

PROJECT DRAWINGS

MAIN ENTRY ALTERATION

GLOUCESTER CITY HIGH SCHOOL 1300 MARKET STREET GLOUCESTER CITY, NJ 08030 CAMDEN COUNTY LOT 6 / BLOCK 222 NJDOE SP# 1770-050-19-1000

CONSTRUCTION NOTES:

SCOPE OF WORK:

Contractor(s) shall comply with the current NEW JERSEY UNIFORM CONSTRUCTION CODE (UCC) REHABILITATION SUBCODE & all applicable subcodes, ordinances & regulations of federal, state, municipal, & other governing bodies. Contractor(s) shall be solely responsible for & have control over construction means, methods, techniques, sequences & procedures, shoring & bracing, jobsite safety, & for coordinating all portions of work.

Prior to submitting a bid, the Contractor(s) shall visit the site of the Work & shall thoroughly familiarize themselves w/ the exist'g conditions affecting the work & shall report any errors to the Arch't. By the act of submitting a bid, the Contractor(s) shall be deemed to have made such an examination, to have accepted such conditions, and to have made allowance therefore in preparing their bid. No additional compensation will be granted on the account of extra work made necessary by the Contractor's failure to investigate such exist'g conditions. Contractor(s) shall perform the Work in accordance with the documents, or assume responsibility for corrections. Contractor shall keep the premises & surrounding area free from accumulation of waste mat's & rubbish caused by operations under the Contract. At completion of the Work the Contractor shall remove from & about the Project waste mat's, rubbish, the Contractor's tools, construction equipment, machinery, & surplus mat's.

PERMITS:

General Contractor shall be responsible for providing all necessary permits. Complete building permit application and file with authorities having jurisdiction within five days of the Notice to Proceed or the date of execution of the Contract whichever is later.

Fees shall be paid for by the Owner or reimbursed after submission of receipt to Architect for Owner's payment.

DIMENSIONS:

Are to outside surface of finish mat's unless shown otherwise. All dimensions are nominal and shall be field verified.

DEMOLITION:

Prior to commencement of the Work, the Contractor shall survey the exist'g conditions & record them by use of preconstruction photographs &/or videotapes. Provide Architect with an electronic copy of the survey.

Doors and frames shall not be removed until replacements have been delivered to the Project Site.

Prior to the commencement of the Work, the Contractor shall review with the Owner all mat's & equipment to be removed. Should the Owner opt to keep any items, the Contractor shall salvage & deliver the items to the Owner on the site where so directed & properly dispose of all other demolition & construction mat's.

Remove all exterior structures, interior walls, flooring & clg finishes, fixtures & other items as noted on dwgs.

Support exist'g structural system before removing & replacing exist'g structure. Temporarily brace & shore all areas where supporting structures are removed until new construction is securely in place.

Protect existing flooring during the construction period with covering of hardboard panels or other suitable material. Do not use paper or plastic sheeting. Do not move heavy and sharp objects directly over exist'g or proposed flooring. Protect flooring as indicated above to prevent damage from storing or moving objects over flooring. Maintain building envelope in a weathertight & secure condition for the duration of the Project.

Refer to MPE documents for additional requirements.

REPAIR, PATCH & PAINT:

All areas disturbed during demolition & construction shall match adjacent mat's & finishes at project completion.

Exist'g openings in digs & walls shall be patched to match adjacent mat's & finishes. Scrape, clean & patch exist'g concrete floor to provide an acceptable level floor. Prepare surface to receive specified floor finish.

EXISTING CONCRETE FLOOR:

Contractor is responsible for preparing, finishing and all required testing of the concrete slabs in accordance with the most stringent requirements of the finish floor systems specified and selected by the Owner.

Scrape, shot blast, clean & patch as per ASTM D4259, *Standard Practice for Abrading Concrete to provide an acceptable level floor.* Prepare surface to receive specified floor finish.

Contractor shall ensure that the existing concrete work complies with the requirements of the finish floor manufacturer(s) selected for use on this project. This includes, but is not limited to, tolerances and conditions, rapid relative humidity testing as per ASTM F2170, *Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes*, bond testing, and alkalinity testing. General Contractor shall supply the Architect with copies of all test results, the finish floor manufacturer's concrete subfloor requirements, and letters of acceptance from the finish floor manufacturer(s) prior to proceeding with the concrete subfloor work.

Where cement based interior self-level'g underlayment is req'd, it shall be the responsibility of the Contractor to provide an underlayment compatible with the specified finish floor.

Where new concrete is req'd, it shall be the responsibility of the Contractor to review the intended concrete design mix with the limitations imposed by the finish floor manufacturers, and if necessary, make recommendations to the Architect of an amended design mix that would better facilitate the standards of the finish floor manufacturer's requirements. No additional compensation shall be awarded for the use of an alternative design mix.

The use of curing compounds on subfloors where finish floor manufacturers prohibit their use shall not be permitted.

Contractor shall be required to employ whatever means necessary to meet the requirements of the finish floor manufacturers for concrete slabs without additional compensation or time extension.

FIREBLOCKING/DRAFTSTOPPING:

Through penetrations shall be protected by an approved penetration Fireblock system installed & tested in accordance w/ ASTM E 814 or UL 1479, w/ a minimum positive pressure differential of 0.01 inch (2.49 Pa) of water & shall have an F rating of not less than the required fire-resistance rating of the wall penetrated.

Existing and new penetrations through rated assemblies shall be sealed on both sides with Dow Corning Fire Stop Foam or equal.

Install fireblocking @ all openings around vents, pipes, ducts, chimneys, fireplaces & other penetrations @ clg & floor levels (protect per IBC - NJ 2018 Section 714 Penetrations).

Fireblocking/draftstopping shall not be concealed from view until inspected & approved by Construction Code Official.

SUSPENDED CEILING:

USG 2' x 2' lay-in acoustical panel clg assembly.
Gypsum Lay In Ceiling Panel # 3270 FIRECODE.
District standard, no substitution.

PAINTING:

Existing and Proposed Gypsum Board:
High-Performance Architectural Latex System:
1. Prime Coat: ProMar 200 Zero VOC Interior Latex Primer (On new gyp bd & exist'g gyp bd where required).
2. Topcoat: (2) coats of S-W Promar 200 Zero VOC Interior Latex, **Egg-shell**.

FIRE ALARM:

The District's fire alarm vendor:
Lucas Baker
SIEMENS
2000 Crawford Place, Suite 300
Mt. Laurel, NJ 08054
856-385-7552
Email: lucas.baker@siemens.com

ACCESS CONTROL:

Contractor shall provide all access control equip't indicated in Section 340000 - Contractor's Use of Appendix Documents.

REHABILITATION SUBCODES

The following subcodes as adopted by the New Jersey Uniform Construction Code (NJAC 5:23 et seq.), shall apply to this Project.

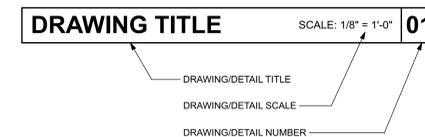
| SUBCODE | NATIONAL MODEL CODE | UCC REFERENCE |
|----------------|---|--------------------------------------|
| Rehabilitation | Rehabilitation Subcode - Alteration | NJAC 5:23-6 |
| Building | International Building Code NJ Ed/2015 | NJAC 5:23-3.14 |
| Plumbing | National Standard Plumbing Code/2015 | NJAC 5:23-3.15 |
| Electrical | National Electrical Code (NFPA 70)/2014 | NJAC 5:23-3.16 |
| Energy | ASHRAE 90.1-2013 (Comm) | NJAC 5:23-3.18 |
| Mechanical | International Mechanical Code/2015 | NJAC 5:23-3.20 |
| Fuel Gas | International Fuel Gas Code/2015 | NJAC 5:23-3.22 |
| Barrier-Free | Barrier-Free Subcode & ICC/ANSI A117.1-2009 | Chapter 11 of IBC/2015 & NJAC 5:23-7 |

LIST OF DRAWINGS

All Contractors shall examine all drawings indicated herein for required coordination between different trades and/or for work included in other sections of the Project Manual that may pertain to their respective contract.

| | |
|-------|---|
| CS | COVER SHEET |
| A1.1 | VESTIBULE PLAN & DETAILS |
| FP1.1 | PARTIAL FIRST FLOOR PLANS - FIRE PROTECTION |
| H1.1 | PARTIAL FIRST FLOOR PLANS - HVAC |
| E1.1 | PARTIAL FIRST FLOOR PLANS - ELECTRICAL |
| E2.0 | SPECIFICATIONS - ELECTRICAL |

DRAWING KEY



NJDOE SP #1770-050-19-1000

MAIN ENTRY ALTERATION
GLOUCESTER CITY HIGH SCHOOL
1300 MARKET STREET
GLOUCESTER CITY, NJ 08030
TITLE: COVER SHEET

DRAWING DATE:
02 APR 21

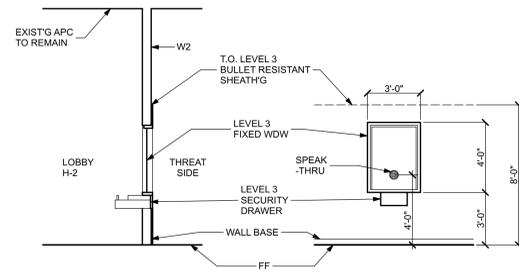
REVISION DATE:

DRAWN BY:
APB

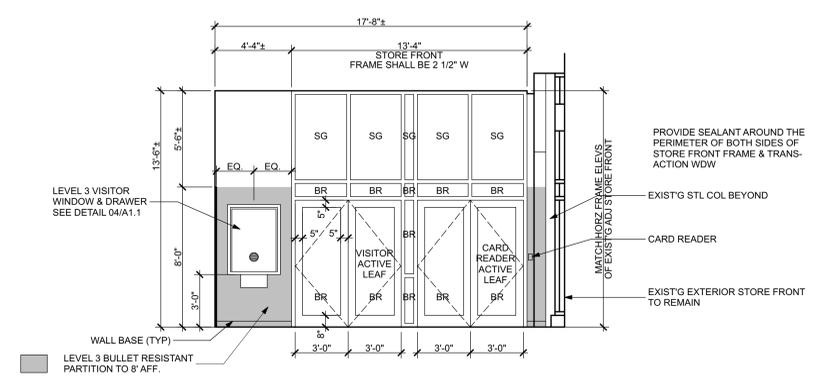
COMMISSION NO.:
5642D

CS

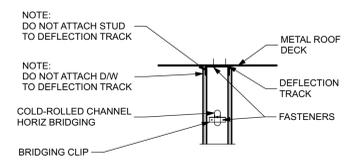
1 OF 1



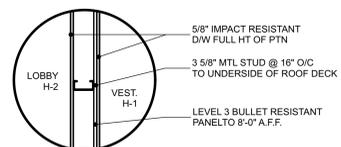
VISITOR WINDOW DTLS SCALE: 1/4" = 1'-0" **04**



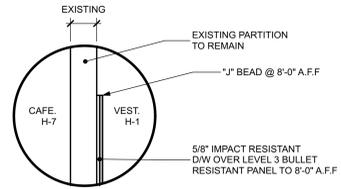
LOBBY H-2 ELEVATION SCALE: 1/4" = 1'-0" **03**



W1 SLIP-TYPE HEAD JOINT DETAIL
(NON-LOAD BEARING)

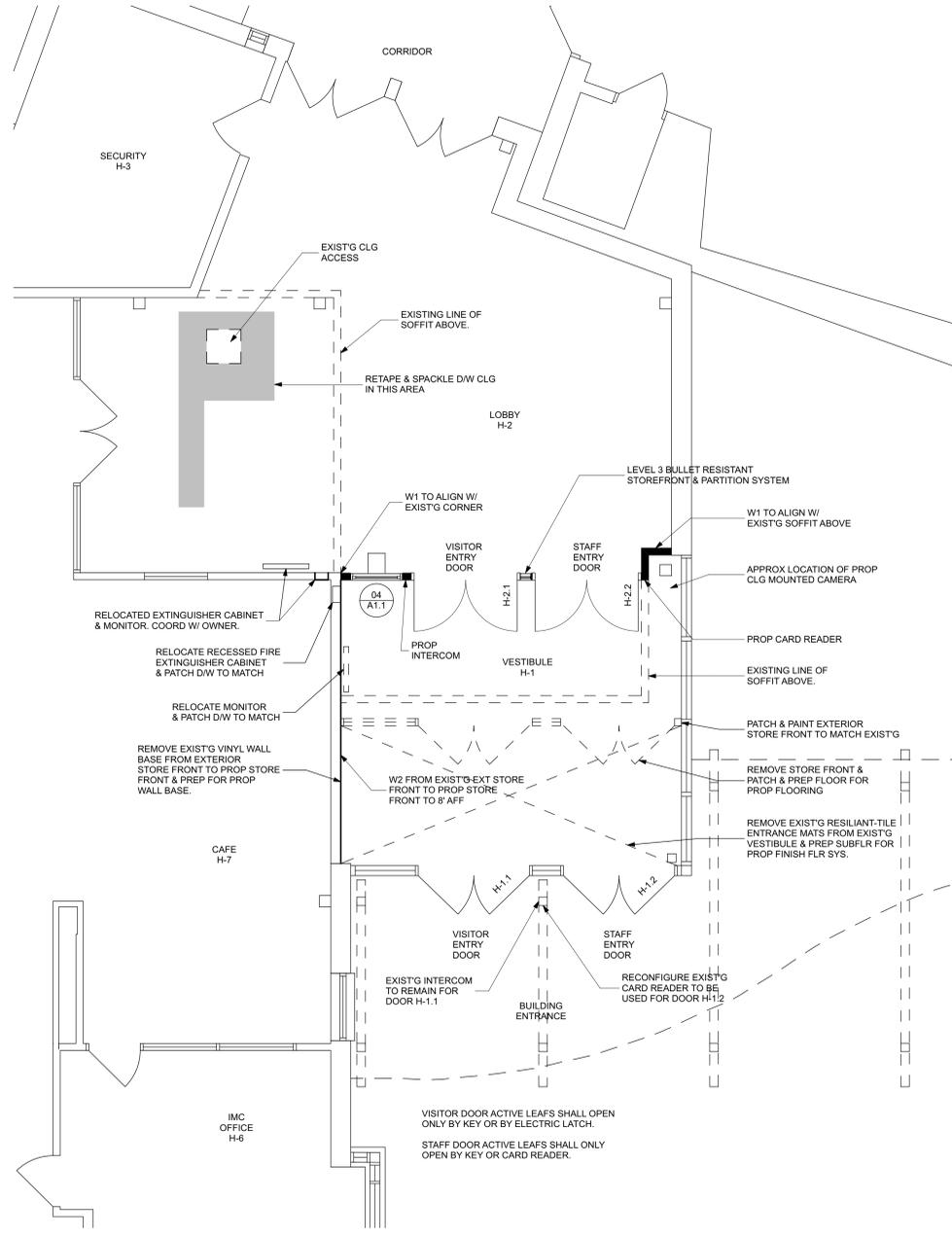


WALL TYPE - W1

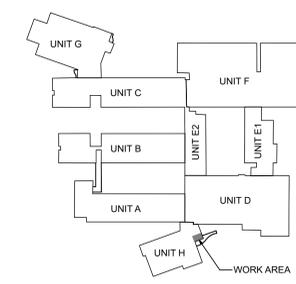


WALL TYPE - W2

WALL TYPES NTS **02**



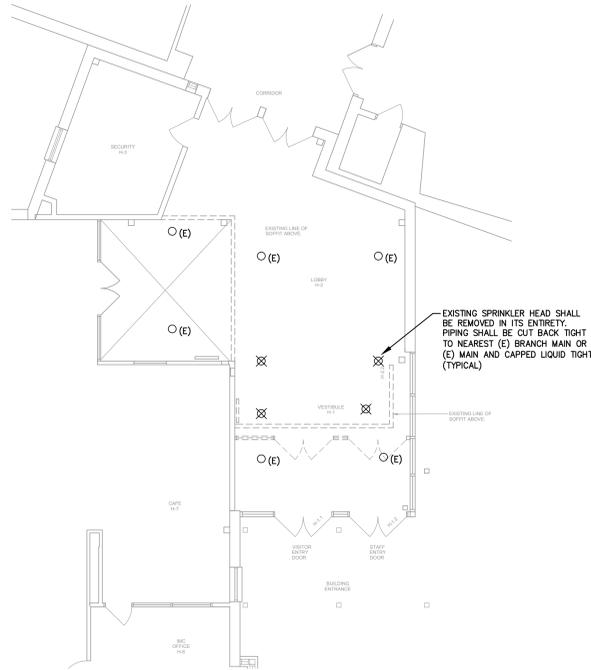
UNIT H - PROPOSED ENTRY PLAN SCALE: 1/8" = 1'-0" **01**



KEY PLAN NTS



| | |
|-----------------|-----------|
| DRAWING DATE: | 02 APR 21 |
| REVISION DATE: | |
| DRAWN BY: | APB |
| COMMISSION NO.: | 5642D |

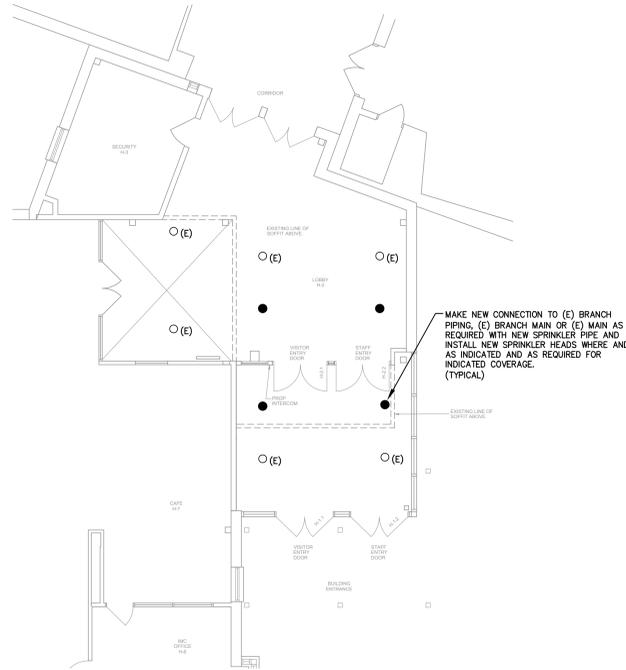


**1 PARTIAL FIRST FLOOR PLAN -
FP1.1 FIRE PROTECTION DEMOLITION**

SCALE 1/8" = 1'-0"

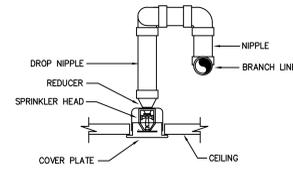
DEMOLITION NOTE:

1. UNLESS OTHERWISE NOTED THE EXISTING SPRINKLER SYSTEM SHALL REMAIN IN SERVICE.



**2 PARTIAL FIRST FLOOR PLAN -
FP1.1 FIRE PROTECTION**

SCALE 1/8" = 1'-0"



**3 CONCEALED TYPE
FP1.1 SPRINKLER HEAD**
NOT TO SCALE

SPRINKLER DESIGN DATA

LOCATION: VESTIBULE & LOBBY
 SQUARE FEET PER SPRINKLER HEAD = 225
 DENSITY = 0.10
 LIGHT HAZARD
 K-FACTOR = 5.8
 TOTAL COMBINED INSIDE AND OUTSIDE
 HOSE STREAM ALLOWANCE = 100 G.P.M.
 DESIGN BASED ON N.F.P.A. 13
 SPRINKLER TYPE: QUICK RESPONSE CONCEALED (1657)
 FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR
 VERIFYING DATA & OBTAINING ACCURATE FLOW DATA

FIRE PROTECTION SYMBOL LIST

| ABBREVIATION | SYMBOL | DESCRIPTION |
|--------------|--------|---|
| | ● | CONCEALED TYPE SPRINKLER HEAD |
| (E) | ○(E) | EXISTING SPRINKLER HEAD (TO REMAIN) |
| | ⊗ | EXISTING SPRINKLER HEAD (TO BE REMOVED) |

FIRE PROTECTION SPECIFICATIONS

1. SCOPE OF WORK

- A. WET SPRINKLER PIPING.
- B. HANGERS AND SUPPORTS.
- C. VALVES AND SWITCHES.
- D. CUTTING AND ROUGH PATCHING.
- E. HYDRANT FLOW TESTS.
- F. DETAILED LAYOUT DRAWINGS.
- G. REMOVALS.
- H. SUBMITTALS.
- I. PERMITS.
- J. WARRANTY.
- K. SUPERVISION.

2. STANDARDS AND CODES

- A. NEW JERSEY UNIFORM CONSTRUCTION CODE
- B. NEW JERSEY UNIFORM FIRE CODE
- C. INTERNATIONAL BUILDING CODE 2018, NEW JERSEY EDITION
- D. NFPA-13, 2016
- E. LOCAL MUNICIPAL UTILITY AUTHORITY
- F. LOCAL WATER COMPANY RULES AND REGULATIONS
- G. LOCAL FIRE DEPARTMENT REQUIREMENTS
- H. OTHER STATE AND LOCAL AUTHORITIES HAVING JURISDICTION
- I. OWNER'S INSURANCE UNDERWRITER'S REQUIREMENTS

3. MATERIALS:

A. GENERAL REQUIREMENTS

- 1. FIRE PROTECTION SYSTEM COMPONENTS SHALL BE UL LISTED OR FM APPROVED (AS APPLIES) FOR FIRE PROTECTION SERVICE.
- 2. UNLESS OTHERWISE SPECIFIED, SPRINKLER SYSTEM EQUIPMENT SHALL BE BY CENTRAL, GRINNELL, RELIABLE, VIKING OR APPROVED EQUAL.

B. PIPE AND FITTINGS

| SERVICE | MATERIAL | SCHEDULE | DESIGNATION |
|---------------|-------------|-------------|-----------------------------|
| WET SPRINKLER | BLACK STEEL | SCHEDULE 40 | ASTM A/795 ANS/ASTM A 53 |

C. FITTINGS

| SERVICE | SIZE | MATERIAL | WEIGHT | TYPE |
|---------------|------|----------------|------------------------|---------------------|
| WET SPRINKLER | ALL | MALLEABLE IRON | CLASS 125 CLASS 300 | THREADED ASME B16.3 |

3. JOINTS

- a. SCREWED JOINTS SHALL BE MADE UP WITH ACCEPTABLE PIPE JOINT COMPOUND.
- b. GROOVED JOINT FLEXIBLE COUPLINGS SHALL BE VICTAULIC 75 WITH GRADE E GASKETS, AND MAY BE USED WHERE APPROVED BY CODE AND CONTROLLING AUTHORITIES FOR FIRE PROTECTION SYSTEMS.

4. DISSIMILAR METALS:

- a. DISSIMILAR METALS SHALL BE INSULATED AGAINST DIRECT CONTACT WITH EACH OTHER BY USING A HIGH QUALITY OR GRADE OF DIELECTRIC MATERIAL.

4. HANGERS AND SUPPORTS

- A. HANGERS AND SUPPORTS
 - 1. SHALL CONFORM TO NFPA-13(2016), CHAPTER 3.

5. SUBMITTALS:

- A. SHOP DRAWINGS SHALL BE REQUIRED FOR:
 - 1. ALL EQUIPMENT, MATERIALS, MEANS & METHODS INTENDED FOR USE UNDER THIS CONTRACT.
- B. PRIOR TO DELIVERY TO JOB SITE, BUT SUFFICIENTLY IN ADVANCE OF REQUIREMENTS NECESSARY TO ALLOW ARCHITECT AMPLE TIME FOR REVIEW, SUBMIT SHOP DRAWINGS OF ALL EQUIPMENT, FIXTURES, MATERIALS, PIPING, SLEEVES, WIRING DIAGRAMS, ETC. AND FURTHER OBTAIN WRITTEN COMMENTS OF "REVIEWED" OR "REVIEWED WITH COMMENT" FOR SAME FROM ARCHITECT BEFORE INSTALLING ANY OF THESE ITEMS.
- C. SHOP DRAWINGS SHALL CONSIST OF MANUFACTURER'S CERTIFIED SCALE DRAWINGS, CUTS, OR CATALOGS, INCLUDING DESCRIPTIVE LITERATURE AND COMPLETE CERTIFIED CHARACTERISTICS OF EQUIPMENT, FIXTURES, ETC. SHOWING DIMENSIONS, CAPACITY, CODE REQUIREMENTS, MOTOR AND DRIVE TESTING, AS INDICATED IN THE CONTRACT DOCUMENTS.
- D. SAMPLES, DRAWINGS, SPECIFICATIONS, CATALOGS, ETC., SUBMITTED FOR REVIEW SHALL BE PROPERLY LABELED INDICATING PROJECT NAME, AND SPECIFIC SERVICE FOR WHICH MATERIAL OR EQUIPMENT IS TO BE USED.
- E. FAILURE TO SUBMIT SHOP DRAWINGS IN AMPLE TIME FOR CHECKING SHALL NOT ENTITLE AN EXTENSION OF CONTRACT TIME, AND NO CLAIM FOR EXTENSION BY REASON OF SUCH DEFAULT SHALL BE ALLOWED.
- F. PRIOR TO SUBMISSION OF SHOP DRAWINGS CONTRACTOR SHALL THOROUGHLY CHECK EACH SHOP DRAWING, REJECT THOSE NOT CONFORMING TO THE SPECIFICATIONS, AND INDICATE BY SIGNED, WRITTEN DECLARATION THAT THE SHOP DRAWINGS SUBMITTED MEET CONTRACT REQUIREMENTS.
- G. THE COMMENT "REVIEWED" OR "REVIEWED WITH COMMENT" RENDERED ON SHOP DRAWINGS SHALL NOT BE CONSIDERED AS A GUARANTEE OF MEASUREMENTS OR BUILDING CONDITIONS, WHERE DRAWINGS ARE REVIEWED, SAID REVIEW DOES NOT IN ANY WAY RELIEVE THE RESPONSIBILITY, OR NECESSITY, OF FURNISHING MATERIAL OR PERFORMING WORK AS REQUIRED BY THE CONTRACT DRAWINGS AND SPECIFICATIONS.

6. WARRANTY:

- A. CONTRACTOR SHALL:
 - 1. UNCONDITIONALLY WARRANT HIS WORK TO BE FREE OF DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF TWO (2) YEARS FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
 - a. ANY DEFECTS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE OWNER AT NO ADDITIONAL COST.
 - 2. ALL EQUIPMENT SHALL CARRY THE ORIGINAL MANUFACTURER'S WARRANTY AS SPECIFIED IN THE MANUFACTURER'S WARRANTY DOCUMENTATION PROVIDED WITH THE EQUIPMENT. WARRANTY PERIOD SHALL BE CALCULATED FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
 - a. ANY DEFECTS SHALL BE REPAIRED OR REPLACED AT THE DISCRETION OF THE MANUFACTURER.
 - b. MANUFACTURERS SHALL HAVE MINIMUM 15 YEARS EXPERIENCE IN THE US MARKET.

7. EXECUTION:

- A. SYSTEM
 - 1. CONTRACTOR SHALL PROVIDE SYSTEM THAT IS FULLY COMPLIANT WITH ALL APPLICABLE CODES AND STANDARDS PERTAINING TO THIS PROJECT WHETHER OR NOT SPECIFICALLY CITED IN THE CONTRACT DOCUMENTS.
- B. EXPOSED PIPING
 - 1. ALL PIPING INSTALLED IN FINISHED AREAS EXPOSED TO VIEW SHALL BE PAINTED AS REQUIRED IN THIS SPECIFICATION.
 - 2. SPRINKLER HEADS SHALL NOT BE PAINTED.
- C. CONCEALED PIPING
 - 1. ALL PIPING INSTALLED IN FINISHED AREAS CONCEALED FROM VIEW SHALL BE CONCEALED WITHIN HUNG CEILINGS, FURRING, SOFFITS, PIPE SPACES, ETC.
 - 2. WHERE SUCH CONCEALMENT IS REQUIRED, PIPING SHALL REMAIN ACCESSIBLE ABOVE HUNG CEILINGS, VIA ACCESS DOORS, ETC. DO NOT INSTALL ANY WORK BEFORE FIRST CONSULTING WITH THE ARCHITECT, AND HIS INSTRUCTIONS (WRITTEN OR ON REVERSED DRAWINGS) SHALL BE FOLLOWED.
 - 3. ALL PIPING, ETC. SHALL BE COMPLETELY TESTED AND APPROVED BY ALL AUTHORITIES HAVING JURISDICTION BEFORE ANY CONCEALMENT BEGINS.

8. ALTERATION WORK

- A. ALL EQUIPMENT, PIPING, SPRINKLER HEADS, ETC. TO BE REMOVED SHALL BE DISPOSED OF, TURNED OVER TO OWNER OR SALVAGED AS DIRECTED. THEY SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT WRITTEN APPROVAL.
- B. ALL PIPING TO BE REMOVED SHALL BE PROPERLY PLUGGED OR CAPPED SO THAT, UPON COMPLETION OF ALL NEW WORK, THERE SHALL BE NO ABANDONED PIPING IN THE SYSTEM.
- C. NO DEAD BRANCHES SHALL BE LEFT ON ANY PIPING UPON COMPLETION OF THE JOB.
- D. THE EXISTING SYSTEM SHALL BE LEFT IN PERFECT WORKING ORDER UNTIL COMPLETION OF ALL NEW WORK. IF REQUIRED, CONTRACTOR TO PROVIDE TEMPORARY FIRE PROTECTION DURING CONSTRUCTION, INCLUDING FIRE WATCH, TEMPORARY FITTINGS, ETC., UNTIL SUCH TIME AS PERMANENT SYSTEM CAN BE ACTIVATED.
- E. LOCATIONS AND SIZES OF EXISTING PIPING, VALVES, SPRINKLER HEADS, ETC. ARE APPROXIMATE. EXACT SIZES AND LOCATIONS OF ALL EXISTING ITEMS SHALL BE VERIFIED IN THE FIELD.
- F. NO REMOVED EXISTING PIPING, ETC. SHALL BE REUSED.
- G. NO REMOVED SPRINKLER HEADS SHALL BE REUSED.
- H. DO NOT INTERRUPT ANY OF THE SERVICES OF THE EXISTING BUILDING, NOR INTERFERE WITH THE SERVICES IN ANY WAY WITHOUT EXPRESS PERMISSION OF THE OWNER. SUCH INTERRUPTIONS AND INTERFERENCES SHALL BE MADE AS BRIEF AS POSSIBLE AND ONLY AT THE DESIGNATED TIMES.
- I. UNDER NO CIRCUMSTANCES SHALL WORKMEN BE PERMITTED TO USE ANY PART OF THE BUILDING AS A SHOP, EXCEPT PARTS DESIGNATED FOR SUCH PURPOSES.
- J. REROUTE OR REMOVE ALL EXISTING PIPING EXPOSED TO VIEW WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.
- K. FIRE PROTECTION SYSTEMS SHALL PROVIDE COMPLETE COVERAGE AS REQUIRED BY NFPA 13 AND OWNER'S INSURANCE AGENCY.
- L. PROVIDE COMPLETE LAYOUT DRAWING PER NFPA 13.

9. TESTING

- A. EACH SYSTEM SHALL BE FUNCTIONALLY TESTED AS REQUIRED BY LOCAL FIRE DEPARTMENT AND OWNER'S INSURANCE COMPANY. TESTS SHALL INCLUDE:
 - 1. TESTING OF VALVES, EQUIPMENT AND ACCESSORIES FOR PROPER OPERATION.
 - 2. SETTING AND ADJUSTING OF PRESSURE SWITCHES AND CONTROLS.
 - 3. PERFORM NEW FIRE HYDRANT FLOW TEST
 - 4. SUBMIT WRITTEN CERTIFICATION OF ACCEPTANCE OF ALL TESTS IN ACCORDANCE WITH NFPA-13.
- B. FURNISH ALL TESTING INSTRUMENTS, GAUGES, PUMPS, AND ALL OTHER EQUIPMENT NECESSARY TO PERFORM TESTS.
- C. ALL TESTS SHALL BE MADE IN THE PRESENCE OF THE REPRESENTATIVES OF THE ARCHITECT/ENGINEER, THE OWNER AND THE PLUMBING INSPECTOR. GIVE NOT LESS THAN 5 DAYS NOTICE.

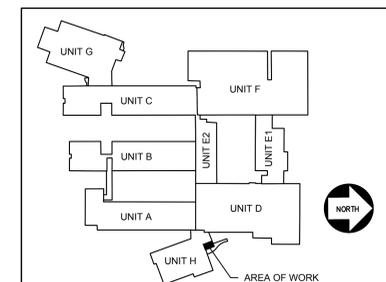
10. PIPE INSTALLATION

- A. MODIFY PIPING INSTALLATION TO SUIT BUILDING CONDITIONS AND TO AVOID INTERFERENCES WITH OTHER TRADES, MAINTAINING ACCESS TO ALL PARTS OF THE PIPING SYSTEMS AND DUCTWORK AND TO MAINTAIN PROPER PITCH.
- B. RUN PIPING GENERALLY PARALLEL TO THE AXIS OF THE BUILDING, ARRANGED TO CONFORM TO THE BUILDING REQUIREMENTS AND TO SUIT THE NECESSITIES OF CLEARANCE OF DUCTS, FLEES, CONDUITS AND WORK OF OTHER TRADES AND CLOSE TO CEILING OR OTHER CONSTRUCTION AS PRACTICAL, FREE OF TRAPS OR BENDS.
- C. PROVIDE ADDITIONAL OFFSETS, FITTINGS, VALVES, DRAINS, ETC. WHERE REQUIRED BY CONSTRUCTION AND WORK OF OTHER TRADES.
- D. RUN IN CHASES, RECESSES, SHAFTS, HUNG CEILINGS AND BEAM CUTS WHERE APPLICABLE. DO NOT COVER BEFORE EXAMINATION AND TESTING. NO PIPING IN FLOOR FILL UNLESS NOTED OR APPROVED.
- E. RUN PARALLEL WITH OR AT RIGHT ANGLES TO WALLS AND OTHER PIPING, NEATLY SPACED AND WITH PLUMB RISERS. MAINTAIN MAXIMUM HEADROOM.
- F. PROVIDE REDUCING FITTINGS FOR CHANGES IN PIPE SIZE. NO BUSHINGS ARE PERMITTED.

- G. IN HUNG CEILING AREAS, LOCATE SPRINKLER HEADS TO FALL IN CENTER OF CEILING PANELS AND FORM COORDINATED UNIFORM PATTERN WITH LIGHT FIXTURES, AIR SUPPLY OR RETURN DIFFUSERS, REGISTERS, ETC. PROVIDE NECESSARY OFFSETS IN BRANCH PIPES TO ACCOMPLISH DESIRED RESULTS. COORDINATE WORK CLOSELY WITH CEILING INSTALLER.
- H. HORIZONTAL OR DOWNFED BRANCH CONNECTIONS TO SPRINKLER HEADS SHALL BE MADE ABOVE CENTERLINE OF HORIZONTAL MAINS.
- I. SPRINKLER HEADS SHALL NOT BE INSTALLED UNTIL BRANCH LINES TO HEADS HAVE BEEN CLOSED.
- J. SPRINKLER PIPING 3" AND LARGER MAY HAVE WELDED, THREADED OR GROOVED FITTINGS. WELDING MUST BE DONE IN SHOP ONLY AND MAY ONLY BE DONE IF APPROVED BY LOCAL AUTHORITY.
- K. LAYOUT SHOWN ON CONTRACT DRAWINGS IS INTENDED TO SHOW GENERAL LAYOUT. AREAS TO BE COVERED AND BASIC REQUIREMENTS. PREPARE DETAILED WORKING DRAWINGS OF PIPING FOR REVIEW AND APPROVAL BY PROPER AUTHORITIES BEFORE ANY WORK IS PERFORMED.
- L. MANUFACTURER'S NAMEPLATE, NAME OR TRADEMARK, SHALL BE PERMANENTLY AFFIXED TO ALL EQUIPMENT AND MATERIAL FURNISHED UNDER THIS SPECIFICATION. WHERE SUCH EQUIPMENT IS IN A FINISHED OCCUPIED SPACE, THE NAMEPLATE SHALL BE IN A CONCEALED ACCESSIBLE LOCATION. THE NAMEPLATE OF A SUBCONTRACTOR OR DISTRIBUTOR WILL NOT BE ACCEPTABLE.
- M. IDENTIFICATION SHALL BE IN ACCORDANCE WITH "SCHEME FOR IDENTIFICATION OF PIPING SYSTEM ANSI A13.1" AND OSHA SAFETY COLOR REGULATION.
- N. MARKERS SHALL BE SNAP ON TYPE AS MANUFACTURED BY SETON NAMEPLATE CORP., NEW HAVEN, CONN. (SETMARK SYSTEM), BUNTING STAMP CO. INC., PITTSBURGH, P.A. OR APPROVED EQUAL. MARKERS SHALL COMPLETELY ENCLOSE THE PIPE WITH A SUBSTANTIAL OVERLAP. NO ADHESIVE SHALL BE USED. THEY SHALL BE MANUFACTURED OF U.L. APPROVED, SELF EXTINGUISHING PLASTIC. WHEN THE PIPE INCLUDING INSULATION (IF ANY) IS LARGER THAN 6" DIAMETER AND LARGER, MARKERS SHALL BE STAMP ON TYPE.
 - 1. COLOR SPECIFICATIONS:

| COLOR | NAME | FEDERAL STANDARD NUMBER |
|--------|--------------------|-------------------------|
| RED | OSHA SAFETY RED | 11120 |
| YELLOW | OSHA SAFETY YELLOW | 13591 |
| WHITE | INSIGNIA WHITE | 17875 |
| BLACK | OSHA BLACK | 17038 |
- O. WHERE PIPE IS TO BE LEFT BARE IT SHALL BE PAINTED WITH TWO (2) COATS OF SELF-PRIMING, MARINE-GRADE SILICONE EPOXY PAINT IN GLOSS COLORS AS REQUIRED BY ITEM P, BELOW, AND STENCIL AND VALVE TAG SCHEDULE.
 - 1. STENCIL AND VALVE TAG SCHEDULE

| SERVICE | STENCIL DESIGNATION | COLOR | TAG DESTINATION |
|---------------|---------------------|-------|-----------------|
| WET SPRINKLER | SPRINKLER | RED | SPK |
- Q. CONTRACTOR TO PROVIDE OWNER & OPERATIONS MANUALS FOR ALL MATERIAL & EQUIPMENT PROVIDED UNDER THIS CONTRACT TO OWNER.



KEY PLAN
NOT TO SCALE

NJDOE SP #1770-050-19-1000

MAIN ENTRY ALTERATION
 GLOUCESTER CITY HIGH SCHOOL
 1300 MARKET STREET
 GLOUCESTER CITY, NJ 08030

TITLE: PARTIAL FIRST FLOOR PLANS - FIRE PROTECTION

DRAWING DATE:
02 APR 21

REVISION DATE:

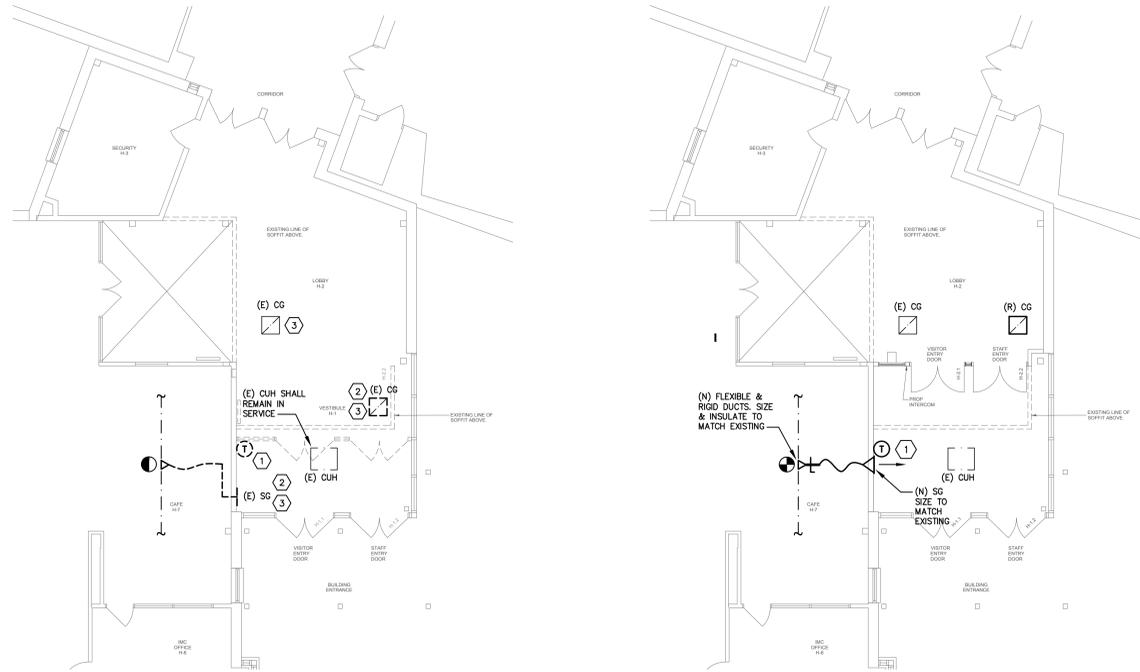
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 COMMISSION NO.:
5642D

FP1.1

REGAN YOUNG ENGLAND BUTERA
 REFERENDUMS - ENGINEERING - ARCHITECTURE - DESIGN
 456 HIGH STREET - MT. HOLLY, NEW JERSEY 08060 USA
 +1(609)265-2652-0333FAX • 21A08912100 • RYEBREAD.COM

KELTER & GILLICO
 consulting engineers
 P.O. BOX 777 - 14 WASHINGTON RD.
 FRANKFORD JUNCTION NEW JERSEY 08060
 Frank, Tashke, P.E.
 Professional Engineer
 NJ 36806





1 PARTIAL FIRST FLOOR PLAN – HVAC DEMOLITION
 H1.1 SCALE 1/8" = 1'-0"

GENERAL DEMOLITION NOTES:
 1. CONTRACTOR SHALL PROVIDE PRE DEMOLITION AIR MEASUREMENT OF EXISTING SUPPLY GRILLE.

- DEMOLITION KEY NOTES:**
- ① EXISTING THERMOSTAT SHALL BE CAREFULLY DISCONNECTED, TEMPORARILY REMOVED, AND WILL BE REUTILIZED. ASSOCIATED CONTROL WIRING BETWEEN SENSOR AND CORRESPONDING DEVICE SHALL BE REMOVED. CONTRACTOR TO FIELD VERIFY EXACT LOCATION.
 - ② EXISTING CG/SG SHALL BE CAREFULLY REMOVED AND STORED FOR REINSTALLATION.
 - ③ EXISTING CG/SG SHALL BE THOROUGHLY CLEANED.

2 PARTIAL FIRST FLOOR PLAN – HVAC
 H1.1 SCALE 1/8" = 1'-0"

NOTES:
 1. REBALANCE RELOCATED SUPPLY GRILL TO MATCH PRE DEMOLITION AIR MEASUREMENT.

- NEW WORK KEY NOTES:**
- ① REINSTALL EXISTING THERMOSTAT WHERE SHOWN. PROVIDE NEW CONTROL WIRING BETWEEN SENSOR AND CORRESPONDING CONTROLLER/EQUIPMENT. NEW WIRING SHALL MATCH STANDARDS OF EXISTING BMS.

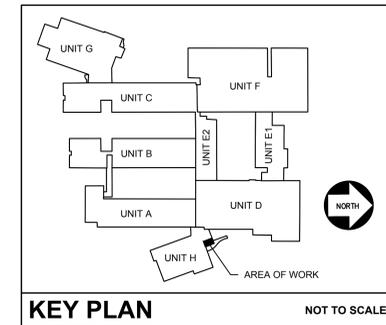
| ABBREVIATIONS | |
|---------------|---------------------|
| & | AND |
| CG | CEILING GRILLE |
| CUH | CABINET UNIT HEATER |
| EXIST./E | EXISTING |
| FCU | FAN COIL UNIT |
| (N) | NEW |
| (R) | REUTILIZED |
| SG | SUPPLY GRILLE |
| T | THERMOSTAT |

| SYMBOLS LIST | |
|--------------|--|
| | THERMOSTAT |
| | POINT OF NEW CONNECTION |
| | POINT OF REMOVAL |
| | SUPPLY AIR FLOW |
| | EXISTING WORK TO REMAIN |
| | EXISTING WORK TO BE REMOVED |
| | NEW WORK (DOUBLE-LINE & EQPT.) |
| | NEW WORK (SINGLE-LINE) |
| | CR-X X CFM RETURN, EXHAUST CEILING REGISTER |
| | CG-X X CFM RETURN, EXHAUST CEILING GRILLE |
| | CD-X X CFM SUPPLY CEILING DIFFUSER |
| | CR-X X CFM SUPPLY CEILING REGISTER |
| | 4-WAY |
| | 3-WAY |
| | 2-WAY |
| | 2-WAY |
| | 1-WAY |

HVAC SPECIFICATIONS:

- 1.0 GENERAL**
- A. GOVERNING CODES AND STANDARDS
 - a. NJ UNIFORM CONSTRUCTION CODE
 - b. 2018 INTERNATIONAL BUILDING CODE, NJ EDITION
 - c. 2018 INTERNATIONAL MECHANICAL CODE
 - d. NFPA STANDARDS 90A
 - e. ALL APPLICABLE ASHRAE STANDARDS
 - f. ALL APPLICABLE SMACNA STANDARDS
 - g. 2017 NATIONAL ELECTRICAL CODE
 - h. UL (ALL EQUIPMENT MUST BE LABELED)
 - i. NEER
 - B. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS, GOVERNING CODES, APPROVED SHOP DRAWINGS AND MANUFACTURER'S INSTRUCTIONS.
 - C. WARRANTY: THE EQUIPMENT SHALL HAVE A MANUFACTURER'S WARRANTY FOR A PERIOD OF TWO (2) YEARS FROM DATE OF FINAL ACCEPTANCE BY OWNER. IF DURING THIS PERIOD, ANY PART SHOULD FAIL TO FUNCTION PROPERLY DUE TO DEFECTS IN WORKMANSHIP OR MATERIAL, IT SHALL BE REPLACED OR REPAIRED AT THE DISCRETION OF THE MANUFACTURER. MANUFACTURER SHALL HAVE FIFTEEN YEARS EXPERIENCE IN THE U.S. MARKET.
 - D. BEFORE SUBMITTING BIDS, CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND BECOME THOROUGHLY FAMILIAR WITH THE OBSERVABLE EXISTING CONDITIONS AFFECTING HIS WORK. NO ADDITIONAL COMPENSATION WILL BE GRANTED ON ACCOUNT OF EXTRA WORK MADE NECESSARY BY THE CONTRACTOR'S FAILURE TO INVESTIGATE EXISTING CONDITIONS.
 - E. SUBMIT COMPOSITE COORDINATION SHOP DRAWINGS THAT SHOW ALL EXISTING AND NEW DUCTWORK, HVAC PIPING, PLUMBING PIPING, CONDUITS, LIGHTING FIXTURES, BUILDING STRUCTURE, CEILING MOUNTED EQUIPMENT, ETC. EXACT ELEVATION OF ALL COMPONENTS SHALL BE INDICATED.
 - F. CONTRACTOR SHALL SUBMIT MARKED UP HVAC DRAWINGS TO ENGINEER TO SHOW "AS-BUILT" CONDITIONS AFTER SATISFACTORY COMPLETION OF PROJECT.
- 2.0 SUBMITTALS**
- A. SHOP DRAWINGS SHALL BE REQUIRED FOR: ALL EQUIPMENT, MATERIALS, MEANS & METHODS INTENDED FOR USE UNDER THIS CONTRACT.
 - B. PRIOR TO DELIVERY TO THE JOB SITE, BUT SUFFICIENTLY IN ADVANCE OF REQUIREMENTS NECESSARY TO ALLOW ARCHITECT AMPLE TIME FOR REVIEW, SUBMIT SHOP DRAWINGS OF ALL EQUIPMENT, FIXTURES, MATERIAL, PIPING, DUCTWORK, SLEEVES, WIRING DIAGRAMS, ETC. AND FURTHER OBTAIN WRITTEN COMMENTS OF "APPROVED" OR "APPROVED AS NOTED" FOR THE SAME FROM ARCHITECT BEFORE INSTALLING ANY OF THESE ITEMS.
 - C. SHOP DRAWINGS SHALL CONSIST OF MANUFACTURER'S CERTIFIED SCALE DRAWINGS, CUTS, OR CATALOGUES, INCLUDING DESCRIPTIVE LITERATURE AND COMPLETE CERTIFIED CHARACTERISTICS OF EQUIPMENT, FIXTURES, ETC. SHOWING DIMENSIONS, CAPACITY, CODE REQUIREMENTS, MOTOR AND DRIVE TESTING, AS INDICATED IN THE CONTRACT DOCUMENTS.
 - D. CERTIFIED PERFORMANCE CURVES FOR ALL MECHANICAL EQUIPMENT SHALL BE SUBMITTED FOR REVIEW.
 - E. SAMPLES, DRAWINGS, SPECIFICATIONS, CATALOGUES, ETC., SUBMITTED FOR REVIEW SHALL BE PROPERLY LABELED INDICATED PROJECT NAME, AND SPECIFIC SERVICE FOR WHICH MATERIAL OR EQUIPMENT IS TO BE USED.
 - F. FAILURE TO SUBMIT SHOP DRAWINGS IN AMPLE TIME FOR CHECKING SHALL NOT ENTITLE AN EXTENSION OF CONTRACT TIME, AND NO CLAIM FOR EXTENSION BY REASON OF SUCH DEFAULT SHALL BE ALLOWED.
 - G. PRIOR TO SUBMISSION OF SHOP DRAWINGS CONTRACTOR SHALL THOROUGHLY CHECK EACH SHOP DRAWING, REJECT THOSE NOT CONFORMING TO THE SPECIFICATIONS, AND INDICATE BY SIGNED, STAMPED, & WRITTEN DECLARATION THAT THE SHOP DRAWINGS SUBMITTED MEET CONTRACT REQUIREMENTS.
 - H. THE COMMENT "APPROVED" OR "APPROVED AS NOTED" RENDERED ON SHOP DRAWINGS SHALL NOT BE CONSIDERED AS A GUARANTEE OF MEASUREMENTS OR BUILDING CONDITIONS. WHERE DRAWINGS ARE REVIEWED, SAID REVIEW DOES NOT IN ANY WAY RELIEVE THE RESPONSIBILITY, OR NECESSITY, OF FURNISHING MATERIAL OR PERFORMING WORK AS REQUIRED BY THE CONTRACT DRAWINGS AND SPECIFICATIONS.

- 3.0 SHEET METAL WORK**
- A. FURNISH AND INSTALL ALL SHEET METAL DUCTWORK, PLENUMS, AND ITEMS OF METAL WORK AS NECESSARY TO COMPLETE THE VARIOUS AIR CONDITIONING, VENTILATING AND HEATING SYSTEMS OF THE BUILDING SO THEY ARE READY FOR SATISFACTORY OPERATION. WHILE THE INSTALLATION SHOULD ADHERE TO THE PLANS AND SPECIFICATIONS AS MUCH AS POSSIBLE, THE CONTRACTOR SHALL BE ENTITLED TO MODIFY THE RUNS AND SIZES OF THE DUCTWORK AND TO MAKE OFFSETS, WHERE NECESSARY TO ACCOMMODATE BUILDING CONDITIONS, ONLY AFTER RECEIPT OF WRITTEN APPROVAL FROM THE ENGINEER. ALL SUCH CHANGES OR OFFSETS SHALL BE INDICATED IN THE "AS-BUILT" DRAWINGS SUBMITTED AT THE END OF THE JOB.
 - B. DUCTWORK SHALL BE CONSTRUCTED ACCORDING TO THE "EQUIPMENT HANDBOOK" PUBLISHED BY ASHRAE AND "HVAC DUCT CONSTRUCTION STANDARDS" PUBLISHED BY SMACNA.
 - C. SHEET METAL GAUGES, TRANSVERSE JOINTS, LONGITUDINAL SEAMS AND INTERMEDIATE REINFORCING MUST BE IN CONFORMANCE WITH SMACNA STANDARDS FOR 6" W.G. AND SEAL CLASS A.
 - D. ALL SUPPLY DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED STEEL OF U.S. D. STANDARD SHEET METAL GAUGE UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL JOINTS SHALL BE SEALED AIRTIGHT WITH 3MCC-800. CONNECTIONS TO FAN SHALL BE THRU ACID RESISTANT RUBBER NOT LESS THAN 4" LONG, FUME TIGHT AND SECURELY FASTENED WITH COPPER METAL BANDS.
 - E. ALL CHANGES IN DIRECTION, HORIZONTAL OR VERTICAL, SHALL BE SHAPED TO PERMIT THE EASIEST POSSIBLE AIR FLOW, USING CENTERLINE RADIUS OF 1-1/2 X WIDTH. FOR ALL CASES WHERE 90 DEGREE SQUARE ELBOWS ARE USED, APPROVED DOUBLE THICKNESS TURNING VANES SHALL BE USED. HVAC CONTRACTOR SHALL SUBMIT DETAILS FOR APPROVAL.
 - F. ALL DUCTWORK SHALL BE BUILT WITH APPROVED JOINTS AND SEAMS SMOOTH ON THE INSIDE WITH LAPS MADE IN THE DIRECTION OF THE AIR FLOW AND NO FLANGES PROJECTING INTO THE AIR STREAM. OUTSIDE SEAMS AND JOINTS SHALL BE AS NEAR TO AIR TIGHT AS POSSIBLE WITH A NEAT FINISH. THE CONTRACTOR SHALL CAULK ALL JOINTS WHICH ARE NOT MECHANICALLY TIGHT.
 - G. LONGITUDINAL JOINTS SHALL BE PITTSBURGH LOCK AT CORNERS OR ACME LOCK ON FLAT SURFACES DOUBLE SEAMS HAMMERED TIGHT AND SHALL BE LOCATED ABOVE THE HORIZONTAL AXES OF THE DUCT. A SNAP LOCK SEAM SHALL NOT BE PERMITTED AS A SUBSTITUTE FOR THE PITTSBURGH LOCK AT CORNERS OF DUCTS.
 - H. TRAVERSE JOINTS SHALL BE MADE AIRTIGHT WITH ALL LAPS IN THE DIRECTIONS OF AIR FLOW.
 - I. VOLUME DAMPERS AS SHOWN ON DRAWINGS AND AS REQUIRED FOR PROPER OPERATION SHALL BE INSTALLED IN THE VARIOUS BRANCHES FOR USE IN BALANCING THE SYSTEM. VOLUME DAMPERS SHALL BE OF MULTI-OPPPOSED BLADE CONSTRUCTION WITH LOCKING QUADRANTS FOR ALL DUCTS OVER 12" IN DEPTH. MOUNTED OUTSIDE OF THE DUCT IN ACCESSIBLE PLACE. VOLUME DAMPERS SHALL BE RUSKIN MODEL MD35 OR APPROVED EQUAL WITH END BEARINGS, STAND OFF FOR INSULATED DUCTWORK AND CONTINUOUS AXLE & LOCKING QUADRANT.
 - J. ALL DUCTWORK SHALL BE INSTALLED AS HIGH AS POSSIBLE TO MAXIMIZE HEADROOM.
 - K. ALL DUCTWORK SHALL BE HUNG FROM THE BUILDING STRUCTURE.
 - L. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH FIBERGLASS INSULATION WRAP AND VAPOR BARRIER. INSULATION WRAP SHALL MEET THE REQUIREMENTS OF NFPA 90A, WITH FLAME SPREAD, SMOKE DEVELOPMENT, AND FUEL CONTRIBUTED, NOT EXCEEDING 25, 50, AND 50 RESPECTIVELY AS TESTED BY PROCEDURE ASTM-84, NFPA 255, AND UL 753 UNLESS OTHERWISE NOTED. INSULATION WRAP SHALL PROVIDE MINIMUM R VALUE OF 6.0 WHEN INSTALLED.
- 4.0 SUPPORTS**
- A. ALL SUPPORTS AND HANGERS FOR EQUIPMENT, DUCTWORK AND PIPING UNDER THIS CONTRACT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
 - B. ALL HANGERS, SUPPORTS, & HARDWARE SHALL BE GALVANIZED UNLESS OTHERWISE INDICATED.



NJDOE SP #1770-050-19-1000

MAIN ENTRY ALTERATION
 GLOUCESTER CITY HIGH SCHOOL
 1300 MARKET STREET
 GLOUCESTER CITY, NJ 08030

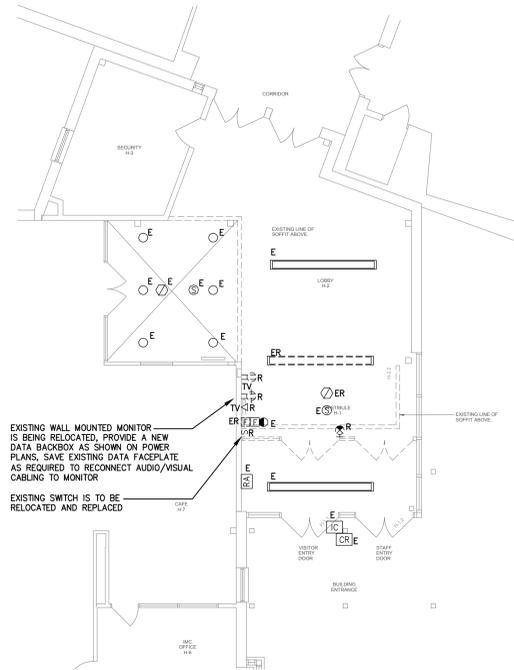
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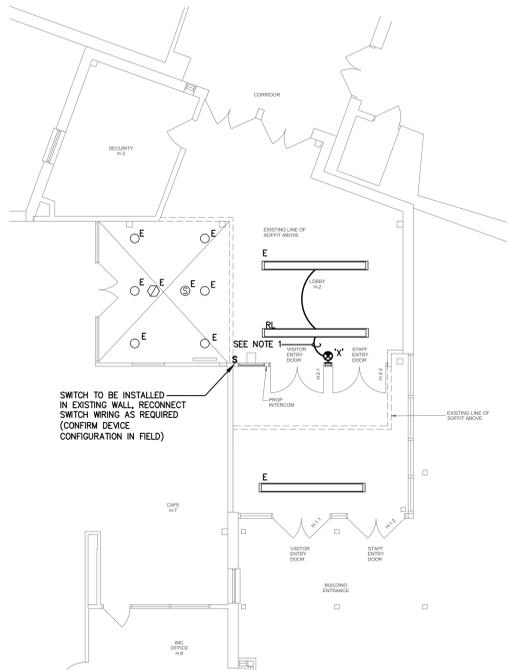
REGAN YOUNG ENGLAND BUTERA
 REFERENDUMS • ENGINEERING • ARCHITECTURE • DESIGN
 456 HIGH STREET • MT. HOLLY, NEW JERSEY 08060 USA
 +1(609)265-2652-0833FAX • 21/A00912100 • RYEBREAD.COM

KELTER & GILLIGO
 consulting engineers
 P.O. BOX 777 14 WASHINGTON RD.
 FARGO, NORTH DAKOTA 58103
 Phone: 701.785.9100
 Professional Engineer
 NJ 36806



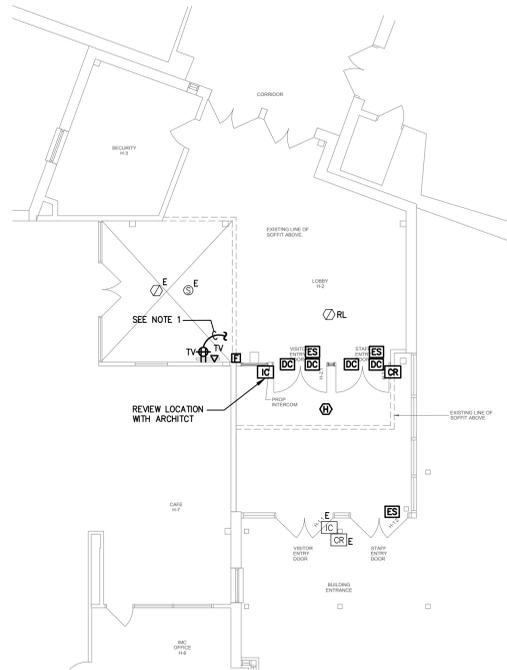


1 PARTIAL FIRST FLOOR PLAN – ELECTRICAL DEMOLITION
 E1.1 SCALE 1/8" = 1'-0"



2 PARTIAL FIRST FLOOR PLAN – LIGHTING
 E1.1 SCALE 1/8" = 1'-0"

NOTE:
 1. PROVIDE AND CONNECT TO EXISTING 20A, 120V LIGHTING CIRCUIT, VIA 2 #12 & 1 #12 GRD – 3/4".



3 PARTIAL FIRST FLOOR PLAN – POWER
 E1.1 SCALE 1/8" = 1'-0"

NOTE:
 1. PROVIDE AND CONNECT TO EXISTING 20A, 120V CIRCUIT THAT PREVIOUSLY SERVED MONITOR PRIOR TO RELOCATION, CIRCUIT VIA 2 #12 & 1 #12 GRD – 3/4".
 2. PROVIDE CONDUIT AND PULLWIRE FROM ACCESS CONTROL DEVICES TO ABOVE HUNG CEILING.

DEMOLITION NOTES:

- THESE DEMOLITION PLANS ARE INTENDED TO BE USED AS A GUIDE TO THE CONTRACTOR. ALL DEMOLITION WORK REQUIRED, OR NECESSARY FOR THE INSTALLATION OF NEW WORK OR THE REMOVAL OF EXISTING EQUIPMENT IS HEREBY INCLUDED, WHETHER SHOWN ON THESE PLANS OR NOT. REFER TO DRAWINGS OF ALL TRADES FOR ADDITIONAL WORK, AND COORDINATE IN THE FIELD.
- THE CONTRACTOR SHALL VERIFY ACTUAL SITE CONDITIONS PRIOR TO SUBMITTING HIS BID. THE CONTRACTOR SHALL INCLUDE ALL DEMOLITION WORK NECESSARY FOR THE EFFECTIVE INSTALLATION AND PERFORMANCE OF NEW SYSTEMS. THE CONTRACTOR SHALL ALSO INCLUDE TEMPORARY REMOVAL AND REINSTALLATION OF EXISTING WORK WHEREVER NECESSARY. THE OWNER SHALL NOT ACCEPT EXTRA COSTS ASSOCIATED WITH THE DEMOLITION AND/OR TEMPORARY REMOVAL/REINSTALLATION WORK FROM THE CONTRACTOR.
- THIS CONTRACTOR SHALL REMOVE ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES AS INDICATED ON THE DEMOLITION PLANS, OR THAT ARE NO LONGER NEEDED BY THE OWNER. ALL EXISTING WIRING AND CONDUIT WHERE NO LONGER REQUIRED SHALL BE REMOVED BACK TO EXISTING PANEL. ALL EXISTING DISCONNECTED CIRCUITS NOT BEING REUSED SHALL BE TURNED OFF AND LABELED "SPARE", WHERE CONDUITS ARE INACCESSIBLE, REMOVE WIRE AND ABANDON CONDUITS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY POWER IS BEING PROVIDED TO ALL EXISTING EQUIPMENT REQUIRED TO REMAIN IN SERVICE. RECONNECT ALL DISTURBED FACILITIES WHICH ARE EXISTING TO REMAIN AND PLACE THEM IN OPERATIONAL CONDITION.
- REMOVE ALL WIRING DEVICES FROM WALLS TO BE DEMOLISHED. REMOVE EXISTING LIGHT SWITCHES WHERE NO LONGER REQUIRED. REUSE ALL EXISTING CONCEALED CONDUIT AND RECESSED DEVICE BOXES WHERE POSSIBLE. ABANDON BOXES IF THEY ARE IN EXISTING WALLS TO REMAIN. PATCH WALLS OVER ABANDONED BOXES TO MATCH ADJACENT SURFACES.
- REMOVE ABANDONED OUTLET BOXES, SURFACE METAL RACEWAY AND CONDUIT THAT WOULD BE EXPOSED, AND REPAIR DISTURBED SURFACES TO MATCH ADJACENT AREAS.
- MAJOR PIECES OF EQUIPMENT ARE TO BE TURNED OVER TO THE OWNER FOR HIS USE, OR AT THE OWNER'S DISCRETION, REMOVED FROM THE SITE AND DISPOSED OF, IF NO LONGER REQUIRED.
- PATCH ALL WALLS TIGHT AT REMOVALS. MAINTAIN FIRE RATINGS AS REQUIRED.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR THE EXTENT OF WALL FINISHES AND CEILINGS TO BE REPLACED. ALL EXISTING DEVICES TO REMAIN SHALL BE TEMPORARILY DISCONNECTED AND REINSTALLED. WHERE TEMPORARY REMOVAL IS NOT POSSIBLE THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT OF EXISTING EQUIPMENT IN PLACE.
- THE EXISTING FIRE ALARM SYSTEM SHALL BE MAINTAINED THROUGHOUT DEMOLITION AND CONSTRUCTION. PROVIDE TEMPORARY SUPPORT OF EXISTING DEVICES AS REQUIRED. THE CONTRACTOR SHALL NOTIFY THE FIRE MARSHAL UPON ANY MODIFICATIONS TO OR ANY NECESSARY INTERRUPTION IN SYSTEM OPERATION. NOTE THAT COVERING DEVICES DURING CONSTRUCTION IS AN INTERRUPTION TO COVERAGE.

SYMBOL LIST & ABBREVIATIONS

| | | | |
|--|--|----|---|
| | LIGHT FIXTURE | | ELECTRIC STRIKE |
| | EXIT SIGN – SEE LIGHTING FIXTURE SCHEDULE | | INTERCOM |
| | DUPLEX RECEPTACLE, 20A, 125V, 2 POLE, 3 WIRE GROUNDED, GFI INDICATES GROUND FAULT INTERRUPTION | | CARD READER |
| | DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER HEIGHT | | SPEAKER |
| | VOICE/DATA/VIDEO OUTLET – 4" x 4" OUTLET BOX WITH 1-1/4" STUBBED UP ABOVE NEAREST ACCESSIBLE CEILING | | WIRE & CONDUIT, CONCEALED IN CEILING OR WALL |
| | SINGLE POLE SWITCH | | HOMERUN TO PANEL, NUMERAL INDICATES CIRCUIT NUMBER |
| | FIRE ALARM, REMOTE ANNUNCIATOR PANEL | E | EXISTING TO REMAIN |
| | FIRE ALARM, MANUAL PULL STATION | R | EXISTING TO BE REMOVED |
| | FIRE ALARM, HEAT DETECTOR FIXED TEMPERATURE AND RATE-OF-RISE | ER | EXISTING TO BE RELOCATED |
| | FIRE ALARM, SMOKE DETECTOR PHOTOELECTRIC | RL | RELOCATE EXISTING TO THIS LOCATION, COORDINATE EXACT LOCATION IN FIELD, PROVIDE NEW WIRING TO EXTEND EXISTING WIRING AS REQUIRED, MATCH EXISTING WIRING TYPE AND SIZE |
| | FIRE ALARM AUDIO/VISUAL DEVICE | | |
| | DOOR CONTACT | | |

LIGHTING FIXTURE SCHEDULE

| ID | LAMPS | MANUF. | CAT. NO. | MOUNTING | DESCRIPTION |
|----|-------|-----------|------------------|--------------|--|
| X | LED | SURE-LITE | CAX-X-LED-SP-R-W | WALL/CEILING | DIE-CAST ALUMINUM EXIT SIGN, WHITE BODY AND FACE WITH 6" x 3/4" RED LETTERS, SINGLE FACE MOUNT ON DOOR MULLION, 90 MINUTE BATTERY BACKUP, 120V INPUT |

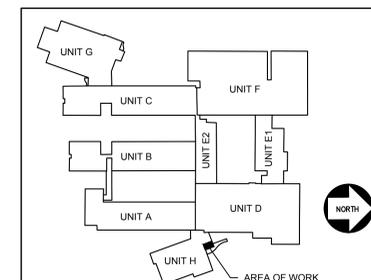
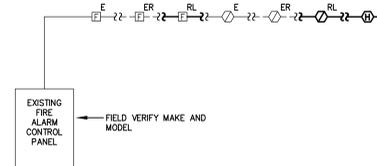
LIGHTING FIXTURE NOTES:

- CONNECT ALL EXIT SIGNS AND EMERGENCY FIXTURES AHEAD OF ALL SWITCHING.

FIRE ALARM SYSTEM NOTES:

- PROVIDE ALL WIRING AS RECOMMENDED BY MANUFACTURER. ALL WIRING SHALL BE IN CONDUIT. FIRE ALARM LABELED MC CABLE MAY BE USED IN CONCEALED LOCATIONS WHERE PERMITTED BY CODE.
- CONTRACTOR IS RESPONSIBLE FOR INSURING THAT FIRE ALARM SYSTEM MODIFICATIONS MEET ALL APPLICABLE CODES AND FOR OBTAINING FINAL APPROVAL FROM LOCAL FIRE INSPECTOR(S).
- PRIOR TO STARTING WORK, PREPARE SHOP DRAWINGS INCLUDING ALL INFORMATION REQUIRED UNDER IBC-2018, SECTION 907.1.2. SUBMIT SHOP DRAWINGS TO ARCHITECT FOR REVIEW AND APPROVAL. ONCE APPROVED, SUBMIT SHOP DRAWINGS TO CODE REVIEWER/INSPECTOR(S) FOR APPROVAL.
- EXPAND EXISTING FIRE ALARM SYSTEM AS REQUIRED TO CONNECT NEW DEVICES. PROVIDE ALL NEW HARDWARE, RELAYS, MODULES, WIRING, BATTERIES, ETC., AS NECESSARY FOR COMPLETE INSTALLATION.
- PROVIDE ALL PROGRAMMING BY A FACTORY CERTIFIED VENDOR AS REQUIRED TO MAKE THE NECESSARY MODIFICATION TO THE SYSTEM. INCLUDE ANY HARDWARE, WIRING, OR COMPONENTS NECESSARY FOR CONTINUED REUSE.
- ALL FIRE ALARM CONTROL PANELS, REMOTE ANNUNCIATORS, AND BOOSTER PANELS SHALL HAVE SMOKE DETECTORS COVERAGE ABOVE. PROVIDE DEVICES WHETHER SHOWN ON PLANS OR NOT.
- PROVIDE CONTACT AND WIRING TO OWNER'S DOOR ACCESS CONTROL PANEL FOR THE FAIL-SAFE OPERATION OF THE ELECTRONIC DOOR LOCKING SYSTEM WHEN THE FIRE ALARM IS ACTIVATED. COORDINATE ALL REQUIREMENTS WITH OWNER AND ACCESS CONTROL SYSTEM VENDOR.
- UPON COMPLETION OF FIRE ALARM WORK, PROVIDE A RE-ACCEPTANCE TEST OF THE ENTIRE SYSTEM PER NFPA 72.

4 FIRE ALARM SYSTEM RISER DIAGRAM
 E1.1 SCHEMATIC



KEY PLAN NOT TO SCALE

REGAN YOUNG ENGLAND BUTERA
 REGISTERED ARCHITECTS - ENGINEERS - ARCHITECTURE - DESIGN
 456 HIGH STREET - MT. HOLLY, NEW JERSEY 08060 USA
 +1 (609) 265-2652-0333 FAX + 21/00912100 - RYEBREAD.COM

KELTER & GILLICO
 consulting engineers
 P.O. BOX 777 14 WASHINGTON RD.
 FRANKFORD TOWNSHIP NEW JERSEY 08060
 Phone: 762-91-91 Professional Engineer
 NJ 38606

NJDOE SP #1770-050-19-1000
MAIN ENTRY ALTERATION
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 1300 MARKET STREET
 GLOUCESTER CITY, NJ 08030
 TITLE: PARTIAL FIRST FLOOR PLANS - ELECTRICAL

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 COMMISSION NO.:
5642D

E1.1
 1 OF 2

GENERAL REQUIREMENTS

This Section is coordinate with and complementary to the General Conditions and Special Requirements. Drawings are diagrammatic. Sizes and locations of equipment are shown to scale where possible, but may be distorted for clarity on the Drawings. Final locations shall be as required or directed. Light and power and system riser diagrams and schematic diagrams generally indicate equipment and connections to be used for various systems. System conduit and wiring shall be as required. Provide all work shown on diagrams whether or not it is duplicated on the plans.

SCOPE OF WORK

In general the work includes, but is not limited to the following:

- 1. Raceways and installation components.
2. Wire and Cable.
3. Grounding.
4. Lighting fixtures.
5. Electrical provisions for fire and life safety.
6. Fire alarm system (modifications).
7. Testing.
8. Seismic restraints.
9. Furnishing and setting of all sleeves through the floors, roof, and walls where required, including waterproofing, and fireproof sealing, and cap flashing.
10. Cutting, drilling and boring associated with electrical work.
11. Prime painting, where required for electrical equipment and installation.
12. Final connection of all equipment unless otherwise noted.

QUALITY ASSURANCE AND STANDARDS

The complete installation shall be in accordance with NUCC (The State Building Code).

SUBMITTALS

The Contractor shall submit shop drawings for all systems and components with such promptness as to cause no delay in his own work or that of another contractor.

EXAMINATION OF EXISTING CONDITIONS ON PREMISES

Before submitting his bid, this Contractor shall visit the site of the work and shall thoroughly familiarize himself with the existing conditions affecting the work. By the act of submitting a bid, the Contractor shall be deemed to have made such an examination, to have accepted such conditions, and to have made allowance therefore in preparing his bid. No additional compensation will be granted on account of extra work made necessary by the Contractor's failure to investigate such existing conditions. Verify all grades, elevations, dimensions, and clearances at the site.

COORDINATION OF WORK WITH OTHER TRADES

The contractor shall coordinate the work of this Section with the work of all other Contracts and all the Utility Companies. It shall be so arranged that there will be no delay in the proper installation and completion of all work.

INSPECTION AND TESTS

The entire wiring system must test free from short and open circuits. Every ground shall be tested for compliance with standards listed below.

PROTECTION, MAINTENANCE AND PRODUCT HANDLING OF ELECTRICAL EQUIPMENT

Electrical equipment shall be delivered and stored at the site, properly packed and crated until finally installed.

Provide effective protection against damage for all material and equipment during shipment and storage at the Project Site.

This Contractor shall be responsible for the maintenance of all installed equipment and systems until final acceptance by the Owner.

GUARANTEE

This Contractor shall guarantee in writing to the Owner that all work installed by him shall be free of defects in workmanship and materials and that all apparatus will develop the capacities and characteristics as indicated, and that, if during a period of two years from date of final approval of work by the Architect, any defects in workmanship, materials or performance appear, he will remedy them without any cost to the Owner.

ACCESSIBILITY AND MEASUREMENTS

All work shall be installed so as to be readily accessible for operation, maintenance, and repair. Minor deviations from the plans may be made to accomplish this, subject to approval.

Before ordering any material or doing any work, the Contractor shall verify all measurements at the Building, and shall be responsible for the correctness of some as related to the work under this Contract.

TEMPORARY LIGHT AND POWER

Electric services for temporary light and power shall be obtained from existing.

The Electrical Contractor shall furnish, install, and maintain the temporary lighting and power system for all Contractors. Provide temporary power for all construction trailers or as directed. The use of electricity shall be kept to a minimum.

Provide all wiring, supports, lamp sockets, receptacle sockets and any other materials, supplies or equipment necessary for temporary light and power system.

Ground fault protection required by OSHA.

Install separate stringer circuits for lighting and receptacles. Provide one lamp socket and one duplex receptacle for every 400 square feet of new general construction area. (Approximately 20 feet on centers).

Provide sufficient supplementary temporary lighting to permit proper execution of the work.

Keep the temporary lighting and power system operational commencing fifteen (15) minutes before the established starting time of that trade which starts work earliest in the morning and ending fifteen (15) minutes after the established quitting time of that trade which stops work latest in the evening.

IDENTIFICATION NAMEPLATES

Identify and mark all electrical equipment to meet OSHA standards and as specified herein.

Unless otherwise noted, nameplates shall be black laminate with white letters of uniform size consisting of reasonably large capital letters, 3/16 inch minimum.

SEISMIC RESTRAINTS

Provide lateral restraints for all electrical equipment installed on project; i.e., Battery racks, ballast racks, cable trays, conduits, generators, lighting fixtures, panels and transformers. Typically, lateral restraints shall consist of angle iron and "uni-struct" bracing, cross bracing, hanger rods, anchor clips, expansion shield anchor bolts, etc. The purpose of the restraints is to provide resistance to lateral (horizontal) movement during earthquake.

All equipment shall be anchored to the floor, ceiling structure or walls.

All suspended equipment, wiring trough and conduit trade size 2-1/2" or larger shall have (lateral) horizontal bracing capable of resisting 50% of the equipment weight. Horizontal bracing shall be placed at each point where vertical supports are specified or required.

All life safety equipment, and conduit shall have lateral bracing capable of resisting 100% of the equipment weight.

Stem mounted fixtures shall have stems and swivel canopies designed for seismic loads. Ceiling outlet boxes and hangers for stem-mounted fixtures shall have lateral bracing capable of withstanding full vertical load. Lateral bracing shall be attached to the ceiling (at an angle) or wall structure.

Recessed and surface mounted light fixtures must be secured to the ceiling system so as to resist 50 % of their weight laterally; i.e. a 40 pound fixture must be resistant to a 20 pound lateral force. Life safety lighting fixture must be secured to the ceiling system so as to resist 100% of their weight laterally. Suitable anchor clips must be provided for all lvy-in fixtures. Surface mounted fixtures must be supported at two points in addition to the outlet box.

RACEWAYS AND INSTALLATION COMPONENTS

The requirements of this Section apply to raceway work specified elsewhere in these specifications.

The work includes the providing of completely coordinated grounded raceway systems complete with boxes, fittings, flexible connections to vibrating equipment and accessories, as specified and as required for a complete system.

The work permits the use of metal-clad cable in conjunction with conduit. See below.

Raceways and fittings shall be manufactured by Triangle, Allied, Republic or approved equal.

Rigid steel conduit shall be full weight steel pipe, hot dip galvanized inside and outside, threaded, minimum 3/4 inch.

Intermediate metal conduit (IMC) shall be intermediate steel pipe, hot dip galvanized, threaded, minimum 3/4 inch.

Electric metallic tubing (EMT) shall be steel thin wall pipe, galvanized, threadless, minimum 3/4 inch, maximum 2 inch.

Flexible steel conduit (Greenfield) shall be continuous single strip, galvanized, minimum 3/4 inch.

Liquid-tight flexible steel conduit (Seal-tite) shall be zinc coated, consist of flexible galvanized steel tubing over which is extruded a liquid-tight sheathing of polyvinyl chloride (PVC). Conduit shall be provided with a continuous copper bonding conductor wound spirally between the convolutions.

Rigid steel and IMC conduit fittings shall be standard threaded couplings, locknuts, bushings, and elbows. Material shall be steel or malleable iron only.

Electrical metallic tubing fittings shall be compression waterproof connection type. Set screw or indent type connectors are not permitted.

Flexible steel conduit (Greenfield) fittings shall be multiple point type, threading into the internal wall of the conduit convolutions, and shall have insulated throat.

Liquid-tight flexible metal conduit fittings shall incorporate a threaded grounding cone, a steel or plastic compression ring, and a gland for tightening. Connectors shall have insulated throats.

Expansion and deflection couplings shall be manufactured by O-Z/Gedney, Crouse-Hinds, Appleton or approved equal.

Individual conduit hangers, shall be designed for the purpose, and have pre-assembled closure bolt and nut, and provisions for receiving hanger rod.

Multiple conduit (trapeze) hangers shall be not less than 1-1/2 by 1-1/2 inch, 12 gauge steel, cold formed, lipless channels. Hanger rods shall be not less than 3/8-inch diameter steel.

Solid masonry and concrete anchors shall be a type approved for the purpose.

Provide and assume responsibility for locating and maintaining in proper position all sleeves required for the work.

Openings through floors and walls in which cables, conduits, or pipe pass shall be sealed by U.L. classified smoke and fire stop fittings, and have an hourly rating equal to the fire rating of the floor or wall. Fittings shall be similar to O-Z/Gedney type "CF", "CAF", or approved equal.

Penetrations through fire-rated floors in which wiring for floor service outlets are rated shall be sealed by U.L. classified smoke and fire-stop fittings, and shall have an hourly rating equal to the floor rating. Fittings shall be similar to O-Z/Gedney type "PIFS" or approved equal.

Outlet boxes shall be manufactured by Raco, RussellStoll, Steel City, Thomas & Betts, Crouse Hinds or approved equal.

Outlet boxes for concealed work shall be galvanized steel, 4 in. square or octagon (except as otherwise required by construction, devices or wiring). Provide sufficient depth for application.

Outlet boxes located outdoors and in damp locations shall be weatherproof.

Offset back-to-back outlets shall have minimum 6 in. separation between them. In rated walls, they are to be separated by a stud.

Junction, splice and pull boxes shall be made of code gauge sheet steel with removable covers fastened with brass or stainless steel screws, except as noted, and will include insulated supports for cables. Box dimensions shall conform to N.E.C. requirements.

Provide junction, splice and/or pull boxes as noted or as required to facilitate pulling of conductors or in raceway runs that have more than three (3) 90-degree bends.

For indoor applications, boxes shall have a gray enamel finish. For outdoor and damp locations, boxes shall be galvanized.

Wireways shall be as manufactured by Square D, General Electric, or approved equal.

Wireways shall be square, broke-formed of code gauge steel, furnished in standard 10-foot sections with knockouts as required. Wireways shall be of the screw cover type and all necessary offset and elbow fittings. They shall have a gray enamel finish. Size shall be as required for proper cable fill.

Install raceway and installation components as indicated, in accordance with manufacturer's written instructions, applicable requirements of NEC and in accordance with the recognized industry practices, to ensure that products serve intended function.

Raceway supports shall be provided by means of ceiling trapeze, strap hangers, or wall brackets. Use structural steel angles or channels, or manufacturer's standard steel support system. Spacing of supports shall be as per NEC and per manufacturer's recommendations but in no case shall exceed 8'-0" on centers. Provide U-bolts at each floor level for riser raceways and anchor to acceptable supports. Secure raceways to supports with pipe straps or U-bolts.

Mechanically join all metal raceways, enclosures and junction boxes to assure continuity.

Branch circuit conduits shall be supported by the building structure.

Conduits located underground beyond the building for branch wiring shall be installed with a minimum of 30 in. top cover as shown on the drawings.

Provide expansion-deflection fittings at expansion joints in accordance with manufacturer's recommendations. Expansion-deflection fittings shall be used for all trade sizes 1-1/4" or larger. For trade sizes up to 1" in size, a suitable length of flexible conduit (or liquid-tight flexible conduit) with sufficient slack for movement and grounding conductor fastened on each side of joint shall be permitted.

Rigid steel conduit shall be used for underground installation; in wet, damp or wash down locations; for exposed runs on the exterior of the building; embedded in concrete or masonry or below concrete that is in contact with earth.

Intermediate metal conduit (IMC) may be used in place of rigid steel in dry locations only.

EMT is to be used for feeders and branch circuits in dry locations such as hung ceilings, interior hollow fill walls and furred spaces.

Flexible steel conduit shall be used in dry locations for short connections where rigid conduits or tubing is impracticable, and for final connections to lights and equipment other than motors and transformers.

Liquid-tight flexible steel conduit shall be used in damp locations for final connections to motor terminal boxes, transformers, and other vibrating equipment in damp and dry locations.

In general, cutting and core drilling is to be avoided. Where it becomes necessary, locations are to be coordinated with other trades, the Owner and the architect. There is to be no cutting or core drilling without prior approval.

Provide an outlet box for each lighting fixture and device shown, or required, in the wiring system.

Provide galvanized steel extension rings (depth as required) and raised cover plates in plaster, dry wall, masonry and tile walls.

Mount outlet boxes for similar equipment at uniform height within same or similar areas.

Outlet boxes for fixtures recessed in non-accessible ceilings shall be accessible through the opening created by the removal of the fixture or through access doors provided by this contractor.

All outlet boxes in finished areas for convenience receptacles or local switches shall be 4" square and 1-5/8" deep minimum. Provide with regular deep switch extension cover.

Boxes for use with surface mounted raceways shall be of the same construction and manufacture as the raceway.

Provide junction, splice and pull boxes where required to facilitate installation of wiring, whether or not shown on Drawings. Size boxes according to code, and provide interior partitions, insulated supports, hot dip galvanized angle iron bracing, screw-on one-piece or split covers, ground connectors, and other accessories as required.

All outdoor installations shall be weatherproof.

Support all material from the building structure in an approved manner.

Where electrical equipment is mounted in suspended ceiling panels, provide support members to span between runners of ceiling suspension system. Do not support electrical equipment from acoustical panels or other ceiling material; attach to this material for alignment only.

Where electrical outlet boxes, lighting fixtures, and other equipment is installed on tee bars of suspended ceilings, use independent support clips with threaded studs. Do not attach to tee bar except for alignment; use clip similar to Caddy "IDS" that snaps around tee bar and has provisions for independent support wire. Attach a suitable anchor in the structure above ceiling, and suspend a minimum No. 12 support wire to engage the clip.

Do not exceed manufacturer' load rating for mounting devices.

At drywall partitions, provide support members to carry weight of equipment; do not use drywall material to carry any weight.

WIRE AND CABLE

The work includes providing wire and cable complete with all accessories in accordance with Drawings and Specifications and as required for a complete system. Wiring size referenced in this Section shall be AWG, except as noted.

This project has been designed for copper conductors. Aluminum conductors are not acceptable and shall not be used. Cable shall be manufactured by Triangle, Carol, Guardian Products or approved equal.

No. 10 and smaller conductors shall be ASTM Standard, solid, copper; and, No. 8 and larger conductors shall be ASTM standard, stranded copper.

Minimum conductor size shall be No. 12 for lighting and power and No. 14 for control and alarm. Increase wire sizes as required for long runs to overcome voltage drop.

Communications and signal wiring shall conform to the recommendations of the manufacturer's communication and signal systems and shall be specified in respective Sections of these Specifications.

"THWN" or "XHHW" insulation shall be used for interior branch circuit and feeder wiring. Rating shall be 90C in dry locations and 75C in wet locations.

Green colored insulated wire shall be used for all grounding applications.

Phase wires shall be color-coded as follows:

- 1. 120/208 volt system: Black for A phase, Red for B Phase, Blue for C Phase

Neutral conductors shall be white for 120/208 volts.

Not more than 3 current carrying conductors shall be in one (1) conduit unless otherwise indicated. Provide one neutral conductor for each 3 phase 4 wire homerun to a panelboard unless otherwise noted.

MC cable shall comply with the NEC article 330. MC cable shall be as manufactured by AFC, Guardian Products or approved equal.

MC cable shall include a green insulated ground wire of the same size as the other conductors.

Run MC cable in dry hollow metal partitions and above suspended ceilings. Install cable as slack span; do not pull tight. Maintain at least 6" clearance between parallel runs of light and power wiring to avoid inductive coupling. Maintain at least 24" clearance from hot water and steam piping. Provide conduit sleeves through walls and partitions that obstruct horizontal passage of wiring, and seal sleeves after installation of cables. Cable shall be secured by approved staples, hangers or similar fittings independent of ceiling grids or supports.

MC cable shall be used in conjunction with conduit. Cable shall only be permitted for single phase circuits in hollow metal walls and above accessible ceilings. Single phase cable runs shall be gathered into three phase conduit homeruns. In no case shall cable enter directly into panelboards.

Secure MC cable to ceiling structure at intervals not to exceed 6 feet and within 12 inches of every outlet box, junction box, or fitting.

Make wire splices electrically and mechanically secure. Install small wire connectors so that no bare conductor is exposed. Tighten bolts on large conductor connectors so that conductor is deformed, but do not break strands of wire. Use compression tool with proper die for compression connectors in accordance with manufacturer's recommendations, so that conductors are deformed but not broken. Apply insulation over splice so that insulation thickness is at least 1-1/2 times that on conductor. Lap applied insulation at least 1" over conductor insulation so that no bare conductor is exposed.

In general, all feeders No. 8 and larger shall be continuous from point of origin to equipment being served. Splices shall only be used where necessary and with prior written approval of the Architect.

Terminate conductors on terminal strips in equipment where terminal strips are used. Provide appropriate connectors, or hook conductors around terminal screws as required.

Provide encapsulated splice kits (3-M type 85 series or approved equal) for all splices in areas subject to moisture, including wet locations inside buildings and underground handholes, manholes, and buried junction boxes. Install splice kit in accordance with manufacturer's recommendations, and make splice waterproof. Apply seeping putty to surround each cable. Install mold body so that resin covers each cable sheath by a minimum of one inch.

All copper conductors No. 8 & larger shall be terminated, spliced, and tapped with color-keyed compression connectors, as manufactured by Thomas & Betts Co. Series 54000, Ideal Industries Series 87000, or approved equal. The manufacturer's recommended tooling shall be used. Mechanical type connectors shall not be used.

All copper conductors No. 10 AWG & smaller shall be terminated and applied with wing-nut wire connectors or approved equal compression connectors. The flame-retardant thermoplastic insulated type shall be used to isolate the terminal from other metal parts and equipment.

Use insulating boots supplied for compression connectors or fit joint with "Scotchfill" insulating putty and serve (3) 1/2 lap layers of "Scotch" #33 electrical tape.

Wiring devices and installation components shall be manufactured by Hubbell, Bryant Electric, Pass & Seymour, Leviton, Cooper Industries-Arrow Hart, General Electric or approved equal.

Switches shall be heavy-duty specification grade, toggle, outlet type, fully enclosed in composition cases, color as selected by Architect at shop drawing stage. They shall be rated 20 amp, 120/277 volt, AC.

Receptacles shall be the grounding type, composition base, meeting NEMA standards, publication WD-1-1971, color as selected by Owner.

Duplex Convenience Receptacles shall be 20 amps, 125 volts, 2 pole, 3 wire, U ground slot type, Hubbell No. BR20 or approved equal.

Plates shall be beveled stainless steel satin chrome finish #302, of minimum .035" thickness. Wallboard and masonry shall fit snugly to all sides of outlet boxes, gromt and patch as required.

Local wall switches and receptacles shall be mounted vertically unless otherwise indicated.

WIRING DEVICES AND INSTALLATION COMPONENTS

All local switches near doors shall be located at strike side of door as finally hung, whether so indicated on the Drawings or not.

Height of outlets from finished floor to centerline of outlet shall be as follows:

Wall switch outlet: 3'-8"

Wiring devices and installation components shall be manufactured by Hubbell, Bryant Electric, Pass & Seymour, Leviton, Cooper Industries-Arrow Hart, General Electric or approved equal.

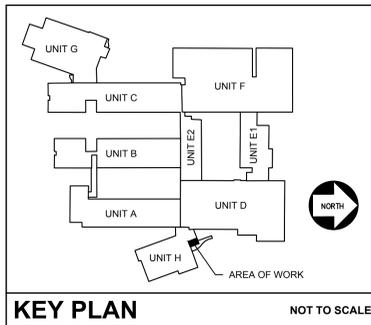
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Scale: 1/8" = 1'-0" (1/4" = 2'-0")
Drawing by: [Signature]
Date: 2/20/02

NJDOE SP #1770-050-19-1000

MAIN ENTRY ALTERATION
GLOUCESTER CITY HIGH SCHOOL
1300 MARKET STREET
GLOUCESTER CITY, NJ 08030

DRAWING DATE: 02 APR 21
REVISION DATE:
DRAWN BY: LA
COMMISSION NO.: 5642D

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KELLER & GILLICO
consulting engineers
P.O. Box 777, 14 Washington Blvd.
Fairfield Station, New Jersey 07004
Phone: 973-266-1900
Professional Engineer
NJ 36826

REGAN YOUNG ENGLAND BUTERA
REFERENDUMS • ENGINEERING • ARCHITECTURE • DESIGN
456 HIGH STREET • MT. HOLLY, NEW JERSEY 08060 USA
+1 (609) 265-2652 • 0833FAX • 217400912100 • RYEBREAD.COM