NYS Office of General Services
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STATE OF NEW YORK
OFFICE OF GENERAL SERVICES
DESIGN AND CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242

ADDENDUM NO. 4 TO PROJECT NO. 45124

CONSTRUCTION WORK, HVAC WORK, PLUMBING WORK, AND ELECTRICAL WORK
ABATE HAZARDOUS MATERIALS
AND RENOVATE BUILDING NO. 4
STATE OFFICE BUILDING CAMPUS
1220 WASHINGTON AVENUE
ALBANY, NY

October 7, 2016

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

CD WRITING ERROR

1. Asbestos Variance (Amendment 1): The document from the CDs' for all 4 Contracts was not legible. A legible copy of the approved NYS DOL Variance (5 pages) accompanies this Addendum.

2. Prefunctional Checklist for Air Cooled Modular Chiller: This Document was omitted from the CDs' for this Project. This Document (pages 236424.1-1 thru 236424.1-4) accompanies this Addendum.

CHANGES TO ADDENDUM NO. 1

3. Item No. 16 b.: FUNCTIONAL TEST PROCEDURE FOR AIR COOLED MODULAR CHILLER issued with Addendum No. 1: Change the "236423" at bottom of the pages to read "236424".

4. Item No. 21: Change "238126-1" in the first line to read "238219-1".

5. Item No. 22: Change "238220.1-12"in the second line to read "238220.1-13".

6. Item No. 28:
   a, Delete this Item in its entirety and replace with the following
      "28. SECTION 260923 DISTRIBUTED DIGITAL LIGHTING CONTROL SYSTEM: Add the accompanying Section (pages 260923-1 thru 260923-11) to the Project Manual."
   b. Section 260923 issued with Addendum No. 1:
      1) Delete "REVISED 9/22/16" from the top of the Section.
      2) Change the "262813" at the bottom of the pages to read "260923".

7. Item No. 33: Delete this Item in its entirety.

COMMON DIVISION 1 DOCUMENTS

8. SECTION 011100 SAFETY: Add the attached Section (pages 011100-1 thru 011100-3) to the Project Manual.

9. Page 015000-8, ARTICLE 1.14 TEMPORARY FIRE PROTECTION: Add the following Paragraph:
   "E. Submit temporary standpipe plan to the Director's Representative before the demolition of existing standpipe system. Provide temporary fire protection standpipe system upon approval of plan and before demolition of existing standpipe system."

10. SECTION 015300 TEMPORARY CONSTRUCTION: Discard the Section bound in the Project Manual and substitute the accompanying Section (pages 015300-1 thru 015300-4) noted "REVISED 10/6/16".

11. SECTION 015301 TEMPORARY EXTERIOR HOIST: Discard the Section bound in the Project Manual and substitute the accompanying Section (pages 015301-1 thru 015301-5) noted "REVISED 10/6/16".

CONSTRUCTION WORK SPECIFICATIONS

12. Page 024118-1, ARTICLE 1.01 DESCRIPTION OF WORK: Add the following Paragraph:
   "B. Coordinate the Work described in Paragraph above with Specification Section 028213. Consider all materials as asbestos containing. Refer to Drawing No. H-100 for this Work."

13. Page 024118-1, ARTICLE 1.02 RELATED WORK: Add the following Paragraph:
   "C. Asbestos Abatement: Section 028213".

14. Page 028213-1, ARTICLE 1.02 RELATED WORK SPECIFIED ELSEWHERE: Add the following Paragraph:
   "E. Selective removals and Demolition: Section 024119".

15. Page 028213-3, Paragraph 1.06 A.: Add the following to the end of this Paragraph:
   "No site specific variance will be accepted to alter the requirement of full building critical barrier enclosures including the penthouse level.

16. Page 028304-4, ARTICLE 1.08 PROJECT CONDITIONS: Add the following Paragraphs:
   "D. Coordinate the Work that impacts lead-containing paint with Specification Section 028213. Refer to Drawing No. H-101 for list of lead-containing paint."

   E. Lead-containing paint removal shall be performed within a containment if torch cutting, open flame burning, rivet/bolt busting, welding, or other impact is required. Refer to Drawing No. H-100 for lead-containing paint requirements."

17. Page 096913-2, Article 2.01 MANUFACTURERS.: Add the following Paragraph:

"B. Acceptable Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following:
1. Haworth Inc. One Haworth Center, Holland, MI 49423, (616) 393-3000, www.haworth.com.
2. ASM Modular Systems Inc., 9500 Industrial Center Drive, Ladson, SC 29456, (843) 534-1110 www.asmproducts.com."

18. Page 096913-2, ARTICLE 2.02 PEDESTALS: Add the following Paragraph:
"C. Setting Bed: Provide appropriate setting bed per manufacturer's recommendations at each pedestal plate."

19. Page 312513-1, ARTICLE 1.03 RESPONSIBILITY: Delete this Article in its entirety.

HVAC WORK SPECIFICATIONS

20. SECTION 232000 HVAC PIPING:
a. Page 232000-16, Subparagraphs 3.07 C. 2.b. and c.: Delete the words "or GE fittings" from the end of the Subparagraph.
b. Page 232000-16, Subparagraphs 3.07 C. 6.b. and c.: Delete the words "or GE fittings" from the end of the Subparagraph.
c. Page 232000-16, Subparagraphs 3.07 C. 10.b. and c.: Delete the words "or GE fittings" from the end of the Subparagraph.

21. Page 235700-4, ARTICLE 2.02 GASKETED PLATE HEAT EXCHANGERS (HX-1): Change Article Title to read "GASKETED PLATE HEAT EXCHANGERS (HX-1, HX-4, HX-5)".

22. Page 238219-2, Paragraph 2.01 F.: Delete this Paragraph in its entirety and replace with the following:
"F. Control: By BMS vendor as per control drawings."

ELECTRICAL WORK SPECIFICATIONS

23. SECTION 262719 MODULAR WIRING SYSTEM: Delete this Section in its entirety.

24. SECTION 262729 UNDERFLOOR FLEXIBLE RACEWAY SYSTEM: Add the attached Section (pages 262729-1 thru 262729-9) to the Project Manual.

COMMON DRAWINGS

25. Drawing No. G-001A, REFERENCE DRAWINGS: Add the following Drawings: 60/3001, 60/3002, 60/3003, 60/3004, and 60/3005 to the List of Drawings.

26. Reference Drawings:
a. Drawing Nos. 60/3001, 60/3002, 60/3003, 60/3004, and 60/3005 accompany this addendum and are included for reference only.

CONSTRUCTION WORK DRAWINGS

27. Drawing No. HA-101, REMOVALS PLAN: Remove 24 ft x 9 ft high wall section between column lines 7 and 8 and B, currently not shown on Removal Plan.

28. Drawing No. S-409, FRONT CANOPY FRAMING PLAN, NOTES: Add the following Note:
"5. All exposed steel shall be galvanized, primed, and painted. Non-exposed steel shall be galvanized. The canopies have non-exposed steel and therefore are galvanized."

29. Drawing No. S-412, NORTH CANOPY FRAMING PLAN, Note 7: Delete the words, "and shall receive primer with exterior paint" from the end of the Note.

HVAC WORK DRAWINGS

30. Drawing Nos. M-001, M-002, M-505, M-513, M-601,M-602, M-603, M-604, M-605, M-606, M-607, M-608, M-609, M-701, M-702, M-703, M-803, and M-805: Change 12" = 1'-0" scale designation to read "NTS".
31. Drawing No. M-002, GENERAL NOTES: Add the following Note:
"30. The final coil arrangements shall be determined by the equipment manufacturer. The AHU is not a sole source item, therefore it is not specified."

32. Drawing M-232 (Revised 9/15/16, and issued with Addendum No. 1: Change the Note, "2 inch HWS BELOW" between Column lines 14 and 15 to read "2 inch HWS".

33. Drawing Nos. M-304, and M-804: Add "NTS" scale designation to the Drawing.

34. Drawing Nos. M-111, M-112, M-113, M-121, M-122, M-123, M-131, M-132, M-133, M-141, M-211, M-212, M-213, M-221, M-222, M-223, M-231, M-232, and M-233: Change "as indicated" scale designation to read 1/8" = 1'-0"

35. Drawing No. M-505, HVAC DETAILS-5:
    a. DETAIL 2/M-505: Change Detail Title, "AHU STACK COIL PIPING WITH 2-WAY CONTROL VALVE" to read "AHU HOT WATER/CHILLED WATER STACK COIL PIPING WITH 2-WAY CONTROL VALVE".
    b. DETAIL 3/M-505: Change Detail Title, "AHU PIPING WITH 2-WAY CONTROL VALVE" to read "HOT WATER/CHILLED WATER PIPING WITH 2-WAY CONTROL VALVE".

36. Drawing No. M-603, HVAC HOT WATER RISER DIAGRAM-1: Change the Note, "3 inch Hot Water" to read "6 inch Hot Water".

37. Drawing No. M-707, DETAIL 1/M-707: Delete the Note "By Manufacturer" in its entirety.

38. Drawing Nos. M-801 and M-802: Change 1" = 1'-0" scale designation to read "NTS".

39. Revised Drawing No. M-804 (dated 09/15/16, issued with Addendum No. 1), PUMP SCHEDULE, Tag Nos. CHWP-3 and CHWP-4, Head (FT WC) Column: Add cloud around "80" complete with Addendum No. 1 triangle symbol.

ELECTRICAL WORK DRAWINGS

40. Drawing No. E-001, ELECTRICAL GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS:
    a. SYSTEMS FURNITURE SYMBOL: Add the following to the end of the Note: "Provide underfloor flexible raceway system for furniture connections as shown. See Specification Section 262729 for additional requirements."
    b. FIRE ALARM SYMBOLS LIST: Change the description for the half shaded triangle symbol with the letter "F", "FIRE FIGHTERS' COMMUNICATIION JACK, MOUNTED AT 48" AFF" to read "TWO WAY COMMUNICATION SYSTEM JACK, MOUNTED AT 48" AFF".

41. Drawing No. E-233, ELECTRICAL THIRD FLOOR POWER PLAN C: Connect motorized damper serving AC-C-6 to Circuit # EL3E-95.

END OF ADDENDUM

Margaret F. Larkin
Executive Director
Design and Construction

JRC:jc

SECTION 011100

SAFETY

PART 1 GENERAL

1.01 SUMMARY

A. This section requires compliance with applicable Safety codes, standards and regulations, including but not limited to OSHA, Building Code of New York State, Fire Code of New York State, and Facility Regulations.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Summary of the Work: Section 011000.

B. Regulatory Requirements: Section 014100.

1.03 DEFINITIONS AND ABBREVIATIONS

A. OSHA: Occupational Safety and Health Administration.

B. BCNYS: Building Code of New York State.

C. EBCNYS: Existing Building Code of New York State.

D. FCNYS: Fire Code of New York State.

E. NFPA: National Fire Protection Association.

F. NFPA 70E: National Fire Protection Association Standard for Electrical Safety in the Workplace.

1.04 SUBMITTALS

A. Provide a SITE SPECIFIC SAFETY PLAN no later than 15 days after approval of the Contract by the Comptroller. The plan must include at a minimum:
   1. A program providing 100% hard hats and safety glasses, as well as other personal protective equipment (PPE), i.e. dust protection, noise protection, safety vests, etc.
   2. A program for assuring employees have proper work attire, i.e. substantial sole safety toed footwear, long pants, shirts with minimum 4" sleeves, etc.
   3. A 100% 6-foot conventional fall protection program which provides full body harnesses, lanyards, and guardrails when applicable.
   4. A program for training employees.
   5. A program for Confined Space, including procedures for entry, when applicable.

6. A program for High Hazard Assessment including procedures for all high hazard work activities, i.e. critical lifts involving cranes or material handling equipment, scaffolding, demolition, excavations, hot work activities, steel erection, and roofing. A pre-task meeting is required to verify all hazards will be addressed.
7. A list of the names of all competent and/or qualified persons, including their qualifications, for each activity requiring a competent person, i.e. excavations, scaffolding, rigging, fall protection, etc.
8. The name and contact information of the Company Safety Representative.
9. A program for project safety inspections, with a minimum of one documented safety inspection per week during the course of construction. Submit copies of all resultant inspection reports to the Director's Representative on a weekly basis.
10. A program for providing proper care for injured employees, including the name of the employee with First Aid/CPR certification who will be on site at all times during the course of construction.
11. A program for providing potable water and sanitary toilet services for all employees.
12. A program for addressing heat stress during high heat periods and/or cold stress during extreme cold periods, for employees exposed to these elements during the course of construction.
13. A program for record keeping per OSHA 1904.

B. Provide safety orientation training for each employee prior to their starting work on site. This orientation shall include but not be limited to; Fitness for Duty (drug and alcohol policies), training on general safety hazards, site specific safety policies and procedures, personal protective equipment, injury reporting and protocols, emergency evacuation and preferred medical providers, and, HAZCOM (GHS Harmonization). Provide documentation of all safety orientation training for each new employee on the site, including all subcontractors, to the Director's Representative.

C. Provide copies of all employee training and certifications related to the safe performance of activities, i.e. OSHA 10 hour certifications, forklift training, powder actuated tool training, aerial lift training, etc., to the Director's Representative.

D. Provide an Emergency Action and Evacuation Plan, including Fire Protection and Emergency Response, when applicable.

E. Accident Reporting: the Director's Representative shall be immediately notified of any and all accidents. A copy of a written accident report shall be furnished to the Director's Representative within 24 hours of incidents.

F. Where Work or related staging, storage, or temporary use of areas outside the boundaries of state property are required, comply with the rules, regulations and all applicable safety codes of the applicable municipality.

1.05 STOP WORK ACTIVITY AUTHORITY

A. All NYS D&C OGS employees and/or their direct representatives have the authority to stop a work activity that exposes any Contractor employees, consultants, or other visitors to potentially serious injury and/or illness. The responsible Contractor shall immediately cease work, perform an assessment of the activity that is exposing employees to any Immediately Dangerous to Life or Health (IDLH) conditions, and take action necessary to satisfactorily address the unsafe condition(s) at no cost to the State. The activity may only resume when the NYS D&C OGS representative or the Director's Representative and respective Contractor's Safety Representative verify corrective measures have been satisfactorily completed. Any related impact to time of completion shall be considered within the Contractor's control.

B. **No Work, other than mobilization, shall commence until the Site Specific Safety Plan is approved.**

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

REVISED 10/6/16

SECTION 015300

TEMPORARY CONSTRUCTION

PART 1 GENERAL

1.01 REFERENCES

A. AISC Specification for the Design, Fabrication and Erection of Structural Steel for Buildings.

B. AWS D1.1, Code for Welding in Building Construction.

C. OSHA and NYSDOL requirements pertaining to operation of temporary construction scaffolding and stairways.

1.02 DESCRIPTION

A. Construction Work Contractor:
   1. Provides two temporary exterior stairway systems to provide access to the roof level as necessary for the Work, unless otherwise specified.
   2. Maintains temporary exterior stairway systems operational for the work of all related contracts at all times Work is being performed by any and all Contractors including after hours and weekends.
   3. Provide the exterior building scaffold system, stairway system, and the support structure.
   4. Provide all necessary toe boards, guard rails, handrails, and screening on common platforms, ramps, and provide protection of all openings and penetrations. Include screening of machines, kickers, and tie downs. All enclosures are to meet any and all safety requirements of OSHA, the State of New York.

B. HVAC Work, Plumbing Work, Electrical Work Contractors:
   1. Any Contractors requiring additions to the temporary exterior stairway systems shall provide and maintain them. Coordinate additions to stairway systems with the Construction Work Contractor.
   2. Provide and operate any additional hoists, scaffolding, swing staging, lifts or cranes along with any other miscellaneous equipment required to perform the Work.

1.03 SUBMITTALS

A. Waiver of Submittals: The "Waiver of Certain Submittal Requirements" in Section 01330 does not apply to this Section.

B. Submittals Package: Submit the shop drawings, product data, and quality control submittals specified below at the same time as a package.

C. Shop Drawings- NYS PE reviewed and stamped drawings:
   1. Show the construction details of the exterior building scaffold system, stairway system, and the support structure. Show all raised platforms with railing systems. Show all shoring as required to impose platform loads onto the building structural and foundations. Show all building tie in details.
   2. Show the electric wiring and control system for lighting and security gates.
   3 Show installation details.

D. Product Data:
1. Catalog sheets, specifications, and installation instructions.
2. Name, address, and telephone number of nearest fully equipped service organization.

E. Quality Control Submittals:
1. Design data, including safety factor of materials.
2. Test report of stairway system.
3. Certificate required under Quality Assurance.

1.04 QUALITY ASSURANCE

A. Company Field Advisor: Secure the services of a Company Field Advisor as needed hours for the following:
1. Render advice regarding installation of the stairway system.
2. Witness final system test and then certify with an affidavit that the stairway system is installed in accordance with the contract requirements and is operating and being maintained properly.
3. Provide a complete and thorough safety inspection at least once per month or more frequently if required by the local authority and immediately after heavy rains, snow, wind and severe cold. At a minimum inspect all ties, brackets, bracing, connection cables, tower members, electrical components, safeties, platforms, ramps, doors, etc. Submit a complete written report to the Director's Representative within 3 days after inspection. This subcontractor must be at the site for emergency calls within 2 hours of notification. Stock spare parts so as to complete major repairs within 12 hours of notification.
4. Obtain all permits and approvals as required by the City of Albany and any other authorities. Furnish copies of all permits and approvals prior to installation.

PART 2 PRODUCTS

2.01 EXTERIOR OPENINGS, STAIRWAY, AND SCAFFOLDING SYSTEM (Construction Work Contract)

A. Loading Areas:
1. Provide watertight exterior wall system openings for building loading access for all contracts. Coordinate location with Director's Representative. One opening to be for Penthouse access and shall be the full penthouse height on the North side of building. Coordinate opening size requirements with other Contracts with minimum opening to be the width of the column bay. The second opening is to be on the South side of the building and should span from first through third floors. Again, coordinate opening size requirements with other Contracts with minimum opening to be the width of the column bay. Include additional mobilizations as required to finish exterior wall systems at a later date for these openings. Provide and maintain all temporary lighting.

B. Stair Towers:
1. Provide manufactured scaffold system for two (2) temporary stair towers to provide access to the roof level for use by all contracts until permanent stairs are available. Coordinate location with Director's Representative. Permanent stairs will not be available until the building is enclosed and final steel connections can be made at shear walls and temporary bracing removed. Provide and maintain all temporary lighting.

Commented [B1]: Confirm if 1 or 2 stair towers are required

Commented [SC(2R1]: Two as discussed @ 7/15/16 meeting with SVT.

C. Exterior Building Scaffold System:
   1. Provide manufactured scaffold system for the building perimeter scaffold system to provide access for exterior abatement, façade removal and new façade installation. Coordinate location with Director's Representative.
      a. Provide and maintain all temporary lighting.
      b. Provide and maintain a water/weather tight enclosure for abatement, demolition, and construction of new façade/perimeter wall system. Including connection at roof systems.

2.02 DESIGN REQUIREMENTS

A. System Requirements:
   1. Size: Inside clear dimensions at gates/doors to allow materials to pass are: 12'-2" length X 7'-0" high X 4'-11" wide.
   2. Temporary electrical requirements: All wiring including temporary lighting shall be provided by the Construction Contractor as necessary to complete the work. Electrical usage charges will be paid for by the

Commented [B3]: Follow up

PART 3 EXECUTION

3.01 INSTALLATION

A. Install the Work in this Section in accordance with the manufacturer's printed installation instructions, shop drawings, and directions of the Company Field Advisor.

B. Provide all supplemental steel and supports as required at the stair tower and platforms as needed to provide the designed building tie in reaction.

C. Provide all necessary toe boards, guard rails, handrails, and screening on common platforms and ramps. Include screening of machines, kickers, and tie downs. All enclosures are to meet any and all safety requirements of OSHA, the State of New York.

D. Common platforms and ramps to extend to the building line from the platform. Ramps shall be installed so that it does not interfere with final concrete pours on each floor. Provide ramps from the building line to the platform in order that materials can be delivered on a rolling dolly or cart.

E. All planks, door lumber and hardware are to be new. Replace all weathered materials as required or directed.

F. Insure that all protection, bracing, planking conform to all applicable OSHA, NYS and local regulations. Albany Fire Department will need access to stair tower for firefighting capability, provide appropriate Knox box entry system at base of tower for AFD use as required for on and off hours.

G. Provide all maintenance and repairs on overtime at no additional cost if required. This shall include snow/ ice removal. Maintain free from snow/ ice at all times.

H. Provide for all weather proofing and flashing of all building structural connections for the hoists and platforms for the life of the project. When stair towers are removed, properly complete the wall openings in accordance with Contract Documents.

I. Provide 12" of type 2 stone with filter fabric at base of stairs and all loading area locations. Compact to 95% compaction.

J. Provide and maintain all temporary lighting within scaffold system, temporary stair towers, and loading areas at construction hoist.

END OF SECTION

REVISED 10/6/16

SECTION 015301

TEMPORARY EXTERIOR HOIST

PART 1 GENERAL

1.01 REFERENCES

A. AISC Specification for the Design, Fabrication and Erection of Structural Steel for Buildings.

B. ASME HST-4M, Performance Standard for Overhead Electric Wire Rope Hoists.

C. AWS D1.1, Code for Welding in Building Construction.

D. Hoist Manufacturer's Institute Standard Specification for Electric Wire Rope Hoists.

E. ANSI/NFPA 70 National Electric Code, Article 610, Cranes and Hoists.

F. OSHA and NYSDOL requirements pertaining to operation of temporary construction hoists.

Commented [HB1]: Reference 028213 for abatement specs. Note in 3.01.

1.02 DESCRIPTION

A. Construction Work Contractor:
   1. Provides temporary exterior hoist system necessary for the Work, unless otherwise specified.
   2. Maintains temporary exterior hoist system operational for the work of all related contracts at all times Work is being performed.
      a. Provide 14 months of hoist rental including cost of operators for the hoist commencing within 12 weeks of contract award.
      b. Provide all labor necessary to provide operation of the exterior hoist system for 8 hours a day for all work days, Monday - Friday.
   3. Provide and operate any additional hoists, scaffolding, swing staging, lifts or cranes along with any other miscellaneous equipment required to perform the Work.

Commented [HB2]: Confirm with final contract duration

1.03 SUBMITTALS

A. Waiver of Submittals: The "Waiver of Certain Submittal Requirements" in Section 01330 does not apply to this Section.

B. Submittals Package: Submit the shop drawings, product data, and quality control submittals specified below at the same time as a package.

C. Shop Drawings- NYS PE reviewed and stamped drawings:
   1. Show the construction details of the hoist system and the support structure. Show all raised platforms with railing systems. Show all shoring as required to impose platform loads onto the building structural and foundations. Show all building tie in details.
   2. Provide a site layout drawing to coordinate with loading bays, exterior stairs, and temp electric items. Include temporary lighting provisions.
   3. Show the electric wiring and control system.
   4. Show installation details.

D. Product Data:
   1. Catalog sheets, specifications, and installation instructions.
   2. Name, address, and telephone number of nearest fully equipped service organization.

E. Quality Control Submittals:
   1. Design data, including safety factor of materials.
   2. Test report of hoist and crane system.
   3. Certificate required under Quality Assurance.

F. Contract Closeout Submittals:
   1. Operation and maintenance data.
   2. Warranty.
   3. Test reports of the completed hoist system.

1.04 QUALITY ASSURANCE

A. Company Field Advisor: Secure the services of a Company Field Advisor for a minimum of 24 hours for the following:
   1. Render advice regarding installation of the hoist system.
   2. Witness final system test and then certify with an affidavit that the hoist system is installed in accordance with the contract requirements and is operating properly.
   3. Provide a complete and thorough safety inspection at least once per month or more frequently if required by the local authority and immediately after heavy rains, snow, wind and severe cold. At a minimum inspect all ties, brackets, bracing, connection cables, tower members, hoisting motor, electrical components, safeties, platforms, ramps, doors, etc. Replace nylon rollers on rack & pinion as necessary. Submit a complete written report to the Director's Representative within 3 days after inspection.
   4. Furnish copies of all permits and approvals prior to installation.

PART 2 PRODUCTS

2.01 HOIST SYSTEM

A. Hoist System: The system specified will consist of one temporary construction hoist with ramped platforms that connect the car to the building from the hoist tower and platform supports. Hoist will provide a single car that serves from the exterior grade level to the roof level. Include the following as needed for the operation of this system:

1. Dual rack & pinion service from 1st floor to the roof.
2. Common raised platforms for all floors. Provide a continuous apron around the raised platforms. Provide an at grade level platform in order to level the cars to the 1st floor level approximately 10' by 10' in dimension, coordinate the platform with the larger site platform as noted on the site plan.
3. Include 14 months of rental and operators for the hoist beginning within 12 weeks of contract award.
4. Include exterior doors and plywood panels located at the building line. Panels to totally enclose openings in a watertight condition. Doors are to swing into the building from the 1st floor to roof level. Access to hoist from the outside shall be at grade and at roof level.
5. Include operable doors on two sides of car (on each end of the car).
6. Include all necessary concrete slab/pads, dunnage and buffer springs and temporary power connections.
7. Provide Floor Identification Signage at each landing. There will be 4 landings, one at each of the following: 1st Floor, 2nd Floor, 3rd Floor, and Roof.
8. Provide for call buttons at each landing.
9. Provide temporary protection of existing roof including dunnage which is held down and will not blow off roof during windy conditions.
10. Provide 12" of type 2 stone with filter fabric at base of tower. Compact to 95% compaction.

Commented [HB3]: Discussion of using stone base

Commented [HB4]: Align with 1.02

Commented [HB5]: Align with Summary of Work

2.02 DESIGN REQUIREMENTS

A. System Requirements:

1. Minimum Capacity: 6000#.
2. Size: Inside clear dimensions at gates/doors to allow materials to pass are: 12'-2" length X 7'-0" high X 4'-11" wide.
3. Temporary Electrical Requirements: 208V/480V, 3 Phase. All wiring will provided by the Contractor as necessary to complete the work. Electrical usage charges will be paid for by the State. Tie into the temporary power near the main entrance of the building, location as noted on drawings. Electrical connection to temporary power must be performed by a licensed electrician.

B. Hoist: Electric wire rope hoist as manufactured by Alimak or Champion, with all parts and accessories necessary to meet the following requirements:

1. Minimum Lifting Capacity: 6000#.
2. Lifting Speed: 0 to 300 feet per minute.
3. Electrical: 480 Volt/3 Phase/100 Amp.

4. Car Size (inside car dimension): 12'-2" length X 7'-0" high X 4'-11" wide.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install the Work in this Section in accordance with the manufacturer's printed installation instructions, shop drawings, and directions of the Company Field Advisor.

B. Rack & pinion **car** to include brackets or carriage system for traveling to maintain cable during high winds.

C. Provide all supplemental steel and supports as required at the hoist tower and platforms as needed to provide the designed building tie in reaction. Refer to Specification Section 028213 for abatement at building exterior tie in points.

Commented [HB6]: Confirm and coordinate with 028213

D. Provide all necessary toe boards, guard rails, handrails, and screening on common platforms and ramps. Include screening of machines, kickers, and tie downs. All enclosures are to meet any and all safety requirements of OSHA, the State of New York, and the City of Albany.

E. Common platforms and ramps to extend to the building line from the car. Ramps shall be installed so that it does not interfere with Work on each floor. The hoist stop will align with the window sill height at each floor level- provide ramps from the building line to the platform in order that materials can be delivered or removed on a rolling dolly or cart.

F. Provide for snow and ice removal. Provide winterizing of all rack & pinion hoist cars. This will include Plexiglas surrounds at the car. Maintain platforms etc. free from snow and ice.

G. All cables, planks, door lumber and hardware are to be new. Replace all weathered materials as required or directed.

H. Provide wire swing gates on each platform in front of each rack & pinion car. Doors/gates at the building are to be constructed of wood with a vision cutout (1' X 1' min.) with wire mesh screen. Include wire swing gates on each common platform in front of each material hoist.

I. Insure that all protection, cables, bracing, gauges and safety controls conform to all applicable OSHA, NYS and local regulations. Confirm Albany Fire Department approval of cars and make accommodations for AFD use as required for on and off hours.

J. Include all necessary inspections and certifications for hoist system to be operational.

K. Provide plank and weather protection on the tops of the rack & pinion car.

L. Provide for all factor of safety requirements per applicable codes for the design and construction of the hoists.

M. Provide all hoist maintenance and repairs at no additional cost if required. All hoist component parts shall arrive painted and be maintained like new for the duration of the job. Hoists are to be greased weekly and/or after heavy rains whichever is more frequent.

N. Provide for all weather proofing and flashing of all building structural connections for the hoists and platforms for the life of the project.

END OF SECTION

PLAN OF PIPING BELOW MAT

SCALE 1/8" = 1'-0"

NOTE 1

ALL PIPING SHOWN ON THIS PLAN SHALL BE RUN IN WORKING MAT AS SHOWN ON CONSTRUCTION DWG NO. 60/129

NOTE 2

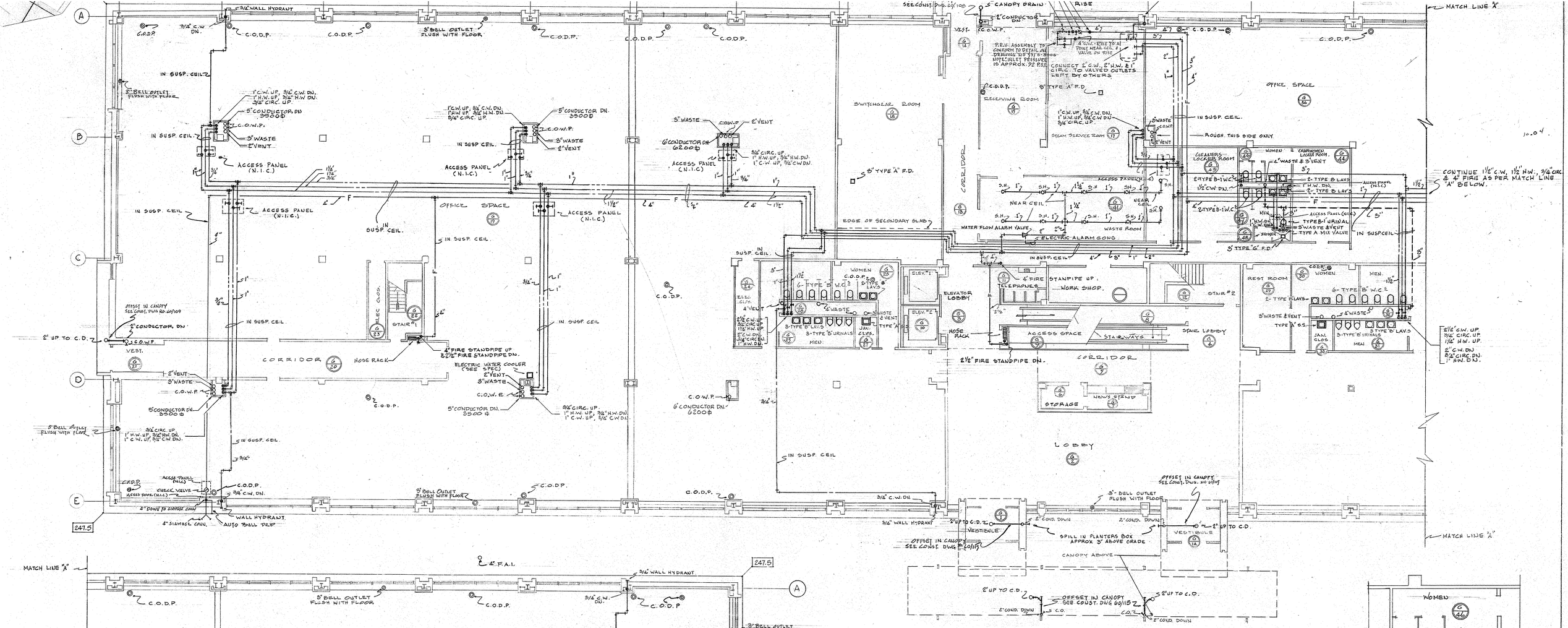
FLASHING SHALL BE PROVIDED FOR ALL PIPES PIERCING MEMBRANE WATER PROOFING AS DETAILED ON CONSTRUCTION DWG. NO. 60/111

STATE OFFICE BUILDING		
CAMPUS SITE ALBANY NEW YORK		
DRAWN BY R.A.R.	SANITARY	PROJECT NO. 15838
TRACED BY R.A.R.	DEPARTMENT OF PUBLIC WORKS BUILDING NO.4	SPECIFICATION NO. 15838-S
CHECKED BY	MAT FOUNDATION PLAN	DATE AUG. 15TH 1960
X-CHECKED BY L.G.B. A.F.G.		SCALE AS NOTED
FIELD CHECK BY ARCH'T ENGR	STATE OF NEW YORK DEPARTMENT OF PUBLIC WORKS DIVISION OF ARCHITECTURE CARL W. LARSON STATE ARCHITECT	DRAWING NO. 60/3001
APPROVED BY		

APPROVED BY DOUGLAS C. COUPE, COMMISSIONER, DIV. OF SUPS. & PUR.

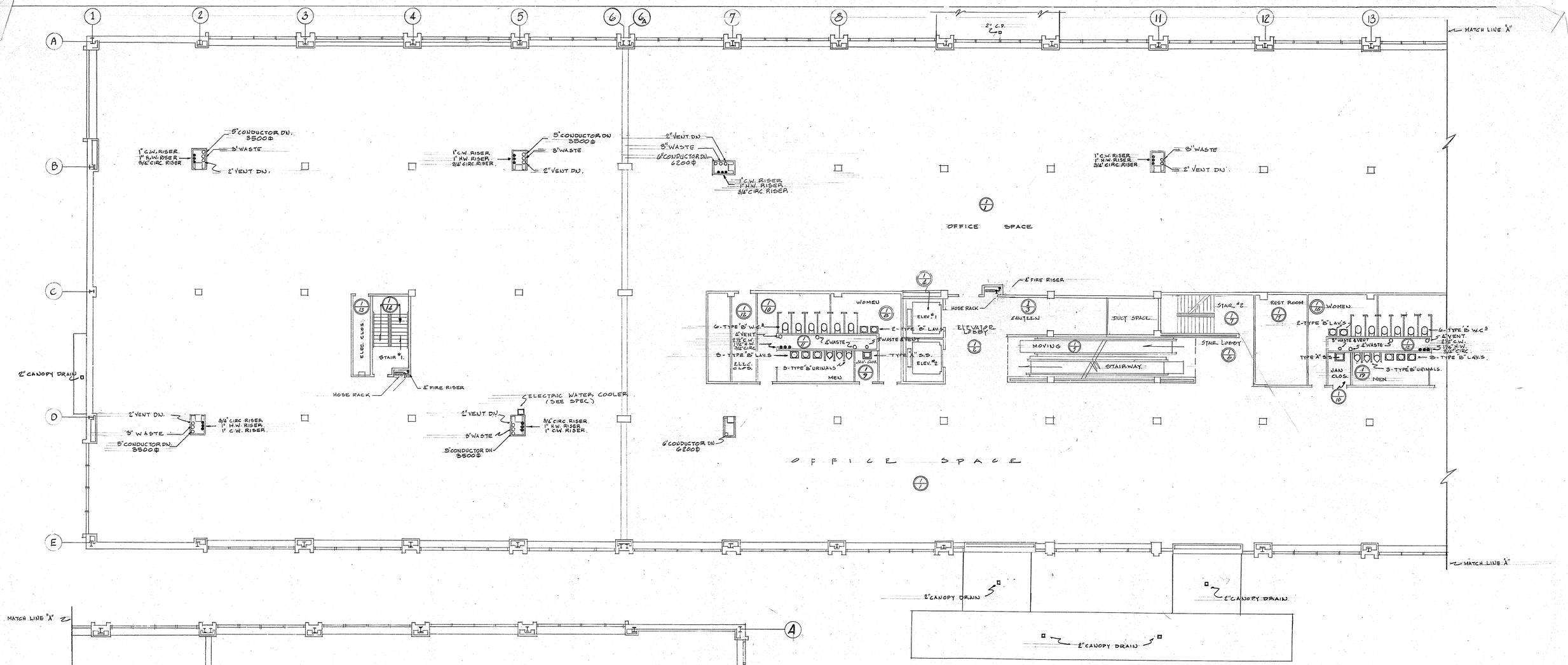
DATE SEPT. 12, 1960 LETTER NO. 26264

SCANNED 2005



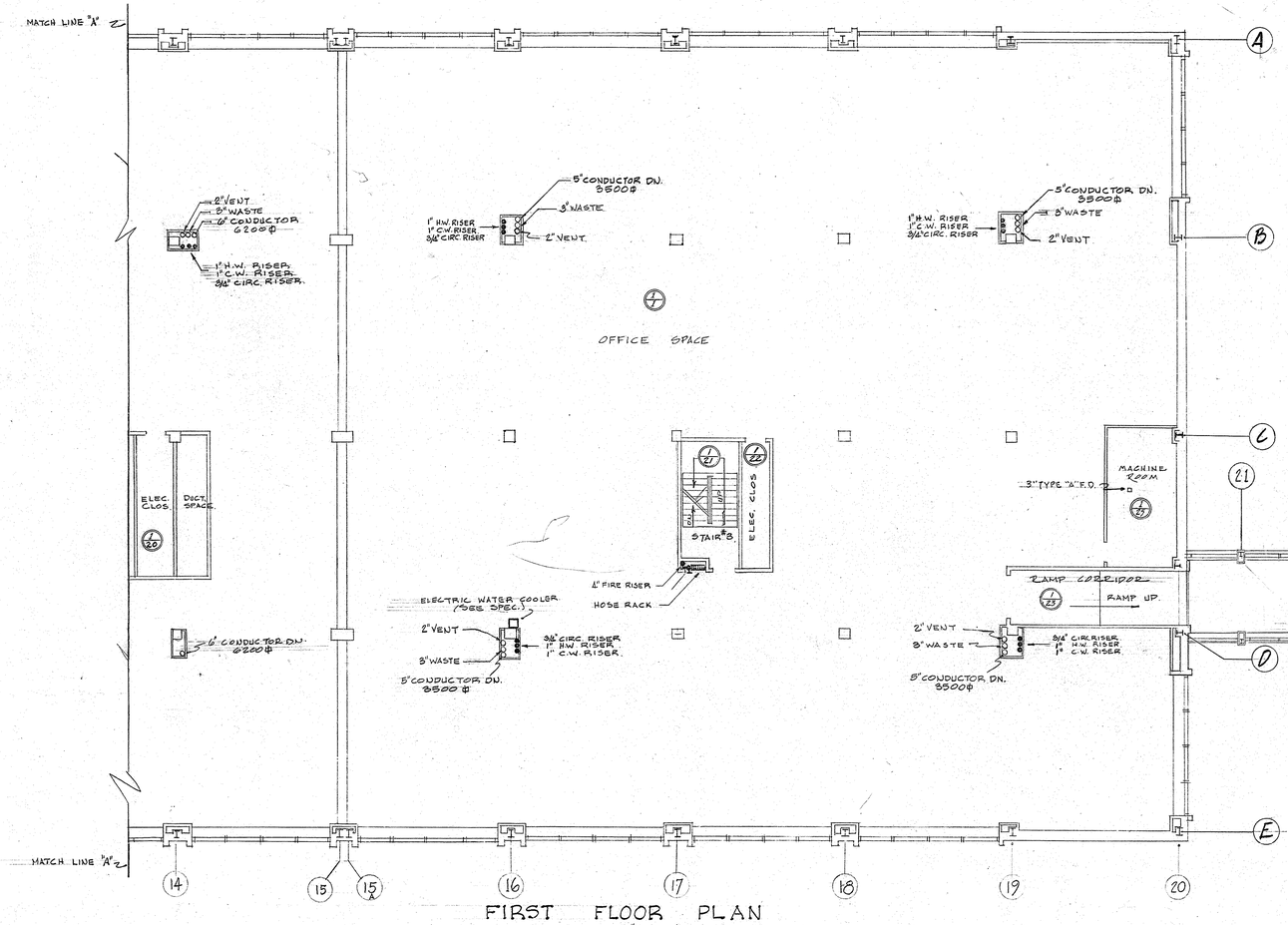
	STATE OFFICE BUILDING	
CAMPUS SITE	ALBANY	NEW YORK
DRAWN BY R.A.R.	SANITARY	PROJECT NO. 15838
TRACED BY R.A.R.	DEPARTMENT OF PUBLIC WORKS BUILDING No. 4	SPECIFICATION NO. 15838-S
CHECKED BY	GROUND FLOOR PLAN	DATE AUG. 18TH 1960
X-CHECKED BY L.G.B. A/G		SCALE AS NOTED
FIELD CHECK BY ARCH'T ENGR.	STATE OF NEW YORK DEPARTMENT OF PUBLIC WORKS DIVISION OF ARCHITECTURE CARL W. LARSON STATE ARCHITECT	DRAWING NO. 60/3002
APPROVED BY		
APPROVED BY Douglass C. Loups, Commissioner, Div. of Spec. & Pur.		
DATE Sept. 12, 1960 LETTER No. 21224		

SCANNED 2005



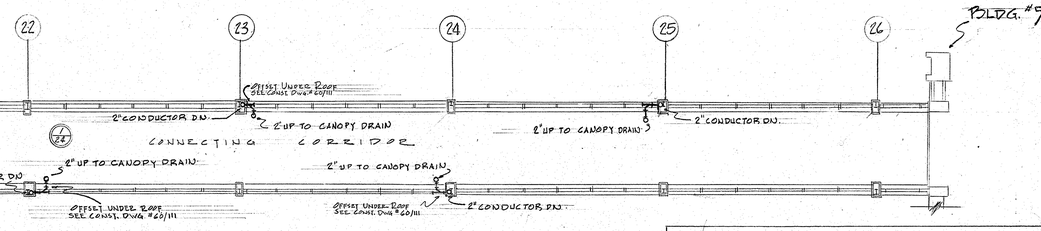
FIRST FLOOR PLAN

SCALE 1/8" = 1'-0"

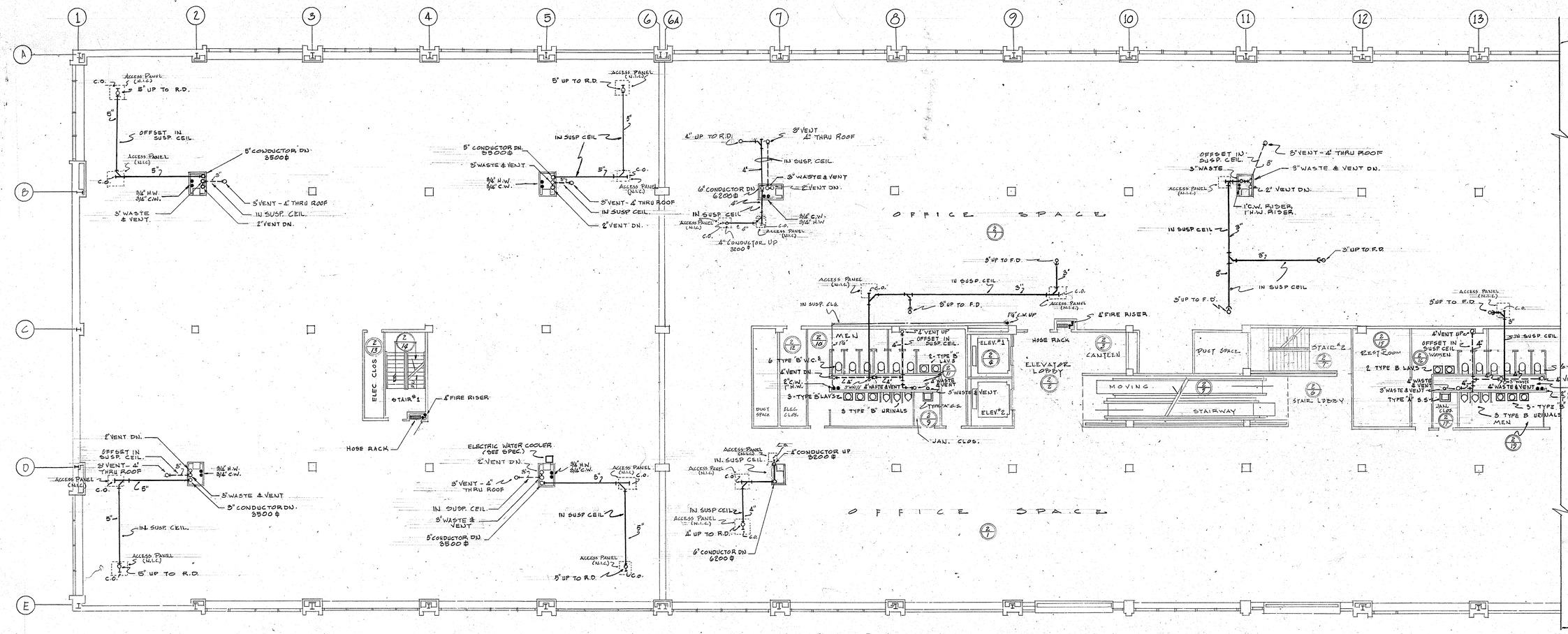


FIRST FLOOR PLAN

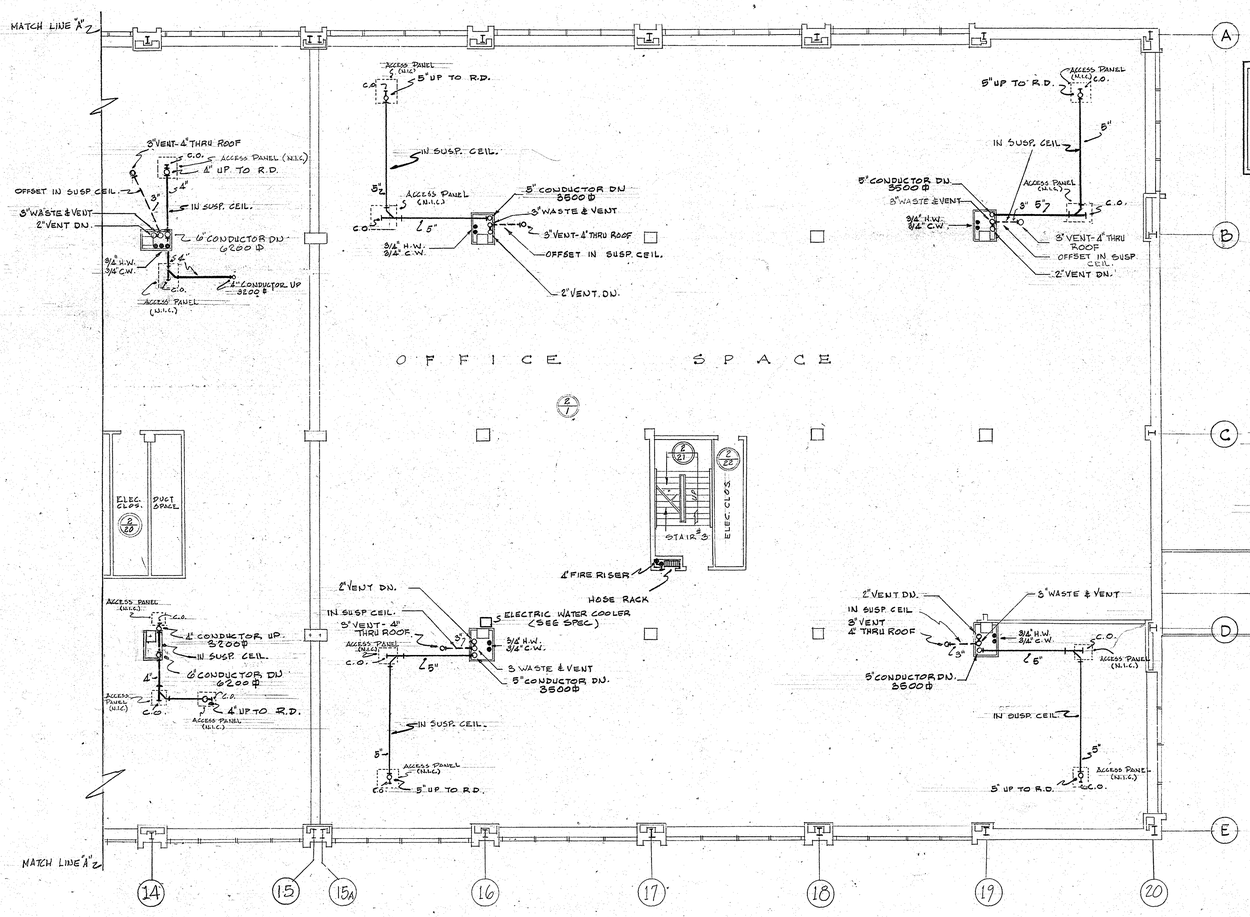
SCALE 1/8" = 1'-0"



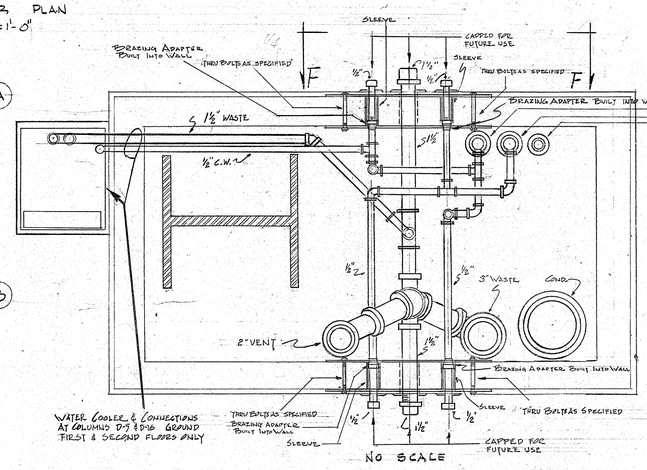
STATE OFFICE BUILDING		
CAMPUS SITE — ALBANY — NEW YORK		
DRAWN BY R.A.R.	SANITARY	PROJECT NO. 15838
TRACED BY R.A.R.	DEPARTMENT OF PUBLIC WORKS BUILDING NO. 4	SPECIFICATION NO 15838-S
CHECKED BY GP.	FIRST FLOOR PLAN	DATE AUG 15TH 1960
X-CHECKED BY L.G.D. 1/55		SCALE AS NOTED
FIELD CHECK BY ARCH'T ENGR	STATE OF NEW YORK, DEPARTMENT OF PUBLIC WORKS DIVISION OF ARCHITECTURE CARL W. LARSON STATE ARCHITECT	DRAWING NO. 60/3003
APPROVED BY		
APPROVED BY Douglass C. Coupe, Commissioner, Div. of Sps. & Pur.		
DATE SEPT. 12, 1960 LETTER No. 26264		



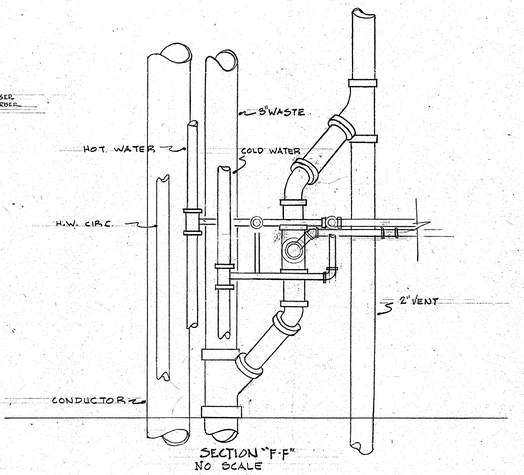
SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"



SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"

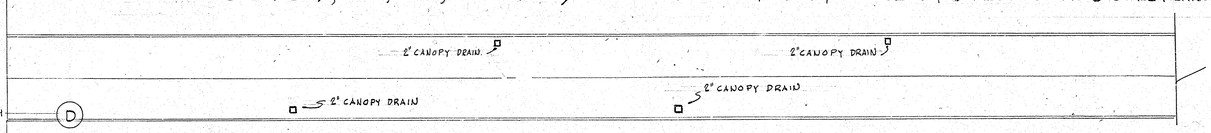


NO SCALE



SECTION "F-F"
NO SCALE

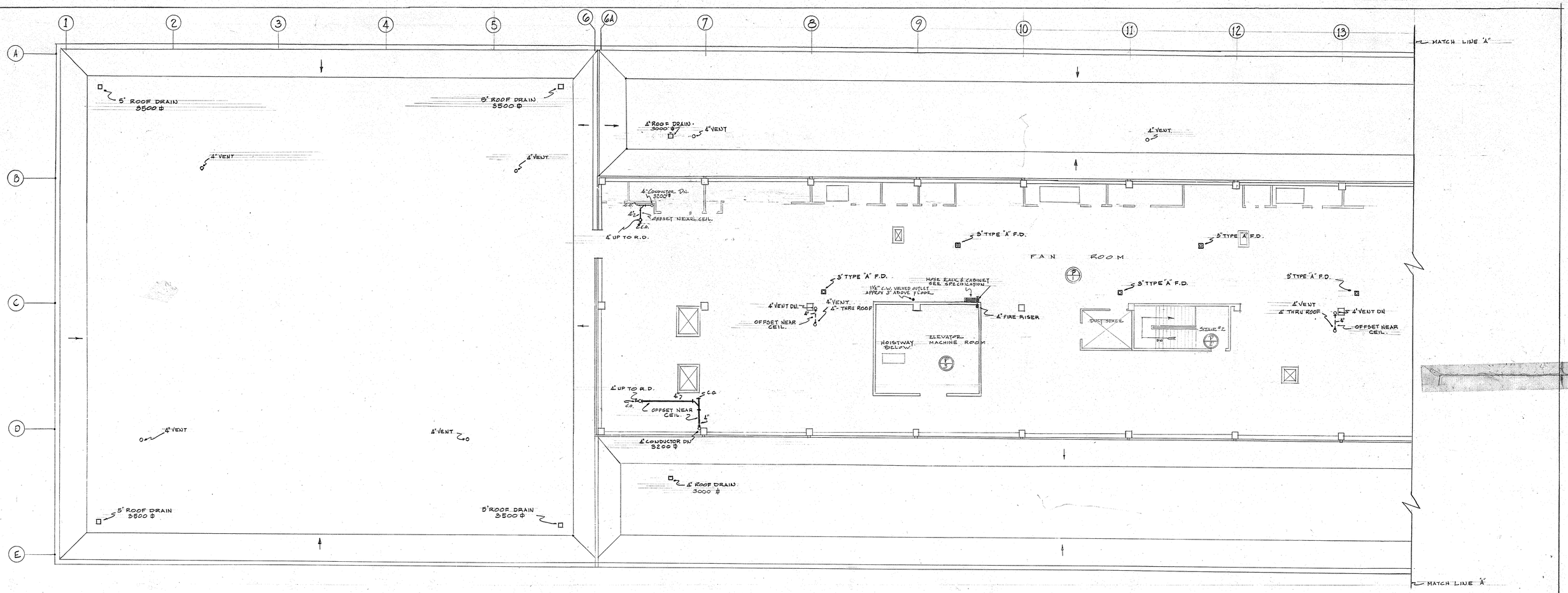
TYPICAL DETAIL OF WET COLUMNS ON FIRST FLOOR COLUMN NO.S B-2, B-5, B-7, B-11, B-14, B-16, B-19, D-2, D-5, D-16, & D-19 EXCEPT AS OTHERWISE NOTED ABOVE
WET COLUMNS ON GROUND FLOOR & SECOND FLOOR COLUMN NO.S B-2, B-5, B-7, B-11, B-14, B-16, B-19, D-2, D-5, D-16 & D-19 SIMILAR EXCEPT AS OTHERWISE NOTED ABOVE OR ON 1/8TH SCALE PLANS



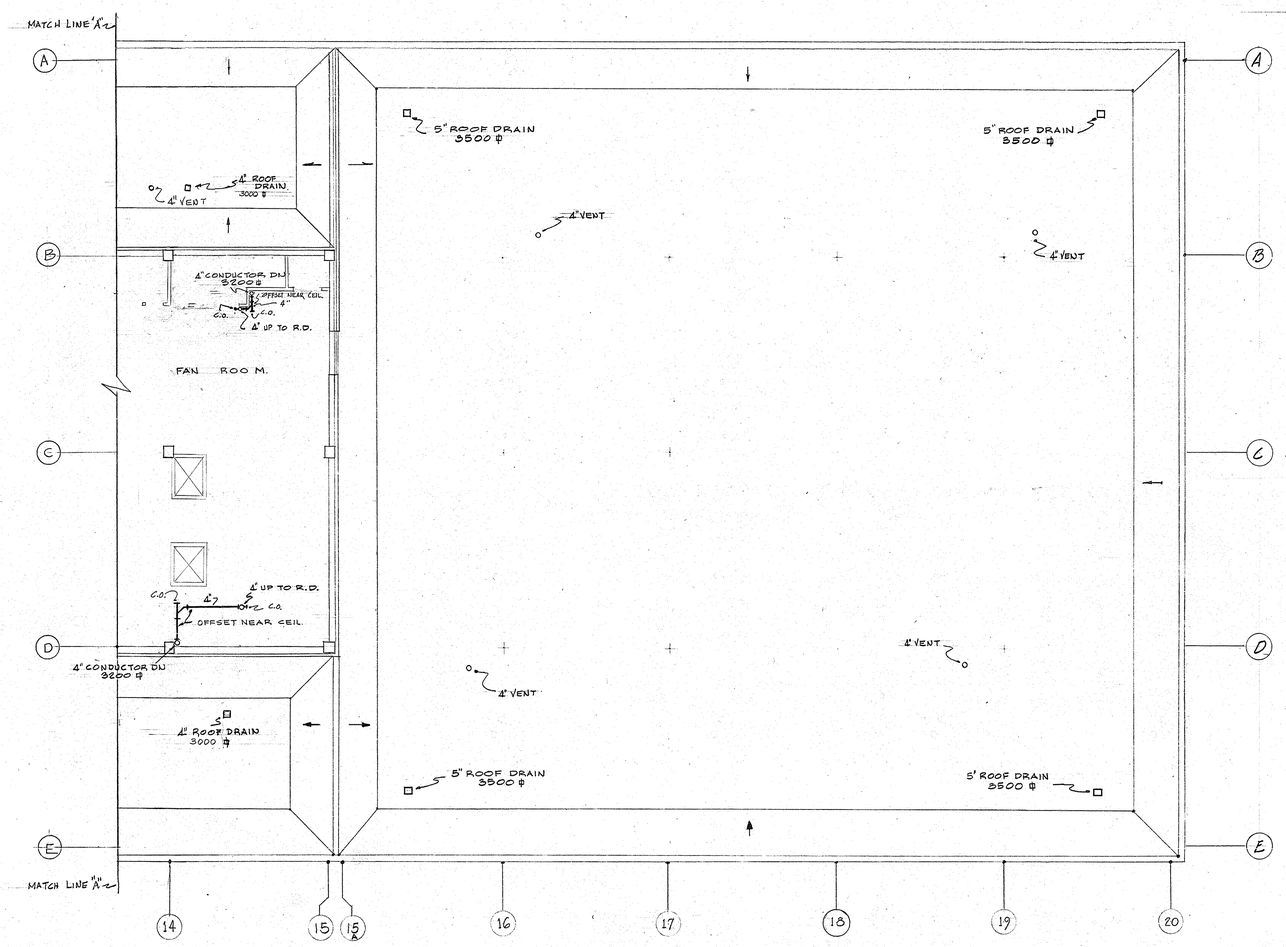
STATE OFFICE BUILDING		
CAMPUS SITE ALBANY NEW YORK.		
DRAWN BY R.A.R	SANITARY	PROJECT NO. 15838
TRACED BY R.A.R	DEPARTMENT OF PUBLIC WORKS BUILDING NO. 4	SPECIFICATION NO. 15838-S
CHECKED BY	SECOND FLOOR PLAN AND DETAILS	DATE AUG. 15TH 1960
X-CHECKED BY L.G.P.		SCALE AS NOTED
FIELD CHECK BY ARCHT	STATE OF NEW YORK DEPARTMENT OF PUBLIC WORKS DIVISION OF ARCHITECTURE CARL W. LARSON STATE ARCHITECT	DRAWING NO. 60/3004
APPROVED BY		

SCANNED 2005

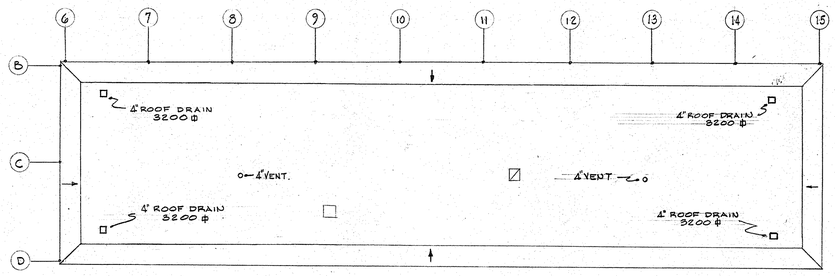
APPROVED BY Douglass L. Cooper, Commissioner, Div. of Sts. & Pub.
DATE Sept. 12, 1960 LETTER No. 26264



PENTHOUSE FLOOR & MAIN ROOF PLAN
SCALE 1/8" = 1'-0"



PENTHOUSE FLOOR & MAIN ROOF PLAN
SCALE 1/8" = 1'-0"



PENTHOUSE ROOF PLAN
SCALE 1/16" = 1'-0"

STATE OFFICE BUILDING		
CAMPUS SITE ALBANY		NEW YORK
DRAWN BY R.A.R.	SANITARY	PROJECT NO. 15838
TRACED BY R.A.R.	DEPARTMENT OF PUBLIC WORKS BUILDING No. 4	SPECIFICATION NO. 15835-S
CHECKED BY G.P.	PENTHOUSE FLOOR PLAN MAIN ROOF & PENTHOUSE ROOF PLAN	DATE AUG 15TH 1960
X-CHECKED BY L.G.P. A.F.G.		SCALE AS NOTED
FIELD CHECK BY ARCH'T ENG'R	STATE OF NEW YORK DEPARTMENT OF PUBLIC WORKS DIVISION OF ARCHITECTURE CARL W. LARSON STATE ARCHITECT	DRAWING NO. 60/3005
APPROVED BY D.C.L.		

APPROVED BY Douglass C. Cooper Commissioner Dep. of Pub. Works
DATE SEPT. 12, 1960 LETTER No. 26264

Pre-Functional Checklist

Project: OGS SOB Building #4 – OGS #45124

Project No. 11123671

SECTION: 236424

AIR COOLED MODULAR CHILLER

1. Submittal / Approvals

Submittal. The above equipment and systems integral to them are complete and ready for functional testing. This pre-functional checklist is submitted for approval, subject to an attached list of outstanding items yet to be completed. A Statement of Correction will be submitted upon completion of any outstanding areas. None of the outstanding items preclude safe and reliable functional tests being performed.

HVAC Contractor	Date	Construction Contractor	Date

Pre-functional checklist items are to be completed as part of startup & initial checkout, preparatory to functional testing.

- This checklist does not take the place of the manufacturer's recommended checkout and startup procedures or report
- If this form is not used for documenting, one of similar rigor shall be used
- Contractors assigned responsibility for sections of the checklist shall be responsible to see that checklist items by their subcontractors are completed and checked off

Approvals. This filled-out checklist has been reviewed. Its completion is approved with the exceptions noted below.

Commissioning Agent	Date	Director's Representative	Date

2. Requested documentation submitted

Equipment Tag--->	CH-1
Manufacturer's cut sheets	
Performance data	
O&M manuals	

3. Model verification

Equipment Tag--->	**CH-1**
Item	
Manufacturer	
Model	
Serial #	
Capacity (tons)	
Chiller Type	
Compressor Motor	
V/Ph/Hz	
Amps	
Refrigerant Type	
Glycol Solution %	

4. Installation Checks

Equipment Tag--->	**CH-1**
General Installation	
Permanent labels affixed	
Casing condition good: no dents, leaks	
Maintenance access acceptable for unit and components	
Thermal insulation properly installed and according to specification	
Clean up of equipment completed per contract documents	
Unit vibration isolation / hold downs	
Housekeeping pad installed	
Pipe fittings complete and pipes properly supported	
Pipes properly insulated	
Pipes properly labeled	
Piping system properly flushed	
No leaking apparent around fittings	
Valves properly tagged	
Valves installed in proper direction	
Refrigerant blow down line installed	
Refrigerant monitor installed	
Oil level satisfactory	
P/T plugs installed where specified	
Pressure gauges installed where specified	
Thermometers installed where specified	
Electrical and Controls	
Power disconnects in place and labeled	
All electric connections tight	
Proper grounding installed for components and unit	
Overload protection satisfactory	
Control system interlocks hooked up and functional	
All control devices and wiring complete	

5. Operational Checks

Equipment Tag--->	**CH-1**
JOG for rotation	
No unusual noise or vibration	
Crankcase heater operational	

END OF CHECKLIST

SECTION 262729

UNDERFLOOR FLEXIBLE RACEWAY SYSTEM

PART 1 - GENERAL

1.01 CONDITIONS AND REQUIREMENTS

A. The General Conditions, Supplementary Conditions, and Division 01 – General Requirements apply.

B. The system shall be installed in a very neat and clean method leaving a fair amount of space for the communication system conduit and cable system. Prior to any installation or rough-in, the contractor shall submit a scaled set of drawings showing exactly where the power flexible raceway, and associated floor and splice boxes and misc. devices and support brackets shall be located in the under floor system. The contractor must leave a fair amount of clear floor area for installation of the communication cable/conduit system. Failure to comply with these requirements may result in the contractor having to redo his installation to create an adequate amount of clear floor area for installation of the communication system wiring system at no additional cost to the government. Proceed only after approval of your scaled floor plans by the Director's representative.

1.02 SECTION INCLUDES

A. Modular wiring system consisting of factory-assembled connectors and cable sets designed to interface with various power applications including raised floor boxes, surface raceways, wireways, and convenience outlets.

C. Power connections to the pre-wired modular furniture

1,03 RELATED SECTIONS

A. Section 078400 - Penetration Fire stopping Devices.

1.04 SUBMITTALS

A. Submit under provisions of Section 013300

B. Product Data: Submit for modular wiring system components including, but not limited to the following:
   1. Power Distribution units.
   2. Cable whips.
   3. Cable sets.
   4. Power adapters.
   5. Cable splitters.

6. Power taps.
7. Wire connectors.
8. Prewired raised floor boxes and covers.

C. Shop Drawings: For modular wiring system components not adequately described by product data. Include detailed floor plans showing all devices and interconnected cabling system, elevations, sections, details, and attachments to other work.

D. Samples: Submit three (3) samples of each component with required color and finish. Show standard color ranges available.

1.05 QUALITY ASSURANCE

A. Manufacturers: Firms regularly engaged in manufacture of modular wiring system components of the types and sizes required, whose products have been in satisfactory use in similar service for not less than 10 years. Provide modular wiring system components produced by a manufacturer listed in this section.

B. Source Limitations: Obtain each type of modular wiring system components through one (1) source from a single manufacturer.

C. Modular Wiring System Components: Comply with requirements of applicable local codes, NEC, UL, and NEMA Standards pertaining to modular wiring system components. Listed and labeled in accordance with NFPA 70, Article 100.

1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver modular wiring system components in factory labeled packages.

B. Store and handle in strict compliance with manufacturer's written instructions and recommendations.

C. Protect from damage due to weather, excessive temperature, and construction operations.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Basis-of-Design Product: The design for modular wiring system components is based on the Walkerflex Modular Wiring System manufactured by Legrand/Wiremold, 60 Woodlawn Street, West Hartford, CT 06110; toll-free 800-621-0049, telephone 860-233-6251, fax 860-232-2062; Web Site: www.legrand.us/wiremold. Other manufacturers include Hubbel/Leviton, Wattstopper.

B. Substitutions will be considered provided it meets the complete design criteria and requirements, and it's pre-approved by the director's representative, prior to bidding.

2.02 MATERIALS

A. Any system component that is made from a polymeric compound shall be made from material that will meet UL requirements for air handling spaces other than ducts or plenum applications.

B. The wire connectors or applicable system components shall contain up to 10 pins or socket contacts rated for 20 amps, 600 volts.

C. Cable assemblies and connectors shall utilize a pin and socket contact design. Cable assemblies shall be constructed of a UL-listed cable utilizing THHN #10 and/or #12 AWG conductors. All neutral conductors shall be THHN #10AWG wire. Regardless whether or not specifically shown or noted, provide larger size wiring than typically required by the NEC for longer circuit runs to offset the voltage drops at no additional cost to the government.

D. The number of conductors in the cable assembly shall be as described by function and installation drawings. Color codes all components for voltage and key to avoid the possibility of electrical shock.

2.03 MODULAR WIRING SYSTEM COMPONENTS

A. Classification and Use: The system is designed for indoor, dry applications, and has been examined and tested by Underwriters Laboratories Inc. to comply with UL183 and bear the U.S. and Canadian UL Listing Mark for 20A, 120V and 277V applications. The system shall conform to National Electrical Code Article 604, plus all applicable local codes. The products shall be suitable for use in air handling spaces other than ducts or plenums as set forth in the National Electrical Code, Section 300-22(c).

B. Distribution Boxes: Prewired Distribution Boxes Model NDUP, and LDUP as manufactured by Legrand/Wiremold or approved equal.
   1. Converts conventional wiring into flexible wiring. Installed at, or near, home-run location under floor or the ceiling structure. Provide grounding conductors as required by the National Electrical Code (NEC) and in compliance with requirements set forth therein.
   2. Provide distribution box with 1 to 20 connection points mounted in a UL-Listed enclosure. Provide with 3/4-inch knockouts for through wiring and tapping of branch circuits in the field. Provide each wire connector with pre-stripped 5/8-inch color-coded #10 AWG leads with 600V, 90 degree C insulation.
   3. Construct of cold-rolled galvanized steel. Provide with four (4) mounting supports that raise the unit 3/8-inch from the mounting surface. Secure the 6-pin wire connector secured to the box with a snap lock connector or a lock nut. Secure the 10-pin wire connector to the box with a snap lock nut.
   4. Equip the box with factory-installed terminal blocks for wiring and circuit identification purposes. Factory-mount terminal blocks on a terminal strip in accordance with manufacturer's specifications.
   5. Distribution boxes shall be UL-listed and identified as such on each cover. Boxes shall be acceptable for use in air handling spaces other than ducts or plenums in accordance with NEC 300.22(c). Mark compliance with this provision on the box cover.
   6. Affix labeling to the outside of the box cover plate indicating the circuit number and locations as it relates to the terminal blocks, manufacturing and testing date.

7. Provide the quantity and types of main distribution boxes as required by the circuitry indicated on the Contract Drawings.

C. Receptacle Distribution Boxes: Distribution Box Model RECDU manufactured by Legrand/Wiremold or approved equal.
   1. Prewired receptacle unit fed with the flex system. The distribution box uses a modular flexible wire connector. Add grounding conductors as required by The National Electrical Code (NEC) and comply with requirements set forth therein.
   2. Provide boxes with 1 to 20 connection points mounted in a UL Listed enclosure. Provide boxes with 3/4-inch knockouts for through wiring and tapping of branch circuits in the field. Provide each wire connector with pre-stripped 5/8-inch color-coded 10 AWG leads with 600V, 90 degree C insulation.
   3. Construct boxes of cold-rolled galvanized steel with four (4) mounting supports which raise the unit 3/8-inch from the mounting surface. Secure the 6-pin wire connector to the box with a locking nut or snap lock connector. Secure the 10-pin wire connector to the box with a snap lock connector.
   4. Equip the receptacle distribution box with factory installed terminal blocks for wiring and circuit identification purposes. Factory-mount the terminal blocks on a terminal strip in accordance with manufacturer's specifications.
   5. Receptacle distribution boxes shall be UL-listed and identified as such on each cover. Boxes shall be acceptable for use in air handling spaces other than ducts or plenums in accordance with NEC 300.22(c). Mark compliance with this provision on the box cover.
   6. Affix labeling to the outside of the box cover plate indicating the circuit number and locations as it relates to the terminal blocks, manufacturing and testing date and location.
   7. Provide the quantity and types of receptacle distribution boxes as required by the circuitry indicated on the Contract Drawings.

D. Furniture Feed Distribution Boxes: Distribution Boxes Model CNDUS manufactured by Legrand/Wiremold or approved equal.
   1. Provides a conversion point from EMT, BX, MC Cable or other listed manufactured wiring systems to the modular wiring system. The distribution box uses a modular flexible wire connector. Install it at, or near, the home-run location under the floor. Add grounding conductors as required by The National Electrical Code (NEC) and comply with requirements set forth therein.
   2. Provide boxes with 1 to 20 connection points mounted in a UL Listed enclosure. Provide boxes with 3/4-inch knockouts for through wiring and tapping of branch circuits in the field. Provide each wire connector with pre-stripped 5/8-inch color-coded 10 AWG leads with 600V, 90 degree C insulation.
   3. Construct boxes of cold-rolled galvanized steel with four (4) mounting supports which raise the unit 3/8-inch from the mounting surface. Secure the 6-pin wire connector to the box with a locking nut or snap lock connector. Secure the 10-pin wire connector to the box with a snap lock connector.
   4. Equip the distribution box with factory installed terminal blocks for wiring and circuit identification purposes. Factory-mount the terminal blocks on a terminal strip in accordance with manufacturer's specifications.
   5. Secondary distribution boxes shall be UL-listed and identified as such on each cover. Boxes shall be acceptable for use in air handling spaces other than ducts or plenums in accordance with NEC 300.22(c). Mark compliance with this provision on the box cover.
   6. Affix labeling to the outside of the box cover plate indicating the circuit number and locations as it relates to the terminal blocks, manufacturing and testing date and location.

7. Provide the quantity and types of secondary distribution boxes as required by the circuitry indicated on the Contract Drawings.

E. Wire Connectors: Snap Ring Style Wire Connectors Model NWC manufactured by Legrand/Wiremold or approved equal.
   1. The wire connectors are used to transition between the distribution units, cable sets, and end devices (floor boxes or raceway).
   2. Each wire connector shall contain #10 and/or #12 AWG with all neutral conductors being #10 AWG copper wires with 600V, 90 degree C insulation. Color code each wire and strip 5/8-inch.
   3. Construct wire connectors of a glass-reinforced, high impact, low smoke, nylon material which will be suitable for air handling spaces in accordance with UL2043 and NEC 300.22(c). The connectors shall pass UL7460 cold impact test. Provide wire connectors with a specific location for labeling to designate panel feed and circuits.
   4. Provide wire connectors with pin and socket type terminals conforming to UL183 and EIA364 vibration testing criteria. Fabricate the pin and socket type terminals from C155 Copper Alloy material with a thickness of .016-inch. House and secure the terminals in such a manner so as to eliminate the possibility of push back and/or misalignment of terminals.
   5. Provide the quantity and types of wire connectors as required by the Contract Drawings.

F. Power Cable Sets: Power Cable Sets Model NCS manufactured by Legrand/Wiremold or approved equal.
   1. The cable set carries power from the distribution boxes to other components in the modular wiring system. One (1) or more cable set assemblies may be attached end-to-end to provide for any cable length required.
   2. Cable Set: Contains #10 and/or #12 AWG with all neutral conductors being #10 AWG copper wire with 600V, 90 degree C insulation from one (1) end to the other. Color code each wire and strip 5/8-inch.
   3. Cable Set Housing: Construct of glass-reinforced, high impact, low smoke, nylon material which will be suitable for air handling spaces in accordance with UL2043 and NEC300.22(c). The connectors shall pass UL7460 cold impact test. Provide wire connectors with a specific location for labeling to designate panel feed and circuits.
      a. The cable set housing shall be a 5-piece design for the 8-10 wire connectors. Incorporate a locking feature into the cable set housing to produce an audible sound when engaged with the cable set, cable whip or cable splitter.
   4. Cable Set: Contains pin and socket type terminals which shall conform to UL183 and EIA364 Vibration testing criteria. Fabricate the pin and socket type terminals from C155 Copper Alloy material with a thickness of .016-inch. House and secure the terminals in such a manner so as to eliminate the possibility of push back and/or misalignment of terminals.
   5. Provide the quantity and types of cables as required by the Contract Drawings.

G. Power Cable Whips: Power Cable Whips Model NCW manufactured by Legrand/Wiremold or approved equal.
   1. The power cable whip carries power from the distribution box to other components in the modular wiring system. Provide cable whips with a modular connector on one (1) end and pigtails on the other end. Designate either "M" (male) for power "OUT" or "F" (female) for power "IN".

2. CW Cable Whip: Contains #10 or #12 AWG with all neutral conductors being #10 AWG stranded copper wire with 600V, 90 degree C insulation from the cable connector to the other which will be field terminated. Color code each wire and strip 5/8-inch (15.9mm).
3. Cable Whip Housing: Construct of a glass-reinforced, high impact, low smoke, nylon material which will be suitable for air handling spaces in accordance with UL2043 and NEC300.22(c). The connectors shall pass UL7460 cold impact test. Provide wire connectors with a specific location for labeling to designate panel feed and circuits.
    a. The wire connector housing shall be a 5-piece design (3-6 wire) for the 8-10 wire connectors. Incorporate a locking feature into the cable whip housing to produce an audible sound when engaged with the cable set, cable whip or cable splitter.
4. Cable Whip: Contains pin and socket type terminals which shall conform to UL183 and EIA364 testing criteria. Fabricate the pin and socket type terminals from C155 Copper Alloy material with a thickness of .016-inch. House and secure the terminals in such a manner so as to eliminate the possibility of push back and/or misalignment of terminals.
5. Provide the quantity and types of cable whips as required by the Contract Drawings.

H. Power Adapters: Power Adapters Model NPA manufactured by Legrand/Wiremold or approved equal.
1. The power adapter is an interface component between the flexible wiring system and the item to be energized such as raised floor boxes, power poles, convenience outlets and various lighting fixtures.
2. Provide each power adapter with #10 and/or #12 AWG with all neutral conductors being #10 AWG copper wire with 600V, 90 degree C insulation. Color code each wire and strip 5/8-inch. When fitted with a connector, provided by the Contractor, the field-installed power adapter shall require a 1/2-inch or 3/4-inch trade size knockout in the service fitting for installation.
3. Provide the power adapter with one (1) port for power “IN” and two (2) ports for power “OUT”.
4. Power Adapter: Construct of a glass-reinforced, high impact, low smoke, nylon material which will be suitable for air handling spaces in accordance to UL2043 and NEC300.22(c). The connectors shall pass UL7460 cold impact test. Provide wire connectors with a specific location for labeling to designate panel feed and circuits.
    a. Provide power adapter with pin and socket type terminals which shall conform to UL183 and EIA863 Vibration testing criteria. Fabricate the pin and socket type terminals from C155 Copper Alloy material with a thickness of .016-inch. House and secure the terminals in such a manner so as to eliminate the possibility of push back and/or misalignment of terminals.
    b. The power adapter housing shall be a 5-piece design (3-6 wire). Incorporate a locking feature into the power adapter housing to produce an audible sound when engaged with the cable set, cable whip or cable splitter.
5. Provide the quantity and types of power adapters as required by the Contract Drawings.

I. Cable Splitters: Cable Splitters Model NCBS manufactured by Legrand/Wiremold or approved equal.
1. The cable splitter is used to split one (1) or more circuits so that it can be used in more than one (1) direction from a given point. This is designed for “daisy chain” application.
2. Cable Splitters: Contain #12 AWG copper wires with 600V, 90 degree C insulation. Provide cable splitters with one (1) port for power “IN” and two (2) ports for power “OUT”. Construct cable splitters of a glass-reinforced, high impact, low smoke, nylon

material which will be suitable for plenum areas in accordance to UL2043 and NEC300.22(c). The connectors shall pass UL7460 cold impact test.

a. Cable Splitters: Contain pin and socket type terminals which shall conform to UL183 and EIA863 Vibration testing criteria. Fabricate the pin and socket type terminals from C155 Copper Alloy material with a thickness of .016-inch. House and secure the terminals in such a manner so as to eliminate the possibility of push back and/or misalignment of terminals.

3. Splitter Housing: 5-piece design (3-6 wire) for the 8-10 wire connectors. Incorporate a locking feature into the splitter housing to produce an audible sound when engaged with the cable set, cable whip or cable splitter.
4. Provide the quantity and types of splitter housings as required by the Contract Drawings.

J. Power Taps: Model NPT manufactured by Legrand/Wiremold or approved equal.

1. Serves as interface components connecting the flex system to an item that is to be energized such as raised floor boxes, power poles, and lighting fixtures. Power taps are supplied with standard eight (8) inch leads on the end. Cannot be provided in 8-10 wire configurations.

2.04 SERVICE MODULES

A. Raised Floor Boxes: AF Series Raised Floor Boxes manufactured by Legrand/Wiremold or approved equal.

1. AF2 and AF4 Series Prewired Boxes: Provide AF2 Series Prewired Boxes with three (3) separate compartments that accommodate a combination of power, communication and audio/video devices. Provide AF4 Series Prewired Boxes with four (4) separate compartments to accommodate a combination of power, communications and/or audio/video devices. Pre-wire either series to be used with or without connection to cable set assemblies.
   a. Construct AF2 and AF4 Series Prewired Floor Modules using a die-cast aluminum box and polycarbonate flange and cover. Cover color – black or gray or brown as required by the director's representative. Wire boxes for connection in a "daisy-chain" style.
   b. Supply with a one (1) foot long modular power adapter.
   c. Provide the quantity and type of AF Series Boxes as required by the Contract Drawings.
2. Pre-wired Round Raised Floor Boxes: CRFB Series Floor Boxes manufactured by Legrand/Wiremold.
   a. Round recessed floor boxes provide an interface between power, communication and audio/visual (A/V) cabling in a raised floor and at the workstation or activation location where power, communication and/or A/V device outlets are required. These devices provide flush and recessed outlets that will not obstruct the floor area. Boxes prewired for use with the Walkerflex System will have a cable set assembly or power adapter attached to the box to be connected to a distribution unit.
   b. Construct CRFB Series Floor Boxes from die cast aluminum.
   c. Design round recessed raised floor boxes to be compatible with the complete line of Ortronics® workstation connectivity outlets and modular inserts, or Pass & Seymour Network Wiring System.

d. Surface Style Cover Assembly: Manufactured from die-cast aluminum; painted black (BK) or brass (BS) or nickel (NK) or bronze (BZ) or gray (GY) finish, as required by the director's representative. Insert areas allow for tile or carpet cutouts to match finished floor. Cover assembly shall be tamper-resistant and shall not create any type of tripping hazard.

e. Flush Style Cover Assembly: Manufactured from die-cast aluminum; painted black (BK) or brass (BS) or nickel (NK) or bronze (BZ) or gray (GY) finish, as required by the director's representative.

B. Furniture Feed Raised Floor Box Assemblies:

a. Legrand/Wiremold Model EFBFF Floor Boxes or approved equal:

1. Manufactured from stamped steel approved for use on above grade concrete floors, raised floors and wood floors with the same product. Boxes shall have the ability to accept a component (FP-CTR) that will allow the box to be installed in polished concrete or terrazzo floors. Boxes shall be 7-1/16" L x 6-5/8" W x 4-1/8" H. Provide boxes with provisions that enable installation into concrete floors, raised floors, or wood floors without having to purchase additional components or accessories. Provide boxes with two (2) independent wiring compartments that allow for power, communication and/or audio/video services. Each of the two (2) wiring compartments shall have a minimum wiring capacity of 64-1/2-in^3. The box shall be equipped with a metal divider to separate the services and maintain code requirements. The box shall contain the following number of knockouts: four (4) 1/2-inch trade size, four (4) 3/4"-inch trade size, one (1) 1-inch trade size, and six (6) 1-1/4-inch trade size, one (1) 1-1/2-inch trade size, and two (2) 2-inches. Boxes shall be fully adjustable, accommodating a maximum 2-inch pre-concrete pour and a maximum 1/2" post-concrete pour adjustment. Equip boxes with toggle clamps to allow box to be secured to raised and wood floors.

2. Furniture Feed Floor: Port FPFFTC Series Floor Box Covers:

a. Manufactured of die-cast aluminum or die-cast zinc, and available in brushed aluminum finish and powder-coated paint finishes (black, gray, bronze, nickel and brass). Activation covers shall be available in flanged version. Covers shall come equipped with one (1) 1-inch trade size screw plug opening and one (1) combination 1-1/4-inch and 2-inch trade size screw plug.

b. Flanged covers shall be 7-3/4" L x 6-9/16" W.

c. Powder coat finish either black or gray or brass or nickel or bronze as selected by the Director's representative.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine conditions under which modular wiring and access floor service fittings and accessories are to be installed. Notify the director's representative in writing of conditions detrimental to proper completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. Strictly comply with manufacturer's installation instructions and recommendations and approved shop drawings. Coordinate installation with adjacent work to ensure proper clearances and to prevent electrical hazards.

1. Mechanical Security: Raceway systems shall be mechanically continuous and connected to all electrical outlets, boxes, device mounting brackets, and cabinets, in accordance with manufacturer’s installation sheets.
2. Electrical Security: Metal raceway shall be electrically continuous and bonded in accordance with the National Electric Code for proper grounding.
3. Raceway Support: Raceway shall be supported at intervals not exceeding five (5) feet or in accordance with manufacturer’s installation sheets.
4. Accessories: Provide accessories as required for a complete installation, including insulated bushings and inserts where required by manufacturer.
5. Unused Openings: Close and seal all unused raceway openings using the manufacturers recommended accessories.
6. Install the flexible raceway system in such a neat, tight and organized manner, so that that it does not use any more floor space than necessary and leaves plenty of space in the raised floor for the communication raceways/cable system. Failure to comply with these requirements may result in rerouting of the power raceways at no additional cost to the government.

B. Furnish and install the 4-11/16-inch square junction boxes where transitions are made from the conventional hard-wiring mode to the manufactured wiring system. Distribution interfacing units will be provided by the manufacturer, properly coded for function and voltage. Install cable assemblies in accordance with the installation drawings. The system manufacturer shall provide job site instructions to the Contractor for review, installation, methods of shipping material, identifying system area, floor, panel board, and ceiling distribution box. Identify any changes to the advanced wiring system installation drawings made during the installation and indicate on as-built drawings.

3.02 CLEANING AND PROTECTION

A Clean exposed surfaces using non-abrasive materials and methods recommended by manufacturer.

B. Protect modular wiring and access floor service devices until acceptance.

END OF SECTION

STV 100 Years

July 22, 2016

New York State Department of Labor
Division of Safety and Health - Engineering Services Unit
Building 12, Room 159
State Office Building Campus
Albany, New York 12240

Re: File No. 16-0274 Amendment Request #2
Project Title: Abate Hazardous Materials & Renovate Building No. 4
Harriman State Office Campus
1220 Washington Avenue
Albany, New York
STV Project No. 30-17356
OGS Project No. 45124

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with modifications
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New York State Dept. of Labor
Engineering Services Unit
Mark D. Wykes, P.E.

Mr. Wykes:

We are requesting an amendment to File No. 16-0274 at Harriman State Office Campus Building 4. The work of this project will involve gross removal of large quantities of multiple types of Asbestos-Containing Material (ACM) including spray-on fireproofing, debris, floor tiles, mastics and sheetrock. Asbestos debris is also present within wall cavities that will be demolished. There is an in-floor raceway located within the concrete floor slab of each floor that allows power and communications cabling to be run north and south in main raceway runs from central electrical closets and then east and west in smaller raceway runs to service workspaces. During the asbestos survey, friable and non-friable asbestos debris was observed in the raceways.

The abatement will be performed using Sequences 1, 2 and 3 described below. The order of sequences may be modified to accommodate site conditions. Sequences 1, 2 and 3 are described below:

- Sequence 1 - includes abatement of areas inside the building for the decontamination unit, hoist and egress stairs. Sequence 1 may also include spot abatement of the exterior façade to create connection points for the scaffolding, hoist and egress stairs. During Sequence 1, the contractor will perform abatement in accordance with NYSDOL Industrial Code Rule (ICR) 56.

- Sequence 2 - includes abatement of interior areas of the building. Asbestos abatement will be performed in multiple separate containments simultaneously. Sequence 1 and 2 may occur simultaneously.

- Sequence 3 - includes abatement of all exterior walls of the building. A negative pressure enclosure will be constructed on scaffolding that will be erected at the exterior of the building. Asbestos abatement will be performed in multiple separate containments

Sequences shall be [redacted] in accordance to ICR 56 & the variance conditions Dated April 15, 2016 & NYSDOL

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simultaneously. Hard wall barriers constructed of plywood and two (2) layers of 6 mil polyethylene (poly) will be utilized on the exterior of the scaffolding surrounding the building.

Sequence 3 will also include construction of interior hard wall barriers constructed of plywood and two (2) layers of 6 mil polyethylene (poly) located five (5) feet inside of the perimeter walls. This interior hard wall barrier from floor to ceiling deck will separate the removal of exterior walls of the building from interior non-abatement work.

We request relief from the following subsections of ICR 56 related to support this revised approach to the removals of asbestos containing materials as described below in more detail:

56 – 7.5 (e)(1) - Waste Decontamination System Enclosure
56 – 7.11 (f)(1)(i) - Negative Pressure Tent – Where Allowed
56-7.11(f)(1)(ii)(d) Tent Construction
56 – 8.6 - Multiple Abatement within a Single Regulated Abatement Work Area
56 –8.8 - Asbestos Material Encasement/Enclosure Procedures
56-9.1(d)(1) - Project Monitor Visual Inspection

56-7.5(e)(1) Waste Decontamination System Enclosure – The window wall removals involve the removal of thick heavy glass and aluminum framing and concealed fireproofing which must be cut to manageable sizes. Due to safety concerns with moving the glass and window framing pieces vertically down through the scaffolded tent containment, we propose to construct one or more waste decontamination units at each floor, including the penthouse, to allow for the removed materials to be decontaminated and/or wrapped and bagged out at each floor level. This will ensure the safety of individuals working multiple levels in the scaffolded containment. This will mean that multiple waste decontamination units will be utilized for the containments. It is planned that the waste decontamination units will each serve an entire floor. Upon final clearance, the decontamination units will be torn down and all poly disposed of as asbestos waste.

We further propose the following engineering controls and procedures:

1. Eight (8) air changes per hour will be utilized in the 2-layer containment.
2. An attached (contiguous) large personal decontamination unit will be utilized on all containments.

56-7.11(f)(1)(i) Negative Pressure Tent – Where Allowed – This subpart states that gross abatement of only minor or small quantities of ACM is permitted in a negative pressure tent. The work of this project will involve gross removal of large quantities of ACM and therefore relief from this subpart is requested.

We propose the following engineering controls and procedures:

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1. Prior to commencement of abatement activities, the Asbestos Contractor shall remove all interior doors to allow for airflow.
2. The Asbestos Contractor shall plasticize stairs, elevator, escalators and all other openings between floors of the building.
3. The negative pressure tent shall have two (2) layers of 6-mil poly.
4. Eight (8) air changes per hour will be utilized in the 2-layer tent containment.
5. An attached (contiguous) large personal decontamination unit will be utilized on all tent containments.

56-7.11(f)(1)(ii)(d) Tent Construction – This subpart states that each airlock and tent will be cordoned off at a distance of twenty five (25) feet. The installation of scaffolding containment, window abatement and air clearance will have an impact on the schedule which presents a hardship to the owner.

After interior abatement is completed and final air sampling passes clearance as per 56-9.3, we propose construction of temporary interior hard wall barriers constructed of plywood and two (2) layers of 6 mil polyethylene (poly) located approximately five (5) feet inside of the perimeter walls. This interior hard wall barrier will extend from floor to ceiling deck and will separate the removal/abatement of exterior walls from interior non-abatement work. Cordoning off at a distance of twenty-five feet (25') is not feasible to allow non-abatement work in interior areas adjacent to the tent. We request that the regulated work area be considered the two (2) layer tent containment so that the new non-abatement work can be performed in adjacent cleared areas by non-certified workers.

We propose the following engineering controls and procedures:

1. Eight (8) air changes per hour will be utilized in the 2-layer tent containment.
2. An attached (continguous) large personal decontamination unit will be utilized on all tent containments.
3. Four (4) daily abatement air samples shall be included per floor within 10 feet of the barrier. These areas shall have Signage posted in accordance with Subpart 56-8.1(b) of this Code Rule.

56 – 8.6 Multiple Abatement within a Single Regulated Abatement Work Area

SEE VARIANCE CONDITIONS #1&#2

This subpart states that simultaneous or concurrent abatement of multiple types of ACM within a single regulated abatement work area shall not be allowed. The work of this project will involve gross removal of large quantities of multiple types of ACM (spray-on fireproofing, debris, floor tiles, mastics and sheetrock). There is asbestos debris within wall cavities that will be demolished and therefore relief from this subpart is requested.

We propose the following engineering controls and procedures:

1. Eight (8) air changes per hour will be utilized in the 2-layer tent containment.
2. An attached (contiguous) large personal decontamination unit will be utilized on all containments.

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56-8.8 Asbestos Material Encasement/Enclosure Procedures – For In-Floor Raceway, the encasement/enclosure of existing ACM shall be conducted in accordance with the following:

1. An asbestos certified restricted handler electrician (Allied Trades Certificate) will make sure there is no power in the wires in the raceway and then disconnect the wires.
2. The Asbestos Contractor shall perform abatement in a regulated abatement work area.
3. The Asbestos Contractor shall remove all of the wires from the raceway and place them in the designated container for proper disposal as asbestos-contaminated waste.
4. The Asbestos Contractor shall remove loose debris from inside the raceway to six (6) inches horizontally in all directions from the center of the raceway floor opening in accordance with ICR 56-8.4.
5. The Project Monitor shall complete a visual inspection for completeness of abatement scope described above.
6. The Abatement Contractor shall fill the in-floor raceways with grout and finish the grout flush with top of slab.
7. The Abatement Contractor shall coordinate with the architectural and structural requirements for grout filling of in-floor raceways including, but not limited to, the masonry mortar and masonry grout specification.
8. If applicable, HEPA vacuums will be utilized for any necessary clean-up.
9. The Abatement Contractor shall provide an Operations and Maintenance (O&M) Plan including floor plans that depicts the location and quantity of ACM that is encased/enclosed in the raceways and any other asbestos that is abandoned, encased or enclosed in the building.

56-9.1(d)(1) Project Monitor Visual Inspection – For the in-floor raceways, the intention is to encase/enclose most of the ACM debris within the raceway by the procedure outlined in the section titled Asbestos Material Encasement/Enclosure Procedures. The length and configuration of the raceway will prevent the visual inspection of the majority of the raceway runs per this subpart. The Project Monitor shall complete a visual inspection for completeness of abatement scope described above in the section titled Asbestos Material Encasement/Enclosure Procedures.

Dismantling of Regulated Abatement Work Area:
The containment shall be dismantled in accordance with Code Rule 56. After three cleanings and final air sampling passes clearance as per 56-9.3, all interior and exterior portions of the tent containments on each floor level will be collapsed and the waste decontamination units will be dismantled. The two (2) layers of 6-mil poly will be completely removed from the scaffolding on the exterior of the building. The plywood and scaffolding will be left in place for non-abatement activities.

If you have any questions regarding the proposed work procedures, please do not hesitate to contact the undersigned at 212-505-4930.

Sincerely,
STV Incorporated

Douglas Glorie, PE
Asbestos Designer Certification # 94-09065

cc: M. Singleton (OGS)
D. Foell (STV)

Attachments

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Engineering Services Unit
Mark D. Lyons, P.E.