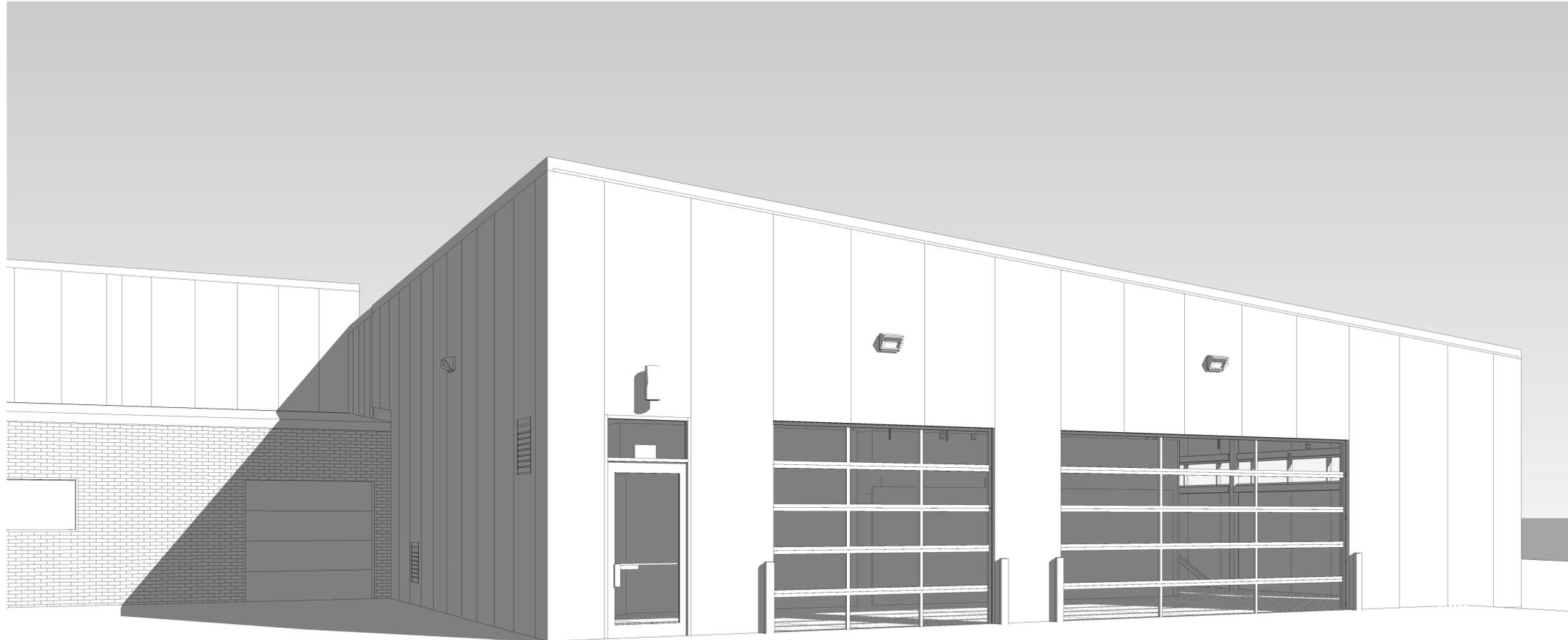


MCC Longview HT Addition/Renovation

PERMIT/BID DOCUMENTS and FINAL DEVELOPMENT PLAN



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500 SW Longview Road
Lee's Summit, MO 64081 Project No: 20008.00

PERMIT/BID DOCUMENTS

Issued: September 23, 2021

Rev. #	Description	Date Issued
1	Addendum #3	10/27/21

COVER SHEET
G000

GENERAL NOTES

1. THESE GENERAL NOTES APPLY TO ALL TRADES. THESE NOTES ARE PROVIDED FOR GENERAL PROJECT INFORMATION AND ARE TO BE APPLIED TO ALL AREAS OF THE PROJECT WHERE WORK IS BEING UNDERTAKEN.
2. ALL WORK SHALL COMPLY WITH APPLICABLE LAWS, CODES, AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION IN FORCE AT TIME OF CONSTRUCTION. IN CASE OF CONFLICT BETWEEN REQUIREMENTS, THE MOST RESTRICTIVE SHALL APPLY.
3. UPON EXAMINATION/FAMILIARIZATION WITH THE CONTRACT DOCUMENTS AND JOB SITE VISIT, ANY DISCREPANCIES, OMISSIONS, AMBIGUITIES AND/OR CONFLICTS SHALL BE REPORTED TO THE ARCHITECT IN WRITING FOR CORRECTION PRIOR TO SUBMISSION OF BID OR EXECUTION OF CONSTRUCTION CONTRACT.
4. THE CONTRACTOR SHALL ADHERE TO THE CONTRACT DOCUMENTS. NO MODIFICATIONS, REVISIONS OR CHANGES SHALL BE UNDERTAKEN UNLESS SPECIFICALLY INSTRUCTED AND APPROVED.
5. ALL WORK LISTED, SHOWN OR IMPLIED IN THE CONTRACT DOCUMENTS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR EXCEPT WHERE NOTED OTHERWISE. CONTRACTORS SHALL CLOSELY COORDINATE THEIR WORK WITH THE WORK OF OTHER CONTRACTORS AND VENDORS TO ASSURE THAT ALL WORK IS PERFORMED IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.
6. COORDINATE THE REQUIREMENTS OF ALL DRAWINGS AND SPECIFICATIONS. EACH CONTRACTOR AND/OR SUBCONTRACTOR SHALL BE PROVIDED WITH A FULL SET OF CONSTRUCTION DOCUMENTS TO ENSURE COORDINATION OF ALL TRADES/DISCIPLINES. CONFLICTS SHALL BE REPORTED TO THE OWNER AND ARCHITECT PRIOR TO THE EXECUTION OF THE WORK.
7. ALL CONTRACTORS, SUBCONTRACTORS AND THEIR AGENTS SHALL HOLD ALL APPLICABLE AND REQUIRED LICENSES FOR THE JURISDICTION IN WHICH THE WORK WILL BE PERFORMED.
8. DO NOT SCALE DRAWINGS. CALCULATE AND MEASURE REQUIRED DIMENSIONS. ALL DIMENSIONS ARE TO BE TAKEN FROM DESIGNATED DATUM POINT. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER GRAPHIC REPRESENTATION.
9. VERIFY DIMENSIONS IN FIELD. NOTIFY ARCHITECT IMMEDIATELY UPON DISCOVERY OF DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND DRAWINGS AND PRIOR TO COMMENCING WITH WORK IN QUESTION.
10. UNLESS NOTED OTHERWISE, PLAN DIMENSIONS ARE AS FOLLOWS: EXTERIOR DIMENSIONS TO FACE OF BRICK VENEER, BRICK VENEER MASONRY, CAST-IN-PLACE CONCRETE, PRECAST CONCRETE, AND CONCRETE MASONRY UNIT OPENING OR COLUMN CENTERLINE. STOREFRONT AND CURTAINWALL DIMENSIONS TO FACE OF ROUGH OPENINGS INCLUDING PERIMETER JOINT. INTERIOR DIMENSIONS TO FACE OF FINISH WALL, FURRED OR NOT.
11. INSTALL DOORS NOT LOCATED BY DIMENSION SUCH THAT EDGE OF DOOR FRAME TO FACE OF ADJACENT WALL IS 0'-4". SEE <A010> FOR DETAILS.
12. PRIOR TO PROCEEDING WITH WORK, COORDINATE SIZE AND LOCATION OF ALL OPENINGS AND ROUGH-INS THROUGH SLABS, WALLS, CEILING, AND ROOFS FOR DUCTS, PIPES, CONDUITS, CABINETS AND EQUIPMENT.
13. VERIFY EXISTING UTILITY LOCATIONS USING STATE ONE CALL SYSTEM BEFORE CONSTRUCTION STARTS. COORDINATE NEW UTILITY LOCATIONS, CONNECTIONS, PENETRATIONS, AND SERVICE ENTRANCES WITH FINDINGS.
14. PROVIDE ACCESS DOORS FOR CONCEALED VALVES, DAMPER CONTROLS, FIRE DAMPER LINKAGE, AND ELECTRICAL JUNCTION BOXES. COORDINATE MEP, AV/IT, SECURITY, AND LIFE SAFETY DEVICE/FIXTURE LOCATIONS TO AVOID CONFLICTS WITH CASEWORK, DOORS, AND OTHER TRADES.
15. PROVIDE CONSTRUCTION AND CONTROL JOINTS IN CONCRETE SLABS ON GRADE AND TOPPING SLABS PER ACI 224.3R-95 AND AS SHOWN OR DETAILED ON STRUCTURAL DRAWINGS.
16. SEAL PENETRATIONS OF NEW OR EXISTING FIRE-RATED FLOORS AND CEILING WITH FIRE-RESISTIVE SYSTEMS (078413) AND (078446) TO MATCH RATINGS OF ADJACENT CONSTRUCTION UNLESS NOTED OTHERWISE.
17. INSTALL JOINT SEALANT (079200) AT EXTERIOR SIDE OF JOINTS, SEAMS, CONNECTIONS, OR OPENINGS WHICH WOULD ALLOW WATER OR AIR INFILTRATION UNLESS NOTED OTHERWISE.
18. SEAL PERIMETER JOINTS, PENETRATIONS, VOIDS, AND PERIMETER OF DEVICE WALL BOXES THROUGH INTERIOR GYPSUM BOARD SURFACE OF EXTERIOR WALLS WITH LATEX JOINT SEALANT (079200).
19. PROVIDE CONCEALED BLOCKING FOR ALL WALL MOUNTED ITEMS (EQUIPMENT, HANDRAILS, MILLWORK, ACCESSORIES, ETC.). BLOCKING MAY NOT BE WHOLLY SHOWN/INDICATED ON DRAWINGS. WHERE CONSTRUCTION IS OF A NONCOMBUSTIBLE TYPE PROVIDE SHEET METAL OR FIRE RETARDANT TREATED (FRT) WOOD.



Site Key

NOT TO SCALE RE: /



Location Map

NOT TO SCALE RE: /



SHEET INDEX

#	Sheet Name
GENERAL	
G000	COVER SHEET
G001	SHEET INDEX, PROJECT INFORMATION & GENERAL NOTES
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CIVIL	
C001	SITE LAYOUT PLAN
C002	SITE GRADING PLAN
TS001	SITE SURVEY
ARCHITECTURAL DEMOLITION	
D100	ARCHITECTURAL DEMOLITION PLANS
D101	DEMOLITION PHOTOGRAPHS
ARCHITECTURAL	
A000	ARCHITECTURAL MATERIALS, GRAPHIC SYMBOLS, & ABBREVIATIONS
A001	ADA & INSTALLATION STANDARDS
A002	ADA & INSTALLATION STANDARDS
A010	DOORS, HORIZONTAL AND VERTICAL ASSEMBLIES
A050	ARCHITECTURAL SITE PLAN & BID ALTERNATES
A051	ALTERNATE #6 ELEVATION
A100	FLOOR PLAN
A101	FLOOR PLAN
A110	ROOF PLAN
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A300	EXTERIOR WALL SECTIONS
A500	INTERIOR ELEVATIONS AND DETAILS
A501	INTERIOR ELEVATIONS AND DETAILS
A650	INTERIOR SIGNAGE
A800	VOCATIONAL SHOP EQUIPMENT (FOR REFERENCE ONLY)
STRUCTURAL	
S001	GENERAL NOTES
S003	CONCRETE TYPICAL DETAILS
S005	STRUCTURAL STEEL TYPICAL DETAILS
S006	BRACE FRAMING PLAN
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S501	SECTIONS & DETAILS
MEP	
MEP100	SPECIFICATIONS
MEP101	SPECIFICATIONS
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MECHANICAL	
M100	DEMOLITION - FLOOR PLAN - LEVEL 1 & 2 - MECHANICAL
M100	PHASE 0 - FLOOR PLAN - LEVEL 1 & 2 - MECHANICAL
M200	MECHANICAL DETAILS, SCHEDULES, GENERAL NOTES, AND SYMBOLS
PLUMBING	
P100	PHASE 0 - FLOOR PLAN - LEVEL 1 - PLUMBING
P200	PLUMBING DETAILS, SCHEDULES, GENERAL NOTES, AND SYMBOLS
FIRE PROTECTION	
FP100	PHASE 0 - FLOOR PLAN - LEVEL 1 - FIRE PROTECTION
FP101	PHASE 0 - FLOOR PLAN - LEVEL 2 - FIRE PROTECTION
ELECTRICAL	
DE100	DEMOLITION - FLOOR PLAN - LEVEL 1 & 2 ELECTRICAL
E100	PHASE 0 - FLOOR PLAN - LEVEL 1 & 2 - POWER
E200	PHASE 0 - FLOOR PLAN - LEVEL 1 & 2 - LIGHTING
E300	PHASE 0 - FLOOR PLAN - LEVEL 1 & 2 - SYSTEMS
E400	ELECTRICAL DETAILS
E500	ELECTRICAL SCHEDULES
E501	ELECTRICAL SCHEDULES, GEN NOTES & SYMBOLS



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Jeremy B Kahm - Architect
 MO# A-2010035449

SHEET INDEX, PROJECT INFORMATION & GENERAL NOTES

G001

Finish Legend

CP1	SEALED CONCRETE LOCATION: FLOORS THROUGHOUT, U.N.O.	PA1	PAINT SYSTEM (099100) COLOR: TO MATCH SHERWIN WILLIAMS 757 HIGH REFLECTIVE WHITE LOCATION: GYPSUM BOARD WALLS
AC1	ACOUSTICAL CEILING PANELS (095113) MFG: ARMSTRONG PANEL PRODUCT/COLOR: ULTIMA 2X2 REGULAR/WHITE GRID/COLOR: 9/16" SUP/FINE/WHITE LOCATION: CLASSROOMS	PA2	PAINT SYSTEM (099100) COLOR: TO MATCH SHERWIN WILLIAMS 7015 REPOSE GRAY LOCATION: GYPSUM BOARD WALLS
RB1	RUBBER BASE (096513) MFG/PRODUCT: JOHNSONITE/2-1/2" COIL, STRAIGHT AT CARPET, COVE AT HARD SURFACE FLOORS COLOR: BURNT UMBER LOCATION: GYPSUM BD WALLS ONLY, THROUGHOUT, U.N.O.	PA3	PAINT SYSTEM (099100) COLOR: TO MATCH SHERWIN WILLIAMS 6966 BLUEBLOOD LOCATION: GYPSUM BOARD WALLS; CLASSROOM BACK WALL
LV1	LUXURY VINYL TILE (096800) MFG: TARKETT PRODUCT/COLOR: ID LATITUDE HEARTHSTONE 7242 18X18 INSTALLATION METHOD: ASHLAR LOCATION: CLASSROOMS	SF1	SPRAY-APPLIED FIREPROOFING ISOLATEK CAFCO BLAZE-SHIELD II OR EQUAL 1-HOUR MIN. RATING
HP1	HIGH PERFORMANCE COATING (099100) LOCATION: HM DOORS AND FRAMES	FINISH LEGEND AND SCHEDULE COMMENTS: 1. U.N.O. PAINT FINISH TO BE: EGGSHELL AT WALLS, FLAT AT GYP BD CEILINGS 2. RB1 AT GYP WALLS ONLY	
HP2	HIGH PERFORMANCE COATING (099100) LOCATION: DRYFALL PAINT SYSTEM	ROOM FINISH TAG ROOM NAME ROOM # FLOOR FINISH BASE FINISH WALL FINISH	
HP3	HIGH PERFORMANCE COATING (099100) LOCATION: PRIMARY STEEL STRUCTURE		

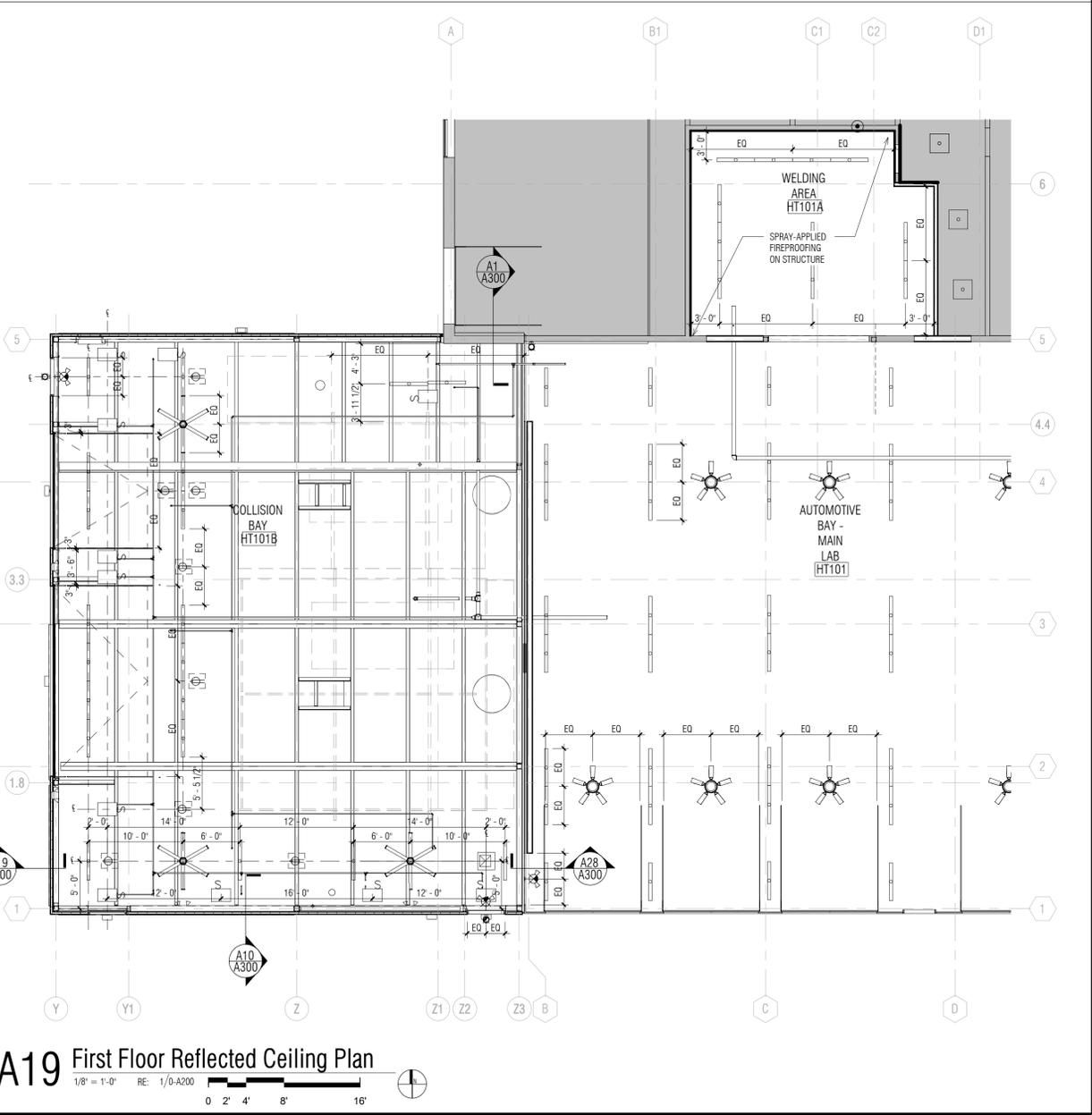
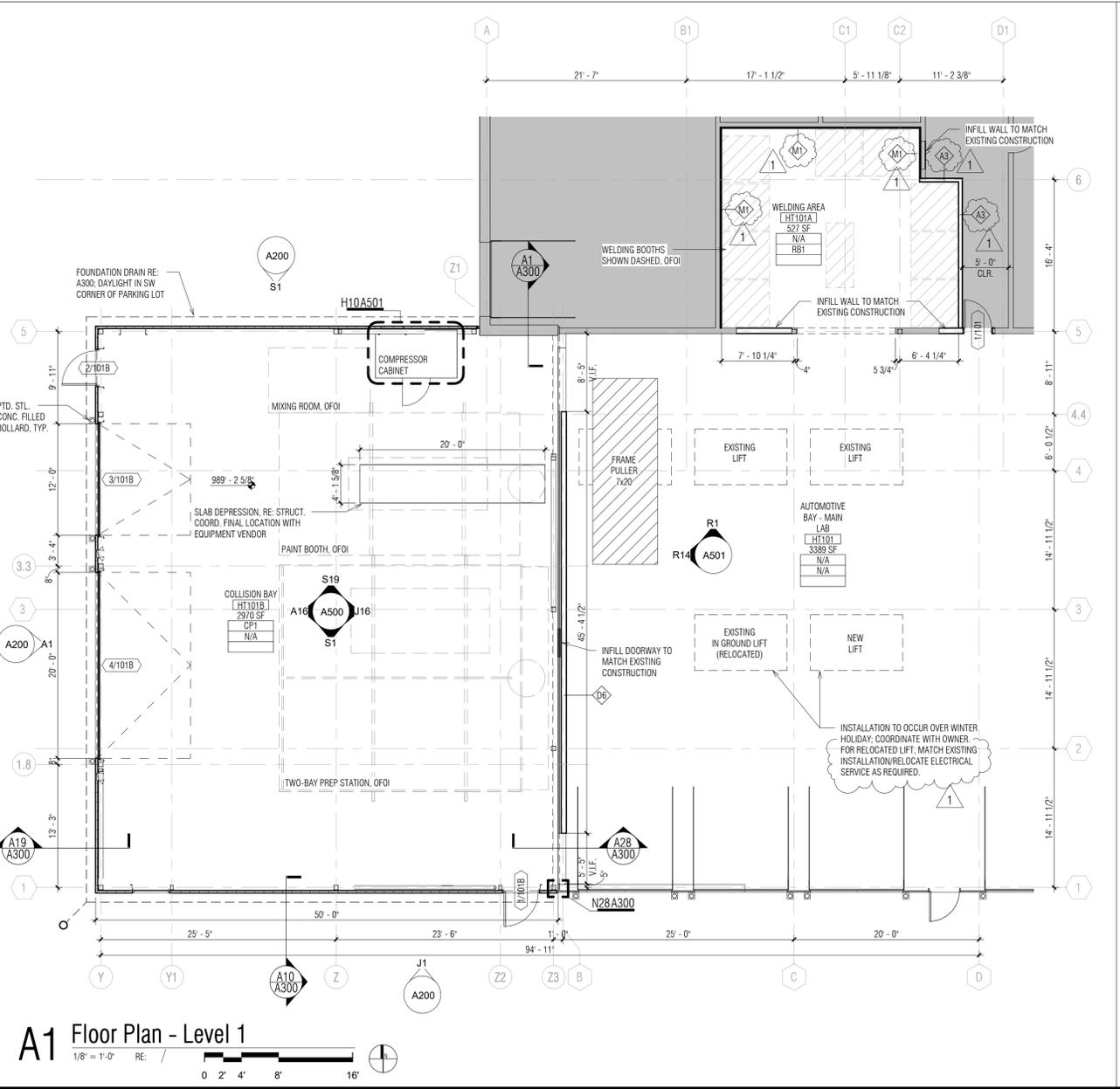
Finish Schedule									
Room Name	Room Number	Floor Finish	Base Finish	North Wall	East Wall	South Wall	West Wall	Ceiling Finish	Comments
AUTOMOTIVE BAY - MAIN LAB	HT101	N/A	N/A	N/A	N/A	N/A	N/A	N/A	EXISTING FINISHES TO REMAIN
WELDING AREA	HT101A	N/A	RB1	PA1	PA1	PA1	PA1	HP2, SF1	SPRAY-APPLIED FIREPROOFING AT PRIMARY STRUCTURE
COLLISION BAY	HT101B	CP1	N/A	HP3	HP3	HP3	HP3	HP2	
CLASSROOM	HT202	LV1	RB1	PA3	PA2	PA2	PA2	AC1	
COMPUTER ROOM	HT203	LV1	RB1	PA2	PA3	PA2	PA2	AC1	

PLAN GENERAL NOTES

- REFERENCE A000 FOR ARCHITECTURAL MATERIALS, GRAPHIC SYMBOLS AND ABBREVIATIONS.
- REFERENCE A001 & A002 FOR ACCESSIBILITY AND INSTALLATION STANDARDS.
- REFERENCE A010 FOR DOOR TYPES, FRAME TYPES AND SCHEDULES.
- REFERENCE A010 FOR WINDOW TYPES AND SCHEDULES.
- REFERENCE A010 FOR PARTITION TYPES AND DETAILS.
- REFERENCE A010 FOR ENVELOPE, FLOOR & CEILING ASSEMBLY TYPES.
- ALL INTERIOR PARTITIONS ARE TYPE C3 UNLESS NOTED OTHERWISE.
- UNLESS NOTED OTHERWISE, EXTERIOR DIMENSIONS ARE TO FACE OF BRICK VENEER, BRICK VENEER MASONRY, CAST-IN-PLACE CONCRETE, PRECAST CONCRETE, AND CONCRETE MASONRY UNIT OPENING OR COLUMN CENTERLINE.
- UNLESS NOTED OTHERWISE, STOREFRONT AND CURTAINWALL DIMENSIONS ARE TO FACE OF ROUGH OPENINGS.
- UNLESS NOTED OTHERWISE, INTERIOR DIMENSIONS ARE TO FINISHED FACE OF WALL, FURRED OR NOT.
- INSTALL DOORS NOT LOCATED BY DIMENSION SUCH THAT EDGE OF DOOR FRAME TO FACE OF ADJACENT WALL IS 0'-4"; SEE <A010> FOR DETAILS.
- SLOPE FLOOR TO FLOOR DRAINS AT 1/8" PER FOOT IN ALL DIRECTIONS, FROM TOP OF DRAIN UP TO INDICATED FLOOR ELEVATION, UNLESS NOTED OTHERWISE.
- PROVIDE MAXIMUM OCCUPANCY SIGNAGE AT ASSEMBLY SPACES IN A CONSPICUOUS LOCATION IN ACCORDANCE WITH APPLICABLE CODES. SUBMIT DESIGN TO ARCHITECT FOR APPROVAL.
- COORDINATE UTILITY ENTRANCES WITH CIVIL & MEP. PAINT UTILITY METERS & CABINETS AND ASSOCIATED PIPES/CONDUIT TO MATCH ADJACENT FINISH, TYPICAL.
- COORDINATE ELEVATOR REQUIREMENTS INCLUDING PIT SIZES, SLAB OPENINGS, SUMPS, ETC. WITH MANUFACTURER.
- PROVIDE FROST STOOPS AT ALL EXTERIOR DOORS, RE: LANDSCAPE AND STRUCTURAL.

REFLECTED CEILING PLAN GENERAL NOTES

- REFERENCE A000 FOR ARCHITECTURAL MATERIALS, GRAPHIC SYMBOLS AND ABBREVIATIONS.
- REFERENCE A001 & A002 FOR ACCESSIBILITY AND INSTALLATION STANDARDS.
- REFERENCE A041 FOR CEILING ASSEMBLY TYPES.
- ALL DIMENSIONS ON REFLECTED CEILING PLANS ARE CLEAR DIMENSIONS UNLESS NOTED OTHERWISE. PLAN DIMENSIONS TO FRAMED SOFFITS AND BULKHEADS ARE TO FACE OF FINISHED CONSTRUCTION.
- COORDINATE ALL CEILING MOUNTED OR ABOVE CEILING ITEMS INCLUDING MECHANICAL, ELECTRICAL, PLUMBING, SPEAKERS, FIRE SPRINKLERS, ETC.
- LOCATE SPRINKLER HEADS, LIGHT FIXTURES, ELECTRICAL, AV, IT, AND LIFE SAFETY DEVICES IN CENTER OF ACOUSTICAL PANEL (095113) SUPPORTED BY METAL SUSPENSION SYSTEMS UNLESS NOTED OTHERWISE.
- ACCESS SHALL BE PROVIDED AS REQUIRED FOR INSTALLATION AND MAINTENANCE OF ABOVE CEILING ELEMENTS. LOCATIONS AND TYPE(S) OF ACCESS PANELS, ETC. SHALL BE COORDINATED WITH OTHER TRADES AND REVIEWED BY ARCHITECT PRIOR TO ORDER AND INSTALLATION.
- ALIGN CEILING GRID IN ROOMS WITH ACOUSTIC CEILING TILE CEILING SYSTEM AS SHOWN IN CEILING PLAN. REFER TO INTERIOR ELEVATIONS AND BUILDING ELEVATIONS FOR MOUNTING HEIGHT OF WALL MOUNTED LIGHTS.
- ALL LIGHT FIXTURE DIMENSIONS ARE TO THE CENTERLINE OF THE FIXTURE UNLESS NOTED OTHERWISE.
- LOCATE LIGHT FIXTURES PER ARCHITECTURAL REFLECTED CEILING PLANS. REFER TO ELECTRICAL LIGHTING PLANS FOR FIXTURE TYPES AND QUANTITIES.
- VERIFY MOUNTING HEIGHTS OF ALL PENDANT FIXTURES WITH ARCHITECT PRIOR TO HANGING.
- REFER TO ELECTRICAL, MECHANICAL, AND FIRE SAFETY FOR ALL DEVICES. LOCATE PER ARCHITECTURAL DRAWINGS.
- SEAL ALL PENETRATIONS OF FIRE-RATED FLOOR, WALL, AND CEILING SYSTEMS WITH APPROVED FIRE-RATED ASSEMBLIES TO MATCH FIRE RATING OF SURROUNDING CONSTRUCTION (07 84 46). RE: A040 SERIES SHEETS FOR FIRE-RATED ASSEMBLIES AND PARTITION TYPES.



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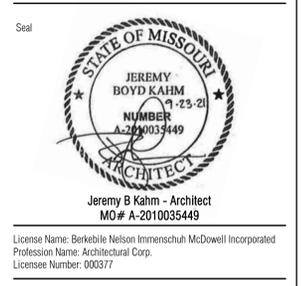
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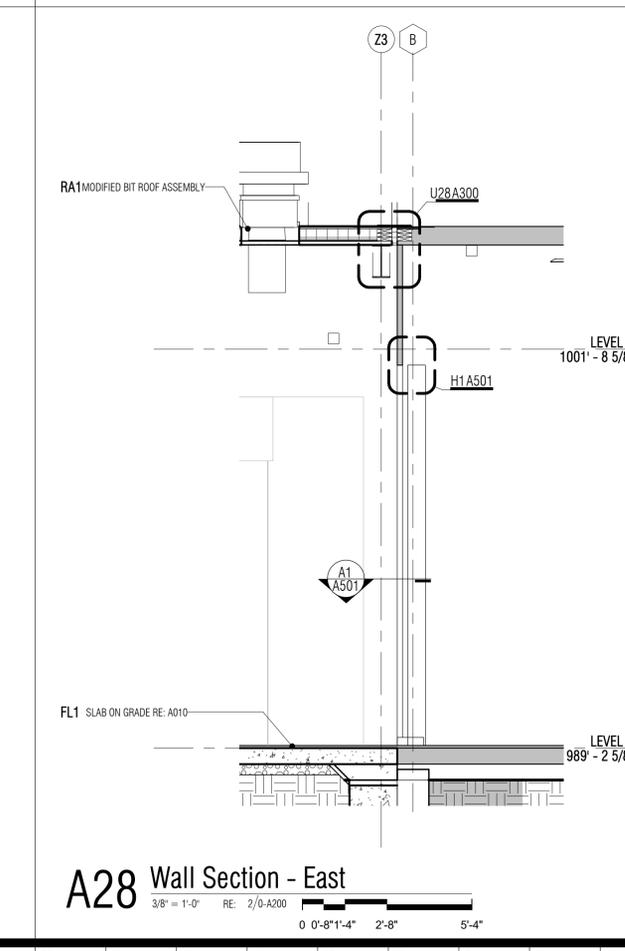
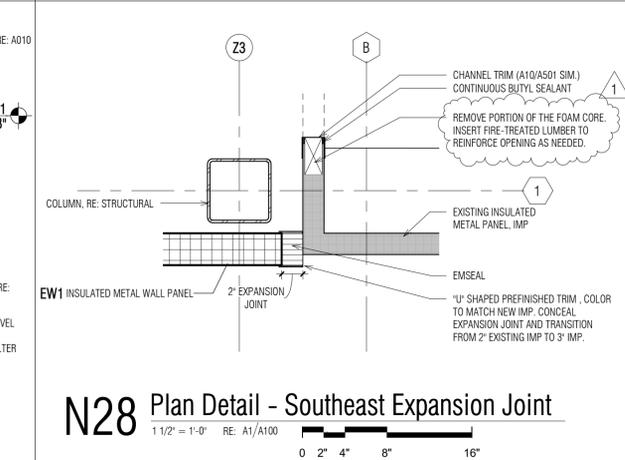
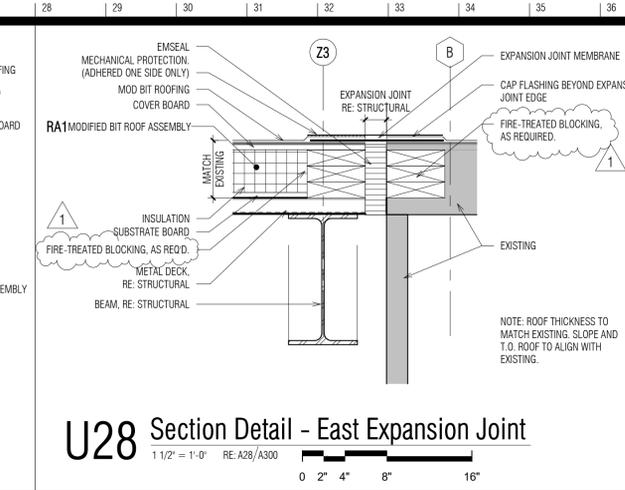
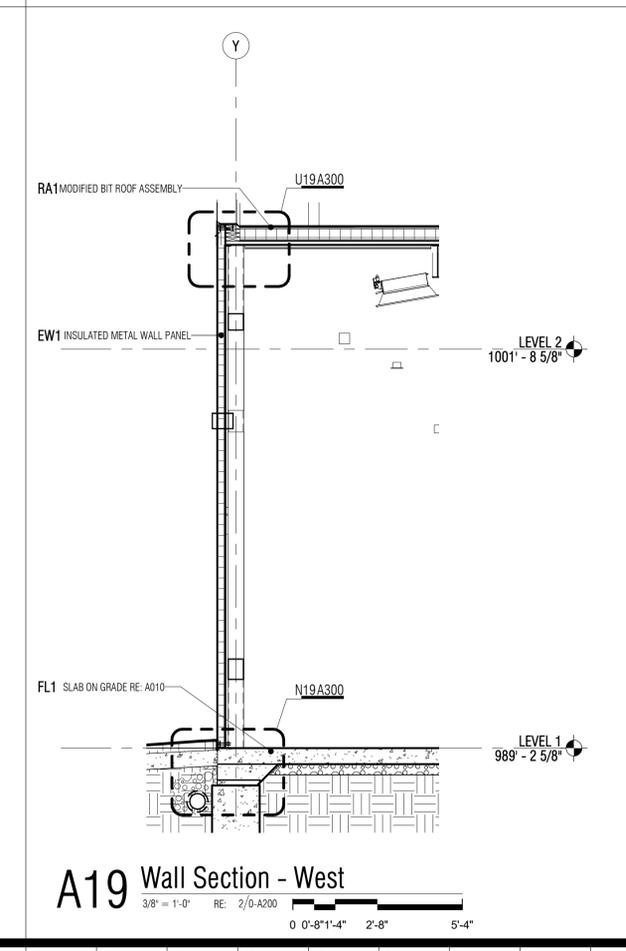
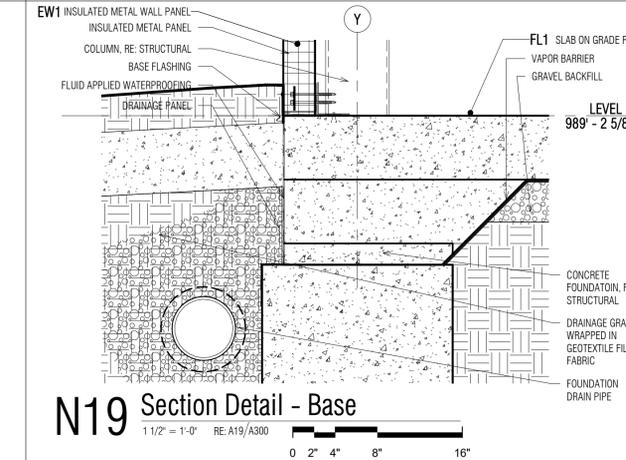
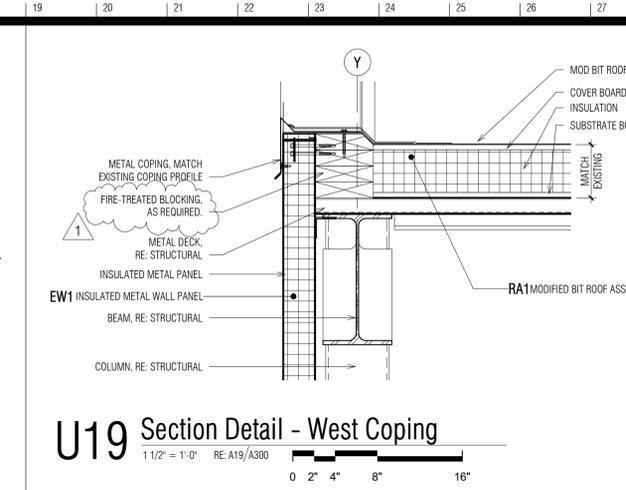
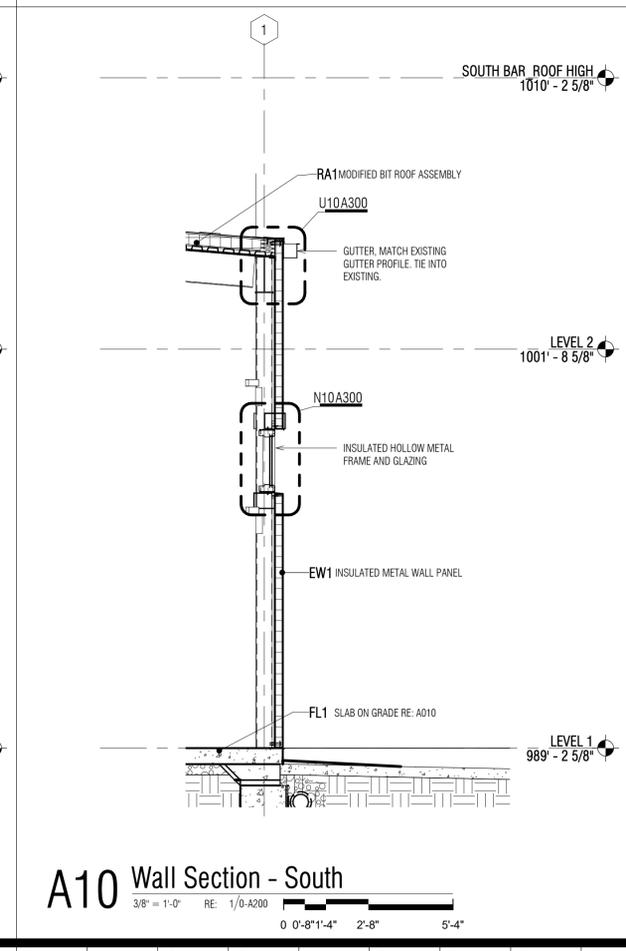
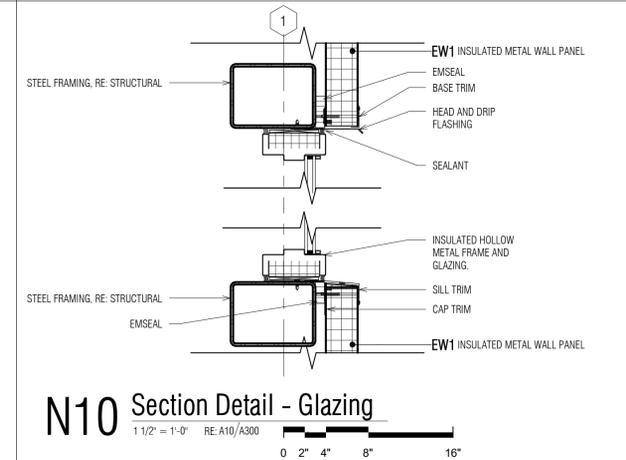
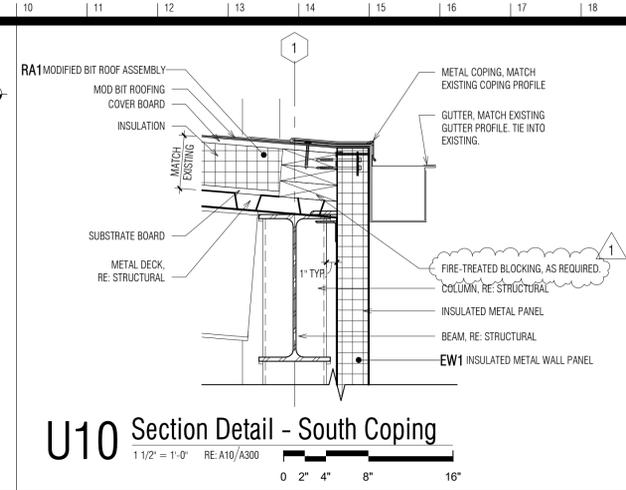
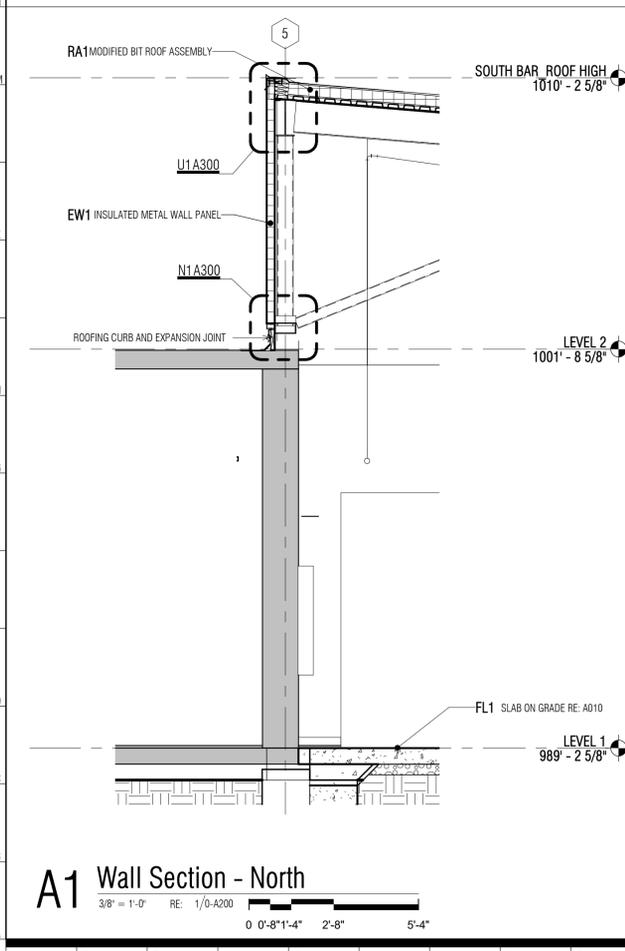
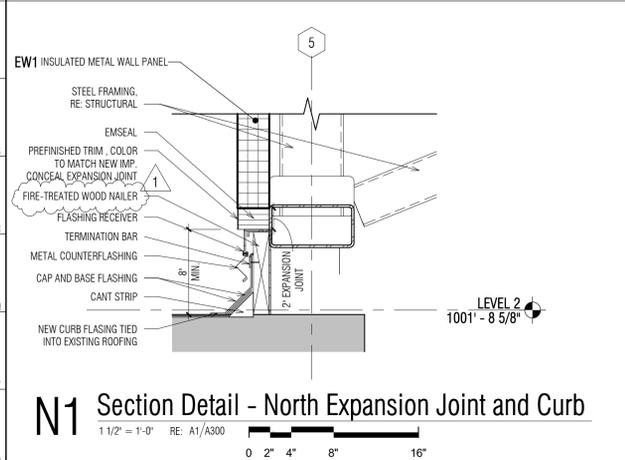
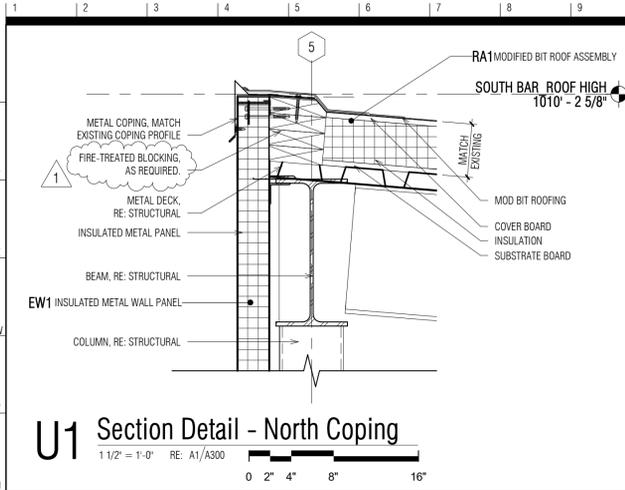
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FLOOR PLAN
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Seal

Jeremy B Kahm - Architect
 MO# A-2010035449

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
 Profession Name: Architectural Corp.
 License Number: 008377

EXTERIOR WALL SECTIONS

A300

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M FLOOR PLAN NOTES

- M01 INSTALL NEW CONDENSING UNIT ON 4" CONCRETE HOUSEKEEPING PAD PER MANUFACTURER'S RECOMMENDATIONS. VERIFY LOCATION WITH MANUFACTURER FOR CLEARANCE. SHIFT AS CLOSE AS POSSIBLE TO THE NORTH WALL.
- M02 ROUTE REFRIGERANT PIPING THRU EXTERIOR WALL AND UP TO ABOVE 2ND FLOOR CEILING. COORDINATE ROUTING WITH ARCHITECT/OWNER PRIOR TO INSTALLATION. SIZE PIPING PER MANUFACTURER'S RECOMMENDATIONS.
- M03 INSTALL INTAKE LOUVER IN EXTERIOR WALL PER MANUFACTURER'S RECOMMENDATIONS. LOUVER SHALL BE GREENHECK MODEL ESD-435 OR EQUAL, 30"x30" WITH KYNAR FINISH. COLOR TO BE SELECTED BY ARCHITECT. INSTALL LOUVER 12" ABOVE GRADE. COORDINATE EXACT LOCATION WITH ARCHITECT.
- M04 INSTALL INTAKE LOUVER IN EXTERIOR WALL PER MANUFACTURER'S RECOMMENDATIONS. LOUVER SHALL BE GREENHECK MODEL ESD-435 OR EQUAL, 60"x30" WITH KYNAR FINISH. COLOR TO BE SELECTED BY ARCHITECT. INSTALL LOUVER 12" ABOVE GRADE. COORDINATE EXACT LOCATION WITH ARCHITECT.
- M05 INSTALL EXHAUST FAN ON ROOF PER MANUFACTURER'S RECOMMENDATIONS. RE: DETAIL.
- M06 INSTALL MOTORIZED DAMPER PER MANUFACTURER'S RECOMMENDATIONS. INTERLOCK WITH EXHAUST FAN.
- M07 PROVIDE CARBON MONOXIDE/NITROGEN DIOXIDE PANEL WITH SENSORS TO CONTROL EXHAUST SYSTEM. INSTALL AND LOCATE SENSORS PER MANUFACTURER'S RECOMMENDATIONS.
- M08 INSTALL CIRCULATION FAN PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH ARCHITECT.
- M09 CIRCULATION FAN CONTROLLER INSTALLED ABOVE LIGHT SWITCHES.
- M10 SUSPEND INFRARED HEATER FROM STRUCTURE PER MANUFACTURER'S RECOMMENDATIONS.
- M11 INSTALL NEW FAN POWERED BOX WITHIN JOIST SPACE PER MANUFACTURER'S RECOMMENDATIONS. CONNECT 8" INLET DUCT TO EXISTING DUCT MAIN. CONNECT CONTROLS INTO EXISTING CONTROLS SYSTEM.
- M12 REBALANCE EXISTING FAN POWERED BOX TO CFM INDICATED.
- M13 RELOCATED THERMOSTAT. EXTEND WIRING AS REQUIRED TO RECONNECT TO EXISTING FAN POWERED BOX.
- M14 PROVIDE NEW DDC THERMOSTAT TO INTEGRATE NEW BOX INTO EXISTING CONTROLS SYSTEM.
- M15 INSTALL NEW COOLING COIL IN EXISTING AIR HANDLING UNIT. CONNECT TO EXISTING CONDENSATE DRAIN PIPING. COIL SHALL BE CARRIER 4DX, 35"x84"x6", 6-ROW, 8 FPI, 20.42 SQ. FT. FACE AREA, 490 FPM. FIELD VERIFY EXACT DIMENSIONS PRIOR TO ORDERING. PROVIDE RETURN AIR SENSOR, SUPPLY AIR SENSOR AND AIRFLOW SWITCH IN EXISTING AIR HANDLING UNIT AND WIRE TO NEW CONDENSATOR FOR PROPER OPERATION.
- M16 ALTERNATE #2. INSTALL NEW AIR HANDLING UNIT. CONNECT TO EXISTING PIPING, DUCTWORK, CONTROLS, ETC. REINSTALL EXISTING CONTROLS FOR PROPER OPERATION. BALANCE SUPPLY AND OUTSIDE AIR AIRFLOWS TO MATCH PREVIOUSLY MEASURED AIRFLOWS.
- M17 STUB 14"x14" DUCT DOWN TO 12" BELOW ROOF. PROVIDE 1"x1" GALVANIZED MESH OVER END OF DUCT.
- M18 CONNECT NEW 3/4" HEATING HOT WATER PIPING TO EXISTING MAINS ABOVE CEILING. FIELD VERIFY EXACT LOCATION.

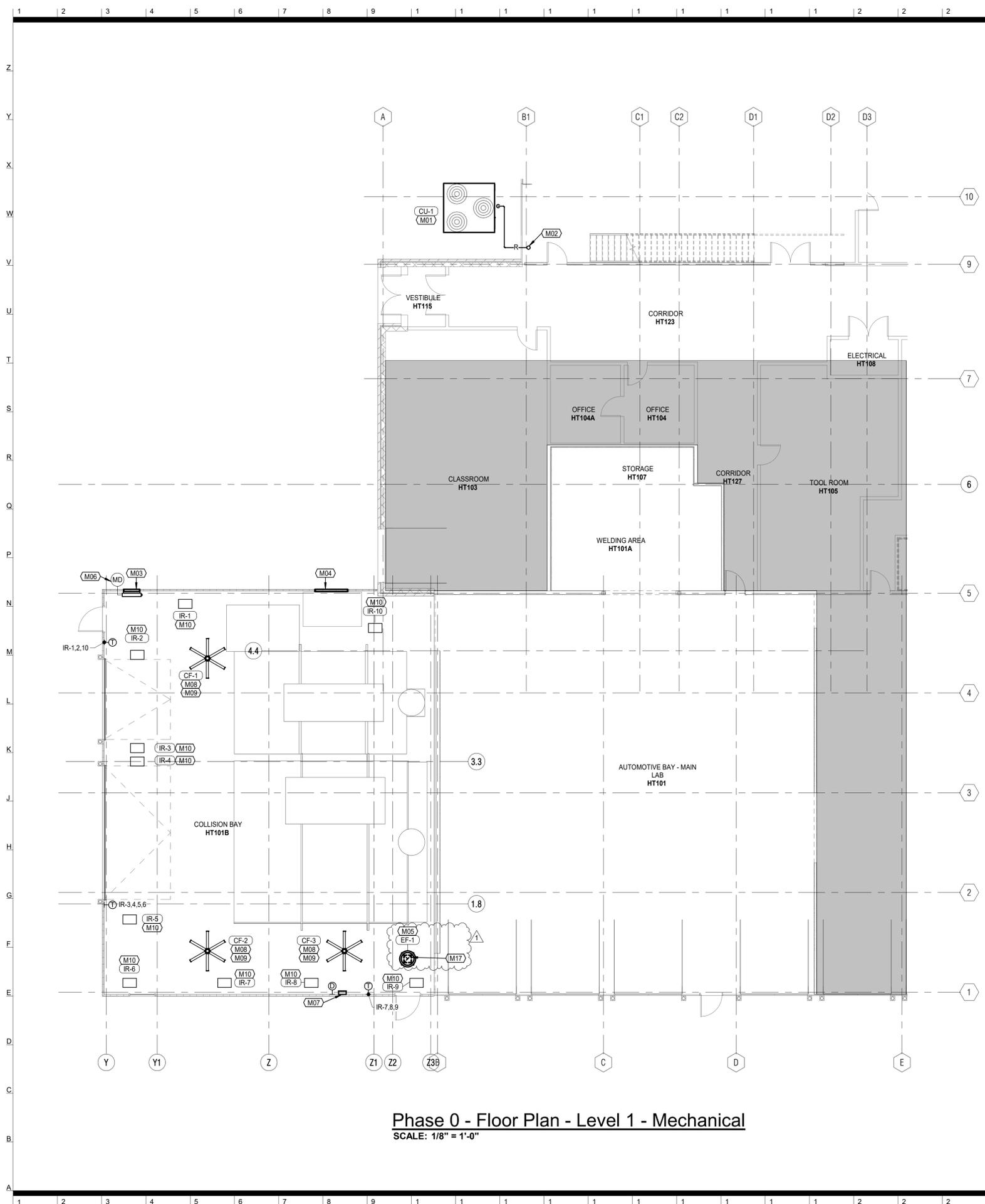
MCC Longview HT Addition/Renovation

500 SW Longview Road
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 No:

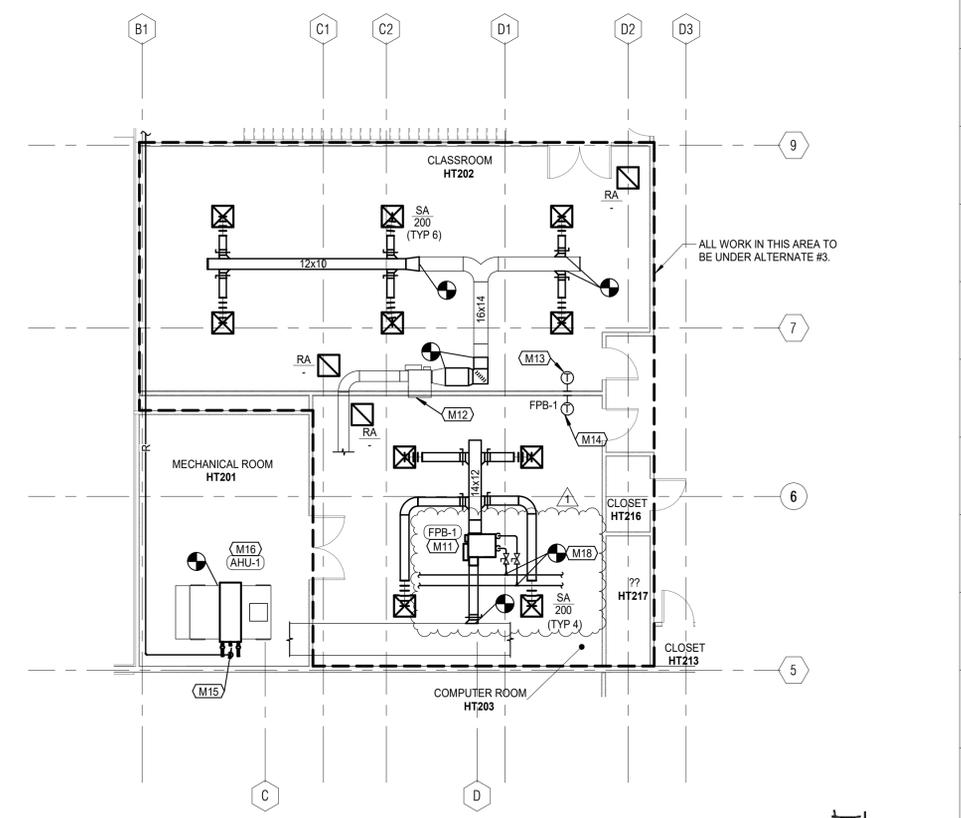
PERMIT/BID DOCUMENTS

Issue: September 23, 2021

Rev. #	Description	Date Issued
1	Addendum #3	10/25/2021



Phase 0 - Floor Plan - Level 1 - Mechanical
 SCALE: 1/8" = 1'-0"



Phase 0 - Floor Plan - Level 2 - Mechanical
 NOT TO SCALE

Lankford Fendler + associates
 1730 Walnut Street Kansas City, Missouri 64108 816.221.1411
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 L1F+ Project No. 21-6887-00
 Alan W. Lankford Mechanical Engineer - MO #04824
 Cole Fendler P.E.

License Name: Gregory J. Fendler
 Profession Name: MEP Consulting Engineers
 License Number: PE-2006037230

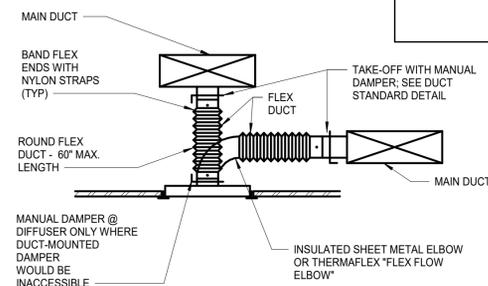
Phase 0 - Floor Plan - Level 1 & 2 - Mechanical

M100

AIR HANDLING UNIT SCHEDULE

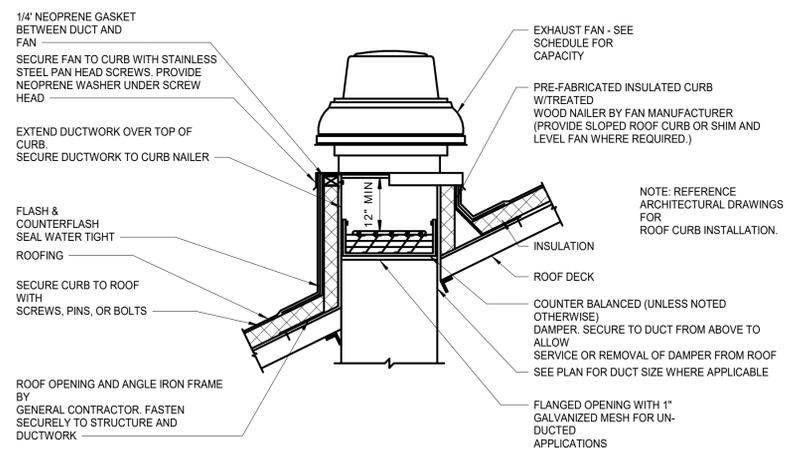
MARK NO.	MANUFACTURER	MODEL	AIRFLOW CFM	FAN TYPE	FAN SIZE	FAN RPM	EXT. S.P. (IN W.G.)	TOTAL S.P. (IN W.G.)	COOLING COIL				TOTAL MBH	SENS. MBH	E.D.B. (°F)	L.D.B. (°F)	TOTAL MBH	ELECTRICAL			NOTES
									E.D.B. (°F)	E.W.B. (°F)	L.D.B. (°F)	L.W.B. (°F)						VOLT	Ø	HZ	
AHU-1	CARRIER	39MN	9000	AIRFOIL	17W	2534.0	2	3.95	80	67.0	53.1	52.3	400.8	264.3	60	91.6	316	480	3	60	1,2,3

NOTES: 1. PROVIDE UNDER ALTERNATE #2. PROVIDE WITH VARIABLE FREQUENCY DRIVE, BACNET INTERFACE, RETURN AIR SENSOR, SUPPLY AIR SENSOR AND AIRFLOW SWITCH.
 2. CONTRACTOR SHALL FIELD VERIFY COIL CONNECTION HAND, ACCESS DOOR SIDE, FAN MOTOR SIDE AND FAN CONFIGURATION PRIOR TO ORDERING.
 3. PROVIDE WITH SUPPLY AND RETURN AIR SMOKE DETECTORS.

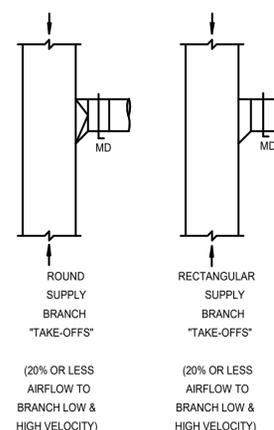


NOTE:
 1. BRANCH DUCT RUNOUT TO DIFFUSER SHALL BE THE SAME SIZE AS THE DIFFUSER NECK UNLESS OTHERWISE INDICATED ON PLAN.
 2. IN LOCATIONS WHERE TAKEOFFS ARE INSTALLED ABOVE HARD OR NON-ACCESSIBLE CEILINGS CONTRACTOR TO PROVIDE SCREWS TO PREVENT BRANCH DUCT FROM SLIDING OFF FITTING. INSPECT PRIOR TO CEILING INSTALLATION.

DIFFUSER DETAIL NOT TO SCALE



ROOF MOUNTED EXHAUST FAN DETAIL NOT TO SCALE



DUCT STANDARDS NOT TO SCALE

FAN POWERED BOX SCHEDULE

MARK NO.	MANUFACTURER	MODEL	FAN SIZE	INLET SIZE	MAX. AIR VALVE COOLING CFM	MIN. AIR VALVE COOLING CFM	MAX. AIR VALVE HEATING CFM	MAX. NC @1\"/>							
									FPB-1	PRICE	FDV-5000	20	8"	800	75

NOTES: 1. PROVIDE WITH DISCONNECT SWITCH, BACNET CONTROLLER, HOT WATER COIL, 3-WAY CONTROL VALVE, AIR PROOF SWITCH, SPRING HANGER BRACKETS, DISPOSABLE PLEATED RETURN AIR FILTER, SINGLE POINT POWER CONNECTION AND 24V TRANSFORMER FOR TEMPERATURE CONTROLS.

FAN SCHEDULE

MARK NO.	MANUFACTURER	MODEL	DIAMETER IN.	AIRFLOW (CFM)	# OF AIRFOILS	RPM	SOUND LEVEL (DBA)	COLOR	ELECTRICAL			WATTS	NOTES
									VOLT	Ø	HZ		
CF-1	BIG ASS FANS	ES6	72	9959	6	115	<35	WHITE	120	1	60	23.7	1
CF-2	BIG ASS FANS	ES6	72	9959	6	115	<35	WHITE	120	1	60	23.7	1
CF-3	BIG ASS FANS	ES6	72	9959	6	115	<35	WHITE	120	1	60	23.7	1

NOTES: 1. PROVIDE WITH FIXED WALL MOUNT CONTROLLER, UNIVERSAL MOUNT AND 42\"/>

FAN SCHEDULE

MARK NO.	MANUFACTURER	MODEL	TYPE	AIRFLOW (CFM)	S.P. (IN W.G.)	FAN TYPE	RPM	DRIVE	ELECTRICAL			HP	NOTES
									VOLT	Ø	HZ		
EF-1	GREENHECK	G-130	DOWNBLAST	1500	0.125	FC	1140	DIRECT	120	1	60	1/6	1

NOTES: 1. PROVIDE WITH SLOPED ROOF CURB, DISCONNECT SWITCH, SPEED CONTROLLER, HINGED CURB CAP, HINGED BASE, CURB SEAL, CURB EXTENSION, BIRD SCREEN, AND DAMPER.

CONDENSING UNIT SCHEDULE

MARK NO.	MANUFACTURER	MODEL	TOTAL (MBH)	AMB. (°F)	SAT. SUCTION TEMP (°F)	STAGES	EER	ELECTRICAL			NOTES
								VOLT	Ø	HZ	
CU-1	CARRIER	38APD040	448.3	100	45	2	10.40	480	3	60	1

NOTES: 1. PROVIDE WITH DISCONNECT SWITCH, DIGITAL COMPRESSOR, LOW SOUND FAN AND COMPRESSOR, ALUMINUM FIN/COPPER TUBE CONDENSER COILS, BACNET INTERFACE, COMPRESSOR CRANKCASE HEATER, LOW AMBIENT KIT, COMPRESSOR TIME-OFF CONTROL, AND HAIL GUARDS.

RADIANT HEATER SCHEDULE

MARK NO.	MANUFACTURER	MODEL	TYPE	INPUT (MBH)	ELECTRICAL			NOTES
					VOLT	Ø	HZ	
IR-1 THRU 10	SPACE RAY	RSCA3-N5	CERAMIC	26	120	1	60	1

NOTES: 1. PROVIDE WITH 24V DIRECT SPARK IGNITION, 120/24V TRANSFORMER, REMOTE THERMOSTAT (RE: DRAWINGS), ALUMINUM REFLECTOR, GAS SHUT-OFF SAFETY CONTROL, AND 45 DEG. MOUNTING HARDWARE.

DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	FACE SIZE (IN.)	NECK SIZE (IN.)	FRAME TYPE*	FINISH	NOTES
SA	PRICE	SPD	24x24	8"	LAY-IN	WHITE	
RA	PRICE	PDDR	24x24	-	LAY-IN	WHITE	

NOTES:
 *CONTRACTOR SHALL VERIFY CEILING TYPE PRIOR TO ORDERING DIFFUSERS.

GENERAL NOTES (TYPICAL ALL SHEETS)

- MECHANICAL CONTRACTOR IS RESPONSIBLE TO SEE THAT WORK MEETS AND IS IN ACCORDANCE WITH ALL REQUIREMENTS OF FEDERAL, STATE, AND LOCAL LAWS AND CODES AND/OR REQUIREMENTS, INCLUDING HEALTH CODES AND BUILDING OWNER.
- ALL EXISTING DUCTWORK SHOWN ON DRAWINGS IS SCHEMATIC AND DOES NOT REFLECT EXACT EXISTING CONDITIONS. CONTRACTOR TO FIELD VERIFY EXACT DEPTH AND/OR LOCATIONS ON JOB SITE. CONTRACTOR SHALL REROUTE NEW WORK TO ACCOMMODATE EXACT LOCATIONS OF EXISTING UTILITIES, STUBOUTS AND/OR CONNECTIONS.
- CUTTING AND PATCHING OF FLOORS, WALLS, CEILING, ETC., REQUIRED IN STRICT ACCORDANCE WITH THE RULES AND REGULATIONS OF THE ARCHITECT'S AND/OR BUILDING OWNER REQUIREMENTS.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION TO AVOID ROUTING CONFLICTS.
- ANY MATERIAL REMOVED THAT OWNER DOES NOT WISH TO RETAIN SHALL BE REMOVED FROM PROJECT SITE AND DISPOSED OF BY CONTRACTOR.
- MECHANICAL CONTRACTOR SHALL REMOVE, PATCH AIR TIGHT AND REINSULATE ALL DUCTWORK TAPS NOT REUSED WITH SAME MATERIAL AS EXISTING DUCTWORK.
- ALL REMOVED DEVICES THAT ARE BEING REUSED FOR NEW CONSTRUCTION SHALL BE CLEANED OF ALL DIRT AND STORED ON SITE.
- MECHANICAL CONTRACTOR SHALL AIR BALANCE ALL GRILLES TO CFM'S SHOWN ON PLANS.
- ALL THERMOSTATS SHALL BE MOUNTED TO MATCH BUILDING STANDARDS UNLESS OTHERWISE NOTED.
- MECHANICAL CONTRACTOR SHALL PROVIDE NEW 1" FARR TYPE PLEATED FILTERS ON ALL TERMINAL BOXES WHICH ARE IN PROJECT SCOPE OF WORK PRIOR TO BALANCING. PROVIDE TEMPORARY FILTERS ON RETURN AIR OPENINGS DURING CONSTRUCTION.
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND RETAINING ALL TEMPERATURE CONTROLS FROM EXISTING UNITS, FOR REINSTALLATION UNDER NEW WORK. UPON REINSTALLATION, CONTRACTOR SHALL VERIFY PROPER OPERATION AND NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING IF PROBLEMS ARE FOUND.
- ALL DUCTWORK, DIFFUSERS, TERMINAL UNITS, ETC. ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
- INSTALL ELASTOMERIC JOINT SEALER AROUND ALL DUCTS, PIPES, ETC. PASSING THRU INTERIOR NON-RATED CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS. FOR FIRE RATED INTERIOR CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS SEAL ALL DUCTS, PIPES, ETC. INSTALL FIRESTOP MATERIALS IN ALL GAPS PRIOR TO SEALANT APPLICATION. INSTALL SEALER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- MECHANICAL CONTRACTOR SHALL COORDINATE ALL TEMPERATURE CONTROL WORK WITH BUILDING OWNER. BUILDING SYSTEM SHALL REMAIN OPERATIONAL AT ALL TIMES.
- UPON REQUEST FOR ELECTRONIC FILES, CONTRACTOR SHALL FILL OUT, SIGN AND RETURN ELECTRONIC MEDIA RELEASE FORM FROM ENGINEER AND PROVIDE PAYMENT FOR FEES STIPULATED ON ELECTRONIC MEDIA RELEASE FORM. UPON RECEIPT OF COMPLETED RELEASE FORM AND PAYMENT, ELECTRONIC FILES WILL BE RELEASED.
- ALL CABLE TIES FOR LOW VOLTAGE SYSTEMS LOCATED IN PLENUMS UTILIZED FOR AIR MOVEMENT THAT ARE NOT INSTALLED IN CONDUIT SHALL BE 25/50 FLAME AND SMOKE RATED, HELLERMANN TYTON T50R2C2UL OR EQUIVALENT.

MECHANICAL SYMBOLS

- EXISTING DUCTWORK TO BE REMOVED
- EXISTING DUCT TO REMAIN
- NEW DUCTWORK
- FLEX DUCT
- EXHAUST DUCT
- SUPPLY DIFFUSER
- RETURN GRILLE
- MANUAL VOLUME DAMPER
- THERMOSTAT
- EQUIPMENT TYPE AND DESIGNATION
- TYPE MARK: (S) SUPPLY, (R) RETURN, (E) EXHAUST DIFFUSER OR GRILLE TYPE MARK AND CFM
- CONNECT TO EXISTING



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Taliaferro & Browne Civil Engineer
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Lankford Fendler + Associates MEPE Engineer
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 816-221-1411

MCC Longview HT Addition/Renovation

500 SW Longview Road
 Lee's Summit, MO 64081 Project 20008.00
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Rev. #	Description	Date Issued
1	Addendum #3	10/25/2021

License Name: Gregory J. Fendler
 Profession Name: MEP Consulting Engineers
 Licensee Number: PE-2006037230



MECHANICAL DETAILS, SCHEDULES, GENERAL NOTES, AND SYMBOLS

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 Alan W. Lankford - Mechanical Engineer - MO #042624
 GJK - F00000118

M200

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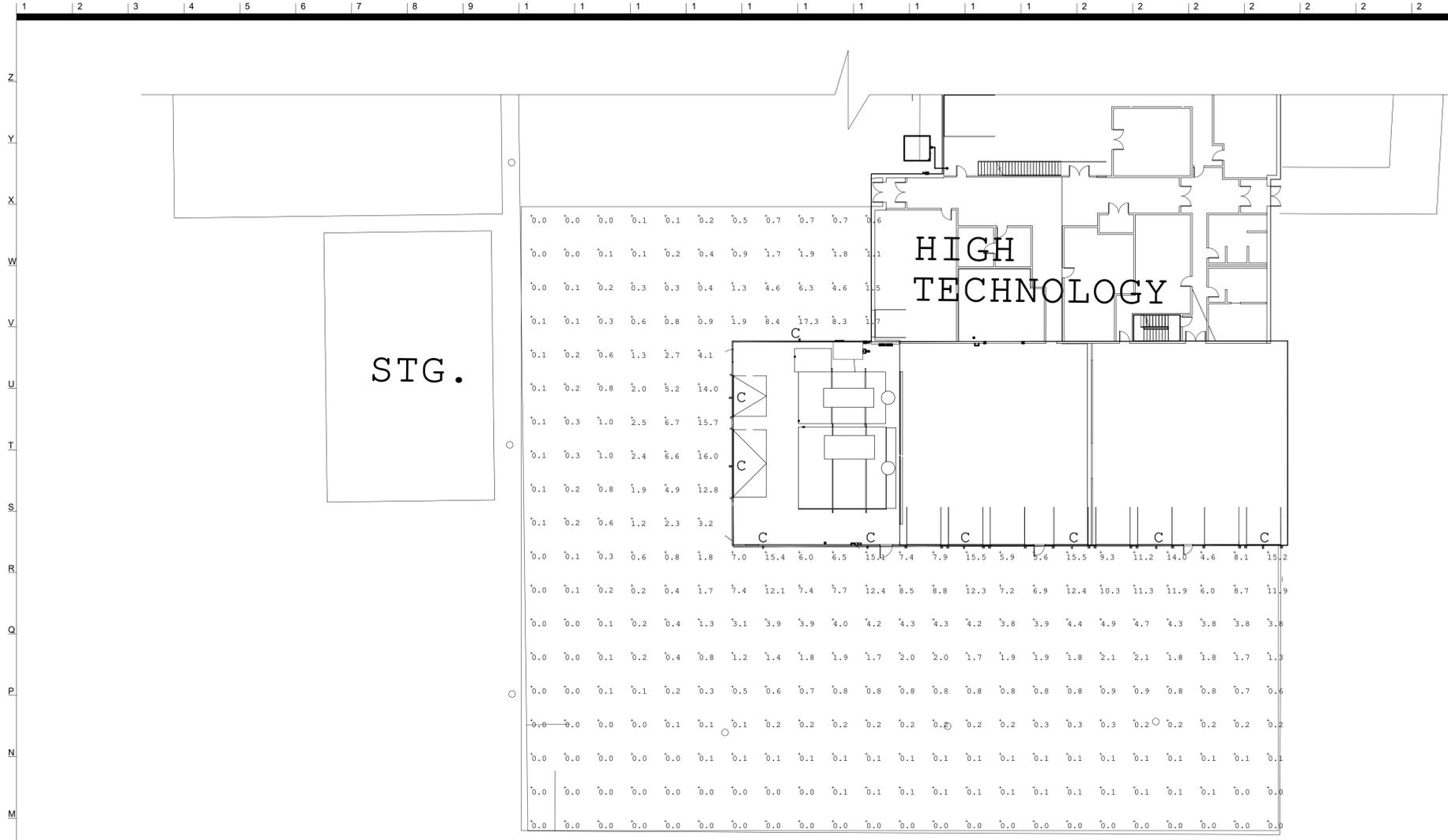
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Seal

License Name: Gregory J. Fendler
 Profession Name: MEP Consulting Engineers
 License Number: PE-2006037230

Lighting Photometrics
E201



PHOTOMETRIC PLAN-PAVED AREA

SCALE: 1" = 20'-0"

Symbol	Description	Tag	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
☐	COOPER LIGHTING SOLUTIONS - LUMARK - XTORB8	C	0.950	8502	81	729

Label	Units	Avg	Max	Min
Paved Area	Fc	2.25	17.3	0.0
Property Line	Fc	0.00	0.0	0.0

DISCLAIMER:
 These calculation have been performed according to IES standards and good practice. There may be differences between measured values and results presented herein, based on the extent in which field condition deviate from the input data. All attached drawing(s) images are for photometric reference only.

Lumark

Catalog #	Type
Project	Date
Comments	
Prepared by	

DESCRIPTION
 The patented Lumark Crosstour™ MAXX LED wall pack series of luminaires provides low-profile architectural style with super bright, energy-efficient LEDs. The rugged die-cast aluminum construction, back box with secure lock hinges, stainless steel hardware along with a sealed and gasketed optical compartment make Crosstour impervious to contaminants. The Crosstour MAXX wall luminaire is ideal for wall surface, inverted mount for facade/canopy illumination, perimeter and site lighting. Typical applications include pedestrian walkways, building entrances, multi-use facilities, industrial facilities, perimeter parking areas, storage facilities, institutions, schools and loading docks.

SPECIFICATION FEATURES

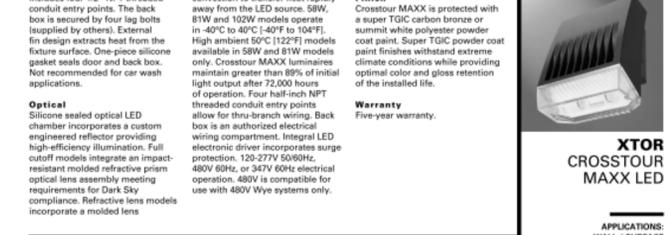
Construction
 Low-profile LED design with rugged one-piece, die-cast aluminum back box and hinged removable door. Matching housing styles incorporate both a full cutoff and refractive lens design. Full cutoff and refractive lens models are available in 8W, 81W and 102W. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes four 1/2" NPT threaded conduit entry points. The back box is secured by four lag bolts (supplied by others). External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

Optical
 Silicone sealed optical LED chamber incorporates a custom engineered reflector providing high-efficiency illumination. Full cutoff models integrate an impact-resistant molded refractive prism optical lens assembly meeting requirements for Dark Sky compliance. Refractive lens models incorporate a molded lens

Emergency Egress
 Optional integral cold weather battery emergency egress includes emergency operation test switch (available in 81W and 81W models only), an AC-ON indicator light and a premium extended rated sealed maintenance-free nickel-metal hydride battery pack. The separate emergency lighting LEDs are wired to provide redundant emergency lighting. Listed to UL Standard 924, Emergency Lighting.

Finish
 Crosstour MAXX is protected with a super TGIC carbon bronze or summit white polyester powder coat paint. Super TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty
 Five-year warranty.



APPLICATIONS:
 WALL / SURFACE
 INVERTED
 SITE LIGHTING

CERTIFICATION DATA
 UL/cUL Wet Location Listed
 Dark Sky Approved (Full cutoff, Full cutoff, and 3000K CCT only)
 DesignLights Consortium® Qualified®
 LM79 (LM80 Compliant)
 RoHS Compliant
 NEMA Compliant Models
 3G Vibration Tested
 UL504 Listed (CBP Models)
 IP68 Rated

TECHNICAL DATA
 40°C Ambient Temperature
 External Supply Wiring 90°C Minimum

EPA
 Effective Projected Area (Sq. Ft.):
 XTORB8, XTORB8, XTOR12B=0.54

SHIPPING DATA:
 Approximate Net Weight:
 12.15 lbs., 34.4.8 lbs.

COOPER Lighting Solutions
 www.designlights.org
 November 30, 2020 1:50 PM

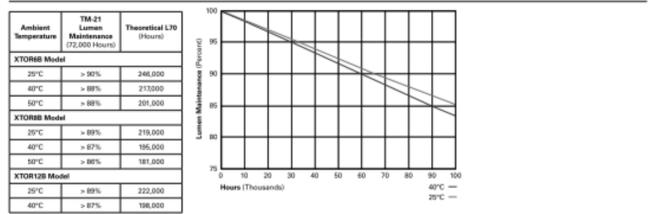
POWER AND LUMENS BY FIXTURE MODEL

LED Information	8W Series					
	XTORB8	XTORB8RL	XTORB8-W	XTORB8L-W	XTORB8-Y	XTORB8RL-Y
Delivered Lumens	6,129	6,225	6,038	6,133	5,611	5,828
B.U.G. Rating	B1-U0-G1	B2-U4-G3	B1-U0-G1	B2-U4-G3	B1-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K	3000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70
Power Consumption (Watts)	8W	8W	8W	8W	8W	8W

LED Information	81W Series					
	XTORB81	XTORB81RL	XTORB81-W	XTORB81L-W	XTORB81-Y	XTORB81RL-Y
Delivered Lumens	8,502	8,635	8,372	8,504	7,748	8,079
B.U.G. Rating	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K	3000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70
Power Consumption (Watts)	81W	81W	81W	81W	81W	81W

LED Information	102W Series					
	XTOR12B	XTOR12BRL	XTOR12B-W	XTOR12BRL-W	XTOR12B-Y	XTOR12BRL-Y
Delivered Lumens	12,728	13,458	12,539	13,258	11,861	12,595
B.U.G. Rating	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K	3000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70
Power Consumption (Watts)	102W	102W	102W	102W	102W	102W

EGRESS Information	XTORB8 and XTORB8 Full Cutoff CBP Egress LED		XTORB8 and XTORB8 Refractive Lens CBP Egress LED	
	Delivered Lumens	509	N.A.	468
B.U.G. Rating	N.A.	N.A.	400K	N.A.
CCT (Kelvin)	4000K	4000K	4000K	4000K
CRI (Color Rendering Index)	65	65	65	65
Power Consumption (Watts)	1.8W	1.8W	1.8W	1.8W



CURRENT DRAW

Voltage	Model Series				
	XTORB8	XTORB81	XTOR12B	XTORB8 CBP (Fixture/Battery)	XTOR12B CBP (Fixture/Battery)
120V	0.51	0.71	0.84	0.0025	0.0025
208V	0.25	0.39	0.52	-	-
240V	0.25	0.35	0.45	-	-
277V	0.22	0.31	0.39	0.365/21	0.560/21
347V	0.19	0.25	0.33	-	-
480V	0.14	0.19	0.24	-	-

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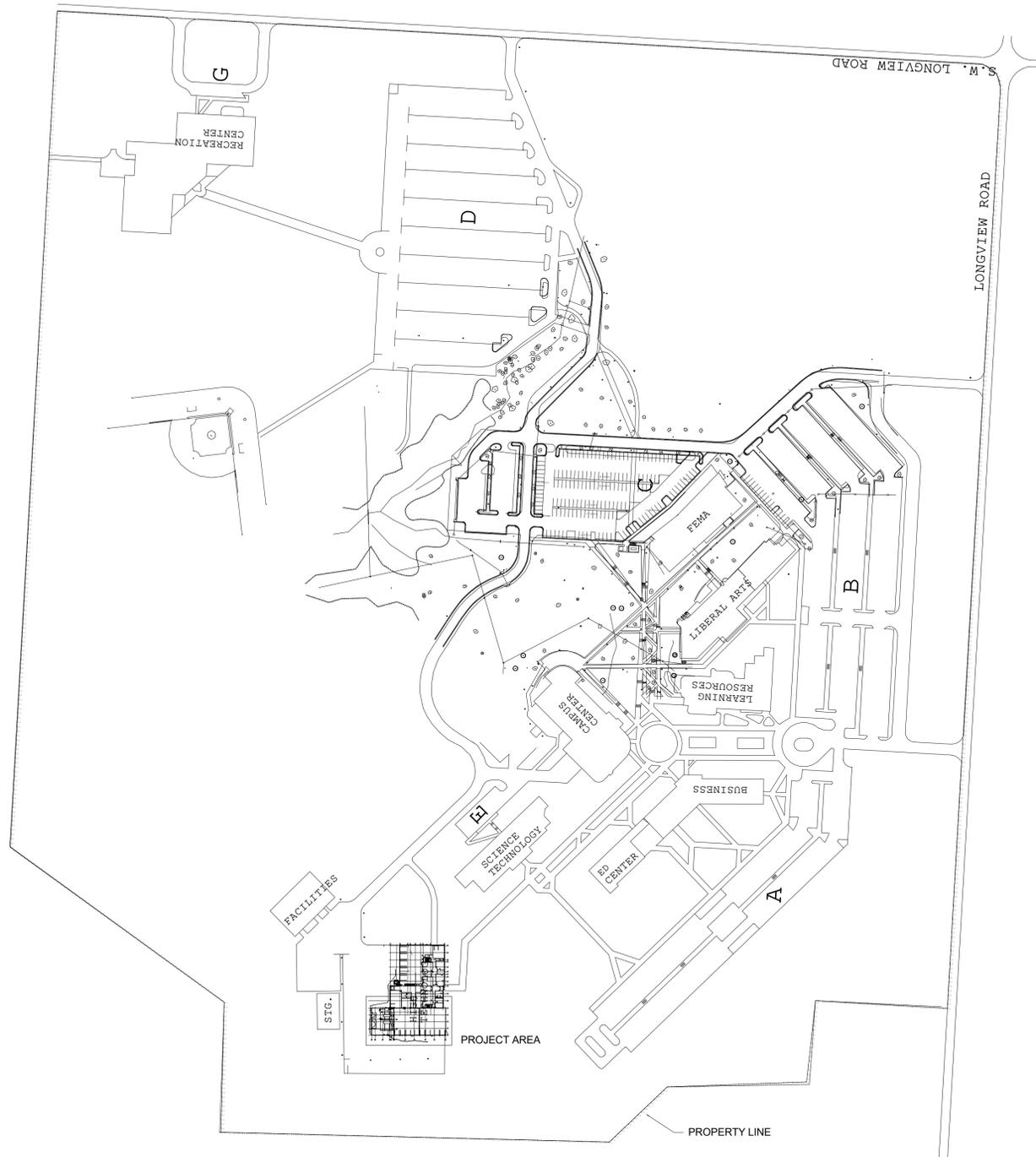
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Seal

LIGHTING-PROPERTY LINE PHOTOMETRICS

SCALE: 1" = 160'-0"



Calculation Summary				
Label	Units	Avg	Max	Min
PropertyLine	Fc	0.00	0.0	0.0

DISCLAIMER:
These calculations have been performed according to IES standards and good practice. There may be differences between measured values and results presented herein, based on the extent in which field conditions deviate from the input data. All attached drawing(s) images are for photometric reference only.

LIGHTING PHOTOMETRIC

E202

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 2460 East Pershing Road, Suite 100, Jackson County,
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 Profession Name: MEP Consulting Engineers
 License Number: PE-2006037230

ELECTRICAL SCHEDULES
E500



Branch Panel: PPC																	
Location: COLLISION BAY HT101B				Volts: 120/208 Wye				A.I.C. Rating:									
Supply From:				Phases: 3				Mains Type: MLO									
Mounting: Surface				Wires: 4				Mains Rating: 100 A									
Enclosure: Type 1				Notes:													
Notes	CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT	Notes		
	1	REC; WELDING AREA	20 A	1	0.9			0.9				1	20 A	REC; WELDING AREA	2		
	3	REC; COLLISION BAY GENERAL...	20 A	1		0.9			0.5			1	20 A	REC; COLLISION BAY GARAGE DOOR	4		
	5	REC; COLLISION BAY GARAGE DOOR	20 A	1			0.5			0.9		1	20 A	REC; COLLISION BAY CORD AND PLUG...	6		
	7	FPB-1	20 A	2	2.5				0.78			1	20 A	IR-1 - IR-10	8		
	9					2.5				13.8		1	20 A	MIXING BOOTH	10		
	11	MIXING BOOTH	20 A	1			0.4					1	20 A	IDD DOWN DRAFT BOOTH	12		
	13	MCD CROSS DRAFT BOOTH	20 A	1	1.2				1.2			1	20 A	MCD CROSS DRAFT BOOTH	14		
	15	SPARE	20 A	1		0						1	20 A	SPARE	16	--	
	17	SPARE	20 A	1			0					0	1	20 A	SPARE	18	--
	19	PROVISION	--	--	0							--	--	PROVISION	20	--	
	21	PROVISION	--	--		0						--	--	PROVISION	22	--	
	23	PROVISION	--	--			0					--	--	PROVISION	24	--	
	25	PROVISION	--	--	0							--	--	PROVISION	26	--	
	27	PROVISION	--	--				0				--	--	PROVISION	28	--	
	29	PROVISION	--	--					0			--	--	PROVISION	30	--	
	31	PROVISION	--	--	0							--	--	PROVISION	32	--	
	33	PROVISION	--	--		0						--	--	PROVISION	34	--	
	35	PROVISION	--	--			0					--	--	PROVISION	36	--	
	37	PROVISION	--	--	0					0		--	--	PROVISION	38	--	
	39	PROVISION	--	--				0				--	--	PROVISION	40	--	
	41	PROVISION	--	--					0			--	--	PROVISION	42	--	
Total Load:					7.480 kVA		17.700 kVA		3.120 kVA								
Total Amps:					67.9 A		153.1 A		26.0 A								
Load Classification		Connected Load	Demand Factor	Estimated Demand	Panel Totals												
Heating Resistance		62700 VA	125.00%	78375 VA	Total Conn. Load:	63278 VA											
Lighting		572 VA	125.00%	716 VA	Total Conn. Current:	76 A											
Other		6 VA	100.00%	6 VA	Total Demand Load:	79097 VA											
Power		0 VA	0.00%	0 VA	Power Factor %:	95											
					Total Demand Current:	100 A											
NOTES:																	
1. PROVIDE SHUNT-TRIP TYPE CIRCUIT BREAKER, TIE INTO FA SYSTEM FOR UNIT SHUT-DOWN.																	
GENERAL NOTES:																	

Branch Panel: HPC																	
Location: COLLISION BAY HT101B				Volts: 277/480 Wye				A.I.C. Rating:									
Supply From:				Phases: 3				Mains Type:									
Mounting: Surface				Wires: 4				Mains Rating: 100 A									
Enclosure: Type 1				Notes:													
Notes	CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT	Notes		
	1	IDD DOWN DRAFT BOOTH	20 A	3	2.1			0.578				1	20 A	LTG; COLLISION BAY	2		
	3	IDD DOWN DRAFT BOOTH	20 A	3		2.1			0			1	20 A	SPARE	4	--	
	5						2.1					0	1	20 A	SPARE	6	--
	7				5.8				0			--	--	PROVISION	8	--	
	9	IDD DOWN DRAFT BOOTH	30 A	3		5.8			0			--	--	PROVISION	10	--	
	11						5.8					--	--	PROVISION	12	--	
	13				7.5				0			--	--	PROVISION	14	--	
	15	MCD CROSS DRAFT BOOTH	30 A	3		7.5			0			--	--	PROVISION	16	--	
	17						7.5					--	--	PROVISION	18	--	
	19				5.5				0			--	--	PROVISION	20	--	
	21	MCD CROSS DRAFT BOOTH	30 A	3		5.5			0			--	--	PROVISION	22	--	
	23						5.5					--	--	PROVISION	24	--	
	25	PROVISION	--	--	0				0			--	--	PROVISION	26	--	
	27	PROVISION	--	--				0				--	--	PROVISION	28	--	
	29	PROVISION	--	--					0			--	--	PROVISION	30	--	
	31	PROVISION	--	--	0							--	--	PROVISION	32	--	
	33	PROVISION	--	--		0						--	--	PROVISION	34	--	
	35	PROVISION	--	--			0					--	--	PROVISION	36	--	
	37	PROVISION	--	--	0							--	--	PROVISION	38	--	
	39	PROVISION	--	--				0				--	--	PROVISION	40	--	
	41	PROVISION	--	--					0			--	--	PROVISION	42	--	
Total Load:					21.478 kVA		20.900 kVA		20.900 kVA								
Total Amps:					77.5 A		75.5 A		75.5 A								
Load Classification		Connected Load	Demand Factor	Estimated Demand	Panel Totals												
Heating Resistance		62700 VA	125.00%	78375 VA	Total Conn. Load:	63278 VA											
Lighting		572 VA	125.00%	716 VA	Total Conn. Current:	76 A											
Other		6 VA	100.00%	6 VA	Total Demand Load:	79097 VA											
Power		0 VA	0.00%	0 VA	Power Factor %:	95											
					Total Demand Current:	100 A											
NOTES:																	
1. PROVIDE SHUNT-TRIP TYPE CIRCUIT BREAKER, TIE INTO FA SYSTEM FOR UNIT SHUT-DOWN.																	
GENERAL NOTES:																	

BRANCH CIRCUIT COPPER CONDUCTOR AND CONDUIT SIZING CHART						
OVERCURRENT PROTECTION DEVICE RATING (AMPS)	REQUIRED CONDUCTOR SIZE	EQUIPMENT GROUNDING CONDUCTOR SIZE	SINGLE PHASE 2 WIRE + GND. CONDUIT SIZE	SINGLE PHASE 3 WIRE + GND. CONDUIT SIZE	THREE PHASE 3 WIRE + GND. CONDUIT SIZE	THREE PHASE 4 WIRE + GND. CONDUIT SIZE
15	12 AWG	12 AWG	3/4"	3/4"	3/4"	3/4"
20	12 AWG	12 AWG	3/4"	3/4"	3/4"	3/4"
25	10 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
30	10 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
35	8 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
40	8 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
45	6 AWG	10 AWG	3/4"	3/4"	3/4"	1"
50	6 AWG	10 AWG	3/4"	3/4"	3/4"	1"
60	4 AWG	10 AWG	1"	1"	1"	1-1/4"
70	4 AWG	8 AWG	1"	1"	1"	1-1/4"
80	3 AWG	8 AWG	1"	1-1/4"	1-1/4"	1-1/4"
90	2 AWG	8 AWG	1"	1-1/4"	1-1/4"	1-1/4"
100	1 AWG	8 AWG	1-1/4"	1-1/2"	1-1/2"	1-1/2"

- * = UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- * = UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL BRANCH CIRCUITS AND FEEDERS TO BE PROVIDED WITH A NEUTRAL WIRE.
- * = ALL CONDUCTORS SIZED ON THE POWER RISER DIAGRAM OR IN BRANCH CIRCUIT CONDUCTOR TABLE ARE BASED ON 3 CURRENT CARRYING CONDUCTORS IN A RACEWAY OR CABLE. CONDUCTORS SHALL BE DERATED IN ACCORDANCE WITH THE NEC IF 4 OR MORE CONDUCTORS ARE PLACED IN A RACEWAY OR CABLE.