

**ADDENDUM
NO. 3**

July 14, 2023

**LAKE PRAIRIE ELEMENTARY SCHOOL - CLASSROOM ADDITION
Lowell, IN 46356**

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated June 21, 2023 by VPS Architecture. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 3-1 through ADD 3-2 and attached Addendum No. 3 from VPS Architecture dated July 13, 2023 and consisting of 4 pages, Specification Section 07 24 13 - Polymer-Based Exterior Insulation and Finish System (EIFS), and 6 drawings.

A. SPECIFICATION SECTION 00 00 20 - TABLE OF CONTENTS

1. Add:

Section 07 24 13 - Polymer-Based Exterior Insulation and Finish Systems (EIFS)

2. Delete:

Section 27 40 00 - Telecommunications - Intercom

B. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

1. BID CATEGORY NO. 4 - METAL STUDS/DRYWALL AND ACOUSTICS

Add:

Section 07 24 13 - Polymer-Based Exterior Insulation and Finish Systems (EIFS)

2. BID CATEGORY NO. 3 - ROOFING/METAL COMPOSITES

Add:

Section 05 50 00 – Metal Fabrications

3. BID CATEGORY NO. 6 - PLUMBING

Add:

Section 05 50 00 – Metal Fabrications

4. BID CATEGORY NO. 8 - ELECTRICAL/TECHNOLOGY

Delete:

Section 27 40 00 - Telecommunications – Intercom

Distribution: To all Planholders

ADDENDUM NO. 3 (THREE)

DATE: July 13, 2023
PROJECT: Addition to Lake Prairie Elementary School
OWNER: Tri-Creek Community Schools
PROJECT NO.: 2022071.00

The original Specifications and Drawings dated June 2023 for the project referenced above, are amended as noted in this Addendum No. 3 (Three). Receipt of this Addendum and any subsequent Addenda must be acknowledged on the Proposal Form. This section of the Addendum consists of 17 (Seventeen) items and 7 (Seven) attachments.

ITEM **DESCRIPTION**

General Items / Clarifications:

3-1 Each downspout shall receive a Neenah Enterprises, Inc. 24" tall, in-line downspout boot matched to fit downspout size. Units shall be field painted.

Specification Items:

3-2 Section 055000 Metal Fabrications: Each downspout shall receive a Neenah Enterprises, Inc. 24" tall, in-line downspout boot matched to fit downspout size. Units shall be field painted.

3-3 Section 072413 Polymer-Based Exterior Insulation and Finish System (EIFS): Add attached section in its entirety (EIFS finish system to be installed on 5/8" exterior gypsum board).

3-4 Section 095113 Acoustical Panel Ceilings:

- A. Type A shall be used in all locations with the exception of rooms D107 and D107. Room D106 and D107 shall by Type B.
 - B. Ceiling layout shall be 2 x 4 as indicated on drawing A102.
- 3-5 Section 105113 Metal Lockers: The lockers shall be 12" x 12" x 60" in size and shall be set upon a 4" metal 'Z' base with resilient wall base.
- 3-6 Section 321816.13 Poured-in-Place Playground Surfacing: UV stabilized aliphatic binder is required.
- 3-7 Section 274000 Telecom/Intercom: Delete section in its entirety.
- 3-8 Section 275313 Clock System:
- A. Revise Item 2.1.C as follows, "The clocks shall be 12" (round) surface Rauland 120 VAC compatible with existing master clock system where indicated. Where located in corridors, provide double face wall mount option."
 - B. Delete Item 2.1.D.
- 3-9 Section 282323 Surveillance System Rough-in:
- A. Delete Item 2.2.A.
 - B. Delete Item 2.2.B.
 - C. Delete Item 2.2.D.2.
 - D. Delete Item 2.2.D.3.
 - E. Revise Item 2.2.D.4 as follows, "CAT6 cable to each camera location indicated. Provide with 10' slack at camera end."
- 3-10 Section 271000 Communication Distribution:
- A. Delete Item 3.11.
 - B. Delete Item 3.12.
 - C. Delete Item 3.14.
 - D. Delete Item 3.15.
 - E. Delete Item 3.16.
 - F. Delete Item 2.1.B.1.b.
 - G. Delete Item 2.1.B.1.e.
 - H. Delete Item 2.1.B.1.f.
 - I. Delete Item 2.1.E.2.
 - J. Delete Item 2.1.E.3.

- K. Delete Item 2.1.E.4.
- L. Delete Item 3.13.A.3.
- M. Delete Item 3.13.A.4.
- N. Delete Item 3.13.A.5.
- O. Revise Item 2.1.B.1.d as follows, "HDMI receptacle."
- P. Revise Item 2.1.E.5 as follows, "HDMI receptacle."
- Q. Revise Item 3.8.A as follows, "Final determination of colors of devices provided within this section shall be made during the shop drawing process. The following colors shall be anticipated: (1) Data - Blue (2) Wireless Access Points - Red (3) Cameras - Green".
- R. Delete the phrase, "and/or 48", from Item 3.9.A.

3-11 Section 281300 Access Control System:

- A. Delete Item 2.2.A.1.
- B. Delete Item 2.2.B.2.
- C. Delete Item 2.2.B.3.
- D. Delete Item 2.2.D.3.
- E. Revise Item 2.2.B.1 as follows, "SXF1550 Proximity Card Reader."
- F. Revise Item 2.2.D.1 as follows, "SBB Brite Blue Controller."
- G. Revise Item 2.2.D.2 as follows, "SPS Power Supply."

Drawing Items:

- 3-12 ED-101: Replace drawing in its entirety with attached revision (added demolition receptacle and cameras; clarified canopy location).
- 3-13 E-101: Replace drawing in its entirety with attached revision (removed EA fixtures; removed display case switches; revised display case lighting circuitry; revised note location).
- 3-14 E-102: Replace drawing in its entirety with attached revision (added General Notes; revised camera locations; removed exterior speakers; removed duplex data outlets).
- 3-15 E-200: Replace drawing in its entirety with attached revision (removed low-voltage connections from Teachers Station/TV Detail).

3-16 E201: Replace drawing in its entirety with attached revision (revised specification for fixture EB).

3-17 E202: Replace drawing in its entirety with attached revision (removed symbols; revised symbol descriptions).

PREPARED BY:



George S. Link, AIA

Attachments: Section 072413 Polymer-Based Exterior Insulation and Finish System (EIFS)
ED-101
E-101
E-102
E-200
E-201
E-202

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. EIFS finish system over gypsum board.

1.3 DEFINITIONS

- A. Definitions in ASTM E 2110 apply to Work of this Section.
- B. EIFS: Exterior insulation and finish system(s).
- C. IBC: International Building Code.
- D. Polymer-Based Exterior Insulation and Finish System: Class PB EIFS, as defined in ASTM E 2568.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

- A. Product Data: For each EIFS component, trim, and accessory.
- B. Samples: For each exposed product and for each color and texture specified, 8 inches (200 mm) square in size.
- C. Samples for Initial Selection: For each type of finish-coat color and texture indicated.
 - 1. Include similar Samples of exposed accessories involving color selection.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For **[Installer]** **[fabricator/erector]**.

- B. Manufacturer Certificates: Signed by EIFS manufacturer certifying the following:
 - 1. EIFS substrate is acceptable to EIFS manufacturer.
 - 2. Accessory products installed with EIFS, including joint sealants, flashing, water-resistant barriers, trim, whether or not furnished by EIFS manufacturer and whether or not specified in this Section, are acceptable to EIFS manufacturer.
- C. Product Certificates: For cementitious materials and aggregates and for insulation.
- D. Sample Warranty: For manufacturer's special warranty.

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For EIFS to include in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An installer certified in writing by EIFS manufacturer as qualified to install manufacturer's system using trained workers.
- B. Fabricator/Erector Qualifications: Certified in writing by EIFS manufacturer as qualified to fabricate and erect manufacturer's prefabricated panel system using skilled and trained workers.
- C. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, to set quality standards for materials and execution, and to set quality standards for fabrication and installation.
 - 1. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original, unopened packages with manufacturers' labels intact and clearly identifying products.
- B. Store materials inside and under cover; keep them dry and protected from weather, direct sunlight, surface contamination, aging, corrosion, damaging temperatures, construction traffic, and other causes.
 - 1. Stack insulation board flat and off the ground.
 - 2. Protect plastic insulation against ignition at all times. Do not deliver plastic insulating materials to Project site before installation time.
 - 3. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

1.10 FIELD CONDITIONS

- A. Weather Limitations: Maintain ambient temperatures above 40 deg F (4.4 deg C) for a minimum of 24 hours before, during, and after adhesives or coatings are applied. Do not apply EIFS adhesives or coatings during rainfall. Proceed with installation only when existing and forecasted weather conditions and ambient outdoor air, humidity, and substrate temperatures permit EIFS to be applied, dried, and cured according to manufacturers' written instructions and warranty requirements.

1.11 WARRANTY

- A. Manufacturer's Special Warranty: Manufacturer agrees to repair or replace EIFS that fail in materials or workmanship within specified warranty period.
1. Failures include, but are not limited to, the following:
 - a. Bond integrity and weathertightness.
 - b. Deterioration of EIFS finishes and other EIFS materials beyond normal weathering.
 2. Warranty coverage includes the following EIFS components:
 - a. EIFS finish, including base and finish coats and reinforcing mesh.
 3. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Dryvit or approved equal.
- B. Source Limitations: Obtain EIFS from single source from single EIFS manufacturer and from sources approved by EIFS manufacturer as tested and compatible with EIFS components.

2.2 PERFORMANCE REQUIREMENTS

- A. EIFS Performance: Comply with ASTM E 2568 and ICC-ES AC219 and with the following:
1. Impact Performance: ASTM E 2568, Medium.
 2. Bond Integrity: Free from bond failure within EIFS components or between EIFS and substrates, resulting from exposure to fire, wind loads, weather, or other in-service conditions.
 3. Abrasion Resistance of Finish Coat: Sample consisting of 1-inch- (25.4-mm-) thick EIFS mounted on 1/2-inch- (12.7-mm-) thick gypsum board; cured for a minimum of 28 days and shows no cracking, checking, or loss of film integrity after exposure to 528 quarts (500 L) of sand when tested according to ASTM D 968, Method A.

4. Mildew Resistance of Finish Coat: Sample applied to 2-by-2-inch (50.8-by-50.8-mm) clean glass substrate; cured for 28 days and shows no growth when tested according to ASTM D 3273 and evaluated according to ASTM D 3274.

2.3 EIFS MATERIALS

- A. Primer/Sealer: EIFS manufacturer's standard substrate conditioner designed to protect substrates from moisture penetration and to improve the bond between substrate and insulation adhesive; with VOC content of 250 g/L or less.
- B. Flexible-Membrane Flashing: Cold-applied, self-adhering, self-healing, rubberized-asphalt and polyethylene-film composite sheet or tape and primer; EIFS manufacturer's standard or product recommended in writing by EIFS manufacturer.
- C. Reinforcing Mesh: Balanced, alkali-resistant, open-weave, glass-fiber mesh treated for compatibility with other EIFS materials, made from continuous multiend strands with retained mesh tensile strength of not less than 120 lbf/in. (21 dN/cm) according to ASTM E 2098 and the following:
 1. Reinforcing Mesh for EIFS, General: Not less than weight required to meet impact-performance level specified in "Performance Requirements" Article.
- D. Base-Coat Materials: EIFS manufacturer's standard mixture complying with the following:
 1. Factory-blended dry formulation of portland cement, dry polymer admixture, and inert fillers to which only water is added at Project site.
- E. Waterproof Adhesive/Base-Coat Materials: EIFS manufacturer's standard waterproof formulation; with VOC content of 50 g/L or less.
- F. Primer: EIFS manufacturer's standard factory-mixed, elastomeric-polymer primer for preparing base-coat surface for application of finish coat.
- G. Finish-Coat Materials: EIFS manufacturer's standard acrylic-based coating with enhanced mildew resistance complying with the following:
 1. Factory-mixed formulation of polymer-emulsion binder, colorfast mineral pigments, sound stone particles, and fillers.
 2. Colors: Match Architect's sample.
 3. Textures: Match Architect's sample.
- H. Sealer: Manufacturer's waterproof, clear acrylic-based sealer for protecting finish coat.
- I. Water: Potable.
- J. Trim Accessories: Type as designated or required to suit conditions indicated and to comply with EIFS manufacturer's written instructions; manufactured from UV-stabilized PVC; and complying with ASTM D 1784 and ASTM C 1063.

1. Casing Bead: Prefabricated, one-piece type for attachment behind insulation, of depth required to suit thickness of coating and insulation, with face leg perforated for bonding to coating and back leg.
2. Drip Screed/Track: Prefabricated, one-piece type for attachment behind insulation with face leg extended to form a drip, of depth required to suit thickness of coating and insulation, with face leg perforated for bonding to coating and back leg.
3. Expansion Joint: Prefabricated, one-piece V profile; designed to relieve stress of movement.
4. Windowsill Flashing: Prefabricated type for both flashing and sloping sill over framing beneath windows; with end and back dams; designed to direct water to exterior.
5. Parapet Cap Flashing: Type for both flashing and covering parapet top with design complying with ASTM C 1397.

2.4 MIXING

- A. Comply with EIFS manufacturer's requirements for combining and mixing materials. Do not introduce admixtures, water, or other materials except as recommended by EIFS manufacturer. Mix materials in clean containers. Use materials within time period specified by EIFS manufacturer or discard.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine roof edges, wall framing, flashings, openings, substrates, and junctures at other construction for suitable conditions where EIFS will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.
 1. Begin coating application only after surfaces are dry.
 2. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Protect contiguous work from moisture deterioration and soiling caused by application of EIFS. Provide temporary covering and other protection needed to prevent spattering of exterior finish coats on other work.
- B. Protect EIFS, substrates, and wall construction behind them from inclement weather during installation. Prevent penetration of moisture behind EIFS and deterioration of substrates.
- C. Prepare and clean substrates to comply with EIFS manufacturer's written instructions to obtain optimum bond between substrate and adhesive for insulation.

1. Concrete Substrates: Provide clean, dry, neutral-pH substrate for insulation installation. Verify suitability of substrate by performing bond and moisture tests recommended by EIFS manufacturer.

3.3 EIFS INSTALLATION, GENERAL

- A. Comply with ASTM C 1397, ASTM E 2511, and EIFS manufacturer's written instructions for installation of EIFS as applicable to each type of substrate.

3.4 SUBSTRATE PROTECTION APPLICATION

- A. Primer/Sealer: Apply over gypsum sheathing substrates and where required by EIFS manufacturer for improving adhesion of insulation to substrate.
- B. Flexible-Membrane Flashing: Apply and lap to shed water; seal at openings, penetrations, terminations, and where required by EIFS manufacturer. Prime substrates if required and install flashing to comply with EIFS manufacturer's written instructions and details.

3.5 TRIM INSTALLATION

- A. Trim: Apply trim accessories at perimeter of EIFS, at expansion joints and elsewhere as indicated. Coordinate with installation of insulation.
 1. Drip Screed/Track: Use at bottom edges of EIFS unless otherwise indicated.
 2. Windowsill Flashing: Use at windows unless otherwise indicated.
 3. Expansion Joint: Use where indicated on Drawings.
 4. Casing Bead: Use at other locations.
 5. Parapet Cap Flashing: Use where indicated on Drawings.
- B. Expansion Joints: Install at locations indicated, where required by EIFS manufacturer, and as follows:
 1. At expansion joints in substrates behind EIFS.
 2. Where EIFS adjoin dissimilar substrates, materials, and construction, including other EIFS.
 3. At floor lines in multilevel wood-framed construction.
 4. Where wall height or building shape changes.
 5. Where EIFS manufacturer requires joints in long continuous elevations.
 6. Where panels abut one another.

3.6 BASE-COAT INSTALLATION

- A. Waterproof Adhesive/Base Coat: To exposed surfaces of insulation, apply in minimum thickness recommended in writing by EIFS manufacturer over sloped surfaces, parapets.

- B. Base Coat: Apply to exposed surfaces of gypsum board in minimum thickness recommended in writing by EIFS manufacturer, but not less than 1/16-inch (1.6-mm) dry-coat thickness.
- C. Reinforcing Mesh: Embed reinforcing mesh in wet base coat to produce wrinkle-free installation with mesh continuous at corners, overlapped not less than 2-1/2 inches (64 mm) or otherwise treated at joints to comply with ASTM C 1397 and EIFS manufacturer's written instructions. Do not lap reinforcing mesh within 8 inches (200 mm) of corners. Completely embed mesh, applying additional base-coat material if necessary, so reinforcing-mesh color and pattern are invisible.
- D. Additional Reinforcing Mesh: Apply strip reinforcing mesh around openings, extending 4 inches (100 mm) beyond perimeter. Apply additional 9-by-12-inch (230-by-300-mm) strip reinforcing mesh diagonally at corners of openings (re-entrant corners). Apply 8-inch- (200-mm-) wide, strip reinforcing mesh at both inside and outside corners unless base layer of mesh is lapped not less than 4 inches (100 mm) on each side of corners.
 - 1. At aesthetic reveals, apply strip reinforcing mesh not less than 8 inches (200 mm) wide.
 - 2. Embed strip reinforcing mesh in base coat before applying first layer of reinforcing mesh.

3.7 FINISH-COAT INSTALLATION

- A. Primer: Apply over dry base coat according to EIFS manufacturer's written instructions.
- B. Finish Coat: Apply over dry primed 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.
 - 1. Embed aggregate in finish coat according to EIFS manufacturer's written instructions to produce a uniform applied-aggregate finish of color and texture matching approved sample.
- C. Sealer Coat: Apply over dry finish coat, in number of coats and thickness required by EIFS manufacturer.

3.8 CLEANING AND PROTECTION

- A. Remove temporary covering and protection of other work. Promptly remove coating materials from window and door frames and other surfaces outside areas indicated to receive EIFS coatings.

END OF SECTION 072413

Addition to Lake Prairie Elementary School
Tri-Creek School Corporation
Lowell, Indiana
Project No. 2022071.00

POLYMER-BASED
EXTERIOR INSULATION
AND
FINISH SYSTEMS (EIFS)
(ADDENDUM NO. 3)

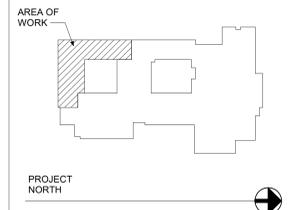
Section 072413
July 2023
Page 8

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1 ELECTRICAL POWER FIRST FLOOR DEMOLITION PLAN
1/8" = 1'-0"

#	Date	Description
3	7/13/2023	ADDENDUM 3



VPS ARCHITECTURE
528 Main Street - Suite 400
905 North Capitol Avenue - Suite 100
PH: (812) 423-7729

Evansville, Indiana 47708
Indianapolis, Indiana 46204
www.VPSARCH.com

LEGATARCHITECTS
540 West Randolph St. - Suite 602
PH: (312) 258-9585

Chicago, Illinois 60661
www.legatarch.com

CIVIL:
Bledsoe Riggert Cooper James
1351 West Tapp Road
Bloomington, IN 47403
(812) 336-8277

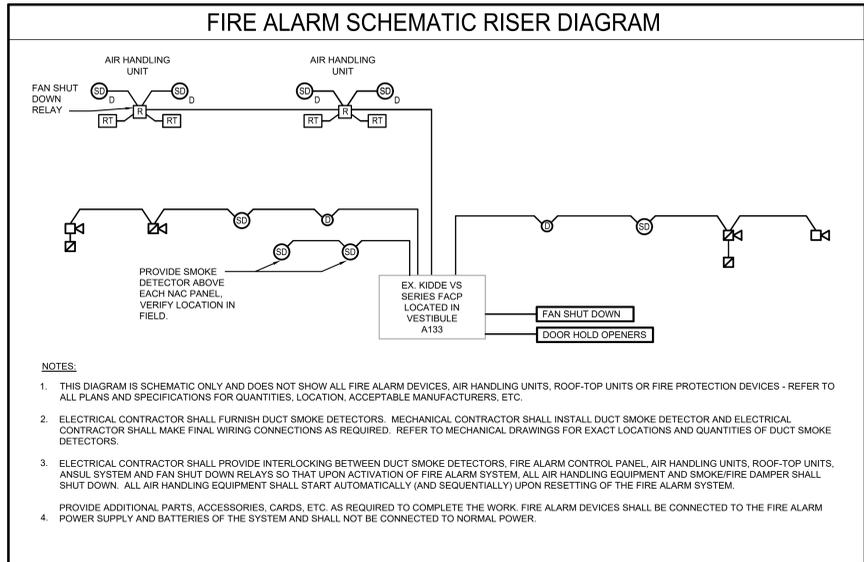
STRUCTURAL:
Wilcox Structural Engineering
20 NW Third Street, Suite 1220
Evansville, IN 47708
(812) 423-6347

MEP ENGINEERS:
Miles Engineering Group
9711 Valparaiso Drive
Munster, IN 46321
(219) 924-8400

Project Name:
**LAKE PRAIRIE
ELEMENTARY -
CLASSROOM ADDITION**

Drawing Title:
**ELECTRICAL FIRST FLOOR DEMOLITION
PLAN**

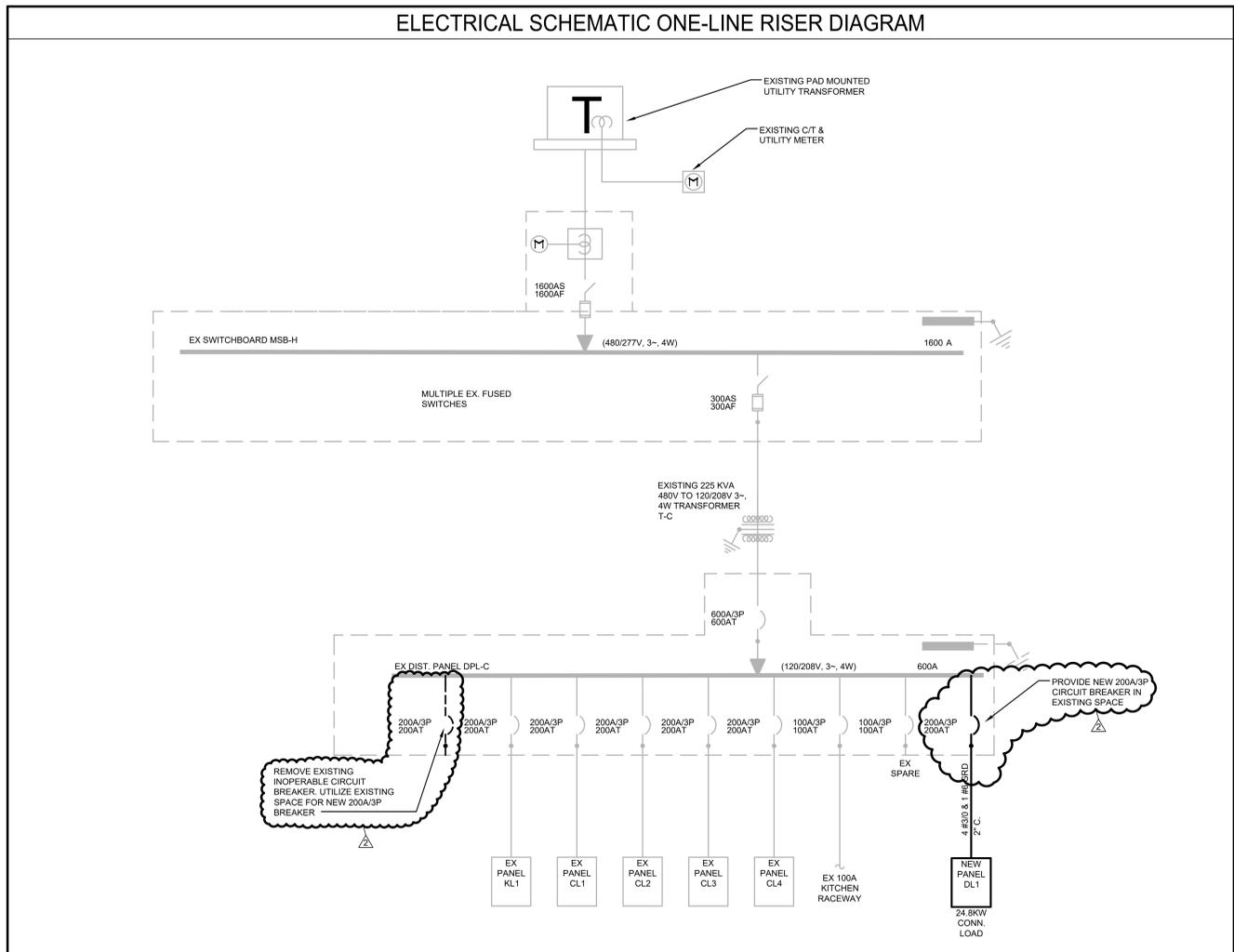
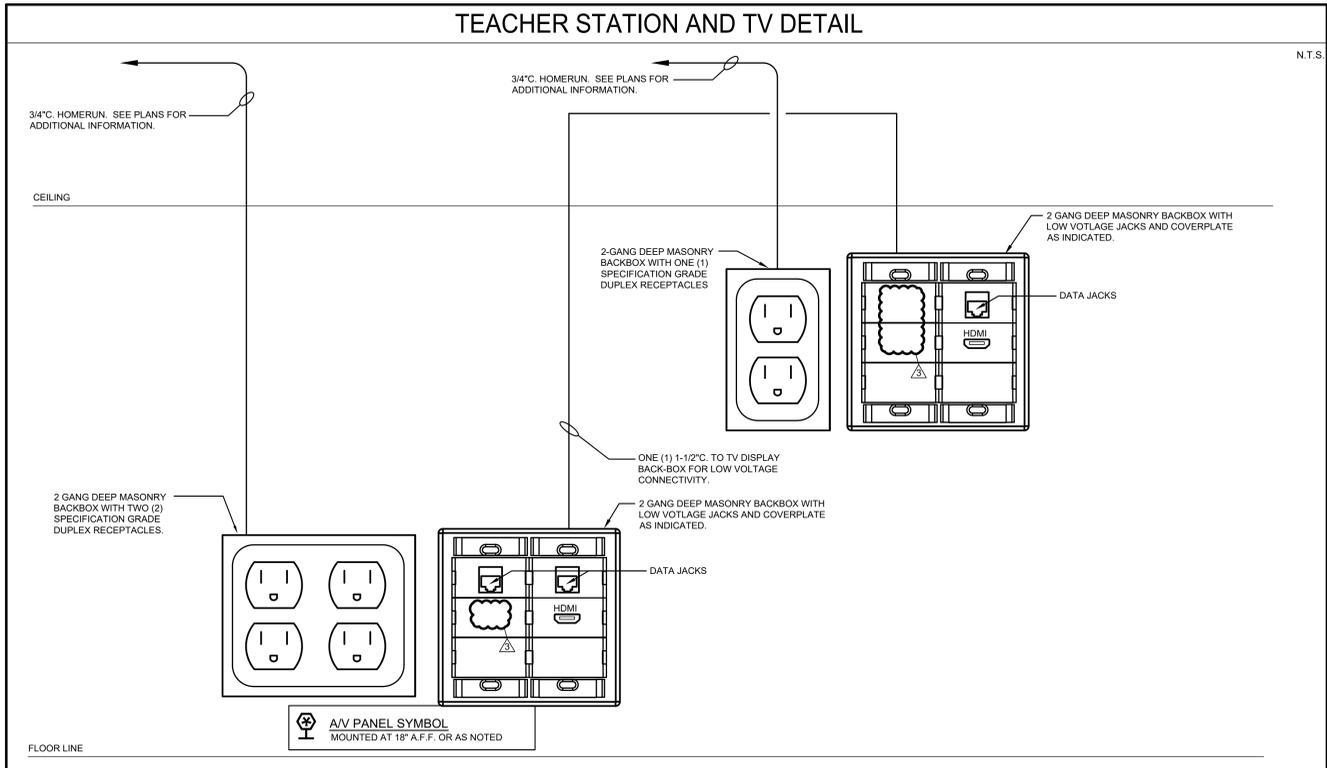
	Client Project No:	
	VPS Project No:	2022071.00
	Project Issue Date:	JUNE 2023
	Drawing No:	ED-101



ELECTRICAL ABBREVIATIONS

NOTE:
ABBREVIATIONS USED ON DRAWINGS IN GENERAL ARE LISTED BELOW. REFER TO CSI SECTION 01420 FOR ANY ABBREVIATIONS LISTED ON THE DRAWINGS BUT ARE NOT LISTED BELOW.

A	AMPS	KVA	KILOVOLT AMPERE
AC	AIR CONDITIONING	KW	KILOWATTS
AFB	ABOVE FINISHED FLOOR	MECH	MECHANICAL
AFG	ABOVE FINISHED GRADE	MTD	MOUNTED
BRKR	BREAKER	NE	NEW LOCATION OF EXISTING RELOCATED DEVICE
C	CONDUIT	NIC	NOT IN CONTRACT
CH	CABINET HEATER	NL	NIGHTLIGHT
CKT	CIRCUIT	NTS	NOT TO SCALE
DISTR	DISTRIBUTION	O/C	ON CENTER
EF	EXHAUST FAN	P	POLE
ELEC	ELECTRICAL	PNL	PANEL
EM	EMERGENCY	PH	PHASE
EMT	ELECTRICAL METALLIC TUBING	RR	REMOVE AND RELOCATE EXISTING DEVICE
ER	EXISTING DEVICE TO BE REMOVED	SW	SWITCH
EX	EXISTING DEVICE TO REMAIN	TYP	TYPICAL
F	FUSE	UON	UNLESS OTHERWISE NOTED
FS	FUSIBLE SWITCH	V	VOLTS
G	GROUND	VIF	VERIFY IN FIELD
GF1	GROUND FAULT INTERRUPTING PROTECTION	W	WATTS
GRC	GALVANIZED RIGID CONDUIT	WP	WEATHERPROOF TYPE DEVICE
HP	HORSEPOWER	WG	WIRE GUARD
J	JUNCTION BOX	F&I	FURNISH AND INSTALL



3	7/13/2023	ADDENDUM 3
2	7/10/2023	ADDENDUM 2
#	Date	Description

VPS ARCHITECTURE
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CIVIL: Bledsoe Riggert Cooper James STRUCTURAL: Wilkie Structural Engineering
1351 West Tapp Road 20 NW Third Street, Suite 1220
Bloomington, IN 47403 Evansville, IN 47708
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MEP ENGINEERS: Millies Engineering Group
5711 Valparaiso Drive
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(219) 924-8400

Project Name:
**LAKE PRAIRIE
ELEMENTARY -
CLASSROOM ADDITION**

Drawing Title:
ELECTRICAL DETAILS

	Client Project No:	VPS Project No:
		2022071.00
	Project Issue Date:	JUNE 2023
	Drawing No:	E-200

INTERIOR/EXTERIOR LIGHTING LUMINAIRE SCHEDULE							
TAG	SYMBOL	DESCRIPTION	MANUFACTURER SERIES OR CATALOG NUMBER	VOLTAGE/ BALLAST	LAMPS/CROSS SECTION	MOUNTING	REMARKS
AA		2' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT4-40L-ADP-GZ1-LP835 COLUMBIA #LCAT24 SERIES METALUX #24C22 SERIES	120/277 VOLT 0-10V DIM	LED 3500K MAX 32W MIN 4000LM	RECESSED LAY-IN	-
AA1		2' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT4-60L-ADP-GZ1-LP835 COLUMBIA #LCAT24 SERIES METALUX #24C22 SERIES	120/277 VOLT 0-10V DIM	LED 3500K MAX 48W MIN 6000LM	RECESSED LAY-IN	-
AA2		2' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT4-72L-ADP-GZ1-LP835 COLUMBIA #LCAT24 SERIES METALUX #24C22 SERIES	120/277 VOLT 0-10V DIM	LED 3500K MAX 59W MIN 7200LM	RECESSED LAY-IN	-
AC		CUSTOM LENGTH CONTINUOUS LED RECESSED LENSED FIXTURE	MARK #SL4L-L0P-X-X-80CRI-35K-1000LMF-MIN1-MVOLT -X-X-ZT-X-X-X-X OR APPROVED EQUAL	120/277 VOLT 0-10V DIM	LED 3500K MAX 100W/FT MIN 1000LM/FT	RECESSED LAY-IN/ GYPSUM	-VERIFY LENSING WITH ARCHITECT
CA		8" DIAMETER LED DOWNLIGHT WITH SEMI-SPECULAR ALZAK REFLECTOR, IRIDESCENT FREE FINISH, & WHITE FLANGE	LITHONIA #LDN6-35-15-LD06-AR-LSS-MVOLT-EZ10-XX PORTFOLIO #LD08 SERIES	120/277 VOLT 0-10V DIM	LED 3500K MAX 18W MIN 1500LM	RECESSED LAY-IN/ GYPSUM	-VERIFY TRIM FINISH WITH ARCHITECT
EA		EXTERIOR LED WALL MOUNTED LIGHT FIXTURE	LITHONIA #WST#2-40K-VF-MVOLT-XX OR APPROVED EQUAL HUBBELL #TRP SERIES MCGRAW #ISS SERIES	MVOLT	LED 4000K MIN 3000LM MAX 30W	WALL MTD AS NOTED	-VERIFY FINISH WITH ARCHITECT
EB		EXTERIOR LED CONTINUOUS STRIP FIXTURE	LITHONIA #SL4L-XXFT-FL-XX-80CRI-40K-600LMF-MIN1-NULITE #RXT-F-FF-04-L40-XX-U-D-W-XX-XX-EM OR APPROVED EQUAL	120 VOLT 0-10V DIM	LED 4000K MIN 600LM/FT MAX 60W/FT	CANOPY RECESSED	-COORDINATE EXACT RUN LENGTHS WITH DRAWINGS -WET LOCATION -COLD TEMPERATURE -PROVIDE 6" EMERGENCY SECTION
XA		SINGLE FACE EXIT, 90 MINUTE BATTERY	LITHONIA #LE-S-X-1-R-EL-N-X SURE-LITES #XC-71 SERIES DUAL-LITE #SE SERIES	120/277 VOLT	LED MAX 3W	CEILING/ WALL	-VERIFY FINISH WITH ARCHITECT -PROVIDE WITH ARROWS AS REQUIRED
XB		DUAL FACE EXIT WITH 90 MINUTE BATTERY	LITHONIA #LE-S-X-2-R-EL-N-X SURE-LITES #XC-72 SERIES DUAL-LITE #SE SERIES	120/277 VOLT	LED MAX 3W	CEILING/ WALL	-VERIFY FINISH WITH ARCHITECT -PROVIDE WITH ARROWS AS REQUIRED
EM		FIXTURE ON EMERGENCY CIRCUIT WITH 90 MINUTE, HIGH OUTPUT (MIN 1400LM) BATTERY UNIT OR INVERTER	FIXTURES LESS THAN 10000 LM: BODINE FACTORY INSTALLED BATTERY OR, AT CONTRACTOR'S DISCRETION, MYERS LV SERIES INVERTER (SIZE AND QUANTITY AS REQUIRED) FIXTURES GREATER THAN 10000LM: MYERS LV SERIES INVERTER (SIZE AND QUANTITY AS REQUIRED)	120/277 VOLT	-	IN FIXTURE/ REMOTE	-PROVIDE TEST SWITCH AND CHARGING INDICATOR -INTEGRAL BATTERIES NOT ALLOWED IN FIXTURES WITH GREATER THAN 10000 LUMENS
NL		CONSTANT HOT, UNSWITCHED NIGHT LIGHT FIXTURE					

FIXTURE GENERAL NOTES	
1.	INTERIOR AND EXTERIOR FIXTURE FINISHES AND COLORS TO BE SELECTED BY ARCHITECT. THE ARCHITECT MAY, AT THEIR DISCRETION, CHOOSE A CUSTOM COLOR AT NO ADDITIONAL CHARGE.
2.	LED FIXTURES (LESS THAN 10000 LUMENS) SHALL BE PROVIDED WITH FACTORY INSTALLED INTEGRAL EMERGENCY BATTERY UNITS BATTERY UNITS SHALL PROVIDE A MINIMUM OF 1400 LUMENS.
3.	FIXTURES THAT CANNOT BE PROVIDED WITH EMERGENCY BALLASTS OR FIXTURES WITH GREATER THAN 10000 LUMENS SHALL BE PROVIDED WITH EMERGENCY INVERTER (MYERS #LV SERIES OR APPROVED EQUAL) WITH SUITABLE CAPACITY TO POWER FIXTURE FOR A MINIMUM OF 90 MINUTES PER CODE. VERIFY SIZING AND REQUIREMENTS WITH CONTRACT DOCUMENTS PRIOR TO ORDERING.
4.	SHADED FIXTURES SHALL HAVE AN EMERGENCY SOURCE OF POWER AS SPECIFIED.
5.	FIXTURES WITH EMERGENCY BATTERIES SHALL BE PROVIDED WITH CONSTANT HOT SENSING WIRE SO THAT FIXTURE CAN BE SWITCHED ON AND OFF WITHOUT ACTIVATING EMERGENCY BALLAST. UPON LOSS OF POWER, THE FIXTURE SHALL BE ILLUMINATED FOR A MINIMUM OF 90 MINUTES REGARDLESS OF THE LIGHT SWITCH POSITION. PROVIDE TEST SWITCH AND CHARGING INDICATOR FOR EMERGENCY BATTERY AS SPECIFIED.
6.	ALL INTEGRAL EMERGENCY BATTERIES USED IN EXTERIOR APPLICATIONS SHALL HAVE A MINIMUM STARTING TEMPERATURE OF -20 DEGREES F UNLESS OTHERWISE SPECIFIED.
7.	CAREFULLY COORDINATE MOUNTING REQUIREMENTS FOR FIXTURES WITH CONTRACT DOCUMENTS AND FIXTURE MANUFACTURER. PROVIDE APPROPRIATE MOUNTING FRAMES FOR LAY-IN OR GYPSUM CEILINGS. VERIFY CEILING REQUIREMENTS WITH FINAL ARCHITECTURAL REFLECTED CEILING PLAN.
8.	VERIFY FIXTURE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
9.	VERIFY VOLTAGES OF EXISTING LIGHTING CIRCUITRY PRIOR TO ORDERING FIXTURES.
10.	FOR FIXTURES INSTALLED IN CASEWORK, VERIFY FIXTURE FIT WITH CASEWORK SHOP DRAWINGS PRIOR TO ORDERING.
11.	COORDINATE LOCATIONS OF INTERIOR AND EXTERIOR LIGHTING FIXTURES WITH FINAL ARCHITECTURAL DRAWINGS. FIXTURES THAT ARE NOT INSTALLED IN THE CORRECT LOCATION SHALL BE RELOCATED AND REINSTALLED IN THE CORRECT LOCATION AT NO ADDITIONAL CHARGE.
12.	FIXTURES SHALL BE PROVIDED WITH ESCUTCHEON PLATES AS REQUIRED TO COVER EXISTING HOLES FROM REMOVED FIXTURES. CANOPY CEILING AROUND NEW FIXTURES SHALL BE REFINISHED TO MATCH EXISTING SURROUNDING CANOPY CEILING SURFACES.
13.	FIXTURES SHALL BE CAREFULLY COORDINATED WITH MANUFACTURER TO DELIVER THE SPECIFIED PRODUCT IN SUFFICIENT TIME TO MEET PROJECT DEADLINES. EQUIPMENT DELIVERY LEAD TIME SHALL NOT BE HELD AS A VALID REASON FOR REQUESTING LUMINAIRE SUBSTITUTION UNLESS LUMINAIRE LEAD TIME FROM SPECIFIED MANUFACTURER IS IN EXCESS OF 14 WEEKS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO DETERMINE NECESSARY EQUIPMENT LEAD TIMES, DELIVER SUBMITTALS FOR REVIEW IN A TIMELY FASHION, AND PLACE ORDERS ACCORDINGLY TO ENSURE TIMELY DELIVERY.
14.	EVALUATION OF APPROVED EQUALS SHALL BE AT THE SOLE DISCRETION OF THE ARCHITECT AND ENGINEER. IF THE PRODUCT SUBMITTED DURING THE REVIEW PROCESS IS NOT JUDGED AS AN EQUAL BY THE REVIEWING ENGINEER, THE CONTRACTOR SHALL PROVIDE THE PRODUCT SPECIFIED.
15.	CAREFULLY COORDINATE VOLTAGES OF FIXTURES PRIOR TO ORDERING FIXTURES.
16.	CAREFULLY VERIFY COLOR TEMPERATURE OF FIXTURES WITH ARCHITECT PRIOR TO ORDERING.

GENERAL NOTES	
GENERAL	AA. THE MINIMUM DISTANCE BETWEEN SMOKE OR HEAT DETECTORS AND CEILING MOUNTED SUPPLY DIFFUSERS SHALL BE A MINIMUM OF 4 FEET AND WALL MOUNTED DIFFUSERS SHALL BE 10 FEET.
A. WORK SHALL COMPLY WITH LOCAL, STATE AND NATIONAL ELECTRIC CODES, AMERICANS WITH DISABILITIES ACT (OR ILLINOIS ACCESSIBILITY CODE AND ILLINOIS LIFE SAFETY CODE FOR SCHOOLS).	AB. WHERE INDICATED ON THE DRAWINGS IN UNFINISHED SPACES, RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALL.
GENERAL COORDINATION	AC. NO RACEWAYS SHALL BE INSTALLED WITHIN 6" OF STEAM, HOT WATER PIPES OR SIMILAR HEAT PRODUCING APPLIANCES.
B. THE PANEL SCHEDULES ARE PROVIDED FOR ASSISTANCE ONLY IN UNDERSTANDING THE LOADING ON THE VARIOUS CIRCUITS AND THE CIRCUIT DESIGNATIONS DESIRED FOR THE PANEL DIRECTORIES. THE PANEL SCHEDULES MUST BE BALANCED UPON COMPLETION OF THE PROJECT TO COMPLY WITH CODE. IN ADDITION, THE PANEL SCHEDULES DO NOT IDENTIFY THE TYPES OF CIRCUIT BREAKERS TO BE USED (SUCH AS GFCI, HACR, SHUNT TRIP UNITS, ETC.) NOR DO THE SCHEDULES IDENTIFY CIRCUIT BREAKERS REQUIRED (SUCH AS GFCI FEEDING SURGE PROTECTION UNITS). REFER TO THE REST OF THE DRAWINGS AND THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND DETAILED INFORMATION.	AD. PROVIDE FULL WIRE IN EACH RACEWAY IN WHICH WIRING IS NOT INSTALLED.
C. COORDINATE EQUIPMENT ELECTRICAL REQUIREMENTS (VOLTAGES, PHASE, LOAD, ETC.) TO AVOID CONFLICTS.	AE. COVERS OF JUNCTION OR PULL BOXES SHALL BE ACCESSIBLE AND IDENTIFIED PER SPECIFICATIONS. FIRE ALARM JUNCTION BOXES SHALL BE PAINTED RED. JUNCTION OR PULL BOXES AND THE LIKE SHALL BE INDEPENDENTLY SUPPORTED TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
D. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR ADDITIONAL ELECTRICAL INFORMATION AND REQUIREMENTS. IN ALL CASES, DEVICE MOUNTING HEIGHTS AND LOCATIONS SHALL CONFORM TO THE LATEST AMERICANS WITH DISABILITIES FEDERAL STANDARDS.	AF. WIRE COLOR CODING SHALL BE COORDINATED THROUGHOUT THE ENTIRE PROJECT/BUILDING FOR NEW AND EXISTING SYSTEMS.
E. EXCAVATION NECESSARY FOR COMPLETION OF WORK SHALL BE PROVIDED. COORDINATE WITH ONE ANOTHER TO SHARE TRENCHES WHEREVER POSSIBLE.	AG. IF MORE THAN THREE (3) PHASE (UNGROUNDING) CONDUCTORS ARE RUN IN THE SAME RACEWAY, CONDUCTOR AMPACITY SHALL BE DERATED IN ACCORDANCE WITH NEC ARTICLE 310.
F. REFER TO THE PLANS FOR ADDITIONAL ELECTRICAL WORK AND REQUIREMENTS. FURNISH, INSTALL AND LOCATE DISCONNECT SWITCHES AT EQUIPMENT/TOR LOCATION AS REQUIRED, AND IN ACCORDANCE WITH CODE. IF THE WORK OF OTHER TRADES CAUSES A LOSS OF CONTINITY OF THE EXISTING ELECTRICAL DISTRIBUTION, GROUNDING SYSTEM OR CIRCUITRY, IT SHALL BE RECONNECTED OR REPAIRED AT NO ADDITIONAL COST.	MISCELLANEOUS
G. FIELD VERIFY IF EXISTING ASBESTOS WILL BE ENCOUNTERED PRIOR TO STARTING ANY WORK. IF ASBESTOS IS PRESENT, THE OWNER WILL PROVIDE FOR THE REMOVAL OF ANY MATERIAL CONTAINING ASBESTOS. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.	AH. CONDUIT, LIGHTING, EQUIPMENT, ETC. SHALL NOT BE SUPPORTED FROM THE BOTTOM CHORD OF ENGINEERED JOISTS WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER. CONDUITS, ROUTED THROUGH AREAS WITH NO CEILING, SHALL BE ROUTED WITHIN THE WEBBING OF THE JOISTS AND SHALL NOT BE ROUTED BELOW THE BOTTOM CHORD OF THE JOIST.
H. COORDINATE PHASING OF WORK AND PROVIDE TEMPORARY POWER AND SERVICES AS REQUIRED FOR THE IMPLEMENTATION OF WORK WHILE MAINTAINING SERVICES TO PORTIONS OF BUILDING TO REMAIN OCCUPIED.	AI. SMOKE OR HEAT DETECTORS SHALL BE SURFACE MOUNTED TO CEILING, ROOF DECK MATERIALS, ETC. IN LIEU OF MOUNTING TO BOTTOM CHORD OF ENGINEERED JOIST OR ANY OTHER COMPONENTS NOT AN INTEGRAL PART OF THE HORIZONTAL CEILING.
I. SCHEDULE WORK TO AVOID DOWNTIME AND INCONVENIENCE TO OWNER. OWNER'S EXISTING FACILITY SHALL REMAIN IN OPERATION AT ALL TIMES, INCLUDING FIA AND OTHER SPECIAL SYSTEMS, ELECTRICAL POWER DISTRIBUTION, ETC. REQUIRED SHUTDOWN OF EXISTING FACILITY UTILITIES SHALL BE SCHEDULED WITH OWNER'S OPERATING PERSONNEL.	AJ. VERIFY EXISTING AND NEW MECHANICAL, ELECTRICAL, FIRE PROTECTION SYSTEMS AND MEDICAL GAS SERVICES PRIOR TO START OF NEW CONSTRUCTION. COORDINATE AND ADJUST NEW WORK AS REQUIRED TO AVOID CONFLICTS WITH EXISTING SERVICES AND NEW SERVICES PROVIDED.
J. LAYOUT IS DIAGRAMMATIC AND INSTALL DEVICES, CONDUIT AND EQUIPMENT TO MEET ACTUAL FIELD CONDITIONS. REVIEW PROJECT SPECIFICATIONS BEFORE STARTING WORK AND SUBMIT COMPLETE SHOP DRAWINGS AS PER SPECIFICATIONS.	AK. PROVIDE NECESSARY ROOFING COMPONENTS COMPATIBLE WITH EXISTING ROOFING SYSTEMS TO PROVIDE A WEATHERTIGHT INSTALLATION FOR THE ROOF PENETRATIONS AND ABANDONED HOLES FROM REMOVED ITEMS. PATCH ROOF OPENINGS FOR REMOVED PIPE PENETRATIONS WITH RIGID ROOF INSULATION AND ROOF DECK MATERIAL FROM BELOW ROOF TO MATCH EXISTING ADJACENT MATERIALS. PROPERLY STRIP ROOFING MEMBRANE, ETC. AS REQUIRED, TO MATCH EXISTING ROOF SYSTEM WITH PROPER AND COMPATIBLE MATERIALS. PROVIDE A COMPLETE AND PROPER WEATHERTIGHT CONDITION.
K. VISIT SITE PRIOR TO BID TO DETERMINE AND VERIFY EXISTING INTERIOR AND EXTERIOR ELECTRICAL SYSTEMS TO VERIFY QUANTITIES AND LOCATIONS OF EXISTING SYSTEMS TO DETERMINE FULL EXTENT OF WORK. INCLUDE THE NECESSARY MODIFICATIONS TO THE EXISTING CONDITIONS (INCLUDING CEILINGS, WALLS, FLOORS, PIPES, CONDUIT, ROOF WORK, ETC.) AS REQUIRED. TO ALLOW FOR PROPER INSTALLATION OF WORK, ADJUST INSTALLATIONS TO MEET FIELD CONDITIONS AS REQUIRED FOR A COMPLETE AND PROPER INSTALLATION. NO EXTRAS WILL BE ALLOWED AFTER BIDDING FOR ANY WORK OF EXISTING FIELD CONDITIONS TO RESOLVE CONFLICTS OR NOT FULLY UNDERSTANDING THE SCOPE OF THE WORK REQUIRED. EXISTING EQUIPMENT, CONDUIT, PIPING, ETC. SHALL BE REMOVED AS NOTED ON DRAWINGS AND AS REQUIRED TO MEET NEW SCOPE OF WORK.	AL. ROOF SUPPORTS FOR CONDUITS TO BE EQUIVALENT TO PORTABLE PIPE HANGER, INC. TYPE PP-10, WITH ROLLER GUIDE SUPPORT FOR SINGLE PIPES AND CHANNEL GUIDE SUPPORT FOR MULTIPLE PIPES. SUPPORTS TO HAVE HIGH DENSITY POLYPROPYLENE PLASTIC BASES WITH THREADED RODS FOR ADJUSTABLE HEIGHT ROLLER. SUPPORTS ARE TO SIT ON TOP OF ROOFING MEMBRANE. SUPPORTS ARE TO BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION AND TO BE COMPATIBLE WITH AND MAINTAIN THE INTEGRITY OF THE EXISTING OR NEW ROOF SYSTEM, WHERE CONDUITS AND WIRING ARE RUN IN EXTERIOR LOCATIONS OR EXPOSED TO SUNLIGHT, CONDUCTORS SHALL BE PROPERLY UPSIZED PER NEC 310.
L. HIDDEN CONDITIONS IDENTIFIED THROUGH THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY BROUGHT TO ATTENTION IN WRITTEN FORM FOR REVIEW AND DIRECTION. FAILURE TO DO SO SHALL REQUIRE THE CHANGES AND COSTS TO CORRECT SAID HIDDEN CONDITION TO BE COMPLETED AT NO COST. EXISTING EQUIPMENT NOT IDENTIFIED SHALL BE BROUGHT TO ATTENTION FOR REVIEW AS TO WHETHER THE EQUIPMENT SHALL REMAIN AND BE RECONNECTED TO THE NEW SERVICES, BE RELOCATED, BE ABANDONED, ETC.	AM. WIRING DEVICES SHOWN BACK-TO-BACK IN WALLS SHALL BE SEPARATED BY 2" MINIMUM.
M. REMOVE AND REINSTALL EXISTING CEILINGS NOT BEING REPLACED (INCLUDING LIGHTS, MOTION SENSORS, FIRE ALARM DEVICES AND ANY OTHER ELECTRICAL DEVICES AS REQUIRED) WHERE NECESSARY TO PERFORM WORK. THIS ALSO INCLUDES EXISTING CEILINGS OF PLASTER, DRYWALL, ETC. COORDINATE WORK IN CEILING SPACE SO AS TO MINIMIZE THE AMOUNT OF CEILINGS WHICH MUST BE REMOVED AND REINSTALLED. REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS IN ORDER TO FULLY UNDERSTAND AND INCLUDE CEILING WORK NECESSARY FOR WORK ON THE PROJECT. WHEN THE WORK IS COMPLETED IN THE SPACE, REINSTALL OR PATCH EXISTING CEILINGS, REINSTALL DEVICES AND EQUIPMENT AND REPAIR DAMAGE AS REQUIRED TO COMPLETELY MATCH EXISTING CONDITIONS. REPAIR OR REPLACE ANY DAMAGE CAUSED TO EXISTING CEILING AREAS.	AN. UNLESS OTHERWISE NOTED, DEVICE ELEVATIONS REFER TO CENTER LINE OF JUNCTION BOX. VERIFY JUNCTION BOX LOCATIONS WITH FINAL EQUIPMENT LAYOUT PRIOR TO ROUGHING IN SAME.
N. REMOVE EXISTING CONSTRUCTION AS REQUIRED AT EXISTING WALLS, FLOORS, PIPE CHASES, SURFACES, FINISHES, ETC. WHICH ARE AFFECTED. REPAIR EXISTING SURFACES AFFECTED, TO MATCH EXISTING SURFACE OF EQUAL, OR BETTER QUALITY TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.	AO. FURNISH AND INSTALL A GREEN GROUND WIRE IN POWER CONDUITS (NOT LIGHTING), ALL DEVICES, EQUIPMENT, FIXTURES AND THE LIKE, MUST BE GROUNDED. MECHANICAL/ELECTRICAL BONDS OF THE METALLIC RACEWAY SYSTEM SHALL BE MAINTAINED.
O. COORDINATE NEW INSTALLATIONS WITH EXISTING SYSTEMS. RELOCATE EXISTING LIGHTING, CONDUIT, EQUIPMENT, ETC., AS NECESSARY FOR NEW INSTALLATIONS.	AP. PROVIDE CONDUIT AND WIRE AND MAKE FINAL POWER CONNECTIONS AS REQUIRED TO EXHAUST FANS AND MISCELLANEOUS EQUIPMENT FURNISHED WITH MOTORIZED BACKDRAFT DAMPERS. DAMPERS SHALL BE CONNECTED TO EQUIPMENT 120 VOLT POWER CIRCUIT SO AS TO INTERLOCK THE MOTORIZED DAMPER WITH THE EXHAUST FAN, FOR THREE PHASE MOTORS, PROVIDE AN ADDITIONAL 120 VOLT CIRCUIT ROUTED THROUGH AN AUXILIARY CONTACT IN THE MOTOR STARTER.
P. PROVIDE NEW PANEL DIRECTORIES IN EXISTING MODIFIED PANELBOARDS AND NEW PANELBOARDS TO CORRECTLY IDENTIFY EXISTING AND NEW LOADS. FINAL DIRECTORIES SHALL BE TYPE WRITTEN.	AQ. AT NEW FIRE OR SMOKE/FIRE DAMPER LOCATIONS, WIRE EACH SMOKE/FIRE DAMPER TO NEAREST EMERGENCY PANEL, TO LOCAL ACTIVATION SMOKE DETECTORS ON EITHER SIDE OF THE DAMPER WITHIN 3' AND ALSO WIRE THE SAME TO THE FIRE ALARM CONTROL PANEL AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM. REFER TO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATIONS WHERE DUCTS PASS THROUGH SMOKE OR FIRE BARRIERS.
DEMOLITION NOTES	AR. MODIFY EXISTING FIRE ALARM SYSTEM AS INDICATED ON DRAWINGS AND SPECIFICATIONS AND AS REQUIRED FOR A COMPLETE, CODE COMPLIANT INSTALLATION. PROVIDE ADDITIONAL PARTS, ACCESSORIES AND CARDS AS REQUIRED TO COMPLETE THE WORK, FURNISH AND INSTALL INTERFACE WIRING INTEGRAL TO THE FIRE ALARM SYSTEM AS WELL AS INTERFACE TO NEW ELEVATOR CONTROL PANEL, BUILDING AUTOMATION SYSTEM, ETC. FOR A COMPLETE AND OPERATING INSTALLATION. FIRE ALARM DEVICES SHALL BE CONNECTED TO THE FIRE ALARM POWER SUPPLY AND BATTERIES OF THE SYSTEM AND SHALL NOT BE CONNECTED TO NORMAL POWER. QUESTIONS REGARDING THE REQUIREMENTS OF THE FIRE ALARM SYSTEM OR THE INTENT OF THE CODE SHALL BE DIRECTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO BID.
Q. EXISTING LIGHTING FIXTURES, ELECTRICAL DEVICES, CONDUIT, ETC. SHALL BE REMOVED AS NOTED ON DRAWINGS AND AS REQUIRED TO MEET NEW SCOPE OF WORK. EXISTING ELECTRICAL EQUIPMENT SHALL REMAIN PROPERTY OF THE OWNER AND SHALL BE PROPERLY STORED ON SITE, OR DESIGNATED TO BE ABANDONED AND REMOVED FROM SITE AS DIRECTED BY OWNER.	AS. FURNISH AND INSTALL SIX (6) 20 AMP CIRCUITS WITH RECEPTACLES, CONDUIT, WIRE, PLATES, BOXES AND BREAKERS CONNECTED WITH THREE (3) #10, ONE (1) #12 GROUND IN 1" CONDUIT LOCATED WITHIN 120 FEET (AVERAGE) OF NEAREST 208/120 PANELBOARD. INCLUDE ALL NECESSARY CUTTING AND PATCHING. LOCATIONS OF OUTLETS SHALL BE WHEN, WHERE AND AS DIRECTED.
R. PERFORM CUTTING AND PATCHING OF EXISTING FLOOR SLABS AND WALLS AS REQUIRED FOR THE INSTALLATION OF ELECTRICAL SYSTEMS.	AT. WIRE COMPLETE, AS DIRECTED, FOUR (4) ADDITIONAL MOTORS AND SINGLE POLE FUSIBLE DISCONNECTS WITH THREE (3) #12 IN 3/4" CONDUIT 120 FEET (AVERAGE) EACH CIRCUIT.
S. EXISTING ELECTRICAL DEVICES (RECEPTACLES, SWITCHES, OUTLET BOXES, CONDUIT, ETC.) WITHIN WALLS TO BE REMOVED SHALL BE DISCONNECTED COMPLETELY. REROUTE AND EXTEND EXISTING CIRCUITRY, ELECTRICAL FEEDERS AND GROUNDING SYSTEMS AS REQUIRED TO MAINTAIN CIRCUIT, FEEDER AND GROUNDING SYSTEM INTEGRITY FOR ALL REMAINING DEVICES/EQUIPMENT. VERIFY EXACT CONDITIONS AND REQUIREMENTS IN FIELD.	AU. PROVIDE AND WIRE COMPLETE, WHERE DIRECTED FOUR (4) ADDITIONAL EXIT SIGNS (XB-1 OR XB-2) TO NEAREST LIGHTING CIRCUIT IN SAME AREA. CONNECT WITH THREE (3) #12 WIRE IN 3/4" CONDUIT.
T. WHERE NEW CIRCUIT BREAKERS, FUSES AND SWITCHES ARE TO BE ADDED TO EXISTING PANELBOARDS, SWITCHBOARDS, ETC., THEY SHALL BE OF THE SAME MANUFACTURER AND DESIGN AS THE EXISTING BREAKERS OR SWITCHES IF NOT OBSOLETE AND SHALL BE OF THE SIZES AS INDICATED. REARRANGE CIRCUIT BREAKERS WITHIN THE EXISTING EQUIPMENT TO ACCOMMODATE THE NEW CIRCUIT BREAKERS OR SWITCHES. BRANCH CIRCUIT NUMBERS ASSIGNED TO EXISTING PANELBOARDS ARE ARBITRARY AND ARE INTENDED TO INDICATE BRANCH CIRCUIT REQUIREMENTS ONLY. ACTUAL PANEL NUMBER ASSIGNMENTS FOR DESIGNATED BRANCH CIRCUITS SHALL BE ADJUSTED TO MEET FIELD CONDITIONS. PROVIDE ADDITIONAL BUS EXTENSION, BOLTS AND HARDWARE, ENCLOSURE MODIFICATIONS, DIRECTORY MODIFICATIONS, ETC., AS REQUIRED TO ACCOMPLISH THE WORK.	AV. CONDUIT INSTALLED FOR LOW VOLTAGE SYSTEMS SHALL BE COORDINATED WITH THE LOW VOLTAGE INSTALLER IN FIELD. PRIOR TO ROUGH-IN, SUCH CONDUIT SHALL BE ROUTED TO MINIMIZE CABLE LENGTH AND COMPLY WITH LOW VOLTAGE CABLING DISTANCE LIMITATIONS.
LIGHT FIXTURES	AW. THE FLASH RATES FOR FIRE ALARM STROBES SHALL BE SYNCHRONIZED, COORDINATE ADDITIONAL REQUIREMENTS WITH NFPA 72.
U. PROVIDE BALLASTS OR WIRE FIXTURES IN TANDEM AS REQUIRED TO ACCOMPLISH THE SWITCHING ARRANGEMENT AS INDICATED ON DRAWINGS. PROVIDE MULTIPLE BALLASTS PER FIXTURE WHERE INDICATED BY MULTIPLE SWITCHES PER FIXTURE ON PLANS. GENERALLY, WHERE MULTIPLE BALLASTS ARE SPECIFIED, PROVIDE MULTIPLE SWITCHES AS REQUIRED TO CONTROL EACH BALLAST IN A FIXTURE SEPARATELY.	AX. REMOVE EXISTING ELECTRICAL FEEDERS, CONDUIT AND LOW VOLTAGE WIRING AS REQUIRED FOR INSTALLATION OF NEW STRUCTURAL COMPONENTS REQUIRED TO SUPPORT NEW ROOF MOUNTED EQUIPMENT. FURNISH AND INSTALL ALL CONDUIT, WIRING AND SPLICE BOXES TO MAINTAIN CONTINUITY.
V. VERIFY CEILING STYLES/FRAMES AND TYPES BEFORE ORDERING FIXTURES AND CEILING MOUNTED DEVICES. PROVIDE APPROPRIATE STYLES/FRAMES AS REQUIRED TO MATCH CEILING STYLE AND TYPES.	AY. SINGLE POLE CIRCUITS SHALL HAVE SEPARATE INDEPENDENT NEUTRAL CONDUCTORS (NON-NETWORKED), WHICH (PER CODE) ARE CONSIDERED CURRENT CARRYING CONDUCTORS. THEREFORE, IF MORE THAN THREE (3) CURRENT CARRYING CONDUCTORS ARE RUN IN THE SAME RACEWAY, CONDUCTOR AMPACITY SHALL BE DERATED IN ACCORDANCE WITH NEC ARTICLE 310. AS SUCH, MULTIPLE BRANCH CIRCUIT HOME RUNS SHALL, AT A MINIMUM, UTILIZE #10 AWG CONDUCTORS TO COMPLY WITH REQUIREMENTS HEREIN. COORDINATE REQUIREMENTS IN FIELD WITH SPECIFIC HOME RUN CONFIGURATION AND NEC 2008.
W. COORDINATE LIGHTING LAYOUTS WITH CEILING REGISTERS, GRILLES, DIFFUSERS, SPRINKLER HEADS AND CEILING GRID (SEE ARCHITECTURAL REFLECTED CEILING PLAN.) VERIFY LOCATION WITH OWNER'S REPRESENTATIVE IN FIELD PRIOR TO INSTALLATION.	AZ. CONTRACTOR SHALL OBTAIN AVAILABLE FAULT CURRENT, UTILITY TRANSFORMER SIZE AND IMPEDANCE WITHIN 14 DAYS OF CONTRACT AWARD. ELECTRICAL PANEL AND GEAR SHOP DRAWINGS SHALL BE SUBMITTED ALONG WITH COORDINATION/ARC FLASH STUDY WITH 30 DAYS OF CONTRACT AWARD FOR REVIEW. ALL GEAR SHALL BE RATED TO PROPERLY WITHSTAND AVAILABLE FAULT CURRENT.
X. PROVIDE PLENUM RATED LIGHT FIXTURES IN PLENUM CEILING AREAS WHERE REQUIRED BY LOCAL OR NATIONAL CODES.	BA. PRIOR TO THE START OF WORK AND THE ORDERING OF EQUIPMENT, CONTRACTOR SHALL CAREFULLY MEASURE AND VERIFY THE VOLTAGE, PHASE AND WIRING CONFIGURATION OF EXISTING PANELS AND EXISTING GEAR THAT ARE PART OF WORK AND SHALL CAREFULLY VERIFY THAT ALL ELECTRICAL CONNECTIONS, GEAR AND EQUIPMENT HAVE BEEN CAREFULLY COORDINATED TO ELIMINATE CONFLICTS. COORDINATE WITH OTHER TRADES AS REQUIRED TO ELIMINATE ELECTRICAL CONFLICTS PRIOR TO START OF WORK.
Y. SOME CEILING SPACES ARE RETURN AIR PLenums. EXAMINE PLENUM BEFORE CEILING IS INSTALLED (OR REPLACED) AND SEAL ALL OPENINGS AROUND CONDUIT, CABLE, ETC. PROVIDE PLENUM RATED CABLE (UNLESS IN CONDUIT), DEVICES AND EQUIPMENT PER CODE.	BB. CAREFULLY VERIFY COLOR TEMPERATURES OF FIXTURES WITH ARCHITECT PRIOR TO ORDERING.
Z. AIM AND ADJUST FIXTURES WITH ADJUSTMENT CAPABILITIES (I.E. TRACK LIGHTING, HIGH BAY LIGHTING, EXTERIOR FIXTURES, ETC.) TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.	BC. ALL NEW CIRCUIT BREAKERS RATED 1200A OR HIGHER SHALL BE PROVIDED WITH AN APPROVED MEANS TO COMPLY WITH NEC 240.87. ALL NEW FUSED DISCONNECTS AND BOLTED PRESSURE SWITCHES RATED 1200A OR HIGHER SHALL BE PROVIDED WITH AN ENERGY-REDUCING ACTIVE ARC FLASH MITIGATION SYSTEM TO COMPLY WITH NEC 240.87.
RACEWAYS	



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Project Name:
LAKE PRAIRIE ELEMENTARY - CLASSROOM ADDITION

Drawing Title:
ELECTRICAL DETAILS

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SYMBOL LIST

FIRE ALARM

* NOTE:
FIRE ALARM DEVICES, MOUNTING HEIGHT, ETC. SHALL COMPLY WITH 'ADA' STANDARDS.

- AD MOTORIZED DAMPER - E.C. TO INTERLOCK COMPLETE AS REQUIRED.
- EA EXISTING KIDDE FIRE ALARM CONTROL PANEL
- FIRE ALARM PULL STATION MTD 42" AFF.
- FIRE ALARM AUDIO VISUAL DEVICE MTD. 80" A.F. OR 6" BELOW FINISHED CEILING WHICHEVER IS LOWER. - 110 CANDELA
- FIRE ALARM STROBE ONLY MTD 80" AFF. - 15 CANDELA
- FIRE ALARM STROBE ONLY MTD 80" AFF. - 75 CANDELA
- FIRE ALARM SYSTEM HEAT DETECTOR - COMBINATION TYPE (R/R - FIXED TEMP.) IN BOILER ROOM
- FIRE ALARM SYSTEM SMOKE DETECTOR - CEILING MOUNTED - ABOVE FACP
- FIRE ALARM SYSTEM DUCT TYPE SMOKE DETECTOR WIRED TO CONTROL LOCAL FAN SHUT DOWN RELAY - DUCT DETECTOR TO BE MOUNTED IN AIR DUCT SYSTEM AND WIRED PER MANUFACTURER'S RECOMMENDATIONS AND NFPA 72
- REMOTE SMOKE DETECTOR TEST STATION WITH LED AND KEYPED SWITCH.
- FIRE ALARM CONTROL RELAY IN AIR HANDLING UNIT CONTROL PANEL WIRED TO SHUT DOWN FANS UPON FIRE ALARM SYSTEM ACTIVATION - NOTE: FANS TO AUTOMATICALLY RESTART UPON FIRE ALARM SYSTEM RESET. ALSO, RELAYS SHALL BE INTERFACED TO FIRE DOORS TO DISENGAGE UPON ACTIVATION OF THE FIRE ALARM SYSTEM.

COMMUNICATIONS

- DUPLEX DATA OUTLET - WITH 3/4" CONDUIT STUBBED INTO ACCESSIBLE CEILING SPACE WITH INSULATED BUSHING - MOUNTED 18" A.F.F. WHEN MOUNTED ADJACENT TO AN ELECTRICAL RECEPTACLE OR AS NOTED. PROVIDE CAT-6 PLENUM CABLE. FROM EACH JACK, TO NEAREST IDF OR MDF LOCATION INDICATED ON PLANS. TERMINATE WITH RJ-45 JACK. TEST AND LEAVE 10' SLACK LENGTH.
- DATA OUTLET FOR WIRELESS ACCESS POINTS - LOCATED ABOVE ACCESSIBLE CEILING SPACE AND 6" ABOVE THE GRID OR TIGHT TO THE ROOF DECK WHERE NO CEILINGS EXIST. PROVIDE 3/4" CONDUIT STUBBED INTO ACCESSIBLE CEILING SPACE WITH INSULATED BUSHING. PROVIDE CAT-6 PLENUM CABLE. FROM EACH JACK, TO NEAREST IDF OR MDF LOCATION INDICATED ON PLANS. TERMINATE WITH RJ-45 JACK. TEST AND LEAVE 10' SLACK LENGTH.
- 8" CLASSROOM HALLWAY LOUDSPEAKER UNIT WITH 25V MULTITAP TRANSFORMER AND SO2 MAGNET COMPATIBLE WITH EXISTING TELECOR XL SYSTEM AND AMPLIFIER - WITH AIR PLENUM BACK BOX AND 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE WITH INSULATED BUSHING. MOUNT IN SURFACE BOX WHERE NO CEILINGS EXIST.
- EXISTING TO BE REMOVED EXTERIOR SURFACE MOUNTED WEATHERPROOF SPEAKER HORN
- INTERCOM PRIVACY CALL-IN SWITCH (TELECOR CS-1) - MOUNTED 42" A.F.F. PROVIDE 2-GANG BACK BOX WITH SINGLE GANG MUD RING WITH 3/4" CONDUIT ROUTED TO THE ACCESSIBLE CEILING SPACE WITH INSULATED BUSHING. TIE INTO EXISTING TELECOR HEAD-END SYSTEM.
- VOLUME CONTROL - MOUNTED 42" A.F.F. PROVIDE 2-GANG BACK BOX WITH SINGLE GANG MUD RING WITH 3/4" CONDUIT ROUTED TO THE ACCESSIBLE CEILING SPACE WITH INSULATED BUSHING.
- WALL MOUNTED CLOCK UNIT MOUNTED 7'-0" A.F.F. (OR AS OTHERWISE NOTED). PROVIDE CLOCK (RAIL AND E12202) WHERE INDICATED WITH A "B" ADJACENT TO THE DEVICE. PROVIDE BACK BOX WITH 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE WITH INSULATED BUSHING. TIE IN TO EXISTING HEAD-END SYSTEM.
- CEILING MOUNTED DOUBLE FACE CORRIDOR CLOCK (RAIL AND E1221Z) - EXTEND 3/4" CONDUIT WITH INSULATED BUSHING TO ACCESSIBLE CEILING SPACE. TIE IN TO EXISTING HEAD-END SYSTEM.

SWITCHING

- WALL MOUNTED 0-10V DIMMER SWITCH MTD 42" AFF. SENSORSWITCH, COOPER OR HUBBELL CONTROLS. VERIFY SUITABILITY OF DIMMER WITH FIXTURE MANUFACTURER PRIOR TO ORDERING.
- FURNISH AND INSTALL CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR WITH POWER PACK. MANUFACTURERS: SENSORSWITCH HCA-PD1-10-MP-20 (WITH MICROPHONICS) OR APPROVED EQUAL BY COOPER OR HUBBELL CONTROLS. SENSOR SHALL BE PROGRAMMED FOR MANUAL ON UNLESS OTHERWISE NOTED.
- KEY OPERATED TOGGLE TYPE SWITCH
- MANUAL STARTING SWITCH WITH THERMAL OVERLOAD PROTECTION
- WALL MOUNTED 0-10V DIMMER SWITCH MTD 42" AFF WITH DUAL TECHNOLOGY OCCUPANCY SENSOR: SENSORSWITCH, COOPER OR HUBBELL CONTROLS. VERIFY SUITABILITY OF DIMMER WITH FIXTURE MANUFACTURER PRIOR TO ORDERING.
- FURNISH AND INSTALL TWO BUTTON ON/OFF SWITCH MTD 42" AFF. SENSORSWITCH #SP0DM OR APPROVED EQUAL BY COOPER OR HUBBELL CONTROLS. PROVIDE WITH POWER PACK AS REQUIRED FOR CONTROL OF FIXTURES.
- FURNISH AND INSTALL TWO BUTTON ON/OFF 3-WAY SWITCH MTD 42" AFF. SENSORSWITCH #SP0DM OR APPROVED EQUAL BY COOPER OR HUBBELL CONTROLS. PROVIDE WITH POWER PACK AS REQUIRED FOR CONTROL OF FIXTURES.
- MANUAL ON OPERATION MTD 42" AFF. SENSORSWITCH #WSX-PDT OR APPROVED EQUAL BY COOPER OR HUBBELL CONTROLS.

SECURITY

- CARD ACCESS CONTROLLER - PROVIDE BACK BOX MOUNTED 42" A.F.F. WITH 3/4" CONDUIT TO THE ACCESSIBLE CEILING SPACE. TIE TO EXISTING HORNWELL AND SCHAFFER DEVICES WHERE POSSIBLE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ELECTRIC DOOR STRIKE - STUB IN CONDUIT FROM THE ACCESSIBLE CEILING SPACE TO THE DOOR MULLION FOR WIRING. INTERFACE WIRING FROM THE DOOR STRIKE TO THE DOOR ACCESS SYSTEM FOR A COMPLETE AND PROPERLY OPERATING SYSTEM. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXTERIOR 180 DEGREE SURVEILLANCE CAMERA - PROVIDE EXTERIOR CAMERA WITH WALL MOUNT BRACKET, HEATER AND DOME. - MOUNTED 12'-0" A.F.F. VERIFY HEIGHT IN FIELD. PROVIDE 2-GANG BACK BOX WITH ISOLATION PARTITION TO PROVIDE LOW VOLTAGE AND 120V IN SAME BACK BOX. COORDINATE EXACT BACK BOX CONFIGURATION WITH ELECTRICAL CONTRACTOR. BACK BOX IS LOCATED CONCEALED BEHIND ARM MOUNTING PLATE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- SURVEILLANCE CAMERA - (ACTI #E88) INTERIOR CEILING MOUNTED DOME CAMERA - PROVIDE 2-GANG BACK BOX WITH SINGLE GANG MUD RING WITH 3/4" CONDUIT TO THE ACCESSIBLE CEILING SPACE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

EQUIPMENT AND WIRING

- JUNCTION BOX - SIZE AND TYPE AS REQUIRED.
- FLEX CONDUIT CONNECTION
- JUNCTION BOX W/ FLEX CONDUIT CONNECTION.
- ELECTRIC MOTOR CONNECTION - PROVIDE LOCAL DISCONNECT SWITCH PER NATIONAL ELECTRIC CODE - CONNECT MISCELLANEOUS ACCESSORIES SUCH AS BACK DRAFT DAMPERS, ETC. COMPLETE AS REQUIRED.
- ELECTRIC PANELBOARDS.
- DISCONNECT SWITCH SIZE AND TYPE AS REQUIRED - COORDINATE AMPERE RATING WITH EQUIPMENT SUPPLIER
- TRANSFORMER - SIZE AND TYPE AS REQUIRED
- SURGE SUPPRESSION DEVICE
- TELEPHONE TERMINAL BOARD
- T.T.B.
- PULL BOX, VERIFY EXACT SIZE IN FIELD.
- SPLICE BOX, VERIFY EXACT SIZE IN FIELD.
- DOOR OPERATOR PUSH BUTTON FURNISHED BY OTHERS, WIRED AND INSTALLED BY CONTRACTOR. PROVIDE TWO (2) GANG BACK-BOX MOUNTED AT 42" A.F.F. WITH 1/2" CONDUIT TO THE DOOR OPERATOR.
- SWING DOOR OPERATOR FURNISHED AND INSTALLED BY OTHERS, WIRED BY CONTRACTOR. COORDINATE ELECTRICAL LOCATION WITH DOOR HARDWARE SUPPLIER.

RECEPTACLES

- 120V-20A SPECIFICATION GRADE DUPLEX RECEPTACLE - (MOUNTED 18" A.F.F. OR AS NOTED) (HUBBELL #5362 OR EQUAL).
- 120V-20A SPECIFICATION GRADE DUPLEX RECEPTACLE - (MOUNTED 42" A.F.F. OR 2" ABOVE BACKSPLASH IF LOCATED ABOVE COUNTER) (HUBBELL #5362 OR EQUAL).
- 120V-20A SPECIFICATION GRADE DUPLEX RECEPTACLE - (MOUNTED AT SPECIAL HEIGHT - COORDINATE IN FIELD) (HUBBELL #5362 OR EQUAL).
- 120V-20A SPECIFICATION GRADE GROUNDED DUPLEX RECEPTACLE WITH G.F.I. PROTECTION - (MOUNTED 18" A.F.F. OR AS NOTED) (HUBBELL #GF20 OR EQUAL).
- 120V-20A SPECIFICATION GRADE GROUNDED DUPLEX RECEPTACLE WITH G.F.I. PROTECTION (MOUNTED 42" A.F.F. OR 2" ABOVE BACKSPLASH IF LOCATED ABOVE COUNTER) (HUBBELL #GF20 OR EQUAL).
- SPECIAL PURPOSE OUTLET (AS NOTED ON PLAN OR SPECIFICATIONS).
- TEACHER PANEL WITH TWO (2) DUPLEX RECEPTACLES AND SEPARATE BACK BOX WITH LOW VOLTAGE JACKS AND COVER PLATE. SEE SPECIFICATIONS AND TEACHER STATION DETAIL FOR ADDITIONAL INFORMATION.
- FLUSH IN WALL "TV" PANEL CONSISTING WITH ONE (1) DUPLEX RECEPTACLE MOUNTED IN A BACK BOX. PROVIDE SEPARATE 2-GANG BACK BOX WITH (1) DATA JACK, (1) HDMI AND CABLING BACK TO IDF/MDF AS INDICATED IN THE DATA JACK SYMBOL. STUB IN CONDUIT TO ACCESSIBLE CEILING SPACE WITH INSULATED BUSHING. MOUNT DEVICE AT 7'-0" A.F.F. AND COORDINATE MOUNTING HEIGHT WITH THE ARCHITECTURAL ELEVATIONS.

SHEET SYMBOLS

- HEXAGON TAG REFERENCE TO EQUIPMENT CONNECTION SCHEDULE
- ELLIPSE TAG REFERENCE TO SHEET NOTES
- TWO DEVICE MOUNTED UNDER COMMON COVER. WHERE LOW VOLTAGE DEVICES ARE MOUNTED UNDER COMMON COVER, COMBINE CONDUIT STUBS MAINTAINING THE EQUIVALENT FREE AREA FOR THE LOW VOLTAGE CABLING.
- REMOVE EXISTING DEVICE AND PROVIDE NEW AS INDICATED IN EXISTING BACK BOX, JUNCTION BOX, ETC. VERIFY EXACT LOCATION AND CONDITIONS IN FIELD. MODIFY EXISTING BACK BOX, JUNCTION BOX, ETC. PROVIDE TRIM PLATES, EXTENSION RINGS, ETC. AS REQUIRED TO MOUNT NEW DEVICE AS INDICATED.
- F&I NEW DEVICE AS INDICATED.
- EXISTING LIGHTS, RECEPTACLES, SPECIAL SYSTEMS, DEVICE, ETC. TO REMAIN.
- EXISTING LIGHTS, RECEPTACLES, SPECIAL SYSTEMS, DEVICE, ETC. TO BE REMOVED COMPLETE IN ITS ENTIRETY. REMOVE ALL ASSOCIATED SURFACE MOUNTED CONDUIT, OUTLETS, ETC. AND BLANK-OFF FLUSH WITH NEW OR EXISTING CONSTRUCTION. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- REMOVE EXISTING LIGHTS, RECEPTACLES, SPECIAL SYSTEMS, DEVICES, ETC. AND RELOCATE TO NEW LOCATION COMPLETE AS REQUIRED.
- NEW LOCATION OF EXISTING RELOCATED LIGHTS, RECEPTACLES, SPECIAL SYSTEMS, DEVICE, ETC. EXTEND CONDUIT, WIRE, CABLE, ETC. COMPLETE AS REQUIRED TO NEW LOCATION FOR A COMPLETE AND PROPER INSTALLATION.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

TAG	DESCRIPTION	LOAD					MOCP	VOLT	PHASE	PANEL	CKT. NO.	FUSED SWITCH	FEEDER			STARTER BY:			LOCATION	REMARKS
		WATTS	HP	MCA	FLA	AMPS							C/B	CABLE	C	MC	EC			
AH-1	INTERIOR CENTRAL STATION AIR HANDLER - CHILLED WATER / HOT WATER - DOAS	11418	-	13.75	-	-	20	480	3	EX CH2	EX CH2	20A/3P	4 #12 & 1 #12 GRD.	3/4"	X	-	-	-	PROVIDE NEW BREAKER IN EX. PANEL	
ERV-1	ROOF MOUNTED ENERGY RECOVERY VENTILATOR	12456	-	15	-	-	20	480	3	EX CH2	EX CH2	20A/3P	4 #12 & 1 #12 GRD.	3/4"	X	-	-	-	PROVIDE NEW BREAKER IN EX. PANEL	
TEF-1	CEILING MOUNTED TOILET EXHAUST FAN - ALTERNATE	696	1/4	-	-	-	120	1	DL1	#20	25A/1P	2 #10 & 1 #10 GRD.	3/4"	X	-	-	-	-		
CH-1	SEMI RECESSED HOT WATER CABINET HEATER	-	-	-	-	1.4	15	120	1	DL1	#21	20A/1P	2 #12 & 1 #12 GRD.	3/4"	X	-	-	-	-	
P-1	INLINE CHILLED WATER PUMP	2491.2	1 1/2	-	-	-	480	3	EX CH2	EX CH2	15A/3P	4 #12 & 1 #12 GRD.	3/4"	X	-	-	-	PROVIDE NEW BREAKER IN EX. PANEL		

FAN COIL CONNECTION SCHEDULE (FPCW)

TAG	FAN DATA DATA					FUSED SWITCH	FEEDER		
	No OF MOTORS	HP	VOLTS	PHASE	PANEL		CKT. NO.	C/B	CABLE
1	1	3/4	277	1	CH-1	1	20A/1P	2 #12 & 1 #12 GRD.	3/4"
2	1	3/4	277	1	CH-1	1	20A/1P	2 #12 & 1 #12 GRD.	3/4"
3	1	3/4	277	1	CH-1	3	20A/1P	2 #12 & 1 #12 GRD.	3/4"
4	1	3/4	277	1	CH-1	3	20A/1P	2 #12 & 1 #12 GRD.	3/4"
5	1	3/4	277	1	AH-1	5	20A/1P	2 #12 & 1 #12 GRD.	3/4"
6	1	3/4	277	1	AH-1	5	20A/1P	2 #12 & 1 #12 GRD.	3/4"
7	1	3/4	277	1	AH-1	3	20A/1P	2 #12 & 1 #12 GRD.	3/4"
8	1	3/4	277	1	CH-1	12	20A/1P	2 #12 & 1 #12 GRD.	3/4"
9	1	3/4	277	1	CH-1	14	20A/1P	2 #12 & 1 #12 GRD.	3/4"
10	1	3/4	277	1	CH-1	16	20A/1P	2 #12 & 1 #12 GRD.	3/4"

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