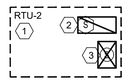
DATE: April 17, 2024
SCALE: AS NOTED
DRAWN BY: AZ

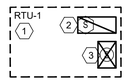
SAP NUMBER:
193
CORPORATE NEW CD
RMC

SHEET TITLE:
SPECIFICATIONS

SHEET NUMBER:
A706







B4 MECHANICAL FLOOR PLAN

1/4" = 1'-0"

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS. WHERE EXISTING CONDITIONS EXIST THAT PREVENT COMPLETION OF WORK, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTOR'S COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES. THE PLANS AND SPECIFICATIONS NOT WITHSTANDING, THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

MECHANICAL LEGEND

MANUAL BALANCING DAMPER TO BE PLACED IN ACCESSIBLE LOCATION

NOTE: SEE SHEET M102 FOR MECHANICAL SCHEDULES AND SHEET M501 FOR MECHANICAL DETAILS

KEYED NOTES

(##)	NOTES
1	EXISTING ROOFTOP UNIT AND DUCT SYSTEMS TO REMAIN. VERIFY EXACT LOCATION IN FIELD. MAINTAIN CONDENSATE DRAIN PIPING AND (WHERE APPLICABLE) NATURAL GAS PIPING.
2	VERIFY EXISTENCE OF DUCT MOUNTED SMOKE DETECTOR WITH REMOTE TEST STATION IN THE RETURN DUCTWORK AT LOCATION SHOWN. IF NONE EXISTS, PROVIDE NEW. DETECTOR SHALL SHUT DOWN UNIT UPON DETECTION OF SMOKE. INSTALL REMOTE TEST STATION IN CEILING GRID OF T-MOBILE LEASE SPACE AS DIRECTED BY CONSTRUCTION MANAGER.
3	INSTALL OWNER SUPPLIED ENTOUCH one MASTER CONTROLLER THERMOSTAT, ZONE TEMPERATURE SENSOR AND DUCT TEMPERATURE SENSOR. MOUNT THERMOSTAT @ 48" A.F.F. PROVIDE AND PULL CAT5 CABLE FROM ET1 THERMOSTAT TO OPEN PORT ON CUSTOMER NETWORK SWITCH. MOUNT ZONE TEMPERATURE SENSOR @ 60" A.F.F AND WIRE TO S2 AND S2 RTN. MOUNT DUCT TEMPERATURE SENSOR IN THE MAIN SUPPLY DUCT WITHIN 6 FEET OF UNIT AND WIRE TO S2 AND S2 RTN. CABLE RUNS AND TERMINATIONS BY MC/GC (CABLE PULL).
4	EXISTING AIR DEVICE TO REMAIN.
5	MAINTAIN EXISTING CEILING EXHAUST FAN/LIGHT COMBO AND EXHAUST DUCT SYSTEM.
6	NOT USED.
7	NOT USED.
8	NOT USED.
9	PROVIDE WALL HUNG, HORIZONTAL THROW FAN COIL UNIT SUSPENDED FROM STRUCTURE. EXTEND NEW 3/4" INSULATED CONDENSATE DRAIN LINE ABOVE CEILING TO LANDLORD APPROVED RECEPTOR.
10	PROVIDE CONDENSING UNIT ON ROOF, MOUNTED ON PRE-FABRICATED BASE. EXTEND REFRIGERANT PIPING DOWN THROUGH ROOF TO FAN COIL UNIT. VERIFY LOCATION IN FIELD WITH LANDLORD.

GENERAL NOTES

A. ALL ROOF WORK IS TO BE DONE BY THE LANDLORD'S ROOFING CONTRACTOR AND AT THE TENANT'S EXPENSE.

B. ALL DUCTWORK SHALL BE GALVANIZED SHEETMETAL PER SMACNA STANDARDS. NO DUCTBOARD PERMITTED.

C. ALL DUCT WORK SHALL BE INSULATED WITH A MINIMUM R-6 INSULATION FOR INTERIOR DUCTWORK AND A MINIMUM R-8 INSULATION FOR EXTERIOR DUCTWORK PER IECC (IN CALIFORNIA PROVIDE MINIMUM R-8 INTERIOR / EXTERIOR.)

D. PROVIDE INSULATED FLEXIBLE DUCT CONNECTIONS TO DIFFUSERS. FLEX DUCT LENGTH NOT TO EXCEED 5 FT.

E. VERIFY THE EXACT MOUNTING FRAME REQUIRED FOR EACH DIFFUSER.

F. PROVIDE ALL MANUAL BALANCE DAMPERS REQUIRED TO BALANCE THE ENTIRE SYSTEM.

G. ALL NEW RESTROOM DOORS SHALL BE UNDERCUT A MINIMUM 1". TENANT GENERAL CONTRACTOR SHALL ENSURE THAT EXISTING DOORS COMPLY.

H. PROVIDE AND SIZE CONDENSATE LINES AS REQUIRED. ROUTE TO NEAREST ROOF DRAIN WHERE PERMITTED, ELSE TO THE NEAREST APPROVED RECEPTOR.

I. MODIFY THE SPRINKLER SYSTEM (WHERE EXISTING) TO ACCOMMODATE NEW FLOOR PLAN LAYOUT PER NFPA 13. REPLACE SPRINKLER HEADS AS REQUIRED. ALL HEADS IN THE SALES AREA ARE TO BE CONCEALED PENDANT TYPE. NON-SALES AREAS ARE TO BE PENDANT TYPE. CONTACT THE LANDLORD FOR ADDITIONAL REQUIREMENTS AND A LIST OF APPROVED FIRE PROTECTION CONTRACTORS.

J. REPLACE FILTERS PRIOR TO TURNOVER.

K. PROVIDE RFI/RFQ TO P.M. & ARCHITECT FOR ALL DISCREPANCIES PRIOR TO COMMENCING WORK.

L. TENANT GENERAL CONTRACTOR SUB TO PROVIDE REDLINES OF ALL DEVIATIONS FROM THE PLANS AND PROVIDE A COMPLETE TEST & BALANCE REPORT AS REQUIRED BY THE CONTRACT.

WHEN REQUIRED, IT IS THE OWNER'S RESPONSIBILITY TO CONTRACT WITH A COMMISSIONING AUTHORITY TO COMPLY WITH LOCAL CODES.

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DEPT. OF REGISTRATION AND EDUCATION
DENNIS J. LEWIS
REGISTRATION No. E-36009

4/17/2024

CONSULTING ENGINEER:

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(##)	DESCRIPTION	DATE

DATE: 04.02.2024
SCALE: AS NOTED
DRAWN BY: DL

SAP NUMBER:

193

CORPORATE TENANT REMODEL

RMC

SHEET TITLE:

MECHANICAL FLOOR PLAN

SHEET NUMBER:

M101

MECHANICAL SYMBOLS

NOTE: NOT ALL USED AT THIS LOCATION

SINGLE LINE	DESCRIPTION	DOUBLE LINE
	90° ELBOW DOWN	
	90° ELBOW UP	
	ROUND RADIUS ELBOW	
	90° STRAIGHT TEE	
	90° CONICAL TEE	
	45° BRANCH	
	45° CONICAL TEE	
	SIZE OR SHAPE TRANSITION	
	ROUND FLEXIBLE DUCT	
	90° ELBOW DOWN	
	90° ELBOW UP	
	RECTANGULAR RADIUS ELBOW	
	RECTANGULAR ELBOW WITH TURNING VANES	
	BRANCH TAKE-OFF WITH 45° TAP	
	LINED DUCTWORK (UNLESS NOTED OTHERWISE)	
	SIDEWALL SUPPLY GRILLE OR REGISTER WITH AIR EXTRACTOR	
	SUPPLY DUCT RISER	
	RETURN, EXHAUST OR OUTSIDE AIR DUCT RISER	
	DOOR GRILLE	
	MANUAL BALANCING DAMPER	
MD	MOTORIZED DAMPER	MD
FD	FIRE DAMPER	FD
FSD	COMBINATION FIRE AND SMOKE DAMPER WITH SMOKE DETECTOR	FSD
SD	SMOKE DAMPER (AUTOMATIC) WITH SMOKE DETECTOR	SD
S	DUCT MOUNTED SMOKE DETECTOR	S
	RETURN AIR DUCT / CEILING RETURN AIR GRILLE OR REGISTER	AND/ OR
	SUPPLY AIR DUCT / SUPPLY DIFFUSER LINEAR DIFFUSER	AND/ OR
	EXHAUST AIR DUCT / CEILING MOUNTED EXHAUST FAN	AND/ OR
	CANVAS CONNECTOR WITH VIBRATION	
	CONNECT TO EXISTING	
	REMOVE TO THIS POINT	
	FLEXIBLE CONNECTION	
T	THERMOSTAT	T
S	SENSOR	S
	UNIT HEATER	
	EXHAUST FAN	
	CONDENSING UNIT	
	FAN COIL UNIT / AIR HANDLER UNIT	
	ROOFTOP AIR CONDITIONING UNIT	
O.A.	OUTSIDE AIR INTAKE	O.A.
	TRANSFER GRILLE	
	DUCT SLEEVE	

MECHANICAL ABREVIATIONS

NOTE: NOT ALL USED AT THIS LOCATION

A.C.U. OR A.C.	AIR CONDITIONING UNIT (SPLIT-DX OR WATER COOLED)
A.F.F.	ABOVE FINISHED FLOOR
A.H.U.	AIR HANDLING UNIT
B.O.H.	BACK OF HOUSE
B.T.U.H.	BRITISH THERMAL UNIT / HOUR
C.H.	CABINET HEATER
C.U.	CONDENSING UNIT (SPLIT-DX SYSTEMS)
C.F.M.	CUBIC FEET PER MINUTE
E.A.T.	ENTERING AIR TEMPERATURE
E.B.H.	ELECTRIC BASEBOARD HEATER
E.D.H.	ELECTRIC DUCT HEATER
E.E.R.	ENERGY EFFICIENCY RATIO
E.F.	EXHAUST FAN
E.S.P.	EXTERNAL STATIC PRESSURE
F.C.U.	FAN COIL UNIT
F.F.C.H.	FORCED FLOW CABINET HEATER
F.L.A.	FULL LOAD AMPS
G.F.I.	GROUND FAULT INTERRUPTER
I.O.M.	INSTALLATION AND OPERATION MANUAL
K.W.	KILOWATT
L.A.T.	LEAVING AIR TEMPERATURE
M.C.A.	MINIMUM CIRCUIT AMPACITY
N.C.	NOISE CRITERIA
O.A.	OUTSIDE AIR
P.S.I.	POUNDS PER SQUARE INCH
R.L.A.	RUNNING LOAD AMPS
R.T.U.	ROOF TOP UNIT
S.E.E.R.	SEASONAL ENERGY EFFICIENCY RATIO
T.G.C.	TENANT GENERAL CONTRACTOR
U.H.	UNIT HEATER
U.N.O.	UNTIL NOTED OTHERWISE
V.F.	VENTILATION FAN
W.C.	WATER COLUMN
W.G.	WATER GAUGE

ROOFTOP UNIT SCHEDULE (EXISTING)

SYMBOL	BASIS FOR DESIGN	AIR FLOW (CFM)	O.A. FLOW (CFM)	EXT. S.P. (IN W.C.)	DX COOLING COIL			GAS HEAT			ELECTRICAL				APPROX. WEIGHT (LBS.)	NOTES
					TONS	TOTAL LOAD (MBH)	SENSIBLE LOAD (MBH)	INPUT (MBH)	OUTPUT (MBH)	STAGES	VOLTS/Ø/HZ.	MCA	MOCP	EER/SEER		
RTU-1	CARRIER 48FCEM07	2,400	260	0.80	6.0	72	54	110	88	1	208/3/60	33	50	11.0/15.0	850	8
RTU-2	CARRIER 48FCEM07	2,400	260	0.80	6.0	72	54	110	88	1	208/3/60	33	50	11.0/15.0	850	8

NOTES

1. PROVIDE WITH MATCHING INSULATED CURB.
2. PROVIDE WITH 120V GFCI SERVICE OUTLET.
3. PROVIDE WITH INTEGRAL DISCONNECT SWITCH.
4. ECONOMIZER WITH ENTHALPY CONTROLS
5. BAROMETRIC RELIEF
6. HAIL GUARD
7. E-COAT COILS
8. EXISTING UNIT

OSA CALCULATION

PER 2018 IMC 403.3

RM. NAME	UNIT SERVICING	PEOPLE PER 1000 SQFT	CFM/ PERSON	CFM/SF	AREA (SQFT)	PEOPLE x CFM/PERSON	SF x CFM/SF	REQUIRED O.A. CFM	ZONE AIR DIST. EFF. TABLE 403.2.1.2	PROVIDED O.A. CFM
SALES	RTU-1 & 2	15	7.5	0.12	1336	20 x 7.5 = 150	160	310	0.8	388
STOCK	RTU-2	-	-	0.12	794	-	95	95	0.8	120
MINIMUM FRESH AIR CFM REQUIRED PER CODE										508
TOTAL O.A. PROVIDED										520

GRILLE, REGISTER AND DIFFUSER SCHEDULE

SYMBOL	MANUFACTURER	MODEL	SERVICE	MODULE (L" X W")	FACE SIZE (L" X W")	FRAME TYPE	FINISH	MOUNTING	N.C.	NOTES
A	TITUS	TMSA	SUPPLY DIFFUSER	24" X 24"	24" X 24"	SEE PLANS	#26 WHITE	CEILING	<35	A, B, C, D, F
B	TITUS	TMSA	SUPPLY DIFFUSER	12" X 12"	12" X 12"	SEE PLANS	#26 WHITE	CEILING	<35	A, B, C, D
C	TITUS	350R	RETURN GRILLE	12" X 10"	12" X 10"	SEE PLANS	#26 WHITE	SIDEWALL	<35	A, E
D	TITUS	50F	RETURN GRILLE	24" X 24"	24" X 24"	SEE PLANS	#26 WHITE	CEILING	<35	A, B, C, F
X	-	-	EXISTING AIR DEVICE	-	-	-	-	-	-	-

NOTES:
A. BOH FRAME AND FACE BLADES SHALL HAVE BAKED ENAMEL OFF- WHITE FINISH.
B. COORDINATE EXACT FRAME MOUNTING TYPE WITH ARCHITECTURAL CEILING PLAN.
C. BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE UNLESS OTHERWISE NOTED.
D. SELECT TMSA DIFFUSER PER NECK SIZE. SEE PLANS.
E. MOUNT TOP OF GRILLE 6" BELOW FINISHED CEILING.

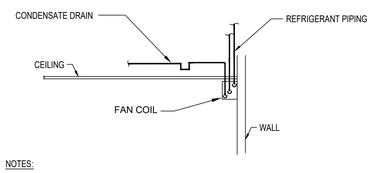
SPLIT SYSTEM AIR HANDLER UNIT SCHEDULE

UNIT NO.	NOMINAL COOLING CAP. (TONS)	MANUF.	MODEL	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	ESP (IN. WC)	HEATING 008A/00 KW	ENTERING AIR TEMP. DB	ENTERING AIR TEMP. WB	HP	MCA	MOCP	VOLTAGE	AHU WEIGHT (LBS)	NOTES
FC-1	1.5	MITSUBISHI	PKA-18HA6	350	-	-	-	95	70	-	1	-	208/1/60	29	1

SPLIT SYSTEM CONDENSING UNIT SCHEDULE

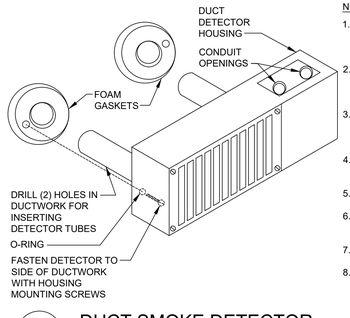
UNIT NO.		MANUF.	MODEL	SEER	IEER	HEATING CAPACITY	COOLING CAPACITY TOTAL	COOLING CAPACITY SENSIBLE	HSPF	MCA	MOCP	VOLTAGE	HP WEIGHT (LBS)	NOTES
CU-1		MITSUBISHI	PUY-A18NHA6	15.3	-	-	18,000	13,500	-	13	20	208/1/60	89	2, 3, 4

NOTES:
1. WALL MOUNT UNIT.
2. LOW AMBIENT CONTROL.
3. WIND SHIELD.
4. QSMS EQUIPMENT STAND.



NOTES:
1. PROVIDE BLOCKING WITHIN WALL FOR UNIT ANCHORAGE/SUPPORT AS REQUIRED
2. ALL CONDENSATE DRAIN PIPING SHALL BE SCHEDULE 40 GALVNIZED WITH MALLABLE IRON SCREWED FITTINGS.

A2 FCU DETAIL
NTS



NOTES:
1. TOTALINE MODEL #P270-20001 UL 268A LISTED OR EQUIVALENT.
2. RUGGED NORYL HOUSING WITH STRONG CLEAR POLYCARBONATE INSPECTION COVER.
3. ACCOMMODATES ION (IONIZATION) OR PHOTO HEADS (PHOTOELECTRIC).
4. SUITABLE FOR 4 WIRE 14-18 AWG WIRE, 24VAC/DC OR 120/220 VAC OPERATION.
5. REMOTE TEST STATION OPTION.
6. POWERED OUTPUTS FOR REMOTE LED AND AUDIBLE ALARM.
7. AIR VELOCITY RATING FROM 300 TO 4000 FPM.
8. EQUIPPED WITH A DPDT AUXILIARY RELAY.

A1 DUCT SMOKE DETECTOR
NTS

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ARCHITECT:

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4/17/2024

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TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: 04.02.2024
SCALE: AS NOTED
DRAWN BY: DL

SAP NUMBER:

193

CORPORATE TENANT REMODEL

RMC

SHEET TITLE:

MECHANICAL SCHEDULES & DETAILS

SHEET NUMBER:

M102

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C403.13.2, C403.13.3 [FO9][1]	Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature above 50F and outdoor temperature above 40F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

COM*check* Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2021 IECC

Requirements: 100.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical and service water heating systems and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks. Hot water system sized per manufacturer's sizing guide.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M101

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

COM*check* Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code:	2021 IECC
Project Title:	TMOB 193
Location:	Niles, Illinois
Climate Zone:	5a
Project Type:	Alteration

Construction Site:
5710 W. Touhy Ave.
Niles, Illinois 60714

Owner/Agent:
TMobile

Designer/Contractor:
Dennis Lewis
2010 Kitty Hawk Dr
Xenia 45385-5375
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dennisjlewis1972@hotmail.com

Mechanical Systems List

Quantity System Type & Description

1 HVAC System (Single Zone):
Cooling: 1 each - Split System, Capacity = 18 kBtu/h, Air-Cooled Condenser, Unknown Economizer
Proposed Efficiency = 15.30 SEER2, Required Efficiency = 13.40 SEER2
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00
Fan System: FAN SYSTEM 2 | BOH -- Compliance (Brake HP and fan efficiency method) : Passes

Fans:
FAN 2 Supply, Constant Volume, 400 CFM, 0.4 motor nameplate hp, 0.3 design brake hp (0.3 max. BHP), 1.05 fan energy index

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.4.1.4 [ME63][2]	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.3.3 [ME35][1]	Hot gas bypass limited to: <=240 kBtu/h – 50% >240 kBtu/h – 25%	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M101
C408.2.2.1 [ME53][1]	Air outlets and zone terminal devices have means for air balancing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Fans with fan motors of 1 hp (0.74 kW) or less.
C403.11.3, C403.11.3.1, C403.11.3.2 [ME123][1]	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.11.3.1 and refrigeration compressor systems that comply with C403.11.3.2.,	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41][1]	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.8.4 [ME142][2]	Motors for fans that are not less than 1/12 hp and less than 1 hp are electronically commutated motors or have a minimum motor efficiency of 70 percent. These motors have the means to adjust motor speed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M102
C403.8.6 [ME143][2]	Each DX cooling system > 65 kBtu and chiller water/evaporative cooling system with fans > 1/4 hp are designed to vary the indoor fan airflow as a function of load and comply with detailed requirements of this section.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.9 [ME144][2]	Large diameter fans where installed shall be tested and labeled in accordance with AMCA 230.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.3 [ME55][2]	HVAC equipment efficiency verified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Mechanical Systems list for values.*
C403.2.2 [ME59][1]	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M102
C403.7.1 [ME59][1]	Demand control ventilation provided for spaces >500 ft2 and >15 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.2 [ME115][1]	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.6 [ME141][1]	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms: Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.4 [ME57][1]	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.5 [ME116][1]	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6][1]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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REGISTRATION No. 62.36009

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CORPORATE TENANT REMODEL

RMC

SHEET TITLE:

ENERGY CALCULATIONS

SHEET NUMBER:

M601

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.3.2 [FI10]¹	HVAC and service water heating control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M101
C408.2.4 [FI29]¹	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M101
C408.2.5 [FI7]¹	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.1 [FI43]¹	An air and/or hydronic system balancing report is provided for HVAC systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M101
C408.2.5.2 [FI30]¹	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M101

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.3 [FI8]¹	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.3.1 [FI27]¹	HVAC systems and equipment capacity does not exceed calculated loads.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M102
C403.4.1 [FI47]¹	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M101
C403.4.1.2 [FI38]¹	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Manual changeover thermostats.
C403.4.1.3 [FI20]¹	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.4.2 [FI39]¹	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Zones operated continuously.
C403.4.2.1, C403.4.2.2 [FI40]¹	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.4.2.3 [FI41]¹	Systems include optimum start controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C408.1.1 [FI57]¹	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.1 [FI28]¹	Commissioning plan developed by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M101
C408.2.3.1 [FI31]¹	HVAC equipment, systems and system-to-system relationships have been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Unitary or packaged HVAC equipment without supply air economizers.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.7 [EL26]²	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.8 [EL27]²	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.9.1, C405.9.2 [EL28]²	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.10 [EL29]²	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.1.1 [EL30]²	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.11, C405.11.1 [EL31]²	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

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CORPORATE TENANT REMODEL
RMC

SHEET TITLE:
ENERGY CALCULATIONS

SHEET NUMBER:
M602

GENERAL NOTES

A. ALL WORK SHALL COMPLY WITH THE CURRENTLY ADOPTED CODES, ORDINANCES, AND AMENDMENTS.

B. ALL EQUIPMENT SHALL BE LISTED BY A RECOGNIZED TESTING LAB (i.e. U.L., ETC.)

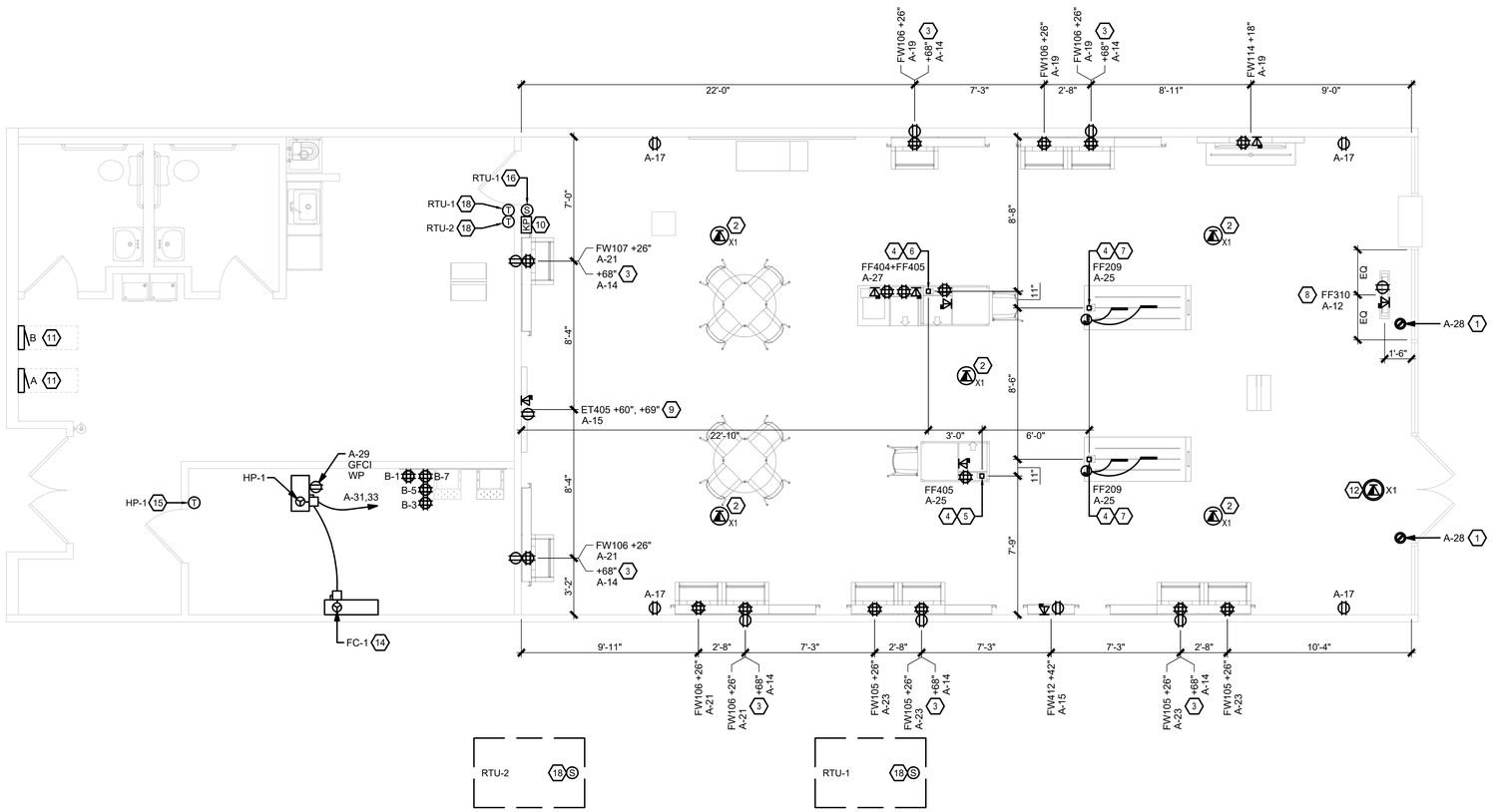
C. PROVIDE PLENUM RATED WIRING WHERE REQUIRED. COMPLY WITH NEC 300.22.

D. PROPERLY GROUND RECEPTACLES, BOXES AND COVER PLATES INSTALLED IN FIXTURES PER NEC 250 AND 406.

E. NO BX, AC OR ROMEX TYPE WIRING ALLOWED.

F. ALL LOW VOLTAGE WIRING TO BE IN CONDUIT UNLESS OTHERWISE APPROVED BY AUTHORITY HAVING JURISDICTION.

WHEN REQUIRED, IT IS THE OWNER'S RESPONSIBILITY TO CONTRACT WITH A COMMISSIONING AUTHORITY TO COMPLY WITH LOCAL CODES.



B1 POWER FLOOR PLAN

1/4" = 1'-0"

KEYED NOTES

##	NOTES
1	SHOW WINDOW RECEPTACLE(S). LOCATE 18" FROM TOP OF WINDOW, 1 PER 12 LINEAR FEET OR MAJOR FRACTION THEREOF (NEC 210.62). PROVIDE ONLY IF NOT EXISTING.
2	PROVIDE OVERHEAD AP CABLING ABOVE CEILING 3'-0" MIN. COORDINATE W/ AP VENDOR FOR EXACT LOCATIONS
3	LED BACK LIGHTING OUTLET MOUNTED AT 68" A.F.F. PROVIDE LOCK ON DEVICE ON BREAKER AT ELECTRIC PANEL.
4	PROVIDE CIRCUIT(S) AND LOW VOLTAGE WIRING AS REQ'D TO J-BOX ABOVE CEILING FOR POWERPOLE TO FLOOR FIXTURES.
5	POWER POLE TO FF405 FIXTURE. SEE WIRING DETAILS ON SHEET E501. • CONDUIT SCHEDULE: FF405: (1) 3/4" DEDICATED POWER & (1) 1" DATA • ELECTRICAL CONTRACTOR TO PROVIDE: CONDUIT AND J-BOXES ABOVE CEILING FOR POWER POLE. PROVIDE POWER FROM PANEL TO CEILING MOUNTED J-BOXES. LEAVE FLEX CONNECTION ASSEMBLY COILED AND TAPED AS REQUIRED UNTIL FIXTURE INSTALLATION. AFTER FIXTURE INSTALLATION ELECTRICAL CONTRACTOR TO PROVIDE APPROVED FLEX CONNECTION ASSEMBLY TO POWER SOURCE ROUTED THROUGH POWER POLE TO E.C. PROVIDED POWER RECEPTACLES IN PRE-INSTALLED BLANK BOXES INSIDE FIXTURE. PROVIDE PULL STRING(S) FROM TELEPHONE BOARD TO SURFACE MOUNTED J-BOXES IN FIXTURE FOR CAT5E DATA CABLING AND RJ45 JACKS BY OWNER'S VENDOR. • OWNER'S VENDOR TO PROVIDE: CAT5E DATA CABLING, RJ45 JACKS AND PLASTIC GROMMET TO FIT 3/4" KNOCK OUTS IN PRE-INSTALLED BLANK DUPLEX BOX BY FIXTURE MANUFACTURER AS REQ'D. ROUTE CABLING THROUGH CASEWORK AND MAKE CONNECTIONS TO RJ45 JACKS, TYP.

KEYED NOTES

##	NOTES
6	POWER POLE TO FF405 + FF404 FIXTURE. SEE WIRING DETAILS ON SHEET E501. • CONDUIT SCHEDULE: FF405 + FF404: (1) 3/4" DEDICATED POWER & (2) 1" DATA • ELECTRICAL CONTRACTOR TO PROVIDE: CONDUIT AND J-BOXES ABOVE CEILING FOR POWER POLE. PROVIDE POWER FROM PANEL TO CEILING MOUNTED J-BOXES. LEAVE FLEX CONNECTION ASSEMBLY COILED AND TAPED AS REQUIRED UNTIL FIXTURE INSTALLATION. AFTER FIXTURE INSTALLATION ELECTRICAL CONTRACTOR TO PROVIDE APPROVED FLEX CONNECTION ASSEMBLY TO POWER SOURCE ROUTED THROUGH POWER POLE TO E.C. PROVIDED POWER RECEPTACLES IN PRE-INSTALLED BLANK BOXES INSIDE FIXTURE. PROVIDE PULL STRING(S) FROM TELEPHONE BOARD TO SURFACE MOUNTED J-BOXES IN FIXTURE FOR CAT5E DATA CABLING AND RJ45 JACKS BY OWNER'S VENDOR. • OWNER'S VENDOR TO PROVIDE: CAT5E DATA CABLING, RJ45 JACKS AND PLASTIC GROMMET TO FIT 3/4" KNOCK OUTS IN PRE-INSTALLED BLANK DUPLEX BOX BY FIXTURE MANUFACTURER AS REQUIRED. ROUTE CABLING THROUGH CASEWORK AND MAKE CONNECTIONS TO RJ45 JACKS, TYP.
7	POWER POLE TO FEATURE TABLE FIXTURE. SEE WIRING DETAILS ON SHEET E502. • CONDUIT SCHEDULE: FEATURE TABLE: (1) 3/4" DEDICATED POWER • ELECTRICAL CONTRACTOR TO PROVIDE: CONDUIT AND J-BOX ABOVE CEILING FOR POWER POLE. PROVIDE POWER FROM PANEL TO CEILING MOUNTED J-BOX. LEAVE FLEX CONNECTION ASSEMBLY COILED AND TAPED AS REQUIRED UNTIL FIXTURE INSTALLATION. AFTER FIXTURE INSTALLATION ELECTRICAL CONTRACTOR TO PROVIDE APPROVED FLEX CONNECTION ASSEMBLY TO POWER SOURCE ROUTED THROUGH POWER POLE TO PRE-INSTALLED J-BOX IN FIXTURE. INSTALL FIXTURE MANUFACTURER SUPPLIED POWER STRIP AND FINAL CONNECTION TO POWER SOURCE.

KEYED NOTES

##	NOTES
8	CEILING MOUNTED J-BOX(S) ABOVE FF310 FIXTURE. SEE WIRING DETAILS ON SHEET E502. • CONDUIT SCHEDULE: FF310: (1) 3/4" GENERAL POWER & (1) 3/4" DATA • ELECTRICAL CONTRACTOR TO PROVIDE: ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT AND POWER CIRCUIT FROM PANEL TO J-BOX ABOVE CEILING. PROVIDE APPROVED BX CABLE CONNECTION ASSEMBLY FROM CEILING J-BOX AND EXTEND CIRCUIT TO BLANK DUPLEX BOX INSIDE FIXTURE. BX CABLE SHOULD BE SUSPENDED IN CEILING PER CODE REQUIREMENTS. BLANK DUPLEX BOX CAN BE INSTALLED IN EITHER SIDE OF FIXTURE. ELECTRICAL CONTRACTOR TO PROVIDE DUPLEX RECEPTACLE AND MAKE ALL FINAL CONNECTIONS. ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT & PULL STRING FROM TELEPHONE BOARD TO FIXTURE FOR DATA CABLING AND RJ45 CONNECTION BY OWNER'S VENDOR. PROVIDE ADDITIONAL CEILING MOUNTED J-BOX FOR DATA IF REQUIRED BY LOCAL JURISDICTION. • OWNER'S VENDOR TO PROVIDE: CAT5E CABLING FOR DATA FROM TELCO CLOSET TO FIXTURE. PROVIDE PLASTIC GROMMETS TO FIT 3/4" KNOCK OUTS IN PRE-INSTALLED BLANK DUPLEX BOX BY FIXTURE MANUFACTURER AS REQ'D. PROVIDE RJ45 CONNECTORS AND TERMINATE CONNECTORS ON BOTH SIDES OF CAT5E CABLING. ROUTE CABLING THROUGH CASEWORK AND MAKE FINAL CONNECTION TO PC WITHIN FIXTURE.
9	REFER TO MONITOR MOUNTING DETAILS ON ARCHITECTURAL DRAWINGS.
10	ROUGH IN FOR ADT KEYPAD. MOUNT AT 48" A.F.F COORDINATE EXACT LOCATION WITH SECURITY COMPANY.
11	ELECTRICAL EQUIPMENT. SEE ONELINE DIAGRAM ON SHEET E301. T.G.C. TO PROVIDE ALL NEC CLEARANCES.
12	PROVIDE DATA BOX ABOVE CEILING FOR SHOPPER TRACKER. OWNER'S VENDOR WILL EXTEND CABLING BACK TO TELEPHONE BACK BOARD.

KEYED NOTES

##	NOTES
14	FIELD VERIFY POWER AND CONTROL WIRING REQUIREMENTS FOR FAN COIL - FAN COIL POWERED FROM HEAT PUMP.
15	WIRELESS DIGITAL THERMOSTAT FOR HEAT PUMP UNIT ON ROOF PROVIDED BY MECHANICAL CONTRACTOR, SHOWN FOR REFERENCE ONLY.
16	INSTALL OWNER SUPPLIED ENTOUCH.ONE MASTER CONTROLLER THERMOSTAT, ZONE TEMPERATURE SENSOR AND DUCT TEMPERATURE SENSOR. MOUNT THERMOSTAT AT 48" A.F.F.. PROVIDE AND PULL CAT5 CABLE FROM ET1 THERMOSTAT TO OPEN PORT ON CUSTOMER NETWORK SWITCH. MOUNT ZONE TEMPERATURE SENSOR AT 60" A.F.F. AND WIRE TO THE S2 & S2 RTN. MOUNT DUCT TEMPERATURE SENSOR IN THE MAIN SUPPLY DUCT.(FIELD VERIFY EXACT LOCATION OF RTU) WITHIN 6 FEET FROM UNIT AND WIRE TO S2 & S2 RTN. CABLE RUNS AND TERMINATIONS BY MC/GC (CABLE PULL).

WIRING SYMBOLS

X2	DUPLEX RJ45 JACK W/ 2 CAT5e WIRES	X1	OVERHEAD AP CABLING
X4	QUADPLEX RJ45 JACK W/ 4 CAT5e WIRES	X1	OVERHEAD SHOPPER TRACKER CABLING

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POWER FLOOR PLAN

SHEET NUMBER:

E101

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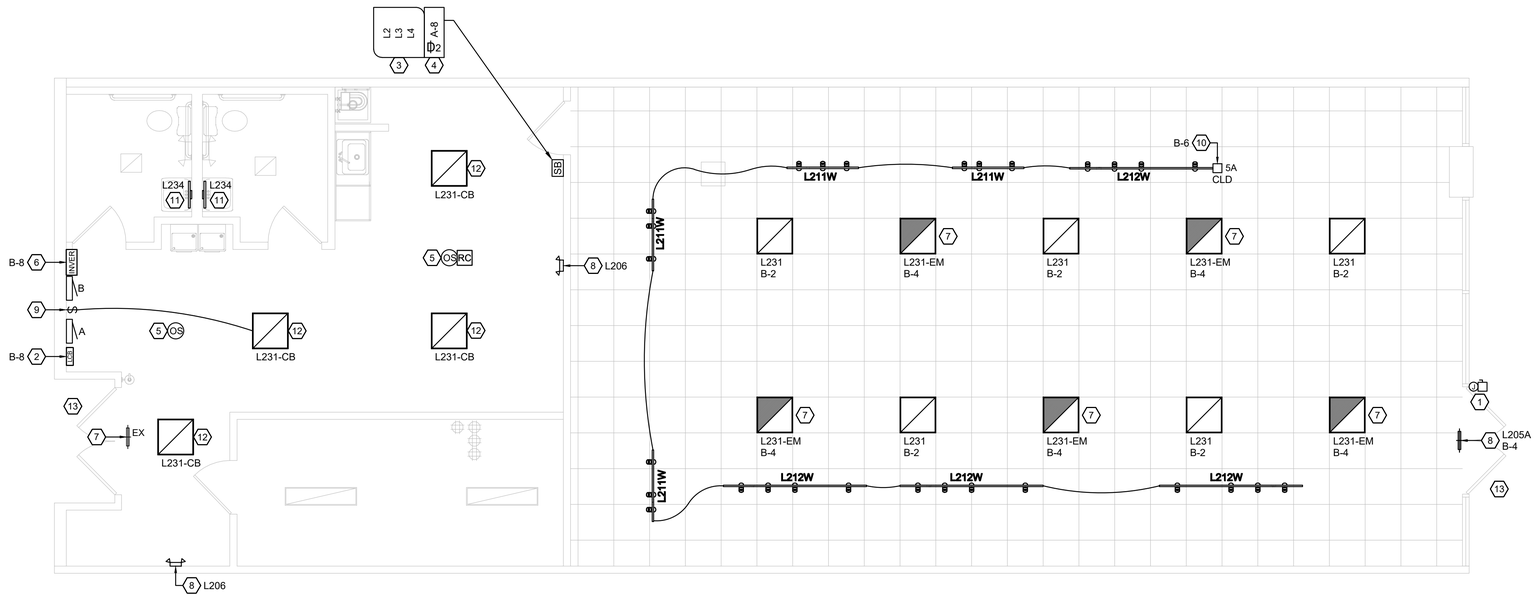
4/17/2024



B1 LIGHTING FLOOR PLAN

1/4" = 1'-0"

KEYED NOTES

##	NOTES
1	EXISTING SIGN AND SIGN CIRCUIT TO REMAIN. CONNECT EXISTING CIRCUIT TO ENTOUCH.ONE SIGN CONTACTOR.
2	ENTOUCH.ONE LIGHTING CONTROL BOX (LCB). INSTALL ADJACENT TO ELECTRICAL PANEL. PROVIDE RIB SPDT RELAYS AND CONTACTORS AS REQUIRED. SEE WIRING DETAIL ON SHEET E114.
3	ENTOUCH.ONE DIMMING & LOAD CONTROLLER (DLC) FOR AUTOMATIC AND MANUAL CONTROL OF SALES FLOOR LIGHTING. MOUNT AT 42" A.F.F. SEE CONTROLS DETAILS ON E114.
4	EXISTING EXIT SIGN TO REMIAN: MAINTAIN EXISTING CIRCUITING TO LOCAL CIRCUIT ON AN UNSWITCHED LEG AHEAD OF ANY LOCAL SWITCHING OR CONTROLS. EXIT SIGN IS PROVIDED WITH WITH A 90 MINUTE BATTERY BACK-UP AND SHOULD NOT BE WIRED THROUGH THE MINI-INVERTER.
5	CEILING MOUNTED OCCUPANCY SENSOR(S). LMRC-211 ROOM CONTROLLER LOCATED ABOVE CEILING. SET LOAD PARAMETER TO PRESET LEVEL DEFAULT SETTING 3: 50% PER SECTION C405.2.1.1. SEE WIRING DIAGRAM ON E112.
6	LED MINI-INVERTER FOR SALES EMERGENCY LIGHTING. REFER TO MANUFACTURER'S WIRING DIAGRAM(S) INCLUDED WITH EQUIPMENT.

KEYED NOTES

##	NOTES
7	SALES FLOOR LIGHT FIXTURES LABELED EM (EMERGENCY EGRESS) TO BE WIRED TO THE LED MINI INVERTER FOR 90 MIN EMERGENCY OPERATION. REFER TO MANUFACTURE WIRING DIAGRAM(S) INCLUDED WITH EQUIPMENT.
8	ALL EXIT SIGNS AND DUAL HEAD EMERGENCY LIGHTS ARE TO BE WIRED TO LOCAL CIRCUIT ON AN UNSWITCHED LEG AHEAD OF ANY LOCAL SWITCHING OR CONTROLS. EXIT SIGNS AND DUAL HEAD EMERGENCY LIGHTS ARE PROVIDED WITH WITH A 90 MINUTE BATTERY BACK-UP AND SHOULD NOT BE WIRED THROUGH THE MINI-INVERTER.
9	PROVIDE LINE VOLTAGE WALL SWITCH TO OVERRIDE LIGHTING CONTROLS AT LIGHT FIXTURE ADJACENT TO THE ELECTRICAL EQUIPMENT PER NEC 110.26(D).
10	CIRCUIT ALL TRACK THROUGH 5A (600W) CURRENT LIMITING DEVICE.
11	NEW RESTROOM WALL SCONCE/VANITY LIGHT: CONNECT TO CIRCUIT SERVING EXISTING RESTROOM LIGHT/EXHAUST FAN; CONTROL WITH EXISTING RESTROOM LIGHT/EXHAUST FAN.
12	NEW SUSPENDED LIGHT FIXTURE: CONNECT TO CIRCUIT PREVIOUSLY USED TO FEED BOH LIGHTING.
13	T.G.C. TO VERIFY EXIT DISCHARGE LIGHTING MEETS CODE. WHERE REQUIRED T.G.C. SHALL PROVIDED CODE COMPLIANT EXIT DISCHARGE LIGHTING IF NOT PRESENT.

GENERAL NOTES

1. ALL EQUIPMENT SHALL BE LISTED BY A RECOGNIZED TESTING LAB (i.e. U.L., ETC.)
2. LUMINAIRES IN CONTACT WITH INSULATION SHALL BE U.L. LISTED FOR THERMAL BARRIER OR PROVIDED WITH 3" MINIMUM CLEARANCE.
3. CONTRACTOR TO ENSURE THAT ALL LIGHTING EXPOSED TO THE PLENUM IS PLENUM RATED.
4. ALL RECESSED LUMINAIRES IN SALES AREA SHALL BE CENTERED IN/ON CEILING TILE. PROVIDE ADDITIONAL SUPPORT PER MFG. RECOMMENDATIONS FROM STRUCTURE ABOVE FOR ALL LUMINAIRES ATTACHED TO HUNG CEILINGS.
5. SEE REFLECTED CEILING PLAN FOR ACTUAL LUMINAIRE LOCATIONS AND DIMENSIONS.
6. ALL EXIT SIGNS AND DUAL HEAD EMERGENCY LIGHTS TO HAVE 90 MIN. BATTERY BACKUP.

WHEN REQUIRED, IT IS THE OWNER'S RESPONSIBILITY TO CONTRACT WITH A COMMISSIONING AUTHORITY TO COMPLY WITH LOCAL CODES.

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##	DESCRIPTION	DATE

DATE: 04.02.2024
SCALE: AS NOTED
DRAWN BY: CNM

SAP NUMBER:

193

CORPORATE TENANT REMODEL

RMC

SHEET TITLE:

LIGHTING FLOOR PLAN

SHEET NUMBER:

E111

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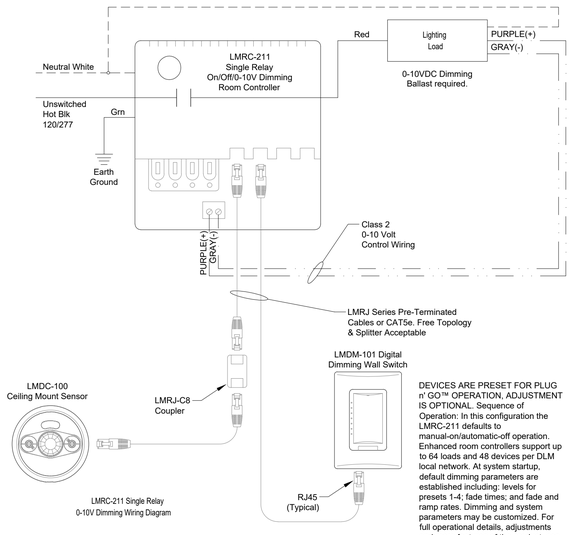


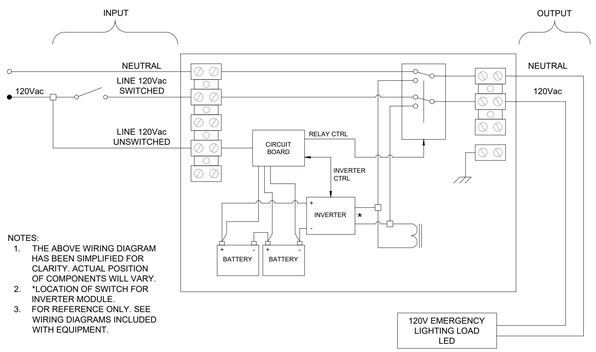
DEVICES ARE PRESET FOR PLUG n' GO™ OPERATION, ADJUSTMENT IS OPTIONAL. Sequence of Operation: In this configuration the LMRC-211 defaults to manual-on/automatic-off operation. Enhanced room controllers support up to 64 loads and 48 devices per DLM local network. At system startup, default dimming parameters are established including: levels for presets 1-4; fade times; and fade and ramp rates. Dimming and system parameters may be customized. For full operational details, adjustments and more features of the product, see the DLM System Installation Guide at www.wattstopper.com

B4 LMRC-211 ROOM CONTROLLER, 0-10V DIMMING (BOH)

NTS

LIGHTING CONTROL SCHEDULE

CALLOUT	SYMBOL	DESCRIPTION	MODEL	NOTES
DLC		ENTOUCH DIMMING & LOAD CONTROLLER	DLC	
D2 BOH	D2	LEGRAND WATTSTOPPER WALL MOUNTED DIMMING WALL SWITCH	LMDM-101-W	0-10V DIMMING Cat 5e CABLES W/ RJ45 CONNECTRS
OS	OS	LEGRAND WATTSTOPPER CEILING MNTD OCCUPANCY SENSOR	LMDC-100	Cat 5e CABLES W/ RJ45 CONNECTRS
RC	RC	LEGRAND WATTSTOPPER ON/OFF/0-10V DIMMING ROOM CONTROLLER	LMRC-211	0-10V DIMMING 120V
D3 INVENTORY	D3	LUTRON MAESTRO DIMMER SENSOR	MS-Z101-WH	0-10V DIMMING 8A
OS	OS	SENSOR SWITCH WALL MNTD OCCUPANCY SENSOR	WSD-PDT-WH	800W



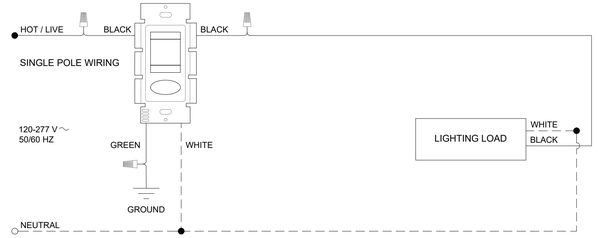
NOTES:
1. THE ABOVE WIRING DIAGRAM HAS BEEN SIMPLIFIED FOR CLARITY. ACTUAL POSITION OF COMPONENTS WILL VARY.
2. *LOCATION OF SWITCH FOR INVERTER MODULE.
3. FOR REFERENCE ONLY. SEE WIRING DIAGRAMS INCLUDED WITH EQUIPMENT.

A4 SALES - MINI INVERTER WIRING DIAGRAM

NTS

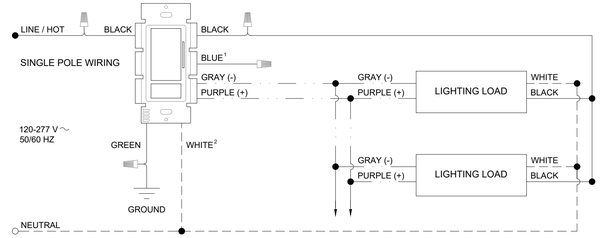
LED EMERGENCY LIGHTING MINI INVERTER SCHEDULE - SALES

DESCRIPTION	MODEL	NOTES
250W INVERTER	EMERGI-LITE EMU-250	90 MIN. BATTERY BACKUP



C3 OS - SENSOR SWITCH WSD-PDT WIRING DIAGRAM

NTS



1. WHEN USING CONTROLS IN SINGLE LOCATION INSTALLATIONS, CAP THE BLUE WIRE. DO NOT CONNECT THE BLUE WIRE TO ANY OTHER WIRING OR TO GROUND.
2. GREEN/YELLOW WIRE COVERED BY WHITE SLEEVE CONNECTS TO NEUTRAL.

C2 D3 - LUTRON MS-Z101 WIRING DIAGRAM (BOH)

NTS

LED LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	DESCRIPTION	MODEL	LAMP	WATTS	BALLAST	VOLTS	MOUNTING	NOTES
CL	5A	CONTECH SINGLE CIRCUIT THIN END FEED CURRENT LIMITING DEVICE.	LA-23T-R-B-REG6-W		600W		120V 1P	TRACK	SIZES AVAILABLE: REG4 - 360W, 3A | REG5 - 480W, 4A REG6 - 600W, 5A | REG7 - 720W, 6A | REG8 - 840W, 7A
L207		SINGLE HEAD ADJUSTABLE GIMBAL RING 358H X 45'V, 40' LEDPAR30, FLUSH MOUNT FIXTURE	HOUSING M/N:NMRI-11N1020 TRIM M/N: NMRT-1F1652WW C-CHANNEL M/N: NRA-38	SATCO: 11PAR30-SN-LED-40-4000K-120V-D	13W	ELECTRONIC	120V 1P	RECESSED	COMPLETE ASSEMBLY INCLUDES: HOUSING, TRIM, AND (2) C-CHANNEL BAR HANGERS
L211W		LUMENTURE TRACK ACCENT WITH WHITE FINISH, 90 CRI, 3000K, ROUND APERTURE, 22 DEGREES, 14W, 1100 LUMENS	T50M-30H-1100-22-W-J	LED	14W	ELECTRONIC	120V 1P	TRACK	LT4-W - CONTECH SURFACE MOUNT TRACK 4'
L212W		LUMENTURE TRACK ACCENT WITH WHITE FINISH, 90 CRI, 3000K, ROUND APERTURE, 22 DEGREES, 14W, 1100 LUMENS	T50M-30H-1100-22-W-J	LED	14W	ELECTRONIC	120V 1P	TRACK	LT8-W - CONTECH SURFACE MOUNT TRACK 8'
L231		SOLAIS RECESSED 2X2 FLAT PANEL GENERAL LIGHT WITH 3000K, 4400 LUMENS, 80 CRI, WHITE FINISH	FP22-30K-100%-WH	LED	35W	ELECTRONIC	120V 1P	RECESSED	0-10V DIMMING
L231 CB		SOLAIS RECESSED 2X2 FLAT PANEL GENERAL LIGHT WITH 3000K, 4400 LUMENS, 80 CRI, WHITE FINISH PROVIDE FIXTURE WITH CABLE MOUNT KIT	FP22-30K-100%-WH-CB	LED	35W	ELECTRONIC	120V 1P	SUSPENDED	0-10V DIMMING SUSPENDED MOUNT AT 10'-0" A.F.F.
L231 EM		SOLAIS RECESSED 2X2 FLAT PANEL GENERAL LIGHT WITH 3000K, 4400 LUMENS, 80 CRI, WHITE FINISH EMERGENCY POWER PROVIDED BY MINI INVERTER	FP22-30K-100%-WH	LED	35W	ELECTRONIC	120V 1P	RECESSED	0-10V DIMMING
L233		BROAN LED FAN/LIGHT	QTXE110150DCL	LED	8.3W	ELECTRONIC	120V 1P	RECESSED	PROVIDE WALL MOUNTED OCCUPANCY SENSOR
L234		AFX SURFACE MOUNT WALL FIXTURE WITH 3000K, 22W, 1125 LUMENS, BLACK FINISH, 24" LONG	BARV2403L30D2BK	LED	22W	ELECTRONIC	120V 1P	SURFACE	VERIFY LENGTH NEEDED OVER MIRROR
L235		COLUMBIA 4' LED LENSED STRIP 3K 3800 LUMEN	MPS-4-30-MW-C-W-ED-U	LED	30.4W	ELECTRONIC	120V 1P	SURFACE	0-10V DIMMING
L205A SALES		CONTECH MULTI FACE RED LTR SILVER HOUSING RECESSED AND SURFACE MOUNT EXIT W/ BATTERY	REXA-MF-R-EM-S	LED	3W	ELECTRONIC	120V 1P	SURFACE	90 MIN. EMERGENCY BATTERY BACKUP
L205B BOH		DUAL LITE WHITE THERMOPLASTIC EXIT, UNIVERSAL FACE, RED OR GREEN LED EMERGENCY EXIT, NICAD BATTERY	CERG	LED	3.4W	ELECTRONIC	120V 1P	RECESSED	90 MIN. EMERGENCY BATTERY BACKUP
L206		DUAL LITE LED EMERGENCY REMOTE, 2 LAMP HEADS, 88 LMS PER LED, WALL, CEILING MOUNT, 120V, 277V, WHITE HOUSING, DAMP LOCATION	EV2D	LED (2)1W	2W	ELECTRONIC	120V 1P	SURFACE	90 MIN. EMERGENCY BATTERY BACKUP
CONTRACTOR TO ENSURE THAT ALL LIGHTING EXPOSED TO THE PLENUM IS PLENUM RATED.				COMPLETE LIGHTING PACKAGE IS OWNER FURNISHED, GC INSTALLED. CONTACT TBD FOR COMPLETE LIGHTING PACKAGE INCLUDING ALL LIGHT FIXTURES, AND TVSS. REFER TO TBD INSTALLATION INSTRUCTIONS.					

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CORPORATE TENANT REMODEL

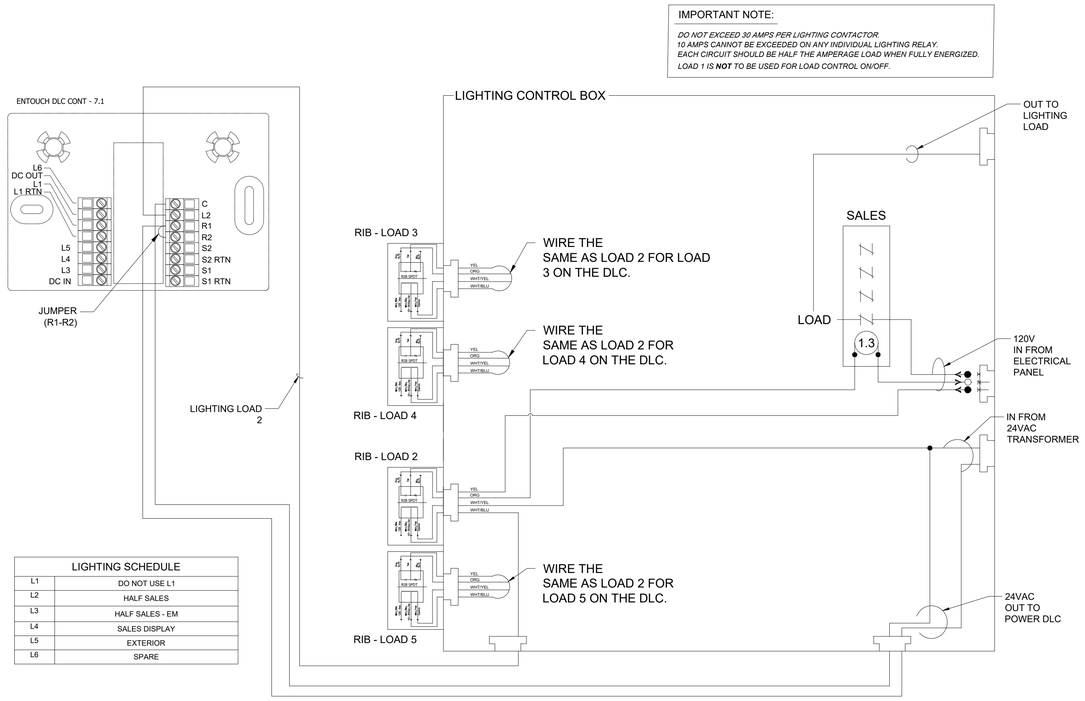
RMC

SHEET TITLE:

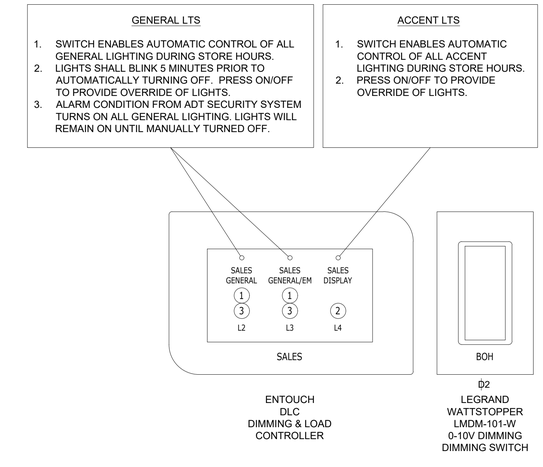
LUMINAIRE SCHEDULES

SHEET NUMBER:

E112



A3 LIGHTING CONTROL SCHEMATIC
NTS



A2 SWITCHBANK DETAIL
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193
CORPORATE TENANT REMODEL
RMC

SHEET TITLE:
ENTOUCH LIGHTING CONTROLS

SHEET NUMBER:
E114

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ENTOUCH COMMISSIONING RESPONSIBILITIES

ITEMS BELOW THAT ARE NOT COMPLETED PRIOR TO ENTOUCH ARRIVAL WILL CAUSE A DELAY IN THE INSTALLATION OF THE EMS.

	DEVICE	QUANTITY	DEVICE LOCATION	PROVIDED BY	MOUNTING	BOX/RACEWAYS	DEVICE CABLE TYPE	INSTALL CABLE/WIRE TERMINATE BOTH ENDS	CHECKMARK TO VERIFY COMPLETION
HVAC INSTALLATION	ET1 STAT	SEE E117	SEE MECHANICAL DRAWINGS	ENTOUCH	MECHANICAL CONTRACTOR	ELECTRICAL CONTRACTOR	18 /10	MECHANICAL CONTRACTOR	☐
	SUPPLY AIR (DUCT SENSOR)	SEE E117	BOTTOM OF SUPPLY AIR DUCT	ENTOUCH	MECHANICAL CONTRACTOR	ELECTRICAL CONTRACTOR	18 /2	MECHANICAL CONTRACTOR	☐
	ZONE TEMP (10K TYPE 2)	SEE E117	SEE MECHANICAL DRAWINGS	ENTOUCH	MECHANICAL CONTRACTOR	ELECTRICAL CONTRACTOR	18 /2	MECHANICAL CONTRACTOR	☐
	BULLET SENSOR	SEE E117	SEE MECHANICAL DRAWINGS	ENTOUCH	MECHANICAL CONTRACTOR	ELECTRICAL CONTRACTOR	18 /2	MECHANICAL CONTRACTOR	☐
	Y3 - BASEBOARD HEAT/DEHUMIDIFICATION	SEE E117	SEE MECHANICAL DRAWINGS	ENTOUCH	MECHANICAL CONTRACTOR	ELECTRICAL CONTRACTOR	18 /2	MECHANICAL CONTRACTOR	☐
	DC IN/OUT	SEE E117	SEE MECHANICAL DRAWINGS	ENTOUCH	MECHANICAL CONTRACTOR	ELECTRICAL CONTRACTOR	18 /2	MECHANICAL CONTRACTOR	☐
	CAT5 RUN	SEE E117	SEE MECHANICAL DRAWINGS	RT VENDOR	RT VENDOR	RT VENDOR	CAT5/CAT6	RT VENDOR (T-MOBILE IT TEAM)	☐
LIGHTING INSTALLATION	LIGHTING CONTROL MODULE (LCM)		SEE ELECTRICAL DRAWINGS	ENTOUCH	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	N/A	ELECTRICAL CONTRACTOR	☐
	DIMMING LIGHTING CONTROLLER (DLC)		SEE ELECTRICAL DRAWINGS	ENTOUCH	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	N/A	ELECTRICAL CONTRACTOR	☐
	REMOTE DIMMING MODULE (RDM)		SEE ELECTRICAL DRAWINGS	ENTOUCH	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	N/A	ELECTRICAL CONTRACTOR	☐
	CONTACTOR BOX		SEE ELECTRICAL DRAWINGS	ENTOUCH	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	N/A	ELECTRICAL CONTRACTOR	☐
	24VDC TRANSFORMER		SEE ELECTRICAL DRAWINGS	ENTOUCH	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	18 /2	ELECTRICAL CONTRACTOR	☐
	24VDC TRANSFORMER		SEE ELECTRICAL DRAWINGS	ENTOUCH	ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	18 /2	ELECTRICAL CONTRACTOR	☐

INSTALLATION SUMMARY

1. EQUIPMENT DELIVERY
1.1. ENTOUCH SHALL PROVIDE THE EMS EQUIPMENT IN 1 SHIPMENT TO THE GC.
1.2. IT SHALL BE UP TO THE T-MOBILE PM TEAM TO SCHEDULE THE EMS EQUIPMENT DELIVERY.
1.3. T-MOBILE PM WILL NOTIFY ENTOUCH OF EMS EQUIPMENT DELIVERY. THE EQUIPMENT WILL BE SHIPPED WITHIN 2 DAYS OF NOTIFICATION.
1.4. A VALID REQUEST SHALL CONSIST OF THE FOLLOWING:
1.4.1. NAME AND PHONE NUMBER OF PERSON RESPONSIBLE FOR RECEIVING THE EMS EQUIPMENT AND STORE NUMBER.
1.4.2. A VALID SHIPPING ADDRESS (CONFIRMABLE BY THE DELIVERY AGENT).
2. INSTALLATION
2.1. IT SHALL BE UP TO THE T-MOBILE PM TEAM TO SCHEDULE INSTALLATION OF LOW VOLTAGE PORTION OF EMS WITH THE MC.
2.2. THE FOLLOWING ITEMS MUST BE COMPLETE PRIOR TO ENTOUCH ARRIVAL TO COMMISSION THE EMS; HVAC LOW VOLTAGE WIRING BY MC AND CAT5 CABLE BY RT VENDOR.
2.2.1. RTU'S POWERED UP AND RAN THROUGH START UP BY THE M.C.
2.2.2. ALL BOXES AND CONDUIT FOR EMS DEVICES IN PLACE AND COMPLETED BY THE E.C.
2.2.3. ALL ELECTRICAL PLUGS INSTALLED.
3. NON-STANDARD MECHANICAL DESIGNS
3.1. THIS DESIGN APPLIES TO USE OF STANDARD PACKAGE ROOFTOP UNITS.
3.2. ADDITIONAL DESIGN DOCUMENTS AND MATERIAL WILL BE REQUIRED FOR CONTROLLING OTHER MECHANICAL EQUIPMENT SUCH AS BOILERS, CHILLERS, VAV AIR HANDLERS AND TERMINAL BOXES.
4. COMMISSIONING
4.1. ENTOUCH IS TO USE THE RECON REPORT TO TRACK WHEN THEY SHOULD ARRIVE ONSITE FOR COMMISSIONING. FOR NEW STORES ENTOUCH IS TO ARRIVE THE WEEK OF TURNOVER, FOR REBUILDS/REMODELS ENTOUCH IS TO ARRIVE AFTER TURNOVER BUT PRIOR TO OPEN.

CONTACT INFORMATION :
PLEASE DIRECT SHIPPING REQUESTS TO SALES@ENTOUCHCONTROLS.COM

SEQUENCE OF OPERATIONS FOR LIGHTING

ZONE 1 - HALF SALES LIGHTS TIMECLOCK
LIGHTS ON (9AM - 9PM ADJUSTABLE): TIMECLOCK NORMALLY CLOSED CONTACT OPENS AND DE-ENERGIZES SCENE 1 CONTACTOR (S). CONTACTOR(S) NORMALLY CLOSED CONTACTS CLOSE AND ENERGIZE THE LIGHTS.

ZONE 2 - HALF SALES - EM LIGHTS TIMECLOCK
LIGHTS ON (9AM - 9PM ADJUSTABLE): TIMECLOCK NORMALLY CLOSED CONTACT OPENS AND DE-ENERGIZES SCENE 2 CONTACTOR(S). CONTACTOR(S) NORMALLY CLOSED CONTACTS CLOSE AND ENERGIZE LIGHTS.

ZONE 3 - SALES DISPLAY LIGHTS TIMECLOCK
LIGHTS ON (9AM - 9PM ADJUSTABLE): TIMECLOCK NORMALLY CLOSED CONTACT OPENS AND DE-ENERGIZES SCENE 3 CONTACTORS(S). CONTACTOR(S) NORMALLY CLOSED CONTACTS CLOSE AND ENERGIZE LIGHTS.

ZONE 4 - EXTERIOR SIGNS TIMECLOCK
LIGHTS ON (30 MIN PRIOT TO SUNSET - 30 MIN AFTER SUNRISE ADJUSTABLE): TIMECLOCK NORMALLY CLOSED

OVERRIDE BUTTON FOR ZONE 1-4
OVERRIDE BUTTON ENABLED: OVERRIDE BUTTON TOGGLES CURRENT STATE FOR EACH SCENE. EACH BUTTON ONLY TOGGLES ASSOCIATED SCENE

SEQUENCE OF OPERATIONS FOR HVAC OPERATION

CALL FOR COOL WHEN OCCUPIED AND UNOCCUPIED
THERMOSTAT ENGAGES Y1 (STAGE1 COMPRESSOR) AND G (FAN) WHEN THE TEMPERATURE IS 1 DEGREE ABOVE THE SET POINT. THE FIRST STAGE OF COOLING WILL REMAIN ENGAGED UNTIL THE TEMPERATURE IS 0.5 DEG BELOW THE COOL SET POINT. THE SECOND STAGE OF COOLING (Y2) WILL ENGAGE WHEN THE SPACE TEMPERATURE IS 2 DEG ABOVE THE COOLING SET POINT AND WILL DIS-ENGAGE ONCE THE SPACE TEMPERATURE IS WITHIN 1 DEG OF THE COOLING SET POINT.

CALL FOR HEAT WHEN OCCUPIED AND UNOCCUPIED
THERMOSTAT ENGAGES W1 (STAGE1 HEATING) AND G (FAN) WHEN THE TEMPERATURE IS 1 DEGREE BELOW THE SET POINT. THE FIRST STAGE OF HEATING WILL REMAIN ENGAGED UNTIL THE TEMPERATURE IS 0.5 DEG ABOVE THE HEAT SET POINT. THE SECOND STAGE OF HEATING WILL ENGAGE WHEN THE SPACE TEMPERATURE IS 2 DEG BELOW THE HEATING SET POINT AND WILL DIS-ENGAGE ONCE THE SPACE TEMPERATURE IS WITHIN 1 DEG OF THE HEATING SET POINT.

NO CALLS FOR HEAT OR COOL
WHEN NO CALL FROM THE THERMOSTAT THE HVAC SYSTEM WILL REMAIN IDLE. THE FAN FOR THE HVAC UNIT WILL REMAIN OFF.

GENERAL E.M.S. CONSTRUCTION NOTES

M.C. SHALL PROVIDE THE INSTALLATION LABOR AND MATERIALS TO INSTALL THE LOW VOLTAGE PORTION OF THE CUSTOMER SUPPLIED EMS SYSTEM ACCORDING TO THE EMS SCHEDULES AND THE FOLLOWING:
1. INSTALL EMS DEVICES AT LOCATIONS SHOW ON THE MECHANICAL DRAWINGS AND MOUNT ACCORDING TO THE EMS DETAILS.
2. PROVIDE AND INSTALL THE HVAC LOW VOLTAGE CABLING FROM THE EMS DEVICES TO THE RTU'S
3. TERMINATE THE HVAC LOW VOLTAGE CABLING AT BOTH ENDS.
4. CLEARLY IDENTIFY (LABEL) THE HVAC LOW VOLTAGE CABLES AT BOTH ENDS.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE INSTALLATION LABOR AND MATERS TO INSTALL THE LINE VOLTAGE PORTION OF THE CUSTOMER SUPPLIES EMS SYSTEM ACCORDING TO THE EMS SCHEDULES AND THE FOLLOWING:
5. PROVIDE AND INSTALL (1) EACH 120V, 20A CIRCUIT TO POWER THE LCM PANEL, LABEL LCM BREAKER EMS-2.
6. PROVIDE AND INSTALL (1) DUBLEX 15A ELECTRICAL PLUG ACCORDING TO THE EMS DRAWING FOR MODEM.

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ENTOUCH COMMISSIONING RESPONSIBILITIES

SHEET NUMBER:
E116

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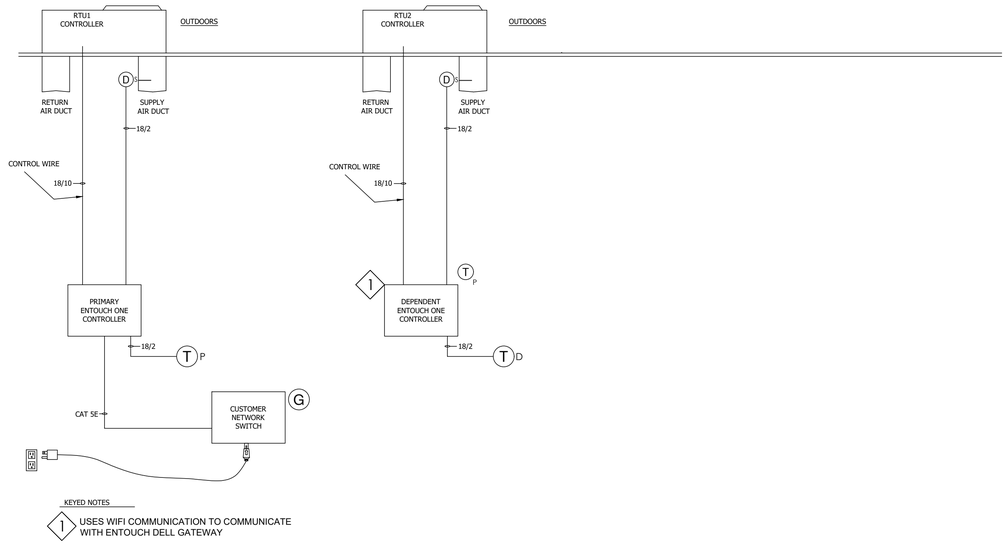
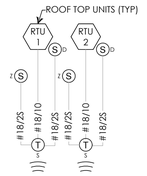
4/17/2024

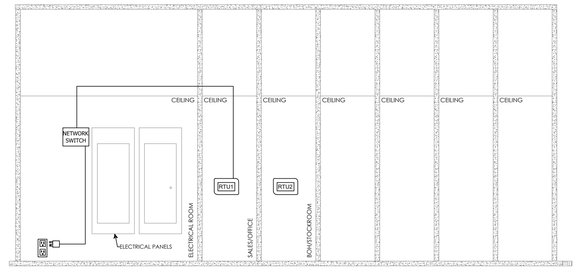
EMS SINGLE LINE DIAGRAM





LEGEND

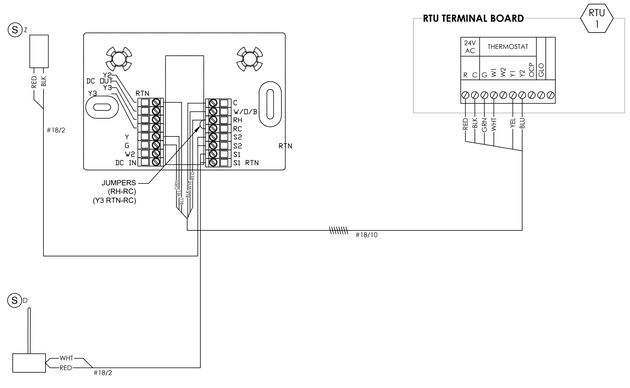
SYMBOL	DESCRIPTION	NOTES
T D	ENTOUCH ONE DEPENDENT THERMOSTAT : UNIT THERMOSTAT CONTROLLER	
T P	ENTOUCH ONE PRIMARY THERMOSTAT: THERMOSTAT CONTROLLER CONFIGURED AS NETWORK AND SYSTEM CONTROLLER	
S D	SUPPLY DUCT TEMPERATURE SENSOR	
S Z	ZONE TEMPERATURE SENSOR	
G	ENTOUCH CRADLEPOINT: CELLULAR GATEWAY TO BE CONNECTED TO MASTER CONTROLLER WITH CAT5	



B4 EMS DIAGRAM
NTS

B3 MECHANICAL CONTROLS SYSTEM ARCHITECTURE
NTS

B2 LEGEND/RISER DIAGRAM
NTS



A4 RTU WIRING DIAGRAM
NTS

T-Mobile

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STATE OF ILLINOIS

4/17/2024

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TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: 04.02.2024
SCALE: AS NOTED
DRAWN BY: CNM

SAP NUMBER:
193
CORPORATE TENANT REMODEL
RMC

SHEET TITLE:
ENTOUCH EMS WIRING DIAGRAMS

SHEET NUMBER:
E117

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EMS SCOPE AND RESPONSIBILITIES

EMS INSTALLER RESPONSIBILITIES

1. THE FOLLOWING ARE RESPONSIBILITIES OF THE G.C. AND EMS INSTALLER DURING THE INSTALLATION PHASE.

a. G.C. WILL INSTALL ENTOUCH THERMOSTATS AS PART OF STANDARD SCOPE OF WORK.

b. G.C. WILL PULL 18 GAUGE 10-CONDUCTOR STANDARD THERMOSTAT WIRE FROM HVAC UNIT TO WALL WHERE EACH ENTOUCH ONE THERMOSTAT WILL BE MOUNTED. PULL 2-CONDUCTOR 18 GAUGE WISTED/SHIELDED WIRE FROM HVAC SUPPLY AIR DUCT LOCATION TO WHERE ENTOUCH ONE THERMOSTAT WILL BE MOUNTED TO WALL.

c. G.C. WILL PULL 2-CONDUCTOR 18 GAUGE TWISTED/SHIELDED WIRE FROM SPACE WHERE REMOTE SENSOR IS LOCATED (IF APPLICABLE) TO WALL WHERE ENTOUCH ONE THERMOSTAT WILL BE MOUNTED.

d. IF HVAC EQUIPMENT IS HEAT PUMP OR CONVENTIONAL, G.C. WILL PROGRAM THE OUTPUTS THROUGH THE TOUCH SCREEN WITH THE INSTALL WIZARD ON ENTOUCH THERMOSTATS.

e. EMS INSTALLER WILL INSTALL ENERGY MONITORING EQUIPMENT.

f. EMS INSTALLER SHALL MOUNT EITHER ENTOUCH IBR DURING INSTALLATION TO CONFIRM CONNECTION TO ENTOUCH SERVERS.

g. EMS INSTALLER SHALL INSURE THAT SITE IS ON-LINE THROUGH THE CRADLEPOINT CELLULAR ROUTER AND PERFORM ALL FINAL COMMISSIONING VIA THE INSTALLATION APP. INCLUDING SCHEDULING AND PROGRAMMING FUNCTIONS. INSTALLER MUST CONTACT COMMISSIONING LINE (PH: 469-291-9772) TO PERFORM COMMISSIONING DUTIES.

h. EMS INSTALLER SHALL TEST, CALIBRATE, AND COMMISSION ALL HVAC SEQUENCES FOR OPERATION (SITE ENVIRONMENT PERMITTING).

SEQUENCE OF OPERATIONS FOR HVAC OPERATION

CALL FOR COOL WHEN OCCUPIED AND UNOCCUPIED

THERMOSTAT ENGAGES Y1 (STAGE1 COMPRESSOR) AND G (FAN) WHEN THE TEMPERATURE IS 1 DEGREE ABOVE THE SET POINT. THE FIRST STAGE OF COOLING WILL REMAIN ENGAGED UNTIL THE TEMPERATURE IS 0.5 DEG BELOW THE COOL SET POINT. THE SECOND STAGE OF COOLING (Y2) WILL ENGAGE WHEN THE SPACE TEMPERATURE IS 2 DEG ABOVE THE COOLING SET POINT AND WILL DIS-ENGAGE ONCE THE SPACE TEMPERATURE IS WITHIN 1 DEG OF THE COOLING SET POINT.

CALL FOR HEAT WHEN OCCUPIED AND UNOCCUPIED

THERMOSTAT ENGAGES W1 (STAGE1 HEATING) AND G (FAN) WHEN THE TEMPERATURE IS 1 DEGREE BELOW THE SET POINT. THE FIRST STAGE OF HEATING WILL REMAIN ENGAGED UNTIL THE TEMPERATURE IS 0.5 DEG ABOVE THE HEAT SET POINT. THE SECOND STAGE OF HEATING WILL ENGAGE WHEN THE SPACE TEMPERATURE IS 2 DEG BELOW THE HEATING SET POINT AND WILL DIS-ENGAGE ONCE THE SPACE TEMPERATURE IS WITHIN 1 DEG OF THE HEATING SET POINT.

NO CALLS FOR HEAT OR COOL

WHEN NO CALL FROM THE THERMOSTAT THE HVAC SYSTEM WILL REMAIN IDLE. THE FAN FOR THE HVAC UNIT WILL REMAIN OFF.

ENTOUCH CONTACT

FOR ACCOUNT QUESTIONS CONTACT:

EMAIL: Account_Manager@entouchcontrols.com

ENERGY MANAGEMENT SYSTEM NOTES

1. HVAC SYSTEMS SHALL BE CONTROLLED AND MONITORED BY A LOCAL ENERGY MANAGEMENT SYSTEM UTILIZING ENTOUCH COMMUNICATING THERMOSTATS, CONTROLLERS, AND COMPONENTS AS DESCRIBED BELOW. THE SYSTEM SHALL INCLUDE COMMUNICATIONS INTERFACE. WHICH WILL CONNECT THE LOCAL BUILDING AUTOMATION SYSTEM TO THE ENTOUCH ENTERPRISE PORTAL.

2 IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WORK OF THIS PROJECT WITH WORK TO BE PROVIDED BY EMS INSTALLER IN ORDER TO PROVIDE A COMPLETE AND OPERABLE ENERGY MANAGEMENT SYSTEM. THE NOTES AND THE BAS SYSTEM SCHEMATIC ON THIS SHEET ARE INTENDED TO CLARIFY THE CONTRACTOR'S RESPONSIBILITIES.

3. CERTAIN WORK IS TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR DURING THE CONSTRUCTION PHASE. SEE ELECTRICAL PLAN.

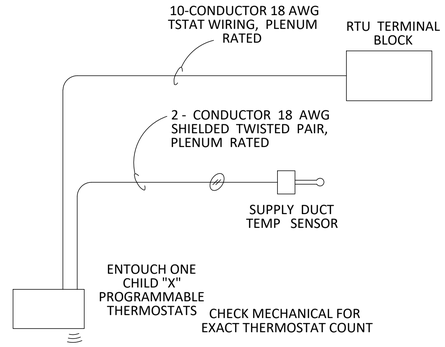
4. THE FOLLOWING MATERIALS WILL BE PROVIDED BY SUBCONTRACTOR:

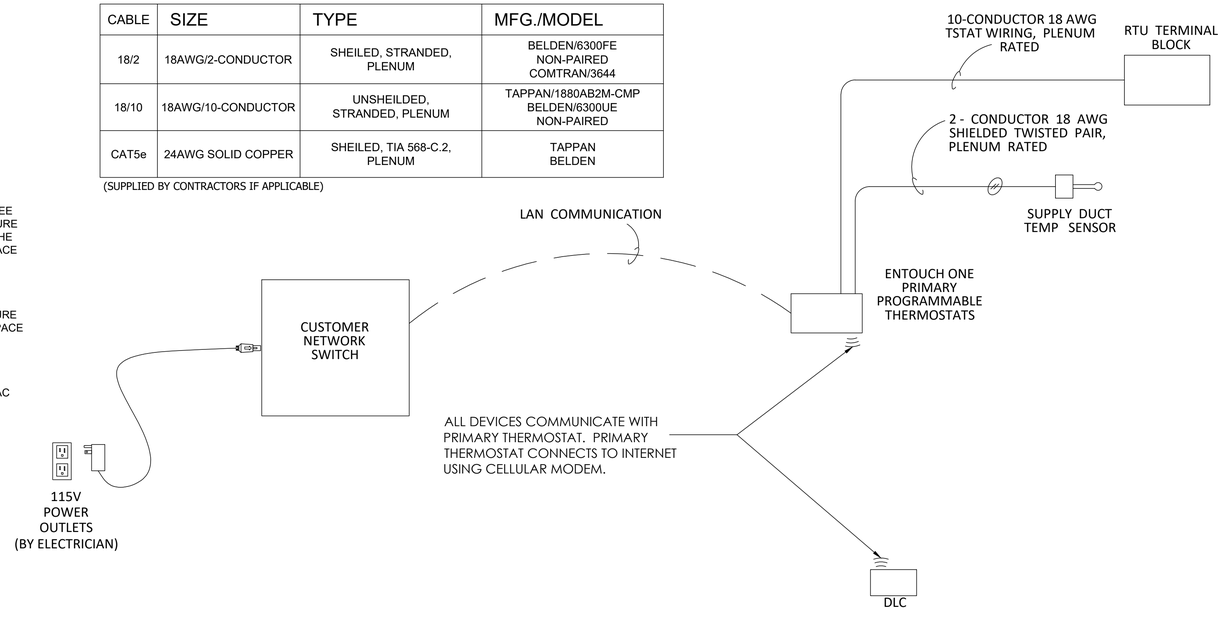
- ENTOUCH ONE MULTI-STAGE PROGRAMMABLE THERMOSTATS WITH WIRELESS COMMUNICATIONS
- DUCT TEMPERATURE SENSORS FOR RTU SUPPLY AIR TEMPERATURE
- REMOTE ROOM TEMPERATURE SENSORS IF APPLICABLE (SEE M PLAN)

CABLE SCHEDULE

CABLE	SIZE	TYPE	MFG./MODEL
18/2	18AWG/2-CONDUCTOR	SHEILED, STRANDED, PLENUM	BELDEN/6300FE NON-PAIRED COMTRAN/3644
18/10	18AWG/10-CONDUCTOR	UNSHEILDED, STRANDED, PLENUM	TAPPAN/1880AB2M-CMP BELDEN/6300UE NON-PAIRED
CAT5e	24AWG SOLID COPPER	SHEILED, TIA 568-C.2, PLENUM	TAPPAN BELDEN

(SUPPLIED BY CONTRACTORS IF APPLICABLE)





A3 EMS SCHEMATIC
NTS

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NILES, IL 60714

##	DESCRIPTION	DATE

DATE: 04.02.2024
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SAP NUMBER: 193

CORPORATE TENANT REMODEL

RMC

SHEET TITLE:

EMS SCOPE AND RESPONSIBILITIES

SHEET NUMBER:

E118

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4/17/2024

A (EXIST)

ROOM BOH | VOLTS 208Y/120V 3P 4W | AIC EXISTING
MOUNTING SURFACE | BUS AMPS 200 | MAIN BKR 200
FED FROM UTILITY | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	EX. MICROWAVE	0			2	20/3	[LD] TVSS	0		
3	20/1	EX. COUNTERTOP RECEPT		0.18		4	|			0	
5	20/1	EX. REFRIGERATOR			0.5	6	|				0
7	20/1	EX. RTU SERVICE RECEPT	0.36			8	20/1	[LD] BOH LIGHTING	0.214		
9	20/1	EX. MANAGER'S DESK		0.36		10	20/1	[LCP] EX. EXTERIOR SIGN		1.2	
11	20/1	EX. TRAINING CART			0.36	12	20/1	FF310 REC			0.36
13	20/1	EX. ELECTRIC WATER COOLER	0.5			14	20/1	[LD] SYSTEM WALL REC	1.26		
15	20/1	ET405, FW412 REC		0.36		16	20/1	SPARE		0	
17	20/1	CONVENIENCE RECEPT			0.72	18	20/1	SPARE			0
19	20/1	RIGHT WALL RECEPTACLES	1.44			20	20/1	EX. MANAGER'S DESK	0.36		
21	20/1	BK/LEFT WALL RECEPTACLES		1.44		22	30/3	EX. RTU-1		2	
23	20/1	LEFT WALL RECEPTACLES			1.44	24	|				2
25	20/1	[DG] FF209 REC, FF405	0.54			26	|		2		
27	20/1	[DG] FF404+FF405		1.08		28	20/1	[LD] SHOW WINDOW REC		0.36	
29	20/1	[LD] HP SERVICE REC			0.18	30	60/2	EX. PANEL B			1.52
31	20/2	[HR] FC-1, HP-1	1.35			32	|		1.26		
33	|			1.35		34	50/3	EX. RTU-2		4	
35	20/1	EX. WH-1			1.65	36	|				4
37	20/1	EX. HAND DRYER	1.5			38	|		4		
39	20/1	EX. HAND DRYER		1.5		40	20/1	EX. BOH LCP		0.2	
41	20/1	SPARE			0	42	20/1	EX. EF-3			0.2
								TOTAL CONNECTED KVA BY PHASE	14.8	14	12.9

	CONN KVA	CALC KVA	
LIGHTING	2.75	3.44	(125%)
LARGEST MOTOR	12	3	(25%)
OTHER MOTORS	0.2	0.2	(100%)
RECEPTACLES	13.2	11.6	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	1.85	2.31	(125%)
HEATING	20.7	20.7	(100%)
COOLING	20.7	0	(0%)
NONCONTINUOUS	3	3	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	41.7	44.3	
BALANCED 3-PHASE AMPS		123	

REMARKS:
[LCP] LIGHTING CONTROL PANEL
[DG] DEDICATED GROUND
[HR] HACR RATED
[LD] PROVIDE LOCK-ON DEVICE
[LO] PROVIDE LOCK-OFF DEVICE
EX./(EXIST) EXISTING TO REMAIN

B (EXIST)

ROOM BOH | VOLTS 208/120V 2P 3W | AIC EXISTING
MOUNTING SURFACE | BUS AMPS 200 | MAIN BKR MLO
FED FROM A | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B
1	20/1	[LD] TBB REC	0.36		2	20/1	[LCP] SALES LIGHTING	0.2	
3	20/1	[LD] TBB REC		0.36	4	20/1	[LD][LCP] SALES EM LIGHTING		0.185
5	20/1	[LD] TBB REC	0.36		6	20/1	[LCP] TRACK LIGHTING	0.6	
7	20/1	[LD] TBB REC		0.36	8	20/1	LIGHTING CONTROL BOX		0.35
9	20/1	SPARE	0		10	20/1	SPARE	0	
11	20/1	SPARE		0	12	20/1	SPARE		0
13	20/1	SPARE	0		14	20/1	SPARE	0	
15	20/1	SPARE		0	16	20/1	SPARE		0
17	20/1	SPARE	0		18	20/1	SPARE	0	
19	20/1	SPARE		0	20	20/1	SPARE		0
21	20/1	SPARE	0		22	20/1	SPARE	0	
23	20/1	SPARE		0	24	20/1	SPARE		0
25	20/1	SPARE	0		26	20/1	SPARE	0	
27	20/1	SPARE		0	28	20/1	SPARE		0
29	20/1	SPARE	0		30	20/1	SPARE	0	
							TOTAL CONNECTED KVA BY PHASE	1.52	1.26

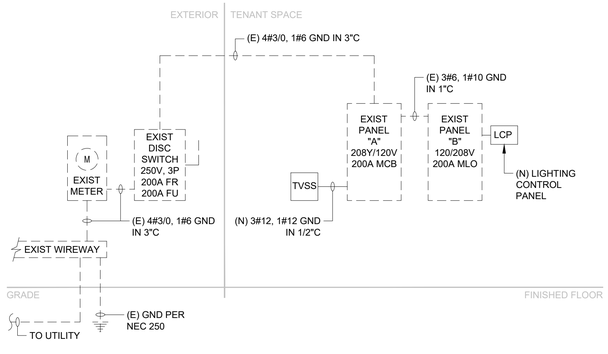
	CONN KVA	CALC KVA	
LIGHTING	1.34	1.67	(125%)
LARGEST MOTOR	0	0	(N/A)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	1.44	1.44	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	2.78	3.11	
BALANCED AMPS		14.9	

REMARKS:
[LCP] LIGHTING CONTROL PANEL
[DG] DEDICATED GROUND
[HR] HACR RATED
[LD] PROVIDE LOCK-ON DEVICE
[LO] PROVIDE LOCK-OFF DEVICE
EX./(EXIST) EXISTING TO REMAIN

B1 PANEL SCHEDULE

NTS



A1 ONE LINE DIAGRAM

NTS

DIAGRAM BASED ON INFORMATION AVAILABLE AT TIME OF DESIGN. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO ROUGH-IN. CONTACT ENGINEER IF CONDITIONS ARE DIFFERENT THAN AS SHOWN PRIOR TO COMMENCING WORK

TVSS SCHEDULE

DESCRIPTION	MODEL
EATON SPC SERIES	SPC100208Y3P

TVSS IS OWNER FURNISHED, GC INSTALLED AS PART OF THE LIGHTING PACKAGE SUPPLIED BY EDSS (ENERGY DESIGN SERVICE SYSTEMS)
CONTACT: MICHAEL NORDLOH
810.227.3377 MNORDLOH@EDSSENERGY.COM

GENERAL NOTES

NOTE REGARDING EXAMINATION OF PREMISES/FIELD CONDITIONS:

DESIGN DRAWINGS ARE SCHEMATIC. ONCE ONSITE GENERAL CONTRACTOR IS TO INSPECT EXISTING FIELD CONDITIONS AND FAMILIARIZE HIMSELF WITH ANY CONDITIONS THAT MAY AFFECT HIS WORK IN ANY MANNER PRIOR TO START OF CONSTRUCTION.

IF THE GENERAL CONTRACTOR FINDS THAT THAT THERE ARE DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE INFORMATION SHOWN ON THESE DRAWINGS, GC IS TO NOTIFY THE TENANT'S REPRESENTATIVE AND ARCHITECT OF THOSE DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.

RFI SHALL BE SUBMITTED FOR ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

NOTE REGARDING ELECTRICAL DISTRIBUTION SYSTEM:

THE ELECTRICAL RISER DIAGRAM INDICATED HAS BEEN PROPERLY DESIGNED TO ACCOMMODATE TENANT'S POWER REQUIREMENTS AND MEETS ALL APPLICABLE BUILDING CODES. IT IS THE RESPONSIBILITY OF THE GC TO VERIFY ALL EXISTING CONDITIONS AND DETERMINE IF ANY EXISTING EQUIPMENT AND WIRING IS SUITABLE FOR REUSE IN THE SYSTEM PRIOR TO START OF CONSTRUCTION.

ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO RESULT IN A COMPLETE AND LEGAL INSTALLATION INCLUDING THE UPGRADING AND/OR MODIFICATION OF THE EXISTING SERVICE FEEDERS, CONDUITS AND TAP-INS EXTENDED TO PROPER POINT OF ORIGIN AS COORDINATED WITH THE LANDLORD.

1. GENERAL CONTRACTOR TO VERIFY ALL METERING REQUIREMENTS WITH LANDLORD AND UTILITY PRIOR TO START OF CONSTRUCTION.
2. CONTRACTOR TO VERIFY EXACT DISTANCE AND ROUTING OF SERVICE FEEDERS FROM LANDLORD DISTRIBUTION/SERVICE ENTRANCE EQUIPMENT TO TENANT SPACE.
3. PROVIDE COMPLIANCE WITH NEC 110.26 "SPACES ABOUT ELECTRICAL EQUIPMENT"
4. PROVIDE COMPLIANCE WITH NEC 408.4 "CIRCUIT DIRECTORY OR CIRCUIT IDENTIFICATION"
5. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM. REGARDLESS OF THE CIRCUITING INDICATED.
6. "ALL LOW VOLTAGE WIRING TO BE IN CONDUIT UNLESS OTHERWISE APPROVED BY AUTHORITY HAVING JURISDICTION."
7. GENERAL CONTRACTOR SHALL VERIFY ANY THIRD PARTY INSPECTIONS REQUIRED BY THE LOCAL JURISDICTION PRIOR TO START OF CONSTRUCTION.

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##	DESCRIPTION	DATE

DATE: 04.02.2024
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DRAWN BY: CNM

SAP NUMBER:
193
CORPORATE TENANT REMODEL
RMC

SHEET TITLE:
ELECTRICAL PANELS

SHEET NUMBER:
E301

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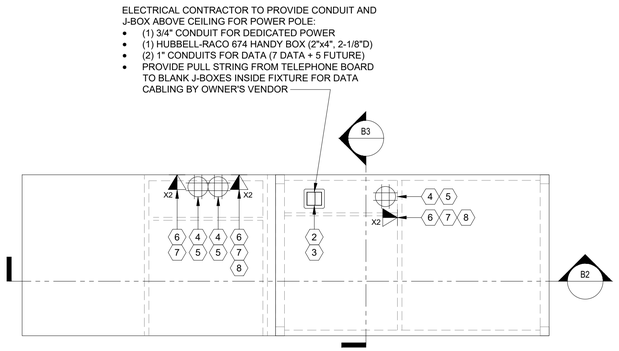
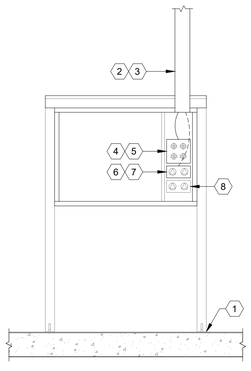
4/17/2024

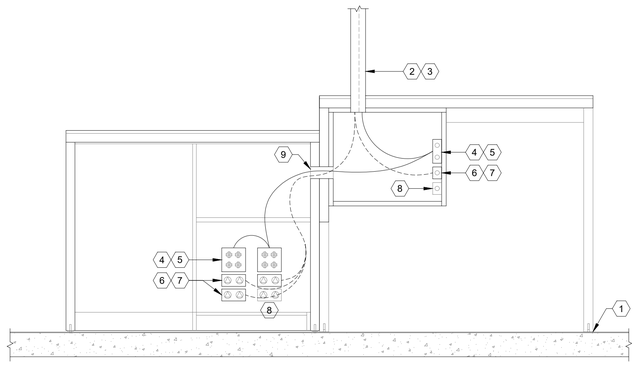
FF405 + FF404 KEY NOTES	
##	NOTES
1	FIXTURE ANCHORED TO FLOOR, TYP.
2	POWER POLE: STD CAP - POWER DEEP CAP - DATA
3	ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT AND J-BOXES ABOVE CEILING FOR POWER POLE.
4	ELECTRICAL CONTRACTOR TO INSTALL POWER RECEPTACLES IN BLANK QUADPLEX J-BOXES INSIDE FIXTURE, PROVIDE POWER CIRCUIT FROM PANEL TO RECEPTACLES AND PROVIDE APPROVED FLEX CONNECTION ASSEMBLY TO POWER SOURCE AFTER FIXTURE INSTALLATION.
5	DEDICATED POWER.
6	ELECTRICAL CONTRACTOR TO PROVIDE PULL STRING FROM TELEPHONE BOARD TO BLANK J-BOXES INSIDE FIXTURE FOR CAT5E DATA CABLING AND RJ45 JACKS BY OWNER'S VENDOR.
7	OWNER'S VENDOR TO PROVIDE CAT5E DATA CABLING, RJ45 JACKS AND PLASTIC GROMMET TO FIT 3/4" KNOCK OUTS IN BLANK DUPLEX J-BOXES INSIDE FIXTURE AS REQ'D. ROUTE CABLING THROUGH CASEWORK AND MAKE CONNECTIONS TO RJ45 JACKS, TYP.
8	FUTURE DATA.
9	PASS THRU FOR CONDUCTOR/DATA FEEDS.
GENERAL NOTES	
A	BLANK DUPLEX AND QUADPLEX J-BOXES ARE PROVIDED AND SHIPPED LOOSE BY THE FIXTURE MANUFACTURER. ELECTRICAL CONTRACTOR TO INSTALL IN FIELD.
B	POWER POLE IS PROVIDED BY T-MOBILE.
C	J-BOXES ABOVE CEILING FOR POWER POLE CONNECTIONS ARE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.



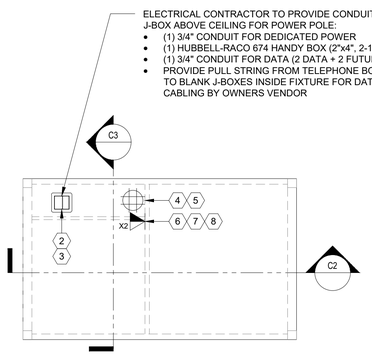
B4 FF405 + FF404 (ADA) - PLAN VIEW
1" = 1'-0"



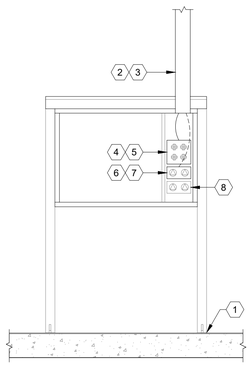
B3 FF405 TYP SECTION VIEW
1" = 1'-0"



B2 FF405 + FF404 (ADA) - SECTION VIEW
1" = 1'-0"



A4 FF405 - PLAN VIEW
1" = 1'-0"



A3 FF405 TYP SECTION VIEW
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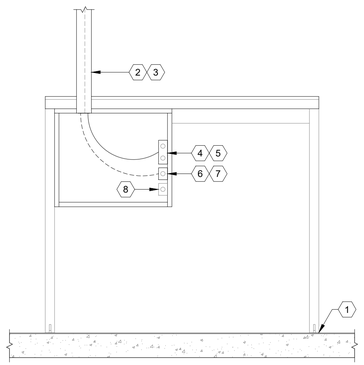

A2 FF405 - SECTION VIEW
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LICENSED PROFESSIONAL ENGINEER
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STATE OF ILLINOIS

4/17/2024

CONSULTING ENGINEER:

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eric@phase3eng.com

TOUHY AVE AND CENTRAL AVE
5710 W TOUHY AVE
SPACE A-4B
NILES, IL 60714

##	DESCRIPTION	DATE

DATE: 04.02.2024
SCALE: AS NOTED
DRAWN BY: CNM

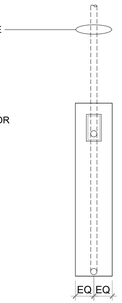
SAP NUMBER:
193
CORPORATE TENANT REMODEL
RMC

SHEET TITLE:
FIXTURE FEED WIRING DETAILS

SHEET NUMBER:
E501

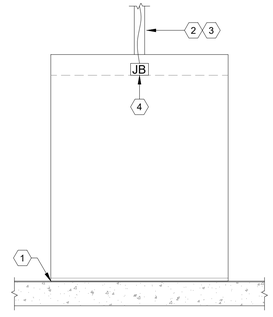
G:\~Projects\0400-0499\0445 - T-Mobile RMC Remodel - Fuzion\0445.04 - 193 TOUHY AVE_CENTRAL AVE IL
4/17/2024

- ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT ABOVE CEILING TO J-BOX(S).
- (1) 3/4" CONDUIT ABOVE CEILING FOR POWER
- (1) 3/4" CONDUIT ABOVE CEILING FOR DATA
- PROVIDE PULL STRING FROM PANEL FOR FUTURE DATA CABLING BY OWNER'S VENDOR
- (1) HUBBELL-RACO 674 HANDY BOX (4"x2", DEPTH: 2-1/8") W/ COVER PLATES FOR POWER.
  NOTE: PROVIDE ADDITIONAL CEILING MOUNTED J-BOX FOR DATA IF REQUIRED BY LOCAL JURISDICTION.



C4 FF310 (DIGITAL FRONT WINDOW)
1" = 1'-0"

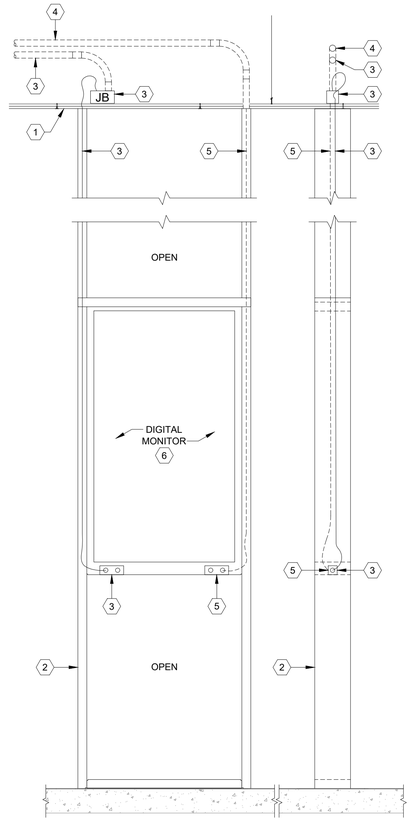
FF310 KEY NOTES	
##	NOTES
1	FINISH CEILING.
2	STEEL EXTRUDED FIXTURE BY OWNER'S VENDOR. EXACT HEIGHT ADJUSTED IN FIELD TO MATCH CEILING HEIGHT.
3	ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT AND POWER CIRCUIT FROM PANEL TO J-BOX ABOVE CEILING. PROVIDE APPROVED BX CABLE CONNECTION ASSEMBLY FROM CEILING J-BOX AND EXTEND CIRCUIT TO BLANK DUPLEX J-BOX INSIDE FIXTURE. BX CABLE SHOULD BE SUSPENDED IN CEILING PER CODE REQUIREMENTS. BLANK DUPLEX J-BOX CAN BE INSTALLED IN EITHER SIDE OF FIXTURE. ELECTRICAL CONTRACTOR TO PROVIDE DUPLEX RECEPTACLE AND MAKE ALL FINAL CONNECTIONS.
4	ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT & PULL STRING FROM TELEPHONE BOARD TO FIXTURE FOR DATA CABLING AND RJ45 CONNECTION BY OWNER'S VENDOR. PROVIDE ADDITIONAL CEILING MOUNTED J-BOX FOR DATA IF REQUIRED BY LOCAL JURISDICTION.
5	OWNER'S VENDOR TO PROVIDE CAT5E CABLING FOR DATA FROM TELCO CLOSET TO FIXTURE. PROVIDE PLASTIC GROMMETS TO FIT 3/4" KNOCK OUTS IN BLANK DUPLEX J-BOX AS REQ'D. PROVIDE RJ45 CONNECTORS AND TERMINATE CONNECTORS ON BOTH SIDES OF CAT5E CABLING. ROUTE CABLING THROUGH CASEWORK AND MAKE FINAL CONNECTION TO PC WITHIN FIXTURE.
6	REFER TO FIXTURE MANUFACTURER INSTALLATION INSTRUCTIONS & SPECIFICATIONS FOR ATTACHMENT AND HARDWARE. CONTACT FIXTURE MFR FOR QUESTIONS OR DISCREPANCIES.



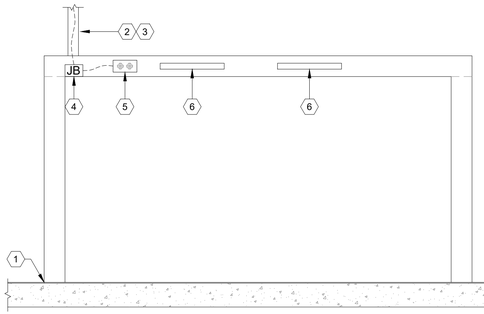
C2 FF209 - ELEVATION
1" = 1'-0"

FF209 KEY NOTES	
##	NOTES
1	FIXTURE ANCHORED TO FLOOR, TYP.
2	POWER POLE: STD CAP - POWER DEEP CAP - DATA
3	ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT AND J-BOXES ABOVE CEILING FOR POWER POLE.
4	J-BOX FOR CONNECTION TO POWER SOURCE BY ELECTRICAL CONTRACTOR AFTER FIXTURE INSTALLATION.
5	ELECTRICAL CONTRACTOR TO INSTALL POWER RECEPTACLES IN BLANK DUPLEX J-BOX INSIDE FIXTURE, PROVIDE POWER CIRCUIT FROM PANEL TO RECEPTACLES AND PROVIDE APPROVED FLEX CONNECTION ASSEMBLY TO POWER SOURCE AFTER FIXTURE INSTALLATION.
6	ELECTRICAL CONTRACTOR TO INSTALL OWNER SUPPLIED POWER STRIP AND FINAL CONNECTION TO POWER SOURCE AFTER FIXTURE INSTALLATION.

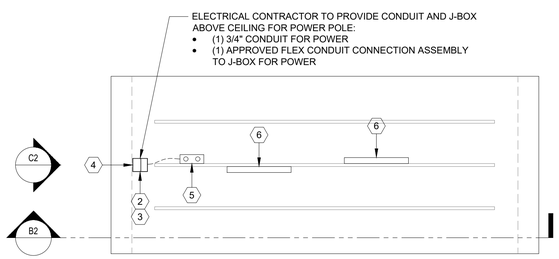
GENERAL NOTES	
A	BLANK DUPLEX AND QUADPLEX J-BOXES ARE PROVIDED AND SHIPPED LOOSE BY THE FIXTURE MANUFACTURER. ELECTRICAL CONTRACTOR TO INSTALL IN FIELD.
B	POWER POLE IS PROVIDED BY T-MOBILE.
C	J-BOXES ABOVE CEILING FOR POWER POLE ARE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.



A4 FF310 (DIGITAL FRONT WINDOW)
1" = 1'-0"



B2 FF209 - SECTION
1" = 1'-0"



A2 FF209 - PLAN
1" = 1'-0"

T-Mobile

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SAP NUMBER:
193
CORPORATE TENANT REMODEL
RMC

SHEET TITLE:
FIXTURE FEED WIRING DETAILS

SHEET NUMBER:
E502

G:\--Projects\0400-0499\0445 - T-Mobile RMC Remodel - Fuzion\0445.04 - 193 TOUHY AVE_CENTRAL AVE IL
4/17/2024

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][1]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5 [FI16][1]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** GC TO PROVIDE

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3.1 [EL22][1]	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E111, E112, E113, E601
C405.2.1, C405.2.1.1 [EL18][1]	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, corridors, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E111, E112, E113, E601
C405.2.1.2 [EL19][1]	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more within 20 minutes of when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor. Lights not turned off by occupant sensors is done so by time-switch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.1.3 [EL20][1]	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) general lighting in each zone permitted to turn on upon occupancy in control zone, 3) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 4) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.2, C405.2.2.1 [EL21][1]	Each area not served by occupancy sensors (per C405.2.1.1) have time-switch controls and functions detailed in sections C405.2.2.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E111, E112, E113, E601

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

COMcheck Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2021 IECC
Project Title: T-Mobile - 193
Project Type: Alteration

Construction Site:
5710 W Touhy Ave
Space A-4B
Niles, IL 60714

Owner/Agent:
T-Mobile US, Inc
12920 SE 38th St
Bellevue, WA 98006
1-800-318-9270

Designer/Contractor:
Eric Aielli
435 Schenck Ave
Oakwood, OH 45409
937-486-4233
eric@phase3eng.com

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-SALES (Retail:Sales Area)	1365	1.05	1433
2-BOH (Common Space Types:Storage)	588	0.38	223
		Total Allowed Watts =	1657

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
SALES (Retail: Sales Area, 1365 sq.ft.)				
Track Lighting: 5A CLD: SEE E112: Wattage based on current limiting device capacity	0	0	600	600
LED: L231: SEE E112: Other:	1	5	40	200
LED: L231-EM: SEE E112: Other:	1	5	36	180
BOH (Common Space Types: Storage, 588 sq.ft.)				
LED: L231-CB: SEE E112: Other:	1	4	40	160
LED: L234: SEE E112: Other:	1	2	22	44
LED: FAN/LIGHT: Existing: Other:	1	2	9	18
			Total Proposed Watts =	1202

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.4, C405.2.4.1, C405.2.4.2 [EL23][1]	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Sidelit zones on first floor in Group A-2 and M occupancies.
C405.2.5 [EL27][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** N/A - NO ADDITIONAL LPD TAKEN
C405.7 [EL26][1]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.8 [EL27][1]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.9.1, C405.9.2 [EL28][1]	Escalators and moving walks comply with ASME A17.1/CSA 944 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.10 [EL29][1]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E701
C405.1.1 [EL30][1]	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.11, C405.11.1 [EL31][1]	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

COMcheck Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2021 IECC

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E111, E112, E113, E601

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

T-Mobile

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DATE: 04.02.2024
SCALE: AS NOTED
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SAP NUMBER:

193

CORPORATE TENANT REMODEL

RMC

SHEET TITLE:

ENERGY CALCULATIONS

SHEET NUMBER:

E601

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4/17/2024

ELECTRICAL SPECIFICATIONS DIVISION 1600

1.0 SCOPE

1.1 THE COMPLETE INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH THE LANDLORD'S REQUIREMENTS. CONSULT LANDLORD'S DESIGN CRITERIA.

1.2 THE DRAWINGS AND THE SPECIFICATIONS SHALL BE CONSIDERED ADDITIONAL TO ARCHITECT AND MECHANICAL ENGINEER'S SPECIFICATIONS. ANY DISCREPANCY OR CONTRADICTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

1.3 ARCHITECT'S GENERAL REQUIREMENTS ARE PART OF THIS CONTRACT. AND THEY SHALL BE APPLIED BY THE GENERAL CONTRACTOR AND SUBCONTRACTORS (ELECTRICAL,ETC..).

1.4 ONCE ONSITE GENERAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ANY CONDITIONS THAT MAY AFFECT HIS WORK IN ANY MANNER PRIOR TO START OF CONSTRUCTION. (MEASUREMENTS - PARTICULAR CONDITIONS, ETC...) GENERAL CONTRACTOR SHALL NOTIFY TENANT REPRESENTATIVE AND ARCHITECT OF ANY SUCH CONDITIONS PRIOR TO COMMENCEMENT OF WORK.

1.5 GENERAL CONTRACTOR SHALL MAKE ALL NECESSARY CHECKING AND ADJUSTMENTS TO COMPLY WITH THE INTENT OF SPECIFICATIONS.

1.6 THE DRAWINGS SHOW THE APPROXIMATE LOCATION OF THE EQUIPMENT. EACH SUBCONTRACTOR SHALL VERIFY THESE LOCATIONS BEFORE INSTALLATION.

1.7 GENERAL CONTRACTOR'S TENDER SHALL INCLUDE THE COST OF ALL NECESSARY PERMITS AND CERTIFICATES, ALL DRAWINGS APPROVAL COSTS AND ALL INSPECTION COSTS REQUIRED BY ALL AUTHORITIES HAVING JURISDICTION.

1.8 EACH SUBCONTRACTOR SHALL COMPLETE THE WORK IN EVERY DETAIL. EVEN THOUGH NOT SHOWN ON DRAWINGS OR CALLED FOR IN THIS SPECIFICATION.

1.9 THE ELECTRICAL TRADE SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY FOR A COMPLETE AND OPERATING ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS. THE TRADE SHALL ALSO PROVIDE ANY ITEMS AND/OR LABOR THAT ARE OBVIOUSLY NECESSARY OR REASONABLY IMPLIED TO COMPLETE ALL WORK.

1.10 ALL ELECTRICAL WORK TO BE DONE IN ACCORDANCE WITH CURRENT EDITIONS AND AMENDMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), NFPA AND ALL LOCAL CODES ADOPTED BY THE LOCAL JURISDICTION HAVING AUTHORITY.

1.11 ALL RUBBISH'S AND GARBAGE SHALL BE REMOVED FROM THE JOB SITE AT THE END OF EVERY WORKDAY. AT THE CONTRACT COMPLETION, ALL TOOLS AND EQUIPMENT SHALL BE REMOVED AND THE JOB SITE SHALL BE LEFT IN A CLEAN CONDITION.

2.0 GUARANTEE

2.1 EACH SUBCONTRACTOR SHALL GUARANTEE HIS WORK AND INSTALLATION REGARDING HIS CONTRACT. THE ELECTRICAL CONTRACTOR SHALL REPAIR OR REPLACE, AT HIS OWN EXPENSE, ALL DEFECTS AND THIS DURING A TWELVE MONTHS PERIOD, STARTING AT THE PROVISIONAL ACCEPTANCE BY THE TENANT. AS LONG AS THE DEFECTS IS NOT DUE TO A BAD USE OR NORMAL WEAR.

3.0 TAXES

3.1 EACH SUBCONTRACTOR SHALL PAY ALL APPLICABLE TAXES, FOR LABOR AND MATERIAL INCLUDED IN HIS TENDER

4.0 TEMPORARY SERVICES

4.1 ALL TEMPORARY LIGHTING (MIN. 200LUX WITH MH HALIDE FIXTURE) AND POWER DURING CONSTRUCTION SHALL BE BY GENERAL CONTRACTOR AFTER AGREEMENT WITH ELECTRICAL CONTRACTOR AND SHALL BE TAKEN FROM EXISTING PANEL SERVING THE SPACE, SUPPLY VOLTAGE AND AMPS AS REQUIRED.

5.0 SHOP DRAWINGS

5.1 PRIOR TO ORDERING OR INSTALLING ANY EQUIPMENT SUBMIT TO ENGINEER FOR APPROVAL A MINIMUM OF TWO (2) COPIES OF SHOP DRAWINGS FOR EACH ITEM OF EQUIPMENT.

6.0 ALTERNATE EQUIPMENT

6.1 PROPOSAL SHALL BE BASED ON SPECIFIED EQUIPMENT AND MATERIAL.

6.2 PROPOSAL FOR ALTERNATE TO SPECIFICATION SHALL INCLUDE MANUFACTURER NAME, MODEL AND COST MODIFICATION.

6.3 COST OF ANY CHANGE REQUIRED TO OTHER TRADES WORK DUE TO SUBSTITUTION OF ALTERNATE EQUIPMENT, SHALL BE INCLUDED IN THE SUBCONTRACTOR'S PROPOSAL CALLING FOR THIS SUBSTITUTION. EVEN IF THESE CHANGES APPEAR AFTER THE DEMAND FOR SUBSTITUTION.

6.4 ALTERNATE PROPOSALS WILL BE ACCEPTED OR REJECTED BEFORE CONTRACTS ARE AWARDED. NO CHANGES WILL BE ALLOWED AFTER THE CONTRACT IS SIGNED.

7.0 IDENTIFICATION

7.1 ALL ELECTRICAL EQUIPMENT (SWITCHES, PANELS, CIRCUITS ETC..) MUST BE PROPERLY IDENTIFIED WITH LAMICOID NAME PLATES SCREWED ON PANELS AND HAVE A TYPED DIRECTORY AND INDICATE LOAD ON EACH CIRCUIT.

8.0 GROUND

8.1 THE GROUND SHALL BE CONTINUOUS AND SHALL BE CONFORM TO NATIONAL ELECTRICAL CODE.

9.0 PULLING AND JUNCTION BOXES

9.1 TRADE WILL PROVIDE PULLING AND JUNCTION BOXES WITH SCREWED PLATED COLOR MATCHED FOR WALL AND CEILING FINISHES.

9.2 ALL BOXES SHALL BE ACCESSIBLE.

9.3 BACK TO BACK BOXES WILL NOT BE ACCEPTED.

9.4 PULL BOXES SHALL BE LOCATED EVERY 100 FEET (30m) AND EVERY TWO 90 DEG. ELBOW.

9.5 ALL SURFACE MOUNTED BOXES FOR JUNCTION, SOCKETS, SWITCHES, FIXTURES ETC...,SHALL BE F.S. TYPE.

10.0 DRILLING

10.1 ELECTRICAL CONTRACTOR SHALL DRILL OR CHIP THE FLOOR WHERE REQUIRED. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES IN CONCRETE SLAB, WHERE REQUIRED.

10.2 NO ELECTRICAL OR PNEUMATIC HAMMER SHOULD BE USED.

10.3 EXISTING CONCRETE COLUMNS ARE NOT TO BE CHANNELED OR NOTCHED.

11.0 WIRING AND CONDUIT

11.1 ALL WIRING, WILL BE COPPER TYPE, No.12 AWG MINIMUM, UNLESS OTHERWISE NOTED.

11.2 ALL SURFACE WIRING, SHALL BE THWN TYPE IN E.M.T. CONDUIT. ALL COUPLINGS TO BE RAIN TIGHT OR GALVANIZED SET CREW TYPE.

11.3 ALL WIRING AND CONDUIT, WILL BE RECESSED IN WALL OR CEILING (INCLUDING EXISTING ARCHITECTURAL ELEMENTS) UNLESS APPROVED BY LOCAL INSPECTOR AND JHA. ELECTRICAL CONTRACTOR TO VERIFY.

11.4 ALL WIRING SHALL BE PARALLEL WITH ARCHITECTURAL LINES AND DESIGN.

11.5 FOR SUSPENDED CEILING, MC CABLE FOR 15 FEET (4.5m) IS ACCEPTED. MAIN WIRING TO BE THWN IN E.M.T. CONDUIT.

11.6 ALL EMPTY CONDUIT SHALL INCLUDE A PULLING WIRE No.12 AWG. - MAX. 6'-0" FLEXIBLE CONDUIT MAY BE USED FOR FIXTURE AND EQUIPMENT CONNECTIONS ONLY. PLASTIC CONDUIT IS NOT ACCEPTED.

12.0 FIRE BARRIER

12.1 IN CASE OF CROSSING A FIRE BARRIER (FLOOR, WALL, OR CEILING) FILL GAP WITH APPROPRIATE MATERIAL. THIS MATERIAL SHALL BE EFFICIENT BARRIER FOR FLAME, FUME AND GAS. SEAL AT SMOKE WALL.

13.0 EXPANSION JOINT

13.1 EACH TIME ELECTRICAL CONDUIT PASS THROUGH AN EXPANSION JOINT OF THE BUILDING USE GALVANIZED STEEL SLIDING TYPE EXPANSION JOINT WITH CONTINUOUS COPPER GROUNDING. FLEXIBLE AT THESE LOCATIONS.

14.0 FIXTURES AND LAMPS

14.1 COMPLETE LIGHTING PACKAGE IS OWNER (OR LANDLORD) FURNISHED (REFER TO LEASE AGREEMENT), GC INSTALLED. ELECTRICAL CONTRACTOR SHALL INSTALL ALL FIXTURES, LAMPS AND CONTROLS PER MANUFACTURER SPECS AND EDSS (ENERGY DESIGN SERVICE SYSTEMS) INSTALLATION INSTRUCTIONS.

15.0 FIELD CONDITIONS

15.1 ENGINEER CAN RELOCATE ALL EQUIPMENT (FIXTURES, OUTLETS, ETC...), AT NO COST, IF DISPLACEMENT IS LESS THAN 10 FEET (3m), AND WRITTEN NOTICE IS SENT TO CONTRACTOR PRIOR TO INSTALLATION.

15.2 CONFER WITH ALL OTHER TRADES AND ARRANGE EQUIPMENT IN PROPER RELATION WITH OTHER APPARATUS, DUCTS, PIPES, ETC. AND WITH BUILDING CONSTRUCTION AND ARCHITECTURAL FINISHES.

16.0 EXISTING CONDITIONS

16.1 ELECTRICAL CONTRACTOR WORK AFFECTING OTHER TENANT SHALL BE DONE OFF BUSINESS HOURS (NIGHT OR WEEKEND). COORDINATE WITH THE LANDLORD.

16.2 ELECTRICAL CONTRACTOR SHALL REMOVE AND DISPOSE ANY UNUSED MATERIAL.

16.3 ANY NON REUSED MATERIAL SHALL BE GIVEN BACK IN GOOD CONDITION TO LANDLORD

16.4 ANY DAMAGED WALL, FLOOR, CEILING, FINISHES SHALL BE REPAIRED BY GENERAL CONTRACTOR THOSE REPAIRS SHALL MATCH EXISTING FINISHES.

17.0 COMMUNICATIONS

17.1 TENANT IS IN CHARGE FOR ANY COMMUNICATIONS SYSTEMS.

17.2 ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL, IF REQUIRED, TELEPHONE TERMINAL BOARD, 24"x24" PLYWOOD 3/4" THICK, AND CONDUIT AS INDICATED ON DRAWINGS.

17.3 ALL WIRING, INCLUDING INSTALLATION AND CONNECTION TO EQUIPMENT SHALL BE PERFORMED BY A SPECIALIZED CONTRACTOR, IN CHARGE OF THE TENANT.

18.0 FIRE ALARMS

18.1 EXISTING FIRE ALARM TO BE KEPT. TENANT'S FIRE ALARM CONTRACTOR TO RELOCATE IF REQUIRED ANY EQUIPMENT AT NO COST.

18.2 ALL REQUIRED WORK RELATED TO LIFE SAFETY SYSTEMS SHALL BE DONE AT NO EXTRA COST. RETAIN THE SYSTEM MANUFACTURER'S FORCES TO PERFORM FINAL CONNECTIONS, MODIFICATIONS AND PROVISION OF NEW INTERFACING DEVICES IN THE SYSTEM PANELS, ETC.

18.3 ENSURE FULL COMPATIBILITY OF ALL NEW DEVICES WITH EXISTING LIFE SAFETY SYSTEMS.

18.4 TENANT'S FIRE ALARM CONTRACTOR SHALL HAVE SYSTEM MANUFACTURER TEST AND CERTIFY LIFE SAFETY SYSTEMS FOR PROPER OPERATION AT COMPLETION OF WORK.

19.0 COLOR CODE

	120/208V	120/240V HIGH LEG 3P 4W	277/480V
PHASE A	BLACK	BLACK	BROWN
PHASE B	RED	ORANGE	ORANGE
PHASE C	BLUE	BLUE	YELLOW
NEUTRAL	WHITE	WHITE	GREY
GROUND	GREEN	GREEN	GREEN

20.0 SPECIAL NOTES

20.1 ELECTRICAL CONTRACTOR TO PROVIDE UNDERGROUND CONDUIT TO EC PROVIDED SURFACE MOUNTED J-BOXES, OWNER FURNISHED RECESSED FLOOR BOXES AND OWNER FURNISHED POKE-THRU BOXES AS INDICATED AND PROVIDE APPROVED FLEX CONNECTION ASSEMBLY. LEAVE FLEX CONNECTION ASSEMBLY COILED AND TAPED AS REQ'D UNTIL FIXTURE INSTALLATION. AFTER FIXTURE INSTALLATION EC TO INSTALL POWER RECEPTACLES IN PRE-INSTALLED BLANK BOXES INSIDE FIXTURE. PROVIDE POWER CIRCUIT FROM PANEL TO RECEPTACLES AND CONNECTION POWER SOURCE. EC TO PROVIDE PULL STRING FROM TELEPHONE BOARD TO ALL FIXTURE DESIGNATIONS FOR CAT5E DATA CABLING AND RJ45 JACKS BY OWNER'S VENDOR. SEE WIRING DETAILS ON E500 SHEETS FOR ADDITIONAL INFORMATION.

20.2 ON ALL OUTLETS LOCATED IN POS COUNTERS, ETC..., ELECTRICAL TRADE SHALL ATTACH ALL CONDUITS TO THE FLOOR WITH APPROPRIATE CONNECTORS. GC MUST OBTAIN WRITTEN APPROVAL FROM THE LANDLORD PRIOR TO ANY TRENCHING OR CORE DRILLING.

20.3 RECEPTACLES, OUTLETS, ETC..., LOCATED AT THE CASH COUNTERS SHALL BE INSTALLED IN COMMON BOXES. USE 1 GANG, 2 GANG, 3 GANG OR 4 GANG, ETC..., BOXES C/W SEPARATIONS AS PER CODE, AS REQUIRED. BOXES SUPPLIED, INSTALLED AND CONNECTED BY THE ELECTRICAL CONTRACTOR.

21.0 DEMOLITION

21.1 REMOVE AND TRANSPORT OUT OF THE CONSTRUCTION SITE ALL EQUIPMENT MADE OBSOLETE CONSECUTIVE TO THE WORK, INCLUDING WIRING, CONDUITS, BOXES, OUTLETS, SWITCHES, LIGHTING FIXTURES, DISTRIBUTION EQUIPMENT, SUPERVISORY AND COMMUNICATION EQUIPMENT. ALL ACCESSORIES BEING PART OF THE ELECTRICAL INSTALLATION.

21.2 REMOVE THE WIRING AND THE CONDUIT UP TO THE LAST PANEL OR BOX KEPT IN THE NETWORK.

21.3 PUT BACK IN SERVICE ALL FEEDERS, CONTROL OR COMMUNICATION CABLES WHEN THE CONTINUITY OF THOSE SERVICES IS INTERRUPTED BY THE WORK.

22.0 SPECIFICATIONS

22.1 DISCONNECT AS PER CUTLER-HAMMER

MODEL	FUSE	INSTALLATION
HD	WITH	INTERIOR
HD	WITHOUT	INTERIOR
RD	WITH	EXTERIOR
RD	WITHOUT	EXTERIOR

22.2 FUSES AS PER GOULD

GAGE	MODEL	SPARE QTY.
0-600A	AJT	10% (MINIMUM 6)

22.3 SPLITTER BOXES AND TROUGHS, AS PER BEL, 14 GA STEEL WITH HINGED COVER CLOSED WITH SCREWS, TINNED COPPER BUS BARS, COMPLETE WITH SOLDERLESS TERMINALS. BARS SUPPORTED BY ISOLATORS.

22.4 TRANSFORMERS AS PER DELTA, DT (TRIPLE PHASE).

22.5 PANELS C/W DOORS AND LOCKS, AS PER CUTLER-HAMMER

USAGE	VOLTAGE	MODEL
LIGHTING	120/208V 3PH	PRL-1
BREAKERS WITH 10,000 A SYMMETRICAL INTERRUPTING CAPACITY, UNLESS OTHERWISE NOTED.		

22.6 OUTLETS AS PER LEVITON, MODEL NO. 5262, WHITE.

22.7 SWITCH

TYPE	MODEL
UNIPOLAR	5401/001
BIPOLAR	54502/001
THREE WAY	54503/001
FOUR WAY	54504/001

SYMBOLS LEGEND

NOTE: NOT ALL SYMBOLS LISTED BELOW ARE SHOWN ON PLANS

SWITCHING		POWER DISTRIBUTION DEVICES		GENERAL WIRING	
	ENTOUCH.one DIMMING LOAD CONTROLLER (DLC)		PANELBOARD SURFACE MOUNTED MAXIMUM 72" TO TOP OF OVERCURRENT PROTECTION		HOMERUN - CONDUIT SYSTEM TO PANEL AS NOTED ON DRAWINGS
SB	SWITCH BANK	T	TRANSFORMER		CONDUIT SYSTEM UNDER FLOOR
$	SWITCH		DISCONNECT SWITCH		CONDUIT UP
₫	DIMMER SWITCH	M	METER		TELEPHONE TERMINAL BOARD SEE DETAIL ON SHEET E101
OC	OCCUPANCY SENSOR - CEILING MOUNTED		DUPLEX RECEPTACLE - 20A 18" AFF UNO		JUNCTION BOX
O$	OCCUPANCY SENSOR - WALL MOUNTED		QUADPLEX RECEPTACLE - 20A 18" AFF UNO		
PC	PHOTOCELL - CEILING MOUNTED	GFI	RECEPTACLE WITH GROUND FAULT INTERRUPTER	ABBREVIATIONS	
LCB	LCB - LIGHTING CONTROL BOX	WP	WEATHERPROOF RECEPTACLE 18" AFF UNO	AFF	ABOVE FINISHED FLOOR
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR		SHOW WINDOW RECEPTACLE	BOH	BACK OF HOUSE
TAGS		J	JUNCTION BOX	CB	CIRCUIT BREAKER
				DL	DAYLIGHT
AA BB	DETAIL DESIGNATION: AA - DETAIL NUMBER BB - SHEET NUMBER	DATA / COMMUNICATION		EC	ELECTRICAL CONTRACTOR
				EM	EMERGENCY
X	SHEET NOTE	XX	TELEPHONE / DATA - RJ45 JACK W/ CAT5e WIRES. CONDUIT WITH PULLWIRE TO ABOVE ACCESSIBLE CEILING, CABLE IS BY OWNER.	GC	GENERAL CONTRACTOR
				IG	ISOLATED GROUND
AA BB	SECTION DESIGNATION: AA - DETAIL NUMBER BB - SHEET NUMBER	XX	OVERHEAD AP CABLING	JB	JUNCTION BOX (J-BOX)
		SECURITY / COMMUNICATION		JHA	JURISDICTION HAVING AUTHORITY
				LL	LANDLORD
		KP	ROUGH-IN FOR ADT KEY PAD @ 48"A.F.F.	MLO	MAIN LUG ONLY
				MCB	MAIN CIRCUIT BREAKER
		T	THERMOSTAT	OR	ORANGE
		S	ZONE TEMPERATURE SENSOR	SW	SHOW WINDOW
				TGC	TENANT GENERAL CONTRACTOR
				WH	WHITE

GENERAL ELECTRICAL NOTES

A. FIELD VERIFY ALL CONDITIONS.

B. DESIGN DRAWINGS ARE SCHEMATIC. ONCE ONSITE GENERAL CONTRACTOR IS TO INSPECT EXISTING FIELD CONDITIONS. RFI SHALL BE SUBMITTED FOR ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

C. THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER ONCE ONSITE FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN INTENT PRIOR TO COMMENCEMENT OF WORK.

D. BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

E. RFI SHALL BE SUBMITTED FOR ANY UNFORESEEN CONDITIONS THAT MAY EFFECT THE CONTRACTOR'S SCOPE OF WORK. MINOR VARIATIONS REQUIRED FOR ACCOMPLISHING THE INTENT OF THIS DESIGN SHALL BE INCLUDED IN THE RFI.

F. PROVIDE ALL REQUIRED PERMITS. CONTRACTOR'S INSTALLATION SHALL CONFORM TO ALL LOCAL CODE REQUIREMENTS.

G. VERIFY EXACT PLACEMENT OF ALL DEVICES SHOWN ON THE DOCUMENTS WITH ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS PRIOR TO FINAL PLACEMENT.

H. BECOME FAMILIAR WITH REQUIRED DEMOLITION WORK PRIOR TO BIDDING AND START OF WORK. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL DEMOLITION AS REQUIRED FOR INSTALLATION OF NEW WORK.

I. COORDINATE INSTALLATION OF ELECTRICAL WORK ABOVE THE CEILING TO PROVIDE THE GREATEST POSSIBLE CLEARANCE FOR INSTALLATION OF PLUMBING AND MECHANICAL. CONDUIT RUNS SHALL BE RUN THROUGH TRUSSES WHERE POSSIBLE.

J. COORDINATE EXACT LOCATION OF DEVICES SERVING CASEWORK WITH FIXTURE CONTRACTOR.

K. COORDINATE ALL LOW VOLTAGE CONDUIT AND ROUGH-IN REQUIREMENTS WITH LOW VOLTAGE CONTRACTORS.

L. SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, TRANSFORMERS AND CONTACTORS SHALL BE "LISTED" AND "IDENTIFIED" AS RATED FOR A MINIMUM OF 75°C CONDUCTOR TERMINATION.

M. INCLUDE A COPPER EQUIPMENT GROUND CONDUCTOR IN ALL RACEWAYS. SIZE RACEWAYS AS NECESSARY TO COMPLY WITH NEC.

N. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL WIRE.

O. ALL 20A BRANCH CIRCUITS BETWEEN 100' AND 150' IN LENGTH, #10 AWG COPPER WIRE SHALL BE USED. FOR ALL 20A BRANCH CIRCUITS OVER 150' IN LENGTH, #8 AWG COPPER WIRE SHALL BE USED.

P. ALL 20A BRANCH CIRCUITS LESS THAN 100' IN LENGTH, SHALL BE #12 COPPER CONDUCTORS, #12 GND., 3/4" UNLESS NOTED OTHERWISE. TYPE MC CABLE MAY BE USED FOR BRANCH CIRCUITS ABOVE CEILINGS AND FOR FINAL FIXTURE CONNECTIONS. DO NOT USE TYPE MC EXPOSED UNLESS APPROVED BY LOCAL INSPECTOR AND JHA. ELECTRICAL CONTRACTOR TO VERIFY.

Q. CIRCUITING INDICATED ON PLAN IS DIAGRAMMATIC FOR CLARITY. CIRCUITING SHALL BE "THRU-WIRING" WHERE/WHEN POSSIBLE. MULTI-CONNECTIONS TO A SINGLE LIGHT FIXTURE FOR FIELD CONDITIONS OR VOLTAGE DROP FACTORS MAY BE REQUIRED (FIXTURES SHALL BE MANUFACTURED TO ACCOMMODATE "THRU-WIRING"), AND RELATED COSTS SHALL BE INCLUDED IN BID.

R. MAKE ALL FINAL ELECTRICAL CONNECTIONS AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.

S. WHERE DRYWALL CEILINGS ARE USED, CONTRACTOR SHALL ARRANGE CIRCUITING SO THAT JUNCTION/BOXES ACCESS PANELS ARE NOT INSTALLED IN THESE DRYWALL CEILING AREAS. (THE USE OF JUNCTION BOXES IN THESE DRYWALL CEILINGS IS NOT PERMITTED, ARRANGE CIRCUITS TO AVOID THIS SITUATION). FIELD COORDINATE WITH TENANT'S CONSTRUCTION MANAGER PRIOR TO ROUGH-IN TO AVOID CONFLICTS. JUNCTION BOXES MAY BE PLACED ABOVE LAY-IN CEILINGS.

T. FIELD VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS OF ALL HVAC EQUIPMENT WITH MECHANICAL CONTRACTOR, PRIOR TO ORDERING RELATED ELECTRICAL EQUIPMENT.

U. PLACEMENT OF ALL RECEPTACLES SHALL BE INTENTIONAL (I.E. CENTERED ON COLUMNS OR WALL FEATURES, OR TIGHT TO CORNER). IF RECEPTACLE IS NOT SHOWN IN A DESIRABLE LOCATION, FIELD VERIFY EXACT PLACEMENT OF RECEPTACLE WITH TENANT'S CONSTRUCTION MANAGER PRIOR TO ROUGH-IN.

V. PROVIDE ALL NECESSARY COMPONENTS TO MAKE A COMPLETE WORKING SYSTEM. VERIFY ROW LENGTHS, FEED POINT AND MOUNTING REQUIREMENTS PRIOR TO ORDERING.

W. TAKE ADEQUATE CARE TO CORRECTLY LOCATE ALL ELECTRICAL STUB OUTS, FLOOR BOXES, J-BOXES, TRACK, ETC. PRECISE LOCATIONS OF FLOOR OUTLETS AND J-BOXES IS VERY IMPORTANT.

X. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT. NEC 110.34(f).

Y. FUSES SHALL BE PROVIDED WITH REJECTION TYPE FUSE HOLDERS. NEC 240.60B.

Z. PROVIDE LOCK-ON DEVICE FOR CIRCUITS SUPPLYING EMERGENCY UNIT EQUIPMENT. NEC 700.18.

AA. ATTAIN EXISTING BUILDING LOAD INFORMATION AND VERIFY AMPACITY AND DEMAND FOR BUILDING TO ENSURE THAT ALL LOADS (EXISTING AND NEW) DO NOT EXCEED THE AMPACITY OF THE SERVICE FEEDER(S) OR RATING OF THE SERVICE, PER NEC 220.40.

AB. ALL DEDICATED RECEPTACLES SHALL BE RATED TO NOT LESS THAN THE RATING OF THE BRANCH CIRCUIT SERVING THE RECEPTACLE.

AC. SUPPORT VERTICAL CABLE RUNS PER NEC 300.19.

AD. ELECTRICAL CONTRACTOR TO LABEL ALL RECEPTACLES AND PROVIDE A TYPE-WRITTEN PANEL SCHEDULE INSIDE THE ELECTRICAL PANEL.

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##	DESCRIPTION	DATE

DATE: 04.02.2024
SCALE: AS NOTED
DRAWN BY: CNM

SAP NUMBER:

193

CORPORATE TENANT REMODEL

RMC

SHEET TITLE:

ELECTRICAL SPECIFICATIONS

SHEET NUMBER:

E701

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