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July 10, 2020

ADDENDUM 03

Pre-Bid Revision for Contractors' Incorporation into:



Roseville Joint Union High School District
West Park High School, Phase 2 – Increment 1
DSA Application Number: 02-118062

Prepared By: DLR Group
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DLR Group Project No: 75-19101-00

NOTICE TO BIDDERS:
The following revisions are being made to the Bidding Documents to the above referenced project:

Pre-Bid Requests for Information

The following pre-bid requests for information were received. The responses are incorporated into this Addendum via the answer directly below the RFI.

RFI 1. The RFP directions for Tab 2 are "All issued addenda. It is the responsibility of Respondents to check the District's website to ensure that they have received all addenda." This could be interpreted as to include all the issued addenda within our proposal. As the addenda issued to date a contain a large quantity of pages, would it be acceptable to include just the first sheet of each addendum in Tab 2 or submit a written confirmation in Tab 2 that acknowledges each addendum and their date of issuance?

Answer *Do not include the Addendums within the proposal. Written confirmation acknowledging receipt of each Addendum is required.*

A. PROJECT MANUAL

1. **Section 00 01 10 TABLE OF CONTENTS (DIVISIONS 00-14)**
   A. ADDED Specification 09 05 61.13 - MOISTURE VAPOR EMISSION CONTROL

2. **Section 09 05 61.13 - MOISTURE VAPOR EMISSION CONTROL**
   A. NEW specification section for moisture vapor emission control for interior concrete to prepare it for floor finish installation. Reference RFI 107 from Addendum 02 dated 07/08/2020.

3. **Section 10 21 13 PLASTIC TOILET AND SHOWER COMPARTMENTS**
   A. REVISED Paragraphs 2.3.C and 2.3 D for door and partition heights.

B. DRAWINGS

As summarized in pre-bid items indicated on this addendum, the following sheets are attached:

1. **Sheet A13.FX.X FINISH FLR PLANS & SCHEDULES – BLDG F – 1ST, 2ND & 3 RD FLOOR**
   Sheet A13.SX.X FINISH FLR PLANS & SCHEDULES – BLDG S – 1ST, 2ND & 3 RD FLOOR
   (Sheets not attached)
   A. REVISED Rooms F307 and S307 to have recessed roller shades in gyp ceiling per new detail 15/S.12.
   B. All other rooms with roller shades to be wall-mounted in mfr provided shade pockets. Bottom of shade pocket to align with T.O. storefront/ window head. Provide continuous flat strap backing across length of window and attach to wall with (2) #10 self-tapping screws into each wall stud (similar to new detail 15/S3.12).

2. **Sheet A3.12 CEILING DETAILS**
   C. ADDED detail 15/ A3.12 – Roller shade recessed in gyp ceiling

3. **Sheet M1.F.2 BLDG F SECOND FLOOR - MECHANICAL**
   D. REVISED ductwork and exhaust fans for full height partitions at All gender restroom.

4. **Sheet M1.F.3 BLDG F THIRD FLOOR - MECHANICAL**
   A. REVISED ductwork and exhaust fans for full height partitions at All gender restroom.

5. **Sheet M1.S.2 BLDG S SECOND FLOOR - MECHANICAL**
   A. REVISED ductwork and exhaust fans for full height partitions at All gender restroom.

6. **Sheet M1.S.3 BLDG S THIRD FLOOR - MECHANICAL**
   A. REVISED ductwork and exhaust fans for full height partitions at All gender restroom.

7. **Sheet E2.F1.2 LIGHTING PLAN – FOOTHILL BUILDING – SECOND FLOOR**
   Sheet E2.F1.3 LIGHTING PLAN – FOOTHILL BUILDING – THIRD FLOOR
   Sheet E2.S1.2 LIGHTING PLAN – SIERRA BUILDING – SECOND FLOOR
   Sheet E2.S1.3 LIGHTING PLAN – SIERRA BUILDING – THIRD FLOOR
   (Sheets not attached)
   A. REVISED lighting – In All Gender Restrooms RR F228, F328, S228, S328, replace the F7/16' linear fixture with eight F8 downlights. One F8 downlight is centered above each of the six toilets. The remaining two are located in front of the stalls, centered in the walkway.

8. **Sheet FP1.F2.1 FIRE SPRINKLER – BLDG F – 2ND FLOOR**
   A. REVISED piping at All-gender restroom
   B. ADDED sprinkler heads to each stall at All gender restroom

9. **Sheet FP1.F3.1 FIRE SPRINKLER – BLDG F – 3RD FLOOR**
   A. *REVISED piping at All-gender restroom*
   B. *ADDED sprinkler heads to each stall at All gender restroom*

10. **Sheet FP1.S2.1 FIRE SPRINKLER – BLDG S – 2ND FLOOR**
   A. *REVISED piping at All-gender restroom*
   B. *ADDED sprinkler heads to each stall at All gender restroom*

11. **Sheet FP1.S3.1 FIRE SPRINKLER – BLDG S – 3RD FLOOR**
   A. *REVISED piping at All-gender restroom*
   B. *ADDED sprinkler heads to each stall at All gender restroom*

****End of ADDENDUM 03****

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SECTION 090561.13 - MOISTURE VAPOR EMISSION CONTROL ADD 3

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Fluid-applied, resin-based, membrane-forming systems that control the moisture-vapor-emission rate of high-moisture, interior concrete to prepare it for floor covering installation.

1.3 DEFINITIONS

A. MVE: Moisture vapor emission.

B. MVER: Moisture vapor emission rate.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For each MVE-control system, for tests performed by manufacturer and witnessed by a qualified testing agency.

C. Preinstallation testing reports.

D. Field quality-control reports.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Employs factory-trained personnel who are available for consultation and Project-site inspection.

B. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original packages and containers, with seals unbroken, bearing manufacturer's labels indicating directions for storage and mixing with other components.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Comply with MVE-control system manufacturer's written instructions for substrate and ambient temperatures, humidity, ventilation, and other conditions affecting system installation.

1. Store system components in a temperature-controlled environment and protected from weather and at ambient temperature of not less than 65 deg F and not more than 85 deg F at least 48 hours before use.
2. Maintain ambient temperature and relative humidity in installation areas within range recommended in writing by MVE-control system manufacturer, but not less than 65 deg F or more than 85 deg F and not less than 40 or more than 60 percent relative humidity, for 48 hours before installation, during installation, and for 48 hours after installation unless longer period is recommended in writing by manufacturer.
3. Install MVE-control systems where concrete surface temperatures will remain a minimum of 5 deg F higher than the dew point for ambient temperature and relative humidity conditions in installation areas for 48 hours before installation, during installation, and for 48 hours after installation unless longer period is recommended in writing by manufacturer.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. MVE-Control System Capabilities: Capable of suppressing MVE without failure where installed on concrete that exhibits the following conditions:

1. MVER: Maximum 25 lb of water/1000 sq. ft. when tested according to ASTM F1869.
2. Relative Humidity: Maximum 100 percent when tested according to ASTM F2170 using in situ probes.

B. Water-Vapor Transmission: Through MVE-control system, maximum 0.06 perm when tested according to ASTM E96/E96M.

C. Tensile Bond Strength: For MVE-control system, greater than 200 psi with failure in the concrete according to ASTM D7234.

D. VOC limits < 100g/l.

2.2 MVE-CONTROL SYSTEM

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Floor Seal Technology, Inc.
2. KOSTER American Corporation.
3. Madewell Products Corporation.

B. MVE-Control System: ASTM F3010-qualified, fluid-applied, two-component, epoxy-resin, membrane-forming system; formulated for application on concrete substrates to reduce MVER to level required for installation of floor coverings indicated and acceptable to manufacturers of floor covering products indicated, including adhesives.

1. Substrate Primer: Provide MVE-control system manufacturer's concrete-substrate primer if required for system indicated by substrate conditions.
2. Cementitious Underlayment Primer: If required for subsequent installation of cementitious underlayment products, provide MVE-control system manufacturer's primer to ensure adhesion of products to MVE-control system.

2.3 ACCESSORIES

A. Patching and Leveling Material: Moisture-, mildew-, and alkali-resistant product recommended in writing by MVE-control system manufacturer and with minimum of 3000-psi compressive strength after 28 days when tested according to ASTM C109/C109M.

B. Crack-Filling Material: Resin-based material recommended in writing by MVE-control system manufacturer for sealing concrete substrate crack repair.

C. Cementitious Underlayment: If required to maintain manufacturer's warranty, provide MVE-control system manufacturer's recommended hydraulic cement-based underlayment.

1. Basis-of-Design: K-15 by Ardex Engineered Cements, Inc., or approved equal.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for maximum moisture content, installation tolerances, and other conditions affecting performance of the Work.

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

1. Installation of system indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Preinstallation Testing:

1. Testing Agency: Engage a qualified testing agency to perform tests.

    a. For testing, use systems of Vaprecision Professional Emission Testing Systems, or Sealflex Industries, Inc., or equal.

2. Alkalinity Testing: Perform pH testing according to ASTM F710. Install MVE-control system in areas where pH readings are less than 7.0 and in areas where pH readings are greater than 8.5.

3. Moisture Testing: Perform tests so that each test area does not exceed 200 sq. ft., and perform no fewer than three tests in each installation area and with test areas evenly spaced in installation areas.

    a. Anhydrous Calcium Chloride Test: ASTM F1869. Install MVE-control system in locations where concrete substrate MVER exceeds 3 lb of water/1000 sq. ft. in 24 hours.
    b. Internal Relative Humidity Test: Using in situ probes, ASTM F2170. Install MVE-control system in locations where concrete substrates exhibit relative humidity level greater than 75 percent.

4. Tensile-Bond-Strength Testing: For typical locations indicated to receive installation of MVE-control system, install minimum 100-sq. ft. area of MVE-control system to prepared concrete substrate and test according to ASTM D7234.

    a. Proceed with installation only where tensile bond strength is greater than 200 psi with failure in the concrete.

B. Concrete Substrates: Prepare and clean substrates according to MVE-control system manufacturer's written instructions to ensure adhesion of system to concrete.

1. Remove coatings and other substances that are incompatible with MVE-control system and that contain soap, wax, oil, or silicone, using mechanical methods recommended in writing by MVE-control system manufacturer. Do not use solvents.
2. Provide concrete surface profile complying with ICRI 310.2R CSP 3 by shot blasting using apparatus that abrades the concrete surface with shot, contains the dispensed shot within the apparatus, and recirculates the shot by vacuum pickup.
3. After shot blasting, repair damaged and deteriorated concrete according to MVE-control system manufacturer's written instructions.
4. Protect substrate voids and joints to prevent resins from flowing into or leaking through them.
5. Fill surface depressions and irregularities with patching and leveling material.
6. Fill surface cracks, grooves, control joints, and other nonmoving joints with crack-filling material.
7. Allow concrete to dry, undisturbed, for period recommended in writing by MVE-control system manufacturer after surface preparation, but not less than 24 hours.

8. Before installing MVE-control systems, broom sweep and vacuum prepared concrete.

C. Protect walls, floor openings, electrical openings, door frames, and other obstructions during installation.

3.3 INSTALLATION

A. Install MVE-control system according to ASTM F3010 and manufacturer's written instructions to produce a uniform, monolithic surface free of surface deficiencies such as pin holes, fish eyes, and voids.

1. Install primers as required to comply with manufacturer's written instructions.

B. Do not apply MVE-control system across substrate expansion, isolation, and other moving joints.

C. Apply system, including component coats if any, in thickness recommended in writing by MVE-control system manufacturer for MVER indicated by preinstallation testing.

D. Cure MVE-control system components according to manufacturer's written instructions. Prevent contamination or other damage during installation and curing processes.

E. After curing, examine MVE-control system for surface deficiencies. Repair surface deficiencies according to manufacturer's written instructions.

F. Install cementitious underlayment over cured membrane if required to maintain manufacturer's warranty and in thickness required to maintain the warranty.

3.4 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform installation inspections.

B. Installation Inspections: Inspect substrate preparation and installation of system components to ensure compliance with manufacturer's written instructions and to ensure that a complete MVE-control system is installed without deficiencies.

1. Verify that surface preparation meets requirements.
2. Verify that component coats and complete MVE-control-system film thicknesses comply with manufacturer's written instructions.
3. Verify that MVE-control-system components and installation areas that evidence deficiencies are repaired according to manufacturer's written instructions.

C. MVE-control system will be considered defective if it does not pass inspections.

3.5 PROTECTION

A. Protect MVE-control system from damage, wear, dirt, dust, and other contaminants before floor covering installation. Use protective methods and materials, including temporary coverings, recommended in writing by MVE-control system manufacturer.

B. Do not allow subsequent preinstallation examination and testing for floor covering installation to damage, puncture, or otherwise compromise the MVE-control system membrane.

END OF SECTION 090561.13 ADD 3

SECTION 10 21 13 - PLASTIC TOILET AND SHOWER COMPARTMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Solid-plastic toilet compartments configured as toilet enclosures and urinal screens.

B. Related Requirements:

1. Section 10 28 00 "Washroom Accessories" for toilet tissue dispensers, grab bars, purse shelves, and similar accessories mounted on toilet compartments.

1.3 REFERENCES

A. National Fire Protection Association (NFPA):
1. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.

B. ASTM International (ASTM):
1. ASTM A 666 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
2. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
3. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials. ADD 2

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for toilet ~~and shower~~ ADD2 compartments.

B. Shop Drawings: For toilet ~~and shower~~ ADD2 compartments.

1. Include plans, elevations, sections, details, and attachment details.
2. Show locations of cutouts for compartment-mounted accessories.
3. Show locations of centerlines of toilet fixtures.

4. Show locations of floor drains.
5. Indicate field measurements in shop drawings.

C. Samples for Selection: For each type of toilet compartment material indicated.

1. Include Samples of hardware and accessories involving material and color selection.

1.5 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of compartment.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For toilet compartments to include in maintenance manuals.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication.

1.8 WARRANTY

A. Provide manufacturer’s standard 25 year warranty on materials.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire Growth Contribution: Complying with acceptance criteria of local code and authorities having jurisdiction when tested according to NFPA 286.

B. Regulatory Requirements: Comply with applicable provisions in CBC Chapter 11B for toilet compartments designated as accessible.

1. Wheelchair accessible compartment shall comply with Section 11B-604.8.1.
2. Door and door hardware for accessible compartments shall be self-closing and shall comply with CBC Section 11B-404.
3. A door pull complying with CBC Section 11B-404.2.7 shall be placed on both sides of the door near the latch.
4. Toe clearance for at least one side portion of a wheelchair accessible compartment shall comply with CBC Section and Figure 11B-604.8.1.4. It shall be 9 inches high minimum above the finish floor and 6 inches deep minimum beyond the compartment side face of the partition, exclusive of partition support members. It shall be 12 inches high minimum above the finish floor for children’s use. Partition components at toe clearance shall be

smooth without sharp edges or abrasive surfaces. Toe clearance at the side partition is not required in a compartment greater than 66 inches wide.

2.2 SOLID-PLASTIC TOILET COMPARTMENTS

A. Basis-of-Design Product:
1. Subject to compliance with requirements, provide Scranton Products Hiny Hiders, or approved equal at first floor Boys and Girls Restrooms. ADD 2

B. Toilet-Enclosure Style: Overhead braced.

C. Urinal-Screen Style: Wall hung.

D. Door, Panel, and Pilaster Construction: Solid, high-density polyethylene (HDPE) panel material, not less than 1 inch thick, seamless, with eased edges, and with homogenous color and pattern throughout thickness of material.

1. Continuous Hinges: Configure doors and pilasters to receive continuous hinges.
2. Heat-Sink Strip: Manufacturer's standard continuous, extruded-aluminum strip fastened to exposed bottom edges of solid-plastic components to hinder malicious combustion.
~~3.~~ Color and Pattern: Paisley ADD 2

E. Pilaster Shoes: Manufacturer's standard design; stainless steel.

F. Brackets (Fittings):

1. Full-Height (Continuous) Type: Manufacturer's standard design; extruded aluminum.

2.3 TOILET COMPARTMENT SYSTEM

A. Basis-of-Design Product:
1. Subject to compliance with requirements, provide Scranton Products Aria Toilet Partitions, or approved equal at second and third floor All-gender restrooms.

B. Style: Full height floor mounted overhead braced toilet compartments.

C. System Construction:
1. System Specified Height: Full height.

D. Doors: 79” high, mounted 4” above finished floor. ADD 3

E. Dividing Panels: Two panels stacked and secured with 3 dowels ensuring proper alignment totaling the system specified height

F. Trim: Application to hide seam gap between dividing panels.

G. Pilasters: System specified height, shoeless system secured with 3/4 inch (19 mm) long stainless steel tamper resistant Torx head screws and angled wall brackets.

H. Transom Panel: Height required to accommodate specified system height with ship lap on one edge. Mounted with four mending plates using 3/4 inch (19 mm) long stainless steel tamper resistant Torx head screws.

I. Wall Brackets: Continuous, heavy-duty aluminum. Mounts to pilasters, panels and walls with 3/4 inch (19 mm) long stainless steel tamper resistant Torx head screws.

J. System Design: Solid, high-density polyethylene (HDPE) panel material, not less than 1 inch thick, seamless, with eased edges, and with homogenous color and pattern throughout thickness of material.
   1. Door Design: Traditional Series; Model 1000.
   2. Side Panel Design: Plain (standard).
   3. Color: Traditional; Paisley. Texture: Orange Peel.
   4. Trim Design:
      a. Standard radius edged, 5 inches (127 mm) wide, where occurs on full height partitions.
      b. Trim Color: P-1, see paint finish schedule on drawings.

2.4 HARDWARE AND ACCESSORIES

A. Hardware and Accessories: Manufacturer's heavy-duty operating hardware and accessories.
   1. Hinges: Manufacturer's minimum 14-gauge stainless-steel continuous hinge. 0.09 inch thick 304-2b stainless-steel pin in 0.25 inch (5.94 mm) diameter. Closing degree is minus 5 degrees. Hinge is designed to come to a full close on its own weight. ADD 2
   2. Latch and Housing: Manufacturer's heavy-duty extruded aluminum unit. Latch housing bright dip anodized finish; slide bolt and button black anodized finish.
   3. Occupancy Indicator Latch and Housing: Satin stainless-steel showing green and red occupancy indicators for All-gender restrooms ADD 2
   4. Door Strike and Keeper: Continuous extruded aluminum strike, secured with tamper-resistant bolts; bright dip anodized finish.
   5. Coat Hook: Manufacturer's heavy-duty combination cast-stainless-steel hook and rubber-tipped bumper, sized to prevent in-swinging door from hitting compartment-mounted accessories. Mount with through-bolts.
   6. Door Bumper: Manufacturer's heavy-duty rubber-tipped cast-stainless-steel bumper at out-swinging doors. Mount with through-bolts.
   7. Door Pull: Manufacturer's heavy-duty cast-stainless-steel pull at out-swinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at compartments designated as accessible. Mount with through-bolts.

B. Overhead Bracing: Manufacturer's standard continuous, extruded-aluminum head rail with antigrip profile and in manufacturer's standard finish.

   1. Provide shower hook accommodation at shower compartment head rail.

C. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel, finished to match the items they are securing, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use stainless-steel, hot-dip galvanized-steel, or other rust-resistant, protective-coated steel compatible with related materials.

2.5 MATERIALS

A. Aluminum Castings: ASTM B26/B26M.

B. Aluminum Extrusions: ASTM B221.

C. Stainless-Steel Sheet: ASTM A666, Type 304, stretcher-leveled standard of flatness.

D. Stainless-Steel Castings: ASTM A743/A743M.

2.6 FABRICATION

A. Fabrication, General: Fabricate toilet compartment components to sizes indicated. Coordinate requirements and provide cutouts for through-partition toilet accessories where required for attachment of toilet accessories.

B. Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.

C. Door Size and Swings: Unless otherwise indicated, provide 24-inch- wide, in-swinging doors for standard toilet compartments and 36-inch- wide, out-swinging doors with a minimum 32-inch- wide, clear opening for compartments designated as accessible.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for fastening, support, alignment, operating clearances, and other conditions affecting performance of the Work.

1. Confirm location and adequacy of blocking and supports required for installation.

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

3.2 INSTALLATION

A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.

1. Maximum Clearances:

a. Pilasters and Panels: 1/2 inch.
b. Panels and Walls: 1 inch.

2. Full-Height (Continuous) Brackets: Secure panels to walls and to pilasters with full-height brackets.

    a. Locate bracket fasteners so holes for wall anchors occur in masonry or tile joints.
    b. Align brackets at pilasters with brackets at walls.

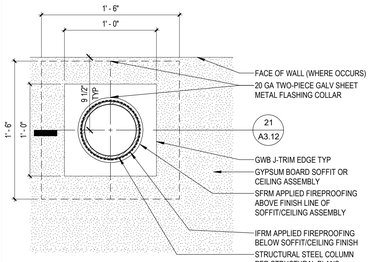
B. Overhead-Braced Units: Secure pilasters to floor and level, plumb, and tighten. Set pilasters with anchors penetrating not less than 1-3/4 inches into structural floor unless otherwise indicated in manufacturer's written instructions. Secure continuous head rail to each pilaster with no fewer than two fasteners. Hang doors to align tops of doors with tops of panels, and adjust so tops of doors are parallel with overhead brace when doors are in closed position.

C. Urinal Screens: Attach with anchoring devices to suit supporting structure. Set units level and plumb, rigid, and secured to resist lateral impact.

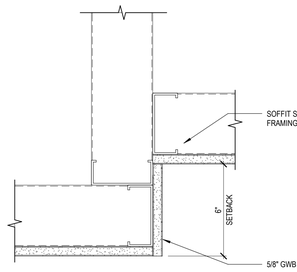
3.3 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

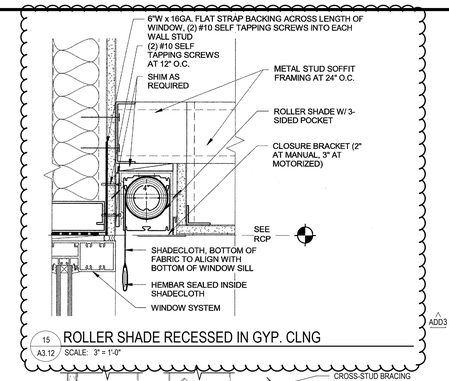
END OF SECTION 10 21 13



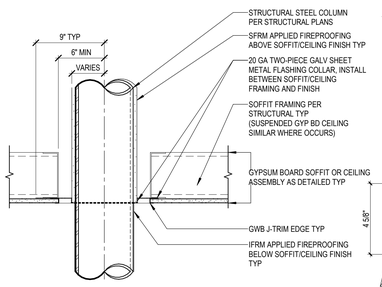
11 A3.12 GWB SOFFIT AT IFRM COLUMN (RCP)
SCALE: 1 1/2" = 1'-0"



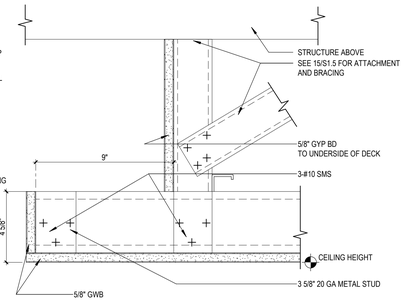
14 A3.12 GYP BD SOFFIT (PLAN)
SCALE: 3" = 1'-0"



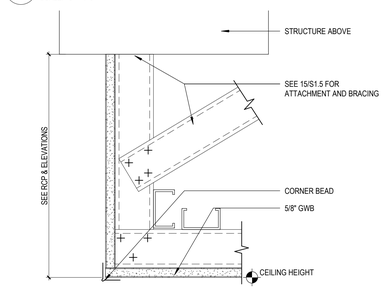
15 A3.12 ROLLER SHADE RECESSED IN GYP. CLNG
SCALE: 3" = 1'-0"



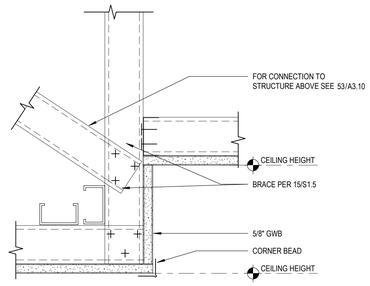
21 A3.12 GWB SOFFIT AT IFRM COLUMN (SECTION)
SCALE: 1 1/2" = 1'-0"



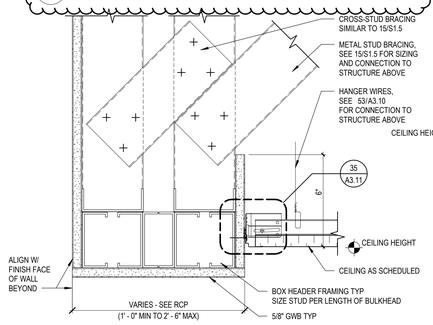
22 A3.12 GYP BD SOFFIT @ STUDENT COLLAB. STAIR
SCALE: 3" = 1'-0"



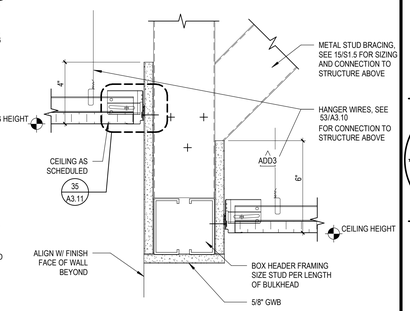
23 A3.12 GYP BD SOFFIT (SECTION)
SCALE: 3" = 1'-0"



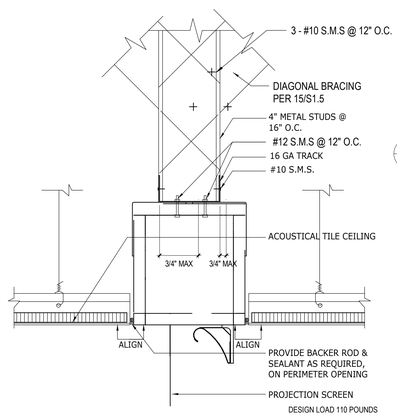
24 A3.12 LOW GYP BD TO HIGH GYP BD
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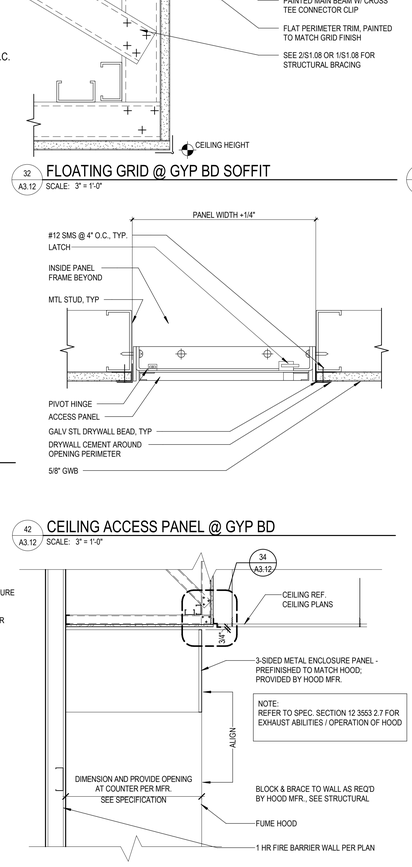
25 A3.12 WIDE BULKHEAD DETAIL
SCALE: 3" = 1'-0"



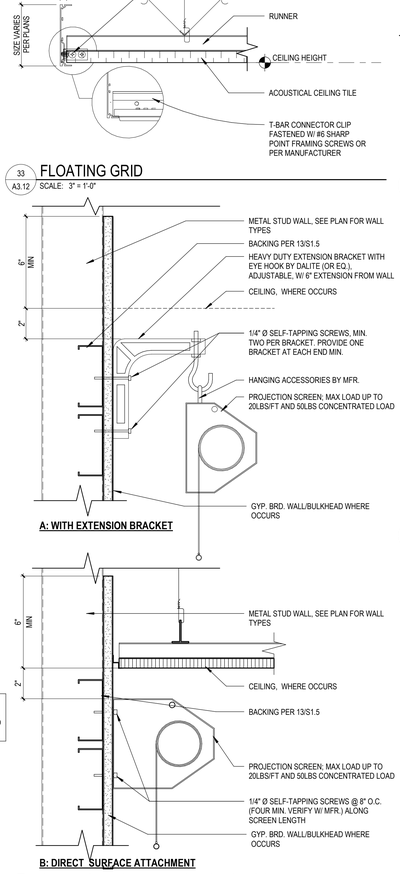
26 A3.12 BULKHEAD DETAIL
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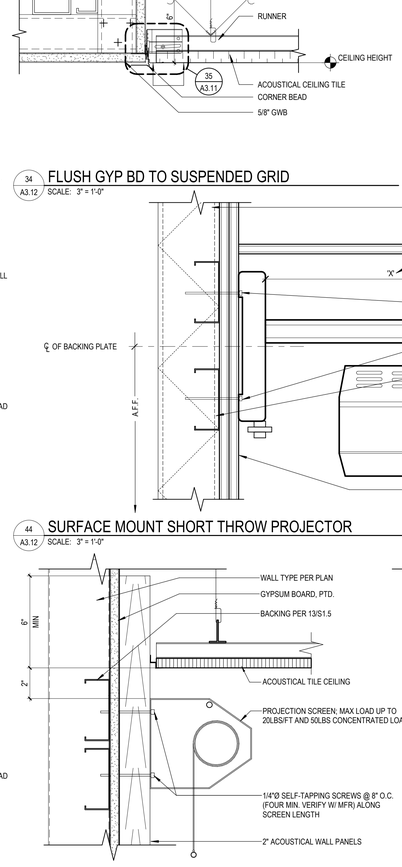
45 A3.12 RECESSED PROJECTION SCREEN IN ACT
SCALE: 3" = 1'-0"



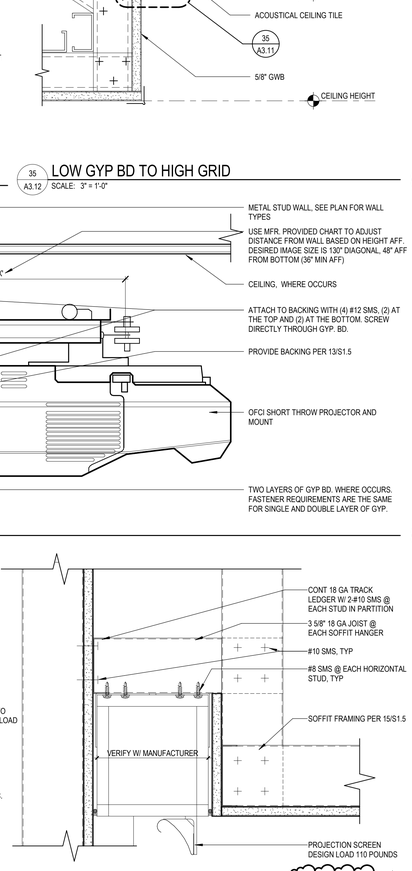
32 A3.12 FLOATING GRID @ GYP BD SOFFIT
SCALE: 3" = 1'-0"



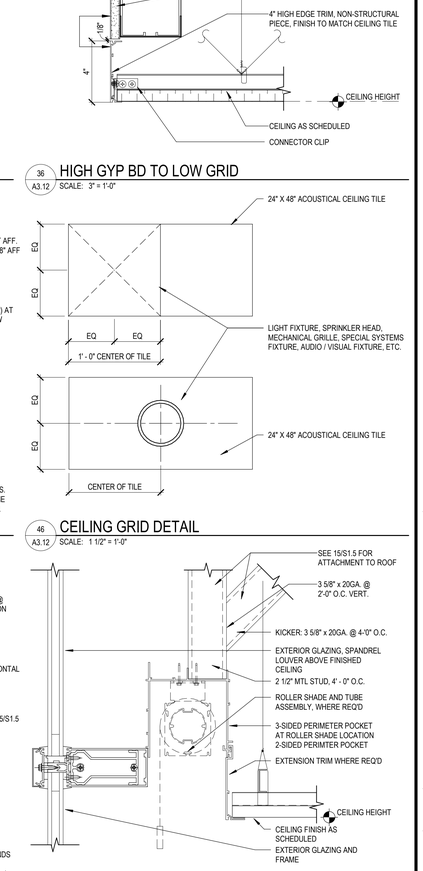
33 A3.12 FLOATING GRID
SCALE: 3" = 1'-0"



34 A3.12 FLUSH GYP BD TO SUSPENDED GRID
SCALE: 3" = 1'-0"



35 A3.12 LOW GYP BD TO HIGH GRID
SCALE: 3" = 1'-0"



36 A3.12 HIGH GYP BD TO LOW GRID
SCALE: 3" = 1'-0"

42 A3.12 CEILING ACCESS PANEL @ GYP BD
SCALE: 3" = 1'-0"

53 A3.12 SURFACE MOUNT. PROJECTION SCREEN
SCALE: 3" = 1'-0"

44 A3.12 SURFACE MOUNT SHORT THROW PROJECTOR
SCALE: 3" = 1'-0"

46 A3.12 CEILING GRID DETAIL
SCALE: 1 1/2" = 1'-0"

51 A3.12 FUME HOOD & COUNTER ELEVATION
SCALE: 3/4" = 1'-0"

52 A3.12 FUME HOOD ENCLOSURE
SCALE: 3/4" = 1'-0"

54 A3.12 SURFACE MOUNT PROJECTION SCREEN
SCALE: 3" = 1'-0"

55 A3.12 RECESSED PROJECTION SCREEN IN GYP SOFFIT ADD2
SCALE: 3" = 1'-0"

56 A3.12 ELECTRIC SHADE POCKET @ STOREFRONT
SCALE: 3" = 1'-0"

ADD2 2020-07-08

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LICENSED ARCHITECT
MARK V. COVINGTON
03/31/2021
STATE OF CALIFORNIA

CEILING DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2
2020-07-10 ADD3 Addendum 3

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

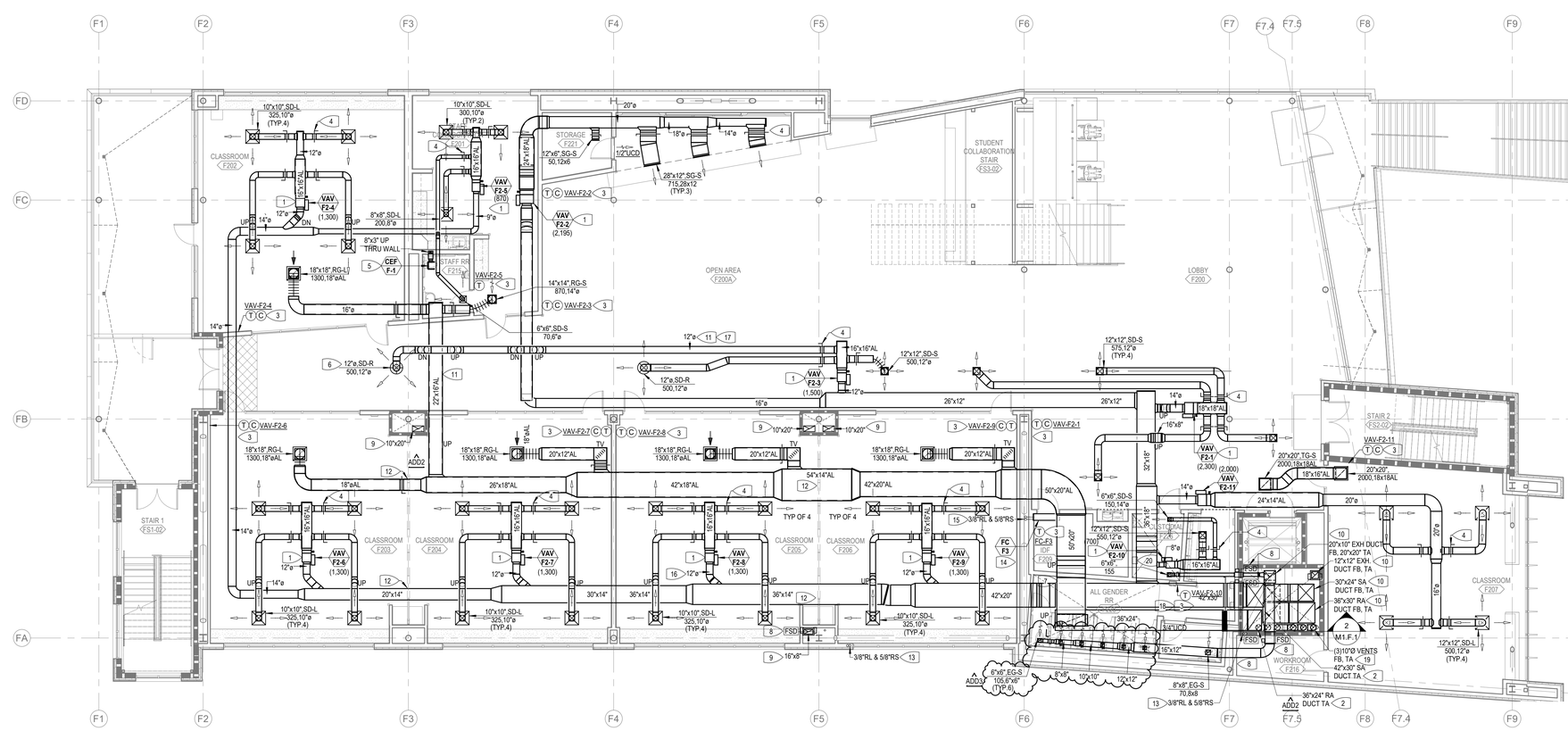
A3.12

SHEET NOTES:

1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.

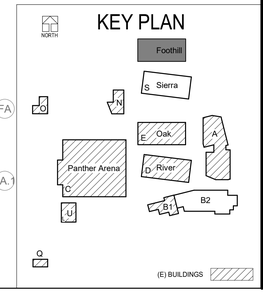
KEYED NOTES:

1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. SUPPLY AND/OR RETURN AIR DROPS IN RATED SHAFT FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN.
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.
5. SECURE CEILING EXHAUST FAN TO STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT UP THRU WALL AT LOCATION SHOW. SEE DETAIL **9/M4.02**.
6. INSTALL ROUND CEILING DIFFUSERS AT CEILING OR OPEN SPACE AT LOCATION SHOWN. CONNECT TO DUCT WITH RIGID DUCTWORK. SEE DETAIL **6/M4.03**.
7. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
8. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
9. EMERGENCY EXHAUST DUCT FROM BELOW TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAILS **3/M4.03** AND **14/M4.03**, TYPICAL.
10. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT FROM BELOW, TO ABOVE IN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAIL **3/M4.03**, **13/M4.03** AND **14/M4.03**, TYPICAL.
11. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
12. COORDINATE DUCT ROUTING OVER FOLDING PARTITION DOORS PRIOR TO COMMENCING WORK IN THIS AREA. CONSULT WITH MEOR FOR ANY DESCREPANCIES. REFER TO ARCHITECTURAL PLANS FOR FOLDING PARTITION REQUIREMENTS.
13. REFRIGERANT LINES IN WALL FROM BELOW TO ABOVE. PROVIDE PIPE SUPPORT EVERY 10'-0" AND EACH TURN OF DIRECTION. SEE DETAIL **7/M4.04**, TYPICAL.
14. SECURE FAN COIL UNIT TO HIGH WALL FRAMING MEMBERS AT LOCATION SHOWN. FIELD VERIFY LOCATION WITH STRUCTURAL MEMBERS, ALL ELECTRICAL AND CONTROL WIRING, CONDUITS, ELECTRICAL AND CONTROL PANELS, ETC. SEE DETAIL **10/M4.02**.
15. ROUTE REFRIGERANT LINES UP THRU WALL TO FLOOR ABOVE AT LOCATION SHOWN. SEE DETAIL **7/M4.04**, TYPICAL.
16. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
17. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
18. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.
19. OFFSET AND (3) 10"Ø VENTS FROM BELOW TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAILS **3/M4.03** AND **14/M4.03**, TYPICAL.
20. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120 V/1 CIRCUIT POWER. SEE ELECTRICAL PLANS.



1 **BLDG F SECOND FLOOR PLAN - MECHANICAL**
1/8" = 1'-0"

KEY PLAN



ADD3 2020-07-10
ADD2 2020-07-08

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Architecture Engineering Planning Interiors

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job no. 19356

BLDG F SECOND FLOOR - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School road, Roseville, California 95747

ADDENDUM 3
07.10.2020
Revisions

2020-07-08 ADD2 Addendum 2
2020-07-10 ADD3 Addendum 3

PROJECT ##75-19101-00

M1.F.2

SHEET NOTES:

ADD2
1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.
9. PROVIDE MULTI-BLADE MANUAL VOLUME DAMPERS WHERE CLEARANCES ARE REQUIRED, TYPICAL.

KEYED NOTES:

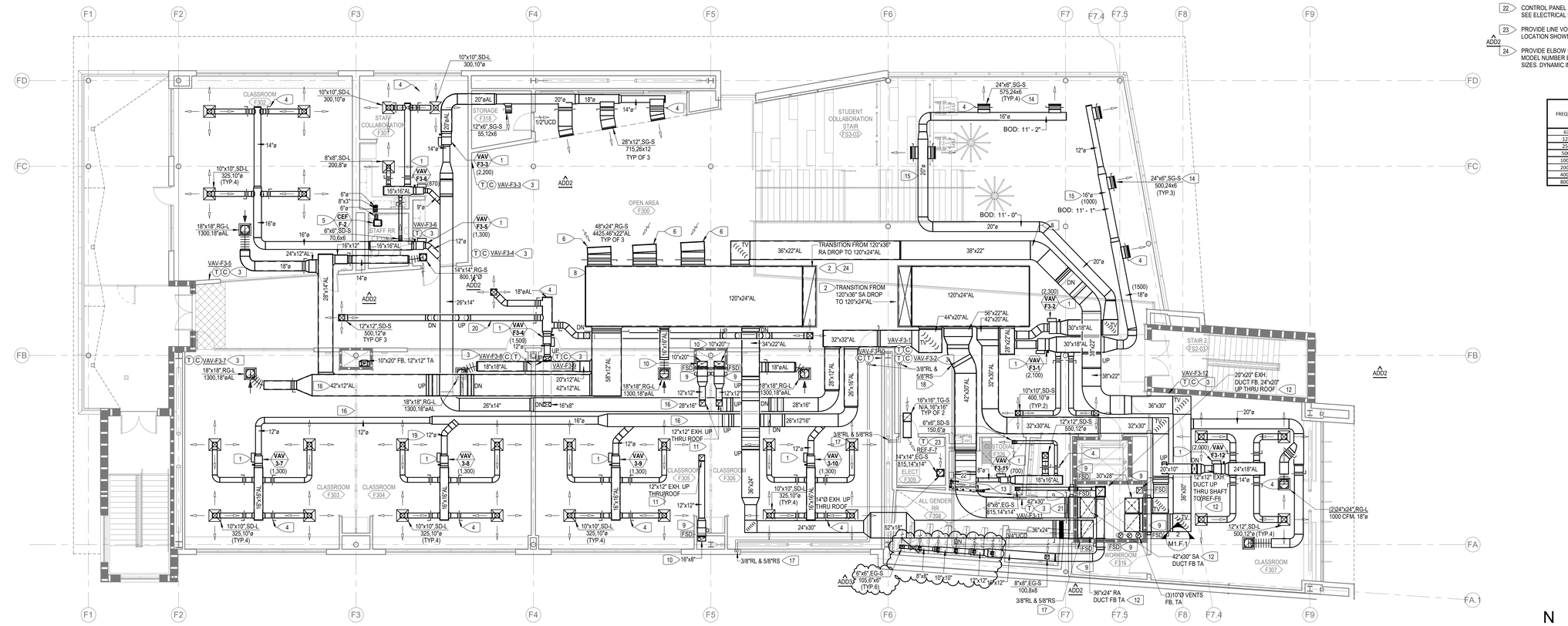
1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. LINED SUPPLY AND/OR RETURN AIR DROPS FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.

ADD2
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN, TYPICAL.
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.
5. SECURE CEILING EXHAUST FAN TO STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT UP THRU ROOF AT LOCATION SHOW. SEE DETAIL **9/M4.02**.
6. CENTER OF AIR TERMINAL AT 12'-2" AFF AT SOFFIT WALL.

ADD2
7. NOT USED.
8. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK 6WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
9. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
10. EMERGENCY EXHAUST DUCT FROM BELOW IN RATED CHASE. OFFSET AND ROUTE EXHAUST DUCT ABOVE FINISHED CEILING AS SHOWN. SEE DETAILS **2/M4.03** AND **3/M4.03**, TYPICAL.
11. ROUTE EMERGENCY EXHAUST DUCT UP THRU ROOF AT LOCATION SHOWN. CONNECT TO EXHAUST FAN ON ROOF. SEE DETAIL **3/M4.01**, TYPICAL.
12. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT DOWN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAILS **3/M4.03**, **13/M4.03** AND **14/M4.03**, TYPICAL.
13. ROUTE 3" COMBUSTION AIR AND VENTS AT GAS WATER HEATER, UP ALONG WALL AT LOCATION SHOWN. COMBINE VENTS BELOW ROOF LEVEL AND ROUTE CONCENTRIC VENT UP THRU ROOF. SEE DETAIL **6/M4.01**.
14. MOUNT SUPPLY REGISTER ON EXPOSED DUCT AT LOCATION SHOWN. SEE DETAIL **7/M4.03**, TYPICAL.
15. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
16. COORDINATE DUCT ROUTING OVER FOLDING PARTITION DOORS PRIOR TO COMMENCING WORK IN THIS AREA. CONSULT WITH MEOR FOR ANY DESCREPANCIES. REFER TO ARCHITECTURAL PLANS FOR FOLDING PARTITION REQUIREMENTS.
17. REFRIGERANT LINES IN WALL FROM BELOW. OFFSET AND ROUTE ABOVE FINISHED CEILING AS SHOWN. PROVIDE PIPE SUPPORT EVERY 10'-0" AND EACH TURN OF DIRECTION. SEE DETAIL **10/M4.01**, TYPICAL.
18. ROUTE REFRIGERANT LINES UP THRU ROOF TO CONDENSING UNIT ON ROOF AT LOCATION SHOWN. SEE DETAIL **9/M4.01**, TYPICAL.
19. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
20. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
21. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.
22. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120 V/1 CIRCUIT POWER. SEE ELECTRICAL PLANS.
23. PROVIDE LINE VOLTAGE THERMOSTAT ON WALL AT +48" TO TOP OF THERMOSTAT AT LOCATION SHOWN.

ADD2
24. PROVIDE ELBOW DUCT SILENCER IN RETURN DUCT EQUAL TO VIBRO-ACOUSTICS MODEL NUMBER ERMX120/XE OR APPROVED EQUAL. 120"x24" INLET AND OUTLET SIZES. DYNAMIC INSERTION LOSSES SHALL BE EQUAL TO:

FREQUENCY	INSERTION LOSS	EQUIPMENT SOUND POWER LEVEL
63Hz	6dB	60dB
125Hz	12dB	54dB
250Hz	18dB	53dB
500 Hz	28dB	52dB
1000 Hz	35dB	52dB
2000 Hz	35dB	51dB
4000 Hz	28dB	33dB
8000 Hz	22dB	40dB



1 **BLDG F THIRD FLOOR PLAN - MECHANICAL**
1/8" = 1'-0"

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BLDG F THIRD FLOOR - MECHANICAL
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2401 High School road, Roseville, California 95747

ADDENDUM 3
07.10.2020
Revisions
2020-07-08 ADD2 Addendum 2
2020-07-10 ADD3 Addendum 3

PROJECT ##75-19101-00

M1.F.3

KEY PLAN
NORTH
Foothill
Sierra
Oak
River
Panther Arena
(E) BUILDINGS

ADD3 2020-07-10
ADD2 2020-07-08

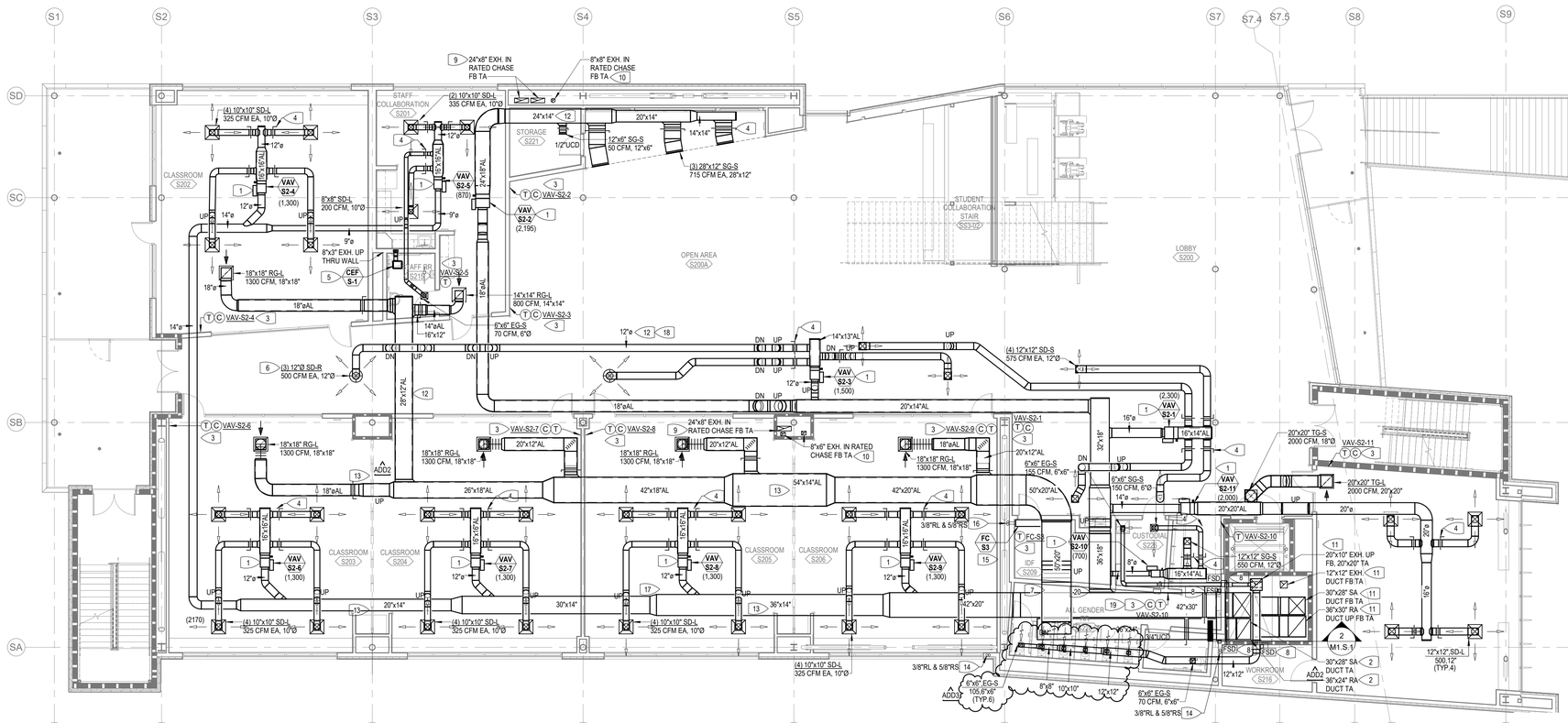
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SHEET NOTES:

1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.

KEYED NOTES:

1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. SUPPLY AND/OR RETURN AIR DROPS IN RATED SHAFT FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN.
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.
5. SECURE CEILING EXHAUST FAN TO STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT UP THRU ROOF AT LOCATION SHOW. SEE DETAIL **9/M4.02**.
6. INSTALL ROUND CEILING DIFFUSERS AT CEILING OR OPEN SPACE AT LOCATION SHOWN. CONNECT TO DUCT WITH RIGID DUCTWORK. SEE DETAIL **6/M4.03**.
7. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
8. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
9. EMERGENCY EXHAUST DUCT FROM BELOW TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAIL **3/M4.03**, TYPICAL.
10. FUME HOOD EXHAUST DUCT FROM BELOW TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAIL **3/M4.03**, TYPICAL.
11. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT DOWN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAILS **3/M4.03**, **13/M4.03** AND **14/M4.03**, TYPICAL.
12. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
13. COORDINATE DUCT ROUTING OVER FOLDING PARTITION DOORS PRIOR TO COMMENCING WORK IN THIS AREA. CONSULT WITH MEOR FOR ANY DESCREPANCIES. REFER TO ARCHITECTURAL PLANS FOR FOLDING PARTITION REQUIREMENTS.
14. REFRIGERANT LINES IN WALL FROM BELOW TO ABOVE. PROVIDE PIPE SUPPORT EVERY 10'-0" AND EACH TURN OF DIRECTION. SEE DETAIL **7/M4.04**, TYPICAL.
15. SECURE FAN COIL UNIT TO HIGH WALL FRAMING MEMBERS AT LOCATION SHOWN. FIELD VERIFY LOCATION WITH STRUCTURAL MEMBERS, ALL ELECTRICAL AND CONTROL WIRING, CONDUITS, ELECTRICAL AND CONTROL PANELS, ETC. SEE DETAIL **10/M4.02**.
16. ROUTE REFRIGERANT LINES UP THRU WALL TO FLOOR ABOVE AT LOCATION SHOWN. SEE DETAIL **7/M4.04**, TYPICAL.
17. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
18. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
19. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.
20. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120 V/1 CIRCUIT POWER. SEE ELECTRICAL PLANS.



1 **BLDG S SECOND FLOOR PLAN - MECHANICAL**
1/8" = 1'-0"

ADD3 2020-07-10
ADD2 2020-07-08

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ADDENDUM 3
07.10.2020
Revisions
2020-07-08 ADD2 Addendum 2
2020-07-10 ADD3 Addendum 3

PROJECT ##75-19101-00

M1.S.2

SHEET NOTES:

ADD2
1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.
9. PROVIDE MULTI-BLADE MANUAL VOLUME DAMPERS WHERE CLEARANCES ARE REQUIRED, TYPICAL.

KEYED NOTES:

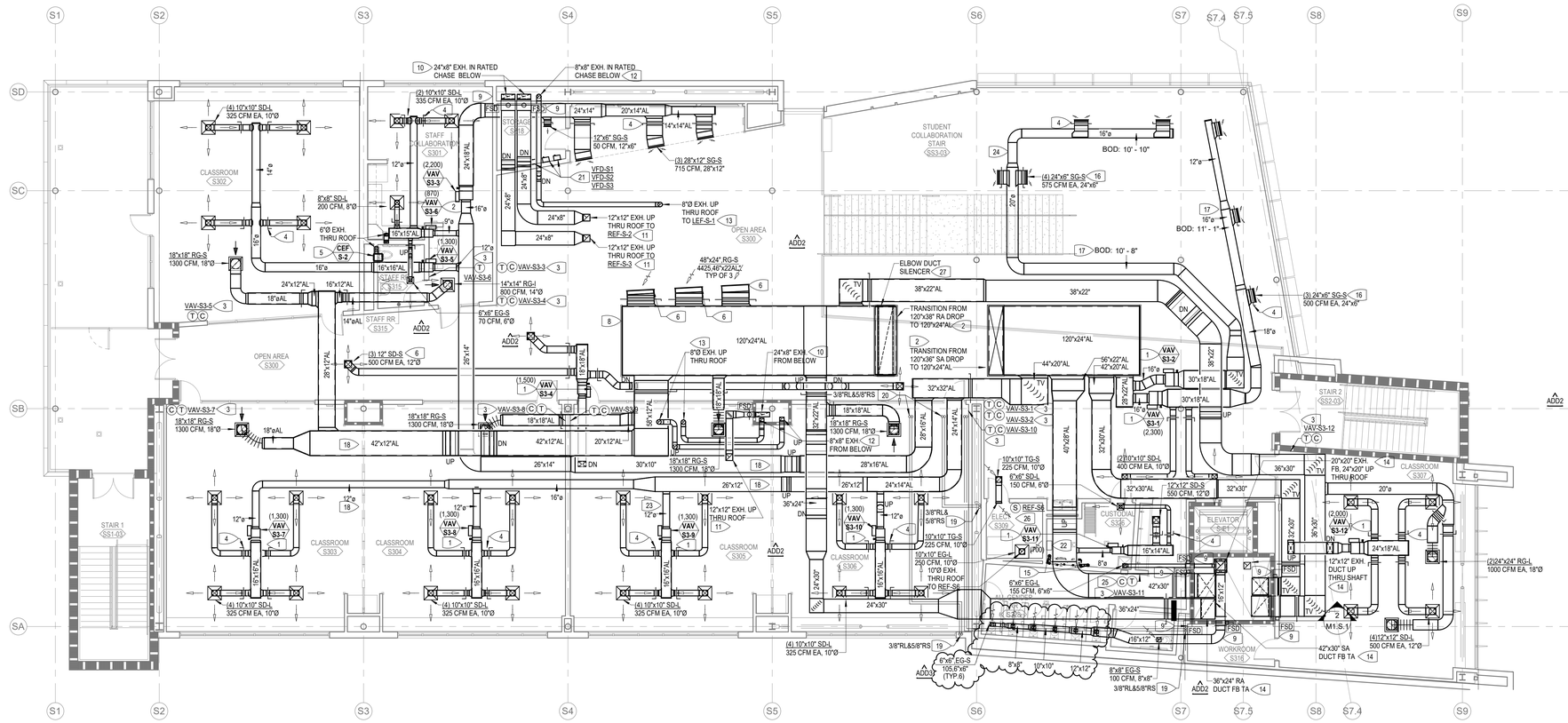
1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. LINED SUPPLY AND/OR RETURN AIR DROPS FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.

ADD2
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN.
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.

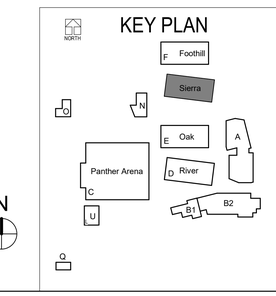
ADD2
5. SECURE CEILING EXHAUST FAN TO STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT UP THRU ROOF AT LOCATION SHOW. SEE DETAIL **9/M4.02**.
6. CENTER OF AIR TERMINAL AT 12'-0" AFF ON SOFFIT WALL.
7. NOT USED.
8. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
9. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
10. EMERGENCY EXHAUST DUCT FROM BELOW IN RATED CHASE. OFFSET AND ROUTE EXHAUST DUCT ABOVE FINISHED CEILING AS SHOWN. SEE DETAILS **2/M4.03** AND **3/M4.03**, TYPICAL.
11. ROUTE EMERGENCY EXHAUST DUCT UP THRU ROOF AT LOCATION SHOWN. CONNECT TO EXHAUST FAN ON ROOF. SEE DETAIL **3/M4.03**, TYPICAL.
12. FUME HOOD EXHAUST DUCT FROM BELOW IN RATED CHASE. OFFSET AND ROUTE FUME HOOD EXHAUST DUCT ABOVE FINISHED CEILING AS SHOWN. SEAL WALL PENETRATION WITH FIRE-CAULKING AROUND ENTIRE PERIMETER OF DUCT. SEE DETAILS **3/M4.01** & **4/M4.03**, TYPICAL.
13. ROUTE FUME HOOD EXHAUST DUCT UP THRU ROOF AT LOCATION SHOWN. CONNECT TO FUME HOOD EXHAUST FAN ON ROOF. SEE DETAIL **4/M4.01**, TYPICAL.
14. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT DOWN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAIL **3/M4.03**, **13/M4.03** AND **14/M4.03**, TYPICAL.
15. ROUTE 3" COMBUSTION AIR AND VENTS AT GAS WATER HEATER, UP ALONG WALL AT LOCATION SHOWN. COMBINE VENTS BELOW ROOF LEVEL AND ROUTE CONCENTRIC VENT UP THRU ROOF. SEE DETAIL **6/M4.01**.
16. MOUNT SUPPLY REGISTER ON EXPOSED DUCT AT LOCATION SHOWN. SEE DETAIL **7/M4.03**, TYPICAL.
17. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
18. COORDINATE DUCT ROUTING OVER FOLDING PARTITION DOORS PRIOR TO COMMENCING WORK IN THIS AREA. CONSULT WITH MEOR FOR ANY DESCREPANCIES. REFER TO ARCHITECTURAL PLANS FOR FOLDING PARTITON REQUIREMENTS.
19. REFRIGERANT LINES IN WALL FROM BELOW. OFFSET AND ROUTE ABOVE FINISHED CEILING AS SHOWN. PROVIDE PIPE SUPPORT EVERY 10'-0" AND EACH TURN OF DIRECTION. SEE DETAIL **10/M4.01**, TYPICAL.
20. ROUTE REFRIGERANT LINES UP THRU ROOF TO CONDENSING UNIT ON ROOF AT LOCATION SHOWN. SEE DETAIL **9/M4.01**, TYPICAL.
21. MOUNT VFD ON WALL PER DETAIL **5/M4.02** COORDINATE WITH ELECTRICAL FOR POWER REQUIREMENTS. TYP. OF 3.
22. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120 V/1 CIRCUIT POWER. SEE ELECTRICAL PLANS.
23. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
24. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
25. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.

ADD2
26. PROVIDE LINE VOLTAGE THERMOSTAT ON WALL AT +48" TO TOP OF THERMOSTAT AT LOCATION SHOWN.
27. PROVIDE ELBOW DUCT SILENCER IN RETURN DUCT EQUAL TO VIBRO-ACOUSTICS MODEL NUMBER ERMX120XE OR APPROVED EQUAL. 120"x24" INLET AND OUTLET SIZES. DYNAMIC INSERTION LOSSES SHALL BE EQUAL TO:

FREQUENCY	INSERTION LOSS	EQUIPMENT SOUND POWER LEVEL
63Hz	6dB	60dB
125Hz	12dB	54dB
250Hz	18dB	53dB
500 Hz	28dB	52dB
1000 Hz	35dB	52dB
2000 Hz	35dB	51dB
4000 Hz	28dB	33dB
8000 Hz	22dB	40dB



1 **BLDG S THIRD FLOOR PLAN - MECHANICAL**
1/8" = 1'-0"



ADD3 2020-07-10
ADD2 2020-07-08

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BLDG S THIRD FLOOR - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

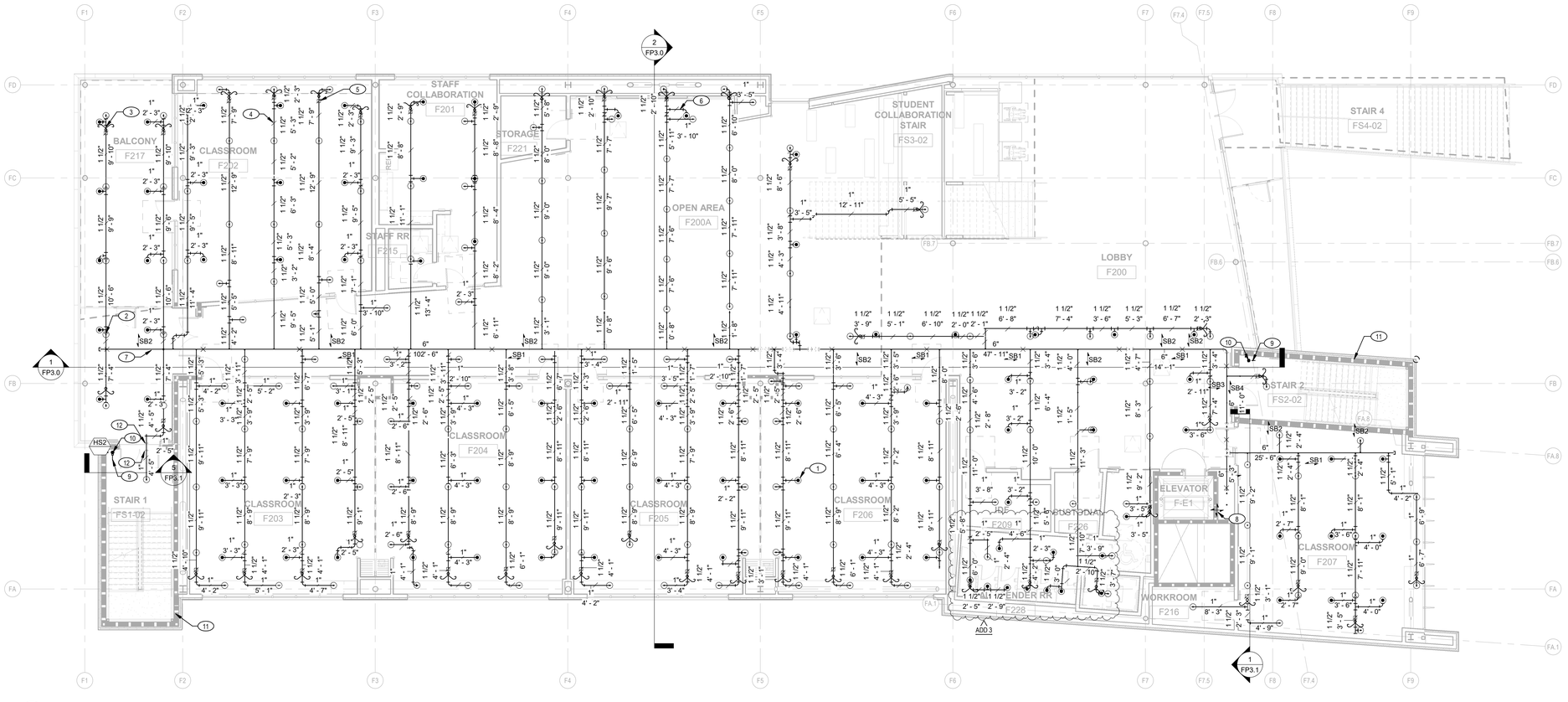
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ADDENDUM 3
07.10.2020
Revisions

2020-07-08 ADD2 Addendum 2
2020-07-10 ADD3 Addendum 3

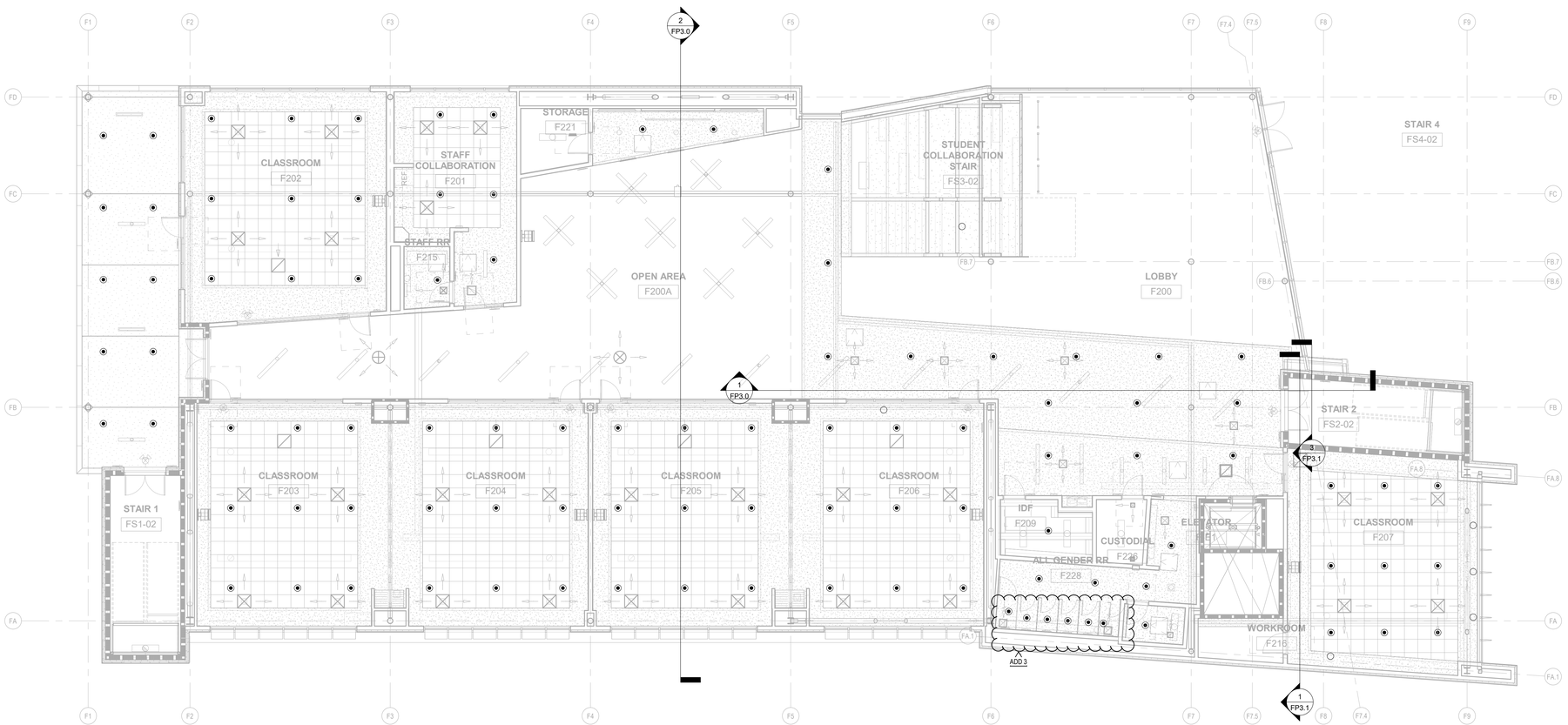
PROJECT ##75-19101-00

M1.S.3



1 FIRE SPRINKLER FLOOR PLAN - BUILDING F - 2ND FLOOR

SCALE: 1/8" = 1'-0"



2 FIRE PROTECTION RCP - FOOTHILL BUILDING - SECOND FLOOR

SCALE: 1/8" = 1'-0"

0' 4' 8' 16' 32'

FIRE SPRINKLER HEAD SCHEDULE

SYMBOL	TYPE	TEMP	ORF	K	FINISH	QUANTITY
○	GL 5615 QR SSU SPRINK	200	1/2"	5.6	BRASS	178
◉	GL 5601 QR SSP SPRINK	155	1/2"	5.6	CHROME	98
TOTAL NUMBER OF SPRINKLERS:						276

SHEET NOTES

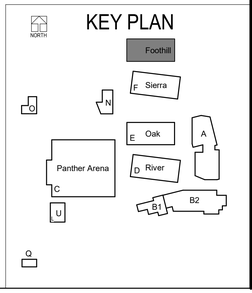
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1. STANDARD SPRAY QUICK-RESPONSE RECESSED PENDENT FIRE SPRINKLER
2. STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER
3. END OF LINE RESTRAINT WITH NEAREST HANGER WITHIN 2 FT. OF RESTRAINT (INSTALLED WITH SURGE RESTRAINER TO RESIST UPWARD MOVEMENT) -SEE DETAIL 10/FP5.1
4. HANGER ASSEMBLY
5. HANGER WITH SURGE RESTRAINER PER 10/FP5.1
6. 1" SCH.40 ARMOVER PIPE
7. 6" SCH.10 FIRE SPRINKLER MAIN PIPE
8. 4-WAY BRACE PER DETAIL 9/FP5.1
9. 2 1/2" POTTER ROEMER FIRE PRO STANDPIPE HOSE CONNECTION MODEL NO. 4110 SEE DETAIL 4/FP5.0
10. 4" SCH. 10 STANDPIPE
11. 1-HR FIRE RESISTANT RATED WALL (TYP.)
12. FLEXIBLE COUPLING

GENERAL NOTES

A. ALL SPRINKLER HEADS TO BE LOCATED IN THE CENTER OF CEILING TILES AND COORDINATED WITH LOCATIONS OF LIGHTS AND MECHANICAL REGISTERS.

KEY PLAN



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www.lpengineers.com
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FIRE SPRINKLER - BLDG F - 2ND FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

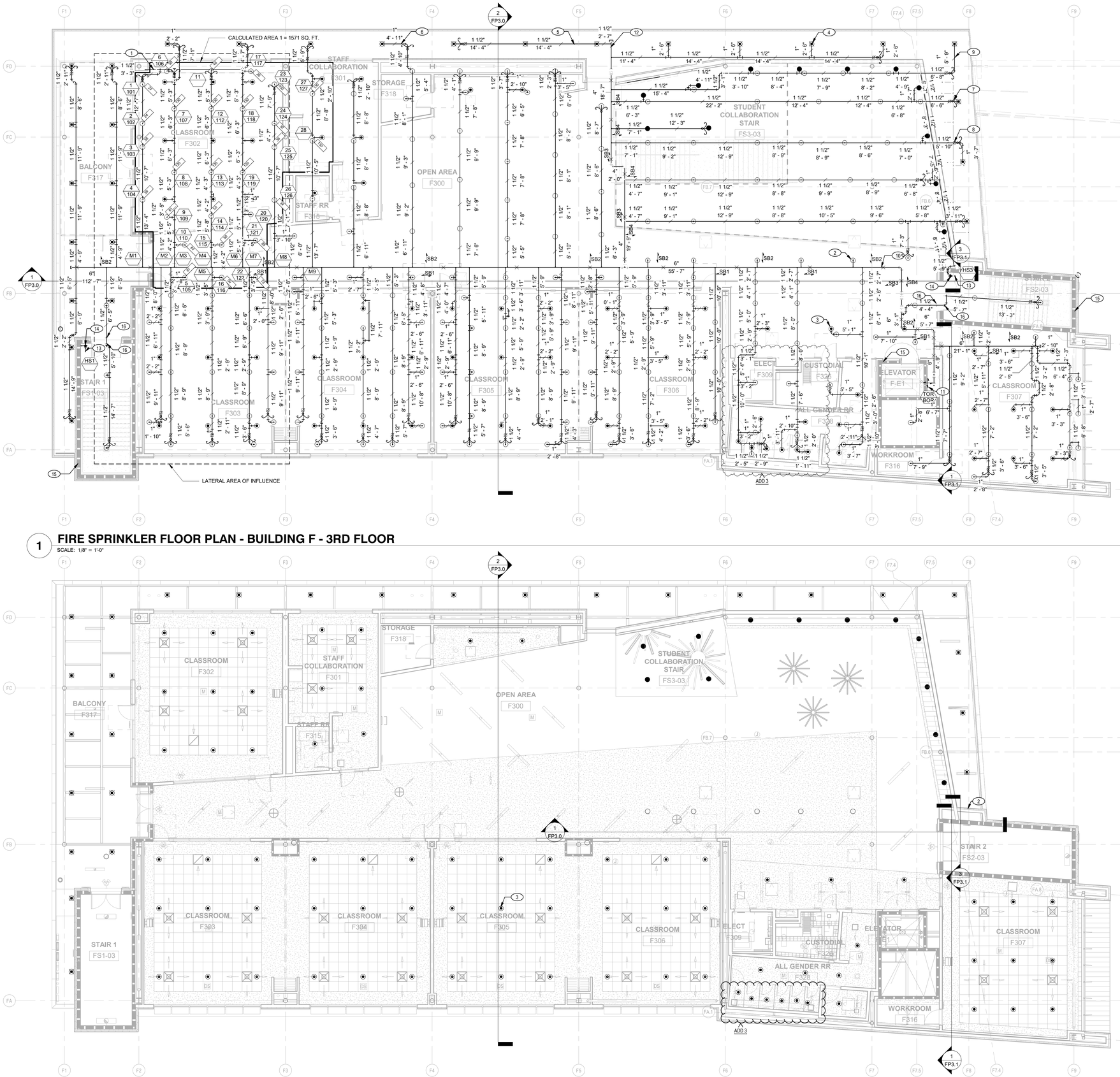
ADDENDUM 3
07.10.2020
Revisions
07-10-20 ADDENDUM 3

PROJECT #75-19101-00
DSA APPL #02-118062
DSA FILE #31-H3

FP1.F2.1

07-10-20

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1 FIRE SPRINKLER FLOOR PLAN - BUILDING F - 3RD FLOOR

SCALE: 1/8" = 1'-0"

2 FIRE PROTECTION RCP - FOOTHILL BUILDING - THIRD FLOOR

SCALE: 1/8" = 1'-0"

0' 4' 8' 16' 32'

SHEET NOTES

#	
1	INSPECTOR'S TEST AND DRAIN LOCATION. PROVIDE ACCESS PANEL AT CEILING BELOW WITH IDENTIFICATION SIGNAGE.
2	STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER
3	STANDARD SPRAY QUICK-RESPONSE RECESSED PENDENT FIRE SPRINKLER
4	DRY PENDENT SEE DETAIL 8/FP5.0
5	1 1/2" SCH.40 BRANCH LINE PIPE
6	1" SCH.40 ARMOVER PIPE
7	END OF LINE RESTRAINT WITH NEAREST HANGER WITHIN 2 FT. OF RESTRAINT (INSTALLED WITH SURGE RESTRAINER TO RESIST UPWARD MOVEMENT) -SEE DETAIL 10/FP5.1
8	HANGER WITH SURGE RESTRAINER PER 10/FP5.1
9	HANGER ASSEMBLY
10	6" SCH.10 FIRE SPRINKLER MAIN PIPE
11	4-WAY BRACE PER DETAIL 9/FP5.1
12	4" SCH.10 BLK STEEL BULK PIPE
13	2 1/2" POTTER ROEMER FIRE PRO STANDPIPE HOSE CONNECTION MODEL NO. 4110 SEE DETAIL 4/FP5.0
14	4" SCH. 10 STANDPIPE
15	1-HR FIRE RESISTANT RATED WALL (TYP.)
16	FLEXIBLE COUPLING

GENERAL NOTES

A. ALL SPRINKLER HEADS TO BE LOCATED IN THE CENTER OF CEILING TILES AND COORDINATED WITH LOCATIONS OF LIGHTS AND MECHANICAL REGISTERS.

HYDRAULIC CALCULATION

DESIGN INFORMATION

CALCULATION AREA#	1
SPRINKLER HEAD TYPE	SSU
K-FACTOR	5.6
SYSTEM TYPE (WET/DRY)	WET
HAZARD CLASSIFICATION	LIGHT
DENSITY (GPM/S.F.)	.10
AREA PER HEAD	130 MAX
AREA OF OPERATION (S.F.)	1571 (LARGEST OPEN AREA)

AREA OF OPERATION ADJUSTMENTS:

DRY PIPE INCREASE (30%)	N/A
SLOPE > 2:12 INCREASE (30%)	N/A
CEILING HEIGHT	N/A
PERCENT REDUCTION	N/A
CEILING REDUCTION (S.F.)	N/A
ADJUSTED AREA OF OPERATION	1571

WATER SUPPLY

STATIC (PSI)	52
RESIDUAL (PSI)	50
FLOW (GPM)	4000
FIRE PUMP (GPM @ PSI)	-

SYSTEM DEMAND @ SOURCE

PRESSURE REQUIRED (PSI)	45.81
FLOW REQUIRED (GPM)	581.68
PRESSURE AVAILABLE (PSI)	51.94
SAFETY MARGIN (%)	11.8%
HOSE STREAM ALLOWANCE (GPM)	
INSIDE 100 OUTSIDE N/A	

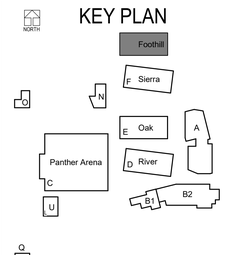
SYSTEM DEMAND AT BASE OF RISER

PRESSURE REQUIRED (PSI)	39.79
FLOW REQUIRED (GPM)	581.68

FIRE SPRINKLER HEAD SCHEDULE

SYMBOL	TYPE	TEMP	ORF	K	FINISH	QUANTITY
○	GL5615 QR SSU SPRINK	200	1/2"	5.6	BRASS	181
⊠	GL 5635 QR SSP DRY SPRINK	200	1"	5.6	WHITE	27
●	GL 5606 QR CONCEALED SSP SPRINK	155	1/2"	5.6	WHITE	12
◉	GL 5601 QR SSP SPRINK	155	1/2"	5.6	CHROME	76
TOTAL NUMBER OF SPRINKLERS:						296

KEY PLAN



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FIRE SPRINKLER - BLDG F - 3RD FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

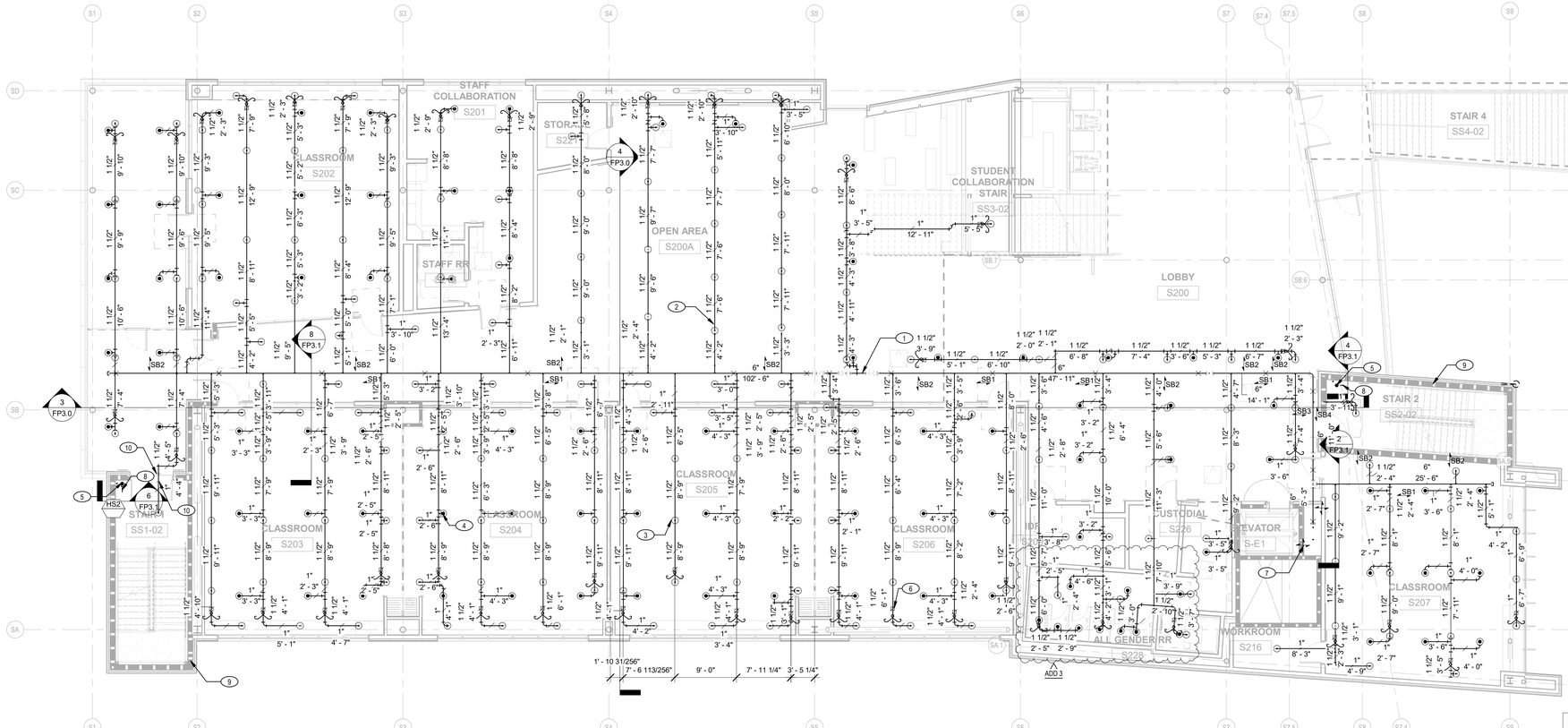
ADDENDUM 3
07.10.2020
Revisions
07-10-20 ADDENDUM 3

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

FP1.F3.1

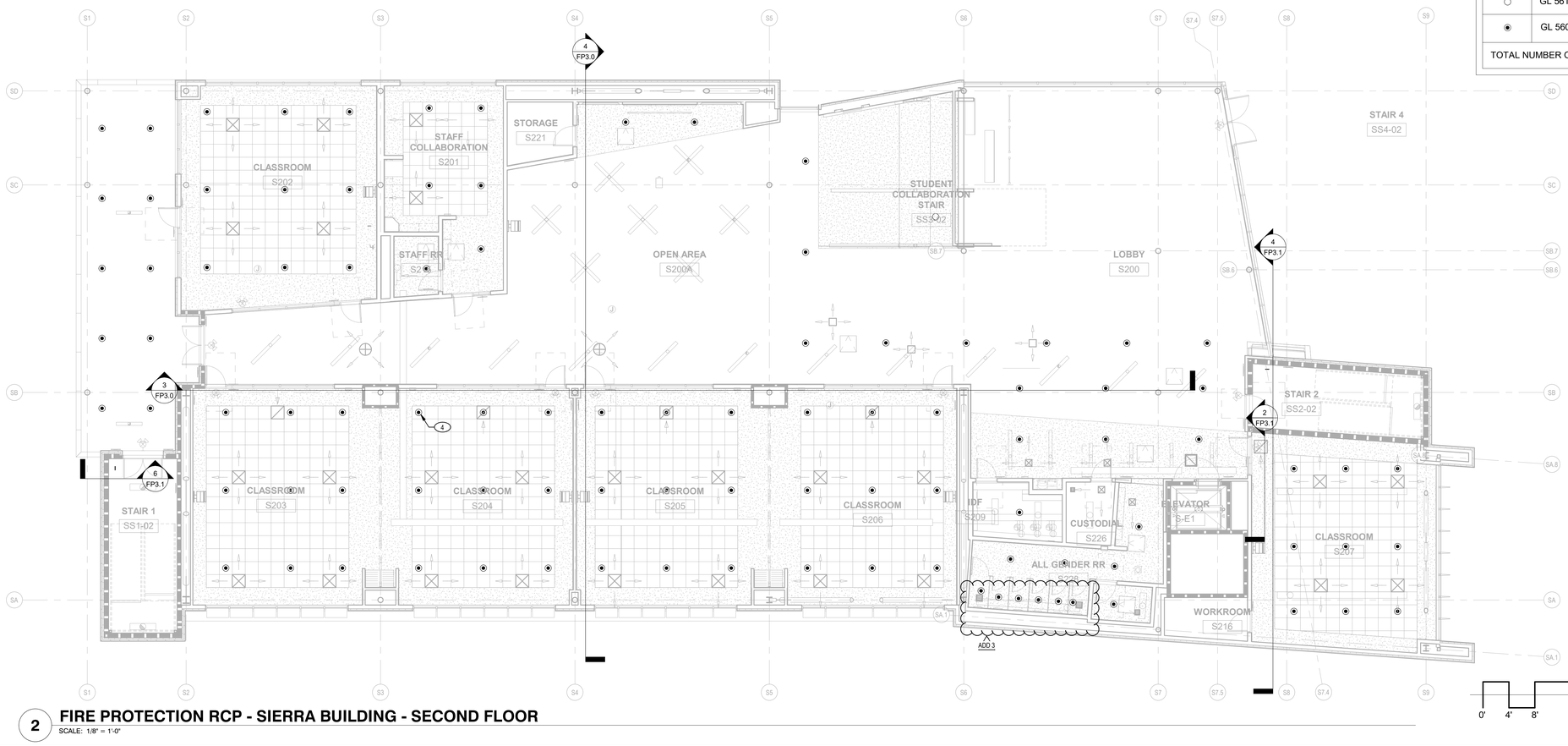
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1 FIRE SPRINKLER FLOOR PLAN - BUILDING S - 2ND FLOOR

SCALE: 1/8" = 1'-0"



2 FIRE PROTECTION RCP - SIERRA BUILDING - SECOND FLOOR

SCALE: 1/8" = 1'-0"

07-10-20

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SHEET NOTES

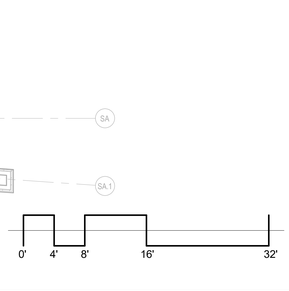
#	
1	6" SCH.10 FIRE SPRINKLER MAIN PIPE
2	1 1/2" SCH.40 BRANCH LINE PIPE
3	STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER
4	STANDARD SPRAY QUICK-RESPONSE RECESSED PENDENT FIRE SPRINKLER
5	4" SCH. 10 STANDPIPE
6	HANGER WITH SURGE RESTRAINER PER 10/FP5.1
7	4-WAY BRACE PER DETAIL 9/FP5.1
8	2 1/2" POTTER ROEMER FIRE PRO STANDPIPE HOSE CONNECTION MODEL NO. 4110 SEE DETAIL 4/FP5.0
9	1-HR FIRE RESISTANT RATED WALL (TYP.)
10	FLEXIBLE COUPLING

GENERAL NOTES

A. ALL SPRINKLER HEADS TO BE LOCATED IN THE CENTER OF CEILING TILES AND COORDINATED WITH LOCATIONS OF LIGHTS AND MECHANICAL REGISTERS.

FIRE SPRINKLER HEAD SCHEDULE

SYMBOL	TYPE	TEMP	ORF	K	FINISH	QUANTITY
○	GL 5615 QR SSU SPRINK	200	1/2"	5.6	BRASS	178
◉	GL 5601 QR SSP SPRINK	155	1/2"	5.6	CHROME	98
TOTAL NUMBER OF SPRINKLERS:						276



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FIRE SPRINKLER - BLDG S - 2ND FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

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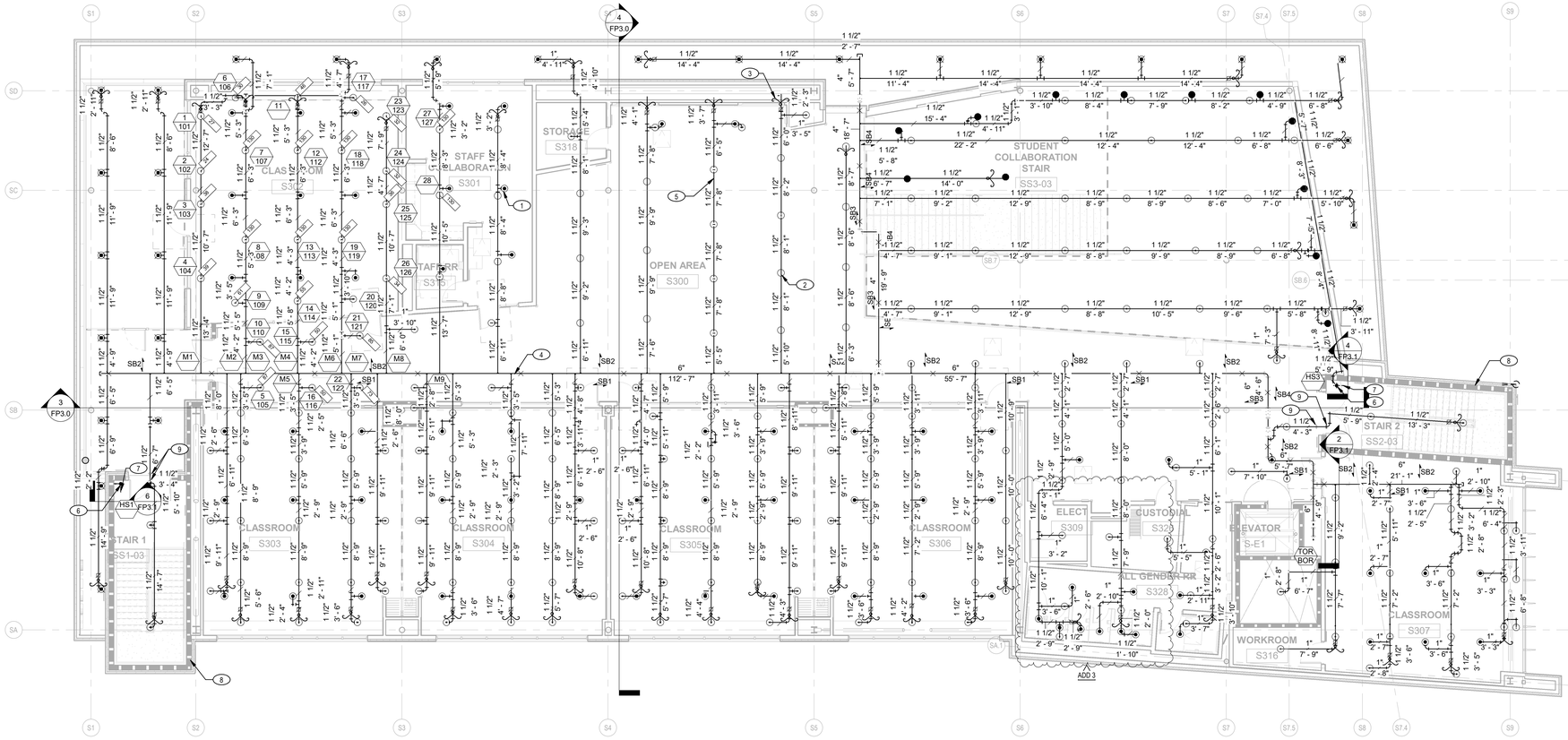
Roseville Joint Union High School District

ADDENDUM 3
07.10.2020
Revisons

07-10-20 ADDENDUM 3

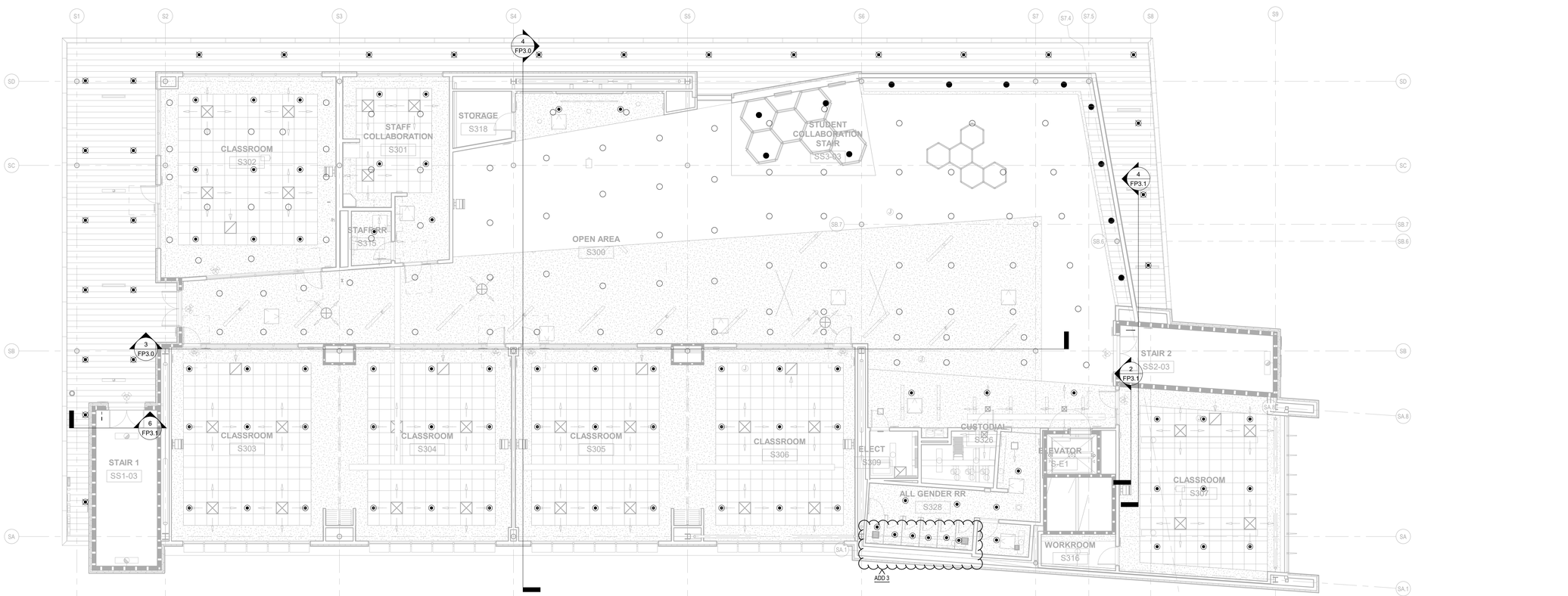
PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

FP1.S2.1



1 FIRE SPRINKLER FLOOR PLAN - BUILDING S - 3RD FLOOR

SCALE: NONE



2 FIRE PROTECTION RCP - SIERRA BUILDING - THIRD FLOOR

SCALE: NONE

07-10-20

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SHEET NOTES

#	
1	STANDARD SPRAY QUICK-RESPONSE RECESSED PENDENT FIRE SPRINKLER
2	STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER
3	HANGER WITH SURGE RESTRAINER PER 10/FP5.1
4	6" SCH.10 FIRE SPRINKLER MAIN PIPE
5	1 1/2" SCH.40 BRANCH LINE PIPE
6	4" SCH. 10 STANDPIPE
7	2 1/2" POTTER ROEMER FIRE PRO STANDPIPE HOSE CONNECTION MODEL NO. 4110 SEE DETAIL 4/FP5.0
8	1-HR FIRE RESISTANT RATED WALL (TYP.)
9	FLEXIBLE COUPLING

GENERAL NOTES

A. ALL SPRINKLER HEADS TO BE LOCATED IN THE CENTER OF CEILING TILES AND COORDINATED WITH LOCATIONS OF LIGHTS AND MECHANICAL REGISTERS.

FIRE SPRINKLER HEAD SCHEDULE

SYMBOL	TYPE	TEMP	ORF	K	FINISH	QUANTITY
○	GL5615 QR SSU SPRINK	200	1/2"	5.6	BRASS	181
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◉	GL 5601 QR SSP SPRINK	155	1/2"	5.6	CHROME	76
TOTAL NUMBER OF SPRINKLERS:						296

HYDRAULIC CALCULATION

DESIGN INFORMATION

CALCULATION AREA#	1
SPRINKLER HEAD TYPE	SSU
K-FACTOR	5.6
SYSTEM TYPE (WET/DRY)	WET
HAZARD CLASSIFICATION	LIGHT
DENSITY (GPM/S.F.)	.10
AREA PER HEAD	130 MAX
AREA OF OPERATION (S.F.)	1571 (LARGEST OPEN AREA)

AREA OF OPERATION ADJUSTMENTS:

DRY PIPE INCREASE (30%)	N/A
SLOPE > 2:12 INCREASE (30%)	N/A
CEILING HEIGHT	N/A
PERCENT REDUCTION	N/A
CEILING REDUCTION (S.F.)	N/A
ADJUSTED AREA OF OPERATION	1571

WATER SUPPLY

STATIC (PSI)	52
RESIDUAL (PSI)	50
FLOW (GPM)	4000
FIRE PUMP (GPM @ PSI)	

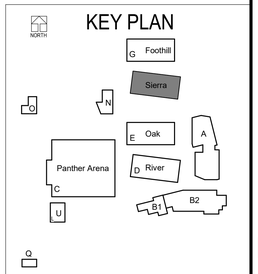
SYSTEM DEMAND @ SOURCE

PRESSURE REQUIRED (PSI)	45.84
FLOW REQUIRED (GPM)	581.68
PRESSURE AVAILABLE (PSI)	51.94
SAFETY MARGIN (%)	11.74%
HOSE STREAM ALLOWANCE (GPM)	
INSIDE 100 OUTSIDE N/A	

SYSTEM DEMAND AT BASE OF RISER

PRESSURE REQUIRED (PSI)	39.79
FLOW REQUIRED (GPM)	581.68

KEY PLAN



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