ADDENDUM NO. 1

March 2, 2023

SCHOOL TOWN OF HIGHLAND G.O. BOND 2022 PROJECTS
Highland, IN 46322

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated February 13, 2023, by Schmidt Associates. Acknowledge receipt of the Addendum in the space provided on the Proposal Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 1-1 thorough ADD 1-3 and attached Addendum No. 1 from Schmidt Associates dated February 20, 2023 consisting of 2 pages, Specification Section 11 40 00.97 - Food Service Equipment, Revised Specification Section 32 31 13 - Chain Link Fences and Gates, and 15 Drawings.

A. SPECIFICATION SECTION 00 00 20 - TABLE OF CONTENTS

1. **Add:**

   Specification Section 11 40 00.97 - Food Service Equipment

2. **Delete:**

   Specification Section 26 56 13 - Lighting Poles and Standards

B. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

A. BID CATEGORY NO. 1 - GENERAL TRADES/SITEWORK

1. **Add:**

Specification Section 11 40 00.97 - Food Service Equipment (As Applicable)
Specification Section 11 40 00.98 - Food Service Equipment (As Applicable)
Specification Section 11 40 00.99 - Food Service Equipment (As Applicable)

Clarification No. 9:
Reference Specification Sections 114000.97, 114000.98 and 114000.99; **The Bid Category No. 1 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: GENERAL DIVISION". **The Bid Category No. 3 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: MECHANICAL DIVISION". **The Bid Category No. 4 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: ELECTRICAL DIVISION". All remaining work under this section is the responsibility of the **Bid Category No. 2 Contractor.**

Clarification No. 10:
Regarding any references to "GC" or "General Contractor" indicated on the Contract Documents, this work is the responsibility of the **Bid Category No. 1 Contractor**.

B. BID CATEGORY NO. 2 - KITCHEN EQUIPMENT

1. **Add:**

Specification Section 11 40 00.97 - Food Service Equipment (As Applicable)

Clarification No. 3:
Reference Specification Sections 114000.97, 114000.98 and 114000.99; **The Bid Category No. 1 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: GENERAL DIVISION". **The Bid Category No. 3 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: MECHANICAL DIVISION". **The Bid Category No. 4 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: ELECTRICAL DIVISION". All remaining work under this section is the responsibility of the **Bid Category No. 2 Contractor.**

2. **Revise:**

Specification Section 11 40 00.98 - Food Service Equipment (As Applicable)
Specification Section 11 40 00.99 - Food Service Equipment (As Applicable)

C. BID CATEGORY NO. 03 - MECHANICAL

1. **Add:**

Specification Section 11 40 00.97 - Food Service Equipment (As Applicable)
Specification Section 11 40 00.98 - Food Service Equipment (As Applicable)
Specification Section 11 40 00.99 - Food Service Equipment (As Applicable)

Clarification No. 6:
Reference Specification Sections 114000.97, 114000.98 and 114000.99; **The Bid Category No. 1 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: GENERAL DIVISION". **The Bid Category No. 3 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: MECHANICAL DIVISION". **The Bid Category No. 4 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: ELECTRICAL DIVISION". All remaining work under this section is the responsibility of the **Bid Category No. 2 Contractor.**

D. BID CATEGORY NO. 04 - ELECTRICAL

1. **Add:**

Specification Section 11 40 00.97 - Food Service Equipment (As Applicable)
Specification Section 11 40 00.98 - Food Service Equipment (As Applicable)
Specification Section 11 40 00.99 - Food Service Equipment (As Applicable)

Clarification No. 7:
Reference Specification Sections 114000.97, 114000.98 and 114000.99; **The Bid Category No. 1 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: GENERAL DIVISION". **The Bid Category No. 3 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: MECHANICAL DIVISION". **The Bid Category No. 4 Contractor** is responsible for all work required under "WORK BY OTHER TRADES: ELECTRICAL DIVISION". All remaining work under this section is the responsibility of the **Bid Category No. 2 Contractor.**

2. **Delete:**

Specification Section 26 56 13 - Lighting Poles and Standards

ADDENDUM NO. 1
FEBRUARY 20, 2023

PREPARED BY SCHMIDT ASSOCIATES FOR:
GO BOND 2022 PROJECTS
HIGHLAND, SCHOOL TOWN OF

This Addendum consists of 2 Addendum pages and 54 attachment pages totaling 56 pages.

Acknowledge receipt of this Addendum by inserting its number on the Bid Form. Failure to do so may subject the Bid to disqualification. This Addendum is part of the Contract Documents.

Bidder is encouraged to verify with reprographer of record all Addenda issued (do not rely exclusively on third party plan room services).

PART 1 - CHANGES TO PRIOR ADDENDA (NOT APPLICABLE)

PART 2 - CHANGES TO THE PROJECT MANUAL

Modifications described herein shall be incorporated in the Project Manual. All other Work shall remain unchanged.

2.1 DIVISION 11 – EQUIPMENT

A. **Section 114000.97 "FOOD SERVICE EQUIPMENT"**

1. ADD Section 114000.97 in its entirety.

2.2 DIVISION 26 – ELECTRICAL

A. **Section 265613 "LIGHTING POLES AND STANDARDS"**

1. DELETE Section 265613 in its entirety.

2.3 DIVISION 32 - EXTERIOR IMPROVEMENTS

A. **Section 323113 "CHAIN LINK FENCES AND GATES"**

1. DELETE AND REPLACE Section 323113 in its entirety.

PART 3 - CHANGES TO THE DRAWINGS

Modifications described herein shall be incorporated in the Drawings. All other Work shall remain un-changed.

3.1 DRAWING SHEETS: ADDITIONS, DELETIONS AND REPLACEMENTS

DRAWING NO.	INDICATE ACTION: ADD (A), DELETE (D), DELETE & REPLACE (R),
G-SERIES DRAWINGS	
G-000.0	DELETE AND REPLACE
C-SERIES DRAWINGS	
C-001.2	DELETE AND REPLACE
SV101.2	DELETE AND REPLACE
CD104.1	ADD
CL104.1	ADD
CG103.1	ADD
Q-SERIES DRAWINGS	
FS121.1	ADD
FS122.1	ADD
FS123.1	ADD
P-SERIES DRAWINGS	
P-001.1	ADD
P-101.1	ADD
E-SERIES DRAWINGS	
ES121.1	ADD
EP121.1	ADD
E-521.1	ADD
E-621.1	ADD

END OF ADDENDUM 1

AVAILABLE PROJECT INFORMATION

The following bidders' questions and answers sheet is being made available to bidders for informational purposes only and is not part of the Addendum.

The following Submittal Report - Expected is being made available to bidders for informational purposes only and is not part of the Addendum.

SECTION 11 40 00
FOOD SERVICE EQUIPMENT

PART 1 GENERAL REQUIREMENTS

1.01 RELATED DOCUMENTS

A. The provisions of the General Conditions, Supplementary Conditions, and all applicable provisions under Division 1 – General Requirements, are included as part of this Section as though bound herein.

1.02 SUMMARY OF WORK / WORK BY OTHER TRADES

A. Provide labor and materials required to deliver, uncrate, assemble, set in place, level, install, supervise, and coordinate the installation of the food service equipment and accessories as indicated on drawings and as specified, exclusive of utility connections.

B. Work referenced by other trades is not for assigning work to a specified trade, but rather to clarify the coordination between the KEC and all other trades. All assignments of work by other trades are to be directed by Division 1 of the written specifications.

C. Refer to Mechanical/Plumbing Divisions for applicable provisions and sections regarding mechanical services necessary to complete final connections to individual items as specified in this section. This work to include, but not be limited to, the following:

1. Rough-in all required services for all equipment specified and shown on drawings.
2. Furnish and install all drain line piping and components, supply line piping and components, traps, strainers, tailpieces, unions, vents, stops, valves and other related items necessary from rough-in location to equipment final connections.
3. Install all items provided loose by the KEC per specifications such as, but not limited to, faucets, pre-rinse assemblies, quick-disconnect assemblies, hose stations, pot fillers, vacuum breakers, solenoid valves, check valves, flow control valves and control panels.
4. Paint, or chrome sleeve, all exposed water and gas piping above counter height, or in a direct line of sight, as directed by the Architect.
5. Final mechanical and ventilating connections to equipment

D. Refer to Electrical Divisions for applicable provisions and sections regarding electrical services necessary to complete final connections to individual items as specified in this section. This work to include, but not be limited to, the following:

1. Rough-in all required services for all equipment specified and shown on drawings.
2. Furnish and install all disconnects, conduit, conductors, wire, cover plates, starters, cord sets and other related items necessary from rough-in location to equipment final connections.
3. Install all items provided loose by the KEC per specifications such as, but not limited to, control panels, starters and disconnects.
4. Furnish and install all control wiring and/or power wiring between electrical components as specified such as, but not limited to, exhaust/make-up air fans and the ventilation hood control panel, walk-in cooler/freezer coils and their respective compressors and the walk-in cooler/freezer lights.
5. Final electrical connections to equipment.

E. Work included in other Divisions – provision of all wall, floor, and/or ceiling/roof openings, recesses, sleeves, and/or conduits; and equipment pads, and sealing thereof, as necessary for installation of items included in this section.

F. Work included in other Divisions – disconnection of existing equipment to be relocated and/or reused; and removal of existing equipment which will not be reused, as determined and designated by the Architect in other divisions. (Applicable to project with existing equipment.)

G. Refer to itemized specifications for additional work and requirements

1.03 DEFINITIONS

A. The Consultant for this section of work is FOOD SERVICE CONSULTANTS, INC., DBA VORNDRAN AND ASSOCIATES, 3125 STERLING RIDGE COVE, FORT WAYNE, INDIANA 46825-1704. The Consultant is responsible to the Architect for ascertaining that the work complies with the requirements of this section.

B. Kitchen Equipment Contractor (KEC) – person, company or corporation who will contract for the completion of work specified in this section.

C. All questions, clarifications, comments, reports, submissions, and any other types of correspondence shall be directed to the Architect for distribution to the parties responsible.

D. Furnish – supply and deliver to project site, ready for unloading, unpacking, assembly, installation and similar operations.

E. Install (set in place) – operations at project site including actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, finishing, curing, protecting, cleaning and similar operations; ready for final utility connections by other divisions as appropriate.

F. Provide – furnish and install complete, ready for intended use.

1.04 BIDDING

A. This specification and the accompanying contract drawings must be considered together. Any work called for in one or on the other, together with such work as can reasonably be considered a part of the installation and necessary to complete same, shall be included.

B. KEC is responsible for verifying and coordinating all items provided in this section, with the drawings, specifications, manufacturer's requirements, submittals, actual site conditions, adjacent items, and associated (Sub-) Contractors; to assure that there are no discrepancies or conflicts. This is to include, but not be limited to, quantities, dimensions, clearances required, direction of operation, door swings, utilities, fabrication details and methods, installation requirements, etc.

C. The submitting of a bid shall constitute full evidence that the KEC has viewed and examined the site and all contract documents necessary pertaining to same and that the KEC is therefore, fully cognizant of the conditions under which the work must be conducted.

D. Where discrepancies are discovered between the drawings and the specifications, regarding quality or quantity, the higher quality or the greater quantity is to be included in the Bid Proposal. KEC to notify the Architect and Consultant, in writing, of any discrepancies discovered; and await written clarification prior to proceeding with the items or areas in question.

E. Unless otherwise instructed by Division 1 bidding instructions, the Bidder shall provide pricing, listing quantity, manufacturer and model number on the attached unit price form with separate total prices for delivery and installation. All city, state, occupational and government taxes, which are applicable to this project, shall be included and added as a separate charge. KEC shall be bound to supply the manufacturer and model number listed on their bid form. Bids shall be valid for thirty (30) days after bid deadline date and shall indicate same. Failure to comply with the above may be cause for rejection of the bid. Owner reserves the right to delete any item from the bid form.

1.05 APPROVED SUBSTITIONS AND/OR ALTERNATES

A. The basis of design for all drawings, specifications, and detail references is the first manufacturer and model listed. If another listed manufacturer is chosen by the KEC, it is the responsibility of the KEC to provide a model that is equal in production capabilities, capacity, and performance to the first manufacturer and model listed. The KEC is also to verify, coordinate, and allow for proper installation of equipment; considering possible revisions for utility connections, loads, and physical sizes. In the event there are any additional costs or change orders by other trades because of the KEC submitting another listed manufacturer, those charges shall be the sole responsibility of the KEC.

B. The successful contractor will be bound to furnish equipment in strict accordance with the specifications. Where a single manufacturer is listed, it is not the intention to discriminate against any equal product of another manufacturer but is intended that a definite stringent standard be established.

C. KEC may offer voluntary alternates by submittal in writing, along with manufacturer's name, model number, utility information, and all other appropriate data, at the time the bid is submitted. Voluntary alternates shall not be confused with items listed as "equals" in the item specifications. Although they will be given consideration after award of the Contract, voluntary alternates will not be considered in the judgment about award of the Contract. Change in the Contract price proposed for the voluntary alternate(s) shall reflect all possible costs to be encountered should the voluntary alternate(s) be accepted and incorporated in the work.

D. Should a request for voluntary alternates be accepted and the item proves to be defective or otherwise unsatisfactory for the service intended, the KEC shall replace the item with the product that was originally specified. This shall be done within the guarantee period and with no cost to the Owner.

E. Substitution of non-approved items on the base bid may constitute grounds for rejection of bid.

1.06 SUBMITTALS

A. Refer to Section 01 33 23 and Section 01 77 00.

B. Submit one (1) set of shop drawings (in PDF format) for review. Consultant will print one (1) hardcopy for their records and will return reviewed submittals electronically through the proper channels. Upon final review of drawings, distribute prints to the various trades. KEC to review all submittals for compliance with the Contract Documents prior to submitting to the Consultant for review.

C. Consultant's review of submittal drawings, shop details, product data brochures, and operation and maintenance manuals are for general conformance with the design concept and contract documents. Review markings or comments are not to be construed as relieving the KEC from compliance with the contract documents, or departures there from. The KEC remains responsible for details and accuracy, confirming and correlating all quantities and dimensions, selecting fabrication processes, techniques of assembly, and performing their work in a safe, satisfactory, and professional manner.

D. Commencement of purchasing or fabrication by the KEC, of any item(s) included in this contract, prior to receipt of reviewed submittals from Consultant, shall be at the KEC's own risk; unless specifically instructed to do so in writing by the Owner, including the specific item numbers requested.

E. Product Data Submittal Manuals:

1. Equipment brochure books shall be provided in a 3-ring binder or GBC bound and shall include the KEC's name, address, phone number, e-mail address, project name and location.
2. Each project item shall be referenced and accounted for in the equipment brochure book regardless of utility requirements and supplier, and shall include:
    a. Manufacturers catalog sheet
    b. Line drawings as available
    c. Plumbing and/or wiring schematics as available
    d. Data sheet showing:
        1. Item number
        2. Manufacturer
        3. Model number
        4. All plumbing information
        5. All electrical information
        6. All ventilating information
        7. All accessories.
3. All refrigerated devices shall include:
    a. Data sheet showing:
        1. BTUH
        2. Type of refrigerant
        3. Amount of charge

F. Equipment Plan and Rough-In Drawings:

1. Submit ½" scale drawings. These drawings are to include complete information on the work included in this contract, with references to equipment as provided by others; and are to provide sufficient information for associated trades, contractors, and/or sub-contractors to complete their division of work associated with food service equipment included in this contract.
2. Drawings are to be dimensioned; showing accurate locations for the curbs, platforms, gutters, sleeves, pipe stubs, refrigerant lines, water supply lines, drains, floor drains, electrical services and any additional information pertinent to the installation of this equipment. Coordinate work with the various trades.
3. Drawings to also include equipment plan(s) with detailed equipment list, similar to Foodservice Equipment Plans included in the Contract Documents. Item numbers are to be the same as shown in the contract documents and are to include spare numbers and associated items as provided by others.

G. Shop Drawings:

1. Submit shop drawings for items of custom fabrication included in this contract. Shop drawings are to be submitted at 3/4", 1" and/or 1-1/2" scale. Shop drawings to include a plan, elevation, and cross sections through each equipment item and are to show dimensions, materials, details of construction, installation and relation of adjoining work requiring cutting or close fitting. Shop drawings are to also indicate anchor devices, reinforcements, dimensions, gauges, holes, radii, cutouts and details of construction, installation, and relation to adjoining work.
2. Submit shop drawings for any equipment requiring field assembly, including but not limited to, cooking suite assemblies, pulper/extractor assemblies, remote refrigeration systems, walk-in coolers and/or freezers, exhaust hoods/ventilators, fire suppression system, utility distribution systems, pot/utility/ware washing assemblies/machines and conveyors.
3. Before proceeding with the fabrication or manufacture of any item, KEC is responsible for verifying and coordinating all dimensions and details, with site dimensions, conditions, and adjacent equipment.

H. Operation & Maintenance Manuals

1. Three (3) bound sets of manuals are to be furnished for items of standard manufacture on/or before the date of the first event to occur of the following: demo/start-up, start-up for intended use by the Owner/Operator, completion of installation of kitchen equipment contract package, or final acceptance of installation by Owner. Manuals are to be in alphabetical order according to manufacturer and are to include each individual piece of equipment's serial number as applicable. Manufacturer's info is to include Technical Services telephone number, e-mail, and web site address, where available.
2. Provide a complete list of authorized local service agencies for included manufacturers, complete with address, telephone number, e-mail and web site addresses, where available. List to include warranty information per each piece of equipment.
3. Provide video tapes and/or CD's for maintenance, training, operation, etc., where available from the manufacturer.

I. As-built/Record Documents

1. Maintain one (1) record set of Foodservice Equipment plans with any related corrections, revisions, additions, deletions, changes, etc. noted during construction and installation. Provide an "as-built" set in reproducible transparency form and electronic computer disk form.
2. Provide one (1) final set of Product Data Submittal Manual with any related corrections, revisions, additions, deletions, changes, etc. noted during construction and installation as a specifications record set.
3. These documents are to be provided at the same time as the O&M Data Manuals.

J. Submit three signed copies of pressure vessel inspection report. Inspector's report to be completed by a qualified pressure vessel inspector. Test all pressure equipment.

K. Submit, when requested, a copy of the manufacturer's order acknowledgement for each item of pre-fabricated equipment. Acknowledgement to show date item was ordered and the scheduled shipping date.

L. Submit samples when requested. Samples will not be returned unless specifically requested.

1.07 LAWS, ORDINANCES, REGULATIONS AND STANDARDS

A. Manufacture and install equipment and accessories in strict compliance and conformity with Public Health Service Publication - "Food Service Sanitation Manual" and all applicable governmental codes and regulations to include, but not be limited to the following;

1. Air Conditioning and Refrigeration Institute (A.R.I.): applicable regulations and references of the latest edition of standards for remote refrigeration system(s), components and installation.
2. American Gas Association (A.G.A.): standards for gas heated equipment and provide equipment with the A.G.A. seal. Automatic safety pilots to be provided on all equipment, where available. (Canada Gas Association or alternate testing lab's seals accepted if acceptable to local code jurisdictions.)
3. American National Standards Institute (A.N.S.I.): Z21-Series for gas-burning equipment. Provide labels indicating name and testing agency.
4. American National Standards Institute (A.N.S.I.): B57.1 for compressed gas cylinder connections, and with applicable standards of the Compressed Gas Association for compressed gas piping.
5. American National Standards Institute (A.N.S.I.): A40.4 and A40.6 for water connection air gaps and vacuum breakers.
6. American Society of Heating, Refrigeration and Air Conditioning Engineers (A.S.H.R.A.E.): applicable regulations and references of the latest edition of standards for remote refrigeration system(s), components and installation.
7. American Society of Mechanical Engineers (A.S.M.E.): Boiler Code requirements for steam generating and steam heated equipment and provide A.S.M.E. inspection stamp and registration with National Board.
8. American Society for Testing and Materials (A.S.T.M.): C1036 for flat glass.
9. American Society for Testing and Materials (A.S.T.M.): C1048 for heat-treated flat glass – Kind HS, Kind FT coated and uncoated glass.
10. American Society for Testing and Materials (A.S.T.M.): F232-03 for pre-rinse spray units, and in compliance with Energy Policy Act of 2005 (EPAct).
11. American Welding Society (A.W.S.): D1.1 structural welding code.
12. Energy Policy Act of 2005 (EPAct 2005): water savings pre-rinse spray valves.
13. National Electric Code (N.E.C.); N.F.P.A. Volume 5 for electrical wiring and devices included with foodservice equipment, A.N.S.I. C2 and C73, and applicable N.E.M.A. and N.E.C.A. standards.
14. National Electrical Manufacturers Association (N.E.M.A.): LD3 for high-pressure decorative laminates.
15. National Fire Protection Association (N.F.P.A.): applicable sections for exhaust hoods, ventilators, duct and fan materials, hoods fire suppression systems, wheel placement systems, construction and installation; in addition to local codes and standards.
16. National Sanitation Foundation (NSF): latest Standards and Revisions, and as accredited by ANSI, IAS, NELAC, ISO, OSHA and SCC. Provide NSF Seal of Approval on all standard manufactured items included in this project and listed in any NSF Certified Food Equipment Products Category, and on all items of custom fabricated work included in this project. (UL Sanitation approval and seal accepted if acceptable to local code jurisdictions).
17. Sheet Metal and Air Conditioning Contractor's National Association (S.M.A.C.N.A.): latest edition of guidelines for seismic restraint of kitchen equipment, as applicable to project location.
18. Underwriters Laboratories (U.L.): as applicable for electrical components and assemblies. Provide either U.L. labeled products or, where no labeling service is available, "recognized markings" to indicate listing in the U.L. "Recognized Component Index". (Canadian Standards Association or alternate testing lab's seals accepted if acceptable to local code jurisdictions.)
19. UL 300 Standard: for wet chemical fire suppression systems for exhaust hoods/ventilators.
20. American with Disabilities Act (ADA): as applicable to this project.
21. Refrigeration Service Engineers Society (R.S.E.S.): applicable regulations and references of the latest edition of standards for remote refrigeration system(s), components and installation.
22. All refrigerants used for any purpose is to comply with the 1995 and 2010 requirements of the Montreal Protocol Agreement, and subsequent revisions and amendments. No CFC or HCFC refrigerants will be permitted on this project.
23. All refrigeration components installation, repairs, and/or associated work on any refrigeration system, is to be performed by a Certified Refrigeration Mechanic thoroughly familiar with this type commercial foodservice installation.
24. ETL and other national and international recognized Testing and Listing Agencies labels and certifications are acceptable in lieu of Listing Agencies indicated in these documents, if acceptable to the local code jurisdictions.
25. All applicable local codes, standards and regulations.
26. All special local codes, standard, and regulations; such as (examples only) California Energy Commissions Regulations, Dade County requirements for walk-in cooler(s) and/or freezer(s).
27. For detention facilities projects (as applicable): applicable Correctional Standards. Verify the level of security and construction required with the Architect and provide all items in compliance.

B. Provide safety guards on equipment in compliance with all applicable codes.

C. The custom equipment fabricator will be subject to the acceptance of the Architect, Consultant, and Owner. Fabricator must have the plant, personnel, and engineering facilities to properly design, detail and fabricate high quality equipment. Equipment shall be of standard unit assembly, manufactured by one manufacturer and of uniform design, material, and finish.

D. Manufacturer's catalog designations are intended to represent the standards required. Equipment furnished must closely conform thereto in design, construction, capacity, and function, to the manufacturer and model specified. Where catalog designations are given, the items shall be complete as described and shown in the catalog, unless exceptions are specified.

1.08 DELIVERY, STORAGE AND HANDLING

A. Deliver materials (except bulk materials) in manufacturer’s containers, fully identified with manufacturer’s name, trade name, type, class, grade, size, color, item number, area, etc.

B. KEC is responsible for receiving and warehousing equipment and fixtures, until ready for installation. Store materials, equipment and fixtures in sealed containers, where possible. Store off the ground and under cover, protected from damage. Acquire approved "off-site" storage to house equipment if provisions cannot be made at the job site.

C. KEC to verify and coordinate conditions at the building site, particularly door and/or wall openings, and passages, to assure access for all equipment. Pieces too bulky for existing facilities are to be hoisted or otherwise handled with apparatus as required. All special handling equipment charges will be arranged for and paid for by the KEC.

D. Ship fittings to the job site as follows:

1. Wrap and identify with tag naming the job, the supplier, the items enclosed and the item to which it is to be attached at the job.
2. Fittings to be delivered to various trades involved. Obtain a receipt signed by the foreman.
3. Do not ship fittings or accessories inside larger items of equipment.

E. Continuously maintain protection of work from damage, until final acceptance by the Owner. Use all means reasonable to protect the materials of this section before, during, and after installation; and to protect the associated work and materials of the other trades. Damage to equipment not directly attributed to separate trades shall be the responsibility of the KEC

F. Pre-fabricated walk-in coolers/freezers are not to be used as general storage; and should be locked before leaving the site daily. Damage and theft resulting from failure to secure units will be repaired or replaced at the KEC’s expense.

G. No architectural walls, ceilings, décor, structural components or any other details may be physically attached to, into, or rest on any walk-in wall, ceiling panel(s), or component thereof. KEC is responsible for coordinating this requirement with other Contractors.

H. Permanently fasten manufacturer’s nameplates to the equipment. One nameplate of the fabricator will be allowed in each room.

I. Equipment of a like nature (cooking batteries, carts, self-leveling dispensers, etc.) shall be of one manufacturer to insure uniformity of design and to simplify service and maintenance.

1.09 WARRANTY

A. Items furnished are to be fully guaranteed against defects in workmanship, materials, and functionality for one (1) full year from the first full day of operation for the food service facility.

1. Date of regular operation is defined as the first full day of operation for this food service facility.
2. Full warranty shall cover all parts, labor, and travel expenses.
3. There shall be no cost to the Owner on matters that are “under warranty”.
4. Manufacturer warranties that extend longer than one (1) year shall be started on the date of regular operation and extend for the full term as prescribed by their specific warranty policy.

B. Remote Refrigeration Warranty: in addition to the one-year warranty requirements as stated above, provide an additional four-year full warranty (parts, labor and travel) for **ALL** remote refrigeration components.

C. Self-Contained Refrigeration Warranty: in addition to the one-year warranty requirements as stated above, provide an additional four-year full warranty (parts, labor and travel) on compressors only.

D. Periodic routine maintenance, servicing, adjustments, cleaning, etc., as required by the manufacturers included in this project, are the responsibility of the Owner.

E. All parts or requirements for manufacturer's warranties to be in effect, whether noted in the itemized specifications, are to be provided or complied with by the KEC. This is to include, but not be limited to, parts, accessories, or installation; installation supervision, start-up, and/or follow-up inspections required by factory trained certified, and/or authorized personnel. Factory training, certification, and/or authorization are to be in effect at the time of bidding, installation, start-up, and warranty period of this project.

F. Manufacturer's warranties which comply with the requirements of this warranty article 1.09 are to be provided in lieu of KEC's own warranties, where available. Copies of the written warranties are to be included in the O&M Manuals.

G. The KEC shall be the Owner's only contact for any service on any equipment under warranty.

H. Owner shall have use of defective item until the KEC can deliver and install a replacement.

PART 2 PRODUCTS

2.01 MATERIALS

A. Metals:

1. All metal materials shall be new prime quality, full U.S. standard gauge thickness, of composition indicated by names or abbreviations in itemized specifications. All gauges for sheet iron and sheet steel shall be U.S. standard gauges and not vary from standard thickness by more than 5%.
2. Stainless steel shall be type 304/302, extra low carbon, nonmagnetic, austenitic, corrosion-resisting alloy steel. Composition to be minimum of 18% chromium, minimum 8% nickel and maximum 0.2% carbon. Mill finish of not less than 150 grit on one side and not less than 80 grit on the back side. All stainless steel sheets shall bear manufacturer trademark, designation of type and heat number and shall be stretcher leveled.
3. Galvanized steel angles, bars, channels, piping, tubing and sheets shall be an approved grade of either low carbon steel or copper bearing steel. and be uniformly ductile in quality. All galvanized steel to be free from hard spots, runs, blisters, spelter, checks and other surface defects. Zinc coating shall be applied after fabrication (brake or die forming, drilling, fitting, welding or other operations). Finish of galvanized iron to be two coats of epoxy based gray hammer tone paint on prime undercoat over thoroughly cleaned surfaces.

B. Plastic Laminate: NEMA LD3, Type 2, 0.050" thick, except Type 3, 0.042" for post-forming smooth (non-textured). Color and texture as selected by Architect/Interior Designer and/or Owner.

1. Comply with N.S.F. Standard No. 35.
2. Veneered with approved waterproof and heat proof cement. Rubber base adhesives are no acceptable.
3. Applied directly over close grained plywood, such as solid Mahogany or solid Birch, of selected, smooth, sanded stock to ensure a smooth ripple-free laminated surface; or commercial grade furniture particle board, Cortron or equal.
4. Exposed faces and edges are to be faced with 1/16" thick material. Corresponding backs are to be covered with approved backing and balancing sheet material.

C. Millwork: No unfinished millwork, plywood/particle board or wood framing (including backs, undersides, and all surfaces concealed from view) will be permitted. All unfinished surfaces or openings cut through finished surfaces are to be sealed to be water resistant; with excess plastic laminate material, Cortron (Melamine) material, backing materials, sealers, primers, finish paint, etc., to blend with specified finish materials.

D. Hardwood Work Surfaces: Laminated edge grained hard maple (Acer saccharum), NHLA First Grade with knots, holes and other blemishes culled out, kiln dried at 8 percent or less moisture, waterproof glue, machined, sanded, and finished with N.S.F. approved oil-sealer.

E. Solid Surface Material (SSM): As indicated, provide DuPont Corian ½" thick 100% homogeneous filled acrylic material meeting ANSI Z124.6 Type 6; or DuPont Zodiaq ¾" thick quartz material, unless otherwise specified or selected. Colors and patterns as selected by Architect/Interior Designer and/or Owner. The following guidelines and general requirements apply to DuPont SSM, in addition to granite, marble, or any other solid surface materials specified or selected; except fabricator and installer are to be thoroughly experienced and certified in commercial foodservice installation of granite, marble, or other solid surface material specified or selected.

1. Comply with N.S.F. Standard No. 51.
2. Acrylic adhesive is to be used for all joints.
3. Install directly over ¾" thick (minimum) substrate of close grained plywood, such as solid Mahogany or solid Birch, of selected, smooth, sanded stock to ensure a smooth ripple-free surface; or commercial grade furniture particle board, Cortron or equal. Additional bracing and support to be provided as required by the SSM manufacturer.
4. Fabricator to be trained by DuPont factory authorized training personnel and certified as a Commercial Corian/Zodiaq Fabricator; or equivalent by other SSM manufacturers. If no commercial certification program is available from other manufacturer specified or selected, then fabricator is to be certified as Commercial Corian/Zodiaq Fabricator.
5. Installer to be trained by DuPont factory authorized training personnel and certified as a Commercial Corian/Zodiaq Installer; or equivalent by other SSM manufacturers. If no commercial certification program is available from other manufacturer specified or selected, then installer is to be certified as Commercial Corian/Zodiaq Installer.
6. All fabrication and installation of Corian/Zodiaq, and all components attached to or installed in or through Corian/Zodiaq is to be in compliance with manufacturer's instructions and the DuPont Corian/Zodiaq Commercial Food Service Installation bulletins. Of concern are the sections, details, and instructions on the installation of drop-in or built-in hot or cold components. The DuPont Corian/Zodiaq Food Service Installation bulletins requirements are to also apply to any other SSM, in addition to that manufacturer's instructions.
7. KEC to verify and coordinate overhead heat lamps and/or food warmers to be installed in accordance with manufacturer's recommendations over solid surface materials and solid surface materials manufacturer's recommendations.
8. All surfaces are to be non-porous or cleaned and sealed, in compliance with local health codes; such as with 511 Impregnator by Miracle Sealants for granite.

2.02 QUALITY ASSURANCE

A. It is required that all fabricated equipment described in specifications and designated on drawings shall be manufactured by one equipment manufacturer which has engineering personnel and plant facilities to design, detail and fabricate the highest quality equipment in strict compliance with appropriate standards of National Sanitation Foundation.

B. All exposed surfaces shall be free from bolt, screw and rivet heads. When bolts are required they shall be of concealed type and be of similar composition as the metal to which they are applied. Where bolt or screw threads on the interior of fixtures are visible or may come in contact with heads or wiping cloth they must be capped with a stainless steel acorn nut with a stainless steel lock washer.

C. Where screw threads are not visible or readily accessible, they may be capped with a standard lock washer and steel nut treated to prevent rusting or corroding. Where bolts or screws are welded to the underside of trim or tops, the reverse side of the weld shall be neatly finished uniform with the adjoining surface of the trim or the top. Depressions at these points will not be acceptable. Rivets shall not be used as a method of fastening in any location.

D. All welds, bolts, screws, nuts, washers, and rivets shall be steel except where brass or stainless steel is fastened, in which case they shall be brass or stainless steel respectively. Where dissimilar metals are fastened, the fastenings shall be of higher grade metal. Spacing and extend of welds, bolts, screws and rivets shall insure suitable fastenings and prevent bulging of metals fastened.

E. All exposed, welded joints shall be suitably ground flush with adjoining material and neatly finished to harmonize therewith. Pits, cracks, discolorations, distortion and depressions will not be acceptable. Wherever material has been sunken or depressed by welding operation, such depressions shall be suitably hammered and peened flush with the adjoining surface and, if necessary, again ground to eliminate low spots. In all cases the grain of rough grinding shall be removed by successive fine polishing operations. All stainless steel shall have a No. 4 finish on all exposed surfaces and a No. 2 finish on all concealed surfaces.

F. All unexposed welded joints on undershelves of tables or counters in stainless steel construction shall be suitable coated at the factory by means of metallic base point to prevent possible corrosion at such locations.

G. After galvanized iron members have been welded, all welds and areas where galvanizing has been damaged shall be re-coated to prevent oxidation. Submit a sample of re-coated area complete with a detailed explanation of the method to be used for approval before proceeding.

H. Butt joints and contract joints, wherever they occur, shall be close fitting and shall not require solder as filler. Wherever break bends occur they shall be free of undue exudence and shall not be flaky, scaly or cracked in appearance of the material all such marks shall be removed by suitable grinding, polishing and finishing. Wherever sheared edges occur they shall be free of burrs, fins or irregular projections and shall be finished to obviate all danger of cutting or laceration when the hand is drawn over such sheared edges. In no case are overlapping materials to be acceptable where miters of bull-nosed corners occur.

I. The grain of polishing shall run in the same direction on all horizontal and on all vertical surfaces of each individual item of fabricated equipment, except in the case where table or sink tops join at right angles, where the finish of the horizontal sections of each terminating in a mitered edge shall be acceptable. Where sinks and adjacent drain boards are equipped with splash back, the grain of polishing shall be consistent in direction throughout the length of the splash back and sink compartment.

J. Where stainless steel surfaces are distributed by the fabricating process, such surfaces shall be finished to match the adjoining surfaces.

K. Final Polishing: At the completion of the installation work, all stainless steel shall be gone over with a portable polishing machine and buffed to perfect surfaces. All painted surface shall be carefully gone over and retouched as required.

2.03 FABRICATION COMPONENTS

A. Hardware:

1. General: Manufacturer's standard, but not less than ANSI 156.9 Type 2 (institutional), satin finish stainless steel or dull chrome finish on brass, bronze, or steel.
2. Metal Hinged Door Hardware: Doors to be mounted on Component Hardware Group model M75-5003, or equal, stainless steel, heavy duty, lift-off flag hinge that is 3" long and NSF approved with a swedged knuckle design. Door to be fitted with Component Hardware Group model P63-1012, or equal, stainless steel full grip type with frame beveled edge pull. Catches to be Component Hardware Group M27-2490, or equal, Spring Catch with Strike.
3. Sliding Door Hardware: Doors to be mounted on large, quiet ball bearing rollers in 14 gauge stainless steel overhead tracks and be removable without the use of tools. Bottom of cabinet to have stainless steel guide-pins and not channel tracks for doors.
4. Millwork Hinged Door Hardware: Doors to be mounted with Blum 95 degree CLIP top thick door all metal hinges, nickel plated, with 3-dimensional adjustment, or equal; or as per individual itemized specifications.
5. Drawer Hardware: Slides to be Component Hardware Group series S52, or equal, with 200 pounds minimum capacity per pair, 201 or 300 series stainless steel, full extension, side-mounting, self-closing type, with stainless steel ball-bearings, and positive stops. Drawer front to be fitted with Component Hardware Group model P63-1012, or equal, stainless steel full grip type with frame beveled edge pull.
6. All hardware to be identified with manufacturer's name and number, so that broken or worn parts may be replaced.

B. Casters:

1. Type and size as recommended by caster manufacturer, N.S.F. approved for the type and weight of equipment supported; normally 5" diameter heavy-duty, ball-bearing, solid or disc wheel with non-marking grease proof rubber, neoprene or polyurethane tire; unless otherwise specified. Minimum width of tread to be 1-3/16". Minimum capacity per caster to be 250 pounds, unless otherwise noted in itemized specifications.
2. Solid material wheels to be provided with stainless steel rotating wheel guard.
3. To be sanitary, have sealed wheel and swivel bearings and polished plate finish per N.S.F.
4. Unless otherwise indicated, equip each item with two (2) swivel-type casters and two (2) fixed casters, with foot brakes on two (2) casters.
5. Unless item is equipped with another form of all-around protective bumper, provide circular rotating bumper above each caster, 5" diameter tire of light grey synthetic rubber (hollow or closed-cell) on cadmium-plated disc.

C. Plumbing Fittings, Trim & Accessories:

1. General: Where exposed or semi-exposed, provide bright chrome plated brass or polished stainless steel units. Provide copper or brass where not exposed.
2. Vacuum Breakers: Provide with foodservice equipment as listed in the itemized specifications.
3. Water Outlets: At sinks and at other locations where water is supplied (by manual, automatic or remote control), furnish commercial quality faucets, valves, dispensers or fill devices, of the type and size indicated, and as required to operate as indicated.
4. Waste Fittings: Except as otherwise indicated, furnish 2" NPS twist handle drain with overflow assembly and crumb cup strainer, similar to Component Hardware Group #D53-7215.
5. Also refer to article 2.04 for additional information.

D. Electrical Materials:

1. General: Provide standard materials, devices and components as recommended by the manufacturer or fabricator, selected and installed in accordance with N.E.M.A. standards and recommendations; and as required for safe and efficient use and operation of the foodservice equipment, without sanitation problems.
2. Components to bear the U.L. label or be approved by the prevailing authority.
3. Where light fixtures are specified or detailed as part of counters, cases or fixtures; light fixtures with lamps to be furnished and installed. Warm white lamps to be provided, unless otherwise specified. If fluorescent light fixtures are specified, ballasts and tubes to be provided. Shields to be provided for all light fixtures.
4. Convenience and Power Outlets: Make cutouts and install appropriate boxes or outlets in fabricated fixtures, complete with wiring, conduit, outlet and stainless steel cover plate. Outlets and plugs to conform to N.E.M.A. standards. Electrical outlets and devices to be first quality "Specification Grade". GFCI outlets to be furnished where adjacent to sink compartments, as per the National Electrical Code.
5. Plugs & Cords: Where cords and plugs are provided, they are to comply with N.E.M.A. requirements. Indicate N.E.M.A. configuration for each applicable item.
6. Power Characteristics: Refer to Electrical Divisions specifications for project power characteristics. Also, refer to individual equipment requirements for loads and ratings.
7. All electrical components (J-boxes, conduit, outlets, switches, cover plates, light fixtures, panels, etc.) built into or on any equipment provided by the KEC, other than standard buy-out factory manufactured equipment, are to be vapor or water tight type. Provide buy-out equipment with vapor or water tight electrical components wherever available.

2.04 FABRICATED EQUIPMENT

A. General Fabrication Requirements:

1. Except as otherwise indicated, provide framing of minimum 1" pipe-size round pipe or tube members, with mitered and welded joints and gusset plates, ground smooth. Provide 14 gauge stainless steel tube for exposed framing, and galvanized steel pipe for concealed framing.
2. Reinforce metal at locations of hardware, anchorages and accessory attachments wherever metal is less than 14 gauge or requires mortised application. Conceal reinforcements to the greatest extent possible. Weld in place, on concealed faces.
3. Provide removable panels for access to mechanical and electrical service connections, which are concealed behind or within foodservice equipment, buy only where access is not possible and not indicated through other work.

4. Where ends of fixtures, splash backs, shelves, etc., are open, fill by forming the metal or welding sections, if necessary, to close entire opening flush to walls or adjoining fixtures.
5. Rolled edges are to be as detailed, with corners bull nosed, ground and polished.
6. Equipment to have ¾" or larger radius coves in horizontal and vertical corners, and intersections, per N.S.F. standards.
7. Provide raised die formed ferrule around punch or drilled holes in worktable tops and shelves.

B. Metal & Gauges:

1. Except as otherwise indicated, fabricate exposed metalwork of stainless steel; and fabricate the following components from the gauge of metal indicated, and other components from not less than 20 gauge metal:
   a. Table & counter tops: 14 gauge
   b. Sinks & drain boards: 14 gauge
   c. Shelves: 16 gauge
   d. Double-pan drawer fronts: 18 gauge
   e. Double-pan door panel: 18 gauge
   f. Enclosed base cabinets: 16 gauge
   g. Enclosed wall cabinets: 16 gauge
   h. Exhaust hoods & ventilators: 18 gauge
   i. Pan-type insets & trays: 16 gauge
   j. Removable covers & panels: 18 gauge
   k. Skirts and enclosure panels: 18 gauge
   l. Closure & trim strips over 4" wide: 18 gauge
   m. Hardware reinforcement: 12 gauge
   n. Gusset plates: 10 gauge

C. Worktable Tops:

1. Construct worktable of 14 gauge stainless steel, one-piece, welded construction, including field joints.
2. Secure to a full perimeter, 4"x1"x 12 gauge, galvanized steel channel frame with channel running front to back at each leg. Provide one (1) channel on tops up to 36" wide and two (2) channels on tops over 36" wide. Fasten top with stud bolts and combination of zinc plated locknut with rubber seal.
3. Where worktables abut wall or other equipment, backsplash or side splashes shall be 6" high, with return to wall of 1" and turn down of 1", unless otherwise specified. Secure backsplash to wall with "Z" clips and enclosed all exposed ends.

D. Dishtable Tops:

1. Construct dishtables of 14 gauge stainless steel with all intersections meeting in a spherical section.
2. Secure to a full perimeter, 4"x1"x 12 gauge, galvanized steel channel frame with channel running front to back at each leg. Provide one (1) channel on tops up to 36" wide and two (2) channels on tops over 36" wide. Fasten top with stud bolts and combination of zinc plated locknut with rubber seal.
3. Where dishtables abut wall or other equipment, backsplash or side splashes shall be 10" high with 45 degree return to wall of 2" and turn down of 1", unless otherwise specified. Secure backsplash to wall with "Z" clips and enclose all exposed ends.
4. Slope dishtables to dishmachine, sinks, troughs, cones or drainers at a minimum of 1/8" per foot. Where dishtables lip into dishmachine fasten securely with stainless steel fasteners and seal to insure no water leakage.
5. Where applicable to project, pass thru shelves, sills or other configurations are to be welded and constructed integral to dishtable.

E. Edges & Corners: (See detail on first page of elevations)

1. Edges to be die-formed and integral with top.
2. Where indicated, flange rear and end edges up to form splashes integrally with top, with vertical and horizontal corners coved of not less than ¾" radius, die formed. Turn back splashes 1" to wall across top and ends with rounded edge on break, unless otherwise specified.
3. For standard flat edge, turn down 1-1/2" on outside and back at 45 degree angle another ½" along return.
4. For marine splash edge, turn up ½" at a 45 degree angle, out 1", turn down 2" and back at a 45 degree angle another ½" along return.
5. For rolled rim edge, turn up 3" with ¾" coved radius and roll out semi-circle to ¾" radius.

6. For rolled edge, roll down semi-circle to ¾" radius.
7. For rounded corners, form to 1" radius, weld, and polish to original finish.

F. Field Joints: For any field joint required because of size of fixture; butt-joint, reinforce on underside with angles of same material, bolt together with non-corrosive bolts and nuts, field weld, grind and polish.

G. Pipe Bases: Construct pipe bases of 1-5/8" diameter 18 gauge stainless steel tubing. Fit legs with polished stainless steel sanitary adjustable bullet feet to provide for adjustment of approximately 1-1/2", without exposing threads. Space legs to provide ample support for tops; precluding any possibility of buckling or sagging, and in no case more than 6'-0" centers.

H. Legs & Crossrails:

1. Equipment legs to be 1-5/8", 16 gauge stainless steel tubing.
2. Equipment crossrails to be 1", 16 gauge stainless steel tubing.
3. Welds at crossrails to be continuous and ground smooth. Tack welds will not be acceptable. Top of crossrail to be 10" above finished floor.
4. Bottom of legs to be swedged inward and fitted with a stainless steel bullet-type foot with not less than 2" adjustment.
5. Free standing legs to be pegged to floor with ¼" stainless steel rod, or provided with bolt down type flanged feet anchored to the floor; depending on expected severity of use and/or abuse
6. Components:
    a. Stainless Steel Gusset: Stainless steel exterior to fit 1-5/8" tubing, with Allen screw for fastening and adjustment. Not less than 3" diameter at top and 3-3/4" long. Outer shell 16 gauge stainless steel, reinforced with 12 gauge mild steel insert welded interior shell, or approved equal.
    b. Stainless Steel Low Counter Legs: Stainless steel exterior 5-3/4" minimum, 7" maximum length with stainless steel 3-1/2" square plate with four counter-sunk holes, welded to top for fastening.
    c. Stainless Steel Adjustable Foot: Stainless steel 1-1/2" diameter tapered at bottom to 1" diameter, fitted with threaded cold rolled rod for minimum 1-1/2" diameter x ¾" threaded bushing plug welded to legs, or approved equal. Push-in foot not acceptable.
7. Legs to be fastened to equipment with gussets as follows:
    a. Sinks: Reinforced with bushings and set screw.
    b. Metal Top Tables & Dish Tables: Welded to galvanized steel channels, 14 gauge or heavier, anchored to top with screws through slotted holes.
    c. Wood Top Tables: Welded to stainless steel channels, 14 gauge or heavier, anchored to top with screws through slotted holes.

I. Shelves:

1. Construct solid shelves under pipe base tables of 16 gauge stainless steel, with 1-1/2" turned down and back ½" at 45 degree angle on exposed sides, and 2" turn up against walls or equipment. Fully weld to pipe legs at 10" above finished floor.
2. Secure to a full perimeter, 4"x1"x 12 gauge, galvanized steel channel frame with channel running front to back at each leg. Provide one (1) channel on shelves up to 36" wide and two (2) channels on shelves over 36" wide. Fasten shelves with stud bolts and combination of zinc plated locknut with rubber seal.
3. In fixtures with enclosed bases, turn up shelves on back and sides with ¼" (minimum) radius and feather slightly to ensure a tight fit to enclosure panels.
4. Construct wall shelves of 14 gauge stainless steel, with 1-1/2" turned down and back at 45 degree angle on exposed sides, and 1-1/2" turn up against walls or equipment. Support wall shelves with 14 gauge stainless steel triangle brackets secured to wall with stainless steel fasteners.

J. Sinks:

1. Construct sinks of 14 gauge stainless steel with No. 4 finish inside and outside.
2. Form back, bottom and front of one piece, with ends and partitions welded into place. Partitions: double thickness, 1" minimum space between walls. Multiple compartments to be continuous on the exterior, without applied facing strips or panels.
3. Cove interior vertical and horizontal corners of each tub not less than ¾" radius, die formed. Outer ends of drain boards to have roll rim risers not less than 3" high.
4. Drill faucet holes in splashes 2-1/2" below top edge. Verify center spacing with faucet specified.

5. Sink inserts to be drawn of 14 gauge, or heavier, polished stainless steel. Weld into sink drain boards with 1-1/2" x 1-1/2" x 14 gauge stainless steel angle brackets; securely welded to sins and galvanized cross angles spot welded to underside of drain boards to form an integral part of the installation.
6. The bottom of each compartment is to be creased such as to ensure complete drainage to waste opening. Slope bottom of sink bowls toward outlet.

K. Drains, Wastes & Faucets:

1. Furnish and install Component Hardware Group#D63-4590, or equal, twist handle box pattern drain with overflow assembly, with chrome finish, in die-drawn inset type sinks and bain-marie sinks.
2. Other custom fabricated sinks to be furnished with Component Hardware Group #D53-7215, or equal, twist lever handle waste outlet with overflow assembly and crumb cup strainer. Waste connection to have 2" external thread size, with 1-1/2" internal thread size.
3. Twist Lever Handle: Of sufficient length to extend to front edge of sink. No riveting, screws or soldering permitted to fit drains to sinks, with all parts of drains easily removable for servicing and replacement. Furnish stainless steel twist lever handle support for each drain.
4. All faucets furnished with equipment included in this Section to be lead free and comply with N.S.F. Standard #61, Section #9; such as manufacturer by Fisher, Chicago or T&S Brass.
5. Faucets and pre-rinse spray assemblies furnished with equipment included in this Section, are to have a maximum GPM flow rate in compliance with the Energy Policy Act of 2005 (EPAct) and later updates; or local requirements, whichever is lower. EPAct / local requirements are to be applicable to all faucets and pre-rinses, except for pre-rinse type assemblies used at glass icing/fill stations, fill hose/faucet assemblies at high water usage cooking equipment such as kettles, tilt fry pans, etc., and fill faucets at high volume/usage sinks such as pot and prep sinks, etc. are to have flow rates of approximately 5 gpm flow minimum.
6. All flex hose type faucet assemblies, such as pre-rinses, kettle fill hoses, etc. to have an inline pressure type back flow preventer in the hose assembly, as required by local codes.
7. All equipment provided by the KEC, which discharges liquid waste exceeding 140 degrees F, is to be provided with a cold water drain tempering assembly per local codes.

L. Workmanship:

1. Best quality in the trade. Field verify dimensions before fabricating; conform all items to dimensions of building; neatly fit around pipes, offsets and other obstructions.
2. Fabricate only in accordance with approved shop drawings, showing pipes, obstructions to be built around, and location of utilities and services.

M. Casework:

1. Bases to be made of 16 gauge stainless steel sheets reinforced by forming the metal.
2. Enclosure: except as otherwise indicated, provide each unit of casework (base, wall, overhead and free-standing) with a complete-enclosure, fully-welded, seamless metal cabinet, including fronts, backs, tops, bottoms, and sides.
3. Unexposed backs and structural members may be galvanized, unless otherwise noted.
4. A STRUCTURAL ANGLE FRAMEWORK SUPPORTING THE ENCLOSURE WILL NOT BE ACCEPTED
5. Vertical ends and partitions to be stainless steel fully enclosed and completely vermin proof with a 2" face and ¾" return.
6. Sides and through partitions providing individual compartments separating sinks, machinery and drawers from remainder of the base cabinet to be flush with bottom rail and welded at intersections.
7. Provide solid stationary shelves in casework with 2" turn-up on back and ends of shelf units. Tack weld turn up to cabinet body and caulk joint with silicone. Reinforce shelf units to support 40 pounds per square foot loading, plus 100 percent impact loading.
8. Bottom front rail of bases set on masonry platform to be continuously closed and sealed to platform.

N. Doors:

1. Metal doors to be double-cased stainless steel. Outer pans to be 18 gauge stainless steel and inner pans to be 20 gauge stainless steel fitted tightly into outer pan with a sound deadening, moisture proof, fire proof, and vermin proof material used as a core. Internally reinforce doors 24" wide and greater with a 4" wide channel to prevent warpage. The two pans are to be tack welded together (no greater than 6" spacing) and joints solder fitted. All corners to be welded, ground smooth and polished.

2. Metal doors to finish approximately ¾" thick and be fitted with Component Hardware Group #P63-1012, or equal, stainless steel full grip type with frame beveled edge door pull.
3. Hinged doors to be mounted on Component Hardware Group #M75-5003, or equal, stainless steel heavy duty lift-off flag hinge. Hinge to be 3" long, NSF approved with swedged knuckle design.
4. All doors to be furnished with stainless steel faced, disc tumbler, utility lock. All fabricated door and drawer locks to be keyed alike. Doors to be easily removable without the use of tools and furnished with sound-deadening, replaceable soft neoprene bumpers.

O. Drawer Assemblies:

1. Metal drawer fronts to be double-cased stainless steel. Outer pans to be 18 gauge stainless steel and inner pans to be 20 gauge stainless steel fitted tightly into outer pan with a sound deadening, moisture proof, fire proof, and vermin proof material used as a core. The two pans are to be tack welded together (no greater than 6" spacing) and joints solder fitted. All corners to be welded, ground smooth and polished.
2. Assemblies to consist of removable drawer body mounted in a ball bearing slide assembly with fully enclosed housing. Assembly to have unibody fully welded construction throughout. Slide assembly consists of one pair of 200 pound capacity stainless steel roller bearing full extension slides, with side and back enclosure panels, front spacer angle, two drawer carrier angles, secured to slides and stainless steel front.
3. Drawers intended for tools and general non-food products storage are to have heavy duty ABS plastic drawer pan inserts, similar to Component Hardware Group S80-2020. Drawers intended to hold food products are to have stainless steel drawer pan inserts, similar to Component Hardware Group S81-2020-C. All drawer pans to be easily removable without tools or disassembly of any drawer assembly components.
4. All drawers to be finished with stainless steel faced, disc tumbler, utility lock. All fabricated door and drawer locks to be keyed alike. Drawers to be furnished with sound-deadening, replaceable soft neoprene bumpers. Refrigerated drawers to have a full perimeter replaceable refrigerator gasket.

P. Closed Base: Where casework is indicated to be located on a raised-floor base, prepare casework for support without legs, and for anchorage and sealant application, as required for a completely enclosed and concealed base.

Q. Support from Floor: Equip floor supported mobile units with casters, and equip items indicated as roll-out units, with manufacturer's standard one-directional rollers. Otherwise, and except for closed-base units, provide pipe or tube legs, with adjustable bullet-design feet for floor supported items of fabricated metalwork. Provide 1-1/2" adjustment of feet (concealed threading).

R. Shop Painting:

1. Clean and prepare metal surfaces to be painted; remove rust and dirt. Apply treatment to zinc coated surfaces, which have not been mill phosphatized. Coat welded, and abraded areas of zinc coated surfaces, with galvanize repair paint.
2. Apply 1.5 mil (dry film thickness) metal primer coating, followed by 2, 1.0 mil (dry film thickness) metal enamel finish coatings.
3. Bake primer and finish coatings in accordance with paint manufacturer's instructions for a baked enamel finish.

S. Sound Deadening:

1. Sound deaden underside of metal tops, drain boards, undershelves, cabinet interior shelves, sinks, etc., with an NSF approved sound deadening product above the underbracing/reinforcing/framing only.

2.05 MILLWORK

A. All products shall be of first or best quality and conform to "custom grade" as specified by The Architectural Woodwork Institute.

B. Flame spread rating of Class II per the ASTM e-84 where specified.

C. Plastic laminate cabinets to conform to Custom Grade per Section 400b AWI unless otherwise specified.

1. Cabinet body to be ¾" thick plywood with plastic laminate on all exposed interior and exterior surfaces.

2. Doors and drawer fronts to be ¾" plywood with plastic laminate on all exposed interior and exterior surfaces. Drawer box to have ½" hardwood sides. Drawer bottom to be ¼" plywood with plastic laminate where exposed. Drawer corners to be lock shoulder joined, glued and screwed. Drawer bottom set in groove cut into all side pieces and glued. Attach drawer box to front with screws from box side, independent of drawer pulls.
3. Shelves to be adjustable on Knape and Vogt KV255AL/KV256AL standards and supports and constructed of ¾" plywood with plastic laminate on all surfaces.
4. Hinges to be Grass System #1200 or equal. Pulls to be polished chrome wire. Drawer slides to be full extension, ball bearing 75#/pair capacity Knape and Vogt #1300 or equal.
5. Counter tops shall be fabricated of ¾" plywood with plastic laminate or solid polymer surface as specified. Edges shall be 1-1/2" high and covered with matching finish surface material as laminate tops. Edges of solid polymer tops shall be chemically attached to top with adhesive as recommended by the manufacturer, sanded smooth for an invisible joint and of the size shown. Backsplash where shown also to be covered with a finish matching top surface material.
6. Counters to be fabricated of one piece unless top is larger than can be cut from a standard sheet of material. Where splines are required, joints shall touch throughout the length and be flush to within tolerance of .005". Field assembles with bolt-up type fasteners. Splines shall not be made at cutouts.
7. Provide material samples and/or mock-up as required.
8. General construction to be of AWI grade birch hardwood framing and ¾" APA A-B hardwood or marine grade plywood. Fiberboard, pressboard or equal will not be acceptable.
9. Plastic laminate to be suede or matte finish high wear .050 general purposes as manufactured by Formica, Wilson-Art, and Nevamar or as specified.

D. Adhesive as recommended by manufacturer. Solid polymer to be cast, filled acrylic (not coated, laminated or of composite construction) meeting ANSI Z-124-1980 Type 6, of thickness as specified and manufactured by E.I. DuPont de Nemours and Company/Corian, Wilson Art International/Gibraltar or Formica/Surrell. Fabricator certified in writing by the solid polymer material manufacturer shall do fabrication and installation. Work to be done in such a manner as to ensure compliance with the manufacturer's warranty and assure a quality installation. Utilize manufacturer's two-part joint adhesive kit to create inconspicuous, non-porous joints.

2.06 MISCELLANEOUS MATERIALS & FABRICATION

A. Nameplates: Whenever possible, locate nameplates and labels on manufactured items, in accessible position, but not within customer's normal view. Do not apply name plates or labels on custom fabricated work, except as required for compliance with governing regulations, insurance requirements, or operator performance.

B. Manufactured Equipment Items: Furnish items as scheduled or herein specified. Verify dimensions, spaces, rough-in and service requirements, and electrical characteristics, before ordering. Provide trim, accessories and miscellaneous items for complete installation.

C. Insert Pans:

1. General: Cut-outs, openings, drawers, or equipment specified or detailed to hold stainless steel insert pans to be provided with a full complement of pans as follows:
2. One (1) stainless steel, 20 gauge minimum, solid insert pan for each space, sized per plans, details, or specifications.
3. Where pan sizes are not indicated in plans, details, or specifications, provide one full-size pan for each opening.
4. Provide maximum depth pan to suit application and space.
5. Provide 18 gauge removable stainless steel adapter bars where applicable.
6. All cut-outs and openings, or equipment specified or detailed to hold stainless steel insert pans, shall be provided with a hinged stainless steel removable night cover.

D. Tray Slides: Before fabrication of counters with tray slides, verify:

1. Size and shape of tray with Owner/Operator. Edge of tray should not overhang outer support/slider by more than 2". If edge of tray exceeds this dimension, notify Architect, in writing, for evaluation and adjustment, if necessary.
2. Configuration of corners, turns, and shape of tray slides for proper support and safe guidance of trays.
3. Tray slide to be capable of supporting 200 pounds per linear foot, live load.

E. Self-leveling Dispensers: Verify type, make dimensions and weight of ware with Owner/Operator; and submit to the dispenser manufacturer, for proper sizing and calibration of dispensers.

F. Carbon Dioxide (CO2) Equipment: Where equipment requires connection with compressed CO2 cylinder for operation, provide 2-cylinder manifold and control system (integral with equipment) with proper connectors for Department of Transportation (DOT) approved type cylinders, complete with cylinder safety devices and supports. Applicable to projects with CO2 equipment included in Contractor's specified equipment.

G. Reasonable quietness of operation of equipment is a requirement, and Contractor will be required to replace or repair any equipment producing out-of–the-ordinary intolerable noise. This also includes providing and installing bumpers and gaskets for doors and drawers on fabricated and standard manufactured items and sound insulation where feasible.

H. Gas Pressure Regulator: All gas fired equipment included with this Section is to be provided with a gas pressure regulating valve with a built-in vent limiting device. Contractor is responsible for coordinating this requirement with their manufacturers and suppliers.

PART 3 EXECUTION

3.01 SUPERVISION

A. A competent supervisor, representing the KEC, is to be present at all times during progress of the KEC's work. Submit to the Architect the name, address and telephone number of the supervisor. The KEC agrees to accept collect telephone calls from the Consultant or Architect.

B. The KEC is responsible for coordinating all general and specific requirements included in Parts 1, 2, and 3 of this Section 114000 general condition, with their manufacturers, fabricators, and suppliers.

3.02 PREPARATION

A. Verify site conditions under the provisions of the General Conditions, Supplementary Conditions and applicable provisions of Division 1 Sections. Notify the Architect, in writing, of unsatisfactory conditions for proper installation of foodservice equipment.

B. Verify wall, column, door, window, and ceiling locations and dimensions. Fabrication and installation should not proceed until dimensions and conditions have been verified and coordinated with fabrication details.

C. Verify that wall reinforcement or backing has been provided and is correct for wall supported equipment. Coordinate placement dimensions with wall construction section.

D. Verify that ventilation ducts are of the correct characteristics, and in the required locations.

E. Verify that utilities are available, of the correct characteristics, and in the required locations.

F. KEC is responsible for the cost incurred for special equipment; for removal or replacement of portions of the building if required for delivery and installation of equipment specified; as well as other costs incurred if work specified must be done by others due to jurisdictional agreements or other conditions.

3.03 INSTALLATION

A. Sequence installation and erection to ensure correct mechanical and electrical utility connections are achieved. Assist in moving equipment so other trades can make connections and be on the job to level and adjust equipment as the last connection is made. During installation instruct the trades on hook up of the various items of equipment.

B. Install items in accordance with manufacturer's instructions.

C. Set each item of non-mobile and non-portable equipment securely in place, leveled and adjusted to correct height. Anchor to supporting substrate where indicated, and where required for sustained operation and use without shifting or dislocation. Conceal anchorages wherever possible. Adjust counter tops and other work surfaces to a level tolerance of 1/16" (maximum offset, and plus or minus on dimension, and maximum variation in 24" run from level or indicated slope). Provide anchors, supports, bracing, clips, attachments, etc., as required to comply with the local seismic restraint requirements. The Guidelines for Seismic Restraint of Kitchen Equipment, as prepared for the Sheet Metal Industry Fund of Los Angeles and endorsed by S.M.A.C.N.A., is to be followed.

D. Complete field assembly joints in the work (joints which cannot be completed in the shop) by welding, bolting-and-gasketing, or similar methods as indicated and specified. Grind welds smooth and restore finish. Set or trim flush, except for "T" gaskets as indicated.

E. Provide closure plates and strips where required, with joints coordinated with units of equipment.

F. Provide sealants and gaskets all around each unit to make joints airtight, waterproof, vermin-proof, and sanitary for cleaning purposes.

G. Joints up to 3/8" wide, to be stuffed with backer rod, to shape sealant bead properly. Provide sealant filled or gasketed joints up to 3/8" joint width. Joints wider than 3/8" shall be trimmed with a stainless steel channel, with sealant applied to each side of strips.

H. At internal corner joints, apply sealant or gaskets to form a sanitary cover, of not less than 3/8" radius.

I. Shape exposed surfaces of sealant slightly concave, with edges flush with faces of materials at joint.

J. Treat enclosed spaces, inaccessible after equipment installation, by covering horizontal surfaces with powdered borax at a rate of 4 ounces per square foot.

K. Insulate to prevent electrolysis between dissimilar metals.

L. Cut and drill components for service outlets, fixtures, piping, conduit, and fittings.

M. Verify and coordinate the mounting heights of all wall shelves and equipment, with equipment located below them, for proper clearances.

N. Coordinate with Plumbing and Electrical Divisions and provide holes in food service equipment for plumbing and electrical service to and through the fixtures, as required. This includes welded sleeves, collars, ferrules, or escutcheons. These services are to be located so that they do not interfere with intended use and/or servicing of the fixture.

O. All equipment provided by this Section, which requires light bulb(s), are to be provided with heavy-duty, energy efficient, extra long-life bulbs with a minimum life expectancy of 5000 hours, and as required by the local Jurisdictions. All light bulbs in and/or above foodservice equipment and/or areas are to be coated or provided with shields in compliance with local health codes.

P. All equipment provided by this Section, shall include all parts, components, options, accessories, etc. necessary to provide a completely functional item for its intended use under normal conditions; and if appropriate, after the final utility connections are completed by other Divisions. This shall generally apply to equipment such as soda systems, beer systems, and remote refrigeration systems, any type remote system or equipment, or ice machines; but shall also apply to any equipment provided by this Section.

3.04 TESTING, START-UP AND INSTRUCTIONS

A. Delay the start-up of equipment until service lines have been tested, balanced, and adjusted for pressure, voltage and similar considerations; and until water and steam lines have been cleaned and treated for sanitation.

B. Prior to demonstration, the KEC shall arrange for equipment, controls and safety devices started-up, checked out, properly calibrated and adjusted by an authorized service agency to ensure proper working order and conditions. Repair or replace equipment which is found to be defective in its operation, including units which are below capacity or operating with excessive noise or vibration.

C. Equipment must be fully-operable prior to the demonstration of equipment by the manufacturer.

3.05 DEMONSTRATION OF EQUIPMENT

A. Make arrangements for demonstration of operation, maintenance and safety features of all food service equipment, in advance with the Owner/Operator. KEC shall notify the Consultant and Architect so that they may be present.

B. Demonstrate foodservice equipment, to familiarize the Owner and the Operator on operation and maintenance procedures, including periodic preventative maintenance measures required. Include an explanation of service requirements and simple on-site service procedures, as well as, information concerning the name address and telephone number of qualified local source of service. The individual(s) performing the demonstration are to be knowledgeable of operating and service aspects of the equipment.

C. A representative of the supplier of the kitchen equipment must be present in the kitchen during the demonstration by the appropriate equipment manufacturer.

D. Provide a written report of the demonstration, to the Owner, outlining the equipment demonstrated and any malfunctions or deficiencies noted. Indicate individuals present at the demonstration. Notify the Consultant and Architect in writing that demonstrations/instructions have been completed with statement from Owner and the Operator that proper demonstrational instruction has satisfactorily been completed. Once this has been completed final jobsite inspection will be performed.

3.06 CLEAR AWAY, CLEANING & TURNOVER

A. Throughout the progress of their work, the KEC is to keep the working area free from debris and remove rubbish from premises resulting from work being done by them. At the completion of their work, the KEC is to leave the premises in a clean and finished condition.

B. After completion of installation, and other major work in foodservice areas, remove protective coverings and clean foodservice equipment, internally and externally.

C. Restore exposed and semi-exposed finishes, to remove abrasions and other damages; polish exposed metal surfaces and touch-up painted surfaces. Replace work, which cannot be successfully restored.

D. Polish glass, plastic, hardware and accessories, fixtures and fittings.

E. Final Cleaning: After testing and start-up, clean the foodservice equipment, and leave in a condition ready for the Owner to sanitize and use.

F. All keys for all locks provided with equipment provided under this Section, are to be gathered up, individually tagged with the equipment they belong to, put into a single box, and handed over to the Owner's authorized representative. A list of the keys and their associated equipment item numbers is to be provided with the O&M Manuals, along with a copy of the list, signed by the Owner's representative, acknowledging receipt of the keys.

3.07 EXISTING EQUIPMENT

A. The KEC is responsible for identifying, tagging and/or removing all existing equipment, which will be reused. Verify and coordinate specific equipment with these plans and specifications, and the Owner. This includes items existing, and the associated work necessary, at the time of the signing of the Contract for the foodservice equipment section; and does not include any items added, changed, or damaged (by other than the KEC) after the signing; except to the extent of work which would have been included with the original existing items.

B. Remove from existing locations, clean and renovate as noted below, store and re-install existing equipment to be reused, in the new locations as shown on plans; ready for utility connections, as appropriate. Existing equipment to be reused, with utility connections, to be removed after disconnection as noted in paragraph J below.

C. Do work in cooperation with Owner, so that normal functioning of services is minimally interrupted. Coordinate all removal and replacement scheduling with the Construction Scheduling Manager (or similar responsible party), to insure adequate time to complete the necessary work. If adequate time to properly relocate and reset the existing items and complete all cleaning and repair will not be available, due to continuing use of the existing items, or the allotted construction time; contact the Owner and obtain a written agreement as to what work is to be deleted or delayed; such as cleaning, repainting, or repairs.

D. All surface dirt, grease, oil, food residues, ingredients, extraneous matter and other soiling materials is to be removed to obtain minimum acceptable sanitation and food service standards. Thorough final rinsing of all cleaning agents to be at a minimum temperature of 180 degrees Fahrenheit where possible without damage to equipment or controls. Otherwise, use USDA approved cleaning agents and/or cleaning agents, which are acceptable for use with commercial food service equipment. This includes all exterior surfaces of the existing equipment to be reused, and interior work surfaces such inside oven compartments, fryer vats, warewashers, etc.

E. All painted items with major paint blemishes to be sanded, primed, and repainted to match the original color and type paint. Primer and paint to be of a type approved for use with commercial food service equipment. All controls, lights, view windows, non-painted parts, etc. to be protected as recommended by the Manufacturer. Minor paint blemishes can be touched-up in a professional manner. This work is to be included in the bid submittal, as a separate line cost, at the end of the bid submittal.

F. Replace and/or repair minor broken parts to produce a cleanable and functional item. Repairs and/or parts are for minor required items such as control knobs, handles, pilot lamps, belts, oil changes, minor adjustments and recalibrations, etc. This does not include addition or replacement of any wearing components such as cutters, blades, etc.; or any accessory components such as mixer beaters, hooks, whips, etc., except for presently existing accessory components which are broken and non-functional, or as noted in the itemized specifications.

G. Where required by local code authorities, provide additional parts and/or modifications to comply with code requirements in place at the time of this project.

H. Where required, remove reused existing equipment from the premises for repairs, alterations and cleaning.

I. Refer to schedule on the foodservice drawings and to the itemized specifications at the end of this section, for reused existing equipment.

J. Disconnection of existing equipment to be relocated and/or reused and disconnection and removal/disposal of existing equipment, which will not be reused, is work as designated by the Architect, and not included in this section. (see page 114000-1, 1.02.E)

K. Cost estimates for any repairs and/or parts more than the minor items stated above, or repairs requiring significant disassembling of the item, should be submitted to the Owner, for consideration and approval as an addition to the Contract. In general, this would be considered as any repairs and/or parts amounting to an estimate up to 10% of the cost of a comparable new item.

L. The Owner has salvage rights to all existing equipment. Existing equipment that is not to be reused, or claimed by the Owner, shall be removed by the contractor and disposed of as directed by the Architect/Owner.

3.08 INSPECTION AND PUNCH LIST

A. When it has been concluded that work is installed, operating and substantially complete, prepare a "punch list" of items yet to be completed and forward a copy to the Architect and the Consultant.

B. The Architect will request the Consultant to inspect the equipment after receipt of the punch list. If inspection reveals that the installation is not substantially complete, or the punch list is not of a minor nature, and another inspection is required, then a Certificate of Substantial Completion will not be issued.

C. Reimburse the Consultant for subsequent inspections (including long distance telephone calls) and time of the Consultant. If the costs have not been paid before final payment, the costs will be deducted from the KEC's final payment.

D. Immediately upon completion of the Consultant's inspection, correct punch list items. When items have been corrected, the KEC shall notify the Architect in writing that the installation is ready for inspection.

3.09 ITEMIZED SPECIFICATIONS

A. The following equipment schedule/specifications refers to various items of food service equipment shown on the Contract Drawings. The Contract Drawings and notes form a part of these specifications and shall be as binding as if written herein.

ITEMIZED SPECIFICATIONS

Note: Per 1.05A of this section, the basis of design for all drawings, specifications, and detail references is the first manufacturer and model listed. If another listed manufacturer is chosen by the KEC, it is the responsibility of the KEC to provide a model that is equal in production capabilities, capacity, and performance to the first manufacturer and model listed. The KEC is also to verify, coordinate, and allow for proper installation of equipment; taking into account possible revisions for utility connections, loads, and physical sizes. In the event there are any up charges or change orders as a result of the KEC submitting another listed manufacturer, those charges shall be the sole responsibility of the KEC.

Item #1 Exterior Walk-In Cooler/Freezer Compartment
Quantity: One (1)
Mfgr: Imperial Brown, Kolpak, Bally, International Cold Storage, Louisville Cooler
Model: Custom

Walk-In Cooler/Freezer to be provided as a complete unit produced and installed by one manufacturer including, but not limited to, hardware, accessories, mounting components, installation components and refrigeration components. Unit shall be the size and shape as shown on plans, allow for the proper installation of the specified shelving package, and be approved/listed in accordance with UL and NSF. Walk-ins shall be constructed in accordance with all state and local codes; meet requirements set forth by Energy Independence and Security Act of 2007; and designed for easy, accurate field assembly. It is the responsibility of the Kitchen Equipment Contractor to field verify all building conditions, pit recess dimensions, walk-in dimensions and building dimensions to ensure proper fit.

PANEL FABRICATION: Provide sectional prefabricated wall and ceiling panels, constructed and joined together per manufacturer's standard. Panels shall consist of interior and exterior metal pans precisely formed with metal dies and checked with gauges for uniformity. Panels shall be placed in steel molds with liquid urethane injected into mold to form a rigid insulation. Panels shall be made without wood or metal structural members, with 100% of each panel being urethane insulation. A flexible vinyl gasket shall be fitted on the interior and exterior of each panel along every tongue edge to provide gasketing at each joint. Seal all wall and floor sections to building floor with silicone. Where the span of the ceiling is too great to support itself, provide hanger rods attached to the building structural system. Provide all steel, hanger rods, and turnbuckles as required.

Insulation for panels shall be injection molded urethane, expanded without the use of CFC's, with a low K factor as measured according to ASTM C518-2004 and shall meet ASTM E-84 (UL723, FM4411). Insulation shall be at least 4" thick for wall and ceiling panels, unless otherwise specified. Insulation shall be at least R-28 for coolers and at least R-32 for freezers.

WALK-IN DOORS: Provide flush-mounted, in-fitting doors, sized and hinged as per plan. Door panels shall be constructed in a similar fashion as all other panels and shall seal to section via neoprene plastic gasket with magnetic core. Gaskets shall seal three sides while an adjustable, flexible sill sweep gasket shall seal bottom of door. Gaskets shall be NSF approved and replaceable without the use of tool. Door frames shall be equipped with heating elements at jamb, sill and head pre-wired to a junction box mounted on top of the ceiling panels. Equip each door with the following standard hardware:

1. Three (3) Kason Industries 1346S stainless steel spring action adjustable hinges
2. One (1) Kason Industries 1229S stainless steel SafeGuard locking handle with 948 inside release
3. One (1) Kason Industries 1094 SureClose stainless steel hydraulic walk-in door closer
4. One (1) Kason Industries Thermaflex double swing vinyl door as required (or equivalent)
5. One (1) Kason 1826 Intelli-Vent Pressure Relief Port With Security Light and Multi-Optional Junction Box to equalize the pressure of walk-in compartment. Furnish equipment with Hands-Free Motion Sensor to operate ceiling mounted LED lights.
6. One (1) 14" x 24" triple pane viewport with heat reflective glass (freezer viewport to be heated)
7. 36" high, 1/8" aluminum diamond-tread, foamed-in-place kick plates on interior and exterior

FLOOR CONSTRUCTION: Floor shall be of sectional pre-fabricated construction, erected on top of the building floor. Floor panels shall be intended for foot traffic and mobile cart usage and be capable of supporting evenly distributed loads up to 1,000 pounds per square foot. Floor panel construction shall be of heavy gauge aluminum treadplate over ½" minimum thickness tempered hardboard or marine plywood. Floor sections shall be insulated with polyurethane insulation and contain insulation of at least R–28 for freezers. Corners shall be die-formed, creating a no-weld, seamless at all three plane, intersection.

METAL FINISHES:

1. Exposed exterior wall panels shall be 24 gauge smooth galvanized steel
2. Exposed exterior finish of wall panels shall be baked-on color
    1. Color/Finish: Smooth Sandstone
3. All unexposed exterior walls shall be 26 gauge smooth galvanized steel.
4. Interior wall panels shall be 26 gauge embossed galvanized steel
5. Interior finish of wall panels shall be white baked-on enamel
6. Exterior and interior finish of all doors to match adjacent surfaces.

LIGHTING: Furnish Kason 1809-4 LED light fixture with high impact Lexan lens, quantity to meet minimum seventy (70) foot candles of light intensity measured at 30" AFF throughout compartment(s). Lights shall be controlled by press switch with pilot light mounted on exterior of the wall panel adjacent to exterior door.

ALARM/THERMOMETER: Furnish Modularm Model #75LCT Touch Screen Multi-Monitor temperature alarm for each compartment and mount both on exterior door section in lieu of standard unit. Unit to be flush mounted with Simple Touch Screen user interface. Alarms shall have high-low setting and have the ability to be recalibrated in field. Alarms shall have digital LED display, audio and visual alarms, silencer button, light control and shall include dry contact output for connection to optional remote system. Furnish alarm with extended sensor wiring to reach the rear of walk-in compartment and optional panic alarm with low voltage IP-1 illuminated push button (stays lit) on interior of compartment.

Provide Kason, or similar, analog thermometer as back up to electronic digital type in the event of a loss of power. Analog thermometer shall be located and mounted on the exterior wall near the entrance doors and in full view of the kitchen. Analog thermometer dial size shall be a minimum of 2.50" diameter.

Provide personnel alarm consisting of a lighted press switch located on an interior wall and adjacent to the door which activates an alarm horn. Division 26 to wire from the alarm to the 12V transformer, run sensor wire into the walk-in space, connect wires on the K.E.C. furnished personnel switch, and connect the output wires to the terminals on the K.E.C. furnished dry contact relay base.

BUMPER STRIPS: Furnish and install two (2) rows of vinyl bumpers with an extruded aluminum channel with case end caps field-mounted with stainless steel screws. Install on exposed exterior wall panels facing kitchen at 18" and 30" above finished floor. Furnish and install rubber wall panel protector(s) as necessary to avoid damage when cooler/freezer doors are fully open.

OUTDOOR COOLER/FREEZER SLOPED MEMBRANE ROOF: Manufacturer shall provide monolithic membrane roof cap with nylon mesh reinforcement as manufactured by DuroLast, GenFlex, or Soprema USA. Provide all mechanical fasteners and trim pieces to attach roof to building. Flash roof cap up building wall approximately 6º and down over sides of walk-in unit 5º. Furnish and install all required floor and ceiling seismic restraints as required by any federal, state, or local codes.

VERTICAL TRIM STRIPS AND CLOSURE PANELS: Provide one-piece, full-height vertical trim strips to match exterior of walk-in as necessary to seal walk-in to building walls. Provide horizontal closure panels to match exterior of walk-in as necessary to seal walk-in to finished ceiling line. Closure panels to be mounted to the front face of walk-in and finished ceiling with extruded aluminum "U" channel per plans and details. Closure panels shall be removable without tools.

INSTALLATION: Unit shall be delivered to site, erected, with refrigeration system connections by manufacturer's authorized installation personnel only. Installation shall include start-up, adjustment, and one year no charge service by manufacturer's authorized personnel only. Proper installation is the responsibility of the walk-in manufacturer.

The walk-in manufacturer's authorized installation personnel only shall connect compressors to respective coils. The suction and liquid lines run together, wrapped together with Armaflex to within three feet of applicable condensing unit. All liquid lines shall be equipped with recommended driers. All lines shall be hard copper, using sweat fittings for all bends and turns. Furnish and install condensate drain lines from evaporator coil(s), properly insulated and extended to floor drain as provided. Condensate drain lines shall be on routed on exterior of walk-in compartment only. Drain lines for freezer coil(s) shall be wrapped with a thermostatically controlled heater tape or factory installed integral heater. Cover drain lines with insulation as required. Sleeves for refrigeration lines, electrical lines and condensate drain lines shall be of extruded vinyl. Evaporator coil supports to be provided in reinforced ceiling panels to hang cooling coils. Mounting nuts and bolts, which extend through the ceiling of walk-in, shall be of stainless steel.

REFRIGERATION EQUIPMENT: Cooler (+35°F) evaporator coil(s) shall be low-profile and equipped with aluminum housing, fan blade guards in accordance with local and/or state codes, air defrost, and all components required for proper operation. Motors shall be electronically commutated and have built-in motor overload protection. Coil supports to be provided in the ceiling panel of walk-in cooler to support the cooling coil. Mounting nuts and bolts shall be non-corrosive. Provide water proof electrical disconnect, mounted high on wall behind cooler coil, per all state and local codes.

Freezer (-10°F) evaporator coil(s) shall be low-profile and equipped with aluminum housing, fan blade guards in accordance with local and/or state codes, electric defrost, drain pan heater, timers, thermostats and all components required for proper operation. Motors shall be electronically commutated and have built-in motor overload protection. Coil supports to be provided in the ceiling panel of walk-in freezer to support the cooling coil. Mounting nuts and bolts shall be non-corrosive. Provide water proof electrical disconnect per all state and local codes.

Scroll-type compressor(s) shall be sized to consistently achieve the design temperature, be factory assembled and UL listed. Compressor fan motors shall be either electronically commutated or permanent split capacitor type. Provide anti-vibration devices and a plastic sign with ¾" high letters stating the refrigerant type and the name of the walk-in compartment served by the compressor. Refrigerant shall be R-448A or similar HFC type.

Compressor(s) to be mounted in enclosed, louvered, all-weather, outdoor housing with lockable hinged access panels. Provide with factory mounted crankcase heater, head pressure control, liquid line drier and suction line vibrasorber. Unit shall be thermostat-solenoid pump down cycle with time-temperature clock. All high side components shall be factory-wired and rain-tight. Housing shall be painted in a custom color as selected by Architect and mounted on the building roof in location as directed by the Architect.

ROOF RAILS & PIPE CURB: Provide equipment support rails for mounting the compressor on the roof, constructed of 18 gauge galvanized steel with continuously mitered and welded corner seams, integral base plate, factory installed nailer and 18 gauge galvanized steel counter flashing. Provide pipe curb assembly complete with neoprene pipe boots, stainless steel clamps and ABS plastic cap. Install rails and pipe curb on the roof deck in locations as shown on the drawings.

WORK BY OTHER TRADES:

GENERAL DIVISION: Furnish and install all sleeves through building walls and roof as required for KEC to run refrigeration lines and electrical lines from walk-in cooler/freezer to walk-in cooler/freezer compressors. Sleeves to be located and coordinated in field by KEC and shall be of extruded vinyl.

Frame roof curb openings as required. Coordinate joist or structural member installation to provide required structural support for walk-in cooler/freezer compressors. Cut opening in roof for access to curbs and pitch pockets. Set-in place and flash (with cant if required) roof curbs and equipment support rail furnished by the walk-in cooler/freezer system manufacturer. Furnish and install adequate structural support for walk-in cooler/freezer compartments.

ELECTRICAL DIVISION: Mount light fixtures on ceiling panels as shown in the manufacturer's shop drawings and furnish and install all conduits, seal-off fixtures and wiring on outside of walk-in compartment for each light fixture. Furnish and install all conduit, wiring and fused disconnect switches necessary between evaporator coils and condensing units. Furnish and install all final electrical hook-ups and disconnects to heated door options in walk-in cooler/freezer unit.

All wiring and conduit to be installed above and on the outside of the walk-in cooler/freezer compartment. All penetrations thru walls and ceiling are to be equipped with "seal-offs" and sealed with silicone at each junction box to prevent moisture from collecting in fixture.

MECHANICAL DIVISION: Insure that there is constant airflow above and around all sides of walk-in compartments to eliminate moisture build-up.

Item #2 Mobile Cooler Shelving
Quantity: Six (6)
Mfgr: Intermetro
Model: MetroMax Q

Furnish and install where shown, complete with all standard accessories and as follows:

1. Thirty (30) MQ2142G shelves, with removable polymer shelf mats, epoxy coated steel frame, and quick adjust corner releases
2. Twenty-four (24) MQ63UPE posts, for use with stem casters, epoxy coated steel with Microban® antimicrobial product protection
3. Twenty-four (24) 5PCBX stem casters, with brakes

Item #3 Mobile Freezer Shelving
Quantity: Ten (10)
Mfgr: Intermetro
Model: MetroMax Q

Furnish and install where shown, complete with all standard accessories and as follows:

1. Fifteen (15) MQ2136G shelves, with removable polymer shelf mats, epoxy coated steel frame, and quick adjust corner releases
2. Thirty-five (35) MQ2142G shelves, with removable polymer shelf mats, epoxy coated steel frame, and quick adjust corner releases
3. Forty (40) MQ63UPE posts, for use with stem casters, epoxy coated steel with Microban® antimicrobial product protection
4. Forty (40) 5PCBX stem casters, with brakes

Item #4 Spare Number
Item #5 Spare Number

UNIT PRICE FORM:
MERKLEY ELEMENTARY SCHOOL

Note: This form, completely filled in, shall be submitted with the bid.

All items in this form shall be filled in and shall be bid as specified. The Bidder is required to list all manufacturers and model numbers of buy-out equipment and the specific fabricator and suppliers of all custom pieces for this project. The successful bidder agrees to supply all items on this bid form as specifically listed. No variations of this form will be accepted without written approval by the Food Service Consultant.

The amount listed for new items shall include the cost of the item and any applicable taxes. Freight costs and installation for each piece of equipment can be included individually as part of the line item or as a lump sum at the end of the Unit Price Form.

ITEM	QTY	DESCRIPTION	MRF./MODEL	UNIT PRICE	TOTAL
1	1	Exterior Walk-In Cooler/Freezer			
2	6	Mobile Cooler Shelving Unit			
3	10	Mobile Freezer Shelving Unit			
4	1	Spare Number	----------	----------	----------
5	1	Spare Number	----------	----------	----------
				TOTAL FREIGHT PRICE:	
				TOTAL INSTALLATION PRICE:	
				TOTAL BID PRICE:	

ACKNOWLEDGEMENT AND ACCEPTANCE:

By signing this document we acknowledge that we have read the complete specification section. Furthermore, we agree to use factory authorized installers and/or supervisors as specifically noted for specialty equipment in this specification section.

Corporate Name of Bidder: _____

Individual Responsible for this Project: _____

Signature: _____

Date: _____

SECTION 323113 - CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Chain-link fences.
2. Gates: swing.

B. Related Sections:

1. Division 03 Section "Cast-in-Place Concrete " for cast-in-place concrete post footings.
2. Division 26 Sections for electrical service and connections for motor operators, controls, limit and disconnect switches, and safety features and for system disconnect switches.

1.3 PERFORMANCE REQUIREMENTSqs

A. Lightning Protection System: Maximum grounding-resistance value of 25 ohms under normal dry conditions.

1.4 ACTION SUBMITTALS

A. Product Data with Shop Drawings:

1. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for chain-link fences and gates.

    a. Fence and gate posts, rails, and fittings.
    b. Chain-link fabric, reinforcements, and attachments.
    c. Accessories: Privacy slats.
    d. Gates and hardware.

2. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Show accessories, hardware, gate operation, and operational clearances.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified testing agency.

B. Product Certificates: For each type of chain-link fence, and gate, from manufacturer.

C. Product Test Reports: For framing strength according to ASTM F 1043.

1.6 QUALITY ASSURANCE

A. Preinstallation Conference: Conduct conference at Project site.

1. Inspect and discuss electrical roughing-in, equipment bases, and other preparatory work specified elsewhere.
2. Review sequence of operation for each type of gate operator.
3. Review coordination of interlocked equipment specified in this Section and elsewhere.
4. Review required testing, inspecting, and certifying procedures.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Faulty operation of gate operators and controls.
b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CHAIN-LINK FENCE FABRIC

A. General: Height indicated on the Drawings. Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist. Comply with CLFMI 2445 and with requirements indicated below:

1. Steel Wire Fabric: polymer-coated wire with a diameter of:

    a. 0.148 inch, for all tennis fencing.
    b. 0.120 inch, for all fencing around playgrounds.
    c. Mesh Size: 2 inches.
    d. Weight of aluminum coating; ASTM A 491, Type I, 0.4 oz./sq. ft. for 6 and 9 guage fabric, 0.35 oz./sq. ft. for 11 guage fabric.
    e. Polymer Coating: ASTM D 668

        1) Class 2b located on all fencing adjacent to playing fields and bleachers over metallic-coated steel wire.
        2) Color: Black, complying with ASTM F 934.

2. Selvage: Knuckled at both selvages.

    a. Coat selvage ends of fabric that is metallic coated before the weaving process with manufacturer's standard clear protective coating.

2.2 FENCE FRAMING

A. Posts and Rails: Comply with ASTM F 1043 for framing, ASTM F 1083 for Group IC round pipe, and the following:

1. Schedule: Round steel post size and rail for normal industrial applications.
2. Group: IA, round steel pipe, Schedule 40.
3. Fence Height: as indicated on drawings.
4. Strength Requirement: Heavy industrial according to ASTM F 1043.
5. Post Diameter and Thickness: According to ASTM F 1083.
6. Coating for Steel Framing:

Item	**Fence Height**	**Outside Diameter, Inches**	**F 1083 Sch 40 Regular Grade, Weight lb/ft**	**F 1043-IC WT-40, Weight lb/ft**
Line Post	thru 4 ft.	1.900	2.72	2.28
	over 4 to 8 ft.	2.375	3.65	3.12
	over 8 to 12 ft.	2.875	5.79	4.64
	over 12	4.00	9.11	6.57
Terminal Post	thru 4 ft.	2.375	3.65	3.12
	over 4 to 8 ft.	2.875	5.79	4.64
	over 8 to 12 ft.	4.00	9.11	6.57
	over 12	6.625	18.97	n/a
		1.660		
		Outside Diameter, Inches		

2.375	3.65	(For gate fabric
4.00	9.11	height up to and
6.625	18.97	including 6 ft.)

a. Metallic Coating:

1) Type A, consisting of not less than minimum 2.0-oz./sq. ft. average zinc coating per ASTM A 123/A 123M or 4.0-oz./sq. ft. zinc coating per ASTM A 653/A 653M.

b. Polymer coating over metallic coating.

1) Color: Black, complying with ASTM F 934.

2.3 TENSION WIRE

A. Metallic-Coated Steel Wire: 0.177-inch- diameter, marcelled tension wire complying with ASTM A 817 and ASTM A 824, with the following metallic coating:

1. Type I, aluminum coated (aluminized).
2. Type II, zinc coated (galvanized) by hot-dip process, with the following minimum coating weight:

a. Class 3: Not less than 0.8 oz./sq. ft. of uncoated wire surface.
b. Class 4: Not less than 1.2 oz./sq. ft. of uncoated wire surface.
c. Class 5: Not less than 2 oz./sq. ft. of uncoated wire surface.
d. Matching chain-link fabric coating weight.

3. Type III, Zn-5-Al-MM alloy with the following minimum coating weight:

a. Class 60: Not less than 0.6 oz./sq. ft. of uncoated wire surface.
b. Class 100: Not less than 1 oz./sq. ft. of uncoated wire surface.
c. Matching chain-link fabric coating weight.

B. Polymer-Coated Steel Wire: 0.177-inch- diameter, tension wire complying with ASTM F 1664, Class 1 over aluminum -coated steel wire.

1. Color: Match chain-link fabric, complying with ASTM F 934.

C. Aluminum Wire: 0.192-inch- diameter tension wire, mill finished, complying with ASTM B 211, Alloy 6061-T94 with 50,000-psi minimum tensile strength.

2.4 SWING GATES

A. General: Comply with ASTM F 900 for gate posts and single and double swing gate types. Provide automated vehicular gates that comply with ASTM F 2200.

1. Gate Leaf Width: As indicated.

2. Gate Fabric Height: As indicated.

B. Pipe and Tubing:

1. Zinc-Coated Steel: Comply with ASTM F 1043 and ASTM F 1083; protective coating and finish to match fence framing.
2. Aluminum: Comply with ASTM B 429/B 429M; manufacturer's standard finish.
3. Gate Posts: Round tubular steel.
4. Gate Frames and Bracing: Round tubular steel.

C. Frame Corner Construction: Welded.

D. Hardware:

1. Hinges: 360-degree inward and outward swing.
2. Latches permitting operation from both sides of gate with provision for padlocking accessible from both sides of gate.
3. Padlock and Chain: Owner furnished.
~~2.~~ Insert requirements for padlocks and chains if not
4. Closer: Manufacturer's standard.

2.5 FITTINGS

A. General: Comply with ASTM F 626.

B. Rail and Brace Ends: For each gate, corner, pull, and end post.

C. Rail Fittings: Provide the following:

1. Top Rail Sleeves: Pressed-steel or round-steel tubing not less than 6 inches long.
2. Rail Clamps: Line and corner boulevard clamps for connecting intermediate and bottom rails in the fence line-to-line posts.

D. Tension and Brace Bands: Pressed steel.

E. Truss Rod Assemblies: Steel, hot-dip galvanized after threading rod and turnbuckle or other means of adjustment.

F. Finish:

1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. zinc.

a. Polymer coating over metallic coating.

2. Aluminum: Mill finish.

2.6 PRIVACY SLATS

A. Material: Fiber-glass-reinforced plastic, UV-light stabilized, not less than 0.06 inch thick, sized to fit mesh specified for direction indicated; with vandal-resistant fasteners and lock strips.

B. Color: Black.

2.7 GROUT AND ANCHORING CEMENT

A. Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer, for exterior applications.

2.8 FENCE GROUNDING

A. Conductors: Bare, solid wire for No. 6 AWG and smaller; stranded wire for No. 4 AWG and larger.

1. Material above Finished Grade: Aluminum.
2. Material on or below Finished Grade: Copper.
3. Bonding Jumpers: Braided copper tape, 1 inch wide, woven of No. 30 AWG bare copper wire, terminated with copper ferrules.

B. Connectors and Grounding Rods: Comply with UL 467.

1. Connectors for Below-Grade Use: Exothermic welded type.
2. Grounding Rods: Copper-clad steel, 5/8 by 96 inches.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for a verified survey of property lines and legal boundaries, site clearing, earthwork, pavement work, and other conditions affecting performance of the Work.

1. Do not begin installation before final grading is completed unless otherwise permitted by Architect.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

3.3 INSTALLATION, GENERAL

A. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements indicated.

1. Install fencing on established boundary lines inside property line.

3.4 CHAIN-LINK FENCE INSTALLATION

A. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.

B. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.

1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.

a. Exposed Concrete: Extend 2 inches above grade; shape and smooth to shed water.
b. Concealed Concrete: Top 2 inches below grade as indicated on Drawings to allow covering with surface material.
c. Posts Set into Concrete in Sleeves: Use steel pipe sleeves preset and anchored into concrete for installing posts. After posts have been inserted into sleeves, fill annular space between post and sleeve with nonshrink, nonmetallic grout, mixed and placed to comply with anchoring material manufacturer's written instructions, and finished sloped to drain water away from post.
d. Posts Set into Voids in Concrete: Form or core drill holes not less than 5 inches deep and 3/4 inch larger than OD of post. Clean holes of loose material, insert posts, and fill annular space between post and concrete with nonshrink, nonmetallic grout, mixed and placed to comply with anchoring material manufacturer's written instructions, and finished sloped to drain water away from post.

C. Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of 30 degrees or more.

D. Line Posts: Space line posts uniformly at 96 inches o.c.

E. Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Diagonally brace terminal posts to adjacent line posts with truss rods and turnbuckles. Install braces at end and gate posts and at both sides of corner and pull posts.

1. Locate horizontal braces at midheight of fabric 72 inches or higher, on fences with top rail and at two-third fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.

F. Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.

G. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 1 inch between finish grade or surface and bottom selvage unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.

H. Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches o.c.

I. Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.

1. Maximum Spacing: Tie fabric to line posts at 12 inches o.c. and to braces at 24 inches o.c.

J. Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

K. Privacy Slats: Install slats in direction indicated, securely locked in place.

1. Vertically, for privacy factor of 70 to 75.

3.5 GATE INSTALLATION

A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

3.6 GROUNDING AND BONDING

A. Fence Grounding: Install at maximum intervals of 1500 feet except as follows:

1. Fences within 100 Feet of Buildings, Structures, Walkways, and Roadways: Ground at maximum intervals of 750 feet.

a. Gates and Other Fence Openings: Ground fence on each side of opening.

1) Bond metal gates to gate posts.
2) Bond across openings, with and without gates, except openings indicated as intentional fence discontinuities. Use No. 2 AWG wire and bury it at least 18 inches below finished grade.

B. Protection at Crossings of Overhead Electrical Power Lines: Ground fence at location of crossing and at a maximum distance of 150 feet on each side of crossing.

C. Fences Enclosing Electrical Power Distribution Equipment: Ground as required by IEEE C2 unless otherwise indicated.

D. Grounding Method: At each grounding location, drive a grounding rod vertically until the top is 6 inches below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at the grounding location, including the following:

1. Make grounding connections to each barbed wire strand with wire-to-wire connectors designed for this purpose.
2. Make grounding connections to each barbed tape coil with connectors designed for this purpose.

E. Bonding Method for Gates: Connect bonding jumper between gate post and gate frame.

F. Connections: Make connections to minimize possibility of galvanic action or electrolysis. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.

1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer in order of galvanic series.
2. Make connections with clean, bare metal at points of contact.
3. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
4. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.

G. Bonding to Lightning Protection System: If fence terminates at lightning-protected building or structure, ground the fence and bond the fence grounding conductor to lightning protection down conductor or lightning protection grounding conductor complying with NFPA 780.

3.7 FIELD QUALITY CONTROL

A. Grounding-Resistance Testing: Owner will engage a qualified testing agency to perform tests and inspections.

1. Grounding-Resistance Tests: Subject completed grounding system to a megger test at each grounding location. Measure grounding resistance no fewer than two full days after last trace of precipitation, without soil having been moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural grounding resistance. Perform tests by two-point method according to IEEE 81.
2. Excessive Grounding Resistance: If resistance to grounding exceeds specified value, notify Architect promptly. Include recommendations for reducing grounding resistance and a proposal to accomplish recommended work.

3. Report: Prepare test reports certified by a testing agency of grounding resistance at each test location. Include observations of weather and other phenomena that may affect test results.

3.8 ADJUSTING

A. Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

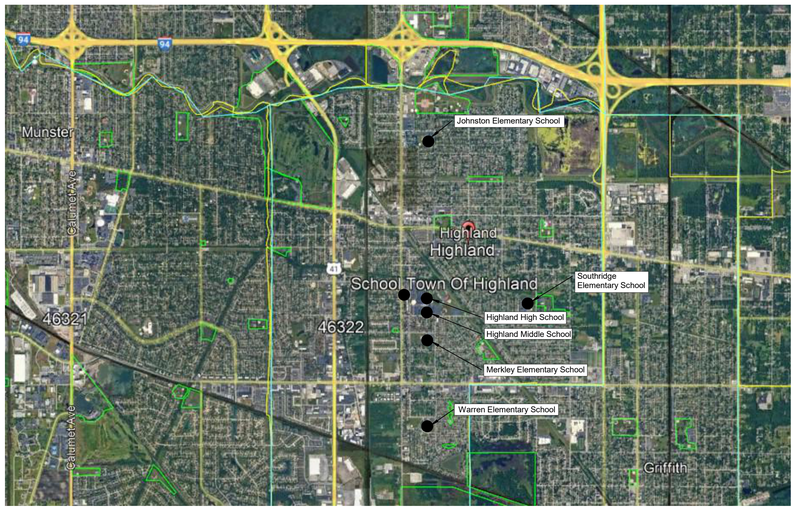
END OF SECTION 323113

School Town of Highland
G.O. Bond 2022 Projects

2022-056.GBP
9145 Kennedy Avenue
Highland, Indiana 46322

02.13.2023

2022-056.GBP



School Town of Highland

Administration Building
9145 Kennedy Avenue
Highland, Indiana 46322

Highland High School
9135 Erie Street
Highland, Indiana 46322

Highland Middle School
2941 41st Street
Highland, Indiana 46322

Johnston Elementary School
8220 5th Street
Highland, Indiana 46322

Merkley Elementary School
9340 5th Street
Highland, Indiana 46322

Southridge Elementary School
9221 Johnston Street
Highland, Indiana 46322

Warren Elementary School
2901 100th Street
Highland, Indiana 46322

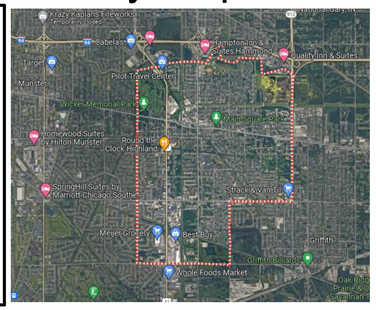
SHEET INDEX

General Notes

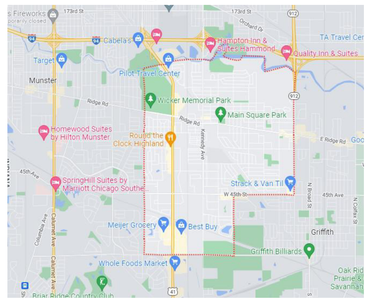
Nothing set forth in these Drawings shall release any Contractor from responsibility to provide appropriate quantities, field measurements, dimensional stability, installation, anchorage and coordination with other trades, or waive the Contractor's responsibility to identify and resolve deviations from the requirements of the Contract Documents, or waive the Contractor's responsibility to alert the Architect to errors or omissions contained therein.
Each Contractor shall verify in the field all existing applicable conditions and dimensions shown on the Drawings and as pertinent to the intent of these Drawings. Any discrepancy discovered shall be brought to the attention of the Architect prior to the commencement of any Work affected by, or related to, such discrepancy.
Each Contractor shall be responsible for all costs associated with, or caused by failure to comply with requirement.
Each Contractor shall review in advance all portions of the Work to verify that the Work will not prohibit completion of the Project as intended in these Contract Documents. Any questions shall be promptly referred to the Architect for resolution.

Each Contractor shall refer to the Project Manual for cleaning and disposal requirements.
Each Contractor shall be responsible for the protection of all surfaces and finishes at interior and exterior of building. Damaged surfaces and finishes resulting from the performance of the Work shall be repaired at no cost to the Owner by the responsible Contractor to match existing to the satisfaction of the Owner.
Each Contractor shall coordinate respective cutting and patching Work with the other Prime Contracts.
Each Contractor shall become completely familiar with all aspects of the Work, even those areas designated to be provided by others. This familiarization includes full and complete understanding of the Work described on all Sheets of the Drawings and in all Sections of the Project Manual. Failure by the Contractor to become completely familiar and cognizant of all aspects of the Work shall not relieve the Contractor of the responsibility to provide materials, assemblies, or services indicated in the Contract Documents.

Vicinity Map



Thoroughfare Map



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SKILLMAN

School Town of Highland
G.O. Bond 2022 Projects

G-000.0

4C PROJECT LOCATION
SCALE: 1" = 200'

4A PROJECT LOCATIONS
SCALE: 1" = 200'

GENERAL EROSION CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS, LATEST EDITION, AVAILABLE FROM THE DIVISION OF SOIL CONSERVATION, INDIANA DEPARTMENT OF NATURAL RESOURCES.
2. A COPY OF THIS EROSION AND SEDIMENT CONTROL PLAN AND THE EROSION AND SEDIMENT CONTROL REPORT SHALL BE AVAILABLE AT THE PROJECT SITE THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL CONTROL WASTE, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE SO THEY WILL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WIND, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL OR MANAGEMENT OF ALL WASTES AND UNUSED BUILDING MATERIAL APPROPRIATE TO THE NATURE OF THE WASTE OR MATERIAL IS REQUIRED.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IMMEDIATELY REMOVE ALL MUD, DIRT, STONE, SAND, CONCRETE, AND ANY OTHER MATERIALS TRANSFERRED ONTO ALL SURROUNDING STREETS, DRIVES, LOTS AND SIDEWALKS, AND RESTORE THOSE AREAS TO A CLEAN CONDITION AS DIRECTED BY THE OWNER'S REPRESENTATIVE. IF THE CONTRACTOR DOES COMPLY, THE OWNER SHALL SEEK TO HAVE THE CLEANING PERFORMED BY OTHER SOURCES AND ALL ASSOCIATED COSTS SHALL BE DEDUCTED FROM THE CONTRACTOR'S CONTRACT.
5. PUBLIC OR PRIVATE ROADWAYS SHALL BE KEPT CLEAR OF ACCUMULATED SEDIMENT. ALL SEDIMENT THAT IS CLEARED MUST BE RETURNED TO THE LIKELY POINT OF ORIGIN OR OTHER SUITABLE LOCATION. CLEARING OF LARGE AMOUNTS OF SEDIMENT SHALL NOT INCLUDE FLUSHING THE AREA WITH WATER.
6. THE CONTRACTOR SHALL PROVIDE ALL MEANS REQUIRED TO CONTROL DUST THROUGHOUT THE PROJECT. DUST SHALL NOT BE GENERATED OR ALLOWED AT ANY TIME THROUGHOUT THE PROJECT. IF THE CONTRACTOR DOES COMPLY, THE OWNER SHALL SEEK TO HAVE THE DUST CONTROL MEASURES PERFORMED BY OTHER SOURCES AND ALL ASSOCIATED COSTS SHALL BE DEDUCTED FROM THE CONTRACTOR'S CONTRACT.
7. CONTRACTOR SHALL BE RESPONSIBLE TO SUPPLY ALL WATER AND OTHER MATERIAL FOR DUST CONTROL AND SOIL STABILIZATION OPERATIONS.
8. MINIMIZE THE EXPOSURE OF BARE EARTH BY LIMITING THE WORK AREA TO THAT NECESSARY TO PERFORM THE WORK, AND BY PROPER SCHEDULING OF MANPOWER AND EQUIPMENT.
9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED, CLEANED, AND MAINTAINED FOLLOWING EACH STORM EVENT.
10. WHEREVER POSSIBLE, MAINTAIN EXISTING VEGETATIVE COVER. USE NON-VEGETATIVE MATERIAL INCLUDING MULCH, EROSION BLANKETS, OR STONE TO CONTROL EROSION FROM DISTURBED AREAS.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. AN INSTALLED PRACTICE SHALL NOT BE REMOVED UNTIL THE AREA OF THE WORK CONTRIBUTING RUNOFF TO THE PRACTICE HAS BEEN COMPLETED AND STABILIZED, OR UNTIL SUFFICIENT ADDITIONAL MEASURES HAVE BEEN INSTALLED TO PROVIDE PROPER PROTECTION TO THE SITE AND SURROUNDING AREA FROM EROSION AND SEDIMENTATION.

GENERAL SITE GRADING AND DRAINAGE NOTES:

1. CONTRACTOR SHALL VERIFY ALL EXISTING GRADES IN FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ARCHITECT/ENGINEER.
2. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE IN ALL AREAS. PAVING CONTRACTOR SHALL TEST FOR ANY PONDING CONDITIONS AFTER INSTALLATION AND CORRECT. SEE SPECIFICATIONS.
3. SEE SITE GRADING SHEETS FOR EROSION CONTROL TO BE INCORPORATED DURING CONSTRUCTION.
4. CONTRACTOR SHALL COORDINATE ALL EARTH MOVING ACTIVITIES WITH ALL EXISTING AND NEW UTILITIES. VERIFY COVER REQUIREMENTS WITH UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO NOT TO CAUSE DAMAGE.
5. CONTRACTOR SHALL STABILIZE ALL EARTHEN AREAS DISTURBED DURING CONSTRUCTION. SEE SEASONAL SOIL PROTECTION CHART AND EROSION CONTROL PLAN.
6. CONTRACTOR SHALL STABILIZE ANY STOCKPILED TOPSOIL AGAINST EROSION WITHIN 15 DAYS OF STOCKPILING. SEE SEASONAL SOIL PROTECTION CHART AND EROSION CONTROL PLAN.
7. PROVIDE SMOOTH TRANSITION FROM NEW AREAS TO EXISTING FEATURES AS NECESSARY.
8. THE CONTRACTOR SHALL PREPARE THE FINISH GRADE AT 1/2" BELOW ADJACENT PAVED AREAS. FINISHED GRADES IN PLANTING AREAS SHALL BE 1" LOWER THAN ADJACENT PAVING AND ARE TO INCLUDE 3" MULCHING OVER PLANTING SOIL, SEE SPECS.
9. PRIOR TO FINISH GRADING, CONTRACTORS SHALL MAINTAIN ALL WATER DRAINING OFF SITE CONSISTENT WITH DRAWINGS. NO WATER SHALL BE DIVERTED ONTO ADJOINING PROPERTIES DURING ANY PART OF THE GRADING PROCESS.

ABBREVIATIONS:

Accel.	Acceleration
Add.	Addendum
Adj.	Adjacent
Alt.	Alternate
Approx.	Approximately
Arch.	Architectural
Cal.	Caliper
CIP	Cast in place
C.E.	Civil Engineer
CL	Center line
CMU	Concrete masonry unit
Conc.	Concrete
CJ	Control joint
Decel.	Deceleration
Demo.	Demolition
Det.	Detail
Dia.	Diameter
El.	Elevation
Elec.	Electrical
EQ	Equal distance
Exist.	Existing
Exp.	Expansion
EJ	Expansion joint
FOW	Face of wall
FFE	Finish floor elevation
Ft.	Foot
Ga.	Gauge
Ht.	Height
HDPE	High Density Polyethylene
Horiz.	Horizontal
In/Ln Ft.	Inches per linear foot
I.D.	Inside diameter or dimension
Inv.	Invert
L.A.	Landscape Architect
M.H.	Manhole
Max.	Maximum
Mech.	Mechanical
Med.	Medium
Min.	Minimum
N/A	Not applicable
O.C.	On center
O.D.	Outside diameter
Perp.	Perpendicular
P.O.B.	Point of beginning
PVC	Polyvinyl chloride
R	Radius
Ref.	Reference.
RCP	Reinforced concrete pipe
Reinf.	Reinforcing
Req'd.	Required
ROW	Right or way
San.	Sanitary
Sht.	Sheet
Sim.	Similar
SLCPP	Smooth Lined Corrugated Plastic Pipe
Specs.	Specifications
Sq.	Square
STA	Station point
Storm	Storm sewer
Struct.	Structural
Thk.	Thick
TBS	To be selected
Typ.	Typical
Vert.	Vertical
VIF	Verify in field
W.	Width
w/	with
w/o	without
WWF	Woven wire fabric
WWM	Woven wire mesh

SYMBOL LEGEND

3	Demolition note
6	Plan note
AC / 86	Plant note
X / X-XXX	Detail reference
3 / CU401	Section reference
767.30	Proposed spot elevation Note and Mark
768	Proposed contour
TC 767.50 / EP 767.00	Top of curb / Edge of pavement
TC 767.75 / TR 767.25	Top of curb / Rim
ME	Match existing elevation
	Elevation target
ST-12	Storm structure number
SS-03	Sanitary sewer structure number
N: 4489.33 / E: 5876.22	Coordinate Reference Point

GENERAL SITE NOTES:

1. ALL TOPOGRAPHIC AND BOUNDARY SURVEY INFORMATION HAS BEEN OBTAINED FROM V3, INC. DATED 10/104/2022, SEE SHEET SV101. SCHMIDT ASSOCIATES, INC. CLAIMS NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED IN THESE SURVEYS.
2. ALL DAMAGES TO EXISTING IMPROVEMENTS, EXCAVATION AND/OR REMOVAL OF ANY AND ALL EXISTING IMPROVEMENTS DURING CONSTRUCTION SHALL BE KEPT TO A MINIMUM. ANY EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED, RECONSTRUCTED OR REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL MUD, DIRT, GRAVEL, AND ANY OTHER MATERIALS TRUCKED ONTO ANY PUBLIC OR PRIVATE STREETS OR SIDEWALKS.
4. PROVIDE SMOOTH TRANSITION FROM NEW AREAS TO EXISTING FEATURES AS NECESSARY.
5. THE CONTRACTOR SHALL SUBMIT SAMPLES OF MATERIALS AND FINISHES TO THE LANDSCAPE ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO ORDERING AND INSTALLATION AS OUTLINED IN THE SPECIFICATIONS.
6. ALL AREAS WHERE PROPOSED ASPHALT PAVEMENT MEETS THE EXISTING PAVEMENT, THE EXISTING PAVEMENT EDGE SHALL BE PROPERLY SEALED WITH A TACK COAT MATERIAL.

GENERAL UTILITY NOTES:

1. ALL KNOWN UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF THE EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE TO THE UTILITIES DURING PROBING OR CONSTRUCTION. TO OBTAIN FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES, CALL INDIANA UNDERGROUND CABLE LOCATIONS 1.800.382.5544 OR 811.
2. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR THE RELOCATION OF UTILITIES ON SITE OR CROSSING THE SITE TO SERVICE ADJACENT PROPERTIES. DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED AND USED BY OWNER OR OTHERS, DURING OCCUPIED HOURS, EXCEPT WHEN PERMITTED.
3. COORDINATE ALL UTILITIES WITH M, E, AND P SERIES DRAWINGS.
4. ALL COSTS INCURRED IN COORDINATION OF ALL NEW UTILITY SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL CONNECTIONS TO EXISTING STORM, SANITARY, WATER, GAS, COMMUNICATION, AND ELECTRIC UTILITIES SHALL BE VERIFIED WITH ENGINEER AND COORDINATED WITH RESPECTIVE UTILITY PRIOR TO BEGINNING WORK.
6. A LAYER OF FILTER FABRIC SHALL BE PLACED UNDER EACH INLET CASTING DURING THE CONSTRUCTION PERIOD.
7. MAINTAIN 10 FEET (HORIZONTAL) AND 18 INCHES (VERTICAL) SEPARATION BETWEEN WATER MAINS AND STORM/SANITARY SEWERS. THIS MEASUREMENT SHALL BE OUTSIDE TO OUTSIDE OF PIPES.
8. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TESTING OF STRUCTURES PER CITY REQUIREMENTS. ALL COSTS FOR PERMITS AND TESTING TO BE BY CONTRACTOR.
9. CONTRACTOR IS RESPONSIBLE FOR ALL TESTING AND COSTS FOR ADDITIONAL EXCAVATION, IF REQUIRED, TO PROVIDE SUITABLE AND STABLE SUPPORT UNDER ALL PIPE AND STRUCTURES AS DIRECTED BY THE ENGINEER.

GENERAL SITE DEMOLITION NOTES:

1. REMOVAL OF EXISTING CONCRETE AND ASPHALT PAVEMENT INDICATED ON PLANS SHALL INCLUDE ALL AGGREGATE BASE AND SUBGRADE MATERIALS. SAWCUT ALL EXISTING PAVED AREAS TO BE REMOVED. ALL CUTS SHALL BE CLEAN, NEAT AND TRUE TO LINE. WHERE PLANT MATERIAL IS PROPOSED TO REPLACE REMOVED CONCRETE AND ASPHALT, CONTRACTOR SHALL REMOVE ALL NON-ORGANIC OR TOXIC MATTER THAT WOULD INTERFERE WITH PROPOSED PLANT MATERIAL. CONTRACTOR SHALL DISPOSE OF EXCAVATED MATERIAL OFF-SITE AT APPROVED DISPOSAL SITES ONLY, UNLESS SHOWN OTHERWISE.
2. DEMOLISH AND COMPLETELY REMOVE FROM SITE, EXISTING UNDERGROUND UTILITIES INDICATED TO BE REMOVED. COORDINATE WITH UTILITY COMPANIES AND OWNER FOR SHUT-OFF SERVICES, IF LINES ARE ACTIVE.
3. ALL UNDERGROUND UTILITIES OR STRUCTURES IN PROPOSED PAVEMENT OR BUILDING AREAS REQUIRING REMOVAL SHALL BE BACKFILLED COMPLETELY WITH APPROVED ENGINEERED GRANULAR MATERIAL SUITABLE TO THE LANDSCAPE ARCHITECT/ENGINEER.
4. REFER TO M, E, AND P SERIES DRAWINGS FOR SITE DEMOLITION WORK TO BE PERFORMED BY MECHANICAL AND ELECTRICAL CONTRACTOR.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING TREES AND SHRUBS DESIGNATED TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION TO THE EXTENT OF THE DRIP LINES. EXISTING TREES SHALL BE FENCED OFF AND NO MATERIALS OR HEAVY EQUIPMENT SHALL ENCROACH FENCED AREAS DURING DEMOLITION AND CONSTRUCTION.
6. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS IN A LEGAL MANNER.
7. CONTRACTOR SHALL MAINTAIN DUST CONTROL WITH WATER AT ALL TIMES. METER INSTALLATION AND WATER COSTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
8. THE USE OF EXPLOSIVES IS PROHIBITED ON THIS PROJECT.
9. CATCH BASINS, SEWER INLETS, ETC. ARE TO BE PROTECTED FROM DEBRIS AND SEDIMENTATION DURING DEMOLITION. INSTALL FILTER FABRIC UNDER ANY INLET CASTINGS ON OR OFF SITE THAT RECEIVE STORM WATER FROM THE SITE BEFORE ANY DEMOLITION OR EARTHWORK ACTIVITIES COMMENCE.
10. VERIFY ALL TREES TO BE REMOVED WITH LANDSCAPE ARCHITECT/ENGINEER IN FIELD PRIOR TO FELLING.
11. IF ANY DISCREPANCIES OCCUR BETWEEN CONTRACT DOCUMENTS AND SITE CONDITION DURING DEMOLITION,, CONTACT ARCHITECT/ENGINEER IMMEDIATELY.

GENERAL TRAFFIC CONTROL NOTES:

1. ALL SIGNS, STANDARDS, AND BARRICADES SHALL CONFORM TO INDOT STANDARD DETAIL SHEETS AND THE INDIANA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE PLANNED CONSTRUCTION ACTIVITIES WITH THE COUNTY HIGHWAY DEPARTMENT AND/OR THE LOCAL STREET DEPARTMENT PRIOR TO CONSTRUCTION.
3. IF CONSTRUCTION ACTIVITIES ARE EXPECTED TO DISRUPT NORMAL OFF-SITE TRAFFIC FLOW, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE COUNTY HIGHWAY DEPARTMENT AND/OR THE LOCAL STREET DEPARTMENT AND PREPARE ALL MAINTENANCE OF TRAFFIC PLANS AS REQUIRED.
4. NORMAL SITE TRAFFIC CIRCULATION TO BE MAINTAINED DURING CONSTRUCTION. CONTRACTOR TO ERECT BARRICADES AS NEEDED TO PROTECT CONSTRUCTION AREA FROM NORMAL TRAFFIC PATTERNS AROUND THE EXISTING FACILITIES.
5. IF EXISTING TRAFFIC CIRCULATION PATTERNS AROUND EXISTING FACILITIES MUST BE DISRUPTED OR BLOCKED, CONTRACTOR SHALL SUBMIT A TRAFFIC PLAN AND OBTAIN WRITTEN APPROVAL FROM ARCHITECT/ENGINEER BEFORE PROCEEDING.

GENERAL SITE STAKING AND LAYOUT NOTES:

1. DO NOT SCALE DRAWING FOR DETERMINING EXACT LAYOUT INFORMATION.
2. CONTRACTOR SHALL STAKE AND VERIFY ALL DIMENSIONS IN FIELD PRIOR TO INITIATION OF ANY CONSTRUCTION. REVIEW ANY DISCREPANCIES IMMEDIATELY WITH THE LANDSCAPE ARCHITECT/ENGINEER FOR RESOLUTION.
3. ALL LAYOUT COMPONENTS SHALL BE STAKED OUT IN THE FIELD BY THE CONTRACTOR. OBTAIN LANDSCAPE ARCHITECT/ENGINEER APPROVAL BEFORE STARTING CONSTRUCTION.
4. ALL DIMENSIONS IN CURBED AREAS SHALL BE TO FACE OF CURB. ALL DIMENSIONS IN AREAS WITHOUT CURBING SHALL BE TO EDGE OF PAVEMENT. ALL DIMENSIONS AT INTEGRAL CURB AND WALK SHALL BE TO FACE OF CURB. ALL DIMENSIONS FROM BUILDING SHALL BE FROM FACE OF BUILDING.
5. ALL DIMENSIONS ARE PARALLEL AND PERPENDICULAR TO BASE LINES, PROPERTY LINES OR BUILDING LINES UNLESS OTHERWISE NOTED.
6. ALL RADII INDICATED SHALL BE FORMED AS CIRCULAR ARCS. ALL CURVES AND ARCS SHALL INTERSECT OTHER CURVES AND LINES AT POINTS OF TANGENCY TO FORM SMOOTH TRANSITIONS UNLESS CLEARLY SHOWN OTHERWISE.
7. WHERE NOT SHOWN, SIDEWALK AND RETAINING WALL EXPANSION JOINTS SHALL BE 30'-0" O.C. AND CONTROL JOINTS 5'-0" O.C. MAXIMUM SPACING. CURB EXPANSION JOINTS SHALL BE 50'-0" O.C. AND CONTROL JOINTS SHALL ALIGN WITH ADJACENT SIDEWALK WHERE APPLICABLE, OTHERWISE 5'-0" MAXIMUM SPACING SHALL BE USED.
8. ALL WALKS SHALL RECEIVE MEDIUM BROOM-SWEPT FINISH PERPENDICULAR TO DIRECTION OF TRAFFIC FLOW UNLESS OTHERWISE NOTED. COORDINATE JUNCTIONS WITH LANDSCAPE ARCHITECT/ENGINEER IN FIELD, UNLESS OTHERWISE NOTED.
9. ACCESSIBLE RAMPS AND SIGNAGE SHALL BE IN ACCORDANCE WITH FEDERAL, STATE, COUNTY, CITY, AND LOCAL CODES WHICHEVER HAS JURISDICTION. SEE SITE PLANS FOR LOCATIONS AND SITE DETAILS FOR SPECIFICATIONS.
10. PARKING STRIPING ASSOCIATED WITH ACCESSIBLE PARKING STALLS AND LOADING ZONES ARE TO BE 4" WIDE PAINTED BLUE. ALL OTHER STRIPES ARE TO BE 4" WIDE PAINTED WHITE.
11. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS.
12. REFER TO PLANTING PLANS FOR LAYOUT OF ALL TREES, SHRUBS, PLANTING BEDS AND EXTENT OF ALL SODDING AND SEEDING.

SCHMIDT ASSOCIATES
415 Massachusetts Avenue
Indianapolis, IN 46204
www.schmidt-arch.com

Project No. 2022-056.GBP
Project Date 02.13.2023
Produced ATJ

KYLE E. MILLER
REGISTERED
NO. 19900465
STATE OF INDIANA
PROFESSIONAL ENGINEER

#	Revision	Date
A1	ADDENDUM #1	02.24.2023

9135 Erie Street
Highland, IN 46332

N

School Town of Highland

SCHOOL TOWN OF HIGHLAND

Highland HS / MS Site Improvements

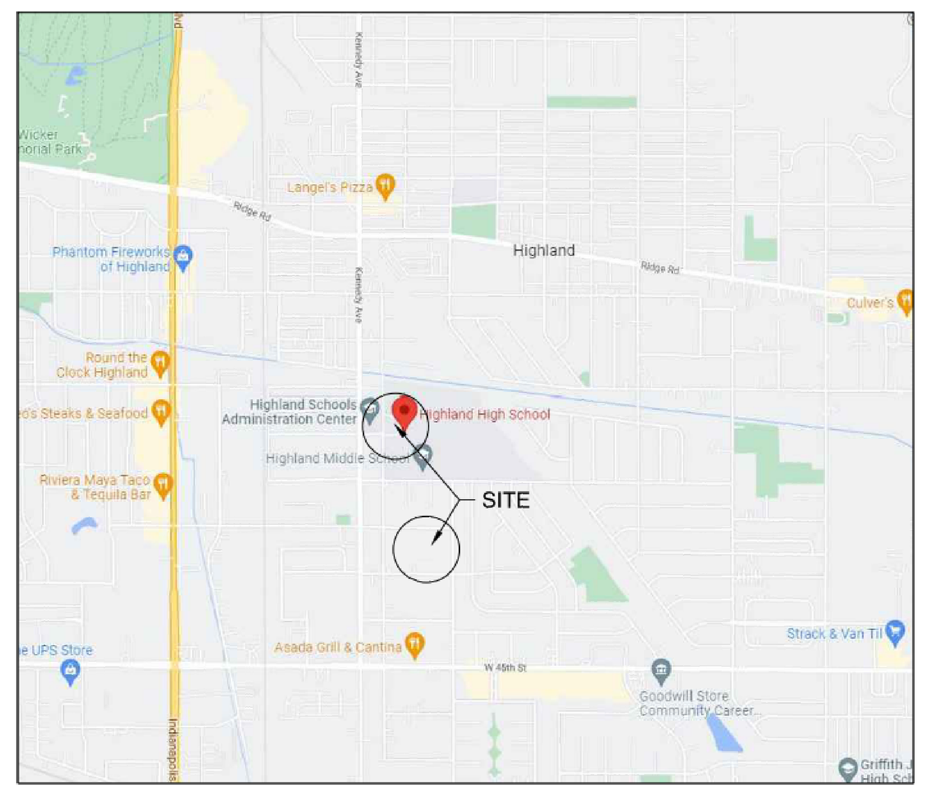
GENERAL NOTES & ABBREVIATIONS

C-001.2

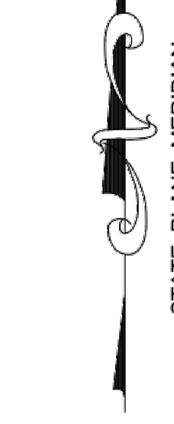
M:\2022\2022-056.GBP\05-Models\5.1-Sheets\C-001.dwg, C-001.2, 2/24/2023 9:41:38 AM, ajacobsen, Bluebeam PDF, ARCH E1 (30.00 x 42.00 Inches), 1:1, Schmidt Associates

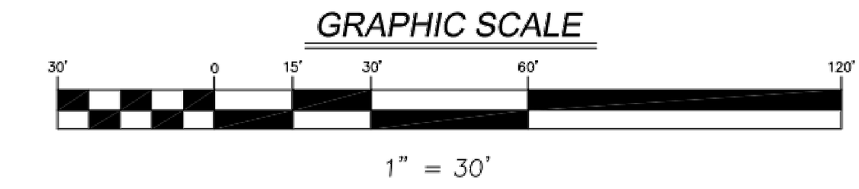
TOPOGRAPHIC SURVEY
OF
School Town of Highland

PART OF SECTION 28, TOWNSHIP 36 NORTH, RANGE 9 WEST OF THE SECOND PRINCIPAL MERIDIAN, IN LAKE COUNTY, INDIANA.



VICINITY MAP
NOT TO SCALE





BENCHMARK

SOURCE: TRIMBLE VRS WITH PROJECT ORIGIN AT:
LATITUDE 41° 32' 48.67462" N
LONGITUDE 87° 27' 36.36244" W
ELLIPSOIDAL HEIGHT: 509.352 SFT
GROUND SCALE FACTOR 1.0000454838

SITE:

STATION DESIGNATION: SBM#2
ESTABLISHED BY: V3 COMPANIES
DATE: 09-27-22

ELEVATION: 614.01 (MEASURED)
DATUM: NAVD88
DESCRIPTION: NW BOLT ON FIRE HYDRANT AT SOUTHWEST CORNER OF 40TH STREET & ERIE STREET INTERSECTION.

STATION DESIGNATION: SBM#4
ESTABLISHED BY: V3 COMPANIES
DATE: 09-27-22

ELEVATION: 613.07 (MEASURED)
DATUM: NAVD88
DESCRIPTION: SET NAIL IN POWER POLE AT NORTH SIDE OF 41 ST STREET NEAR SOUTHEAST CORNER OF TENNIS COURTS.

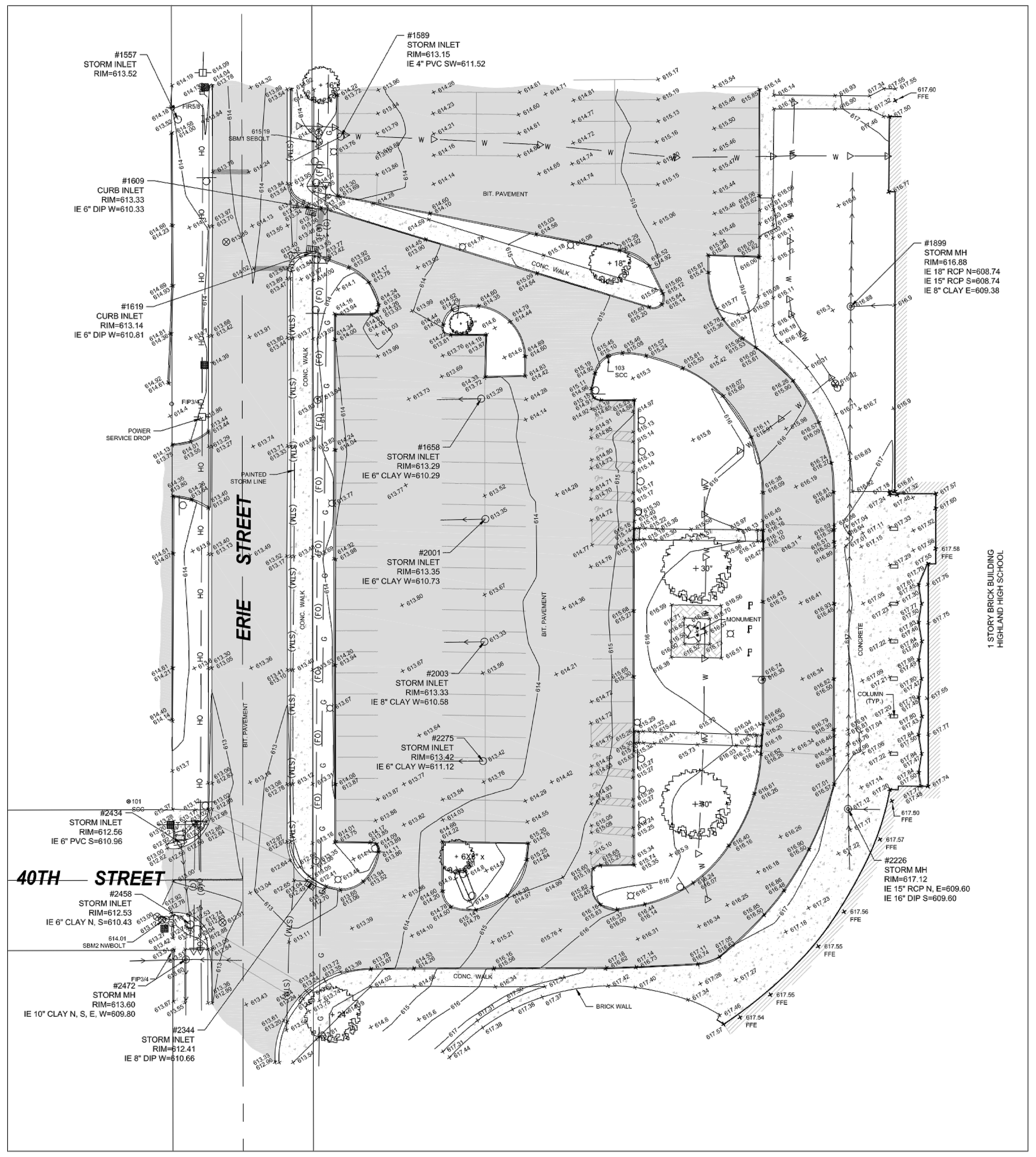
STATION DESIGNATION: SBM#5
ESTABLISHED BY: V3 COMPANIES
DATE: 09-27-22

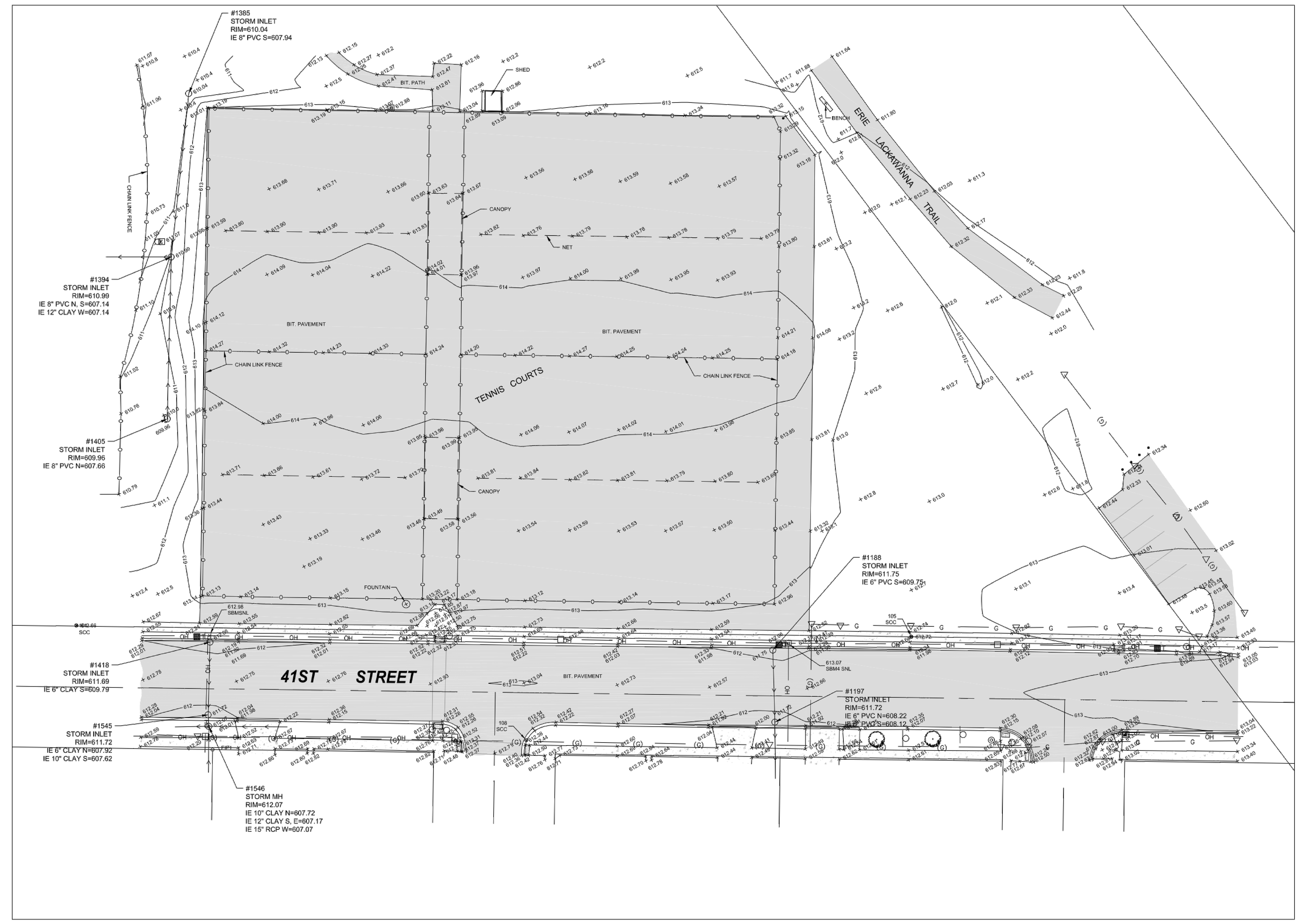
ELEVATION: 620.01 (MEASURED)
DATUM: NAVD88
DESCRIPTION: MARK ON MILDRED MERKLEY SCHOOL BUILDING CORNER SOUTHWEST OF GENERATOR, NORTHEASTERLY BUILDING CORNER OF ENTRANCE "D".

THE ELEVATIONS ABOVE WERE KNOWN TO BE ACCURATE AT THE TIME THEY WERE ESTABLISHED. V3 DOES NOT CERTIFY TO THE ACCURACY THEREAFTER, NOR ASSUMES RESPONSIBILITY FOR THE MIS-USE OR MIS-INTERPRETATION OF THE INFORMATION SHOWN HEREON.

IT IS ADVISED THAT ALL OF THE ABOVE ELEVATIONS BE CHECKED BETWEEN EACH OTHER AND VERIFY A MINIMUM OF 3 SURROUNDING UTILITY RIM ELEVATIONS AND ANY ADJACENT BUILDING FINISHED FLOOR OR TOP OF FOUNDATION ELEVATIONS SHOWN HEREON PRIOR TO USE OR COMMENCEMENT OF ANY CONSTRUCTION OR OTHER WORK.

PERSONS USING THIS INFORMATION ARE TO CONTACT V3 IMMEDIATELY WITH ANY DISCREPANCIES FOUND PRIOR TO THE START OF ANY WORK.





UTILITY ATLAS NOTES:

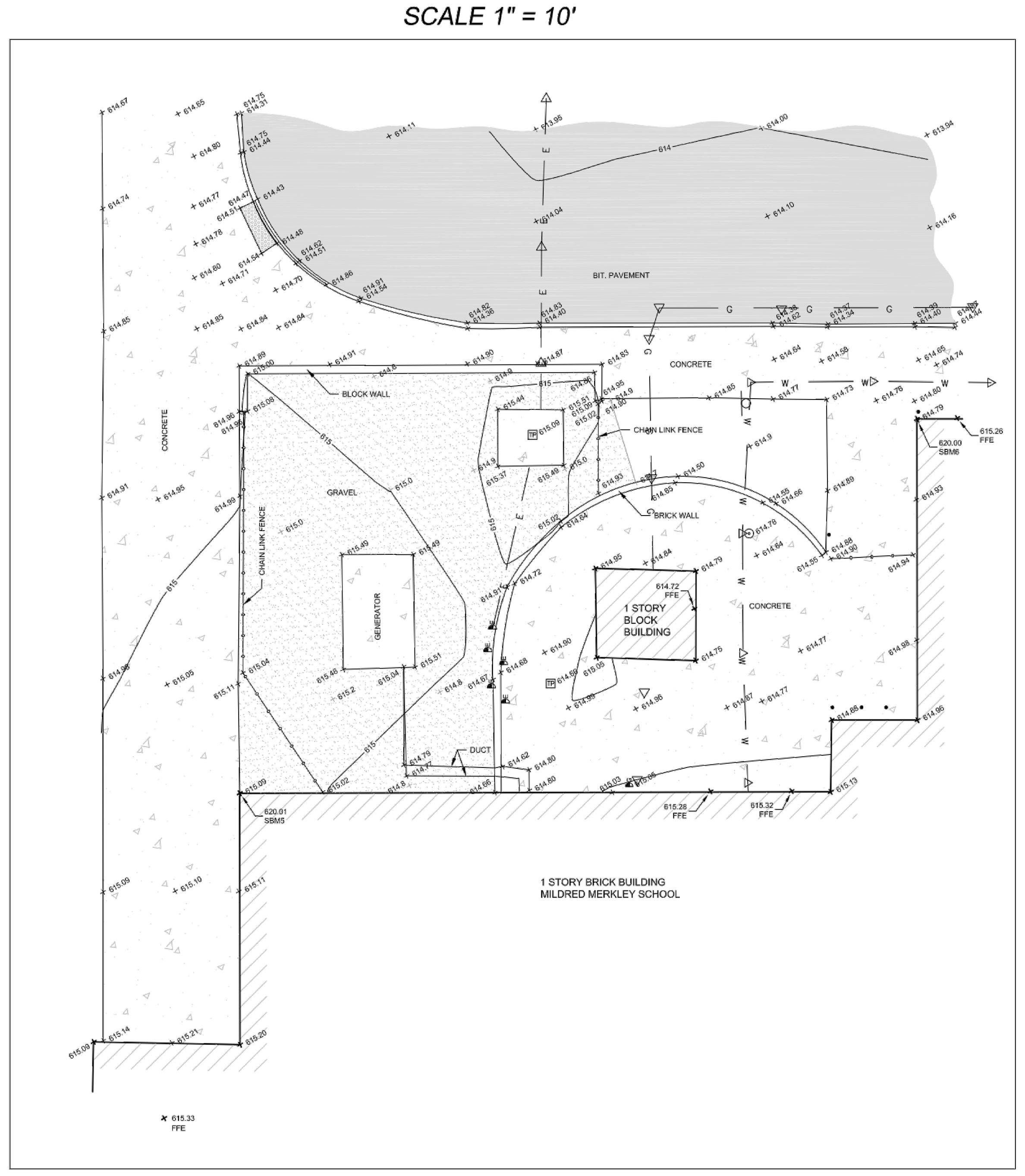
INDIANA 811 DESIGN STAGE REQUEST
TICKET NUMBERS 2209234195 & 2209234207
RECEIVED 09/23/22

CONTACTS	RESPONSE
AT&T - DISTRIBUTION	NO RESPONSE
BP PIPELINE CO.	RESPONDED "CLEAR"
BUCKEYE	RESPONDED "NO CONFLICT"
COMCAST NORTH	NO RESPONSE
COMMERCIAL BROADBAND SOLUTIONS	NO RESPONSE
HIGHLAND, TOWN OF	NO RESPONSE
MARATHON PIPE LINE CO.	RESPONDED "CLEAR"
MCI	NO RESPONSE
NIPSCO ELECTRIC	RESPONDED "Marked" &
NIPSCO GAS	"Unlocatable ALT"

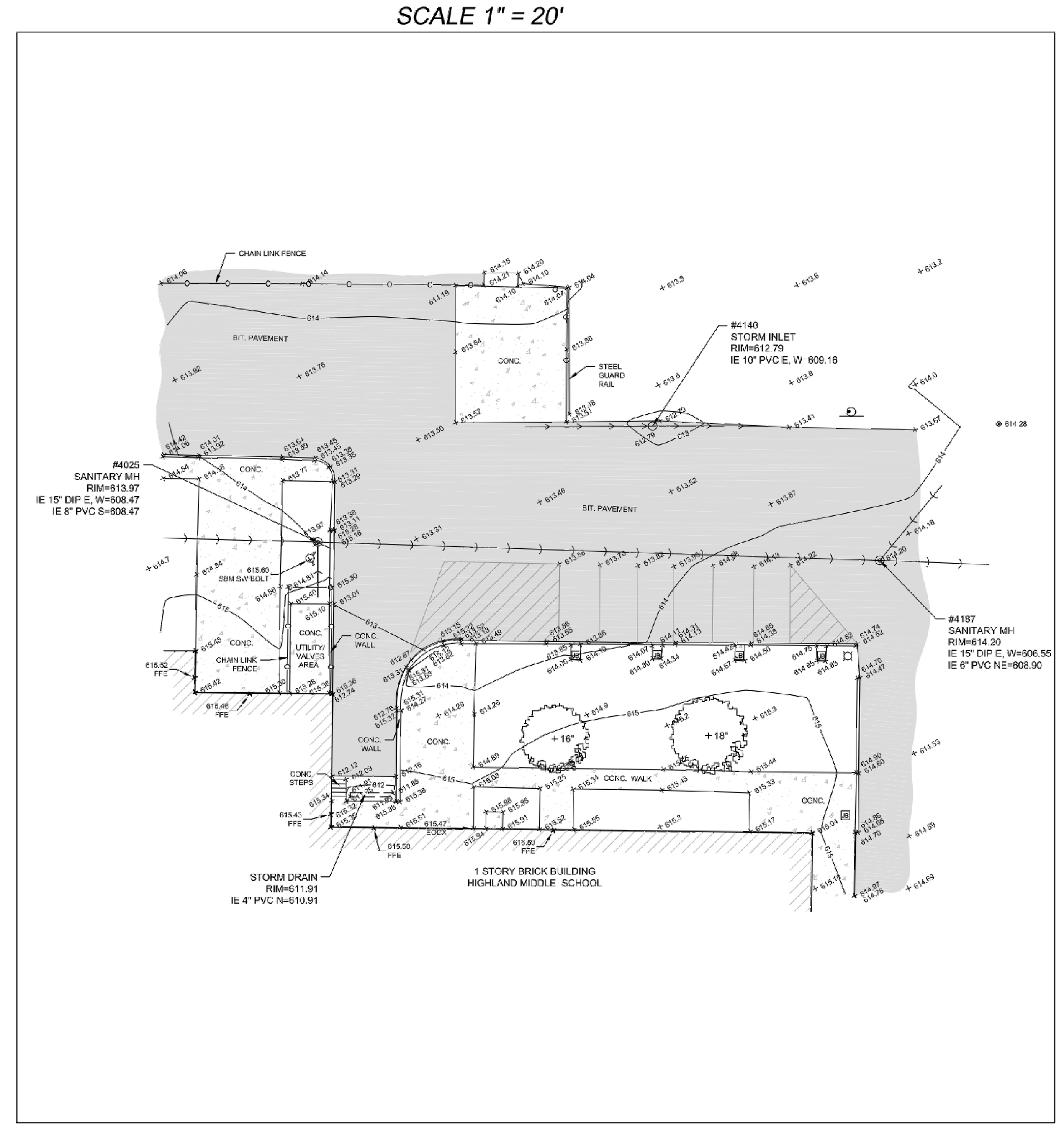
GENERAL NOTES

1. COMPARE ALL POINTS IN FIELD PRIOR TO ANY CONSTRUCTION AND REPORT ANY DISCREPANCIES TO SURVEYOR AT ONCE.
2. FOR BUILDING RESTRICTIONS AS ESTABLISHED BY LOCAL ORDINANCES NOT SHOWN HEREON, CONSULT YOUR LOCAL MUNICIPAL AUTHORITIES.
3. DO NOT SCALE DIMENSIONS FROM THIS MAP.
4. CALL INDIANA 811 FOR FIELD LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION.
5. UTILITIES AND IMPROVEMENTS SHOWN HEREON BASED ON VISIBLE FIELD VERIFIED STRUCTURES.
6. THE OWNER SHOULD COMPARE THE DESCRIPTION ON THIS MAP, IF ANY EXISTS, WITH HIS, OR HER DEED ABSTRACT, OR TITLE POLICY AND NOTIFY SURVEYOR OF ANY DIFFERENCES.
7. THIS MAP DOES NOT CONSTITUTE A BOUNDARY PLAT OF SURVEY.
8. ONLY PRINTS WITH AN EMBOSSED SEAL SHALL BE CONSIDERED OFFICIAL COPIES AND WERE PREPARED FOR THE SOLE USE OF THE CLIENT SHOWN HEREON AND ARE NOT TRANSFERABLE.
9. UNDERGROUND UTILITY LINES SHOWN HEREON ARE BASED ON FIELD LOCATED STRUCTURES IN COORDINATION WITH ATLAS INFORMATION PROVIDED BY UTILITY COMPANIES THROUGH INDIANA 811 DESIGN STAGE PROCESS. SEE "UTILITY ATLAS NOTES" HEREON FOR SPECIFICS.

SCALE 1" = 10'



SCALE 1" = 20'



BASIS OF BEARINGS

THE BASIS OF BEARINGS IS THE STATE PLANE COORDINATE SYSTEM (SPCS) NAD 83 (2011) ZONE 1302 (INDIANA WEST) WITH PROJECT ORIGIN AT
LATITUDE 41° 32' 48.67462" N
LONGITUDE 87° 27' 36.36244" W
ELLIPSOIDAL HEIGHT: 509.352 SFT
GROUND SCALE FACTOR 1.0000454838
ALL MEASUREMENTS ARE ON THE GROUND.

SURVEYOR CERTIFICATE

STATE OF INDIANA)
) SS
COUNTY OF LAKE)

I, ANTHONY J. STRICKLAND, AN INDIANA PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY AND THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION THEREOF. ALL DIMENSIONS ARE GIVEN IN FEET AND DECIMALS THEREOF, CORRECTED TO A TEMPERATURE OF 68 DEGREES FAHRENHEIT.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT INDIANA MINIMUM STANDARDS FOR TOPOGRAPHIC SURVEYS.

FIELD WORK COMPLETED ON SEPTEMBER 27, 2022.

DATED THIS 4TH DAY OF OCTOBER, A.D., 2022.

ANTHONY J. STRICKLAND
INDIANA PROFESSIONAL LAND SURVEYOR NO. LS20800143
MY LICENSE EXPIRES ON JULY 31, 2024.
tstrickland@v3co.com

ANTHONY J. STRICKLAND REGISTERED LS-20800143 STATE OF INDIANA LAND SURVEYOR

TOPOGRAPHIC SURVEY SV101.2

Engineers
Scientists
Surveyors

7325 Janes Avenue, Suite 100
Woodridge, IL 60517
630.724.9200 voice
630.724.0384 fax
v3co.com

PREPARED FOR:
School town of Highland
9145 Kennedy Ave.
Highland, IN 46322
219-924-7400

NO.	DATE	DESCRIPTION
1	02-10-23	ADDITIONAL TOPOGRAPHY

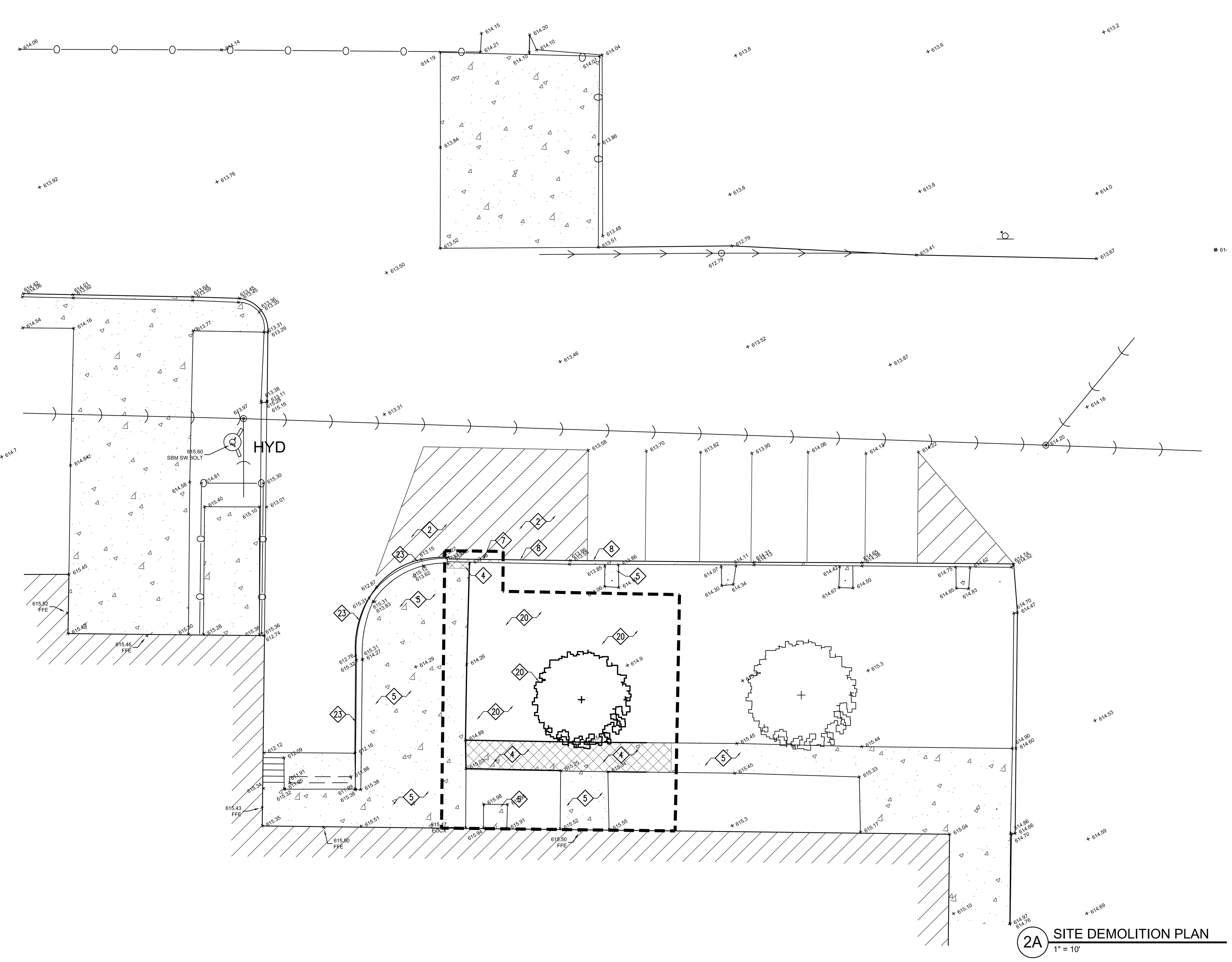
REVISIONS

NO.	DATE	DESCRIPTION

TOPOGRAPHIC SURVEY
School Town of Highland

DRAFTING COMPLETED:	10-03-22	DRAWN BY:	SPK/ADS	PROJECT MANAGER:	AJS
FIELD WORK COMPLETED:	09-27-22	CHECKED BY:	AJS	SCALE:	1" = 30'

Project No: 221228
Group No: VP03.1
SHEET NO. 1 of 1



2A SITE DEMOLITION PLAN
1" = 10'

DEMOLITION LEGEND

- SAW CUT AND REMOVE CONCRETE.
- SAW CUT AND REMOVE ASPHALT.
- REMOVE MASONRY WALL.
- ASPHALT MILL & OVERLAY.
- CONSTRUCTION LIMITS LINE

GENERAL NOTES

1. REFERENCE C-001 FOR GENERAL DEMOLITION PLAN NOTES.
2. SEE ELECTRICAL SITE PLAN FOR ALL ELECTRICAL, TELECOM, & TECHNOLOGY DEMOLITION WORK.
3. NOT ALL KEY NOTES MAY APPLY TO THIS SHEET.
4. USE CAUTION NOT TO DAMAGE UTILITIES AND SITE FEATURES TO REMAIN.
5. UNLESS NOTED OTHERWISE, ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OF OR RECYCLED. ALL DISPOSAL SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS.
6. WHILE EVERY EFFORT HAS BEEN MADE TO SHOW ALL DEMOLITION REQUIRED, THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID TO FULLY UNDERSTAND WHAT ITEMS ARE IN THE WAY OF NEW CONSTRUCTION. ONLY THOSE ITEMS UNDERGROUND AND NOT INDICATED ANYWHERE IN CONTRACT DOCUMENTS WILL BE CONSIDERED AS UNFORESEEN CONDITIONS. CHANGE ORDERS WILL NOT BE ISSUED FOR VISIBLE ITEMS.

DEMOLITION KEY NOTES

1. REMOVE ASPHALT PAVEMENT, SAW CUT AS NEEDED.
2. ASPHALT PAVEMENT TO REMAIN, REPAIR IF DAMAGED DURING CONSTRUCTION.
3. ASPHALT PAVEMENT TO REMAIN WITH NEW TENNINS COURT PAVEMENT OVERLAY. FILL ANY VOIDS CREATED DURING DEMOLITION WITH COMPACTED ENGINEERED FILL.
4. REMOVE CONCRETE PAVEMENT, SAW CUT AS NEEDED.
5. CONCRETE PAVEMENT TO REMAIN, REPAIR IF DAMAGED DURING CONSTRUCTION.
6. REMOVE FREEZER UNIT & PAVEMENT UNDER UNIT. SEE ARCHITECTURAL PLANS.
7. REMOVE CONCRETE CURB, SAW CUT AS NEEDED.
8. CONCRETE CURB TO REMAIN, REPAIR IF DAMAGED DURING CONSTRUCTION.
9. REMOVE MASONRY WALL. SEE ARCHITECTURAL PLANS.
10. MASONRY WALL TO REMAIN, REPAIR IF DAMAGED DURING CONSTRUCTION.
11. SHELTER CANOPY, SUPPORT POSTS, & FOOTINGS TO REMAIN, REPAIR IF DAMAGED DURING CONSTRUCTION.
12. REMOVE & RETAIN WOOD FRAME STORAGE BUILDING TO BE REINSTALLED.
13. FACILITY IDENTIFICATION SIGN & PERIMETER BLOCK WALL TO REMAIN, REPAIR IF DAMAGED DURING CONSTRUCTION.
14. REMOVE WATER FOUNTAIN. CAP & MAINTAIN WATER SUPPLY LINE FOR CONNECTION TO NEW WATER FOUNTAIN.
15. REMOVE & SALVAGE CANOPY AWNING OVER ENTRANCE GATE FOR REUSE.
16. DRAINAGE STRUCTURE TO REMAIN, REPAIR IF DAMAGED DURING CONSTRUCTION.
17. REMOVE FENCE, POSTS & GATES. FOOTINGS TO REMAIN UNDER EXISTING PAVEMENT.
18. REMOVE FENCE, POSTS, GATES & FOOTINGS.
19. REMOVE TENNIS COURT NETS, POSTS, ANCHORAGES, & ACCESSORIES. FOOTINGS TO REMAIN UNDER EXISTING PAVEMENT.
20. REMOVE TREE, SHRUB, TURF & OTHER LANDSCAPING, CLEAR & GRUB.
21. UNDERGROUND OR OVERHEAD UTILITY TO REMAIN, REPAIR IF DAMAGED DURING CONSTRUCTION.
22. ASPHALT MILL & OVERLAY.
23. CONCRETE RETAINING WALL TO REMAIN, REPAIR IF DAMAGED DURING CONSTRUCTION.

DEMOLITION NOTES

1. THE OWNER WILL REMOVE ALL MISCELLANEOUS SITE EQUIPMENT & FURNISHINGS TO BE SALVAGED PRIOR TO START OF CONTRUCTION.
2. SEE FRONT END DOCUMENTS FOR DESCRIPTION OF CONSTRUCTION PHASING AND ADDITIONAL INFORMATION REGARDING SEQUENCE OF DEMOLITION.
3. THE CONTRACTOR SHALL DEMOLISH AND REMOVE FROM THE SITE ALL MATERIALS INDICATED ON THE PLAN OR THAT ARE IN CONFLICT WITH THE PROPOSED WORK. GENERALLY, DEMOLITION AREAS AND FACILITIES ARE INDICATED WITH BOLD LINES, SHADED AREAS AND/OR KEY NOTES.
4. DISPOSAL OF ALL DEMOLITION MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL GUIDELINES AND PROCEDURES.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING FEATURES ALONG THE PERIMETER OF THE SITE. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO: BUILDINGS, PAVEMENTS, FENCES, VEGETATION, UNDERGROUND UTILITIES, ABOVE GROUND UTILITIES, PROPERTY MARKERS, SIGNS, TREES, ETC. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE WHICH OCCURS DURING OR AS A RESULT OF CONSTRUCTION ACTIVITY. REPLACEMENT OF DAMAGED PROPERTY OR FEATURES SHALL BE EQUAL TO EXISTING CONDITIONS.
6. ALL UTILITIES WITHIN THE SUBJECT SITE SERVING SERVING THE CUURENT SCHOOL BUILDING SHALL BE REMOVED TO THE STREET RIGHT-OF-WAY AND PERMANENTLY CAPPED OR BULKHEADED.
7. ANY UNDERGROUND UTILITY PIPES OR CONDUITS THAT ARE ABANDONED IN PLACE SHALL BE FILLED WITH FLOWABLE CONCRETE GROUT.
8. FOLLOWING THE COMPLETION OF PROPOSED SITE IMPROVEMENTS AND FOLLOWING THE COMPLETION OF EARTHWORK AS INDICATED ON THE GRADING PLAN, CONTRACTOR SHALL SUPPLY AND INSTALL TOPSOIL FILL IN ALL PROPOSED PLANTING AREAS TO THE GRADES INDICATED ON THE GRADING PLAN, AND IN ACCORDANCE WITH THE EARTHWORK AND LANDSCAPING SPECIFICATIONS.
9. ALL TREES, BRUSH, STUMPS, AND GRUBBING DEBRIS SCHEDULED FOR DEMOLITION SHALL BE REMOVED FROM THE SITE.
10. ALL TOPSOIL IN AREAS SUBJECT TO CONSTRUCTION SHALL BE STRIPPED AND STOCKPILED FOR REPLACEMENT DURING FINISH GRADING. SEE SHEET CE101/102.
11. CURRENT FIELD CONDITIONS MAY VARY SOMEWHAT FROM THOSE INDICATED ON THIS PLAN. THE INFORMATION SHOULD NOT BE CONSIDERED AS EXACT OR COMPLETE.
    - 11.1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LINE LOCATIONS PRIOR TO CONSTRUCTION. CONTACT THE INDIANA UNDERGROUND UTILITY PLANT PROTECTION SERVICE AT 1-800-382-5540 OR DIAL 811 (INDIANA). A PRIVATE UTILITY LOCATION SERVICE MAY BE REQUIRED IN AREAS NOT COVERED BY IUPPS.
    - 11.2. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OR RESUMPTION OF WORK THAT COULD POTENTIALLY DISRUPT THE RESPECTIVE UTILITY SERVICE OF INFRASTRUCTURE.
    - 11.3. UNLESS NOTED OTHERWISE, THE CONTRACTOR IS RESPONSIBLE FOR THE RELOCATION OF ALL EXISTING UTILITIES WHICH ARE IN CONFLICT WITH THE PROPOSED SITE IMPROVEMENTS.
    - 11.4. ANY DAMAGE TO EXISTING UTILITY LINES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

SCHMIDT ASSOCIATES
415 Massachusetts Avenue
Indianapolis, IN 46204
www.schmidt-arch.com

Project No. 2022-056.GBP
Project Date 02.13.2023
Produced ATJ

KYLE E. MILLER REGISTERED NO. 19900465 STATE OF INDIANA PROFESSIONAL ENGINEER

#	Revision	Date
A1	ADDENDUM #1	02.24.2023

9135 Erie Street
Highland, IN 46332

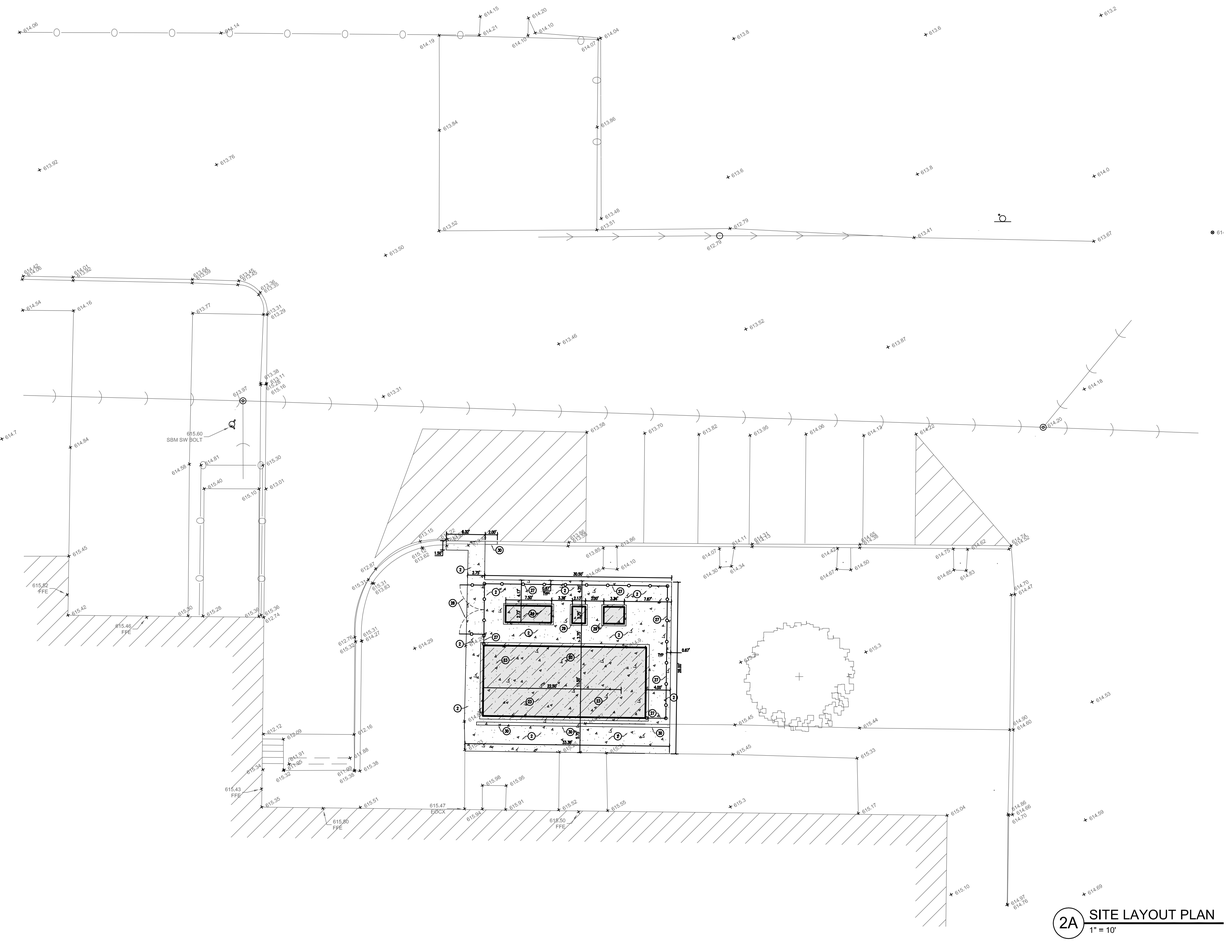
School Town of Highland

SCHOOL TOWN OF HIGHLAND

Highland HS / MS Site Improvements

SITE DEMOLITION PLAN

CD104.1



2A SITE LAYOUT PLAN
1" = 10'

LAYOUT LEGEND

- REGULAR DUTY ASPHALT PAVEMENT SEE DETAIL 1A/CL501.2
- REGULAR DUTY CONCRETE PAVEMENT SEE DETAIL 1B/CL501.2.
- HEAVY DUTY CONCRETE PAVEMENT SEE DETAIL 1C/CL501.2.
- POST-TENSIONED CONCRETE SLAB SEE DETAILS 4E, 5E, 6E/CL501.2
- ASPHALT MILL & OVERLAY SEE DETAILS 1E/CL501.2

TYP	TYPICAL OF MULTIPLE AREAS
VA	VAN ACCESSIBLE
ASR	ACCESSIBLE SIDEWALK RAMP
R	RADIUS
N	NORTHING COORDINATE
E	EASTING COORDINATE

LAYOUT KEY NOTES

1. REGULAR DUTY ASPHALT PAVEMENT. SEE DETAIL 1A/CL501.2.
2. REGULAR DUTY CONCRETE PAVEMENT. SEE DETAIL 1B/CL501.2.
3. HEAVY DUTY CONCRETE PAVEMENT. SEE DETAIL 1C/CL501.2.
4. POST-TENSIONED CONCRETE TENNIS COURT SLAB. SEE DETAILS 4E, 5E, 6E/CL501.2.
5. VARIABLE HEIGHT CONCRETE CURB POURED AGAINST EDGE OF POST-TENSIONED SLAB WITH TOP OF CURB AT SLAB GRADE. SEE DETAIL 2A/CL501.2.
6. ADA ACCESSIBLE SIDEWALK RAMP. SEE DETAIL 2D/CL501.2.
7. STEEL PIPE UTILITY BOLLARD. SEE DETAIL 3A/CL501.2.
8. 4'H CHAIN LINK FENCE, BLACK VINYL FINISH. SEE SPECS.
9. 10'H CHAIN LINK FENCE WITH INTERMEDIATE AND BOTTOM RAILS, BLACK VINYL FINISH. SEE DETAIL 5A/CL501.2 & SPECS.
10. 4'H x 4'W SINGLE LEAF SWING GATE, MATCH ADJACENT FENCING. SEE SPECS.
11. 4'H x 6'W SINGLE LEAF SWING GATE, MATCH ADJACENT FENCING. SEE SPECS.
12. 4'H x 12'W DOUBLE LEAF SWING GATE, MATCH ADJACENT FENCING. SEE SPECS.
13. 10'H x 10'W DOUBLE LEAF SWING GATE, MATCH ADJACENT FENCING. SEE SPECS.
14. 8'H DECORATIVE METAL SCREEN FENCE, BASTEEL ESSEX OR APPROVED EQUAL. SEE DETAIL 1C/CL502.2 & SPECS.
15. 8'H x 12'W DECORATIVE METAL DOUBLE LEAF SWING GATE, BASTEEL ESSEX OR APPROVED EQUAL. SEE SPECS.
16. EXISTING WOOD FRAMED STORAGE BUILDING RESET ON HEAVY DUTY CONCRETE PAD.
17. EXISTING METAL FRAMED CANOPY STRUCTURE TO REMAIN ON EXISTING FOOTINGS. COAT BASE OF COLUMNS BELOW FINAL GRADE WITH (2) COATS OF ASPHALTIC OR BITUMINOUS COATING SUCH AS KARNAK 88R (OR SIMILAR) TO PROTECT FROM CORROSION. AFTER COATING AND BEFORE INSTALLING NEW SLAB, WRAP BASE OF COLUMN BELOW FINAL GRADE WITH 1/2" FIBRE EXPANSION JOINT MATERIAL. AFTER SLAB PLACEMENT, INSTALL SEALANT AROUND BASE OF COLUMN TO CONCEAL AND PROTECT THE EXPANSION JOINT.
18. TENNIS COURT SURFACING AND STRIPING. SEE SPECS. COURT MARKINGS TO BE LAID OUT IN ACCORDANCE WITH USTA TENNIS COURT DESIGN MANUAL, LATEST REVISION. COLORS TO BE PER USTA STDS. – BLUE COURTS, GREEN FIELD, WHITE STRIPING.
19. TENNIS NETS, POSTS, FOOTINGS, & HARDWARE. SEE DETAIL 5D/CL501.2 & SPECS.
20. 10'H x 20'W TENNIS RETURN WALL / PRACTICE WALL SYSTEM MOUNTED TO FENCE POSTS, RALLY MASTER BACKBOARDS OR APPROVED EQUAL.
21. OUTDOOR ADA DRINKING FOUNTAIN WITH BOTTLE FILLER, MDF 2440 SMSS OR APPROVED EQUAL. SEE DETAIL 1A/CL502.
22. INSTALL SALVAGED ENTRANCE AWNING ABOVE ENTRANCE GATES. PROVIDE STRUTS & FASTENERS AS REQD TO MOUNT TO FENCE FRAMING.
23. FOOD SERVICE FREEZER/COOLER UNIT INSTALLED ON THICKENED CONCRETE PAD. SEE ARCH. PLANS.
24. BACKUP GENERATOR UNIT INSTALLED ON THICKENED CONCRETE PAD. SEE MECH. PLANS.
25. TENNIS COURT NUMBER SIGNS. SEE DETAIL 6B/CL501.2.
26. ASPHALT PAVEMENT MILL & OVERLAY. SEE DETAIL 1E/CL501.2.
27. 8'H CHAIN LINK FENCE WITH BOTTOM RAIL, BLACK VINYL FINISH, & BLACK SCREENING SLATS. SEE SPECS.
28. 8'H x 8'W DOUBLE LEAF SWING GATE, MATCH ADJACENT FENCING. SEE SPECS.
29. CONDENSING UNIT FOR FREEZER/COOLER INSTALLED ON REINFORCED CONCRETE SLAB. SEE MECH. PLANS.
30. 6" WIDE BY VARIABLE HEIGHT CONCRETE CURB.

GENERAL LAYOUT NOTES

1. NORTHING AND EASTING COORDINATES ARE STATE PLANE COORDINATES, NAD83, WEST ZONE, US FEET. REFER TO SURVEY DRAWINGS FOR HORIZONTAL CONTROL POINT DATA.
2. ALL DIMENSIONS ARE REFERENCED TO THE FACE OF CURB, EDGE OF PAVEMENT, EDGE OF SIDEWALK, OR OUTSIDE SURFACE OF BUILDING WALL UNLESS OTHERWISE NOTED.
3. REFER TO ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS AND LAYOUT DETAILS.
4. REFER TO SHEET C-001 FOR ADDITIONAL LAYOUT PLAN NOTES.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL REQUIRED CONSTRUCTION LINE AND GRADE TO ENSURE ACCURATE LAYOUT OF SITE IMPROVEMENTS.
6. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING PROPERTY CORNER MONUMENTS. ANY PROPERTY CORNER MONUMENT DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY AN INDIANA LICENSED SURVEYOR AT CONTRACTOR'S EXPENSE.
7. CONTRACTOR IS RESPONSIBLE FOR PROTECTING PERMANENT BENCHMARKS. IF BENCHMARKS ARE TO BE DISTURBED OR DESTROYED AS PART OF DEMOLITION ACTIVITY, THE CONTRACTOR SHALL HAVE AN INDIANA LICENSED SURVEYOR ESTABLISH ANOTHER BENCHMARK AT A NEARBY LOCATION OUT OF HARM'S WAY.
8. ALL EXISTING PAVEMENT DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO MATCH CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
9. ALL WORK WITHIN THE ADJACENT STREET RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH THE DUBOIS COUNTY HIGHWAY DEPT STANDARDS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC WORKS PROJECTS, LATEST REVISION.

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Project No. 2022-056.GBP
Project Date 01.09.2023
Produced ATJ

CD Review Set
Not for Construction

#	Revision	Date

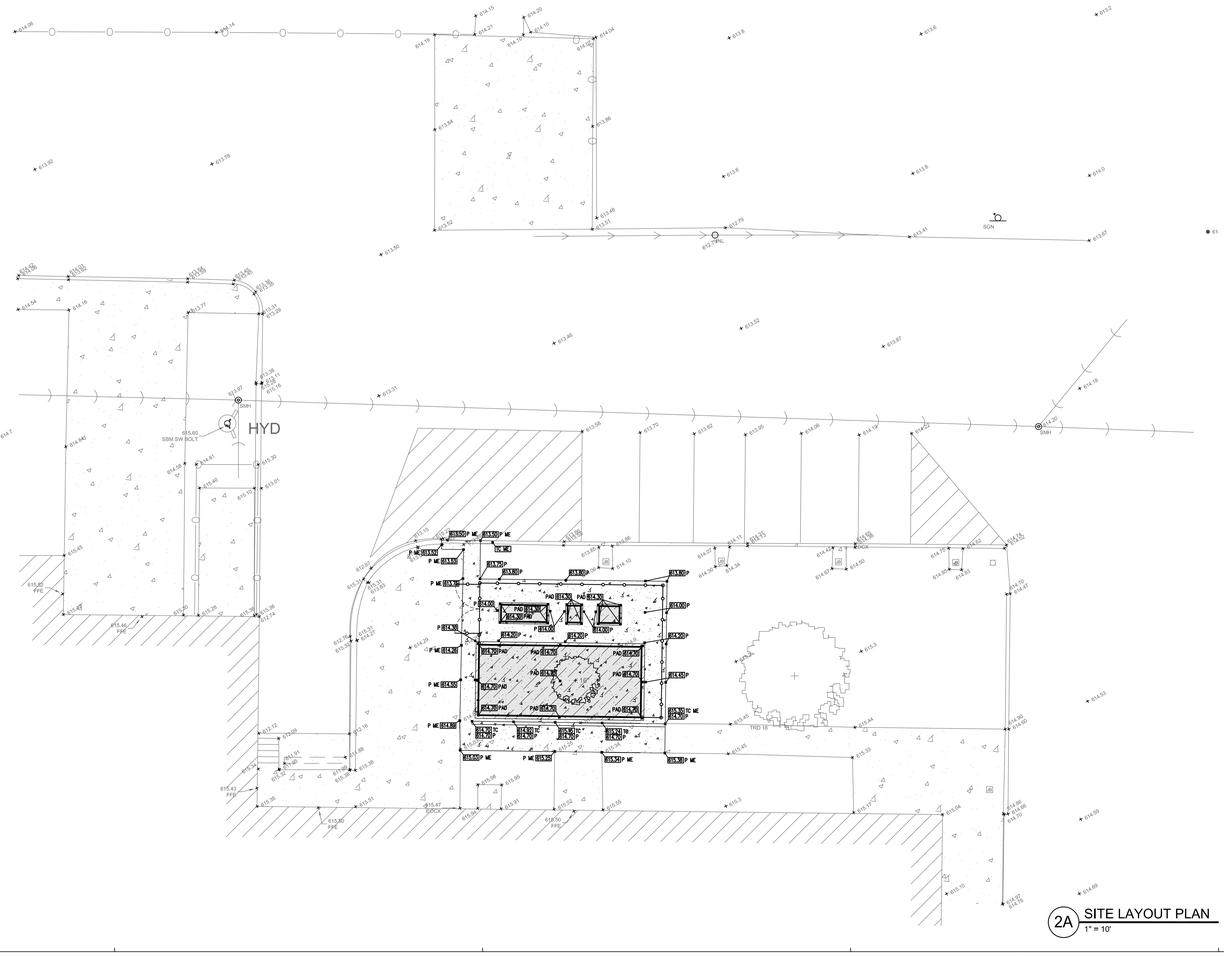
9135 Erie Street
Highland, IN 46332

School Town of Highland

Highland HS / MS
Site Improvements

SITE LAYOUT PLAN

CL104.1



GRADING LEGEND

828	EXISTING CONTOUR LINE
828	PROPOSED CONTOUR LINE
1000.00	PROPOSED ELEVATION
1000.00 EX	EXISTING ELEVATION
1000.00 ME	MATCH EXISTING ELEVATION
1000.00 TC 1000.00 P	TOP OF CURB ELEVATION PAVEMENT ELEVATION
1000.00 P	PAVEMENT ELEVATION
1000.00 GU	GUTTER ELEVATION
1000.00 G	GROUND ELEVATION
1000.00 FL	FLOWLINE ELEVATION
1000.00 TW	TOP OF WALL ELEVATION
1000.00 TSW	TOP OF SEAT WALL ELEVATION
1000.00 PAD	BUILDING PAD ELEVATION
1004.50 FFE	FINISH FLOOR ELEVATION

GRADING KEY NOTES

1. MATCH EXISTING PAVEMENT AND/OR CURB GRADE AND PROFILE.
2. TAPER CURB HEIGHT FROM 7" TO 0" OVER 20 HORIZONTAL FEET.
3. GRADED BANK WITH 4:1 MAXIMUM SLOPE FROM 1' BELOW ADJACENT PAVEMENT ELEVATION DOWNWARD TO MATCH EXISTING GROUND ELEVATION.

GENERAL GRADING NOTES

1. BENCHMARK INFORMATION (NAVD88 DATUM). SEE SURVEY SHEETS FOR ADDITIONAL HORIZONTAL AND VERTICAL CONTROL INFORMATION.

   SBM #2
   NW BOLT ON FIRE HYDRANT AT SW CORNER OF 40th STREET AND ERIE STREET INTERSECTION
   ELEV = 614.01 FT

   SBM #4
   NAIL SET IN POWER POLE ON NORTH SIDE OF 41st STREET NEAR SW CORNER OF TENNIS COURTS
   ELEV = 513.20 FT

   SBM #5
   MARK ON MILDRED MERKLEY SCHOOL BUILDING CORNER SW OF GENERATOR, NE OF BUILDING CORNER OD ENTRANCE 'D'
   ELEV = 502.28 FT

2. IF THE LOCAL BENCHMARK(S) WILL BE DISTURBED DURING CONSTRUCTION, IT THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH ADDITIONAL BENCHMARKS AS NEEDED.
3. THE CONTRACTOR OR THEIR DESIGNEE IS RESPONSIBLE FOR VERIFYING BENCHMARKS AND THE ACCURACY OF SITE GRADING CONDITIONS.

2A SITE LAYOUT PLAN
1" = 10'

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NO.
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#	Revision	Date
A1	ADDENDUM #1	02.24.2023

9135 Erie Street
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N

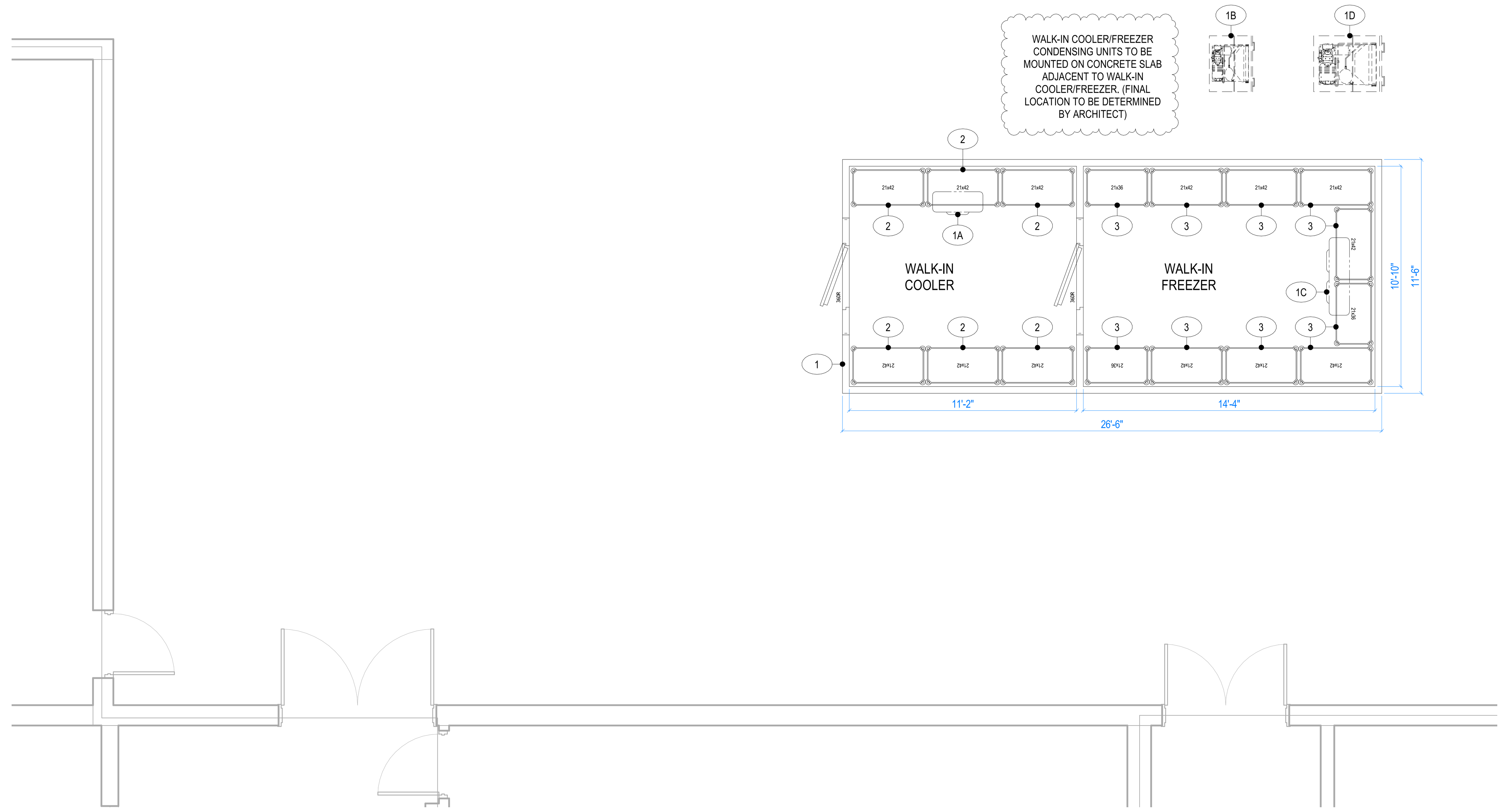
School Town of Highland

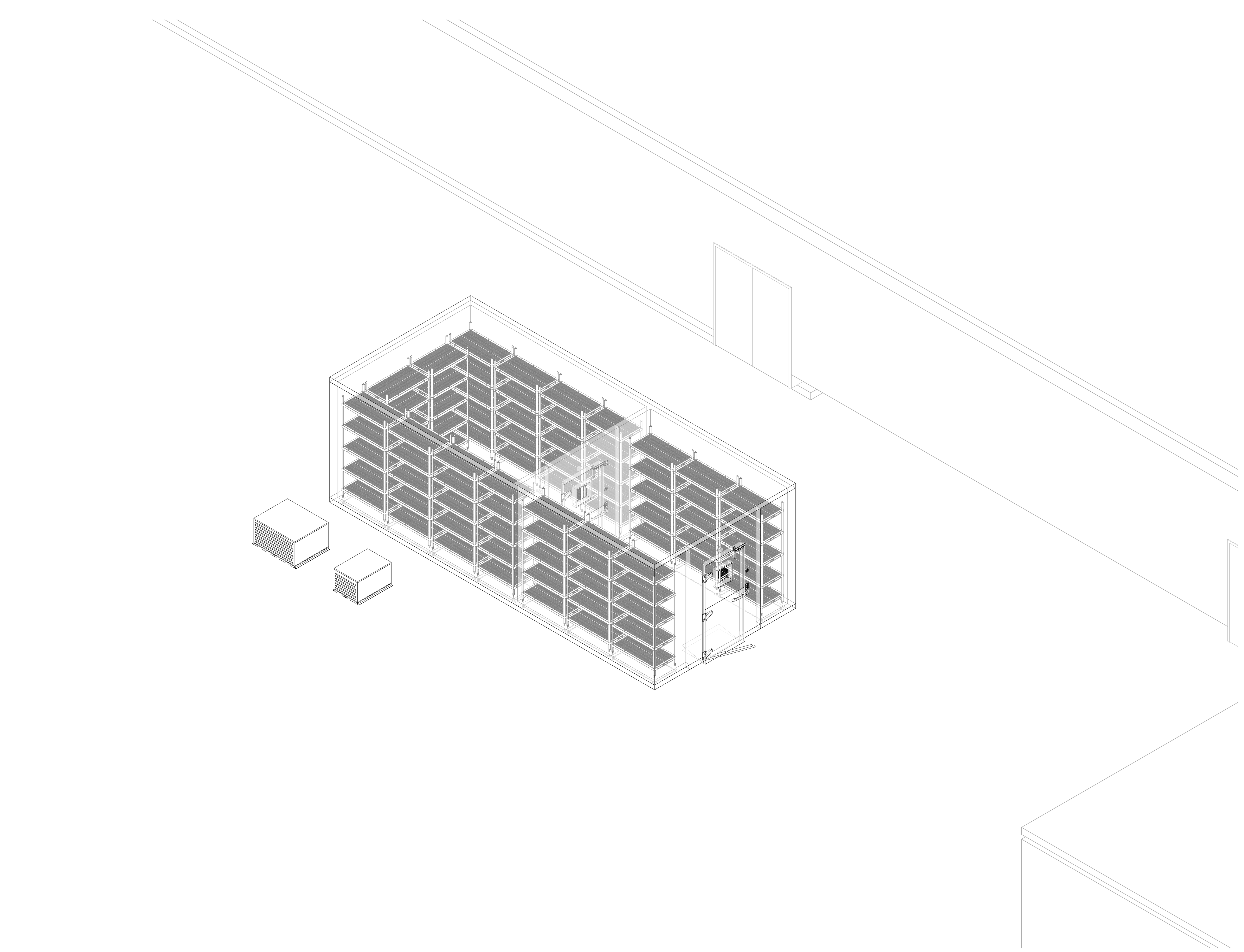
SCHOOL TOWN OF HIGHLAND

Highland HS / MS
Site Improvements

SITE GRADING PLAN

CG103.1 A1





FOODSERVICE DRAWING SHEET INDEX

SHEET	DESCRIPTION
FS121.1	FOODSERVICE NOTES, SYMBOLS & LEGENDS
FS122.1	FOODSERVICE SPOT LOCATION LAYOUT
FS123.1	WALK-IN COOLER/FREEZER DRAWING

FOODSERVICE EQUIPMENT SCHEDULE

ITEM	QTY	ITEM DESCRIPTION	MANUFACTURER	MODEL
1	1	WALK-IN COOLER/FREEZER	FABRICATED EQUIPMENT	CUSTOM
1A	1	WALK-IN COOLER EVAPORATOR FAN	RDI REFRIGERATION	AM16-052
1B	1	WALK-IN COOLER CONDENSING UNIT	RDI REFRIGERATION	PC48MOP
1C	1	WALK-IN FREEZER EVAPORATOR FAN	RDI REFRIGERATION	EL26-077
1D	1	WALK-IN FREEZER CONDENSING UNIT	RDI REFRIGERATION	PC548LZOP
2	6	MOBILE COOLER SHELVING	INTERMETRO	METROMAX Q
3	10	MOBILE FREEZER SHELVING	INTERMETRO	METROMAX Q
4	1	SPARE NUMBER	----------	----------
5	1	SPARE NUMBER	----------	----------

FOODSERVICE SYMBOLS & NOTES LEGEND

1	EQUIPMENT ITEM NUMBER CALL OUT	1 FS5.0	EQUIPMENT ELEVATION CALL OUT	1 FS5.0	EQUIPMENT SECTION CALL OUT

A	EQUIPMENT REQUIRING WATER FILTRATION	C	FIRE SUPPRESSION SYSTEM CABINET
B	STAINLESS STEEL UTILITY CHASE	D	WALK-IN COOLER/FREEZER COMPRESSOR

FOODSERVICE ABBREVIATION LEGEND

AFF	ABOVE FINISHED FLOOR	HVAC	HEATING, VENTILATION & AIR CONDITIONING
AMPS	AMPERAGE	HW	HOT WATER
ARCH	ARCHITECTURAL	KEC	KITCHEN EQUIPMENT CONTRACTOR
BLDG	BUILDING	KW	KILOWATT
BTU	BRITISH THERMAL UNIT	MAX	MAXIMUM
CFM	CUBIC FEET PER MINUTE	MBTU	1,000 BTU'S
CLG	CEILING	MC	MECHANICAL CONTRACTOR
CMU	CONCRETE MASONRY UNIT	MD	MECHANICAL DIVISION
CONN	CONNECTION	MECH	MECHANICAL
CW	COLD WATER	MFG	MANUFACTURER
DCO	DUPLEX CONVENIENCE OUTLET	MIN	MINIMUM
DFA	DROP FROM ABOVE	MISC	MISCELLANEOUS
DIM	DIMENSION	NIC	NOT IN CONTRACT
DWG	DRAWING	NTS	NOT TO SCALE
EC	ELECTRICAL CONTRACTOR	PC	PLUMBING CONTRACTOR
ED	ELECTRICAL DIVISION	PD	PLUMBING DIVISION
ELEC	ELECTRIC, ELECTRICAL	PH	PHASE
FLR DRN	FLOOR DRAIN	PSI	POUNDS PER SQUARE INCH
FLR SINK	FLOOR SINK	SHT	SHEET
FLR TRGH	FLOOR TROUGH	ST STL	STAINLESS STEEL
GA	GAUGE	S/S	STAINLESS STEEL
GALV	GALVANIZED	STD	STANDARD
GC	GENERAL CONTRACTOR	STUB	STUB UP FROM FLOOR
GD	GENERAL DIVISION	TYP	TYPICAL
GPH	GALLONS PER HOUR	V	VOLTAGE
HP	HORSEPOWER	VOLT	VOLTAGE

FOODSERVICE SPOT LOCATION SYMBOLS

E1	PLUMBING/ELECTRICAL SPOT LOCATION CALL OUT		
Ⓗ	HOT WATER CONNECTION	▶	DEDICATED ELECTRICAL CONNECTION
©	COLD WATER CONNECTION	◎	DEDICATED ELECTRICAL CONNECTION (DFA)
Ⓦ	DIRECT WASTE CONNECTION	●	DEDICATED ELECTRICAL CONNECTION (STUB)
	GAS CONNECTION		DUPLEX CONVENIENCE OUTLET
	INDIRECT FLOOR DRAIN		SPECIAL PURPOSE CONVENIENCE OUTLET
	INDIRECT 12"x12" FLOOR SINK	J	JUNCTION BOX LOCATED ON EQUIPMENT
Ⓡ	REFRIGERATION CONNECTION	D	DISCONNECT SWITCH LOCATED ON EQUIPMENT
Ⓐ	COMPRESSED AIR CONNECTION		LIGHT FIXTURE CONNECTION
■	STEAM SUPPLY CONNECTION	T	DEFROST TIME CLOCK LOCATED ON EQUIPMENT
	STEAM RETURN CONNECTION	Ⓢ	SOLENOID VALVE CONNECTION
	EXHAUST VENTILATION CONNECTION	Ⓣ	THERMOSTAT CONNECTION
	SUPPLY VENTILATION CONNECTION	Ⓓ	TELEPHONE/DATA CONNECTION
⬢	REFER TO SCHEDULES FOR MORE INFORMATION	F	FIRE SUPPRESSION SYSTEM PULL STATION
	PIPING BY MECHANICAL DIVISION		WIRING BY ELECTRICAL DIVISION
	PIPING BY KITCHEN EQUIPMENT CONTRACTOR		WIRING BY KITCHEN EQUIPMENT CONTRACTOR

SPOT LOCATION SCHEDULES & DRAWINGS ARE FOR THE CONVENIENCE OF BIDDING, TO BE USED ONLY AS A GUIDE FOR FOODSERVICE EQUIPMENT ELECTRICAL, PLUMBING & VENTILATION SPOT LOCATIONS AND ARE NOT INTENDED FOR USE ON THE JOBSITE FOR ROUGH-IN PURPOSES. SPOT LOCATION SCHEDULES & DRAWINGS HAVE BEEN CREATED PER THE BASIS OF DESIGN EQUIPMENT AND ARE SPECIFIC TO THE EQUIPMENT SHOWN ON THE FOODSERVICE EQUIPMENT PLAN. THE KITCHEN EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR CREATING ACTUAL ROUGH-IN SCHEDULES & DRAWINGS (PER THE EQUIPMENT SUBMITTED ON UNIT PRICE FORM) SHOWING ACCURATE LOCATIONS FOR UTILITIES AND WORK TO BE INSTALLED IN ACCORDANCE WITH ALL FEDERAL, STATE & LOCAL CODES. IN THE EVENT THAT THE KITCHEN EQUIPMENT CONTRACTOR CHOOSES TO SUBMIT ANOTHER LISTED MANUFACTURER, THEY SHALL BE SOLELY RESPONSIBLE FOR ANY UP CHARGES AND/OR CHANGE ORDERS BY OTHER TRADES ACCRUED AS A RESULT OF CHANGES REQUIRED FOR THE EQUIPMENT PROVIDED. REFER TO ARCHITECTURAL & PLUMBING DRAWING SETS FOR ADDITIONAL GENERAL PLUMBING REQUIREMENTS NOT SHOWN.

FOODSERVICE EQUIPMENT NOTES

ALL FOOD SERVICE EQUIPMENT SHALL BE MANUFACTURED, FABRICATED, FURNISHED & INSTALLED IN STRICT ACCORDANCE WITH, AND BEAR THE EMBLEM OF, THE NATIONAL SANITATION FOUNDATION (NSF) AS WELL AS ANY FEDERAL, STATE & LOCAL CODE REQUIREMENTS.

DO NOT SLOPE FLOOR TO FLOOR DRAINS IN FOOD SERVICE AREAS. FINISHED FLOORS BELOW ALL KITCHEN EQUIPMENT TO BE SMOOTH AND LEVEL UNLESS THESE DRAWINGS SHOW OTHERWISE.

EQUIPMENT WHICH IS FIXED AND WHERE IT ABUTTS OTHER FIXED EQUIPMENT, BUILDING WALLS OR FLOOR SHALL BE SEALED THERETO WITH SILICONE. GAPS BETWEEN EQUIPMENT EXCEEDING 3/8" IN WIDTH MUST BE TRIMMED OUT WITH STAINLESS STEEL ANGLED TRIM OR MATCHING MATERIAL TRIM PRIOR TO BEING SEALED.

FABRICATION OF CUSTOM EQUIPMENT SHOULD NOT BEGIN UNTIL ALL FIELD DIMENSIONS AND CONDITIONS HAVE BEEN VERIFIED AND COORDINATED WITH FABRICATION DETAILS.

ALL COUNTERS ARE TO BE FABRICATED PROPERLY TO SUPPORT THE SPECIFIED COUNTER TOP MATERIAL IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S GUIDELINES. ALL "DROP-IN" EQUIPMENT AND OTHER EQUIPMENT "ATTACHED TO", "SET ON" OR "BUILT-IN" TO THE COUNTER TOP MATERIAL TO BE INSTALLED IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S GUIDELINES AND TECHNICAL BULLETINS FOR THE INSTALLATION OF COMMERCIAL FOOD SERVICE EQUIPMENT.

ASSIST THE VARIOUS TRADES WITH THE PROPER INSTALLATION OF COMPONENTS WHICH ARE FURNISHED AS PART OF THE KITCHEN EQUIPMENT PACKAGE. PROVIDE THE VARIOUS TRADES WITH PIPING DIAGRAMS AND INSTALLATION INSTRUCTIONS WHERE APPLICABLE AND AS REQUIRED/REQUESTED.

HOT WATER SUPPLY TO ALL LAVATORY, FOOD PREPARATION AND THREE COMPARTMENT SINKS SHALL BE 120-DEGREES MINIMUM. HOT WATER SUPPLY TO ALL DISHMACHINES SHALL BE 140-DEGREES MINIMUM UNLESS OTHERWISE SPECIFIED.

FOODSERVICE DRAWING NOTES

THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS ARE FOR BIDDING PURPOSES ONLY, ARE NOT TO BE USED IN ANY WAY FOR CONSTRUCTION AND MUST BE CONSIDERED A COMPLETE BODY OF WORK. ANY WORK CALLED FOR IN ONE OR ON THE OTHER, TOGETHER WITH SUCH WORK AS CAN REASONABLY BE CONSIDERED A PART OF THE INSTALLATION AND NECESSARY TO COMPLETE SAME, SHALL BE INCLUDED. VORNDRAN & ASSOCIATES ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF MEASUREMENTS TAKEN FROM THESE DRAWINGS. FABRICATORS, CONTRACTORS AND OTHER PARTIES UTILIZING THESE PLANS, IN CONNECTION WITH THIS JOB, ARE RESPONSIBLE FOR SECURING THEIR OWN MEASUREMENTS.

THE BASIS OF DESIGN FOR ALL DRAWINGS, SPECIFICATIONS, AND DETAIL REFERENCES IS THE FIRST MANUFACTURER AND MODEL LISTED. IF ANOTHER LISTED MANUFACTURER IS CHOSEN BY THE KEC, IT IS THE RESPONSIBILITY OF THE KEC TO PROVIDE A MODEL THAT IS EQUAL IN PRODUCTION CAPABILITIES, CAPACITY, AND PERFORMANCE TO THE FIRST MANUFACTURER AND MODEL LISTED. THE KEC IS ALSO TO VERIFY, COORDINATE, AND ALLOW FOR PROPER INSTALLATION OF EQUIPMENT; CONSIDERING POSSIBLE REVISIONS FOR UTILITY CONNECTIONS, LOADS, AND PHYSICAL SIZES. IN THE EVENT THERE ARE ANY ADDITIONAL COSTS OR CHANGE ORDERS BY OTHER TRADES BECAUSE OF THE KEC SUBMITTING ANOTHER LISTED MANUFACTURER, THOSE CHARGES SHALL BE THE SOLE RESPONSIBILITY OF THE KEC.

THE KITCHEN EQUIPMENT CONTRACTOR IS RESPONSIBLE TO REVIEW THE PLANS FOR ACCURACY AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO THE FABRICATION OF ANY EQUIPMENT. VERIFY ALL EQUIPMENT CLEARANCES THRU BUILDING DOORS, HALLWAYS OR ENTRY POINTS AS NOT ALL EQUIPMENT WILL FIT THRU STANDARD OPENINGS. THE KITCHEN EQUIPMENT CONTRACTOR IS TO NOTIFY VORNDRAN & ASSOCIATES OF ANY ERRORS, OMISSIONS, AMBIGUITIES, DISCREPANCIES OR IRREGULARITIES PRIOR TO START OF CONSTRUCTION.

ANY DISCREPANCIES BETWEEN THESE DRAWINGS, ACCOMPANYING SPECIFICATIONS, BUILDING CODE AND LOCAL CODE REQUIREMENTS THAT MAY AFFECT INSTALLATION, FABRICATION AND/OR OVERALL WORK IN ANY WAY SHALL BE BROUGHT TO THE ATTENTION OF VORNDRAN & ASSOCIATES. VORNDRAN & ASSOCIATES ASSUMES NO RESPONSIBILITY FOR ANY CHANGES MADE NECESSARY BY THE LOCAL BUILDING CODES, ORDINANCES, STRUCTURAL CONDITIONS OR CHANGES MADE NECESSARY IN EQUIPMENT SHOWN ON THESE DRAWINGS.

THESE DRAWINGS REFER TO WORK TO BE PERFORMED BY OTHER TRADES NOT INTENDED TO BE PART OF THE KITCHEN EQUIPMENT CONTRACTOR'S SCOPE OF WORK. WORK REFERENCED BY OTHER TRADES IS NOT FOR ASSIGNING WORK TO A SPECIFIED TRADE, BUT RATHER TO CLARIFY THE COORDINATION BETWEEN THE KEC AND ALL OTHER TRADES. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL NOTES ON THESE DRAWINGS AND TRANSMITTING THE REQUIRED INFORMATION TO THE RESPECTIVE SUBCONTRACTORS.

THESE DRAWINGS AND ALL INCLUDED INFORMATION WERE CREATED FOR USE ON THIS SPECIFIC PROJECT AND ARE THE PROPERTY OF VORNDRAN & ASSOCIATES. NO PERSON OR FIRM SHOULD USE THE INCLUDED INFORMATION FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF VORNDRAN & ASSOCIATES. THE PROJECT OWNER MAY RETAIN COPIES OF THESE DRAWINGS FOR INFORMATIONAL AND REFERENCE PURPOSES ONLY.

MECHANICAL WORK BY OTHER TRADES

(SEE MULTIPLE CONTRACT SUMMARY SPECIFICATION SECTION FOR FINAL SCOPE ASSIGNMENT)

INSTALL ALL FAUCET ASSEMBLIES, PRE-RINSE SPRAY ASSEMBLIES, QUICK-DISCONNECT ASSEMBLIES, HOSE ASSEMBLIES, POT FILLER ASSEMBLIES, VACUUM BREAKERS, CHECK VALVES, FLOW CONTROL VALVES, SOLENOID VALVES, WATER PRESSURE REDUCING VALVES, GAS PRESSURE REDUCING VALVES, TEMPERATURE GAUGES, PRESSURE GAUGES, WATER HAMMER SHOCK ABSORBERS & WATER FILTRATION SYSTEMS FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR.

FURNISH & INSTALL ALL WATER, GAS & STEAM SUPPLY LINES, DRAIN MANIFOLDS & TAILPIECES, TRAPS, SHUT-OFF VALVES, VENT PIPING, GAS SUPPLY LINE STRAINERS/FILTERS, BACK FLOW PREVENTION DEVICES, FLOOR DRAINS & FLOOR SINKS AS REQUIRED FOR EQUIPMENT INSTALLATION AND ANY CODE REQUIREMENTS. ALL SUPPLY LINES SERVICING EQUIPMENT ADJACENT TO AN EXTERIOR WALL ARE TO BE RAN ALONG INTERIOR FACE OF WALL TO AVOID POTENTIAL FREEZING.

FURNISH & INSTALL CHROME PLATED, OR PAINTED, PIPING ON ALL EXPOSED WATER OR GAS PIPING ABOVE COUNTER HEIGHT OR IN "DIRECT" LINE OF SIGHT TO THE OWNER/OPERATOR. FURNISH & INSTALL STAINLESS STEEL OR CHROME PLATED BRASS ESCUTCHEONS OR FLANGES FOR ALL PENETRATING UTILITY LINES AND SEAL PENETRATIONS WATER-TIGHT AND VERMIN PROOF.

FURNISH & INSTALL TYPE "L" COPPER TUBING DRAIN LINES FROM ALL APPLICABLE EQUIPMENT TO FLOOR SINKS (INCLUDING WALK-IN COOLER AND FREEZER COILS) AND TO INSULATE ALL DRAIN LINES AS REQUIRED. INSTALL DRAIN LINES SO THEY DO NOT AFFECT UNDERCOUNTER STORAGE AND OTHER OPERATIONAL FUNCTIONS OF THE FIXTURES.

FURNISH & INSTALL ALL 12"x12"x8" FLOOR SINKS WITH HALF GRATES. FLOOR SINKS TO BE MOUNTED IN FLOOR SUCH THAT THE TOP OF THE RIM WILL BE FLUSH WITH FINISHED FLOOR ELEVATION UNLESS OTHERWISE DIRECTED BY STATE & LOCAL CODES. FLOOR SINKS FOR DISHMACHINES AND ALL COOKING EQUIPMENT TO HAVE A MINIMUM OF 3" DRAIN CONNECTION. DO NOT SLOPE FLOOR TO FLOOR DRAINS OR FLOOR SINKS IN THIS AREA!!!

UTILIZE EXISTING FLOOR DRAINS, FLOOR SINKS, DIRECT PLUMBING DRAINS, GAS CONNECTIONS & WATER CONNECTIONS WHERE POSSIBLE FOR NEW EQUIPMENT AND CAP OFF ANY EXISTING SERVICES MADE OBSOLETE BY THESE DRAWINGS.

ELECTRICAL WORK BY OTHER TRADES

(SEE MULTIPLE CONTRACT SUMMARY SPECIFICATION SECTION FOR FINAL SCOPE ASSIGNMENT)

INSTALL ALL CONTROL PANELS, STARTERS, SOLENOID VALVES, JUNCTION BOXES, CORD & PLUGS & ALL DISCONNECT SWITCHES FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR.

FURNISH & INSTALL ALL WIRING, ELECTRICAL OUTLETS, STARTERS, JUNCTION BOXES, DISCONNECT SWITCHES & CONDUIT REQUIRED FOR EQUIPMENT INSTALLATION IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS & ELECTRICAL CODE REQUIREMENTS. ELECTRICAL RECEPTACLES TO BE FLUSH MOUNTED UNLESS OTHERWISE NOTED.

FURNISH & INSTALL GROUNDING WIRE TO ALL FOOD SERVICE EQUIPMENT IN ADDITION TO THE NUMBER OF WIRES NOTED IN INDIVIDUAL SERVICES. FURNISH & INSTALL GROUND FAULT PROTECTION FOR ANY RECEPTACLE WITHIN THE KITCHEN & SERVING AREAS. FURNISH & INSTALL SHUNT TRIP BREAKERS FOR ALL ELECTRICAL SERVICE TO EQUIPMENT UNDER EXHAUST HOODS WHEN FIRE SUPPRESSION SYSTEM IS REQUIRED.

FURNISH 6'-0" PIGTAIL FLEX CONDUIT AT ALL DIRECT CONNECTION STUB-OUTS AND EXTEND TO FINAL CONNECTION ON EQUIPMENT. VERIFY ALL FOOD SERVICE EQUIPMENT WITH DIRECT CONNECTION TO BE IN LINE OF SIGHT OF KITCHEN ELECTRICAL DISTRIBUTION PANEL, AND IF NOT, FURNISH & INSTALL A FUSED QUICK DISCONNECT ADJACENT TO EQUIPMENT. PROVIDE CAPS AND CORDS FOR ALL ITEMS WHICH USE CONVENIENCE OUTLETS WHEN NOT SUPPLIED BY THE MANUFACTURER AND SHORTEN ANY CORDS IF NECESSARY.

UTILIZE EXISTING ELECTRICAL CONNECTIONS WHERE POSSIBLE FOR NEW EQUIPMENT AND CAP OFF ANY EXISTING SERVICES MADE OBSOLETE BY THESE PLANS.

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Project No. 2022-056.GBP
Project Date 02.27.2023
Produced JAK JAK

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL — JIM KESSENICH — 9508165 — PROFESSIONAL MEMBER

#	Revision	Date
	Addendum #1	02.27.2023

Highland, IN 46322

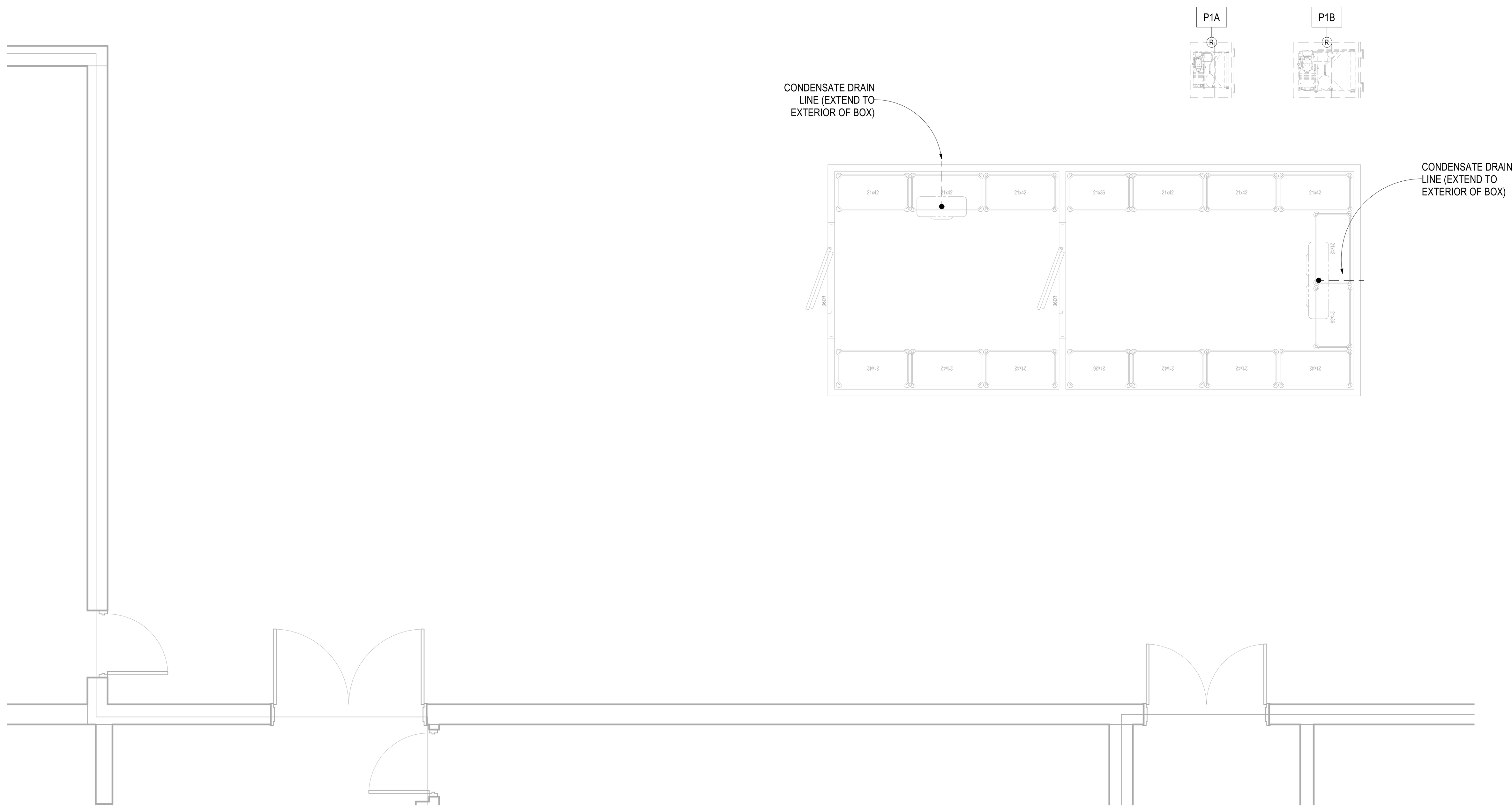
KEY PLAN

School Town of Highland

HIGHLAND HIGH SCHOOL AUDITORIUM

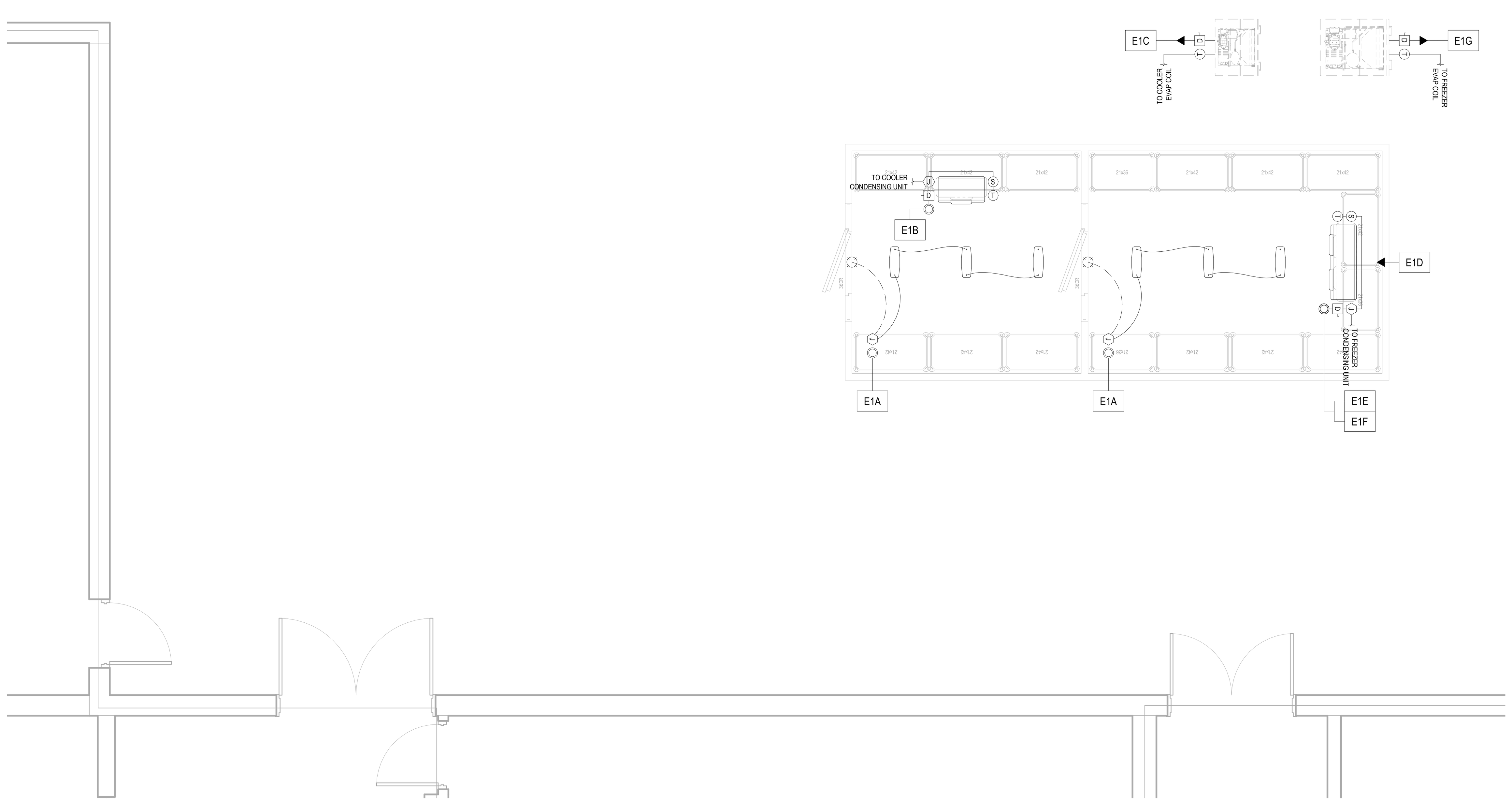
FOODSERVICE NOTES, SYMBOLS & LEGENDS

FS121.1



MECHANICAL EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	MARK	HW	CW	AFF	DRAIN	DRAIN HEIGHT	INDIRECT	GAS	MBTU	AFF	REMARKS
1	WALK-IN COOLER CONDENSING UNIT	P1A										EXTEND REFRIGERATION LINES FROM EVAPORATOR COIL TO CONDENSING UNIT MOUNTED ON ROOF
	WALK-IN FREEZER CONDENSING UNIT	P1B										EXTEND REFRIGERATION LINES FROM EVAPORATOR COIL TO CONDENSING UNIT MOUNTED ON ROOF



ELECTRICAL EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	MARK	VOLTAGE	PHS	KW	AMPS	HP	CONN	NEMA	AFF	ELECTRICAL REMARKS
1	WALK-IN LIGHTS AND DOOR OPTIONS	E1A	120	1		16.00		DIRECT		DFA	EXTEND TO KEC FURNISHED LIGHT FIXTURES THRU JUNCTION BOX ON TOP OF WALK-IN
	WALK-IN COOLER EVAPORATOR FAN	E1B	120	1		0.80		DIRECT		DFA	EXTEND TO JUNCTION BOX ON COOLER EVAPORATOR COIL THRU KEC FURNISHED DISCONNECT SWITCH
	WALK-IN COOLER CONDENSING UNIT	E1C	208	3		5.70	0.50	DIRECT		ROOF	EXTEND TO EQUIPMENT THRU KEC FURNISHED ELECTRICAL DISCONNECT MOUNTED ON EQUIPMENT
	WALK-IN FREEZER HEATED DRAIN TAPE	E1D	120	1		16.00		PLUG		96"	EXTEND TO RECEPTACLE MOUNTED HIGH ON WALL BEHIND FREEZER EVAPORATOR COIL
	WALK-IN FREEZER EVAPORATOR FAN	E1E	208	1		1.00		DIRECT		DFA	EXTEND FROM E1G - SEE WALK-IN FREEZER WIRING DETAIL ON FS3.0
	WALK-IN FREEZER EVAPORATOR FAN	E1F	208	1		9.80		DIRECT		DFA	EXTEND FROM E1G - SEE WALK-IN FREEZER WIRING DETAIL ON FS3.0
	WALK-IN FREEZER CONDENSING UNIT	E1G	208	3		17.00	3.00	DIRECT		ROOF	EXTEND TO EQUIPMENT THRU KEC FURNISHED ELECTRICAL DISCONNECT MOUNTED ON EQUIPMENT

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Project No. 2022-056.GBP
Project Date 02.27.2023
Produced JAK JAK

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL — JIM KESSENICH — 9508165 — PROFESSIONAL MEMBER

#	Revision	Date
	Addendum #1	02.27.2023

Highland, IN 46322

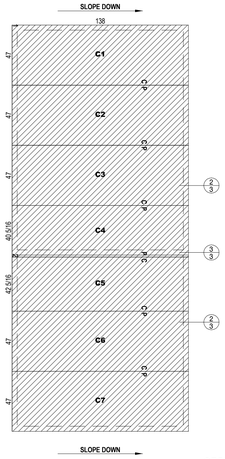
KEY PLAN

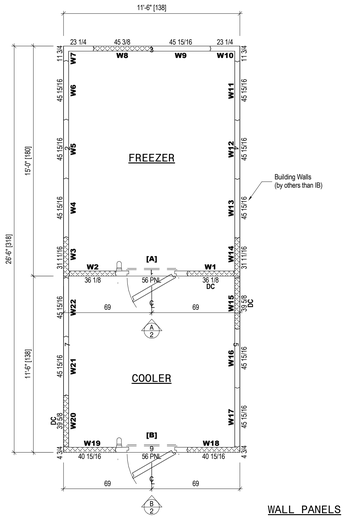
School Town of Highland

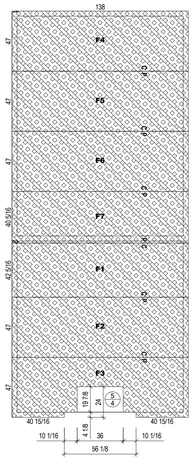
HIGHLAND HIGH SCHOOL AUDITORIUM

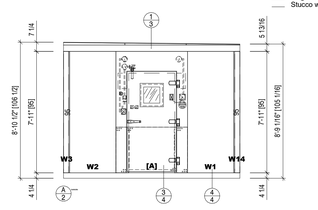
FOODSERVICE SPOT LOCATION LAYOUT

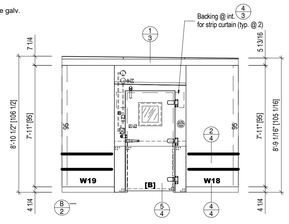
FS122.1

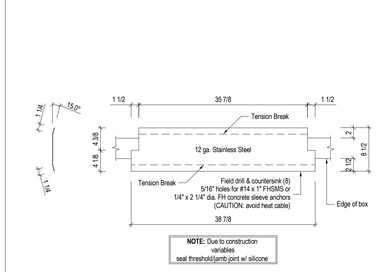


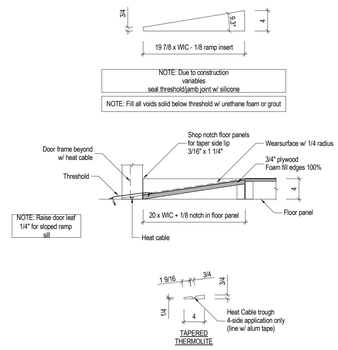


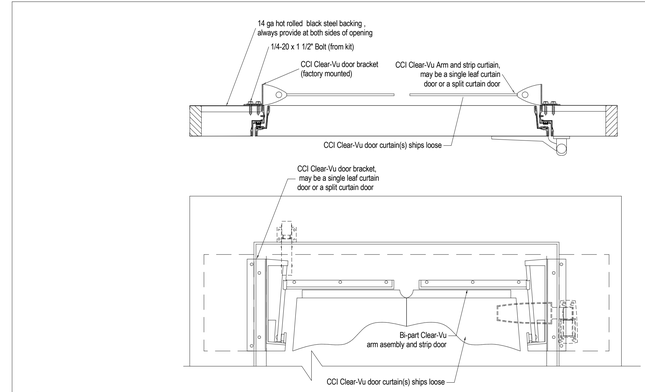


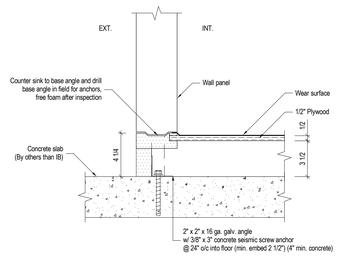


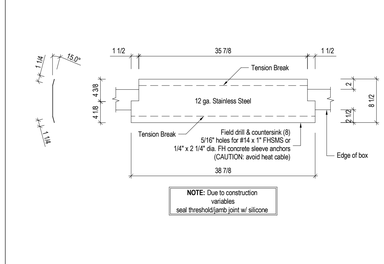


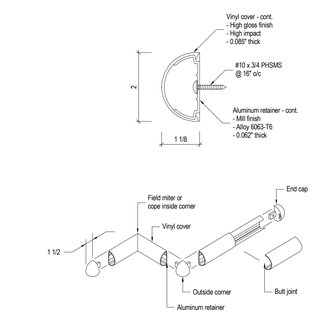


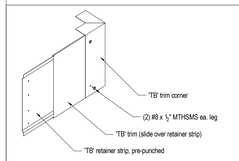


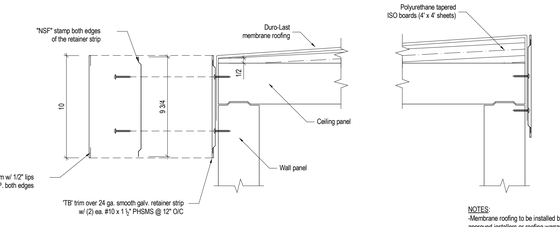


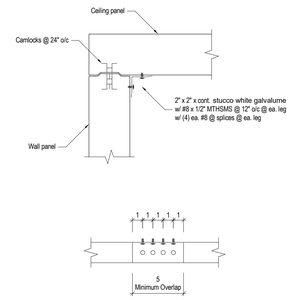


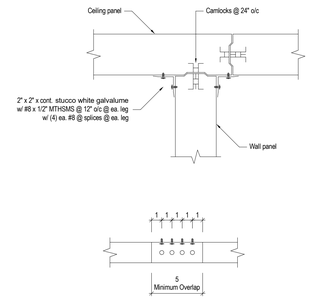


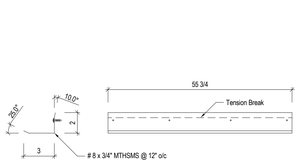












CEILING PANELS

WALL PANELS

- 24 ga. smooth sandstone galv.
- Stucco white galvalume

FLOOR PANELS

CONSTRUCTION LEGEND:
- 5 1/2" wood frame urethane
- 4" urethane
- 4" high density urethane
- 3 1/2" high density urethane

5/4 24" INTERIOR RAMP
G3 Flush Door

1/4 CCI CLEAR-VU DOOR

2/4 3 1/2" HTFN FLOOR
with Concealed Tie-Down

3/4 FLAT THRESHOLD
G3 Flush Door
Freezer

Please indicate where the bumper bar is to be located and if the outside corner and end cap call outs are correct.

2/4 BUMPER RAIL
Boston 2000
Exposed Exterior at 18" & 30" A.F.F.

TRIM CORNER DETAIL

NOTES:
-Membrane roofing to be installed by Duro-Last approved installers or roofing warranty will be void.
-Do not fasten retainer strip into ISO boards

1/3 MEMBRANE ROOFING
Attached to Building, 'TB' Facia Trim

SPLICE DETAIL

2/3 CEILING TIE-DOWN

SPLICE DETAIL

3/3 CEILING TIE-DOWN @ PARTITION WALL

NOTE: Rain drip cover should be mounted @ 5 degrees to drain toward the hinge side of the door opening.

1/4 RAIN SHIELD
24 ga. Smooth Sandstone

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FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
JIM KESSENICH
9508165
PROFESSIONAL MEMBER

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Highland, IN 46322

KEY PLAN

N

School Town of Highland

HIGHLAND HIGH SCHOOL AUDITORIUM

WALK-IN COOLER/FREEZER DRAWING

FS123.1

ABBREVIATIONS

AD	AREA DRAIN
ADA	AMERICAN DISABILITIES ACT
ADJ	ADJUSTABLE
AE	ANESTHESIA EVACUATION
AFF	ABOVE FINISHED FLOOR
ALTER	ALTERNATE
AMP	AMPERE (AMP, AMPS)
APPROX	APPROXIMAT(E), (LY)
ARCH	ARCHITECT (URAL)
APD	AIR PRESSURE DROP (IN WG)
AV	ACID VENT
AW	ACID WASTE
A	COMPRESSED AIR
BFC	BELOW FINISHED CEILING
BLDG	BUILDING
BOP	BOTTOM OF PIPING
BT	BATHTUB
BTUH	BRITISH THERMAL UNIT PER HOUR
CD	CONDENSATE DRAIN
CFOI	CONTRACTOR FURNISHED/OWNER INSTALLED
CI	CAST IRON
CO	CLEANOUT
CO2	CARBON DIOXIDE
CONN	CONNECTION
CW	COLD WATER (DOMESTIC)
D	DRAIN
DF	DRINKING FOUNTAIN
DN	DOWN
DS	DOWNSPOUT
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWS	DOMESTIC WATER SOFTNER
EC	ELECTRICAL CONTRACTOR
ECO	EXTERIOR CLEANOUT
EFF	EFFICIENCY
ELEC	ELECTRIC
ELEV	ELEVATION
EMER	EMERGENCY
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
ES	EMERGENCY SHOWER
ET	EXPANSION TANK
EW	EMERGENCY EYEWASH
EWC	ELECTRIC WATER COOLER
EXP	EXPANSION
EXIST	EXISTING
°F	DEGREES FAHRENHEIT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FH	FIRE HOSE
FHC	FIRE HOSE CABINET
FLR	FLOOR
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FP	FIRE PROTECTION
FPC	FIRE PROTECTION CONTRACTOR
FPM	FEET PER MINUTE
FT	FOOT/FEET
FTG	FOOTING
G	NATURAL GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GT	GREASE TRAP
HB	HOSE BIB
HD	HEAD (FT.)
HO	HUB OUTLET
HORIZ	HORIZONTAL
HWCP	HOT WATER RECIRCULATING PUMP
HR	HOUR
HW	HOT WATER (DOMESTIC)
HWR	HOT WATER RETURN
HZ	FREQUENCY (MEGAHERTZ)
ID	INSIDE DIAMETER
IN	INCH/INCHES
INCL	INCLUD(E), (ED)
INDIC	INDICATOR
INSUL	INSULAT(E), (ED), (ION)
INT	INTERIOR
INV	INVERT
KEC	KITCHEN EQUIPMENT CONTRACTOR
KW	KILOWATT
L	LAVATORY
LA	LABORATORY AIR
LAB	LABORATORY
LBS	POUND
LEC	LABORATORY EQUIPMENT CONTRACTOR
LFC	LABORATORY FURNISHINGS CONTRACTOR
LP	LIQUID PETROLEUM
LPC	LABORATORY PLUMBING CONTRACTOR
LV	LABORATORY VACUUM
MA	MEDICAL AIR
MAX	MAXIMUM
MB	MOP BASIN
MS	MOP SINK
MBH	THOUSANDS OF BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
N	NITROGEN
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O	OXYGEN
OA	OUTSIDE AIR
OFD	OVERFLOW DRAIN
OE	ORAL EVACUATION
OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED/OWNER INSTALLED
OSD	OPEN SITE DRAIN

ABBREVIATIONS

P	PUMP
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP (IN OR WG AS NOTED)
PER	PERCENT
PH	PHASE
PI	PRESSURE INDICATOR
PIV	POST INDICATOR VALVE
PLT	PLASTER TRAP
POC	POINT OF CONNECTION (NEW TO EXISTING)
PPM	PARTS PER MILLION
PREFAB	PREFABRICATED
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PVC	POLYVINYL CHLORIDE
R	THERMAL RESISTANCE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RECIR	RECIRCULAT(E), (OR), (ING)
RH	RODDING HOLE
RM	ROOM
RO	REVERSE OSMOSIS WATER
RPM	REVOLUTIONS PER MINUTE
SB	SITZ BATH
SCW	SOFT COLD WATER (DOMESTIC)
SECT	SECTION
SF	SQUARE FOOT
SH	SHOWER
SHT	SHEET
SK	SINK
SPEC	SPECIFICATIONS
SPG	SPECIAL GAS
SS	STAINLESS STEEL
SSD	SUB SURFACE (FOOTING) DRAIN
SSK	SERVICE SINK
ST	STORAGE TANK
STD	STANDARD
STP	STORAGE TANK PUMP
STS, STR	STORAGE TANK SUPPLY AND RETURN
STRUCT	STRUCTURE(E), (AL)
SU	SHOWER UNIT
T&P	TEMPERATURE AND PRESSURE
T	TEMPERED WATER
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TS	TAMPER SWITCH
TYP.	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
VA	VOLT AMPERE
VAC	VACUUM
VAR	VARIABLE
VB	VACUUM BREAKER
VC	VACUUM CLEANING
VERT	VERTICAL
VIF	VERIFY IN FIELD
VT	VITRIFIED TILE
VPD	VACUUM PUMP DISCHARGE
VTR	VENT THROUGH ROOF
VV	VACUUM VENT
W/	WITH
WC	WATER CLOSET
W.C.	WATER COLUMN
WCO	WALL CLEANOUT
WG	WATER GAUGE
WH	WALL HYDRANT
W/O	WITHOUT
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WTR	WATER
YD	YARD DRAIN
ZN	ZONE

DRAWING NOTATIONS

DEMO NEW	PLAN NOTE
3 / M-501	DETAIL REFERENCE
2 / M-301	SECTION REFERENCE
	NEW TO EXISTING
	DEMO TO THIS POINT
XXX-1	EQUIPMENT TAG - (SEE SCHEDULE SHEETS)
XXX-1	FIXTURE TAG - (SEE SCHEDULE SHEETS)

NOTE:
ALL SYMBOLS AND ABBREVIATIONS
MAY NOT BE USED FOR THIS PROJECT

GENERAL DUTY VALVES & FITTINGS

	RISE IN PIPING
	DROP IN PIPING
	CAPPED PIPE
	PIPE CONTINUED ON ANOTHER DRAWING
	CHECK VALVE
	PLUG VALVE
	PRESSURE REGULATING VALVE
	VALVE - SEE SPECIFICATIONS FOR VALVE TYPE
	BUTTERFLY VALVE
	ANGLE VALVE
	MANUAL BALANCING VALVE
	AUTOMATIC BALANCING VALVE
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	UNION
	THERMOMETER WELL
	THERMOMETER & WELL
	GAUGE CONNECTION(S) & WELL
	MANUAL AIR VENT
	AUTOMATIC AIR VENT
	PETE'S PLUG
	Y-STRAINER W/BLOWDOWN VALVE & CAP
	PIPE GUIDES
	PIPE ANCHORS
	FLEXIBLE PIPING CONNECTOR
	PIPE EXPANSION JOINT
	GAS COCK
A	VACUUM BREAKER (P) = PRESSURE
	DOMESTIC COLD WATER VALVE BOX
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	PRESSURE REDUCING VALVE

PIPING SYSTEMS

140° HW	140° DOMESTIC HOT WATER
140° HWR	140° DOMESTIC HOT WATER RETURN
160° HW	160° DOMESTIC HOT WATER
160° HWR	160° DOMESTIC HOT WATER RETURN
AV	ACID RESISTANT VENT
AW	ACID RESISTANT WASTE
AIR	AIR
CA	COMBUSTION AIR
CW	DOMESTIC COLD WATER
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
EA	EXHAUST AIR
FPD	FIRE PROTECTION DRY
FP	FIRE PROTECTION OTHER
FPPA	FIRE PROTECTION PRE-ACTION
FPW	FIRE PROTECTION WET
G (6 in-wc)	GAS (6" w.c.)
G (11 in-wc)	GAS (11" w.c.)
G (2 psig)	GAS (2 psig)
G (5 psig)	GAS (5 psig)
GW	GREASE WASTE
LA	LAB AIR
LCW	LAB COLD WATER
LHW	LAB HOT WATER
LHR	LAB HOT WATER RETURN
LVAC	LAB VACUUM
LVE	LAB VACUUM EXHAUST
N2	NITROGEN
PWR	PURE WATER RETURN
PWS	PURE WATER SUPPLY
RCW	RAW COLD WATER
RO	REVERSE OSMOSIS WATER
ROR	REVERSE OSMOSIS WATER RETURN
SCW	SOFT COLD WATER
SHW	SOFT HOT WATER
ST	STORM
TW	TEMPERED WATER
VAC	VACUUM
V	VENT
W	WASTE

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Project No. 2022-056.GBP
Project Date 02.13.2022
Produced JH / Author

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NO.
AR10400134
STATE OF
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ARCHITECT

#	Revision	Date
A1	Addendum #1	02.28.2023

2941 41st Street,
Highland, Indiana 46322

KEY PLAN

N

School Town of Highland

SCHOOL TOWN OF HIGHLAND

Highland Middle School

A1

PLUMBING SYMBOLS AND ABBREVIATIONS

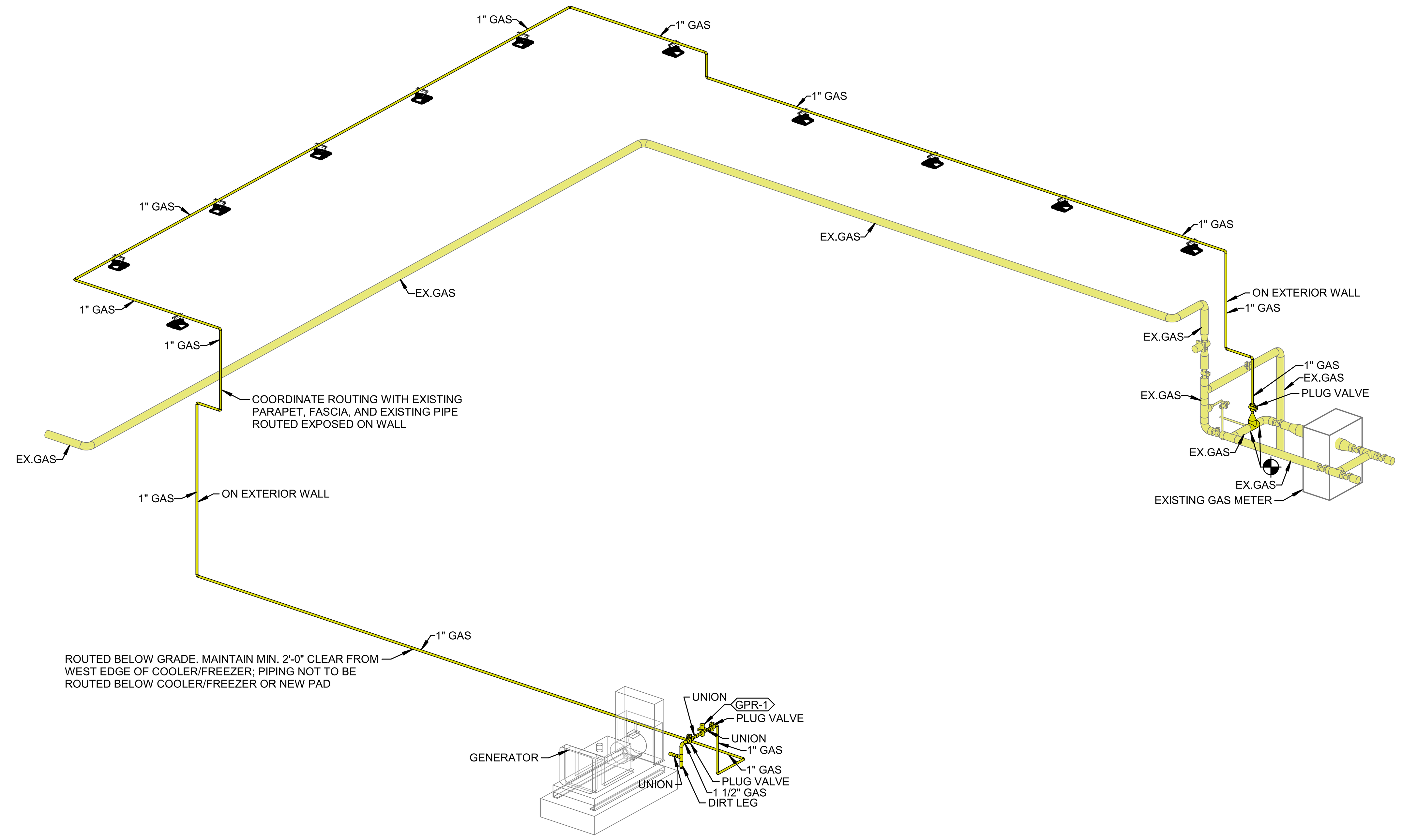
P-001.1

NATURAL GAS GENERAL NOTE

1. DISTANCE BETWEEN GENERATOR AND PRESSURE REGULATOR TO BE MIN. 10 PIPE DIAMETERS OR AS DIRECTED BY INSTALLATION MANUAL.
2. PIPING EXPOSED ON WALL TO BE PAINTED WITH MINIMUM TWO COATS OF RUST INHIBITING PAINT. COORDINATE COLOR WITH OWNER.
3. PAINT ALL EXPOSED PIPING ON ROOF WITH MINIMUM TWO COATS OF CAUTION YELLOW RUST-INHIBITING PAINT.

GAS PRESSURE REGULATORS (231123)

IDENTITY DATA			PRESSURE		NATURAL GAS	
MARK	DESCRIPTION	VENTING	INLET (psig)	OUTLET (inches w.c.)	TOTAL CONNECTED LOAD (Btu/h)	EQUIPMENT SERVED
GPR-1	GAS PRESSURE REGULATOR	OUTSIDE	10	10	377,000	GENERATOR



1C NATURAL GAS PIPING DIAGRAM
NOT TO SCALE

2A PLUMBING ROOF PLAN
1/16" = 1'-0"

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Project No. 2022-056.GBP
Project Date 02.13.2022
Produced JH / KAV

SARAH KATHLEEN HEMPSTEAD REGISTERED NO. AR10400134 STATE OF INDIANA ARCHITECT

#	Revision	Date
A1	Addendum #1	02.28.2023

2941 41st Street,
Highland, Indiana 46322

KEY PLAN

School Town of Highland

Highland Middle School

PLUMBING ROOF PLAN

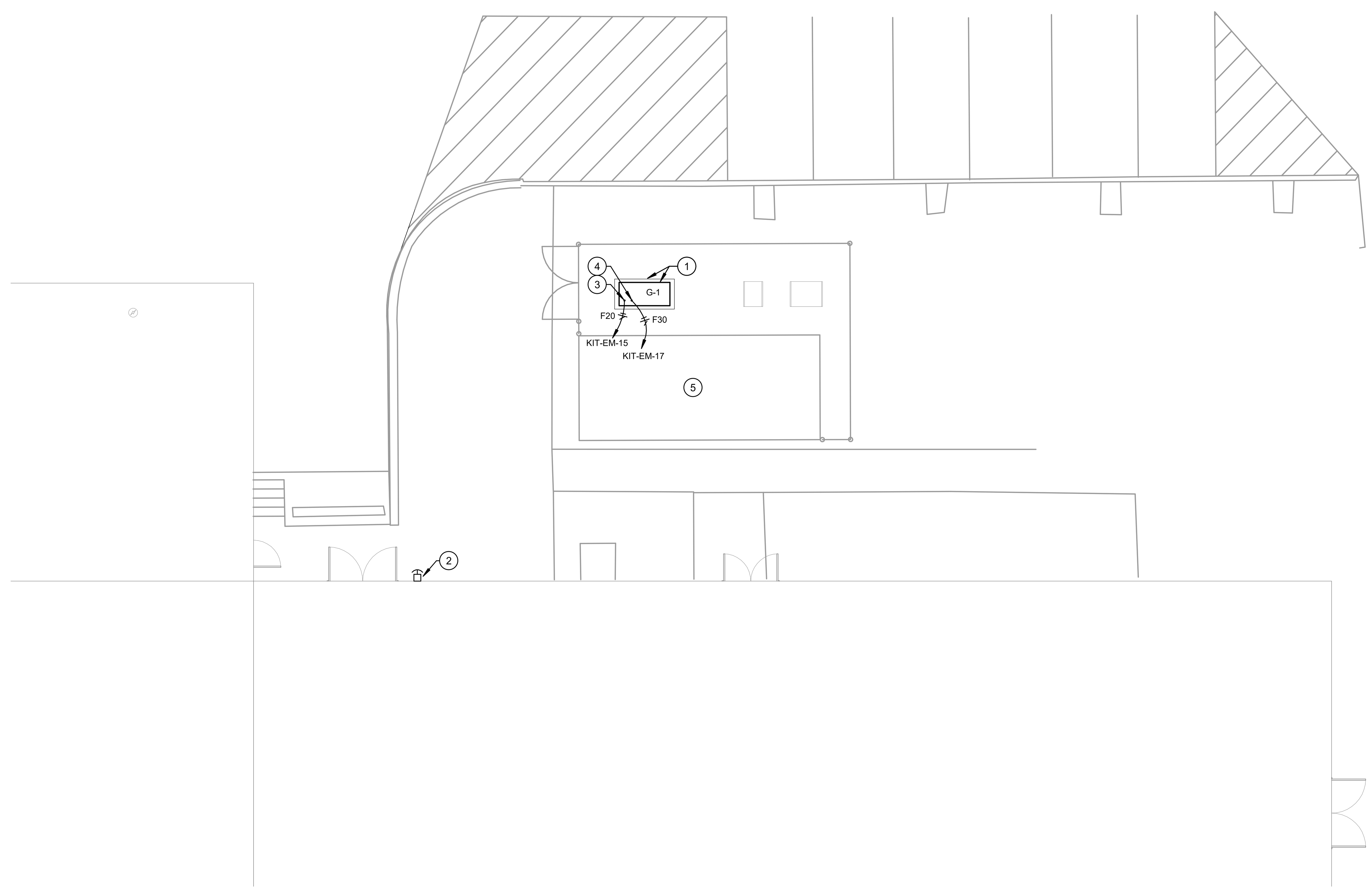
P-101.1

GENERAL SITE NOTES

#	NOTES
A	REFER TO SHEETS E-001 AND E-002 FOR ADDITIONAL INFORMATION.
B	REFER TO LOCAL UTILITIES GUIDE FOR DETAILS AND REQUIREMENTS. INCLUDING, BUT NOT LIMITED TO, SERVICE REQUIREMENTS FOR UNDERGROUND PRIMARY, PROTECTIVE POLES FOR PAD-MOUNTED EQUIPMENT, UTILITY TRANSFORMER CONCRETE PAD DETAIL, ETC. INCLUDE ALL UTILITY FEES REQUIRED IN BID.

SITE PLAN NOTES

#	NOTES
1	NATURAL GAS GENERATOR AND CONCRETE PAD. PAD DESIGN DOCUMENTS BY MANUFACTURER AND CERTIFIED BY PROFESSIONAL ENGINEER. REFER TO ONE-LINE DIAGRAM FOR MORE INFORMATION.
2	LOCATION FOR GENERATOR EPO (FURNISHED BY GENERATOR MANUFACTURER, INSTALLED BY DIVISION 26 CONTRACTOR). ROUTE CONDUIT FROM GENERATOR CONTROL PANEL AND WIRE COMPLETE.
3	CIRCUIT CONNECTION FOR BATTERY CHARGER.
4	CIRCUIT CONNECTION FOR BLOCK HEATER.
5	LOCATION OF NEW WALK-IN FREEZER/COOLER.



2A SITE PLAN - GENERATOR
1/8" = 1'-0"

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SARAH KATHLEEN HEMPSTEAD REGISTERED NO. AR10400134 STATE OF INDIANA ARCHITECT

#	Revision	Date
A1	Addendum 1	02.28.2023

9135 Erie St.
Highland, IN 46322

KEY PLAN

School Town of Highland

High School / Middle School

SITE PLAN - MIDDLE SCHOOL

ES121.1

GENERAL POWER NOTES

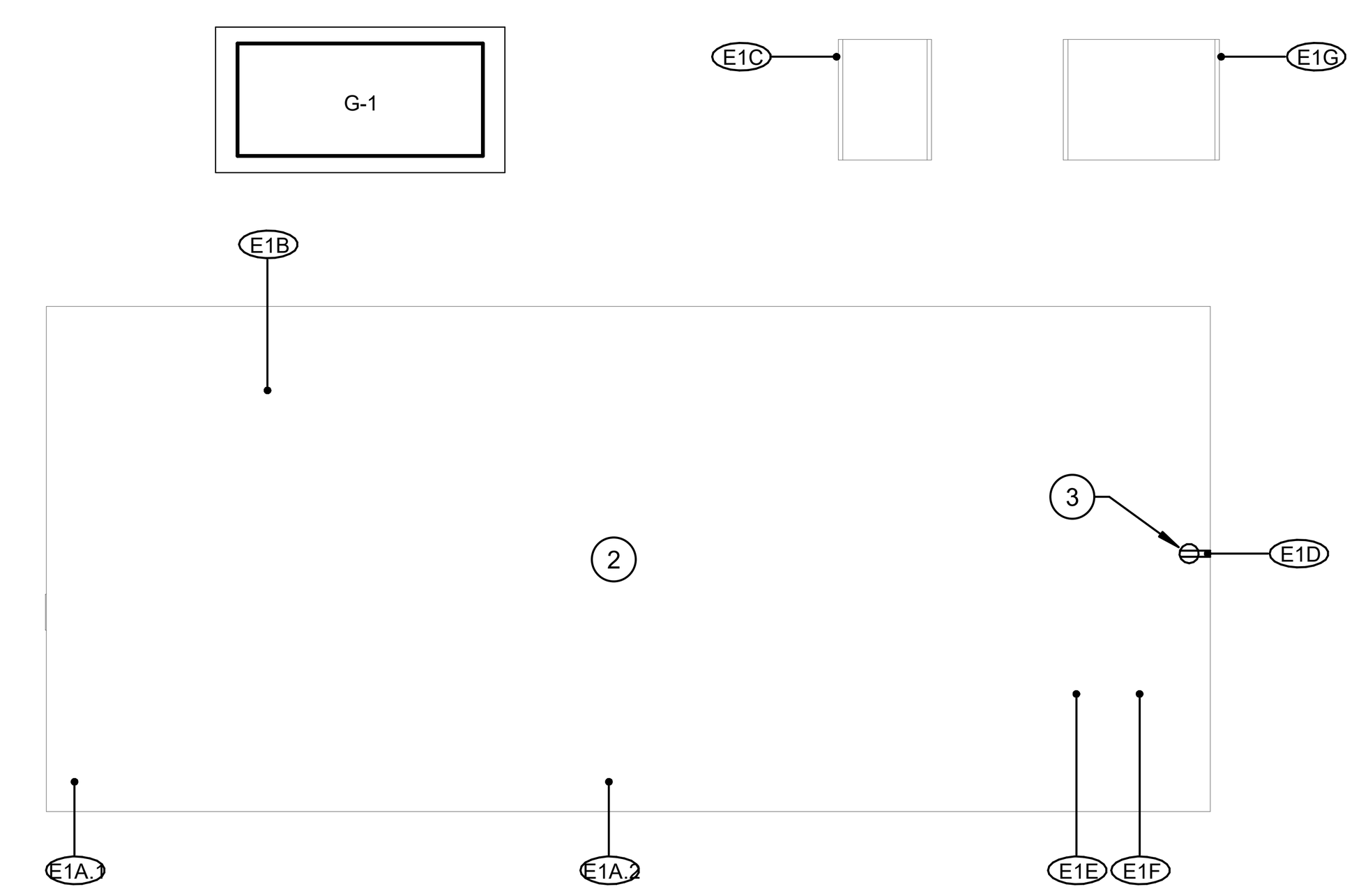
#	NOTES
A	REFER TO SHEETS E-001 AND E-002 FOR ADDITIONAL INFORMATION.

POWER PLAN NOTES

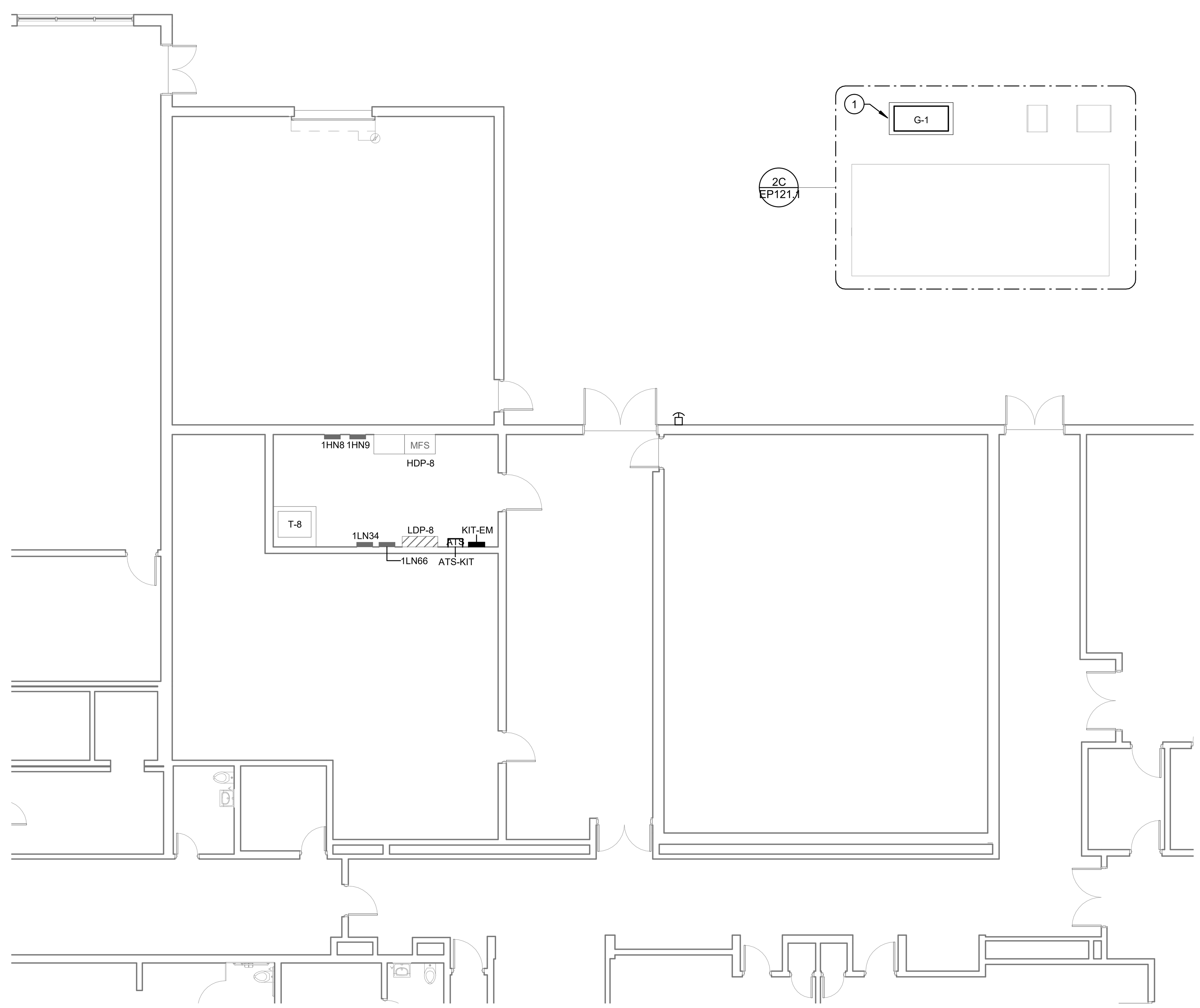
#	NOTES
1	NATURAL GAS GENERATOR AND CONCRETE PAD. PAD DESIGN DOCUMENTS BY MANUFACTURER AND CERTIFIED BY PROFESSIONAL ENGINEER. REFER TO ONE-LINE DIAGRAM FOR MORE INFORMATION.
2	COORDINATE EXACT LOCATIONS WITH FOOD SERVICE DRAWINGS AND MANUFACTURER RECOMMENDATIONS.
3	INSTALL RECEPTACLE HIGH ON WALL BEHIND FREEZER EVAPORATOR COIL.

114000.1 - FOODSERVICE EQUIPMENT SCHEDULE

LABEL	LOCATION		EQUIPMENT SERVED	VOLTAGE	PHASE	AMPERAGE	PANEL	CIRCUIT	FEEDER/BRANCH CIRCUIT				REMARKS
										WIRE QTY			
	NUMBER	NAME							SIZE	P	N	G	
E1A.1			WALK-IN LIGHTS AND DOOR OPTIONS	120 V	1	16.00 A	KIT-EM	1	F20	1	1	1	
E1A.2			WALK-IN LIGHTS AND DOOR OPTIONS	120 V	1	16.00 A	KIT-EM	3	F20	1	1	1	
E1B			WALK-IN COOLER EVAPORATOR FAN	120 V	1	0.80 A	KIT-EM	5	F20	1	1	1	
E1C			WALK-IN COOLER CONDENSING UNIT	208 V	3	5.70 A	KIT-EM	7,9,11	F20	3	0	1	
E1D			WALK-IN FREEZER HEATED DRAIN TAPE	120 V	1	16.00 A	KIT-EM	13	F20	1	1	1	
E1E			WALK-IN FREEZER EVAPORATOR FAN	208 V	1	1.00 A	KIT-EM	2,4	F20	2	0	1	
E1F			WALK-IN FREEZER EVAPORATOR FAN	208 V	1	9.80 A	KIT-EM	6,8	F20	2	0	1	
E1G			WALK-IN FREEZER CONDENSING UNIT	208 V	3	17.00 A	KIT-EM	10,12,14	F20	3	0	1	



2C ENLARGED FREEZER/COOLER PLAN
1/4" = 1'-0"



2A POWER PLAN - MIDDLE SCHOOL
1/8" = 1'-0"

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Project Date 02.13.2023
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SARAH KATHLEEN HEMPSTEAD REGISTERED NO. AR10400134 STATE OF INDIANA ARCHITECT

#	Revision	Date
A1	Addendum 1	02.28.2023

9135 Erie St.
Highland, IN 46322

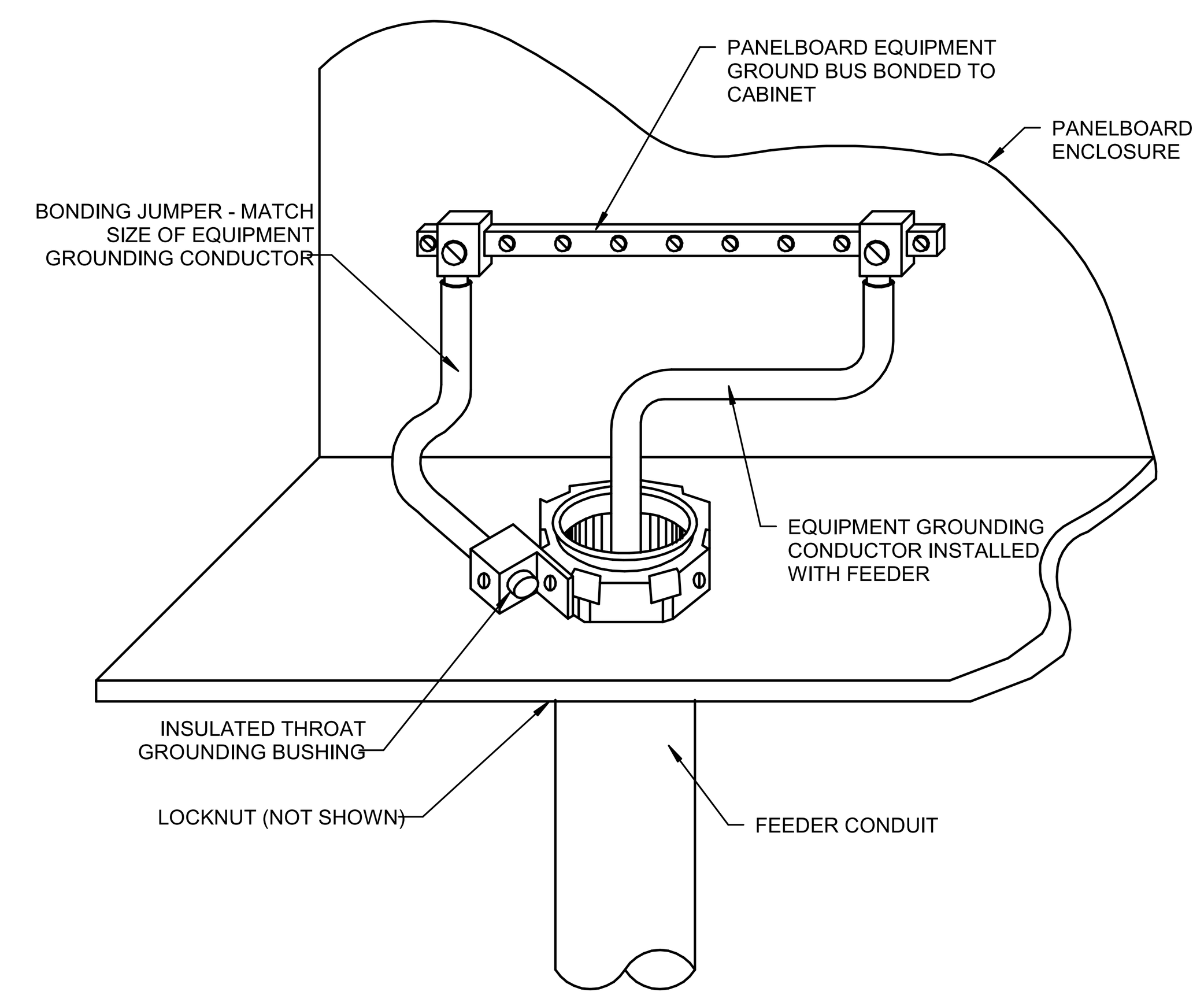
KEY PLAN

School Town of Highland

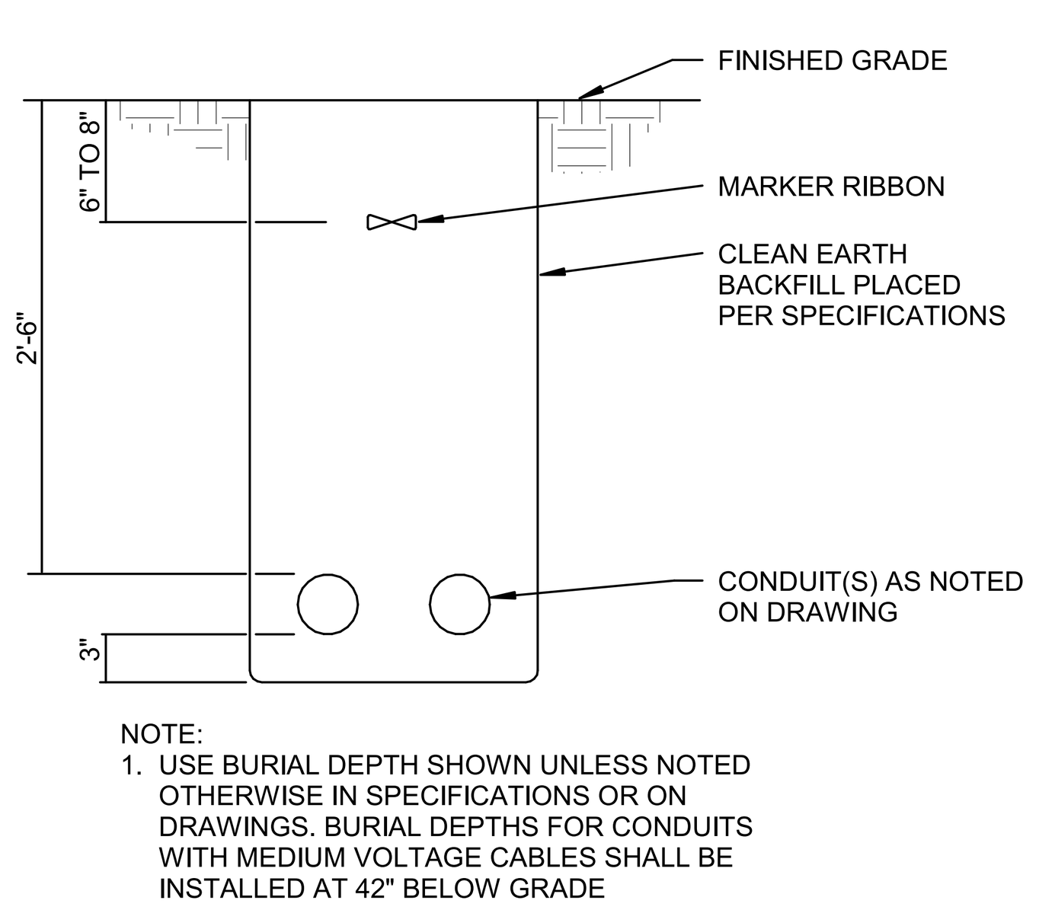
High School / Middle School

POWER PLAN - MIDDLE SCHOOL

EP121.1

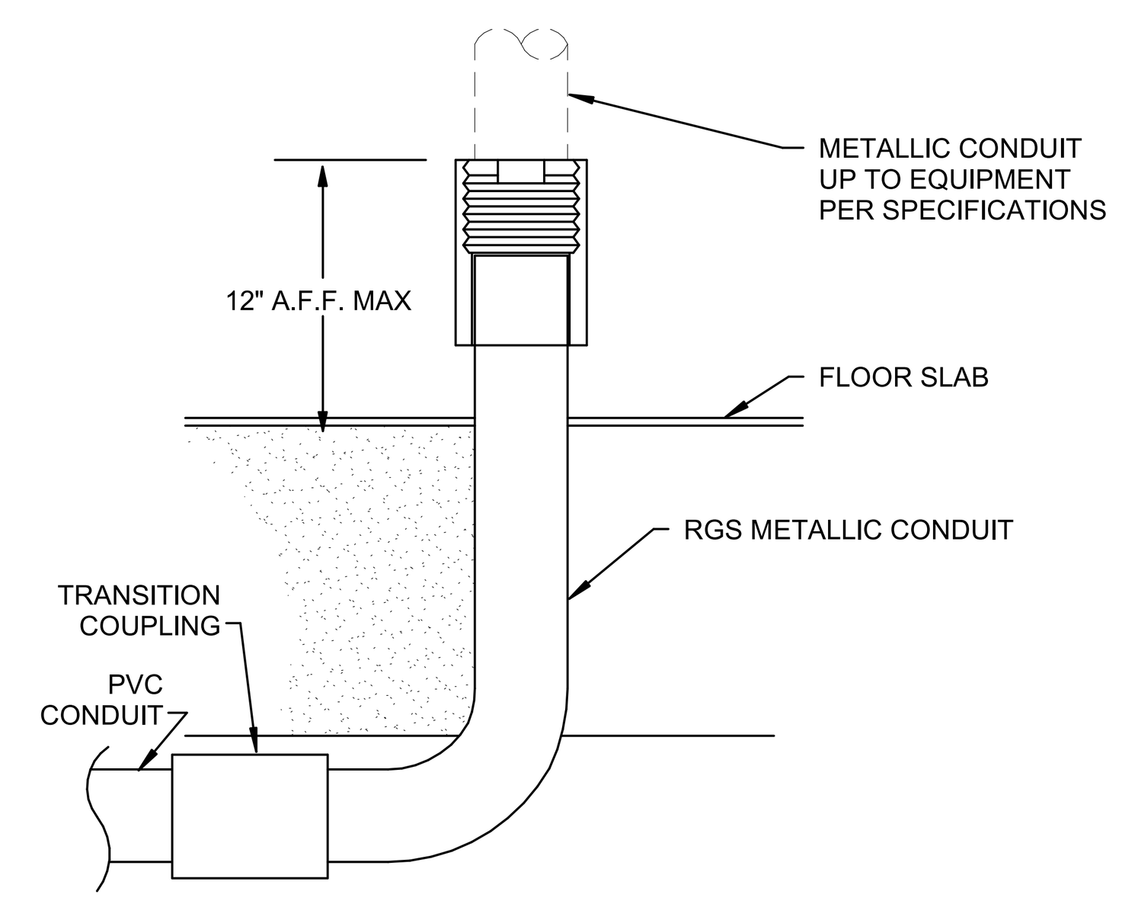


1C **PANELBOARD BONDING DETAIL**
NOT TO SCALE

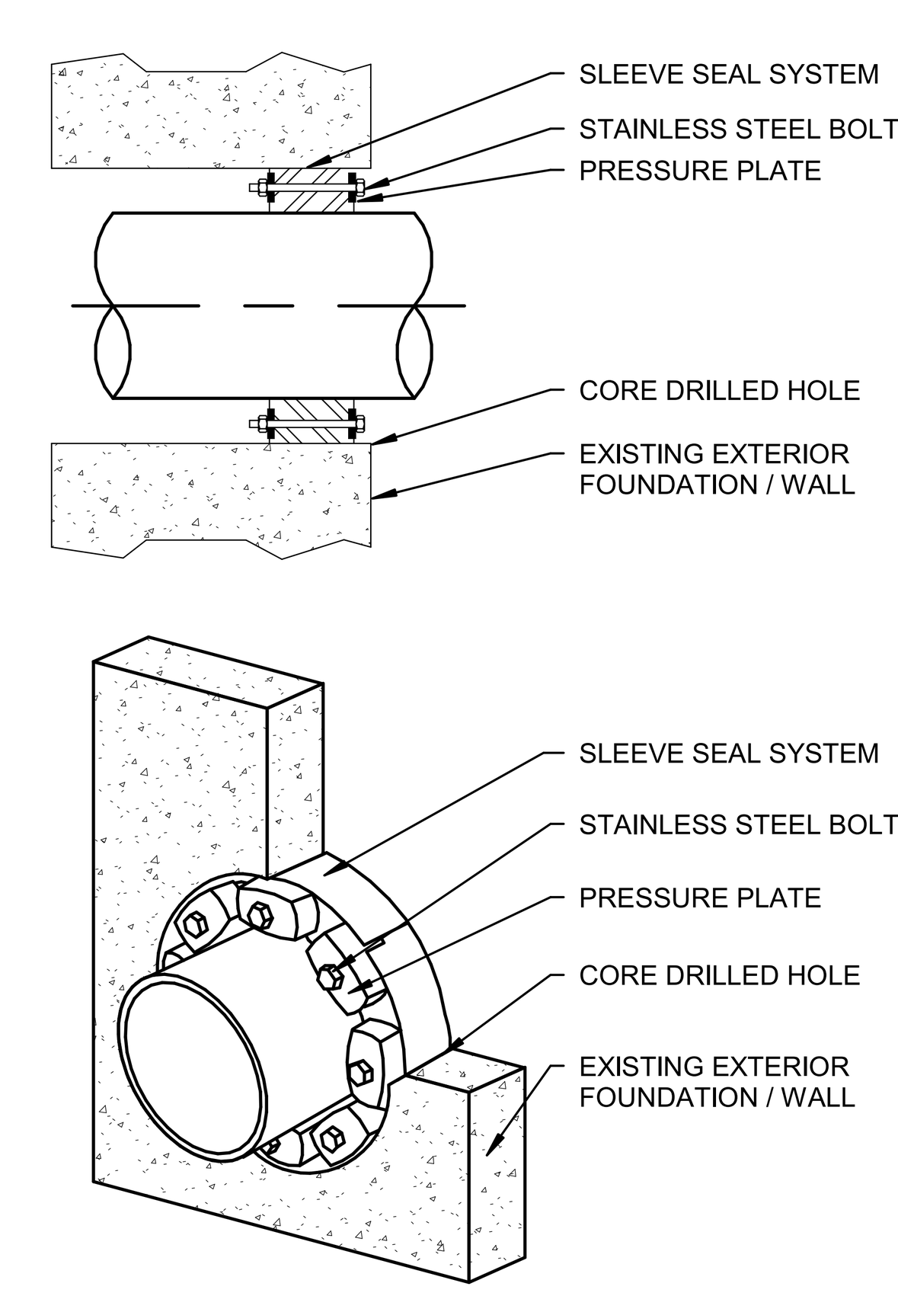


NOTE:
1. USE BURIAL DEPTH SHOWN UNLESS NOTED OTHERWISE IN SPECIFICATIONS OR ON DRAWINGS. BURIAL DEPTHS FOR CONDUITS WITH MEDIUM VOLTAGE CABLES SHALL BE INSTALLED AT 42" BELOW GRADE

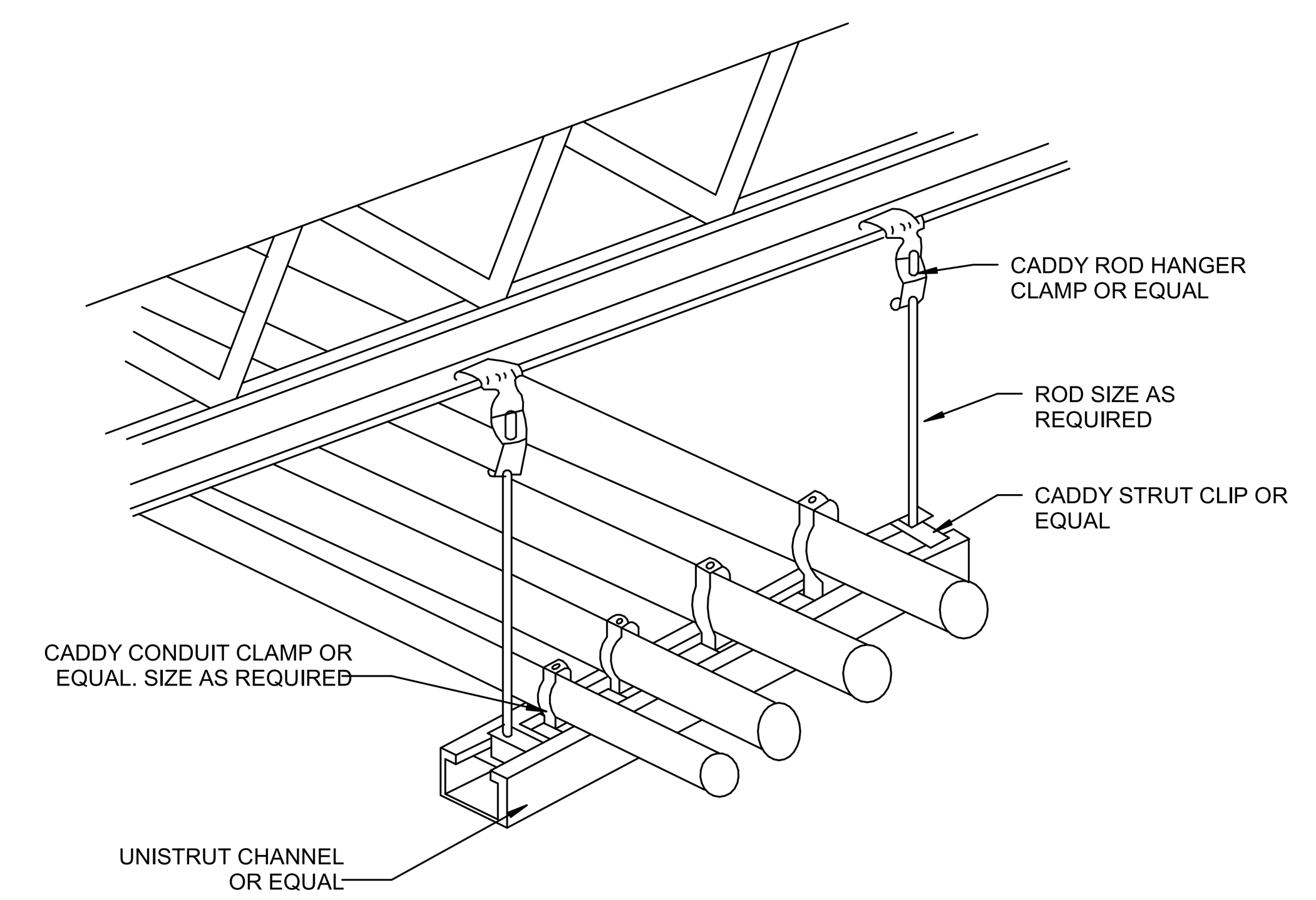
4B **UNDERGROUND BRANCH CIR. CONDUIT(S) DETAIL**
NOT TO SCALE



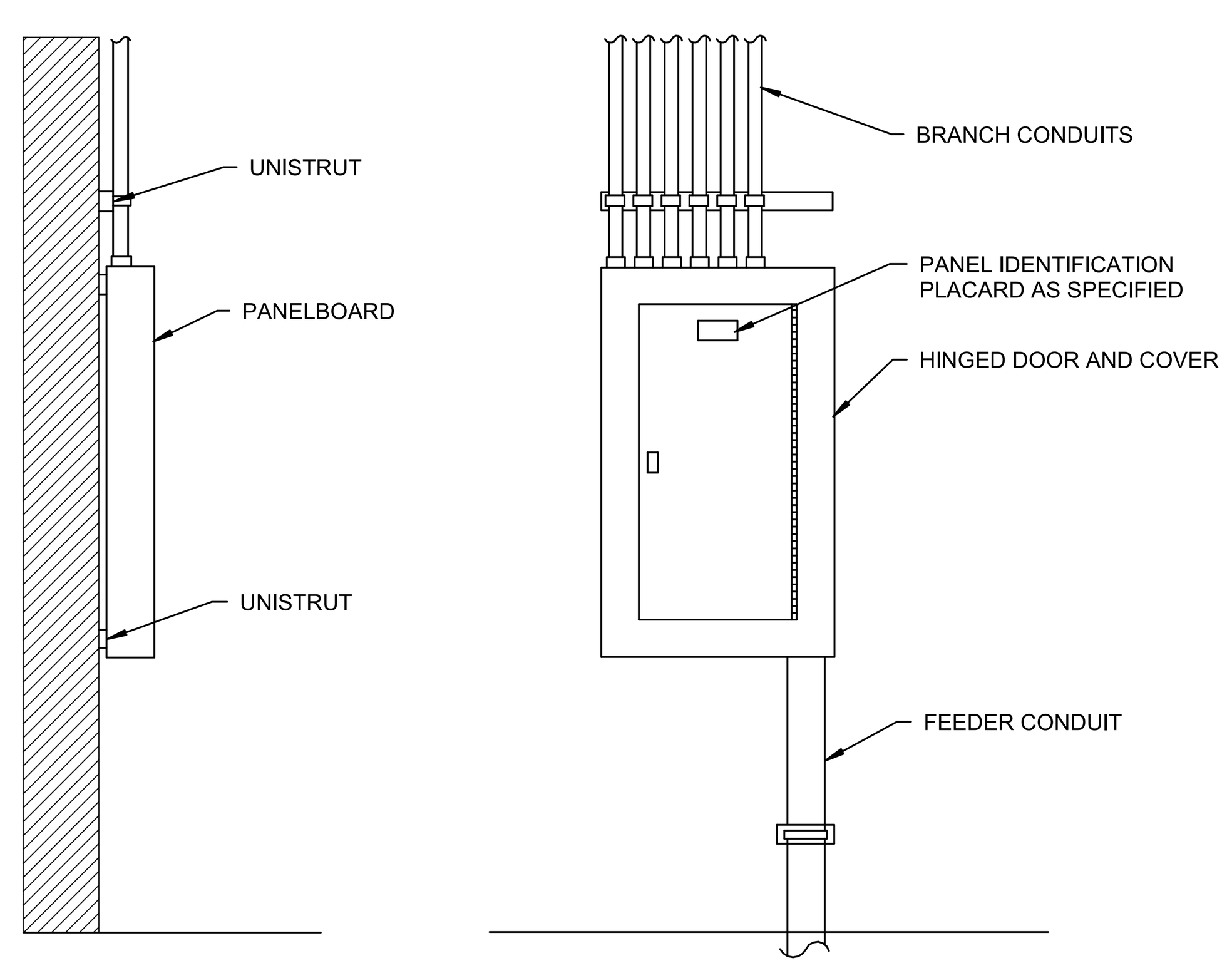
3B **PVC TO ABOVE GROUND CONDUIT STUB-UP DETAIL**
NOT TO SCALE



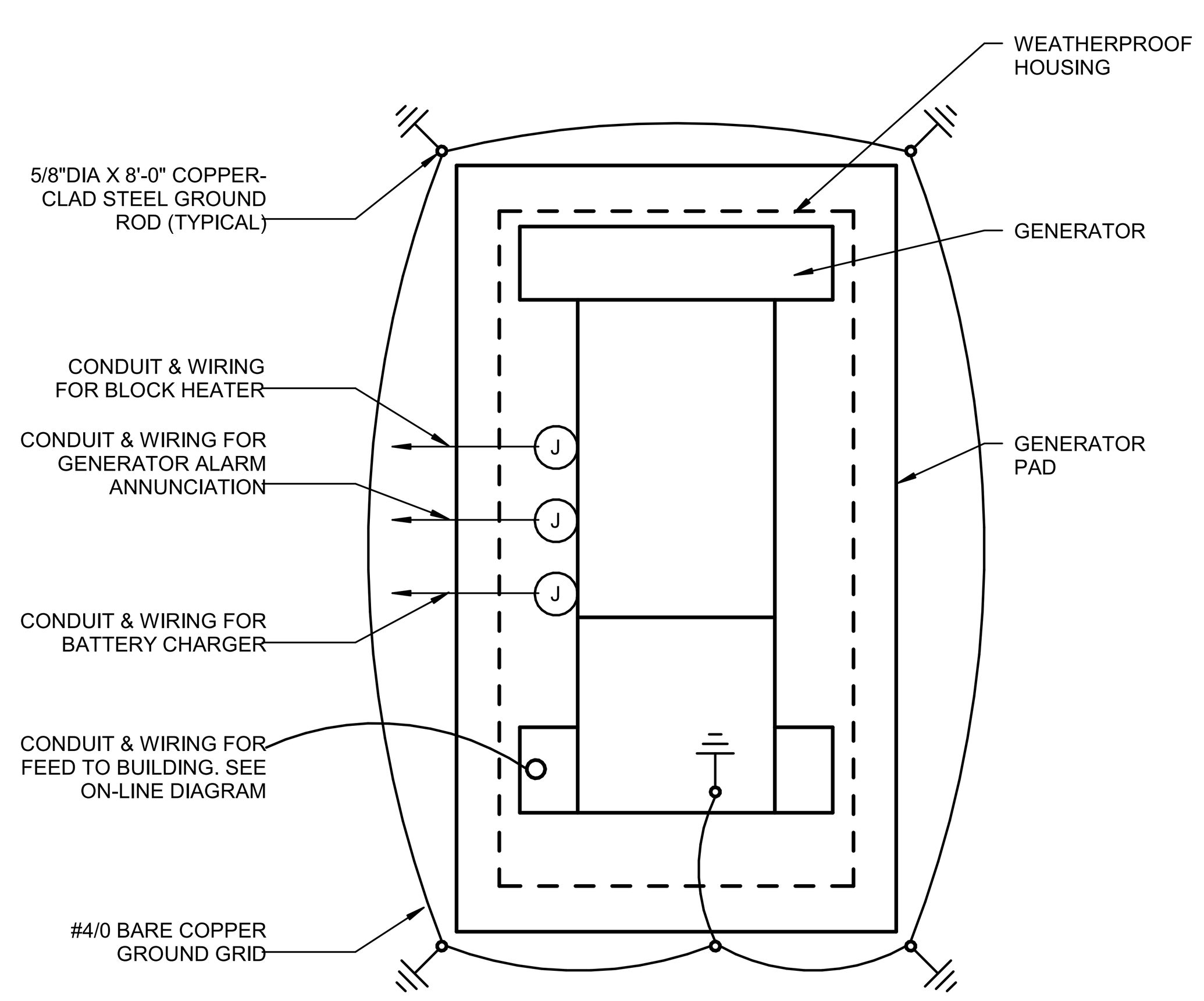
2B **SLEEVE SEAL SYSTEM WITH SLEEVE DETAIL**
NOT TO SCALE



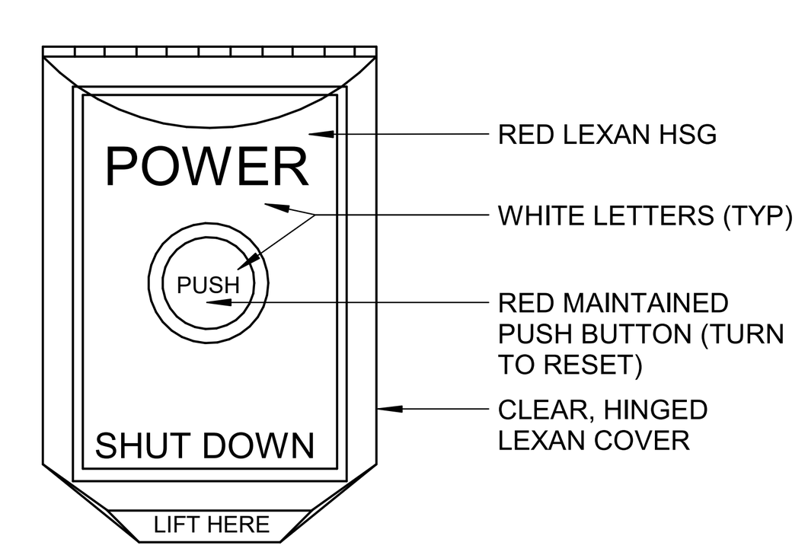
1B **CONDUIT 2-1/2" AND LARGER SUPPORT DETAIL**
NOT TO SCALE



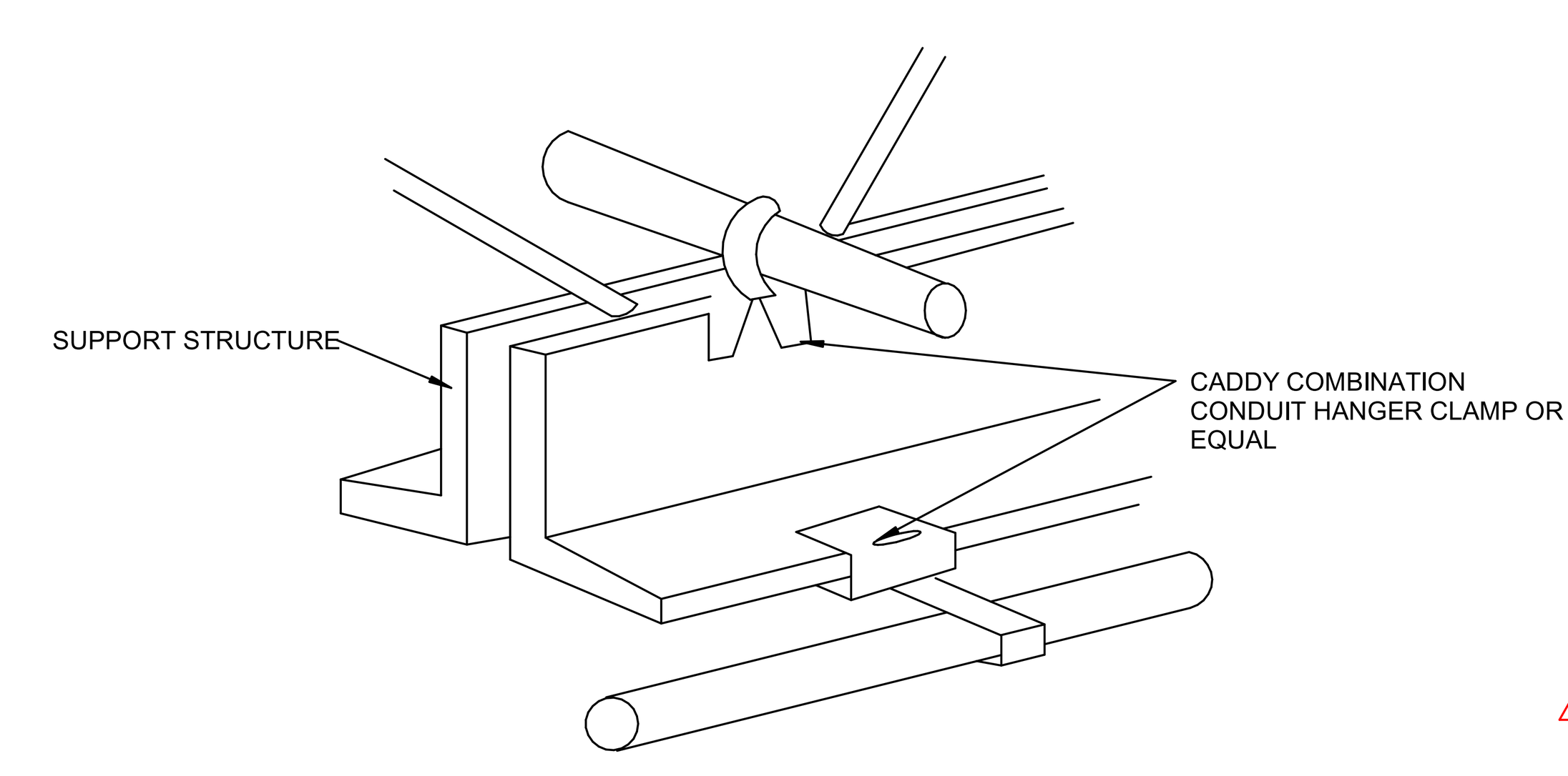
5A **SURFACE PANELBOARD DETAIL**
NOT TO SCALE



3A **GENERATOR GROUNDING DETAIL**
NOT TO SCALE



2A **EPO PUSHBUTTON DETAIL**
NOT TO SCALE



1A **CONDUIT 2" AND SMALLER SUPPORT DETAIL**
NOT TO SCALE

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#	Revision	Date
A1	Addendum 1	02.28.2023

9135 Erie St.
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KEY PLAN

School Town of Highland

High School / Middle School

DETAILS

E-521.1

BRANCH CIRCUIT PANELBOARD SCHEDULE

DESIGNATION:	KIT-EM	**VOLTS:**	208Y/120 V	**MAINS RATING:**	225 A
LOCATION:		**PHASES:**	3	**MAINS TYPE:**	MCB
MOUNTING:	SURFACE	**WIRES:**	4	**MCB RATING:**	125 A
SUPPLY FROM:	ATS-KIT	**AIC RATING:**		**MCB OPTIONS:**	

O	CKT NO.	CIRCUIT ROOM #	CIRCUIT TYPE	TRIP	P	A		B		C		P	TRIP	CIRCUIT TYPE	CIRCUIT ROOM #	CKT NO.	O
	1	LIGHTS AND DOOR OPTIONS		20 A	1	3.33	0.18					2	20 A		FREEZER EVAPORATOR FAN	2	
	3	LIGHTS AND DOOR OPTIONS		20 A	1			3.33	0.18			--	--	--	--	4	--
	5	COOLER EVAPORATOR FAN		20 A	1					0.17	1.77	2	20 A		FREEZER EVAPORATOR FAN	6	
	7	COOLER CONDENSING UNIT		20 A	3	0.68	1.77					--	--	--	--	8	--
--	9	--	--	--	--			0.68	2.04			3	20 A		FREEZER CONDENSING UNIT	10	
--	11	--	--	--	--					0.68	2.04	--	--	--	--	12	--
	13	FREEZER HEATED DRAIN TAPE		20 A	1	3.33	2.04					--	--	--	--	14	--
	15	GEN - BATTERY CHARGER	POWER	20 A	1			1.50	0.00			1	20 A		SPARE	16	--
	17	GEN - BLOCK HEATER	POWER	30 A	1					2.00	0.00	1	20 A		SPARE	18	--
--	19	SPARE		20 A	1	0.00	0.00					1	20 A		SPARE	20	--
--	21	SPARE		20 A	1			0.00	0.00			1	20 A		SPARE	22	--
--	23	SPARE		20 A	1					0.00	0.00	1	20 A		SPARE	24	--
--	25	SPARE		20 A	1	0.00	0.00					1	20 A		SPARE	26	--
--	27	SPARE		20 A	1			0.00	0.00			1	20 A		SPARE	28	--
--	29	SPARE		20 A	1					0.00	0.00	1	20 A		SPARE	30	--
--	31	SPARE		20 A	1	0.00	0.00					1	20 A		SPARE	32	--
--	33	SPARE		20 A	1			0.00	0.00			1	20 A		SPARE	34	--
--	35	SPARE		20 A	1					0.00	0.00	1	20 A		SPARE	36	--
--	37	SPARE		20 A	1	0.00	0.00					1	20 A		SPARE	38	--
--	39	SPARE		20 A	1			0.00	0.00			1	20 A		SPARE	40	--
--	41	SPARE		20 A	1					0.00	0.00	1	20 A		SPARE	42	--
				TOTAL LOAD:		11.32 kVA		7.73 kVA		6.66 kVA							
				TOTAL AMPS:		96 A		66 A		55 A							

TOTAL CONNECTED LOAD:	25.71 kVA	17.94 kVA	**TOTAL DEMAND LOAD:**
TOTAL CONNECTED AMPS:	96 A	50 A	**TOTAL DEMAND AMPS:**

PANELBOARD & CIRCUIT BREAKER OPTIONS ("O" COLUMN / MCB OPTIONS ABBREVIATIONS)	
C	CONTACTOR CONTROLLED
G	GFCI PROTECTED
P	HANDLE LOCKING DEVICE
S	SHUNT TRIP
X	80% RATED MAIN CIRCUIT BREAKER WITH LSI
Y	100% RATED MAIN CIRCUIT BREAKER WITH LSI
Z	100% RATED MAIN CIRCUIT BREAKER WITH LSIG
	FEED THROUGH LUGS (FTL)
	SUB FEED LUGS (SFL)

LOAD CLASSIFICATION	CONNECTED LOAD (VA)	DEMAND FACTOR	ESTIMATE DEMAND (VA)
Kitchen Equipment -...	22212 VA	65.00%	14438 VA
Power - Continuous	3500 VA	100.00%	3500 VA

NOTES:

GENERAL SWITCHBOARD/PANELBOARD NOTES

#	NOTES
A	VERIFY SIZE AND QUANTITY OF LUGS REQUIRED PER ONE-LINE DIAGRAM.
B	VERIFY PANEL / LUG SIZE REQUIRED FOR FEEDERS INDICATED ON ONE-LINE DIAGRAM. MODIFY AS REQUIRED FOR LARGER FEEDERS.
C	VERIFY CONDUIT ENTRY LOCATION ON EACH PANEL.
D	CONFIRM FINAL ROOM NAMES AND NUMBERS WITH OWNER PRIOR TO CREATING FINAL PANELBOARD DIRECTORIES.
E	MODIFY AIC RATINGS INDICATED ON SCHEDULES, AS REQUIRED, PER SPECIFICATION SECTION 260574.99.

263600.1 - TRANSFER SWITCHES SCHEDULE

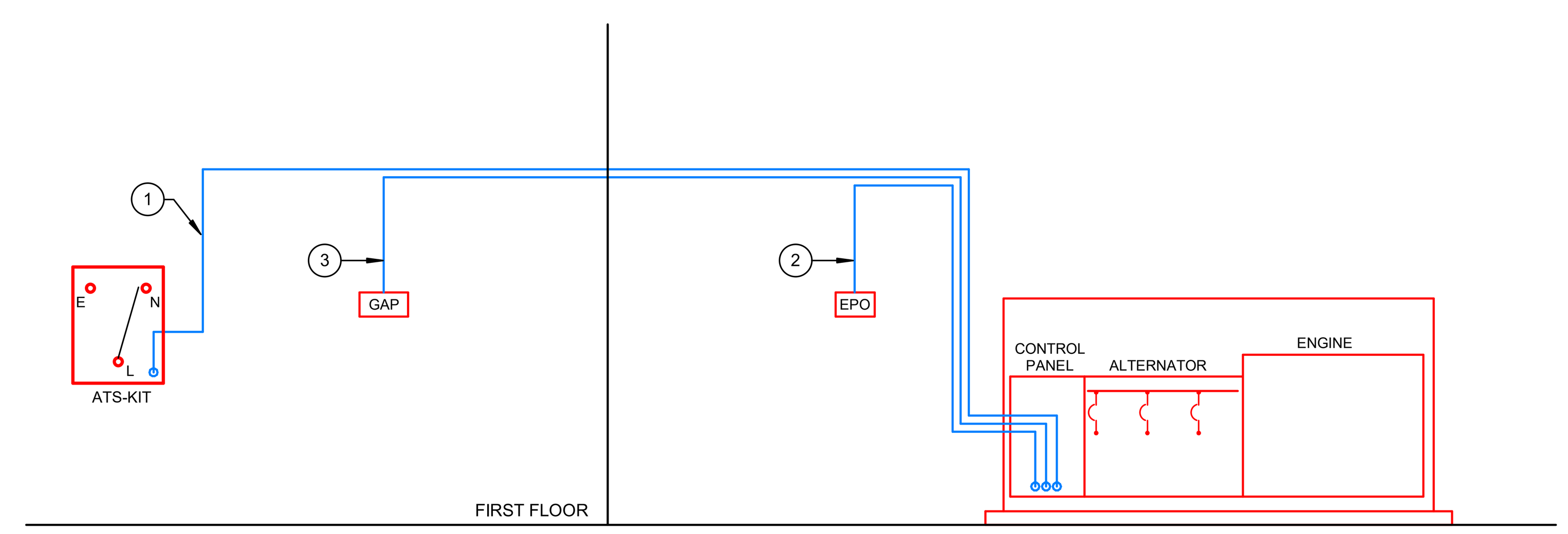
LABEL	LOCATION		EQUIPMENT SERVED	EQUIPMENT RATINGS						CONTROL	ACCESSORIES	REMARKS
	NUMBER	NAME		VOLTAGE	PHASE	AMPERAGE	POLES	NEMA ENCL	WCR RATING			
ATS-KIT			KIT-EM	208Y/120	3	150 A	4	1	42,000 A	AUTOMATIC - OPEN TRANSITION / SOLID NEUTRAL		

GENERAL ONE-LINE DIAGRAM NOTES

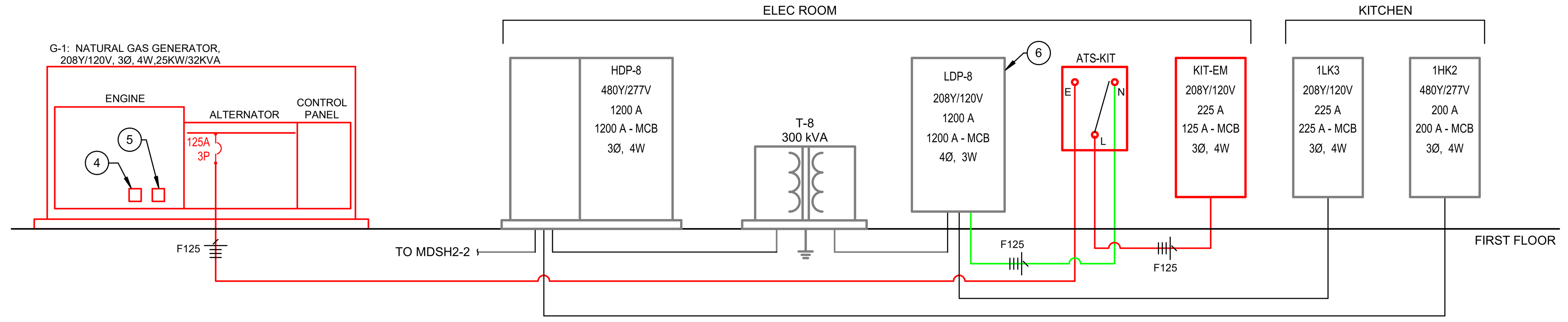
#	NOTES
A	REFER TO SHEETS E-001 AND E-002 FOR ADDITIONAL INFORMATION.

ONE-LINE DIAGRAM NOTES

#	NOTES
1	PROVIDE CONTACTS, (1) 1"C AND CONTROL WIRING FROM ATS-KIT TO GENERATOR CONTROL PANEL FOR GENERATOR ENGINE START SIGNAL
2	PROVIDE CONTACTS, (1) 1"C AND CONTROL WIRING FROM GENERATOR CONTROL PANEL TO EMERGENCY STOP BUTTON.
3	PROVIDE CONTACTS, (1) 1"C AND CONTROL WIRING FROM GENERATOR CONTROL PANEL TO GENERATOR ANNUNCIATOR PANEL
4	CIRCUIT CONNECTION FOR BATTERY CHARGER. REFER TO SITE PLAN FOR CIRCUIT.
5	CIRCUIT CONNECTION FOR BLOCK HEATER. REFER TO SITE PLAN FOR CIRCUIT.
6	PROVIDE NEW 125A-3P BREAKER IN SIEMENS S5 PANELBOARD LDP-8.



1B RISER DIAGRAM - EMERGENCY CONTROL WIRING
NOT TO SCALE



1A PARTIAL ONE-LINE DIAGRAM - MIDDLE SCHOOL
NOT TO SCALE

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KEY PLAN

School Town of Highland

High School / Middle School

ONE-LINE DIAGRAM & SCHEDULES

E-621.1

School Town of Highland G.O. Bond 2022 Projects

Bidder Questions and Responses – Addendum #1

1. Question: I see there are specs for light poles & standards, generators, and transfer switches, but I do not see them noted anywhere on the drawings. Can you see if they will be added or the specs were included in error? Response: The light poles Specification Section will be deleted in Addendum #1. The generator and transfer switch scope information will be in Addendum #1. See Addendum #1.
2. Question: Division 281300 Specs refer to all exterior doors to have request to exit, door strike, door contact and be programmable to be locked or unlocked. Will the EAC locations on the prints consists of total control or just door contacts? Response: The verbiage referenced in the specification is “boiler plate” text that didn’t get removed. All that’s required is door monitoring (contacts).

SCHMIDT ASSOCIATES
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Better Insight
Better On-Site
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Indianapolis | Louisville
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Submittal Report - Expected

2022-056.GBP
GO Bond 2022 Projects
Prepared On: 2/24/2023

Submittal ID	Subject
0-033000-01	CAST-IN-PLACE CONCRETE - Product data with Shop drawings
0-033000-02	CAST-IN-PLACE CONCRETE - Design Mixtures
0-042000-01	UNIT MASONRY - Product data with Shop drawings
0-042000-02	UNIT MASONRY - Samples for verification
0-042000-03	UNIT MASONRY - Mix Designs
0-054000-01	COLD-FORMED METAL FRAMING - Product data with Shop drawings and Delegated-design submittal
0-055000-01	METAL FABRICATIONS - Shop drawings with Delegated-design submittal.
0-061600-01	SHEATHING - Product data
0-072100-01	THERMAL INSULATION - Product data
0-079200-01	JOINT SEALANTS - Product data with joint sealant schedule
0-079200-02	JOINT SEALANTS - Samples for verification
0-079500-01	EXPANSION CONTROL - Shop drawings.
0-081113-01	HOLLOW METAL DOORS AND FRAMES - Product data with Shop drawings and Schedule.
0-081613.99-01	FIBERGLASS REINFORCED PLASTIC DOORS AND FRAMES - Shop drawings with Door schedule
0-083613-01	SECTIONAL DOORS - Product data with Shop drawings Samples for verification

Submittal ID	Subject
0-084113-01	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS - Product data with Shop drawings
0-084113-02	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS - Samples for verification
0-087100-01	DOOR HARDWARE - Product data with door hardware and key schedules
0-087100-02	DOOR HARDWARE - Samples for verification
0-088000-01	GLAZING - Product data with Glazing schedule
0-088000-02	GLAZING - Glass samples
0-092900-01	GYPSUM BOARD - Product data
0-092900-02	GYPSUM BOARD - Samples for verification
0-099123.99-01	INTERIOR PAINTING - Product data
0-099123.99-02	INTERIOR PAINTING - Samples for verification
0-099600.99-01	HIGH PERFORMANCE COATINGS - Product data with Shop drawings
0-099600.99-02	HIGH PERFORMANCE COATINGS - Selection samples
0-099600.99-03	HIGH PERFORMANCE COATINGS - Verification samples
0-101453.99-01	TRAFFIC SIGNAGE - Product data with Shop drawings
0-102600-01	WALL AND DOOR PROTECTION - Product data with Shop drawings
0-102600-02	WALL AND DOOR PROTECTION - Samples for verification
0-114000.98-01	FOODSERVICE EQUIPMENT - MERKLEY ES - Product data with Shop drawings
0-114000.99-01	FOODSERVICE EQUIPMENT - WARREN ES - Product data with Shop drawings

Submittal ID	Subject
0-116823.99-01	SITE ATHLETIC EQUIPMENT - Product data with Shop drawings
0-220517-01	SLEEVES AND SLEEVE SEALS FOR PLUMBING PIPING - Product data.
0-220518-01	ESCUTCHEONS FOR PLUMBING PIPING - Product data.
0-220529-01	HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT - Product data.
0-221113-01	FACILITY WATER DISTRIBUTION PIPING (SITE) - Product data with Shop drawings
0-224713-01	DRINKING FOUNTAINS - Product data with Shop drawings
0-230529-01	HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT - Product data with Shop drawings
0-230553-01	IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT - Product data with Valve schedule.
0-230553-02	IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT - Samples.
0-230713-01	DUCT INSULATION - Product data with Shop drawings
0-230719-01	HVAC PIPING INSULATION - Product data with Shop drawings
0-230719-02	HVAC PIPING INSULATION - Samples
0-230900.99-01	DIRECT DIGITAL CONTROL SYSTEMS - Product data with Shop drawings and Schedules
0-231123-01	FACILITY NATURAL-GAS PIPING SYSTEM - Product data
0-232113-01	HYDRONIC PIPING - Product data with Delegated-design submittal
0-233113-01	METAL DUCTS - Product data with Shop drawings and Delegated-design submittal
0-237416.11-01	PACKAGED, SMALL-CAPACITY, ROOFTOP AIR-CONDITIONING UNITS - Product data with Shop drawings and Delegated-design submittal
0-237416.13-01	PACKAGED, LARGE-CAPACITY, ROOFTOP AIR-CONDITIONING UNITS - Product data with Shop drawings and Delegated-design submittal

Submittal ID	Subject
0-260533-01	RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS - Product data with Shop drawings
0-260544-01	SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING - Product data.
0-260553-01	IDENTIFICATION FOR ELECTRICAL SYSTEMS - Delegated-design submittal
0-260923-01	LIGHTING CONTROL DEVICES - Product data with Shop drawings
0-262416-01	PANELBOARDS - Product data with Shop drawings and Panelboard schedules.
0-262923-01	VARIABLE-FREQUENCY MOTOR CONTROLLERS - Product data with Shop drawings
0-263600-01	TRANSFER SWITCHES - Product data with Shop drawings
0-263613.16-01	GASEOUS EMERGENCY ENGINE GENERATORS - Product data with Shop drawings
0-265561-01	STAGE LIGHTING AND CONTROLS - Product data with Shop drawings
0-265613-01	LIGHTING POLES AND STANDARDS - Product data with Shop drawings
0-265619-01	LED EXTERIOR LIGHTING - Product data with Shop drawings and Product schedule
0-281300.99-01	ELECTRONIC ACCESS CONTROL SYSTEM (ACS) - Product data
0-321823.53-01	TENNIS COURT SURFACING - Product data
0-323113-01	CHAIN LINK FENCES AND GATES - Product data with Shop drawings
0-329200-01	TURF AND GRASSES - Product data.
0-329300-01	PLANTS - Product data.
0-334100-01	STORM UTILITY DRAINAGE PIPING - Product data with Shop drawings