ROCKFORD PUBLIC SCHOOLS

ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

PROJECT

Electronic Messaging Board Ground Signs

RPS Project No. 2210
IFB No. 22-46

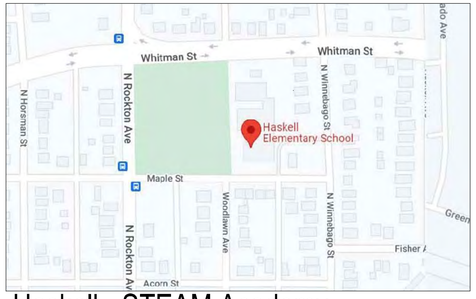
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

Project Location Map

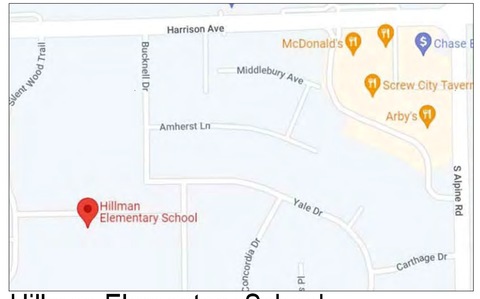
Fairview Early Childhood Center

School Building and Locations

Froberg Elementary School

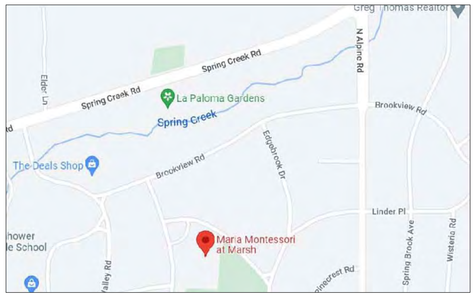


Haskell - STEAM Academy

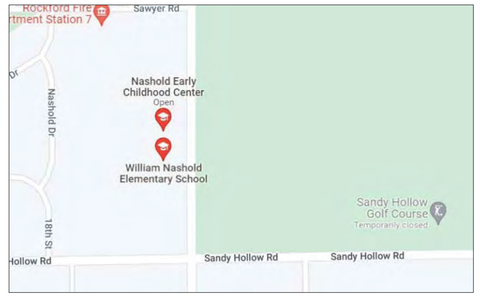


Hillman Elementary School

Marshall Campus



Marsh - Montessori Program



Nashold Early Childhood Center

DRAWING INDEX

ARCHITECT

HAGNEY ARCHITECTS LLC

Hagney Architects, LLC
4615 E. State Street
Rockford, IL 61108
815.397.3330
Contact: Frank St. Angel

Professional Design Firm # 184-003268

ELECTRICAL

Legacy Designs, Inc.

Legacy Designs, Inc.
6116 Mulford Village Dr.
Rockford, IL 61107
815.484.4708
Contact: Frank Gallagher

Professional Design Firm # 184-003483

ARCHITECT STATEMENT OF COMPLIANCE

I have prepared, or caused to be prepared under my direct supervision, the attached plans and specifications and state that, to the best of my knowledge and belief and to the extent of my contractual obligation, they are in compliance with the Environmental Barriers Act (410 ILCS 25) and the Illinois Accessibility Code (71 Ill. Adm. Code 400).

ARCHITECT SEAL	MECHANICAL ENGINEER SEAL
ONLY APPLICABLE TO THE ARCHITECTURAL "A" SHEETS and GENERAL "G" SHEETS	ONLY APPLICABLE TO THE MECHANICAL SHEETS
STATE OF ILLINOIS · DAVID GEORGE HAGNEY · 001.012121 · LICENSED ARCHITECT	REGISTERED PROFESSIONAL ENGINEER · JAY THAKKAR · 062-057758 · STATE OF ILLINOIS · EXP 11-30-23
SIGNED _____ ARCHITECT	SIGNED _____ ENGINEER
DATE 3/24/22 LICENSE EXP. DATE 11-30-22	DATE 3-24-2022 LICENSE EXP. DATE 11-30-2023

ISSUED FOR: BID 03.24.22

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

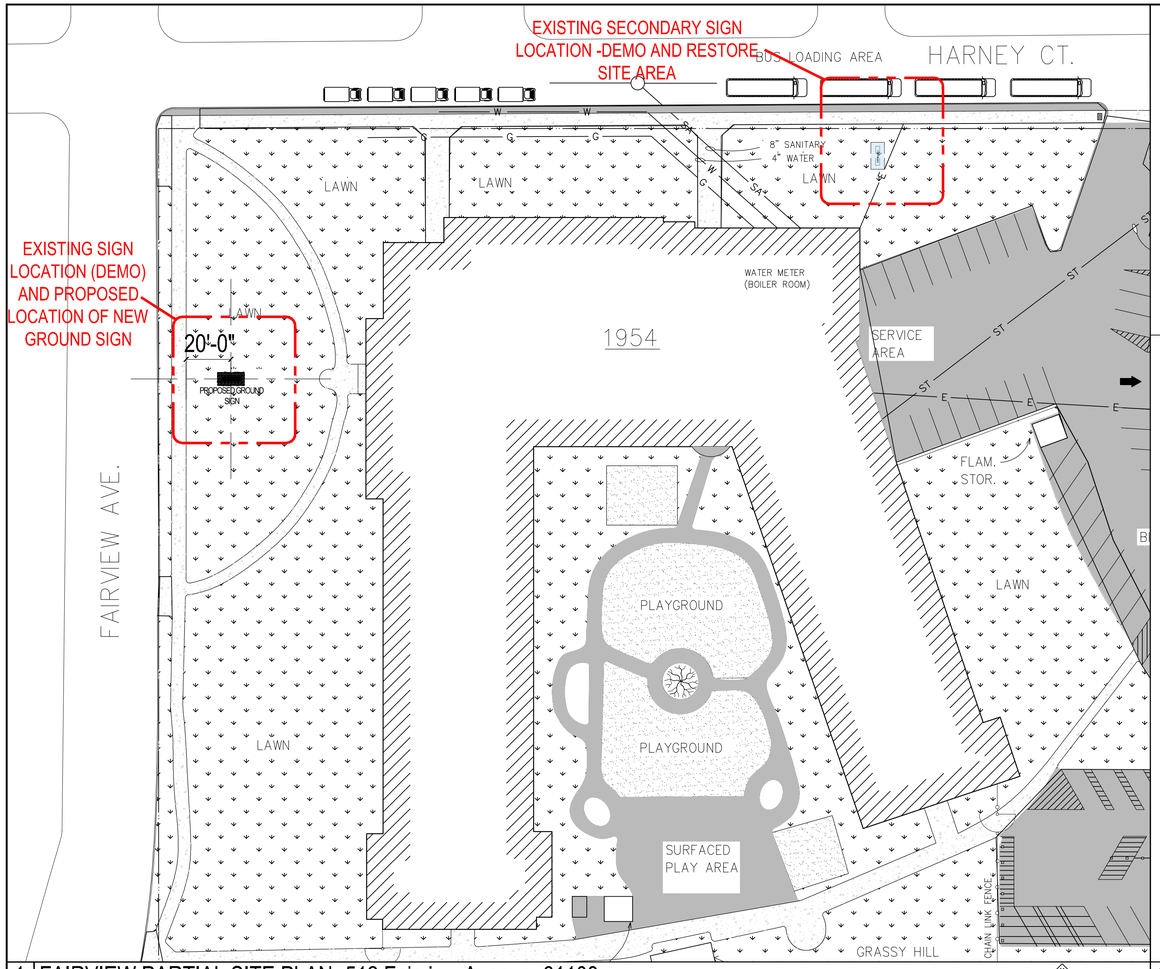
New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

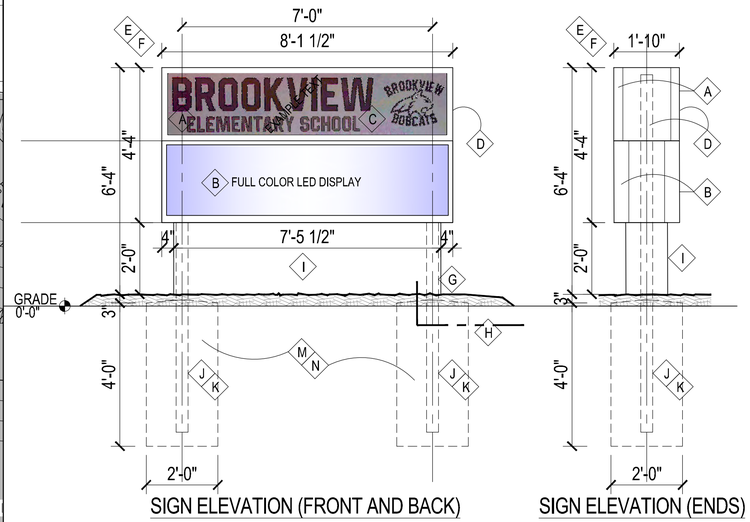
REVISIONS:

DRAWN BY:
DATE: 03.24.22
PROJECT NUMBER 1966
SHEET NAME: PROJECT INFORMATION, DRAWING INDEX & PROJECT TEAM
SHEET NUMBER: G1.0

Z:\Arodowin\Dwg\G1966 RPS 205 Electronic Messaging Boards\G01\A1\A1 School Sign Information.DWG Mar 24, 2022

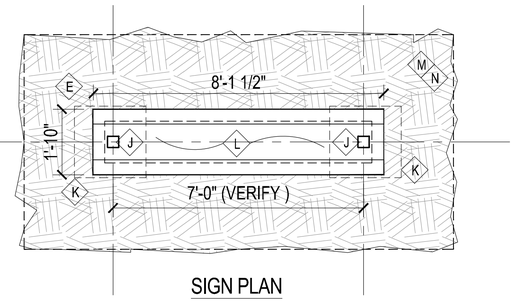


1 FAIRVIEW PARTIAL SITE PLAN- 512 Fairview Avenue 61108 — 1/32" = 1'-0"



SIGN ELEVATION (FRONT AND BACK)

SIGN ELEVATION (ENDS)



SIGN PLAN

2 SIGN PLAN AND ELEVATION DETAILS — 1/2" = 1'-0"

KEY NOTES

A. DOUBLE SIDED POLYCARBONATE RESIN ("LEXAN") PANEL SIGNAGE WITH FULL COLOR VINYL OVERLAY (COMBINATION OF TEXT AND LOGO GRAPHIC), INTERNALLY LED ILLUMINATED. PHOTOCELL ILLUMINATION CONTROL

B. ELECTRONIC MESSAGE CENTER : FULL COLOR LED PROGRAMMABLE DISPLAY/SCREEN ((2) TWO DISPLAYS PER SIGN- FRONT AND BACK FACE "DOUBLE SIDED CONFIGURATION") WITH AMBIENT LIGHT SENSOR. PREFINISHED ALUMINUM CABINET AND MATCHING SIDE PANEL TRIM. SIZE WILL VARY PER MANUFACTURER, HOWEVER CABINET SIZE SHOWN 2'-3.44" H X 8'-1.56" W X 5" D

C. EXAMPLE TEXT/LOGO LAYOUT. SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO. SEE PROPOSED LAYOUT THIS SHEET. (SCHOOL WILL PROVIDE VECTOR FILES OF LOGOS)

D. ALL PANEL SIGN CABINET TRIM AND END CAPS TO BE FACTORY PREFINISHED ALUMINUM, .063 GA. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

E. DIMENSIONS SHOWN ARE APPROXIMATE. FINAL OVERALL SIGN SIZE TO BE ADJUSTED PER ELECTRONIC MESSAGE CENTER SIGN CABINET DIMENSIONS

F. PER CITY OF ROCKFORD AGREEMENT/ZONING CODE: OVERALL SIGN SIZE (INCLUDING ELECTRONIC MESSAGE CENTER AND ACRYLIC PANEL SIGNAGE) TO BE A MAX OF 48 SF/8 FT HEIGHT. ELECTRONIC MESSAGE CENTER SIGN TO BE A MAX OF 36 SF

G. PROVIDE GROUND ROD

H. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENT AND FEED/TERMINATION (ROUTING) LOCATIONS, INCLUDING POWER AND FIBER CONDUIT INFORMATION

I. SIGNAGE SKIRT: PREFINISHED PAINTED ALUMINUM (.063), OVER ¾" EXTERIOR GRADE PLYWOOD, OVER EXTERIOR METAL STUD FRAMING. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

J. (2) 4"X4"X¼" X 120" A36 GALVANIZED STEEL POSTS

K. (2) 24"X24" X48" CONCRETE FOOTINGS, 3,000 PSI

L. PROVIDE MTL. FRAMING AS REQUIRED FOR ALL SIGN FRAMEWORK (PER SIGNAGE REQUIREMENTS)

M. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

N. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

A. REMOVE AND DISPOSE OF EXISTING SIGN, INCLUDING STRUCTURE AND FOUNDATION

B. REMOVE EXISTING PERENNIAL AND DECIDUOUS/EVERGREEN LANDSCAPING. VERIFY WITH OWNER PRIOR TO DISPOSING

C. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

D. FINISH GRADE AND SEED AT ALL DISTURBED AREAS TO MATCH EXISTING

E. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

F. LAYOUT DIMENSIONS ARE APPROXIMATE. EXACT LOCATION TO BE DETERMINED ON SITE WITH OWNER & ARCHITECT

G. EXISTING FACILITIES, INCLUDING GROUNDS, STRUCTURES, LANDSCAPING, AND SO FORTH, SHALL BE PROTECTED BY THE SIGN CONTRACTOR. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPORTED TO THE DISTRICT AND SHALL BE REPAIRED, AT THE SIGN CONTRACTOR'S EXPENSE

H. WHEN INSTALLING FIBER RUNS INSIDE OF THE BUILDINGS, FOLLOW PATH TO CONCEAL ABOVE CEILINGS, WITHIN WALLS, BASEMENTS, TUNNELS (IF IT IS DETERMINED DURING CONSTRUCTION THAT CONCEALED LOCATIONS ARE NOT FEASIBLE OR AVAILABLE, SUBMIT ALTERNATE ROUTES TO RPS PROJECT MANAGER (PM)/ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION); ALL PENETRATIONS SHALL BE SEALED, PENETRATIONS THROUGH FIRE WALLS SHALL BE SLEEVED AND FIRESTOPPED; INDEPENDENTLY SUPPORT FROM BUILDING CONSTRUCTION (NOT CEILING SYSTEM) AS REQUIRED, COMPLY WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2014 EDITION PER IBC 2015. **PROVIDE SUBMITTAL INDICATING UL RATED ASSEMBLY TYPES PRIOR TO ANY WALL PENETRATIONS.

I. BIDDERS SHALL INFORM THEMSELVES OF ALL THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED CONCERNING THE SITE OF THE WORK, THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL OTHER RELEVANT MATTERS CONCERNING THE WORK TO BE PERFORMED UNDER THIS CONTRACT.

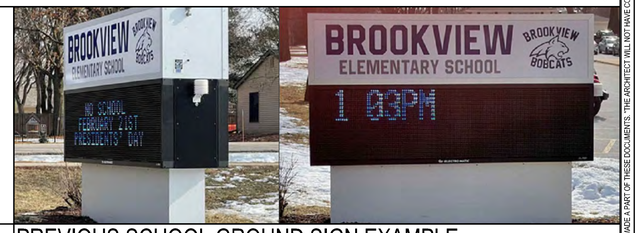
J. AT ALL EXISTING (DEMO'D) SIGN LOCATIONS- CUT EXISTING (ABANDONED IN PLACE) POWER CONDUIT/WIRING BELOW GRADE. COORDINATE WITH OWNER. RPS ELECTRICIANS WILL DE-POWER THE SIGNAGE AT THE ELECTRICAL PANEL.

3 SITE AND BUILDING GENERAL NOTES

AERIAL IMAGE

EXISTING SIGN

EXISTING SECONDARY SIGN



PREVIOUS SCHOOL GROUND SIGN EXAMPLE (FOR REFERENCE ONLY)

"FAIRVIEW EARLY CHILDHOOD CENTER"

FAIRVIEW
EARLY CHILDHOOD CENTER
(LOGO TBD)

SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO

SCHOOL SIGN PANEL (FRONT AND BACK SIGN FACES)

HAGNEY ARCHITECTS
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

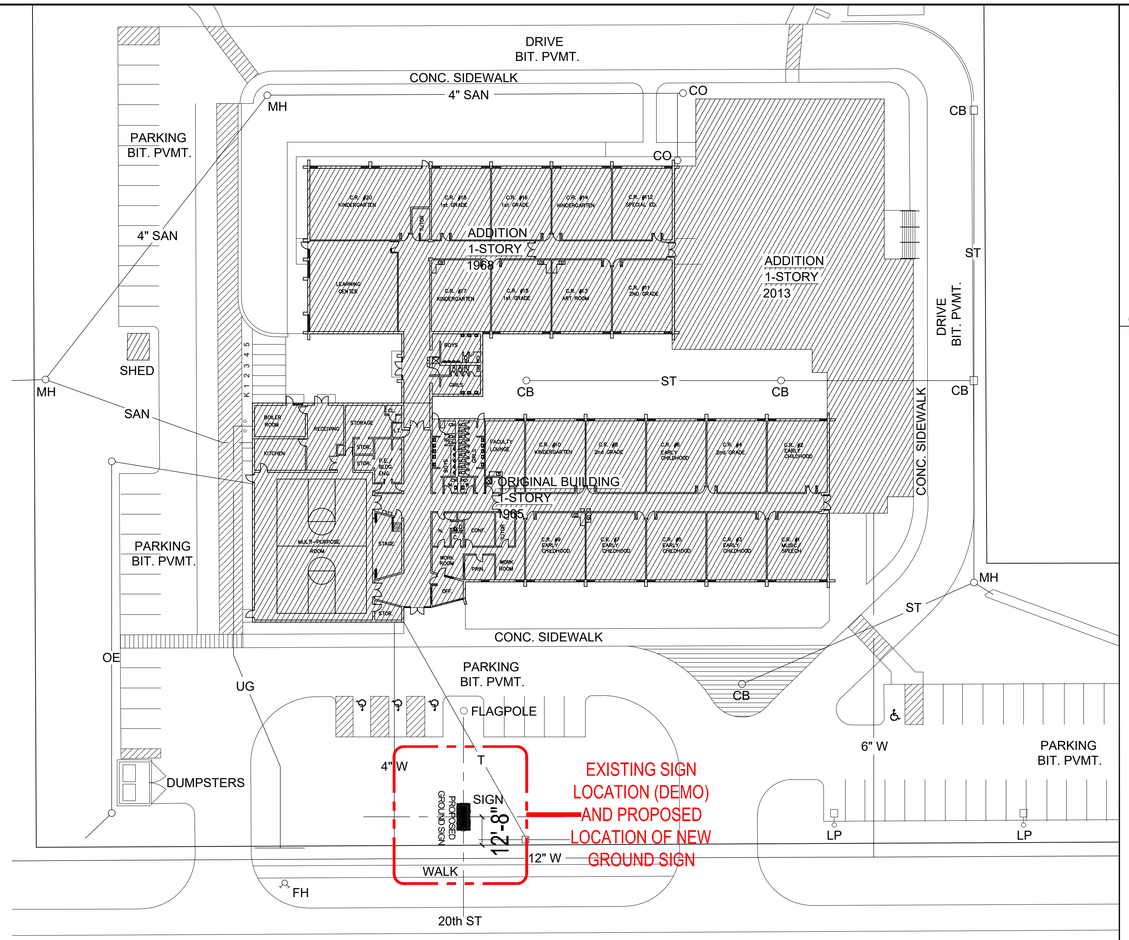
New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

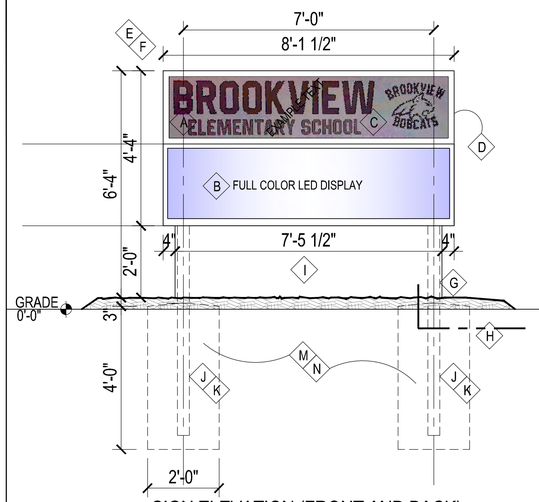
REVISIONS:

DRAWN BY:
DATE: 03.24.22
PROJECT NUMBER 1966
SHEET NAME: FAIRVIEW
SHEET NUMBER: A1.0

Z:\Acadwrk\Dwg\C1966 RPS 205 Electronic Messaging Boards\CD\A1\A1 School Sign Information.DWG Mar 24, 2022

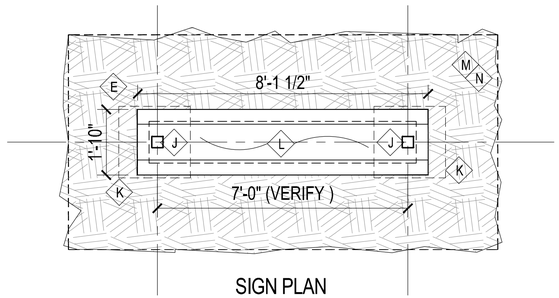


1 FROBERG SCHOOL PARTIAL SITE PLAN- 4555 20th Street 61109 1/32" = 1'-0"



SIGN ELEVATION (FRONT AND BACK)

SIGN ELEVATION (ENDS)



SIGN PLAN

KEY NOTES

A. DOUBLE SIDED POLYCARBONATE RESIN ("LEXAN") PANEL SIGNAGE WITH FULL COLOR VINYL OVERLAY (COMBINATION OF TEXT AND LOGO GRAPHIC), INTERNALLY LED ILLUMINATED. PHOTOCELL ILLUMINATION CONTROL

B. ELECTRONIC MESSAGE CENTER : FULL COLOR LED PROGRAMMABLE DISPLAY/SCREEN ((2) TWO DISPLAYS PER SIGN- FRONT AND BACK FACE "DOUBLE SIDED CONFIGURATION") WITH AMBIENT LIGHT SENSOR. PREFINISHED ALUMINUM CABINET AND MATCHING SIDE PANEL TRIM. SIZE WILL VARY PER MANUFACTURER, HOWEVER CABINET SIZE SHOWN 2'-3.44" H X 8'-1.56" W X 5" D

C. EXAMPLE TEXT/LOGO LAYOUT. SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO. SEE PROPOSED LAYOUT THIS SHEET. (SCHOOL WILL PROVIDE VECTOR FILES OF LOGOS)

D. ALL PANEL SIGN CABINET TRIM AND END CAPS TO BE FACTORY PREFINISHED ALUMINUM, .063 GA. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

E. DIMENSIONS SHOWN ARE APPROXIMATE. FINAL OVERALL SIGN SIZE TO BE ADJUSTED PER ELECTRONIC MESSAGE CENTER SIGN CABINET DIMENSIONS

F. PER CITY OF ROCKFORD AGREEMENT/ZONING CODE: OVERALL SIGN SIZE (INCLUDING ELECTRONIC MESSAGE CENTER AND ACRYLIC PANEL SIGNAGE) TO BE A MAX OF 48 SF/8 FT HEIGHT. ELECTRONIC MESSAGE CENTER SIGN TO BE A MAX OF 36 SF

G. PROVIDE GROUND ROD

H. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENT AND FEED/TERMINATION (ROUTING) LOCATIONS, INCLUDING POWER AND FIBER CONDUIT INFORMATION

I. SIGNAGE SKIRT: PREFINISHED PAINTED ALUMINUM (.063), OVER $\frac{3}{4}$" EXTERIOR GRADE PLYWOOD, OVER EXTERIOR METAL STUD FRAMING. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

J. (2) 4"X4"X$\frac{1}{4}$" X 120" A36 GALVANIZED STEEL POSTS

K. (2) 24"X24" X48" CONCRETE FOOTINGS, 3,000 PSI

L. PROVIDE MTL. FRAMING AS REQUIRED FOR ALL SIGN FRAMEWORK (PER SIGNAGE REQUIREMENTS)

M. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

N. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

2 SIGN PLAN AND ELEVATION DETAILS 1/2" = 1'-0"

A. REMOVE AND DISPOSE OF EXISTING SIGN, INCLUDING STRUCTURE AND FOUNDATION

B. REMOVE EXISTING PERENNIAL AND DECIDUOUS/EVERGREEN LANDSCAPING. VERIFY WITH OWNER PRIOR TO DISPOSING

C. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

D. FINISH GRADE AND SEED AT ALL DISTURBED AREAS TO MATCH EXISTING

E. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

F. LAYOUT DIMENSIONS ARE APPROXIMATE. EXACT LOCATION TO BE DETERMINED ON SITE WITH OWNER & ARCHITECT

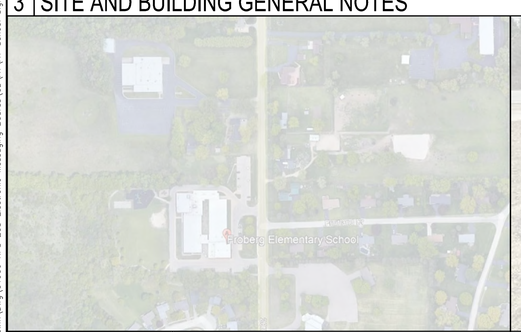
G. EXISTING FACILITIES, INCLUDING GROUNDS, STRUCTURES, LANDSCAPING, AND SO FORTH, SHALL BE PROTECTED BY THE SIGN CONTRACTOR. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPORTED TO THE DISTRICT AND SHALL BE REPAIRED, AT THE SIGN CONTRACTOR'S EXPENSE

H. WHEN INSTALLING FIBER RUNS INSIDE OF THE BUILDINGS, FOLLOW PATH TO CONCEAL ABOVE CEILINGS, WITHIN WALLS, BASEMENTS, TUNNELS (IF IT IS DETERMINED DURING CONSTRUCTION THAT CONCEALED LOCATIONS ARE NOT FEASIBLE OR AVAILABLE, SUBMIT ALTERNATE ROUTES TO RPS PROJECT MANAGER (PM)/ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION); ALL PENETRATIONS SHALL BE SEALED, PENETRATIONS THROUGH FIRE WALLS SHALL BE SLEEVED AND FIRESTOPPED; INDEPENDENTLY SUPPORT FROM BUILDING CONSTRUCTION (NOT CEILING SYSTEM) AS REQUIRED, COMPLY WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2014 EDITION PER IBC 2015. **PROVIDE SUBMITTAL INDICATING UL RATED ASSEMBLY TYPES PRIOR TO ANY WALL PENETRATIONS.

I. BIDDERS SHALL INFORM THEMSELVES OF ALL THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED CONCERNING THE SITE OF THE WORK, THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL OTHER RELEVANT MATTERS CONCERNING THE WORK TO BE PERFORMED UNDER THIS CONTRACT.

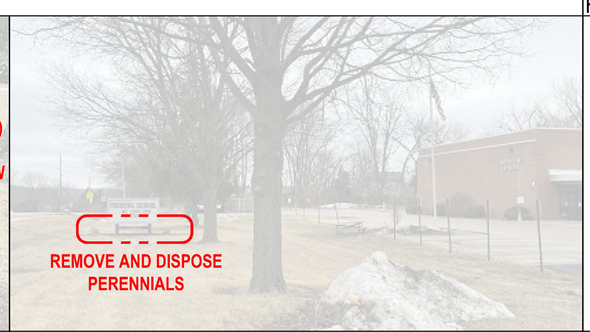
J. AT ALL EXISTING (DEMO'D) SIGN LOCATIONS- CUT EXISTING (ABANDONED IN PLACE) POWER CONDUIT/WIRING BELOW GRADE. COORDINATE WITH OWNER. RPS ELECTRICIANS WILL DE-POWER THE SIGNAGE AT THE ELECTRICAL PANEL.

3 SITE AND BUILDING GENERAL NOTES



AERIAL IMAGE

EXISTING SIGN



EXISTING SIGN - alternate view

PREVIOUS SCHOOL GROUND SIGN EXAMPLE (FOR REFERENCE ONLY)

"FROBERG ELEMENTARY SCHOOL"

FROBERG
ELEMENTARY SCHOOL
FROBERG NIGHTHAWKS

SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO

SCHOOL SIGN PANEL (FRONT AND BACK SIGN FACES)

HAGNEY ARCHITECTS
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

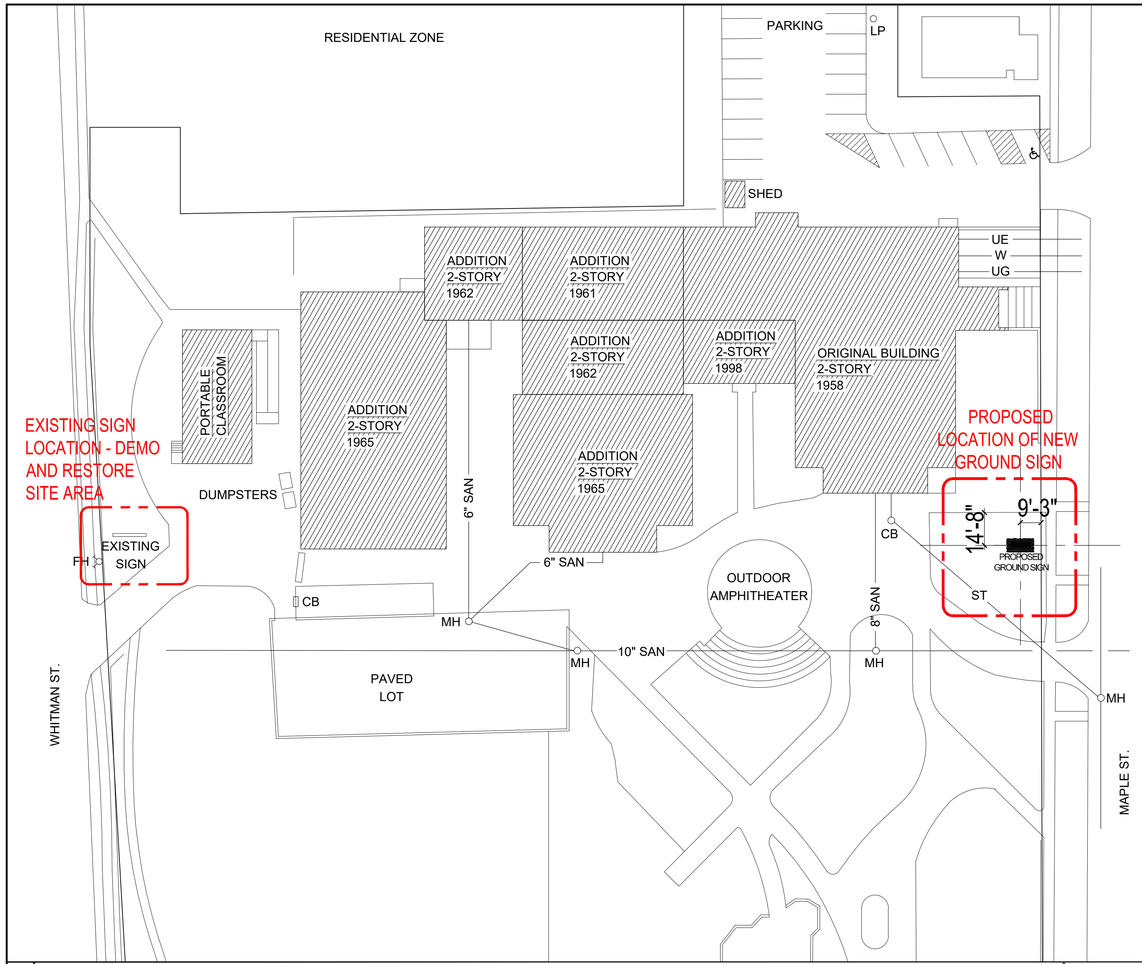
New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

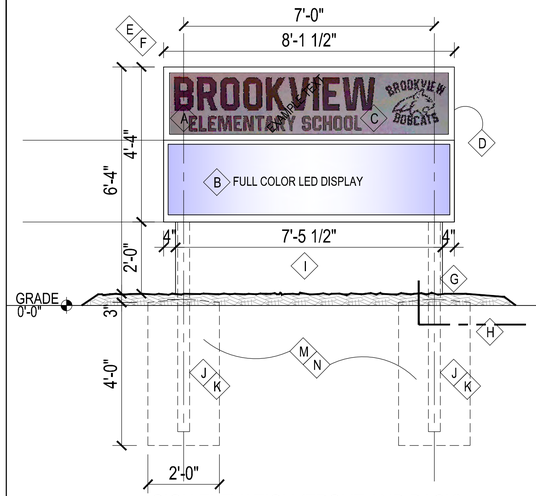
REVISIONS:

DRAWN BY:
DATE: 03.24.22
PROJECT NUMBER 1966
SHEET NAME: FROBERG
SHEET NUMBER: A1.1

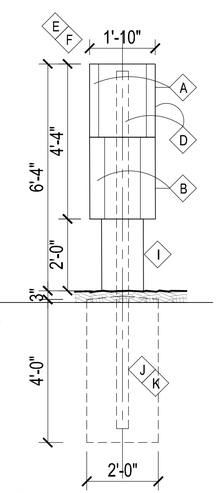
Z:\Acadwin\Dwg\C1966 RPS 205 Electronic Messaging Boards\C01\A1\A1 School Sign Information.DWG Mar 24, 2022



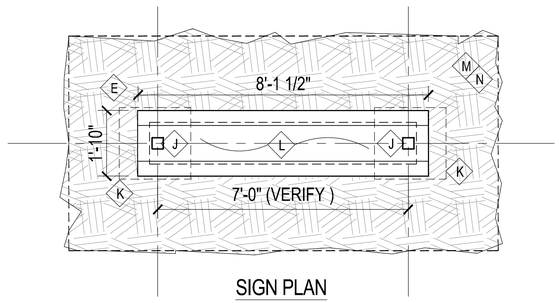
1 HASKELL SCHOOL PARTIAL SITE PLAN- 515 Maple Street 61103 — 1/32" = 1'-0"



SIGN ELEVATION (FRONT AND BACK)



SIGN ELEVATION (ENDS)



SIGN PLAN

KEY NOTES

A. DOUBLE SIDED POLYCARBONATE RESIN ("LEXAN") PANEL SIGNAGE WITH FULL COLOR VINYL OVERLAY (COMBINATION OF TEXT AND LOGO GRAPHIC), INTERNALLY LED ILLUMINATED. PHOTOCELL ILLUMINATION CONTROL

B. ELECTRONIC MESSAGE CENTER : FULL COLOR LED PROGRAMMABLE DISPLAY/SCREEN ((2) TWO DISPLAYS PER SIGN- FRONT AND BACK FACE "DOUBLE SIDED CONFIGURATION") WITH AMBIENT LIGHT SENSOR. PREFINISHED ALUMINUM CABINET AND MATCHING SIDE PANEL TRIM. SIZE WILL VARY PER MANUFACTURER, HOWEVER CABINET SIZE SHOWN 2'-3.44" H X 8'-1.56" W X 5" D

C. EXAMPLE TEXT/LOGO LAYOUT. SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO. SEE PROPOSED LAYOUT THIS SHEET. (SCHOOL WILL PROVIDE VECTOR FILES OF LOGOS)

D. ALL PANEL SIGN CABINET TRIM AND END CAPS TO BE FACTORY PREFINISHED ALUMINUM, .063 GA. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

E. DIMENSIONS SHOWN ARE APPROXIMATE. FINAL OVERALL SIGN SIZE TO BE ADJUSTED PER ELECTRONIC MESSAGE CENTER SIGN CABINET DIMENSIONS

F. PER CITY OF ROCKFORD AGREEMENT/ZONING CODE: OVERALL SIGN SIZE (INCLUDING ELECTRONIC MESSAGE CENTER AND ACRYLIC PANEL SIGNAGE) TO BE A MAX OF 48 SF/8 FT HEIGHT. ELECTRONIC MESSAGE CENTER SIGN TO BE A MAX OF 36 SF

G. PROVIDE GROUND ROD

H. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENT AND FEED/TERMINATION (ROUTING) LOCATIONS, INCLUDING POWER AND FIBER CONDUIT INFORMATION

I. SIGNAGE SKIRT: PREFINISHED PAINTED ALUMINUM (.063), OVER ¾" EXTERIOR GRADE PLYWOOD, OVER EXTERIOR METAL STUD FRAMING. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

J. (2) 4"X4"X½" X 120" A36 GALVANIZED STEEL POSTS

K. (2) 24"X24" X48" CONCRETE FOOTINGS, 3,000 PSI

L. PROVIDE MTL. FRAMING AS REQUIRED FOR ALL SIGN FRAMEWORK (PER SIGNAGE REQUIREMENTS)

M. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

N. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

2 SIGN PLAN AND ELEVATION DETAILS — 1/2" = 1'-0"

A. REMOVE AND DISPOSE OF EXISTING SIGN, INCLUDING STRUCTURE AND FOUNDATION

B. REMOVE EXISTING PERENNIAL AND DECIDUOUS/EVERGREEN LANDSCAPING. VERIFY WITH OWNER PRIOR TO DISPOSING

C. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

D. FINISH GRADE AND SEED AT ALL DISTURBED AREAS TO MATCH EXISTING

E. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

F. LAYOUT DIMENSIONS ARE APPROXIMATE. EXACT LOCATION TO BE DETERMINED ON SITE WITH OWNER & ARCHITECT

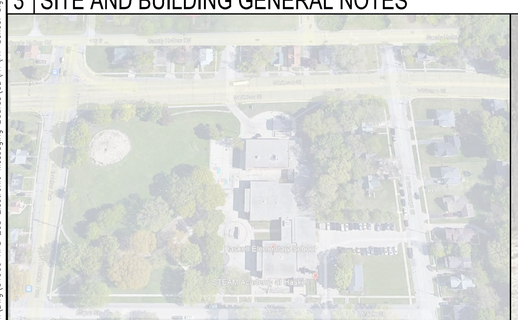
G. EXISTING FACILITIES, INCLUDING GROUNDS, STRUCTURES, LANDSCAPING, AND SO FORTH, SHALL BE PROTECTED BY THE SIGN CONTRACTOR. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPORTED TO THE DISTRICT AND SHALL BE REPAIRED, AT THE SIGN CONTRACTOR'S EXPENSE

H. WHEN INSTALLING FIBER RUNS INSIDE OF THE BUILDINGS, FOLLOW PATH TO CONCEAL ABOVE CEILINGS, WITHIN WALLS, BASEMENTS, TUNNELS (IF IT IS DETERMINED DURING CONSTRUCTION THAT CONCEALED LOCATIONS ARE NOT FEASIBLE OR AVAILABLE, SUBMIT ALTERNATE ROUTES TO RPS PROJECT MANAGER (PM)/ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION); ALL PENETRATIONS SHALL BE SEALED, PENETRATIONS THROUGH FIRE WALLS SHALL BE SLEEVED AND FIRESTOPPED; INDEPENDENTLY SUPPORT FROM BUILDING CONSTRUCTION (NOT CEILING SYSTEM) AS REQUIRED, COMPLY WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2014 EDITION PER IBC 2015. **PROVIDE SUBMITTAL INDICATING UL RATED ASSEMBLY TYPES PRIOR TO ANY WALL PENETRATIONS.

I. BIDDERS SHALL INFORM THEMSELVES OF ALL THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED CONCERNING THE SITE OF THE WORK, THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL OTHER RELEVANT MATTERS CONCERNING THE WORK TO BE PERFORMED UNDER THIS CONTRACT.

J. AT ALL EXISTING (DEMO'D) SIGN LOCATIONS- CUT EXISTING (ABANDONED IN PLACE) POWER CONDUIT/WIRING BELOW GRADE. COORDINATE WITH OWNER. RPS ELECTRICIANS WILL DE-POWER THE SIGNAGE AT THE ELECTRICAL PANEL.

3 SITE AND BUILDING GENERAL NOTES



AERIAL IMAGE

PROPOSED SIGN LOCATION

EXISTING SIGN

PREVIOUS SCHOOL GROUND SIGN EXAMPLE (FOR REFERENCE ONLY)

"STEAM Academy at Haskell"

STEAM ACADEMY AT HASKELL

STEAM academy

SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO

SCHOOL SIGN PANEL (FRONT AND BACK SIGN FACES)

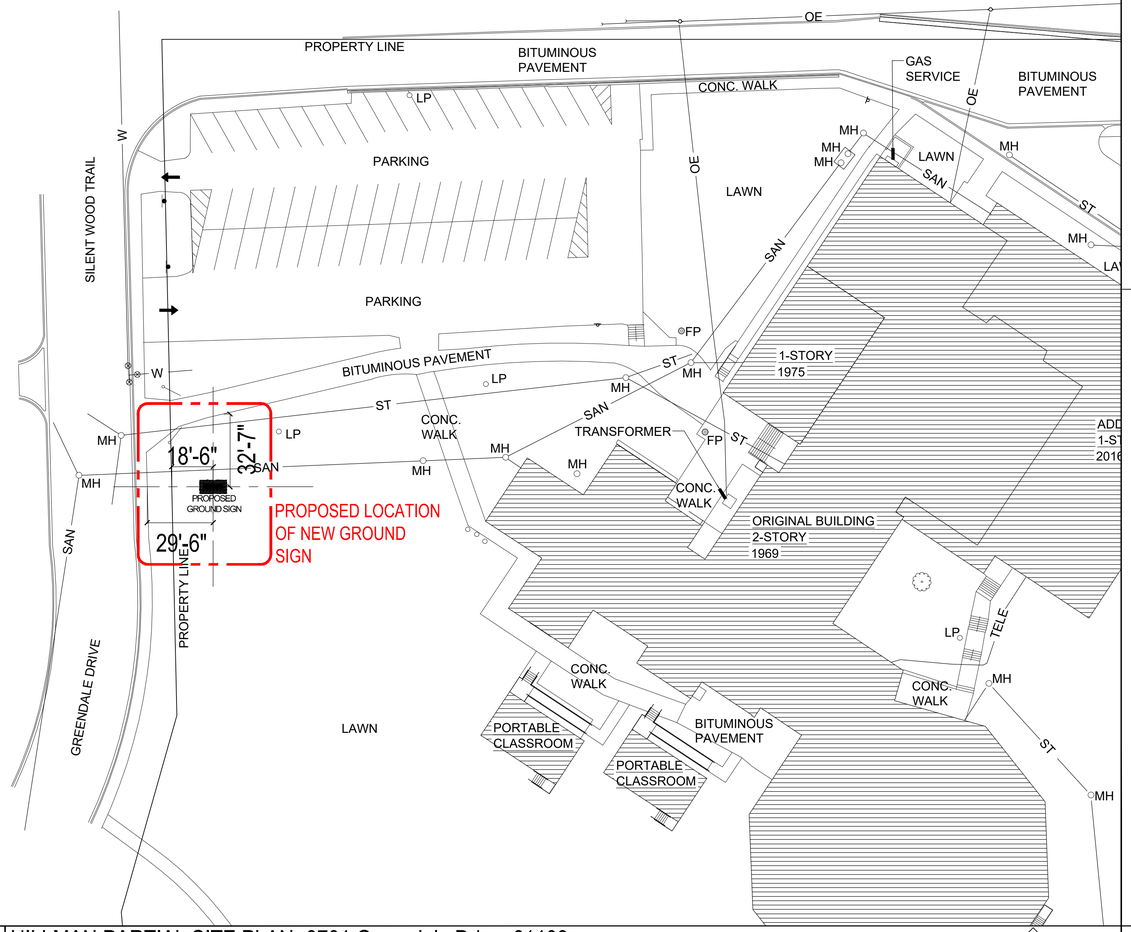
HAGNEY ARCHITECTS
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

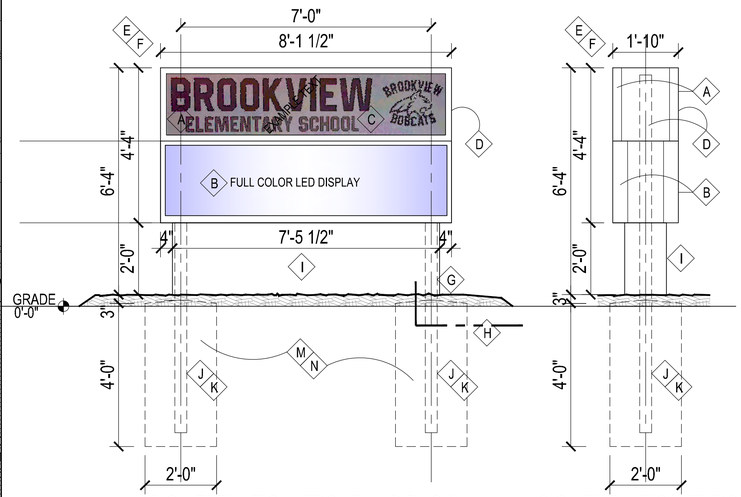
REVISIONS:

DRAWN BY:
DATE: 03.24.22
PROJECT NUMBER 1966
SHEET NAME: HASKELL STEAM
SHEET NUMBER: A1.2



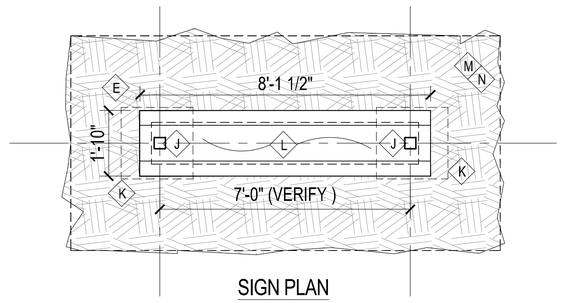
1 HILLMAN PARTIAL SITE PLAN- 3701 Greendale Drive 61109

1/32" = 1'-0"



SIGN ELEVATION (FRONT AND BACK)

SIGN ELEVATION (ENDS)



SIGN PLAN

KEY NOTES

A. DOUBLE SIDED POLYCARBONATE RESIN ("LEXAN") PANEL SIGNAGE WITH FULL COLOR VINYL OVERLAY (COMBINATION OF TEXT AND LOGO GRAPHIC), INTERNALLY LED ILLUMINATED. PHOTOCELL ILLUMINATION CONTROL

B. ELECTRONIC MESSAGE CENTER : FULL COLOR LED PROGRAMMABLE DISPLAY/SCREEN ((2) TWO DISPLAYS PER SIGN- FRONT AND BACK FACE "DOUBLE SIDED CONFIGURATION") WITH AMBIENT LIGHT SENSOR. PREFINISHED ALUMINUM CABINET AND MATCHING SIDE PANEL TRIM. SIZE WILL VARY PER MANUFACTURER, HOWEVER CABINET SIZE SHOWN 2'-3.44" H X 8'-1.56" W X 5" D

C. EXAMPLE TEXT/LOGO LAYOUT. SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO. SEE PROPOSED LAYOUT THIS SHEET. (SCHOOL WILL PROVIDE VECTOR FILES OF LOGOS)

D. ALL PANEL SIGN CABINET TRIM AND END CAPS TO BE FACTORY PREFINISHED ALUMINUM, .063 GA. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

E. DIMENSIONS SHOWN ARE APPROXIMATE. FINAL OVERALL SIGN SIZE TO BE ADJUSTED PER ELECTRONIC MESSAGE CENTER SIGN CABINET DIMENSIONS

F. PER CITY OF ROCKFORD AGREEMENT/ZONING CODE: OVERALL SIGN SIZE (INCLUDING ELECTRONIC MESSAGE CENTER AND ACRYLIC PANEL SIGNAGE) TO BE A MAX OF 48 SF/8 FT HEIGHT. ELECTRONIC MESSAGE CENTER SIGN TO BE A MAX OF 36 SF

G. PROVIDE GROUND ROD

H. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENT AND FEED/TERMINATION (ROUTING) LOCATIONS, INCLUDING POWER AND FIBER CONDUIT INFORMATION

I. SIGNAGE SKIRT: PREFINISHED PAINTED ALUMINUM (.063), OVER ¾" EXTERIOR GRADE PLYWOOD, OVER EXTERIOR METAL STUD FRAMING. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

J. (2) 4"X4"X¼" X 120" A36 GALVANIZED STEEL POSTS

K. (2) 24"X24" X48" CONCRETE FOOTINGS, 3,000 PSI

L. PROVIDE MTL. FRAMING AS REQUIRED FOR ALL SIGN FRAMEWORK (PER SIGNAGE REQUIREMENTS)

M. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

N. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

2 SIGN PLAN AND ELEVATION DETAILS

1/2" = 1'-0"

A. REMOVE AND DISPOSE OF EXISTING SIGN, INCLUDING STRUCTURE AND FOUNDATION

B. REMOVE EXISTING PERENNIAL AND DECIDUOUS/EVERGREEN LANDSCAPING. VERIFY WITH OWNER PRIOR TO DISPOSING

C. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

D. FINISH GRADE AND SEED AT ALL DISTURBED AREAS TO MATCH EXISTING

E. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

F. LAYOUT DIMENSIONS ARE APPROXIMATE. EXACT LOCATION TO BE DETERMINED ON SITE WITH OWNER & ARCHITECT

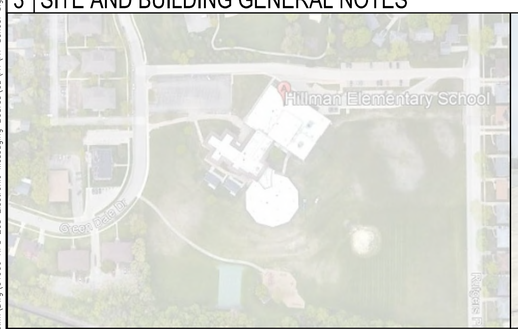
G. EXISTING FACILITIES, INCLUDING GROUNDS, STRUCTURES, LANDSCAPING, AND SO FORTH, SHALL BE PROTECTED BY THE SIGN CONTRACTOR. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPORTED TO THE DISTRICT AND SHALL BE REPAIRED, AT THE SIGN CONTRACTOR'S EXPENSE

H. WHEN INSTALLING FIBER RUNS INSIDE OF THE BUILDINGS, FOLLOW PATH TO CONCEAL ABOVE CEILINGS, WITHIN WALLS, BASEMENTS, TUNNELS (IF IT IS DETERMINED DURING CONSTRUCTION THAT CONCEALED LOCATIONS ARE NOT FEASIBLE OR AVAILABLE, SUBMIT ALTERNATE ROUTES TO RPS PROJECT MANAGER (PM)/ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION); ALL PENETRATIONS SHALL BE SEALED, PENETRATIONS THROUGH FIRE WALLS SHALL BE SLEEVED AND FIRESTOPPED; INDEPENDENTLY SUPPORT FROM BUILDING CONSTRUCTION (NOT CEILING SYSTEM) AS REQUIRED, COMPLY WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2014 EDITION PER IBC 2015. **PROVIDE SUBMITTAL INDICATING UL RATED ASSEMBLY TYPES PRIOR TO ANY WALL PENETRATIONS.

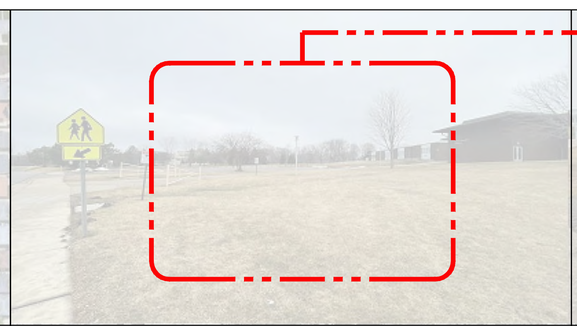
I. BIDDERS SHALL INFORM THEMSELVES OF ALL THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED CONCERNING THE SITE OF THE WORK, THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL OTHER RELEVANT MATTERS CONCERNING THE WORK TO BE PERFORMED UNDER THIS CONTRACT.

J. AT ALL EXISTING (DEMO'D) SIGN LOCATIONS- CUT EXISTING (ABANDONED IN PLACE) POWER CONDUIT/WIRING BELOW GRADE. COORDINATE WITH OWNER. RPS ELECTRICIANS WILL DE-POWER THE SIGNAGE AT THE ELECTRICAL PANEL.

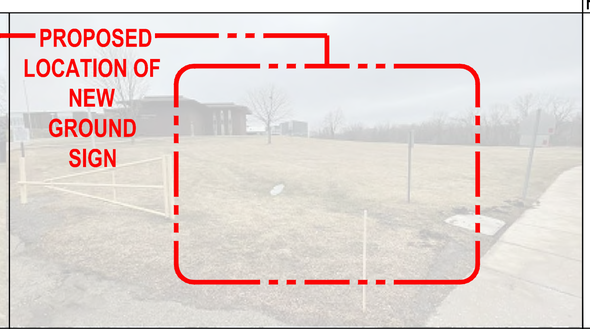
3 SITE AND BUILDING GENERAL NOTES



AERIAL IMAGE



PROPOSED SIGN LOCATION (VIEW 1)



PROPOSED SIGN LOCATION (VIEW 2)

PREVIOUS SCHOOL GROUND SIGN EXAMPLE (FOR REFERENCE ONLY)

"HILLMAN ELEMENTARY SCHOOL"

HILLMAN
ELEMENTARY SCHOOL

HILLMAN ELEMENTARY

SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO

SCHOOL SIGN PANEL (FRONT AND BACK SIGN FACES)

HAGNEY ARCHITECTS
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

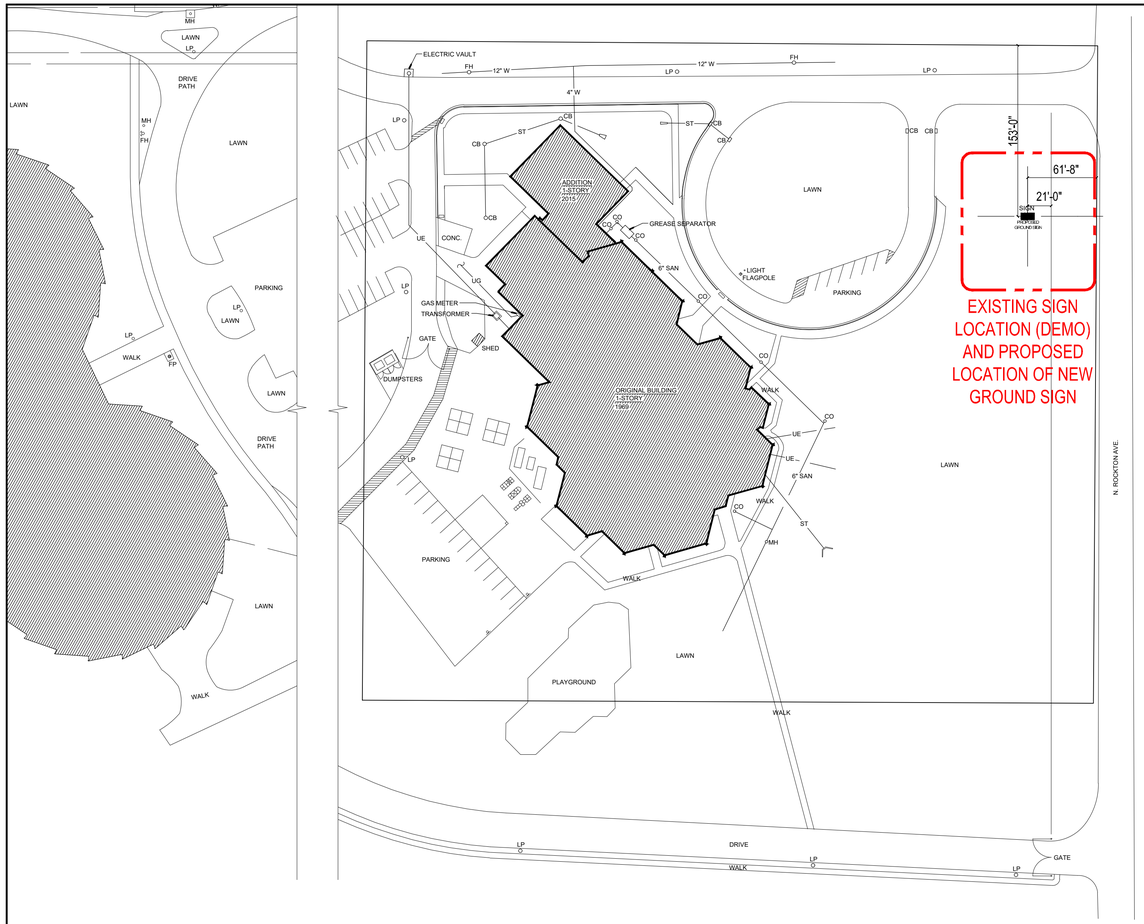
New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

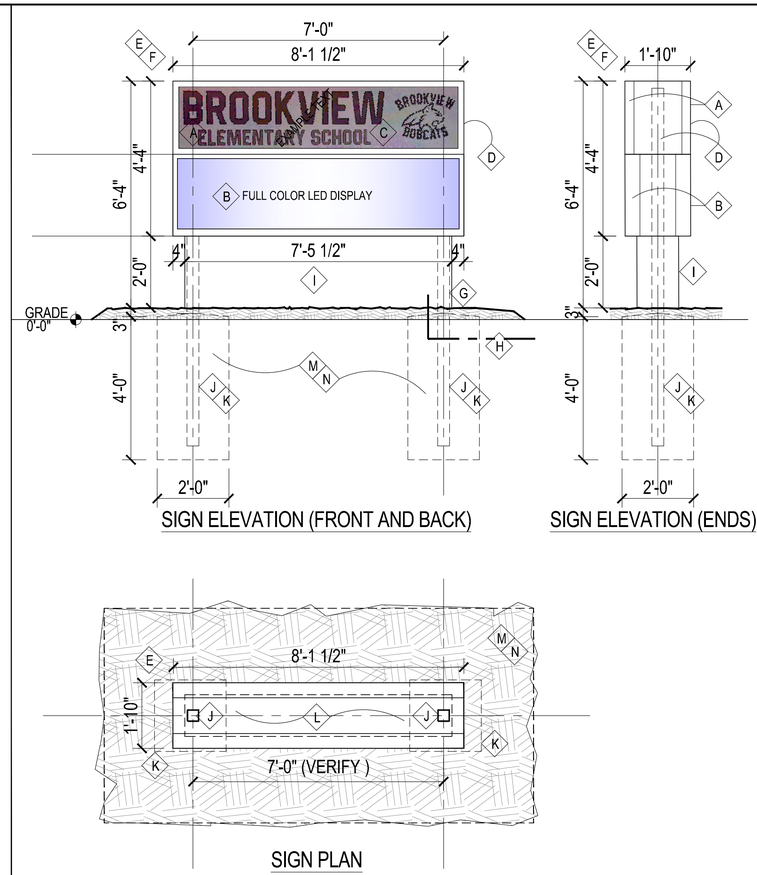
REVISIONS:

DRAWN BY:
DATE: 03.24.22
PROJECT NUMBER 1966
SHEET NAME: HILLMAN
SHEET NUMBER: A1.3

Z:\Mcadwin\Dwg\C1966 RPS 205 Electronic Messaging Boards\2D\A1\A1 School Sign Information.DWG Mar 24, 2022



1 MARSHALL CAMPUS PARTIAL SITE PLAN- 4664 N. Rockton Avenue 61103 — 1/32" = 1'-0"



SIGN ELEVATION (FRONT AND BACK)

SIGN ELEVATION (ENDS)

SIGN PLAN

2 SIGN PLAN AND ELEVATION DETAILS — 1/2" = 1'-0"

KEY NOTES

A. DOUBLE SIDED POLYCARBONATE RESIN ("LEXAN") PANEL SIGNAGE WITH FULL COLOR VINYL OVERLAY (COMBINATION OF TEXT AND LOGO GRAPHIC), INTERNALLY LED ILLUMINATED. PHOTOCELL ILLUMINATION CONTROL

B. ELECTRONIC MESSAGE CENTER : FULL COLOR LED PROGRAMMABLE DISPLAY/SCREEN ((2) TWO DISPLAYS PER SIGN- FRONT AND BACK FACE "DOUBLE SIDED CONFIGURATION") WITH AMBIENT LIGHT SENSOR. PREFINISHED ALUMINUM CABINET AND MATCHING SIDE PANEL TRIM. SIZE WILL VARY PER MANUFACTURER, HOWEVER CABINET SIZE SHOWN 2'-3.44" H X 8'-1.56" W X 5" D

C. EXAMPLE TEXT/LOGO LAYOUT. SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO. SEE PROPOSED LAYOUT THIS SHEET. (SCHOOL WILL PROVIDE VECTOR FILES OF LOGOS)

D. ALL PANEL SIGN CABINET TRIM AND END CAPS TO BE FACTORY PREFINISHED ALUMINUM, .063 GA. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

E. DIMENSIONS SHOWN ARE APPROXIMATE. FINAL OVERALL SIGN SIZE TO BE ADJUSTED PER ELECTRONIC MESSAGE CENTER SIGN CABINET DIMENSIONS

F. PER CITY OF ROCKFORD AGREEMENT/ZONING CODE: OVERALL SIGN SIZE (INCLUDING ELECTRONIC MESSAGE CENTER AND ACRYLIC PANEL SIGNAGE) TO BE A MAX OF 48 SF/8 FT HEIGHT. ELECTRONIC MESSAGE CENTER SIGN TO BE A MAX OF 36 SF

G. PROVIDE GROUND ROD

H. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENT AND FEED/TERMINATION (ROUTING) LOCATIONS, INCLUDING POWER AND FIBER CONDUIT INFORMATION

I. SIGNAGE SKIRT: PREFINISHED PAINTED ALUMINUM (.063), OVER $\frac{3}{4}$" EXTERIOR GRADE PLYWOOD, OVER EXTERIOR METAL STUD FRAMING. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

J. (2) 4"X4"X$\frac{1}{4}$" X 120" A36 GALVANIZED STEEL POSTS

K. (2) 24"X24" X48" CONCRETE FOOTINGS, 3,000 PSI

L. PROVIDE MTL. FRAMING AS REQUIRED FOR ALL SIGN FRAMEWORK (PER SIGNAGE REQUIREMENTS)

M. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

N. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

A. REMOVE AND DISPOSE OF EXISTING SIGN, INCLUDING STRUCTURE AND FOUNDATION

B. REMOVE EXISTING PERENNIAL AND DECIDUOUS/EVERGREEN LANDSCAPING. VERIFY WITH OWNER PRIOR TO DISPOSING

C. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

D. FINISH GRADE AND SEED AT ALL DISTURBED AREAS TO MATCH EXISTING

E. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

F. LAYOUT DIMENSIONS ARE APPROXIMATE. EXACT LOCATION TO BE DETERMINED ON SITE WITH OWNER & ARCHITECT

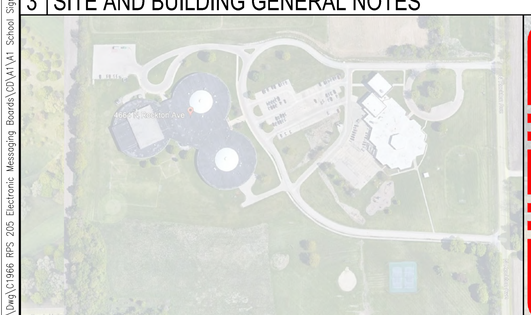
G. EXISTING FACILITIES, INCLUDING GROUNDS, STRUCTURES, LANDSCAPING, AND SO FORTH, SHALL BE PROTECTED BY THE SIGN CONTRACTOR. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPORTED TO THE DISTRICT AND SHALL BE REPAIRED, AT THE SIGN CONTRACTOR'S EXPENSE

H. WHEN INSTALLING FIBER RUNS INSIDE OF THE BUILDINGS, FOLLOW PATH TO CONCEAL ABOVE CEILINGS, WITHIN WALLS, BASEMENTS, TUNNELS (IF IT IS DETERMINED DURING CONSTRUCTION THAT CONCEALED LOCATIONS ARE NOT FEASIBLE OR AVAILABLE, SUBMIT ALTERNATE ROUTES TO RPS PROJECT MANAGER (PM)/ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION); ALL PENETRATIONS SHALL BE SEALED, PENETRATIONS THROUGH FIRE WALLS SHALL BE SLEEVED AND FIRESTOPPED; INDEPENDENTLY SUPPORT FROM BUILDING CONSTRUCTION (NOT CEILING SYSTEM) AS REQUIRED, COMPLY WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2014 EDITION PER IBC 2015. **PROVIDE SUBMITTAL INDICATING UL RATED ASSEMBLY TYPES PRIOR TO ANY WALL PENETRATIONS.

I. BIDDERS SHALL INFORM THEMSELVES OF ALL THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED CONCERNING THE SITE OF THE WORK, THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL OTHER RELEVANT MATTERS CONCERNING THE WORK TO BE PERFORMED UNDER THIS CONTRACT.

J. AT ALL EXISTING (DEMO'D) SIGN LOCATIONS- CUT EXISTING (ABANDONED IN PLACE) POWER CONDUIT/WIRING BELOW GRADE. COORDINATE WITH OWNER. RPS ELECTRICIANS WILL DE-POWER THE SIGNAGE AT THE ELECTRICAL PANEL.

3 SITE AND BUILDING GENERAL NOTES



AERIAL IMAGE

EXISTING SIGN (VIEW 1)

EXISTING SIGN (VIEW 2)

PREVIOUS SCHOOL GROUND SIGN EXAMPLE (FOR REFERENCE ONLY)

"THURGOOD MARSHALL
GIFTED ACADEMY CAMPUS "

THURGOOD MARSHALL
GIFTED ACADEMY CAMPUS

MARSHALL
MUSTANGS

SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO

SCHOOL SIGN PANEL (FRONT AND BACK SIGN FACES)

HAGNEY ARCHITECTS
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

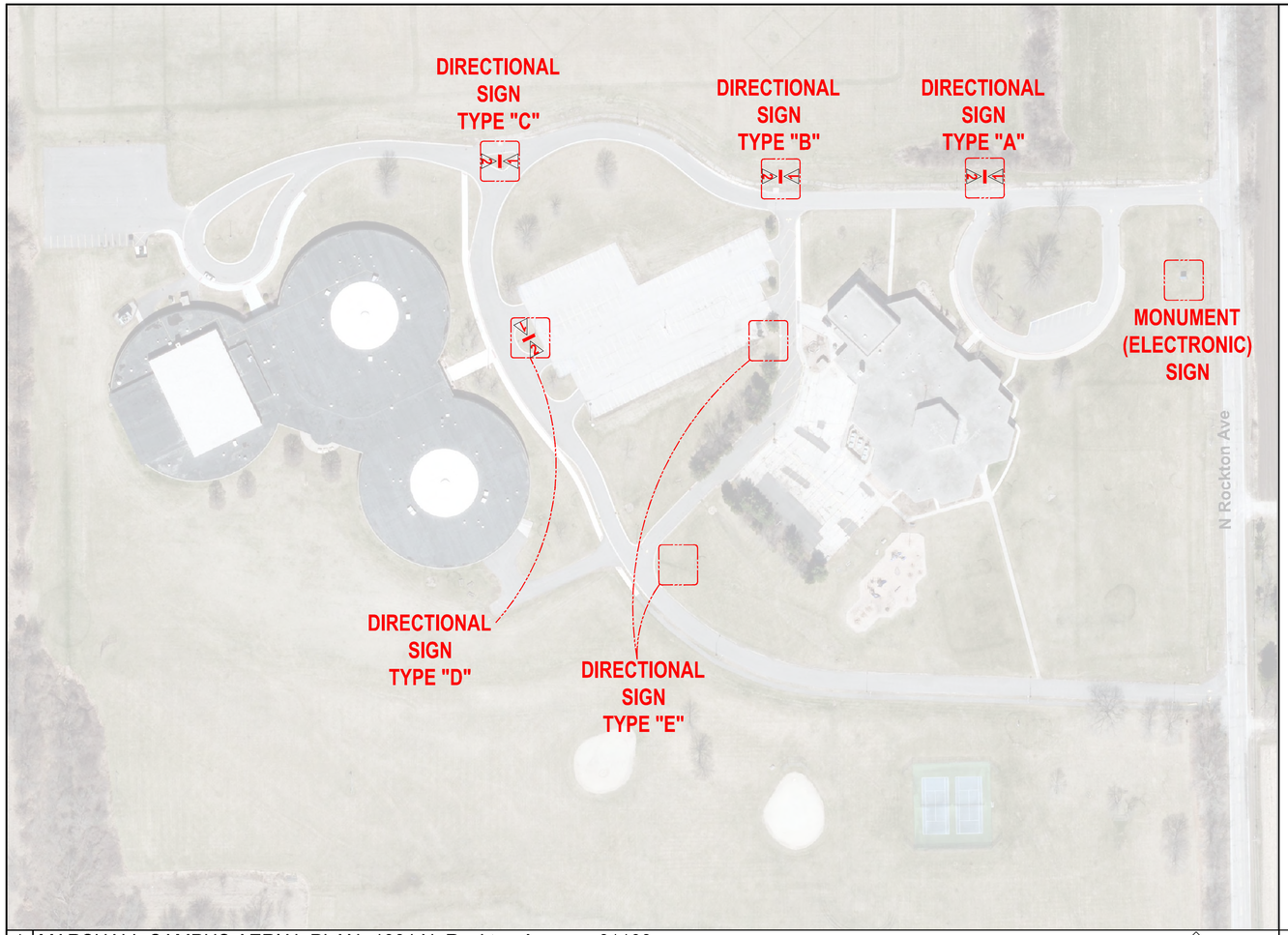
New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

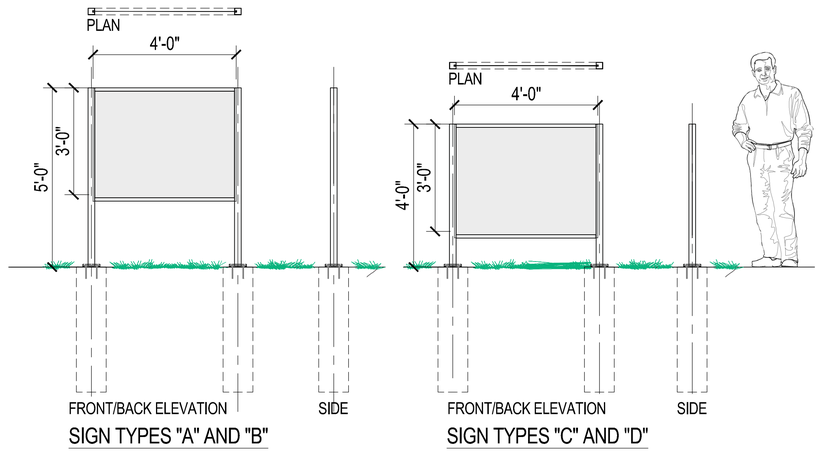
REVISIONS:

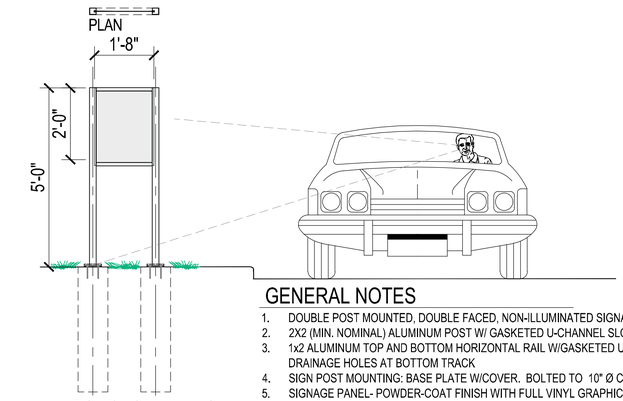
DRAWN BY:
DATE: 03.24.22
PROJECT NUMBER 1966
SHEET NAME: MARSHALL CAMPUS
SHEET NUMBER: A1.4

Z:\Acadwrk\Dwg\C1966 RPS 205 Electronic Messaging Boards\C01\A1\A1 School Sign Information.DWG Mar 24, 2022



1 MARSHALL CAMPUS AERIAL PLAN- 4664 N. Rockton Avenue 61103 — not to scale

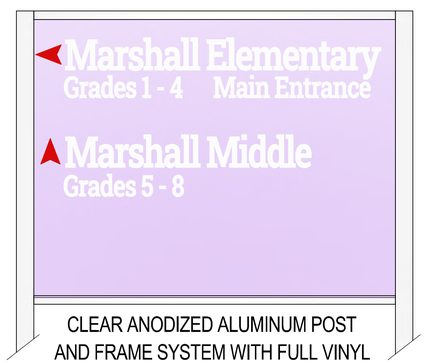
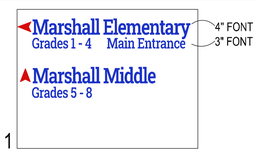
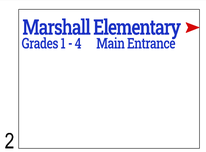
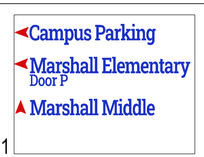
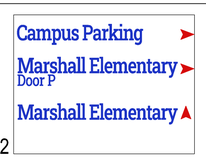
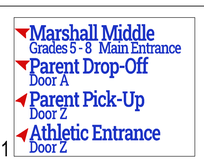
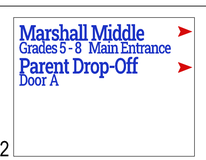


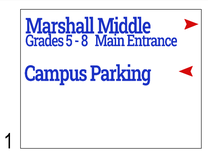
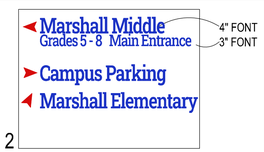


GENERAL NOTES

1. DOUBLE POST MOUNTED, DOUBLE FACED, NON-ILLUMINATED SIGNAGE
2. 2X2 (MIN. NOMINAL) ALUMINUM POST W/ GASKETED U-CHANNEL SLOT FOR SIGNAGE PANEL, TOP POST CAP
3. 1x2 ALUMINUM TOP AND BOTTOM HORIZONTAL RAIL W/GASKETED U-CHANNEL SLOT FOR SIGNAGE PANEL. DRAINAGE HOLES AT BOTTOM TRACK
4. SIGN POST MOUNTING: BASE PLATE W/COVER. BOLTED TO 10" Ø CONCRETE "TUBE" FOOTING (42" DEEP)
5. SIGNAGE PANEL- POWDER-COAT FINISH WITH FULL VINYL GRAPHIC OVERLAY, OVER ALUMINUM SHEET / PHENOLIC CORE
6. FIELD VERIFY FINAL SIGNAGE LOCATION WITH RPS PROJECT MANAGER/ARCHITECT
7. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

2 SITE DIRECTIONAL SIGNAGE DETAILS — 1/2" = 1'-0"

SIGN GRAPHIC - COLOR INTENT	SIGN TYPE	QTY.	FRONT FACE TEXT	BACK FACE TEXT
 CLEAR ANODIZED ALUMINUM POST AND FRAME SYSTEM WITH FULL VINYL GRAPHIC FILM OVERLAY • "WHITE" LETTERING ("ROBOTO" FONT) • "PURPLE" (SCHOOL COLOR) BACKGROUND • "RED" DIRECTIONAL ARROWS	A (4'-0"X3'-0")	1	1 	2 
	B (4'-0"X3'-0")	1	1 	2 
	C (4'-0"X3'-0")	1	1 	2 

SIGN TYPE	QTY.	FRONT FACE TEXT	BACK FACE TEXT
D (4'-0"X3'-0")	1	1 	2 
E (2'-0"X1'-8")	2		REV 03.17.22

GENERAL NOTES
1. DOUBLE POST MOUNTED, DOUBLE FACED, NON-ILLUMINATED SIGNAGE
2. 2X2 (MIN. NOMINAL) ALUMINUM POST W/ GASKETED U-CHANNEL SLOT FOR SIGNAGE PANEL, TOP POST CAP
3. 1x2 ALUMINUM TOP AND BOTTOM HORIZONTAL RAIL W/GASKETED U-CHANNEL SLOT FOR SIGNAGE PANEL. DRAINAGE HOLES AT BOTTOM TRACK
4. SIGN POST MOUNTING: BASE PLATE W/COVER. BOLTED TO 10" Ø CONCRETE "TUBE" FOOTING (42" DEEP) BOLT SIZE/DETAIL BY SIGN CONTRACTOR
5. SIGNAGE PANEL- POWDER-COAT FINISH WITH FULL VINYL GRAPHIC OVERLAY, OVER ALUMINUM SHEET / PHENOLIC CORE
6. FIELD VERIFY FINAL SIGNAGE LOCATION WITH RPS PROJECT MANAGER/ARCHITECT
7. FINAL SIGN LAYOUT BY SIGN CONTRACTOR
8. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

3 DIRECTIONAL SIGNAGE TEXT

HAGNEY ARCHITECTS
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

New Electronic Messaging Board Ground Signs of Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

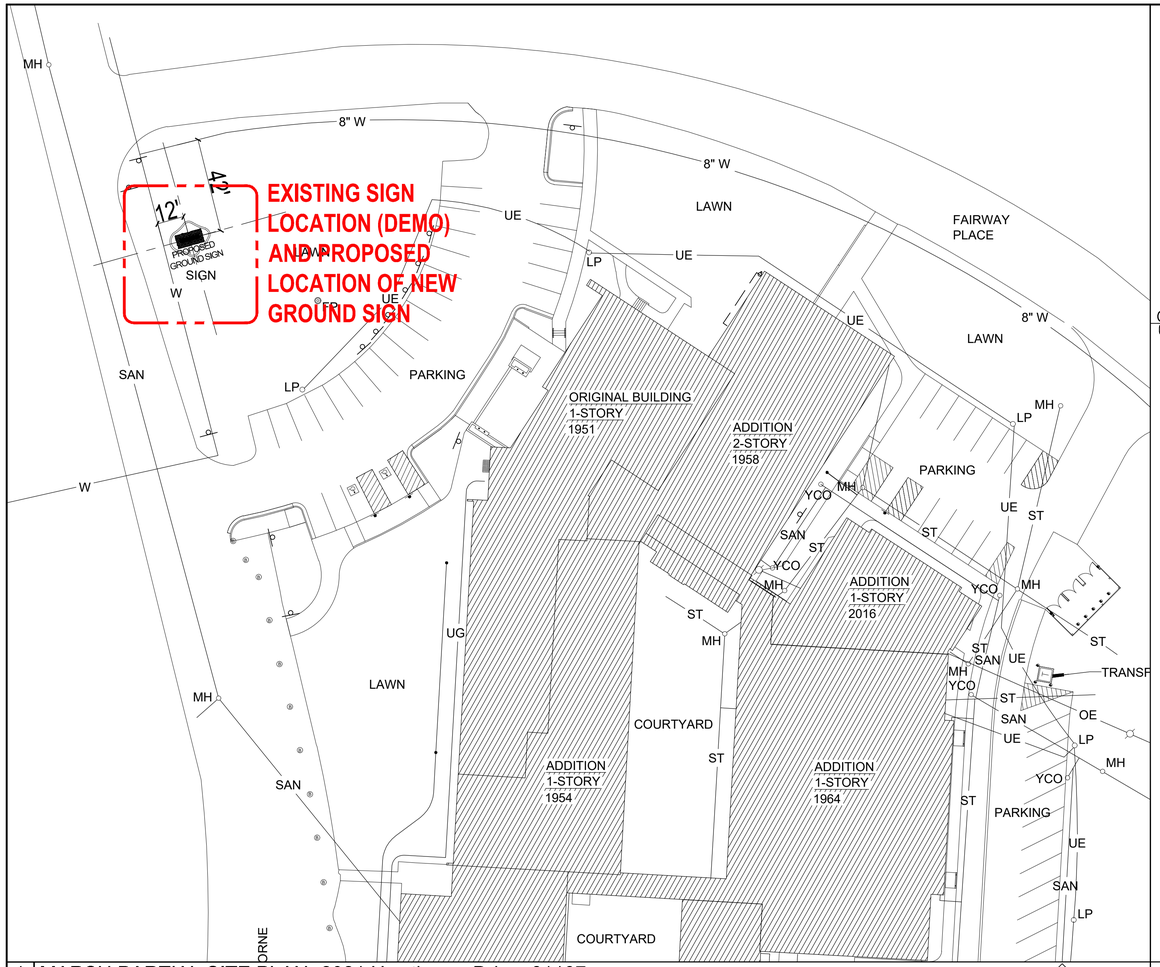
REVISIONS:

DRAWN BY:
DATE: 03.24.22
PROJECT NUMBER 1966

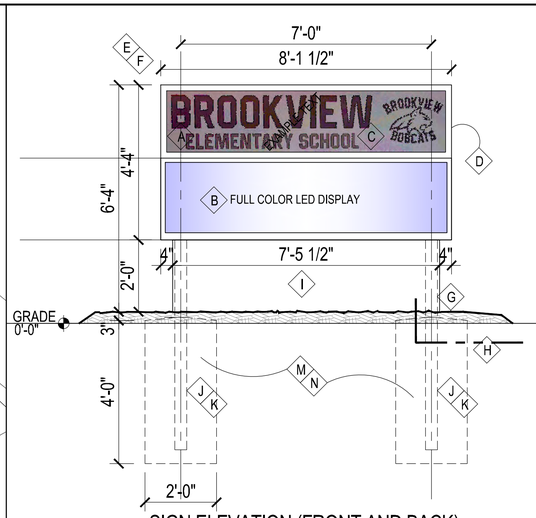
SHEET NAME: MARSHALL CAMPUS SITE SIGNS

SHEET NUMBER: A1.4.1

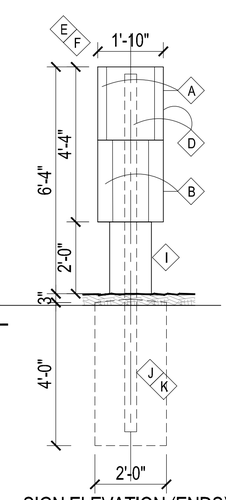
Z:\Acadwin\Dwg\C1966 RPS 205 Electronic Messaging Boards\CD\A1\A1 School Sign Information.DWG Mar 24, 2022



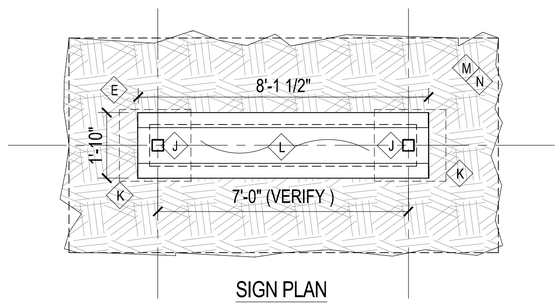
1 MARSH PARTIAL SITE PLAN- 2021 Hawthorne Drive 61107 — 1/32" = 1'-0"



SIGN ELEVATION (FRONT AND BACK)



SIGN ELEVATION (ENDS)



SIGN PLAN

KEY NOTES

A. DOUBLE SIDED POLYCARBONATE RESIN ("LEXAN") PANEL SIGNAGE WITH FULL COLOR VINYL OVERLAY (COMBINATION OF TEXT AND LOGO GRAPHIC), INTERNALLY LED ILLUMINATED. PHOTOCELL ILLUMINATION CONTROL

B. ELECTRONIC MESSAGE CENTER : FULL COLOR LED PROGRAMMABLE DISPLAY/SCREEN ((2) TWO DISPLAYS PER SIGN- FRONT AND BACK FACE "DOUBLE SIDED CONFIGURATION") WITH AMBIENT LIGHT SENSOR. PREFINISHED ALUMINUM CABINET AND MATCHING SIDE PANEL TRIM. SIZE WILL VARY PER MANUFACTURER, HOWEVER CABINET SIZE SHOWN 2'-3.44" H X 8'-1.56" W X 5" D

C. EXAMPLE TEXT/LOGO LAYOUT. SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO. SEE PROPOSED LAYOUT THIS SHEET. (SCHOOL WILL PROVIDE VECTOR FILES OF LOGOS)

D. ALL PANEL SIGN CABINET TRIM AND END CAPS TO BE FACTORY PREFINISHED ALUMINUM, .063 GA. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

E. DIMENSIONS SHOWN ARE APPROXIMATE. FINAL OVERALL SIGN SIZE TO BE ADJUSTED PER ELECTRONIC MESSAGE CENTER SIGN CABINET DIMENSIONS

F. PER CITY OF ROCKFORD AGREEMENT/ZONING CODE: OVERALL SIGN SIZE (INCLUDING ELECTRONIC MESSAGE CENTER AND ACRYLIC PANEL SIGNAGE) TO BE A MAX OF 48 SF/8 FT HEIGHT. ELECTRONIC MESSAGE CENTER SIGN TO BE A MAX OF 36 SF

G. PROVIDE GROUND ROD

H. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENT AND FEED/TERMINATION (ROUTING) LOCATIONS, INCLUDING POWER AND FIBER CONDUIT INFORMATION

I. SIGNAGE SKIRT: PREFINISHED PAINTED ALUMINUM (.063), OVER ¾" EXTERIOR GRADE PLYWOOD, OVER EXTERIOR METAL STUD FRAMING. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

J. (2) 4"X4"X¼" X 120" A36 GALVANIZED STEEL POSTS

K. (2) 24"X24" X48" CONCRETE FOOTINGS, 3,000 PSI

L. PROVIDE MTL. FRAMING AS REQUIRED FOR ALL SIGN FRAMEWORK (PER SIGNAGE REQUIREMENTS)

M. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

N. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

2 SIGN PLAN AND ELEVATION DETAILS — 1/2" = 1'-0"

A. REMOVE AND DISPOSE OF EXISTING SIGN, INCLUDING STRUCTURE AND FOUNDATION

B. REMOVE EXISTING PERENNIAL AND DECIDUOUS/EVERGREEN LANDSCAPING. VERIFY WITH OWNER PRIOR TO DISPOSING

C. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

D. FINISH GRADE AND SEED AT ALL DISTURBED AREAS TO MATCH EXISTING

E. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

F. LAYOUT DIMENSIONS ARE APPROXIMATE. EXACT LOCATION TO BE DETERMINED ON SITE WITH OWNER & ARCHITECT

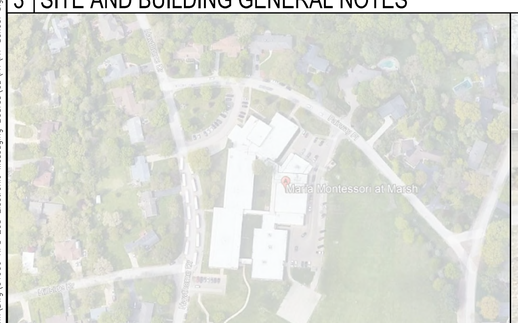
G. EXISTING FACILITIES, INCLUDING GROUNDS, STRUCTURES, LANDSCAPING, AND SO FORTH, SHALL BE PROTECTED BY THE SIGN CONTRACTOR. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPORTED TO THE DISTRICT AND SHALL BE REPAIRED, AT THE SIGN CONTRACTOR'S EXPENSE

H. WHEN INSTALLING FIBER RUNS INSIDE OF THE BUILDINGS, FOLLOW PATH TO CONCEAL ABOVE CEILINGS, WITHIN WALLS, BASEMENTS, TUNNELS (IF IT IS DETERMINED DURING CONSTRUCTION THAT CONCEALED LOCATIONS ARE NOT FEASIBLE OR AVAILABLE, SUBMIT ALTERNATE ROUTES TO RPS PROJECT MANAGER (PM)/ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION); ALL PENETRATIONS SHALL BE SEALED, PENETRATIONS THROUGH FIRE WALLS SHALL BE SLEEVED AND FIRESTOPPED; INDEPENDENTLY SUPPORT FROM BUILDING CONSTRUCTION (NOT CEILING SYSTEM) AS REQUIRED, COMPLY WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2014 EDITION PER IBC 2015. **PROVIDE SUBMITTAL INDICATING UL RATED ASSEMBLY TYPES PRIOR TO ANY WALL PENETRATIONS.

I. BIDDERS SHALL INFORM THEMSELVES OF ALL THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED CONCERNING THE SITE OF THE WORK, THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL OTHER RELEVANT MATTERS CONCERNING THE WORK TO BE PERFORMED UNDER THIS CONTRACT.

J. AT ALL EXISTING (DEMO'D) SIGN LOCATIONS- CUT EXISTING (ABANDONED IN PLACE) POWER CONDUIT/WIRING BELOW GRADE. COORDINATE WITH OWNER. RPS ELECTRICIANS WILL DE-POWER THE SIGNAGE AT THE ELECTRICAL PANEL.

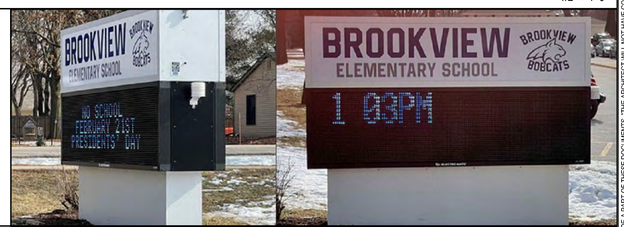
3 SITE AND BUILDING GENERAL NOTES



AERIAL IMAGE

EXISTING SIGN (VIEW 1)

EXISTING SIGN (VIEW 2)



PREVIOUS SCHOOL GROUND SIGN EXAMPLE (FOR REFERENCE ONLY)

"MARIA MONTESSORI AT MARSH"

MARIA MONTESSORI
AT MARSH
MONTESSORI MUSTANGS

SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO

SCHOOL SIGN PANEL (FRONT AND BACK SIGN FACES)

HAGNEY ARCHITECTS
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

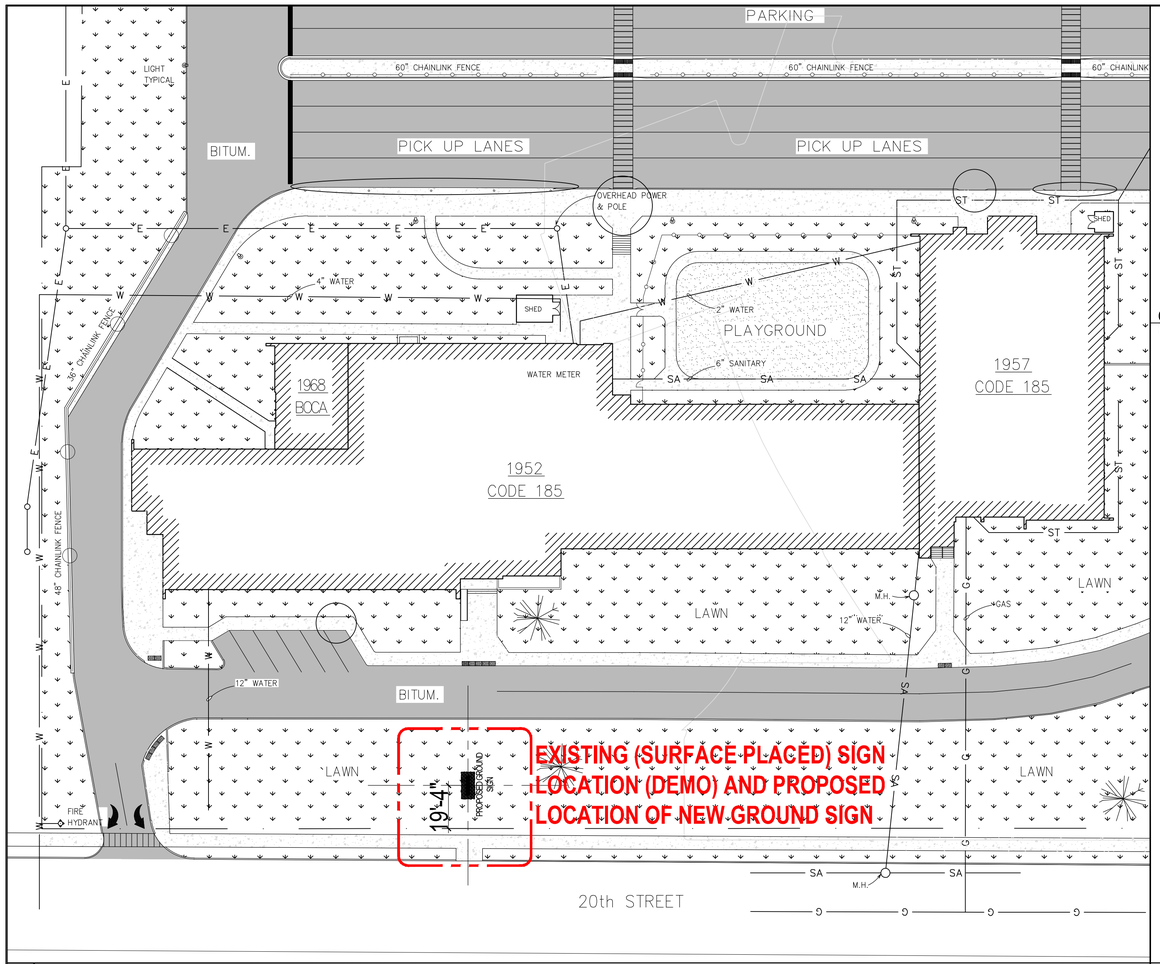
New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

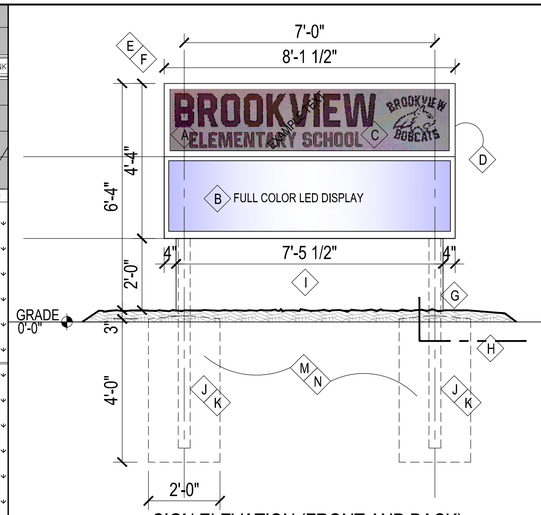
REVISIONS:

DRAWN BY:
DATE: 03.24.22
PROJECT NUMBER 1966
SHEET NAME: MARSH
SHEET NUMBER: A1.5

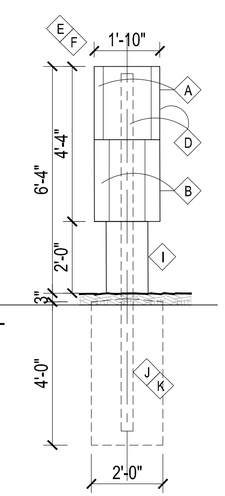
Z:\Arcdwn\Dwg\C1966 RPS 205 Electronic Messaging Boards\CD\V1\A1 School Sign Information.DWG Mar 24, 2022



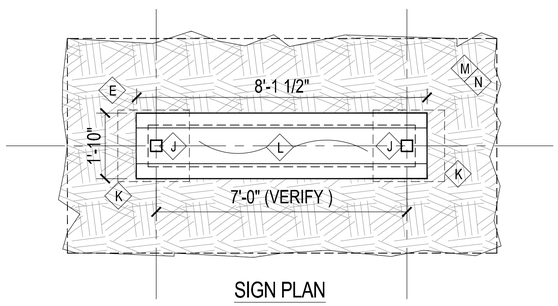
1 NASHOLD PARTIAL SITE PLAN- 3303 20th Street 61109 — 1/32" = 1'-0"



SIGN ELEVATION (FRONT AND BACK)



SIGN ELEVATION (ENDS)



SIGN PLAN

KEY NOTES

A. DOUBLE SIDED POLYCARBONATE RESIN ("LEXAN") PANEL SIGNAGE WITH FULL COLOR VINYL OVERLAY (COMBINATION OF TEXT AND LOGO GRAPHIC), INTERNALLY LED ILLUMINATED. PHOTOCELL ILLUMINATION CONTROL

B. ELECTRONIC MESSAGE CENTER : FULL COLOR LED PROGRAMMABLE DISPLAY/SCREEN ((2) TWO DISPLAYS PER SIGN- FRONT AND BACK FACE "DOUBLE SIDED CONFIGURATION") WITH AMBIENT LIGHT SENSOR. PREFINISHED ALUMINUM CABINET AND MATCHING SIDE PANEL TRIM. SIZE WILL VARY PER MANUFACTURER, HOWEVER CABINET SIZE SHOWN 2'-3.44" H X 8'-1.56" W X 5" D

C. EXAMPLE TEXT/LOGO LAYOUT. SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO. SEE PROPOSED LAYOUT THIS SHEET. (SCHOOL WILL PROVIDE VECTOR FILES OF LOGOS)

D. ALL PANEL SIGN CABINET TRIM AND END CAPS TO BE FACTORY PREFINISHED ALUMINUM, .063 GA. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

E. DIMENSIONS SHOWN ARE APPROXIMATE. FINAL OVERALL SIGN SIZE TO BE ADJUSTED PER ELECTRONIC MESSAGE CENTER SIGN CABINET DIMENSIONS

F. PER CITY OF ROCKFORD AGREEMENT/ZONING CODE: OVERALL SIGN SIZE (INCLUDING ELECTRONIC MESSAGE CENTER AND ACRYLIC PANEL SIGNAGE) TO BE A MAX OF 48 SF/8 FT HEIGHT. ELECTRONIC MESSAGE CENTER SIGN TO BE A MAX OF 36 SF

G. PROVIDE GROUND ROD

H. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENT AND FEED/TERMINATION (ROUTING) LOCATIONS, INCLUDING POWER AND FIBER CONDUIT INFORMATION

I. SIGNAGE SKIRT: PREFINISHED PAINTED ALUMINUM (.063), OVER ¾" EXTERIOR GRADE PLYWOOD, OVER EXTERIOR METAL STUD FRAMING. PREFINISHED ALUMINUM PAINTED COLOR - "WHITE"

J. (2) 4"X4"X¼" X 120" A36 GALVANIZED STEEL POSTS

K. (2) 24"X24" X48" CONCRETE FOOTINGS, 3,000 PSI

L. PROVIDE MTL. FRAMING AS REQUIRED FOR ALL SIGN FRAMEWORK (PER SIGNAGE REQUIREMENTS)

M. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

N. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

2 SIGN PLAN AND ELEVATION DETAILS — 1/2" = 1'-0"

3 SITE AND BUILDING GENERAL NOTES

A. REMOVE AND DISPOSE OF EXISTING SIGN, INCLUDING STRUCTURE AND FOUNDATION

B. REMOVE EXISTING PERENNIAL AND DECIDUOUS/EVERGREEN LANDSCAPING. VERIFY WITH OWNER PRIOR TO DISPOSING

C. RESTORE GROUND AREA AROUND SIGN (APROX 6' X 12')- REMOVE VEGETATION AND SOIL TO INSTALL WEED BARRIER FABRIC AND 4" DEEP HARDWOOD MULCH

D. FINISH GRADE AND SEED AT ALL DISTURBED AREAS TO MATCH EXISTING

E. PRIOR TO DIGGING, VERIFY ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E. AND GPRS (OR OTHER PRIVATE UTILITY LOCATION SERVICE). NOTIFY SCHOOL WHEN SERVICE WILL TAKE PLACE

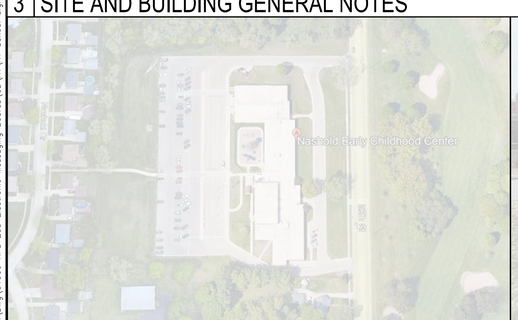
F. LAYOUT DIMENSIONS ARE APPROXIMATE. EXACT LOCATION TO BE DETERMINED ON SITE WITH OWNER & ARCHITECT

G. EXISTING FACILITIES, INCLUDING GROUNDS, STRUCTURES, LANDSCAPING, AND SO FORTH, SHALL BE PROTECTED BY THE SIGN CONTRACTOR. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPORTED TO THE DISTRICT AND SHALL BE REPAIRED, AT THE SIGN CONTRACTOR'S EXPENSE

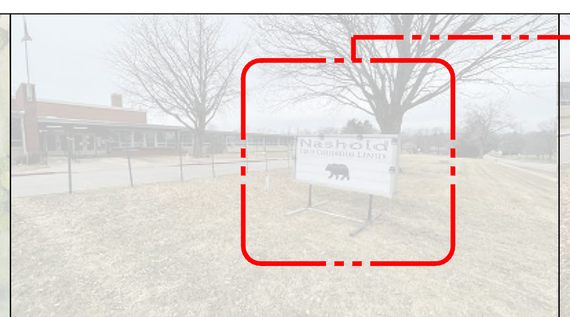
H. WHEN INSTALLING FIBER RUNS INSIDE OF THE BUILDINGS, FOLLOW PATH TO CONCEAL ABOVE CEILINGS, WITHIN WALLS, BASEMENTS, TUNNELS (IF IT IS DETERMINED DURING CONSTRUCTION THAT CONCEALED LOCATIONS ARE NOT FEASIBLE OR AVAILABLE, SUBMIT ALTERNATE ROUTES TO RPS PROJECT MANAGER (PM)/ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION); ALL PENETRATIONS SHALL BE SEALED, PENETRATIONS THROUGH FIRE WALLS SHALL BE SLEEVED AND FIRESTOPPED; INDEPENDENTLY SUPPORT FROM BUILDING CONSTRUCTION (NOT CEILING SYSTEM) AS REQUIRED, COMPLY WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2014 EDITION PER IBC 2015. **PROVIDE SUBMITTAL INDICATING UL RATED ASSEMBLY TYPES PRIOR TO ANY WALL PENETRATIONS.

I. BIDDERS SHALL INFORM THEMSELVES OF ALL THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED CONCERNING THE SITE OF THE WORK, THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL OTHER RELEVANT MATTERS CONCERNING THE WORK TO BE PERFORMED UNDER THIS CONTRACT.

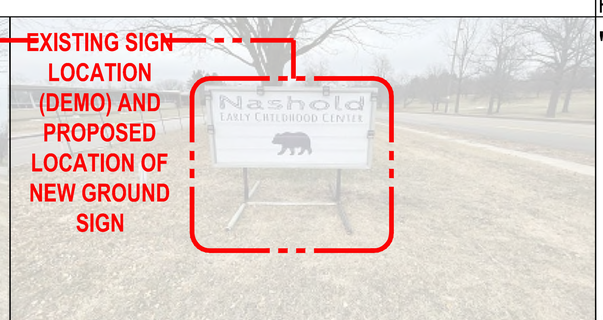
J. AT ALL EXISTING (DEMO'D) SIGN LOCATIONS- CUT EXISTING (ABANDONED IN PLACE) POWER CONDUIT/WIRING BELOW GRADE. COORDINATE WITH OWNER. RPS ELECTRICIANS WILL DE-POWER THE SIGNAGE AT THE ELECTRICAL PANEL.



AERIAL IMAGE



EXISTING SIGN (VIEW 1)



EXISTING SIGN (VIEW 2)

PREVIOUS SCHOOL GROUND SIGN EXAMPLE (FOR REFERENCE ONLY)

"NASHOLD EARLY CHILDHOOD CENTER"

NASHOLD
EARLY CHILDHOOD CENTER
Nashold EARLY CHILDHOOD CENTER

SIGN CONTRACTOR TO PROVIDE FINAL LAYOUT WITH SCHOOL NAME /LOGO

SCHOOL SIGN PANEL (FRONT AND BACK SIGN FACES)

HAGNEY ARCHITECTS
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

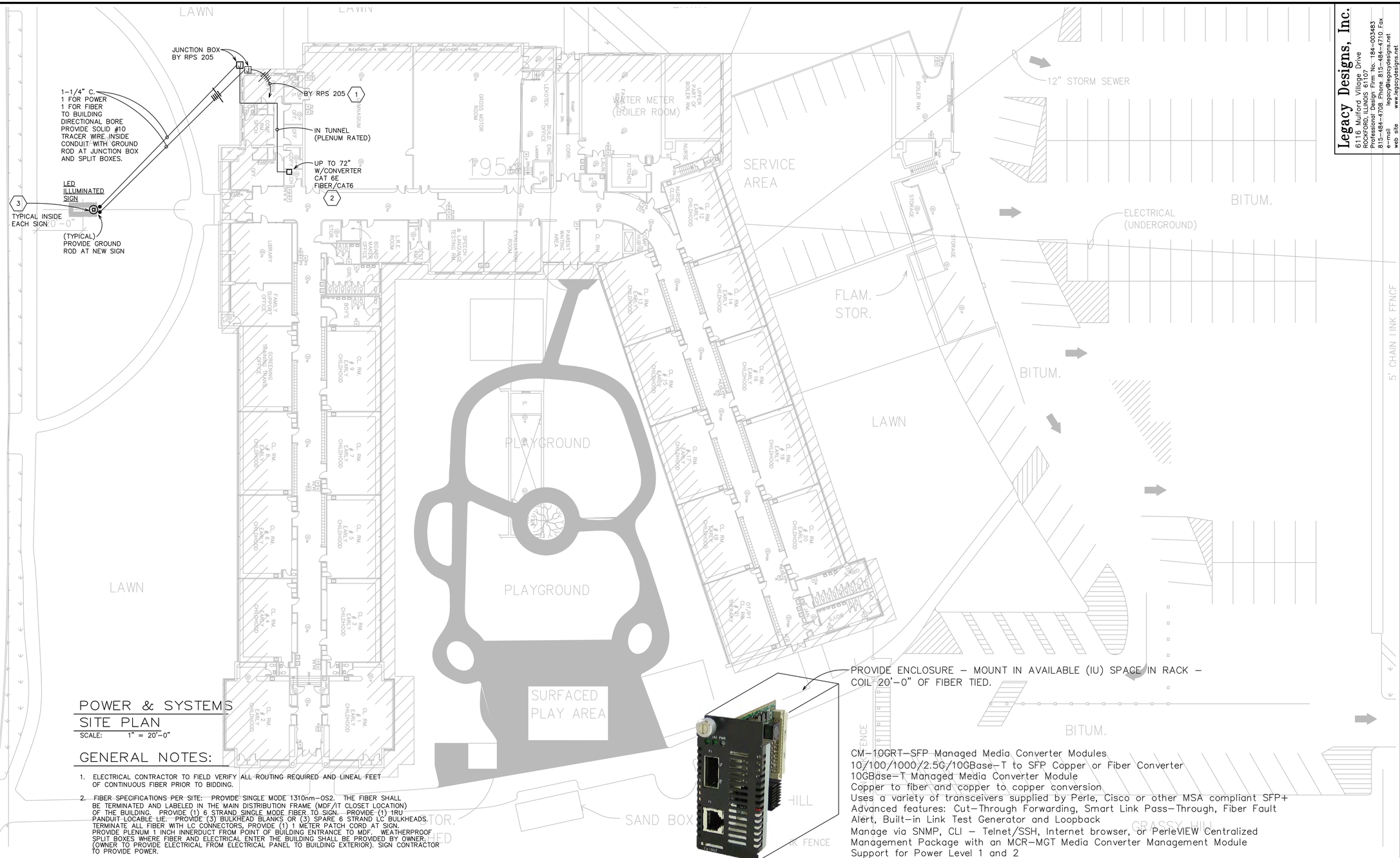
New Electronic Messaging Board Ground Signs at Seven Schools —
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

REVISIONS:

DRAWN BY:
DATE: 03.24.22
PROJECT NUMBER 1966
SHEET NAME: NASHOLD
SHEET NUMBER: A1.6

Z:\Vectorworks\Proj\C1966 RPS 205 Electronic Messaging Boards\C01\A1\A1 School Sign Information.DWG Mar 24, 2022



POWER & SYSTEMS
SITE PLAN
SCALE: 1" = 20'-0"

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL ROUTING REQUIRED AND LINEAL FEET OF CONTINUOUS FIBER PRIOR TO BIDDING.
2. FIBER SPECIFICATIONS PER SITE: PROVIDE SINGLE MODE 1310nm-OS2. THE FIBER SHALL BE TERMINATED AND LABELED IN THE MAIN DISTRIBUTION FRAME (MDF/IT CLOSET LOCATION) OF THE BUILDING. PROVIDE (1) 6 STRAND SINGLE MODE FIBER TO SIGN. PROVIDE (1) 1RU PANDUIT LOCABLE LIE. PROVIDE (3) BULKHEAD BLANKS OR (3) SPARE 6 STRAND LC BULKHEADS. TERMINATE ALL FIBER WITH LC CONNECTORS, PROVIDE (1) 1 METER PATCH CORD AT SIGN. PROVIDE PLENUM 1 INCH INNERDUCT FROM POINT OF BUILDING ENTRANCE TO MDF. WEATHERPROOF SPLIT BOXES WHERE FIBER AND ELECTRICAL ENTER THE BUILDING SHALL BE PROVIDED BY OWNER. (OWNER TO PROVIDE ELECTRICAL FROM ELECTRICAL PANEL TO BUILDING EXTERIOR). SIGN CONTRACTOR TO PROVIDE POWER.

REFERENCE NOTES:

1. CONNECT (3) 20 AMP CIRCUITS PROVIDED TO JUNCTION BOX ON EXTERIOR OF BUILDING FROM ELECTRICAL PANEL BY RPS205. (TYPICAL).
2. TERMINATE OS1/OS2 FIBER CABLE WITH S-1110 SFP-XT CONVERTER INSIDE I.T. CLOSET
   LC FIBER ADAPTER PANEL - OS1/OS2 LC DUPLEX BLUE (FAP6WBUDLCCZ)
   FIBER PATCH PANEL - FLAT BLACK (1 RU - CFAPPBL1)
   OPTICOM FIBER TRAY STRAIGHT (1 RU - 4 PORT)
   PSFP-1000D-S2LC10-1000BASE-LH-1310nm SINGLE MODE (LC).
   FIBER - SINGLE MODE - OS2 ARMORED LC DUPLEX CONNECTOR.
   SPOOL EXTRA 20'-0" OF CABLE.
3. TERMINATE S-1110-SFP-XT MEDIA RATE CONVERTERS 10/100/1000 BASE-T TO 100/1000 BASE-X CONVERSION.
   SFP: PSFP-1000D-S2LC10-XT-1000 BASE-LX/LH-1310nm SINGLE MODE (LC).

Perle
CM-10GRT-SFP
Media Converter
Module

PROVIDE ENCLOSURE - MOUNT IN AVAILABLE (IU) SPACE IN RACK - COIL 20'-0" OF FIBER TIED.

CM-10GRT-SFP Managed Media Converter Modules
10/100/1000/2.5G/10GBase-T to SFP Copper or Fiber Converter
10GBase-T Managed Media Converter Module
Copper to fiber and copper to copper conversion
Uses a variety of transceivers supplied by Perle, Cisco or other MSA compliant SFP+
Advanced features: Cut-Through Forwarding, Smart Link Pass-Through, Fiber Fault Alert, Built-in Link Test Generator and Loopback
Manage via SNMP, CLI - Telnet/SSH, Internet browser, or PerleVIEW Centralized Management Package with an MCR-MGT Media Converter Management Module
Support for Power Level 1 and 2

Legacy Designs, Inc.
6116 S. Mulford Village Drive
ROCKFORD, ILLINOIS 61107
Professional Design Firm No.: 184-003483
815-484-4708 Phone 815-484-4710 Fax
e-mail legacy@legacydesigns.net
web site www.legacydesigns.net

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

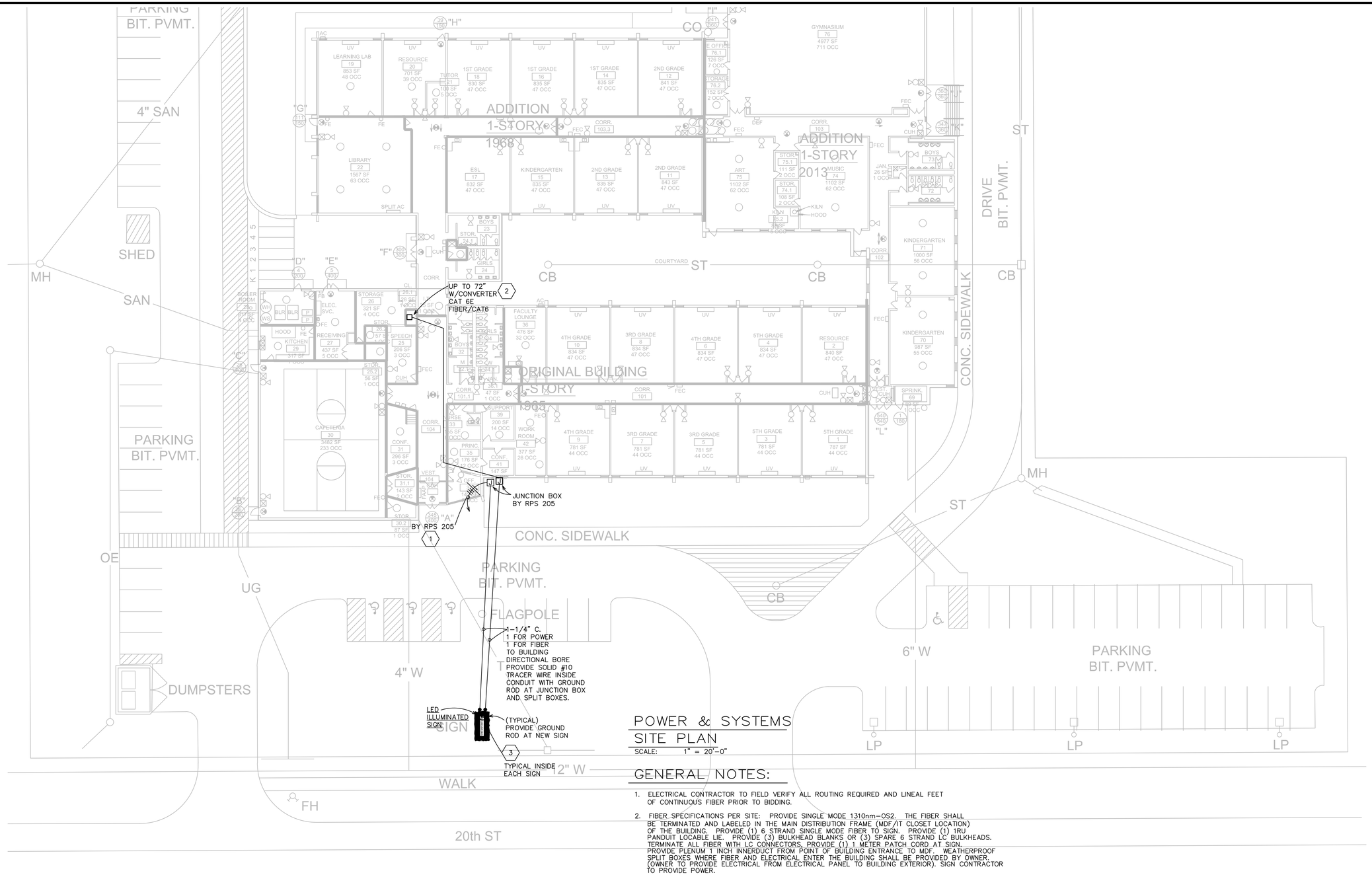
New Electronic Messaging Board Ground Signs at Seven Schools

- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4644 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

REVISIONS:

DRAWN BY:
DATE:
PROJECT NUMBER 1966
SHEET NAME: POWER-SITE PLAN FAIRVIEW
SHEET NUMBER: ES1.0



POWER & SYSTEMS SITE PLAN

SCALE: 1" = 20'-0"

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL ROUTING REQUIRED AND LINEAL FEET OF CONTINUOUS FIBER PRIOR TO BIDDING.
2. FIBER SPECIFICATIONS PER SITE: PROVIDE SINGLE MODE 1310nm-OS2. THE FIBER SHALL BE TERMINATED AND LABELED IN THE MAIN DISTRIBUTION FRAME (MDF/IT CLOSET LOCATION) OF THE BUILDING. PROVIDE (1) 6 STRAND SINGLE MODE FIBER TO SIGN. PROVIDE (1) 1RU PANDUIT LOCABLE LIE. PROVIDE (3) BULKHEAD BLANKS OR (3) SPARE 6 STRAND LC BULKHEADS. TERMINATE ALL FIBER WITH LC CONNECTORS. PROVIDE (1) 1 METER PATCH CORD AT SIGN. PROVIDE PLENUM 1 INCH INNERDUCT FROM POINT OF BUILDING ENTRANCE TO MDF. WEATHERPROOF SPLIT BOXES WHERE FIBER AND ELECTRICAL ENTER THE BUILDING SHALL BE PROVIDED BY OWNER. (OWNER TO PROVIDE ELECTRICAL FROM ELECTRICAL PANEL TO BUILDING EXTERIOR). SIGN CONTRACTOR TO PROVIDE POWER.

REFERENCE NOTES:

1. CONNECT (3) 20 AMP CIRCUITS PROVIDED TO JUNCTION BOX ON EXTERIOR OF BUILDING FROM ELECTRICAL PANEL BY RPS205. (TYPICAL).
2. TERMINATE OS1/OS2 FIBER CABLE WITH S-1110 SFP-XT CONVERTER INSIDE I.T. CLOSET
   LC FIBER ADAPTER PANEL - OS1/OS2 LC DUPLEX BLUE (FAP6WBUDLCCZ)
   FIBER PATCH PANEL - FLAT BLACK (1 RU - CFAPPBL1)
   OPTICOM FIBER TRAY STRAIGHT (1 RU - 4 PORT)
   PSFP-10000-S2LC10-1000BASE-LH-1310nm SINGLE MODE (LC).
   FIBER - SINGLE MODE - OS2 ARMORED LC DUPLEX CONNECTOR.
   SPOOL EXTRA 20'-0" OF CABLE.
3. TERMINATE S-1110-SFP-XT MEDIA RATE CONVERTERS 10/100/1000 BASE-T TO 100/1000 BASE-X CONVERSION.
   SFP: PSFP-1000D-S2LC10-XT-1000 BASE-LX/LH-1310nm SINGLE MODE (LC).

JAY THAKKAR
062-057756
STATE OF ILLINOIS
EXP 11-30-23

Legacy Designs, Inc.
6116 Mulford Village Drive
ROCKFORD, ILLINOIS 61107
Professional Design Firm No. 184-003483
815-484-4708 Phone 815-484-4710 Fax
e-mail legacy@legacydesigns.net
web site www.legacydesigns.net

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

NOTE: BY REFERENCE, AIA DOCUMENT A201 "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION" IS MADE A PART OF THESE DOCUMENTS. THE ARCHITECT WILL NOT HAVE CONTROL OVER, CHARGE OF, OR RESPONSIBILITY FOR, THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, SINCE THESE ARE SOLELY THE CONTRACTOR'S RIGHTS AND RESPONSIBILITIES

New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

REVISIONS:

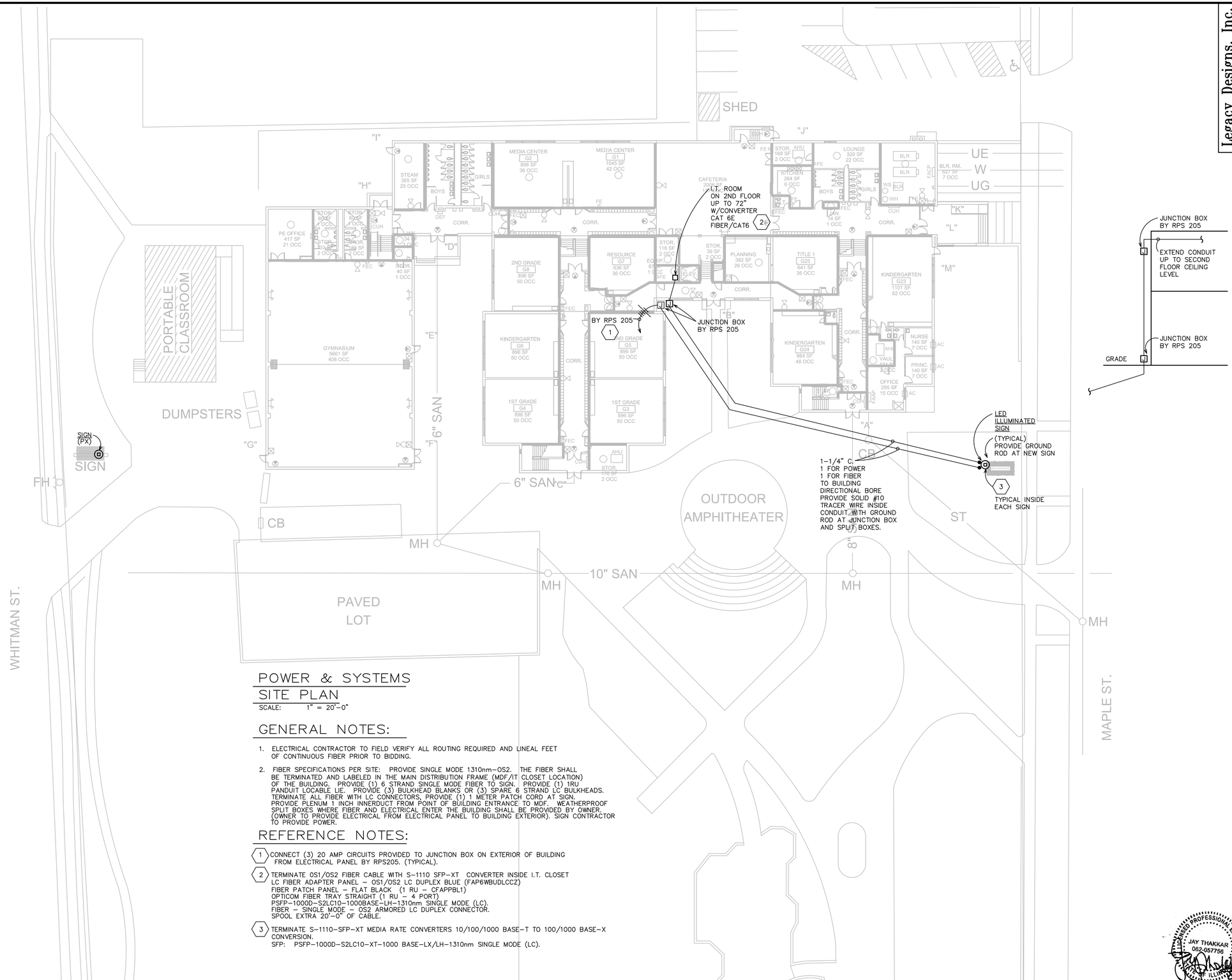
DRAWN BY:

DATE:

PROJECT NUMBER 1966

SHEET NAME:
POWER-SITE PLAN FROBERG

SHEET NUMBER:
ES2.0



POWER & SYSTEMS
SITE PLAN

SCALE: 1" = 20'–0"

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL ROUTING REQUIRED AND LINEAL FEET OF CONTINUOUS FIBER PRIOR TO BIDDING.
2. FIBER SPECIFICATIONS PER SITE: PROVIDE SINGLE MODE 1310nm–OS2. THE FIBER SHALL BE TERMINATED AND LABELED IN THE MAIN DISTRIBUTION FRAME (MDF/IT CLOSET LOCATION) OF THE BUILDING. PROVIDE (1) 6 STRAND SINGLE MODE FIBER TO SIGN. PROVIDE (1) 1RU PANDUIT LOCABLE LIE. PROVIDE (3) BULKHEAD BLANKS OR (3) SPARE 6 STRAND LC BULKHEADS. TERMINATE ALL FIBER WITH LC CONNECTORS, PROVIDE (1) 1 METER PATCH CORD AT SIGN. PROVIDE PLENUM 1 INCH INNERDUCT FROM POINT OF BUILDING ENTRANCE TO MDF. WEATHERPROOF SPLIT BOXES WHERE FIBER AND ELECTRICAL ENTER THE BUILDING SHALL BE PROVIDED BY OWNER. (OWNER TO PROVIDE ELECTRICAL FROM ELECTRICAL PANEL TO BUILDING EXTERIOR). SIGN CONTRACTOR TO PROVIDE POWER.

REFERENCE NOTES:

1. CONNECT (3) 20 AMP CIRCUITS PROVIDED TO JUNCTION BOX ON EXTERIOR OF BUILDING FROM ELECTRICAL PANEL BY RPS205. (TYPICAL).
2. TERMINATE OS1/OS2 FIBER CABLE WITH S–1110 SFP–XT CONVERTER INSIDE I.T. CLOSET
   LC FIBER ADAPTER PANEL – OS1/OS2 LC DUPLEX BLUE (FAP6WBUDLCCZ)
   FIBER PATCH PANEL – FLAT BLACK (1 RU – CFAPPBL1)
   OPTICOM FIBER TRAY STRAIGHT (1 RU – 4 PORT)
   PSFP–1000D–S2LC10–1000BASE–LH–1310nm SINGLE MODE (LC).
   FIBER – SINGLE MODE – OS2 ARMORED LC DUPLEX CONNECTOR.
   SPOOL EXTRA 20'–0" OF CABLE.
3. TERMINATE S–1110–SFP–XT MEDIA RATE CONVERTERS 10/100/1000 BASE–T TO 100/1000 BASE–X CONVERSION.
   SFP: PSFP–1000D–S2LC10–XT–1000 BASE–LX/LH–1310nm SINGLE MODE (LC).

Legacy Designs, Inc.
6116 Mulford Village Drive
ROCKFORD, ILLINOIS 61107
Professional Design Firm No. 184–003483
815–484–4708 Phone 815–484–4710 Fax
e–mail legacy@legacydesigns.net
web site www.legacydesigns.net

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

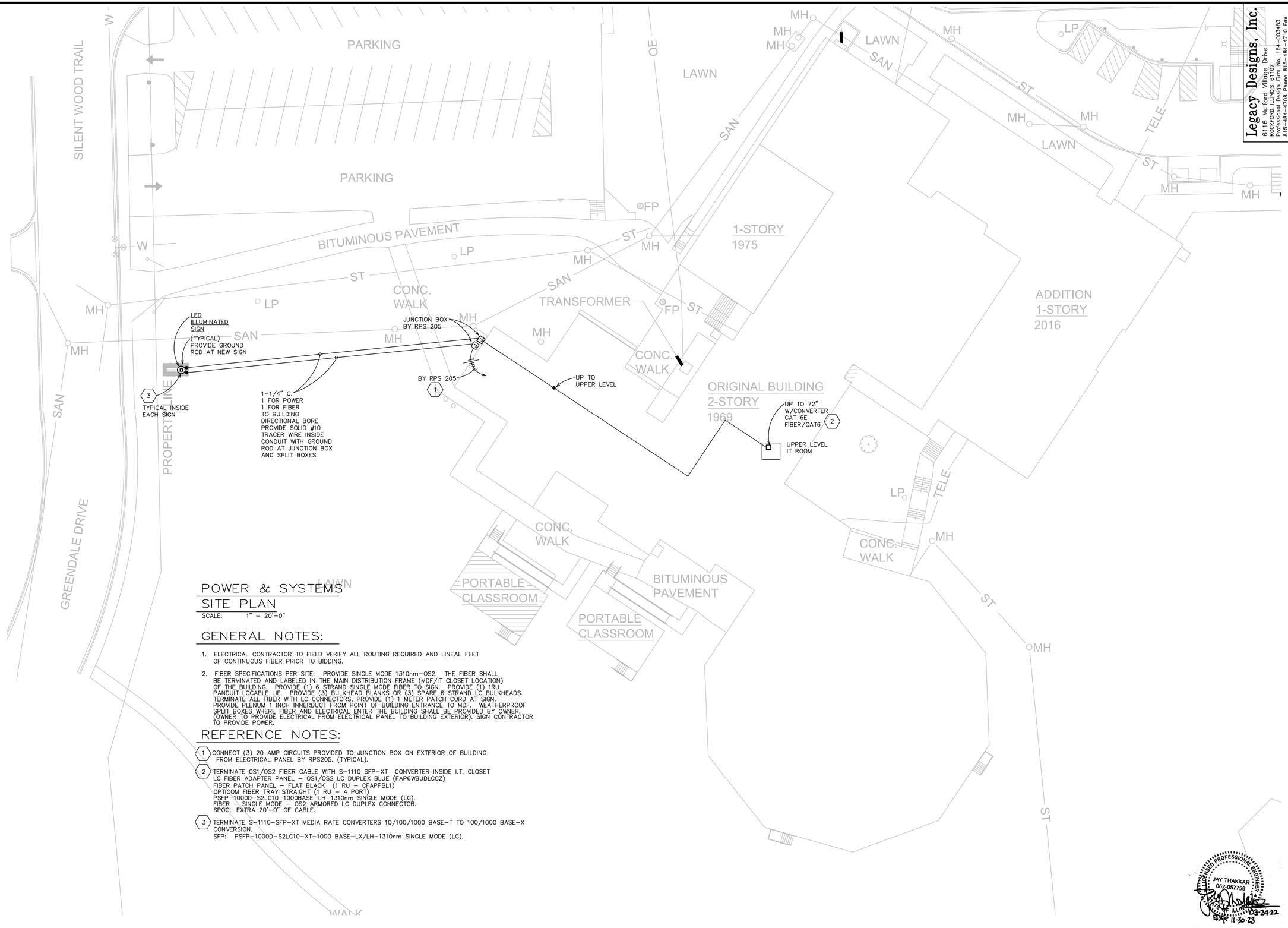
REVISIONS:

DRAWN BY:
DATE:
PROJECT NUMBER 1966

SHEET NAME:
POWER-SITE PLAN HASKELL

SHEET NUMBER:
ES3.0

JAY THAKKAR 062-057756 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS 23-24-22 EXP 11-30-23



POWER & SYSTEMS SITE PLAN

SCALE: 1" = 20'-0"

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL ROUTING REQUIRED AND LINEAL FEET OF CONTINUOUS FIBER PRIOR TO BIDDING.
2. FIBER SPECIFICATIONS PER SITE: PROVIDE SINGLE MODE 1310nm-OS2. THE FIBER SHALL BE TERMINATED AND LABELED IN THE MAIN DISTRIBUTION FRAME (MDF/IT CLOSET LOCATION) OF THE BUILDING. PROVIDE (1) 6 STRAND SINGLE MODE FIBER TO SIGN. PROVIDE (1) 1RU PANDUIT LOCABLE LIE. PROVIDE (3) BULKHEAD BLANKS OR (3) SPARE 6 STRAND LC BULKHEADS. TERMINATE ALL FIBER WITH LC CONNECTORS. PROVIDE (1) 1 METER PATCH CORD AT SIGN. PROVIDE PLENUM 1 INCH INNERDUCT FROM POINT OF BUILDING ENTRANCE TO MDF. WEATHERPROOF SPLIT BOXES WHERE FIBER AND ELECTRICAL ENTER THE BUILDING SHALL BE PROVIDED BY OWNER. (OWNER TO PROVIDE ELECTRICAL FROM ELECTRICAL PANEL TO BUILDING EXTERIOR). SIGN CONTRACTOR TO PROVIDE POWER.

REFERENCE NOTES:

1. CONNECT (3) 20 AMP CIRCUITS PROVIDED TO JUNCTION BOX ON EXTERIOR OF BUILDING FROM ELECTRICAL PANEL BY RPS205. (TYPICAL).
2. TERMINATE OS1/OS2 FIBER CABLE WITH S-1110 SFP-XT CONVERTER INSIDE I.T. CLOSET
   LC FIBER ADAPTER PANEL - OS1/OS2 LC DUPLEX BLUE (FAP6WBUDLCCZ)
   FIBER PATCH PANEL - FLAT BLACK (1 RU - CFAPPBL1)
   OPTICOM FIBER TRAY STRAIGHT (1 RU - 4 PORT)
   PSFP-1000D-S2LC10-1000BASE-LH-1310nm SINGLE MODE (LC).
   FIBER - SINGLE MODE - OS2 ARMORED LC DUPLEX CONNECTOR.
   SPOOL EXTRA 20'-0" OF CABLE.
3. TERMINATE S-1110-SFP-XT MEDIA RATE CONVERTERS 10/100/1000 BASE-T TO 100/1000 BASE-X CONVERSION.
   SFP: PSFP-1000D-S2LC10-XT-1000 BASE-LX/LH-1310nm SINGLE MODE (LC).

Legacy Designs, Inc.
6116 Mulford Village Drive
ROCKFORD, ILLINOIS 61107
Professional Design Firm No. 184-003483
815-484-4708 Phone 815-484-4710 Fax
e-mail legacy@legacydesigns.net
web site www.legacydesigns.net

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

REVISIONS:

DRAWN BY:

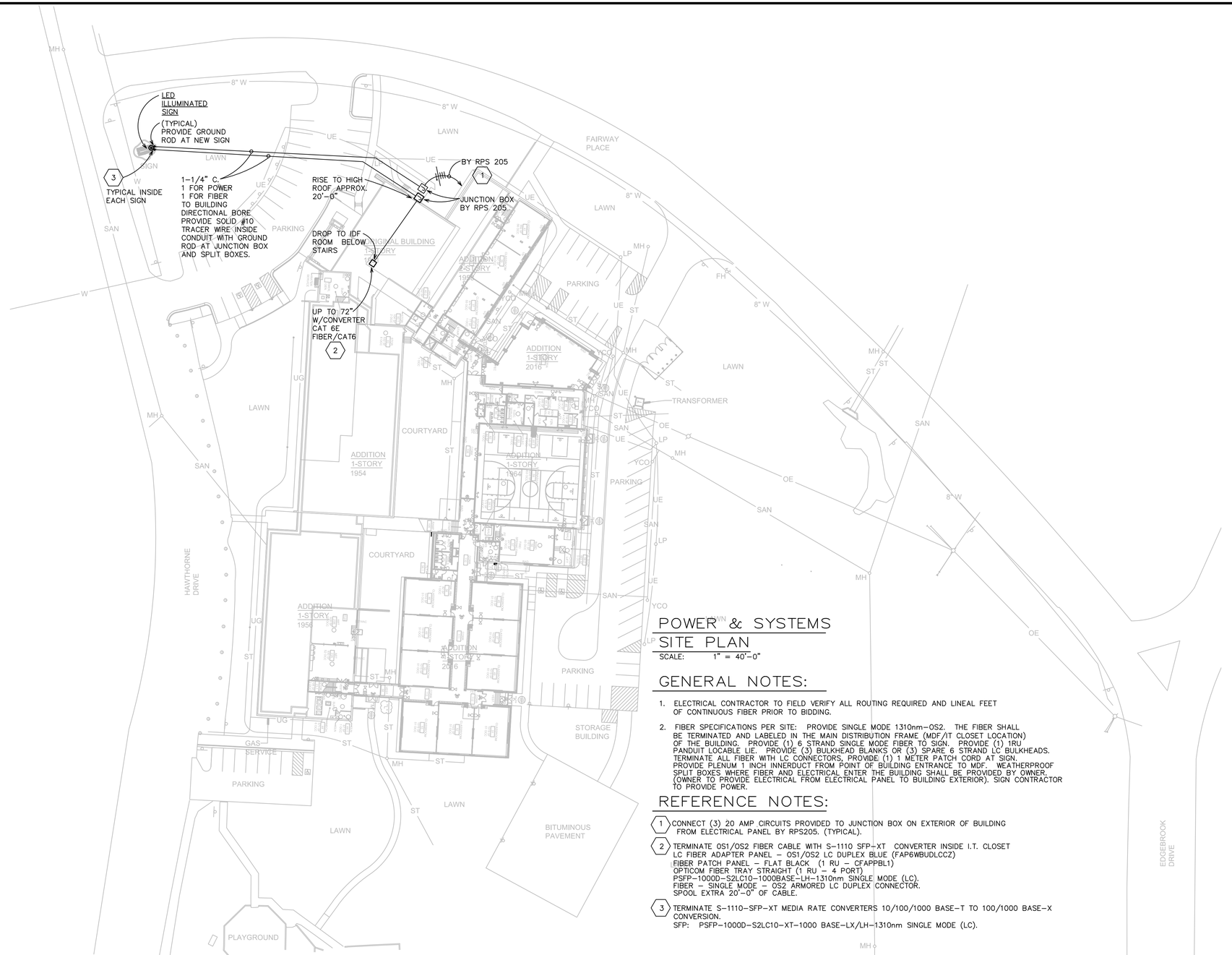
DATE:

PROJECT NUMBER 1966

SHEET NAME:
POWER-SITE PLAN HILLMAN

SHEET NUMBER:
ES4.0

LICENSED PROFESSIONAL ENGINEER
JAY THAKKAR
062-057756
STATE OF ILLINOIS
11-30-23
11-29-22



POWER & SYSTEMS SITE PLAN

SCALE: 1" = 40'-0"

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL ROUTING REQUIRED AND LINEAL FEET OF CONTINUOUS FIBER PRIOR TO BIDDING.
2. FIBER SPECIFICATIONS PER SITE: PROVIDE SINGLE MODE 1310nm-OS2. THE FIBER SHALL BE TERMINATED AND LABELED IN THE MAIN DISTRIBUTION FRAME (MDF/IT CLOSET LOCATION) OF THE BUILDING. PROVIDE (1) 6 STRAND SINGLE MODE FIBER TO SIGN. PROVIDE (1) 1RU PANDUIT LOCABLE LIE. PROVIDE (3) BULKHEAD BLANKS OR (3) SPARE 6 STRAND LC BULKHEADS. TERMINATE ALL FIBER WITH LC CONNECTORS. PROVIDE (1) 1 METER PATCH CORD AT SIGN. PROVIDE PLENUM 1 INCH INNERDUCT FROM POINT OF BUILDING ENTRANCE TO MDF. WEATHERPROOF SPLIT BOXES WHERE FIBER AND ELECTRICAL ENTER THE BUILDING SHALL BE PROVIDED BY OWNER. (OWNER TO PROVIDE ELECTRICAL FROM ELECTRICAL PANEL TO BUILDING EXTERIOR). SIGN CONTRACTOR TO PROVIDE POWER.

REFERENCE NOTES:

1. CONNECT (3) 20 AMP CIRCUITS PROVIDED TO JUNCTION BOX ON EXTERIOR OF BUILDING FROM ELECTRICAL PANEL BY RPS205. (TYPICAL).
2. TERMINATE OS1/OS2 FIBER CABLE WITH S-1110 SFP-XT CONVERTER INSIDE I.T. CLOSET
   LC FIBER ADAPTER PANEL - OS1/OS2 LC DUPLEX BLUE (FAP6WBUDLCCZ)
   FIBER PATCH PANEL - FLAT BLACK (1 RU - CFAPPBL1)
   OPTICOM FIBER TRAY STRAIGHT (1 RU - 4 PORT)
   PSFP-1000D-S2LC10-1000BASE-LH-1310nm SINGLE MODE (LC).
   FIBER - SINGLE MODE - OS2 ARMORED LC DUPLEX CONNECTOR.
   SPOOL EXTRA 20'-0" OF CABLE.
3. TERMINATE S-1110-SFP-XT MEDIA RATE CONVERTERS 10/100/1000 BASE-T TO 100/1000 BASE-X CONVERSION.
   SFP: PSFP-1000D-S2LC10-XT-1000 BASE-LX/LH-1310nm SINGLE MODE (LC).

Legacy Designs, Inc.
6116 Mulford Village Drive
ROCKFORD, ILLINOIS 61107
Professional Design Firm No. 184-003483
815-484-4708 Phone 815-484-4710 Fax
e-mail legacy@legacydesigns.net
web site www.legacydesigns.net

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

REVISIONS:

DRAWN BY:

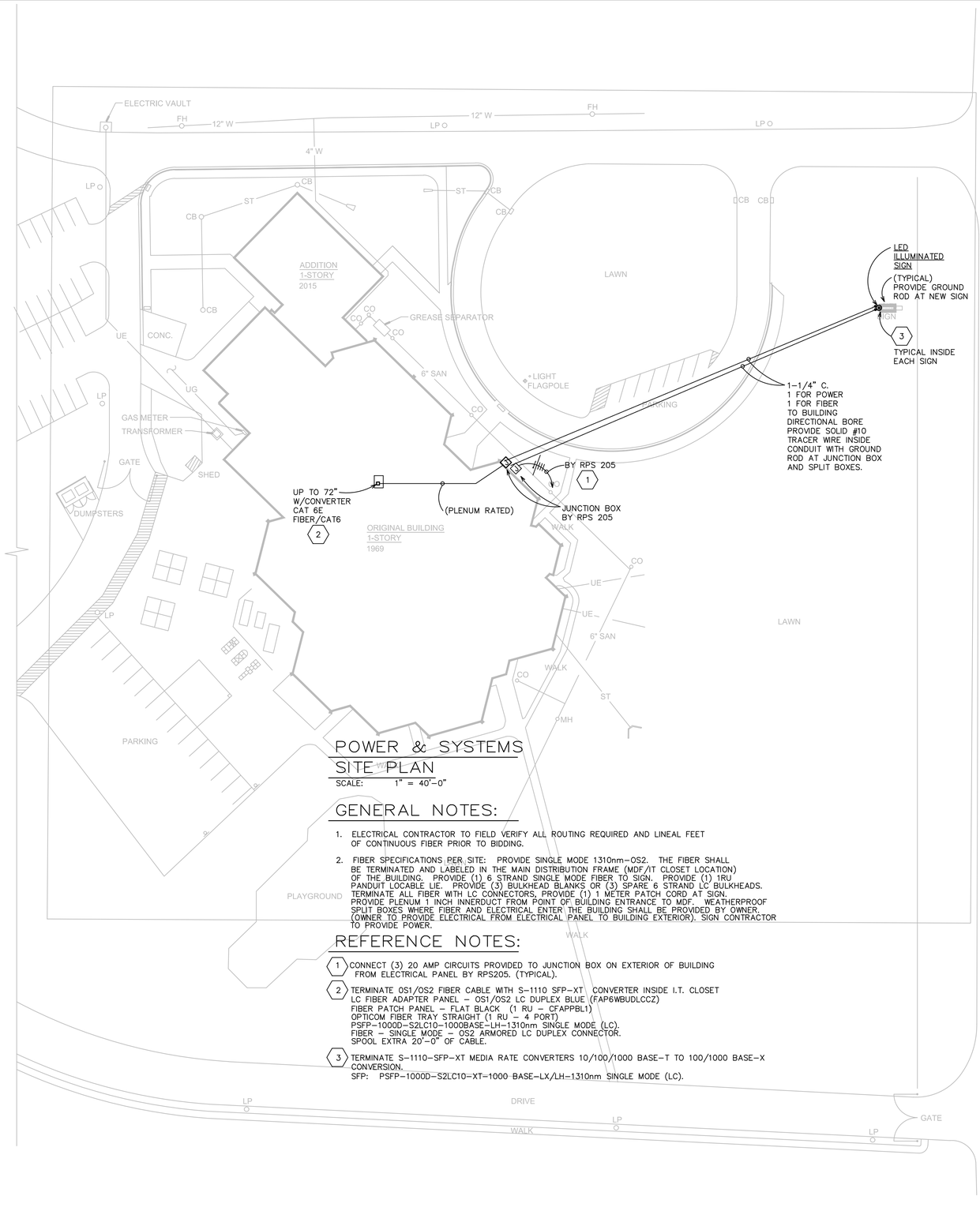
DATE:

PROJECT NUMBER 1966

SHEET NAME:
POWER-SITE PLAN MARSH

SHEET NUMBER:
ES5.0

LICENSED PROFESSIONAL ENGINEER
JAY THAKKAR
062-057756
STATE OF ILLINOIS
3-24-22
EXP 11-30-23



POWER & SYSTEMS
SITE PLAN

SCALE: 1" = 40'-0"

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL ROUTING REQUIRED AND LINEAL FEET OF CONTINUOUS FIBER PRIOR TO BIDDING.
2. FIBER SPECIFICATIONS PER SITE: PROVIDE SINGLE MODE 1310nm-OS2. THE FIBER SHALL BE TERMINATED AND LABELED IN THE MAIN DISTRIBUTION FRAME (MDF/IT CLOSET LOCATION) OF THE BUILDING. PROVIDE (1) 6 STRAND SINGLE MODE FIBER TO SIGN. PROVIDE (1) 1RU PANDUIT LOCABLE LIE. PROVIDE (3) BULKHEAD BLANKS OR (3) SPARE 6 STRAND LC BULKHEADS. TERMINATE ALL FIBER WITH LC CONNECTORS, PROVIDE (1) 1 METER PATCH CORD AT SIGN. PROVIDE PLENUM 1 INCH INNERDUCT FROM POINT OF BUILDING ENTRANCE TO MDF. WEATHERPROOF SPLIT BOXES WHERE FIBER AND ELECTRICAL ENTER THE BUILDING SHALL BE PROVIDED BY OWNER. (OWNER TO PROVIDE ELECTRICAL FROM ELECTRICAL PANEL TO BUILDING EXTERIOR). SIGN CONTRACTOR TO PROVIDE POWER.

REFERENCE NOTES:

1. CONNECT (3) 20 AMP CIRCUITS PROVIDED TO JUNCTION BOX ON EXTERIOR OF BUILDING FROM ELECTRICAL PANEL BY RPS205. (TYPICAL).
2. TERMINATE OS1/OS2 FIBER CABLE WITH S-1110 SFP-XT CONVERTER INSIDE I.T. CLOSET
   LC FIBER ADAPTER PANEL - OS1/OS2 LC DUPLEX BLUE (FAP6WBUDLCCZ)
   FIBER PATCH PANEL - FLAT BLACK (1 RU - CFAPPBL1)
   OPTICOM FIBER TRAY STRAIGHT (1 RU - 4 PORT)
   PSFP-1000D-S2LC10-1000BASE-LH-1310nm SINGLE MODE (LC).
   FIBER - SINGLE MODE - OS2 ARMORED LC DUPLEX CONNECTOR.
   SPOOL EXTRA 20'-0" OF CABLE.
3. TERMINATE S-1110-SFP-XT MEDIA RATE CONVERTERS 10/100/1000 BASE-T TO 100/1000 BASE-X CONVERSION.
   SFP: PSFP-1000D-S2LC10-XT-1000 BASE-LX/LH-1310nm SINGLE MODE (LC).

Legacy Designs, Inc.
6116 Mulford Village Drive
ROCKFORD, ILLINOIS 61107
Professional Design Firm No. 184-003483
815-484-4708 Phone 815-484-4710 Fax
e-mail legacy@legacydesigns.net
web site www.legacydesigns.net

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

REVISIONS:

DRAWN BY:

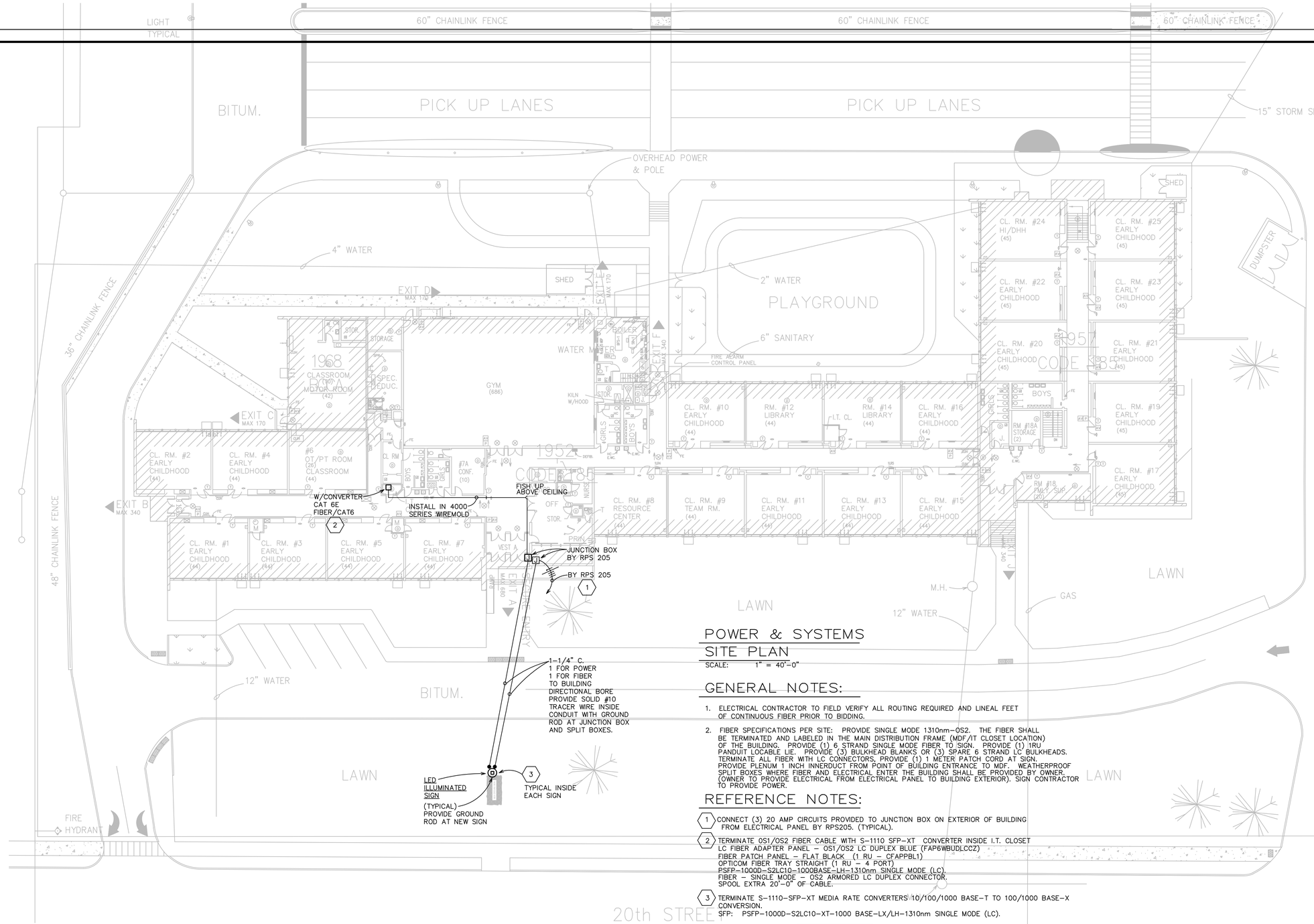
DATE:

PROJECT NUMBER 1966

SHEET NAME:
POWER-SITE PLAN MARSHALL

SHEET NUMBER:
ES6.0

LICENSED PROFESSIONAL ENGINEER
JAY THAKKAR
062-057756
STATE OF ILLINOIS
03-24-22
EXP 11-30-23



POWER & SYSTEMS
SITE PLAN
SCALE: 1" = 40'-0"

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL ROUTING REQUIRED AND LINEAL FEET OF CONTINUOUS FIBER PRIOR TO BIDDING.
2. FIBER SPECIFICATIONS PER SITE: PROVIDE SINGLE MODE 1310nm-OS2. THE FIBER SHALL BE TERMINATED AND LABELED IN THE MAIN DISTRIBUTION FRAME (MDF/IT CLOSET LOCATION) OF THE BUILDING. PROVIDE (1) 6 STRAND SINGLE MODE FIBER TO SIGN. PROVIDE (1) 1RU PANDUIT LOCABLE LIE. PROVIDE (3) BULKHEAD BLANKS OR (3) SPARE 6 STRAND LC BULKHEADS. TERMINATE ALL FIBER WITH LC CONNECTORS, PROVIDE (1) 1 METER PATCH CORD AT SIGN. PROVIDE PLENUM 1 INCH INNERDUCT FROM POINT OF BUILDING ENTRANCE TO MDF. WEATHERPROOF SPLIT BOXES WHERE FIBER AND ELECTRICAL ENTER THE BUILDING SHALL BE PROVIDED BY OWNER. (OWNER TO PROVIDE ELECTRICAL FROM ELECTRICAL PANEL TO BUILDING EXTERIOR). SIGN CONTRACTOR TO PROVIDE POWER.

REFERENCE NOTES:

1. CONNECT (3) 20 AMP CIRCUITS PROVIDED TO JUNCTION BOX ON EXTERIOR OF BUILDING FROM ELECTRICAL PANEL BY RPS205. (TYPICAL).
2. TERMINATE OS1/OS2 FIBER CABLE WITH S-1110 SFP-XT CONVERTER INSIDE I.T. CLOSET
   LC FIBER ADAPTER PANEL - OS1/OS2 LC DUPLEX BLUE (FAP6WBUDLCCZ)
   FIBER PATCH PANEL - FLAT BLACK (1 RU - CFAPPBL1)
   OPTICOM FIBER TRAY STRAIGHT (1 RU - 4 PORT)
   PSFP-1000D-S2LC10-1000BASE-LH-1310nm SINGLE MODE (LC).
   FIBER - SINGLE MODE - OS2 ARMORED LC DUPLEX CONNECTOR.
   SPOOL EXTRA 20'-0" OF CABLE.
3. TERMINATE S-1110-SFP-XT MEDIA RATE CONVERTERS 10/100/1000 BASE-T TO 100/1000 BASE-X CONVERSION.
   SFP: PSFP-1000D-S2LC10-XT-1000 BASE-LX/LH-1310nm SINGLE MODE (LC).

Legacy Designs, Inc.
6116 Mulford Village Drive
ROCKFORD, ILLINOIS 61107
Professional Design Firm No. 184-003483
815-484-4708 Phone 815-484-4710 Fax
e-mail legacy@legacydesigns.net
web site www.legacydesigns.net

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

REVISIONS:

DRAWN BY:
DATE:
PROJECT NUMBER 1966

SHEET NAME:
POWER-SITE PLAN NASHOLD

SHEET NUMBER:
ES7.0

LICENSED PROFESSIONAL ENGINEER
JAY THAKKAR
062-057756
OF ILLINOIS
03-24-22
EXP 11-30-23

FIBRE OPTIC INFRASTRUCTURE SPECIFICATIONS:

SECTION 27 17 00

TESTING, IDENTIFICATION AND ADMINISTRATION OF FIBRE INFRASTRUCTURE

PART 1 – GENERAL

1.1 WORK INCLUDED

A. PROVIDE ALL LABOUR, MATERIALS, TOOLS, FIELD–TEST INSTRUMENTS AND EQUIPMENT REQUIRED FOR THE COMPLETE TESTING, IDENTIFICATION AND ADMINISTRATION OF THE WORK CALLED FOR IN THE CONTRACT DOCUMENTS.

B. IN ORDER TO CONFORM TO THE OVERALL PROJECT EVENT SCHEDULE, THE CA– BLING CONTRACTOR SHALL SURVEY THE WORK AREAS AND COORDINATE CABLING TESTING WITH OTHER APPLICABLE TRADES.

C. IN ADDITION TO THE TESTS DETAILED IN THIS DOCUMENT, THE CONTRAC– TOR SHALL NOTIFY THE OWNER OR THE OWNER'S REPRESENTATIVE OF ANY ADDITIONAL TESTS THAT ARE DEEMED NECESSARY TO GUARANTEE A FULLY FUNCTIONAL SYSTEM. THE CONTRACTOR SHALL CARRY OUT AND RECORD ANY ADDITIONAL MEASUREMENT RESULTS AT NO ADDITIONAL CHARGE.

1.2 SCOPE

A. THIS SECTION INCLUDES THE MINIMUM REQUIREMENTS FOR THE TEST CERTIFICATION, IDENTIFICATION AND ADMINISTRATION OF BACKBONE AND HORIZONTAL OPTICAL FIBRE CABLING.

B. THIS SECTION INCLUDES MINIMUM REQUIREMENTS FOR:

1. FIBRE OPTIC TEST INSTRUMENTS
2. FIBRE OPTIC TESTING
3. IDENTIFICATION
   a) LABELS AND LABELLING
4. ADMINISTRATION
   a) TEST RESULTS DOCUMENTATION
   b) AS–BUILT DRAWINGS

C. TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH THIS DOCUMENT. THIS INCLUDES TESTING THE ATTENUATION AND POLARITY OF THE INSTALLED CABLE PLANT WITH AN OPTICAL LOSS TEST SET (OLTS) AND THE INSTALLED CONDITION OF THE CABLING SYSTEM AND ITS COMPONENTS WITH AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR). THE CONDITION OF THE FIBRE END FACES SHALL ALSO BE VERIFIED.

D. TESTING SHALL BE PERFORMED ON EACH CABLING LINK (CONNECTOR TO CONNECTOR).

E. TESTING SHALL BE PERFORMED ON EACH CABLING CHANNEL (EQUIPMENT TO EQUIPMENT) THAT IS IDENTIFIED BY THE OWNER.

1. TESTING SHALL NOT INCLUDE ANY ACTIVE DEVICES OR PASSIVE DEVICES WITHIN THE LINK OR CHANNEL OTHER THAN CABLE, CONNECTORS, AND SPLICES, I.E. LINK ATTENUATION DOES NOT INCLUDE SUCH DEVICES AS OPTICAL BYPASS SWITCHES, COUPLERS, REPEATERS, OR OPTICAL AMPLIFIERS.

F. ALL TESTS SHALL BE DOCUMENTED INCLUDING OLTS DUAL WAVELENGTH ATTENUATION MEASUREMENTS FOR MULTIMODE AND SINGLEMODE LINKS AND CHANNELS AND OTDR TRACES AND EVENT TABLES FOR MULTIMODE AND SINGLEMODE LINKS AND CHANNELS.

1. OPTIONALLY DOCUMENTATION SHALL ALSO INCLUDE OPTICAL LENGTH MEASUREMENTS AND PICTURES OF THE CONNECTOR END FACE.

1.3 QUALITY ASSURANCE

A. ALL TESTING PROCEDURES AND FIELD–TEST INSTRUMENTS SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF:

1. ISO/IEC 14763–3 INFORMATION TECHNOLOGY – IMPLEMENTATION AND OPERATION OF CUSTOMER PREMISES CABLING – PART 3: TESTING OF OPTICAL FIBRE CABLING
2. IEC 60825–2, SAFETY OF LASER PRODUCTS – PART 2: SAFETY OF OPTICAL FIBRE COMMUNICATION SYSTEMS (OFCS)
3. IEC 61280–1–4, FIBRE OPTIC COMMUNICATION SUBSYSTEM TEST PROCEDURES – PART 1–4: GENERAL COMMUNICATION SUB SYSTEMS – LIGHT SOURCE ENCIRCLED FLUX MEASUREMENT METHOD

B. TRAINED TECHNICIANS WHO HAVE SUCCESSFULLY ATTENDED AN APPROPRIATE TRAINING PROGRAM, WHICH INCLUDES TESTING WITH AN OLTS AND AN OTDR AND HAVE OBTAINED A CERTIFICATE AS PROOF THEREOF SHALL EXECUTE THE TESTS. THESE CERTIFICATES MAY HAVE BEEN ISSUED BY ANY OF THE FOLLOWING ORGANIZATIONS OR AN EQUIVALENT ORGANIZATION:

1. MANUFACTURER OF THE FIBRE OPTIC CABLE AND/OR THE FIBRE OPTIC CONNECTORS.
2. MANUFACTURER OF THE TEST EQUIPMENT USED FOR THE FIELD CERTIFICATION.
3. TRAINING ORGANIZATIONS (E.G., BICSI, A TELECOMMUNICATIONS ASSOCIATION HEADQUARTERS IN TAMPA, FLORIDA; ACP [ASSOCIATION OF CABLING PROFESSIONALS™] CABLING BUSINESS INSTITUTE LOCATED IN DALLAS, TEXAS)

C. THE OWNER OR THE OWNER'S REPRESENTATIVE SHALL BE INVITED TO WITNESS AND/OR REVIEW FIELD–TESTING.

1. THE OWNER OR THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED OF THE START DATE OF THE TESTING PHASE FIVE (5) BUSINESS DAYS BEFORE TESTING COMMENCES.
2. THE OWNER OR THE OWNER'S REPRESENTATIVE WILL SELECT A RANDOM SAMPLE OF 5% OF THE INSTALLED LINKS. THE OWNER OR THE OWNER'S REPRESENTATIVE SHALL TEST THESE RANDOMLY SELECTED LINKS AND THE RESULTS ARE TO BE STORED IN ACCORDANCE WITH PART 3 OF THIS DOCUMENT. THE RESULTS OBTAINED SHALL BE COMPARED TO THE DATA PROVIDED BY THE INSTALLATION CONTRACTOR. IF MORE THAN 2% OF THE SAMPLE RESULTS DIFFER IN TERMS OF THE PASS/FAIL DETERMINATION, THE INSTALLATION CONTRACTOR UNDER SUPERVISION OF THE REPRESENTATIVE SHALL REPEAT 100% TESTING AT NO COST TO THE OWNER.

1.4 SUBMITTALS

A. MANUFACTURERS CATALOGUE SHEETS AND SPECIFICATIONS FOR FIBRE OPTIC FIELD–TEST INSTRUMENTS INCLUDING OPTICAL LOSS TEST SETS (OLTS; POWER METER AND SOURCE), OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) AND INSPECTION SCOPE.

B. A SCHEDULE (LIST) OF ALL OPTICAL FIBRES TO BE TESTED.

C. SAMPLE TEST REPORTS.

1.5 ACCEPTANCE OF TEST RESULTS

A. UNLESS OTHERWISE SPECIFIED BY THE OWNER OR THE OWNERS REPRESENTATIVE, EACH CABLING LINK SHALL BE IN COMPLIANCE WITH THE FOLLOWING TEST LIMITS:

1. OPTICAL LOSS TESTING
   a) MULTIMODE AND SINGLEMODE LINKS
      1) THE LINK ATTENUATION SHALL BE CALCULATED BY THE FOLLOWING FORMULAS AS SPECIFIED IN ISO/IEC 14763–3
      (i) LINK ATTENUATION (DB) = CABLE_ATTN (DB) + CONNECTOR_ATTN (DB) + SPLICE_ATTN (DB)
      (ii) CABLE_ATTN (DB) = ATTENUATION_ COEFFICIENT (DB/KM) * LENGTH (KM)
      (iii) CONNECTOR_ATTN (DB) = NUMBER_OF_ CONNECTOR_PAIRS * CONNECTOR_LOSS (DB)
      (iv) MAXIMUM ALLOWABLE CONNECTOR_LOSS = 0.75 DB FOR CONNECTIONS EMBEDDED INTO LINK AND 0.50/0.75 DB (MM/SM) FOR THE FIRST AND LAST CONNECTOR OF THE LINK. THIS BUDGET INCLUDES THE LOSS OF SPLICE IF PIGTAILS ARE USED.
      (v) SPLICE_ATTN (DB) = NUMBER_OF_SPLICES * SPLICE_LOSS (DB)
      (vi) MAXIMUM ALLOWABLE SPLICE_LOSS = 0.30 DB
      (vii) THE VALUES FOR THE ATTENUATION_ COEFFICIENT (DB/KM) ARE LISTED IN THE TABLE BELOW:
   MAGNIFIED END FACE INSPECTION
   a) FIBRE CONNECTIONS SHALL BE VISUALLY INSPECTED FOR END FACE QUALITY.
   b) SCRATCHED, PITTED OR DIRTY CONNECTORS SHALL BE DIAGNOSED AND CORRECTED.

B. ALL INSTALLED CABLING LINKS AND CHANNELS SHALL BE FIELD–TESTED AND PASS THE TEST REQUIREMENTS AND ANALYSIS AS DESCRIBED IN PART 3. ANY LINK OR CHANNEL THAT FAILS THESE REQUIREMENTS SHALL BE DIAGNOSED AND CORRECTED. ANY CORRECTIVE ACTION THAT MUST TAKE PLACE SHALL BE DOC– UMENTED AND FOLLOWED WITH A NEW TEST TO PROVE THAT THE CORRECTED LINK OR CHANNEL MEETS PERFORMANCE REQUIREMENTS. THE FINAL AND PASSING RESULT OF THE TESTS FOR ALL LINKS AND CHANNELS SHALL BE PROVID– ED IN THE TEST RESULTS DOCUMENTATION IN ACCORDANCE WITH PART 3.

C. ACCEPTANCE OF THE TEST RESULTS SHALL BE GIVEN IN WRITING AFTER THE PROJECT IS FULLY COMPLETED AND TESTED IN ACCORDANCE WITH CONTRACT DOCUMENTS AND TO THE SATISFACTION OF THE OWNER.

NOTE: HIGH BANDWIDTH APPLICATIONS SUCH AS 1000BASE–SX, 10GBASE–SR, AND FC1200 IMPOSE STRINGENT CHANNEL LOSS LIMITS. WHERE PRACTICAL, CERTIFICATION SHOULD CONSIDER LOSS LENGTH LIMITS THAT MEET MAXIMUM CHANNEL (TRANSMITTER TO RECEIVER) LOSS.

PART 2 – PRODUCTS

2.1 OPTICAL FIBRE CABLE TESTERS

2. OTDR TESTING
   a) REFLECTIVE EVENTS (CONNECTIONS) SHALL NOT EXCEED 0.75 DB FOR CONNECTIONS EMBEDDED INTO THE LINK AND 0.50/0.65 DB (MM/SM) FOR THE FIRST AND LAST CONNECTOR OF THE LINK
   b) NON–REFLECTIVE EVENTS (SPLICES) SHALL NOT EXCEED 0.30 DB.

A. THE FIELD–TEST INSTRUMENT SHALL BE WITHIN THE CALIBRATION PERIOD RECOMMENDED BY THE MANUFACTURER.

B. OPTICAL LOSS TEST SET (OLTS)

1. MULTIMODE OPTICAL FIBRE LIGHT SOURCE
   a) PROVIDE DUAL LED LIGHT SOURCES WITH CENTRAL WAVE LENGTHS OF 850 NM (+30 NM) AND 1300 NM (+20 NM)
   b) OUTPUT POWER OF –20 DBM MINIMUM.
   c) THE LIGHT SOURCE SHALL MEET THE ENCIRCLED FLUX LAUNCH REQUIREMENTS OF IEC 61280–1–4.
   d) THE TEST REFERENCE CORDS MUST DEMONSTRATE AN INSERTION LOSS ≤ 0.15 DB WHEN MATED AGAINST EACH OTHER. THIS PERFORMANCE NEEDS TO BE VERIFIED AFTER SETTING THE REFERENCE AND THEN AGAIN EVERY TIME 300 LINKS HAD BEEN TESTED. THE RESULTS FROM VERIFYING THE TEST REFERENCE CORDS SHALL BE STORED ALONGSIDE LINK RESULTS.
   e) ACCEPTABLE MANUFACTURERS
      1) FLUKE NETWORKS
2. SINGLEMODE OPTICAL FIBRE LIGHT SOURCE
   a) PROVIDE DUAL LASER LIGHT SOURCES WITH CENTRAL WAVE LENGTHS OF 1310 NM (±20 NM) AND 1550 NM (±20 NM).
   b) OUTPUT POWER OF –10 DBM MINIMUM.
   c) THE TEST REFERENCE CORDS MUST DEMONSTRATE AN INSERTION LOSS ≤ 0.25 DB WHEN MATED AGAINST EACH OTHER. THIS PERFORMANCE NEEDS TO BE VERIFIED AFTER SETTING THE REFERENCE AND THEN AGAIN EVERY TIME 300 LINKS HAD BEEN TESTED. THE RESULTS FROM VERIFYING THE TEST REFERENCE CORDS SHALL BE STORED ALONGSIDE LINK RESULTS.
   d) ACCEPTABLE MANUFACTURERS
      1) FLUKE NETWORKS
3. POWER METER
   a) PROVIDE 850 NM, 1300, 1310 NM AND 1550 NM WAVE LENGTH TEST CAPABILITY.
   b) POWER MEASUREMENT UNCERTAINTY OF ± 0.25 DB.
   c) STORE REFERENCE POWER MEASUREMENT.
   d) SAVE AT LEAST 10,000 RESULTS IN INTERNAL MEMORY.
   e) PC INTERFACE (USB, RJ45 OR CLOUD CONNECTIVITY).
   f) ACCEPTABLE MANUFACTURERS
      1) FLUKE NETWORKS
4. OPTIONAL LENGTH MEASUREMENT
   a) IT IS PREFERABLE TO USE AN OLTS THAT IS CAPABLE OF MEASURING THE OPTICAL LENGTH OF THE FIBRE USING TIME–OF– FLIGHT TECHNIQUES.
   d) DISTANCE RANGE NOT LESS THAN 130,000 M @ 1550 NM.
   e) DYNAMIC RANGE AT LEAST 30 DB AT 1310 NM AND 1550 NM
8. ACCEPTABLE MANUFACTURERS
   a) FLUKE NETWORKS

D. FIBRE MICROSCOPE

1. VIEW OF FIELD MIN. 320 X 320 MM. MINIMUM DETECTABLE PARTICLE SIZE 0.5 MM
2. ACCEPTABLE MANUFACTURERS
   a) FLUKE NETWORKS
3. OPTIONAL REQUIREMENTS
   a) VIDEO CAMERA SYSTEMS ARE PREFERRED.
   b) CAMERA PROBE TIPS THAT PERMIT INSPECTION THROUGH ADAPTERS ARE PREFERRED.
   c) USE TEST EQUIPMENT CAPABLE OF SAVING AND REPORTING THE END FACE IMAGE.

E. INTEGRATED OLTS, OTDR AND FIBRE MICROSCOPE

1. TEST EQUIPMENT THAT COMBINES INTO ONE INSTRUMENT AN OLTS, AN OTDR AND A FIBRE MICROSCOPE MAY BE USED.
2. ACCEPTABLE MANUFACTURERS
   a) FLUKE NETWORKS

F. LABELS

1. SHALL MEET THE LEGIBILITY, DEFACEMENT, EXPOSURE AND ADHESION REQUIREMENTS OF UL 969.
2. SHALL BE PREPRINTED USING A MECHANICAL MEANS OF PRINTING (E.G., LASER PRINTER).
3. WHERE USED FOR CABLE MARKING, PROVIDE VINYL SUBSTRATE WITH A WHITE PRINTING AREA AND A CLEAR "TAIL" THAT SELF LAMINATES THE PRINTED AREA WHEN WRAPPED AROUND THE CABLE. IF CABLE JACKET IS WHITE, PROVIDE CABLE LABEL WITH PRINTING AREA THAT IS ANY OTHER COLOUR THAN WHITE, PREFERA–
   1. C. OPTICAL TIME DOMAIN REFLECTOMETER (OTDR)
1. SHALL HAVE A BRIGHT, COLOUR TRANSMISSIVE LCD DISPLAY WITH BACK–LIGHT.
2. SHALL HAVE RECHARGEABLE LI–ION BATTERY FOR 8 HOURS OF NORMAL OPERATION.
3. WEIGHT WITH BATTERY AND MODULE OF NOT MORE THAN 4.5 LB AND VOLUME OF NOT MORE 200 IN³.
4. INTERNAL NON–VOLATILE MEMORY FOR RESULTS STORAGE.
5. USB PORTS TO TRANSFER DATA TO A PC OR INTERNET CONNECTIVITY TO TRANSFER RESULTS TO A CLOUD STORAGE
6. MULTIMODE OTDR
   a) WAVELENGTHS OF 850 NM (±20 NM) AND 1300 NM (±20 NM).
   b) EVENT DEAD ZONES OF 1.0 M MAXIMUM AT 850 NM AND 1300 NM.
   c) ATTENUATION DEAD ZONES OF 2.5 M MAXIMUM AT BLY ORANGE OR YELLOW – SO THAT THE LABELS ARE EASILY DISTINGUISHABLE.
7. WHERE INSERT TYPE LABELS ARE USED PROVIDE CLEAR PLASTIC COVER OVER LABEL.
8. PROVIDE PLASTIC WARNING TAPE 6 INCHES WIDE CONTINUOUSLY PRINTED AND BRIGHT COLOURED 18" ABOVE ALL DIRECT BURIED SERVICES, UNDERGROUND CONDUITS AND DUCT–BANKS.
9. ACCEPTABLE MANUFACTURERS:
   a) PANDUIT
   b) SILVER FOX
   c) W.H. BRADY
   d) D–TOOLS
   e) BROTHERS
   a) 850 NM AND 4.5 M MAXIMUM AT 1300 NM.
   d) DISTANCE RANGE NOT LESS THAN 9,000 M.
   e) DYNAMIC RANGE AT LEAST 28 DB AT 850 NM AND 30 DB AT 1300 NM.
7. SINGLEMODE OTDR
   a) WAVELENGTHS OF 1310 NM (±20 NM) AND 1550 NM (±20 NM).
   b) EVENT DEAD ZONES OF 1 M MAXIMUM AT 1310 NM AND 1550 NM.
   c) ATTENUATION DEAD ZONES OF 3.6 M MAXIMUM AT 1310 NM AND 3.7 M MAXIMUM AT 1550 NM.

2.2 ADMINISTRATION

A. ADMINISTRATION OF THE DOCUMENTATION SHALL INCLUDE TEST RESULTS OF EACH FIBRE LINK AND CHANNEL.

B. THE TEST RESULT INFORMATION FOR EACH LINK SHALL BE RECORDED IN THE MEMORY OF THE FIELD–TEST INSTRUMENT UPON COMPLETION OF THE TEST.

C. THE TEST RESULT RECORDS SAVED WITHIN THE FIELD–TEST INSTRUMENT SHALL BE TRANSFERRED INTO A WINDOWS™–BASED DATABASE UTILITY THAT ALLOWS FOR THE MAINTENANCE, INSPECTION AND ARCHIVING OF THESE TEST RECORDS. ALTERNATIVELY THE RESULT RECORDS MAYBE UPLOADED TO A CLOUD SERVICE FOR INTERMEDIATE ACCESS.

PART 3 – EXECUTION

3.1 GENERAL

A. ALL TESTS PERFORMED ON OPTICAL FIBRE CABLING THAT USE A LASER OR LED IN A TEST SET SHALL BE CARRIED OUT WITH SAFETY PRECAUTIONS IN ACCORDANCE WITH ANSI Z136.2.

B. ALL OUTLETS, CABLES, PATCH PANELS AND ASSOCIATED COMPONENTS SHALL BE FULLY ASSEMBLED AND LABELLED PRIOR TO FIELD–TESTING. ANY TESTING PERFORMED ON INCOMPLETE SYSTEMS SHALL BE REDONE ON COMPLETION OF THE WORK.

3.2 OPTICAL FIBRE CABLE TESTING

A. FIELD–TEST INSTRUMENTS SHALL HAVE THE LATEST SOFTWARE AND FIRMWARE INSTALLED.

B. LINK AND CHANNEL TEST RESULTS FROM THE OLTS AND OTDR SHALL BE RECORDED IN THE TEST INSTRUMENT UPON COMPLETION OF EACH TEST FOR SUBSEQUENT UPLOADING TO A PC OR CLOUD ACCOUNT IN WHICH THE ADMINISTRATIVE DOCUMENTATION (REPORTS) MAY BE GENERATED.

C. FIBRE END FACES SHALL BE INSPECTED WITH A MINIMUM VIEW OF FIELD OF 320 X 320 MM AND MINIMUM DETECTABLE PARTICLE SIZE 0.5 MM. THIS IS SUITABLE FOR INSPECTING MULTIMODE AND SINGLEMODE FIBRES. SCRATCHED, PITTED OR DIRTY CONNECTORS SHALL BE DIAGNOSED AND CORRECTED.

1. END FACES SHALL BE INSPECTED FOR COMPLIANCE WITH IEC 61300–3–35 ED.1
2. IT IS PREFERABLE THAT THE END FACE IMAGES BE RECORDED IN THE MEMORY OF THE TEST INSTRUMENT FOR SUBSEQUENT UP LOADING TO A PC AND REPORTING.

D. TESTING SHALL BE PERFORMED ON EACH CABLING SEGMENT (CONNECTOR TO CONNECTOR).

E. TESTING SHALL BE PERFORMED ON EACH CABLING CHANNEL (EQUIPMENT TO EQUIPMENT) THAT IS PLANNED FOR USE PER THE OWNER'S INSTRUCTIONS.

F. TESTING OF THE CABLING SHALL BE PERFORMED USING HIGH–QUALITY TEST CORDS OF THE SAME FIBRE TYPE AS THE CABLING UNDER TEST. THE TEST CORDS FOR OLTS TESTING SHALL BE BETWEEN 1 M AND 5 M IN LENGTH. THE TEST CORDS FOR OTDR TESTING SHALL BE APPROXIMATELY 100 M FOR THE LAUNCH CABLE AND AT LEAST 25 M FOR THE RECEIVE CABLE.

G. OPTICAL LOSS TESTING

1. HORIZONTAL/BACKBONE LINK
   a) MULTIMODE LINKS SHALL BE TESTED AT 850 NM AND 1300 NM IN ACCORDANCE WITH ISO/IEC 14763–3 ONE JUMPER REFERENCE METHOD
   b) SINGLEMODE BACKBONE LINKS SHALL BE TESTED AT 1310 NM AND 1550 NM IN ACCORDANCE WITH ISO/IEC 14763–3 ONE JUMPER REFERENCE METHOD
   c) LINK ATTENUATION DOES NOT INCLUDE ANY ACTIVE DEVICES OR PASSIVE DEVICES OTHER THAN CABLE, CONNECTORS, AND SPLICES, I.E. LINK ATTENUATION DOES NOT INCLUDE SUCH DEVICES AS OPTICAL BYPASS SWITCHES, COUPLERS, REPEATERS, OR OPTICAL AMPLIFIERS.

H. OTDR TESTING

1. FIBRE LINKS SHALL BE TESTED AT THE APPROPRIATE OPERATING WAVELENGTHS FOR ANOMALIES AND TO ENSURE UNIFORMITY OF CABLE ATTENUATION AND CONNECTOR INSERTION LOSS.
   a) MULTIMODE: 850 NM AND 1300 NM
   b) SINGLEMODE: 1310 NM AND 1550 NM
2. EACH FIBRE LINK AND CHANNEL SHALL BE TESTED IN BOTH DIRECTIONS. THE CALCULATED BI–DIRECTIONAL AVERAGE FOR EACH CONNECTOR OR SPLICE LOSS SHALL BE USED TO PASS OR FAIL THE LINK.
3. A LAUNCH FIBRE SHALL BE INSTALLED BETWEEN THE OTDR AND THE FIRST LINK CONNECTION.
4. A TAIL FIBRE SHALL BE INSTALLED AFTER THE LAST LINK CONNECTION
5. WHEN TESTING FROM THE OPPOSITE DIRECTION (END2) THE FIBRE WHICH FUNCTIONED AS A TAIL FIBRE WHEN TESTING FROM (END1) WILL NO FUNCTION AS A LAUNCH FIBRE.
6. IT IS RECOMMENDED FOR IMPROVED EFFICIENCY AND IN ORDER TO REDUCE THE NUMBER OF MATINGS BETWEEN LAUNCH/TAIL–FIBRES AND THE LINK UNDER TEST THAT, TO USE A LOOP FIBRE WITH LENGTH SIMILAR TO LAUNCH/FAIL–FIBRE TO TEST THE A AND B FIBRE OF A DUPLEX LINK AT THE SAME TIME
   a) PHASE 1: CONFIGURATION [OTDR] > [L/T–FIBRE#1] > [FIBRE A] > [LOOP–FIBRE] > [FIBRE B] > [L/T–FIBRE#2]
   b) PHASE 2: CONFIGURATION [OTDR] > [L/T–FIBRE#2] > [FIBRE B] > [LOOP–FIBRE] > [FIBRE A] > [L/T–FIBRE#1]
   c) TEST RESULTS: THE RESULTS STORED SHALL INCLUDE ALL THE DETAILS AS IF THE FOLLOWING FOUR INDIVIDUAL TEST WERE PERFORMED
      1) FROM END 1: FIBRE A
      2) FROM END 2: FIBRE A
      3) FROM END 1: FIBRE B
      4) FROM END 2: FIBRE B
   d) FROM THE ABOVE FOUR RESULTS THE BI–DIRECTIONAL AVERAGES FOR ALL CONNECTORS IN FIBRE A AND B ARE CALCULATED. THESE RESULTS ARE USED TO PASS OR FAIL THE LINK

I. MAGNIFIED END FACE INSPECTION

1. FIBRE END FACES SHALL BE INSPECTED WITH A MINIMUM VIEW OF FIELD OF 320 X 320 MM AND MINIMUM DETECTABLE PARTICLE SIZE 0.5 MM. THIS IS SUITABLE FOR INSPECTING MULTIMODE AND SINGLEMODE FIBRES.

J. LENGTH MEASUREMENT

1. THE LENGTH OF EACH FIBRE SHALL BE RECORDED.
2. IT IS PREFERABLE THAT THE OPTICAL LENGTH BE MEASURED USING AN OLTS OR OTDR.

K. POLARITY TESTING

1. PAIRED DUPLEX FIBRES IN MULTI–FIBRE CABLES SHALL BE TESTED TO VERIFY POLARITY IN ACCORDANCE WITH ISO/IEC 14763–3 PART 11.2 THE POLARITY OF THE PAIRED DUPLEX FIBRES SHALL BE VERIFIED USING AN OLTS.

3.3 IDENTIFICATION

A. LABELLING

1. LABELLING SHALL CONFORM TO THE REQUIREMENTS SPECIFIED WITHIN ANSI/TIA–606–B OR TO THE REQUIREMENTS SPECIFIED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

3.4 ADMINISTRATION

A. TEST RESULTS DOCUMENTATION

1. TEST RESULTS SAVED WITHIN THE FIELD–TEST INSTRUMENT SHALL BE TRANSFERRED INTO A WINDOWS™–BASED DATABASE UTILITY THAT ALLOWS FOR THE MAINTENANCE, INSPECTION AND ARCHIVING OF THE TEST RECORDS. THESE TEST RECORDS SHALL BE UPLOADED TO THE PC UNALTERED, I.E., "AS SAVED IN THE FIELD–TEST INSTRUMENT". THE FILE FORMAT, CSV (COMMA SEPARATED VALUE), DOES NOT PROVIDE ADEQUATE PROTECTION OF THESE RECORDS AND SHALL NOT BE USED.
2. THE TEST RESULTS DOCUMENTATION SHALL BE AVAILABLE FOR INSPECTION BY THE OWNER OR THE OWNER'S REPRESENTATIVE DURING THE INSTALLATION PERIOD AND SHALL BE PASSED TO THE OWNER'S REPRESENTATIVE WITHIN 5 WORKING DAYS OF COMPLETION OF TESTS ON CABLING SERVED BY A TELECOMMUNICATIONS ROOM OR OF BACKBONE CABLING.
   THE INSTALLER SHALL RETAIN A COPY TO AID PREPARATION OF AS BUILT INFORMATION.
3. THE DATABASE FOR THE COMPLETE PROJECT, INCLUDING TWISTED–PAIR COPPER CABLING LINKS, IF APPLICABLE, SHALL BE STORED AND DELIVERED ON CD–ROM/DVD PRIOR TO OWNER ACCEPTANCE OF THE BUILDING. THIS CD–ROM/DVD SHALL INCLUDE THE SOFTWARE TOOLS REQUIRED TO VIEW, INSPECT, AND ARCHIVE ANY SELECTION OF THE TEST REPORTS.
4. CIRCUIT IDS REPORTED BY THE TEST INSTRUMENT SHOULD MATCH THE SPECIFIED LABEL ID (SEE 3.3 OF THIS SECTION).
5. THE DETAILED TEST RESULTS DOCUMENTATION DATA IS TO BE PROVIDED IN AN ELECTRONIC DATABASE FOR EACH TESTED OPTICAL FIBRE AND SHALL CONTAIN THE FOLLOWING INFORMATION
   a) THE IDENTIFICATION OF THE CUSTOMER SITE AS SPECIFIED BY THE END–USER
   b) THE NAME OF THE TEST LIMIT SELECTED TO EXECUTE THE STORED TEST RESULTS
   c) THE NAME OF THE PERSONNEL PERFORMING THE TEST
   d) THE DATE AND TIME THE TEST RESULTS WERE SAVED IN THE MEMORY OF THE TESTER
   e) THE MANUFACTURER, MODEL AND SERIAL NUMBER OF THE FIELD–TEST INSTRUMENT
   f) THE VERSION OF THE TEST SOFTWARE AND THE VERSION OF THE TEST LIMIT DATABASE HELD WITHIN THE TEST INSTRUMENT
   g) THE FIBRE IDENTIFICATION NUMBER
   h) THE LENGTH FOR EACH OPTICAL FIBRE
      1) THE INDEX OF REFRACTION USED FOR LENGTH CALCULATION WHEN USING A LENGTH CAPABLE OLTS
   i) TEST RESULTS TO INCLUDE OLTS ATTENUATION LINK AND CHANNEL MEASUREMENTS AT THE APPROPRIATE WAVE LENGTH(S) AND THE MARGIN (DIFFERENCE BETWEEN THE MEASURED ATTENUATION AND THE TEST LIMIT VALUE).
   j) TEST RESULTS TO INCLUDE OTDR LINK AND CHANNEL TRACES AND EVENT TABLES AT THE APPROPRIATE WAVELENGTH(S).
   k) THE LENGTH FOR EACH OPTICAL FIBRE AS CALCULATED BY THE OTDR.
   l) THE OVERALL PASS/FAIL EVALUATION OF THE LINK–UNDER–TEST FOR OLTS AND OTDR MEASUREMENTS
   m) OPTIONAL
      1) A PICTURE OR IMAGE OF EACH FIBRE END–FACE
      2) A PASS/FAIL STATUS OF THE END–FACE BASED UPON IEC 61300–3–35.

B. RECORD COPY AND AS–BUILT DRAWINGS

1. PROVIDE RECORD COPY DRAWINGS PERIODICALLY
   THROUGHOUT THE PROJECT AS REQUESTED BY THE CONSTRUCTION MANAGER OR OWNER, AND AT END OF THE PROJECT ON CD–ROM/DVD. RECORD COPY DRAWINGS AT THE END OF THE PROJECT SHALL BE IN CAD FORMAT AND INCLUDE NOTATIONS REFLECTING THE AS BUILT CONDITIONS OF ANY ADDITIONS TO OR VARIATION FROM THE DRAWINGS PROVIDED SUCH AS, BUT NOT LIMITED TO CABLE PATHS AND TERMINATION POINT. CAD DRAWINGS ARE TO INCORPORATE TEST DATA IMPORTED FROM THE TEST INSTRUMENTS.
2. THE AS BUILT DRAWINGS SHALL INCLUDE, BUT ARE NOT LIMITED TO BLOCK DIAGRAMS, FRAME AND CABLE LABELLING, CABLE TERMINATION POINTS, EQUIPMENT ROOM LAYOUTS AND FRAME INSTALLATION DETAILS. THE AS BUILDS SHALL INCLUDE ALL FIELD CHANGES MADE UP TO CONSTRUCTION COMPLETION:
   a) FIELD DIRECTED CHANGES TO PULL SCHEDULE.
   b) FIELD DIRECTED CHANGES TO CROSS CONNECT AND PATCHING SCHEDULE.
   c) HORIZONTAL CABLE ROUTING CHANGES.
   d) BACKBONE CABLE ROUTING OR LOCATION CHANGES.
   e) ASSOCIATED DETAIL DRAWINGS.

Legacy Designs, Inc.
6116 Mulford Village Drive
ROCKFORD, ILLINOIS 61107
Professional Design Firm No. 184–003483
815–484–4708 Phone 815–484–4710 Fax
e–mail legacy@legacydesigns.net
web site www.legacydesigns.net

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

New Electronic Messaging Board Ground Signs at Seven Schools
- Fairview Early Childhood Center - 512 Fairview Avenue
- Froberg Elementary School - 4555 20th Street
- Haskell - STEAM Academy - 515 Maple Street
- Hillman Elementary School - 3701 Greendale Drive
- Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
- Marsh - Montessori Program - 2021 Hawthorne Drive
- Nashold Early Childhood Center - 3303 20th Street

ROCKFORD PUBLIC SCHOOLS
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

REVISIONS:

DRAWN BY:

DATE:

PROJECT NUMBER 1966

SHEET NAME:
ELECTRICAL SPECIFICATIONS

SHEET NUMBER:
ES8.0

JAY THAKKAR
062-057756
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
EXP: 11-30-23
23-2422

ELECTRICAL SPECIFICATIONS:

1.01. WORK INCLUDES

A. Raceways.
B. Wires and cables.

D. Supporting devices.

1.02. REGULATORY REQUIREMENTS

A. National Electrical Code, NEC (2014)
1. Comply with NEC/NFPA No. 70, for construction and installation of basic materials.
2. NEC 300–21: Wiring Methods; Spread of Fire or Products of Combustion.
3. Building code for the city of Rockford, Illinois
B. Underwriter's Laboratories, UL:
1. All basic materials listed and labeled by UL.

1.03. REFERENCED

A. American National Standards Institute, ANSI:
1. C80.3: Specification for Electrical Metallic Tubing, Zinc Coated.
B. National Electrical Manufacturer's Association, NEMA:
1. Enclosures: Publication 250.
a. Type 1: Indoor use, atmospheric conditions normal.
C. Underwriter's Laboratories, UL

1.04. SUBMITTALS

A. Shop Drawings:
1. Submit drawings for:
a. Lighting fixtures.
b. Electrical Panel.
c. Receptacles.

1.05. PROJECT RECORD DOCUMENTS

A. Accurately record on mylar sepia copy of actual locations and wiring methods and "As–built" record documents.
B. Submit for Architect's review.

1.06. DRAWINGS AND SPECIFICATIONS

A. With the exception of systems and equipment furnished by Owner, it is intended that work covered by Specifications and Drawings includes systems complete and operative, irrespective of whether or not every item is specifically shown on plans and/or specified. Any omission of direct reference herein to any essential item shall not excuse contractor from complying with above intent.
B. In case of error or inconsistency, between Specifications and Drawings or within either document itself the item or arrangement of better quality, greater quantity or highest cost shall take precedence over drawings as directed by Owner. Figured dimensions supersede scaled dimensions. Contractor shall take no advantage of, and shall promptly call Owner's attention to any error, omission or inconsistency in Specifications and Drawings prior to submitting

C. Material shall be new. Seconds or damaged materials will be rejected by Owner, who reserves the right to disapprove and reject any materials, proposed or installed which, in their opinion, fail to meet quality standards specified. Contractor shall, at his expense, remove any rejected materials and replace with approved materials.

2. PRODUCTS

2.01. RACEWAYS

A. Conduit Materials, Components:
1. Conduit:
a. Electrical Metallic Tubing: ANSI C80.3.
2. Couplings:
a. EMT Conduit: Set screw.

2.02. WIRES AND CABLES

A. Building Wiring: 98% conductivity copper, 600 volt insulation, THWN or THHN.
B. Branch Circuit Wiring: Conductors smaller than #12 AWG not permitted.
C. Provide permanent plastic name tag indicating load fed.

2.03. WIRING SYSTEM IDENTIFICATION

A. Wire Insulation Color:

120/208 v., 3 phase, 4 wire

1. Phase A Black
2. Phase B Red
3. Phase C Blue
4. Neutral White
5. Ground Green

2.04. BOXES

A. Outlet Boxes: Hot dipped galvanized, 1.25 oz./sq. ft. or cadmium plated.
1. Interior Boxes: Pressed sheet steel, with knockouts for conduit; attached lugs for locating.
2. Ceiling Boxes: 4 inch octagon boxes for 1 fixture; including fixture studs and maximum 2 connecting conduits.
3. Flush Mounted in Walls:
a. Boxes with matching plaster cover for single or two gang outlets.
b. Two gang box or larger for conductors, conductor joints, conduit terminations and wiring devices.
B. Pull Boxes and Junction Boxes: NEC metal construction; with screw–on or hinged cover.
1. Flush Mounted Pull Boxes: Overlapping covers with flush–head cover retaining screws; prime coated.

2.05. SUPPORTING DEVICES

A. Conduit Supports:
1. Single Runs: Galvanized conduit straps or ring bolt type hangers with specialty spring clips.
2. Vertical Runs: Channel support with conduit fittings.
B. Anchors
1. Hollow Masonry: Toggle bolts or spider type expansion anchors.
2. Solid Masonry: Lead expansion anchors or preset inserts
3. Metal Surfaces: Machine screws, bolts, or welded studs.
4. Wood Surfaces: Wood screws.
5. Concrete Surfaces: Self–drilling anchors or power–driven studs.

2.06. FIRE AND SMOKE PENETRATION SEALANT

A. NEC 300–21; UL rated flexible sealant.

2.07. CORROSION PREVENTION
A. Protect all metallic materials against corrosion.
1. All equipment enclosures given rust–inhibiting treatment and standard finish by manufacturer.
2. Ferrous Metal Parts: Hot dip galvanized, ASTM A123 or ASTM A153.
a. Includes anchors, bolts, braces, boxes, bodies, clamps, fittings, guards, nuts, pins, rods, shims, thimbles, washers, and miscellaneous parts; other than stainless steel or non–ferrous materials.
B. Isolation of Dissimilar Metals: Separate dissimilar metals with NEC approved material.

2.09. LUMINAIRES

A. Manufacturer: See lighting fixture schedule on floor plans.

2.10. EXIT SIGNS

A. Manufacturers: See lighting fixture schedule on floor plans.

3. EXECUTION

3.01. INSTALLATION

A. Drawings are diagrammatic and are intended to convey scope of work and indicate general arrangement of conduit, boxes, equipment, fixtures and other work included in contract.

3.02. RACEWAYS

A. Locations:
1. Above–Grade Interior Locations: Electrical metallic tubing.
2. Install liquid–tight flexible conduit where subjected to one or more of the following conditions.
a. Moist or humid atmosphere where condensate can be expected or accumulate.
b. Corrosive atmosphere.
c. Subjected to water spray.
d. Subjected to dripping oil, grease, or water.
3. Size raceways in accordance with NEC for TW wire regardless of wire type used.

B. Installation of Conduit:
1. Install conduit and tubing products indicated, in accordance with manufacturer's written instructions and requirements of NEC and NECA, Standard of Installation.
2. Conceal conduit in all areas excluding mechanical, electrical and other unfinished rooms, connections to motors, and connections to surface cabinets.
3. Attach conduit with clamps.
4. Coordinate installation of conduit in partition work.
5. Install conduit free from dents and bruises.
6. Plug conduit ends to prevent entry of dirt or moisture.
7. Clean out conduit before installation of conductor(s).
8. Alter conduit routing to avoid structural obstructions, minimize cross–overs; and where possible, install raceways above water and steam piping.
9. Allow minimum 6 inch clearance at flues, steam pipes, and heat sources.
10. Route all exposed conduits parallel or perpendicular to building lines.
11. Fire rated walls, partitions, floors, ceiling penetrations: Sealed in accordance with NEC 300–21.
a. Flexible conduit sufficient length to avoid vibration transmission.
12. Building Expansion Joints: Install UL listed expansion fittings complete with grounding jumpers where conduits cross building expansion joints.
a. Provide bends or offsets in conduit adjacent to building expansion joints where conduit is installed above suspended ceiling.

3.03. RACEWAY SYSTEM IDENTIFICATION

A. Identify all exposed conduits and boxes as follows:

1. Boxes, on face of coverplate.

a. Power – Show panel, voltage and circuit number, painted stenciled letters. (Black letters, yellow background).
b. Systems – Indicate system, such as sound, clock, telephone, etc., (black letters, yellow background).

B. Identify all conduit and boxes above accessible ceilings.

1. Follow steps A.1. above.

C. Lettering to be as large as possible for each conduit size.

3.04. WIRE AND CABLES

A. Installation:
1. Make conductor length for parallel feeders identical.
2. Lace or clip groups of feeder conductors at distribution center, pull boxes and wireways.
3. Conductor size indicated on drawings indicates ampacity requirements using copper conductors.

3.05. BOXES

A. Installation:
1. Provide knockout closures to cap unused knockout holes where blanks have been removed.
2. Support all boxes independently of conduit.
3. Outlet Boxes:
a. Flush mount outlet boxes in areas other than mechanical rooms, electrical rooms, and above removable ceilings.
b. Masonry Walls:
1) Adjust position of outlets in finished masonry walls to suit masonry course lines.
2) Coordinate cutting of masonry walls to achieve neat openings for boxes.
3) Locate boxes in masonry walls so that only corner need be cut from masonry units.
c. Do not use sectional boxes unless approved by Architect/Engineer.
d. Adjust outlet mounting height to grade with specified location for equipment served.
4. Pull Boxes and Junction Boxes: Locate pull boxes and junction boxes above removable ceilings or in electrical rooms, utility rooms, or storage areas.

3.06. SUPPORTING DEVICES

A. Installation:
1. Maintain headroom, neat mechanical appearance, and support equipment loads specified.

AUTOMATIC TRANSFER SWITCH
PART 1 GENERAL

1.1 SUMMARY
A This section includes the following items from a single supplier:
1. Automatic transfer switch
2.Related Accessories as specified

B Products Furnished or Supplied but not Installed
C Products Installed but not furnished or supplied
D Related Requirements
1. It is the intent of this specification to secure an automatic transfer switch that has been prototype tested, factory built, production–tested, and site–tested together with all accessories necessary for a complete installation as shown on the plans and drawings and specified herein.
2.Any exceptions to the published specifications shall be subject to the approval of the engineer and submitted minimum 10 days prior to the closing of the bid with a line by line summary description of all the items of compliance, any items that have been are omitted or have been taken exception to, and a complete description of all deviations.
3.It is the intent of this specification to secure an automatic transfer switch that has been tested during design verification, in production, and at the final job site. The automatic transfer switch will be a commercial design and will be complete with all of the necessary accessories for complete installation as shown on the plans, drawings, and specifications herein. The equipment supplied shall meet the requirements of the National Electrical Code and applicable local codes and regulations.
4.All equipment shall be new and of current production by an international, power system manufacturer of generators, transfer switches, and paralleling switchgear. The manufacturer shall be a supplier of a complete and coordinated system. There will be single–source responsibility for warranty, parts, and service through a factory–authorized representative with factory–trained technicians.

1.2 PRICE AND PAYMENT PROCEDURES
A Allowances
B Unit Prices
C Alternates or Alternatives
D Measurement and Payment

1.3 REFERENCES
A Abbreviations and Acronyms
B Definitions
C Reference Standards

1.4 ADMINISTRATIVE REQUIREMENTS
A Coordination
B Pre–installation Meeting
C Sequencing
D Scheduling

1.5 SUBMITTALS
A Action Submittals
1. Product Data
a The submittal shall include specification sheets showing all standard and optional accessories to be supplied; schematic wiring diagrams, dimension drawings, and interconnection diagrams identifying by terminal number each required interconnection between the generator set, the transfer switch, and the remote annunciator panel if it is included elsewhere in these specifications.
2.Shop Drawings
3.Samples
B Informational Submittal
1. Certificates
2.Test and Evaluation Reports
3.Manufacturer's Instruction
4.Source Quality Control Submittals
5.Field or Site Quality Control
6.Manufacturer's Report
7.Special Procedure Submittal
8.Qualification Statement
C Closeout Submittals
1. Maintenance Contracts
2.Operation And Maintenance Data
3.Bonds
4.Warranty Documentation
5.Record Documentation
6.Software
D Maintenance Material Submittals
1. Literature
2.Spare Parts
3.Extra Stock Materials
4.Tools

1.6 Quality Assurance
A Regulatory Agency

1. The automatic transfer switch shall conform to the requirements of the following codes and standards:
a UL 1008 – Standard for Transfer Switch Equipment
b IEC 947–6–1 Low–voltage Switchgear and Control gear; Multifunction equipment; Automatic Transfer Switching EquipmentEN55011, Limits and Methods of Measurement of Radio Interference Characteristics of Industrial, Scientific and Medical Equipment.
c NFPA 70 – National Electrical Code
d NFPA 99 – Essential Electrical Systems for Health Care Facilities
e NFPA 110 – Emergency and Standby Power Systems
f IEEE Standard 446 – IEEE Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications
g NEMA Standard ICS 10–2005, Electromechanical AC Transfer Switch Equipment.
h EN61000–4–4 Fast Transient Immunity Severity Level 4
i EN61000–4–5 Surge Immunity Class 4 (voltage sensing and programmable
j IEEE 472 (ANSI C37.90A) Ring Wave Test
k IEC Specifications for EMI/EMC Immunity (CISPR 11, IEC 1000–4–2, IEC 1000–4–3, IEC 1000–4–4, IEC 1000–4–5, IEC 1000–4–6, IEC 1000–4–8, IEC
l CSA C22.2 No. 178 certification
a The automatic transfer switch shall be produced by a manufacturer who is ISO 9001 certified for the design, development, production and service of its complete product line.
b A manufacturer who has produced this type of equipment for a period of at least 10 years and who maintains a service organization available twenty–four hour a day throughout the year shall produce the automatic transfer switch.
a The automatic transfer switch shall be furnished by a single manufacturer who shall be responsible for the design, coordination, and testing of the complete system. The entire system shall be installed as shown on the plans, drawings, and specifications herein.
b The manufacturer shall maintain a national service organization of employing personnel located throughout the contiguous United States. The Service center's personnel must be factory trained and must be on call 24 hours a day, 365 days a year.
c The manufacturer shall maintain records of each switch, by serial number, for a minimum of 20 years.

1.7 Delivery, Storage, and Handling
A Delivery and Acceptance Requirements
B Storage and Handling Requirements
C Packaging Waste Management

1.8 Field or Site Conditions
A. Ambient Conditions
1. Automatic transfer switch shall operate in the following conditions without any damage to the unit or its loads.
a Ambient Temperature: –4 to 158 Degrees F
b Relative Humidity: 5% to 95% noncondensing
B Existing Conditions

1.9 Warranty or Bond
A Manufacturer's Warranty
1. The ATS shall include a standard warranty covering five (5) years to guarantee against defective material and workmanship in accordance with the manufacturer's published warranty from the date of initial startup. Labor and travel charges for the third through the fifth year of the warranty are not included.
2.The ATS manufacturer and its distributor shall maintain a 24–hour parts and service organization. This organization shall regularly engage in maintenance contract programs to perform preventive maintenance and service on equipment similar to that specified. A service agreement shall be available and shall include system operation under simulated operating conditions; adjustment to the generator set, transfer switch, and switchgear controls as required, and certification in the owner's maintenance log of repairs made and functional tests performed on all systems.
B Special Warranty
C Extended Correction Period

PART 2 PRODUCTS

2.1 Owner–Furnished or Owner–Supplied
A New Products
B Existing Products

2.2 Equipment
A. Equipment
1. Furnish and install an automatic transfer switches system(s) with 3–Pole / 4–Wire, Solid Neutral, 400 Amps, 208V/60Hz. Each automatic transfer shall consist of an inherently double throw power transfer switch mechanism and a microprocessor controller to provide automatic operation. All transfer switches and controllers shall be the products of the same manufacturer.
B. Manufacturer
1. Automatic transfer switches shall be Kohler Service Entrance Rated – Programmed Transition (KEP)/KEP–DCTA–0400SNN. Any alternate shall be submitted for approval to the consulting engineer at least 10 days prior to bid date. Alternate bids shall include a line–by–line clarification of the specification marked with "D" for deviation; "E" for exception, and "C" for comply.
C. Construction
D Enclosure
1. The ATS shall be furnished in a NEMA 1 enclosure.
2.All standard door mounted switches and indicating LEDs shall be integrated into a flush–mounted, interface membrane or equivalent in the enclosure door for easy viewing & replacement. The panel shall be capable of having a manual locking feature to allow the user to lockout all membrane mounted control switches to prevent unauthorized tampering. This cover shall be mounted with hinges and have a latch that may be padlocked. The membrane panel shall be suitable for mounting by others when furnished on open type units.

2.3 Description
A. Regulatory Requirements
B. Sustainability Characteristics

2.4 Performance / Design Criteria
A. Capacities

2.5 Operation
A. Operators
B. Controls
1. A four line, 20 character LCD display and dynamic 4 button keypad shall be an integral part of the controller for viewing all available data and setting desired operational parameters. Operational parameters shall also be available for viewing and control through the communications interface port or USB. The following parameters shall only be adjustable via a password protected programming on the controller:
a Nominal line voltage and frequency
b Single or three phase sensing
c Operating parameter protection
d Transfer operating mode configuration (Standard transition, Programmed transition, or Closed transition)
C Voltage and Frequency
1. Voltage (all phases) and frequency on both the normal and emergency sources shall be continuously monitored, with the following pickup, dropout, and trip setting capabilities (values shown as % of nominal unless otherwise specified):

	Parameter	Dropout/Trip	Pickup/Reset
a	Parameter	Dropout/Trip	Pickup/Reset
b	Under voltage	75 to 98%	85 to 100%
c	Over voltage	106 to 135%	95 to 100% of trip
d	Under frequency	95 to 99%	80 to 95%
e	Over frequency	01 to 115%	105 to 120%
f	Voltage unbalance	5 to 20%	3 to 18%

2.Repetitive accuracy of all settings shall be within ± 0.5% over an operating temperature range of –20°C to 70°C.
3.An adjustable dropout time for transient voltage and frequency excursions shall be provided. The time delays shall be 0.1 to 9.9 seconds for voltage and .1 to 15 seconds for frequency.
4.Voltage and frequency settings shall be field adjustable in 1% increments either locally with the display and keypad, remotely via the communications interface port or USB.
5.The controller shall be capable of sensing the phase rotation of both the normal and emergency sources. The source shall be considered unacceptable if the phase rotation is not the preferred rotation selected (ABC or BAC). Unacceptable phase rotation shall be indicated on the LCD; the service required LED and the annunciation through the communication protocol and dry contacts. In addition, the phase rotation sensing shall be capable of being disabled, if required.
6.The controller shall be capable of detecting a single phasing condition of a source, even though a voltage may be regenerated by the load. This condition is a loss of phase and shall be considered a failed source.
7.Source status screens shall be provided for both normal & emergency to provide digital readout of voltage on all 3 phases (phase to phase and phase to neutral), frequency, and phase rotation.
D Time Delays
E Additional Features
F Operation Sequence

2.6 Materials

2.7 Assembly or Fabrication
A. Factory Assembly
B Shop Fabrication
C Assembly or Fabrication Tolerances

2.8 Mixes

2.9 Finishes
A Primer Materials
B Finish Materials
C Shop Finishing Materials

2.10 Accessories

2.11 Source Quality Control
A Test and Inspection
1. Upon request, the manufacturer shall provide a notarized letter certifying compliance with all of the requirements of this specification including compliance with the above codes and standards. The certification shall identify, by serial number(s), the equipment involved. No exceptions to the specifications, other than those stipulated at the time of the submittal, shall be included in the certification.
2.The ATS manufacturer shall be certified to ISO 9001 International Quality Standard and the manufacturer shall have third party certification verifying quality assurance in design/development, production, installation and servicing in accordance with ISO 9001.
B Non–Conforming Work
C Manufacturer's Services
D Coordination of Other Tests and Inspections

PART 3 EXECUTION

3.1 Installers
A Installer List
B Substitution Limitations

3.2 Examination
A Verification of Conditions
B Pre–Installation Testing
C Evaluation and Assessment

3.3 Preparation
A Protection of In–place Condition
B Surface Preparation
C Demolition/ Removal

ELECTRICAL SYMBOLS

TYPICAL: ALL MOUNTING HEIGHTS ARE TO DEVICE CENTERLINE UNO

LIGHTING

RECESSED FLUORESCENT FIXTURE (SHADING INDICATES EMER.)
EXIT LIGHT WALL MOUNTED (SHADING INDICATES FACE)
BATTERY EMERGENCY FIXTURE
} SEE SPECIFICATION SHEET AND FIXTURE SCHEDULE

SWITCHES

SINGLE POLE SWITCH
3 THREE WAY SWITCH
} 4'–0" A.F.F. UNLESS NOTED OTHERWISE

RECEPTACLES

DUPLEX RECEPTACLE
DUPLEX RECEPTACLE, GROUND FAULT TYPE
} 18" AFF UNLESS NOTED OTHERWISE
COMBINATION FLUSH FLOOR DUPLEX RECEPTACLE AND TELEPHONE DATA OUTLET ("P" INDICATES PEDESTAL)

MISCELLANEOUS

MOTOR OUTLET BOX (* HP, KW OR KVA). VERIFY EXACT LOCATION AND HEIGHT OF ALL MOTORS BEFORE ROUGH–IN.
OUTLET WITH FINAL CONNECTIONS TO EQUIPMENT. WHICH IS FBO. VERIFY EXACT LOCATION AND HEIGHT BEFORE ROUGH–IN.
CEILING SURFACE JUNCTION BOX
SAFETY SWITCH (F = FUSED) 4'–6" AFF
T TRANSFORMER
SURFACE ELECTRICAL PANEL 36" AFF TO BOTTOM UNO
RECESSED ELECTRICAL PANEL 36" AFF TO BOTTOM UNO
WIRING IN CONDUIT CONCEALED, ABOVE CEILINGS OR IN WALLS
WIRING IN CONDUIT CONCEALED IN OR UNDER FLOORS (UNO)
} CHARACTER MARKS= NUMBER OF WIRES, IF NONE ARE SHOWN PROVIDE TWO EXCEPT IF A GROUND CONDUCTOR IS REQUIRED PROVIDE THREE
WIRING HOMERUN TO PANEL
GROUND CONDUCTOR
REFERENCE NOTE

TELEPHONE SYSTEM

T TELEPHONE CONDUIT CONCEALED ABOVE CEILINGS OR IN WALLS
T TELEPHONE CONDUIT CONCEALED IN OR UNDER FLOORS
WALL TELEPHONE OUTLET BOX 18" AFF "W" = 4'–6" AFF PROVIDE 1/2" EMPTY CONDUIT TO ABOVE ACCESSIBLE CEILING UNO

FIRE ALARM SYSTEM

NOTE: NUMBER BY SYMBOL INDICATES ZONE TO WHICH DEVICES ARE WIRED IN FIRE ALARM CONTROL PANEL. UNLESS NOTED OTHERWISE

F FIRE ALARM SYSTEM WIRING,IN CONDUIT,CONCEALED
–X–F– FIRE ALARM SYSTEM WIRING,IN CONDUIT,EXPOSED
F WALL FIRE ALARM MANUAL STATION – UP 4'–0" AFF
AF WALL FIRE ALARM AUDIO DEVICE ONLY – UP 6'–8" AFF
VF WALL FIRE ALARM VISUAL DEVICE ONLY – UP 6'–8" AFF
AVF WALL FIRE ALARM AUDIO/VISUAL DEVICE – UP 6'–8" AFF
AVF WALL FIRE ALARM MANUAL STATION & AUDIO/VISUAL DEVICE ALIGNED VERTICALLY
HF HEAT DETECTOR (135°) CEILING TYPE.
SF SMOKE DETECTOR – CEILING MOUNTED TYPE
DSDF SMOKE DETECTOR – DUCT MOUNTED TYPE
FIRE ALARM SYSTEM CONTROL PANEL
FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL
FSF SPRINKLER SYSTEM WATER FLOW SWITCH
TSF SPRINKLER SYSTEM TAMPER SWITCH
PIVF SPRINKLER SYSTEM POST INDICATOR VALVE

ELECTRICAL ABBREVIATIONS

AC	ABOVE COUNTER	MAG	MAGNETIC
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
AM	AMMETER	MDP	MAIN DISTRIBUTION PANEL
A	AMPERES	MFR	MANUFACTURER
ASC	ABOVE SUSPENDED CEILING	MIN	MINIMUM
C	CONDUIT	MTD	MOUNTED
℄	CENTER LINE	MTG	MOUNTING
DP	DISTRIBUTION PANEL	MH	METAL HALIDE
DISC	DISCONNECT	NEC	NATIONAL ELECTRICAL CODE
EC	ELECTRICAL CONTRACTOR	N?C	NOT IN CONTRACT
E	EMERGENCY	NL	NIGHT LIGHT
FBO	FURNISHED BY OTHER THAT ELECTRICAL CONTRACTOR. COMPLETELY WIRED, WITH FINAL CONNECTIONS TO EQUIPMENT AND DEVICES, BY ELECTRICAL CONTRACTOR.	PH	PHASE (?)
		PNL	PANEL
		SS	STAINLESS STEEL
		SW	SWITCH
FL	FLUORESCENT	SWBD	SWITCHBOARD
FLA	FULL LOAD AMPS	XFMR	TRANSFORMER
GFI	GROUND FAULT INTERRUPTER	TS	TIME SWITCH
HP	HORSEPOWER	TTB	TELEPHONE TERMINAL BOARD
HT	HEIGHT	UNO	UNLESS NOTED OTHERWISE
?BEC	?NSTALLED BY EC	V	VOLT
?NC	?NCANDESCENT	VM	VOLTMETER
?WS	?N WALL SPACE	W	WIRE
JB	JUNCTION BOX	WBEC	WIRED BY EC
KW	KILOWATTS	WP	WEATHERPROOF
LTG	LIGHTING		

JAY THAKKAR 062-057756 REGISTERED PROFESSIONAL ENGINEER STATE OF ILLINOIS 03-24-22 EXP 11-30-23

Legacy Designs, Inc.
6116 Mulford Village Drive
ROCKFORD, Illinois 61107
Phone 815–484–4710 Fax
815–484–4710 Phone/Fax
e–mail legacy@legacydesigns.net
web site www.legacydesigns.net

HAGNEY ARCHITECTS LLC
Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

ROCKFORD PUBLIC SCHOOLS
New Electronic Messaging Board Ground Signs at Seven Schools
• Fairview Early Childhood Center - 512 Fairview Avenue
• Froberg Elementary School - 4555 20th Street
• Haskell - STEAM Academy - 515 Maple Street
• Hillman Elementary School - 3701 Greendale Drive
• Marshall Campus for Elementary and Middle Schools - 4664 N. Rockton Avenue
• Marsh - Montessori Program - 2021 Hawthorne Drive
• Nashold Early Childhood Center - 3303 20th Street
ROCKFORD PUBLIC SCHOOLS DISTRICT 205
501 7th Street, Rockford, Illinois 61104

REVISIONS:

DRAWN BY:
DATE:
PROJECT NUMBER 1966
SHEET NAME:
ELECTRICAL SPECIFICATIONS & SYMBOLS
SHEET NUMBER:
ES9.0