ADDENDUM #1
GRPS – Ken-O-Sha Elementary Asbestos Abatement

ADDENDUM ISSUE DATE: Wednesday November 19, 2025
BID DUE DATE AND TIME: **By 1:00 PM, Tuesday December 2, 2025**

SPECIAL NOTE:

The Notice to Bidders, Instructions to Bidders, General Conditions of the Contract for Abatement and Demolition, and all modifications and previously issued Contract Documentation are a part of this Addendum.

SCOPE OF WORK:

The following items are changes, additions, deletions, clarifications and/or errors and omissions in plans & specifications and shall be considered by each Bidder in making up and submitting their proposal. All items shall be considered a part of the Contract Documents.

NOTICE TO ALL BIDDERS:

All Bidders shall take note of all items covered by this Addendum. Each Bidder shall review the total scope of his responsibilities with respect to his contract work and his interface with the work of others, as well as his required interface with their work.

PART 1 DRAWINGS:

AD2.00 – Demolition notes and details
AD2.10 – Composite first floor demolition plan
AD2.11-A.1 - Composite first floor demolition plan – Add alternate 1
AD2.10E – Unit E composite first floor demolition plan
AD2.10E-A.1 – Unit E composite first floor demolition plan – Add alternate 1
AD2.11E-A.1 – Unit E first floor demolition plan
A2.10E-A.1 – Unit E first floor plan
A5.04 – Wall sections

PART 2 SCOPE OF WORK:

Section 002416 – Building demolition
Including specifications and as-built drawings

PART 3 CLARIFICATIONS:

1. The bid due date has been moved to 1:00 PM, Tuesday December 2, 2025.
2. RFI's are due by 12:01PM on Monday November 24, 2025.
3. Owner response(s) to RFI's in the form of Addendum #2 will be posted on November 25, 2025 (if necessary). Post bid interviews will take place on December 4, 2025.
4. Light fixtures in 1964 construction will be removed and disposed of by the Abatement Contractor.
5. Clark Construction will contract and manage the selective demolition of Unit D.
6. Existing drawings have been provided to design temporary shoring for demolition.

END OF ADDENDUM #1

SECTION 002416
SCOPE OF WORK
BID CATEGORY SPECIFIC NOTES

BID SCOPE -Building Demolition

GENERAL – The following shall not be interpreted as a complete itemization of the work to be performed under this Bid Category. This Bid Category Trade Contractor shall be responsible to perform all work reasonably interpreted to be included in its scope of work in accordance with the drawings and specifications in addition to these Bid Category notes of clarification.

BASE SPECIFICATION(S)
Include **ALL WORK** specified or reasonably inferred

002413 – SCOPE OF WORK GENERAL NOTES
French Associates Specifications:
- 00 0100 Table of Contents
- 01 0400 Coordination
- 01 2300 Alternates
- 01 3300 Submittal Procedures
- 01 4000 Quality Requirements
- 01 4200 References
- 01 6000 Product Requirements
- 01 7300 Execution
- 01 7329 Cutting and Patching
- 02 4116 Structure Demolition

South East Environmental Science Academy 90% Construction Documents dated 11/24/2025 (8 Sheets)

Ken-O-Sha Existing As-Built Drawings (12 Sheets)

PARTIAL SCOPE OF WORK / REFERENCE SPECIFICATION(S)
Include **PORTIONS** of the Work specified and/or requirements as it pertain to the work of this Bid Category

01 5000 TEMPORARY FACILITIES AND CONTROLS
01 2100 ALLOWANCES
01 3529 HEALTH SAFETY AND EMERGENCY RESPONSE PROCEDURES
01 3119 PROJECT MEETINGS
02 4119 Selective Structure Demolition (as it applies to the SE Wing only)
31 1012 GRPS – Fine Grading (as it applies to the SE Wing and disturbed areas by this Contractor only)

Include (Furnish and Install u.n.o):

SECTION 002416
SCOPE OF WORK
BID CATEGORY SPECIFIC NOTES

1. Provide a Demolition Plan, including Pre-demolition engineering survey to assess risk of unplanned collapse.
2. Pumping of water to accomplish the Work of this bid category.
3. Maintain streets and public areas free of dirt, mud and debris. Daily or more frequent road sweeping as required when debris is tracked onto roads.
4. Determine the location of existing underground utilities prior to any excavation work. Contact MISS DIG a minimum of 3 days in advance of any excavation work, more than 3 days if required to allow adequate time for MISS DIG to mark underground utilities as required to meet excavation work schedules. Submit verification of MISS DIG work order to Clark Construction Company. Hand dig as necessary to avoid contact with underground utilities.
5. Determine the location of existing underground utilities prior to any excavation work outside of the responsibility of MISS DIG for marking including fiber optic lines and other non-public utilities.
6. Protect existing structures, equipment, trees, landscaping, etc., to remain.
7. Dust control for the duration of the work of this bid category.
8. Provide, maintain and coordinate placement and servicing of all dumpsters for the scope of this work, protect all adjacent surfaces.
9. Remove debris from the site in a timely manner.
10. Legal disposal of material off site.
11. Provide any additional temporary power and equipment and task lighting as required to complete work of this scope.
12. MEP trades will disconnect/make safe existing equipment. All other required cut, cap, removal and disposal is by this category.
13. Remove above-ground, overhead, and below-grade materials (e.g. concrete foundations, pavement and base, utilities, etc.) indicated in the Documents.
14. Barricades Traffic Maintenance and Control in accordance with Section 015000 – temporary Facilities and Controls.
15. Coordinate, accomplish, verify and provide evidence of utility shut offs and/or disconnects.
16. Obtain and pay for all permits, notifications and fees associated with the Work of this bid category and provide evidence of same to Construction Manager.
17. Excavation and backfill associated with the work of this bid category
18. Coordinate turnover of salvaged material with Construction Manager.
19. Provide certified flag personnel, signage and all other miscellaneous appurtenances required for traffic and pedestrian control while delivering to the job site. All equipment, trucks and vehicles entering and/or exiting the jobsite must be accompanied by certified flag personnel. The construction gates must be kept always closed unless a full-time certified flag person is assigned and stationed at the opened gate.
20. Engage the services of a qualified abatement contractor to abate all lead, asbestos and other identified hazardous substances as outlined in the Specifications. Refer to the surveys provided for known locations and quantities.

SECTION 002416
SCOPE OF WORK
BID CATEGORY SPECIFIC NOTES

21. Provide a qualified / trained rigger as required to meet MIOSHA / OSHA requirements.
22. Provide, install and maintain all shoring, bracing and temporary measures required to perform this scope of work, inclusive of Underground utilities protection. Reference Ken-O-Sha Existing As-Built Drawings for suggested locations. This is a delegated Design requirement of this Contractor.
23. Temporary water will be available from an on-site fire hydrant upon completion of underground utilities. Each Trade Contractor shall transport the water to their area of Work as required.
24. Coordinate with local agencies; provide any equipment required to connect to local water/ fire hydrants.
25. Furnish Construction Fire Extinguishers, as required by MIOSHA, during the demolition work.
26. Include out of sequence remobilization as directed by the Construction Manager.
27. Removal of building interior column foundations and interior concrete and masonry wall foundations.
28. Removal of building perimeter foundations.
29. Removal of concrete slab on grade.
30. Import and export of soils required to accomplish the work of this bid category.
31. Backfill, grade, and compact to specified density (Specification 311012) areas disturbed as a result of the work of this bid category.
32. Coordinate turnover of salvaged material with Clark Construction Company.
33. Temporary Fencing - Wherever fencing is required adjacent to a public walking area and where fence base supports are required which would otherwise project into the walking area creating a potential trip hazard the following barrier/fence system shall be utilized.
34. Include a Demo & Abatement Allowance of $50,000, to be used as directed by Owner. Prior approval required. Time and Material sheets required to be submitted and approved daily.

SECTION 002413
SCOPE OF WORK
GENERAL NOTES

1. GENERAL

1.1. All Trade Contractors shall be bound to all requirements and conditions applicable to the Work of their respective area of Work including the Contract, General Conditions, Division 00 – Procurement and Contracting Requirements, Division 01 – General Requirements, Drawings, Specifications, and Addenda.

1.2. **Scope of Work General Notes shall be applicable to all Trade Contractors**. The Scope of Work of each bid category shall include the following items required for, caused by or resulting from its Work.

2. GENERAL NOTES

2.1. Coordinate and cooperate with all entities associated with the project including the Owner, Architect, Independent Testing and Inspection agencies, local and other governmental authorities, and other Trade Contractors. Cost incurred as a result of lack of coordination of Work, deliveries, access required by others, testing/inspection, schedule, penetrations, etc., shall be the responsibility of the Trade Contractor failing to notify others of action to be taken or other requirements.

A. Coordination with other Trade Contractors and Bid Categories shall include construction systems where one or more Trade Contractors are involved to provide a complete functioning system in accordance with the contract documents. In the event of a system failing to function in accordance with the contract documents, each Trade Contractor having a part in a fully functioning system shall remain fully engaged in problem resolution until such time as the system functions in accordance with the contract documents or the problem is identified as unequivocally being the responsibility of one or more other Trade Contractors and Clark Construction Company releases the non-responsible Trade Contractor(s) in writing.

B. Construction systems where one or more Trade Contractors are involved to provide a complete functioning system include but not limited to 1) HVAC systems, including controls and electrical requirements, 2) roofing system 3) waterproofing systems 4) building envelope etc.

2.2. Provide written Daily Reports to include the following minimum information:

A. Description of Work performed

B. Trade personnel classification and hours

C. Equipment used

D. Significant events/issues

E. Weather

F. Other items as requested

2.3. Commencement of Work subsequent to associated Work by other Trade Contractor shall indicate acceptance of the condition of the Work by other Trade Contractor and/or existing conditions.

2.4. All means and methods, labor, material, tools, construction equipment and machinery necessary, including cranes, hoisting equipment, scaffolding, shoring and bracing, to complete the Work. All equipment shall be marked with the Trade Contractor's company name and contact information.

2.5. Trade Contractor shall obtain and pay for all permits and fees associated with its Work and provide evidence of same to Construction Manager.

2.6. Basic benchmarks and control lines will be provided. Trade Contractor shall be responsible for all other engineering and layout required for the performance of its Work (Refer to "Field Engineering" section).Barricades, traffic maintenance and control as required.

2.7. Confine operations at the site to areas permitted by the Construction Manager.

2.8. Dust control to prevent nuisance and hazard.

2.9. Provide sound level control within maximum levels as required by Owner and/or local ordinances. Trade Contractor shall obtain a variance in the event sound below maximum levels controls cannot be met.

2.10. Construct material and equipment mock-ups required by the documents in a timely manner for review, modifications if required and final acceptance to maintain the project schedule.

2.11. Protect all existing structures, equipment, trees, landscaping, etc.

2.12. Cutting, coring, patching, and penetrations of any structural, architectural, mechanical, and electrical materials required to complete the Work unless noted otherwise (Refer to Section 017329 "Cutting and Patching" for specific cutting and patching requirements).

2.13. All Trade Contractors shall be responsible for the following items included in Specification Section 01500 Temporary Facilities and Controls.
A. Cleaning
B. Material and Equipment Deliveries, Handling, and Storage
C. Protection of Installed Work
D. Security
E. Office/Storage Facilities
F. Removal of Utilities, Facilities and Controls
G. Data Connections

2.14. Parking will be available on the project site.

2.15. Use of tobacco products will not be allowed on the project site.

2.16. Project Specific Notes

1.1. Provide certified flag personnel, signage and all other miscellaneous appurtenances required for traffic and pedestrian control while delivering to the project site. All equipment, trucks and vehicles entering and/or exiting the project site must be accompanied by certified flag personnel. The construction gates must be kept closed at all times unless a full time certified flag person is assigned and stationed at the opened gate.

1.2. In the event any site fencing, barricades, or other items are required to be removed and or modified to accommodate deliveries or to perform the work The Trade Contractor requiring the modification shall be responsible for cost associated with modifications and restoration to original condition

1.3. Just In Time Deliveries will be implemented and are to be coordinated and approved in advance with the Construction Manager. No materials or equipment will be permitted to be stored on site, uninstalled, for more than 2 weeks without pre-approval of the Construction Manager. Any costs to remove and return said material or equipment shall be at the expense of the contractor.

1.4. All stored material and equipment within the building shall be placed on pallets to facilitate relocation as required.

1.5. Electrical cords shall be hung and off floor to prevent trip hazards.

END OF SECTION

SECTION 012100
ALLOWANCES

1. GENERAL

1.1 Drawings and General Provisions of the Contract, including General and Supplementary Conditions, Division 00 - Bidding and Contracting Requirements and Division 01 - General Requirements Specification Sections, apply to the Work of this Section.

2. LUMP SUM ALLOWANCES

2.1 Bidder shall include, in its base bid amount, allowances itemized in the Bid Proposal Form for its Bid Category. The base bid amount(s) shall be inclusive of the Bidders overhead and profit for allowances.

2.2 Work shall not be performed and funded from the allowance without written direction from the Construction Manager.

2.3 Work performed which is to be funded from the allowance shall be monitored and signed for on a daily basis by the Construction Manager. The Trade Contractor shall be solely responsible for pursuing daily signed verification.

2.4 Claims for Work performed that are not accompanied by a signed ticket in accordance with the Contract shall be rejected. Payment will not be approved.

2.5 A line item shall be included in the Payment Schedule of Values for each allowance.

2.6 Unused portions or entire amounts of funds under allowance shall be credited by deductive change order when directed by the Construction Manager.

2.7 Lump sum allowance shall include all labor and material, equipment costs, incidentals, necessary to perform the work. Bidders overhead and profit, associated with allowance item, shall be included in Bidders Base Bid amount

3. MATERIAL ALLOWANCES

3.1 Allowances for a specific material shall cover all material related cost including taxes, freight and delivery cost to the project site. All other costs including labor, overhead and profit and incidentals shall be included in the Bidders base bid.

END OF SECTION

SECTION 013119
PROJECT MEETINGS

1. GENERAL

1.1. Trade Contractor, Project Manager, Superintendent and/or Foreman shall attend and participate in meetings indicated in this section and other meetings as required by the Construction Manager.

1.2. Trade Contractor representatives attending meetings shall be fully informed and have the authority to make decisions for the Trade Contractor.

2. SUPERINTENDENT / FORMAN MEETINGS

2.1. A Mandatory Superintendent / Foreman Meeting will be held each xxx day at x:xx. All Trade Contractors that are working on-site or will be on site within two weeks of the meeting shall be required to attend.

A. Superintendent/Forman Meeting Agenda

1. Project milestone dates
2. Three-week look ahead schedule and all coordination
3. Building & Site Logistics
4. Safety
5. Other as required

3. PROGRESS MEETINGS

3.1. Attend Project Progress and Coordination Meetings held weekly by the Construction Manager and attended by others. Progress Meeting Agenda

A. SAFETY

1. Clark Construction Company’s Safety Policy
2. Tool Box Talks
3. Observed Violations/Safety Inspections
4. Housekeeping and clean-up
5. Temporary barricades, protection and lighting
6. Accident Reports
7. Safety Data Sheets (SDS)
8. Emergency contacts

B. ADMINISTRATION

1. Review the current Document List
2. Submittal status
3. Applications for Payment
4. Insurance/Bonds
5. Manpower reporting
6. Permits and approvals
7. Governmental issues
8. Eventual closeout requirement

C. CHANGES IN WORK

1. Potential Change Order Log/Bulletins/Field Orders
2. RFI Status Report
3. Change Orders
4. Cost related issues

D. FIELD OBSERVATIONS

1. Problem resolutions
2. Conflict resolutions
3. Quality Control/workmanship – Notice to Comply Log
4. Material storage and site staging issues
5. Installation procedures
6. Field condition issues
7. Design issues

E. SCHEDULE

1. Milestone dates
2. Short term schedule/three week look ahead schedule

3. Material/equipment deliveries

4. Long lead items

5. Manpower

6. Submittals

7. Sequencing/coordination issues

8. Occupancy issues – work completion and punchlist

9. Pre-Task Plan

F. ENVIRONMENTAL ISSUES

1. Review operational controls for significant aspects.

2. Complaints/corrective actions required.

END OF SECTION

SECTION 013529
TRADE CONTRACTOR HEALTH AND SAFETY PLAN

1. GENERAL

1.1. Clark Construction Company holds health and safety to be its highest priority at all times, under every circumstance.

A. Health and safety shall govern every course and method of action.

B. Potential risk to health and safety shall be evaluated prior to commencement of all work activities. Work practices shall be employed which create conditions free of potential injury.

C. An environment of concern for the health and safety of each person shall be promoted on the project site.

1.2. Trade Contractor shall be responsible to take all necessary precautions for the safety of employees, others working on the project site and the general public.

1.3. Trade Contractor shall comply with all applicable federal, state and local health, safety and environmental laws, codes and requirements.

1.4. Trade Contractor shall assure that each of its employees, and employees of its subcontractors and material suppliers on the project site are familiar with and abiding by all aspects of the Trade Contractor Health and Safety Plan.

1.5. Provisions contained herein shall not relieve the Trade Contractor of its obligations and liabilities under federal, state and local laws including all additions and revisions thereto. Nor shall any provision herein transfer obligations and/or liabilities of the Trade Contractor to Clark Construction Company.

2. TRADE CONTRACTOR RESPONSIBILITIES

2.1. Trade Contractors and subcontractors and material suppliers to the Trade Contractor at any tier shall comply with all health, safety and environmental requirements. Clark Construction Company shall have authority over such subcontractors and material suppliers at any tier to same extent it has over the Trade Contractor.

2.2. Trade Contractor Health and Safety Program and Hazard Communication Program Documentation:

A. Trade Contractor shall have in place and implement a comprehensive written Health and Safety and Hazard Communication Program. Trade Contractor shall ensure that all of its subcontractors and material suppliers at any tier adhere to the Health and Safety Program, Hazard Communication Program and all health, safety and environmental requirements of the Contract.

B. Trade Contractor, its subcontractors and material suppliers at any tier shall provide its current electronic Health and Safety Program and Hazard Communication Program to Clark Construction Company for review and acceptance as a condition of award of a Contract. Clark Construction Company will receive and keep such program on file to completion of the project.

C. Trade Contractor shall ensure that subcontractors and material suppliers to the Trade Contractor at any tier have in place and implement a comprehensive Health and Safety and Hazard Communication Program.

D. Trade Contractor and its subcontractors and material suppliers at any tier shall have on site and available at all times for its employees and Clark Construction Company, a current copy of its Health and Safety and Hazard Communication Program.

E. Health and Safety and Hazard Communication Programs shall be supplemented by the Trade Contractor and any of its subcontractors and material suppliers at any tier with a project specific Health and Safety and Hazard Communication Plan ensuring compliance to all requirements of the Contract Documents and project conditions as required.

2.3. **Designated Safety Representative**

A. Trade Contractor shall designate a safety representative from the site staff in addition to any craft safety representative when less than 40 employees of the Trade Contractor and/or subcontractor employees are working on the project site. Anytime 40 or more employees of the Trade Contractor and/or subcontractor employees are working on the project site the Trade Contractor shall have a full time safety representative on site responsible 100% of his/her time to health and safety.

B. Trade Contractor shall provide Clark Construction Company with a contact telephone number of a representative of the Trade Contractor that can take action and may be contacted 24 hours per day, seven days per week in the event of an emergency.

C. Safety Representative shall:

1. have adequate training and experience as required by applicable regulations and be knowledgeable in health and safety aspects of the Work to be performed;

2. have authority to make decisions and take action relative to health and safety on behalf of the Trade Contractor, its subcontractors and material suppliers;

3. participate in Clark Construction Company Preconstruction Health and Safety Meetings, other project health and safety meetings and hazard identification walk-through meetings as required by Clark Construction Company; and

4. assure immediate correction of any health and safety and environmental issues by the Trade Contractor at the Trade Contractor's expense and report corrective action taken to Clark Construction Company in writing.

2.4. **Regulations/Compliance**

A. Trade Contractor shall comply with the current Federal Occupational Safety and Health Act (OSHA), current State Health and Safety requirements, other applicable federal, state and local requirements, health and safety requirements of the (sub) Contract and environmental regulations.

B. Cost of correction of health and safety infractions shall be paid by the Trade Contractor.

2.5. **Disciplinary Action/Termination**

A. In response to Trade Contractor's failure to comply with health and safety and environmental requirements or otherwise performing in an un-safe manner Clark Construction Company shall have authority to:

1. order immediate Work stoppage and corrective action to be taken by the Trade Contractor;

2. withhold any payments due to the Trade Contractor; and

3. take action to correct any issue which is not corrected by the Trade Contractor in an acceptable time period.

B. Trade Contractor shall be responsible to ensure compliance by all employees, subcontractors and material suppliers' employees at any tier. Trade Contractor supervision unable or unwilling to secure safe performance by these employees shall be deemed unqualified and the Trade Contractor shall, upon direction of the Construction Manager, replace the unqualified person with a qualified person.

C. Trade Contractor, subcontractor and material supplier employees as a condition of working on the project site shall comply with all health, safety and environmental regulations and requirements.

D. In response to Trade Contractor, subcontractor and material supplier employee(s) failure to comply with health, safety and environmental requirements or otherwise performing in an unsafe manner, Clark Construction Company shall have authority to take action up to and including barring an individual from the project site.

1. Disciplinary actions may be implemented against employee(s) of the Trade Contractor, subcontractor and material supplier by Clark Construction in response to violations of health and safety and environmental requirements as follows:

a. first notice: verbal and/or written notification to the Trade Contractor;

b. second notice: written notification to the Trade Contractor;

c. third notice: termination of the employee from the project;

d. Clark Construction Company may at its discretion immediately bar the employee(s) in violation from the project site without a first or second notice if in the opinion of Clark Construction Company the violation warrants such action.

2.6. Health and Safety Implementation Planning

A. Prior to the Trade Contractor beginning work on the project site the Trade Contractor shall develop and submit a detailed Project Specific Safety Plan as required by Clark Construction Company.

B. The Project Specific Safety Plan shall be revised as project conditions and activities change.

2.7. Employee Training

A. Trade Contractor shall provide health and safety training to each of its employees as required by governing health and safety authorities and shall provide training as required to perform specific duties in a safe manner.

2.8. Daily Health, Safety and Environmental Job Safety Analysis (JSA)

A. Prior to commencement of work Trade Contractors will submit to Clark Construction the project specific JSA plans. JSA's will be reviewed by Clark personnel and accepted or sent back to the contractor for re-work. JSA's should identify all hazards and mediation of such hazards for each work related tasks.

B. On a daily basis **prior to performing the Work** the Trade Contractor supervisor or foreman shall submit a Job Safety Analysis (409FR041), for work to be performed, to Clark Construction Company's Superintendent. If there is extra work involved not previously noted on the JSA, then the supervisors will fill out the back portion of the Sign-In Sheet (409FR045) to identify new job steps and job hazards.

C. JSA's shall identify sequence of Work, required personal protective equipment, potential hazards, other persons, property, potentially affected environment, and action to be taken to eliminate risks.

D. JSA's shall be reviewed daily with all personnel involved in the execution of the Work and other personnel on site that may be affected or have need to be made aware.

E. Trade Contractors will be required to perform a daily stretching program prior to each shift with Clark field representatives and other Trade Contractors.

2.9. **Meeting Attendance**

A. All Trade Contractor employees shall be required to attend;

1. A project orientation session the first day the employee is on the project site prior to start of any Work activity. Orientation sessions will be approximately one hour long;

2. Weekly "Tool Box Talk" meetings shall be conducted by the Trade Contractor with topics of discussion relevant to the Work to be performed and project site conditions. Attendees shall sign the weekly "Tool Box" meeting notes. "Tool Box" meeting attendance sheets shall be submitted to the Construction Manager;

3. Other health, safety and environmental meetings may be required by Clark Construction Company.

2.10. **Safety Guide Program**

A. Each tradesperson, prior to beginning work on the project site, will be provided with and shall read thoroughly and understand Clark Construction Company's Safety Guide information (Refer to CCC Form)

B. Tradespersons after fully understanding the information shall sign and return the Safety Guide to Clark Construction Company.

C. All tradespersons working on the project site shall have Clark Construction Company's safety sticker on their hard hat signifying participation in the Safety Guide Program.

2.11. **BRAVO Program (Being Resistant Against Violations Openly)**

A. Trade Contractors shall actively participate in the BRAVO Program.

B. The purpose of the BRAVO Program is to engage all persons on the project site in maintaining the safety of self and others as the highest priority and to supportively encourage safe work practices by all.

C. Trade Contractor onsite personnel are encouraged to actively identify safe work procedures and environments of other Trade Contractors and of others within their own firm.

D. In the process of actively identifying safe work procedures and environments, each person is urged to detect any unsafe work procedures and environments.

1. Trade Contractor personnel are encouraged to take action to prevent injury to others in the event an unsafe situation is observed. Action may include:

a. pointing out the potential threat to the individual(s) involved and suggesting the work be stopped and the situation corrected. This is approach may be appropriate under various circumstances; it should always be employed in the event of imminent danger;

b. promptly report the situation to the person's supervisor who in turn shall promptly report to a designated Clark Construction Company representative; or

c. promptly report the situation to a designated Clark Construction Company representative.

E. Trade Contractors shall utilize Clark Construction Company BRAVO Observation cards to document both safe and if any, unsafe work procedures and environments.

1. Each Trade Contractor shall submit a minimum of 2 completed BRAVO Observation cards per week to a designated Clark Construction Company representative.

2. BRAVO Observation cards are a 2 sided card. One side for safe observations and the other for any unsafe observations.

3. The intent of the information provided on a BRAVO Observation card is not to point fingers, rather to keep everyone mindful of safety being the project priority. As such BRAVO cards do not request the name of the firm for which the observation is being reported.

F. Clark Construction Company will employ an incentive program in appreciation of the onsite personnel "looking out" for one another by Being Resistant Against Violations (BRAVO).

2.12. **First Aid/CPR Training**

A. Each Trade Contractor shall have a minimum of one First Aid/CPR trained person on the project site whenever work is being performed by its employees.

B. Each Trade Contractor shall have a first aid supply kit on site available to its employees.

2.13. **Communication/Foreign Languages**

A. In the event that one or more Trade Contractor employees working on site do not speak the English language fluently, the Trade Contractor shall assure that a minimum of one of its employees on site is fluent in the English language as well as the language of non-English speaking employee(s).

B. The employee fluent in both languages shall be on site at all times when a non-English speaking employee is on site and shall have authority to make decisions and take action on behalf of the Trade Contractor.

2.14. **Housekeeping**

A. Trade Contractors shall maintain the project free of debris.

B. Thoroughly clean up on a daily basis and more frequently as required.

C. Debris shall be transported to dumpsters on a daily basis.

D. Material and equipment in storage and in use shall be located out of means of ingress, egress; stairways, walkways, etc.

E. Location of stored material and equipment shall be coordinated with Clark Construction Company and other trades.

3. HEALTH AND SAFETY ORIENTATION

3.1. **General**

A. Trade Contractor shall notify Clark Construction Company Superintendent of any employee arriving on the project site for the first time. Trade Contractor shall schedule a project-specific orientation sessions to be conducted prior to the employee performing work on-site. The orientation session will be conducted by a Clark Construction Company representative.

B. Trade Contractor shall provide project-specific orientation training with each of its employees specific to the work to be performed to assure a safe project environment for all.

C. Trade Contractor shall assure that employees visiting the site for meetings, project review, or other "non-trade Work" related activities and walking into or through construction areas, shall attend an abbreviated Health and Safety Orientation Session.

3.2. **Orientation Sessions**

A. The following topics may be reviewed at the Health and Safety Orientation Session.

1. Trade Worker Orientation Sessions

a. Clark Construction Company site safety representative contact information

b. Emergency contact information

c. First Aid supply location

d. Personal protective equipment (PPE) and clothing requirements

e. Health and Safety General Rules

f. Clark Construction Company's Safety Guide Program (to be signed by each Trade Contractor employee).

g. Fire Protection and Prevention Plan Hazard Communication Program and SDS file location

h. Accident and incident reporting

i. Environmental Program

j. Cell Phone and Electronic Device Policy

2. Non-Trade Worker Orientation Sessions

a. Clark Construction Company's site safety representative contact information

b. Emergency contact information

c. First Aid supply location

d. Personal protective equipment (PPE) and clothing requirements

e. Cell Phone and Electronic Device Policy

4. EMERGENCY RESPONSE PLAN

4.1. Medical Services

A. Prior to commencement of work Trade Contractor shall;

1. make provisions for prompt medical attention in the event of a serious injury;

2. ensure that adequate first aid supplies are easily accessible when needed**;**

3. provide proper equipment for prompt transportation of the injured person to proper medical care or system for contacting necessary ambulance service;

B. In the event of any incident or accident the following procedure shall ensue.

1. Attend to the injured party and/or stabilize the area as may be required.

2. Contact 911 as required.

3. Notify Clark Construction Company's project superintendent when first aid is being administered.

4. Assist in ascertaining and reporting events surrounding the incident or Accident.

5. Trade Contractor or injured person shall;

a. Complete an Incident Observation Report (409FR012) and provide a copy to Clark Construction Company site safety representative.

b. Provide status reports to Clark Construction Company's site safety representative as conditions require.

c. Participate in accident/incident investigation meetings for the purpose of establishing the "Root Cause" of the accident or incident.

4.2. **Emergency Evacuation Plan**

A. Have a sounding device and a sign to identify it as an evacuation alarm instructing all personnel to sound three short blasts in the event of emergency (a car horn or air horn can be used).

B. Pre-determine a meeting place to account for all personnel.

C. Each Trade Contractor's Designated Safety Representative shall account for all personnel to arrive at the pre-determined meeting place in the event of an emergency.

D. All persons working on-site shall be familiar with emergency egress routes from their position on the project at all times.

4.3. **Blood–Borne Pathogens**

A. In accordance with OSHA, Trade Contractors shall assure that each employee exposed or potentially exposed to blood and other infectious materials be advised of the potential Blood-borne pathogen hazards and how to guard against those hazard.

5. CRISIS COMMUNICATION PLAN

5.1. Clark Construction Company will designate a spokesperson to make all public comments during a crisis situation.

5.2. Trade Contractor personnel are encouraged to refrain from comments to the media. Trade Contractor employees are encouraged, questioned by the media, to state "The incident is being investigated and Clark Construction Company's spokesperson will make a statement shortly".

6. PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING

6.1. Personal protective equipment and clothing shall be worn on the project site with exception of construction office areas separated from construction work.

6.2. Personal protective equipment shall meet the most stringent standard established by federal, state and local authorities, requirements of the employer or Clark Construction Company.

6.3. **Personal Protective Equipment**

A. Hard hats shall be worn at all times on the project site with exception of construction office areas separated from construction work.

B. Safety glasses shall be worn at all times on the project site with exception of construction office areas separated from construction work.

C. Safety vest and/or shirt of high visibility fluorescent colored fabric shall be worn when ever performing project site construction activities or in the vicinity of moving site work equipment.

D. Gloves shall be worn at all times on the project site.

6.4. **Clothing**

A. Shirt sleeve lengths shall be a minimum of four inches.

B. Shirts cut off above the waist are not allowed.

C. Pants shall extend to cover ankles.

D. Shorts are not allowed.

E. Work boots shall extend to protect the ankle.

F. Clothing shall be worn in a neat fashion and be in good repair.

G. Clothing imprinted with language or images as determined by Clark Construction Company to be offensive in any way or advertise and/or promote the use of alcohol or illegal substances shall not be worn on the project site.

7. CELL PHONE AND ELECTRONIC USE POLICY

7.1. Cell phone and electronic devise use

A. Cell phone use includes listening, talking, texting, emailing, net surfing or other cell phone device activity.

B. “Electronic device” includes any internet reception, video, electronic tablets, computers, Bluetooth, walkie-talkies, etc.

C. Cell phone and electronic device use is allowed only in hazard free areas.

D. Cell phone and electronic device users shall remain stationary, no walking during cell phone or electronic device use.

E. Persons not designated as Foreman, Superintendent, Manager, General Foreman, may use a cell phone or electronic device only during breaks in a hazard free area.

F. Cell phone and electronic device use is not allowed;

1. While engaged in any job task which requires the use of the hands and/or other attention to work activity.

2. While operating equipment, tools or motorized vehicles including cars, trucks and motorized carts, etc.

G. Motorized vehicles must be parked in a location free of hazards and turned off while using a cell phone or electronic device.

7.2. Crane and other lifting device cell phone and walkie-talkie use

A. Cell phones and walkie-talkies shall not be used while operating a crane, hoist, powered industrial trucks or other lifting device (unless identified in a Pre-Task Plan requiring communication for ground person to Operator).

B. Cell phones must be turned off whenever in the control cab or at the control panel unless identified for use in a Pre-Task Plan.

C. No communications other than directly between the lift coordinators. Pre-Task planning shall include the communication method/plan.

8. SUBSTANCE ABUSE POLICY

8.1. Clark Construction Company is committed to an alcohol and drug free work environment.

A. Possession, distribution, or sale on the project premises, facility, or other work places of alcoholic beverages, intoxicants, drugs and related drug paraphernalia is strictly prohibited.

B. Person's shall not report for duty or perform work while under the influence of any drug, alcoholic beverage, or intoxicant.

9. SAFE WORK REQUIREMENTS

9.1. Asbestos Abatement

A. Trade Contractors shall assure that any employee that may be exposed to airborne asbestos fibers shall be trained in the recognition of the hazards and appropriate controls.

B. Trade Contractors engaged in asbestos abatement shall be licensed by the Department of Labor and the State in which the Work is being performed.

9.2. **Confined Space Entry**

A. Trade Contractor shall employ a confined space entry procedure when Contractor's employees are required to enter a confined area or space.

B. Confined space entry procedures shall conform to OSHA and any State requirements.

9.3. **Excavation**

A. A competent person trained in soil classification and the recognition of trenching and excavation hazards must be on the project site when excavating or trenching is to be done.

B. Trenches and excavations 5-0 or more in depth and shall be shored or walls cut back to protect persons from cave-in. Trenches and excavations less than 5'-0 with unstable walls shall be shored or cut back to protect persons from cave-in.

C. Trenches and excavations shall be properly barricaded to prevent persons from falling into them.

9.4. **Fall Protection**

A. A fall protection system shall be utilized when an adjacent surface is six-feet (6'-0) or more below foot level.

1. Ladders

a. Fall protection on ladders is not required providing that the persons body remains within the vertical side rails.

2. Personal fall arrest systems

a. Shall be properly worn and actively used by all workers when an adjacent surface is six feet (6'-0) or more below the foot level of the person unless other adequate fall protection such as guardrails are in place.

b. All components (anchorage points, lanyards, clips etc.) of a fall arrest system shall be of a type recommended for the work being performed and the conditions to be encountered;

c. The entire system shall be as approved by the system manufacturer and all local and federal health and safety requirements.

3. Wire rope guard rails;

a. Wire rope guard rail systems providing fall protection shall incorporate loop type connections with a minimum of two (2) wire rope clamps. Turnbuckles shall be installed at each side or at more frequent intervals to maintain the required tautness of the wire rope.

b. Wire rope horizontal lifelines shall be designed by a registered professional engineer and installed and maintained by a competent person. Wire rope lifelines shall be designed to meet, at a minimum, the requirements of OSHA.

4. Flat roofs and decks

a. A warning barrier meeting, at a minimum, the requirements of OSHA may be used 15 feet from the fall hazard. Warning tape or other such means is not allowed, persons between the warning barrier and fall hazard shall utilize a positive means of fall protection.

5. Scaffolding

a. Persons erecting, using and dismantling scaffolds shall be trained in the hazards and safe procedures to be followed to eliminate exposure to those hazards and shall utilize fall protection when six feet (6’-0) or more above an adjacent surface.

b. Trade Contractor’s designated Competent Person shall inspect all scaffolds prior to each work shift.

c. All scaffolds shall bear a tag, signed and dated by the contractor’s Competent Person, denoting that the scaffold has been inspected and is safe to use prior to inspected and is safe to use prior to an employee utilizing the scaffold on that work shift.

9.5. **Fire Protection and Prevention Plan**

A. Purpose

1. The following plan has been developed in accordance with MIOSHA Fire Protection and Prevention Standard Part 18.

a. This plan exists to:

i. Prevent inception of fire

ii. Prevent loss of life and personal injury

iii. Protect property from damage

iv. Provide uninterrupted operations

B. Trade Contractor shall be responsible for fire prevention associated with its work and operational areas 24 hours per day 7 days per week for the duration of the contract.

C. Major workplace fire hazard control procedures to them

1. Prior to the start of the construction and as construction progresses, Trade Contractors shall identify hazards and make on-site personnel aware.

2. Maintenance of equipment and systems to prevent or control fires

a. The Clark Construction Company Project Superintendent will inspect fire extinguishers at least monthly.

D. Employee training

1. Trade Contractors shall be responsible to train all of its personnel on-site on the general principles of fire extinguishers use and the hazards involved with the various stages of firefighting.

2. All personnel on site will be responsible to review the Fire Protection and Prevention Plan and be familiar with its contents.

E. Hot work procedures

1. Hot work procedures shall be followed when the possibility of a source of ignition exists. This includes open flames, spark-producing tools, hot surfaces (above 450 degrees F), and static discharging items.

2. The following minimum hot work procedures shall be followed when directed by Clark Construction Company. In the event that the Trade Contractor or project specific requirements are more stringent the most stringent shall be employed after review with Clark Construction Company.

a. Ensure that a Hot Work Permit form is completed. A Hot Work Permit is good for one working shift only.

b. Hot work permit shall be posted at the jobsite with a copy in the Clark Construction Company Superintendent field office.

c. Hot work is not permitted where a flammable liquid is present in an open tank.

d. Obtain any other appropriate permits.

e. At the site of the work the following minimum action is required:

i. Clean up of combustibles such as paper, oil and grease.

ii. Cover immovable combustibles such as wooden steps with flame retardant tarpaulins.

iii. Place fire-extinguishing equipment at stand-by readiness.

iv. Have a fire watch person at stand-by readiness.

v. Perform explosive atmosphere testing.

vi. Provide necessary welding screens.

vii. Determine if wind may present a potential hazard.

viii. Cover sewers and drains.

ix. Protect lower levels.

x. Provide adequate ventilation.

xi. Assure equipment is purged, flushed, and/or filled with water as required.

xii. Post and rope off areas.

xiii. Wear required safety clothing and devices including respiratory equipment.

xiv. Following completion of the hot work:

1. Cleanup area

2. Replace extinguishers

3. Provide fire watch for one half hour

4. Return copy of Hot Work Permit form to Clark Construction Company Superintendent.

f. Construction related fire hazards:

i. Rubbish and trash accumulation

1. Trash containers shall be provided for proper disposal of debris; and all trash containers shall be emptied or removed from the building at the end of each shift.

2. Trash dumpsters shall be located a sufficient distance from the building.

3. Care must be taken not to mix hot items (cigarettes, etc.) in the trash containers.

4. Do not block or stack material against exits, fire extinguishers or electrical switches or panels.

ii. Cutting and welding

1. Store acetylene and oxygen cylinders in safe locations, protected from high temperatures and separated from each other by a distance of 20 feet or a five foot, one hour fire-rated flame barrier.

2. All cylinder valves shall be shut off and capped when not in use.

3. Remove all combustibles from the area or be sure they are safely covered prior to starting hot work.

4. Fire watchman shall be posted with a fire extinguisher during the work period and for at least 30 minutes after completion when the possibility of sparks or slag starting a fire exists.

5. Fire resilient enclosures or fire blankets shall be utilized where possible.

6. Use “Hot Work” permit procedure if work needs to be done in an area where combustibles and flammables are present or otherwise required by Clark Construction Company.

iii. Fireproofing

1. When fireproofing is specified, it should be applied as soon as possible to afford fire protection to beams and columns in the event of a fire.

iv. Flammable/combustible liquids

1. Small quantities can be safely handled in approved, metal safety containers (not plastic), and should be kept in isolated locations.

2. No Smoking in areas of flammable or combustible liquids in use or stored.

3. Discharge devices requiring the container to be pressurized are prohibited.

4. Pumping devices or faucets shall be well maintained.

5. Only Underwriter's Lab (UL), Factory Mutual (FM) listed equipment shall be used.

6. Bulk containers used to dispense flammable liquids shall be kept outside at least ten feet from any building or inside a building used exclusively for the storage of flammable liquids and located at least ten feet from any other building.

7. Tanks and containers used for the storage of flammable liquids above ground shall be labeled (placarded), and "No Smoking" signs conspicuously placed.

8. Tanks shall be grounded during dispensing operations.

9. Area near storage tanks shall be graded away from building and diked.

10. Do not use flammable materials near electrical panels, switches, fork trucks or other combustion engines

11. Use Hot Work Permit procedures.

12. When combustible materials are present, a water supply shall be available.

v. Temporary heaters

1. Constant supervision is required.

2. Only Underwriters Lab (UL) or Factory Mutual (FM) listed equipment shall be used.

3. Area shall be cleared of all combustible material.

4. Adequate ventilation shall be maintained.

5. A fire extinguisher shall be readily available.

6. Care shall be taken not to block means of egress.

7. All spare cylinders shall be stored outside the building.

8. Hoses supplying fuel to heaters shall be secured off of the floor and out of harm's way.

9. Hoses shall be properly supported by materials which will not cause damage to the hose (a wire hanging wire is not allowed).

vi. Internal Combustion Engines

1. Care shall be taken to avoid exhaust discharge near or in contact with combustible material and flammable liquids.

2. Engines shall be shut down and allowed to cool before refueling to prevent flash fires.

3. A fire extinguisher shall be kept in close proximity to the unit.

vii. Concrete Forms

1. Non-combustible forms should be used whenever possible.

2. Concrete shall be poured as quickly as possible after combustible forms have been constructed, and the

forms removed as soon as possible after the concrete has set.

3. During the time combustable forms are in place, storage and construction operations on that floor should be held to a minimum and ignition sources should be eliminated.

viii. Temporary Enclosures of Buildings

1. Only flame-resistant tarpaulins or material of similar fire retardant characteristics shall be used.

2. If plastic is used, it shall be the type that does not readily ignite and that exhibits slow burning characteristics.

3. Temporary enclosure material shall be securely fastened or guarded to prevent contact with heaters or other sources of ignition.

ix. Tar Kettles

1. The use of tar kettles shall be continually supervised.

2. Tar kettles are permitted only outdoors away from combustibles or on a non-combustible floor or roof in the building.

3. Metal covers shall be provided to smother potential fires.

4. A fire extinguisher shall be kept in close proximity to the tar kettle. Should a fire occur, do not use water.

5. Roofing mops shall never be left indoors or near ignition sources or combustible materials. Note: roofing mops have been known to spontaneously ignite.

x. Electrical fires

1. Proper extinguishers must be used for electrical fires.

2. Extreme care must be used when dealing with energized circuits during fires.

3. Toxic fumes could be given off from certain electrical insulations.

4. Fire damage to wiring may extend beyond main involvement and proper investigation is required to isolate all damaged wiring.

5. Before re-energizing circuits, proper testing should be performed to assure that all damaged wiring has been eliminated.

6. Preventive maintenance of electrical systems will significantly reduce the amount of electrical fires.

xi. Housekeeping

1. Work and storage areas shall be kept clean, orderly and free of combustible materials.

2. Combustible liquids shall be stored away from arc producing devices.

9.6. **Electrical Safety**

A. Temporary lighting

1. Temporary lighting may not rest on any metal unless properly insulated.

2. Proper illumination levels shall be maintained.

3. Temporary lights shall be removed after permanent lighting is installed and the area is turned over.

B. Temporary power

1. GFCI circuits shall be supplied and regularly tested.

2. Temporary power wiring shall be supported as per code requirements.

3. Proper height restrictions shall be adhered to regarding temporary wiring installations.

C. Tools

1. All tools requiring grounds shall have grounded plugs. Double-insulated tools do not need grounded plugs.

2. Damaged tools and ladders are shall be repaired or replaced.

3. All electrical power tools shall be tested for electrical safety prior to use.

9.7. **Hazard Communication**

A. Each Trade Contractor shall implement a Hazard Communication Program in accordance with federal, state and local and other applicable requirements.

B. Each Trade Contractor utilizing hazardous chemicals on the project site shall:

1. maintain project specific Safety Data Sheets (SDS) on the project site available to its employees for all hazardous chemicals and post the location of (SDS), as well as the contact person and telephone number, of the person responsible for managing this file;

2. provide employees of other employer(s) on the project site access to (SDS) for each hazardous chemical their employees may be exposed to;

3. inform other employer(s) of any precautionary measures to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies;

4. inform the other employer(s) of the container labeling system used in the workplace; and

5. submit to Clark Construction Company a substance inventory list and (SDS) for hazardous chemicals prior to bringing such chemicals to the project site and cooperate in maintaining a current (SDS) record held by Clark Construction Company on the project site.

6. Trade Contractors shall train employees in chemical hazards and controls for hazardous chemicals used. Training shall include:

a. symptoms of exposure;

b. exposure prevention including control procedures, work practices and personal protective equipment;

c. exposure reaction procedures;

d. hazard label and (SDS) understanding; and

e. proper disposal of hazardous chemicals.

7. Label all hazardous chemical containers. Labels shall include the following minimum information:

    a. container contents;

    b. hazard warning(s); and

    c. name and address of manufacturer.

8. Notify Clark Construction Company and other Trade Contractor in the work area when hazardous chemicals will be in use and potential hazards which may be encountered.

9.8. **Lockout/Tagout**

A. No one shall be permitted to work on and energized circuit. Trade Contractor shall employ procedures to ensure that no one will be exposed to hazards as a result of an energized circuit.

B. Trade Contractor shall adhere to the most stringent of the following lockout/tagout procedures as required:

1. trade contractor's own requirements;

2. owner requirements;

3. Clark Construction Company requirements; or other project-specific requirements.

9.9. **Motor Vehicles and Equipment**

A. All equipment shall be inspected daily before each use by the operator.

B. Defective equipment shall be removed form service immediately.

C. All operators shall be properly licensed and certified. Copies of certifications shall be maintained on-site and shall be made available to Clark Construction Company upon request.

9.10. **Rigging**

A. Lifting and Rigging Planning

1. All loads shall be rigged by a qualified rigger.

2. Materials being hoisted shall be rigged to prevent unintentional displacement.

3. All hoisting operations shall be pre-planned to ensure that all applicable local and federal health and safety agency requirements are met.

4. Routes for suspended loads shall be preplanned to ensure that no employee is required to work directly below a suspended load, except for employees as allowed by local and federal health and safety agencies (i.e., structural steel connector making initial connection).

5. Tag lines shall be used on all loads.

B. Rigging Equipment

1. Rigging equipment for material handling shall be inspected at the time of installation, before each job, and at the beginning of each shift if in use, by an employee qualified to perform this inspection.

2. Defective rigging equipment shall be removed from service.

3. Hooks with self-closing safety latches or their equivalent shall be used to prevent components from slipping out of the hook.

9.11. **Sweeping Compound**

A. Sweeping Compounds used on the project site shall be silica free.

B. Trade shall have a silica exposure control plan in place whenever performing any cutting, coring and patching operations.

10. NON-CONFORMANCE

10.1. Safety violations shall be promptly corrected by the Trade Contractor.

10.2. A “Notice to Comply” (NTC) may be issued by the Construction Manager for follow-up and response by the Trade Contractor (Refer to “Non-Conformance Procedure Section 014517 in front end documents)

END OF SECTION

(Revise as required)

1. CLEANING

1.1. On-going Construction Clean-up

A. Project clean-up and disposal of debris is the responsibility of each Trade Contractor for their own material and shall be performed on a daily basis.

B. Daily clean-up shall include broom cleaning including removal of identifiable debris and rubbish from site.

C. Sweeping compounds shall be silica-free.

D. Fridays of each week are designated as total project clean-up day. Trade Contractors shall be responsible for providing the necessary labor force to thoroughly clean all areas where it has performed Work or otherwise created a need for clean-up. Friday clean-up shall include broom clean condition.

E. In the event that the Trade Contractor fails to clean up and dispose of all debris promptly after written direction to comply, the Construction Manager will clean-up the debris and the Trade Contractor shall be responsible for all associated costs.

F. Trade Contractor shall furnish labor for clean-up of unidentifiable debris including broom clean as directed by the Construction Manager

G. Remove all electrical extension cords from the floor each Friday at the end of the work day.

1.2. Work in Place Progress Cleaning

A. Trade Contractor shall be responsible for cleaning all material and equipment installed upon completion of installation of same.

B. Work in place progress cleaning by each Trade Contractor shall include but not be limited to the following:

1. Remove labels which are not required to be permanent.

2. Clean transparent materials, including mirrors and window/door glass to a polished condition.

3. All interior and exterior building materials and equipment finished surfaces and components shall be cleaned to be free of dirt, dust, oils, film, and other foreign material.

4. Clean debris and dust from limited-access spaces including roofs, plenums, ducts, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.

5. Each Trade Contractor, after completing its Work in any space, shall thoroughly clean any and all debris, dirt, and dust caused by its Work or presence in a space. Such clean-up shall include but not be limited to:

   a. Vacuum or washing of floor, wall, ceiling and other surfaces.

   b. Restoring interior and exterior areas to condition that existed prior to occupying the space or commencement of the Work.

1.3. **Street Cleaning**

A. Trade Contractor shall be responsible for keeping all paved surfaces and public streets in the vicinity of the project clean of dirt and other debris that is a direct result of his operations.

B. Cleaning shall consist of cleaning the streets with a pick-up type sweeper in such a manner that the pavement and gutters are maintained broom-clean for the duration of the Contract.

C. In the event that the Trade Contractor fails after written direction to comply with street cleaning requirements promptly, the Construction Manager shall perform the Work and charge the Trade Contractor all associated costs.

1.4. **Debris Disposal**

A. This Trade Contractor shall be responsible for dumpster costs and/or hauling costs associated with its Work

B. All debris shall be legally disposed of off-site. Salvage opportunities, including debris sorting, to maximize recycling efforts are required and will need to be reported to Clark Construction Company on a monthly basis, if dumpsters are not provided by Clark Construction Company. The percentage of waste diverted from landfills must also be reported.

C. Debris shall not be buried, covered up or left in walls or above ceilings.

D. Burning of debris will not be permitted on the project site.

2. MATERIAL AND EQUIPMENT HANDLING AND STORAGE

2.1. On-site material storage space is limited. Long-term on-site storage will not be allowed without the approval of the Construction Manager. Material and equipment deliveries shall be coordinated and approved in advance with the Construction Manager.

2.2. Material and equipment shall be handled and stored utilizing means and methods to avoid damage, soiling, exposure to adverse weather, etc.

2.3. Store weather-sensitive products in weather-tight enclosures; maintain them within humidity ranges required by the manufacturer.

2.4. Products stored on-site shall be supported so as not to be in contact with ground and to avoid soiling.

2.5. In the event that products become exposed to adverse weather, or damaged, the Trade Contractor shall clean, repair or replace if necessary the product to achieve new condition acceptable to the Owner and Architect.

2.6. Coordinate material and equipment deliveries to meet requirements of the construction schedule.

2.7. Coordinate all delivery dates and storage spaces with the Construction Manager.

2.8. Trade Contractor shall be responsible for receipt, unloading and handling of products under its Contract. The Construction Manager or others will not receive deliveries for Trade Contractors unless noted otherwise in the Documents

3. PROTECTION OF INSTALLED WORK

3.1. Trade Contractors are responsible for fully protecting their work and the work of others from damage until the Owner accepts the work. In the event of damage to Work in place, the Trade Contractor causing the damage will be responsible for cost of repair. In the event the responsible Trade Contractor cannot be identified, the cost of repair will be prorated on a man hour basis to those Trade Contractors reasonably considered by Clark Construction Company to have personnel in the area of the damage.

3.2. Protect installed Work and provide special protection where specified in Contract Documents.

3.3. Trade Contractors required to Work on roof surfaces shall be responsible to take all precautions necessary to avoid puncture to roofing materials and shall place not less than the equivalent of ½ inch plywood to protect Work surface.

4. SECURITY

4.1. Trade Contractors shall provide all means of security and facilities as necessary to protect tools and equipment from theft or vandalism. Trade Contractor's shall be responsible for insurance and cost of replacement of all tools and equipment.

5. OFFICE/STORAGE FACILITIES

5.1. Trade Contractor shall not place storage and/or office facilities on-site without prior approval of the Construction Manager.

5.2. Storage and office facilities shall be in good condition and appearance as determined by Clark Construction Company. Clark Construction Company reserves the right to demand removal of facilities that do not meet this requirement.

5.3. Field offices and storage facilities shall remain portable and are subject to relocation.

5.4. Cost of set-up and any relocation of field offices and storage facilities shall be the responsibility of the Trade Contractor.

5.5. Electric heat or air conditioning will not be allowed for field offices or storage facilities unless the Trade Contractor arranges for its own metered electrical service.

6. REMOVAL OF UTILITIES, FACILITIES AND CONTROLS

6.1. Remove all temporary above grade or buried utilities, equipment, facilities and materials when directed by the Construction Manager.

6.2. Clean and repair damage caused by installation or use of temporary Work.

7. TEMPORARY DATA CONNECTIONS

7.1. Data connections if required by the Trade Contractor shall be arranged for and paid for by each individual Trade Contractor per their requirements.

8. TEMPORARY TOILETS

8.1. The Construction Manager will provide temporary toilets.

9. TEMPORARY FENCING

9.1. Wherever fencing is required adjacent to a public walking area and where fence base supports are required which would otherwise project into the walking area creating a potential trip hazard the following barrier/fence system shall be utilized.

A. TraFix Water-Wall Fence by TraFix Devices (or equivalent).
   1. Product Website:
      a. https://www.traffixdevices.com/products/barriers/water-wall-fence
   2. Rental Supplier Information:
      a. Clark Contracting Services
         a. Phone: 248-286-1000

10. FIRE SAFETY

A. This Contractor shall provide a minimum of 20 pound U.L. rated multi-purpose (Type A, B, C) fire extinguishers on stands spaced around their work area at all times spaced such that the travel distance to a fire extinguisher

shall not exceed 100 feet. Fire extinguisher stand shall be “Fire-Safety Mate” or equal as manufactured by the Goria Corporation, (telephone 888.464.6742).

11. TEMPORARY UTILITIES

11.1. Temporary Power will be made available to this Contractor as requested in writing with 2 weeks prior notice.

11.2. This Contractor is required to obtain temporary Water from a local fire hydrant per the Specification Section 002416.

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DIVISION 22 — PLUMBING

220513 - COMMON MOTOR REQUIREMENTS FOR PLUMBING EQUIPMENT
220516 - EXPANSION FITTINGS AND LOOPS FOR PLUMBING PIPING
220517 - SLEEVES AND SLEEVE SEALS FOR PLUMBING PIPING
220518 - ESCUTCHEONS FOR PLUMBING PIPING
220519 - METERS AND GAGES FOR PLUMBING PIPING
220523.12 - BALL VALVES FOR PLUMBING PIPING
220523.13 - BUTTERFLY VALVES FOR PLUMBING PIPING
220523.14 - CHECK VALVES FOR PLUMBING PIPING
220529 - HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT
220553 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT
220593 - TESTING, ADJUSTING, AND BALANCING FOR PLUMBING
220716 - PLUMBING EQUIPMENT INSULATION
220719 - PLUMBING PIPING INSULATION
221116 - DOMESTIC WATER PIPING
221119 - DOMESTIC WATER PIPING SPECIALTIES
221123.21 - INLINE, DOMESTIC-WATER PUMPS
221316 - SANITARY WASTE AND VENT PIPING
221319 - SANITARY WASTE PIPING SPECIALTIES
221319.13 - SANITARY DRAINS
221323 - SANITARY WASTE INTERCEPTORS
221414 - STORM DRAINAGE PIPING
221423 - STORM DRAINAGE PIPING SPECIALTIES
223200 - DOMESTIC WATER FILTRATION EQUIPMENT
223300 - ELECTRIC, DOMESTIC-WATER HEATERS
223400 - FUEL-FIRED, DOMESTIC-WATER HEATERS
224000 - PLUMBING FIXTURES

DIVISION 23 — HEATING VENTILATING AND AIR CONDITIONING

230513 - COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT
230516 - EXPANSION FITTINGS AND LOOPS FOR HVAC PIPING
230517 - SLEEVES AND SLEEVE SEALS FOR HVAC PIPING
230518 - ESCUTCHEONS FOR HVAC PIPING
230519 - METERS AND GAUGES FOR HVAC PIPING
230523.12 - BALL VALVES FOR HVAC PIPING
230523.13 - BUTTERFLY VALVES FOR HVAC PIPING
230523.14 - CHECK VALVES FOR HVAC PIPING
230529 - HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT
230553 - IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT
230593 - TESTING, ADJUSTING, AND BALANCING FOR HVAC
230713 - DUCT INSULATION
230716 - HVAC EQUIPMENT INSULATION
230719 - HVAC PIPING INSULATION
230923 - DIRECT DIGITAL CONTROL (DDC) SYSTEM FOR HVAC
231123 - FACILITY NATURAL-GAS PIPING
232113 - HYDRONIC PIPING
232116 - HYDRONIC PIPING SPECIALTIES
232123 - HYDRONIC PUMPS
232300 - REFRIGERANT PIPING
232500 - HVAC WATER TREATMENT
233113 - METAL DUCTS
233300 - AIR DUCT ACCESSORIES
233346 - FLEXIBLE DUCTS
233423 - HVAC POWER VENTILATORS
233600 - AIR TERMINAL UNITS
233713.13 - AIR DIFFUSERS, REGISTERS, AND GRILLES
233723 - HVAC GRAVITY VENTILATORS
237313.13 - INDOOR, BASIC AIR-HANDLING UNITS
237313.16 - INDOOR, SEMI-CUSTOM AIR-HANDLING UNITS
237416.11 - PACKAGED, SMALL-CAPACITY, ROOFTOP AIR-CONDITIONING UNITS
238126 - SPLIT-SYSTEM AIR-CONDITIONERS
238219 - FAN COIL UNITS
238223 - VERTICAL UNIT VENTILATORS
238239.13 - CABINET UNIT HEATERS

DIVISION 25 — INTEGRATED AUTOMATION

Not Used

DIVISION 26 — ELECTRICAL

260010 - SUPPLEMENTAL REQUIREMENTS FOR ELECTRICAL
260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
260526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS
260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
260533.13 - CONDUITS FOR ELECTRICAL SYSTEMS
260533.16 - BOXES AND COVERS FOR ELECTRICAL SYSTEMS
260533.23 - SURFACE RACEWAYS FOR ELECTRICAL SYSTEMS
260543 - UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS
260544 - SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING
260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS
260923 - LIGHTING CONTROL DEVICES
262213 - LOW-VOLTAGE DISTRIBUTION TRANSFORMERS
262413 - SWITCHBOARDS

262416.01 - PANELBOARDS
262726 - WIRING DEVICES
263213.13 - DIESEL-ENGINE-DRIVEN GENERATOR SETS
263600 - TRANSFER SWITCHES
264313 - SURGE PROTECTIVE DEVICES FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUITS
265119 - LED INTERIOR LIGHTING
265619 - LED EXTERIOR LIGHTING

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

28 1000	Technology Overview
28 1100	Communications Room
28 1500	Data Cabling
28 1500	Fiber Cabling
28 1700	Clock System – WiFi Battery
28 1810	Paging
28 4621.11	Addressable Fire-Alarm Systems
28 5300	Classroom Audio & Video
28 5400	Video Equipment
28 5401	Flat Panel Video Equipment
28 5450	Audio Equipment
28 5470	Audio Speakers
28 5470	AV Cabling
28 7200	Technology Submittals
28 7600	Technology Labeling
28 7700	Technology Testing
28 7750	Technology Training
28 7800	Technology Warranty

DIVISION 31 – EARTHWORK

31 1000	Site Clearing
31 1012	Fine Grading
31 1018	Soil Erosion Control
31 2000	Earth Moving

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 1222	Hot-Mix Asphalt Concrete Paving
32 1323	Cement Concrete Pavements, Curbs and Gutters
32 1373	Concrete Paving Joint Sealants
32 1415	Pavement Marking
32 9200	Turfs and Grasses

DIVISION 33 – UTILITIES

33 1100	Water Main
33 4100	Storm Sewers, Underdrains and Drainage Structures

END OF SPECIFICATION INDEX

SECTION 01 0400 - COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTSS

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

1.2 SUMMARY

This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:

1. Generals project coordination procedures.
2. Administrative and supervisory personnel.
3. Coordination Drawings.
4. General installation provisions.
5. Cleaning and protection.
6. Limitations for use of the site.
7. Coordination program.

B. Related Section: The following Sections contain requirements that relate to this Section:

1. Division 01 3100 Section “Project Management and Coordination” for progress meetings, coordination and preinstallation conferences.
2. Division 01 6000 Section “Product Requirements” for coordinating materials and equipment for general installation.
3. Division 01 7300 Section “Execution Requirements” for Layout and Measurements, specifies procedures for field engineering services, including establishment of benchmarks and control points.

1.3 COORDINATION

A. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend upon each other for proper installation, connection, and operation.

1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

B. Where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

1. Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of schedules.
2. Installation and removal of temporary facilities.
3. Delivery and processing of submittals.
4. Progress meetings.
5. Project closeout activities.

1.4 LIMITATIONS ON USE OF THE SITE

A. General: Limitations on site usage as well as specific requirements that impact site utilization are indicated on the drawings and by other contract documents. In addition to these limitations and requirements administer allocation of available space equitably among entities needing both access and space so as to produce the best overall efficiency in performance of the total work of the project. Schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on the site.

1.5 SUBMITTALS

A. Coordination Drawings: Prepare coordination drawings for above ceiling work, equipment rooms and other areas where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.

1. Show the relationship of components on separate Shop Drawings.
2. Indicate required installation sequence.

B. Staff Names: Within fifteen (15) calendar days of “Notice to Proceed,” submit a list of the Contractor’s principal staff assignments, including the Superintendent and other personnel in attendance at the site; identify individuals, their duties and responsibilities. List their addresses and telephone numbers.

1. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.

C. Other Project names, addresses and information:

1. Lists of sub-contractors and erectors.
2. List of suppliers and manufacturers.

PART 2 – PRODUCTS (Not applicable)

PART 3 – EXECUTION

3.1 GENERAL INSTALLATION PROVISIONS

A. Inspection of Conditions: Require the Installer of each component to inspect both the substrate and conditions under which Work is to be performed. Proceed when unsatisfactory conditions have been corrected.

B. Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction.

3.2 COORDINATION PROGRAM

A. It shall be the responsibility of the Construction Manager/General Contractor to coordinate the equipment room requirements and the above ceiling space requirements of the various subcontractors and to determine that adequate clearance is allowed with respect to their equipment and the building.

B. The Coordination Program shall consist of a series of meetings with all trades involved and the preparation of installation drawings prepared from base drawings produced by the Sheet Metal Subcontractor. The Mechanical, Electrical and Fire Protection Subcontractors shall use the base drawings for producing their individual installation drawing overlays for coordination with other trades.

C. The following sequence shall be followed:

1. After the award of contract and prior to construction the Construction Manager/General Contractor will schedule a meeting to introduce the Coordination Program and determine its implication to the progress schedule. Attendees shall include the Construction Manager/General Contractor, Owner's Representative, Architect/Engineer and all subcontractors responsible for work in equipment rooms and in or above the ceilings which includes (but is not limited to) those items below:

    a. Recessed lighting fixtures.
    b. Plumbing waste, vent and roof drainage.
    c. Steam, condensate and all other pitched services.
    d. Ductwork and appurtenances.
    e. Fire protection (sprinkler system).
    f. HVAC piping.
    g. Plumbing, supply and service piping.
    h. Cable tray.
    i. Electrical conduit.

        (1) The above list, in descending order, is the precedence for space priority. Recessed light fixtures and space for their installation have first priority, plumbing waste, vent and roof drainage has second priority, etc.

2. The Construction Manager/General Contractor shall confirm that the following have been provided to the Sheet Metal Subcontractor prior to commencing the base drawings:

    a. Approved structural steel drawings.
    b. Clearance requirements for plumbing, piping, etc. from the Mechanical Subcontractor.
    c. Clearance requirements for recessed lighting, cable trays, etc. from the Electrical Subcontractor.
    d. Clearance requirements for piping from the Fire Protection Subcontractor.

3. The Sheet Metal Subcontractor shall prepare and provide the Mechanical, Electrical and Fire Protection Subcontractors with reproducible transparent drawings which shall serve as the base drawings. The base drawings shall show column center lines, interior partition locations, and ceiling heights.

4. The Sheet Metal Subcontractor, with reference and consideration to the structural, mechanical, electrical, fire protection, and plumbing requirements provided and the reflected ceiling plans, shall draw, to scale (minimum ¼" scale), the proposed ductwork installation showing duct sizes, equipment layouts, and dimensions from column lines and distance from finished floors to bottom of ducts and equipment. In congested areas, the Sheet Metal Subcontractor shall, in addition, prepare drawings in Section view.

5. The base drawings with ductwork layouts shall be produced in sequence as mandated by the project schedule. The earliest area indicated in the schedule will receive the first effort, etc.

6. When the base drawings for the earliest scheduled area have been completed (time limitation as determined in the initial coordination meeting), the Sheet Metal Subcontractor shall provide

the Construction Manager/General Contractor with one set of mylars for each participant in the effort. Upon receipt of the base drawings from the Construction Manager/General Contractor each participant shall incorporate on the drawings, their proposed installation. Each of the subcontractors proposed installation drawings shall indicate to scale, size, equipment layout, equipment clearance requirements, dimensions from column centerlines and distance from the finish floor to bottom of equipment, piping, conduits, etc. The Contract Drawings shall be followed as a general guide for the proposed installation drawings.

7. The major components to be indicated include (but are not limited to):

   a. Roof drain leaders.
   b. Waste and vent piping.
   c. Fire protection piping.
   d. Plumbing and lab service piping.
   e. HVAC and Mechanical ductwork routing.
   f. Electrical conduit and Cable tray runs.
   g. Contract ceiling heights and Soffit locations.
   h. Access points for access to valves and Dampers.
   i. Firewall penetrations.

8. Prior to fabrication of ductwork and within a period of not to exceed two (2) calendar weeks after distribution of the mylars to the individual participants, the Construction Manager/General Contractor will schedule a meeting with the Owner's Representative, the Architect/Engineers and participating Subcontractors at which time areas of conflict shall be resolved through the following process:

   a. The transparent tracings shall be overlaid on a light table to identify areas of conflict. All parties shall then cooperate in resolving the conflicts.

   b. The Owner's Representative and the Architect/Engineer reserve the right to determine space priority of the Subcontractors in the event of interference between piping, conduits, ducts and equipment of the various Subcontractors.

   c. Records of the areas of conflict and the names of the subcontractor who is to make modifications to their drawings shall be kept by the Construction Manager/General Contractor. This record shall be updated on a weekly basis and shall be incorporated into the coordination meeting minutes.

   d. Once all areas of conflict are resolved, each participant shall revise their drawings and shall submit for review. After review, ductwork can be fabricated, and installation of work can begin. A permanent record of the agreement shall be entered on each Subcontractors' installation drawings, acknowledged by all participants' by signature in a space provided for this purpose. The Construction Manager/General Contractor shall provide and distribute two graphic copies of each subcontractor's signed installation drawings to all parties involved. Revisions to drawings as a result of the coordination process shall not be considered an extra and will not result in a change to the contract.

   e. The above drawings, review and coordination process will be repeated until all areas on the Project have been coordinated.

9. Shop drawings shall be modified through the coordination process to reflect the final resolved locations of equipment prior to submittal for review.

10. In the event a Subcontractor fails to cooperate in the Coordination Program, he shall be held responsible for all costs incurred for adjustments to the work of others made necessary to accommodate the uncooperative Subcontractor's installations.
11. When a Change Order request is issued, the affected Subcontractors shall review the Coordination Drawings and bring to the attention of the Construction Manager/General Contractor any revisions necessary to the work of others affected by the Change Order.

D. At the completion of the project, each subcontractor shall provide the Construction Manager/General Contractor with a reproducible transparent drawing of the installation drawings to be forwarded to the Owner.

3.3 CLEANING AND PROTECTION

A. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.

B. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

C. Limiting Exposures: Supervise construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:

1. Excessive static or dynamic loading.
2. Excessive internal or external pressures.
3. Excessively high or low temperatures.
4. Thermal shock.
5. Excessively high or low humidity.
6. Air contamination or pollution.
7. Water or ice.
8. Solvents.
9. Chemicals.
10. Radiation.
11. Puncture.
12. Abrasion.
13. Heavy traffic.
14. Soiling, staining and corrosion.
15. Bacteria.
16. Rodent and insect infestation.
17. Electrical current.
18. Improper lubrication.
19. Unusual wear or other misuse.
20. Contact between incompatible materials.
21. Misalignment.
22. Excessive weathering.
23. Unprotected storage.
24. Improper shipping or handling.
25. Theft.
26. Vandalism.

END OF SECTION 01 0400

SECTION 01 2300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for alternates as proposed by the Architect.
   1. Voluntary Alternates or Substitutions proposed by Bidders will not form the Base Bid Proposal Price.

1.3 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

   1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

B. Voluntary Alternates: Bidders proposed voluntary alternates and substitutions will not be recognized as part of the Base Bid Price opening. Owner may review voluntary proposals with the successful Bidder.

1.4 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

   1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTIONs

3.1 SCHEDULE OF ALTERNATES

A. **Alternate A1 Southeast Wing Partial Demolition and Renovation**:

1. Description of Base Bid: Work scope related to demolition of entirety of “Southeast Wing” with limits as noted on drawings.
2. Description of Alternate: Work scope related to demolish a portion of “Southeast Wing” and work scope related to renovation of the portion to remain as noted on drawings.

B. **Alternate A2 Sealcoat West Parking Lot**:

1. Description of Alternate: Sealcoat existing west parking lot as noted on drawings.

C. **Alternate A3 Re-Stripe Existing South Parking Lot**:

1. Description of Alternate: Re-Stripe existing South Parking Lot as noted on drawings.

D. **Alternate A4 Re-Stripe Existing Basketball Court**:

1. Description of Alternate: Re-Stripe existing Basketball Court as noted on drawings.

E. **Alternate A5 Exterior Classrooms doors**:

1. Description of Base Bid: Existing exterior doors at classrooms as noted on plans to remain. Repair, paint doors and frames and provide/install new hardware
2. Description of Alternate: Remove existing and provide new exterior doors at classrooms as noted on plans. Repair and paint existing frames and provide/install new hardware.

F. **Alternate A6 Exterior Windows**:

1. Description of Alternate: Remove existing and provide new exterior windows at classrooms as noted on plans.

G. **Alternate A7 Exterior Improvements**:

1. Description of Alternate: Work scope related to exterior improvements as noted on the drawings.

H. **Alternate A8 Domestic Water**:

1. Description of Base Bid: Place new domestic water service on parallel route with the Base Bid fire suppression service as proposed. This route leads to a new utility rooms within the existing building.
2. Description of Alternate: New fire suppression service installed to a new utility room within the renovated “Southeast Wing”

END OF SECTION 01 2300

SECTION 01 3300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.

1. Shop drawings and Samples
2. Product data submittal procedures.
3. Shop Drawing and Samples Transmittal Form.
4. Contract Close-out Deliverables Form.

B. Related Sections include the following:
1. Divisions 02 0000 through 33 0000 Sections for specific requirements for submittals in those Sections.

1.3 DEFINITIONS

A. Action Submittals (Shop Drawings, Samples, Product Data, Catalog Cuts, etc.): Written and graphic information that requires Architect's **and Construction Manager's** responsive action.

B. Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

A. General: Electronic copies of CAD Drawings of the Contract Drawings may be provided at Architect’s discretion and at extra cost to Contractor for use in preparing submittals.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

a. **Architect reserves** the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on **Architect's** receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow twenty (20) calendar days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. **Architect** will advise Contractor when a submittal being processed must be delayed for coordination.
2. Resubmittal Review: Allow eighteen (18) calendar days for review of each resubmittal.
3. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow twenty (20) calendar days for initial review of each submittal.
4. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow twenty (20) calendar days for review of each submittal.

D. Shop Drawing Submittal Procedures: The procedures and quantity of drawings, catalog cuts, samples and other information for submittal are minimum. The Contractor and Architect will finalize format at the Project Kick-Off Meeting.

1. Contractor to Construction Manager and then to Architect
   a. All submittals shall be sent as pdf files via email.
   b. Each submittal shall include one pdf that includes the Submittal Transmittal as provided in this specification (completely filled out) and all other 8.5 x 11 documents as a single pdf file.
   c. Submittal documents that are not 8.5 x 11 shall be submitted as a separate pdf file for each size documents. For instance, 24" x 36" sheets shall be sent as a separate pdf. Always include the separate pdf file with the filled out transmittal with each submittal pdf.
2. Architect to CM to Contractor
   a. A pdf file of each reviewed submittal will be sent via email.

E. Identification: Place a permanent label or title block on each submittal for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space approximately 4 x 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
3. Include the following information on label for processing and recording action taken:

   a. Project name.
   b. Date.
   c. Name of Architect.
   d. Name of Contractor.
   e. Name and email address of subcontractor.
   f. Name and email address of supplier.
   g. Name and website address of manufacturer.
   h. Contractors Submittal number
   i. Number and title of appropriate Specification Section.
   j. Drawing number and detail references, as appropriate.
   k. Other necessary identification.

F. Deviations: **Highlight and encircle**, or otherwise specifically identify deviations from the Contract Documents on submittals.

G. Transmittal: Package each submittal item individually and appropriately for transmittal and handling. Do not group submittals related to different specification sections. Transmit each submittal using the official transmittal form. Architect received submittals from sources other than General Contractor will be discarded without review.

1. Transmittal Form: **Use submittal form included at the end of Specification.**
2. Form:

a. Project name.
b. Date.
c. Destination (To:).
d. Source (From:).
e. Names of subcontractor, manufacturer, and supplier.
f. Category and type of submittal.
g. Submittal purpose and description.
h. Specification Section number and title.
i. Drawing number and detail references, as appropriate.
j. Transmittal number**, numbered consecutively**.
k. Submittal and transmittal distribution record.
l. Remarks.
m. Signature of transmitter.

H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
2 Note date and content of revision in label or title block and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with Architect's "REVIEWED FOR CONSTRUCTION" or Architect's "REVIEWED AS NOTED" stamp

I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

J. Use for Construction: Use only final submittals with mark indicating Architect's "REVIEWED FOR CONSTRUCTION" or "REVIEWED AS NOTED" stamp and Construction Manager's or General Contractor's release for construction stamp.

1. DO NOT USE Shop Drawings noted "XRR = RETURNED FOR CORRECTIONS" for construction or fabrication.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

A. General: Prepare and submit Action Submittals required by individual Specification Sections.

1. Submit electronic submittals directly to extranet specifically established for Project.

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.

2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

    a. Manufacturer's written recommendations.
    b. Manufacturer's product specifications.
    c. Manufacturer's installation instructions.
    d. Standard color charts.
    e. Manufacturer's catalog cuts.
    f. Wiring diagrams showing factory-installed wiring.
    g. Printed performance curves.
    h. Operational range diagrams.
    i. Mill reports.
    j. Standard product operating and maintenance manuals.
    k. Compliance with specified referenced standards.
    l. Testing by recognized testing agency.
    m. Application of testing agency labels and seals.
    n. Notation of coordination requirements.

4. Submit Product Data concurrent with Samples.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:

    a. Dimensions.
    b. Identification of products.
    c. Fabrication and installation drawings.
    d. Roughing-in and setting diagrams.
    e. Wiring diagrams showing field-installed wiring, power, signal, and control wiring.
    f. Shop work manufacturing instructions.
    g. Templates and patterns.
    h. Schedules.
    i. Design calculations.
    j. Compliance with specified standards.
    k. Notation of coordination requirements.
    l. Notation of dimensions established by field measurement.
    m. Relationship to adjoining construction clearly indicated.
    n. Seal and signature of professional engineer if specified.
    o. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 24 by 36 inches (750 by 1000 mm).

D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

1. Transmit samples that contain multiple, related components such as accessories together in one submittal package.
2. Identification: Attach label on unexposed side of Samples that includes the following:

    p. Generic description of Sample.
    q. Product name and name of manufacturer.

r. Sample source.
s. Number and title of appropriate Specification Section.

2. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

   a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
   b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

3. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

   a. Number of Samples: Submit one (1) full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect, **through Construction Manager**, will return submittal with options selected.

4. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.

   a. Number of Samples: Submit number of samples as indicated in Part 1.4 "Submittal Procedures".

      1. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
      2. If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three (3) sets of paired units that show approximate limits of variations.

E. Product Schedule or List: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

   1. Type of product. Include unique identifier for each product.
   2. Room name, room number, space and location.

F. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation" for Construction Manager's action.

G. Submittals Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."

H. Application for Payment: Comply with requirements specified in Division 01 Section "Payment Procedures."

J. Schedule of Values: Comply with requirements specified in Division 01 Section “Payment Procedures.”

K. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.
4. Number of Copies: Submit two (2) copies of subcontractor list, unless otherwise indicated.

2.2 INFORMATIONAL SUBMITTALS

A. General: Prepare and submit Informational Submittals required by other Specification Sections.

1. Number of Copies: Submit two (2) copies of each submittal, unless otherwise indicated. Architect will not return copies.
2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
3. Test and Inspection Reports: Comply with requirements in Division 01 4000 Section "Quality Requirements."

B. Coordination Drawings: Comply with requirements specified in Division 01 3100 Section “Project Management and Coordination.”

C. Contractor's Construction Schedule: Comply with requirements in Division 01 3200 Section "Construction Progress Documentation."

D. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.

F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

H. Product Certificates: Prepare written statements on manufacturer’s letterhead certifying that product complies with requirements in the Contract Documents.

I. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

J. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

K. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

L. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

1. Name of evaluation organization.
2. Date of evaluation.
3. Time period when report is in effect.
4. Product and manufacturers' names.
5. Description of product.
6. Test procedures and results.
7. Limitations of use.

M. Schedule of Tests and Inspections: Comply with requirements specified in Division 01 4000 Section "Quality Requirements."

N. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

O. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

P. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.

Q. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 01 7700 Section "Closeout Procedures" for Operation and Maintenance Data."

R. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

S. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:

1. Preparation of substrates.
2. Required substrate tolerances.
3. Sequence of installation or erection.
4. Required installation tolerances.
5. Required adjustments.
6. Recommendations for cleaning and protection.

T. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:

1. Name, address, and telephone number of factory-authorized service representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

U. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles and term of the coverage.

V. Material Safety Data Sheets (MSDSs): Submit information directly to Construction Manager; do not submit to Architect, **except as required in "Action Submittals´ Article**."

1. Architect will not review submittals that include MSDSs and will return the entire submittal for resubmittal.

2.3 DELEGATED DESIGN

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit three (3) copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with Contractor's review approval stamp before submitting to Architect.

B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S AND CONSTRUCTION MANAGER'S ACTION

A. General: Architect will not review submittals that do not bear Construction Manager's or General Contractor's review approval stamp and will return them without action.

B. Action Submittals: Architect and Construction Manager will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect and Construction Manager will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action to be taken.

C. Informational Submittals: Architect will review each submittal and will return it to the Construction Manager or General Contractor with review comments for their review.

D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

3.3 ARCHITECT'S FORMS

A. Shop Drawings and Samples Transmittal form, attached at end of Section.

B. Contract Close-out Deliverables form, attached at end of Section.

END OF SECTION 01 3300

SHOP DRAWING AND SAMPLES TRANSMITTAL

FRENCH associates
architects planners interiors

FA Submittal No.

Consultant Submittal No.

Project Name:	Architect's Project No.:	Submittal Date: ☐ Resubmittal	Contr. Submittal No. / Refer. Submittal No.
CM / Contr. Name: / CM / Contr. Address:	Contr. Proj. No.	Sub-Contr, Supplier, Etc. Name: / Sub-Contr, Supplier, Etc. Submittal No:	

Spec Section (not Bid Ctgy.)	No. of Prints	No. of Tracing	No. of Cat/etc.	No. of Sample	Sub-Contractor, Suppler, Manufacturer, Misc.	* List Each * Draw ing No.	Draw ing Title, Item Description	**Architect Review Code**	Copies Returned to Contractor

Contractor(s) certifies that the above submitted information has been review ed in detail and comply w ith the Contract Documents, except as indicated, and is submitted to the Architect, " FOR REVIEW AND COMMENTS ONLY." The Architect's and Engineer's critique w ill not relieve the Contractor(s) from compliance w ith requirements of the Contract Documents. Contractor(s) assumes responsibility for all information and comments indicated in Shop Draw ings.

Contractor / Const. Manager Comments

Priority ☐ High ☐ Normal ☐ Low

Signature

Consultant's Comments

Signature

Architect's Comments

Signature

Date: Copies: Attn:

CONTRACTOR TRANSMITTED TO:
- ☐ Structural
- ☐ Mechanical
- ☐ Electrical
- ☐ Architect
- ☐ Other

CONSULTANT TRANSMITTED TO:
- ☐ Architect
- ☐ Other Consul.
- ☐ Other

ARCHITECT TRANSMITTED TO:
- ☐ Contr./Mgr.
- ☐ Consultant
- ☐ Other

Architect Review Code Legend

RC = Reviewed for Construction
That part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance

RN = Reviewed as Noted
That part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.

XRR = Returned for Corrections
Do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a "Reviewed for Construction" or "Reviewed as Noted" action mark.

Contractor / Const. Manager - Record Copy Sent To:

Date:

SECTION 01 4000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, Construction Manager, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Sections include the following:
1. Division 01 7329 Section "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
2. Divisions 02 0000 through 33 0000 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect or Construction Manager.

C. Mockups: Full-size, physical assemblies that are constructed on-site. Mockups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing,

or operation; they are not Samples. Approved mockups establish the standard by which the Work will be judged.

D. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.

E. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.

F. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.

G. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

I. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1.4 CONFLICTING REQUIREMENTS

A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements.

1.5 SUBMITTALS

A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.
2. Description of test and inspection.
3. Identification of applicable standards.
4. Identification of test and inspection methods.
5. Number of tests and inspections required.
6. Time schedule or time span for tests and inspections.
7. Entity responsible for performing tests and inspections.

C. Reports: Prepare and submit certified written reports that include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Test and inspection results and an interpretation of test results.
9. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
10. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
11. Name and signature of laboratory inspector.
12. Recommendations on retesting and reinspecting.

D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.

F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirement for specialists shall not supersede building codes and regulations governing the Work.

G. Testing Agency Qualifications: An NRTL, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to

ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.

1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.

H. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

I. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:

1. Contractor responsibilities include the following:

a. Provide test specimens representative of proposed products and construction.
b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
f. When testing is complete, remove test specimens, assemblies, mockups, and laboratory mockups; do not reuse products on Project.

2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, through Construction Manager, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

J. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:

1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect or Construction Manager.
2. Notify Architect and Construction Manager seven (7) calendar days in advance of dates and times when mockups will be constructed.
3. Demonstrate the proposed range of aesthetic effects and workmanship.
4. Obtain Architect's and Construction Manager's approval of mockups before starting work, fabrication, or construction.

a. Allow seven (7) calendar days for initial review and each re-review of each mockup.

5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
6. Demolish and remove mockups when directed, unless otherwise indicated.

K. Laboratory Mockups: Comply with requirements of preconstruction testing and those specified in individual Sections in Divisions 02 through Divisions 33.

1.7 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
3. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, **and the Contract Sum will be adjusted by Change Order**.

B. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.

1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.

a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.

2. Notify testing agencies at least forty-eight (48) hours in advance of time when Work that requires testing or inspecting will be performed.
3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 3300 Section "Submittal Procedures."

D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

E. Testing Agency Responsibilities: Cooperate with Architect, Construction Manager, and Contractors in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Architect, Construction Manager, and Contractors promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.

5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel.

1. Incidental labor and facilities necessary to facilitate tests and inspections.
2. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
3. Facilities for storage and field curing of test samples.
4. Delivery of samples to testing agencies.
5. Preliminary design mix proposed for use for material mixes that require control by testing agency.
6. Security and protection for samples and for testing and inspecting equipment at Project site.

G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within thirty (30) calendar days of date established for **commencement of the Work** or **the Notice to Proceed**.

1. Distribution: Distribute schedule to Owner, Architect, Construction Manager, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.8 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Owner may engage a qualified testing agency or special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:

B. Special Tests and Inspections: Conducted by a qualified testing agency or special inspector as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
2. Notifying Architect, Construction Manager, and Contractors promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect, Construction Manager, with copy to Contractors and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 ACCEPTABLE TESTING AGENCIES

A. Construction Manager or Contractor may recommend testing agency firm to the Architect or Owner for decision.

3.2 TEST AND INSPECTION LOG

A. Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.
2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to Architect.
4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's and Construction Manager's reference during normal working hours.

3.3 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
2. Comply with the Contract Document requirements for Division 01 7329 Section "Cutting and Patching."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 4000

SECTION 01 4200 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DEFINITIONS

A. General: Basic Contract definitions are included in the Conditions of the Contract.

B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.

C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "approved," "required," and "permitted" have the same meaning as "directed."

D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."

E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.

F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

H. "Provide": Furnish and install, complete and ready for the intended use.

I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

B. Publication Dates: Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.

C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

D. Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ADAAG	Americans with Disabilities Act (ADA) Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities Available from Access Board www.access-board.gov	(800) 949-4232 (800) 514-0301
CFR	Code of Federal Regulations	https://www.ecfr.gov/titles
WBDG	Whole Building Design Guide	https://www.wbdg.org/
FED-STD	Federal Standard (See FS)	
FS	Federal Specification Available from Department of Defense Single Stock Point www.dodssp.daps.mil	(215) 697-6257
	Available from General Services Administration www.fss.gsa.gov	(202) 501-1021
	Available from National Institute of Building Sciences www.nibs.org	(202) 289-7800
FTMS	Federal Test Method Standard (See FS)	
UFAS	Uniform Federal Accessibility Standards	www.access-board.gov

1.4 ABBREVIATIONS AND ACRONYMS

A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."

B. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

AA	Aluminum Association, Inc. (The) www.aluminum.org
AAADM	American Association of Automatic Door Manufacturers www.aaadm.com
AABC	Associated Air Balance Council www.aabchq.com
AAMA	American Architectural Manufacturers Association www.aamanet.org
AASHTO	American Association of State Highway and Transportation Officials www.transportation.org
ACI	ACI International (American Concrete Institute) www.aci-int.org
ACPA	American Concrete Pipe Association www.concrete-pipe.org
AGA	American Gas Association www.aga.org
AGC	Associated General Contractors of America (The) www.agc.org
AI	Asphalt Institute www.asphaltinstitute.org
AIA	American Institute of Architects (The) www.aia.org
AISC	American Institute of Steel Construction www.aisc.org
AISI	American Iron and Steel Institute www.steel.org
AITC	American Institute of Timber Construction www.aitc-glulam.org

ALCA	Associated Landscape Contractors of America www.alca.org
ALSC	American Lumber Standard Committee, Incorporated www.alsc.org
AMCA	Air Movement and Control Association International, Inc. www.amca.org
ANSI	American National Standards Institute www.ansi.org
APA	APA - The Engineered Wood Association www.apawood.org
APA	Architectural Precast Association www.archprecast.org
ARI	Air-Conditioning & Refrigeration Institute www.ari.org
ARMA	Asphalt Roofing Manufacturers Association www.asphaltroofing.org
ASCE	American Society of Civil Engineers www.asce.org
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers www.ashrae.org
ASME	ASME International (The American Society of Mechanical Engineers International) www.asme.org
ASSE	American Society of Sanitary Engineering www.asse-plumbing.org
ASTM	ASTM International (American Society for Testing and Materials International) www.astm.org
AWI	Architectural Woodwork Institute www.awinet.org
AWPA	American Wood-Preservers' Association www.awpa.com
AWS	American Welding Society www.aws.org
BHMA	Builders Hardware Manufacturers Association www.buildershardware.com
BIA	Brick Industry Association (The)

www.bia.org

CISPI Cast Iron Soil Pipe Institute
www.cispi.org

CRSI Concrete Reinforcing Steel Institute
www.crsi.org

CSI Construction Specifications Institute (The)
www.csinet.org

DHI Door and Hardware Institute
www.dhi.org

EIMA EIFS Industry Members Association
www.eima.com

EJMA Expansion Joint Manufacturers Association, Inc.
www.ejma.org

FM Factory Mutual System
(Now FMG)

FMG FM Global
(Formerly: FM - Factory Mutual System)
www.fmglobal.com

GA Gypsum Association
www.gypsum.org

GANA Glass Association of North America
www.glasswebsite.com

HMMA Hollow Metal Manufacturers Association
(Part of NAAMM)

HPVA Hardwood Plywood & Veneer Association
www.hpva.org

IEEE Institute of Electrical and Electronics Engineers, Inc. (The)
www.ieee.org

IESNA Illuminating Engineering Society of North America
www.iesna.org

ILI Indiana Limestone Institute of America, Inc.
www.iliai.com

LPI Lightning Protection Institute
www.lightning.org

MFMA Maple Flooring Manufacturers Association
www.maplefloor.org

MFMA Metal Framing Manufacturers Association
www.metalframingmfg.org

MIA	Marble Institute of America www.marble-institute.com
NAAMM	National Association of Architectural Metal Manufacturers www.naamm.org
NAGWS	National Association for Girls and Women in Sport www.aahperd.org/nagws/
NAIMA	North American Insulation Manufacturers Association (The) www.naima.org
NBGQA	National Building Granite Quarries Association, Inc. www.nbgqa.com
NCAA	National Collegiate Athletic Association (The) www.ncaa.org
NCMA	National Concrete Masonry Association www.ncma.org
NEBB	National Environmental Balancing Bureau www.nebb.org
NECA	National Electrical Contractors Association www.necanet.org
NeLMA	Northeastern Lumber Manufacturers' Association www.nelma.org
NEMA	National Electrical Manufacturers Association www.nema.org
NFHS	National Federation of State High School Associations www.nfhs.org
NFPA	NFPA (National Fire Protection Association) www.nfpa.org
NGA	National Glass Association www.glass.org
NHLA	National Hardwood Lumber Association www.natlhardwood.org
NOFMA	National Oak Flooring Manufacturers Association www.nofma.org
NRCA	National Roofing Contractors Association www.nrca.net
NRMCA	National Ready Mixed Concrete Association www.nrmca.org

NSSGA	National Stone, Sand & Gravel Association www.nssga.org
NTMA	National Terrazzo & Mosaic Association, Inc. www.ntma.com
NTRMA	National Tile Roofing Manufacturers Association (Now TRI)
NWWDA	National Wood Window and Door Association (Now WDMA)
PCI	Precast/Prestressed Concrete Institute www.pci.org
PTI	Post-Tensioning Institute www.post-tensioning.org
SAE	SAE International www.sae.org
SDI	Steel Deck Institute www.sdi.org
SDI	Steel Door Institute www.steeldoor.org
SEI	Structural Engineering Institute www.seinstitute.com
SGCC	Safety Glazing Certification Council www.sgcc.org
SIA	Security Industry Association www.siaonline.org
SJI	Steel Joist Institute www.steeljoist.org
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association www.smacna.org
SPIB	Southern Pine Inspection Bureau (The) www.spib.org
SWI	Steel Window Institute www.steelwindows.com
SWRI	Sealant, Waterproofing, & Restoration Institute www.swrionline.org
TCA	Tile Council of America, Inc.

www.tileusa.com

TIA/EIA Telecommunications Industry Association/Electronic Industries Alliance
www.tiaonline.org

UL Underwriters Laboratories Inc.
www.ul.com

USGBC U.S. Green Building Council
www.usgbc.org

USITT United States Institute for Theatre Technology, Inc.
www.usitt.org

WASTEC Waste Equipment Technology Association
www.wastec.org

WCLIB West Coast Lumber Inspection Bureau
www.wclib.org

WDMA Window & Door Manufacturers Association
(Formerly: NWWDA - National Wood Window and Door Association)
www.wdma.com

WIC Woodwork Institute of California
(Now WI)

C. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

BOCA BOCA International, Inc.
(See ICC)

CABO Council of American Building Officials
(See ICC)

IAPMO International Association of Plumbing and Mechanical Officials
www.iapmo.org

ICBO International Conference of Building Officials
(See ICC)

ICBO ES ICBO Evaluation Service, Inc.
(See ICC-ES)

ICC International Code Council
(Formerly: CABO - Council of American Building Officials)
www.iccsafe.org

ICC-ES ICC Evaluation Service, Inc.
www.icc-es.org

NES National Evaluation Service
(See ICC-ES)

SBCCI Southern Building Code Congress International, Inc.
(See ICC)

D. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CE Army Corps of Engineers
www.usace.army.mil

CPSC Consumer Product Safety Commission
www.cpsc.gov

DOC Department of Commerce
www.commerce.gov

DOD Department of Defense
www.dodssp.daps.mil

DOE Department of Energy
www.eren.doe.gov

EPA Environmental Protection Agency
www.epa.gov

FAA Federal Aviation Administration
www.faa.gov

FCC Federal Communications Commission
www.fcc.gov

FDA Food and Drug Administration
www.fda.gov

GSA General Services Administration
www.gsa.gov

HUD Department of Housing and Urban Development
www.hud.gov

LBL Lawrence Berkeley National Laboratory
www.lbl.gov

MBC Michigan Building Code

NCHRP National Cooperative Highway Research Program
(See TRB)

NIST National Institute of Standards and Technology
www.nist.gov

OSHA Occupational Safety & Health Administration
www.osha.gov

PBS Public Building Service
(See GSA)

PHS Office of Public Health and Science
http://phs.os.dhhs.gov

RUS Rural Utilities Service
(See USDA)

SD State Department
www.state.gov

TRB Transportation Research Board
www.nas.edu/trb

USDA Department of Agriculture
www.usda.gov

USPS Postal Service
www.usps.com

E. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

MDH Michigan Department of Health

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 4200

SECTION 01 6000 - PRODUCT REQUIREMENTS
- SUBSTITUTIONS AND OPTIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.

1. Substitutions Request Procedures.
2. Product Substitutions and Options.
3. Substitution Request Form. (included at end of this Specification Section)

B. Related Sections include the following:
1. Division 01 4200 Section "References" for applicable industry standards for products specified.
2. Division 01 7700 Section "Closeout Procedures" for submitting warranties for contract closeout.
3. Divisions 02 0000 through 33 0000 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility**, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise**. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Substitutions (after selection of successful bidder): Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

D. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

E. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

1.4 SUBMITTALS

A. Product List: Submit a list, in tabular from, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.

1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
2. Form: Tabulate information for each product under the following column headings:

    a. Specification Section number and title.
    b. Generic name used in the Contract Documents.
    c. Proprietary name, model number, and similar designations.
    d. Manufacturer's name and address.
    e. Supplier's name and address.
    f. Installer's name and address.
    g. Projected delivery date or time span of delivery period.
    h. Identification of items that require early submittal approval for scheduled delivery date.

3. Initial Submittal: Within thirty (30) calendar days after date of “Notice to Proceed,” or date of commencement of work, submit three (3) copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.

    a. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.

4. Completed List: Within sixty (60) calendar days after date of “Notice to Proceed,” submit three (3) copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
5. Architect's Action: Architect will respond in writing to Contractor within fifteen (15) calendar days of receipt of completed product list. Architect's response will include a list of unacceptable product selections without explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement that products comply with the Contract Documents.

B. Substitution Requests Procedures: Submit three (3) copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request must be proposed and submitted only to the Construction Manager or General Contractor. Substitution Requests must not be sent directly to the Architect.
2. Substitution Request Form: Use form provided at end of Section.
3. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

    a. Statement indicating why specified material or product cannot be provided.
    b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and other separate Contractors, that will be necessary to accommodate proposed substitution.
    c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
    d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    e. Samples, where applicable or requested.
    f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
    g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
    h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
    i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
    j. Cost information, including a proposal of change, if any, in the Contract Sum.
    k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
    l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

4. Architect/Engineer shall have right to reject proposed substitution without explanation.
5. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within Seven (7) calendar days of receipt of a request for substitution. Architect will notify General Contractor or Construction Manager of acceptance or rejection of proposed substitution within Ten (10) calendar days of receipt of request, or Seven (7) calendar days of receipt of additional information or documentation, whichever is later.

    a. **Should the Architect not respond within Twelve (12) calendar days of the dated date of Request, the proposed substitution is considered REJECTED.**
    b. Form of Acceptance: Construction Change Directive (CCD).
    c. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
    d. Owner or Architect does not have to give any reason for rejection of substitutions.

C. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 3300 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

1. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
2. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
3. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
4. Store products to allow for inspection and measurement of quantity or counting of units.
5. Store materials in a manner that will not endanger Project structure.
6. Store products that are subject to damage by the elements, under cover in a weather-tight enclosure above ground, with ventilation adequate to prevent condensation.
7. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
8. Protect stored products from damage.

B. Owner’s Storage Area: Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: Forms are included with the Specifications. Prepare a written document using appropriate form properly executed.

3. Refer to Divisions 02 0000 through Divisions 33 0000 Sections for specific content requirements and particular requirements for submitting special warranties.

C. Submittal Time: Comply with requirements in the following:

1. Division 01 3300 Section “Submittal Procedures.”
2. Division 01 7700 Section "Closeout Procedures.”

PART 2 - PRODUCTS

2.1 PRODUCT OPTIONS and SUBSTITUTIONS

A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product acceptable to the Architect.

B. Product Selection Procedures: Procedures for product selection include the following:

1. Product: Where Specification paragraphs or subparagraphs titled "Product" name a single product and manufacturer, provide the product named.

a. The product is a single source item.
Substitutions will not be considered.

2. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.

a. Substitutions may be considered.

3. Manufacturer’s Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.

a. Substitutions will not be considered.

4. Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.

   a. Substitutions by non-listed manufacturers will not be considered.

5. Product Options: Where Specification paragraphs titled "Product Options" indicate that size, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide either the specific product or system indicated or a comparable product or system by a specified manufacturer. Comply with provisions in "Product Substitutions" Article.

6. Basis-of-Design Products: Where Specification paragraphs or subparagraphs titled "Basis-of-Design Product" are included and also introduce or refer to a list of manufacturers' names, provide either the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, design profiles, dimensions, and other characteristics that are based on the product named.

   a. Provide Basis-of Design product or by one of the listed manufacturers.
   b. Substitutions of other products will not be considered.

7. Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches satisfactorily.

   a. If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents on "substitutions" for selection of a matching product.

8. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.

   a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that does not include premium items.
   b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

9. Allowances: Refer to individual Specification Sections and "Allowance" provisions in Division 01 2100 for allowances that control product selection and for procedures required for processing such selections.

2.2 PRODUCT SUBSTITUTIONS CRITERIA

A. Timing: Architect may consider requests for substitution if received within thirty (30) calendar days after the “Notice to Proceed” or before the first (1st) “Application for Payment.” Requests received after that time may be considered or rejected at discretion of Architect without explanation.

B. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action or reason, except to record noncompliance with these requirements:

1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
2. Requested substitution does not require extensive revisions to the Contract Documents.
3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
4. Substitution request is fully documented and properly submitted.
5. Requested substitution will not affect work of other Trades Contractor's construction time schedule.
6. Requested substitution has received necessary approvals of authorities having jurisdiction.
7. Requested substitution is compatible with other portions of the Work.
8. Requested substitution has been coordinated with other portions of the Work.
9. Requested substitution provides specified warranty.
10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

2.3 COMPARABLE PRODUCTS

A. Where products or manufacturers are specified by name (except noted as “basis-of-design), submit the following, in addition to other required submittals, to obtain approval of an unnamed product:

1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

3.1 Architect’s “Substitution Request” form included at end of this Specification Section.

END OF SECTION 01 6000

FRENCH associates

architects planners interiors

SUBSTITUTION REQUEST

Project: _____ Substitution Request Number: _____

_____ From: _____

To: _____ Date: _____

_____ A/E Project Number: _____

Re: _____ Contract For: _____

Specification Title: _____ Description: _____

Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: _____

Manufacturer: _____ Address: _____ Phone: _____

Trade Name: _____ Model No.: _____

Installer: _____ Address: _____ Phone: _____

History: ☐ New product ☐ 2-5 years old ☐ 5-10 yrs old ☐ More than 10 years old

Differences between proposed substitution and specified product: _____

_____

_____

☐ Point-by-point comparative data attached - < REQUIRED BY A/E >

Reason for not providing specified item: _____

_____

Similar Installation:

Project: _____ Architect: _____

Address: _____ Owner: _____

_____ Date Installed: _____

Proposed substitution affects other parts of Work: ☐ No ☐ Yes; explain _____

_____

Savings to Owner for accepting substitution (if applicable): _____ ($ _____).

Proposed substitution changes Contract Time: ☐ No ☐ Yes [Add] [Deduct] _____ days.

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports
< REQUIRED BY A/E >

SUBSTITUTION REQUEST (CONT'D)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

_____

Telephone: _____

Attachments: _____

_____

_____

_____

A/E's REVIEW AND ACTION

Note: Should the Architect not respond within Twelve (12) calendar days of the dated date of Request, the proposed substitution is considered rejected.

☐ Substitution approved - Make submittals in accordance with Specification Section 01330.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Printed name: _____ Title: _____

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ A/E

_____

_____

_____

_____

_____

_____

cc: Technical Specifications Committee

SECTION 01 7300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. General installation of products.
4. Coordination of Owner-installed products and materials.
5. Progress cleaning.
6. Starting and adjusting.
7. Protection of installed construction.
8. Correction of the Work.

B. Related Sections include the following:

1. Division 01 3100 Section "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
2. Division 01 3300 Section "Submittal Procedures" for submitting surveys.
3. Division 01 7329 Section "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
4. Division 01 7700 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.3 SUBMITTALS

A. Qualification Data: For land surveyor or professional engineer.

B. Certificates: Submit certificate signed by land surveyor or professional engineer certifying that location and elevation of improvements comply with requirements.

C. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

D. Certified Surveys: Submit two (2) copies signed by land surveyor and/or professional engineer.

E. Final Property Survey: Submit five (5) copies showing the Work performed and record survey data.

1.4 QUALITY ASSURANCE

A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.

1. Before construction, verify the location and points of connection of utility services.

B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.

1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

a. Description of the Work.
b. List of detrimental conditions, including substrates.
c. List of unacceptable installation tolerances.
d. Recommended corrections.

2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Existing Utility Information: Furnish information to local utility, Owner and Architect that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Owner and Architect not less than seven (7) calendar days in advance of proposed utility interruptions. Provide information on length of interruptions.
2. Do not proceed with utility interruptions without Owner's and Architect's written permission.

D. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

E. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 CONSTRUCTION LAYOUT

A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect and Construction Manager promptly.

B. General: Engage a land surveyor or professional engineer to lay out the Work using accepted surveying practices.

1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
3. Inform installers of lines and levels to which they must comply.
4. Check the location, level and plumb, of every major element as the Work progresses.
5. Notify Architect and Construction Manager when deviations from required lines and levels exceed allowable tolerances.
6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.

C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.

D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect and Construction Manager.

3.4 FIELD ENGINEERING

A. Identification: Owner will identify existing benchmarks, control points, and property corners.

B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect or Construction Manager. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect and Construction Manager before proceeding.
2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

C. Benchmarks: Establish and maintain a minimum of two (2) permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.

1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.

E. Final Property Survey: Prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by **land surveyor** or **professional engineer** that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.

1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.
2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

3.5 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
4. Maintain minimum headroom clearance of 8 feet (2.4 m) in spaces without a suspended ceiling.

B. Building Envelope Integrity: The completed project must provide a building enclosure that does not allow water to penetrate the building envelope. Outside air infiltration into the building must be minimized unless controlled or part of hvac system operation. Outside air infiltration is not allowable in a quantity that can allow freezing or negatively impact piping (plumbing, fire protection, hvac), hvac systems, electrical systems or any other building system.

C. Structural Integrity: All walls, ceilings, soffits and other components must be adequately supported to remain plumb and square. Provide bracing as required to prevent sway, cracking or collapse.

D. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

E. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

F. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

G. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

H. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

I. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
2. Allow for building movement, including thermal expansion and contraction.
3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

J. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

K. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 OWNER-INSTALLED PRODUCTS AND MATERIALS

A. Site Access: Provide access to Project site for Owner's construction forces.

B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction forces.

1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
2. Preinstallation Conferences: Include Owner's construction forces at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction forces if portions of the Work depend on Owner's construction.

3.7 PROGRESS CLEANING

A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold materials more than seven (7) calendar days during normal weather or three (3) calendar days if the temperature is expected to rise above 80 deg F (27 deg C).
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.

C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 01 4000 Section "Quality Requirements."

3.9 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.10 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 7329 Section "Cutting and Patching."

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to their specified condition.

C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01 7300

Abatement Mass Demolition Scope

SECTION 01 7329 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes procedural requirements for cutting and patching of items indicated but not limited to the following:

1. Architectural work.

B. Related Sections include the following:

1. Division 02 4119 Section "Selective Structure Demolition" for demolition of selected portions of the building.

1.3 DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.

B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 QUALITY ASSURANCE

A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or results that increase maintenance or decreased operational life or safety.

C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.

D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1.5 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections.

B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.

1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

3.3 PERFORMANCE

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Proceed with patching after construction operations requiring cutting are complete.

C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

    a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    b. Restore damaged pipe covering to its original condition.

3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance.

4. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

    a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.

5. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.

D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01 7329

SECTION 02 4116 - STRUCTURE DEMOLITION

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. This Section includes the following:

1. Demolition and removal of buildings.
2. Abandoning in place and removing below-grade construction.
3. Disconnecting, capping or sealing, and abandoning in-place and removing site utilities.
4. Salvaging items for reuse by Owner.

1.3 DEFINITIONS

A. Demolish: Completely remove and legally dispose of off-site.

B. Recycle: Recovery of demolition waste for subsequent processing in preparation for reuse.

C. Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse. Include fasteners or brackets needed for reattachment elsewhere.

1.4 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor and must be legally disposed of from Owner’s property.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.5 SUBMITTALS

A. Qualification Data: For refrigerant recovery technician.

B. Proposed Protection Measures: Submit informational report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.

1. Adjacent Buildings: Detail special measures proposed to protect adjacent buildings to remain.

C. Schedule of Building Demolition Activities: Indicate the following:

1. Detailed sequence of demolition work, with starting and ending dates for each activity.
2. Temporary interruption of utility services.
3. Shutoff and capping or re-routing of utility services.

D. Building Demolition Plans: Drawings indicating the following:

1. Locations of temporary protection and means of egress for adjacent occupied buildings.

E. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.

F. Predemolition Photographs or Video: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by building demolition operations. Comply with Division 01 3233 Section "Photographic Documentation." Submit before the Work begins.

G. Landfill Records: Indicate receipt and acceptance of hazardous waste by a landfill facility licensed to accept hazardous wastes.

H. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present and was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

1.6 QUALITY ASSURANCE

A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.

B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

C. Standards: Comply with ANSI A10.6 and NFPA 241.

D. Predemolition Conference: Conduct conference at Project site to comply with requirements in Division 01 3100 Section "Project Management and Coordination." Review methods and procedures related to building demolition including, but not limited to, the following:

1. Inspect and discuss condition of construction to be demolished.
2. Review structural load limitations of existing structures.
3. Review and finalize building demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review and finalize protection requirements.
5. Review procedures for noise control and dust control.
6. Review procedures for protection of adjacent buildings.
7. Review items to be salvaged and returned to Owner.

1.7 PROJECT CONDITIONS

A. Buildings and/or sections of building to be demolished will be vacated and their use discontinued before start of the Work.

B. Owner assumes no responsibility for buildings and structures to be demolished.

1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
2. Before building demolition, Owner will remove the following items:

a. **<Insert items to be removed by Owner.>**

C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. Hazardous materials will be removed by Owner before start of the Work.
2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.

D. On-site storage or sale of removed items or any materials is not permitted on Owner's property.

1.8 COORDINATION

A. Arrange demolition schedule so as not to interfere with Owner's on-site operations or operations of adjacent occupied buildings.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. Satisfactory Soils: Comply with requirements in Division 31 2000 Section "Earth Moving."

PART 3 - EXECUTION

3.1 Contractor shall contact the Miss Dig (800-484-7171) and all public utility companies for specific public utility locations. The GRPS Project Manager shall also notify electrical and plumbing maintenance supervisors and Information Technology supervisor.

3.2 DEMOLITION CONTRACTORS

A. Qualified Demolition Contractor:

1. **<Insert, in separate subparagraphs, name of contractor prequalified to perform the Work of this Section.>**

3.3 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting demolition operations.

B. Review Project Record Documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.

C. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations. Comply with Division 01 Section "Photographic Documentation."

D. Engage a professional engineer to perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during building demolition operations.

1. Steel Tendons: Locate tensioned steel tendons and include recommendations for de-tensioning.

E. Verify that hazardous materials have been remediated before proceeding with building demolition operations.

3.4 PREPARATION

A. Refrigerant: Remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction before starting demolition.

B. Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving buildings and structures to be demolished.

1. Owner will arrange to shut off indicated utilities when requested by Contractor.
2. Arrange to shut off indicated utilities with utility companies.
3. If removal, relocation, or abandonment of utility services will affect adjacent occupied buildings, then provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.
4. Cut off pipe or conduit a minimum of 24 inches (610 mm) below grade. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing according to requirements of authorities having jurisdiction.

C. Existing Utilities: Refer to Divisions 22 and Divisions 33 Sections for shutting off, disconnecting, removing, and sealing or capping utilities. Do not start demolition work until utility disconnecting and sealing have been completed and verified in writing.

D. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent unexpected movement or collapse of construction being demolished.

1. Strengthen or add new supports when required during progress of demolition.

E. Salvaged Items: Comply with the following:

1. Clean salvaged items of dirt and demolition debris.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to storage area designated by Owner.
5. Protect items from damage during transport and storage.

3.5 PROTECTION

A. Existing Facilities: Protect adjacent walkways, loading docks, building entries, and other building facilities during demolition operations. Maintain exits from existing buildings.

B. Existing Utilities: Maintain utility services to remain and protect from damage during demolition operations.

1. Do not interrupt existing utilities serving adjacent occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction.
2. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and authorities having jurisdiction.

    a. Provide at least seven (7) calendar days' notice to occupants of affected buildings if shutdown of service is required during changeover.

C. Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated. Comply with requirements in Division 01 Section "Temporary Facilities and Controls."

1. Protect adjacent buildings and facilities from damage due to demolition activities.
2. Protect existing site improvements, appurtenances, and landscaping to remain.
3. Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.
4. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
5. Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.
6. Protect walls, windows, roofs, and other adjacent exterior construction to remain and that are exposed to building demolition operations.
7. Erect and maintain dustproof partitions and temporary enclosures to limit dust, noise, and dirt migration to occupied portions of adjacent buildings.

D. Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.

3.6 DEMOLITION, GENERAL

A. General: Demolish indicated existing buildings completely. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Do not use cutting torches until work area is cleared of flammable materials. Maintain portable fire-suppression devices during flame-cutting operations.
2. Maintain fire watch during and for at least two (2) hours after flame cutting operations.
3. Maintain adequate ventilation when using cutting torches.
4. Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.

B. Engineering Surveys: During demolition, perform surveys to detect hazards that may result from building demolition activities.

C. Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide

alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

2. Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations. Do not use water when it may damage adjacent construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.

D. Explosives: Use of explosives is prohibited, unless approved by the Owner and Governing Agencies having jurisdiction.

3.7 DEMOLITION BY MECHANICAL MEANS

A. Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.

B. Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

1. Remove structural framing members and lower to ground by method suitable to minimize ground impact and dust generation.

C. Salvage: Items to be salvaged are indicated on Drawings.

1. Doors and door hardware.
2. Windows.
3. Cabinets.
4. Mirrors.
5. Chalkboards.
6. Tackboards.
7. Marker boards.
8. Plumbing fixtures.
9. **<Insert items to be salvaged.>**

D. Below-Grade Construction: Abandon foundation walls and other below-grade construction. Cut below-grade construction flush with grade.

E. Below-Grade Construction: Demolish foundation walls and other below-grade construction that are within footprint of new construction and extending 5 feet (1.5 m) outside footprint indicated for new construction. Abandon below-grade construction outside this area.

1. Remove below-grade construction, including basements, foundation walls, and footings, to depths indicated.

F. Below-Grade Construction: Demolish foundation walls and other below-grade construction.

1. Remove below-grade construction, including basements, foundation walls, and footings, to depths indicated.

G. Existing Utilities: Abandon existing utilities and below-grade utility structures. Cut utilities flush with grade.

H. Existing Utilities: Demolish existing utilities and below-grade utility structures that are within 5 feet (1.5 m) outside footprint indicated for new construction. Abandon utilities outside this area.

1. Fill abandoned utility structures with Architect/Engineer approved soil materials according to backfill requirements in Division 31 2000 Section "Earth Moving."
2. Piping: Disconnect piping at unions, flanges, valves, or fittings.
3. Wiring Ducts: Disassemble into unit lengths and remove plug-in and disconnecting devices.

I. Existing Utilities: Demolish and remove existing utilities and below-grade utility structures.

1. Piping: Disconnect piping at unions, flanges, valves, or fittings.
2. Wiring Ducts: Disassemble into unit lengths and remove plug-in and disconnecting devices.

3.8 SITE RESTORATION

A. Below-Grade Areas: Rough grade below-grade areas ready for further excavation or new construction.

B. Below-Grade Areas: Completely fill below-grade areas and voids resulting from building demolition operations with approved soil materials according to backfill requirements in Division 31 2000 Section "Earth Moving."

1. Compact fill areas to 90% compaction.

C. Site Grading: Uniformly rough grade area of demolished construction to a smooth surface, free from irregular surface changes. Provide a smooth transition between adjacent existing grades and new grades.

3.9 REPAIRS

A. Promptly repair damage to adjacent buildings caused by demolition operations.

3.10 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove demolition waste materials from Project site and legally dispose of them in an EPA-approved landfill acceptable to authorities having jurisdiction.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Do not burn demolished materials on the Owner’s property.

3.11 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations. Return adjacent areas to condition existing before building demolition operations began.

END OF SECTION 02 4116

SECTION 02 4119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following:

1. Demolition and removal of selected portions of building or structure.
2. Demolition and removal of selected site elements.
3. Salvage of existing items to be reused or recycled.

B. Related Sections include the following:
1. Division 31 1000 Section "Site Clearing" for site clearing and removal of above and below-grade improvements.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.

C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during selective demolition remain Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.

1. Coordinate with Owner's archaeologist or historical adviser, who will establish special procedures for removal and salvage.

1.5 SUBMITTALS

A. Qualification Data: For demolition firm, professional engineer and refrigerant recovery technician.

B. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's building manager's and other tenants' on-site operations are uninterrupted.
2. Interruption of utility services. Indicate how long utility services will be interrupted.
3. Coordination for shutoff, capping, and continuation of utility services.
4. Use of elevator and stairs.
5. Locations of proposed dust- and noise-control temporary partitions and means of egress, including for other tenants affected by selective demolition operations.
6. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
7. Means of protection for items to remain and items in path of waste removal from building.

C. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.

1.6 QUALITY ASSURANCE

A. Demolition Firm Qualifications: An experienced firm in continuous business for at least five (5) years that has specialized in demolition work similar in material and extent to that indicated for this Project.

1. Provide Firm profile and history and a list of Projects including all pertinent information.

B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

D. Standards: Comply with ANSI A10.6 and NFPA 241.

E. Pre-demolition Conference: Conduct conference at Project site to comply with requirements in Division 01 3100 Section "Project Management and Coordination." Review methods and procedures related to selective demolition including, but not limited to, the following:

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review structural load limitations of existing structure.
3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
5. Review areas where existing construction is to remain and requires protection.

1.7 PROJECT CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

1. Comply with requirements specified in Division 01 1000 Section "Summary."

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

1. Before selective demolition, Owner will remove the following items:

a. **<Insert items to be removed by Owner.>**

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. Hazardous materials will be removed by Owner before start of the Work.
2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.

E. Storage or sale of removed items or materials on-site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

1.8 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 Contractor shall contact the Miss Dig (800-484-7171) and all public utility companies for specific public utility locations. The GRPS Project Manager shall also notify electrical and plumbing maintenance supervisors and Information Technology supervisor.

3.2 EXAMINATION

A. Verify that utilities have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

E. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.

F. Survey of Existing Conditions: Record existing conditions by use of measured drawings, preconstruction photographs, preconstruction videotapes and templates.

1. Comply with requirements specified in Division 01 Section "Photographic Documentation."
2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

G. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.3 UTILITY SERVICES, MECHANICAL and ELECTRICAL SYSTEMS

A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.

1. Comply with requirements for existing services/systems interruptions specified in Division 01 1000 Section "Summary."

B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.

1. Building manager will arrange to shut off indicated services/systems when requested by Contractor.
2. Arrange to shut off indicated utilities with utility companies.
3. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
4. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

    a. Where entire wall is to be removed, existing services/systems may be removed with removal of the wall.

3.4 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Comply with requirements for access and protection specified in Division 01 5000 Section "Temporary Facilities and Controls."

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
4. Cover and protect furniture, furnishings, and equipment that have not been removed.
5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Division 01 5000 Section "Temporary Facilities and Controls."

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

1. Strengthen or add new supports when required during progress of selective demolition.

3.5 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
5. Maintain adequate ventilation when using cutting torches.
6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
9. Dispose of demolished items and materials promptly. Comply with requirements in Division 01 7419 Section "Construction Waste Management and Disposal."

B. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner or indicated on Drawings.
5. Protect items from damage during transport and storage.

C. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.6 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Concrete: Demolish in small sections. Cut concrete to a depth of at least 3/4 inch (19 mm) at junctures with construction to remain, using power-driven saw. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete indicated for selective demolition. Neatly trim openings to dimensions indicated.

B. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals, using power-driven saw, then remove concrete between saw cuts.

C. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.

D. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, then break up and remove.

E. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI-WP and its Addendum.

1. Remove residual adhesive and prepare substrate for new floor coverings by one of the methods recommended by RFCI.

F. Roofing: Remove no more existing roofing than can be covered in one day by new roofing and so that building interior remains watertight and weather-tight. Refer to Division 07 Section “Roofing” types for new roofing requirements.

1. Remove existing roof membrane, flashings, copings, and roof accessories.
2. Remove existing roofing system down to substrate.

G. Air-Conditioning Equipment: Remove equipment without releasing refrigerants.

1. Discard of refrigerants in compliance to Authorities and Agencies having jurisdiction.

3.7 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
4. Comply with requirements specified in Division 01 7419 Section "Construction Waste Management and Disposal."

B. Burning: Burning of demolished or any materials will not be permitted in Owner’s property.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.8 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.9 SELECTIVE DEMOLITION SCHEDULE

A. Existing [**Items**] [**Construction**] to Be Removed: <**Insert description of items and construction to be removed.**>

B. Existing Items to Be Removed and Salvaged: <**Insert description of items to be removed and salvaged.**>

C. Existing Items to Be Removed and Reinstalled: <**Insert description of items to be removed and reinstalled.**>

D. Existing Items to Remain: <**Insert description of items to remain.**>

END OF SECTION 02 4119

SECTION 311012
FINE GRADING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Attention is directed to Bidding and Contract Requirements, and General and Supplemental Requirements which are hereby made a part of this section.

B. CAD files will be made available for use in construction staking. Contact the engineer regarding applicable fee and requirements for signing of the CAD File Transfer Agreement.

1.02 SUMMARY

A. Work included: All labor, materials, necessary equipment and services to complete the Fine Grading work, as indicated on the drawings, as specified herein or both, except as for items specifically indicated as not in contract on the plans.

B. Related work specified elsewhere:
   1. Division 312000 Section “Earth Moving.”
   2. Division 329200 Section “Turfs and Grasses.”

1.03 SITE INSPECTION

A. The Contractor shall visit the site and acquaint himself with all existing conditions. The Contractor shall be responsible for his own subsurface investigations, as necessary, to satisfy requirements of this Section. All subsurface investigations shall be performed only under time schedules and arrangements approved in advance by the landscape Engineer or Owner's Representative.

1.04 UTILITIES

A. Before starting site operations verify that the earlier Contractors have disconnected all temporary utilities which might interfere with the fine grading work.

B. Locate all existing, active utility lines traversing the site and determine the requirements for their protection. Preserve in operating condition all active utilities adjacent to or transversing the site that are designated to remain.

C. Observe rules and regulations governing respective utilities in working under requirements of this section. Adequately protect utilities from damage, remove or relocate as indicated, specified or required. Remove, plug or cap inactive or abandoned utilities encountered in excavation. Record location of active utilities.

D. Contact “Miss Dig” for existing utilities survey confirmation.

1.05 QUALITY ASSURANCE

A. Requirements of all applicable building codes and other public agencies having jurisdiction upon the work.

B. Primary emphasis should be given to the aesthetic appearance and functioning of berming and swales, as directed by the Landscape Engineer or Owner's Representative. The Contractor shall employ skilled personnel and any necessary equipment to insure that finish grading is smooth, aesthetically pleasing, drains well and is ideal for receiving sod and plant materials.

PART 2 PRODUCTS

2.01 MATERIALS

A. Existing Soil:

1. Strip existing topsoil for new construction unless otherwise directed by Owner's Representative, free from debris, sod, biodegradable materials and other deleterious materials. The Contractor shall insure that all existing soil has sufficient percolation and surface drainage to support grasses and plant material and that extreme compaction occurs only in areas to receive paving.
2. In areas to receive seed, verify that soil is scarified to depth of 3 inches and that soil contains enough organic matter to support and encourage rooting of seeded lawn.

PART 3 EXECUTION

3.01 EXAMINATION

A. Job Conditions

1. Dust control: Use all means necessary to prevent dust from construction operations from being a nuisance to adjacent property owners and from damaging finish surfaces on adjacent building, paving, etc. Methods used for dust control are subject to approval by the Engineer or Owner's Representative.
2. Burning: On-site burning will not be permitted.
3. Protection: Use all means necessary to protect curbs, gutters, sprinklers, utilities and vegetation designated to remain, and, in the event of damage, immediately make all repairs, replacements and dressings to damaged plants necessary to the approval of the Landscape Engineer. Contractor shall incur all cost for the replacement of damaged objects and vegetation.

3.02 SCHEDULING

A. Schedule all work in a careful manner with all necessary consideration for adjoining property owners and the public.

B. Coordinate schedule with other Contractors to avoid conflicts with their work.

3.03 EXCAVATION

A. Excavate where necessary to obtain subgrades, percolation and surface drainage as required.

B. Materials to be excavated are unclassified.

C. Remove entirely any existing obstructions after approval by the Engineer's or Owner's Representative.

D. Remove from site and dispose of debris and excavated material not required.

3.04 GRADING

A. The Contractor shall establish finished grades as shown on the construction plans and as directed by the Engineer, including areas where the existing grade has been disturbed by other work.

B. Finished grading shall be smooth, aesthetically pleasing, drain well and ready to receive sod and other plant material to full satisfaction of the Owner's Representative, Engineer and Construction Manager.

3.05 COMPACTION

A. Compact each layer of fill in designated areas with approved equipment to achieve a maximum density at optimum moisture, AASHTO T 180 - latest edition.

1. Under buildings, roadways, curbs, walks and other paved areas: compaction shall be to 95% of maximum density.
2. Under landscaped area, compaction shall not exceed 85% of maximum density.

B. No backfill shall be placed against any masonry or other exposed building surface until permission has been given by the Owner's Representative, and in no case until the masonry has been in place seven days.

C. Compaction in limited areas shall be obtained by the use of mechanical tampers or approved hand tampers. When hand tampers are used, the materials shall be deposited in layers not more than four inches thick. The hand tampers used shall be suitable for this purpose and shall have a face area of not more than 100 square inches. Special precautions shall be taken to prevent any wedging action against masonry or other exposed building surfaces.

3.06 CORRECTION OF GRADE

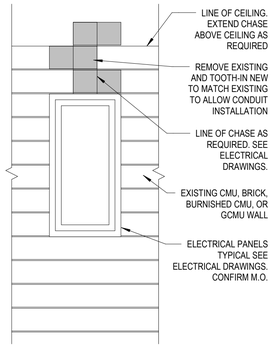
A. Bring to required grade levels areas where settlement, erosion or other grade changes occur. Adjust grades as required to carry drainage away from buildings and to prevent ponding around the buildings and on pavements.

B. Remove all rock or objectionable material larger than one inch in any direction prior to commencing landscaping.

C. Contractor shall be responsible for stabilizing grades by approved methods prior to landscaping, and shall be responsible for correction of grades as mentioned above, and clean up of any wash outs or erosion.

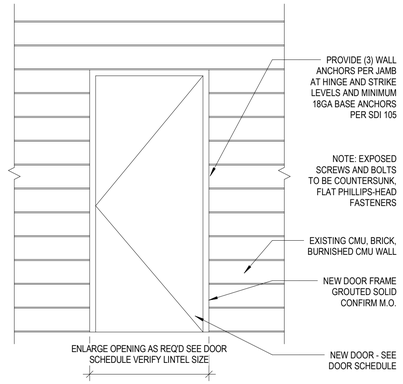
END OF SECTION

25118 GRPS SESA ABATEMENT DRAWINGS (For Reference Only)



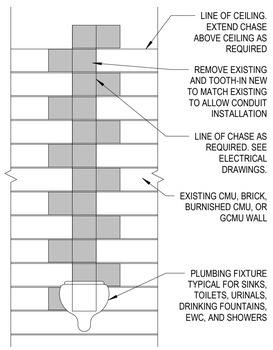
TYPICAL ELECTRICAL DEVICE INSTALLATION IN EXISTING WALL

SCALE: 1/2" = 1'-0"



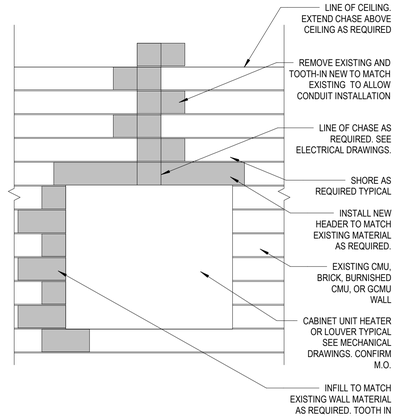
TYPICAL DOOR INSTALLATION IN EXISTING MASONRY OPENING

SCALE: 1/2" = 1'-0"



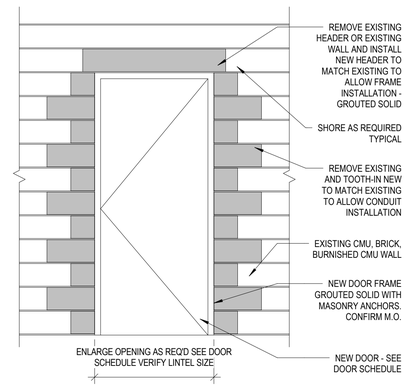
TYPICAL PLUMBING FIXTURE INSTALLATION IN EXISTING WALL

SCALE: 1/2" = 1'-0"



TYPICAL CABINET UNIT HEATER OR LARGE LOUVER INSTALLATION IN EXISTING WALL

SCALE: 1/2" = 1'-0"



TYPICAL DOOR INSTALLATION IN EXISTING MASONRY WALL

SCALE: 1/2" = 1'-0"

DEMOLITION PLAN KEY NOTES (CONT'D)

10.1 REMOVE EXISTING WALL MOUNTED ITEMS SUCH AS CHALK BOARDS/TACK BOARDS/MARKER BOARDS PLAQUES, ETC. SALVAGE FOR RE-INSTALLATION.

10.2 REMOVE EXISTING FOLDING PARTITION PANELS, SLIDING TRACK, HANGERS, ETC.

10.3 REMOVE EXISTING TOILET ACCESSORIES INCLUDING PAPER TOWEL DISPENSER, SOAP DISPENSER, MIRROR, ETC.

10.4 REMOVE EXISTING TOILET PARTITIONS AND ATTACHED ACCESSORIES.

10.5 REMOVE EXISTING LOCKERS AND BASE.
10.5A REMOVE EXISTING LOCKERS ONLY. EXISTING BASE TO REMAIN.
10.5B REMOVE EXISTING LOCKERS AND BASE. SALVAGE FOR RE-INSTALLATION.

11.1 REMOVE EXISTING GYMNASIUM EQUIPMENT INCLUDING BASKETBALL HOOPS, BACKBOARDS, PEG BOARDS, ETC.

11.2 REMOVE EXISTING WALL PADS AND RELATED MOUNTING ACCESSORIES.

11.3 REMOVE EXISTING SCOREBOARD. COORDINATE WITH ELECTRICAL DRAWINGS.

11.4 REMOVE EXISTING RECESSED TABLES, MOUNTING ACCESSORIES AND METAL TRIM ASSOCIATED.

12.1 REMOVE EXISTING CASEWORK IN ITS ENTIRETY. COORDINATE WITH ALL THE OTHER TRADES.

12.2 REMOVE EXISTING COAT/STORAGE CUBBY INCLUDING HOOKS, SHELF, MOUNTING BRACKETS, ETC.

12.4 REMOVE EXISTING MILLWORK IN ITS ENTIRETY. COORDINATE WITH ALL THE OTHER TRADES.

12.5 REMOVE EXISTING WINDOW TREATMENTS INCLUDING MOUNTING BRACKETS.

12.6 REMOVE EXISTING BOOK SHELVES, CIRCULATION DESK, TABLES, AND CHAIRS.

22.1 REMOVE EXISTING PLUMBING FIXTURES PER MECHANICAL DRAWINGS.
22.1A REMOVE SALVAGE AND REINSTALL EXISTING PLUMBING FIXTURES PER MECHANICAL DRAWINGS.

22.2 REMOVE EXISTING DRINKING FOUNTAIN/EWC PER MECHANICAL DRAWINGS.

23.1 REMOVE EXISTING HORIZONTAL UNIT VENTILATOR, INCLUDING SHROUD WHERE PRESENT. COORDINATE WITH MECHANICAL FOR EXTENT OF PIPING REMOVAL. PREP SURFACES TO RECEIVE NEW FINISHES.

23.2 REMOVE EXISTING FIN TUBE/CONVECTOR COVER. COORDINATE WITH MECHANICAL FOR EXTENT OF PIPING REMOVAL.

23.3 REMOVE EXISTING EXTERIOR MECHANICAL LOUVER PER MECHANICAL DRAWINGS.
23.3A REMOVE, SALVAGE AND REINSTALL EXTERIOR MECHANICAL LOUVER.

23.4 REMOVE EXISTING CEILING MOUNTED UNIT HEATER. COORDINATE WITH MECHANICAL AND ELECTRICAL.

23.5 REMOVE EXISTING WALL MOUNTED UNIT HEATER. PATCH AND REPAIR WALL BY INFILL THE OPENING WITH INSULATION AND PROVIDE COVER ENCLOSURE. COORDINATE WITH MECHANICAL AND ELECTRICAL.

26.1 REMOVE EXISTING LIGHT FIXTURES PER ELECTRICAL DRAWINGS.

26.2 REMOVE EXISTING TV MONITORS INCLUDING SUPPORT BRACKETS. COORDINATE WITH ELECTRICAL AND TECHNOLOGY.

26.3 REMOVE EXISTING ELECTRICAL EQUIPMENT PER ELECTRICAL DRAWINGS.

32.1 REMOVE EXISTING PLANTS, TREES AND PAVEMENT FROM EXISTING COURTYARD AND PREPARE FOR NEW CONCRETE SLAB ON GRADE. REMOVE AND EXISTING STORM DRAINS AND PREPARE EXISTING STORM DRAIN LINES FOR CONNECTION OF NEW.

DEMOLITION GENERAL NOTES

1. REFER TO PROJECT SPECIFICATION MANUAL FOR DEMOLITION CRITERIA BEFORE REMOVING ANY ITEMS.
2. REMOVE AND REPLACE EXISTING CONSTRUCTION AS REQUIRED FOR THE EXECUTION OF NEW WORK.
3. PROTECT EXISTING CONSTRUCTION TO REMAIN AS REQUIRED DURING DEMOLITION AND NEW WORK.
4. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS AND FOR COORDINATION WITH ALL TRADES.
5. DISCONNECT ALL MISCELLANEOUS FEATURES (I.E. ELECTRICAL, MECHANICAL, PLUMBING, ETC.) ASSOCIATED WITH ITEMS TO BE DEMOLISHED (I.E. PARTITIONS, WALLS, CEILINGS, CABINETS ETC.).
6. REMOVAL OF ANY MECHANICAL, ELECTRICAL AND MISCELLANEOUS ITEMS WILL REQUIRE PATCH AND REPAIR OF ADJACENT MATERIALS TO REMAIN SHALL BE PREP AS REQUIRED TO RECEIVE NEW FINISHES.
7. PATCH AND REPAIR ALL SURFACES TO REMAIN TO MATCH EXISTING ADJACENT SURFACES AND PREP AS REQUIRED TO RECEIVE NEW FINISHES.
8. CONTRACTOR SHALL PLACE ANY ITEMS OR MATERIALS TO BE RETAINED IN A SECURE LOCATION AS DIRECTED BY OWNER.
9. REMOVAL OF TACKSTRIPS AS REQUIRED FOR DEMOLITION AND NEW WORK SHALL BE CUT IF POSSIBLE TO LEAVE MAXIMUM AMOUNT INTACT. PATCH AND REPAIR HOLES AT REMOVED LOCATIONS.
10. REMOVAL OF ALL EXISTING WALL AND CEILING MOUNTED SIGNAGE, MAP ROLLS, PROJECTORS, SCREENS, ETC. FOR DEMOLITION AND NEW WORK . PATCH AND REPAIR AS REQUIRED FOR NEW WORK AND FINISHED PAINT.
11. REMOVAL OF ALL EXISTING SPEAKERS, HORNS, FANS, OUTLETS, CLOCKS, ETC. PROVIDE NEW COVER PLATES AND PREP FOR FINISHED PAINT. COORDINATE WITH MECHANICAL AND ELECTRICAL FOR ADDITIONAL INFORMATION.
12. REMOVAL OF MISC DOOR HARDWARE (STOPS, HOLD OPENS, ETC.) FROM EXISTING FRAMES, WALLS, FLOORS, ETC. BONDO EXISTING HOLLOW METAL FRAMING AND PATCH WALLS AS REQUIRED AT REMOVED HARDWARE. PATCH AND REPAIR AS REQUIRED FOR NEW WORK AND FINISHED PAINT.
13. REMOVE EXISTING UNUSED NAILS, SCREWS AND OTHER WALL PROTRUSIONS FROM EXISTING SURFACES TO REMAIN. PATCH AND REPAIR TO MATCH EXISTING SURFACES AND PREP AS REQUIRED TO RECEIVE NEW FINISHES.

DEMOLITION PLAN KEY NOTES

NOTES BELOW ARE INDICATED ON THE DRAWING BY THIS SYMBOL: ◇
NOT ALL KEY NOTES MAY BE USED.

3.1 REMOVE EXISTING SUPPORTED CONCRETE SLAB. COORDINATE EXTENT OF DEMOLITION WITH CIVIL.

3.2 REMOVE EXISTING CONCRETE SIDEWALK.

3.3 SAW CUT EXISTING CONCRETE SLAB AS REQUIRED FOR UNDERGROUND PIPING.

3.4 REMOVE EXISTING RAISED CONCRETE PAD

3.5 REMOVE EXISTING CONCRETE STAIRS

4.1 REMOVE PORTION OF EXISTING EXTERIOR BRICK/MASONRY WALL AS REQUIRED BY NEW CONSTRUCTION.
4.1A REMOVE PORTION OF EXISTING EXTERIOR BRICK/MASONRY WALL FOR INSTALLATION OF NEW OPENING.

4.2 REMOVE EXISTING INTERIOR MASONRY WALL AS REQUIRED BY NEW CONSTRUCTION. REMOVE TO 8" BELOW TOP OF FLOOR SLAB.
4.2A REMOVE PORTION OF EXISTING INTERIOR MASONRY WALL FOR INSTALLATION OF NEW OPENING.

5.1 REMOVE EXISTING STRUCTURAL STEEL, JOISTS, DECK, ETC. AS REQUIRED BY NEW CONSTRUCTION.

5.2 REMOVE EXISTING METAL STAIRS IN ITS ENTIRETY.

6.1 REMOVE EXISTING STUD/GYP PARTITION AS REQUIRED FOR NEW CONSTRUCTION.
6.1A REMOVE PORTION OF EXISTING STUD/GYP PARTITION FOR INSTALLATION NEW DOOR/WINDOW FRAME.

7.1 REMOVE EXISTING ROOFING AS REQUIRED BY NEW CONSTRUCTION.
7.1A REMOVE EXISTING ROOFING AS REQUIRED FOR INSTALLATION OF NEW MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL DRAWINGS.

8.1 REMOVE EXISTING EXTERIOR DOOR AND FRAME IN ITS ENTIRETY.
8.1A REMOVE EXISTING EXTERIOR DOOR AND FRAME FOR INSTALLATION OF NEW REPLACEMENT DOOR AND FRAME.
8.1B REMOVE EXISTING EXTERIOR DOOR ONLY. EXISTING FRAME TO REMAIN.

8.2 REMOVE EXISTING EXTERIOR WINDOW/GLAZING UNIT IN ITS ENTIRETY (TYPICALLY ALUM. UNLESS NOTED OTHERWISE) FOR INSTALLATION OF INFILL. TOOTH IN TO MATCH EXISTING BOND PATTERN.
8.2A REMOVE EXISTING EXTERIOR WINDOW/GLAZING UNIT FOR INSTALLATION OF NEW REPLACEMENT WINDOW.
8.2B REMOVE EXISTING GLAZING ONLY. EXISTING FRAME TO REMAIN.

8.3 REMOVE EXISTING INTERIOR DOOR AND FRAME IN ITS ENTIRETY.
8.3A REMOVE EXISTING INTERIOR DOOR AND FRAME FOR INSTALLATION OF NEW REPLACEMENT DOOR AND FRAME.
8.3B REMOVE EXISTING INTERIOR DOOR ONLY. EXISTING FRAME TO REMAIN.

8.4 REMOVE EXISTING INTERIOR WINDOW UNIT IN ITS ENTIRETY.
8.4A REMOVE EXISTING INTERIOR WINDOW UNIT FOR INSTALLATION OF NEW REPLACEMENT WINDOW UNIT.
8.4B REMOVE EXISTING INTERIOR WINDOW GLAZING ONLY. EXISTING FRAME TO REMAIN.

8.5 REMOVE EXISTING OVERHEAD COILING COUNTER/DOOR IN ITS ENTIRETY.

9.1 REMOVE EXISTING CARPET AND BASE.
9.1A REMOVE EXISTING CARPET. EXISTING GLAZED MASONRY BASE TO REMAIN.

9.2 REMOVE VCT. AND BASE.
9.2A REMOVE EXISTING VCT. AND EXISTING GLAZED MASONRY BASE TO REMAIN.

9.3 REMOVE EXISTING CERAMIC/PORCELAIN TILE AND BASE.
9.3A REMOVE EXISTING CERAMIC/PORCELAIN TILE FLOOR ONLY. EXISTING TILE BASE TO REMAIN.

9.4 REMOVE EXISTING RUBBER/SPORTS FLOORING.

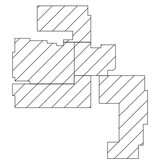
9.5 REMOVE EXISTING FLOORING BY OTHERS.

9.6 REMOVE EXISTING SUSPENDED CEILING SYSTEM IN ITS ENTIRETY, INCLUDING PADS, GRID, SUSPENSION WIRE, ETC.
9.6A REMOVE EXISTING ACOUSTIC CEILING TILES ONLY. EXISTING GRID, SUSPENSION WIRE TO REMAIN.

9.7 REMOVE EXISTING GYPSUM/PLASTER CEILING SYSTEM IN ITS ENTIRETY, INCLUDING SUSPENSION WIRE, FRAMING, ETC.
9.7A REMOVE PORTION OF EXISTING GYPSUM/PLASTER CEILING SYSTEM TO NEAREST JOINT LINE.

9.8 REMOVE EXISTING CONCEALED SPLINE CEILING SYSTEM.

KEY PLAN



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05/21/2025	30% DESIGN DEVELOPMENT	-
06/24/2025	DESIGN DEVELOPMENT	-
10/02/2025	50% CDs	-
11/24/2025	90% CDs	-
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PROJECT

SOUTHEAST ENVIRONMENTAL SCIENCE ACADEMY

SHEET

DEMOLITION NOTES AND DETAILS

PROJECT NUMBER

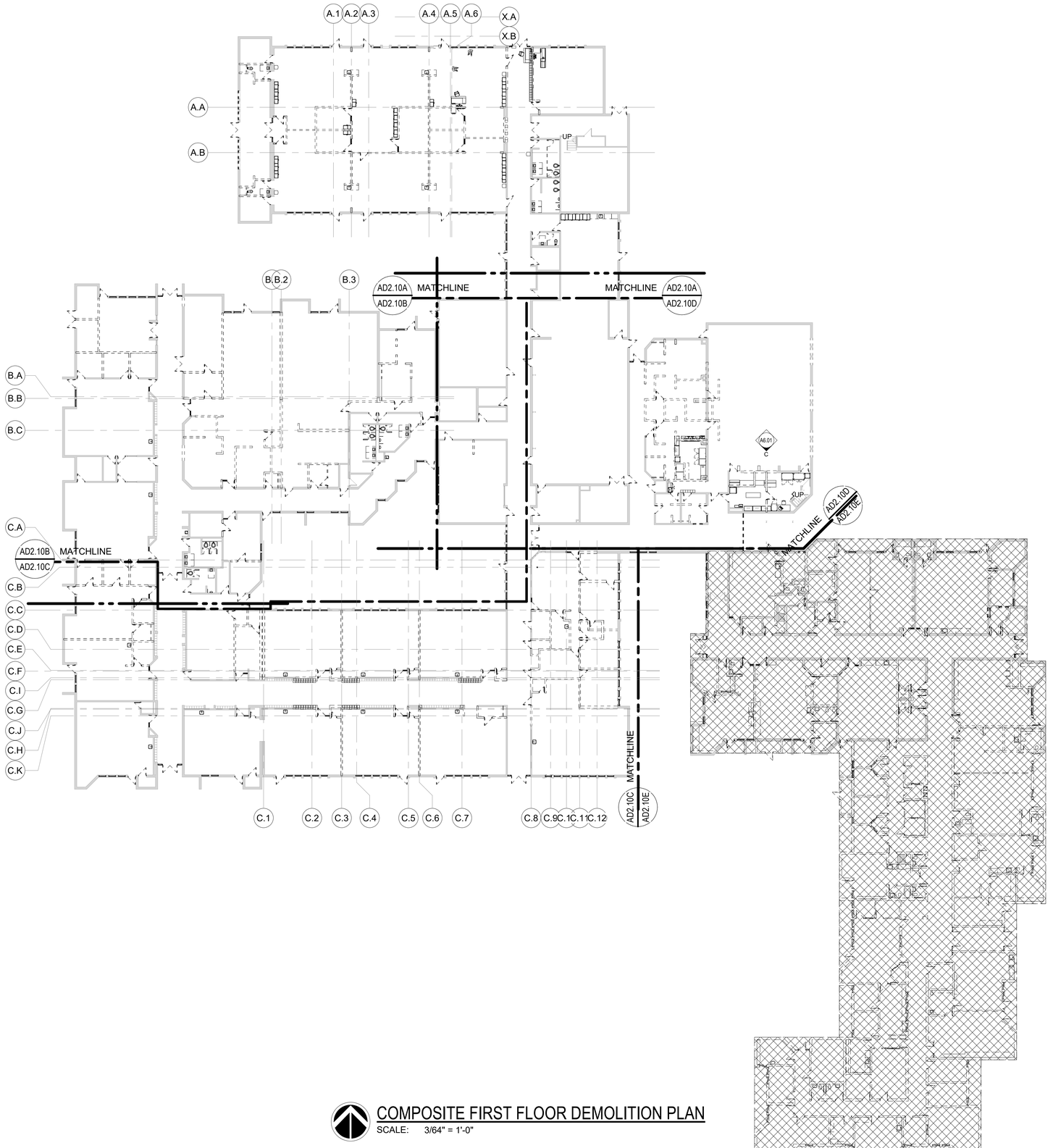
2025-001

SHEET NUMBER

AD2.00

FOR REFERENCE ONLY

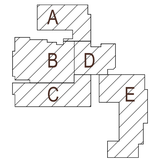
2025-001 - SOUTHEAST ENVIRONMENTAL SCIENCE ACADEMY
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COMPOSITE FIRST FLOOR DEMOLITION PLAN

SCALE: 3/64" = 1'-0"

KEY PLAN



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11/24/2025	90% CDs

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COMPOSITE FIRST FLOOR DEMOLITION PLAN

PROJECT NUMBER

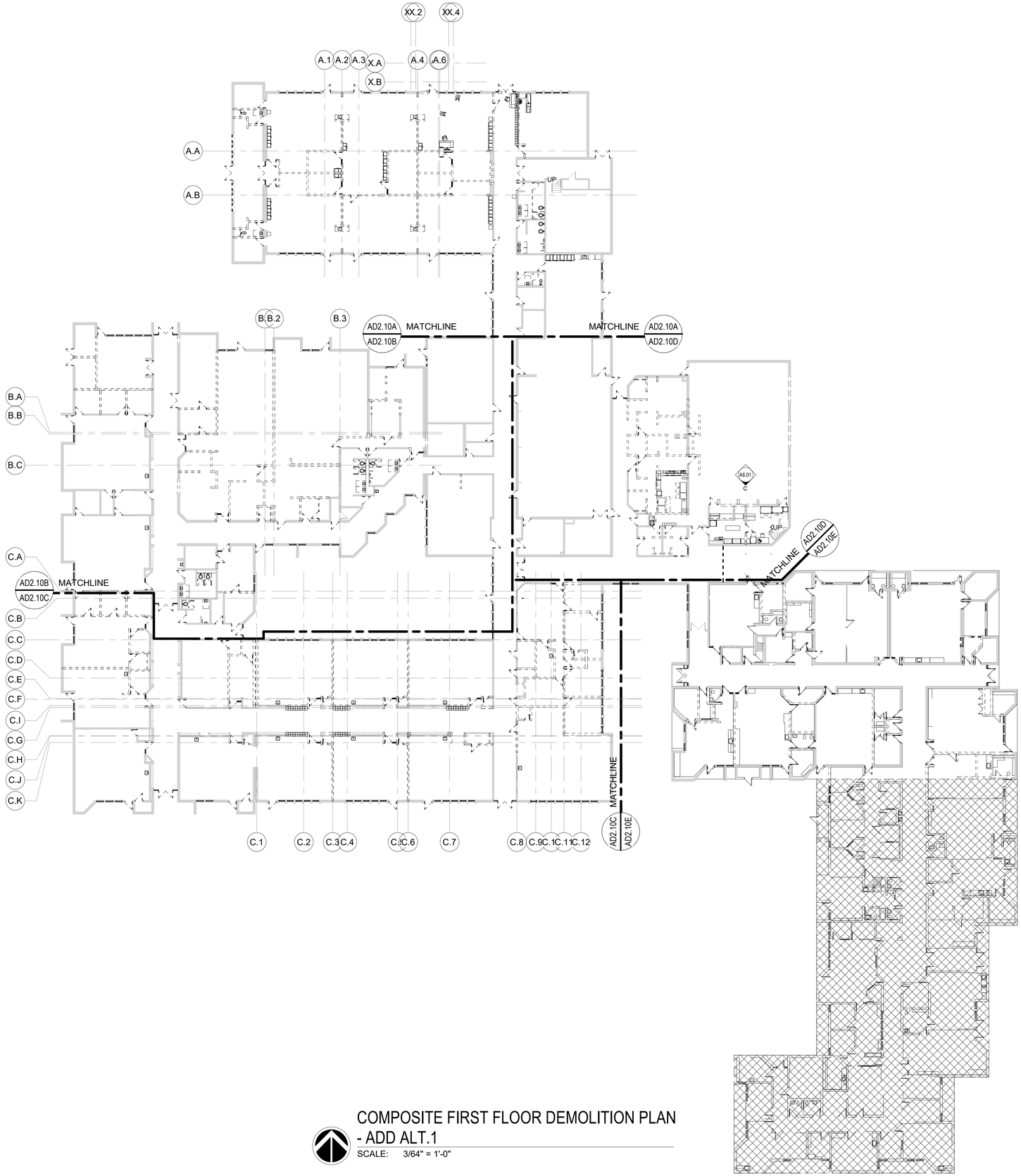
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SHEET NUMBER

AD2.10

FOR REFERENCE ONLY

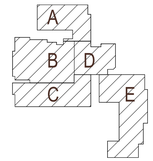
2025-001 SOUTHEAST ENVIRONMENTAL SCIENCE ACADEMY
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COMPOSITE FIRST FLOOR DEMOLITION PLAN - ADD ALT.1

SCALE: 3/64" = 1'-0"

KEY PLAN



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COMPOSITE FIRST FLOOR DEMOLITION PLAN - ADD ALT. 1

PROJECT NUMBER

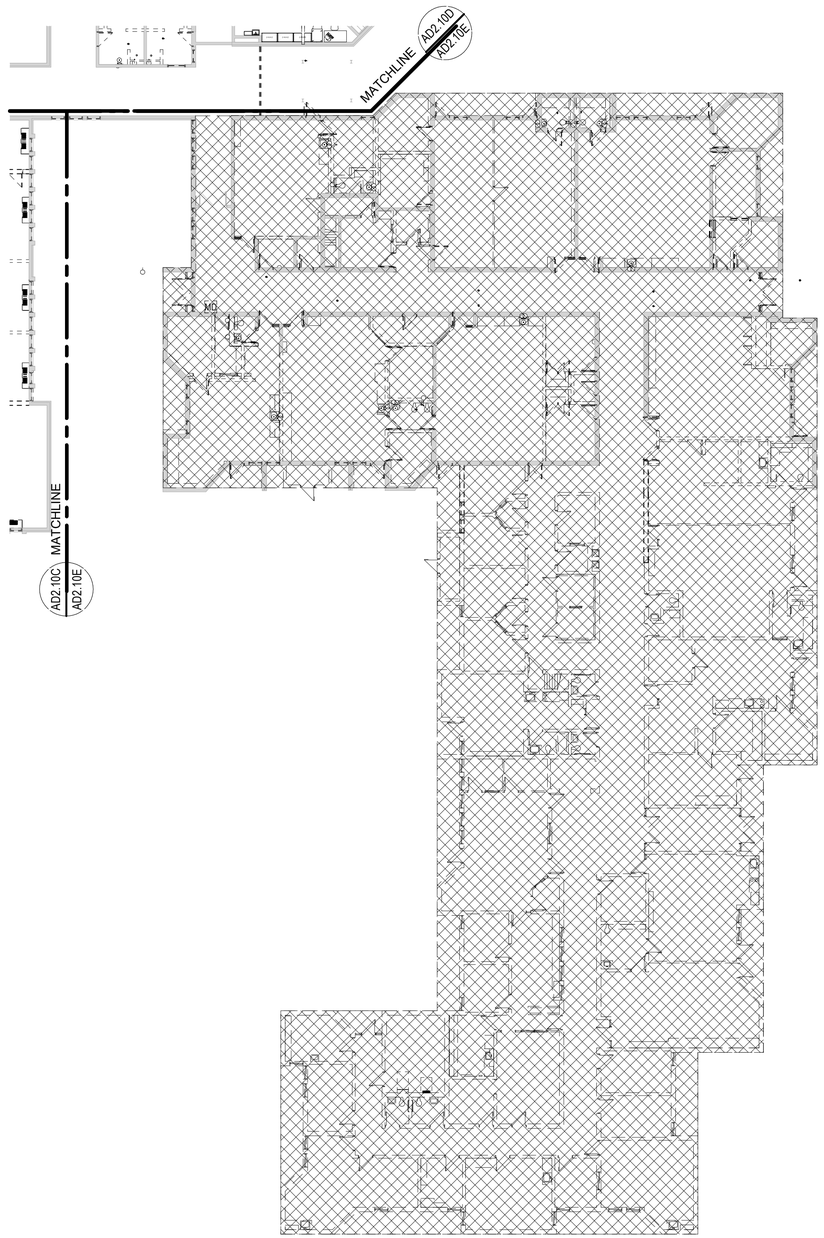
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AD2.11-A.1

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UNIT E FIRST FLOOR DEMOLITION PLAN
SCALE: 1/16" = 1'-0"

DEMOLITION PLAN NOTES

1. REFER TO SHEET AD2.00 FOR DEMOLITION GENERAL NOTES AND KEYNOTES.
2. DASHED LINES REPRESENT DEMOLITION
3. REFER TO HARDWARE SCHEDULE FOR DOOR OPERATING HARDWARE REMOVAL FOR REPLACEMENT.

REFER TO BUILDING WALL SECTIONS FOR ADDITIONAL INFORMATION

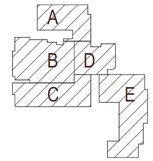
DEMOLITION LEGEND

COMPLETE DEMOLITION OF ALL EXISITING CEILING: ACOUSTICAL LAY-IN, TILE, SPLINE, PLASTER, GYPSUM BOARD INCLUDING ANY FRAMING - U.N.O. REMOVE CEILING MOUNTED EQUIPMENT - SALVAGE AS REQUIRED.

SHADED AREA: COMPLETE DEMOLITION OF FLOORING FINISHES AND WALL BASE INCLUDING ANY ADHESIVES - U.N.O. PREP SUB FLOOR AS REQUIRED FOR NEW WORK. - COORDINATE WITH MEP.

SHADED AREA: COMPLETE DEMOLITION OF EXISTING BUILDING. COORDINATE DISCONNECTING EXISTING UTILITIES WITH CIVIL AND MECHANICAL.

KEY PLAN



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PROJECT
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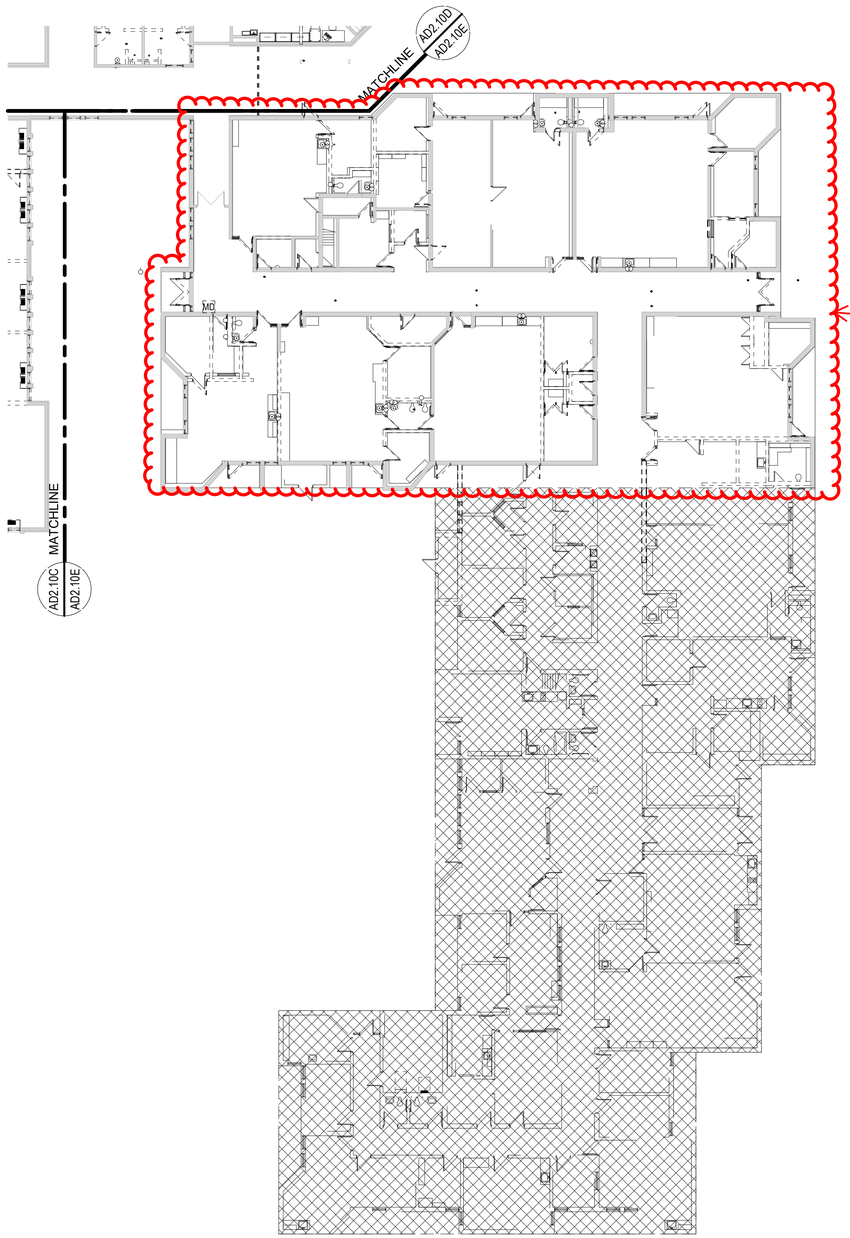
SHEET
UNIT E FIRST FLOOR DEMOLITION PLAN

PROJECT NUMBER
2025-001

SHEET NUMBER
AD2.10E

FOR REFERENCE ONLY

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UNIT E FIRST FLOOR DEMOLITION PLAN - ADD. ALT.1

SCALE: 1/16" = 1'-0"

DEMOLITION PLAN NOTES

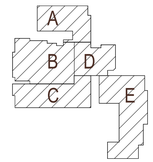
1. REFER TO SHEET AD2.00 FOR DEMOLITION GENERAL NOTES AND KEYNOTES.
2. DASHED LINES REPRESENT DEMOLITION
3. REFER TO HARDWARE SCHEDULE FOR DOOR OPERATING HARDWARE REMOVAL FOR REPLACEMENT.

REFER TO BUILDING WALL SECTIONS FOR ADDITIONAL INFORMATION

DEMOLITION LEGEND

- COMPLETE DEMOLITION OF ALL EXISITING CEILING: ACOUSTICAL LAY-IN, TILE, SPLINE, PLASTER, GYPSUM BOARD INCLUDING ANY FRAMING - U.N.O. REMOVE CEILING MOUNTED EQUIPMENT - SALVAGE AS REQUIRED.
- SHADED AREA: COMPLETE DEMOLITION OF FLOORING FINISHES AND WALL BASE INCLUDING ANY ADHESIVES - U.N.O. PREP SUB FLOOR AS REQUIRED FOR NEW WORK. - COORDINATE WITH MEP.
- SHADED AREA: COMPLETE DEMOLITION OF EXISTING BUILDING. COORDINATE DISCONNECTING EXISTING UTILITIES WITH CIVIL AND MECHANICAL.

KEY PLAN



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UNIT E FIRST FLOOR DEMOLITION PLAN -ADD. ALT. 1

PROJECT NUMBER

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DEMOLITION PLAN NOTES

1. REFER TO SHEET AD2.00 FOR DEMOLITION GENERAL NOTES AND KEYNOTES.
2. DASHED LINES REPRESENT DEMOLITION
3. REFER TO HARDWARE SCHEDULE FOR DOOR OPERATING HARDWARE REMOVAL FOR REPLACEMENT.

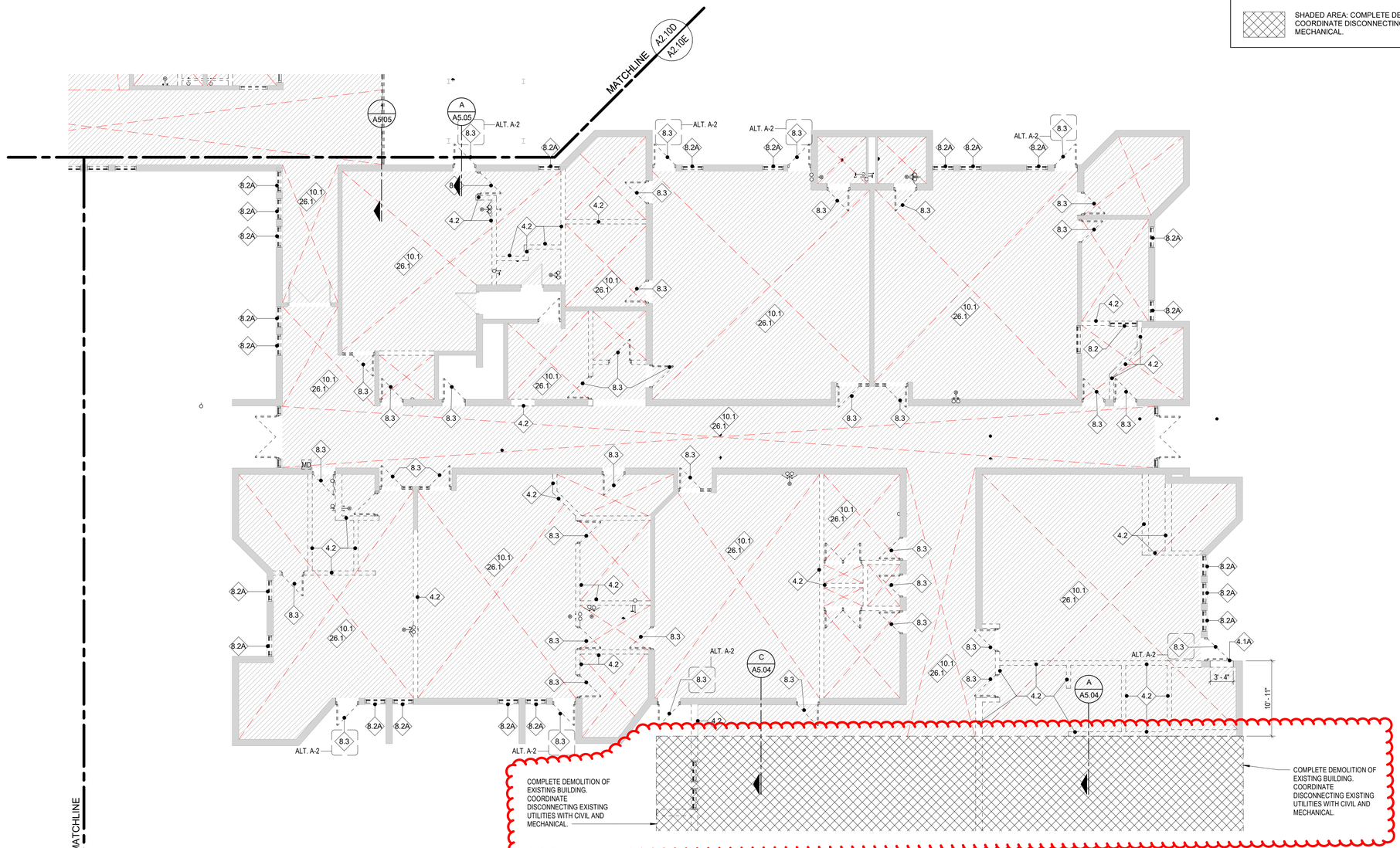
REFER TO BUILDING WALL SECTIONS FOR ADDITIONAL INFORMATION

DEMOLITION LEGEND

COMPLETE DEMOLITION OF ALL EXISITING CEILING: ACOUSTICAL LAY-IN, TILE, SPLINE, PLASTER, GYPSUM BOARD INCLUDING ANY FRAMING - U.N.O. REMOVE CEILING MOUNTED EQUIPMENT - SALVAGE AS REQUIRED.

SHADED AREA: COMPLETE DEMOLITION OF FLOORING FINISHES AND WALL BASE INCLUDING ANY ADHESIVES - U.N.O. PREP SUB FLOOR AS REQUIRED FOR NEW WORK. - COORDINATE WITH MEP.

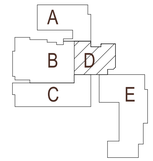
SHADED AREA: COMPLETE DEMOLITION OF EXISTING BUILDING. COORDINATE DISCONNECTING EXISTING UTILITIES WITH CIVIL AND MECHANICAL.



UNIT E FIRST FLOOR DEMOLITION PLAN - ADD. ALT. 1

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

KEY PLAN



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UNIT E FIRST FLOOR DEMOLITION PLAN

PROJECT NUMBER

2025-001

SHEET NUMBER

AD2.11E-A.1

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CONSTRUCTION NOTES

NOT ALL CONSTRUCTION NOTES ARE USED ON THIS SHEET

NOTES BELOW ARE INDICATED ON THE DRAWINGS BY THIS SYMBOL:

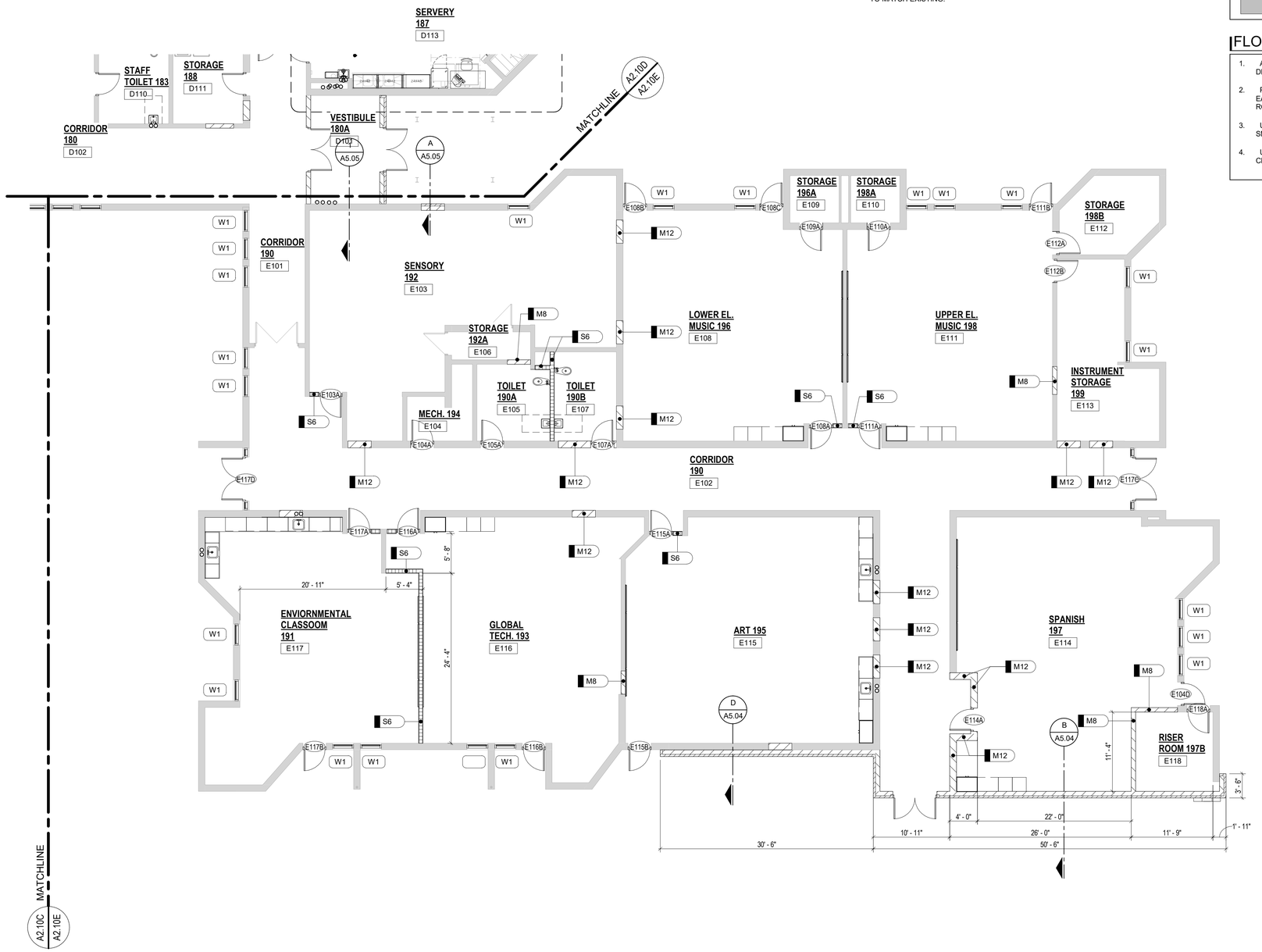
1. INFILL OPENING AFTER DOOR/OPENING REMOVAL WITH MASONRY. TOOTH IN TO MATCH EXISTING BOND PATTERN. PATCH AND REPAIR AS REQUIRED.
2. INFILL OPENING AFTER DOOR/OPENING REMOVAL WITH MASONRY AND SALVAGED BRICK. TOOTH IN TO MATCH EXISTING BOND PATTERN. PATCH AND REPAIR AS REQUIRED.
3. NEW MASS ENTRY SLAB. REFER TO STRUCTURAL AND CIVIL.
4. INSTALL 4" CONCRETE FLOOR SLAB WITH REINFORCEMENT OVER VAPOR BARRIER OVER COMPACTED FILL PER STRUCTURAL.
5. BULLNOSE ALL CORNERS OF CMU WALL.
6. PAINT EXTERIOR COLUMNS AND BEAMS AS INDICATED.
7. POUR NEW CONCRETE TOPPING AS REQUIRED FOR FINISH FLOOR TO BE FLUSH AND LEVEL WITH ADJACENT SURFACES.
8. INSTALL NEW MECHANICAL LOUVER. TOOTH IN MATCHING BRICK TO MATCH EXISTING BOND PATTERN AS NEEDED - REFER TO MECHANICAL DRAWINGS.
9. INFILL CONCRETE FLOOR AT ABANDON FLOOR OPENINGS/TRENCHING AND FOOTINGS AS REQUIRED TO BE FLUSH AND LEVEL WITH ADJACENT FLOOR SLAB. COORDINATE WITH ELEC./MECH./STRUCT.
10. INFILL OPENING AFTER PLUMBING FIXTURE REMOVAL WITH MASONRY. TOOTH IN TO MATCH EXISTING BOND PATTERN. PATCH AND REPAIR AS REQUIRED. PAINT TO MATCH EXISTING.

FLOOR PLAN LEGEND

- EXTERIOR WALLS TO BE 4" NOMINAL MASONRY VENEER W/ 1" AIR SPACE ON 3" RIGID INSUL. ON CMU BACK-UP (8" OR 12")- ALL WALLS ARE FULL HEIGHT CMU.
- C.M.U. PARTITION AS DIMENSIONED. REFER TO PARTITION TYPE TAG.
- 5/8" HIGH IMPACT GYPSUM BOARD EACH SIDE OF METAL STUD AT 16" O.C. REFER TO PARTITION TYPE TAG. ALL INTERIOR PARTITIONS TO UNDERSIDE OF DECK U.N.O.
- INDICATES BATT SOUND ATTENUATION INSULATION
- ALL INTERIOR WALLS TO EXTEND TO DECK UNLESS OTHERWISE INDICATED.
- PARTITION TYPE REFER TO SHEET A0.03 FOR PARTITION TYPES LEGEND
- HATCHED AREA INDICATED CONCRETE INFILL
- SHADED AREA INDICATES EXISTING

FLOOR PLAN NOTES

1. ALL INTERIOR PARTITIONS SHALL EXTEND UP TO UNDERSIDE OF ROOF DECK.
2. PROVIDE BATT SOUND ATTENUATION INSULATION ABOVE CEILING, 4'-0" EACH SIDE OF PARTITION, FOR PARTITIONS THAT DO NOT EXTEND UP TO ROOF DECK.
3. UNLESS OTHERWISE INDICATED, ALL WALLS OF MAIN CORRIDORS ARE SMOKE PARTITIONS. REFER TO CODE PLAN FOR REMAINING INFORMATION.
4. UNLESS OTHERWISE INDICATED, ALL INTERIOR MASONRY WALLS ARE 8" CMU.

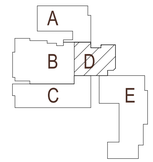


A2.10C MATCHLINE A2.10E

UNIT E FIRST FLOOR PLAN

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

KEY PLAN



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PROJECT

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UNIT E FIRST FLOOR PLAN

PROJECT NUMBER

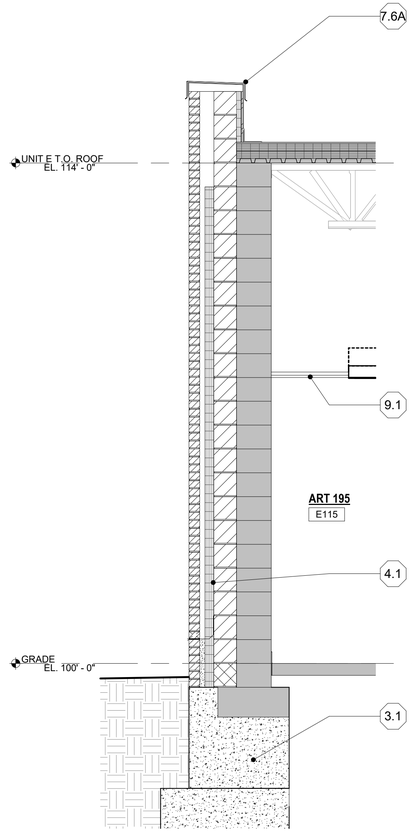
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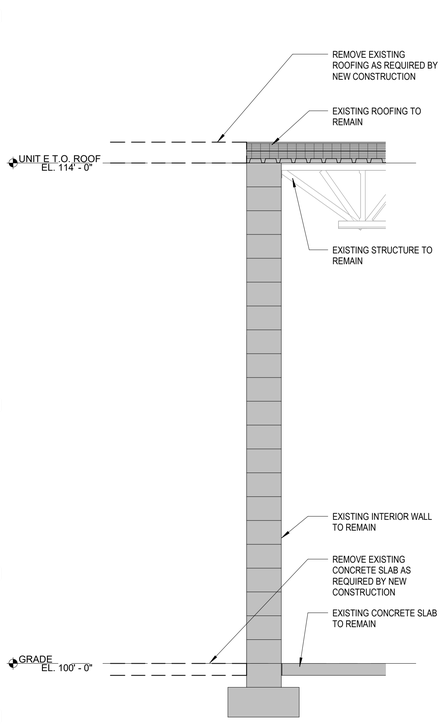
A2.10E-A.1

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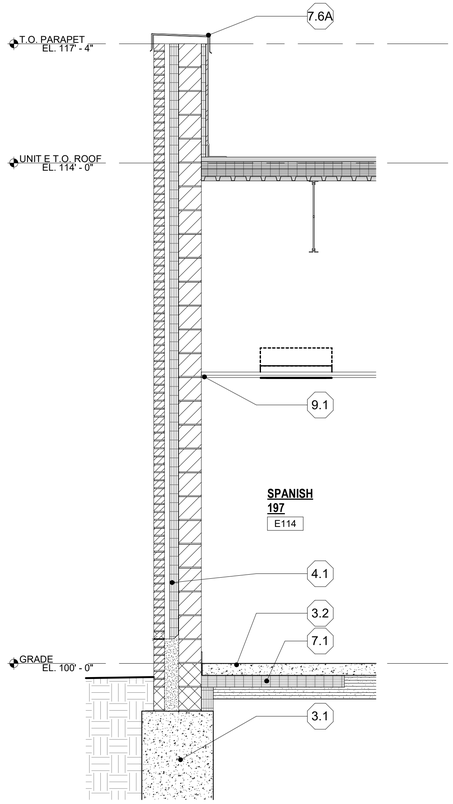
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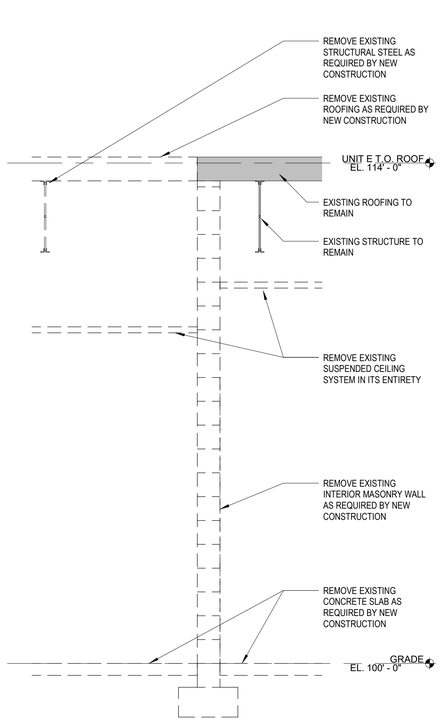
D A5.04 **E115 ART WALL SECTION**
SCALE: 1/2" = 1'-0"



C A5.04 **E115 ART DEMOLITION WALL SECTION**
SCALE: 1/2" = 1'-0"



B A5.04 **E114 SPANISH WALL SECTION**
SCALE: 1/2" = 1'-0"



A A5.04 **E114 SPANISH DEMOLITION WALL SECTION**
SCALE: 1/2" = 1'-0"

CONSTRUCTION KEYNOTES

3.1 CONCRETE WALL FOOTING PER STRUCTURAL.
3.2 TYPICAL SLAB ON GRADE:
CONCRETE FLOOR SLAB WITH REINFORCEMENT OVER VAPOR BARRIER OVER COMPACTED FILL PER STRUCTURAL. REFER TO SCHEDULE FOR FINISHES.
3.4 MASS CONC. FOOTING PER STRUCTURAL.
3.5 THICKENED CONCRETE SLAB PER STRUCTURAL.

4.1 TYPICAL EXTERIOR MASONRY WALL:
4" MASONRY VENEER W/ 1" AIR SPACE ON 3" RIGID INSULATIONS ON CMU WALL W/ HORIZ. AND VERT. REINF. PER STRUCTURAL. CMU THICKNESS PER PLANS AND SECTIONS.
4.2 PRECAST CONCRETE SILL W/1/2" WASH.
4.3 CMU WALL W/ HORIZ. AND VERT. REINF. PER STRUCTURAL. WALL THICKNESS PER FLOOR PLANS.

5.1 STEEL TUBE CANOPY FRAME - GALVANIZED
5.2 STEEL BEAMS PER STRUCTURAL. GALVANIZED AT EXTERIOR LOCATIONS.
5.3 STEEL COLUMN PER STRUCTURAL. GALVANIZED AT EXTERIOR LOCATIONS.
5.4 PRE-ENGINEERED METAL ROOF TRUSSES PER STRUCTURAL.
5.5 WALL MOUNTED GALV. STEEL ACCESS LADDER.
5.6 STEEL JOIST FRAMING PER STRUCT. (TYP.) APPLY SPRAYED ON FIREPROOFING ON ROOF STRUCTURE AND DECK FOR A MIN. DISTANCE OF 10' FROM WALL TO PROVIDE 1 HOUR RATING.

6.1 NOT USED
6.2 TYPICAL INTERIOR STUD PARTITION:
5/8" GYP'BD ON BOTH SIDES OF METAL STUDS PER FLOOR PLAN W/ SOUND ATTENUATING BATT INSULATION.
6.3 TYPICAL CEILING SOFFIT DROP:
5/8" GYP'BD ON 3 5/8" MET. STUD FRAMING AT 16" O.C. IN AREAS BELOW ROOF, SOFFIT IS TO SUSPENDED FROM AND BRACED TO STRUCTURE ABOVE. DO NOT SECURE/SUSPEND FRAMING FROM DECK.
6.4 5/8" GYP'BD ON ONE SIDE OF 3 5/8" MET. STUD FRAMING AT 16" O.C.
6.5 TYPICAL STUD WALL EXTENSION:
5/8" GYP'BD ON BOTH SIDES OF 3 5/8" MET. STUDS FRAMING W/ SOUND ATTENUATION INSULATION FROM TOP OF MASONRY WALL TO UNDERSIDE OF DECK (WOOD OR METAL) AND SEAL FOR SMOKE TIGHT RATING.

7.1 CONT. 4" x 48" RIGID PERIMETER INSULATION (MIN. R20).
7.2 TYPICAL MEMBRANE ROOFING SYSTEM ON STEEL ROOF FRAMING:
FULLY ADHERED EPDM ROOFING OVER 6" ROOF INSULATION (R30) ON METAL ROOF DECK. PROVIDE TAPERED INSUL. WHERE INDICATED ON ROOF PLAN AS REQ'D TO SLOPE TO DRAIN.
7.3 TYPICAL MEMBRANE CANOPY ROOFING SYSTEM:
FULLY ADHERED EPDM ROOFING OVER 2" ROOF INSULATION ON METAL ROOF DECK ON STEEL TUBE FRAMING.
7.4 TYPICAL STANDING SEAM METAL ROOF SYSTEM:
STANDING SEAM METAL ROOF ON ICE AND WATER SHIELD ON NAIL BASE INSUL (5") ON PRE-ENG. MET. ROOF TRUSSES AT 24" O.C.
7.5 SNOW AND ICE RETENTION BAR SYSTEM.
7.6A TYPICAL METAL COPING SYSTEM:
PRE-FIN. MET. COPING OVER (1) LAYER OF 3/4" EXT. PLY'WD SHEATHING OVER 2x4 AND 1x4 NAILERS RIPPED TO PROVIDE MIN. 1 1/2" WASH, SECURED TO 5/8" EXT. PLY'WD SHEATHING THAT IS ANCHORED TO THE MASONRY THROUGH 3" RIGID INSULATION.
7.6B TYP. MEMBRANE BASE FLASHING SYSTEM:
FULLY ADHERED MEMBRANE FLASHING OVER 5/8" EXT. PLY'WD SHEATHING OVER 3" RIGID INSUL. OVER CMU PARAPET.
7.7A WALL CLADDING TYPE 1 ON CMU WALL:
EXPOSED FASTENER PHENOLIC RESIN PANELS ON PANEL FRAMING SYSTEM ON INFILTRATION BARRIER ON 5/8" EXT. SHEATHING ON 3" RIGID INSULATION ON CMU WALL.
7.7B WALL CLADDING TYPE 1 ON LIGHT GAUGE FRAMING:
EXPOSED FASTENER PHENOLIC RESIGN PANELS ON PANEL FRAMING SYSTEM ON INFILTRATION BARRIER ON 5/8" EXT. SHEATHING ON 3 5/8" MET. STUD FRAMING.
7.8 WALL CLADDING TYPE 2 ON CMU WALL:
PHENOLIC RESIGN PLANKS ON PANEL FRAMING SYSTEM ON INFILTRATION BARRIER ON 5/8" EXT. SHEATHING ON 3" RIGID INSULATION ON CMU WALL.
7.9 METAL WALL PANEL TYPE 1:
METAL WALL PANELS (RAINSCREEN TYPE) ON INFILTRATION BARRIER ON 3" RIGID INSULATION WITHIN 3" "Z" CHANNEL FRAMING ON CMU WALL.
7.10 METAL WALL PANEL TYPE 2:
METAL WALL PANELS ON 7/8" HAT CHANNEL FRAMING ON INFILTRATION BARRIER ON EXT. SHEATHING ON 3" RIGID INSULATION ON WITHIN "Z" CHANNEL FRAMING ON CMU WALL.
7.11 METAL WALL PANEL CANOPY:
METAL WALL PANELS (RAINSCREEN TYPE) ON INFILTRATION BARRIER ON 5/8" EXT. PLY'WD SHEATHING ON 3 5/8" MET. STUD FRAMING.
7.12 PRE-FIN. METAL COLUMN ENCLOSURE.
7.13 EXTERIOR SOFFIT:
TEXTURED EXTERIOR SOFFIT FINISH ON 5/8" EXTERIOR SHEATHING 2" RIGID INSULATION ON LIGHT GAUGE FRAMING W/ R-19 BATT INSULATION.

8.1 DOOR AND FRAME PER DOOR SCHEDULE AND SPECS.
8.2 GLAZING AND ALUMINUM STOREFRONT FRAME PER FRAME TYPES AND SPECS.
8.3 GLAZING AND SLANTED ALUMINUM CURTAINWALL FRAME PER FRAME TYPES AND SPECS.

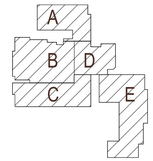
9.1 TYPICAL ACOUSTICAL CEILING SYSTEM:
LAY-IN ACOUST. CEILING PADS IN SUSPENDED METAL GRID SYSTEM.
9.2 WALL BASE PER SCHEDULE.
9.3 5/8" GYP'BD CEILING ON SUSPENDED MET. GRID SYSTEM.

10.1 METAL STUDENT LOCKERS PER EQUIPMENT PLAN AND SPECS.

12.1 CASEWORK - BASE/WALL CABINETS AND COAT CUBBIES PER EQUIPMENT PLANS.
12.2 MANUAL ROLLER SHADE WITH HOUSING.

23.1 VUV WITH SHROUD PER MECHANICAL
23.2 HVAC DUCTWORK PER MECHANICAL
23.3 VUV LOUVER PER MECHANICAL.

KEY PLAN



ISSUE DATE	ISSUED FOR
05/21/2025	30% DESIGN DEVELOPMENT
10/02/2025	50% CDs
11/24/2025	90% CDs

DRAWN AH
CHECKED RL
APPROVED SC

FRENCH
2851 High Meadow Circle | Suite 100
Auburn Hills | MI 48326
248.656.1377

PROJECT
SOUTHEAST ENVIRONMENTAL SCIENCE ACADEMY

SHEET
WALL SECTIONS

PROJECT NUMBER
2025-001

SHEET NUMBER
A5.04

FOR REFERENCE ONLY

2025-001 SOUTHEAST ENVIRONMENTAL SCIENCE ACADEMY
AH - 11/19/2025 2:01:06 PM

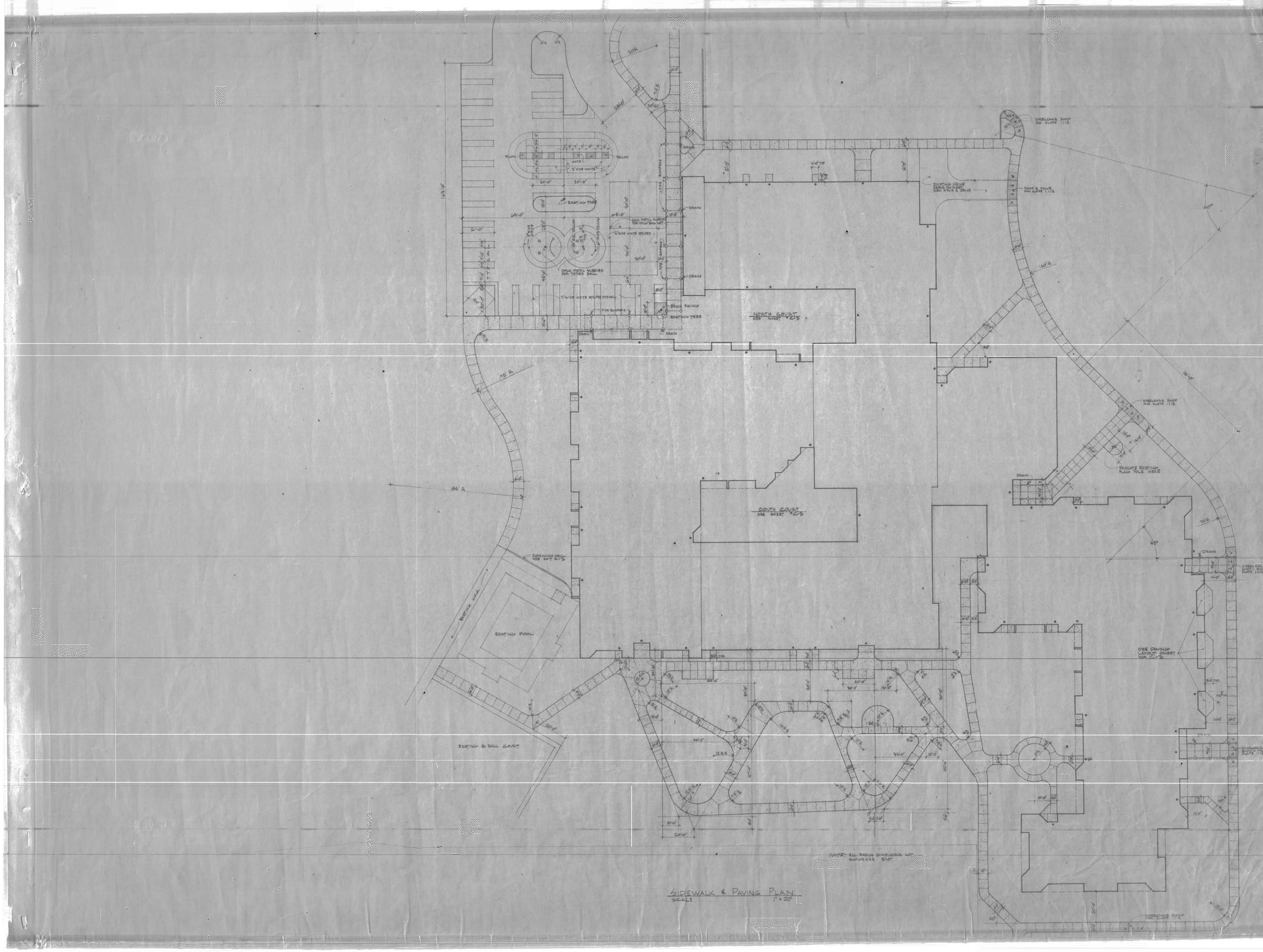
Ken-O-Sha Existing Drawings

KEN-O-SHA PRESCHOOL, ELEMENTARY, AND ORTHOPEDIC CENTER

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NOTE: EXACT LOCATION OF ROADS IN THIS AREA TO BE DETERMINED IN FIELD
CONTRACT LIMITS
NORTH COURT SEE SHEET C-3 FOR WALLS & DRAINS
SOUTH COURT SEE SHEET C-3 FOR WALLS & DRAINS
BUILDING FLOOR EL'EV. 718.81
EXISTING PLAY AREA
EXISTING SAND AREA
EXISTING POOL
EXISTING BASKETBALL COURT
EXISTING 12" OAK GROVE
EXISTING 30" OAK GROVE
EXISTING 6" SANITARY SEWER
EXISTING 8" WATER MAIN
EXISTING GAS MAIN
EXISTING UNDERGROUND TELEPHONE LINE
EXISTING UNDERGROUND ELECTRIC LINE
EXISTING 5' HIGH WHITE PICKET FENCE
EXISTING 6' HIGH CHAIN LINK FENCE
EXISTING 4' HIGH WOOD FENCE
EXISTING 4' HIGH CHAIN LINK FENCE
EXISTING 3' HIGH WOOD FENCE
EXISTING 3' HIGH CHAIN LINK FENCE
EXISTING 2' HIGH WOOD FENCE
EXISTING 2' HIGH CHAIN LINK FENCE
EXISTING 1' HIGH WOOD FENCE
EXISTING 1



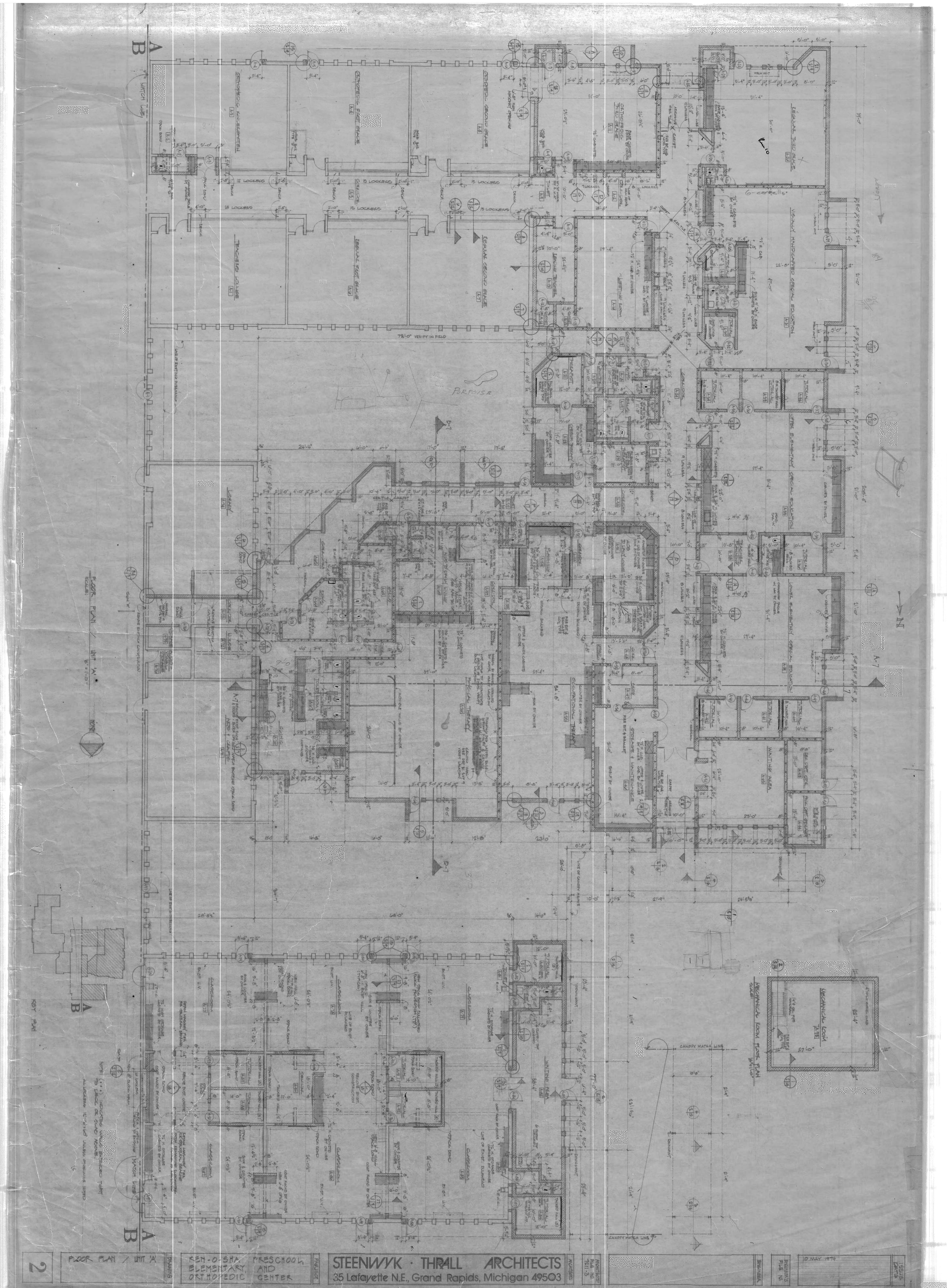
SIDEWALK & PAVING PLAN
SCALE 1" = 20'

ARCHITECTS
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PROJECT
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DRAWING
PERIMETER SIDEWALK AND PAVING PLAN

C2


A
B
MATCH LINE
ORTHOPEDIC KINDERGARTEN
ORTHOPEDIC FIRST GRADE
ORTHOPEDIC SECOND GRADE
REGULAR THIRD GRADE
ORTHOPEDIC THIRD GRADE
REGULAR KINDERGARTEN
REGULAR FIRST GRADE
REGULAR SECOND GRADE
VISUALLY HANDICAPPED SPECIAL EDUCATION
LOWER ELEMENTARY SPECIAL EDUCATION
UPPER ELEMENTARY SPECIAL EDUCATION
TEACHERS LOUNGE
LIBRARY
OCCUPATIONAL THERAPY
SPEECH THERAPY
WAITING AREA
MECHANICAL ROOM
6-carrells
72'-0" VERIFY IN FIELD
PORPOISE
CANOPY MATCH LINE
FLOOR PLAN / UNIT 'A'
KEY PLAN
MECHANICAL ROOM FLOOR PLAN
KEN-O-SHA PRESCHOOL, ELEMENTARY, AND ORTHOPEDIC CENTER
STEENWYK · THRALL ARCHITECTS
35 Lafayette N.E., Grand Rapids, Michigan 49503
10 MAY 1974
2

MATCH LINE A B

MATCH LINE A B

MATCH LINE B C

REGULAR KINDERGARTEN

TOILET

CLOSET

JAN.

GEN. STORAGE

WAITING ROOM

WORK ROOM

OFFICE

COUNSELOR

COUNS. WORKER

OFFICE

OFFICE

COLLIDOR

CORRIDOR

EXISTING ENTRY

KITCHEN

STORAGE

ALL PURPOSE ROOM

REMOVE EXIST'NG WOOD WALLS

KITCHEN

GEN. STORAGE

JAN. CLOSET

TOILET

CORR.

MUSIC ROOM

MUSIC STORAGE

MUSIC TOILET

GYM STORAGE

BOILER ROOM

REMOVE CURB

NEW 30"W. OPENING

REMOVE WALL PIERS TO MATCH

REMOVE TWO W.C.'s & PARTITIONS TO MATCH EXIST'G WALL TO MATCH

LOAD BEARING TYPE A

VISUALLY HANDICAPPED RESOURCE & WAITING ROOM

EXISTING 21'-4" ENTRANCE - VERIFY 21 LOCATIONS

SITE

NEW EXIT ENTRANCE

NEW EXIT ENTRANCE

NEW EXIT ENTRANC

FLOOR PLAN / UNIT 'C'
SCALE: 1/8"=1'-0"

NORTH

KEY PLAN

4

FLOOR PLAN / UNIT 'C'

DRAWING

KEN-O-SHA PRESCHOOL, ELEMENTARY, AND ORTHOPEDIC CENTER

PROJECT

STEENWYK · THRALL ARCHITECTS
35 Lafayette N.E., Grand Rapids, Michigan 49503

ARCHITECTS

ARCHITECTS PLAN NO. 7101-B

ENGINEERS

ENGINEERS PLAN NO.

10 MAY 1974

ISSUE DATE

ROOFING CONTROL JOINTS SEE DETAIL THIS SHEET

GUTTER

ROOF DRAIN AND SPLASH PAN

E.O.

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

NORTH

NOTE:
LIVING TO LOOP SOUND HOSE TO DIAGRAMATICALLY INDICATE THIS AREA OF ROOF DRAINAGE

6" 3" 6"

BUILT-UP ROOFING
PLASTIC FLASHING
2" P.I.R. INSULATION

2½" RIGID INSUL.

3½" RIGID INSUL.

METAL DECK

ROOFING CONTROL JOINT DETAIL
3/4" = 1'-0"

ISSUE DATE

10 MAY 1974

ENGINEER'S FILE NO.

ENGINEER

ARCHITECT'S FILE NO. 1741.3

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DRAWING

ROOF PLAN

8

NOTES

1. ALL FOUNDATION WALLS TO HAVE ONE #5 BAR TOP & BOTTOM
2. ALL INTERIOR FOOTINGS TO HAVE TO MIN. TWO #5 BARS (INCLUDING THICKENED SLABS)
3. ALL WALLS ARE 12" THICK AND HAVE 8"x8" P/P UNLESS OTHERWISE NOTED.
4. ALL WALLS PASSING OVER MECH. TUNNEL TO HAVE CONTROL JOINTS AS FIRST COURSE USE 8"x8" BAND & 8"x16" BAND x 12" WALLS

FOUNDATION PLAN / UNIT 'A'
SCALE: 1/8" = 1'-0"

NORTH

KEY PLAN

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KEN-O-SHA PRESCHOOL
ELEMENTARY AND
CHILDREDIC CENTER

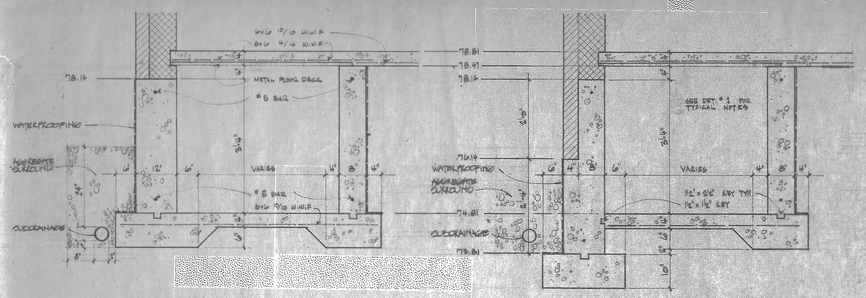
DRAWING
FOUNDATION PLAN / UNIT 'A'

S1

ISSUED DATES
10 MAY 1974

ENGINEER'S FILE NO.

ARCHITECT'S FILE NO. 7311-3

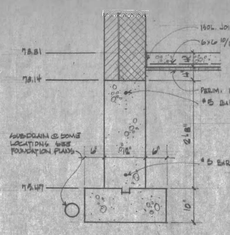


TYPICAL MECH. EQUIP TUNNEL

1 | S-1 | S-2 | S-2

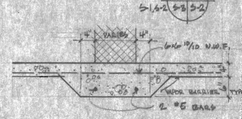
TUNNEL AT DROP FOOTING & BRICK LEDGE

2 | S-1 | S-2



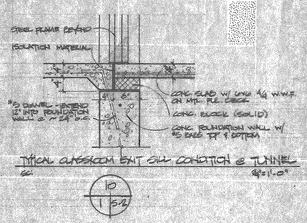
TYPICAL EXTERIOR FOUNDATION

3 | S-1 & S-2 | S-2 | S-2



TYPICAL THICKENED SLAB

7 | S-1 | S-2 | S-2

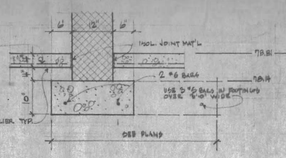


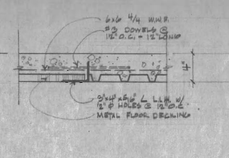
TYPICAL CLASSROOM EXT. SILL CONDITION @ TUNNEL

10 | 1 | S-2

TYPICAL INTERIOR FOOTING

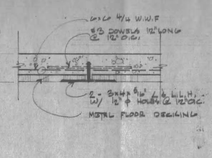
4 | S-1, S-2 | S-3 | S-2





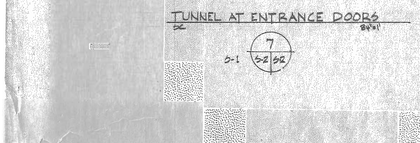
TUNNEL SUPPORT ANGLE

5 | S-1 | S-2 | S-2



TUNNEL SUPPORT ANGLES

6 | S-1 | S-2



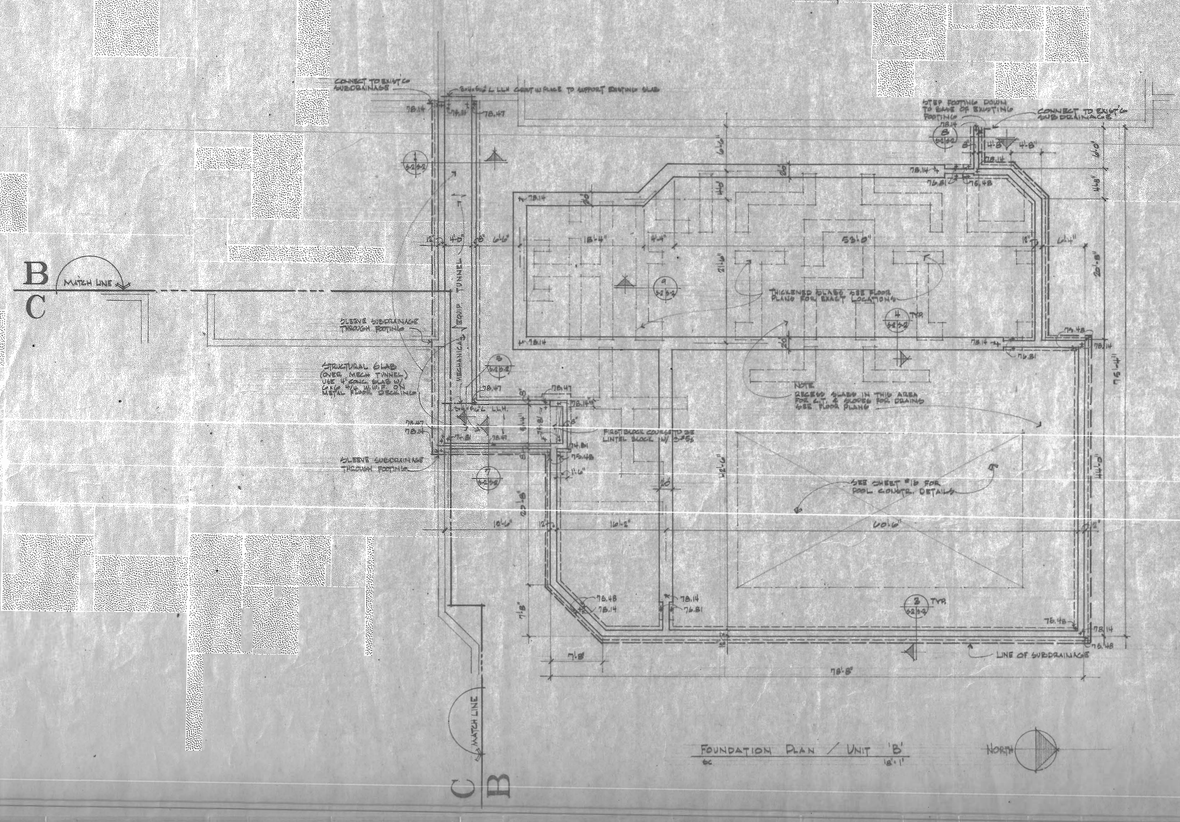
TUNNEL AT ENTRANCE DOORS

7 | S-1 | S-2 | S-2



FOUNDATION AT ENTRANCE DOORS

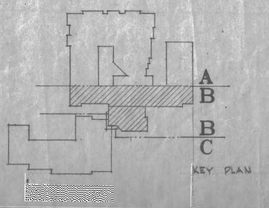
8 | S-1, S-2 | S-3 | S-2



FOUNDATION PLAN / UNIT 'B'

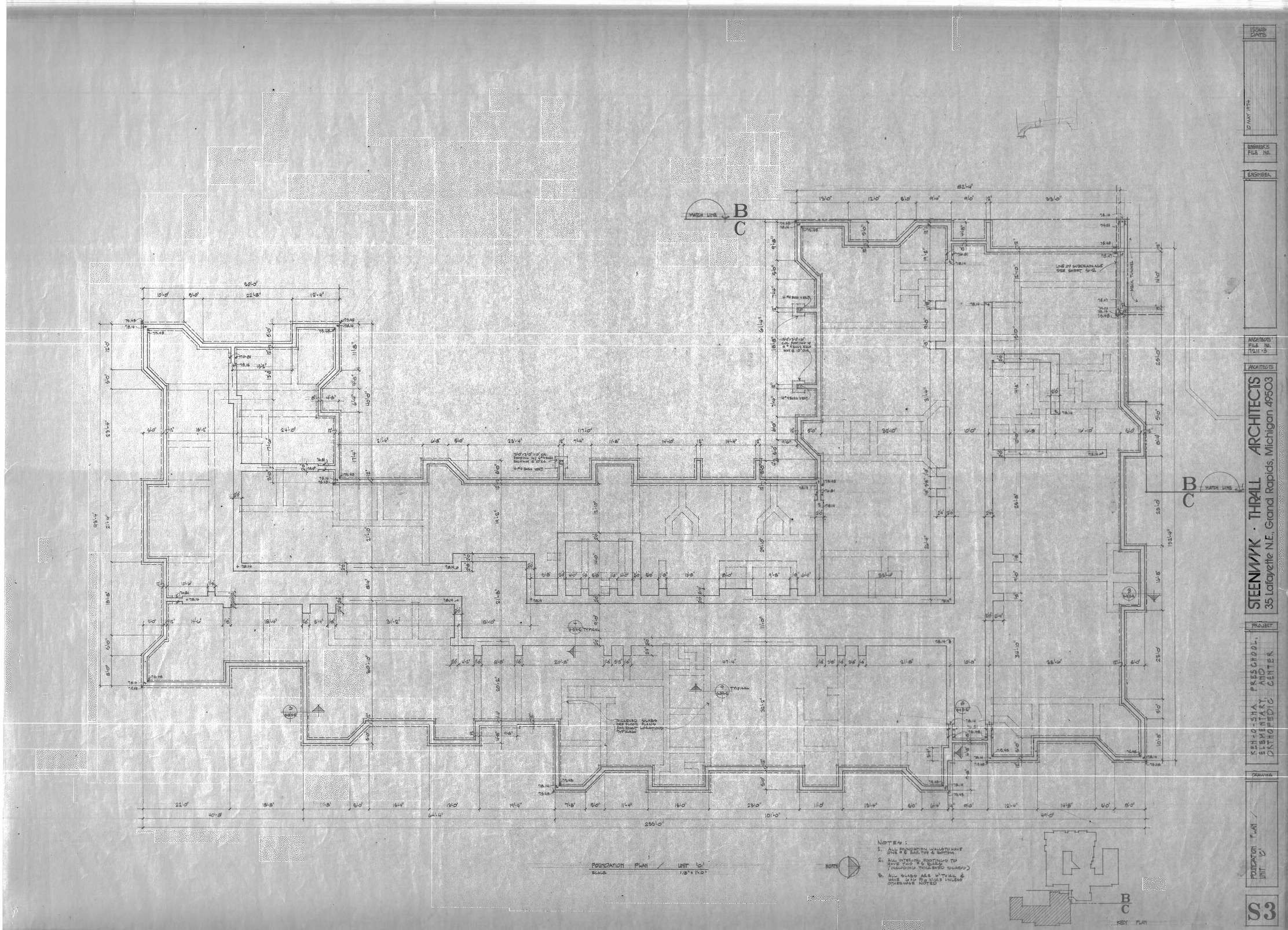
NORTH

NOTES:
1. ALL FOUNDATION WALLS TO HAVE ONE #5 BAR TOP & BOTTOM.
2. ALL INTERIOR FOOTINGS TO HAVE TWO #5 BARS (INCLUDING THICKENED SLABS)
3. ALL SLABS ARE 4" THICK & HAVE 6x16 W.W.F. UNLESS OTHERWISE NOTED



KEY PLAN

ISSUE DATE
D MAY 1974
ENGINEERS FILE NO.
ENGINEER
ARCHITECTS FILE NO. 7411-3
ARCHITECTS
STEENWIJK · THRALL · ARCHITECTS
35 Lafayette N.E. Grand Rapids, Michigan 49503
PROJECT
KENT-OSHA PRESCHOOL, ELEMENTARY AND ORTHOPEDIC CENTER
DRAWING
FOUNDATION PLAN / UNIT 'B'
S2



ISSUED DATE

10 MAY 1974

ENGINEERS FILE NO.

ENGINEER

ARCHITECTS FILE NO. 7211-3

ARCHITECTS

STEENWYK · THRALL ARCHITECTS
35 Lafayette N.E. Grand Rapids, Michigan 49503

PROJECT

KENT-OTSEGA PRESCHOOL, ELEMENTARY AND ORTHOPEDIC CENTER

DRAWING

FOUNDATION PLAN / UNIT 'C'

S3

NOTE

1. ELEVS GIVEN ARE THE DISTANCES FROM FINISH FLOOR TO TOP OF JOIST (OR PLATE) (I.E. DOES NOT INCLUDE SHEATHING).

2. TOP OF JOIST (OR PLATE) AT EXTERIOR WALL IS 9'-0" UNLESS OTHERWISE NOTED.

3. ALL FLOOR SLOPES ARE STRAIGHT LINE GRADES BETWEEN ELEVATIONS GIVEN.

4. FILL BLOCK CORES WITH GROUT - UNDER BEAM BEARING - TO FOUNDATION.

5. LINTELS

USE LINTELS BELOW @ ALL DOORS & WINDOWS AS SHOWN ON DETAILS

USE 1 - 3½" x 3½" x ¼" L PER 4" OF WALL THICKNESS FOR ALL OTHER OPENINGS TO 4'-0" - 3½" x 5½" x ⅝" L UP TO 11'-0" UNLESS OTHERWISE NOTED.

6. MIN. BEAM BEARING 8" UNLESS OTHERWISE NOTED.

7. JOIST BRIDGING

SPAN	NUMBER LINES OF BRIDGING
7' to 13'	1 ROW @ ½ POINT
13' to 20'	2 ROWS @ ⅓ POINTS
20' to 26'	3 ROWS @ ¼ POINTS
26' to 32'	4 ROWS @ ⅕ POINTS
32' to 38'	5 ROWS @ ⅙ POINTS

8. FRAME ALL FLOOR & FLOOR OPENINGS W/ 4"x4"x½" L'S ALL SIDE & ATTACHED TO JOIST.

ROOF FRAMING PLAN AND LINTELS / UNIT 'A'
SCALE 1/8" = 1'-0"

NORTH

FLOOR FRAMING PLAN - MECHANICAL ROOM

KEY PLAN

ISSUE DATE

10 MAY 1996

BIDS/PERMITS FILE NO.

BIDS/PERM.

ARCHITECTS FILE NO. 7511-3

ARCHITECTS

STEENWYK · THRALL ARCHITECTS
35 Lafayette NE., Grand Rapids, Michigan 49503

PROJECT

KENT COUNTY HEAD START PRESCHOOL, ELEMENTARY, AND ORTHOPEDIC CENTER

DRAWING

ROOF FRAMING PLAN & LINTELS / UNIT 'A'

S4

MATCH LINE

MECHANICAL ROOM FLOOR FRAMING

ROOF FRAMING PLAN AND LINTELS / UNIT 'D'
SCALE 1/8"=1'-0"

NORTH

KEY PLAN

NOTES:

1. ELEVATIONS GIVEN ARE THE DISTANCE FROM FINISH FLOOR TO TOP OF JOIST OR PLATE (I.E. DECK BEARING).
2. TOP OF JOINT (OR PLATE) AT EXTERIOR WALL 'BEARING' UNLESS NOTED OTHERWISE.
3. ALL ROOF SLOPES ARE STRAIGHT LINE GRADES BETWEEN ELEVATIONS GIVEN.
4. FILL BLOCK CORES W/ GROUT - UNDER BEAM BEARING - TO FOUNDATION.
5. LINTELS

USE LINTEL BLOCK @ ALL DOOR & WINDOW OPENINGS AS SHOWN ON DETAILS.

USE - 1 - 3½" x 3½" x ¼" ℓ PER 12" WALL THICKNESS FOR ALL OTHER OPENINGS TO 9'-0" - 3½" x 6" x ¼" ℓ TO 11'-0". UNLESS OTHERWISE NOTED.

6. MIN. BEAM BEARING 8" UNLESS OTHERWISE NOTED.
7. JOIST BRIDGING

SPAN	NUMBER LINE OF BRIDGING
10'-0"	1 ROW CENTER SPAN
10'-01" TO 12'-0"	2 ROWS @ ⅓ POINTS
12'-01" TO 14'-0"	3 ROWS @ ¼ POINTS
14'-01" TO 16'-0"	4 ROWS @ ⅕ POINTS
16'-01" TO 18'-0"	5 ROWS @ ⅙ POINTS

8. FRAME ALL ROOF & FLOOR OPENINGS W/ 4"x6"x¼" ℓ ALL SIDES & ATTACHED TO JOIST.

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ARCHITECTS
STEENWYK · THRALL ARCHITECTS
35 Lafayette N.E. Grand Rapids, Michigan 49503
PROJECT
KENOSHA PRESCHOOL ELEMENTARY AND ORTHOPEDIC CENTER
DRAWING
ROOF FRAMING PLAN & LINTELS / UNIT 'D'
S5

FLOOR FRAMING PLAN MECHANICAL ROOM C-99

FLOOR FRAMING PLAN MECHANICAL ROOM C-98

POTENTIAL AREAS OF STRUCTURAL SHORRING

POTENTIAL AREAS OF STRUCTURAL SHORRING

POTENTIAL AREAS OF STRUCTURAL SHORRING

ROOF FRAMING PLAN AND LINTELS / UNIT 'G'

KEY PLAN

NOTES:

1. ELEVS GIVEN ARE THE DISTANCES FROM FINISH FLOOR TO TOP OF JOINT (OR PLATE) (TS. DECK BEARING)
2. TOP OF JOIST (OR PLATE) AT EXTERIOR WALL 12-0" UNLESS NOTED OTHERWISE
3. ALL ROOF SLOPES ARE STRAIGHT LINE GRADES BETWEEN ELEVATIONS GIVEN.
4. FILL BLOCK CORES W/ GROUT UNDER BEAM BEARING TO FOUNDATION.
5. LINTELS:

USE LINTEL BLOCK @ ALL DOOR & WINDOW OPENS AS SHOWN ON DETAILS

USE 1 - 3½"x3½"x¼" L PER 4" WALL THICKNESS FOR ALL OTHER OPENINGS THROUGH BRICK & TO TOP MASONRY STOPPING LISTED.

6. MIN BEAM BEARING 8" UNLESS OTHERWISE NOTED.
7. JOIST BRIDGING

10'-0"	1 ROW CENTER SPAN
14'-0"	2 ROW @ 1/3 POINTS
24'-0"	3 ROW @ 1/4 POINTS
30'-0"	4 ROW @ 1/5 POINTS
40'-0"	5 ROW @ 1/6 POINTS

8. FRAME ALL ROOF & FLOOR OPENINGS W/ W8x10 LG ALL SIDES & ATTACHED TO JOIST.

ISSUED DATE	10 MAY 1976
DRAWING'S FILE NO.	
REVISIONS	
ARCHITECTS' FILE NO.	7211-3
ARCHITECTS	STEENWYK • THRALL ARCHITECTS 35 Lafayette N.E., Grand Rapids, Michigan 49503
PROJECT	KENT COUNTY MEDICAL SERVICE BUILDING ELEMENTARY AND ORTHOPEDIC CENTER
DRAWING	ROOF FRAMING PLAN LINTELS / UNIT 'G'
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