Bay Arenac ISD Dining Room Addition
and Interior Renovations
Bay City, Michigan

TSSF Architects, Inc.
122 N. Washington Ave.
Saginaw, MI 48607

ADDENDUM NO. 4
Date: August 5, 2026
TSSF Project # 2538

This addendum authorizes the following revisions to the plans and specifications for the above-named project and will be considered fully a part of said documents.

ARCHITECTURAL:

Item A1: **See revised Cover Sheet T1.0 (re-issued):** Signed and sealed as requested.

Item A2: **See revised sheet A0.1 (re-issued):** See revisions shown clouded.
A. Added (FULLY SPRINKLERED) note to the addition as this was the original intended design.
B. Added Allowable Building Height and Area table for the addition.
C. Added non-opaque information to energy code table.
D. Added note regarding direction and exception for 2-hr fire separation at addition.

Item A3: **See revised sheet A2.0 (re-issued):** Added information on 2-hr. separation and Wall Type "D".

Item A4: **See revised sheet A6.0 (re-issued):** See added wall section 4/A6.0 for 2-hr wall separation.

ELECTRICAL:

Item E1: **See revised sheet E0.0 (re-issued):** Revied Electrical Fixture Schedule

Item E2: **See revised sheet E1.0 (re-issued):** Revised Receptacle Control Matrix and notations on plan.

Item E3: **See revised sheet E5.0 (re-issued):** Added Split-Circuit Receptacle Detail

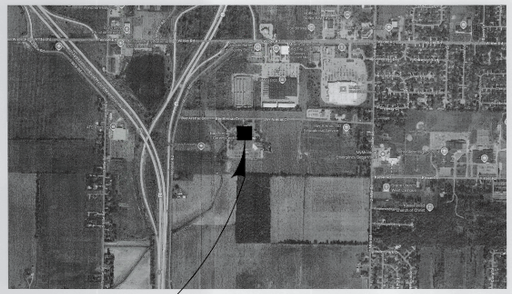
ATTACHMENTS: Sheets T1.0 A0.1, A2.0, A6.0, E0.0, E1.0, E5.0

DINING ROOM ADDITION AND RENOVATIONS FOR:

BAY ARENAC ISD

4155 MONITOR RD.

BAY CITY, MICHIGAN 48706



SITE LOCATION MAP
NO SCALE

Architect:

TSSF ARCHITECTS, INC.

ARCHITECTS INTERIORS PLANNERS

122 N. WASHINGTON AVENUE SAGINAW , MICHIGAN

Civil:

MLR Engineering
CIVIL ENGINEERING & CONSULTING SERVICES
134 S. Main Street, Suite 1, Freeland, Michigan 48623
Phone: (989)239-2384
www.mlrengineering.com

Structural:

SNYDER & STALEY ENGINEERING, P.L.C.
CONSULTING ENGINEERS
3085 BAY ROAD, SUITE 6
SAGINAW, MI 48603
PH: (989) 797-1710 FX: (989) 797-1715

Mechanical / Electrical:

KTS ENGINEERING GROUP
491 E. WRIGHT AVE.
SHEPHERD, MI 48883
Ph. (989)567-1100
Info@KTSEngineeringGroup.com

DRAWING INDEX:

STATE OF MICHIGAN
CHRISTOPHER BOHINSKI
ARCHITECT
No. 1301058059
LICENSED ARCHITECT
8/5/26

Addendum No. 4
DATE: August 5, 2026
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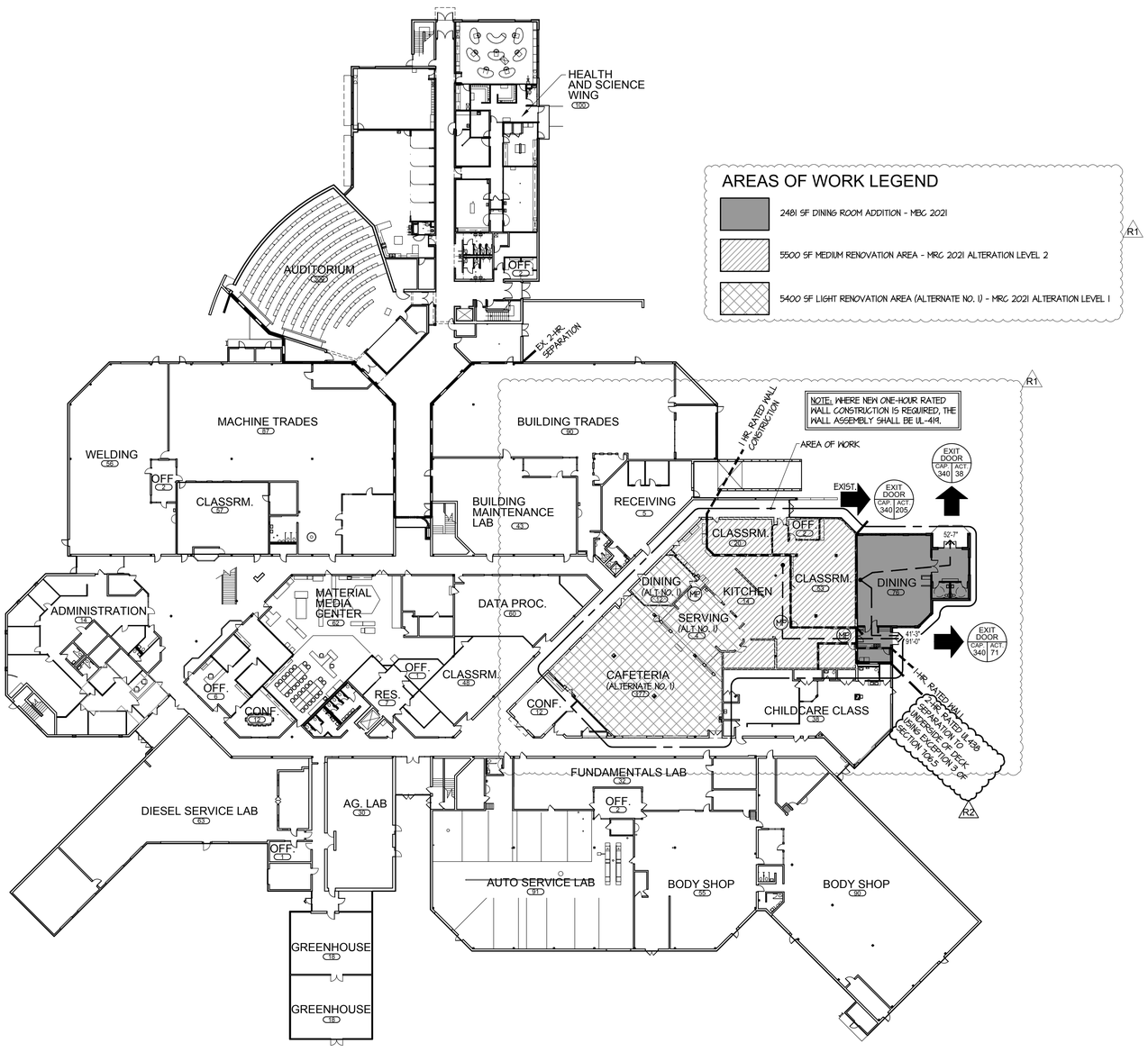

AREAS OF WORK LEGEND

- 2481 SF DINING ROOM ADDITION - MBG 2021
- 5500 SF MEDIUM RENOVATION AREA - MRG 2021 ALTERATION LEVEL 2
- 5400 SF LIGHT RENOVATION AREA (ALTERNATE NO. 1) - MRG 2021 ALTERATION LEVEL 1

R1

MASTER FIRST FLOOR PLAN

SCALE: 1/32" = 1'-0"

APPLICABLE CODES	2021 MICHIGAN BUILDING CODE
2021 MICHIGAN BUILDING CODE 2021 MICHIGAN REHABILITATION CODE 2021 MICHIGAN ENERGY CODE 2023 MICHIGAN ELECTRICAL CODE 2021 MICHIGAN MECHANICAL CODE 2021 MICHIGAN PLUMBING CODE 2012 LIFE SAFETY CODE 2016 SCHOOL FIRE SAFETY RULES FIRE ALARM NFPA 72 2022 ASHRAE STANDARD 90.1–2019 ZONE 5 ICC A117.1 – 2017 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES	
BUILDING USE GROUP	E (Educational)
TYPE OF CONSTRUCTION	2B
FIRE SUPPRESSION PROVIDED	FULLY SPRINKLERED
ACTUAL BUILDING HEIGHT	2 Story, 28'–0"
Existing First Floor	128,550 Sq. Ft.
Addition (FULLY SPRINKLERED) R2	2,481 Sq. Ft.
Area of Renovations	8,227 Sq. Ft.
Existing Second Floor	47,518 Sq. Ft.
Total Area	178,549 Sq. Ft.
OCCUPANT LOAD (PER TABLE 1004.5)(ADDITION ONLY) R1	76 R1
MAXIMUM LENGTH OF EXIT TRAVEL (PER TABLE 1017.2)	250'–0" MAX.
MAXIMUM LENGTH OF DEAD END CORRIDOR (PER SECT. 1020.5) R1	50'–0"
MINIMUM WIDTH OF EGRESS COMPONENTS:	
EXIT ACCESS CORRIDORS (PER SECT. 1020.3) R1	MIN 44"
COMMON PATH OF TRAVEL WITH ONE EXIT ACCESS	.0L > 30 = 75
DOORS (PER SECT. 1010.1.1)	32" MIN. CLR.
FIRE RESISTANCE RATINGS OF EGRESS COMPONENTS:	
EXIT ACCESS CORRIDORS (PER TABLE 1020.1)	1 HR
STAIRSHAFTS	NOT APPLICABLE
HORIZONTAL EXITS (PER 1024.3)	1 HR
AREAS OF REFUGE	NOT APPLICABLE
FIRE RESISTANCE RATINGS OF FIRE SEPARATIONS:	
SHAFTS –OTHER THAN STAIRS	NOT APPLICABLE
STORAGE ROOMS GREATER THAN 100 SQ. FT. (PER TABLE 509)	1 HR.
FIRE RESISTANCE RATINGS OF FIRE SEPARATIONS:	
STRUCTURAL ELEMENT (PER TABLE 601)	
PRIMARY STRUCTURAL FRAME	0 HR.
NON–BEARING WALLS – EXTERIOR	0 HR.
NON–BEARING WALLS – INTERIOR	0 HR.
ROOF CONSTRUCTION	0 HR.
BEARING WALLS – EXTERIOR	0 HR.
BEARING WALLS – INTERIOR	0 HR.

R1

ALLOWABLE BUILDING HEIGHT	ALLOWABLE BUILDING AREA
3 Story, 75'–0"	58,000 Sq. Ft. (ADDITION ONLY)

R2

LIFE SAFETY AREA LEGEND

- EXIT 34" EGRESS MINUMUM CLEARANCE
- TRAVEL DISTANCE
- EXIT DOOR CAP 0 ACT 0 — EXIT (w/ NUMBER OF OCCUPANTS)
- 73 — ACTUAL OCCUPANT EGRESS COUNT
- 1-HOUR RATED FIRE BARRIER
- 2-HOUR RATED FIRE BARRIER
- MP — FIRE EXTINGUISHER - MULTI-PURPOSE DRY CHEMICAL

OCCUPANT CALCULATIONS

MICHIGAN BUILDING CODE

FUNCTION OF SPACE	FACTOR	OCCUPANTS
EDUCATION	1:20 NET	73
ASSEMBLY A-2	1:15 NET	91
KITCHEN	1:200 GROSS	14
OFFICE	1:150 GROSS	2
TOTAL PROJECT OCCUPANT LOAD		180

REQUIRED EGRESS WIDTH

TOTAL EGRESS WIDTH REQUIRED:
·180 MAX INTERIOR OCCUPANT x .2" = 36"

TOTAL EGRESS WIDTH PROVIDED:
·THREE 68" CLEAR DOOR EXIT LEAFS = 204"

NUMBER OF EXITS REQUIRED : 2

PRESCRIPTIVE METHOD – OPAQUE SURFACES

DESCRIPTION/ NAME	ROOF: INSULATION ABOVE DECK	ROOF: METAL BUILDING	ROOF: ATTIC AND OTHER	WALL: MASS	WALL: METAL BUILDING	WALL: STEEL–FRAMED	WALL: WOOD FRAMED/ OTHER	WALL: BELOW GRADE WALL	FLOOR: MASS	FLOOR: STEEL JOIST	FLOOR: WOOD FRAMED/ OTHER	SLAB: UNHEATED	SLAB: HEATED	DOOR: SWINGING	DOOR: NON–SWINGING	ONE: R–VALUE OPTION	ONE: U–VALUE OPTION	HIGH–REFLECTANCE/ EMMITTANCE ROOF	PROPOSED INSULATION	CRITERIA INFORMATION
MEMBRANE ROOF	X																		R–32ci	R–30ci
MASONRY WALL w/ MTL. STUD BACKUP						X													R–15 + R–10ci	R–13 + R–10ci
METAL PANELS w/ MTL. STUD BACKUP						X													R–15 + R–10ci	R–13 + R–10ci
SLAB ON GRADE												X							R–15 (24" BELOW)	R–15 (24" BELOW)
INSULATED H.M. DOOR														X					U–0.37	U–0.37
PRESCRIPTIVE METHOD – NON–OPAQUE SURFACES																				
EXTERIOR WINDOWS																			U–0.28	U–0.30

R1, R2

TSSF ARCHITECTS, INC.
ARCHITECTS INTERIORS PLANNERS
122 N. WASHINGTON AVENUE SAGINAW, MICHIGAN

DINING ROOM ADDITION AND RENOVATIONS FOR:

BAY ARENAC ISD

BAY CITY, MICHIGAN

NO.	DATE	REMARKS
1	08/05/26	CODE REVIEW RESPONSE
2	05/08/26	CODE REVIEW RESPONSE

DRAWN BY C.M.B.

DATE 03/18/26

APPROVED

SHEET NO.

A0.1

PROJECT NO.

2538

PARTIAL FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

WALL TYPES

SCALE: 3/4" = 1'-0"

A PARTITION WALL
NON-RATED
NON-BEARING WALL
4 1/8" — ACOUST. INSUL. — 5/8" GYP. BD. — 3 5/8" MTL. STUDS @ 16" O.C.- SEE PLAN

B PARTITION WALL
2 HR-RATED (UL U419)
NON-BEARING WALL
9 1/8" — (3) LAYERS OF 5/8" GYP. BD. — ACOUST. INSUL. — (2) LAYERS OF 5/8" GYP. BD. — 6" MTL. STUDS @ 16" O.C.- SEE PLAN

C PARTITION WALL
1 HR-RATED (UL U419)
NON-BEARING WALL
ACOUST. INSUL. — 5/8" GYP. BD. — 3 5/8" MTL. STUDS @ 16" O.C.

D SHAFT WALL
2 HR-RATED (UL U438)
NON-BEARING WALL
C-H STUDS @ 24" O.C. — 1" GYP. SHAFT BD. — 5/8" GYP. BD.

2 A2.0 ENLARGED FLOOR PLAN

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

1 A2.0 ENLARGED FLOOR PLAN

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

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BAY ARENAC ISD

BAY CITY, MICHIGAN

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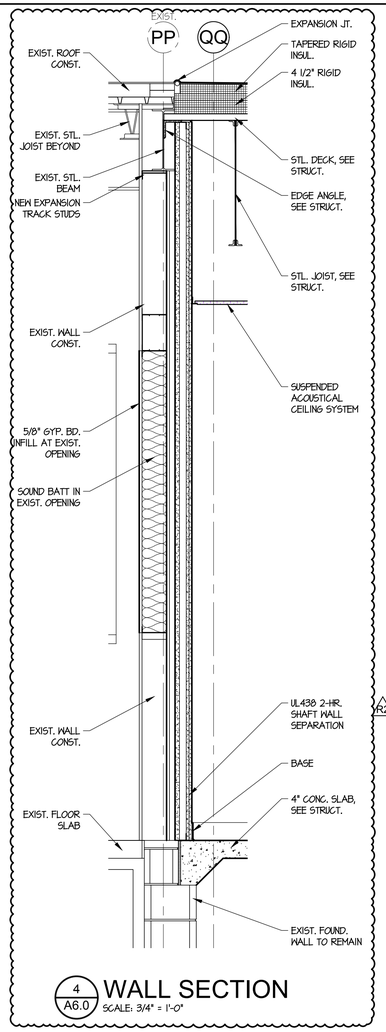
2	05/08/26	CODE REVIEW RESPONSE

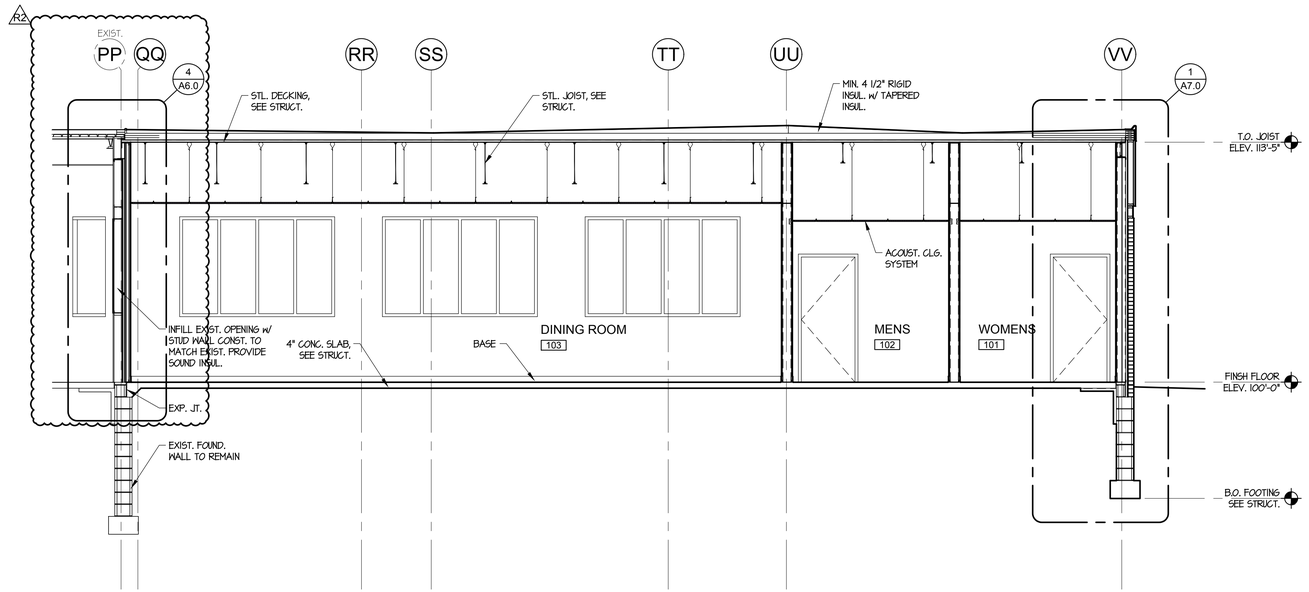
DRAWN BY C.M.B.
DATE 03/18/26
APPROVED

SHEET NO. A2.0

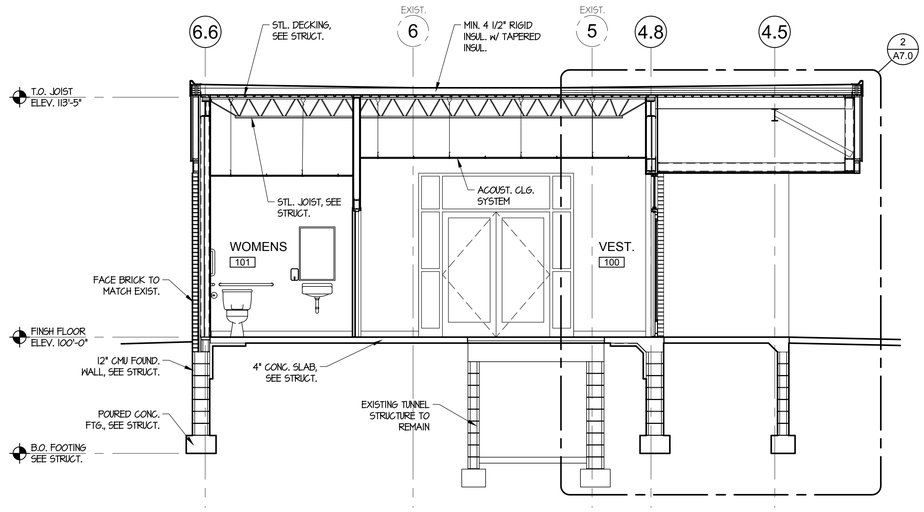
PROJECT NO. 2538



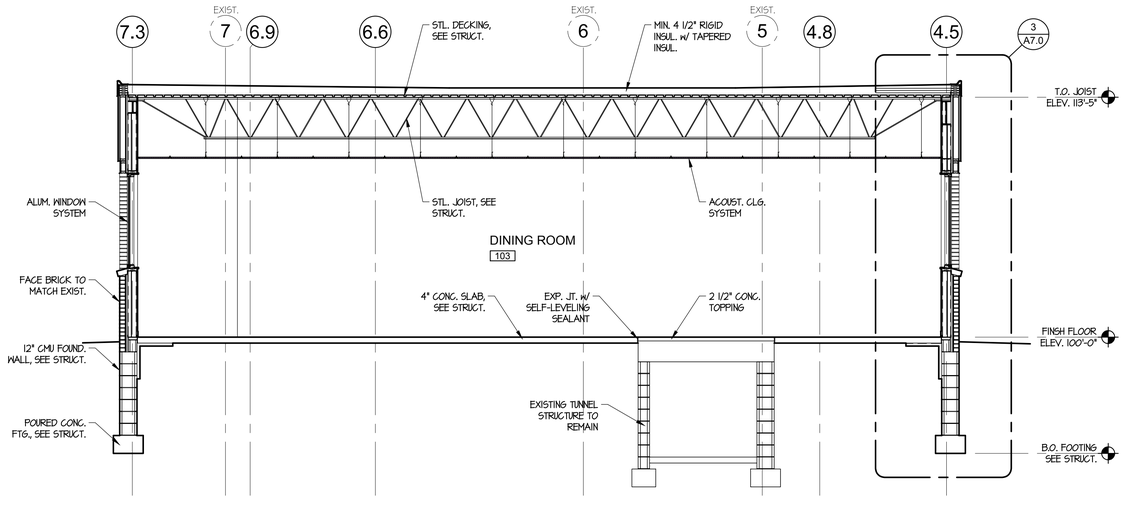
4 A6.0 WALL SECTION
SCALE: 3/4" = 1'-0"



1 A6.0 BUILDING SECTION
SCALE: 1/4" = 1'-0"



2 A6.0 BUILDING SECTION
SCALE: 1/4" = 1'-0"



3 A6.0 BUILDING SECTION
SCALE: 1/4" = 1'-0"

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NO.	DATE	CODE REVIEW RESPONSE
1	08/05/26	

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A6.0

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GENERAL ELECTRICAL NOTES & SPECIFICATIONS:

1. EXECUTE THE WORK REQUIRED IN A MANNER EVIDENCED AS THE "BEST TRADE PRACTICES" CONTRIBUTING TO EFFICIENCY OF OPERATION, MINIMUM MAINTENANCE, ACCESSIBILITY AND AESTHETICS OF THE INSTALLATION.

2. MECHANICAL AND ELECTRICAL PLANS ARE DIAGRAMMATIC IN NATURE, INTENDED TO INDICATE DESIGN INTENT ONLY. CONTRACTOR IS RESPONSIBLE TO COORDINATE SPECIFIC LOCATIONS OF ITEMS AND ADJUST AS REQUIRED TO ACCOMMODATE CODE REQUIREMENTS, MANUFACTURER'S INSTALLATION REQUIREMENTS, AND THE WORK OF OTHER TRADES.

3. MECHANICAL AND ELECTRICAL INFORMATION IS PRESENTED ON AN X-REFERENCED BACKGROUND PLAN. IN CASE OF CONFLICT BETWEEN BACKGROUND PLAN AND ARCHITECTURAL FLOOR PLAN, ARCHITECTURAL FLOOR PLAN SHALL GOVERN.

4. RUN ALL PIPING, CONDUIT, ETC. CONCEALED IN WALLS WHENEVER POSSIBLE AND AVOID EXPOSED INSTALLATION UNLESS SPECIFICALLY REQUIRED (TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS). IN ANY LOCATIONS WHERE CONCEALMENT IS NOT POSSIBLE, CONTACT ENGINEER PRIOR TO INSTALLATION FOR PERMISSION FROM ENGINEER.

5. THE ENGINEER WILL NOT HAVE CONTROL OR CHARGE OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES. ENGINEER IS NOT RESPONSIBLE FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK; AND WILL NOT BE RESPONSIBLE FOR CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THOSE DOCUMENTS PREPARED BY THE ENGINEER.

6. ALL CONSTRUCTION SHALL BE DONE IN COMPLIANCE WITH CURRENT CODES, INCLUDING: MICHIGAN BUILDING CODE, MICHIGAN PLUMBING CODE, MICHIGAN MECHANICAL CODE, NATIONAL ELECTRICAL CODE (NEC), MICHIGAN BUILDING REHABILITATION CODE (WHEN APPLICABLE), NFPA CODES, LIFE SAFETY CODE (WHEN APPLICABLE), AMERICANS WITH DISABILITIES ACT (ADA), MICHIGAN BARRIER FREE CODES, MICHIGAN ENERGY CODE, MICHIGAN DEPARTMENT OF PUBLIC HEALTH CODES (WHEN APPLICABLE), AND ALL OTHER LOCAL, STATE, AND FEDERAL APPLICABLE CODES. THE CONTRACTOR SHALL UTILIZE THE LATEST ADOPTED EDITIONS OF ALL CODES.

7. IF BIDDING CONTRACTOR WOULD LIKE TO SUBSTITUTE ANY SPECIFIED ELECTRICAL DEVICES, LIGHT FIXTURES, CONTROLLERS, PANELS, DISCONNECTS, VFD'S, ELEC. GEAR, ETC., THEY MUST PROVIDE SUBMITTAL TYPE DRAWINGS TO THE ENGINEER A MINIMUM OF 7 DAYS PRIOR TO BIDDING THE PROJECT. IF THESE APPROVAL DRAWINGS ARE NOT SUBMITTED AND APPROVED, THE SPECIFIED EQUIPMENT MUST BE USED - NO EXCEPTIONS.

8. EQUIPMENT AND MATERIALS SHALL BE UL APPROVED AND SPECIFICATION GRADE.

9. ELECTRICAL CONTRACTORS SHALL SECURE PERMITS AND INSPECTIONS REQUIRED BY STATE AND LOCAL LAWS AND ORDINANCES AND PAY ALL FEES AND EXPENSES IN CONNECTION THEREWITH AS A PART OF THEIR WORK UNDER THIS CONTRACT.

10. UPON COMPLETION OF WORK, FURNISH OWNER CERTIFICATES OF FINAL INSPECTION AND APPROVAL FROM AUTHORITIES HAVING JURISDICTION.

11. ALL CONDUCTORS SHALL BEAR IDENTIFICATION AS TO SIZE AND TYPE OF INSULATION AND SHALL BE EQUIPPED WITH WIRE MARKERS INDICATING THE CIRCUIT NUMBER, WIRE NUMBER AND/OR PHASE LETTER.

12. IDENTIFY ELECTRICAL EQUIPMENT WITH THE NAME OF THE EQUIPMENT, THE EQUIPMENT CONTROLLED, OR THE SYSTEM INVOLVED. DISCONNECT SWITCHES AND MOTOR STARTERS SHALL HAVE NAMEPLATES TO INDICATE THE EQUIPMENT THEY CONTROL. ALL ELECTRICAL EQUIPMENT POWER PANELS SHALL HAVE NAMEPLATES DESIGNATING THEIR NAMES AND VOLTAGE RATING, SUCH AS LP-A, 120/208 VOLT, 3 PHASE, 4 WIRE. NAMEPLATES SHALL BE ENGRAVED THREE-LAYER PLASTIC, BLACK LETTERS ON WHITE BACKGROUND FOR NORMAL POWER AND WHITE LETTERS ON RED BACKGROUND FOR EMERGENCY/STANDBY POWER PANELS AND ASSOCIATED EQUIPMENT. NO HANDWRITTEN OR PRINTED LABELING WILL BE ACCEPTED AS FINAL RECORD UPON PROJECT COMPLETION. NAMEPLATES SHALL BE A MINIMUM OF 1" X 3", OR AS NOTED ON NAMEPLATE SCHEDULE IF THERE IS ONE ON DRAWINGS. AS A TEXT SIZE MINIMUM:

    A. SWITCHBOARD OR PANELBOARD MAINS: 1" HIGH

    B. SWITCHBOARD OR PANELBOARD BRANCHES: ½" HIGH

    C. STARTERS/DISCONNECTS: ½" HIGH

    D. MANUAL MOTOR STARTERS: ¼" HIGH

13. PANEL SCHEDULES SHALL BE TYPEWRITTEN AND INSTALLED FOR EVERY PANEL, BE IT NEW OR EXISTING. FOR EXISTING PANELS, CIRCUITRY SHALL BE VERIFIED PRIOR TO UPDATING PANEL SCHEDULE. HANDWRITTEN SCHEDULES, AND/OR CROSSED OFF EXISTING SCHEDULES ARE NOT ACCEPTABLE.

14. ALL WORK AND MATERIALS SHALL BE GUARANTEED IN WRITING FOR (1) YEAR FROM PROJECT COMPLETION UNLESS A FURTHER GUARANTEE IS NOTED ELSEWHERE.

15. ALL SWITCHES, RECEPTACLES, SMALL MANUAL MOTOR STARTERS, OR TOGGLE SWITCHES SHALL HAVE THE CIRCUIT NUMBER IDENTIFIED ON THE DEVICE COVER PLATE USING CLEAR ADHESIVE TAPE LABELS WITH ¼" HIGH PRINTED BLOCK CHARACTERS IN BLACK. NO HANDWRITTEN LABELS WILL BE ACCEPTED AS FINAL RECORD.

16. THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH CONDITIONS OF WHICH WILL AFFECT THE WORK HE IS TO PERFORM. THE SUBMISSION OF A PROPOSAL BY THIS CONTRACTOR SHALL BE CONCLUSIVE EVIDENCE THAT THIS CONTRACTOR HAS VISITED THE SITE AND HAS GIVEN PROPER CONSIDERATION AND EVALUATION OF THESE CONDITIONS IN THE PREPARATION OF HIS PROPOSAL. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE ON HIS BEHALF FOR EXTRA EXPENSE INCURRED DUE TO FAILURE OR NEGLECT ON HIS PART TO MAKE THIS VISIT AND EXAMINATION.

17. WHERE ACTIVE SEWERS, GAS, ELECTRIC, OR OTHER SERVICES ARE ENCOUNTERED DURING THE PERFORMANCE OF THIS CONTRACT, THE CONTRACTOR SHALL PROTECT, BRACE AND SUPPORT THEM AS REQUIRED. DO NOT PREVENT, INTERRUPT OR DISTURB OPERATION OF EXISTING SERVICES THAT ARE TO REMAIN. RELOCATE EXISTING SERVICES IF/AS REQUIRED.

18. THE CONTRACTOR SHALL CHECK THE UTILITY COMPANIES AND MUNICIPAL AGENCIES FOR EXACT LOCATIONS OF SERVICES WHICH THEY MAY EXPECT TO ENCOUNTER.

19. IN GENERAL, MOUNTING HEIGHTS ABOVE FINISHED FLOOR TO THE CENTERLINE OF BOXES AND EQUIPMENT SHALL BE AS PER AMERICANS WITH DISABILITIES ACT, AND MICHIGAN BARRIER FREE CODES.

20. WORK SHALL BE PERFORMED BY SKILLED MECHANICS WELL VERSED IN THEIR PARTICULAR TRADES.

21. RESPONSIBILITY FOR CARE AND PROTECTION OF ELECTRICAL WORK RESTS WITH THE CONTRACTOR UNTIL IS HAS BEEN TESTED AND ACCEPTED.

22. CONTRACTOR IS TO CHECK DOOR SWINGS WITH ARCHITECTURAL PLANS AND MOUNT LIGHT SWITCHES, CONTROLS, ETC., ACCORDINGLY. VERIFY WITH LATEST ARCHITECTURAL DRAWINGS.

23. ELECTRICAL EQUIPMENT SHALL BE SQUARE D, SIEMENS, EATON, G.E. OR MATCH EXISTING.

24. DISCONNECT SWITCHES SHALL BE NEMA HEAVY DUTY, FUSIBLE OR NON-FUSIBLE AS NOTED ON PLANS, WITH A NEMA 3R ENCLOSURE WHEN MOUNTED OUTDOORS.

25. THE NEUTRAL CONDUCTOR OF THE WIRING SYSTEM TOGETHER WITH THE CONDUIT SYSTEM AND SERVICE EQUIPMENT SHALL BE GROUNDED AND SIZED PER NEC ARTICLE 250 – SEE DETAIL ON DRAWINGS ALSO.

26. HOLES THROUGH WALLS OR PARTITIONS REQUIRED FOR ELECTRICAL WORK SHALL BE NEATLY CUT TO SIZE. CONDUITS PENETRATING OUTSIDE WALLS SHALL BE SEALED ACCORDINGLY, UNDERGROUND CONDUITS SHALL HAVE LINK SEALS. PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE FIRE-STOPPED BY APPROVED METHODS AND MATERIALS. NO BEAMS OR OTHER STRUCTURAL MEMBERS SHALL BE DRILLED, BURNED, OR CUT.

27. LOCATIONS OF WIRING DEVICES SUCH AS LIGHT SWITCHES, DUPLEX RECEPTACLES, THERMOSTATS, ETC., SHALL BE COORDINATED WITH OTHER TRADES.

28. IN GENERAL, ALL MOTORS ARE FURNISHED AND INSTALLED UNDER THE MECHANICAL SECTION OF THE SPECIFICATIONS. ALL STARTERS, FUSED SWITCHES, SAFETY SWITCHES, INCLUDING ALL POWER WIRING SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.

29. OUTLET BOXES IN THE SAME WALL BUT SERVING DIFFERENT ROOMS SHALL BE AT LEAST 4" APART TO MINIMIZE NOISE TRANSMISSION. WHEN LOCATED ON FIRE WALLS, THEY SHALL BE 24" APART.

30. LIGHTING AND CONTROL WIRING SHALL BE TESTED FOR SHORTS AND OPENS AND SHALL BE GIVEN A COMPLETE OPERATIONAL TEST.

31. THE CONTRACTOR SHALL TEST ALL CIRCUITS AS SOON AS CONDUCTORS ARE INSTALLED AND MAKE FINAL TESTS WHEN ALL WORK IS COMPLETE. IF CIRCUITS ARE NOT PROPERLY CONTROLLED AND INSULATED AT TIME OF EACH FINAL TEST, THE NECESSARY REPAIRS AND TESTS SHALL BE MADE AT THE CONTRACTORS EXPENSE.

32. ELECTRICAL EQUIPMENT SHALL MEET INSTALLATION STANDARDS PROVIDED IN NEC ARTICLE 110. COORDINATE LOCATIONS OF M.E.P. ITEMS WITH CONTRACTORS PRIOR TO CONSTRUCTION TO ASSURE THAT CLEARANCES ARE MET. LACK OF COORDINATION BETWEEN CONTRACTORS WILL NOT RESULT IN EXTRA MONIES AWARDED FOR RELOCATION OF M.E.P. ITEMS.

33. CHECK FINAL LOCATIONS OF LIGHT FIXTURES AND CEILING ELECTRICAL ITEMS WITH GRILLES AND REGISTERS, CAMERAS, FANS, SPRINKLER HEADS, ETC. COORDINATE WITH RESPECTIVE CONTRACTORS PRIOR TO INSTALLATION. NO MONIES WILL BE AWARDED TO CONTRACTORS HAVING TO RELOCATE ITEMS DUE TO LACK OF COORDINATION BETWEEN CONTRACTORS. MECHANICAL AND ELECTRICAL PLANS SHOW SCHEMATIC LOCATIONS ONLY – REFERENCE ARCHITECTURAL REFLECTIVE CEILING PLANS.

34. ANY DISCREPANCIES BETWEEN ARCHITECTURAL DRAWINGS AND ELECTRICAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.

35. CONTRACTOR SHALL MAINTAIN AND KEEP AN UP-TO-DATE SET OF DRAWINGS REFLECTING "AS BUILT" CONDITIONS OF THEIR WORK. CONTRACTOR SHALL INDICATE EXACT DIMENSIONS AND ELEVATIONS FOR ALL UNDERGROUND AND/OR CONCEALED WORK. UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL DELIVER TO THE CONSTRUCTION MANAGER OR GENERAL CONTRACTOR THE AS-BUILT DRAWINGS. AS BUILT DRAWINGS MUST BE IN THE POSSESSION OF THE C.M. OR G.C. PRIOR TO FINAL PAYMENT TO THE E.C.

36. THE WIRING METHOD(S) USED SHALL BE SUITABLE FOR THE INSTALLATION AND USE IN CONFORMITY WITH THE PROVISIONS PROVIDED BY THE NEC, LISTED OR LABELED EQUIPMENT SHALL BE USED OR INSTALLED IN ACCORDANCE WITH ANY INSTRUCTIONS INCLUDED IN THE LISTING OR LABELING. REFER TO NEC, SECTION 110.3(A) AND (B).

37. THE MAIN SERVICE DISCONNECTS SHALL BE IDENTIFIED AS THE MAIN SERVICE DISCONNECTION MEANS PER NEC 2023, ARTICLE 230.70(B).

38. CONTRACTOR SHALL CHECK ELECTRICAL FLOOR PLANS FOR "ISLAND" TYPE ELECTRICAL OUTLETS AND INSTALL UNDER-FLOOR CONDUITS AND WIRING ACCORDINGLY. SEE PLANS.

39. ARC-FLASH HAZARD WARNING SHALL BE PROVIDED AT ALL ELECTRICAL PANELS PER NEC 2023, SECTION 110.16

40. FIRST CLASS WORKABLE SYSTEMS SHALL BE PROVIDED BY THE CONTRACTOR. IF, IN THE OPINION OF THE CONTRACTOR, CHANGES IN THE DRAWINGS OR SPECIFICATIONS ARE REQUIRED TO PRODUCE FIRST-CLASS WORKABLE SYSTEMS, CONTRACTOR SHALL REQUEST AN INTERPRETATION FROM THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK. IT THE CONTRACTOR FAILS TO MAKE SUCH A REQUEST, NO EXCUSE WILL THEREAFTER BE ENTERTAINED FOR FAILURE TO PROVIDE FIRST-CLASS WORKABLE SYSTEMS. ENGINEER HAS THE FINAL SAY AS TO WHAT IS CONSIDERED "FIRST CLASS WORKABLE SYSTEMS".

41. SHOP DRAWINGS ARE TO BE THOROUGHLY CHECKED (AND NOTED SO ON FRONT COVER) BY THE CONTRACTOR PRIOR TO SUBMITTING THEM TO THE ARCHITECT/ENGINEER. REVIEW BY THE ENGINEER, SHALL NOT BE CONSTRUED AS A COMPLETE CHECK, BUT ONLY THAT THE GENERAL METHOD OF CONSTRUCTION AND DETAILING IS SATISFACTORY. REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS WHICH MAY EXIST. SHOP DRAWINGS ARE TO BE SUBMITTED VIA INTERNET IN PDF FORM. NO HARD COPIES WILL BE ACCEPTED. IF E.C. DOES NOT REVIEW DRAWINGS AND NOTES SAME ON FRONT COVER PRIOR TO SUBMITTAL TO ARCHITECT/ENGINEER, THEY WILL BE REJECTED.

42. ELECTRICAL CONTRACTOR IS TO REFER TO THE TEMPERATURE CONTROL SECTION OF THE SPECIFICATIONS AND THE MECHANICAL EQUIPMENT SCHEDULE FOR DEFINITION OF WHICH TRADES ARE RESPONSIBLE FOR HVAC INTERLOCKS AND OPERATIONAL SWITCHES.

43. ALL ROOF EQUIPMENT THAT HAS POWER TO IT MUST BE PROVIDED WITH A DUPLEX RECEPTACLE (WP AND GFI) WITHIN 25 FEET OF THE UNIT. MOUNT RECEPTACLES ON HOUSING, CIRCUIT WITH NEARBY RECEPTACLES BELOW, AND NOT WITH ROOF UNIT PER NEC NOTE: ROOF RECEPTACLES MAY OR MAY NOT BE SHOWN ON PLANS

44. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO CHECK THE RELATED MECHANICAL/KITCHEN/ REFRIGERATION/ELEVATOR/ETC. DRAWINGS TO SEE WHAT DISCONNECT SWITCHES/STARTERS/RELAYS/ETC. ARE PACKAGED IN BY THE SPECIFIC EQUIPMENT SUPPLIERS. IF NONE ARE SPECIFICALLY NOTED THE E.C. IS RESPONSIBLE TO PROVIDE AND INSTALL AS REQUIRED FOR SEQUENCES OF OPERATION. E.C. IS TO REVIEW MECHANICAL/KITCHEN/REFFIGERATION/ELEVATOR/ETC. SEQUENCES OF OPERATION, FOUND IN SECTIONS OF THE DRAWINGS AND SPECIFICATIONS OTHER THAN THE ELECTRICAL SECTIONS FOR SAID SEQUENCES. DISCONNECT SWITCHES/STARTERS/RELAYS/ETC. MAY OR MAY NOT BE SHOWN ON THE ELECTRICAL DRAWINGS.

45. MANUALS: PER MICHIGAN ENERGY CODES (SPECIFICALLY ASHRAE 90.1 STANDARDS), CONSTRUCTION DOCUMENTS SHALL REQUIRE THAT AN OPERATING MANUAL AND MAINTENANCE MANUAL BE PROVIDED TO THE BUILDING OWNER. THE MANUALS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:

    A. SUBMITTAL DATA FOR ALL ELECTRICAL EQUIPMENT CLEARLY STATING EQUIPMENT RATING, EXACTLY WHAT MODELS, ACCESSORIES, OPTIONS ARE INSTALLED.

    B. OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.

    C. NAMES AND ADDRESSES AND PHONE NUMBERS/EMAIL ADDRESSES FOR AT LEAST ONE QUALIFIED SERVICE AGENCY FOR EACH PIECE OF EQUIPMENT. A COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE.

46. WIRING TO BE MINIMUM #12 (FOR RUNS OVER 100 FEET, MINIMUM #10).

47. ALL EQUIPMENT INSTALLED AS PART OF THIS PROJECT SHALL BE NEW, REFURBISHED EQUIPMENT MAY BE USED WHERE NEC ALLOWS.

48. CONTRACTOR IS RESPONSIBLE TO PERFORM THE SHORT CIRCUIT STUDY FOR THE PROJECT AND THAT ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED TO MEET THOSE REQUIREMENTS.

49. ALL ABOVE GROUND WIRING TO BE INSTALLED IN EMT (THINWALL CONDUIT) UNLESS ROMEX IS EXPLICITLY ALLOWED.

50. OCCUPANCY AND TOGGLE SWITCHES AS WELL AS RECEPTACLES SHALL BE SPECIFICATION GRADE, COLOR TO BE CHOSEN BY ARCHITECT DURING SHOP DRAWING STAGE.

51. DEVICE PLATES FOR SWITCHES, RECEPTACLES, TELEPHONE, COMPUTER, ETC., SHALL BE AS MANUFACTURED PASS AND SEYMOUR, HUBBELL, OR BRYANT. THEY SHALL BE 0.040" THICK BRUSHED STAINLESS STEEL UNLESS NOTED OTHERWISE. FOR EXISTING PROJECTS, COVER PLATES SHALL MATCH OTHERS IN THE AREA UNLESS NOTED OTHERWISE.

52. ALL BUSSING AND WIRING TO BE COPPER. NO ALUMINUM IS ALLOWED ON THIS PROJECT.

53. ALL NEW ELECTRICAL DEVICES AND ASSOCIATED OUTLET BOXES SHALL BE FLUSH MOUNTED UNLESS NOTED OTHERWISE. ALL CONDUIT AND WIRING SHALL BE CONCEALED. SURFACE RACEWAY AND ASSOCIATED BOXES SHALL ONLY BE PERMITTED WHERE NOTED AND SHALL BE DISCUSSED WITH C.M. OR G.C. PRIOR TO INSTALLATION.

54. CONNECT ALL EMERGENCY AND EXIT BATTERY PACKS TO NEARBY LIGHTING CIRCUITS AHEAD OF SWITCHES PER NEC SO EMERGENCY/EXIT LIGHTS OPERATE ON LOSS OF POWER.

55. ELECTRICAL CONTRACTOR SHALL "RING OUT" ALL CIRCUITS IN EXISTING PANELBOARDS AFFECTED BY THE WORK OF THIS PROJECT AND PROVIDE UPDATED TYPED PANELBOARD DIRECTORIES. PROVIDE BLANK COVERS WHERE BREAKERS HAVE BEEN REMOVED.

END OF ELECTRICAL NOTES/SPECIFICATIONS

ABBREVIATIONS

"	INCHES
#	NUMBER
'	FEET
1P	1 POLE (2P, 3P, 4P, ETC.)
@	AT
A	AMPERE
A.F.F.	ABOVE FINISHED FLOOR
ACLG	ABOVE CEILING
ACT	ABOVE COUNTER
ADO	AUTOMATIC DOOR OPENER
AF	AMP FRAME
AFCI	ARC FAULT COMBINATION CIRCUIT INTERRUPTER
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ALT	ALTERNATE
AMP	AMPERE
AMPL	AMPLIFIER
ANNUN	ANNUNCIATOR
APPROX	APPROXIMATELY
AQ-STAT	AQUA-STAT
ARCH	ARCHITECT, ARCHITECTURAL
AS	AMP SWITCH
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
B.F.	BOTTLE FILLER
B.M.S.	BUILDING MANAGEMENT SYSTEM
BATT	BATTERY
BLDG	BUILDING
C.	CONDUIT
CAB	CABINET
CAT	CATALOG
CAT6	CATEGORY 6 CABLING
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CL	CONNECTED LOAD
COF	COFFEE MAKER
COMB	COMBINATION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUATION, CONTINUOUS
CONTR	CONTRACTOR
CP	CIRCULATING PUMP
CT	CURRENT TRANSOFORMER
CTR	CENTER
CU	COPPER
DCP	DOMESTIC WATER CIRCULATING PUMP
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DL	DEMAND LOAD
DN	DOWN
DPR	DAMPER
DS	DISCONNECT SWITCH
DWG	DRAWING
E.C.	ELECTRICAL CONTRACTOR
E.T.R.	EXISTING TO REMAIN
ELEC	ELECTRICAL
ELEV	ELEVATOR
ELU	EMERGENCY LIGHTING UNIT
EM	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EP	ELECTRIC PNEUMATIC
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPLOSION PROOF
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FABP	FIRE ALARM BOOSTER SUPPLY PANEL
FACP	FIRE ALARM CONTROL PANEL
FASP	FIRE ALARM SLAVE PANEL
FCU	FAN COIL UNIT
FIXT	FIXTURE
FLR	FLOOR
FU	FUSE
FUDS	FUSED DISCONNECT SWITCH
G.C.	GENERAL CONTRACTOR
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GND	GROUND
GRS	GALVANIZED RIGID STEEL (CONDUIT)
GYP	GYPSUM BOARD
H.V.A.C.	HEATING, VENTILATING & AIR CONDITIONING
HOA	HAND-OFF-AUTO SWITCH
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPF	HIGH POWER FACTOR
HT	HEIGHT
HTR	HEATER
HV	HIGH VOLTAGE
I/W	INTERLOCK WITH
IC	INTERRUPTING CAPACITY
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IR	INFRARED
J-BOX	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KVAR	KILOVOLT- AMPERE RECTIVE
KW	KILOWATT
KWC	KILOWATT CONNECTED
KWD	KILOWATT DEMAND
KWH	KILOWATT HOUR
LOC	LOCATE OR LOCATION
LP	LIGHTNING PEOTECTION
LT	LIGHT
LTG	LIGHTING
LTNG	LIGHTNING
LV	LOW VOLTAGE
M.C.	MECHANICAL CONTRACTOR
M.E.P.	MECHANICAL ELECTRICAL PLUMBING
M/C	MOMENTARY CONTACT
MAGS	MAGNETIC STARTER
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCP	MAIN CIRCUIT BREAKER
MDC	MAIN DISRIBUTION CENTER
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MFS	MAIN FUSED DISCONNECT SWITCH
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MMS	MANUAL MOTOR STARTER
MOA	MULTIOUTLET ASSEMBLY
MSBD	MAIN SWITCHBOARD
MSP	MOTOR STARTER PANELBOARD
MT	MOUNT
MT.C	EMPTY CONDUIT
MTR	MOTOR, MOTORIZED
MTS	MANUAL TRANSFER SWITCH
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELEC MFGR'S ASSOCIATION
NFDS	NON-FUSED SAFETY DISCONNECT SWITCH
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NPF	NORMAL POWER FACTOR
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOADS
P	PLATE
PA	PUBLIC ADDRESS
PB	PULL BOX OR PUSHBUTTON
PE	PNEUMATIC ELECTRIC
PED	PEDESTAL
PF	POWER FACTOR
PH	PHASE
PIV	POST INDICATING VALVE
PNL	PANEL
PP	POWER POLE
PR	PAIR
PRI	PRIMARY
PROJ	PROJECTION
PRV	POWER ROOF VENTILATOR
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (CONDUIT)
PWR	POWER
QUAN	QUANTITY
RCPT	RECEPTACLE
REQD	REQUIRED
REX	REMOVE EXISTING
RM	ROOM
RSC	RIGID STEEL CONDUIT
RTU	ROOF TOP UNIT
S/N	SOLID NEUTRAL
S/S	STOP/START PUSHBUTTONS
SC	SURFACE CONDUIT
SEC	SECONDARY
SHT	SHEET
SIM	SIMILAR
SP	SPARE
SPEC	SPECIFICATION
SPKR	SPEAKER
SR	SURFACE RACEWAY
SS	STAINLESS STEEL
SSW	SELECTOR SWITCH
STA	STATION
STD	STANDARD
SURF	SURFACE MOUNTED
SW	SWITCH
SWBD	SWITCHBOARD
SWL	SWITCH WITH LIGHTS
SYM	SYMMETRICAL
SYS	SYSTEM
T-STAT	THERMOSTAT
TEL	TELEPHONE
TEL/DATA	TELEPHONE/DATA
TERM	TERMINAL
TL	TWIST LOCK
TR	TAMPER RESISTANT
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TVTC	TELEVISION TERMINAL CABINET
TYP	TYPICAL
UC	UNDER COUNTER
UCR	UNDER COUNTER REFRIGERATOR
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UT	UNDERGROUND TELEPHONE
UTIL	UTILITY
UV	UNIT VENTILATOR
V	VOLT
VA	VOLT-AMPERES
VDT	VIDEO DISPLAY TERMINAL
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
VOL	VOLUME
W	WATT
W.G.	WIRE GUARD
W/	WITH
W/O	WITHOUT
WH	WATER HEATER
WP	WEATHERPROOF
XFMR	TRANSFORMER
XFR	TRANSFER
℄	CENTER LINE
∠	ANGLE
▲	DELTA

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KTS PROJECT NO.: 26-0299

ELECTRICAL SHEET INDEX

PHASE LINE TYPES

NEW

EXISTING

DEMOLISHED

ELECTRICAL FIXTURE LEGEND

R2

- DUPLEX RECEPTACLE AT 46" AFF
- DUPLEX RECEPTACLE AT 18" AFF
- SPLIT-CIRCUIT DUPLEX RECEPTACLE AT 18" AFF
- QUAD RECEPTACLE AT 18" AFF
- J — JUNCTION BOX
- DISCONNECT SWITCH, NON-FUSED, HEAVY DUTY, HP-RATED - ASSUME 30 AMP SWITCH UNO ON ONE LINE DIAGRAM OR FLOOR PLANS.
- $M — MANUAL MOTOR STARTER

DATA LEGEND

- DATA ROUGH-IN

LIGHTING DEVICE SCHEDULE

- $d — DIMMER SWITCH
- $LV — LOW VOLTAGE SWITCH
- $OC — WALL OCCUPANCY SENSOR SWITCH
- $ — SWITCH
- CEILING MOUNTED OCCUPANCY SENSOR
- ROOM CONTROLLER

LIGHTING FIXTURE LEGEND

- EXIT SIGN
- PENDANT FIXTURE
- RECESSED DOWN ROUND FIXTURE
- 2' X 2' FIXTURE
- 2' X 2' FIXTURE WITH BATTERY-BACKUP
- 2' X 4' FIXTURE
- WALL SCONCE
- EMERGENCY LIGHT

DISTRIBUTION LEGEND

- RECEPTACLE PANELBOARD (208Y/120V, 3Ø, 4W), REFER TO PANEL SCHEDULES FOR MORE INFORMATION.

LOW VOLTAGE:

DATA CABLING TO BE HANDLED BY OWNERS VENDER, E.C. SHALL PROVIDE ALL CONDUITS, BACK BOXES AND PULL WIRE PER DRAWINGS.

TSSF ARCHITECTS, INC.
ARCHITECTS INTERIORS PLANNERS
122 N. WASHINGTON AVENUE SAGINAW . MICHIGAN

DINING ROOM ADDITION AND RENOVATIONS FOR:

BAY ARENAC ISD

BAY CITY, MICHIGAN

NO.	DATE	CODE REVIEW RESPONSE
R2	05/05/26	

DRAWN BY JWA

DATE 03/17/2026

APPROVED KTS

SHEET NO.

E0.0

PROJECT NO.
2538

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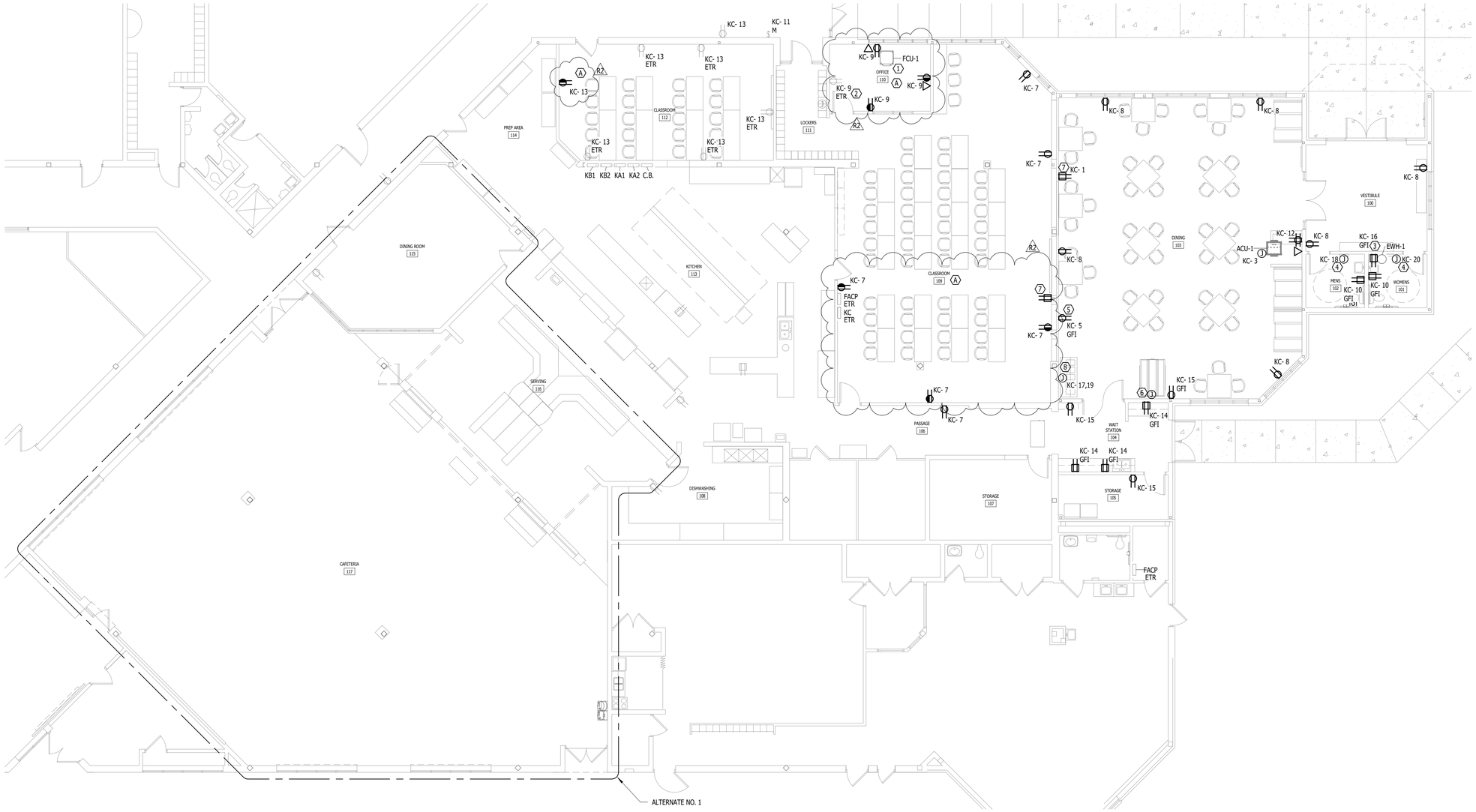
KTS PROJECT NO.: 26-0299



MAIN FLOOR PLAN - POWER
1/8" = 1'-0"

RECEPTACLE CONTROL MATRIX

KEYNOTE	TYPE	SENSOR	FULL OFF TIME	NOTES
A	OCCUPANCY SENSOR	AUTO ON/OFF	20 MINS	RECEPTACLE CONTROL SHALL ONLY CONTROL SPLIT-CIRCUIT RECEPTACLES.

R2

POWER KEYNOTES:

1. POWERED THROUGH OUTSIDE UNIT "CU-1".
2. E.C. TO USE EXISTING CIRCUIT FOR NEW RECEPTACLES.
3. RECEPTACLE FOR ELECTRIC WATER HEATER "EWH-1" LOCATED ABOVE CEILING. E.C. TO COORDINATE RECEPTACLE LOCATION WITH "EWH.1" INSTALLER.
4. ELECTRIC HAND DRYER SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR, EQUAL TO "WORLD DRYER" SANITIZE+DRY. FINISH TO BE DECIDED BY OWNER. 120/1/60. 950 WATTS. DEDICATED 15 AMP CIRCUIT. HEIGHT PER ARCHITECURAL DRAWINGS.
5. POWER FOR COFFEE STATION, VERIFY LOCATION WITH OWNER.
6. PORTABLE SALAD BAR, VERIFY LOCATION WITH OWNER.
7. E.C. VERIFY POWER FOR DROP DOWN SCREEN. E.C. TO VERIFY LOCATION WITH OWNER.
8. HOT SERVING LINE, E.C. TO VERIFY LOCATION WITH OWNER.

TSSF ARCHITECTS, INC.
ARCHITECTS INTERIORS PLANNERS
122 N. WASHINGTON AVENUE SAGINAW, MICHIGAN

DINING ROOM ADDITION AND RENOVATIONS FOR:

BAY ARENAC ISD
BAY CITY, MICHIGAN

NO.	DATE	
R2	08/05/26	CODE REVIEW RESPONSE
R1	05/08/26	CODE REVIEW RESPONSE
A1	03/25/26	ADDENDUM 1

DRAWN BY JWA
DATE 03/17/2026
APPROVED KTS

SHEET NO.
E1.0

PROJECT NO.
2538

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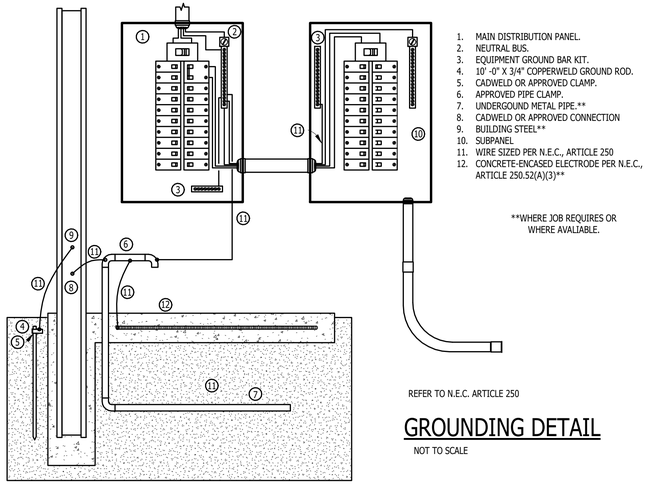
KTS PROJECT NO.: 26-0299



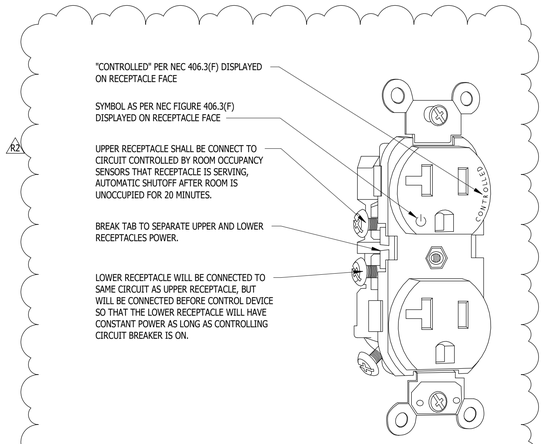
1. MAIN DISTRIBUTION PANEL.
2. NEUTRAL BUS.
3. EQUIPMENT GROUND BAR KIT.
4. 10' -0" X 3/4" COPPERWELD GROUND ROD.
5. CADWELD OR APPROVED CLAMP.
6. APPROVED PIPE CLAMP.
7. UNDERGOUND METAL PIPE.**
8. CADWELD OR APPROVED CONNECTION
9. BUILDING STEEL**
10. SUBPANEL
11. WIRE SIZED PER N.E.C., ARTICLE 250
12. CONCRETE-ENCASED ELECTRODE PER N.E.C., ARTICLE 250.52(A)(3)**

**WHERE JOB REQUIRES OR WHERE AVALIABLE.

REFER TO N.E.C. ARTICLE 250

GROUNDING DETAIL

NOT TO SCALE



SPLIT-CIRCUIT RECEPTACLE

NOT TO SCALE

FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE - GENERAL PURPOSE

OVERCURRENT DEVICE RATING (AMPERES)	COPPER CONDUCTORS						ALUMINUM CONDUCTORS				
	WIRE SIZE (AWG OR KCMIL)		CONDUIT SIZE				WIRE SIZE (AWG OR KCMIL)		CONDUIT SIZE		
	PHASE & NEUTRAL	GROUND	SINGLE PHASE 2 WIRE+G (1PH,1IN,1G)	SINGLE PHASE 3 WIRE+G (2PH,1IN,1G)	THREE PHASE 3 WIRE+G (3PH,1G)	THREE PHASE & NEUTRAL 4 WIRE+G (3PH,1IN,1G)	PHASE & NEUTRAL	GROUND	SINGLE PHASE 3 WIRE+G (2PH,1IN,1G)	THREE PHASE 3 WIRE+G (3PH,1G)	THREE PHASE & NEUTRAL 4 WIRE+G (3PH,1IN,1G)
15-20	12	12	3/4"	3/4"	3/4"	3/4"	NOT ACCEPTABLE				
25-30	10	10	3/4"	3/4"	3/4"	3/4"					
35-40	8	10	3/4"	3/4"	3/4"	3/4"					
45-50	8 (6)	10	3/4"	3/4"	3/4"	3/4"					
60	6 (4)	10	3/4"(1)	3/4"(1)	3/4"(1)	3/4"(1)					
70	4	8	1"	1 1/4"	1 1/4"	1 1/4"					
80	4 (3)	8	1"	1 1/4"	1 1/4"	1 1/4"					
90-100	3 (2)	8	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1	6	1 1/2"	1 1/4"	1 1/2"
110	2 (1)	6	-	1 1/4"	1 1/4"	1 1/4" (1 1/2")	1/O	4	-	1 1/2"	2"
125	1 (1/0)	6	-	1 1/4" (1 1/2")	1 1/4" (1 1/2")	1 1/2"	2/O	4	-	1 1/2"	2"
150	1/O	6	-	1 1/2"	1 1/2"	1 1/2"	3/O	4	-	2"	2 1/2"
175	2/O	6	-	2"	2"	2"	4/O	4	-	2"	2 1/2"
200	3/O	6	-	2"	2"	2 1/2"	250	4	-	2"	3"
225	4/O	4	-	2"	2"	2 1/2"	300	2	-	2 1/2"	3"
250	250	4	-	2 1/2"	2 1/2"	2 1/2"	350	2	-	2 1/2"	3"
300	350	4	-	2 1/2"	2 1/2"	3"	500	2	-	3"	3 1/2"
350	500	3	-	3"	3"	3"	2-4/O	2-1/O	-	2-2"	2-2"
400	500	3	-	3"	3"	3"	2-250	2-1/O	-	2-2"	2- 2 1/2"
450	2-4/O	2-2	-	2-2"	2-2"	2- 2 1/2"	2-300	2-1/O	-	2- 2 1/2"	2-3"
500	2-250	2-2	-	2- 2 1/2"	2- 2 1/2"	2- 2 1/2"	2-350	2-1/O	-	2- 2 1/2"	2-3"
600	2-350	2-1	-	2- 2 1/2"	2- 2 1/2"	2-3"	2-500	2-2/O	-	2-3"	2-3 1/2"
700	2-500	2-1/O	-	2-3"	2-3"	2-3"	2-600	2-3/O	-	2-3"	2-3 1/2"
800	3-500	2-1/O	-	2-3"	2-3"	2-3 1/2"	3-400	3-3/O	-	3-3"	3-3 1/2"
1000	3-400	3-2/O	-	3-3"	3-3"	3-3"	3-600	3-4/O	-	3-3 1/2"	3-3 1/2"
1200	3-600	3-3/O	-	3-3 1/2"	3-3 1/2"	3-3 1/2"	4-500	4-250	-	4-3"	4-3 1/2"
1600	4-600	4-4/O	-	4-3 1/2"	4-3 1/2"	4-3 1/2"	5-600	5-350	-	5-3 1/2"	5-4"
2000	5-600	5-250	-	5-3 1/2"	5-3 1/2"	5-3 1/2"	6-600	6-400	-	6-3 1/2"	6-4"

NOTES:
1. CONTRACTOR TO SIZE FEEDERS AND BRANCH CIRCUITS BASED ON THIS SCHEDULE AND OVER CURRENT DEVICE SIZE, UNLESS NOTED OTHERWISE.
2. CONDUCTORS ARE BASED ON THHN/THWN UP TO AND INCLUDING #4/O. LARGER THAN #4/O ARE BASED ON TYPE XHHW.
3. CONDUCTORS ARE BASED ON 90°C, 600V. INSULATED COPPER WIRE APPLIED AT 75° FOR TERMINATION RATED 60/75°C OR 75°C. FOR TERMINATION RATED 60°C, USE CONDUCTORS AND CONDUIT SIZED INDICATED IN PARENTHESES.
4. CONDUIT SIZES ARE VALID FOR EMT OR RGS. CONDUIT SIZES SHALL BE ADJUSTED AS REQUIRED FOR OTHERS TYPES OF CONDUIT.
5. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE REQUIRED WIRE SIZES TO ACCOMMODATE MECHANICAL EQUIPMENT LUG SIZES.
6. SIZE OF DISCONNECT SWITCH LOCATED AT EQUIPMENT SHALL BE SIZED BASED UPON OVERCURRENT PROTECTION OF THAT DEVICE.
7. OBTAIN APPROVAL FROM ENGINEER PRIOR TO INSTALLING DIFFERENT SIZE/QUANTITY OF CONDUCTORS TO OBTAIN AN EQUIVALENT AMPACITY.
8. SPLICE FROM ALUMINUM TO COPPER PRIOR TO ENTERING EQUIPMENT LISTED FOR USE WITH COPPER CONDUCTORS ONLY OR USE COPPER CONDUCTORS FOR THE ENTIRE LENGTH OF FEEDER.

BRANCH CIRCUIT VOLTAGE DROP WIRING SCHEDULE FOR SINGLE PHASE CIRCUITS

BRANCH CIRCUIT RATING(A)	WIRE SIZE	MAXIMUM BRANCH CIRCUIT LENGTH (IN FEET)				
		120V	208V	240V	277V	480V
20A	12	83	143	165	191	331
	10	128	222	256	295	511
	8	201	348	402	464	804
	6	313	542	625	721	1250
30A	10	85	148	170	197	341
	8	134	232	268	309	536
	6	208	361	417	481	833
	4	313	542	625	721	1250

NOTES:
1. THE ABOVE TABLE VALUES ARE BASED ON COPPER CONDUCTORS, IN STEEL CONDUIT, WITH A LOAD FACTOR OF .85 PER NEC CHAPTER 9, TABLE 9.
2. PROVIDE BRANCH CIRCUIT CONDUCTORS AS INDICATED IN THE TABLE ABOVE FOR ALL LIGHTING AND RECEPTACLE BRANCH CIRCUITS. WHERE BRANCH CIRCUITS SERVE DEDICATED EQUIPMENT, THE CONTRACTOR MAY PERFORM VOLTAGE DROP CALCULATIONS BASED ON ACTUAL EQUIPMENT CONNECTED LOAD AND PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO A MAXIMUM OF 3%.
3. CONDUCTOR SIZES ARE BASED ON MAXIMUM OF 9 CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT.
4. LIMITS FOR CONDUCTOR LENGTHS SHOWN ARE BASED ON A MAXIMUM BRANCH CIRCUIT LOADING OF 64% OF THE BRANCH BREAKER RATING AND A MAXIMUM OF 3% VOLTAGE DROP TO COMPLY WITH ASHRAE 90.1 AND THE NEC. FOR CIRCUITS LOADED GREATER THAN 64% OF BRANCH BREAKER RATING, THE CONTRACTOR SHALL PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO 3%.

TSSF ARCHITECTS, INC.
ARCHITECTS INTERIORS PLANNERS
122 N. WASHINGTON AVENUE SAGINAW . MICHIGAN

DINING ROOM ADDITION AND RENOVATIONS FOR:

BAY ARENAC ISD

BAY CITY, MICHIGAN

NO.	DATE
R2	08/05/26

R2 CODE REVIEW RESPONSE

DRAWN BY JWA
DATE 03/17/2026
APPROVED KTS

SHEET NO.
E5.0

PROJECT NO.
2538