

VERNON ROAD FIRE STATION

FOR

CITY OF LAGRANGE
LAGRANGE, GEORGIA

(MECHANICAL)

PROJECT NUMBER 1731

FOR BIDDING AND PERMIT

07 MAY 2018

DESIGN / BID / BUILD HVAC CRITERIA

MECHANICAL CRITERIA-BASIC MATERIALS & METHODS

1. GENERAL- Provide a complete Mechanical/HVAC system, left in proper working order. Provide herein means installed completely, including labor & materials.
2. INCLUSION- The Mechanical work is portion of the overall project requirements and as such shall comply with the conditions and the requirements of the General Conditions, Supplementary Conditions and all applicable requirements of the overall project.
3. CODES, UTILITIES, REGULATIONS- Secure & Pay for all fees, licenses, permits, inspections. Coordinate with power & communication utilities. Meet & comply with all Federal, State, County & City codes. Provide complete submittals & shop drawings on all items.
4. CONTRACTORS REQUIRMENTS- The installing contractor providing for this work shall be a firm licensed for this type work and shall provide copies of licenses, business licenses, bonding limits, and insurance coverage. The contractor's field personnel shall be under the direct supervision of a listened contractor at all times.
5. COORDINATION- This contractor is responsible for coordinating with all other trades for the proper installation of this work, maintaining required clearances. Confirm & coordinate, in writing with electrical trade electrical trade the electrical characteristics and power requirement of item requiring power, prior to finalizing equipment order.
6. SUBMITTALS- Provide complete submittals on Contractors qualifications, all items, equipment, products, etc. For review, prior to finalizing equipment order.
7. PROVISIONS TO BE INCLUDED- Labor, supplies and materials, tools, equipment etc.; installation of all Mechanical equipment & connections; coordination with other trades; material shipping, delivery, receiving, storage, & protection; excavation, backfilling to 95% compaction.
8. MATERIALS- All materials shall be new, currently manufactured, UL. Labeled, and meet all industry standards. Label all equipment. Provide 3000 PSI class concrete for bases and backfill. Provide 3/4" thick A/D fire retardant grade backboards. Provide all support hardware. Paint all material exposed to view as directed by architect.
9. FIRE & SMOKE SEALS- Provide fire/smoke seal of each penetration of any rated barrier.
10. MOTOR & CONTROLS- All equipment shall be factory pre-wired complete, and provided with equipment disconnect, starters, over-load relays, etc. including all controls and low-voltage wiring. All equipment motors shall meet current energy efficiency requirements. Provide all control and interlock wiring.
11. EQUIPMENT SUPPORT, CLEARANCES & ACCESS- Equipment shall be properly supported as instructed by the manufacturer. Provide vibration isolation devices for each item. Equipment shall be located to maintain proper clearances and required access. Verify and coordinate prior to installation.
12. SESIMIC REQUIRMENTS- Support all items in accordance with the sesimic zoning requirement.
13. STRUCTURAL COORDINANCE- Review & coordinate with the structural conditions prior to the start of any work. Any attachments, welding and/or cutting of the building structure must first be approved, in writing, by the building structure engineer. Locate slab penetrations to avoid conflict & damage. Sleeve & seal each penetration.
14. ROOF PENETRATIONS- Any roof modifications shall be by the building owner's designated roofing installer/supplier to maintain the roofing warranty. Provide all necessary components (curbs, pitch pockets, etc.) and pay all related cost for a complete penetration.
15. CLOSE OUT/INSPECTIONS- This contractor shall assist with an on-site review of this work. At completion of the project, demonstrate in the presence of the Owner/Tenant, Architect & Engineer to proper operation of all components, systems, devices, etc.
16. WARRANTY- This contractor shall warrant all materials, labor & installation for one full year from date of Certificate of Occupancy. Any extended product warranties shall be passed onto the owner.

END OF MECHANICAL BASIC MATERIALS & METHODS

MECHANICAL CRITERIA-AIR DISTRIBUTION

1. DIAGRAMMATIC DRAWINGS- Drawings are diagrammatic to indicate the intended requirements for the HVAC system. Every fitting & detail is not necessarily indicated. The contractor shall provide for and install for a complete and properly functioning system(s) in a professional manner. All work shall be installed so that working components are accessible for service.
2. DUCTWORK STANDARDS- All duct work, fittings, support, etc. shall comply with the latest SMACNA standards, and be in conformance with NFPA and UL requirements.
3. ACCESS PANELS- Provide flush mounted hinged cover access panels for access to any concealed devices requiring maintenance or adjustment, etc.
4. FIRE DAMPERS- The contractor shall review the architectural & structural drawings and provide UL listed fire-dampers at each fire rated barrier, in accordance with its labeling, to match the barrier rating (at minimum) and where required by the AHJ. Provide access to any concealed unit.
5. GENERAL DUCTWORK- All duct work is to be concealed unless otherwise indicated. Contractor shall coordinate and field verify exact duct routes and clearances prior to duct fabrication. Provide for duct modifications to adjust to field conditions and maintain proper air flow & pressures.
6. DUCT SIZES & SHAPES- Duct sizes are shown for clear inside diminutions, increase duct size to maintain clear diminutions where interior duct restrictions occur. Duct shape may be changed, however the equivalent air carrying capacity, area and pressure drops are to be maintained.
7. LOW PRESSURE DUCT DESIGN BASIS- The low pressure duct layout & design is based on sheet metal duct system, Class 2, 0.08 to 0.10 Inch WG friction rate.
8. DUCT-TO-EQUIPMENT ISOLATION- Connections between ductwork and equipment shall be UL labeled heavy glass fiber fabric duct connection, at least four inches long with metal collar on each side. The gap between the equipment & metal duct work shall be a minimum of two inches to avoid transmission of vibrations.
9. DUCTWRAP INSULATION- All supply, return exhaust, outside air and make-up-air ducts shall insulate. Utilize aluminum foil vapor barrier, fiber-glass insulation. Secure isolation to duct with annealed stainless steel wire at spacing not to exceed Two Foot on-centers. Seal all joints and punctures with foil backed tape. John Mansville LinaTex or equal. Duct linear shall be 1 Inch thick, 1.5 PCF densities.
10. SHEET METAL DUCTWORK- Sheet metal ductwork shall be Class 2, galvanized steel of gauge and construction per SMACNA, with sealed connections, joints & fittings. Bends shall utilize turning vanes or be long radius elbows per SMACNA.
11. TAKE OFFS- Low pressure take-offs from truck duct to air devices shall be scoop type with adjustable damper.
12. FLEX DUCT RUN-OUTS- Flexible run-outs to individual supply diffusers are allowed, full size, insulated with interior support spring, U.L. listed for use in environmental air plenums. Each end shall be taped & banded. Flex lengths shall not exceed 7 feet. U.L. 181 listed, NFPA 90A & 90B complaint. Thermaflex M-KE or equal. Provide elbow/bend supports to maintain radius bends.
13. REGISTERS, DIFFUSERS, GRILLS, ETC.- Refer to schedule for items & criteria

END OF MECHANICAL CRITERIA-AIR DISTRIBUTION

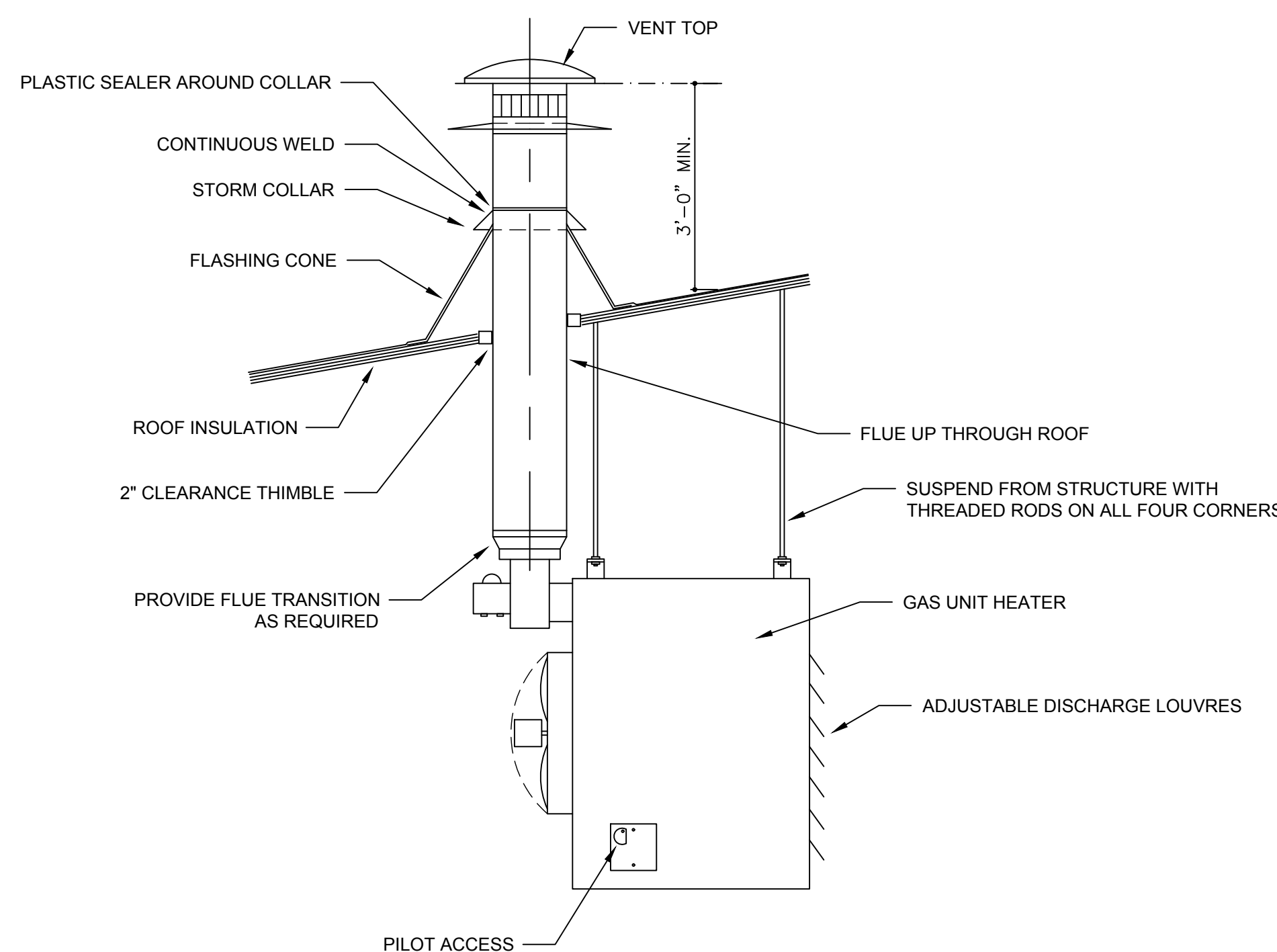
MECHANICAL CRITERIA-TEST & BALANCE/CLOSEOUT

1. TEST & BALANCE CERTIFICATION- Provide a complete test & balance report, prepared by an independent NEBB or AABC certified company.
2. START UP & ADJUSTMENTS- Contractor shall provide for the final lubrication of all equipment, adjustments, and setting of dampers, registers and air distribution devices for proper air distribution.
3. DUCT TESTING- Test the duct system for leaks and problems, correct any deficiencies.
4. TEST-REPORT- Provide a fully documented test report, including tester, testing equipment data, all air quantities, and operating points of the HVAC equipment. Provide three copies, minimum.
5. ADJUSTMENTS & CORRECTIONS- Should the test fail, the tester shall provide written recommendations for the correction, to the contractor for corrective action. Restart the system after corrections.
6. REVIEWS & INSPECTIONS- The contractor shall make a complete review of the work-in-progress and final working review with the AHJ, owner and owner's designated representatives at each stage of work, before items are covered up. Provide all necessary labor & tools for review & inspections.
7. SYSTEM DEMONSTRATION- At project completion provide a complete working demonstration of each system, all components and proper interface with other trades.
8. FILTERS & CLEANING- Replace all filters, clean all equipment & ductwork, check coils for obstructions.
9. PROGRAMMING & SETPOINTS- Review and program complete system operation, temperature set-points, timing & sequence of operation as directed by owner.
10. INSTRUCTION & TRAINING- Instruct & train the owner's designated personnel in the proper programming, operation, & maintenance of each system. Provide a follow-up on-site session at 30, 90 & 180 days after C.O.
11. MANUALS & FIELD DOCUMENTS- Provide two complete sets of 3-ring bound manuals to include equipment submittals & data, operation & maintenance data, all permits & approvals, warranty certificates & contract information. Provide two sets of field record "as-built" documents that reflect the actual installed layouts & related information. Also provide same in a scanned PDF format on CD, s.

END OF MECHANICAL CRITERIA-TEST & BALANCE/CLOSEOUT

GAS FIRED UNIT HEATERS							
SYMBOL	HEATER TYPE	INPUT BTUH	OUTPUT BTUH	AFUE	FLUE Ø	FAN HP	MODEL
GUH-1	GAS FIRED UNIT HEATER	100,000	80,000	80%	4"	1/10	REZ NOR FE-100 (OR EQUAL)

FANS										
MARK	HEATER TYPE	TYPE	CFM	ESP IN W.C.	MAX. RPM	MAX. HP	DRIVE	MAX. SONES	CONTROLLED BY	MODEL
F-1	TOILET EXHAUST	CEILING FAN	150	0.15	1,350	1/10	DIRECT	3.2	LIGHT SWITCH	COOK GC-320 (OR EQUAL)
F-2	VENTILATION	WALL PROP	4,000	0.25	650	1/3	BELT	12.8	WALL SWITCH	COOK 30XMW (OR EQUAL)



1 M-1 GAS UNIT HEATER DETAIL
SCALE: NONE

HVAC ABBREVIATIONS

- AC AIR CONDITIONING
- AHU AIR HANDLING UNIT
- AUTO AUTOMATIC
- AFC ABOVE FINISHED CEILING
- AFF ABOVE FINISHED FLOOR
- AP ACCESS PANEL
- BC BALANCE COCK
- BFC BELOW FINISHED CEILING
- BLDG BUILDING
- BV BALL VALUE
- CONN CONNECT
- CLG CEILING
- CTR CENTER
- CV CHECK VALUE
- CW COLD WATER
- DFU DRAINAGE FIXTURE UNIT
- DISTB DISTRIBUTION
- DIA DIAMETER
- DN DOWN
- DP DROP
- DS DOWN SPOUT
- DWGS DRAWINGS
- EDH ELECTRIC DUCT HEATER
- EMG EMERGENCY
- EXIST EXISTING
- FA FRESH AIR
- FCO FLOOR CLEAN OUT
- FCU FAN COIL UNIT OR AHU
- FD FLOOR DRAIN
- FH FIRE HYDRANT
- FIXT FIXTURE
- FS FLOOR SINK
- FT FOOT/FEET
- G GAS
- GC GAS COCK
- GH GROUND HYDRANT
- GRND GROUND
- GV GATE VALVE
- HD HUB DRAIN
- HP HORSE POWER
- HTR HEATER
- HW HOT WATER
- HWR HOT WATER RETURN
- HPU HEAT PUMP UNIT
- INV INVERT ELEVATION
- KVA KILO-VOLT-AMPERES
- KW KILOWATTS
- LT LIQUID-TIGHT
- MANUF MANUFACTURER
- MH MAN HOLE
- MIN MINIMUM
- MTD MOUNTED
- NFHB NONFREEPE HOSE BIB
- NIC NOT IN CONTRACT
- PNL PANEL
- PRV PRESSURE REDUCING VALVE
- P&T PRESSURE & TEMPERATURE
- QTY QUANTITY
- RD ROOF DRAIN
- RW RAIN WATER
- S STACK/SANITY
- SA SHOCK ABSORBER
- SCHD SCHEDULE
- THRU THROUGH
- TYP TYPICAL
- UG UNDER-GROUND
- V VENT
- VTR VENT THROUGH ROOF
- W WASTE
- WCO WALL CLEAN OUT
- WG WATER GAUGE
- WH WALL HYDRANT
- WHA WATER HAMMER ARRESTOR
- W&V WASTE & VENT



SMITH DESIGN GROUP, INC.
206 WEST HARALSON STREET
LAGRANGE, GEORGIA 30240
706-882-5511 www.SDGarch.net

REVISIONS	
Δ DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
VERNON ROAD
LAGRANGE GEORGIA

TITLE:
MECHANICAL SPECS

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: M-1

ELECTRIC SPLIT SYSTEM HEAT PUMPS SEER 16 MINIMUM. PROVIDE WITH DUCTED OUTSIDE AIR AS REQUIRED BY CODE TO MIX WITH RETURN AIR.

- KEYNOTES**
- WHERE DUCTWORK 10"Ø AND SMALLER PENETRATES (1) ONE HOUR RATED PARTITION, EXTEND SHEET METAL DUCT A MINIMUM OF 5'-0" BOTH SIDES OF THE PARTITION, OR INSTALL FIRE DAMPER.
 - SIDEWALL SUPPLY GRILLES. BOTTOM ELEVATION ±8'-4"
 - 1-1/2 TON WALL MOUNTED HEAT PUMP WITH COOLING AND HEAT IN SERVER ROOM. (ALL ELECTRIC)
 - PROVIDE AND INSTALL GUARDIAN MODEL G300-B AUTOMATIC RESIDENTIAL FIRE SUPPRESSION SYSTEM W/ ELECTRIC SHUT-OFF & INTERCONNECT CABLE IN RESIDENTIAL 36" WIDE UNVENTED HOOD.
 - 1" GAS DOWN WALL TO HOT WATER HEATER ON FIRST FLOOR.
 - GAS FLUE VENT UP THROUGH ROOF FOR HOT WATER HEATER.
 - 4" SHEET METAL PIPE WITH NO FASTENERS TO WALL CAP FOR DRYER VENT. MOUNT AT 12" A.F.F.



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- LEGEND**
- 4"Ø RECESSED CAN LIGHT, INTERIOR
 - 5"Ø RECESSED CAN LIGHT, EXTERIOR
 - PENDANT LIGHT
 - 2X2 LAY-IN CEILING & GRID; ARMSTRONG 704-A W/ REVEAL EDGE
 - EXHAUST FAN ON SWITCH VENTED OUT TO ROOF. (EXACT LOCATION AND SIDE BY MECHANICAL CONTRACTOR) 70 CFM OF EXHAUST UNLESS OTHERWISE NOTED.
 - SUPPLY (EXACT LOCATION AND SIZE BY MECHANICAL CONTRACTOR)
 - RETURN (EXACT LOCATION AND SIZE BY MECHANICAL CONTRACTOR)
 - RATED WALL - EXTEND TIGHT AGAINST FLOOR OR ROOF DECK ABOVE. SEAL ALL PENETRATIONS.
 - 24"X24" LAY-IN SUPPLY GRILLE
 - COMBINATION CO AND CO2 SENSOR MOUNTED ON WALL @ 5'-0" A.F.F. (TYPICAL FOR 2) FOR CONTROL OF APPARATUS BAY VENTILATION SYSTEM. SEE SPECIFICATIONS.
 - FLUSH MOUNTED SPEAKER

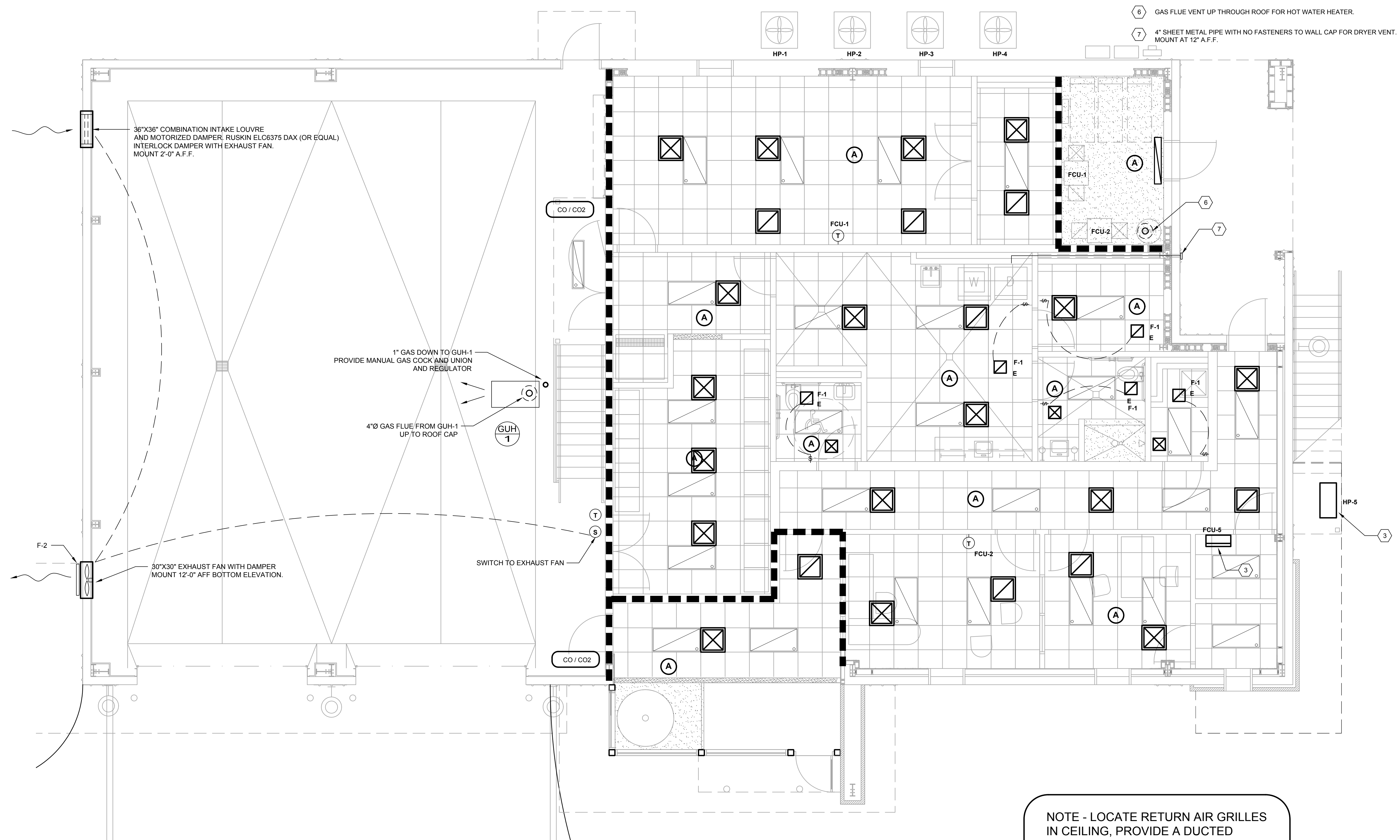
REVISIONS

DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

TITLE:
**MECHANICAL PLAN
 FIRST FLOOR**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: M-2



MECHANICAL PLAN - FIRST FLOOR
 SCALE: 1/4" = 1'-0"

NOTE - LOCATE RETURN AIR GRILLES IN CEILING, PROVIDE A DUCTED RETURN SYSTEM. MAXIMUM HEIGHT OF RETURN DUCTS AT FIRST FLOOR IS 10".

NOTE - MAXIMUM HEIGHT OF SUPPLY DUCTS AT FIRST FLOOR IS 10".



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KEYNOTES

- 1 WHERE DUCTWORK 10"Ø AND SMALLER PENETRATES (1) ONE HOUR RATED PARTITION, EXTEND SHEET METAL DUCT A MINIMUM OF 5'-0" BOTH SIDES OF THE PARTITION, OR INSTALL FIRE DAMPER.
- 2 SIDEWALL SUPPLY GRILLES, BOTTOM ELEVATION ±8'-4"
- 3 1-1/2 TON WALL MOUNTED HEAT PUMP WITH COOLING AND HEAT IN SERVER ROOM. (ALL ELECTRIC)
- 4 PROVIDE AND INSTALL GUARDIAN MODEL G300-B AUTOMATIC RESIDENTIAL FIRE SUPPRESSION SYSTEM W/ ELECTRIC SHUT-OFF & INTERCONNECT CABLE IN RESIDENTIAL 36" WIDE UNVENTED HOOD.
- 5 1" GAS DOWN WALL TO HOT WATER HEATER ON FIRST FLOOR.
- 6 GAS FLUE VENT UP THROUGH ROOF FOR HOT WATER HEATER.
- 7 4" SHEET METAL PIPE WITH NO FASTENERS TO WALL CAP FOR DRYER VENT. MOUNT AT 12" A.F.F.

LEGEND

- 4"Ø RECESSED CAN LIGHT, INTERIOR
- 5"Ø RECESSED CAN LIGHT, EXTERIOR
- PENDANT LIGHT
- 2X2 LAY-IN CEILING & GRID; ARMSTRONG 704-A W/ REVEAL EDGE
- EXHAUST FAN ON SWITCH VENTED OUT TO ROOF. (EXACT LOCATION AND SIDE BY MECHANICAL CONTRACTOR) 70 CFM OF EXHAUST UNLESS OTHERWISE NOTED.
- SUPPLY (EXACT LOCATION AND SIZE BY MECHANICAL CONTRACTOR)
- RETURN (EXACT LOCATION AND SIZE BY MECHANICAL CONTRACTOR)
- RATED WALL - EXTEND TIGHT AGAINST FLOOR OR ROOF DECK ABOVE. SEAL ALL PENETRATIONS.
- 24"X24" LAY-IN SUPPLY GRILLE
- CO / CO2 COMBINATION CO AND CO2 SENSOR MOUNTED ON WALL @ 5'-0" A.F.F. (TYPICAL FOR 2) FOR CONTROL OF APPARATUS BAY VENTILATION SYSTEM. SEE SPECIFICATIONS.
- A FLUSH MOUNTED SPEAKER

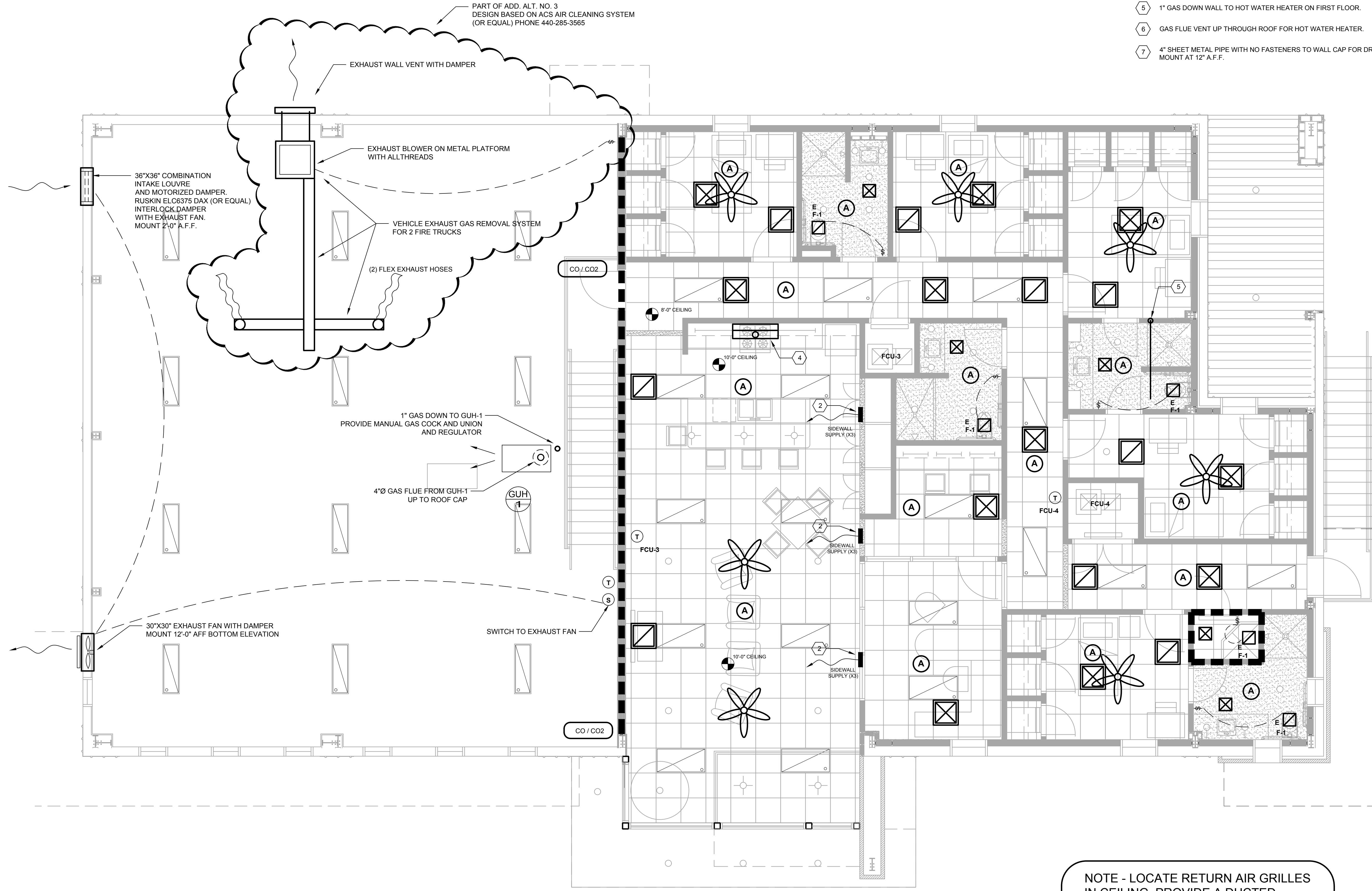
REVISIONS

DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

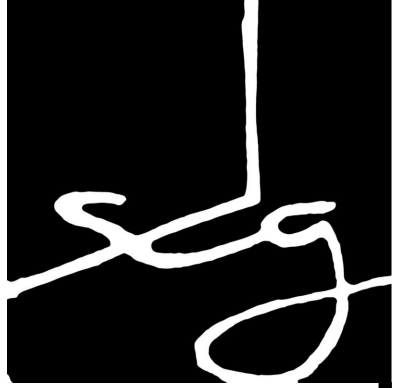
TITLE:
**MECHANICAL PLAN
 SECOND FLOOR**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: M-3



NOTE - LOCATE RETURN AIR GRILLES IN CEILING, PROVIDE A DUCTED RETURN SYSTEM. MAXIMUM HEIGHT OF RETURN DUCT ON FIRST FLOOR IS 10'-0"

MECHANICAL PLAN - SECOND FLOOR
 SCALE: 1/4" = 1'-0"



VERNON ROAD FIRE STATION

FOR

CITY OF LAGRANGE
LAGRANGE, GEORGIA

(PLUMBING)

PROJECT NUMBER 1731

FOR BIDDING AND PERMIT

07 MAY 2018

DESIGN / BID / BUILD PLUMBING SYSTEM CRITERIA

PLUMBING CRITERIA-BASIC MATERIALS & METHODS

- GENERAL-Provide a complete Plumbing system, left in proper working order. Provide herein means installed completely, including labor and materials.
- INCLUSION- The Plumbing work is a portion of the overall project requirements and as such shall comply with the conditions and requirements of the General Conditions, Supplementary Conditions and all applicable requirements of the overall project.
- CODES, UTILITIES, REGULATIONS-Secure and pay for all fees, licenses, permits, inspection. Coordinate with power and communication utilities. Meet and comply with all Federal, State, County, and City Codes.
- CONTRACTOR REQUIRMENTS-The installing contractor providing for this work shall be a firm licensed for this type work and shall provide copies of licenses, business licenses, bonding limits and insurance coverage. The contractor's field personnel shall be under direct supervision of a licensed plumber(s).
- COORDINATION-This contractor is responsible for coordinating with all other trades for the proper installation of this work, maintaining required clearances. Confirm and coordinate, in writing with electrical trade the electrical characteristics and power requirement of item requiring power, prior to finalizing equipment order.
- SUBMITTALS-Provide complete submittals on Contractor qualifications, all items, equipment, products, etc. For review, prior to finalizing orders. Submit a minimum of three sets, more if required by the General Conditions.
- PROVISIONS TO BE INCLUDED-Labor, supplies and materials, tools, equipment, etc.; material shipping, delivery, receiving, storage, and protection; installation of all Mechanical equipment and connections; coordination with other trades.
- MATERIALS-All materials shall be new, currently manufactured, U.L. labeled, and meet all industry standards. Label all equipment. Provide 300 PSI class concrete for bases and backfill. Provide 3/4" thick A/D fire retardant grade backboards. Provide all support hardware. Paint all material exposed to view as directed by architect.
- CUTTING/TRENCHING/PATCHING-Contractor shall provide for all necessary cutting, trenching, backfilling, and patching related to this work. Backfill to 95% compaction. Patch and finish, to match original conditions. Contact "Call-Before-You-Dig" services prior to any excavation work.
- FIRE AND SMOKE SEALS-Provide fire/smoke seals of each penetration of any rated barrier.
- EQUIPMENT AND CONTROLS-All equipment shall be factory pre-wired complete, and provided with equipment disconnect, starters, over-load relays, etc. including all controls and low-voltage wiring. All equipment motors shall meet current energy efficiency requirements. Provide all control and interlock wiring.
- EQUIPMENT SUPPORT, CLEARANCES, AND ACCESS-Equipment shall be properly supported as instructed by the manufacturer. Provide vibration isolation devices for each item. Equipment shall be located to maintain proper clearances and required access. Verify and coordinate prior to the installation.
- SEISMIC REQUIRMENTS-Support all items in accordance with the seismic zoning requirements.
- WORKMANSHIP-All work shall be installed in a coordinated, organized, neat, and professional manner.
- STRUCTURAL COORDINATION-Review and coordinate with the structural conditions prior to the start of any work. Any attachments, welding and/or cutting of the building structure must first be approved, in writing, by the building structural engineer. Locate slab penetrations to avoid conflict and damage. Sleeve and seal each penetration.
- ROOF PENETRATIONS-Any roof modifications shall be by the building owner's designated roofing installer/supplier to maintain the roofing warranty. Provide all necessary components (curbs, pitch pockets, etc.) and pay all related cost for a complete installation.
- CLOSE OUT/INSPECTIONS-This contractor shall assist with on-site reviews of this work. At completion of the project, demonstrate in the presence of the Owner/Tenant, Architect, and Engineer to proper operation of all components, systems, devices, etc.
- WARRANTY-This contractor shall warrant all materials, labor, and installation for one full year from date of Certificate of Occupancy. Any extended product warranties shall be passed onto the owner.

END OF PLUMBING BASIC MATERIALS AND METHODS

PLUMBING CRITERIA-PIPING SYSTEMS GENERAL

- DIAGRAMMATIC DRAWINGS-Drawings are diagrammatic to indicate the intended requirements for the Plumbing system. Every fitting and detail is not necessarily indicated. The contractor shall provide for and install for a complete and properly functioning system(s) in a professional manner. All work shall be installed so that working components are accessible for service.
- ACCESS PANELS-Provide flush mounted hinged cover access panels for access to any concealed valves, devices, or other components requiring maintenance, adjustments, etc.
- FIRE STOP-The contractor shall review the architectural and structural drawings and provide UL listed Fire-Stop at each fire rated barrier, in accordance with it labeling, to match the barrier rating (at minimum) and where required by the AHJ. Provide access to any concealed unit.
- GENERAL PIPING-All piping work is to be concealed unless otherwise indicated. Contractor shall coordinate and field verify exact duct routes and clearances prior to fabrication. Provide for modifications to adjust to field conditions and maintain power flows and pressures. Any piping in counters and cabinets work shall be located out-of-the-way to the rear and well secured. Coordinate fully with the Architect/Cabinet Manufacturer.
- EXPOSED PIPING-Any exposed piping work is to be protected from physical damage. All piping exposed below sinks, lavatories, etc. shall be insulated and protected in accordance with ANSI/ADA requirements utilizing McGuire ProWrap, TrueBro INC. or equivalent.
- STUB-UP AND OUTS-Field coordinate the final exact location of each stub-up and stub-out location prior to rough-in. Floor slab penetrations shall be sleeved and sealed. Coordinate sloping of floor to drains with Architect and General Contractor. All floor drains, floor sinks, clean-outs, etc. shall be flashed to the waterproofing membrane and sealed.
- PIPING SUPPORT-Utilize pipe hangers and supports with wide saddles to avoid crushing insulation. Each wall penetration shall have wall sleeve. Install chrome-plated escutcheons at each stub-out to the waterproofing membrane and sealed.
- PIPING INSULATION-1/2" thick, foil backed preformed insulation, UL listed for use in environmental air plenums. Armaflex Type AP or equal. Insulate all CW, HW, P-Traps and any waste/soil piping exposed to unconditioned environment.
- PIPING MATERIALS-Utilize the same manufacturer for all piping of the same type material. All fittings and related components and materials shall be per the piping manufacturer's written data. Handle, store, and install per the manufacturer's written data.
- RETURN AIR PLENUMS-ABS/PVC/CVPC piping product can not be used in environmental return-air plenums.

END OF PLUMBING BASIC MATERIALS AND METHODS

PLUMBING CRITERIA-SOIL/WASTE/VENT (SWV) PIPING SYSTEMS

- BASIS OF DESIGN-The soil waste and vent piping design is generally based on inch per foot slope, smooth pipe.
- UTILITY COORDINATION-Prior to start of work, coordinate and verify in writing, the utility tie-in, location, size(s), invert, etc. Copy to Owner, Architect and Engineer.
- IN GRADE S&W-Service weight cast iron with hub and spigot joints, or where permitted by code, schedule 40 DWV PVC pipe utilizing manufactured approved fittings and solvents.
- ABOVE GRADE S&W-Hub less cast iron pipe with positive-seal, one-piece elastomeric compression type gasket no-hub fitting with stainless steel clamps. Schedule 40 DWV PVC pipe with manufacture approved fittings and solvents may be utilized in non-return air environments, where allowed by code and written owner approval.
- VENTING (V)-Hub less iron pipe with positive seal, one-piece elastomeric compression type gasket no-hub fitting stainless steel clamps. Plenum-rated schedule 40 DWV PVC pipe with manufacture approved fitting and solvents may be utilized where allowed by code and written owner approval.
- CAST IRON PIPE-No hub/hub less pipe and matching components. Pipe shall comply with ASTM A-888, CISPI-301, IAPMO listed, ISO 9001-2000 certified. Coupling shall be stainless steel type complying with ASTM C-1277 (Standard) and ASTM C-1540 (Heavy Duty).
- DWV PVC PIPE AND FITTING-PVC schedule 40 solid wall pipe, conforming to NSF 14, 12454 cell class per ASTM D-1784, iron pipe size per ASTM D-1785 and D-2665, fittings per ASTM D-2665. Note PVC can not be utilized in return/environmental air plenums.
- P TRAPS-Provide each fixture, drain, etc. with a P-Trap in accordance with the code. Utilize chrome-plated, joint P-Trap where exposed under fixtures, etc.
- CLEAN OUT-Provide clean outs as shown and/or required by code. Utilize flush-in-floor or wall type, cast, water, and gas tight, with nickel bronze cover and plug.
- FLOOR DRAIN-Where shown or required, general service, light duty (UNO) nickel bronze top, adjustable height head, with drain grid, strainer and sediment bucket. Flush mount in floor. Provide Pro-Set Trap-Guard in each drain (UNO).

END OF PLUMBING BASIC MAATERIALS AND METHODS

PLUMBING CRITERIA-WATER DISTRIBUTION SYSTEMS

- BASIS OF DESIGN-The Water Distribution System piping design is generally based on PVC piping.
- UTILITY COORDINATION-Prior to start of work, coordinate and verify in writing, the utility connection, metering, location size(s), invert, pressure, etc. Copy to Owner, Architect, and Engineer.
- PRESSURE REDUCTION/BACK FLOW PREVENTION-provide adjustable pressure reduction valve and back flow prevention valve on each incoming water supply. Sized for required pressure and flow. PRV valve shall be adjustable and have strainer. BFP valve shall be UL/AWWA listed, double-gate type.
- WATER DISTRIBUTION GENERAL-All materials shall be approved for portable water service. Utilize "No Lead" components, materials, fittings, etc.
- IN/BELOW GRADE WATER PIPING-Utilize ASTM B-88 Type L annealed temper copper tubing, seamless and joint less, with ASME b16.18/22/26/50 fittings.
- ABOVE GRADE PIPING-Utilize ASTM B-88 Type M Hard Temper copper tubing with soldered, brazed or flared joints and ASME b16.18/22/26/50 fittings and connectors. Ant copper-to-steel connections shall utilize insulation unions. Fitting shall be cast iron and approved for the purpose.
- SOLDER-Utilize no-lead solder, 95% tin/5% Antimony and water based flux.
- FIXTURE CONNECTIONS-Provide chrome escutcheon and chrome shut-off valve with stainless steel flexible tubing, with slack, for each fixture pipe connection.
- VALVES-Provide line size, brass or bronze body gate valves, rated for 125 PSI shock water pressure. Crane, Nibco, or Hammond. Tag or label each valve.
- HOSE BIBBS-Utilize brass or bronze body, with bronze interior components, replaceable seat and seal, and vacuum breaker hardware. Location subject to freeze shall be no-freeze wall hydrant type.
- SHOCK ABSORBERS-Sized and installed per P.D.I. standards.
- PRESSURE AND TEMPERATURE GAUGES-Stainless steel case and ring with balanced adjustable pointer and brass socket, 4.5 inch dial with piston type pressure snubber and brass needle valve. 0-200 PSI for utility water service, 0-100 PSI for water distribution piping. Temperature gauges shall be adjustable angle type with red pointer and contrasting temperature scale.
- PRESSURE TESTING-Each piping system shall be pressure tested with water, per piping manufacturer, before insulated or concealed, at 125 PSI for 24 hours with NO pressure loss. Copy test results to AHJ, Owner, Architect, and Engineer.
- DISINFECTING-Each piping system shall be completely disinfected in accordance with the code, then flushed clean. Each fixture shall be cleaned prior to disinfecting piping. A water sample for the farthest outlet shall be taken and tested by an independent lab to certify the water copy. Send copies of test results to AHJ, Owner, Architect, and Engineer.
- MISC. HARDWARE-Refer to the symbols and hardware schedule fro other items and criteria.

END OF PLUMBING BASIC MATERIALS AND METHODS

PLUMBING CRITERIA-GAS PIPING SYSTEMS

- DESIGN BASIS-The gas piping design is generally based on natural gas, and smooth steel piping.
- UTILITY COORDINATION-Prior to start of work, coordinate and verify in writing, the utility tie-in, location, size(s), pressure, elevation, etc. Copy to Owner, Architect, and Engineer.
- METERING-Coordinate with the owner/tenant regarding any metering requirements, choices, etc.
- GAS DISTRIBUTION GENERAL-All materials, fitting components, etc. shall be approved for the type gas utilized. Utilize only UL listed and labeled components.
- ABOVE GRAD PIPING-Schedule 40, black steel piping with threaded joints, connector and fittings. Threaded connections shall be sealed and tight. Weld a;; joints, fittings and connections on piping system with pressure greater than 5.0 PSIG.
- SHUT OFF GAS COCK VALVES-Provide quarter-turn cast ball shut-off gas valve at each gas appliance.
- APPLIANCE CONNECTION LINES-Utilize UL labeled stainless steel flexible type connector at each appliance connection. Provide with at least one loop of slack, and drip leg in gas piping.
- APPLIANCE SAFETY VALVES-Each appliance is to be equipped with a UL labeled automatic shut-off valve. Notify AHJ and owner immediately of any appliance not equipped with safety valve.
- GAS REGULATION-Provide pressure reducing regulators where shown or as required. Sized for the proper flow and inlet and outlet pressure.
- PRESSURE TESTING-Each gas piping system shall be pressure tested, before being concealed. Close all appliance gas cocks or cap ends. Test at 150%, but not less than 3 PSIG, per code. Copy test results to AHJ, Owner, Architect, and Engineer.

END OF PLUMBING BASIC MATERIALS AND METHODS

HVAC ABBREVIATIONS

AC	AIR CONDITIONING
AHU	AIR HANDLING UNIT
AUTO	AUTOMATIC
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
BC	BALANCE COCK
BFC	BELOW FINISHED CEILING
BLDG	BUILDING
BV	BALL VALVE
CONN	CONNECT
CLG	CEILING
CTR	CENTER
CV	CHECK VALVE
CW	COLD WATER
DFU	DRAINAGE FIXTURE UNIT
DISTB	DISTRIBUTION
DIA	DIAMETER
DN	DOWN
DP	DROP
DS	DOWN SPOUT
DWGS	DRAWINGS
EDH	ELECTRIC DUCT HEATER
EMG	EMERGENCY
EXIST	EXISTING
FA	FRESH AIR
FCO	FLOOR CLEAN OUT
FCU	FAN COIL UNIT OR AHU
FD	FLOOR DRAIN
FH	FIRE HYDRANT
FIXT	FIXTURE
FS	FLOOR SINK
FT	FOOT/FEET
G	GAS
GC	GAS COCK
GH	GROUND HYDRANT
GRND	GROUND
GV	GATE VALVE
HD	HUB DRAIN
HP	HORSE POWER
HTR	HEATER
HW	HOT WATER
HWR	HOT WATER RETURN
HPU	HEAT PUMP UNIT
INV	INVERT ELEVATION
KVA	KILO-VOLT-AMPERES
KW	KILOWATTS
LT	LIQUID-TIGHT
MANUF	MANUFACTURER
MH	MAN HOLE
MIN	MINIMUM
MTD	MOUNTED
NFHB	NONFREEPE HOSE BIB
NIC	NOT IN CONTRACT
PNL	PANEL
PRV	PRESSURE REDUCING VALVE
P&T	PRESSURE & TEMPERATURE
QTY	QUANTITY
RD	ROOF DRAIN
RW	RAIN WATER
S	STACK/SANITY
SA	SHOCK ABSORBER
SCHD	SCHEDULE
THRU	THROUGH
TYP	TYPICAL
UG	UNDER-GROUND
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE
WCO	WALL CLEAN OUT
WG	WATER GAUGE
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR
W&V	WASTE & VENT



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REVISIONS	
DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

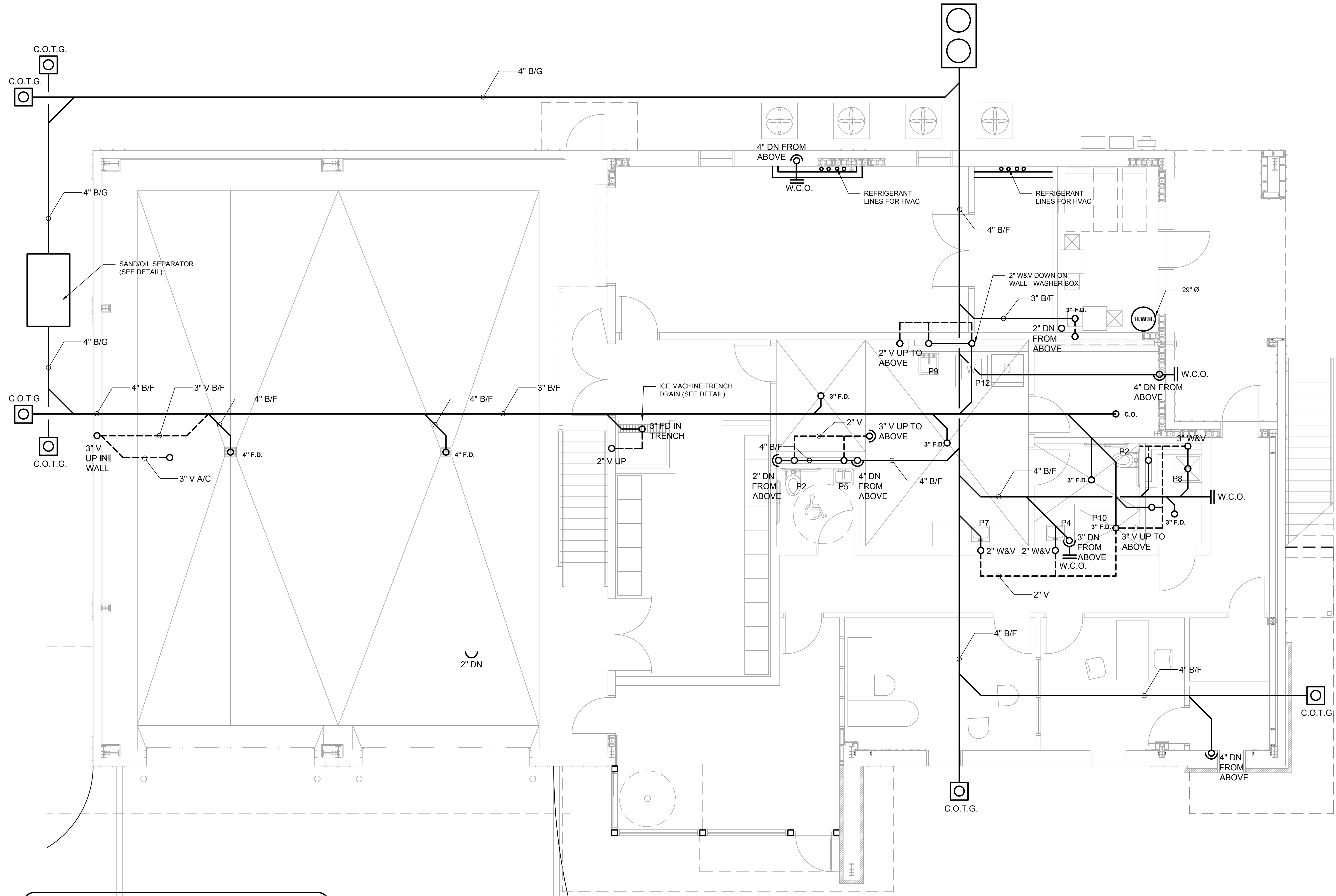
TITLE:
PLUMBING SPECS

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: P-1



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- PLUMBING SUB-CONTRACTOR:**
- A. TO PROVIDE AND INSTALL ALL SANITARY, WATER LINES, AND VENT PIPING, CLEANOUTS, ETC. TO INSTALL NEW PLUMBING FIXTURES AS INDICATED ON THE DRAWINGS. CONNECT BACK TO EXISTING PLUMBING IN THE AREA OF NEW PLUMBING FIXTURES. MODIFY EXISTING PLUMBING IN ORDER TO ACCOMMODATE NEW FIXTURES. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING. PROVIDE HOT AND COLD WATER TO ALL SINKS.
 - B. PROVIDE AUTOMATIC TRAP PRIMERS FOR ALL FLOOR DRAINS. FLOOR DRAINS TO BE J.R. SMITH 2010-A
 - C. REMOVE AND REPLACE EXISTING WALLS, FLOORS, CEILINGS AS REQUIRED FOR NEW PLUMBING LINES AND FIXTURES.
 - D. PROVIDE AS-BUILT DRAWINGS.

NOTE: PLUMBING SUB-CONTRACTOR IS TO FIELD VERIFY EXACT LOCATION OF EXISTING SANITARY SEWER PRIOR TO ANY SLAB CUTTING AND CONFIRM SANITARY LINES ARE FULLY FUNCTIONAL.

1 PLUMBING PLAN - FIRST FLOOR
 P-2 SCALE: 1/4" = 1'-0"

REVISIONS	
DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

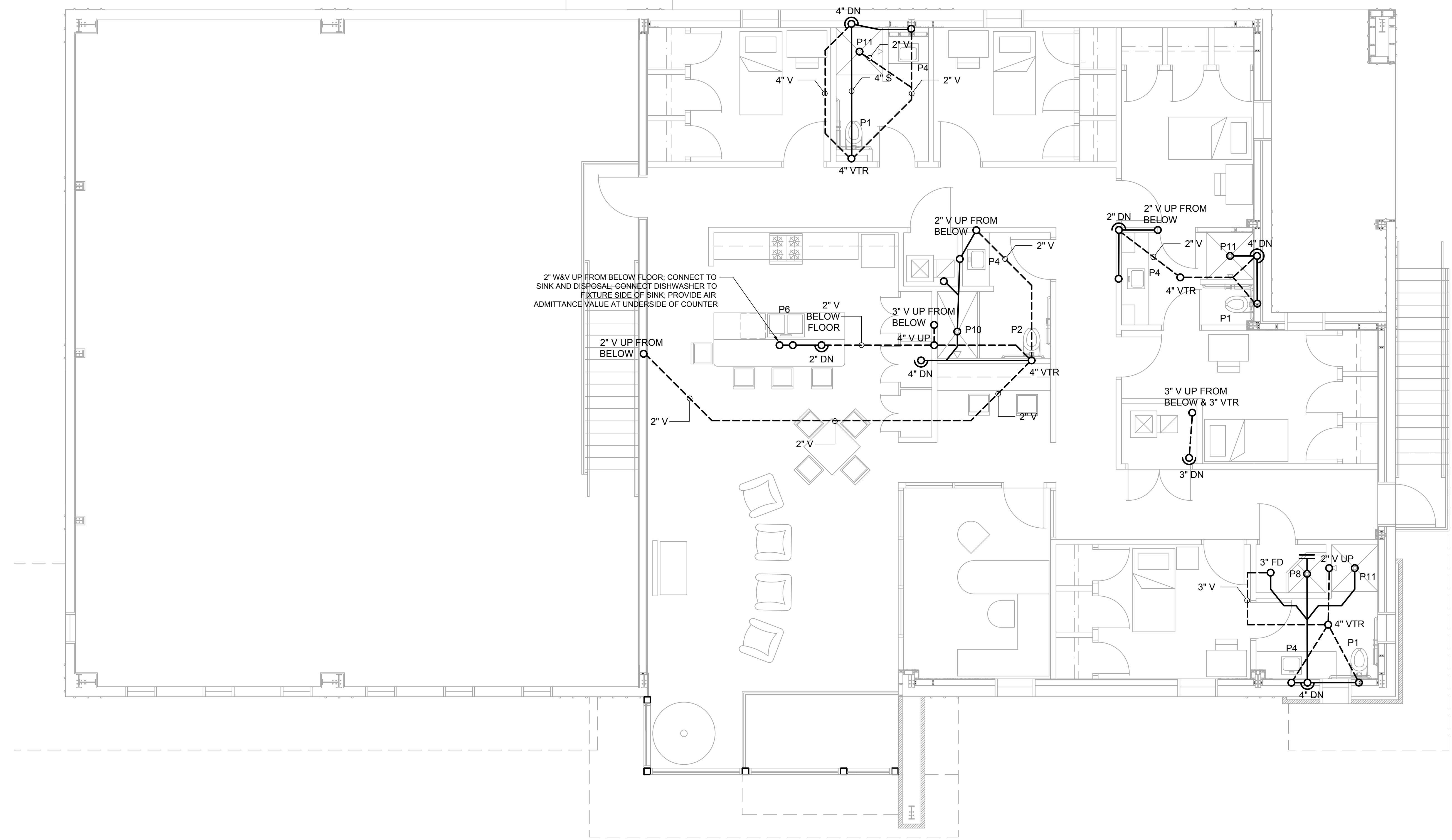
TITLE:
**PLUMBING PLAN
 FIRST FLOOR**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: P-2



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2" W&V UP FROM BELOW FLOOR; CONNECT TO SINK AND DISPOSAL; CONNECT DISHWASHER TO FIXTURE SIDE OF SINK; PROVIDE AIR ADMITTANCE VALUE AT UNDERSIDE OF COUNTER

PLUMBING SUB-CONTRACTOR:

- TO PROVIDE AND INSTALL ALL SANITARY, WATER LINES, AND VENT PIPING, CLEANOUTS, ETC. TO INSTALL NEW PLUMBING FIXTURES AS INDICATED ON THE DRAWINGS. CONNECT BACK TO EXISTING PLUMBING IN THE AREA OF NEW PLUMBING FIXTURES. MODIFY EXISTING PLUMBING IN ORDER TO ACCOMMODATE NEW FIXTURES. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING. PROVIDE HOT AND COLD WATER TO ALL SINKS.
- PROVIDE AUTOMATIC TRAP PRIMERS FOR ALL FLOOR DRAINS. FLOOR DRAINS TO BE J.R. SMITH 2010-A
- REMOVE AND REPLACE EXISTING WALLS, FLOORS, CEILINGS AS REQUIRED FOR NEW PLUMBING LINES AND FIXTURES.
- PROVIDE AS-BUILT DRAWINGS.

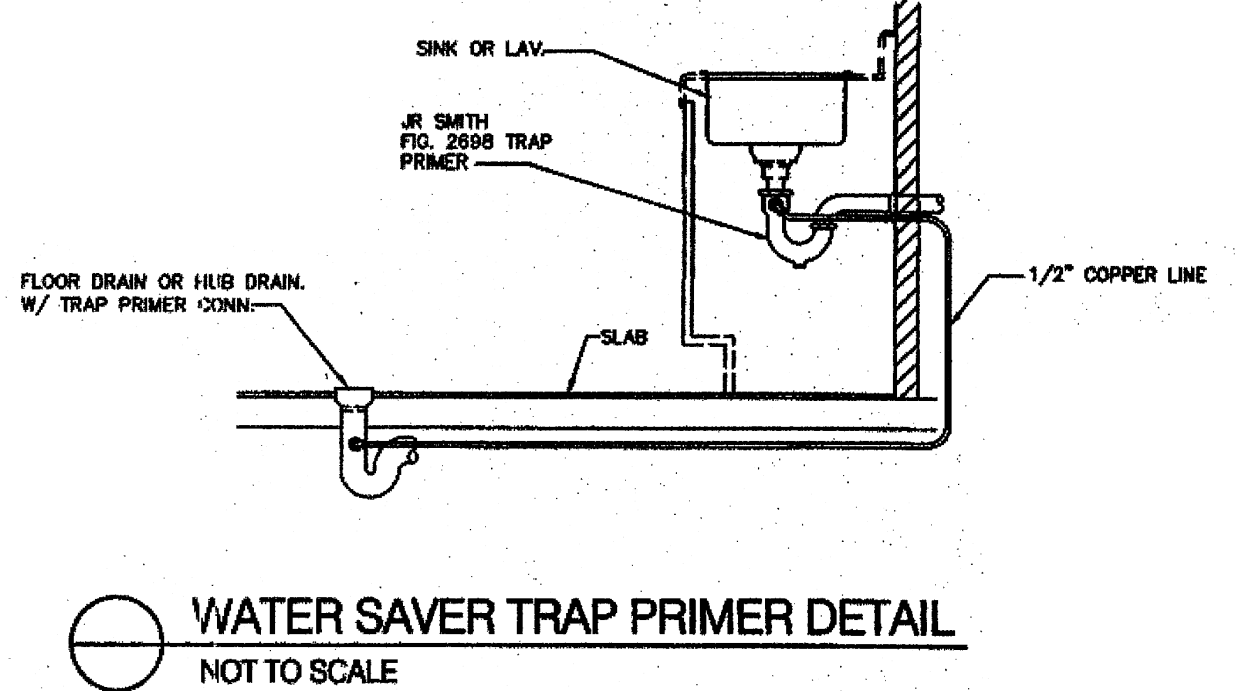
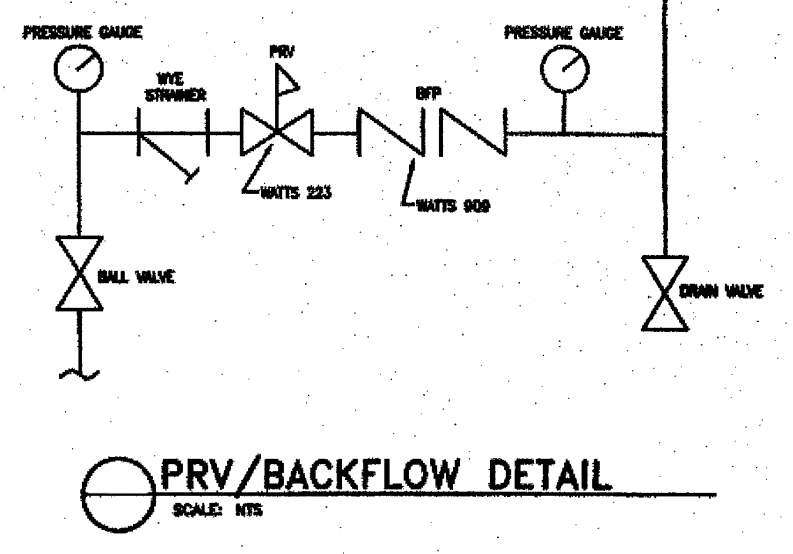
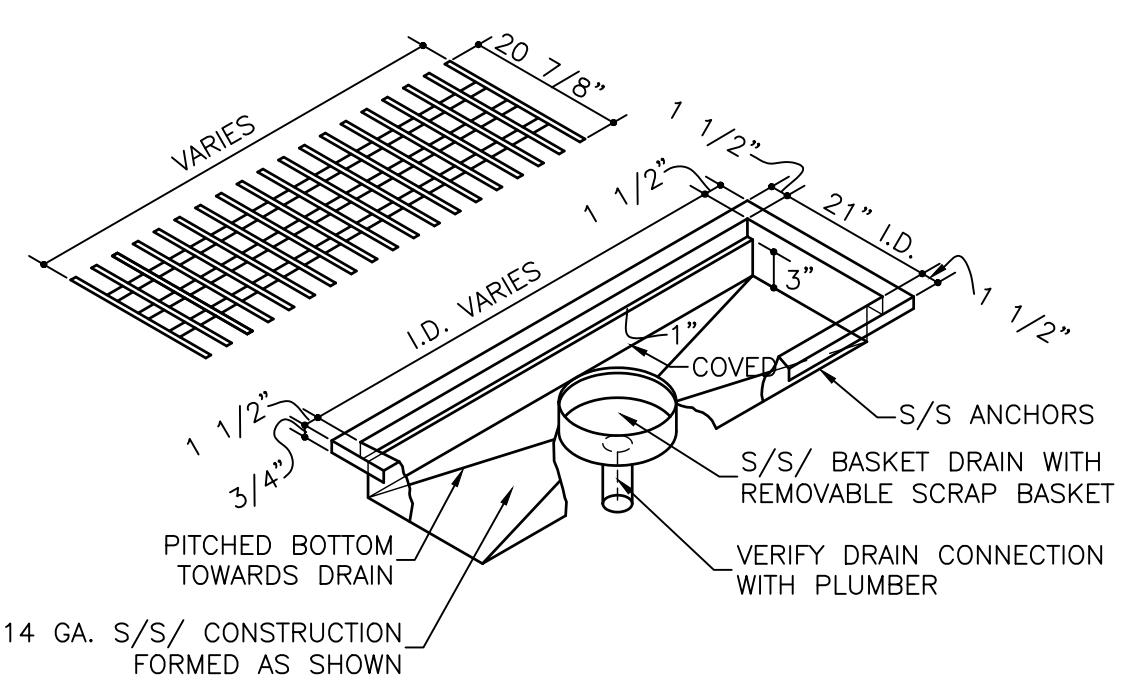
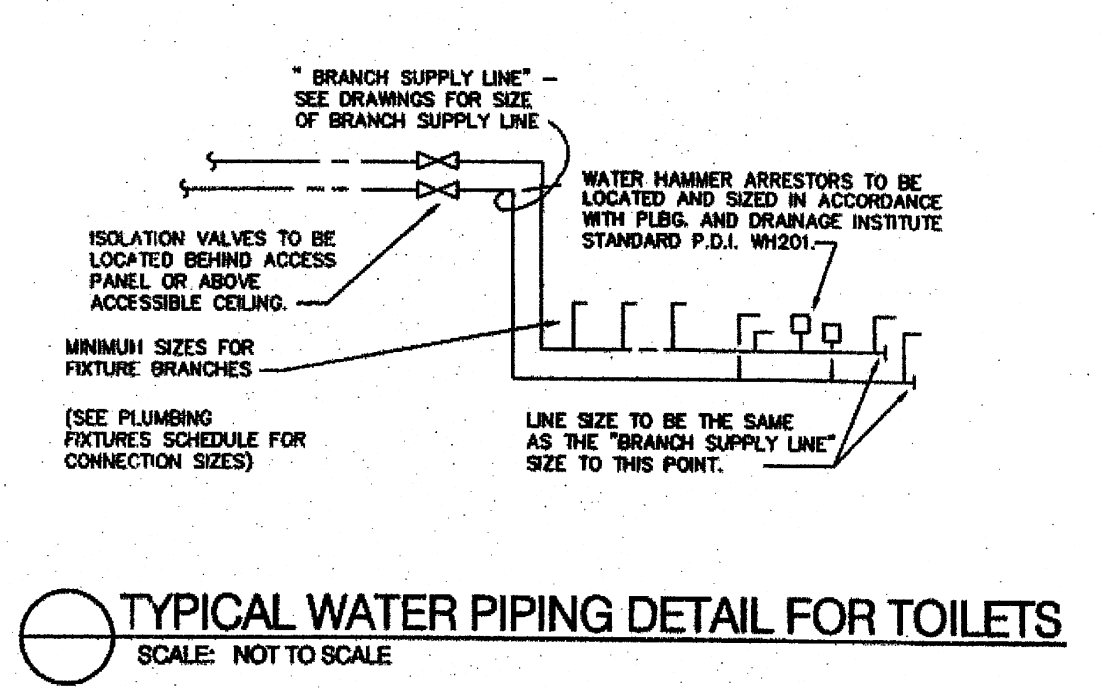
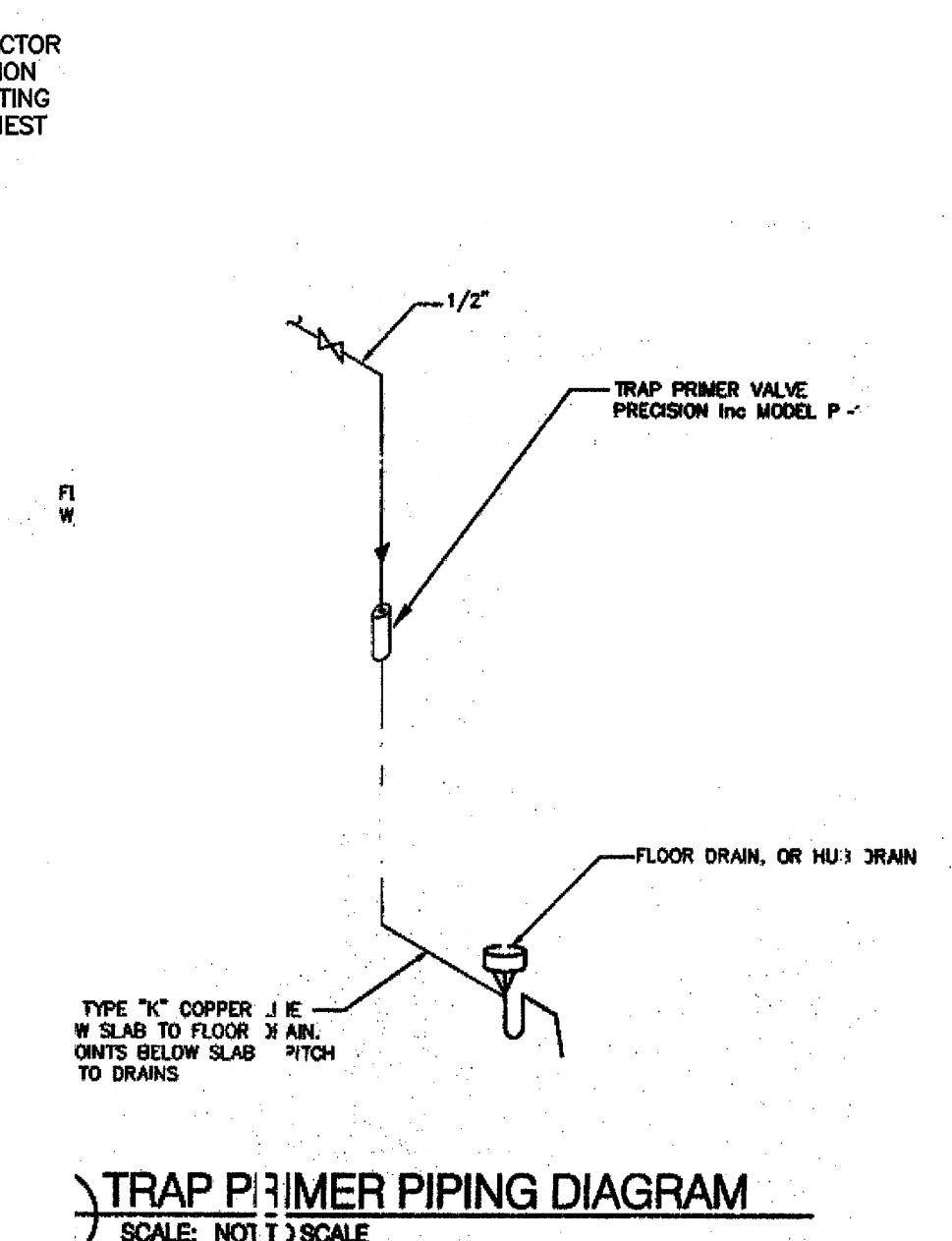
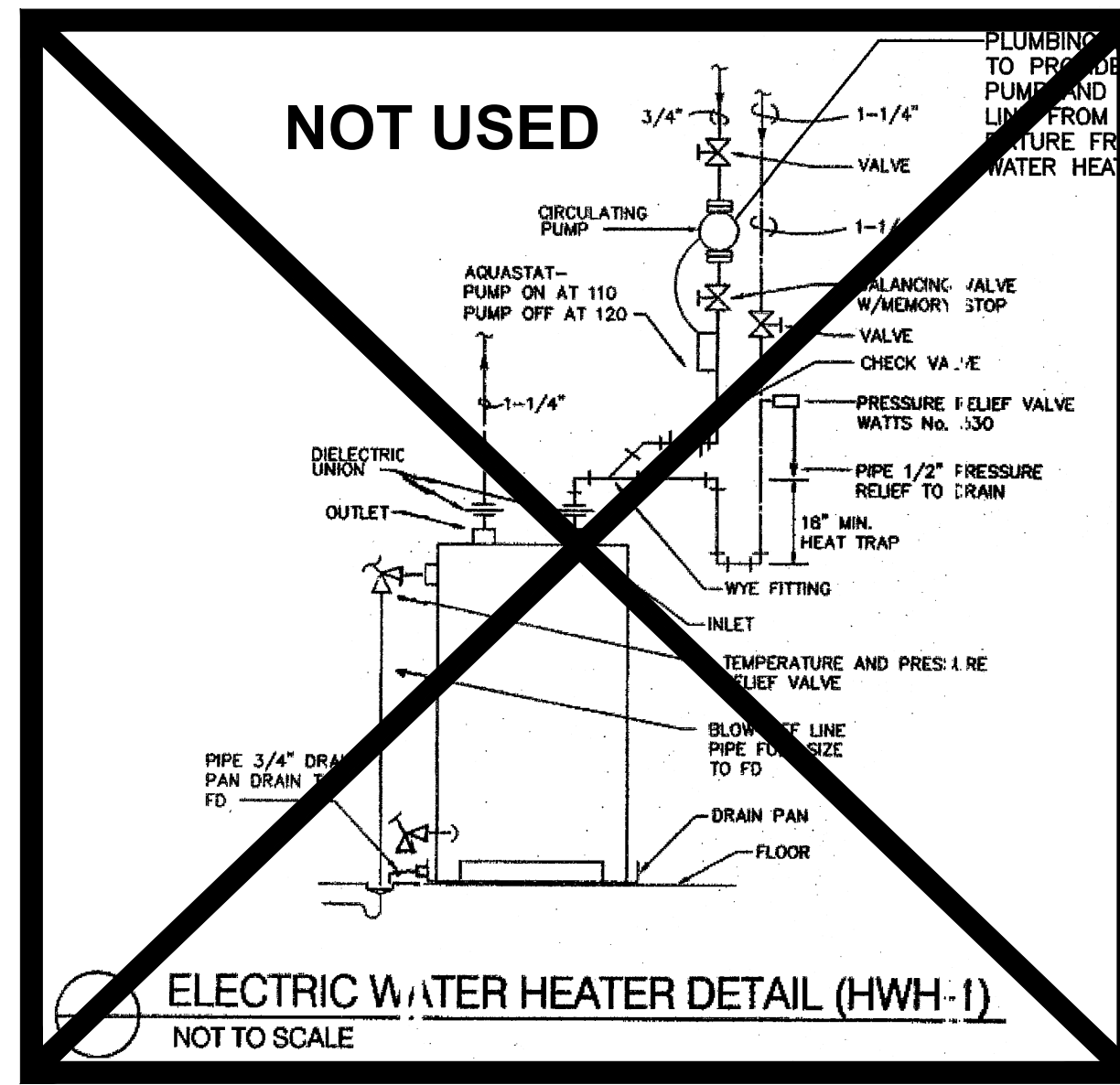
1 PLUMBING PLAN - SECOND FLOOR
 P-3 SCALE: 1/4" = 1'-0"

REVISIONS	
DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

TITLE:
**PLUMBING PLAN
 SECOND FLOOR**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: P-3



PLUMBING SUB-CONTRACTOR:

- TO PROVIDE AND INSTALL ALL SANITARY, WATER LINES, AND VENT PIPING, CLEANOUTS, ETC. TO INSTALL NEW PLUMBING FIXTURES AS INDICATED ON THE DRAWINGS. CONNECT BACK TO EXISTING PLUMBING IN THE AREA OF NEW PLUMBING FIXTURES. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING. PROVIDE HOT AND COLD WATER TO ALL SINKS.
- PROVIDE AUTOMATIC TRAP PRIMERS FOR ALL FLOOR DRAINS. FLOOR DRAINS TO BE J.R. SMITH 2010-A
- REMOVE AND REPLACE EXISTING WALLS, FLOORS, CEILINGS AS REQUIRED FOR NEW PLUMBING LINES AND FIXTURES.
- PROVIDE AS-BUILT DRAWINGS; TWO HARD COPIES, TWO PDF ELECTRONIC COPIES. AS-BUILT DRAWINGS TO SHOW EXACT LOCATIONS OF ALL PIPING.

P2 - WATER CLOSET (ACCESSIBLE): FLOOR MOUNTED WITH FLUSH VALVE, ELONGATED WHITE VITREOUS CHINA, 17" HIGH RIM, 1.28 GPF MANUAL FLUSH VALVE, OPEN FRONT SEAT WITH CHECK HINGE, ADA COMPLIANT. AMERICAN STANDARD, KOHLER, ELJER, OR CRANE.

P5 - LAVATORY (ACCESSIBLE): COMMERCIAL GRADE WHITE VITREOUS CHINA, WALL MOUNTED WITH BACKSPASH, ADA COMPLIANT. AMERICAN STANDARD, KOHLER, ELJER, OR CRANE. FAUCET SHALL BE CHROME PLATED BRASS, SINGLE LEVER TYPE WITH STANDARD SPOUT, 0.5 GPM AERATOR AND GRID DRAIN. AMERICAN STANDARD, CHICAGO, KOHLER, OR MOEN. PROVIDE STOP VALVES, FLEXIBLE BRAIDED WATER SUPPLIES, DRAIN TAILPIECE, AND P-TRAP WITH CLEANOUT.

F10/F11 - SHOWER: (SHOWER ENCLOSURE IS ACRYLIC) PROVIDE ADA COMPLIANT, PRESSURE BALANCED SHOWER VALVE, FIXED-POSITION ADJUSTABLE SHOWER HEAD, HAND-HELD ADJUSTABLE SHOWER HEAD ON 2" SLIDE BAR, LEVER ACTIVATED SHOWER HEAD SELECTOR VALVE AND GRID DRAIN MAXIMUM 2.5 GPM FLOW RATE AT 60 PSIG SHOWER FITTINGS SHALL BE CHICAGO MODEL 1907-TK600CP WITH 151-CP HAND-HELD SHOWER HEAD AND SLIDE BAR, OR EQUAL SYMMONS, MOEN, AMERICAN STANDARD OR KOHLER. (LINEAR SHOWER DRAINS SHALL BE AS SPECIFIED ABOVE.)

F8 - MOP RECEPTOR: FLOOR MOUNTED, MOLDED STONE BASIN, NOMINAL 24"X24"X12" DEEP, WITH RIM GUARD AND GRID DRAIN. FAUCET SHALL BE WALL MOUNTED AT 3'-0" AFF AND SHALL INCLUDE INTEGRAL STOPS, VACUUM BREAKER, HOSE THREADS, BUCKET HOOK AND ANGLE WALL BRACE. BASIN SHALL BE FLORESTONE OR FIAT. FAUCET SHALL BE AMERICAN STANDARD, KOHLER, CHICAGO, OR MOEN.

F9 - UTILITY SINK: MOLDED STONE BASIN, FLOOR MOUNTED ON ADJUSTABLE LEGS, WITH FAUCET SHELF, BLADE HANDLE FAUCET WITH GOOSENECK SPOUT, GRID DRAIN. FIXTURE SHALL BE FIAT MODEL FL-1. OR EQUAL. FAUCET SHALL BE CHICAGO MODEL 895-GN2AE3ABCP, OR EQUAL.

F12 - WASHER BOX: GALVANIZED STEEL HOUSING WITH HOT AND COLD WATER HOSE BIBBS AND 2" DRAIN OUTLET. GUY GRAY MODEL B200C, OR EQUAL.

PLUMBING SPECIFICATIONS: (DESIGN - BID - BUILD)

PLUMBING GENERAL
Work covered by this document includes labor, material, products and services for, and incidental to, installation of plumbing systems drawn or specified.
Work shall be complete, tested, adjusted and ready for operation.

REGULATIONS AND REQUIREMENTS
Install work to comply with local, state and federal applicable regulations.
Secure necessary permits and inspections, paying all costs and fees involved.

SHOP AND RECORD DRAWINGS
Furnish shop drawings for manufactured products, 4 (four) copies minimum.

DRAWINGS
Except where dimensions are specifically indicated, mechanical drawings are diagrammatic and shall not be scaled. However, size and location of equipment is shown to scale where possible. Drawings indicate required size and routes of system elements. It is not the intention to indicate all off-sets, risers and drops. It is the contractor's responsibility to install system elements in a manner to conform to structure and avoid obstructions.

Refer to architectural drawings for building dimensions.

Refer to electrical drawings for voltage and system characteristics supplied to mechanical equipment.

Visit project site, survey existing conditions, and coordinate work to comply with the documents.

FIXTURES
Refer to plumbing fixture schedule.

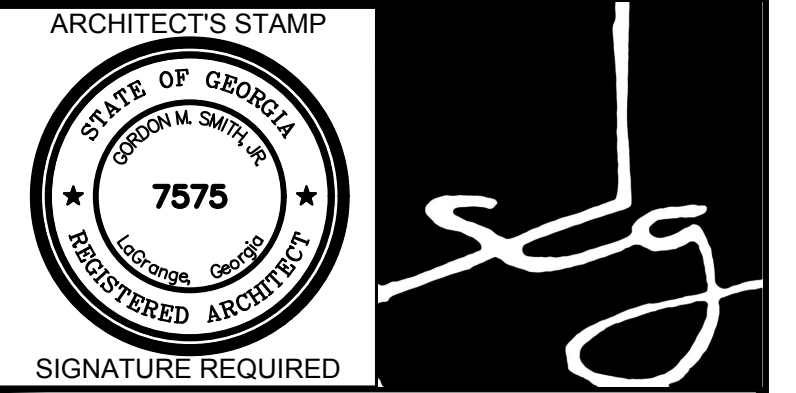
Water Heaters: vertical electric design, PVC jacket, immersion element, anode rod, thermostat, high temperature cut-off, ASME rated combination temperature and relief valve, glass lined tank, 150 psi working pressure, 75 watt per square inch heating element, UL listed, three year commercial warranty. Heater shall be A.O. Smith complying with ASHRAE-90 standards. Water heater shall be as indicated, State Stove, Ruud or approved substitute.

PIPING
Sanitary waste and vent pipe shall be schedule 40 PVC DWV pipe and fittings, ASTM D2665-78. (Use cast iron in return air plenum spaces.
Domestic water pipe shall be CPVC.

VALVES
Gate Valves: Bronze body, 235 psi minimum working pressure, rising stem, soldered or screwed ends.
Valves shall be Jenkins No.47, Kennedy No.425, Crane, NIBCO, Hammond, Milwaukee, Stockham or approved equal.

INSTALLATION
Products shall be installed in accordance with manufacturer's printed installation and maintenance literature.
Components requiring periodic maintenance or adjustment shall be located or installed as to permit access without damage to building structure, finishes or other equipment.

PLUMBING FIXTURE SCHEDULE (OTHER SIMILAR MANUFACTURERS ARE ACCEPTABLE)							
MARK	DESCRIPTION	S	W	CW	HW	REMARKS / MOUNTING	MODEL NUMBER
P1	WATER CLOSET	4"	---	1/2"	---	15" SEAT HEIGHT	KOHLER K-3428, 1.6 GPF OR EQUAL (Note- other similar manufacturers are acceptable)
P2	WATER CLOSET	4"	---	1/2"	---	18" SEAT HEIGHT	KOHLER K-3427, 1.6 GPF OR EQUAL
P3	URINAL	---	2"	3/4" (VERIFY)	---	17" MAX LIP HEIGHT	ELJER 161-1090 W/ 3/4" TOP SPUD 1.0 GPF SLOAN FLUSH VALVE 180-K OR EQUAL
P4	LAVATORY	---	1 1/4"	1/2"	1/2"	IN COUNTER UNDERMOUNT	ELJER 053-0364 W/ GRID DRAIN FAUCET ZURN, Aqua Sped "Z"812A4. 4" center set faucet, POLISHED CHROME WITH MCGUIRE OFFSET PROWRAP P-TRAP MODEL PW2125 OR EQUAL
P5	LAVATORY	---	1 1/4"	1/2"	1/2"	WALL HUNG	ELJER 051-2344 W/ GRID DRAIN MTD. FLUSH TO WALL FAUCET ZURN, Aqua Sped "Z"812A4. 4" center set faucet, POLISHED CHROME WITH MCGUIRE OFFSET PROWRAP P-TRAP MODEL PW2125 OR EQUAL
P6	BREAKROOM SINK (20" X 35") OWNER VERIFY	---	1 1/4"	1/2"	1/2"	16 GA. STAINLESS STEEL SINK. SUBMIT CUT SHEET TO OWNER.	UNDERMOUNT SINK - 10" DEEP WITH DISPOSAL
P7	SINK (18" X 14") OWNER VERIFY	---	1 1/4"	1/2"	1/2"	16 GA. STAINLESS STEEL SINK. SUBMIT CUT SHEET TO OWNER.	UNDERMOUNT SINK - 10" DEEP
P8	COMPOSITE STONE FLOOR SINK 24"X36"	---	1 1/4"	1/2"	1/2"		PROVIDE FRP PANELS ON THREE SIDES OF WALL F MOP SINK UP TO 48" A.F.F. PROVIDE MOP SINK FAUCETS MOUNTED ON BACK WALL @ 36" A.F.F.
P9	UTILITY SINK	---	1 1/4"	1/2"	1/2"	FLOOR MOUNTED	
P10	ACCESSIBLE SHOWER	---	2"	1/2"	1/2"	PROVIDE WITH SPEC'D SHOWER FITTINGS AND HEADS	62"X33" FREEDOM ADA ROLL-IN SHOWER 1-PIECE CONSTRUCTION
P12	ACCESSIBLE SHOWER	---	2"	1/2"	1/2"	PROVIDE WITH SPEC'D SHOWER FITTINGS AND HEADS	ELLA STANDARD 42"X42"X80" 1-PIECE LOW THRESHOLD STALL IN WHITE WITH CENTER DRAIN



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REVISIONS	
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LAGRANGE GEORGIA

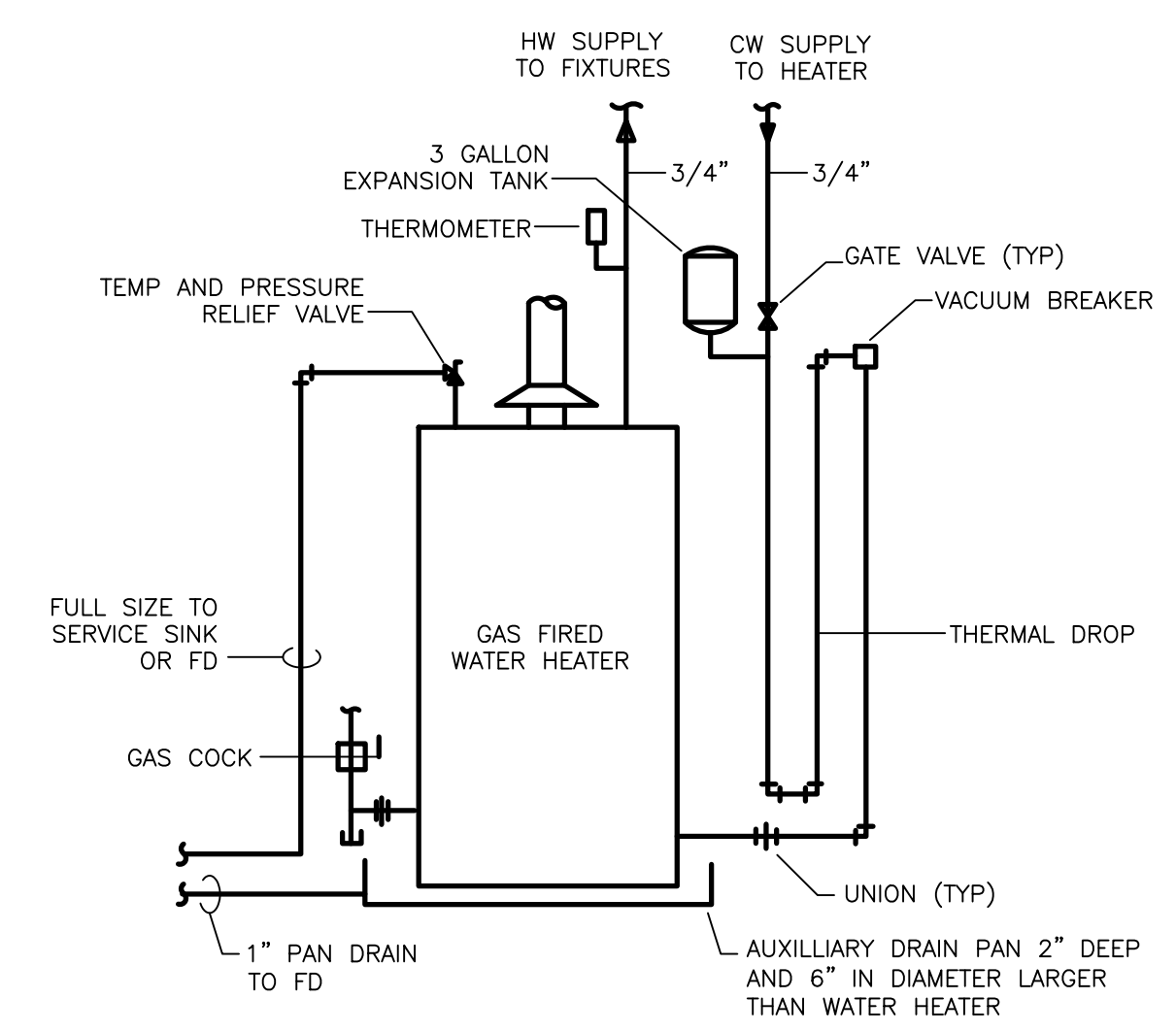
TITLE:
**PLUMBING
FIXTURE SCHEDULE**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: P-4

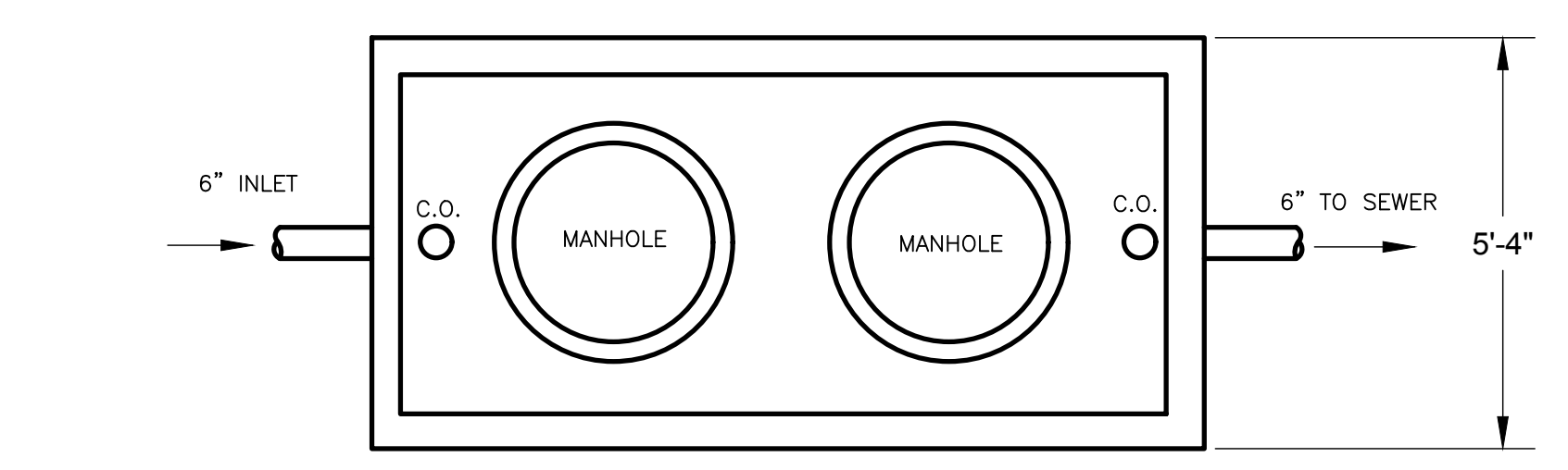


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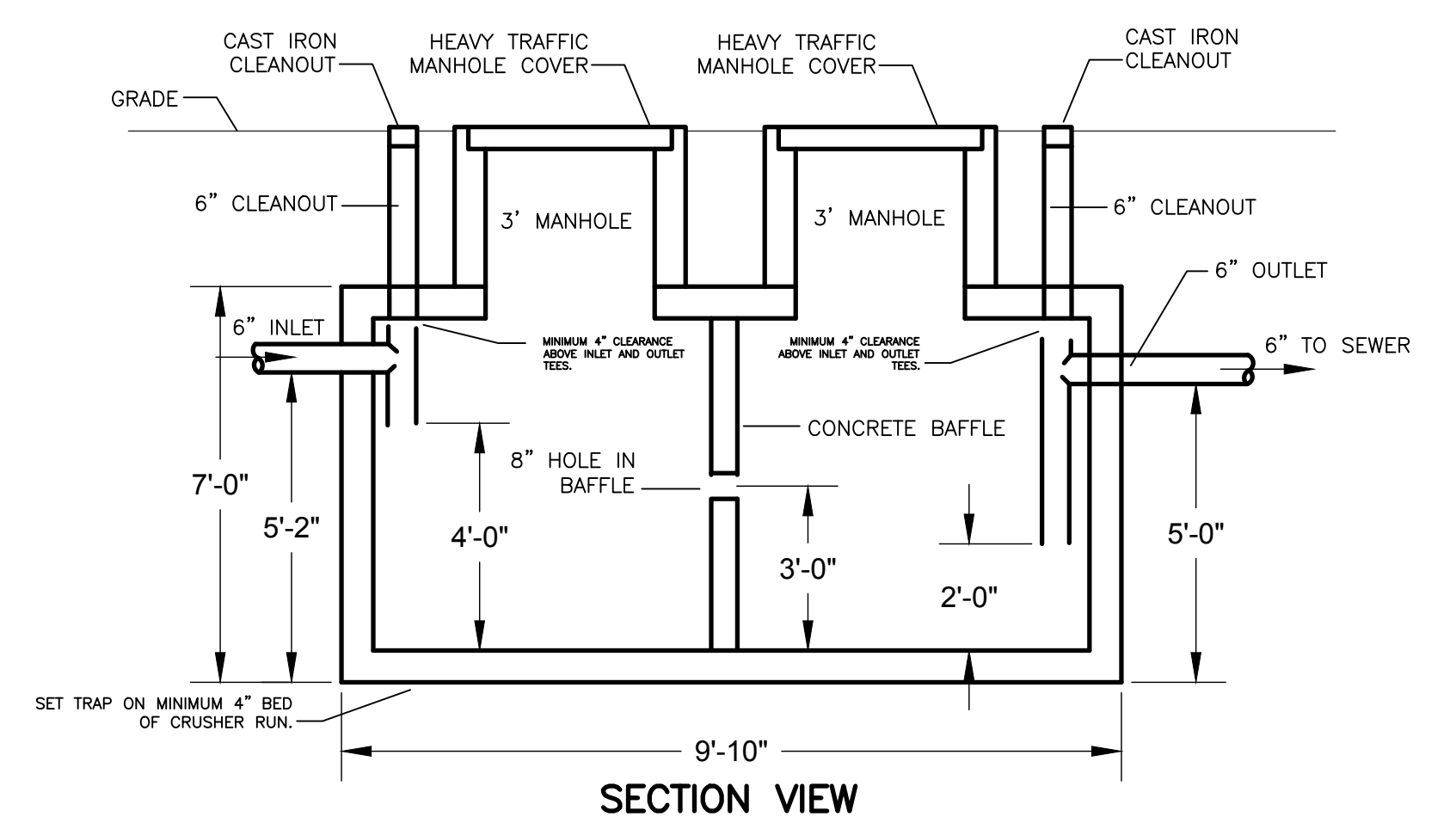
WATER HEATER SPECIFICATION
 HWH-1
 DESIGN BASED ON COMMERCIAL MEDIUM DUTY 100 GAL 75K BTU
 NATURAL GAS, LOW NOx TANK WATER HEATER AS
 MANUFACTURED BY RHEEM. MODEL G100-80N.



DETAIL - GAS FIRED WATER HEATER
 1
 AP-5
 NOT TO SCALE



PLAN VIEW



SECTION VIEW

DETAIL - SAND / OIL SEPARATOR
 2
 AP-5
 NOT TO SCALE

NOTE: INSTALL GREASE INTERCEPTOR IN ACCORDANCE WITH ALL APPLICABLE LOCAL MUNICIPAL CODES. TANK SHALL BE 1500 GALLON PREGAST CONCRETE TANK. CONCRETE SHALL BE MINIMUM 5000 PSI AT 28 DAYS. STEEL REINFORCEMENT SHALL BE IN ACCORDANCE WITH ASTM A615.75, GRADE 60, WITH MINIMUM 1" COVER. DESIGN LOADING SHALL BE IN ACCORDANCE WITH AASFD HS20-44. CONSTRUCTION JOINT VARIED WITH ONE INCH DIA. BUTYL RUBBER OR EQUIVALENT.

REVISIONS	
DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
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 LAGRANGE GEORGIA

TITLE:
**PLUMBING
 DETAILS**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: P-5



SIGNATURE REQUIRED

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LEGEND

- HOSE BIBB
- COLD WATER
- HOT WATER
- GAS PIPING

REVISIONS

DATE	DESCRIPTION

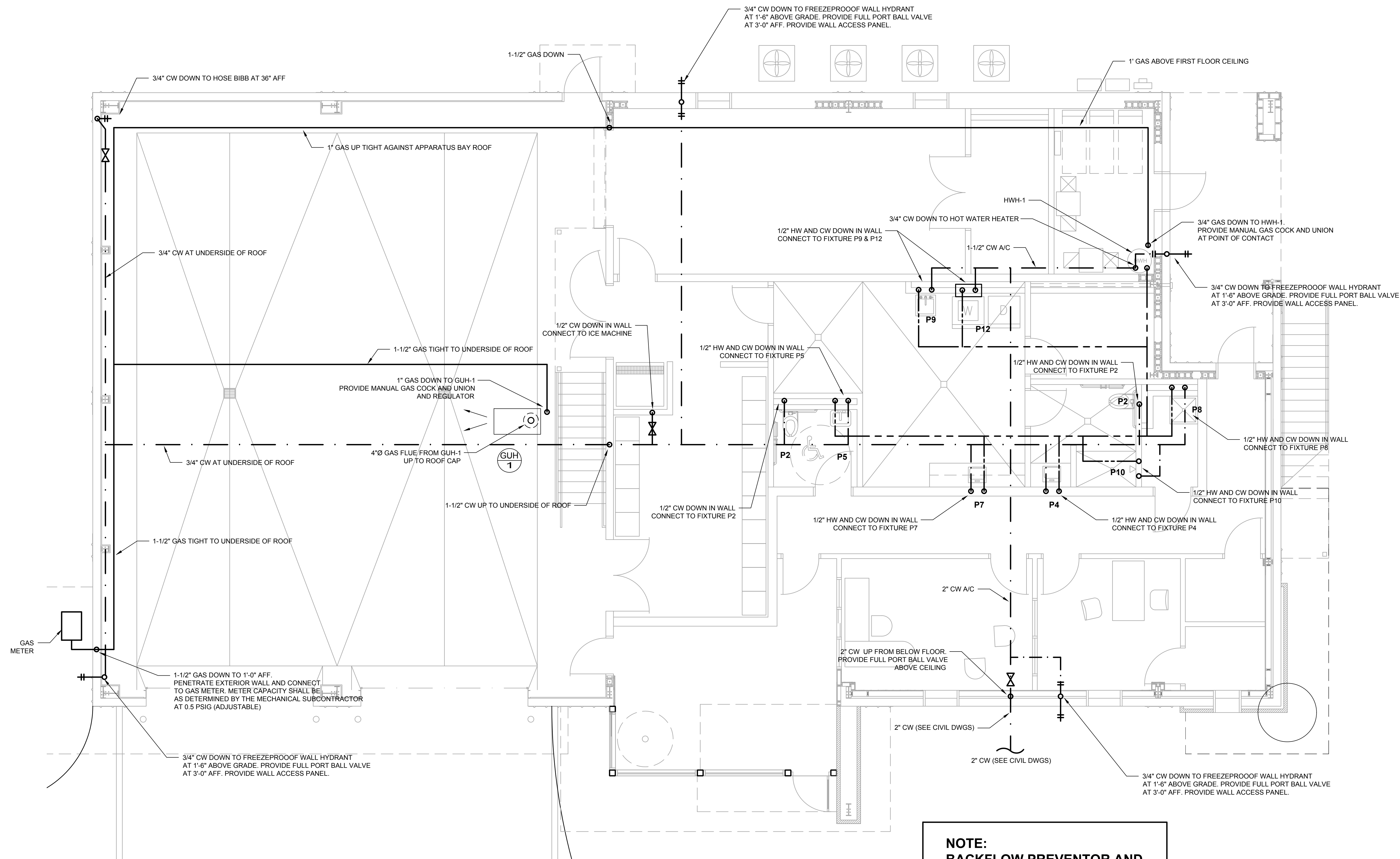
PROJECT:
VERNON ROAD FIRE STATION

VERNON ROAD
LAGRANGE GEORGIA

TITLE:

**PLUMBING PLAN
FIRST FLOOR**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: P-6



**NOTE:
BACKFLOW PREVENTOR AND
PRESSURE REDUCING VALVE
LOCATED AT STREET IN VAULT**

1
P-6 **PLUMBING PLAN - FIRST FLOOR**
SCALE: 1/4" = 1'-0"



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LEGEND

	HOSE BIBB
	COLD WATER
	HOT WATER
	GAS PIPING

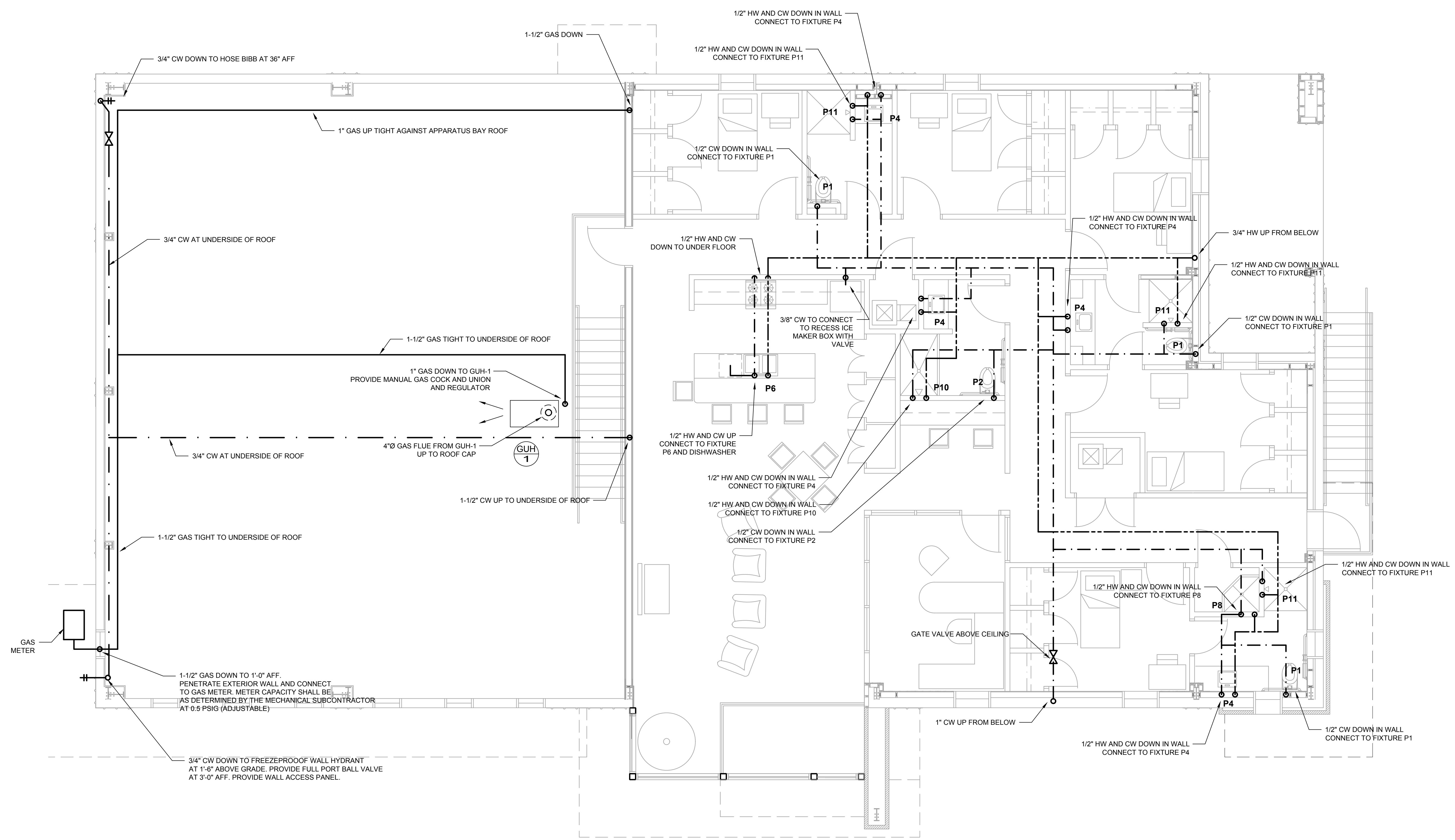
REVISIONS

DATE	DESCRIPTION

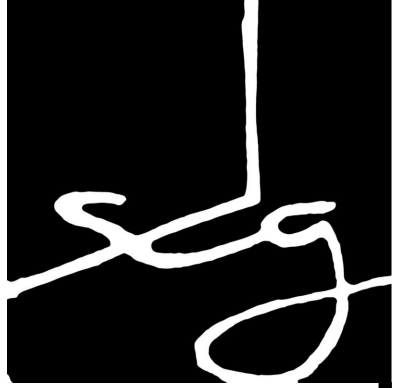
PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

TITLE:
**PLUMBING PLAN
 SECOND FLOOR**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: P-7



1 PLUMBING PLAN - SECOND FLOOR
 P-7 SCALE: 1/4" = 1'-0"



VERNON ROAD FIRE STATION

FOR

CITY OF LAGRANGE
LAGRANGE, GEORGIA

(ELECTRICAL)

PROJECT NUMBER 1731

FOR BIDDING AND PERMIT

07 MAY 2018

BID-DESIGN-BUILD ELECTRICAL CRITERIA

1. ELECTRICAL CRITERIA - PART 1 DESCRIPTION:

- 1) This contractor shall provide the following:
 - a) Complete design, based on these criteria and documents.
 - b) Complete installed, proper functioning electrical system(s).
 - c) Related work as described herein and indicated on the plans and other documents.
 - d) Complete one-year warranty on all material and work.
 - e) Provide any manufacturer extended warranties to the owner.
- 2) The General & Supplement Conditions, Agenda & related items are included as part of this scope-of-work criteria.
- 3) The contractor shall refer to and base any quotations of the complete criteria, including but not limited to, all drawings, written criteria, / scope-of-work and related documents.

2. QUOTATION DOCUMENTATION

- 1) This contractor's quote shall be based on the criteria as require in these documents.
- 2) The quotation shall include a statement that pricing is based on & covers / includes the scope-of-work as herein described & required.
- 3) Any alternates shall be fully itemized, listing the base quote price, the add / deduction price and supported with documentation of the alternate.

3. ELECTRICAL EXISTING CONDITIONS

- 1) The contractor shall make an on-site review of any existing conditions and shall include all necessary cost involved and / or associated with the existing conditions. This shall include, but not be limited to demolition & removal, temporary power, repair & restoration including floors, walls, and ceilings.
- 2) Unless noted otherwise all removed / demolition materials shall become the property of the contractor and shall be removed from the site.

4. ELECTRICAL CONSTRUCTION DOCUMENT (DRAWINGS, SPEC, CALCULATIONS)

- 1) Provide a complete set of electrical construction documents for owner review, permitting and use as construction documents.
- 2) Documents shall be Cad based utilizing AutoCadd or MicroStation Cadd software.
- 3) The documents shall be prepared and bear the PE stamp, name, address, phone and e-mail address of the engineer responsible. The engineer shall be a trained and experienced on electrical engineering and be a licensed engineer in the project state.
- 4) Drawings shall bear the complete project name & address, the electrical contractors' name, address, telephone number, and license information.
- 5) The documents shall include "to scale" plans, risers, symbols & legends, details, notes & all necessary schedules. The document shall be fully coordinated with the works of the other trades for correct equipment locations, power characteristics & requirements.
- 6) The lighting plans shall include lighting fixture schedule(s) with fixture description(s), finishes, etc. lamps type and color, voltages, input wattage, mounting and the manufacturers name and catalog number.
- 7) The electrical shall include the location of each device requiring an electrical connection, complete with all wire sizes, conduit sizes, disconnect, breaker and other required items. Voltage drop calculation shall be performed where needed or required.
- 8) The Electrical Riser Diagram shall indicate the complete electrical distribution system layout & interconnections. Also include detailed panel schedules; complete with schedules, feeder sizes, transformers and related work shall be included. Schedules shall be complete listing each circuit number with its description, load type, connected load wattage, phase, OCP amps/poles, including a load summary and calculation indicating the load totals by phase and by load types (ltg/recpt/etc.), voltages/phase/wire, buss amps, main OCP, and the minimum A/C ratings required.
- 9) The contractor shall provide written copies of all coordination with the telephone company, cable TV and other utilities serving this project. The coordination shall indicate how the services are to come on-site and enter the facility. The characteristics of each service are to be spelled out or detailed. The names and telephone number of each utility contact is to be listed.

5. SUBMITTAL REQUIREMENTS

- 1) Submit six complete copies of the completed construction documents for review by the owner & designated parties. All submittals shall be fully marked to indicate the exact item(s) being submitted. The submittals shall include, but not be limited to, conduit & fittings, wire & cables, panels, boards, transformers, lighting fixtures & lamps, system equipment, etc. Submittals for panels and other build-up items shall be the manufacturers fabrication submittal; use of standard catalog data is not acceptable.
- 2) The contractor shall also provide copies of all building permits and a listing of all suppliers, sub-contractors and others who will be providing materials or services on the contractor's behalf. This listing shall include the company name, the contact(s), and phone & fax numbers and e-mail address.

6. PROJECT COMPLETION & CLOSE-OUT

- A) The contractor shall make work-in-progress and final working reviews / inspections with the owner & the owner's designated representatives. The contractors shall provide all necessary labor & tools for reviews & inspections.
- B) At project completion the contractor shall provide a complete working demonstration of all systems and components and proper interface with system of other trades. Review and program / set all equipment operating timing & sequences as directed by owner.
- C) Provide three copies of complete bound equipment data, instruction and operation manuals. Include copies of all permits & approvals, warranty certificates and contact information. Contractor shall provide two sets of "as-built" construction documents on reproducible mylar and two copies of "as-built" cad drawings on CD's.
- D) Contractor shall return 30 days, 90 days, and 180 days after C.O. to review system operation with owner and make adjustments as required.

7. GENERAL PROJECT DESCRIPTION

- A) Generally this project consists of the conversion of an existing facility into a multi-tenant office / retail facility.
- B) Refer to the architectural plans for specific building information, extent-of-work, etc.

8. ELECTRICAL BASIC CRITERIA

- A) GENERAL- provide a complete electrical system, left in proper working order. Provide herein means installed correctly, including labor and materials. This contractor shall be a properly licensed to perform the required work. Secure and pay for all fees, licenses, permits, and inspections. Coordinate with power and communication utilities. Meet and comply with all Federal, State, and County & City Codes.
- B) PROVISIONS TO BE INCLUDED- Labor, supplies and materials, tools, equipment, etc.; complete submittals & connections; coordination with other trades; material shipping, delivery, receiving, storage, & protection; excavation, backfilling, cutting, patching and cleaning; guarantee for one year, plus any extended manufacturer's warranties; as-built reproducible mylar record documents.
- C) MISC. MATERIALS- all materials shall be new, and currently manufactured. All materials shall be U.L. labeled, and meet all industry standards. Label all equipment. Provide 3000 PSI class concrete for bases and backfill. Provide " " thick A/D fire retardant grade backboards. Provide all support hardware and systems for electrical work. Fire/smoke seal each penetration of any rated barrier (floor, wall, etc.)
- D) SUPPORT-All materials, equipment, devices, etc. installed by this contractor shall be provided with proper study support. All building support attachments shall be made to the building structure. No support attachments shall be made to the ceiling system, gypsum wall boards, etc. Electrical devices shall not be mounted onto other equipment panels or housings, where the panel or housing will limit access & servicing. All attachment to the building structure shall be compatible with the building materials and not cause damage. Where free-standing supports, trapeze-type supports, racks or other similar support is needed or required Unistrut (or equal) framing channel and related components shall be utilized. Where located out-doors or subject to wet environments (kitchens, areas, etc.) the support material shall have a finish equal to Unistrut "Perma-Green II" finish. Utilize steel threaded rod with lock-nuts and double-nuts for pendant supports.
- E) LABELING & MARKING- All electrical distribution equipment shall be labeled with the name or itemed served, voltage/phase/wire/fuse. Labels for distribution equipment shall be engraved bake-a-lite label attached with weather-proof adhesive. All j-boxes shall be marked with the circuit number (panel designation & ckt), or other system designation (FA/PA/etc.). Utilize a permeate type marker to label the device cover (only on concealed boxes ie-above clg.). A complete directory shall be attached to the inside of each panel or distribution board. The directory shall include the device , space served, load service and breaker rating.

9. FINISHES- Prior to ordering, the contractor shall coordinate all colors, finishes, and other material appearances with owner/tenant. This shall include all wiring devices, lighting fixtures, and other components.

10. ELECTRICAL SERVICE, METERING & DISTRIBUTIONS SYSTEM

A) SCOPE-OF-WORK

- 1) Provide for a complete system of the service entrance, metering & distribution to provide power from the utility source of all panels, equipment, appliances, & items requiring power and / or provision for future power.

B) SERVICE, METERING & DISTRIBUTION ELECTRICAL CRITERIA

- 1) Conductors & Raceways:
 - a) All conductors shall be copper, XHHW or THWN/THHN.
 - b) Aluminum can be quoted as an add / deduct.
 - c) Raceways shall be PVC underground, EMT or IMC for above grade.
 - d) Use of prefabricated modular busway allowed as contractors option if desired.
- 2) Electrical Panels
 - a) Labeled UL 67 and 50; NEMA 250 and PB1; NFPA 70-384 and 373.
 - b) Commercial grade (residential equipment/load centers, etc. is prohibited).
 - c) Voltage, Phase & NO. Wire is required.
 - d) SCAIC rated to match Fault Current Calculations, but no less than 22K AIC.
 - e) Flush mounted except where mounted in utilitarian service spaces.
 - f) Dead front design with hinged & locking front cover door.
 - g) NEMA 1 cabinet for indoor, NEMA 3R for wet location.
 - h) All lugs & terminals 60/75 deg. C rated.
 - i) Factory assembled, double row construction, staggered numbering, sequenced phased.
 - j) Tin-plated copper or aluminum busing. 100% rated phase & neutral, 50% ground.
 - k) Refer to over-current protective devices. Provide main breaker were served from transformers or remotely located. Match or exceed up-stream AIC rating, but no less than 22K AIC.

3) Grounded

- a) Service Grounding- Provide per code, plus not less than (1) ground rod field consisting of three 10 ft rods, spaced 10 Ft apart triangularly & loop connected; (2) Bond to concrete rebar; (3) bond to building steel; (4) bond to metal cold water main pipe (if available).
- b) Distribution System Grounding
 - (1) Provide grounding of entire electrical system per code.
 - (2) Provide green ground conductor in each feeder, sized per code.
 - (3) Each separately derived system (i.e. transformers, generators, etc.)

4) Fault Current Study

- a) Provide a complete Fault Current Study of the entire distribution system.
- b) Indication the available fault current at each point in the distribution system, including all motor, generator and other fault current contributors.
- c) Provide (on power company letterhead) copies of the electrical service characteristics, including transformer size & type, available fault current, secondary voltage & phase, metering arrangements and any power company requirements, etc.

ELECTRICAL SPECS

11. LIGHTING & ELECTRICAL SYSTEMS SCOPE-OF-WORK

1) GENERAL ELECTRICAL REQUIREMENTS:

- a) Provide a complete system of lighting, outlets, wiring, equipment & appliance connections for all Landlord electrical requirements.

2) EXTERIOR LIGHTING

- a) Provide all lighting complete as indicated an the documents, including but not limited to fixtures, lamps, supports, wiring & controls.
- b) Refer to the lighting fixture schedule for fixture Manuf., Models, Lamps, Etc.
- c) Provide all related mounting bases & supports (i.e. concrete pole bases, etc.).
- d) Exterior lighting control shall consist of electrically-operated/mechanically-help multi-pole lighting contractor(s), with front mounted H-O-A switch, controlled by two-channel astronomic programmable time switch(s) (Tork DZM200A or equal). Program schedule as directed by owner.

3) INTERIOR LIGHTING

- a) Provide al lighting complete as indicated on the documents, including but not limited to fixtures, lamps, supports, wiring & controls).
- b) Individual spaces (i.e. closets, equipment rooms, etc.) shall be controlled via wall mounted occupancy sensors with manual over-ride feature.
- c) Common public spaces shall be controlled via lighting contractors controlled with programmable time controls (Tork DAM200A series or equal). Program per owner.
- d) Security/Night Lights, circuit approximately 1/5 of the common public space lighting fixtures on "security/night light" circuit. These fixtures shall be switched via contractor(s) controlled by key operated momentary contact switche(s) located at each public entrance.
- e) Provide a complete system of emergency egress lighting and exit signage per code requirements.
 - (1) Exit signage- LED lamp, edge-lit style (Chloride Symmetry Series or equal).
 - (2) Egress Lighting Public Common Areas- Utilize emergency battery inverter feature in selected public area lighting, otherwise utilize self-contained wall/ceiling mounted units.

4) OUTLETS & WIRING DEVICES:

- a) Provide all outlets & wiring devices as indicated on the documents, complete with wiring & circuiting
- b) Provide any code required devices that may not be indicated on the documents.
- c) Where required by code, provide devices of the proper type & ratings (i.e. -GFCI, hospital grade etc.).

5) APPLIANCE & EQUIPMENT CONNECTIONS:

- a) Provide electrical power & connect to all Landlord;
 - (1) Appliances as indicated on the documents.
 - (2) All HVAC equipment per the mechanical contractor requirements.
 - (3) All plumbing equipment per the plumbing requirements.
 - (4) All architectural equipment per the general contractor requirements (i.e. door operators, appliances, etc.)

13. VOICE/DATA (VID) TELECOMMUNICATIONS SYSTEM(S):

A) V/D GENERAL REQUIRMENTS:

- 1) Utilize PVC conduits for underground and EMT for above grade work
- 2) Provide pull-string in each empty conduits.
- 3) Label & Tag each conduit & pull string.
- 4) All conduits bends shall be long radius bends.
- 5) Backboard shall be " " thick A/D grade plywood, painted light-gray with fire-retardant paint. Wall mount with bottom 18" AFF.

NOTE:
DATA CABLING, SERVER, WIFI AND ROUTERS
ARE NOT IN SCOPE.

ARCHITECT'S STAMP



SDG

SIGNATURE REQUIRED

SMITH DESIGN GROUP, INC.

206 WEST HARALSON STREET
LAGRANGE, GEORGIA 30240
706-882-5511 www.SDGarch.net

NOTES:

1. AN EXTERIOR MAIN DISCONNECT IS REQUIRED FOR EACH SERVICE ENTRY.
2. ALL BRANCH CIRCUIT CONDUCTORS ARE TO BE MINIMUM 12 COPPER.
3. INSTALLATION OF NON-METALLIC (ROMEX) IS NOT ALLOWED.
4. IF ALUMINUM SERVICE AND FEEDER CONDUCTORS ARE USED, THE CONDUCTORS MUST BE SERIES 8000, COMPACT STRAND, WITH INSULATION TO COMPLY WITH NEC AND FIELD CONDITIONS.
5. COMPLY WITH THE REQUIREMENTS OF THE 2014 NEC, ARTICLE 517, AS IT APPLIES TO THE USE OF THIS FACILITY

REVISIONS

Δ	DATE	DESCRIPTION

PROJECT:

VERNON ROAD FIRE STATION

VERNON ROAD
LAGRANGE GEORGIA

TITLE:

ELECTRICAL SPECS

MODIFIED DATE:

JOB NO:

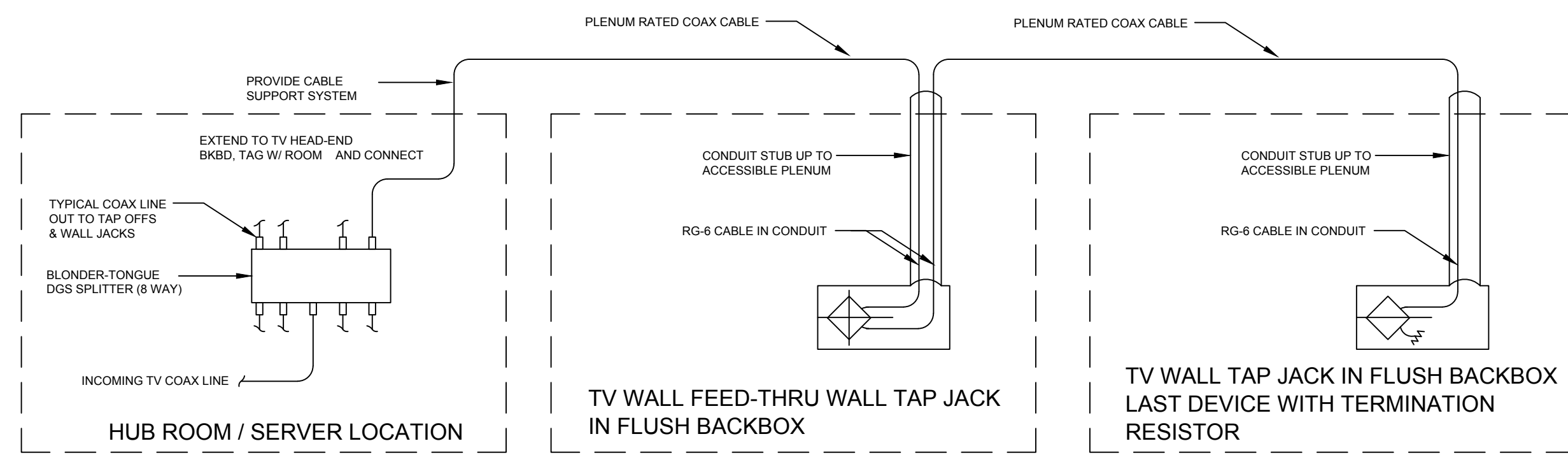
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ISSUED DATE:
FOR BID AND PERMIT

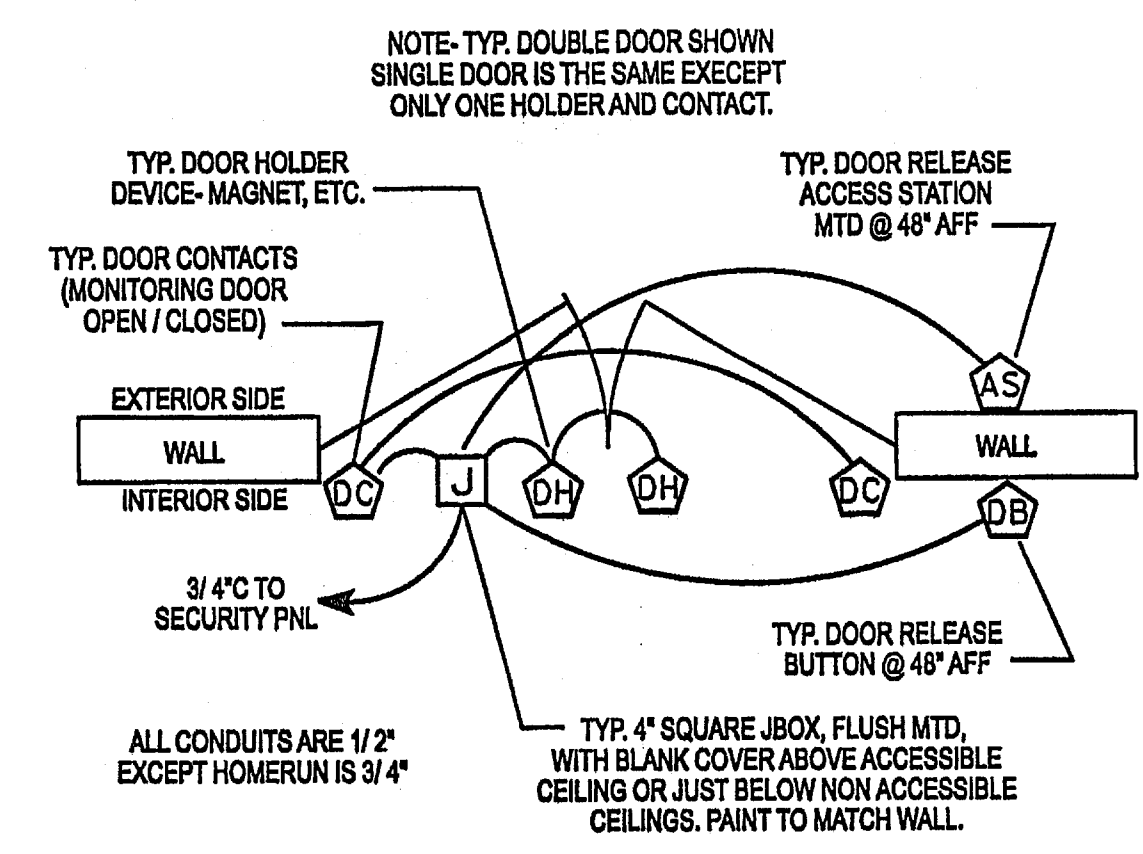
SHEET:

07 MAY 2018

E-1



1 TV COAX DISTRIBUTION RISER DIAGRAM
SCALE: NONE



3 DOOR ACCESS & CONTROL DETAIL
NOT TO SCALE TYPICAL EACH UNIT

PA SOUND SYSTEM CRITERIA		
	PA SOUND DISTRIBUTION SYSTEMS	REV
1	GENERAL ITEMS, SUBMITTALS & DOCUMENTATION	
1A	THIS PROJECT INVOLVES PROVIDING PUBLIC ADDRESS AUDIO SOUND SYSTEM AND RELATED COMPONENTS TO PROVIDE SOUND DISTRIBUTION AT LOCATION AS SHOWN ON THE DOCUMENTS.	
1B	THIS PA SYSTEM INCLUDES BUT IS NOT LIMITED TO PROVIDING COMPLETE AND PROPERLY FUNCTIONING PA AUDIO SOUND SYSTEM, INCLUDING SPEAKERS, AMPLIFIERS & MIXERS, INPUT COMPONENTS, WIRING & RELATED COMPONENTS, START-UP, CHECK-OUT & CERTIFICATION, MANUALS, TRAINING OF OWNER'S PERSONNEL.	
1C	THIS SOUND DISTRIBUTION SYSTEM DESIGN IS BASED ON 70 VOLT DISTRIBUTION SYSTEM.	
2	THE CONTRACTOR SHALL UTILIZE THE DESIGN SERVICE OF THE FACTORY AUTHORIZED SYSTEM VENDOR TO OBTAIN THE COMPLETE AND PROPER SYSTEM DESIGN, LAYOUT(S), FUNCTION, INTEROPERABILITY WITH SYSTEMS OF OTHER TRADES, WIRING & OPERATION, AS REQUIRED BY THE PROJECT DOCUMENTS.	
2A	THE COMPLETE SYSTEM SHALL BE PROVIDED BY A SINGLE VENDOR / INSTALLER WHO SHALL HAVE UNIT RESPONSIBILITY FOR THE ENTIRE SYSTEM. THE VENDOR SHALL BE A FACTORY AUTHORIZED AGENT OF THE MANUFACTURER AND SHALL PROVIDE EVIDENCE THERETO.	
3	COMPONENTS - AMPLIFIER / MIXER DESIGN BASED ON - BOGEN POWER VECTOR WV150 SERIES	
4	COMPONENTS - SPEAKERS CEILING TYPE DESIGN BASED ON - BOGEN S867725G8U SERIES	
5	COMPONENTS - SPEAKERS HORN TYPE DESIGN BASED ON - BOGEN SPT15A SERIES	
6	COMPONENTS - MICROPHONES & JACKS	
6A	MICROPHONE DESK TYPE - PROVIDE PRE-ASSEMBLED, READY TO USE DESK TYPE MICROPHONE, CARDIOID PICKUP PATTERN, PUSH TO TALK OPERATION WITH LOCKING MECHANISM, COMPLETE WITH 15 FT. CORD SET. (PROVIDE TWO)	
7	SYSTEM INSTALLATION	
7A	CONCEAL ALL WIRING IN FINISHED AREAS, UNLESS SPECIFICALLY NOTED OTHERWISE. WIRING IN AREAS WHERE IT IS EXPOSED TO VIEW (I.E. UNFINISHED AREAS, WAREHOUSE, INDUSTRIAL, ETC) ALL CABLING SHALL BE IN EMT CONDUITS (MINIMUM) WITH MATCHING BOXES, FITTING AND HARDWARE.	
8	SYSTEM TEST, VERIFICATION, DOCUMENTATION & SERVICE	
8A	THE MANUFACTURER'S FACTORY AUTHORIZED & TRAINED REPRESENTATIVE SHALL PROVIDE A TOTAL SYSTEM CHECK-OUT (OF EVERY DEVICE) AND TESTING, AND SHALL SEND WRITTEN VERIFICATION OF THE SYSTEM(S) PROPER OPERATION TO THE OWNER, ARCHITECT, ENGINEER AND FIRE MARSHAL.	
8B	PROVIDE OWNER WITH UP TO ONE FULL DAY OF ON-SITE OPERATION AND MAINTENANCE TRAINING.	
	END OF SOUND DISTRIBUTION SYSTEMS	

TV COAX DISTB SYSTEM CRITERIA

APARTMENT TV COAXIAL DISTRIBUTION SYSTEM SPECIFICATIONS

1. GENERAL ITEMS:
 A) This Scope-Of-Work consist of providing a Coaxial Distribution System for the distribution of SUB / VHF / CATV / UHF band signals. This work shall include, but not be limited to, the related raceway system, wall boxes, coax cables, wall taps with coverplates, labeling & tagging, and related components. The Head-End equipment will be provided & installed by the owner, and is not a part of this contract.
 B) The contractor shall utilize the design service of the factory authorized system vendor to obtain the proper system layout(s), function, wiring & operation, as required by this specification, drawings, prevailing codes and owner's requirements.
 C) Coordinate with all other trades for the proper coordination and interfacing with their work, systems & control(s).
 D) Submit complete product data including all devices, wiring and related items. All wiring & connection shall be labeled and identified. Submit plans and related data to other related trades and vendors for proper final coordination. Submit the name and phone number of the manufacturer, vendor, and the individual who prepared the drawings & NECIT certification. Submit complete product data on each component.

2. MANUFACTURERS:
 A) All components shall be of the same manufacturer to provide unit responsibility and uniformity of operation & performance. The vendor shall be a factory authorized agent of the manufacturer, and shall provide evidence thereto.
 B) Provide a full one-year, on-site, parts & labor warranty for the complete system.
 C) Acceptable manufacturer(s) are Blonder Tongue laboratories Inc.
 D) Other manufactures by 14-day prior approval with complete submittal only.

3. CODES & STANDARDS:
 A) The system design, equipment & material, function & operation shall comply with - National Fire Protection Association Standards; National Electrical Code; Underwriters Laboratory Labeled; Standards; Local Codes & Authority Having Jurisdiction

4. COAX CABLE:
 A) Provide conduit raceway for all cabling. All bends shall be long radius bends (10 times diameter).
 B) Drop Cable - RG-8, low loss.

5. WALL TAPS:
 A) Provide wall-mounted backbox for each tap.
 B) Provide matching coverplate for each tap, labeled on backside with room #.
 C) Single Tap(s) - G / F style connector, single tap wall plate on metal mounting strap, 75 Ohm impedance, 4dB RF Isolation, BT Versatap TF-GF-FT Series
 D) Feed Thru Tap(s) - G / F style connector, feed-thru type tap wall plate on metal mounting strap, 75 Ohm impedance, 4dB RF Isolation, BT Versatap 9889 Series

6. SYSTEM INSTALLATION:
 A) All wiring shall be installed in conduit or UL Listed system cable.
 B) All boxes, mountings & supports shall be labeled and approved for the purpose.
 C) All cabling shall meet NEC 820 & NFPA requirements.
 D) All devices shall be mounted and installed in accordance with the applicable codes & ADA.
 E) Color code, number & label all wiring & conductors per point-to-point wiring diagram.

7. SYSTEM TEST & VERIFICATION:
 A) The manufacturer's factory authorized & trained representative shall provide installation support.
 B) The system shall be fully tested in the presence of the owner's representative(s).

END OF TV COAX DISTRIBUTION SPECIFICATIONS

DOOR ENTRY SYSTEM

APARTMENT DOOR MONITORING & ACCESS RACEWAY SYSTEM

1. GENERAL ITEMS:
 A) This Scope-Of-Work consist of providing raceways for use by the owners security system vendor / installer for the monitoring & securing of building entry & other doors.
 B) Provide for conduits, raceways & backboxes, with pull strings, for use by others.
 C) Coordinate with all other trades for the proper coordination and interfacing with their work, systems & control(s). Specifically the door hardware & security vendor / installer.

2. SYSTEM INSTALLATION:
 A) All wiring shall be installed in conduit.
 B) All boxes, mountings & supports shall be labeled and approved for the purpose.
 C) All cabling shall meet NEC 820 & NFPA requirements.
 D) Label all boxes & raceways to match reference drawings, and any security drawings.

END OF DOOR MONITORING & ACCESS RACEWAY SYSTEM

SECURITY ALARM SYSTEM

SYMBOL	MTG.	HGT	SECURITY SYSTEM SYMBOLS & DESCRIPTIONS
AS	48"	AFF	ACCESS STATION- FLUSH MOUNTED BACKBOX 4" SQ. BOX W/ 1-GANG COVER, FLUSH MTD. 3/4" C UP TO JBOX OR SECURITY PNL AS REQUIRED
DC	NA		DOOR MONITORING CONTACTS- VERIFY MTD TOP OF DOOR FRAME 3/4" C FROM DOOR FRAME TO JBOX OR SECURITY PNL. FLEX IN WALL TO DOOR FRAME. LEAVE PULL STRING
DB	48"	AFF	DOOR RELEASE BUTTON 4" SQ. JBOX W/ 1-GANG COVER, FLUSH MOUNTED 3/4" C UP TO JBOX OR SECURITY PNL AS REQUIRED
DR	NA		DOOR RELEASE DEVICE- VERIFY REQUIRMENTS 3/4" C FROM DOOR FRAME TO JBOX OR SECURITY PNL. FLEX IN WALL TO DOOR FRAME. LEAVE PULL STRING
DD	18"	AFF	OVERHEAD DOOR ALARM CONTACTS 4" SQ. AT BASE OF DOOR. & 3/4" C TO SECURITY PANEL LEAVE PULL STRING
PB	48"	AFF	PANIC ALARM BUTTON- VERIFY REQUIREMENTS 4" SQ. JBOX W/ 1-GANG COVER, FLUSH MOUNTED 3/4" C UP TO JBOX OR SECURITY PNL AS REQUIRED
DH	PER SPEC		DOOR HOLD OPEN / RELEASE DEVICE 4" SQ. JBOX ABOVE CLG. & 3/4" C TO SECURITY PANEL FLEX IN WALL TO DOOR FRAME. LEAVE PULL STRING
CV	PER SPEC		CLOSED CIRCUIT SECURITY CAMERA 4" SQ. JBOX ABOVE CLG. & 3/4" C TO SECURITY PANEL FLEX IN WALL TO CAMERA POSITON. LEAVE PULL STRING

NOTES ALL CABLE TRAY, CONDUIT, BOXES, PULL STRINGS BY E.C.
ALL HARDWARE, CABLING, COVERS & INSTALLATION BY OWNERS VENDOR.



SMITH DESIGN GROUP, INC.
 206 WEST HARALSON STREET
 LAGRANGE, GEORGIA 30240
 706-882-5511 www.SDGarch.net

REVISIONS	
DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

TITLE:
SYSTEM RISER DISTRIBUTION

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: E-2

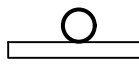
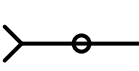

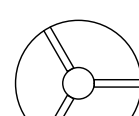

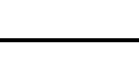

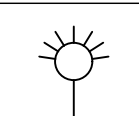
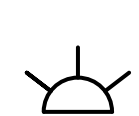
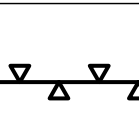
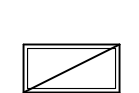
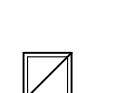
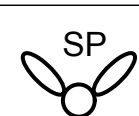
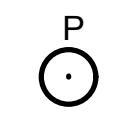
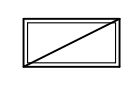
GENERAL NOTES

1. VERIFY ALL DEVICE LOCATIONS AND MOUNTING HEIGHTS.
2. VERIFY LOCATIONS OF ALL MECHANICAL EQUIPMENT.
3. ALL EQUIPMENT USED SHALL BEAR THE LABEL OF A RECOGNIZED STANDARD SETTING LABOR (i.e. UL, ETC.)
4. ALL SWITCHES AND RECEPTACLES TO BE IVORY.
5. ALL EQUIPMENT AND ACCESSORIES SHALL BE NEW AND UNUSED, UNLESS OTHERWISE NOTED.
6. ALL EXTERIOR OUTLETS SHALL BE WP, GFCI.
7. NOT USED.
8. SEAL ALL PENETRATIONS OF FIRE RATED SURFACES TO MAINTAIN THE FIRE RATED INTEGRITY.
9. PROVIDE ALL LABOR AND MATERIAL NECESSARY FOR A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM.
10. MATERIALS AND INSTALLATIONS SHALL COMPLY WITH CODES, LAWS AND ORDINANCES OF FEDERAL, STATE AND LOCAL GOVERNING BODIES HAVING JURISDICTION.
11. PROVIDE LOCAL DISCONNECT SWITCHES FOR ALL MOTORS.
12. SECURE AND PAY FOR ALL PERMITS, GOVERNMENTAL FEES, TAXES AND LICENSES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE ELECTRICAL WORK.
13. NOTIFY THE ARCHITECT/ENGINEER/OWNER OF ANY MATERIALS OR APPARATUS BELIEVED TO BE INADEQUATE, UNSUITABLE, OR IN VIOLATION OF LAWS, ORDINANCES, RULES OR REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
14. PROVIDE TEMPORARY POWER AND WIRING FOR THE PERFORMANCE OF ALL TRADES, FOR THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL TEMPORARY WIRING AT THE COMPLETION OF CONSTRUCTION.
15. ALL MATERIALS AND EQUIPMENT SHALL BE ERECTED, INSTALLED, CONNECTED, CLEANED, ADJUSTED, TESTED, CONDITIONED AND PLACED IN SERVICE IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.
16. ALL CUTTING, DRILLING AND PATCHING OF MASONRY, STEEL OR IRON WORK BELONGING TO THE BUILDING MUST BE DONE BY THIS CONTRACTOR IN ORDER THAT THIS WORK MAY BE PROPERLY INSTALLED, BUT UNDER NO CONDITIONS, MAY STRUCTURAL WORK BE CUT, EXCEPT AT THE DIRECTION OF THE ARCHITECT, DESIGNER OR THEIR REPRESENTATIVE.
17. PROVIDE "AS-BUILT" DRAWINGS AND SUBMIT TO THE OWNER.
18. IN SUSPENDED CEILINGS, SUPPORT JUNCTION AND CONDUIT BOXES DIRECTLY FROM THE STRUCTURAL SLAB, DECK OR FRAMING PROVIDED FOR THAT PURPOSE.
19. COORDINATE WITH MECHANICAL AND PLUMBING DRAWINGS AND INFORM ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.
20. WHERE FLOOR FITTINGS REQUIRE PENETRATION OF THE FLOOR SLAB, THEY SHALL BE STANDARD DEVICE LISTED BY UL FOR THAT PURPOSE AND HAVE A UL FIRE RATING EQUAL TO THE FLOOR RATING.
21. NUMBERED CIRCUITS AND RACEWAY ROUTINGS ARE FOR CONVENIENCE OF DESIGN ONLY. ACTUAL FIELD CONDITIONS WILL VARY. INDICATE THE CIRCUIT NUMBER USED ON THE "AS-BUILT" DRAWINGS.
22. ELECTRICAL EQUIPMENT INSTALLED IN PLENUMS SHALL BE APPROVED FOR USE AS SUCH.
23. E.C. TO COORDINATE WITH LOCAL UTILITY COMPANY: TRANSFORMER, C.T. AND METER LOCATIONS AND CONNECTION REQUIREMENTS.

LIGHTING FIXTURE SCHEDULE (SIMILAR MANUFACTURERS ACCEPTABLE)

(VERIFY ALL FINISHES WITH OWNER)

- SINGLE NUMERAL PREFIX IN LAMP COLUMN INDICATES NUMBER OF LAMPS IN FIXTURE (3-F40WW). NO PREFIX INDICATES SINGLE LAMP (150A-A19).
- MOUNTING HEIGHTS AND DETAILED INFORMATION ARE INDICATED IN REMARKS COLUMN.
- USE THE FOLLOWING MOUNTING ABBREVIATIONS: C=CEILING R=RECESSED S=SURFACE W=WALL T=TRACK

SYMBOL	TYPE	MANUFACTURER	CATALOG NUMBER	VOLTS	LAMP	MTG	REMARKS
○	D	LITHONIA		120	4100 K (LED)	R	DOWNLIGHT FIXTURE - INTERIOR
●	D1	LITHONIA		120	4100 K (LED)	R	WALL WASH FIXTURE ON DIMMER
	H	LITHONIA	NARROW BAND VANITY - 24" HIGH	120		W	MOUNT ONE EACH SIDE OF MIRROR
	UC	LITHONIA	UCEL (12IN TO 36IN) 40K 90CRI WH	120	4000 K (LED)	S	UNDERCABINET LED (2' LONG) (3' LONG) VERIFY W/ CABINETS, HARD WIRED TO WALL SWITCH
	WS	LITHONIA - GATEWAY	VGR5C 40LED 120 DDBT PE LFI	120	LED	S	WALL SCONCE
	CF	CASA VIEJA	STYLE 7D657	120	N/A	S	44" INNOVATOR BRUSHED NICKEL LED HUGGER CEILING FAN
	X2	LITHONIA OR DUAL LITE	EXIT SIGN AND EMERGENCY LIGHT COMBO	120	FURNISHED	W/C	LED EXIT SIGN AND EMERGENCY LIGHT
	SL	SHOP LITE	4'-0" WITH REFLECTOR		2-BULB	S	
	X1	LITHONIA	QUANTUM ELM SERIES	120/ 277	FURNISHED	S	SELF-CONTAINED NON-ADJUSTABLE TWIN HEAD EMERGENCY LIGHTING UNIT COMPLETE WITH AUTOMATIC CHARGER, 90 MINUTE LEAD CALCIUM BATTERY & HALOGEN LAMPS. MOUNT HIGH ON WALL FOR WIDE COVERAGE.
○	L	LITHONIA	4" RECESSED LED CAN LIGHT	120	4000 K LED	R	ON DIMMER SWITCH (TYPICAL)
	GN	BARNLIGHT.COM	BLE-G-WHS-PC	120	4000 K LED	S	GOOSENECK - VERIFY FINISH WITH OWNER
	EE	LITHONIA	AFN-B-EXT	120		S	WET LOCATION - EMERGENCY EGRESS LIGHT
	T1	JUNO	8" SURFACE TRACK UNIT (4 LIGHTS) T252L-40K-N-BL	120		P	TRACK ON 24" HIGH PENDANT SUPPORTS
FLAG	WSF	SPAULDING	FLAG & POLE FLOOD LT., LED, WET LOCATION LABELED, TEMPERED GLASS LENS, DARK BRONZE FINISH, GLARE SHIELD. YOK / KNUCKLE MOUNT, BEAM-SPREAK NEMA 3X3	UNV 120	LED, 4,692 LUMEN OUTPUT, 30k 80 CRI	CONCRETE BASE AIM	LED DRIVER AND POWER SUPPLY PER MANUFACTURER SPAULDING: ARF2-Y/K-42L-30L-070-N-Unv-DB
SIGN	WSS	SPAULDING	SIGNAGE FLOOD LT., LED, WET LOCATION LABELED, TEMPERED GLASS LENS, DARK BRONZE FINISH, GLARE SHIELD. YOK / KNUCKLE MOUNT, BEAM-SPREAK NEMA 6X6	UNV 120	LED, 4,692 LUMEN OUTPUT, 30k 80 CRI	CONCRETE BASE AIM	LED DRIVER AND POWER SUPPLY PER MANUFACTURER SPAULDING: ARF2-Y/K-42L-30L-070-W-Unv-DB
WALL	WSW	SPAULDING	BUILDING FLOOD LT., LED, WET LOCATION LABELED, TEMPERED GLASS LENS, DARK BRONZE FINISH, GLARE SHIELD. YOK / KNUCKLE MOUNT, BEAM-SPREAK NEMA 6X6	UNV 120	LED, 9,535 LUMEN OUTPUT, 30k 80 CRI	CONCRETE BASE AIM	LED DRIVER AND POWER SUPPLY PER MANUFACTURER SPAULDING: ARF3-Y/K-42L-30L-070-W-Unv-DB
	G	LITHONIA	DESIGN BASED ON LITHONIA LIGHTING EPAN 24, 40L, 40K, 4000 K				
	G2		SAME AS TYPE 'G' EXCEPT 2'X2'				
○ ^E	E		WET LOCATION EXTERIOR LED RECESSED CAN FIXTURE (TO BE DETERMINED) 200 CASH ALLOWANCE				
	SP		EXTERIOR SPOT LIGHT ON SWITCH. ECO-STAR 13" WIDE LED SECURITY FLOOD LIGHT - STYLE IG655				
	P		SEAGULL LIGHTING - PAINTED SHADE PENDANT LED-6519 WITH METAL ROD SUPPORT				
	W		LITHONIA 4'-0", 41-WATT WHITE INTEGRATED LED LOW PROFILE WRAPAROUND SURFACE MOUNT 4000K				
○	I		RECESSED WET LOCATION - SHOWER LIGHT - LED				



SDG

SMITH DESIGN GROUP, INC.

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LAGRANGE, GEORGIA 30240
706-882-5511 www.SDGarch.net

REVISIONS

DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION

VERNON ROAD
LAGRANGE GEORGIA

TITLE:

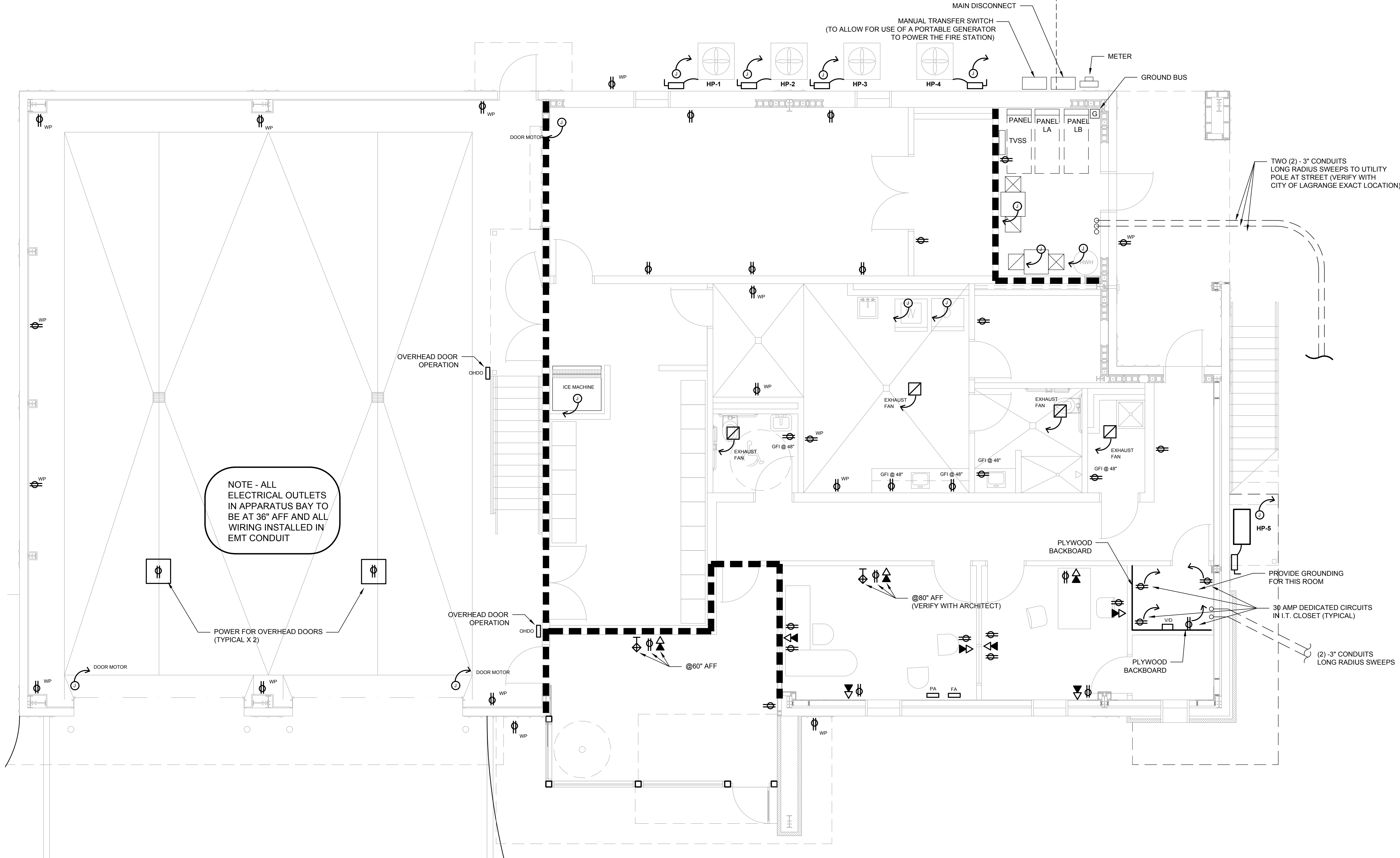
LIGHTING FIXTURE SCHEDULE

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: E-3

TELCOM / DATA / BROADBAND (V/D/B) DEVICES & CABLING		
SYMBOL	MTG. HGT.	TELCOM (VOICE / DATA) SYMBOL DESCRIPTIONS
	18" AFF	SINGLE VOICE WALL JACK & 3 PORT COVERPLATE 4" SQ BOX W/ 1 GANG COVER & 1" C STUB-UP TO PLENUM & CABLE SUPPORT PROVIDE VOICE JACK AND CABLE FROM JACK TO EQUIPMENT TERMINATION POINT
	18" AFF	SINGLE DATA WALL JACK & 3 PORT COVERPLATE 4" SQ BOX W/ 1 GANG COVER & 1" C STUB-UP TO PLENUM & CABLE SUPPORT PROVIDE DATA JACK AND CABLE FROM JACK TO EQUIPMENT TERMINATION POINT
	18" AFF	DUPLEX 1-VOICE & 1-DATA JACKS & 4-PORT COVERPLATE 4" SQ BOX W/ 1 GANG COVER & 1" C STUB-UP TO PLENUM & CABLE SUPPORT PROVIDE JACKS AND CABLING FROM EACH JACK TO EQUIPMENT TERMINATION POINTS
	18" AFF	SINGLE WALL COAX TAP OUTLET WITH MATCHING COVER 4" SQ BOX W/ 1 GANG COVER & 1" C STUB-UP TO PLENUM & CABLE SUPPORT TYPE "F" JACK SUB / VHF / UHF / CATV W/ COAX TO HEADEND / SPLITTER

NOTE - ELECTRICAL SUBCONTRACTOR IS TO COORDINATE ALL VOLTAGE AND BREAKER SIZES WITH MECHANICAL SUBCONTRACTOR FOR ALL MECHANICAL EQUIPMENT AND PROVIDE POWER AND DISCONNECTS AS NEEDED, EVEN IF NOT SHOWN ON THESE DRAWINGS.

COORDINATE EXACT LOCATION WITH CIVIL DRAWINGS



NOTE - ALL ELECTRICAL OUTLETS IN APPARATUS BAY TO BE AT 36" AFF AND ALL WIRING INSTALLED IN EMT CONDUIT

POWER FOR OVERHEAD DOORS (TYPICAL X 2)

1 FIRST FLOOR PLAN - ELECTRICAL POWER / DATA / CABLE
E-4 SCALE: 1/4" = 1'-0"



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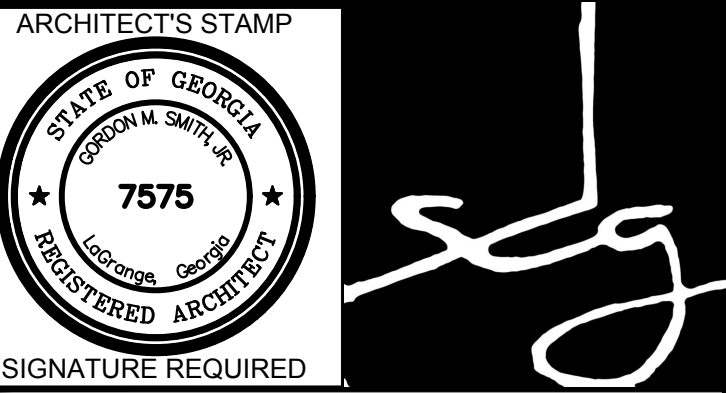
LEGEND	
	EXTERIOR WEATHERPROOF OUTLET
	110V DUPLEX OUTLET
	110V QUAD OUTLET
	VOICE / DATA DROP
	JUNCTION BOX FOR POWER
	POWER IN FLOOR (VERIFY WITH OWNER)
	WEATHERPROOF DISCONNECT
	EXHAUST FAN TO OUTSIDE
	CABLE TV OUTLET
	RATED WALL - EXTEND TIGHT AGAINST FLOOR OR ROOF DECK ABOVE. SEAL ALL PENETRATIONS.

REVISIONS		
DATE	DESCRIPTION	

PROJECT:
VERNON ROAD FIRE STATION
VERNON ROAD
LAGRANGE GEORGIA

TITLE:
**ARCHITECTURAL
ELECTRICAL
POWER PLAN
FIRST FLOOR PLAN**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: E-4



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TELCOM / DATA / BROADBAND (V/D/B) DEVICES & CABLING		
SYMBOL	MTG. HGT.	TELCOM (VOICE / DATA) SYMBOL DESCRIPTIONS
▷	18" AFF	SINGLE VOICE WALL JACK & 3 PORT COVERPLATE 4" SQ BOX W/ 1 GANG COVER & 1" C STUB-UP TO PLENUM & CABLE SUPPORT PROVIDE VOICE JACK AND CABLE FROM JACK TO EQUIPMENT TERMINATION POINT
▶	18" AFF	SINGLE DATA WALL JACK & 3 PORT COVERPLATE 4" SQ BOX W/ 1 GANG COVER & 1" C STUB-UP TO PLENUM & CABLE SUPPORT PROVIDE DATA JACK AND CABLE FROM JACK TO EQUIPMENT TERMINATION POINT
▷▶	18" AFF	DUPLEX 1-VOICE & 1-DATA JACKS & 4 PORT COVERPLATE 4" SQ BOX W/ 1 GANG COVER & 1" C STUB-UP TO PLENUM & CABLE SUPPORT PROVIDE JACKS AND CABLING FROM EACH JACK TO EQUIPMENT TERMINATION POINTS
◇	18" AFF	SINGLE WALL COAX TAP OUTLET WITH MATCHING COVER 4" SQ BOX W/ 1 GANG COVER & 1" C STUB-UP TO PLENUM & CABLE SUPPORT TYPE "F" JACK SUB / VHF / UHF / CATV / W/COAX TO HEADEND / SPLITTER

NOTE - ELECTRICAL SUBCONTRACTOR IS TO COORDINATE ALL VOLTAGE AND BREAKER SIZES WITH MECHANICAL SUBCONTRACTOR FOR ALL MECHANICAL EQUIPMENT AND PROVIDE POWER AND DISCONNECTS AS NEEDED, EVEN IF NOT SHOWN ON THESE DRAWINGS.

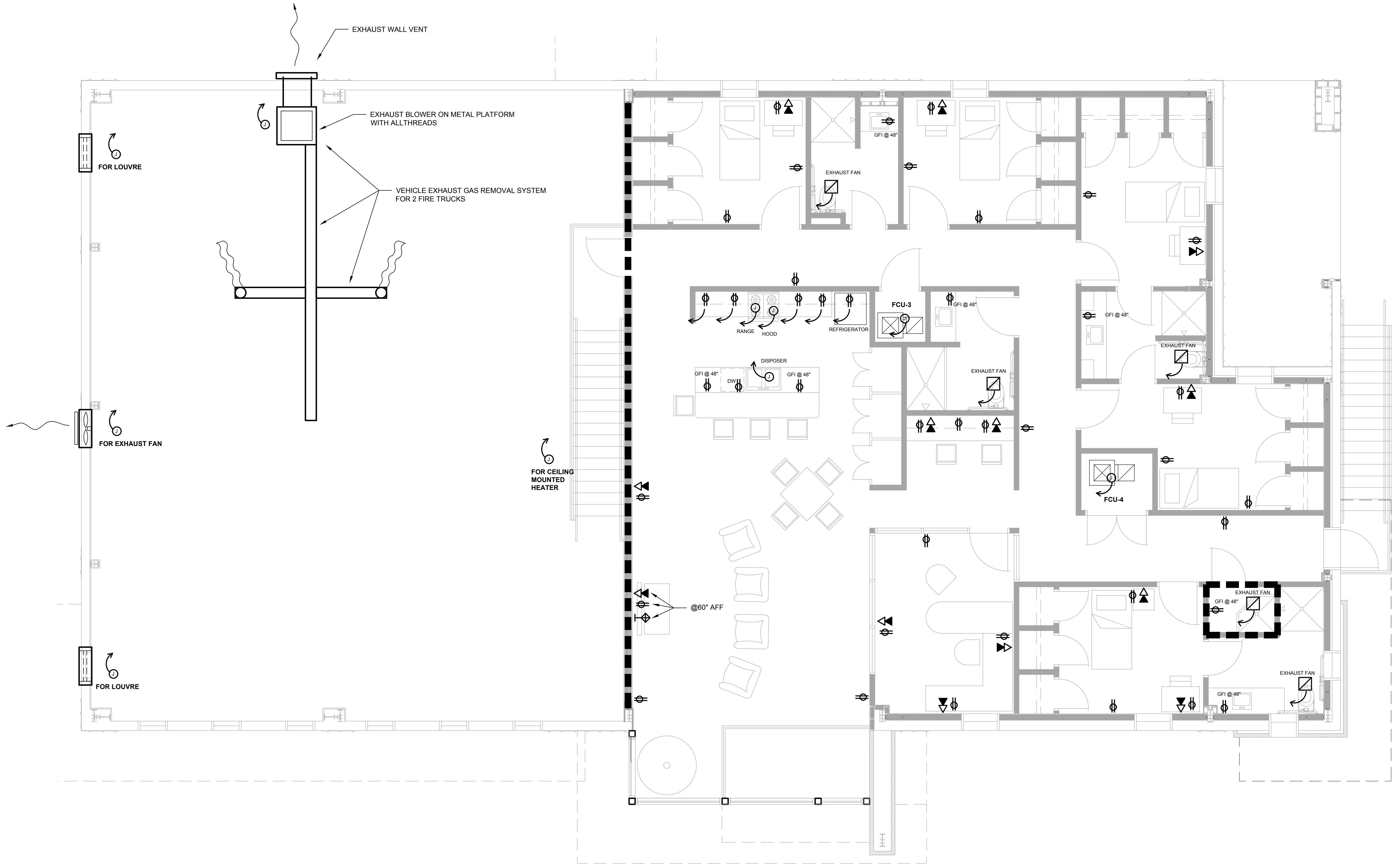
LEGEND	
WP	EXTERIOR WEATHERPROOF OUTLET
⊕	110V DUPLEX OUTLET
⊕⊕	110V QUAD OUTLET
▷	VOICE / DATA DROP
⊕	JUNCTION BOX FOR POWER
⊕	POWER IN FLOOR (VERIFY WITH OWNER)
⊕	WEATHERPROOF DISCONNECT
⊕	EXHAUST FAN TO OUTSIDE
⊕	CABLE TV OUTLET
▬▬▬	RATED WALL - EXTEND TIGHT AGAINST FLOOR OR ROOF DECK ABOVE. SEAL ALL PENETRATIONS.

REVISIONS		
Δ	DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

TITLE:
**ARCHITECTURAL
 ELECTRICAL
 SECOND FLOOR
 POWER PLAN**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: E-5



1
E-5 **SECOND FLOOR PLAN - ELECTRICAL POWER PLAN / DATA / CABLE**
 SCALE: 1/4" = 1'-0"

KEYNOTES
 ① 1/2" WATER RESISTANT GYPSUM BOARD CEILING ON 2X6'S @ 16" O.C.



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LEGEND

- CEILING FAN LIGHT COMBO
- DECORATIVE PENDANT HUNG FIXTURE
- WALL MOUNTED DECORATIVE LIGHT
- 2X4 LED LAY-IN FIXTURE
- 2X2 LED LAY-IN FIXTURE
- 1X4 LED CEILING MOUNTED FIXTURE
- 8'-0" HANGING LED
- WALL SCONCE EACH SIDE OF MIRROR MOUNT AT 5'-6" A.F.F.; SEE INTERIOR ELEVATIONS
- 4" RECESSED LED CANS ON DIMMER
- 4" RECESSED LED CANS
- 3' LONG UNDER CABINET LIGHTS
- 2'-0" OR 3'-0" WALL MOUNTED LIGHT IN CLOSET AREAS ABOVE DOOR
- 2'X2' LAY-IN CEILING AND GRID
- CEILING OCCUPANCY SENSOR SWITCH
- WALL OCCUPANCY SENSOR SWITCH
- RATED WALL - EXTEND TIGHT AGAINST FLOOR OR ROOF DECK ABOVE. SEAL ALL PENETRATIONS.

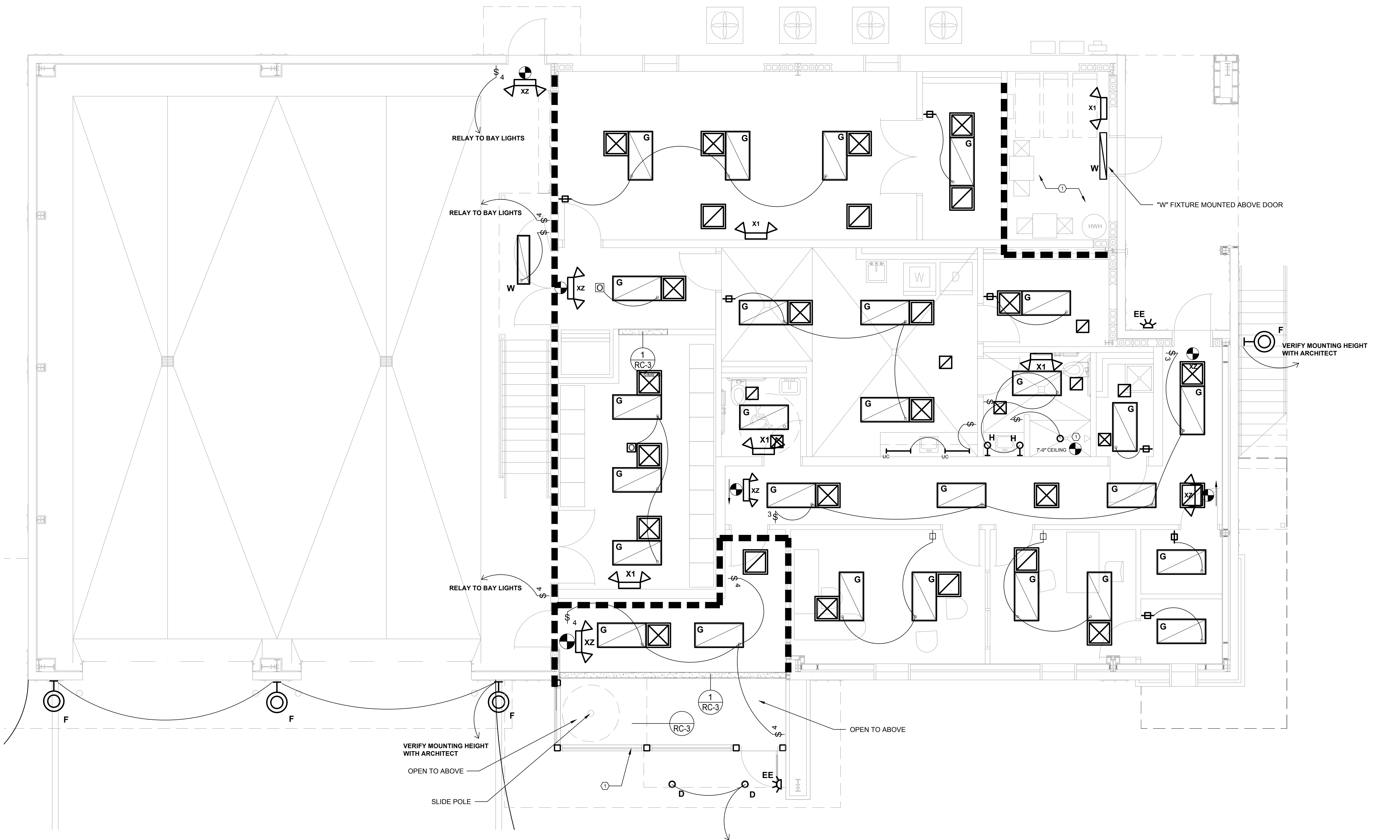
REVISIONS

DATE	DESCRIPTION

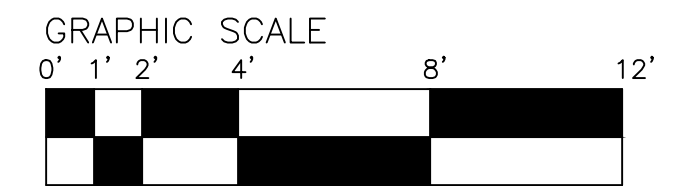
PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

TITLE:
FIRST FLOOR ELECTRICAL LIGHTING PLAN

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: E-6



① **FIRST FLOOR ELECTRICAL LIGHTING PLAN**
 SCALE: 1/4" = 1'-0"





Signature

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LEGEND

- CEILING FAN LIGHT COMBO
- DECORATIVE PENDANT HUNG FIXTURE
- WALL MOUNTED DECORATIVE LIGHT
- 2X4 LED LAY-IN FIXTURE
- 2X2 LED LAY-IN FIXTURE
- 1X4 LED CEILING MOUNTED FIXTURE
- 8'-0" HANGING LED
- WALL SCONCE EACH SIDE OF MIRROR MOUNT AT 5'-6" A.F.F.; SEE INTERIOR ELEVATIONS
- 4" RECESSED LED CANS ON DIMMER
- 4" RECESSED LED CANS
- 3' LONG UNDER CABINET LIGHTS
- 2'-0" OR 3'-0" WALL MOUNTED LIGHT IN CLOSET AREAS ABOVE DOOR
- 2'X2' LAY-IN CEILING AND GRID
- RATED WALL - EXTEND TIGHT AGAINST FLOOR OR ROOF DECK ABOVE. SEAL ALL PENETRATIONS.

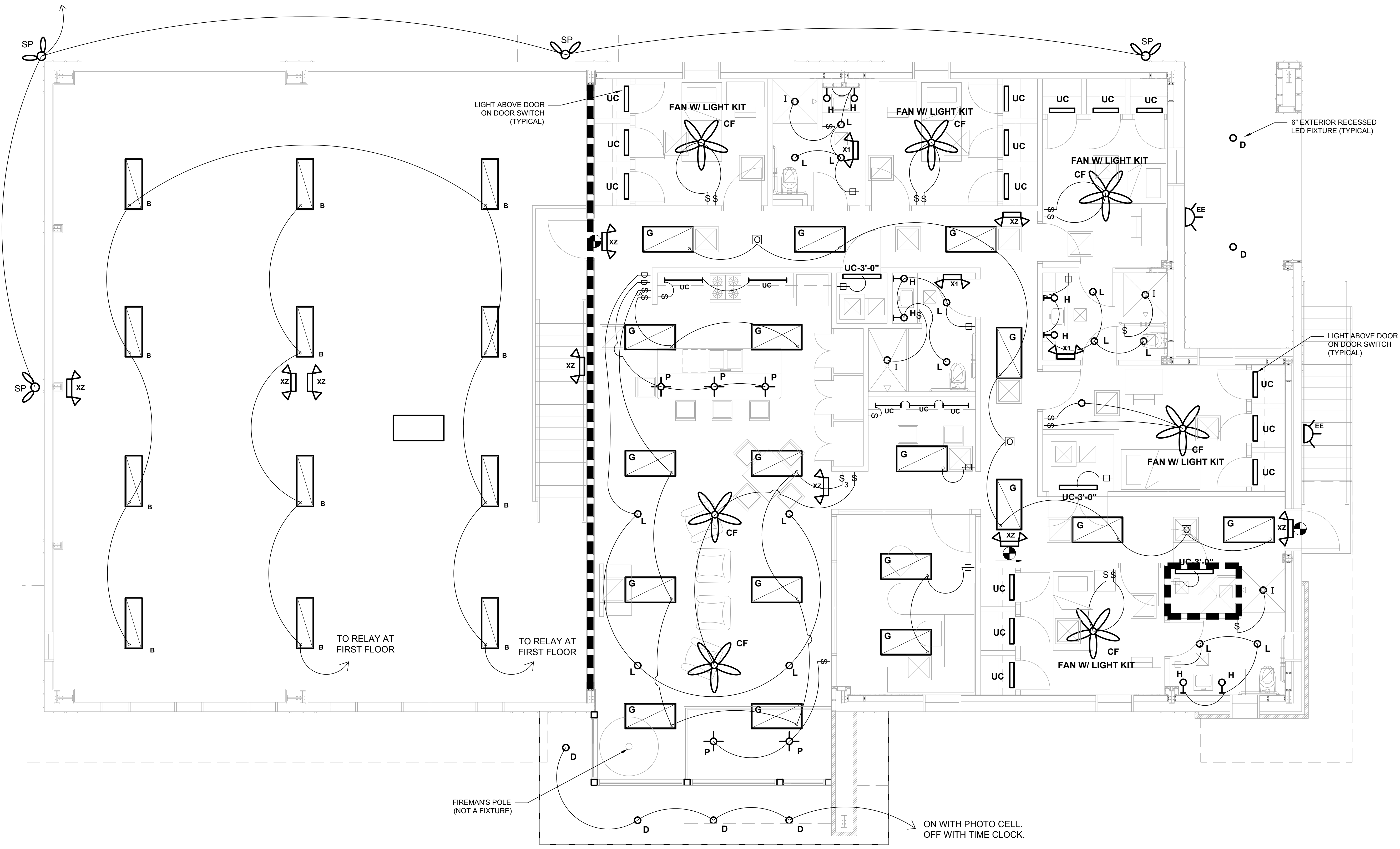
REVISIONS

DATE	DESCRIPTION

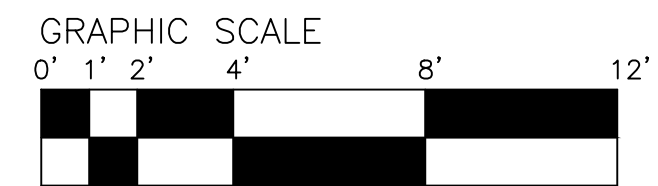
PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

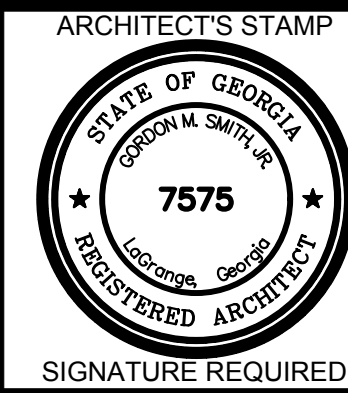
TITLE:
**SECOND FLOOR PLAN
 ELECTRICAL LIGHTING
 PLAN**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: E-7



1 SECOND FLOOR ELECTRICAL LIGHTING PLAN
 SCALE: 1/4" = 1'-0"





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LEGEND

- WP EXTERIOR WEATHERPROOF OUTLET
- 110V DUPLEX OUTLET
- 110V QUAD OUTLET
- VOICE / DATA DROP
- JUNCTION BOX FOR POWER
- POWER IN FLOOR (VERIFY WITH OWNER)
- WEATHERPROOF DISCONNECT
- EXHAUST FAN TO OUTSIDE
- CABLE TV OUTLET
- FLUSH MOUNTED SPEAKER (CEILING MOUNT) SEE REFLECTED CEILING PLAN.
- RATED WALL - EXTEND TIGHT AGAINST FLOOR OR ROOF DECK ABOVE. SEAL ALL PENETRATIONS.

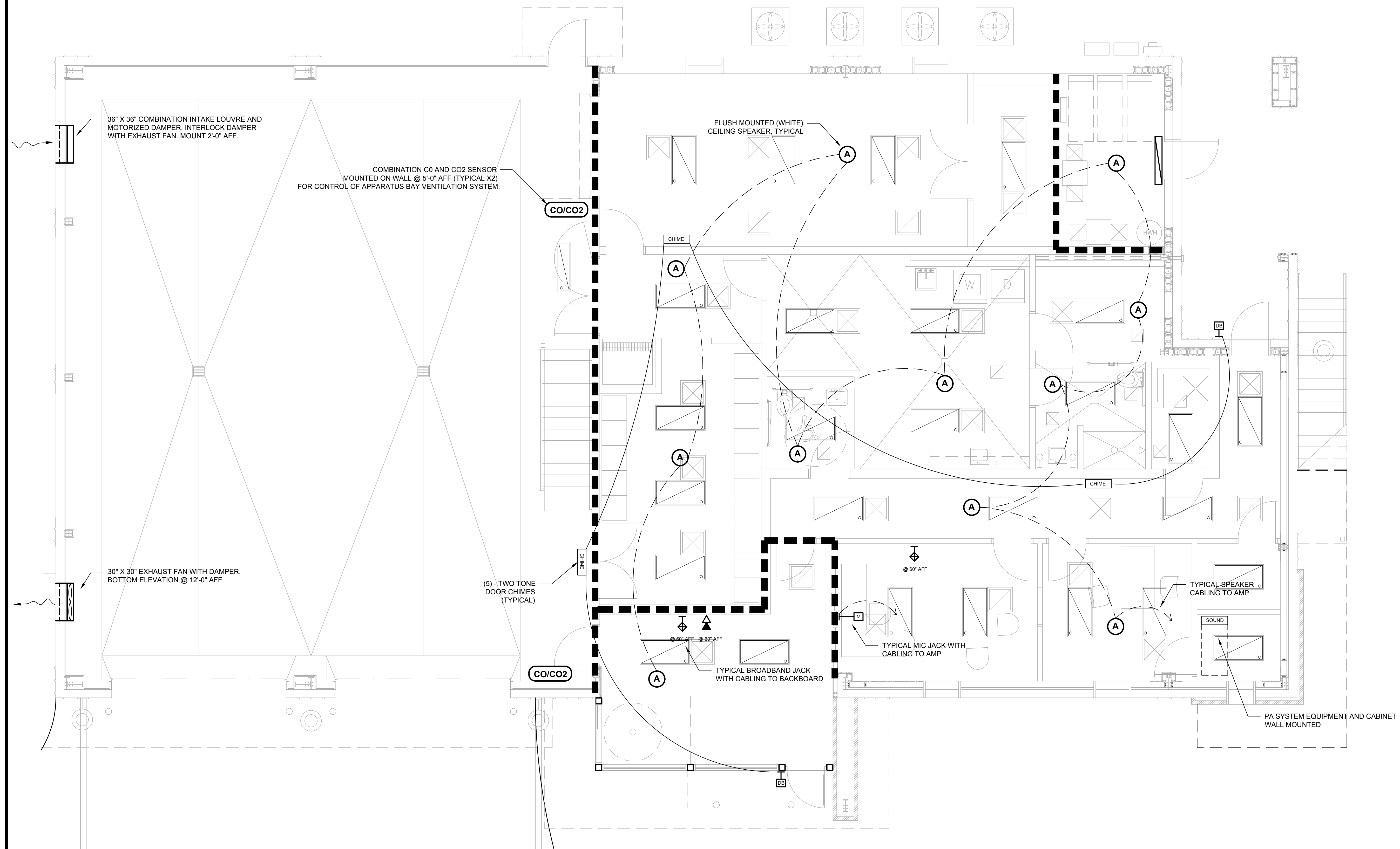
REVISIONS

Δ	DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

TITLE:
**ARCHITECTURAL
 ELECTRICAL SYSTEM
 FIRST FLOOR PLAN**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: E-8


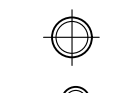
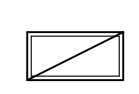
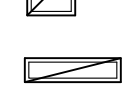


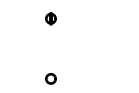
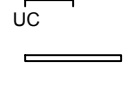
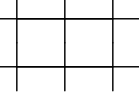




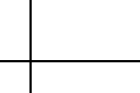
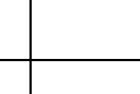


1 **FIRST FLOOR PLAN - ELECTRICAL SYSTEM**
 SCALE: 1/4" = 1'-0"



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LEGEND

-  CEILING FAN LIGHT COMBO
-  DECORATIVE PENDANT HUNG FIXTURE
-  WALL MOUNTED DECORATIVE LIGHT
-  2X4 LED LAY-IN FIXTURE
-  2X2 LED LAY-IN FIXTURE
-  1X4 LED CEILING MOUNTED FIXTURE
-  8'-0" HANGING LED
-  WALL SCONCE EACH SIDE OF MIRROR MOUNT AT 5'-6" A.F.F.; SEE INTERIOR ELEVATIONS
-  4" RECESSED LED CANS ON DIMMER
-  4" RECESSED LED CANS
-  3' LONG UNDER CABINET LIGHTS
-  2'-0" OR 3'-0" WALL MOUNTED LIGHT IN CLOSET AREAS ABOVE DOOR
-  2X2 LAY-IN CEILING AND GRID
-  FLUSH MOUNTED SPEAKER (CEILING MOUNT) SEE REFLECTED CEILING PLAN.
-  RATED WALL - EXTEND TIGHT AGAINST FLOOR OR ROOF DECK ABOVE. SEAL ALL PENETRATIONS.

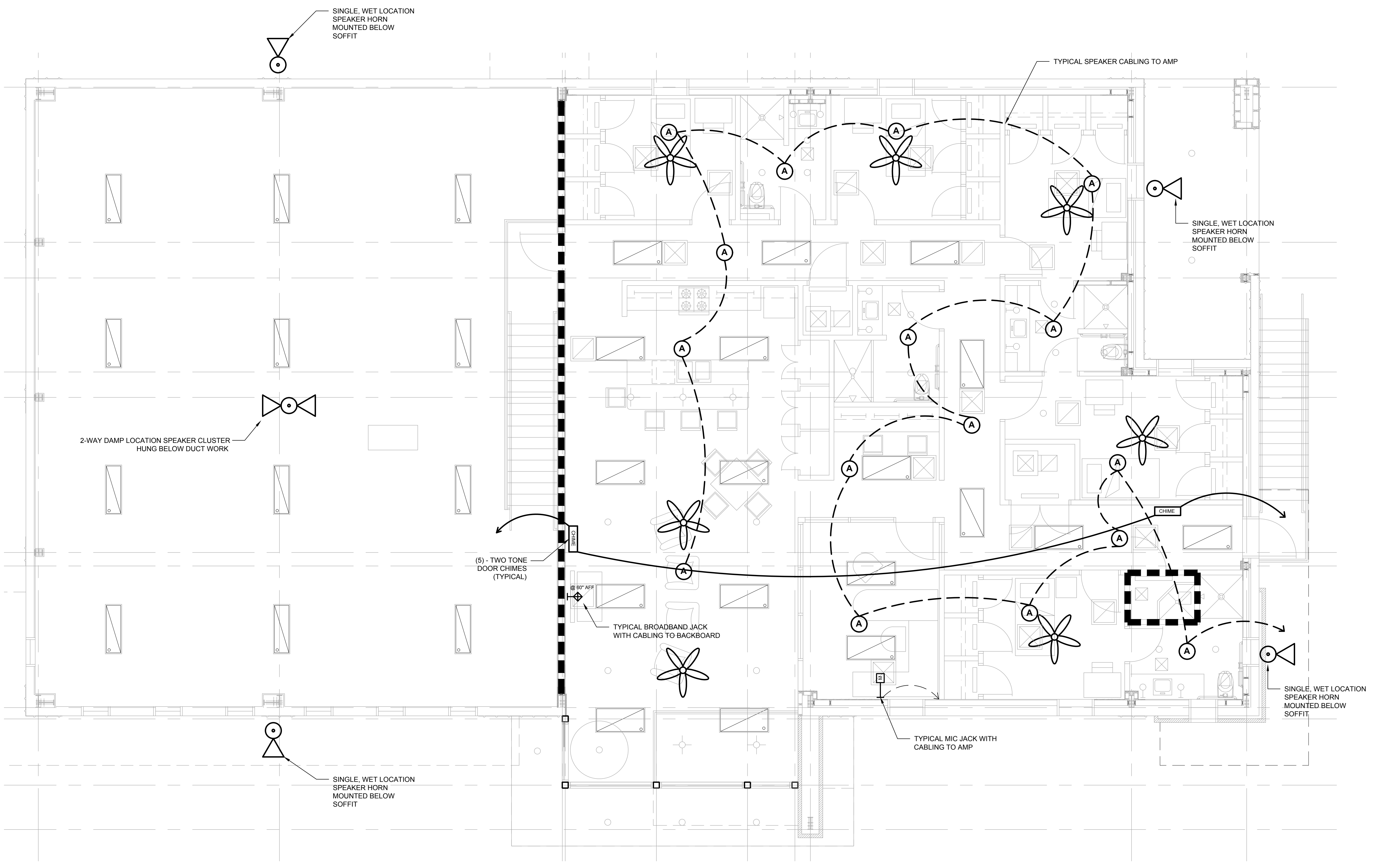
REVISIONS

DATE	DESCRIPTION

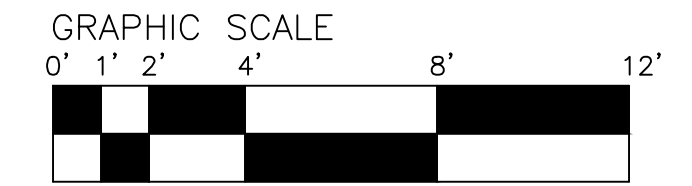
PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

TITLE:
**SECOND FLOOR PLAN
 ELECTRICAL SYSTEMS
 PLAN**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: AE-9



1 SECOND FLOOR ELECTRICAL SYSTEMS PLAN
 SCALE: 1/4" = 1'-0"

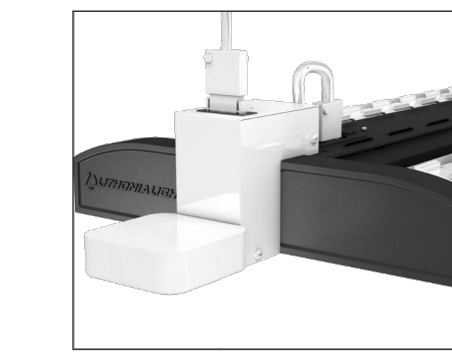


IBL LED High Bay

IMP - Integrated Modular Plug

- The integrated modular plug (IMP) option allows the installer to plug and play a multitude of accessories.
- Cord sets connect quickly to any fixture with IMP option.
- IMP accessories include occupancy sensors, photocells, X-point relays.

IMP compatible sensors		IMP compatible sensors	
CS1WIMP	Straight plug, 120V	MS1IMP	Axis sensor
CS2WIMP	Twist-lock, 120V	MS200IMP	360° sensor
CS3WIMP	Straight plug, 277V		
CS1WIMP	Twist-lock, 347V		
CS2WIMP	Twist-lock, 347V		
CS3WIMP	600V SECOV white cord, no plug		
CS97WIMP	Twist-lock, 480V		



Notes
1 Cord set required for fixture operation. All cord sets are 183.6" white.



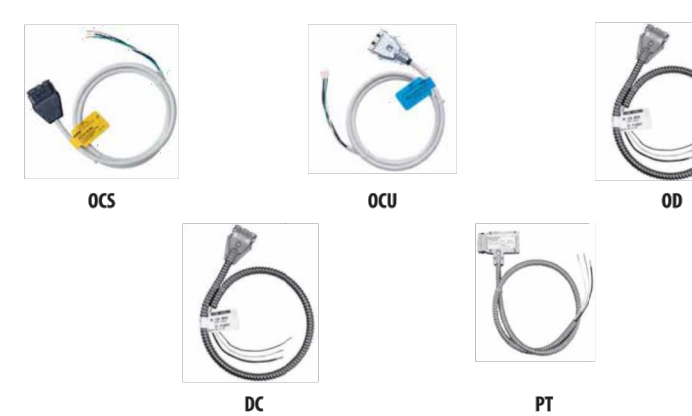
RRL - RELOC Ready Luminaire

- RRL connectors can be used with Quick-Flex™, System X30 and OnePass™ systems.
- Lead side of connector factory installed to luminaire.
- 4-pole mating connector with push-in termination allows for simple installation.
- Touch-safe design on both halves meets UL/CSA requirement.
- Wiping contact design allows safe disconnect under load.

ORDERING INFORMATION

Series	Wiring Instructions	Example: RRLA
RRL RELOC ready luminaire A	Hot conductor wired to position #1 (phase A)	AE Hot conductor wired to position #1 (phase A), hot conductor #2 wired to position #2 (phase B) ¹
B	Hot conductor wired to position #2 (phase B)	ABE Hot conductor wired to position #1 (phase A), hot conductor #2 wired to position #2 (phase B), inverter conductor wired to position #3 (phase C) ¹
C	Hot conductor wired to position #3 (phase C) ¹	CT25 Hot conductor to position #1 (phase A), low voltage conductor #1 in position #2, low voltage conductor #2 in position #3 ¹
AB	Outboard hot conductor wired to position #1 (phase A), inboard hot conductor wired to position #2 (phase B)	

Compatible RELOC Cables for Industrial Luminaires (shipped and ordered separately)



Notes
1 CABLE and CTS options are not used with Quick-Flex, CS2C, or FT cables.
2 AE and ABE common features should disconnect the TPL before engaging the RRL, so it does not go into discharge mode.
3 CTS option is used with the OnePass CS and CS2C, FT and DC for 0-10V/DAI applications.

INDUSTRIAL

IBL Page 7 of 8

FIXTURE "B"

IBL LED High Bay

OPTIONS AND ACCESSORIES

The I-BEAM LED fixture offers numerous options for almost every electrical and optical component, including a long list of field-installable accessories.

REFLECTORS

Wide distribution is formed with 93% reflective white paint. Narrow distribution is formed with Almond™ MBRO™.



WIRE GUARD (external)

Field- or factory-installed. Protects light engine from impact. Mounting hardware included.



Factory-installed options:

WGK

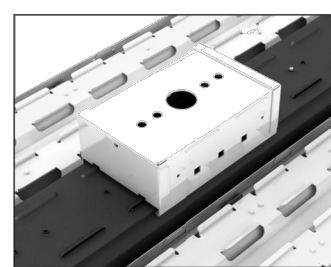
Field-installed options:

WGRB

WGRB48

EMBEDDED OCCUPANCY SENSOR

Factory installed Sensor Switch™ SF30 (MSE360) or SF21 (MSE360L) placed in the channel cover which reduces the risk of sensor damage compared to non-embedded sensors. Recommended mounting height for MSE360 is over 15' and MSE360L under 15'.



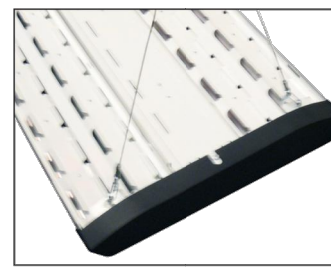
Factory-installed options:

MSE360

MSE360L

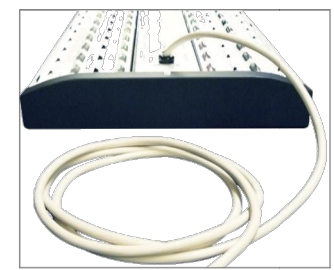
SURFACE MOUNT BRACKET

Rigidly attach I-BEAM LED to a hard ceiling. Can be placed anywhere along fixture.



Order as:

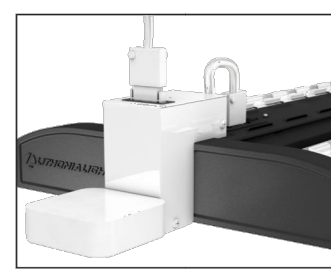
THUN (not for use in ambient temperatures exceeding 95°F (35°C), or on the 40L or 60L)



CORD SETS

Available in several lengths with or without molded plug. White is standard.

For available options, see ordering information on page 1.



INTEGRATED MODULAR PLUG (IMP)

Must be factory installed and allows for field installation of various modular accessories including conduct, motion sensors, photocells and LED options. Requires IMP power cord to operate fixtures.



INDUSTRIAL: One Lithonia Way, Conyers, GA 30012 Phone: 800-315-4935 Fax: 770-820-8789 www.lithonia.com © 2016-2017 Acuity Brands Lighting, Inc. All rights reserved. Rev. 01/10/17 Page 8 of 8

FIXTURE "B"



Catalog Number	<h2>Fixture "D" - exterior can recessed</h2>
Series	
Type	

FEATURES & SPECIFICATIONS

INTENDED USE — The 6" Wafer Thin LED recessed downlight with remote driver box combines high quality light output and efficiency while eliminating the potholing for competitive affordability. This innovative wafer-thin Type IC design allows easy installation for new construction or remodel from below the ceiling without the requirement of a potholing housing. The LED module maintains at least 70% light output for 36,000 hours. These LED Wafer Downlights are intended for closets, attics, hallways, bathrooms, kitchens, basements, soffits, entryways, porches, garages, stairwells, corridors, nursing/retirement homes, condos, elevators, apartments, and any other small areas.

CONSTRUCTION — Ideal for shallow ceiling plenums since a potholing housing is NOT required. IC rated driver and fixture - approved for direct contact with insulation. Aluminum die cast outer frame. Durable, powder coat paint to prevent rust. Round fixture with integral edge-ill LED's. Steel spring clip for easy installation. Premium rated cable connector to connect from module to remote driver box. Isolated driver integrated inside remote driver box with 7/8" knockouts with slots for ground. Suitable for pulling wires with the 12 cubic-inch wiring compartment to accommodate up to (8) 14 gauge insulated conductors, or (6) 12 gauge insulated conductors; making the Wafer LED Downlights much easier to wire in 2in/2out plus ground/daisy-chain applications and contractor friendly.

PATENT PENDING.

INSTALLATION — Ideal for shallow ceiling plenum; no housing required. Steel spring clip for easy installation. 6" cut out template is provided to ensure a correct sized hole is cut into ceiling for proper installation of the trim. Size of hole should not exceed 1/4 inches for this product. Suitable for installation in rigid and drop ceiling applications. 2" plenum space required for installation of the remote driver box.

OPTICS — Wafer Thin downlight edge-ill LED technology uses light guided plate to distribute light. Polycarbonate lens provides even illumination throughout the space. Utilized 2700K, 3000K, 3500K, 4000K, and 5000K color temperature LEDs.

ELECTRICAL — Connect directly to 120V power supply via provided UL recognized driver. High efficient driver with power factor > 0.9. Ambient operating temperature: -40°F (-40°C) to +104°F (+40°C). Dimming down to 10% (see page 2 for recommended dimmers). Standard input wattage is 13W. 139 lumens per watt. Replaces 75W incandescent for 865 lumens and 100W incandescent for 1020 lumens.

LISTINGS — CSA certified to US and Canadian safety standards. ENERGY STAR™ certified product. Wet location. Air Tight certified in accordance with ASTM E283-2004 NOM Certified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomersResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

Wafer LED Recessed Downlight



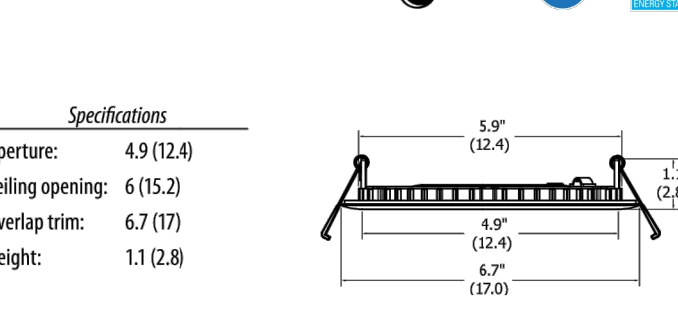
6" LED Module

IC/Non-IC New Construction/Remodel



Specifications

Aperture: 4.9 (12.4)
Ceiling opening: 6 (15.2)
Overlap trim: 6.7 (17)
Height: 1.1 (2.8)



All dimensions are inches (centimeters) unless otherwise indicated.

WF6 6" LED Wafer Module

ORDERING INFORMATION

For shortest lead times, configure product using standard options (shown in bold).

Series	Lamp	CCT/CRI/W/Lumens ¹	Finish
WF6 6" wafer thin LED downlight	LED	27K 2700K/80CRI/13.8W/1000L	MW Matte white
		30K 3000K/80CRI/13W/1020L	MB Matte black
		35K 3500K/80CRI/13.4W/1100L	BN Brushed nickel
		40K 4000K/80CRI/13.6W/1200L	DBB Oil-rubbed bronze
		50K 5000K/80CRI/14.4W/1210L	
LL LED Low Lumens LED	LED	27K 2700K/80CRI/12.9W/800L	
		30K 3000K/80CRI/12.8W/800L	
		35K 3500K/80CRI/12.9W/840L	
		40K 4000K/80CRI/12.9W/850L	
		50K 5000K/80CRI/12.9W/900L	

Accessories: Order as separate catalog number.

- WF6-FAN R12 6" new construction pan, retail pack of 12
- WF6-U Remodel Jolt Bar
- WF6-CG 6" FT cable
- WF6-C 10' FT cable
- WF6-C20 20' FT cable

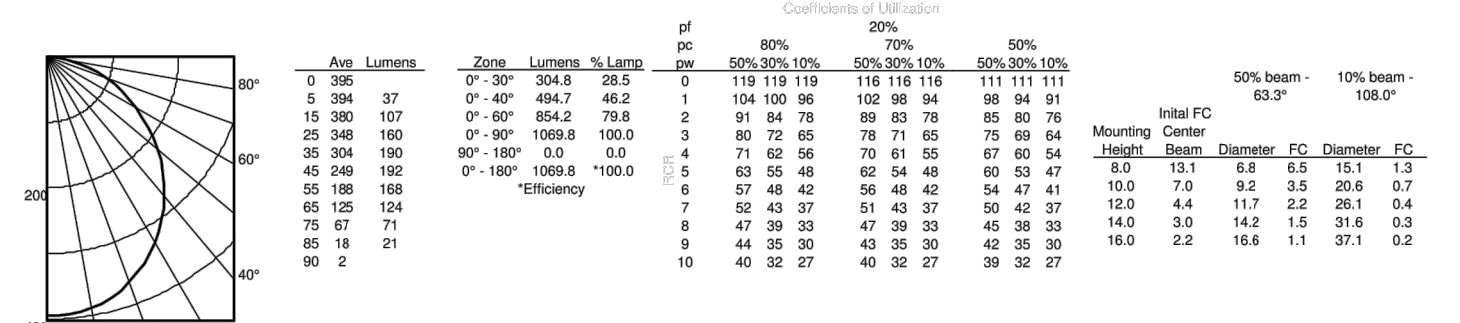


Notes
1 Total system delivered lumens.
2 Only included in Matte White finish, enter non-stock order for other color finishes.

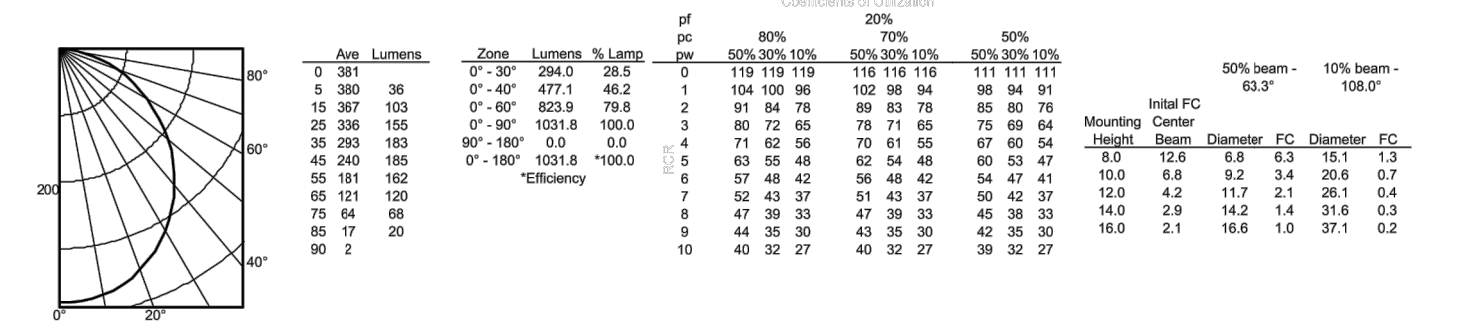
PHOTOMETRICS

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance Data at 30' Above Floor for a Single Luminaire
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WF6 LED27K, 2700 K LEDs, input watts: 13.7, delivered lumens: 1069, LM/W=78, test no. ISF 30024F2



WF6 LED 30K, 3000 K LEDs, input watts: 13, delivered lumens: 1020, LM/W=78.5, test no. ISF 30024



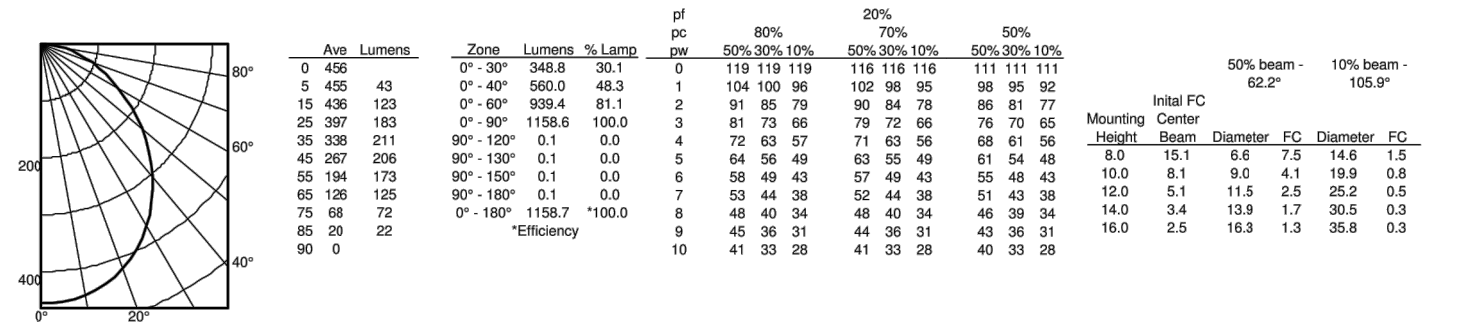
DOWNLIGHTING: One Lithonia Way, Conyers, GA 30012 Phone: 800-315-4935 Fax: 770-860-3129 www.lithonia.com © 2016-2018 Acuity Brands Lighting, Inc. All rights reserved. Rev. 01/10/18

WF6 6" LED Wafer Module

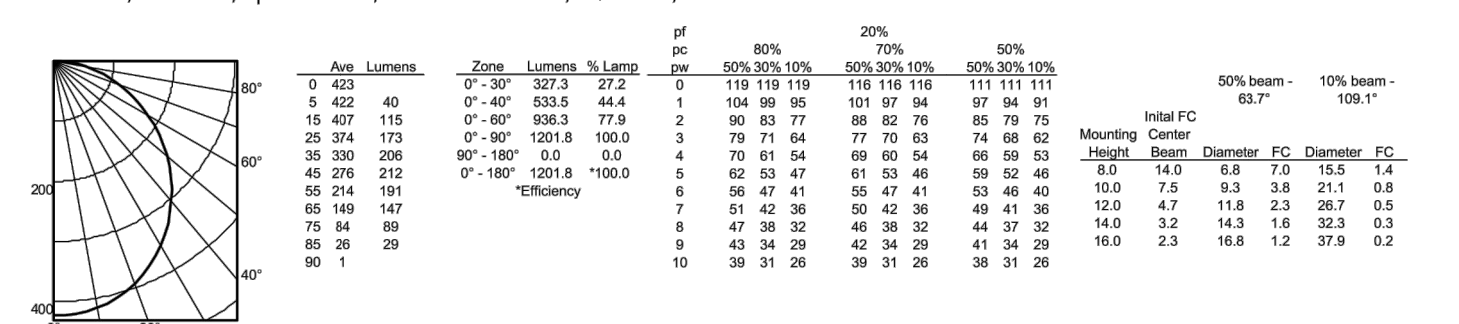
PHOTOMETRICS

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance Data at 30' Above Floor for a Single Luminaire
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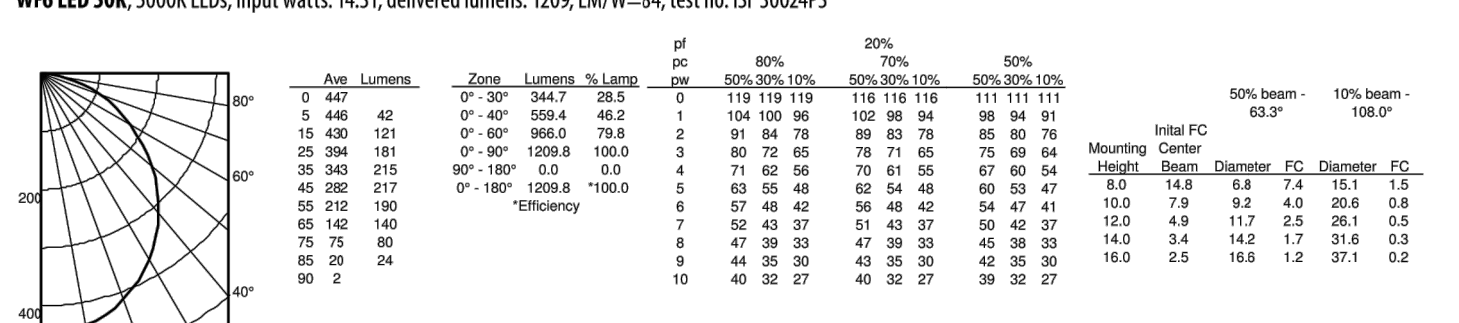
WF6 LED 35K, 3500K LEDs, input watts: 13.4, delivered lumens: 1158, LM/W=86, test no. ISF 35161



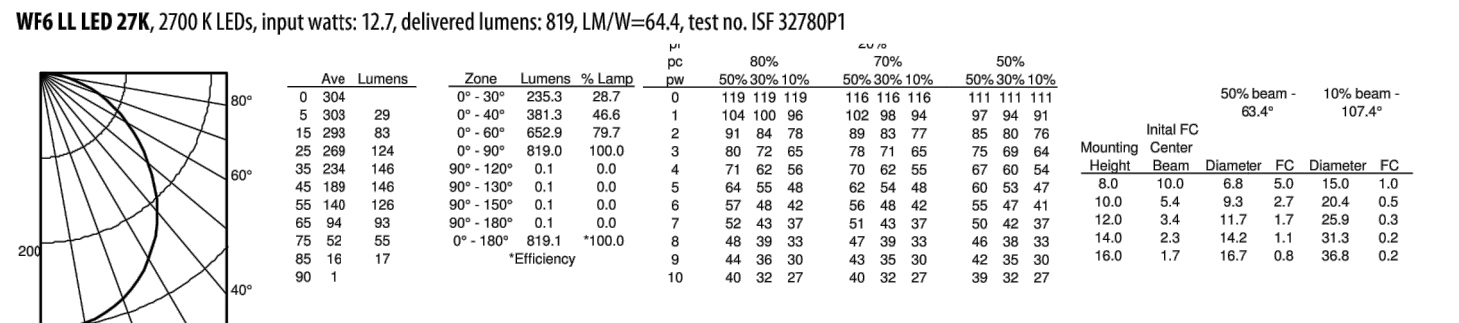
WF6 LED 40K, 4000 K LEDs, input watts: 13.6, delivered lumens: 1200, LM/W=88.2, test no. ISF 30376



WF6 LED 50K, 5000K LEDs, input watts: 14.31, delivered lumens: 1209, LM/W=84, test no. ISF 30024F3



WF6 LL LED 27K, 2700 K LEDs, input watts: 12.7, delivered lumens: 819, LM/W=64.4, test no. ISF 32780P1



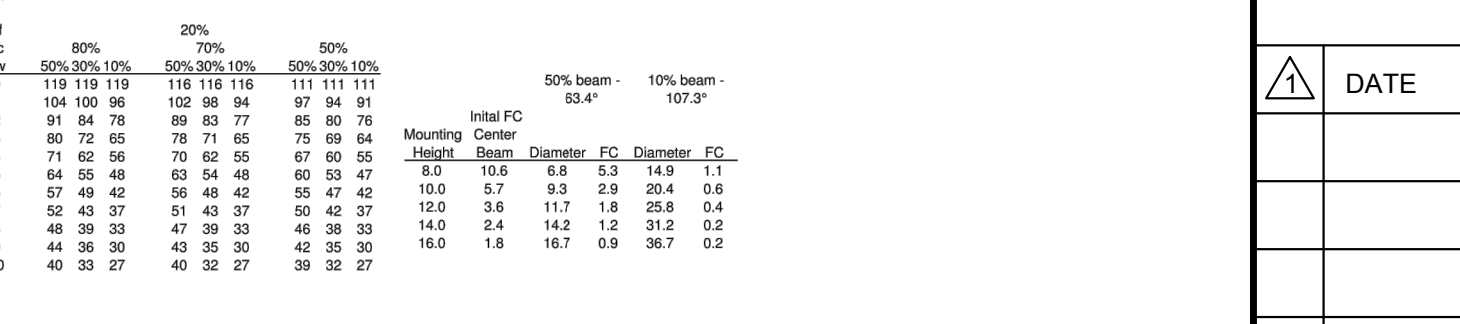
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WF6 6" LED Wafer Module

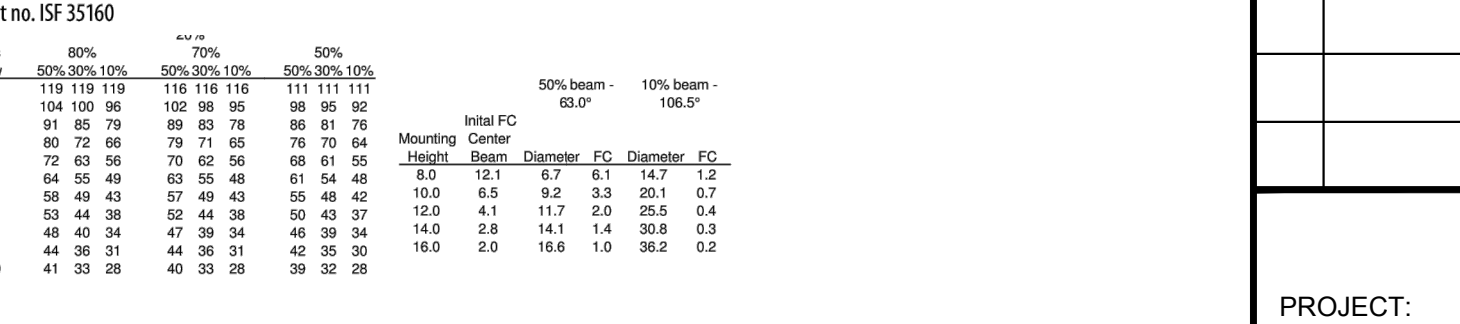
PHOTOMETRICS

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance Data at 30' Above Floor for a Single Luminaire
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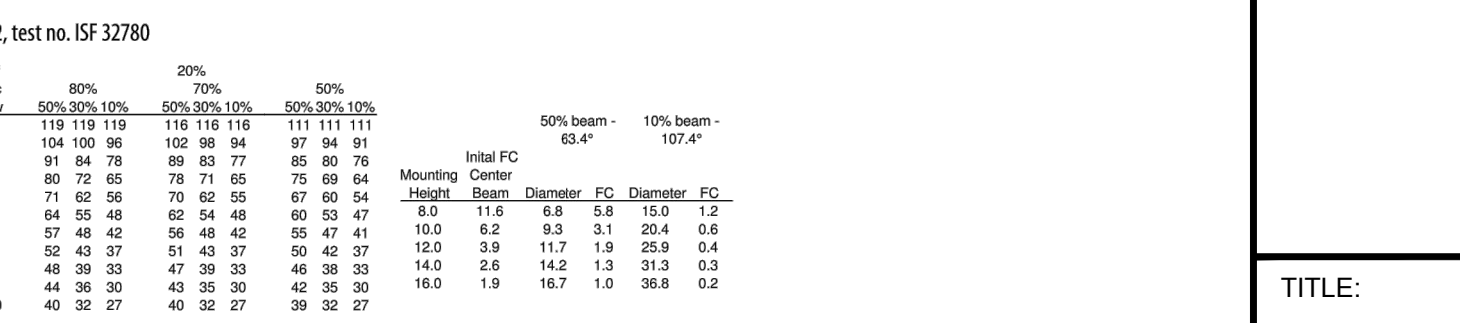
WF6 LL LED 30K, 3000 K LEDs, input watts: 12.6, delivered lumens: 865, LM/W=68.7, test no. ISF 32781



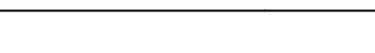
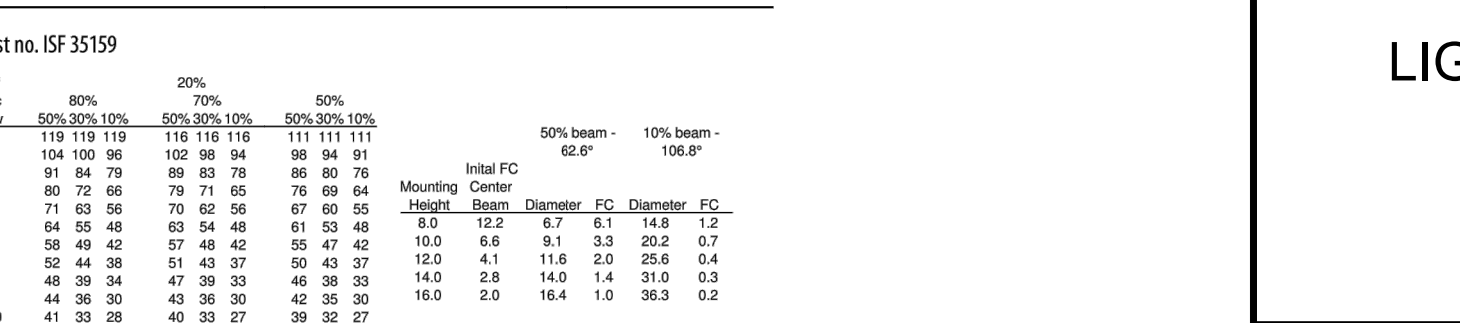
WF6 LL LED 35K, 3500K LEDs, input watts: 12, delivered lumens: 959, LM/W=80, test no. ISF 35160



WF6 LL LED 40K, 4000 K LEDs, input watts: 12.9, delivered lumens: 944, LM/W=73.2, test no. ISF 32780



WF6 LL LED 50K, 5000K LEDs, input watts: 12, delivered lumens: 968, LM/W=80, test no. ISF 35159



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SMITH DESIGN GROUP, INC.

206 WEST HARALSON STREET
LAGRANGE, GEORGIA 30240
706-882-5511 www.SDGarch.net

REVISIONS

DATE	DESCRIPTION

PROJECT:

VERNON ROAD FIRE STATION
VERNON ROAD
LAGRANGE GEORGIA

TITLE:

LIGHTING FIXTURE CUT-SHEETS

MODIFIED DATE:

JOB NO: 1731

ISSUED DATE:

FOR BID AND PERMIT SHEET: E-11

07 MAY 2018

WF6 6" LED Wafer Module

ENERGY DATA & DIMMING CAPABILITY

6" ENERGY DATA					
Color Temperature	2700K	3000K	3500K	4000K	5000K
Lumens	1000	1020	1100	1200	1210
CRI	80	80	80	80	80
Lumens/Watt	72.5	78.5	82	88.2	84
Min. starting temperature	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)
EMF/RFI	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B
Sound rating	Class A Standards	Class A Standards	Class A Standards	Class A Standards	Class A Standards
Input voltage	120V	120V	120V	120V	120V
Min. power factor	99	99	99	99	99
Input frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated wattage	13.8W	13W	13.4W	13.6W	14.4W
Input power	13.8W	13W	13.4W	13.6W	14.4W
Input current	0.12A	0.11A	0.11A	0.11A	0.12A

6" LOW LUMEN ENERGY DATA					
Color Temperature	2700K	3000K	3500K	4000K	5000K
Lumens	760	800	840	850	900
CRI	80	80	80	80	80
Lumens/Watt	61.3	63.5	70	65.9	75
Min. starting temperature	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)
EMF/RFI	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B
Sound rating	Class A Standards	Class A Standards	Class A Standards	Class A Standards	Class A Standards
Input voltage	120V	120V	120V	120V	120V
Min. power factor	0.99	0.99	0.99	0.99	0.99
Input frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated wattage	12.7W	12.6W	12W	12.9W	12W
Input power	12.7W	12.6W	12W	12.9W	12W
Input current	0.11A	0.11A	0.10A	0.11A	0.10A

COMPATIBLE DIMMERS			
Leviton	Lutron	Sensorswitch	Synergy/Leviton
6633-PA	DV-603P-LA	nSPS PCD 2W	ISD 600/120/1P/06
1P/06-LED/NC mode	CT-603PB-WH	nSPS PCD ELY 120	ISD 400 ELY 120/1P/04
6655-P	DVELV-300P		
	NTELV-300P		
	NLV600		
	300P-SEIV		
	DV-600P		
	Caesata PD-6W/L*		

*Requires Lutron Smart Bridge 1-8062-WH (sold separately)

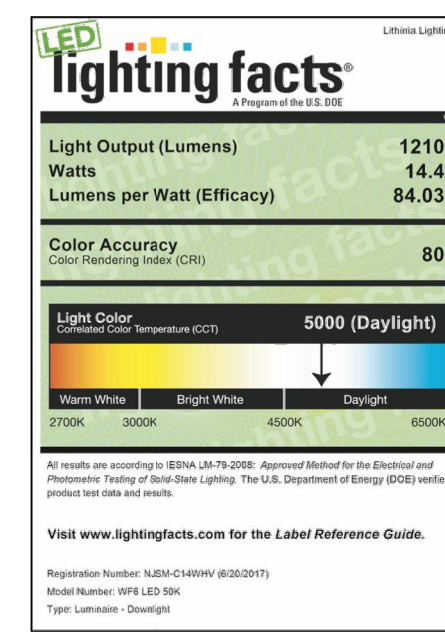
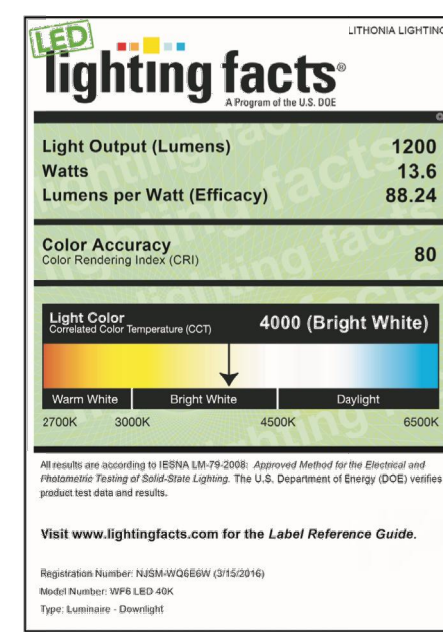
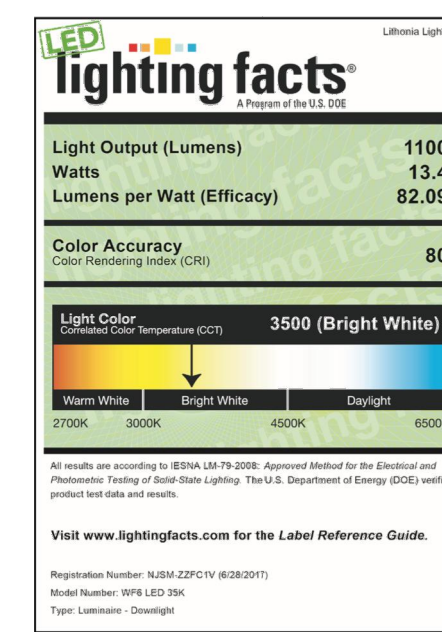
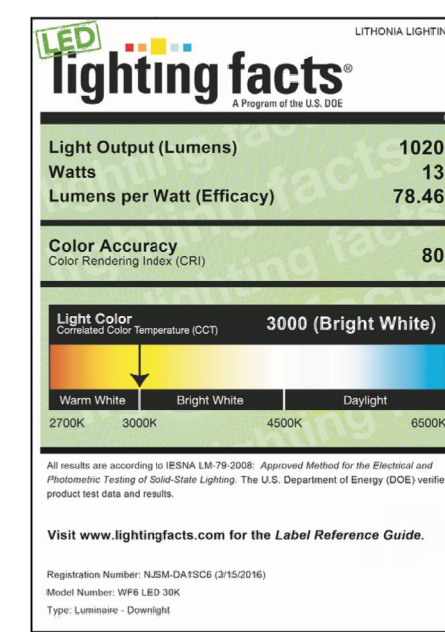
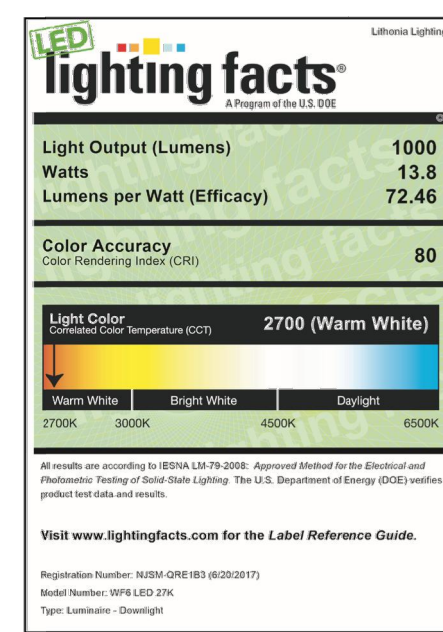


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Fixture "D"- exterior can recessed

WF6 6" LED Wafer Module

LIGHTING FACTS

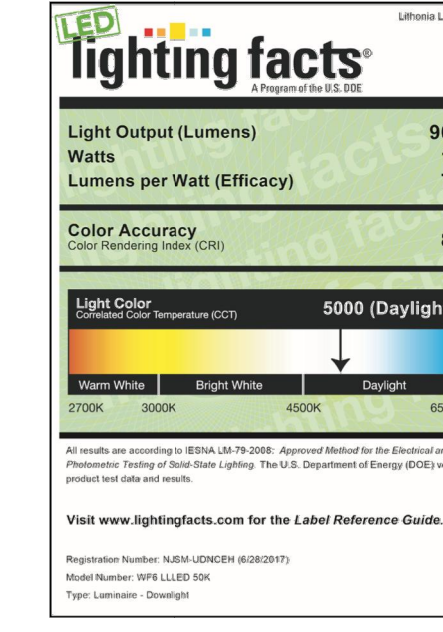
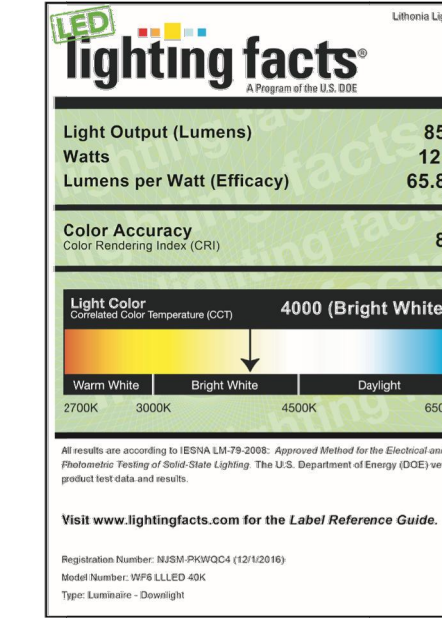
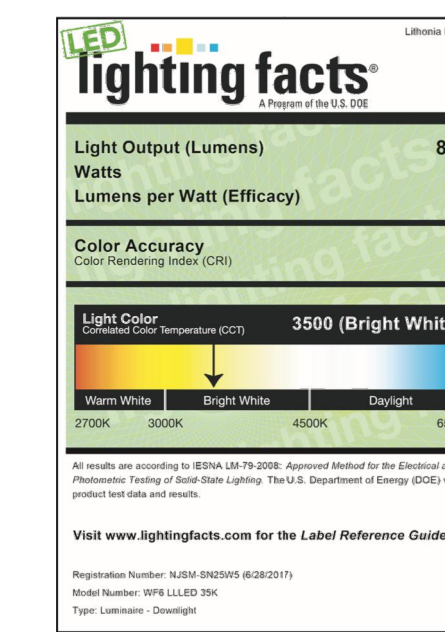
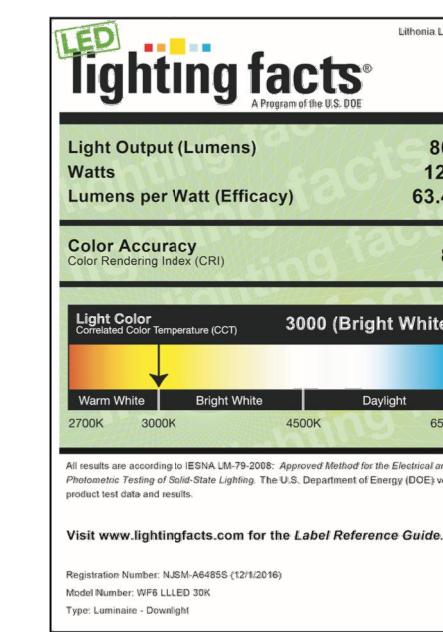
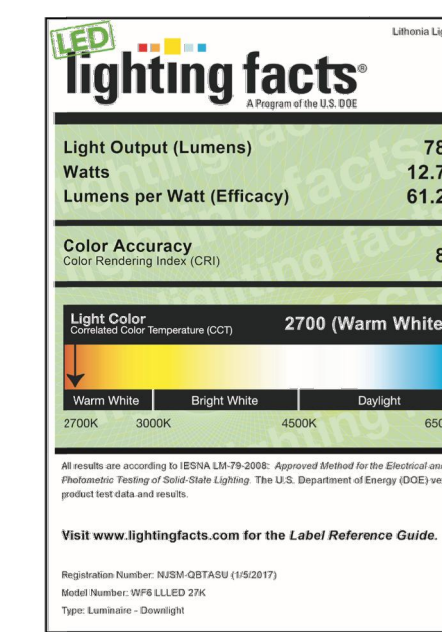


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Fixture "D"- exterior can recessed

WF6 6" LED Wafer Module

LIGHTING FACTS



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Fixture "D"- exterior can recessed



SMITH DESIGN GROUP, INC.

206 WEST HARALSON STREET
LAGRANGE, GEORGIA 30240
706-882-5511 www.SDGarch.net

Catalog Number	WPLS16-GXX/LVE01-1800LM-35K/BCW6/GXX/41-GXX/E41COP
Notes	verify finish and lumen requirement

WPLS16

Reflector: WPLS16 - 16" Metro Wall Mounted
Application: A contemporary fixture design which accentuates modern architectural schemes. For Commercial, Retail & Restaurant. Indoor/Outdoor Use. Side mounted arm.
Material: Reflector is precision spun aluminum.
Dimensions: Diameter: 16" Height: 11 1/2"
Max. Wattage: 150W. Colored glass will reduce maximum wattage.
Manufactured: Made in USA
Coating: Finished in thermally cured high quality polyester powder coat paint. Reflector is available in a variety of different color options.
Color: GXX - Color TBD

Lamp type: LVE01-1800LM-35K - 1800 Lumens, 35K
Certification: Manufactured and built to UL standard
PHOTO

BCW6 - 5C Gooseneck Ballast Box, CFL, LED
Color: GXX-Color TBD

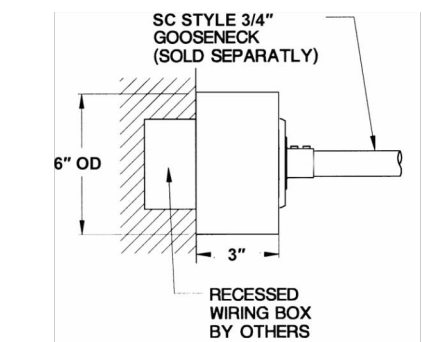
GN14I - 14" Style I Gooseneck

Color: GXX - Color TBD

Color: -
E41COP - 41 Opal
41 Opal

Product Code: WPLS16-GXX / LVE01-1800LM-35K / BCW6-GXX / GN14I-GXX / E41COP

Project:
Company:
Prepared By:



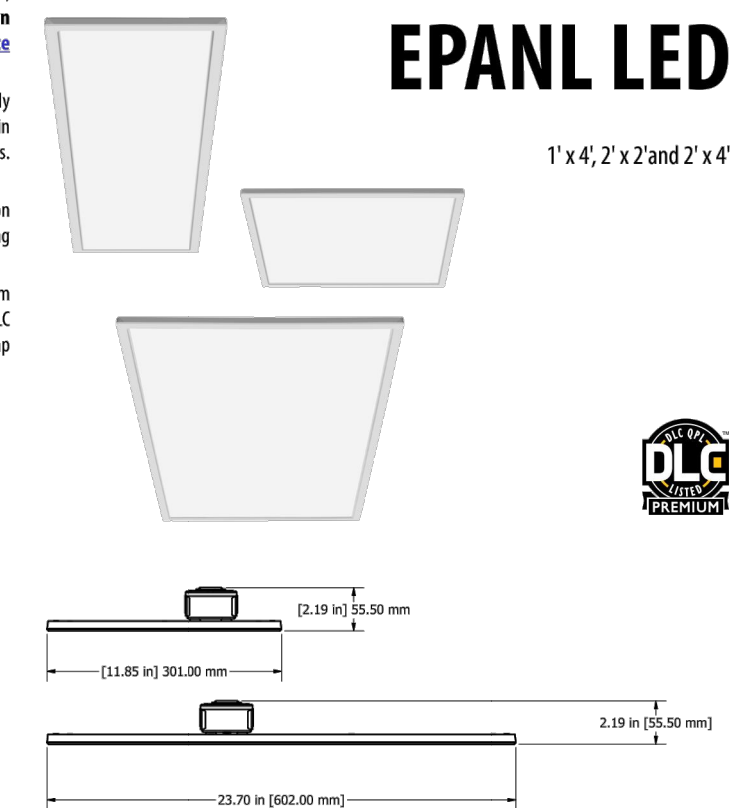
BockLighting 2476 Edison Blvd. Twinsburg, OH 44087
P: (216) 912-7050 F: (216) 912-7051
w: http://www.BockLighting.com



FEATURES & SPECIFICATIONS

INTENDED USE — The EPANL Series LED Edge-Lit Flat Panel provides a fully luminous appearance across the face of the lens. This provides a soft, glare-free solution that is visually comfortable within the space. Suitable for many lighting applications including schools, offices and other commercial spaces, retail, convenience stores, hospitals and healthcare facilities. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate.** [Click here for Acrylic/Polycarbonate Compatibility table for suitable uses.](#)
CONSTRUCTION — Stylish, one-piece frame. The satin white lens provides excellent shielding and fully luminous appearance. EPANL's low profile design provides increased installation flexibility especially in restricted plenum spaces. The back plate includes integral T-bar clips for installation into grid ceilings. Fixture may be mounted and wired in continuous rows.
ELECTRICAL — Long life LEDs, coupled with a high efficiency driver, provide superior illumination for extended service life. 70% LED lumen maintenance at 60,000 hours (L70@60,000). 0-10V dimming driver, dim to 10%.
LISTINGS — CSA certified to meet US and Canadian standards. DesignLights Consortium™ (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/DLC to confirm which versions are qualified. Dump location listed. K' rated. IPX4 rated.
WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/Customerservices/terms_and_conditions.aspx
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

FIXTURE TYPE "G" and "G2"



Catalog Number	UPC	Description	Lumens	Color Temperature	CRI	Voltage	Wattage	Efficacy	Pallet Qty.	Standard Carton Qty.
EPANL 14 40L 35K	19989702719	14 Flat Panel	3905	3500K	>80	120-277V	38.6W	101	39	1
EPANL 14 40L 35K	19989702746	14 Flat Panel	3922	3500K	>80	120-277V	30.6W	128	39	1
EPANL 14 40L 40K	19989702753	14 Flat Panel	4397	4000K	>80	120-277V	38.5W	114	39	1
EPANL 14 40L 40K	19989702760	14 Flat Panel	3857	4000K	>80	120-277V	30.2W	128	39	1
EPANL 22 34L 35K	19989702647	24 Flat Panel	3285	3500K	>80	120-277V	31.3W	105	26	1
EPANL 22 34L 35K	19989702661	24 Flat Panel	3357	3500K	>80	120-277V	26.0W	129	26	1
EPANL 22 34L 40K	19989702678	24 Flat Panel	3479	4000K	>80	120-277V	30.8W	113	26	1
EPANL 22 34L 40K	19989702685	24 Flat Panel	3265	4000K	>80	120-277V	25.5W	138	26	1
EPANL 24 40L 35K	19989702692	24 Flat Panel	4039	3500K	>80	120-277V	38.8W	104	13	1
EPANL 24 40L 35K	19989702708	24 Flat Panel	3951	3500K	>80	120-277V	30.3W	130	13	1
EPANL 24 40L 40K	19989702715	24 Flat Panel	4351	4000K	>80	120-277V	38.5W	112	13	1
EPANL 24 40L 40K	19989702722	24 Flat Panel	4013	4000K	>80	120-277V	30.7W	131	13	1

ACCESSORIES

Accessories: Order an separate catalog number.
DG414 Drywall grid adapter for 14\"/>
DG422 Drywall grid adapter for 24\"/>
DG424 Drywall grid adapter for 24\"/>

LED

EPANL



LED: One Lithonia Way, Cary, NC 27513 Phone: 800-858-7763 www.acuitybrands.com © 2017 Acuity Brands Lighting, Inc. All rights reserved. Rev. 08/14/17

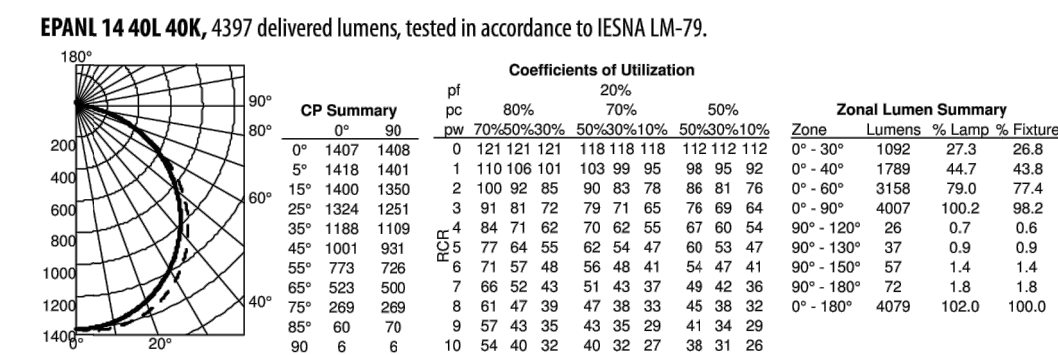
EPANL LED Flat Panel

EPANL compatible with Sensor Switch™ WSK-D and SP00 wall switches.

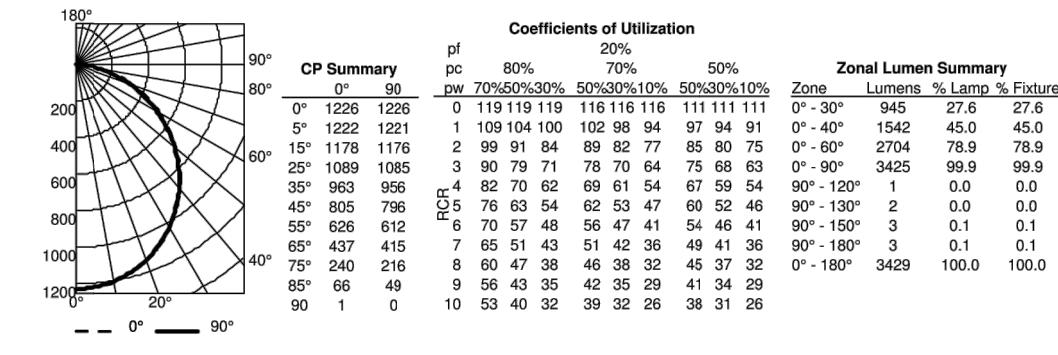


FIXTURE TYPE "G" and "G2"

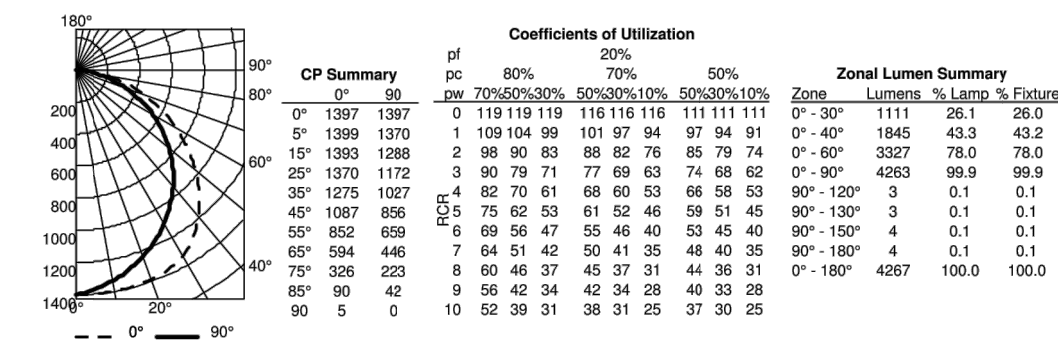
PHOTOMETRICS



EPANL 22 34L 40K, 3479 delivered lumens, tested in accordance to IESNA LM-79.



EPANL 24 40L 40K, 4351 delivered lumens, tested in accordance to IESNA LM-79.



REVISIONS

DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
VERNON ROAD
LAGRANGE GEORGIA

TITLE:
LIGHTING FIXTURE
CUT-SHEETS

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: E-12



FIXTURE TYPE "W"

FEATURES & SPECIFICATIONS

INTENDED USE — LBL provides a digital lighting platform to deliver general ambient lighting for surface-mount applications. Light engine delivers long life and excellent color to ensure a sound quality, low-maintenance light installation.

CONSTRUCTION — Metal parts are die formed from code-gauge steel. Prismatic diffuser is 100% acrylic with specially welded luminous ends. Continuous side flanges on fixture body provide light trap and continuous diffuser support to prevent accidental opening and simplify maintenance.

FINISH — Five-stage iron phosphate pretreatment assures superior paint adhesion and rust resistance. Painted parts finished with high-gloss, high-reflectivity baked white polyester enamel (low VOC).

OPTICS — Curved prismatic diffuser with linear side strips and highly transmissive overlay minimizes lamp image and provides high-angle brightness control. Luminous end plates soften appearance for improved aesthetics.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide extended service life. LBL is rated to deliver L70 performance at 50,000 hours.

LISTINGS — CSA certified to U.S. and Canadian standards. Damp listed. DesignLight Consortium (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DLC to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Specifications subject to change without notice.

Notes

Type

LED Wraparound

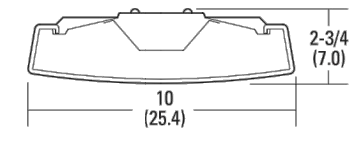
Contractor Select

2' and 4'



Specifications

Length: 24 (61.0)
48 (122.0)
Width: 10 (25.4)
Depth: 2.34 (7.0)



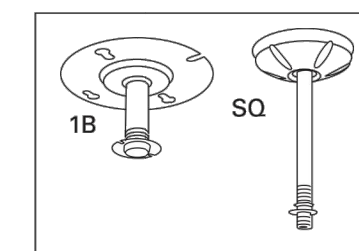
All dimensions are inches (centimeters) unless otherwise indicated.

MOUNTING DATA

For unit or row installation, surface or stem mounting. Stem mounting not available on US units.

Individual Installation — Two single-stem hangers required.

Row Installation — One hanger per fixture plus one row required.

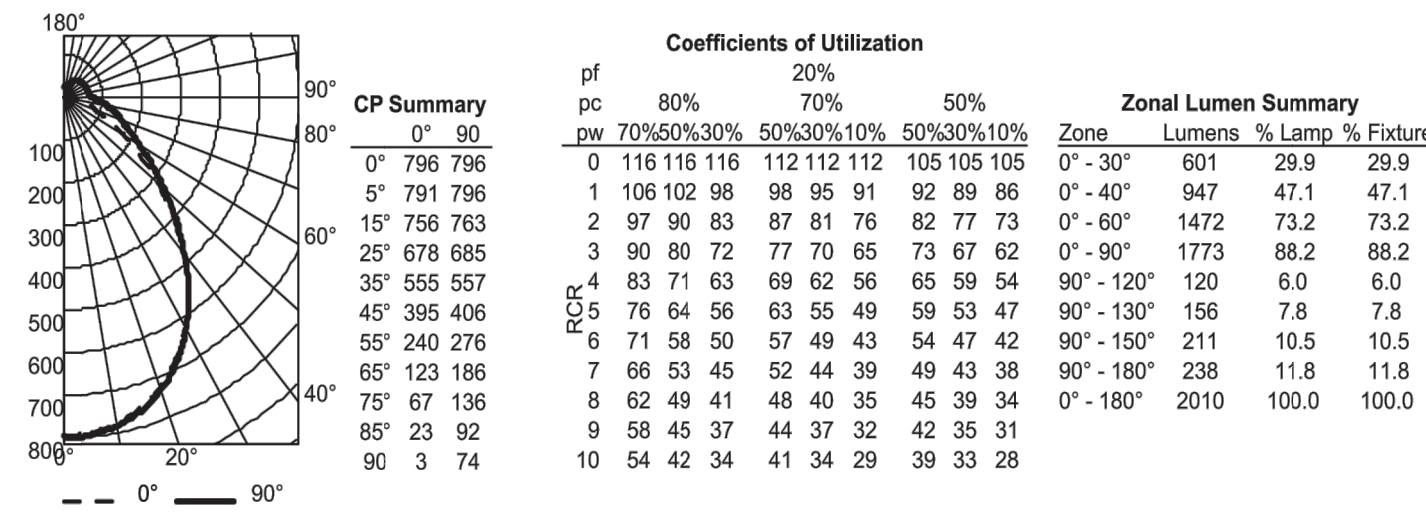


LBL LED Wraparound

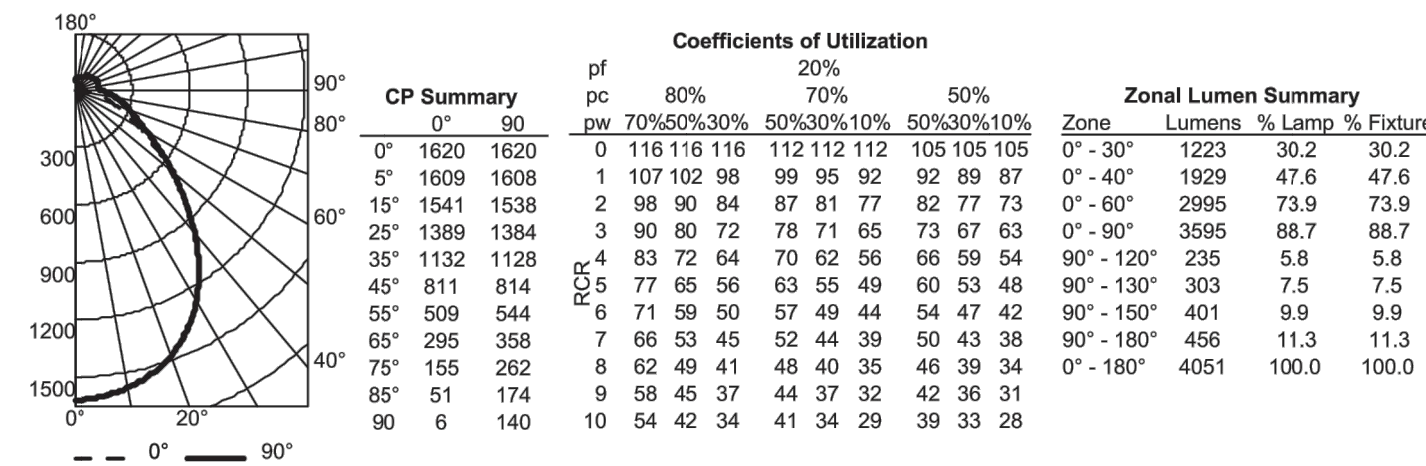
FIXTURE TYPE "W"

PHOTOMETRICS

LBL2 LP835, 2010.5 delivered lumens, test no. LTL22712, tested in accordance to IESNA LM-79.



LBL4 LP835, 4050.9 delivered lumens, test no. LTL22675, tested in accordance to IESNA LM-79.



ORDERING INFORMATION

Catalog Number	UPC	Description	Lumens	Color temperature	Lens type	Voltage	Wattage	Pallet qty	Standard carton qty
LBL2 LP835	753572017564	2' LED Wraparound	2,000	3500K	Patterned #12 acrylic	120-277	26	112	1
LBL2 LP840	753572017595	2' LED Wraparound	2,000	4000K	Patterned #12 acrylic	120-277	26	112	1
LBL4 LP840	753572017632	4' LED Wraparound	4,000	4000K	Patterned #12 acrylic	120-277	50	56	1
LBL4 LP850	753572017620	4' LED Wraparound	4,000	3500K	Patterned #12 acrylic	120-277	50	56	1
LBL4 LP840	820470210279	4' LED Wraparound	4,000	4000K	Patterned #12 acrylic	347	50	56	1

Notes:
1. 347V option not available.
2. Non-stock standard manufacturing lead times apply. Step-down transformer will not fit in LBL2.

CONTRACTOR SELECT / LED

LED-WRAPAROUND



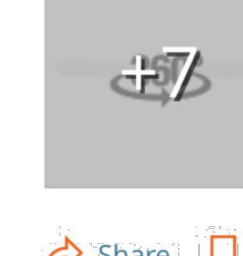
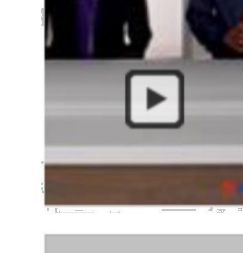
LED-WRAPAROUND

CONTRACTOR SELECT / LED: One Lithonia Way, Corners, GA 30012 Phone: 800-856-7763 Fax: 770-929-8708 www.lithonia.com © 2012-2013 Acuity Brands Lighting, Inc. All rights reserved. Rev. 12/08/13

FIXTURE TYPE "W"

Home / Lighting & Ceiling Fans / Commercial Lighting / Wraparound Lights

Model # LBL 4 Internet #203839057 Store SKU #1000001686



Share Save to List Print

Lithonia Lighting

4 ft. 41-Watt White Integrated LED Low Profile Wraparound Flushmount

★★★★★ (336) Write a Review Questions & Answers (130)

- Integrated LEDs produce 4000 lumens of light
- Bright white (4000K) color temperature
- Provides 50,000 hours of maintenance-free operation

\$109⁰⁰ /each

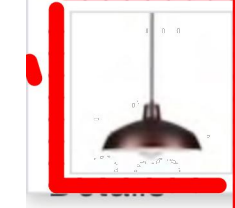
Choose Your Options

Product Depth (in.)

Actual Color Temperature (K)

Package Quantity

FIXTURE TYPE "P"



Sea Gull Painted Shade Pendants LED Antique
Today \$112.60

Details & Specs Customer Reviews Q & A Tips & Inspiration Shipping & Returns

ITEM#: 18106855

The Sea Gull Lighting Painted Shade Pendants light indoor pendant in antique brushed copper enhances the beauty of your home with ample light and style to match today's trends. The Painted Shade pendant collection by Sea Gull Lighting features steel construction and is available in seven outer colors including White, Red, Painted Brushed Stainless, Emerald Green and Painted Antique Brushed Copper as well as a White interior. Inspired by a classic warehouse light, they use globe shaped bulbs for increased light output and a finished look. 54ay of cuttable cord is included for customizing the installation. All of these fixtures easily convert to LED by purchasing LED replacement lamps sold separately.

- Lighting Type: Pendants
- Product Features: UL Listed
- Material: Steel
- Lighting Style: Transitional
- Dimensions: 15.7inches in diameter,8.25 inches high

Seagull lighting- painted shade Pendant, led 6519 with metal downrods.

Features English (English)

Style	Transitional
Material	Metal, Steel
Type	Globe
Finish	Antique
Light Bulb Type	LED
Lighting Style	Transitional
Lighting Type	Pendant Lighting
Product Features	UL Listed
Dimensions	15 3/4 inches in diameter,8 1/4 inches high
Warranty	5 year Limited Manufacturer
Model Number	651991S-63
Country of Origin	China

FIXTURE TYPE "UC"



FEATURES & SPECIFICATIONS

INTENDED USE

Provides task or accent lighting in commercial, retail, hospitality and residential applications. Ideal for use under and over cabinets, display cases, task lighting, office lighting, coves and utility/work areas.

CONSTRUCTION

Low profile design, with on/off rocker switch. Can be direct wired or powered by 5' cord-and-plug (not included, see accessories). Connect up to 354 watts of fixtures with 13" connector cord or 7/8" end-row connector (included).

Rugged post-painted low-profile steel housing with white finish. Acrylic white diffuser provides soft widespread illumination with zip-lock design for easy installation, cleaning, and superior retention.

ELECTRICAL

Long-life LEDs, coupled with a high-efficiency driver, provide extended service life. Fixture is rated to deliver L70 performance at 50,000 hours and operates at 120 volts, 60Hz. Minimum starting temp -20F. Can direct-wire through rear access plate/knockout by utilizing the included Romex connector or by utilizing the optional UCD JB Junction/Splice box (sold separately).

Works with most standard incandescent dimmers (see list of approved dimmers).

INSTALLATION

All mounting hardware included.

LISTINGS

UL listed to US and Canadian safety standards: ENERGY STAR® certified product (3000K and 4000K only) and Title 24 qualified. Listed for damp locations.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

SPECIFICATIONS	1'	2'	3'	4'
Lumens (3000K)	388	742	1162	1603
Watts (3000K)	5.8	10.2	14.8	19.5
Lumens per watt:	67	73	79	82
Length:	12 (30.5)	24 (61)	36 (91.4)	48 (121.9)

FIXTURE TYPE "UC"

Hard wired, at closets provide 24" with door switch

UCEL LED Linkable Cabinet Light



SMITH DESIGN GROUP, INC.

206 WEST HARALSON STREET

LAGRANGE, GEORGIA 30240

706-882-5511 www.SDGarch.net

REVISIONS

DATE	DESCRIPTION

PROJECT:

VERNON ROAD FIRE STATION

VERNON ROAD

LAGRANGE GEORGIA

TITLE:

LIGHTING FIXTURE CUT-SHEETS

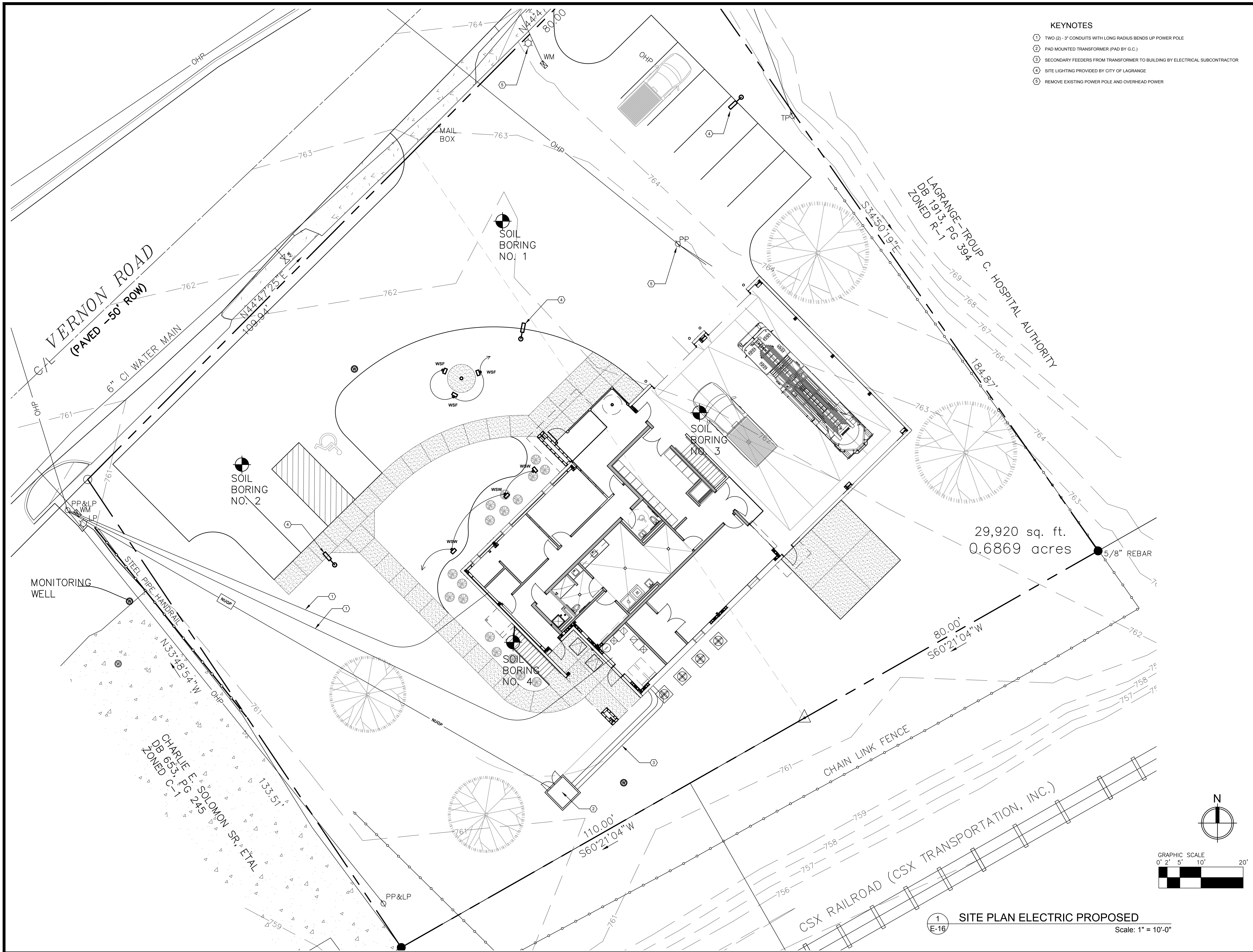
MODIFIED DATE:

JOB NO: 1731

ISSUED DATE: FOR BID AND PERMIT

SHEET: E-15

07 MAY 2018



- KEYNOTES**
- ① TWO (2) - 3" CONDUITS WITH LONG RADIUS BENDS UP POWER POLE
 - ② PAD MOUNTED TRANSFORMER (PAD BY G.C.)
 - ③ SECONDARY FEEDERS FROM TRANSFORMER TO BUILDING BY ELECTRICAL SUBCONTRACTOR
 - ④ SITE LIGHTING PROVIDED BY CITY OF LAGRANGE
 - ⑤ REMOVE EXISTING POWER POLE AND OVERHEAD POWER

ARCHITECT'S STAMP

SIGNATURE REQUIRED

SMITH DESIGN GROUP, INC.
 206 WEST HARALSON STREET
 LAGRANGE, GEORGIA 30240
 706-882-5511 www.SDGarch.net

LEGEND

— NUGP — NEW UNDERGROUND POWER

REVISIONS

DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
 VERNON ROAD
 LAGRANGE GEORGIA

TITLE:
**ELECTRICAL
 SITE PLAN PROPOSED**

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 07 MAY 2018	SHEET: E-16

1 SITE PLAN ELECTRIC PROPOSED
 E-16 Scale: 1" = 10'-0"

