

January 11, 2023

The Riviera Club Aquatics Center 5640 North Illinois Street Indianapolis, IN 46208

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications and the Drawings dated December 5th, 2022, by Schmidt Associates, Inc. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 1-1 through ADD 1-1 Specification Section – 01 23 00 Alternates, and attached Schmidt Associates Addendum No. 1 Dated January 5, 2023, Consisting of 45 pages, Specification Sections: 096813 – Tile Carpeting, 098413 – Fixed Sound Absorptive Panels, 102600 – Wall and Door Protection, 233600 – Air Terminal Units, 233720 – External Louvers, 333200.99 – Wastewater Utility Pumping Stations, Addendum Drawings: G101, CG101, CU101, CU504, SF1A1, SF1AL, S-402, S-413, AC1A1, IN1A1, AQS100, AQS401, AQS402, M101, M601, P100, P101, P501, P601, P901, P902, P903, E000, E101, E201, E301, E500, E501, and E901.

A. SPECIFICATION SECTION 01 23 00 Alternates

- A. <u>Alternate NO 1 Tile at Restrooms</u>
 - a. Base Bid: Base Bid: Provide resinous flooring and base in Member, Youth and Family Restrooms and Life Guard Room as described in the I-Series Drawings and spec section 096723.17.
 - b. Alternate Bid: Provide Porcelain tile flooring and base in Member, Youth and Family Restrooms as described in the I-Series Drawings and spec section 093000.
- D. Alternate NO 4 Brush-Finished Concrete Pool Deck
 - a. Base Bid: Provide Porcelain Mosaic Tile as described in the I-Series Drawings and Specifications
 - b. Alternate Bid: Provide Brushed-Finished Concrete Floor and No Wall Base

ADDENDUM NO. 1 JANUARY 5, 2023

PREPARED BY SCHMIDT ASSOCIATES FOR: RIVIERA CLUB AQUATIC CENTER THE RIVIERA CLUB

This Addendum consists of 3 Addendum pages and 42 attachment pages totaling 45 pages.

Acknowledge receipt of this Addendum by inserting its number on the Bid Form. Failure to do so may subject the Bid to disqualification. This Addendum is part of the Contract Documents.

Bidder is encouraged to verify with reprographer of record all Addenda issued (do not rely exclusively on third party plan room services).

PART 1 - CHANGES TO PRIOR ADDENDA (NOT APPLICABLE)

PART 2 - CHANGES TO THE PROJECT MANUAL

Modifications described herein shall be incorporated in the Project Manual. All other Work shall remain unchanged.

2.1 DIVISION 09 – FINISHES

- A. Section 096813 "TILE CARPETING"
- 1. DELETE AND REPLACE Subparagraph 2.1.A.1. in its entirety and replace with the following:
 - "1. Philadelphia Commercial
 - a. Color: Focue 87400.
 - b. Pattern: Immerse.
 - c. Size: 24 by 24 inches.
 - d. Installation Pattern: Quarter Turn.
 - e. Source: Greg Loefller; greg.loeffler@shawinc.com; 317-695-8193."

B. Section 098413 "FIXED SOUND-ABSORPTIVE PANELS"

1. ADD Subparagraph 2.2.A.5. as follows:

"5. Sound Seal Inc."

2.2 DIVISION 10 – SPECIALTIES

A. Section 102600 "WALL AND DOOR PROTECTION"

DELETE AND REPLACE Subparagraph 2.2.A.3. as follows:
 "3. Sheet Thickness: 0.040 inch."

2.3 DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING(HVAC)

A. Section 233600 "AIR TERMINAL UNITS"

 ADD Subparagraph 2.2.A.1.g. as follows: "g. Krueger."

B. Section 233720 "EXTERNAL LOUVERS"

ADD Subparagraph 2.3.A.1.j. as follows:
 "j. POTTORFF."

2.4 DIVISION 33 - UTILITIES

A. Section 333200.99 "WATEWATER UTILITY PUMPING STATIONS"

1. ADD Section 333200.99 in its entirety per the attached.

PART 3 - CHANGES TO THE DRAWINGS

Modifications described herein shall be incorporated in the Drawings. All other Work shall remain unchanged.

DRAWING NO.	INDICATE ACTION: REPLACE (R), ADD (A), DELETE (D)
G-SERIES DRAWINGS	
G-101	DELETE AND REPLACE
C-SERIES DRAWINGS	
CG101	DELETE AND REPLACE
CU101	DELETE AND REPLACE
CU504	DELETE AND REPLACE
S-SERIES DRAWINGS	
SF1A1	DELETE AND REPLACE
SF1AL	DELETE AND REPLACE
S-402	ADD
S-413	DELETE AND REPLACE
A-SERIES DRAWINGS	
AC1A1	DELETE AND REPLACE

3.1 DRAWING SHEETS: ADDITIONS, DELETIONS AND REPLACEMENTS

DELETE AND REPLACE
DELETE AND REPLACE
DELETE AND REPLACE
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DELETE AND REPLACE
DELETE AND REPLACE
ADD
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DELETE AND REPLACE
ADD
DELETE AND REPLACE

END OF ADDENDUM 1

SECTION 333200.99 -WASTEWATER UTILITY PUMPING STATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes:
 - 1. Site assembled and tested precast wastewater utility pumping stations, including:
 - a. Precast concrete wet-well and valve vault.
 - b. Pumps and mountings.
 - c. Control panels.
 - d. Piping integral to pumping station.

1.3 RELATED SECTIONS

- A. Division 22 Section "Facility Sanitary Sewers" for piping and other components of site sanitary sewer system connecting to wastewater utility pumping stations.
- B. Division 26 sections for electrical panels, power conductors and conduit, grounding and bonding, and related components for electrical wiring service for wastewater utility pumping stations.
- C. Division 32 sections for fence, enclosure walls, gates, ground cover materials, paving, and other site improvements related to wastewater utility pumping stations.
- D. Division 33 sections for piping and other components of utility sanitary sewer system connecting to wastewater utility pumping stations.

1.4 DEFINITIONS

A. NPCA: National Precast Concrete Association.

1.5 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

- B. ACI International (ACI):
 - 1. ACI 318/318R Building Code Requirements for Structural Concrete and Commentary
- C. American Association of State Highway and Transportation Officials (AASHTO):
 - 1. AASHTO H 20 LFRD Bridge Design Specifications
- D. American Society of Mechanical Engineers (ASME):
 - 1. ASME B16.12 (1998) Cast Iron Threaded Drainage Fittings
 - 2. ASME B16.1 (1998) Cast Iron Pipe Flanges and Flanged Fittings
 - 3. ASME B16.21 (1992) Nonmetallic Flat Gaskets for Pipe Flanges
 - 4. ASME B18.2.1 (1996) Square and Hex Bolts and Screws, Inch Series
 - 5. ASME A112.3.1 (2007) Stainless Steel Drainage Systems for Sanitary DWV, Storm, and Vacuum Applications, Above- and Below Ground
- E. American Water Works Association (AWWA):
 - 1. AWWA C151/A21.51 (2002) Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids
 - 2. AŴWA CllO/A21.10 (2003) Ductile-Iron and Gray-Iron Fittings for Water
 - 3. AWWA C153/A21.53 (2006) Ductile-Iron Compact Fittings for Water Service
 - 4. AWWA C111/A21.11 (2000) Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
 - 5. AWWA C600 (2005) Installation of Ductile-Iron Water Mains and Their Appurtenances
 - 6. AWWA M41 (2003) Ductile-Iron Pipe and Fittings
- F. ASTM International (ASTM):
 - 1. ASTM A 48 (1994ae1) Standard Specification for Gray Iron Castings
 - 2. ASTM A 53/A 53M (2007) Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
 - 3. ASTM A 153/A 153M (2009) Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
 - 4. ASTM A 185 (2007) Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete
 - 5. ASTM A 615/A 615M (2009b) Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
 - 6. ASTM A 746 (2009) Standard Specification for Ductile Iron Gravity Sewer Pipe
 - 7. ASTM B 221 (2008) Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
 - 8. 8. ASTM B 584 (2009a) Standard Specification for Copper Alloy Sand Castings for General Applications
 - 9. ASTM B 632/B 632M (2008) Standard Specification for Aluminum-Alloy Rolled Tread Plate
 - 10. ASTM B 584 (2009a) Standard Specification for Copper Alloy Sand Castings for General Applications
 - 11. ASTM C 33 (2008) Standard Specification for Concrete Aggregates

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- 12. ASTM C 150 (2009) Standard Specification for Portland Cement
- 13. ASTM C 443 (2005ae1) Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
- 14. ASTM C 478 (2009) Standard Specification for Precast Reinforced Concrete Manhole Sections
- 15. ASTM C 748 (2005) Standard Test Method for Rockwell Hardness of Graphite Materials
- 16. ASTM C 890 (2006) Standard Practice for Minimum Structural Design Loading for Monolithic or Sectional Precast Concrete Water and Wastewater Structures
- 17. ASTM C 891 (2009) Standard Practice for Installation of Underground Precast Concrete Utility Structures
- 18. ASTM C 913 (2008) Standard Specification for Precast Concrete Water and Wastewater Structures
- 19. ASTM C 923 (2008) Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals
- 20. ASTM C 990 (2009) Standard Specification for Jonts for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants
- 21. ASTM F 2329 (2005) Standard Specification for Zinc Coating, Hot-Dip, Requirements for Application to Carbon and Alloy Steel Bolts, Screws, Washers, Nuts, and Special Threaded Fasteners
- G. National Fire Protection Association (NFPA):
 - 1. NFPA NEC 70 National Electrical Code.
- H. National Electrical Manufacturers Association (NEMA):
 - 1. NEMA MG 1 (2009) Motors and Generators
 - 2. NEMA 250 (2008) Enclosures for Electrical Equipment (100 Volts Maximum)
- I. Underwriters Laboratories (UL):
 - 1. UL 98 (2004) Standard for Safety Enclosed and Dead-Front Switches
 - 2. UL 508 (2010) Industrial Control Equipment.
 - 3. UL 489 (2010) Molded Case Circuit Breakers
 - 4. UL 698 (2006) Industrial Control Equipment for Use in Hazardous (Classified) Locations.

1.6 ACTION SUBMITTALS

- A. Product Data: Provide manufacturer's technical data including station capacities and operating characteristics.
 - 1. Include product data for covers, guide rail assembly, piping, valves, level controls, control panel, and accessories.
 - 2. Include product data for pumps.
 - 3. Include product data for control panel and panel wiring schematic

- B. Pump Performance Curves: Provide certified pump curves showing pump performance characteristics with pump and system operating point plotted. Include net positive section head (NPSH) curve and total dynamic head calculations.
 - 1. Include performance chart for motor showing curves for torque, current, power, factor, input/output KW and efficiency. Include data on starting and no-load characteristics.
- C. Shop Drawings: Show fabrication and installation details for each station. Indicate dimensions of well and valve vault. Detail equipment assemblies and indicate dimensions; loads; required clearances; method of field assembly; components; electrical characteristics; and location and size of each field connection.
 - 1. Pumps: Indicated pump type, capacity, and power requirements.
 - 2. Wiring Diagrams: Power, signal, and control wiring.
 - 3. Indicate requirements for guide rail and bracket fabrication based upon selected pump.

1.7 INFORMATIONAL SUBMITTALS

- A. Certificate: Signed by manufacturer, verifying pumping station performance testing.
- B. Warranty: Sample of special warranty specified in this Section.

1.8 CLOSEOUT SUBMITTALS

- A. Field Reports: Provide quality-control test reports documenting station operation performance.
- B. Warranty: Signed copy of manufacturer's warranty.
- C. Operation and Maintenance Manual: Include approved submittals and schedule for maintenance requirements.

1.9 MAINTENANCE MATERIAL SUBMITTALS

- A. Provide the following pump spare parts:
 - 1. Thrust bearing set.
 - 2. Radial bearing set.
 - 3. Upper and lower mechanical seal set.
 - 4. Casing seal gaskets or O-rings.

1.10 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with requirements of Indianapolis for design and construction of wastewater utility pumping station.

- B. Manufacturer Qualifications: NPCA-certified plant, with experience and demonstrated capability to produce work specified in this Section.
 - 1. Manufacturer's Engineer: Qualified professional engineer experienced in designing Work of this Section and licensed in Project state.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.11 WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of pumping stations that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including precast concrete structures, hatches, and other accessories.
 - b. Faulty operation of pumps, controls, or pumping and piping system accessories.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal use.
 - 2. Warranty Period for Precast Concrete Structures: One year from date of Substantial Completion.
 - 3. Warranty Period for Pumps: Three years from date of Substantial Completion.
 - 4. Warranty Period for Control Panel: Provided by Control Panel Manufacturer: Three years from date of Substantial Completion

PART 2 - PRODUCTS

2.1 PRECAST PUMPING STATIONS DESIGN CRITERIA

- A. Description: Site assembled and tested precast wastewater utility pumping station including controls, pumps, valves, internal piping, precast concrete well, and valve vault.
 - 1. Pump Station Peak Design Flow: 150 gpm.
 - 2. Force Main: New, as shown on Drawings.
 - a. Length: 72 feet.
 - b. Inlet Pipe Size: 3 inches NPS.
 - c. Discharge Pipe Size: 3 inches NPS.
 - d. Pipe Type: PVC.
 - 3. Discharge Elevation: As indicated.
 - 4. Design Elevations: As indicated.

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- a. Inlet Piping: 704.02 feet.
- b. Wet Well Finish Grade: 712 feet.
- c. Wet Well Rim: 711.50 feet.
- d. Wet Well Discharge Piping: 706 feet.
- 5. Wet Well: Precast concrete.
 - a. Capacities and Characteristics: Provide base, barrel, and flat top precast sections as follows to correspond to height of precast structures indicated:
 - 1) Diameter or Dimensions: 72 inches.
 - 2) Inlet Pipe Size: 8 inches NPS.
 - 3) Discharge Spool Pipe Size: 3 inches NPS.
- 6. Valve Vault: Precast concrete.
 - a. Capacities and Characteristics: Provide precast sections as follows:
 - 1) Diameter or Dimensions: 72 inches.
 - 2) Height: 16.5 feet.
 - 3) Inlet Pipe Size: 3 inches NPS.
 - 4) Discharge Spool Pipe Size: 3 inches NPS.

2.2 PRECAST CONCRETE STRUCTURES

- A. General: Size indicated, with provision for sealant at joints, meeting the following requirements:
 - 1. Designed Precast Concrete Structures: ASTM C 913, designed according to ASTM C 890 for A-16 (AASHTO HS20-44), heavy traffic, structural loading.
 - 2. Traffic Live Loading: As indicated.
 - 3. Depth of Bury: As indicated.
 - 4. Lateral Soil Pressure: As indicated.
 - 5. Special Loading Conditions: As indicated.
 - 6. Uplift: As indicated on Drawings. Increase thickness to prevent flotation.
 - 7. Ground Water Elevation: As indicated in project Geotechnical Report.
- B. Round Precast Concrete Wells: ASTM C 478, precast, reinforced concrete.
 - 1. Top: 8-inch minimum thickness flat top, or hatch cover top where indicated.
 - 2. Base Section: 6-inch minimum thickness for floor slab and 5-inch (127 mm) minimum thickness for walls.
 - 3. Joints: Bell and spigot, ASTM C 443.
 - 4. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
 - 5. Flexible Resilient Pipe Connectors: ASTM C 923:
- C. Precast Concrete Vaults: ASTM C 478, precast, reinforced concrete.
 - 1. Base Section: 6-inch (152 mm) minimum thickness for floor slab and 4-inch (102 mm) minimum thickness for walls.

- 2. Resilient Pipe Connectors: ASTM C 890, cast or fitted into manhole walls, for each pipe connection.
- D. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
- E. Well and Vault Bituminous Waterproofing: Carboline, Kop-Coat Bitumastic Super Service Black Coating System, or comparable product acceptable to Engineer.

2.3 PRECAST CONCRETE MATERIALS AND MIX DESIGN

- A. General: Precast concrete according to ACI 318/318R.
- B. Concrete Design Mix: 4,000 psi (27.6 MPa) minimum, with 0.45 maximum water/cementitious materials ratio.

2.4 ACCESS DOORS AND FRAMES

- A. Watertight Access Door: Single -Ieaf opening. Extruded-aluminum gutter frame with NPS 1-1/2 (ON 40) drainage coupling and 1/4-inch- (6.4-mm-) thick, diamond-pattern, aluminum tread plate door; watertight; loading capacity to support 300-lbf/sq. ft. (14.4-kN/sq. m) pedestrian live load. Equip door with adjustable counterbalancing springs, heavy-duty hold-open arm that automatically locks door open at 90 degrees, hatch lock, release handle and removable lift handle.
- B. Hardware:
 - 1. Hinges: Heavy-duty, stainless-steel butt hinges with stainless-steel pins.
 - 2. 2. Latch: Stainless-steel slam latch.
 - 3. Lock: Snap lock with fixed handle on underside of hatch.
 - 4. Hardware Material: Stainless steel, including latch and lifting mechanism assemblies, hold-open arms, and all brackets, hinges, pins, and fasteners.
- C. Materials:
 - 1. Aluminum Extrusions: ASTM B 221 (ASTM B 221M), Alloy 6063-T6.
 - 2. Aluminum-Alloy Rolled Tread Plate: ASTM B 632/B 632M, Alloy 6061-T6.
 - 3. Frame Anchors: Same type as door face.
 - 4. Inserts, Bolts, and Anchor Fasteners: Hot-dip galvanized steel according to ASTM A 153/ A 153M or ASTM F 2329.

2.5 WET-WELL ACCESSORIES

- A. Pipe Supports: Manufacturer's standard.
- B. Guide Rail Assembly: Guide rails, stainless steel, Type 316, with pump guide brackets configured to match requirements of selected pumps.
- C. Flexible Resilient Pipe Connectors: Flexible connector, ASTM C 923.

- D. Well Protective Liner: Chemical resistant, high tensile strength, puncture-resistant polymer membrane, designed and tested for use in application intended, in thickness recommended by manufacturer for application.
 - 1. Products:
 - a. A-Lok Products, Inc., Dura Plate 100.
 - b. Agru America, Inc., HOPE Sure Grip Type 560.
 - c. GSE Studliner.
 - d. Saurerisen SewerGuard 210 Trowelable.
 - e. Prime Coatings, Inc., Utilithane.
 - f. Zebron Corp.
- E. Ventilation: Stainless steel piping, with internal insect screening.

2.6 PUMPS

- A. Wet-Well Wastewater Pumps: Non-clog submersible type centrifugal pump with auto coupling, designed to handle raw, unscreened sewage, stormwater, sludge, or similar contaminated liquid, with induction type electric motor assembled in a single body, watertight NEMA Type B chamber. Pumps shall be capable of repeatedly passing spherical solids up to 3 inches (76 mm) in diameter. Provide units as complete system with guide rail assembly and piping.
 - 1. Basis of Design Product: Provide Tsurumi Pump. TOS100C42.2-CR-62 (3"), or a comparable product approved by Engineer prior to bid.
 - 2. Motor and Pump Construction:
 - a. Motor Housing, Volute, and Impeller Material: Cast iron, ASTM A 48 Class 40B, smooth cast, free of porosity or other irregularities.
 - b. Single Piece Motor and Pump Shaft: Stainless steel, AISI Type 430F.
 - c. Impeller: Single-vane closed, radial non-clog meeting Hydraulic Institute standards.
 - d. Volute Wear Ring: Bronze, ASTM B 584.
 - e. Bearings: Permanently grease lubricated upper ball bearing, lower two-row angular contact bearing, sized to transfer radial and thrust loads to pump housing, with L-IO bearing life of 100,000 hours at 1/2 to 1-1/2 BEP flow.
 - f. Seals: Gaskets or o-rings: Nitrile rubber.
 - g. Shaft Seals: Silicone carbide/silicone carbide (impeller and motor side).
 - h. Seal Failure System: Electrical probe mounted in moisture sensing chamber designed for detecting presence of water and communicating with solid state device in pump control panel.
 - i. Protective Coating: High solids epoxy, for components in contact with pumping media not required to be stainless steel.
 - j. Cable Jacket: Neoprene.
 - k. Cable Entry: Elastomer grommet, stainless steel washers.
 - 1. Power and Control Cable: Minimum 30 ft. (10 m) length, sized per NEC requirements.
 - m. Fasteners: Stainless steel, AISI Type 316.

- 3. Motor:
 - a. Description: Enclosed submersible air-filled.
 - b. Efficiency: Energy efficient, as defined in NEMA MG 1.
 - c. Service Factor: 1.15.
 - d. Voltage Tolerance: Plus/minus 10 percent.
 - e. Rotor: Random-wound, squirrel cage.
 - f. Temperature Rise: Class B.
 - g. Insulation: Class F.
 - h. Overload Protection: External, plus thermal sensors for each phase winding, monitored by control panel, set to stop motor at 260 deg. F (127 deg. C).
 - i. Cooling System: Closed loop non-toxic glycol solution system designed to transfer excess heat from stator housing to process liquid through a cooling jacket and integrated heat exchanger.
- 4. Pumping System: Comply with NEC Class 1, Division 1, Group C & D hazardous locations.
 - a. Sliding Guide Bracket: Provide as separate part of pumping unit, designed for attachment to standard, interchangeable ANSI or DIN pump flanges, enabling pump removal and replacement from outside of well.
 - b. Discharge Seal: Equip pump flange and guide bracket with field replaceable seals providing positive sealing to discharge elbow.
- 5. Pump System Characteristics: As required to meet performance requirements.
 - a. Number of Pumps: Two.
 - b. Capacity: 150 gpm.
 - c. Motor Size: 3 hp.
 - d. Total Dynamic Head: 8 feet.
 - e. Speed: 1750 rpm.
 - f. Motor Performance: Motor sized so that pump is non-overloading throughout pump performance curve from shut-off through run-out.
 - g. Pump Performance: Continuous duty handling pumped media up to 104 deg. F (40 deg. C) with up to 15 evenly spaced starts per hour.
 - h. Watertight Performance: Continuous leak-free submergence to 65 feet (20 m).
 - i. Motor Cooling System Performance: Capable of allowing motor to run continuously under full load while in unsubmerged condition.
- B. Pumping Station Electrical Characteristics:
 - 1. Electrical Service:
 - a. Volts: 480 V.
 - b. Phases: Three.
 - c. Frequency: 60Hz.
 - 2. Full-Load Amperes: ____.

2.7 PUMPING STATION CONTROLS

- A. Control Sequence of Operation: Cycle each pump on and off automatically to maintain well wastewater level. Automatic control operates both pumps in parallel if well level rises above starting point of low-level pump, until shutoff level is reached. Automatic alternator, with manual disconnect switch, changes sequence of lead-lag sewage pumps at completion of each pumping cycle.
- B. Motor Controllers: Magnetic, full voltage, nonreversing. Include undervoltage release, thermal overload heaters in each phase, manual reset buttons, and hand-automatic selector switches. Include circuit breakers to provide branch-circuit protection for each controller.
- C. Install labels to identify switches and controls.
- D. Control Panel: Complying with UL 508A, with weatherproof enclosure, covered compartments sized to accommodate controllers, circuit breakers, transformers, alternators, and programmable logic controller.
 - 1. Basis of Design Product: Provide a Control Panel, , or a comparable product approved by Engineer prior to bid.
 - 2. Panel Listing: CUL and UL 698(A).
 - 3. Condensate control heater with adjustable thermostat and continuously running fan. Specifier: Retain cooling fan package if panel enclosure will house VFD or RVSS.
 - 4. Cooling fan package with self-starting fan motor and intake grill with filter.
 - 5. Convenience Outlet: 15A GFCI duplex receptacle in weatherproof mounting on exterior of panel
 - 6. Main Disconnect Switch: Non-fusible, touch-safe, with pad-lockable operator, UL 98and UL 508- listed.
 - 7. Pump Circuit Breakers: Molded case thermal magnetic type, DIN rail mounted, UL 489. Provide one breaker for each pump power circuit, one breaker for control power, and one breaker for convenience outlet.
 - 8. Control Power Transformer: Panel mounted, UL listed, 120 VAC, sized as required for controls and accessory components.
 - 9. Surge Arrester: For power line and phone line.
 - 10. Uninterruptible Power Supply: 500 VA, 120 VAC input and output, with hot-swappable maintenance free lead-acid batteries and lightning and surge protection.
 - 11. Terminal Blocks: Numbered, #26-8 AWG capacity.
 - 12. Motor Starters:
 - a. Motor Contactor: NEMA rated; one for each pump.
 - b. Overload Relay: Solid state type.
 - c. Reduced voltage soft starter (RVSS): Digital microprocessor.
 - d. Variable Frequency Drive: For standard pumps with integral AC motors, programmable for constant or variable torque, with interface module with handoff-auto switch for each pump, alarm and warning lights, and drive status.
 - 13. Control Relays:

- a. General Purpose Relays: 10A contacts, DIN-rail mounted, touch-safe socket.
- b. Three-Phase Voltage Monitor Relay: Standard plug-in base with DIN-rail mounted socket and SPDT isolated 10A contacts.
- c. Seal Failure Sensor Relay: DIN-rail mounted SPDT conductivity-based liquid-level control with adjustable sensitivity and LED indicator.
- d. Intrinsically Safe Relay: UL 698a, utilizing transformer isolated barrier circuit to determine float switch status and relate status to controller module via electromechanical output.
- e. Current Sensor: UL-listed with selectable amperage range, to convert monitored AC current to proportional DC voltage range of 0 to 5 volts.
- 14. Operator Interface Devices: Provide the following, with pre-programmed operator interface terminal:
 - a. Elapsed Time Meter: For each pump.
 - b. Cycle counter.
 - c. Pilot Lights: For the following functions: Panel power; Pump running; Pump failure; Pump over temperature; Pump overload; Pump seal failure; Check floats.
 - d. Liquid Level Alarm: Pilot light, push-button type, NEMA 4X, with 120VAC incandescent lamp and red lens; Flashing alarm beacon, 120V, 40W, UL-listed Type 4X, shatter resistant red lens, operating in concert with pilot light.
 - e. Push To Silence Switch with Audible Alarm.
- 15. Heat Sensor Contacts (Motor Interrupt): Supplied for motors with required external over-temp connection. Default disabled with terminal link.
- E. Level Control System: Manufacturer's standard control system of type indicated. Senses variations of wastewater level in well. System includes high and low adjustments capable of operating on 6-inch (152 mm) minimum differential of liquid level.
 - 1. Control Type: Float switches.

2.8 PIPING

- A. Ductile-Iron, Mechanical-Joint Pipe and Fittings
 - 1. Ductile-Iron Pipe: AWWA C151/A21.51, with mechanical-joint bell and plain spigot end unless flanged ends are indicated.
 - a. Provide flanged ends within well and vault.
 - 2. Ductile-Iron Fittings: AWWA C110/A21.10, mechanical-joint, ductile- or gray-iron standard pattern or AWWA C153/A21.53, ductile-iron compact pattern.
 - 3. Glands, Gaskets, and Bolts: AWWA Cll1/A21.11, ductile- or gray-iron glands, rubber gaskets, and steel bolts.
 - 4. Application: Buried service between well and vault.

- B. Check Valves: Flanged swing check valves with outside lever, suitable for use in raw wastewater equipped with the following:
 - 1. Mechanical disc position indicator, which has continuous contact with the disc under all flow conditions.
 - 2. Screw type backflow actuator to allow opening of valve during no-flow conditions.
 - 3. Epoxy coating and polyurethane lining.
- C. Isolation Valves: Flanged eccentric plug valves.
- D. Air Vacuum/Air Release Combination Valves: Manufacturer's standard.

2.9 FABRICATION

- A. Precast Concrete Structures:
 - 1. ASTM C 478 for precast wells.
 - 2. ASTM C 478 for precast vaults.
 - 3. Fabricate structures with continuous joints to provide watertight construction.
 - 4. Prepare valve and meter vaults with factory installed piping, valves, sleeves and other devices required.
- B. Well and Vault Waterproofing: Apply two coats of bituminous waterproofing to exterior surfaces of structures totaling 14 mils dry film thickness. Treat penetrations as recommended by waterproofing manufacturer.
- C. Guide Rail Assembly: Custom configuration to allow pump lift-out assembly and pump to move from bottom of guide to top of guide without binding. Construct lift-out assembly to be easily removable from the top of the Guide Rail. Configure to match selected pump's bracket and coupling.
- D. Piping: Manufacturer's standard piping layout including spools, bends, and tees.

PART 3 - PART 3 - EXECUTION

3.1 EARTHWORK

A. Refer to Division 31 Section "Earth Moving" for general and trench excavation and backfilling.

3.2 PRECAST CONCRETE STRUCTURES

A. Install precast concrete structure sections with sealants per ASTM C 891.

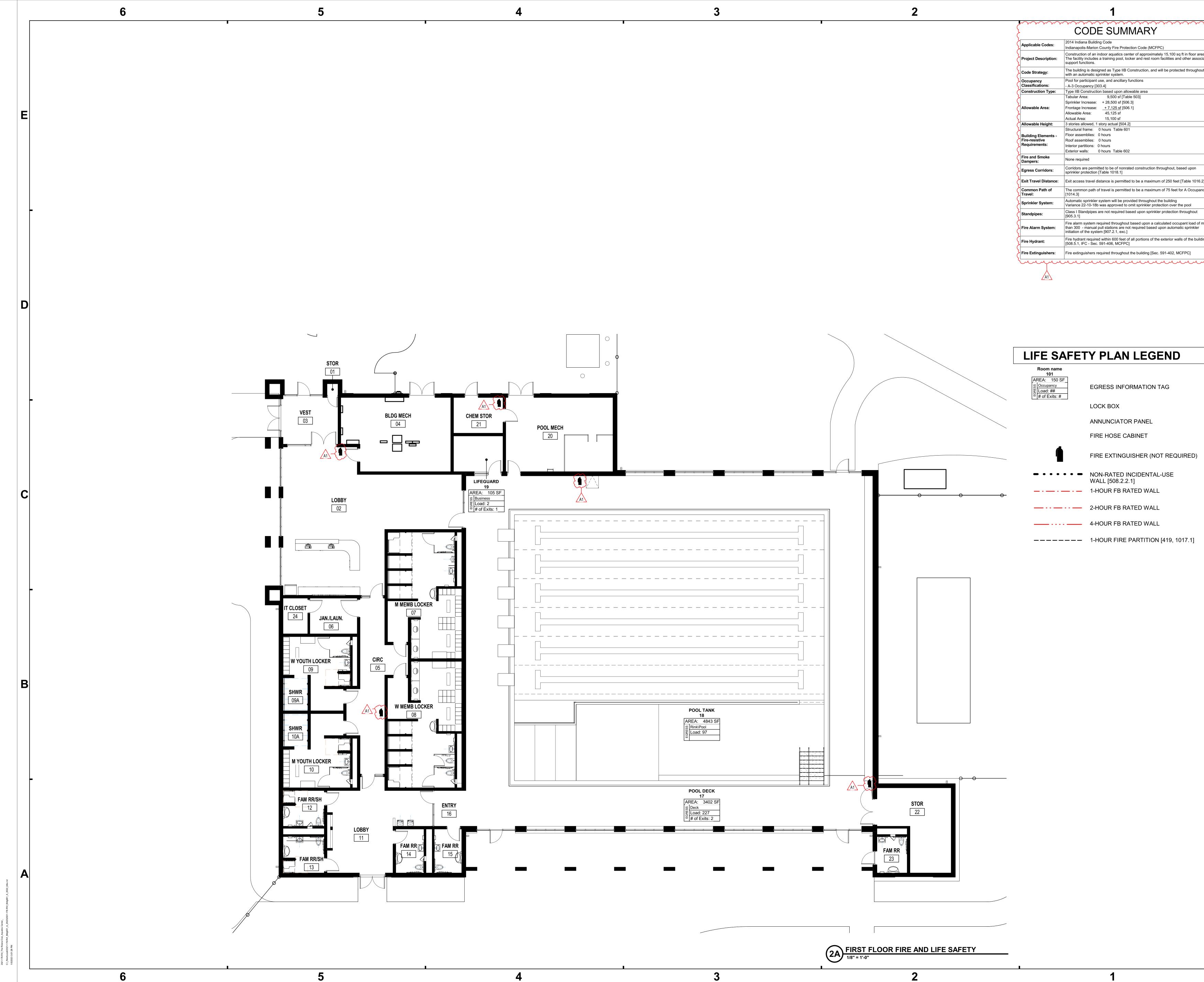
3.3 PIPING

- A. Gravity Flow Piping:
 - 1. Install piping pitched down in direction of flow minimum 1 percent unless otherwise indicated.
 - 2. Install piping NPS 6 (DN 150) and larger with restrained joints at tee fittings and at changes in direction. Use corrosion-resistant rods, pipe or fitting manufacturer's proprietary restraint system, or cast-in-place-concrete supports or anchorsInstal1 ductile iron, gravity sewer piping per ASTM A 746.
- B. Pressure Piping:
 - 1. Install piping with restrained joints at tee fittings and changes in direction. Use corrosion-resistant rods or cast-in-place-concrete supports or anchors.
 - 2. Install ductile-iron pressure piping per AWWA C600 or AWWA M41.

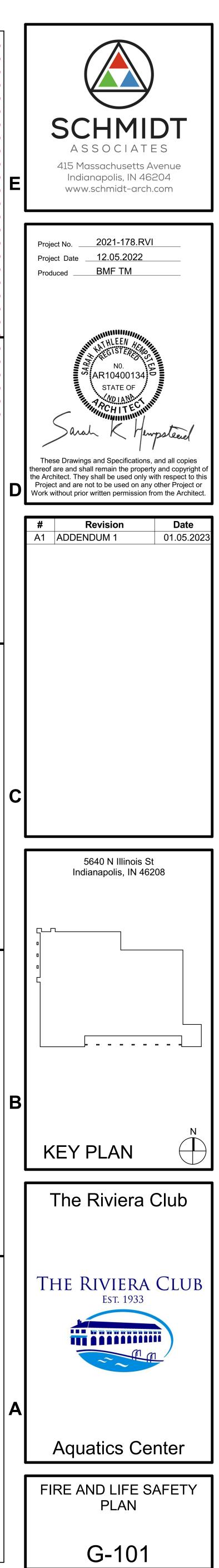
3.4 FIELD QUALITY CONTROL

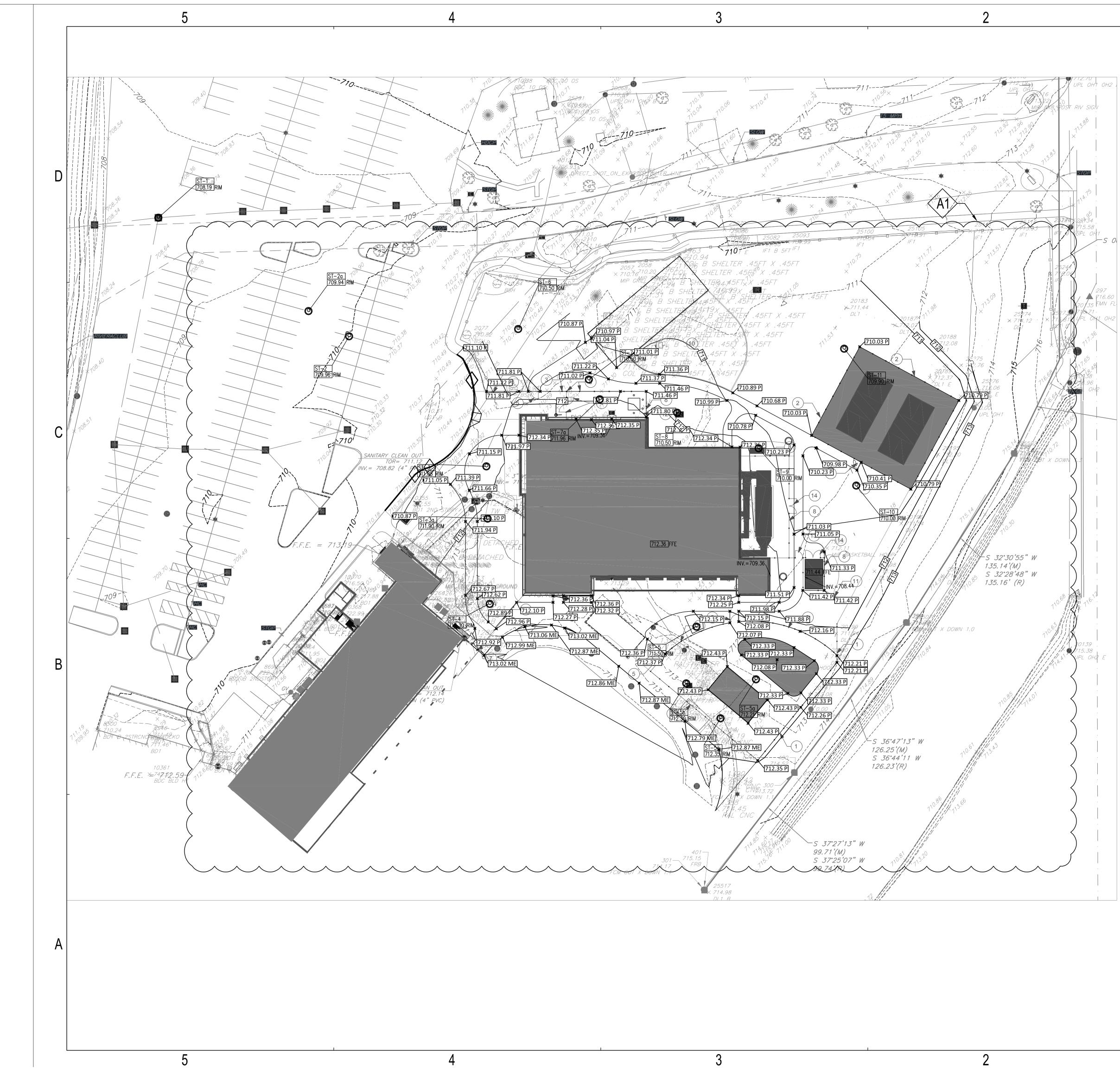
- A. Perform tests and inspections and prepare test reports.
 - 1. Manufacturer's Field Service: Engage a pump station manufacturer's authorized service representative to assist in testing and startup.
- B. Tests and Inspections:
 - 1. Test completed piping systems according to requirements of authorities having jurisdiction. Submit reports.
 - 2. After installing wastewater pumping stations and after electrical circuitry has been energized, test pumps and controls for compliance with requirements.
 - 3. After electrical Circuitry has been energized, start units to confirm the station can run at pre-specified design parameters.
 - 4. Test piping for leaks and defects.
 - 5. Test and adjust controls and safeties.
 - 6. Force Main: Test at pressure not less than 1-1/2 times the maximum system operating pressure, but not less than 150 psig (1035 kPa).
- C. Remove and replace components of the wastewater pumping stations that do not pass tests and inspections and retest as specified above.

END OF SECTION



		CODE SUMMARY
	Applicable Codes:	2014 Indiana Building Code Indianapolis-Marion County Fire Protection Code (MCFPC)
	Project Description:	Construction of an indoor aquatics center of approximately 15,100 sq ft in floor area. The facility includes a training pool, locker and rest room facilities and other associate support functions.
	Code Strategy:	The building is designed as Type IIB Construction, and will be protected throughout with an automatic sprinkler system.
	Occupancy Classifications:	Pool for participant use, and ancillary functions - A-3 Occupancy [303.4]
1	Construction Type:	Type IIB Construction based upon allowable area
•		Tabular Area: 9,500 sf [Table 503]
	Allowable Area:	Sprinkler Increase: + 28,500 sf [506.3] Frontage Increase: + 7,125 sf [506.1] Allowable Area: 45,125 sf Actual Area: 15 100 sf
		Actual Area: 15,100 sf
	Allowable Height:	3 stories allowed, 1 story actual [504.2] Structural frame: 0 hours Table 601
	Building Elements - Fire-resistive Requirements:	Floor assemblies: 0 hours Roof assemblies: 0 hours Interior partitions: 0 hours Exterior walls: 0 hours Table 602
	Fire and Smoke Dampers:	None required
	Egress Corridors:	Corridors are permitted to be of nonrated construction throughout, based upon sprinkler protection [Table 1018.1]
	Exit Travel Distance:	Exit access travel distance is permitted to be a maximum of 250 feet [Table 1016.2]
	Common Path of Travel:	The common path of travel is permitted to be a maximum of 75 feet for A Occupancie [1014.3]
	Sprinkler System:	Automatic sprinkler system will be provided throughout the building Variance 22-10-18b was approved to omit sprinkler protection over the pool
	Standpipes:	Class I Standpipes are not required based upon sprinkler protection throughout [905.3.1]
	Fire Alarm System:	Fire alarm system required throughout based upon a calculated occupant load of mothan 300 - manual pull stations are not required based upon automatic sprinkler initiation of the system [907.2.1, exc.]
	Fire Hydrant:	Fire hydrant required within 600 feet of all portions of the exterior walls of the building [508.5.1, IFC - Sec. 591-406, MCFPC]
	Fire Extinguishers:	Fire extinguishers required throughout the building [Sec. 591-402, MCFPC]





— — — -828- — — —	EXISTING CONTOUR LINE
	PROPOSED CONTOUR LINE
1000.00	PROPOSED ELEVATION
1000.00 EX	EXISTING ELEVATION
8 [1000.00]ME ₈₀ ME	MATCH EXISTING ELEVATION
1000.00 TC	TOP OF CURB ELEVATION
1000.00 TW	TOP OF WALL ELEVATION
1000.00 TR	TOP OF RIM ELEVATION
1000.00 P	PAVEMENT ELEVATION
1000.00 GU	GUTTER ELEVATION
1000.00 G	GROUND ELEVATION
1000.00 FL	FLOWLINE ELEVATION
8 1000.00 BC	BOTTOM OF CURB ELEVATION
8 1000.00 BW	BOTTOM OF WALL ELEVATION
[1004.50]FFE	FINISH FLOOR ELEVATION

EXISTING CONTOUR LINE
PROPOSED CONTOUR LINE
PROPOSED ELEVATION
EXISTING ELEVATION
MATCH EXISTING ELEVATION
TOP OF CURB ELEVATION
TOP OF WALL ELEVATION
TOP OF RIM ELEVATION
PAVEMENT ELEVATION

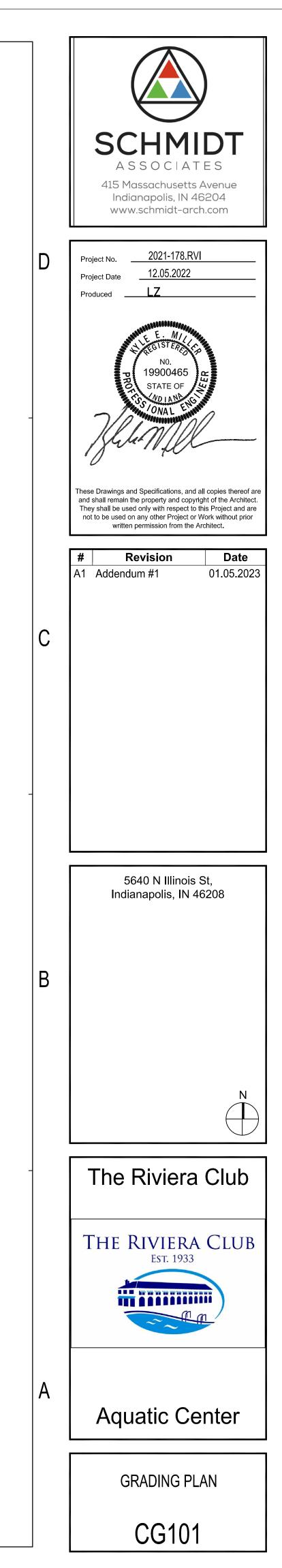
GRADING LEGEND

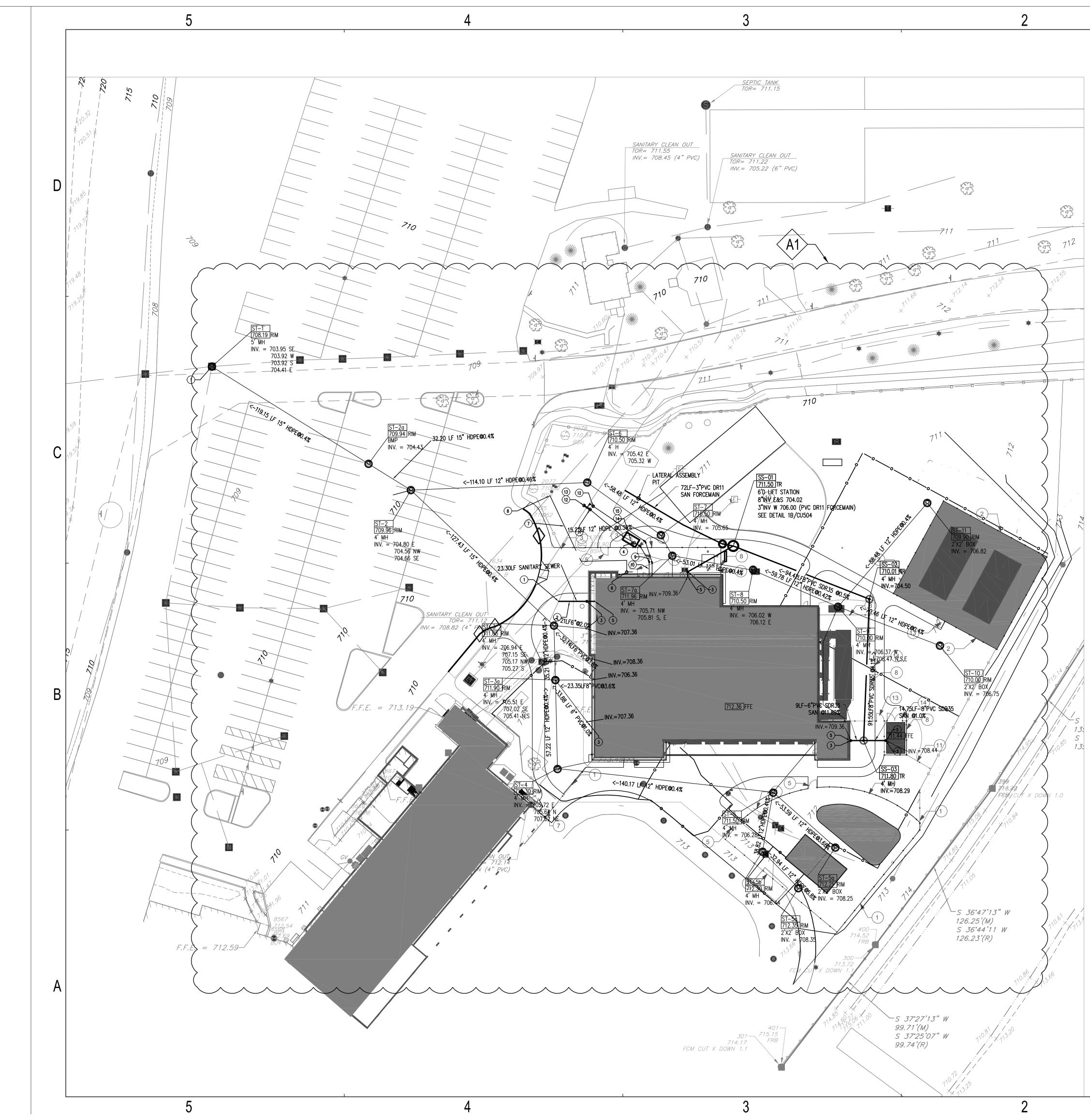
GENERAL GRADING NOTES

- 3. ALL TRANSITIONS IN CURB HEIGHTS SHALL BE SMOOTH WITH A CONSISTENT SLOPE.

- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF SITE CONDITIONS AT THE TIME THIS PROJECT IS BID.
- NEEDED.
- 1. IF THE LOCAL BENCHMARK(S) WILL BE DISTURBED DURING CONSTRUCTION, IT THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH ADDITIONAL BENCHMARKS AS

 $(1A) \frac{\text{GRADING PLAN}}{1" = 30'}$





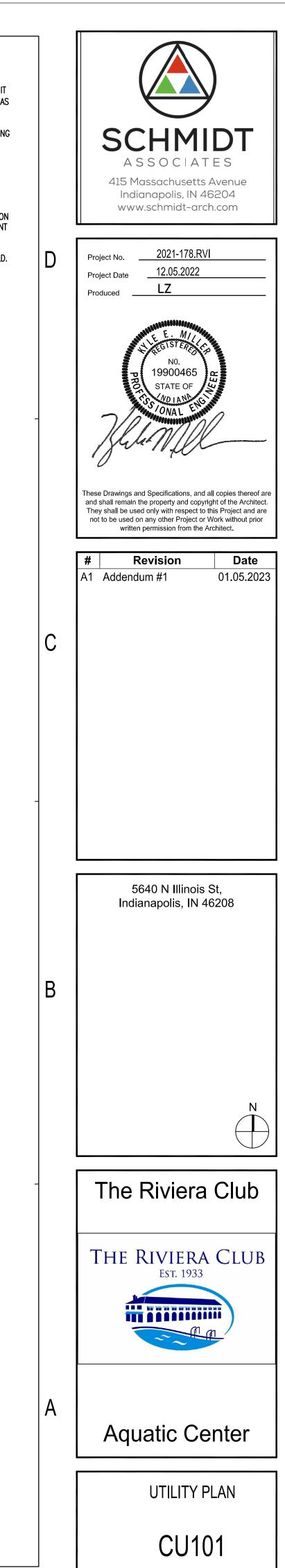
- GENERAL UTILITIES NOTES 1. IF THE LOCAL BENCHMARK(S) WILL BE DISTURBED DURING CONSTRUCTION, IT THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH ADDITIONAL BENCHMARKS AS
- NEEDED. 2. ALL LIDS, CASTINGS, GRATES, BOXES, AND HATCHES ASSOCIATED WITH EXISTING UTILITY STRUCTURES THAT ARE NOT INDICATED FOR MODIFICATION SHALL BE MAINTAINED AND PROTECTED DURING CONSTRUCTION. ADJUST THE TOP
- ELEVATIONS PER GRADING PLAN. 3. COMPACTED GRANULAR BACKFILL IS REQUIRED FOR ALL UTILITY TRENCHES LOCATED UNDER PAVED AREAS. SEE SPECIFICATIONS.
- 4. PIPE LENGTHS INDICATED ON THE DRAWINGS ARE FOR HYDRAULIC CALCULATION PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR FURNISHING THE AMOUNT
- OF PIPE MATERIALS NECESSARY FOR A COMPLETE INSTALLATION.
- 5. ALL EXISTING PIPES INVERTS ARE APPROXIMATE. VERIFY ALL INVERTS IN FIELD. IF INVERTS DO NOT MATCH THE PLAN,. CONTACT THE ARCHITECT. UTILITY LEGEND

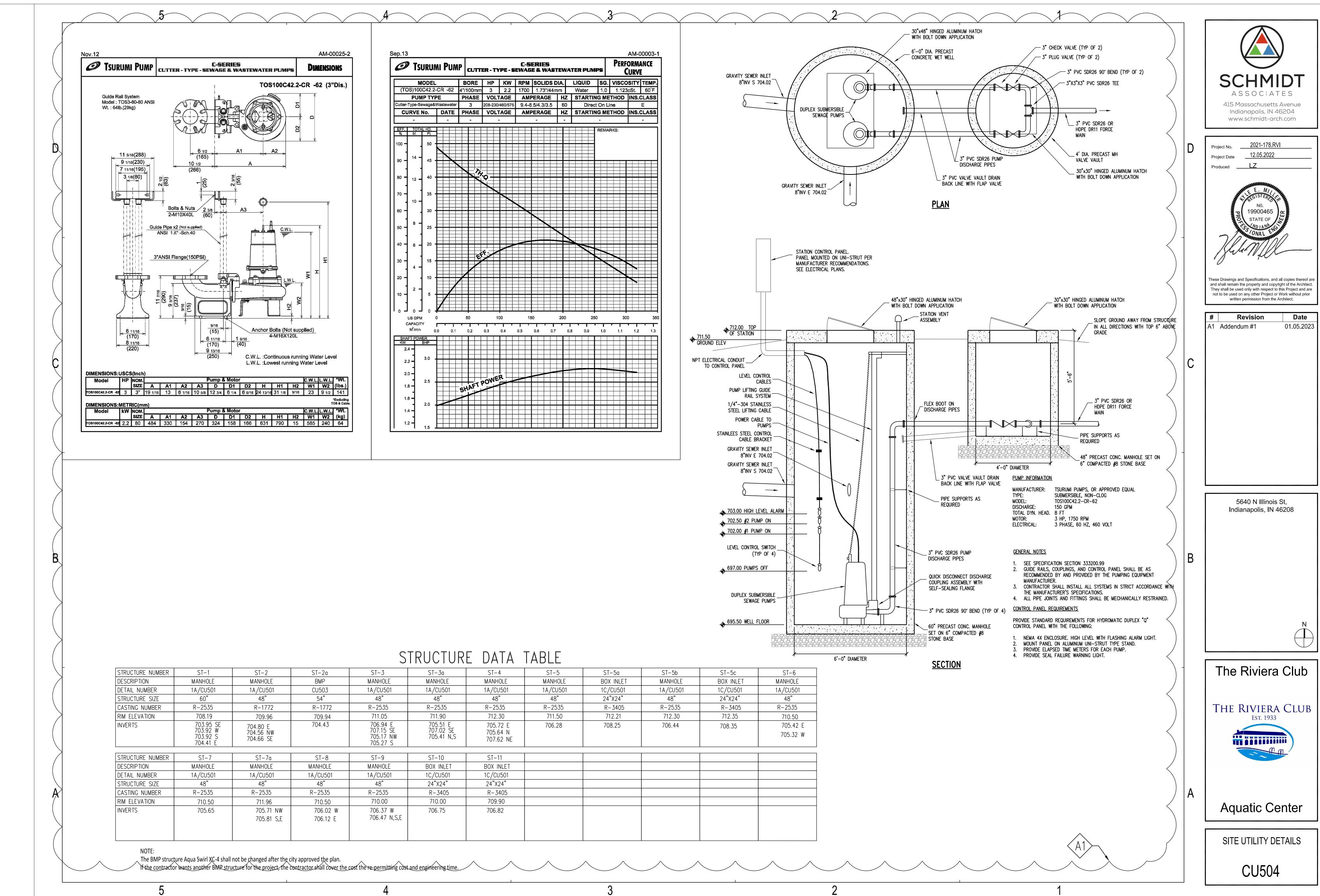
54LF-8 " HDPE @0.50% \bowtie WATER VALVE FIRE HYDRANT (\circ) MANHOLE \cap BOX STRUCTURE DOWNSPOUT BOOT CLEAN OUT 0 ST-(XX) XXX.XX' RIM STORM NETWORK INV. N XXX.XX' SS-(XX) XXX.XX' RIM SANITARY NETWORK INV. N XXX.XX

Utility Notes (1) CONNECT TO EXISTING

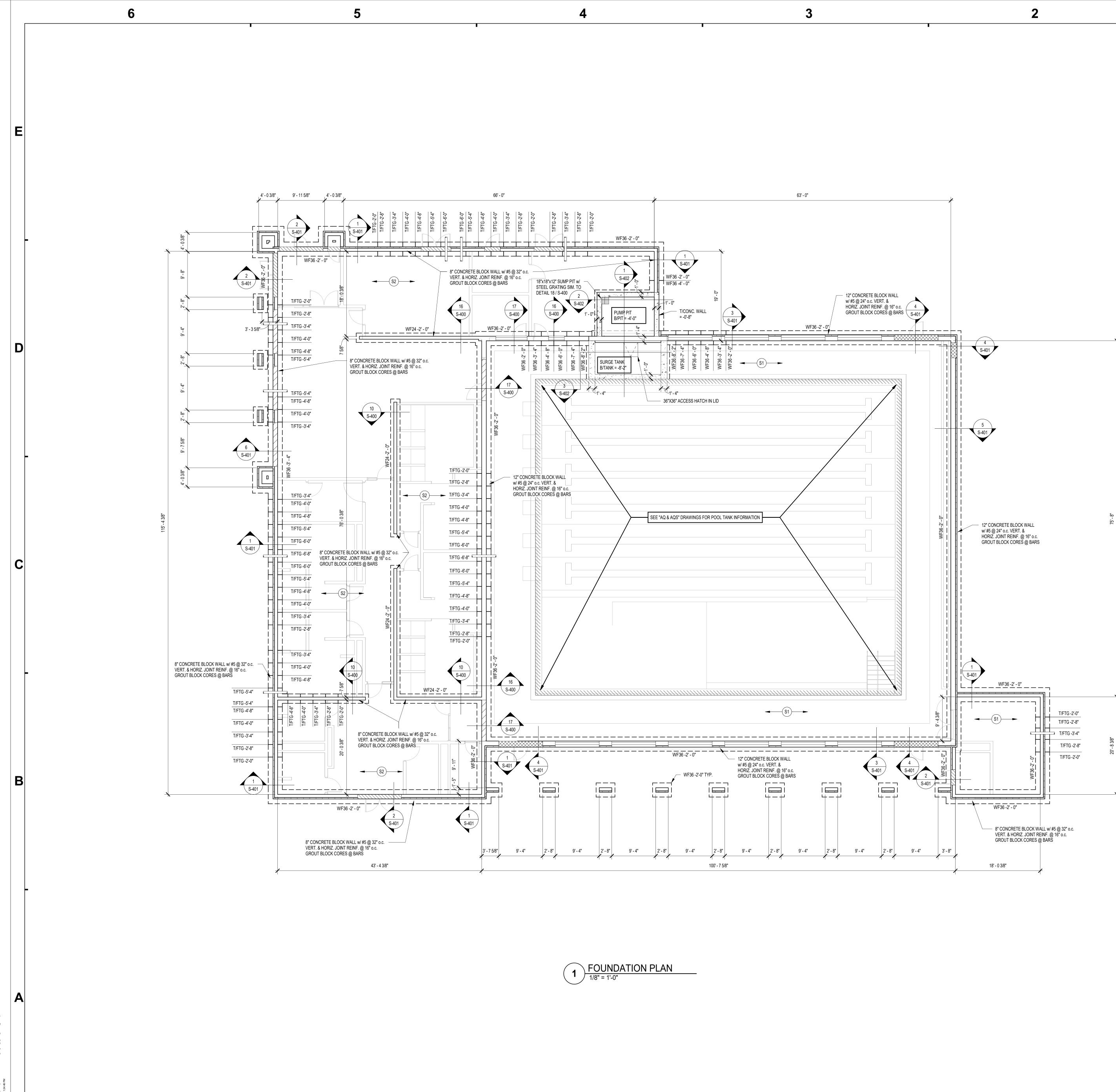
- 2 4" SANITARY PIPE
- (3) C.O.
- (4) FIRE DEPT. CONNECTION
- 5 CONNECT TO BUILDING, SEE PLUMBING DRAWINGS. (6) GAS METER, SEE PLUMBING DRAWINGS FOR CONTINUATION.
- (7) RECOMMENDED GAS LINE ROUTE.
- (8) connect to existing gas line
- (9) 4" WATER LINE
- (10) 6" WATER LINE
- 1) POST INDICATOR VALVE W/TWO BOLLARDS(MIN. 40' AWAY FROM BLDG)
- (12) 6" VALVE
- (13) CONNECT TO EX. WATER MAIN. FIELD VERIFY THE LOCATION.
- (14) DOUBLE CHECK BACKFLOW ASSY & CONCRETE VAULT. SEE DETAIL THIS SHEET.
- (15) CONNECT BACKFLOW VAULT SUMP PUMP DISCHARGE LINE TO STORM STR ST-6.

 $(1A) \frac{\text{UTILITY PLAN}}{1" = 30'}$



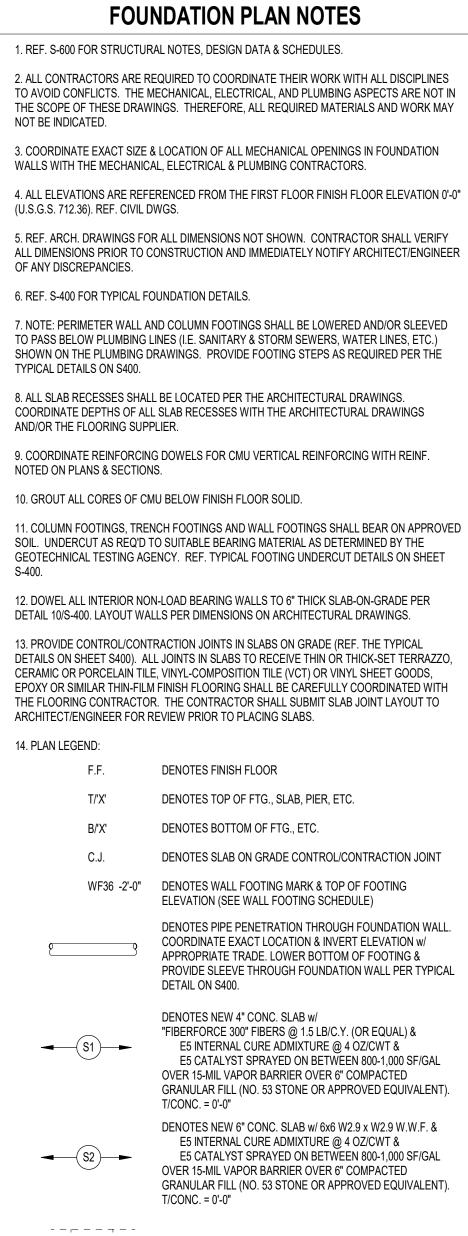


								-
ST-2	ST-2a	ST-3	ST-3a	ST-4	ST-5	ST-5a	ST-5b	
MANHOLE	BMP	MANHOLE	MANHOLE	MANHOLE	MANHOLE	BOX INLET	MANHOLE	
1A/CU501	CU503	1A/CU501	1A/CU501	1A/CU501	1A/CU501	1C/CU501	1A/CU501	Γ
48"	54"	48"	48"	48"	48"	24"X24"	48"	Γ
R-1772	R-1772	R-2535	R-2535	R-2535	R-2535	R-3405	R-2535	Γ
709.96	709.94	711.05	711.90	712.30	711.50	712.21	712.30	Γ
704.80 E 704.56 NW 704.66 SE	704.43	706.94 E 707.15 SE 705.17 NW 705.27 S	705.51 E 707.02 SE 705.41 N,S	705.72 E 705.64 N 707.62 NE	706.28	708.25	706.44	
	1		1		I			т
ST-7a	ST-8	ST-9	ST-10	ST-11				⊥
MANHOLE	MANHOLE	MANHOLE	BOX INLET	BOX INLET				
1A/CU501	1A/CU501	1A/CU501	1C/CU501	1C/CU501				
48"	48"	48"	24"X24"	24"X24"				
R-2535	R-2535	R-2535	R-3405	R-3405				Γ
711.96	710.50	710.00	710.00	709.90				
705.71 NW 705.81 S,E	706.02 W 706.12 E	706.37 W 706.47 N,S,E	706.75	706.82				





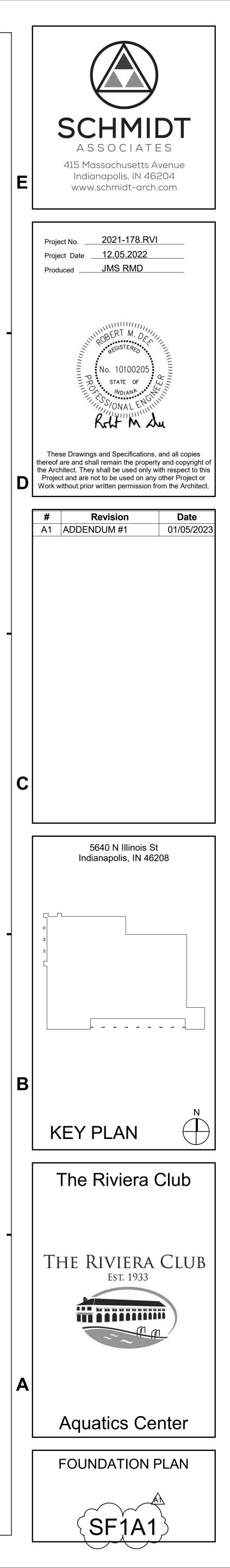


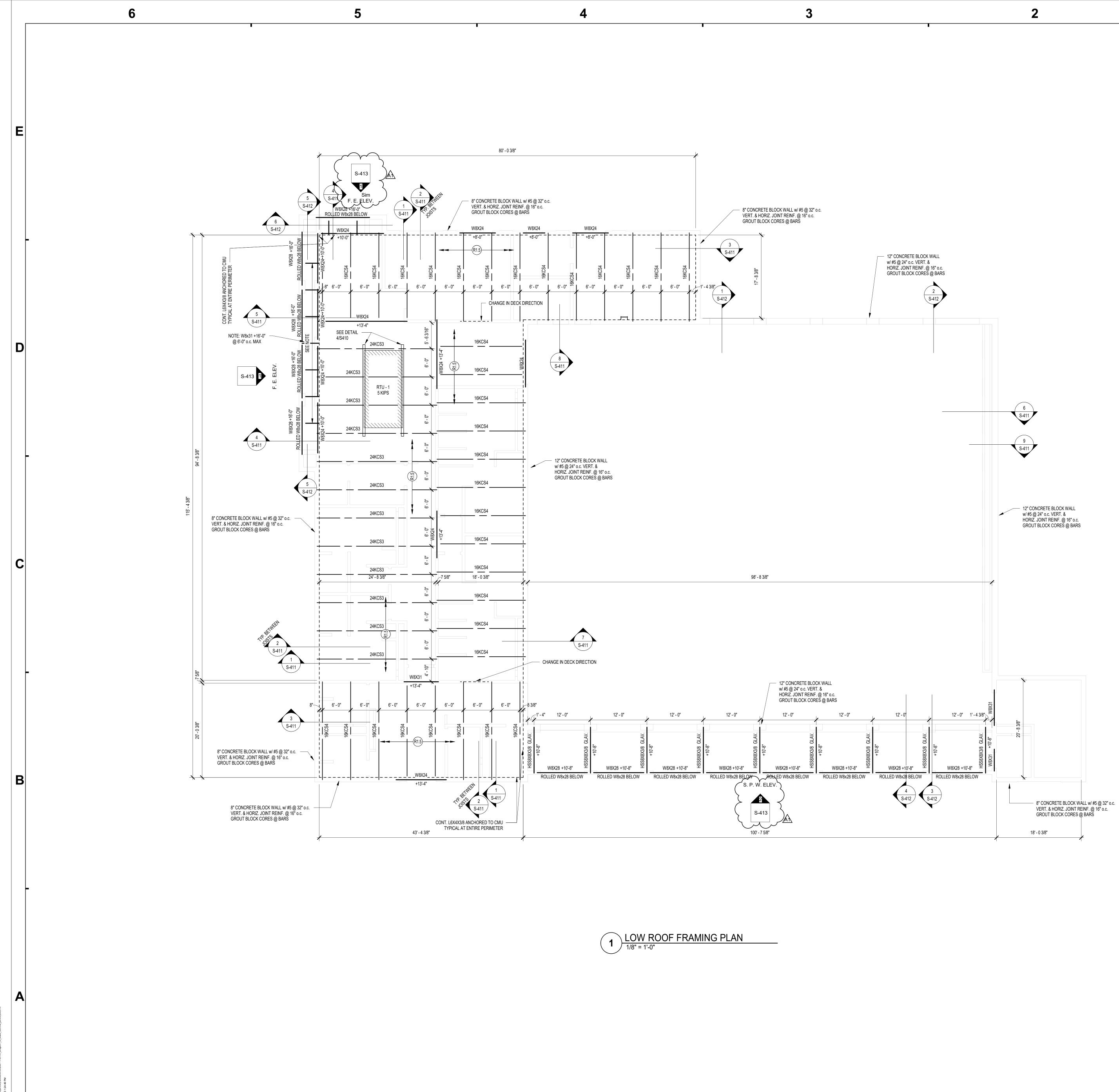


DENOTES WALL FOOTING WITH STEPS, REF. TYP. DETAIL ON S400

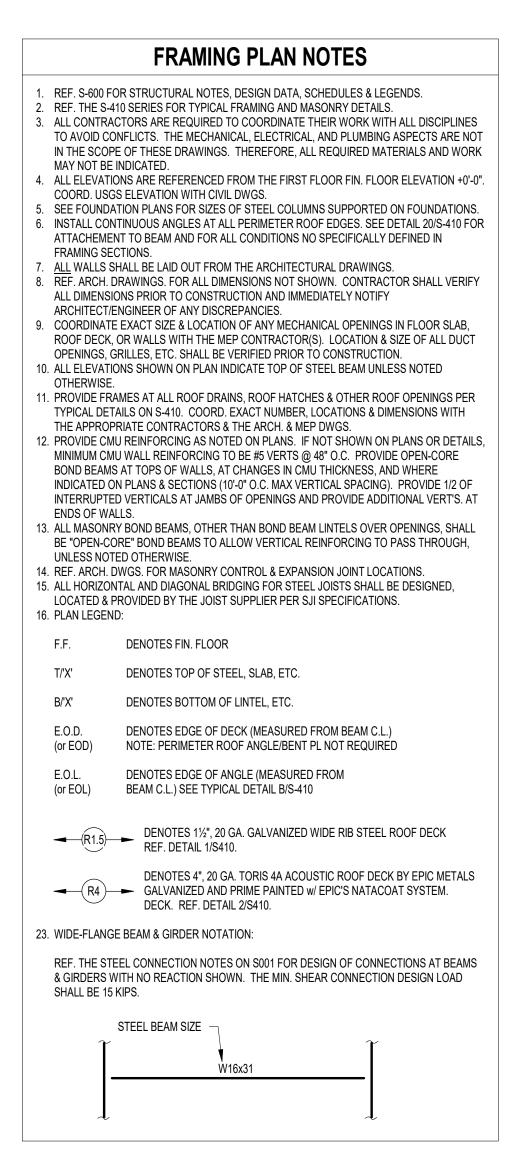
-2'-8" -4'-0" -5'-4"

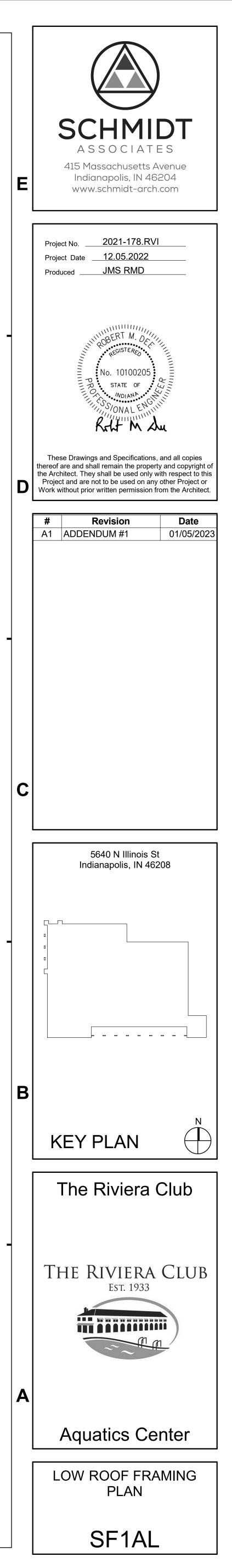
WALL FOOTING SCHEDULE						
FTG.	FOOTIN	IG SIZE	FOOTING RE	INFORCING		
MARK	WIDTH	DEPTH	LONGITUDINAL	TRANSVERSE		
WF24	2'-0"	1'-0"	(2) #5 x CONTINUOUS	#4 x 1'-6" @ 96" O.C.		
WF36	3'-0"	1'-2"	(4) #5 x CONTINUOUS	#4 x 2'-6" @ 96" O.C.		
1. CEN	TER FOOT	TINGS BEN	EATH WALLS, U.N.O.			

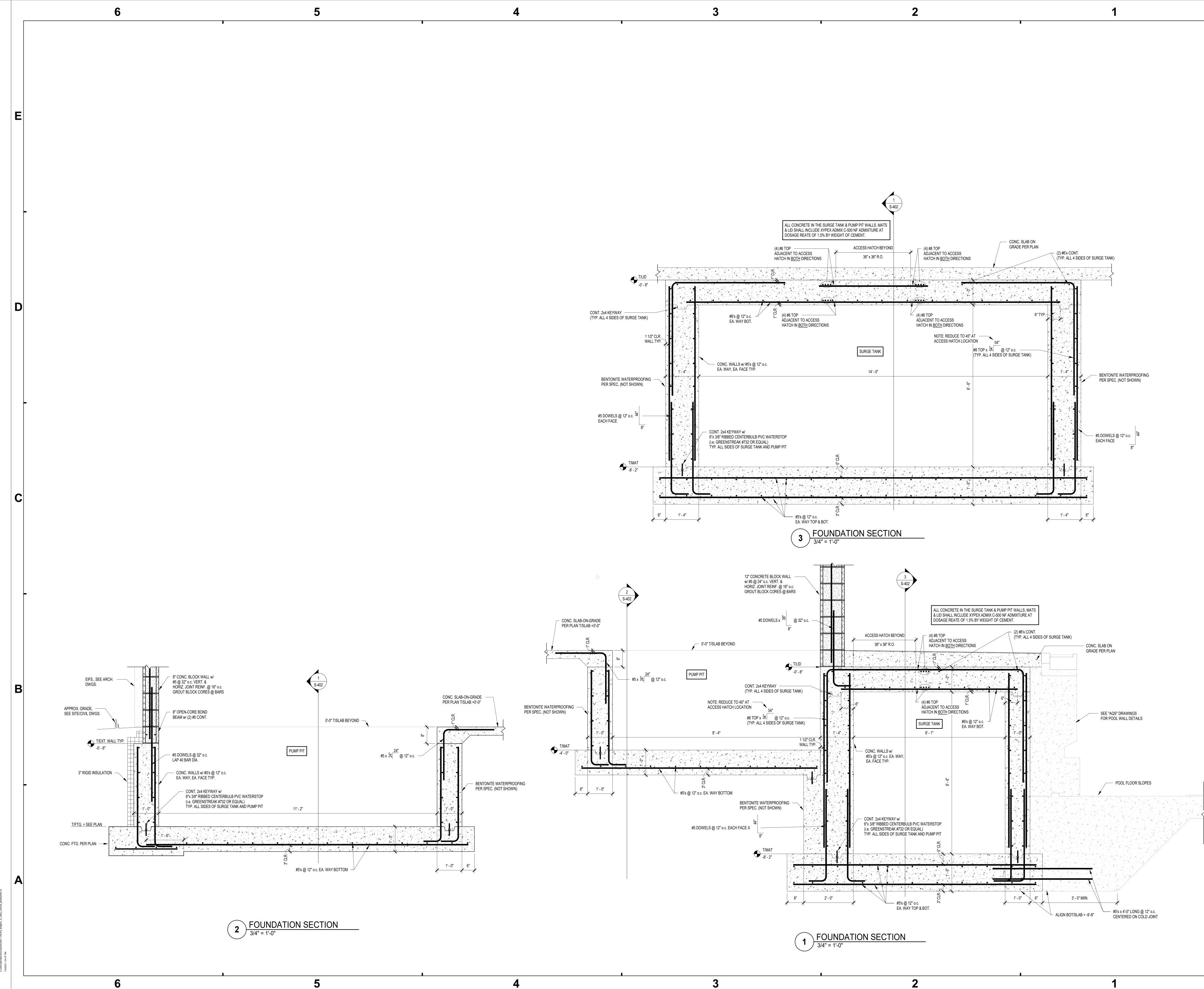


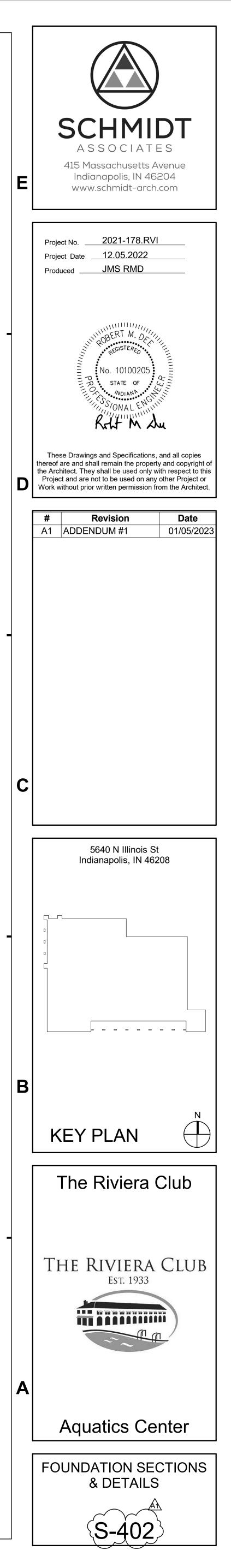


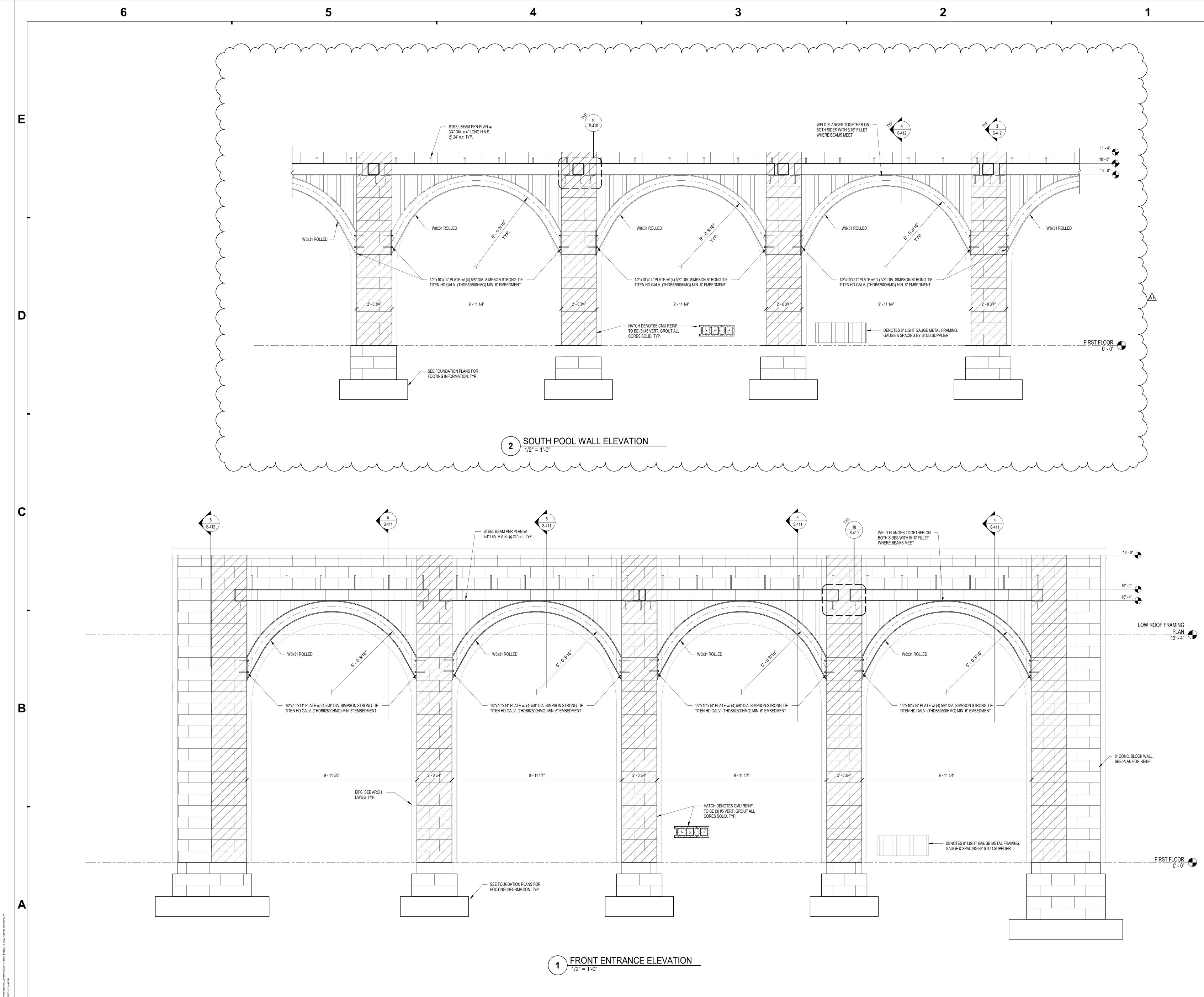


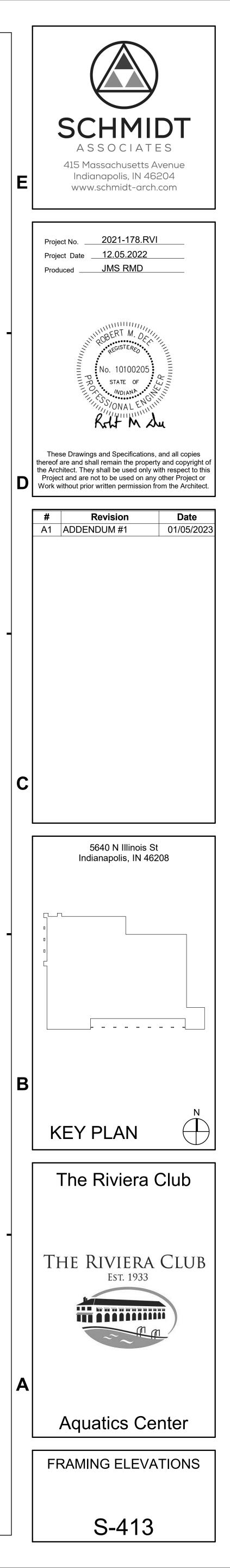


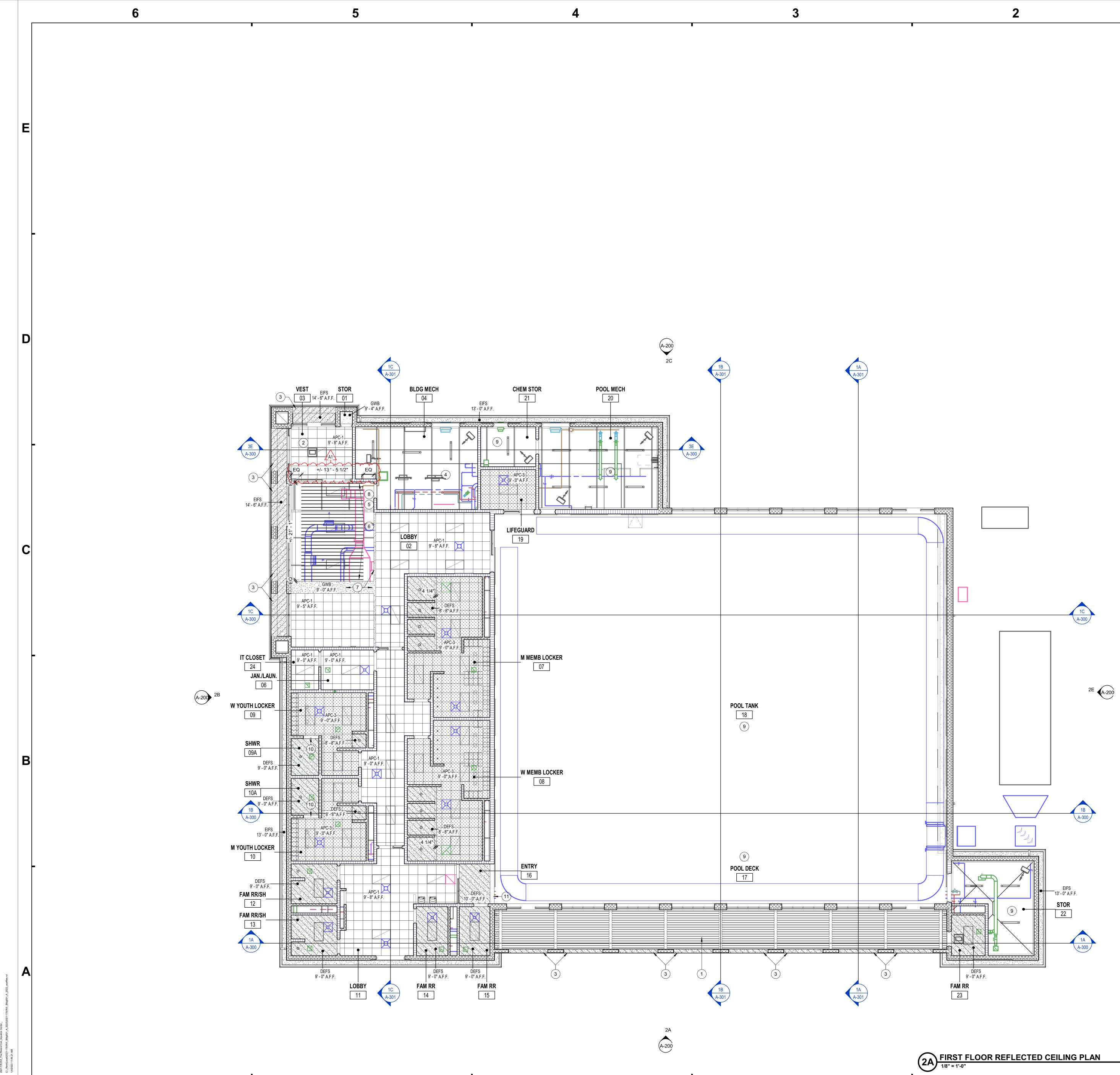








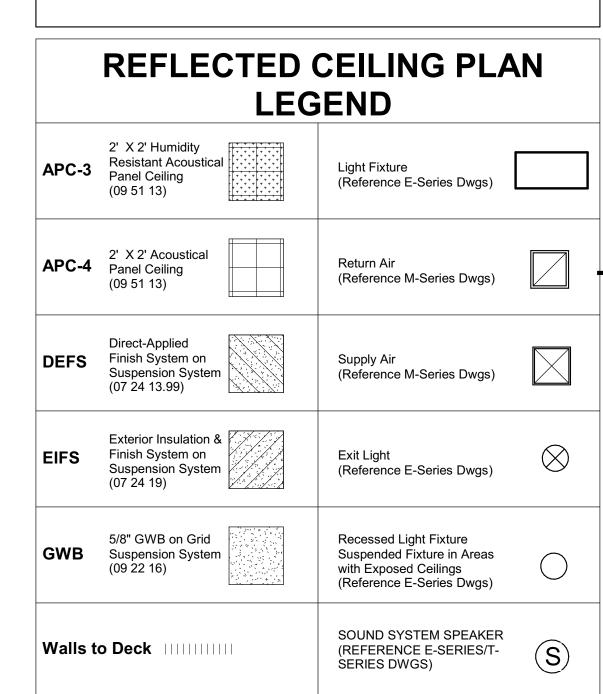




3

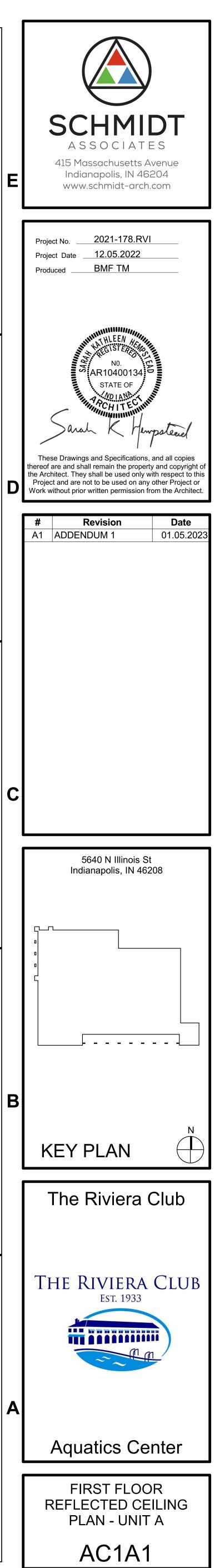
General Refl. Ceiling Plan Notes

- A. All ceilings are at 9'-0" AFF, unless noted otherwise.
- B. All bulkheads are at 8'-10" AFF, unless noted otherwise.
- C. All grids are centered in rooms, unless noted otherwise.
- D. All exposed ductwork, piping etc. shall be painted. Color selected by Architect. E. Locate sprinkler heads in center of ceiling panel - where applicable.



REFLECTED CEILING PLAN NOTES NOTE

- PERGOLA PROVIDE HOLD-DOWN CLIPS AT VESTIBULE APC SYSTEM
- ARCHED SURFACE, REFER TO ELEVATIONS.
- NO CEILING. EXPOSED DECK AND STRUCTURE, PAINTED 5 ON EXPOSED CEILING SIDE OF BULKHEAD EXTEND GWB TO DECK. PROVIDE 1/2"
 HORIZONTAL PAINTABLE REVEAL AT 9'-8" AFF TO ALLOW FOR TRANSITION OF COLOR (BLACK AT & ABOVE REVEAL). TRANSITION COLOR AT SAME ELEVATION ON CMU WALLS.
- ACOUSTICAL CEILING BLADES. BASIS-OF-DESIGN: TORRENT BY TURF. PA
- DEPTH: 11.5 INCHES. BLADE SPACING: 9 INCHES ON CENTER. TOP OF BLADES AT 9'-8" AFF. SUSPEND CABLES FROM DECK ABOVE. 7 EXPOSED SIDES OF BULKHEAD TO BE PAINTED, HP-4 (DARK BLUE).
- 099600.99 NO CEILING. EXPOSED ITEMS INCLUDING, BUT NOT LIMITED TO, DECK, STRUCTURE, CONDUIT, & DUCTWORK SHALL BE PAINTED HP-6 (BLACK) WITH HIGH PERFORMANCE COATING.
- 099600.99 NO CEILING. PAINT EXPOSED DECK & STRUCTURE WITH HIGH PERFORMANCE COATING.
- BOTTOM OF MASONRY OPENING AT 7'-4" AFF. 1 BOTTOM OF MASONRY OPENING AT 9'-4" AFF.

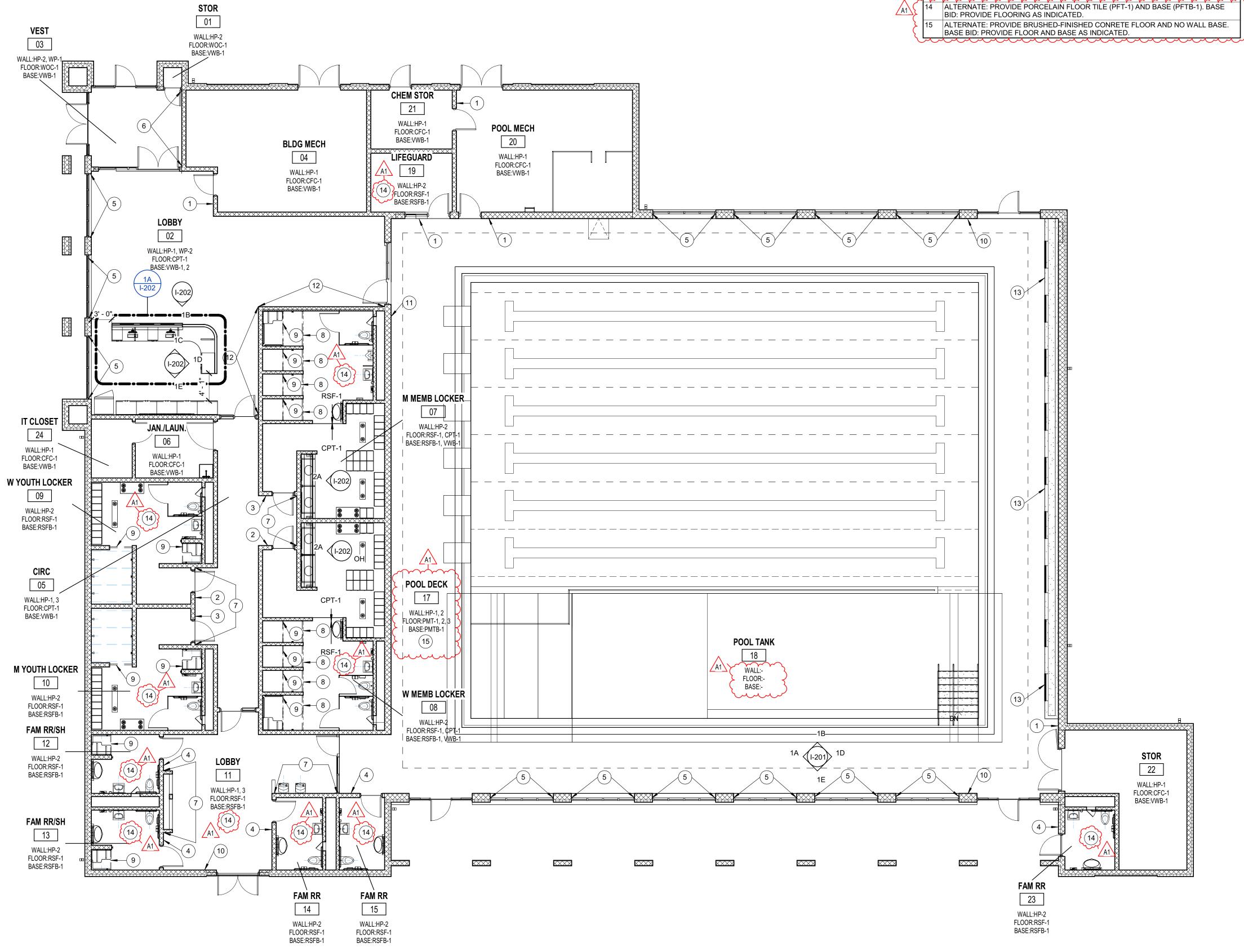


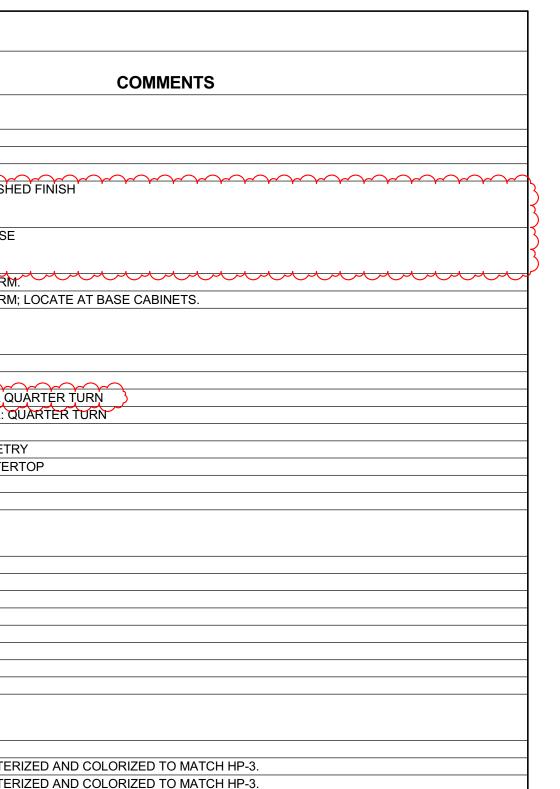


APPLICATI		
ON	SPEC.	MARK
FLOORING		
FLOORING	09 30 00	PMT-1
FLOORING	09 30 00	PMTB-1
FLOORING	09 30 00	PMT-2
FLOORING	09 30 00	PFT-1
FLOORING	09 30 00	PFTB-1
FLOORING	09 65 13	VWB-1
FLOORING	09 65 13	VWB-1
FLOORING	09 05 13	CFC-1
	00 01 20.10	
FLOORING	09 67 23.17	RSF-1
FLOORING	09 67 23.17	RSFB-1
FLOORING	09 68 13	CPT-1
FLOORING	09 68 13	WOC-1
FURNISHINGS		
FURNISHINGS	06 40 23	PL-1
FURNISHINGS	06 40 23	PL-2
FURNISHINGS	06 40 23	PL-3
FURNISHINGS	06 40 23	PL-4
FURNISHINGS	12 24 13	RWS-1
FURNISHINGS	12 32 00	PL-5
FURNISHINGS	12 36 61.66	SS-1
FURNISHINGS	12 36 61.66	SS-2
WALLS		
WALLS	09 96 00.99	HP-1
WALLS	09 96 00.99	HP-2
WALLS	09 96 00.99	HP-3
WALLS	09 96 00.99	HP-4
WALLS	09 96 00.99	HP-5
WALLS	09 96 00.99	HP-6
WALLS	10 26 00	WP-2
WALLS	10 26 00	WP-1

FLOOR INTERIOR FINSH PLAN _The Riviera Club_Aquatics Canter_ aleco1+178.RVI_Bldg001_A_2022/2021+178.RVI_Bldg001_A_2022_acoffee.rVt 66:30 AM 6

	1	1	5.5.100 - IN I ERIOR FIN		1
	DESCRIPTION	MANUFACTURER	COLLECTION/PATTERN	COLOR	
	PORCELAIN MOSAIC TILE	DALTILE	KEYSTONES	WHEAT BLEND DK21	SIZE: X BY X INCHES; INSTALL:
	PORCELAIN MOSAIC TILE BASE	DALTILE	KEYSTONES	WHEAT BLEND DK21	SIZE: X BY X INCHES; INSTALL:
_	PORCELAIN MOSAIC TILE	DALTILE	KEYSTONES	BERRY BLEND DK24	
	ALTERNATE: PORCELAIN FLOOR TILE	ČROŠSVILLE CONTRACTOR		TO BE SELECTED FROM MANUFACTURER'S STANDARD SELECTION	SÍZE: 12 BY 24 INCHES; UNPÓLISHE
	ALTERNATE: PORCELAIN FLOOR TILE BASE	CROSSVILLE	RETRO ACTIVE	TO BE SELECTED FROM MANUFACTURER'S STANDARD SELECTION	SIZE: 6 BY 12 INCHES; COVE BASE
-	VINYL WALL BASE	TARKETT	TRADITIONAL WALL BASE	BURNT UMBER 63	SIZE: 6" COVE BASE IN COIL FORM.
	VINYL WALL BASE	TARKETT	TRADITIONAL WALL BASE	BURNT UMBER 63	SIZE: 4" COVE BASE IN COIL FORM;
	CONCRETE FLOOR COATING [LEVEL 1]	SHERWIN WILLIAMS	EPOXY 3746	TO BE SELECTED FROM MANUFACTURER'S STANDARD SELECTION	-
	RESINOUS FLOORING [LEVEL 3]	SHERWIN WILLIAMS	RESUFLOR QUARTZ	WINTER SKY	-
	RESINOUS FLOORING BASE [LEVEL 3]	SHERWIN WILLIAMS	RESUFLOR QUARTZ	WINTERSKY	
	CARPET TILE (FIELD)			PHOTO OP 1429	ŚIZE: 24 BY 24 INCHĖS; INSTALL QU SIZE: 24 BY 24 INCHES; INSTALL: QU
	PLASTIC LAMINATE	ARBORITE	-	ARCTIC SNOW	LOCATION(S): GENERAL CABINETR
	PLASTIC LAMINATE	ARBORITE	-	CHAMBRAY FUSAIN	LOCATION(S): GENERAL COUNTER
	PLASTIC LAMINATE	ARBORITE	-	CHAMBRAY GRIS	-
	PLASTIC LAMINATE	FORMICA	-	MATRIX BLUE (GLOSS)	-
	ROLLER WINDOW SHADES	DRAPER	-	TO BE SELECTED FROM MANUFACTURER'S STANDARD SELECTION	-
	PLASTIC LAMINATE	ARBORITE	-	CHAMBRAY OMBRE P414 CA	-
	SOLID SURFACE (LAVATORY)	WILSONART	-	MORNING ICE 9204CE	-
	SOLID SURFACE (WINDOW STOOL)	WILSONART	-	MORNING ICE 9204CE	-
	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	-	GOSSAMER VEIL SW9165	-
	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	-	ACIER SW9170	-
	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	-	DYNAMIC BLUE SW6958	-
	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	-	DRESS BLUES SW9176	-
	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	-	TO BE SELECTED FROM MANUFACTURER'S STANDARD SELECTION	DOOR FRAME PAINT COLOR.
	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	-	IRON ORE SW7069	
	WALL PROTECTION PANELS	CONSTRUCTION SPECIALTIES	ACROVYN BY DESIGN	CUSTOM DESIGN 1	HISTORIC PHOTOGRAPH - POSTER
	WALL PROTECTION PANELS	CONSTRUCTION SPECIALTIES	ACROVYN BY DESIGN	CUSTOM DESIGN 2	HISTORIC PHOTOGRAPH - POSTER





Interior General Notes

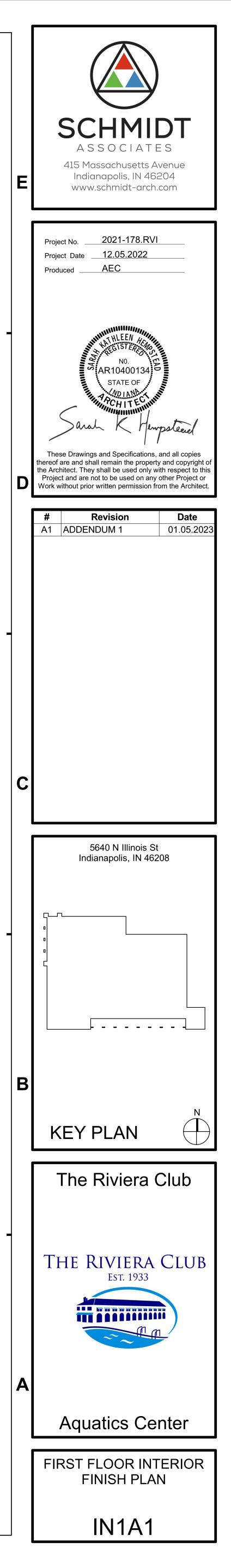
- Reference A-001 for general plan notes. All notes may not apply to this sheet.
- Furniture is not provided in this contract. Layouts and final design will need to be determined by the owner.
- 8. Reference architectural ceilings plans for ceiling heights and bulkhead color designations. Paint all bulkheads P-1 unless specifically noted otherwise. Bulkheads that are flush with walls provide color to match adjacent wall color.
- C. Paint interior hollow metal door frames and all stair assembly HP-4.

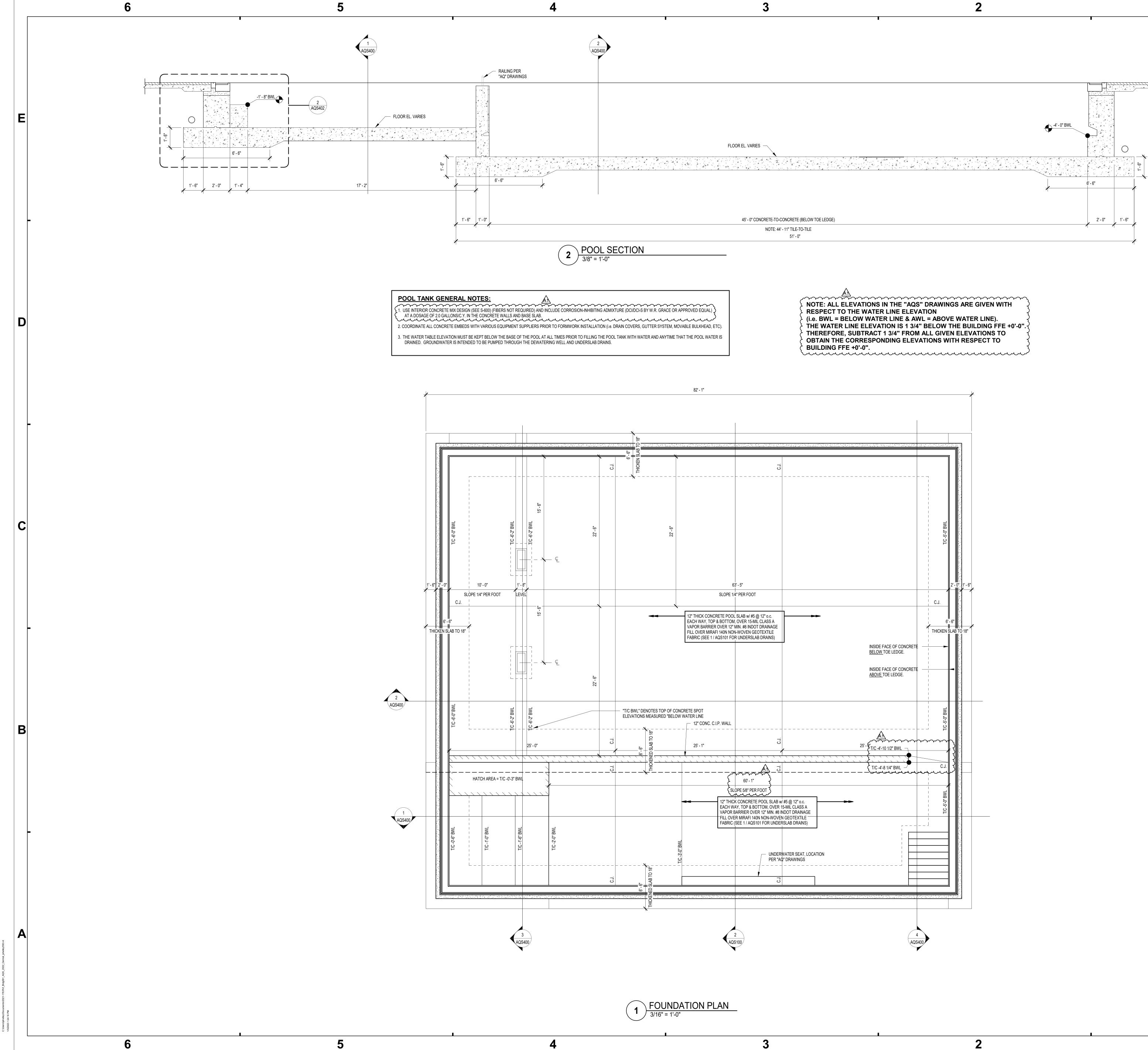
a caulk joint at floor level.

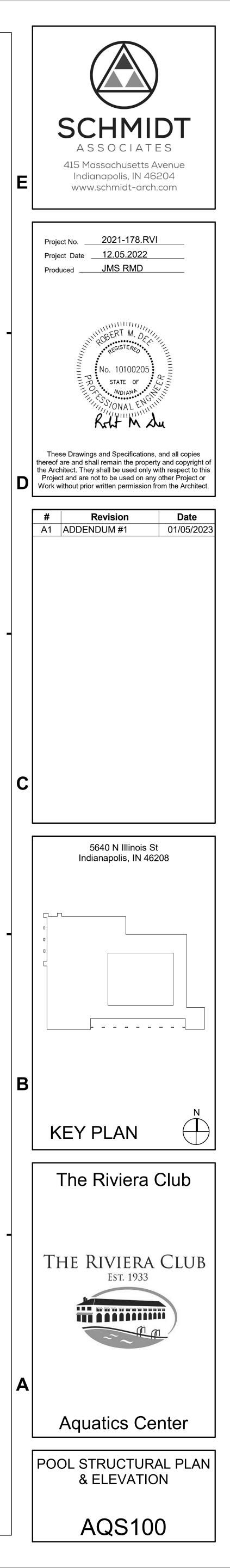
- D. Paint general walls HP-1 or P-1 (Neutral) unless specifically noted otherwise.
- E. Appliances and vending equipment are not provided in this contract.F. Do not install vinyl wall base on interior brick unless specifically noted othwerwise. Provide
- G. Provide vinyl wall base around all casework unless specificlaly noted otherwise.

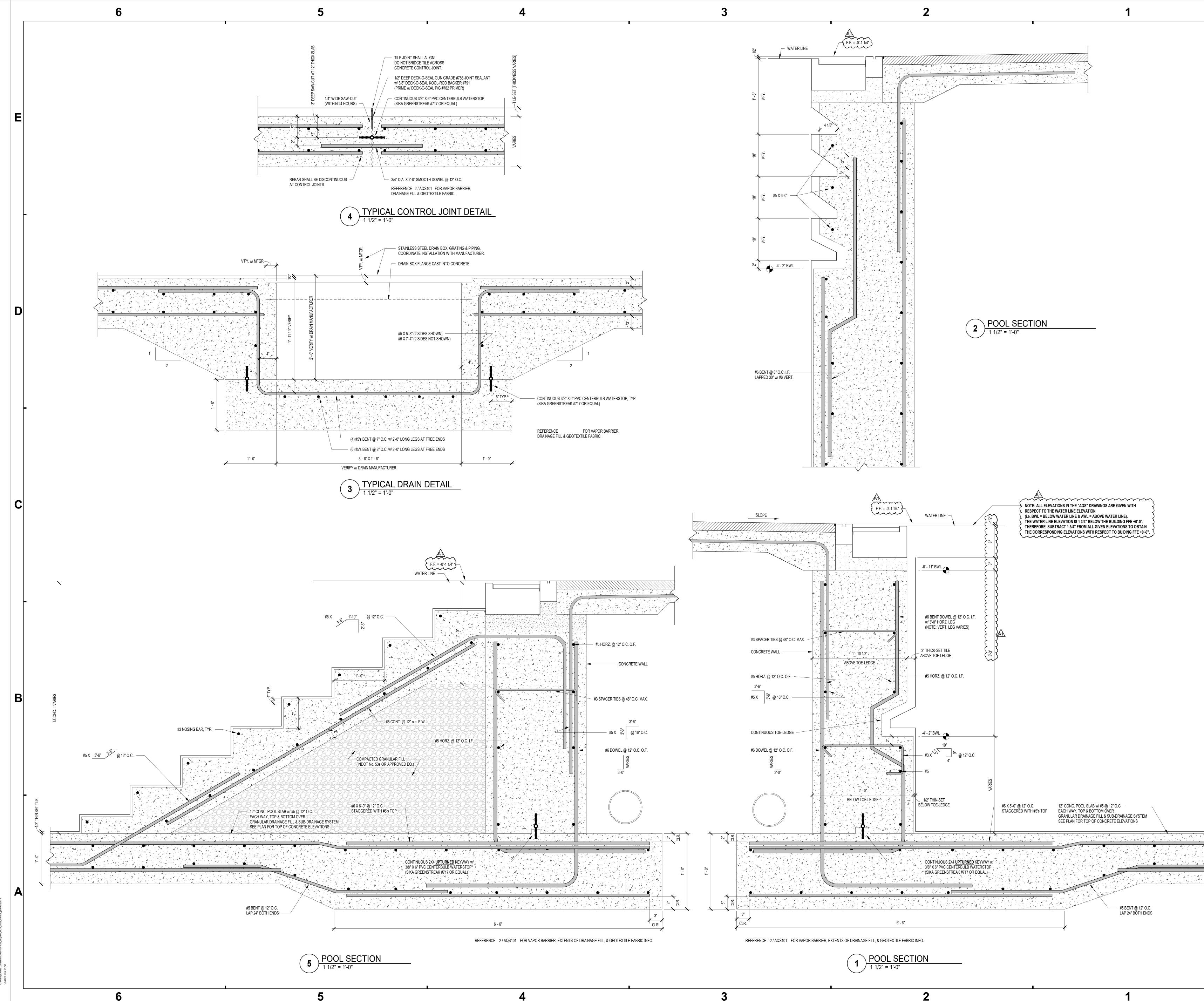
	INTERIOR FLOOR PLAN NOTES				
# NOTE					
1	10 14 00 - INTERIOR PANEL SIGN TYPE A.				
2	10 14 00 - INTERIOR PANEL SIGN TYPE B.				
3	10 14 00 - INTERIOR PANEL SIGN TYPE C.				
4	10 14 00 - INTERIOR PANEL SIGN TYPE D.				
5	12 24 13 - MANUAL ROLLER SHADES.				
6	10 26 00 - EXTENT OF WALL TO RECEIVE WALL PROTECTION PANELS, WP-2 - CUSTOM GRAPHIC. PROVIDE MANUFACTURERS STANDARD TRIM AT OUSTIDE CORNERS.				
7	09 96 00.99 - EXTENT OF WALL TO RECIEVE ACCENT WALL PAINT, HP-3.				
8	10 28 00 - PRIVACY CURTAIN, PC-1 ON HANGING ROD.				
9	10 28 00 - SHOWER CURTAIN, SC-1 ON HANGING ROD.				
10	10 14 00 - INTERIOR PANEL SIGN TYPE E.				
11	10 14 00 - INTERIOR PANEL SIGN TYPE F.				
12	10 26 00 - EXTENT OF WALL TO RECEIVE WALL PROTECTION PANELS, WP-2 - CUSTOM GRAPHIC. PROVIDE MANUFACTURERS STANDARD TRIM AT OUSTIDE CORNERS.				
13	09 96 00.99 - VERTICAL SURFACE OF BENCH TO RECIEVE PAINT (HP-2). HORIZONTAL FACE OF BENCH TO RECEIVE PAINT (HP-1)				
14	ALTERNATE: PROVIDE PORCELAIN FLOOR TILE (PFT-1) AND BASE (PFTB-1). BASE BID: PROVIDE FLOORING AS INDICATED.				
15	ALTERNATE: PROVIDE BRUSHED-FINISHED CONRETE FLOOR AND NO WALL BASE. BASE BID: PROVIDE FLOOR AND BASE AS INDICATED.				

2A FIRST FLOOR INTERIOR PLAN 1/8" = 1'-0"

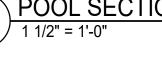


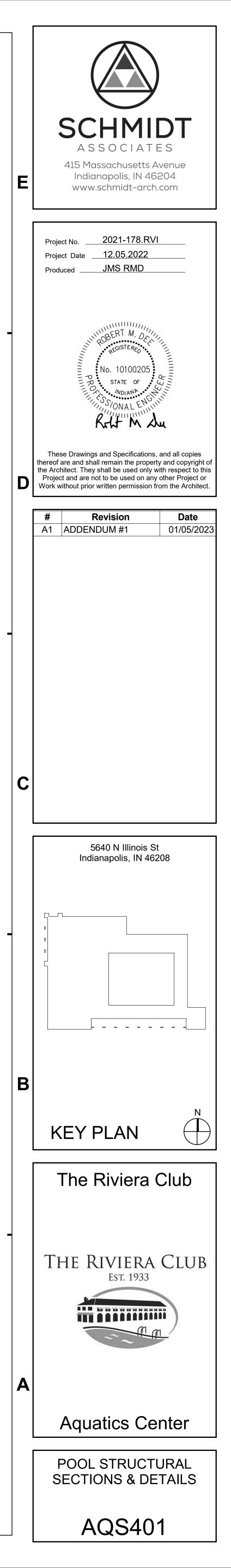


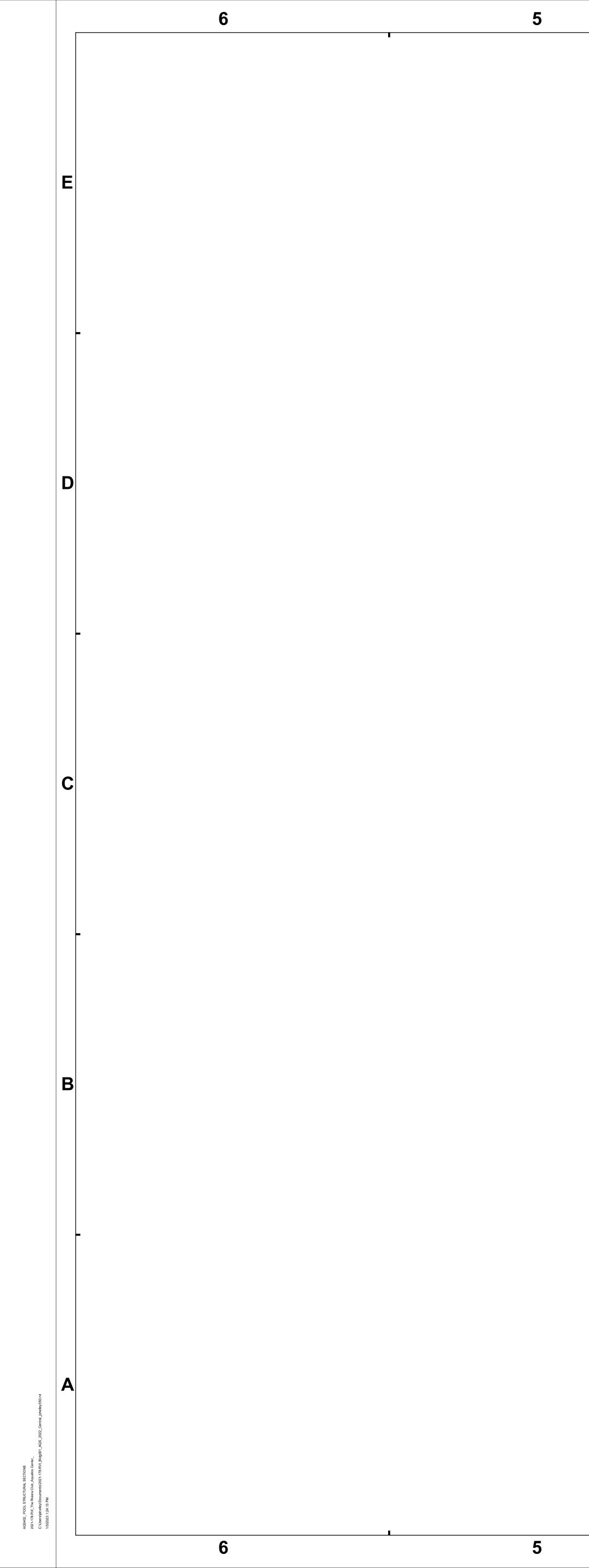


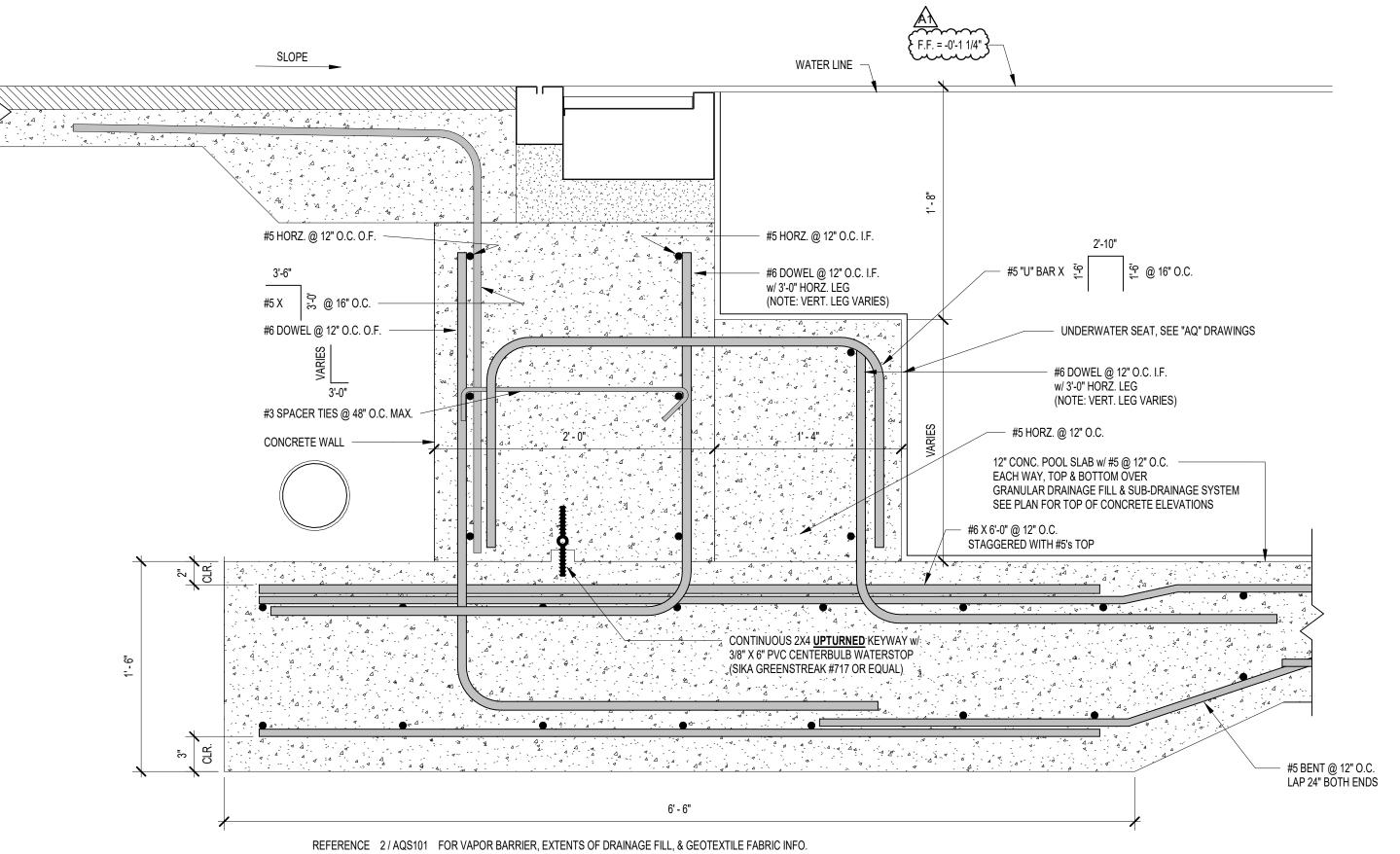


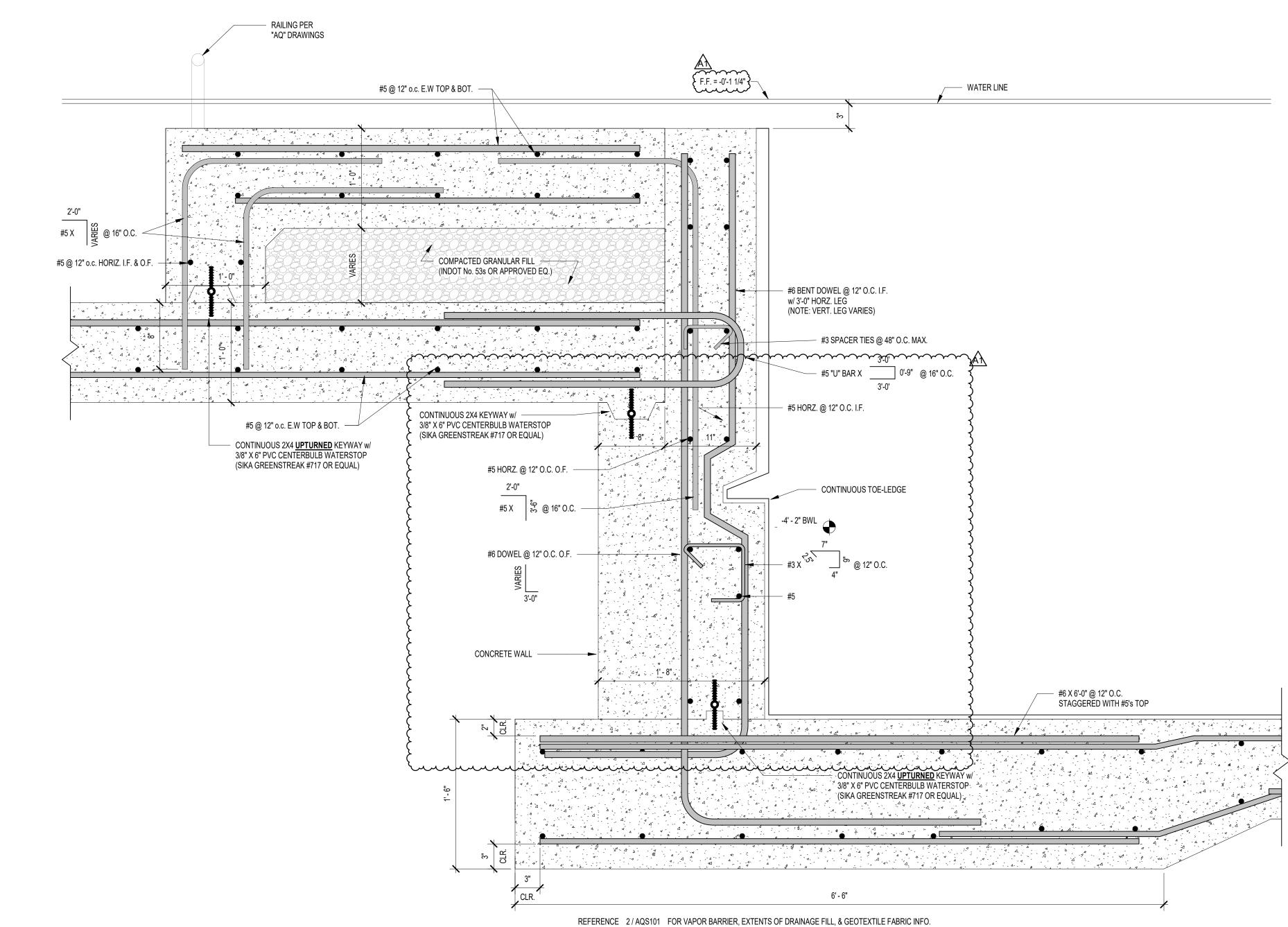








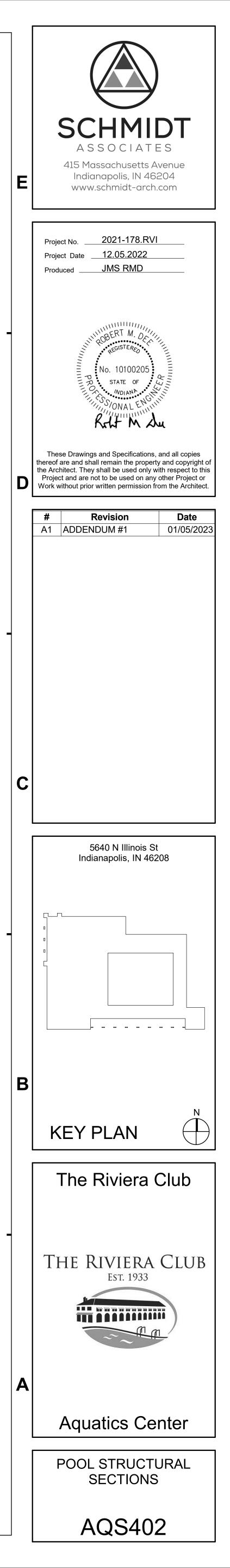


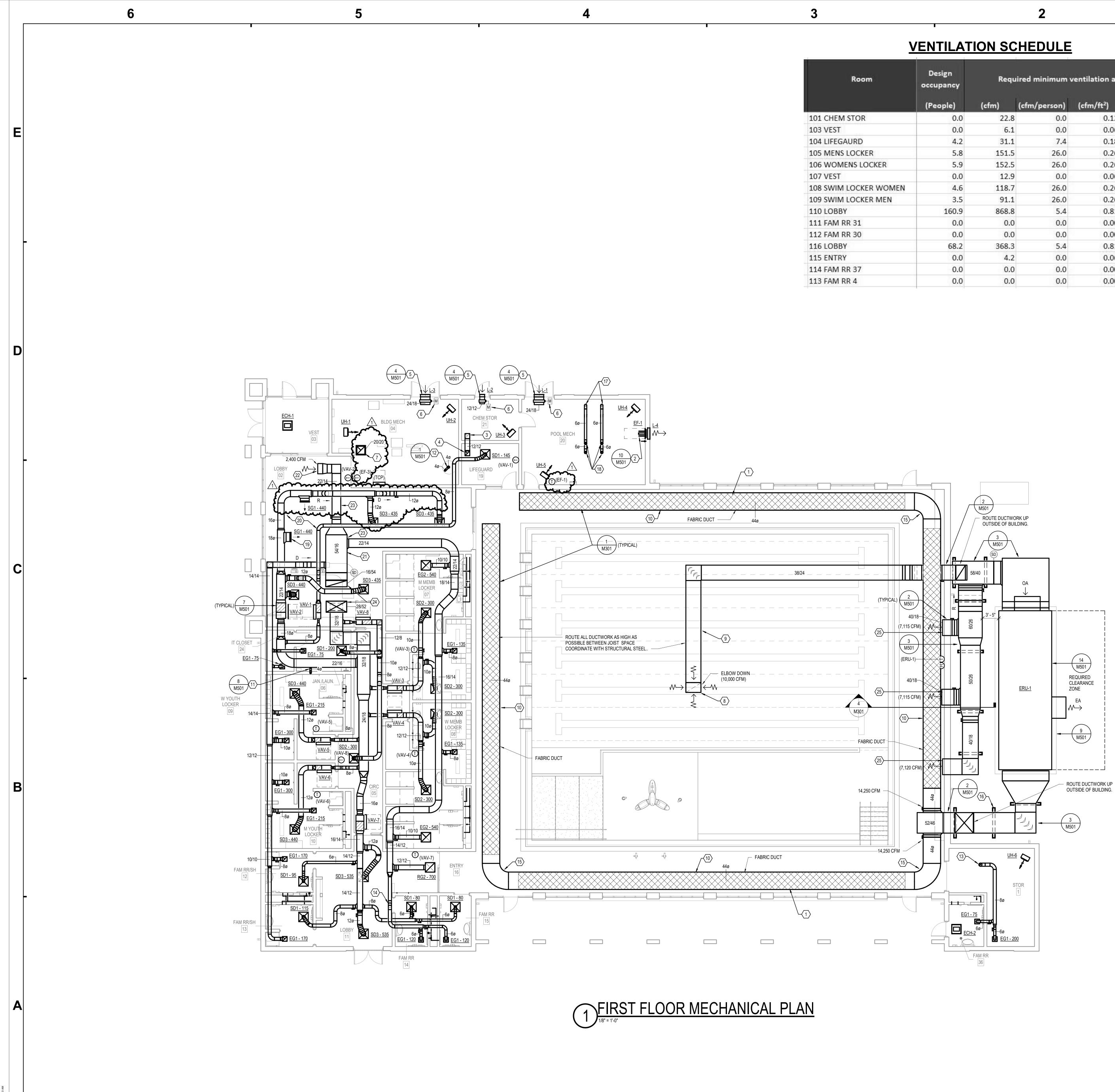




۹ ¥		
- 4		
	1	6' - 6"
	REFERENCE 2/AQS101 FOR VAPOR BARRIER, EXTENTS	OF DRAINAGE FILL, & GEOTEXTILE FABRIC
	POOL SECTION	

2 POOL SECTION 1 1/2" = 1'-0"





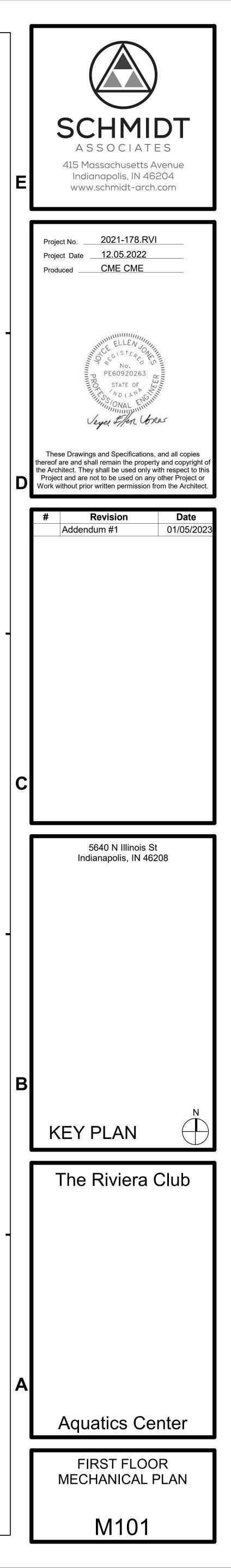
Room	Design occupancy	Required minimum ventilation airflow			
	(People)	(cfm)	(cfm/person)	(cfm/ft²)	(ACH)
101 CHEM STOR	0.0	22.8	0.0	0.12	0.51
103 VEST	0.0	6.1	0.0	0.06	0.26
104 LIFEGAURD	4.2	31.1	7.4	0.18	0.79
105 MENS LOCKER	5.8	151.5	26.0	0.26	1.11
106 WOMENS LOCKER	5.9	152.5	26.0	0.26	1.11
107 VEST	0.0	12.9	0.0	0.06	0.26
108 SWIM LOCKER WOMEN	4.6	118.7	26.0	0.26	1.11
109 SWIM LOCKER MEN	3.5	91.1	26.0	0.26	1.11
110 LOBBY	160.9	868.8	5.4	0.81	4.86
111 FAM RR 31	0.0	0.0	0.0	0.00	0.00
112 FAM RR 30	0.0	0.0	0.0	0.00	0.00
116 LOBBY	68.2	368.3	5.4	0.81	3.47
115 ENTRY	0.0	4.2	0.0	0.06	0.26
114 FAM RR 37	0.0	0.0	0.0	0.00	0.00
113 FAM RR 4	0.0	0.0	0.0	0.00	0.00



- A REFER TO SHEET M000 FOR GENERAL MECHANICAL NOTES, SYMBOLS AND ABBREVIATIONS.
- B REFER TO ARCHITECT'S REFLECTED CEILING PLAN FOR FINAL LOCATIONS OF AIR OUTLETS AND INLETS. ADJUST BRANCH DUCTWORK AS REQUIRED.
- C DUCT RUNOUTS TO TERMINAL UNITS SHALL BE TWO DIAMETERS LARGER THAN TERMINAL UNIT CONNECTION SIZE UNLESS NOTED OTHERWISE.
- D CONTRACTOR SHALL PROVIDE ALL BALANCE DAMPERS AS REQUIRED TO PROVIDE A COMPLETE AND BALANCED SYSTEM.
- E ALL DUCTWORK, DIFFUSERS AND GRILLES IN "WET AREAS" SHALL BE ALUMINUM CONSTRUCTION UNLESS NOTED OTHERWISE.
- F ALL HANGERS, SUPPORTS AND MISCELLANEOUS ACCESSORIES IN POOL BUILDING AND POOL CHEMICAL ROOMS SHALL HAVE A CHLORINE RESISTANT COATING FOR USE IN INDOOR POOLS.

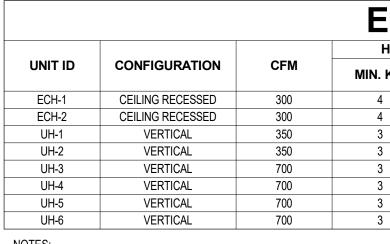
SHEET KEYNOTES

- 1 DIRECT A PORTION OF NOZZLES TOWARDS EXTERIOR WALLS AND WINDOWS. 2 SIDEWALL MECHANICAL ROOM VENTILATION FAN. MOUNT CENTERLINE OF FAN AT APPROXIMATELY 10'-0" AFF. COORDINATE WITH STRUCTRUAL, ARCHITECTURAL AND POOL EQUIPMENT DRAWINGS. 3 TERMINATE ALUMINUM DUCT WITH WIRE MESH SCREEN AT 18" AFF. PROVIDE
- CHLORINE RESISTANT COATING ON THE INSIDE AND OUTSIDE OF DUCTWORK AND ON ALL VOLUME DAMPERS AND MISCELLANEOUS ACCESSORIES. 4 OFFSET DUCT UP TO EF-4 ON ROOF. PROVIDE CHLORINE RESISTANT COATING ON THE INSIDE AND OUTSIDE OF DUCTWORK AND ON ALL VOLUME DAMPERS AND MISCELLANEOUS ACCESSORIES.
- 5 CENTER LOUVER ABOVE DOOR. COORDINATE EXACT LOCATION WITH INTERLOCK MOTORIZED DAMPER WITH ASSOCIATED EXHAUST FAN
- OPERATION. 120 V CONNECTION BY EC. OPEN ENDED EXHAUST AIR DUCT WITH WIRE MESH SCREEN UP THROUGH ROOF TO EF-3. TERMINATE DUCT JUST BELOW ROOF DECK.
- OF JOISTS. 9 MOUNT RETURN AIR DUCT UP IN JOIST SPACE BETWEEN WEBBING.
- COORDINATE LOCATION WITH STRUCTURAL STEEL. PROVIDE CHLORINE RESISTANT COATING ON ALL MISCELLANEOUS ACCESSORIES.
- 10 MOUNT FABRIC DUCT UP IN JOIST SPACE BETWEEN WEBBING. COORDINATE LOCATION WITH STRUCTURAL STEEL.
- 11 4" DRYER VENT UP THROUGH ROOF. CONFIRM SIZE WITH DRYER MANUFACTURER. 12 4" FLUE AND 4" INTAKE FOR WATER HEATER. CPVC OR MANUFACTURER
- APPROVED VENT AND INTAKE UP THROUGH ROOF, TERMINATE WITH CONCENTRIC FLUE FITTING. 13 8" EXHAUST AIR DUCT UP TO EF-5 ON ROOF.
- 14 OFFSET DUCT AS REQUIRED.
- 15 ALL ELBOWS SHALL BE ALUMINUM RIGID DUCTWORK. 16 DUCT SUPPORTS AS REQUIRED, TYPICAL.
- 17 6" DIAMETER FLUE AND 6" DIAMETER INTAKE DOWN TO POOL HEATER. CONFIRM SIZING AND REQUIREMENTS WITH POOL HEATER MANUFACTURER. SEE AQUATIC PLANS FOR MORE INFORMATION.
- 18 6" DIAMETER FLUE AND 6" DIAMETER INTAKE UP THROUGH ROOF. CONFIRM SIZING AND REQUIREMENTS WITH POOL HEATER MANUFACTURER. SEE AQUATIC PLANS FOR MORE INFORMATION.
- 19 MOUNT SUPPLY AIR GRILLES OFF SIDE OF DUCT ABOVE THE ACOUSTICAL VERTICAL PANELS IN THIS AREA, TYPICAL.
- 20 SPIRAL DUCTWORK WITH PAINT GRIP FINISH. TO BE PAINTED BY OTHERS. COLOR SELECTION BY ARCHITECT.
- 21 DUCTWORK ABOVE VERTICAL ACOUSTICAL PANELS SHALL HAVE PAINT GRIP FINISH. PAINT BY OTHERS. COLOR SELECTION BY ARCHITECT.
- 22 OPEN ENDED RETURN AIR DUCT WITH WIRE MESH SCREEN ABOVE
- ACOUSTICAL PANELS. 23 ALL RETURN/EXHAUST AIR DUCT ABOVE EXPOSED ACOUSTICAL PANEL CEILINGS SHALL BE INTERNALLY LINED.
- 24 UP TO ERU-2 ON ROOF. 25 ROUTE RETURN AIR DUCT DOWN LOW TO BE STUB WITHIN BACK OF BENCH SEATING. COORDINATE LOCATIONS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS. THE FROT OF THE BENCH WILL HAVE A RETURN AIR OPENING ALONG THE LENGTH OF THE BENCH TO ALLOW FOR LOW RETURN AIR PATH.



|--|

		A		ACITY						S	UMMEF	R DES	IGN COND	ITIONS	WINT	ER DESI EAT		DITIONS
JNIT ID	SUPPL CFM	Y N	MIN. OU AIR C		EXHA CF		PLATE E	EXCH ODE			EAT B	WB	DB	AT WB	DB	WE	B DB	WB
ERU-1 ERU-2	28500 CF		14250 0		17100			50C-1			7.6	78.2 78.2	85.5 80	77.7	-10 -0.5	-10.	9 62	40
	DITIONAL S ACTURER F						ied. 1 AD	D	ITIC)NA	LIN	IFC)	1				
					M	ODEL							-		ALTITU	DE (Et)		
			1	NDHU-0			C-HG-IF-4	60							0.0			
OUTSI	DE FILT	ER															OUTS	SIDE
CFM	TYPE	. [DEPTH (n)	FACE	E VEL. (F	PM)	ME		QTY	WIDTH	(in)	HEIGHT	. ,	CLEAN		TOTAL F	
14250	Pleate		2			428		8	3	10	24		20		0.24	4	0.62	
PLATE	HEAT E	XCH/			E 4/5	DATE							DETHE			SUPPLY	Y & RETI	JRN
MO	DE	CFM	EAT (DE	DUTSID 3/WB)(°I		DATA	/B)(°F)	PD	CFM	EAT (DB/RH)	(°F/%)	LAT (DE				PD	-+
Coo	ling 1	4250	87.6	6/78.2		85.5/7	7.7 (0.70	17100	8	84.0/60.	0	85.	.8/56.6		0	.94	
Purge H Heat		4250 7125)/-10.9)/-10.9		46.1/3			17100 9975		34.0/24. 34.0/53.		_	3/100.0 0/100.0		_).88).37	
			ODEL: H		1950		– ř					-	50.0		<u> </u>		*	
DX CO	L																SUPP	۲LY
CFM	FPM		(DB/WB	,, ,	L/	AT (DB/V	,, ,		MBH		_	EF	CIRCUIT		ST (°F)	ROWS	FPI P	PD
14250	500		85.5/77.	7		54.9/5	4.9		1165.2	2/481.3	R-4	-10A	1		42.5	6		.87
HOT G/ CFM	AS REH	_	EDB)	M		DEF		CIRCUIT		POWe	ED	SUPP PD	
28500				WB (°F) 5/64.9			B/WB (°F 0.1/71.3)	MB 63		REF. R-410A		CIRCUIT 1	3	ROWS 2	FPI 10		
SUPPL	YFAN																SUPP	۲LY
QTY	CFI		LASS	SIZE (TYPE	TSP (. ,	,			_	MOTOR R	PM	VFD Hz		FOR TYPE	
2 TOTAL	142		-	27		Plenum -	5.1	14 14	16 32				1800		59.5		TEFC	
	ALCULA					-										ı		
	SA E Casing	SP ("W	,		2.00		ide Filter ite Heat E		-		0.3		Hot Ga Indirect Fi		at ("WC)	<u></u>	0.27	
Out	side Filter				0.24	Fid	DX C			100)	0.7	_	Indirect I i	TSP:	lace (W		5.14 "W	C
INDIRE	CT FIR		RNACI	=													SUPP	
1	CFM		EDB (°F	_	LDB	4	MBH I	_		HOUT			TYPE	0	BAS PRE		PD	2
	8500 RNACE#	ą.	65.1 MBH IN		96. MBH (35/4	1200		(960		N	G		6-14"\	VC	0.3	8
10	DF #1		600		48	0												
10	DF #2	1	600		48	0												
					5E7			1							÷		RETU	
CFM 31350	TYP		DEPTI 2		FA	CE VEL. 523	(FPM)	_	ERV N/A	QTY 15	WIDTH 24		HEIGHT 24		CLEAN 0.14	2.	TOTAL PE 0.57)
	JST FAN	2399991	7					1.2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1.(197)					-7 <i>3</i> 82		EXHAU	ST
QTY	CFM	CLAS	SS SI	ZE (in)	TY	'PE	TSP ("W	C)	BHP	MHP	RPM	N	IOTOR RPI	M	/FD Hz	MOT	OR TYPE	
	17100			30	Pler	num	3.06		12.3	15.0	1361		1200		69.8	1	TEFC	
15P C	RA ES	SP ("WO	C)	1	.25		Ret	urn F	ilter Cle	ean PD	("WC)		0.	14	-	_	-	
	Casing L			(0.30		Pla	te He	eat Exch	nanger ("WC)		0.9	94 7	TSP:	3.06	"WC	
AIR-CO	OLED F	REFRI	GERAT	ION													IRSTRE/	AM
	TONS 97.1					IENT (°F 95.0)			CI	RCUITS 2		# OF	STAGE	ES	R	EF. EER 10.0	
5						33.0					2			4	,			
	57.1																	
ELEC	TRICAL			ON											1		NIT POW	ER
ELEC	TRICAL	OMPON	IENT	ON	V	/OLTS 460			PH	IASE 3				2. (Hz)	- 110	OP	MCA	ER
	TRICAL CC Electi SUMMAF	DMPON	IENT Iclosure	N	V	/OLTS 460			PH	HASE 3				Q. (Hz) 60	- 110			ER



NOTES: 1. PROVIDE WITH ALL REQUIRED MOUNTING BRACKETS. 2. MAINTAIN ALL REQUIRED CLEARANCES. 3. UNIT SHALL BE EXPLOSION PROOF. 4. PROVIDE WITH UNIT MOUNTED THERMOSTAT.

			LOUV	ER SC	CHEC	JULE			
			SPE	CIFICATION SE	CTION 23330	0			
UNIT ID	ТҮРЕ	WIDTH (INCHES)	HEIGHT (INCHES)	DEPTH (INCHES)	FREE AREA (SQ. FT.)	MAX AIRFLOW (CFM)	MAX AIR VELOCITY (FPM)	MANUFACTURER WITH MODEL NUMBER	NOTES
L-1	STATIONARY DRAINABLE	24"	18"	6"	1.38	750 CFM	600	RUSKIN - ELF6375DX	
L-2	STATIONARY DRAINABLE	12"	12"	6"	.36	100 CFM	600	RUSKIN - ELF6375DX	
L-3	STATIONARY DRAINABLE	24"	18"	6"	1.38	750 CFM	600	RUSKIN - ELF6375DX	
L-4	STATIONARY DRAINABLE	28"	28"	6"	3.27	750 CFM	600	RUSKIN - ELF6375DX	

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AIR TO AIR ENERGY RECOVERY LINIT SCHEDULE

							AIR			JI Г				UN			ICU	ULI																			
		SUPP	PLY FAN E	ΑΤΑ					EXHAUST	FAN DAT	Ą		DX COC	DLING CO	IL DATA			AS HEATI A (QTY. 2)				HOT GAS	REHEA	AT		FILT	ER DAT	A	ELE	CTRICAL	DATA	САВІ		INSIONS			
FAN DATA																																			UNIT	MANUFACTURER WITH MODEL NUMBER	NOTES
OTY.	SIZE (IN)	ESP	TOTAL BHP	RPM	TOTAL HP	TYPE	OTY.	SIZE (IN)	ESP	TOTAL BHP	RPM	TOTAL HP	TOTAL MBH	SENS MBH	FFR	INPUT MBH			B LAT DB	CFM	EAT DB		LAT DB	LAT WB	MBH	TYPE	MFRV	ΟΤΥ	МСА	VOLTS	PHASE	HEIGHT	WIDTH	LENGTH	WEIGHT		
1 2	27	2.00 in-wg	32.4	1800	40	PLENUM	1	30	1.25 in-wg	12.3	1200	15	1165.2	481.3	10.0	600.0	80	65.1 °F	96.3			F 77.7 °F	54.9		1165.20	PLEATED	8	Q	259.5	460	3	11' - 6 1/2"	-	33' - 6"	20100.00	INNOVENT NDHU-OU-PL-28500-AC-IF-460	1, 2
1		0.25 in-wg	8.3	1986	10	PLENUM	2		1.50 in-wg	5.0	1454	10	289	194	10.6	300.0	80	58.0 °F	89.7	7000					142.80	PLEATED	8	8	60.2	460	3	6' - 4 3/16"	8' - 2 5/16"	16' - 5 5/16"	5017.00	VALENT VCX-212-FL-20I-J-A1	1, 2

ERU-2 ADDITIONAL INFO

Uni	it Perf	forma	nce

				0	nic Pen	ormand	,e					
Design Con Elevation		Summe	Win	ter DB (I	F)	Supply	,		door Air	E		ust Air
807	,		8 (F) 8.2	-0.5	,	(CFM) 7,000			(CFM) 4,000		<u> </u>	F M) 000
Init Cnasifi	antiona											
Unit Specifi Qty W	eight (It	o) Coo	ling Type	Heati	ng Type	Unit Insta	allation	Unit E	TL Listing	Eurn	ace E	TL Listing
-	17 (+/- 5		kaged DX		ect Gas	Outd			CUL 1995	-		8 / CSA 2.6
Configuratio	on	Outdoo	n Ain						Exhaust Air			
	ntake	Outdoo		charge			Inta	ke	Exhaust Air		char	ae
	End			lottom			Bott				Side	90
ASHRAE 90	.1-2019	Compliance		4 Min Ed	fielement	Cala	ulated	Efficience		Com	anlia	
	EER		ASHRAE 90.	9.8	nciency	Caic	ulated 10.	Efficiend	;y	Con	nplia	nce
	IEER			13			16.	-				
Enthalpy Re	ecovery	Ratio (%)		50			65.				1	
Energy Rec	overy Pe	erformance			Tompor	ature (F)						Canaaitu
Design	0	utdoor Air		Supply A			eturn A	ir	Exha	ust Air		Capacity Reduction
Condition	DB	WB			WB	DB		VB/RH	DB	WE	3	(BTU/h)
Summer	91.1	78.2		-	68.5	75.0		2.4/50	86.0	73.	· · · · · · · · · · · · · · · · · · ·	163,800.0
Winter	-0.5	-2.0) 47.	4	41.6	72.0	5	5.7/35	21.6	19.0	6	206,928.0
Cooling Spe	cificatio	ons										
		Total	Ser	nsible		Lead		Coil (DB/WB)		Re	heat
Туре		Capacity (MBH)		oacity IBH)		npressor Type	E	AT (F)	LAT (F)	Capa (MB		LAT (F)
Packaged	I DX	289.9	19	94.0	Inve	rter Scroll	77	.9 / 66.0	52.6 / 52.5	142	.8	71.5
Llaating Cna	alficatio											
Heating Spe	cificatio	ons				Temp	erature	Rise		P	erfor	mance
Ту	be	Gas Ty	/pe Inp (MB		Output (MBH)	Min		Max	Turndown	EAT		LAT (F)
Indirec	t Gas	Natur			240.0	(F) 3.0	+	(F) 32.0	12:1	58.		89.7
manoc	005	Hata		.0	240.0	0.0		02.0	12.1	00.	<u> </u>	00.7
Air Perform												
Туре	То	tal Volume	External		fotal SP	FRPM				an		Deliver Treme
Supply	_	(CFM) 7,000	(in. wg 0.25	<u>, (</u>	(in. wg) 4.868	1986		tty 1	Type Plenum		+-	Drive-Type Direct
Exhaust		4,000	1.5		3.01	1454	_	1	Plenum		+	Direct
Economize	r	4,000	1.5		1.746	1210		1	Plenum			Direct
Motor Speci	fication	•										
Motor Speci Motor	ncation	S Qty		ating	Size	e (hp)	Enc	losure	Efficie	ncy		RPM
Supply		1		e r (hp) 29		0	(DDP	PE	-		1770
Exhaust		1		14		5		DDP	PE			1760
Electrical S			Alme Alle IP		N/C	A (A)		Ma		Ear P	1.0	
Power S		Ra	460/60/3			A (A)).2	_		P (A) 0.0	Fank		r (W/CFM)* 217
0			400/00/3		00	/ - fm				1		6 f F

FAN SCHEDULE

							3	PECIFICATION S	SECTION 23										
			FAN DA	TA						MOTOR DATA				ACCESSORIES	6				
UNIT ID	DESCRIPTION	WHEEL SIZE	DRIVE TYPE	CFM	TSP	BHP	RPM	SONES	HP	VOLTS	РН	ROOF CURB	DISCONNECT SWITCH	GRAVITY BACKDRAFT DAMPER	VIBRATION ISOLATORS	BIRD SCREEN	UNIT WEIGHT (LBS)	MANUFACTURER WITH MODEL NUMBER	NOTES
EF-1	SIDEWALL BELT DRIVE FAN	20	BELT	750 CFM	0.5	0.35	1725	17.1	1/2	120	1	NO	YES	YES	NO	YES	62.00	GREENHECK SBE-2H20-5	1, 2
EF-2	DIRECT DRIVE CENTRIFUGAL ROOF EXHAUST FAN	7	DIRECT	275 CFM	0.25	0.03	1725	4.9	1/15	120	1	YES	YES	YES	NO	YES	22.00	GREENHECK G-070-VG	3
EF-3	DIRECT DRIVE CENTRIFUGAL ROOF EXHAUST FAN	9.5	DIRECT	750 CFM	0.5	0.15	1725	10.2	1/6	120	1	YES	YES	YES	NO	YES	32.00	GREENHECK G-095-VG	2
EF-4	DIRECT DRIVE CENTRIFUGAL ROOF EXHAUST FAN	9.7	DIRECT	100 CFM	0.25	0.12	1725	9.5	1/4	120	1	YES	YES	YES	NO	YES	48.00	GREENHECK G-097-A	1, 3
NOTES:	mmmm																		hun

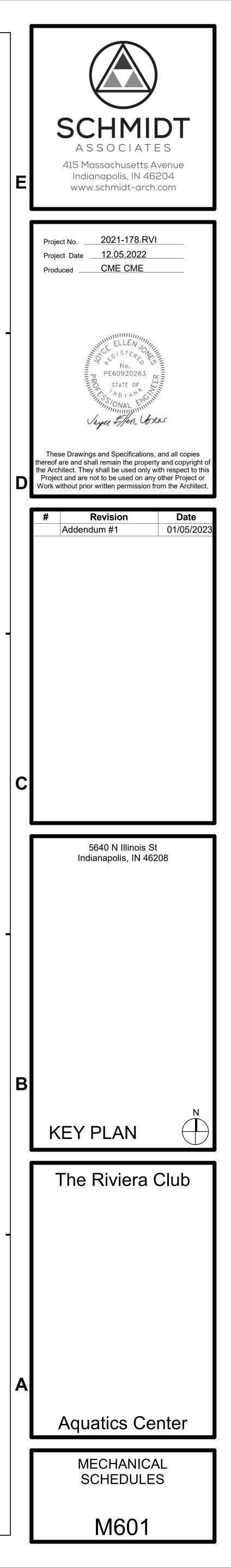
NOTES: 1. PROVIDE WITH HI-PRO-POLYESTER COATING. 2. FAN CONTROLLED OFF ROOM THERMOSTAT. 3. FAN SHALL RUN CONTINUOUSLY. ununu

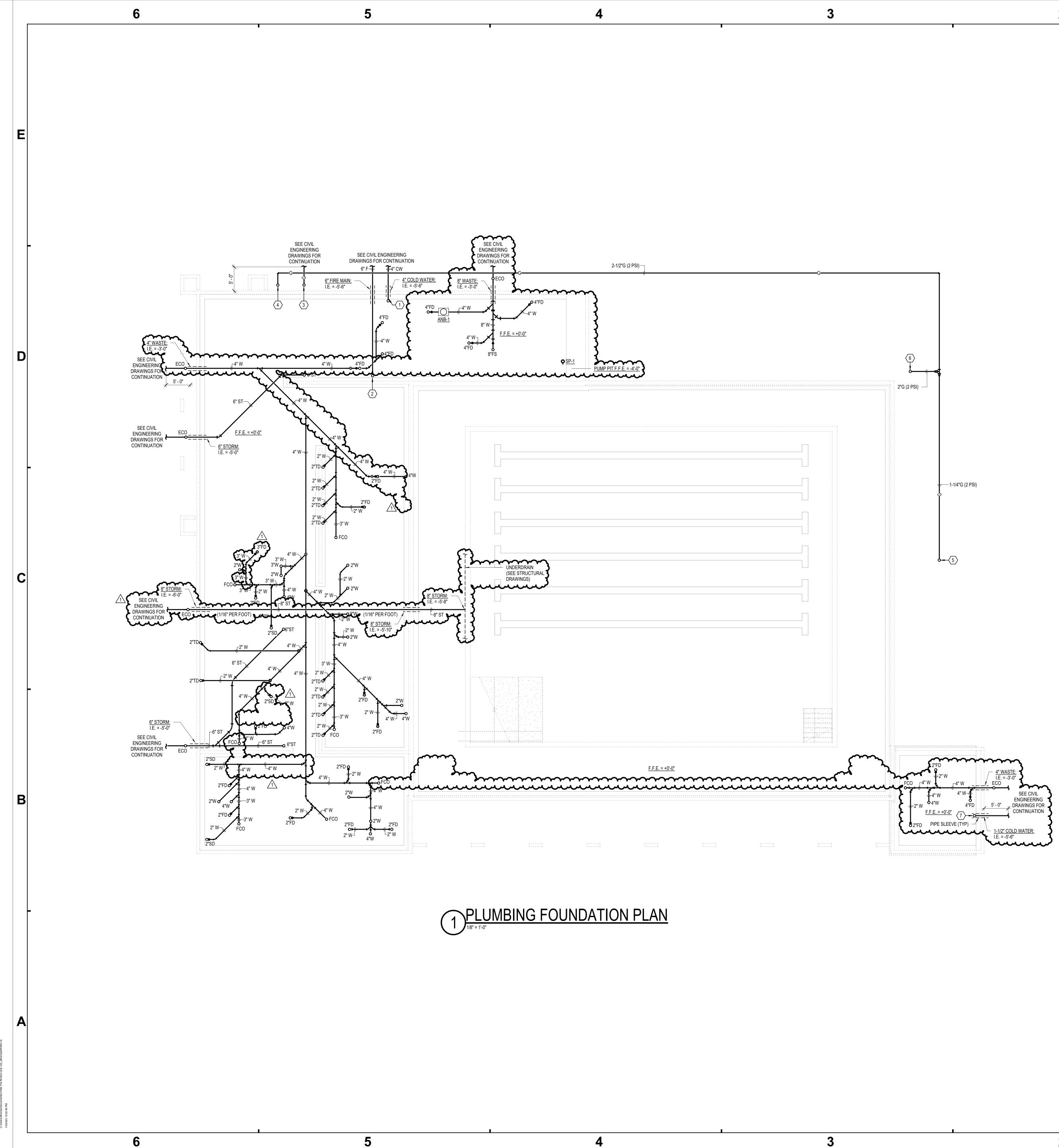
ELECTRIC UNIT HEATER SCHEDULE

HEATIN	G DATA	E	LECTRICAL DAT	Γ A		ACCESSORIES		MANUFACTURER	
. KW	MBH	AMPS	VOLTAGE	PHASE	DISCONNECT SWITCH	INTEGRAL THERMOSTAT	WALL BRACKET	WITH MODEL NUMBER	NOTES
4	13.7	19.2	208	1	YES	YES	NO	QMARK - CDFRE 548	2, 4
4	13.7	19.2	208	1	YES	YES	NO	QMARK - CDFRE 548	2, 4
3	10.2	14.5	208	1	YES	YES	NO	QMARK - MUH0381	1, 2, 4
3	10.2	14.5	208	1	YES	YES	NO	QMARK - MUH0381	1, 2, 4
3	10.2	16.7	208	1	YES	YES	NO	BERKO - RUX300812	1, 2, 3, 4
3	10.2	16.7	208	1	YES	YES	NO	BERKO - RUX300812	1, 2, 3, 4
3	10.2	16.7	208	1	YES	YES	NO	BERKO - RUX300812	1, 2, 3, 4
3	10.2	14.5	208	1	YES	YES	NO	QMARK - MUH0381	1, 2, 4

		DIME	NSIONAL DATA		THROW	DATA				ACCESSO	RIES		
UNIT ID	MAX CFM	FACE SIZE	SLOT INFO	CONN. SIZE	DIRECTION	DISTANCE @ NOM. CFM	MOUNT	MAX NC SOUND LEVEL	BALANCE DAMPER	PLENUM BOX	TAMPER-PROOF SCREWS	MANUFACTURER WITH MODEL NUMBER	NOTE
EG1	720	12"x12"	-	10"x10"	-	-	SEE RCP	25	YES	YES	NO	PRICE 80	1, 2, 4
EG2	2005	24"x24"	-	22"x22"	-	-	SEE RCP	25	YES	YES	NO	PRICE 80	1, 2, 4
RG2	2005	24"x24"	-	22"x22"	-	-	SEE RCP	25	NO	YES	NO	PRICE 80	2, 4
SD1	213	24"x24"	-	6"	4-WAY	3-4-7	SEE RCP	25	NO	NO	NO	PRICE SPD	1, 2, 3
SD2	332	24"x24"	-	8"	4-WAY	5-7-10	SEE RCP	25	NO	NO	NO	PRICE SPD	1, 2, 3
SD3	490	24"x24"	-	10"	4-WAY	6-8-12	SEE RCP	25	NO	NO	NO	PRICE SPD	1, 2, 3
SG1	590	24"x12"	-	22"x10"	45 DEG.	7-10-12	DUCT	25	YES	NO	NO	PRICE 535FL	5

						SPECI	FICATION SE	CTION 23360)0							
	LOC	CATION					DESIGN	SOUND								
UNIT ID	NAME	NUMBER	DESIGN CFM	MIN CFM	HEAT CFM	UNIT INLET SIZE	INLET PRESSURE IN. WG	LEVEL @ DESIGN AIRFLOW	MIN KW	EAT	LAT	AMPS	VOLTS	PH	MANUFACTURER WITH MODEL NUMBER	NOTES
VAV-1	LIFEGUARD	2	145	75	75	4	1	28	0.7	55 °F	85 °F	2.53	277	1	PRICE SCRA	
VAV-2	LIFEGUARD	2	2625	800	1315	14	1	21	12.1	55 °F	84 °F	43.68	277	1	PRICE SCRA	
VAV-3	CIRC-1	38-1	600	180	300	7	1	29	2.8	55 °F	85 °F	10.11	277	1	PRICE SCRA	
VAV-4	CIRC-1	38-1	600	180	300	7	1	29	2.8	55 °F	85 °F	10.11	277	1	PRICE SCRA	
VAV-5			440	135	220	5	1	34	2.1	55 °F	85 °F	7.58	277	1	PRICE SCRA	
VAV-6			440	135	220	5	1	34	2.1	55 °F	85 °F	7.58	277	1	PRICE SCRA	
VAV-7	CIRC-1	38-1	1440	435	720	10	1	25	6.8	55 °F	85 °F	24.55	277	1	PRICE SCRA	
VAV-8	LIFEGUARD	2	500	150	250	5	1	36	2.4	55 °F	85 °F	8.66	277	1	PRICE SCRA	





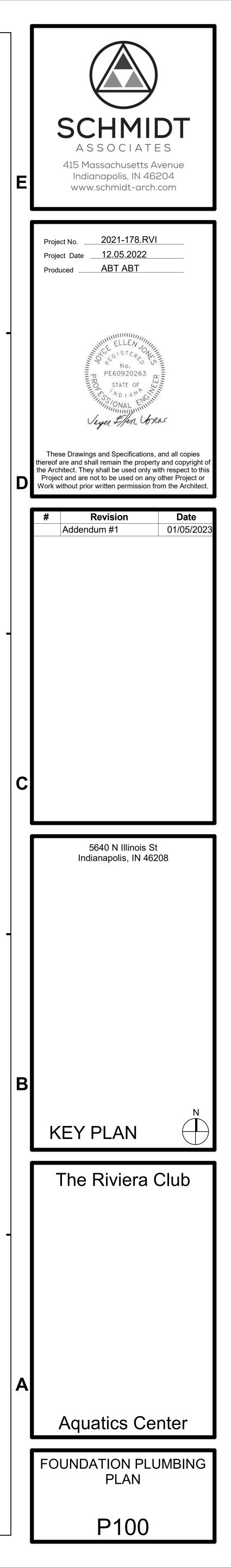
GENERAL NOTES

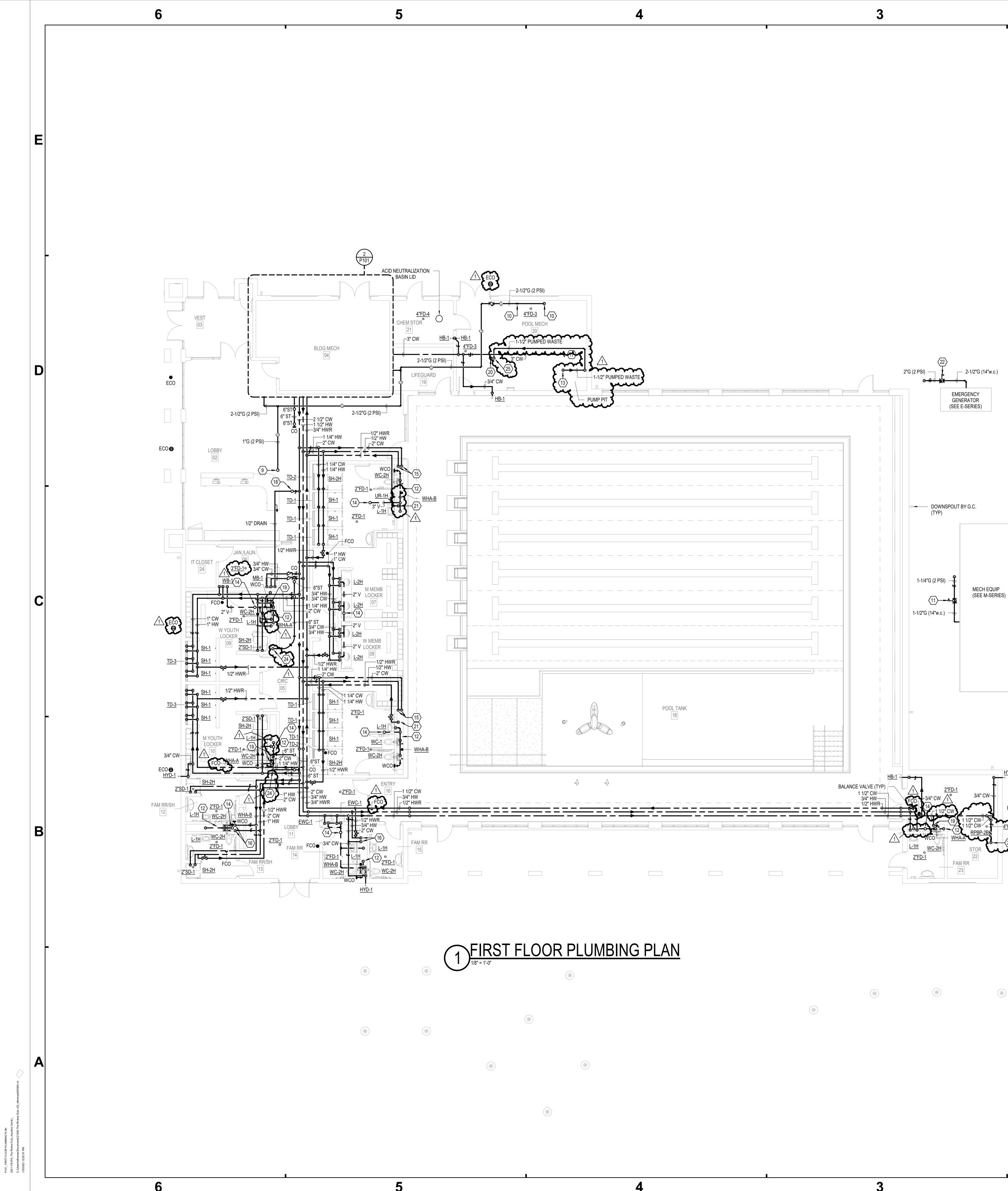
A REFER TO DRAWING P-000 FOR PLUMBING AND FIRE PROTECTION SYMBOLS

- AND ABBREVIATIONS. B REFER TO DRAWING P-500 SERIES FOR PLUMBING DETAILS.
- C REFER TO DRAWING P-600 SERIES FOR PLUMBING SCHEDULES. D ALL FLOOR DRAINS AND AND FLOOR CLEANOUTS TO BE FLUSH AND LEVEL WITH FINISHED FLOORS. CONTRACTOR IS RESPONSIBLE FOR ANY REWORK
- NECESSARY FOR IMPROPER INSTALLATION. E REFER TO THE "PLUMBING FIXTURE ROUGH-IN SCHEDULE" TO SIZE BRANCH
- LINES TO INDIVIDUAL PLUMBING FIXTURES. F INSTALL UNDERGROUND PVC DWV PIPING ACCORDING TO ASTM D 2321.
- G SLEEVE ALL PIPING PASSING THROUGH FOUNDATION WALLS AND BELOW FOOTINGS. SLEEVE SHALL BE TWO PIPE DIAMETERS LARGER THAN PIPE.
- SLEEVE SHALL EXTEND BEYOND THE ANGLE OF REPOSE. H AVOID ALL CONFLICTS BETWEEN PLUMBING SYSTEMS, AND UNDERGROUND CONDUIT, PIPING, STRUCTURAL MEMBERS, AND ANY OTHER OBSTRUCTIONS ENCOUNTERED. PIPING LAYOUTS ARE DIAGRAMMATIC AND SHOW SYSTEM INTENT. PIPING MAY REQUIRE ADDITIONAL OFFSETS, DROPS, FITTINGS ETC.

SHEET KEYNOTES

1 4"CW MAIN UP. 2 6" FIRE MAIN UP. 3 GAS SERVICE BY UTILITY COMPANY 4 2-1/2"G (2 PSI) FROM ABOVE. 5 1-1/4"G (2 PSI) UP. 6 2"G (2 PSI) UP 7 1-1/2" CW FROM ABOVE.





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GENERAL NOTES

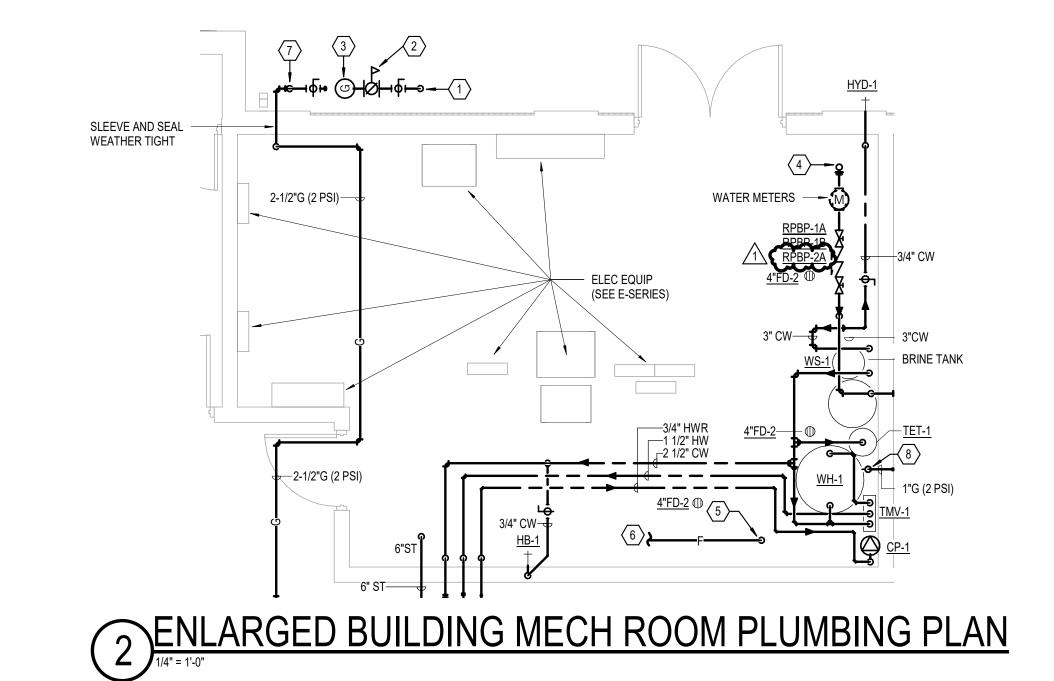
- A REFER TO DRAWING P-000 FOR PLUMBING AND FIRE PROTECTION SYMBOLS AND ABBREVIATIONS.
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- WITH FINISHED FLOORS. CONTRACTOR IS RESPONSIBLE FOR ANY REWORK NECESSARY FOR IMPROPER INSTALLATION.
- E REFER TO THE "PLUMBING FIXTURE ROUGH-IN SCHEDULE" TO SIZE BRANCH LINES TO INDIVIDUAL PLUMBING FIXTURES.
- F LOCATE SHUT-OFF VALVES ABOVE ACCESSIBLE CEILINGS OR ACCESS
- PANELS IN GYP. CEILINGS. G INSTALL PIPING AS HIGH AS POSSIBLE. MAINTAIN CODE REQUIRED SLOPE ON ALL WASTE AND VENT PIPING.
- H AVOID ALL CONFLICTS BETWEEN PLUMBING SYSTEMS, AND CONDUIT, DUCT, EQUIPMENT, PIPING, STRUCTURAL MEMBERS, AND ANY OTHER OBSTRUCTIONS ENCOUNTERED. PIPING LAYOUTS ARE DIAGRAMMATIC AND SHOW INTENT. PIPING MAY REQUIRE ADDITIONAL OFFSETS, DROPS, FITTING,
- I PROVIDE SHUT-OFF, DIRT LEG AND UNION AT EACH NATURAL GAS
- CONNECTION TO GAS FIRED EQUIPMENT. J COORDINATE LOCATION OF NATURAL GAS CONNECTION WITH EQUIPMENT
- MANUFACTURER'S DATA. K PRIME AND PAINT GAS PIPING OUTSIDE BUILDING TO PREVENT RUSTING. APPLY TWO COATS OF RUST-INHIBITING PRIMER AND TWO COATS OF ENAMEL PAINT FORMULATED FOR EXTERIOR USE. COLOR AS SELECTED BY ARCHITECT.

SHEET KEYNOTES

- 1 GAS SERVICE LINE DOWN BELOW GRADE.
- 2 GAS SERVICE, GAS REGULATOR, AND GAS METER BY UTILITY. 3 GAS METER - SIZE FOR:
- TOTAL CONNECTED LOAD: 6.130.000 BTUH SERVICE PRESSURE: 2 PSI
- 4 3" CW MAIN FROM BELOW. 5 6" FIRE RISER WITH SUPERVISED CONTROL VALVE, FLOW SWITCH, AND MAIN DRAIN.
- 6 TO SPRINKLER SYSTEM. 7 2-1/2"G (2 PSI) DOWN. 8 1"G (2 PSI) DOWN WITH SHUT-OFF AND GAS REGULATOR - SIZE FOR:
- CAPACITY: 285,000 BTUH INLET PRESSURE: 2 PSI
- OUTLET PRESSURE: 14"w.c. 1-1/4"G (14"w.c.) TO WATER HEATER.
- 9 1"G (2 PSI) UP TO ROOF. 10 2"G (2 PSI) DOWN WITH SHUT-OFF AND GAS REGULATOR - SIZE FOR: CAPÀCITÝ: 1,442,000 BTUH
- INLET PRESSURE: 2 PSI OUTLET PRESSURE: 14"w.c.
- 2"G (14"w.c.) TO POOL HEATER. 11 GAS PRESSUE REGULATOR - SIZE FOR:
- CAPACITY: 600,000 BTUH INLET PRESSURE: 2 PSI OUTLET PRESSURE: 14"w.c.

12 4" WASTE DOWN.

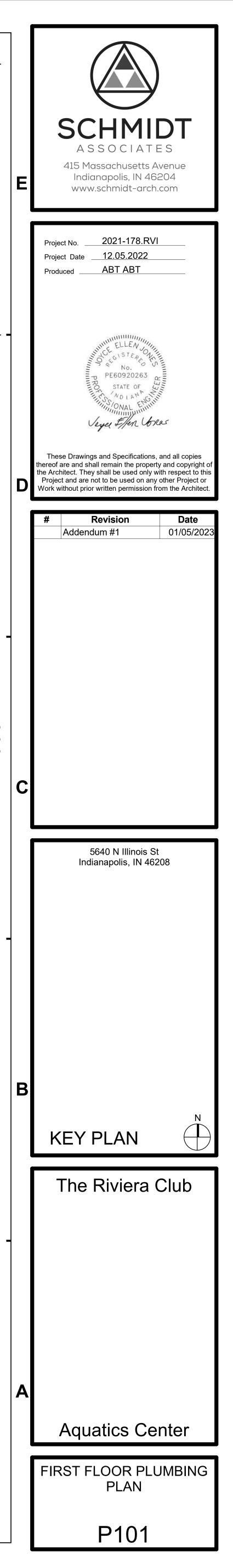
- 14 3" VENT UP TO 4" V.T.R. 15 2"CW DOWN IN CHASE WITH HEADER TO SERVE FIXTURES, 1/2"HW DOWN IN CHASE WITH HEADER TO SERVE FIXTURES..
- 16 2"CW, 3/4"HW DOWN IN CHASE. 17 CW TO EXTEND AND CONNECT TO POOL EQUIPMENT. DESIGN AND LOCATIONS
- BY OTHERS. 18 1"CW UP TO SERVE ROOF HYDRANT. ROUTE 1/2" DRAIN LINE TO JAN/LAUN ROOM AND TERMINATE ABOVE MOP BASIN.
- 19 1" CW DOWN TO SERVE WATER CLOSET.
- 20 8" WASTE STANDPIPE FOR POOL BACKWASH. SEE POOL DRAWINGS FOR ADDITIONAL INFORMATION.
- 21 1/2" HWR FROM LAVATORY.
- 22 GAS REGULATOR SIZE FOR: CAPACITY: 2,061,000 BTUH INLET PRESSURE: 2 PSI
- OUTLET PRESSURE: 14"W C 1-1/2"CW DOWN. EXTEND TO POOL EQUIPMENT BUILDING. 6" STORM DOWN IN CHASE. 1-1/2" PUPMED WASTE DOWN AND TERMINATE WITH AIR GAP ABOVE 8" OF SITE DRAIN STANDPIPE.

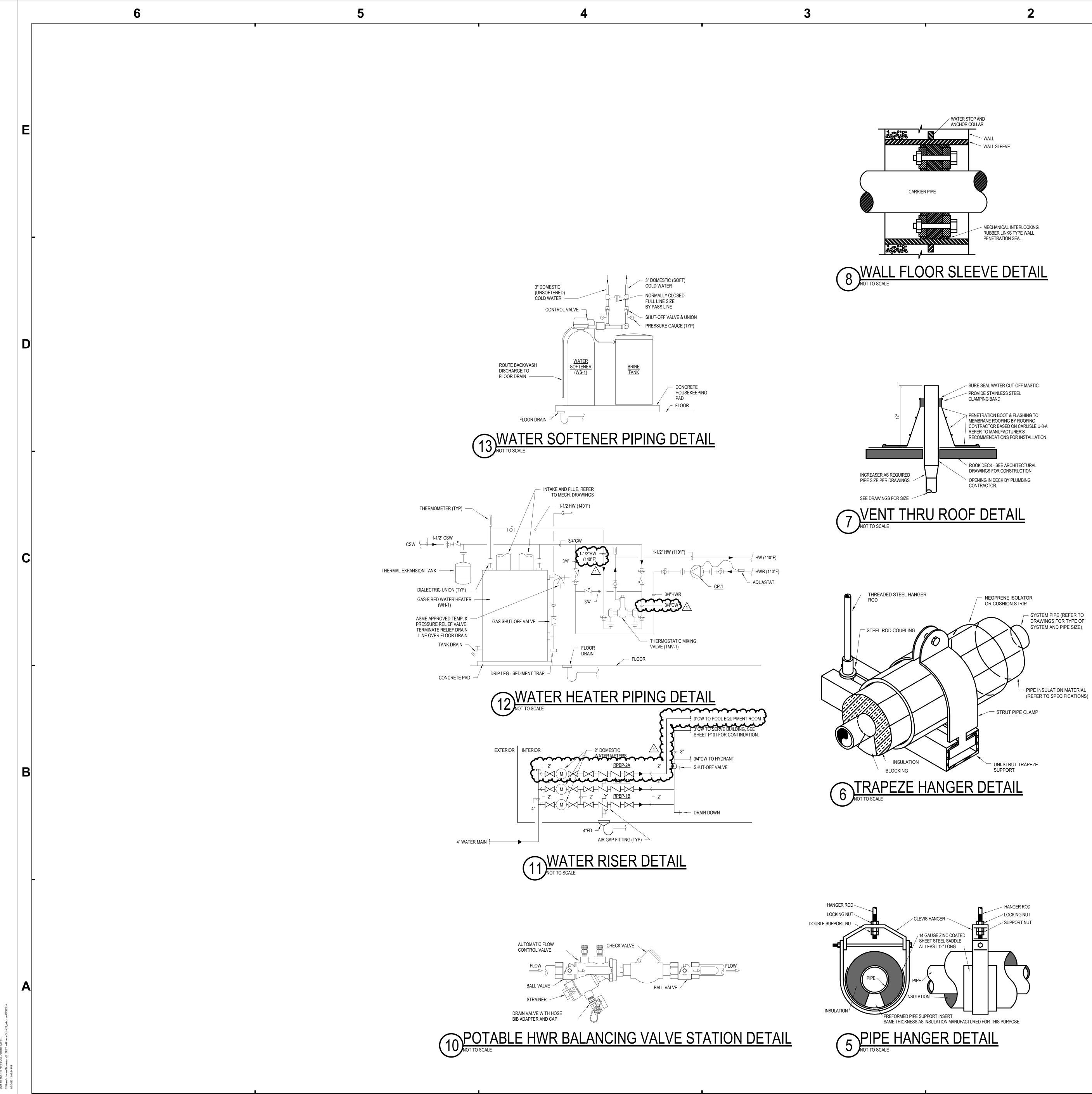


HYD-

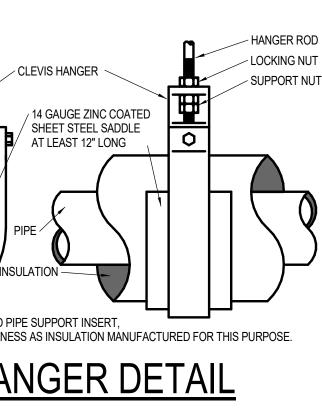
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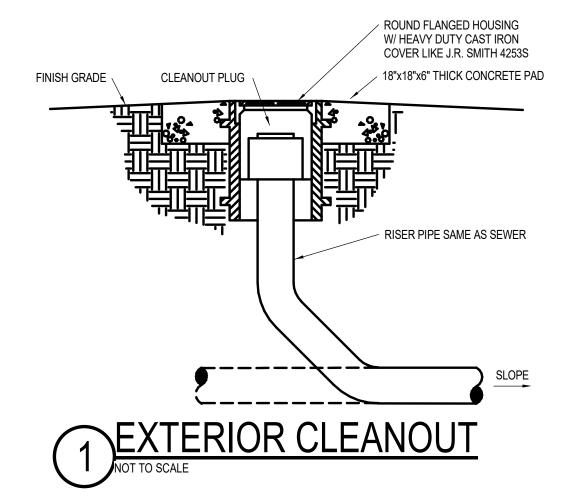
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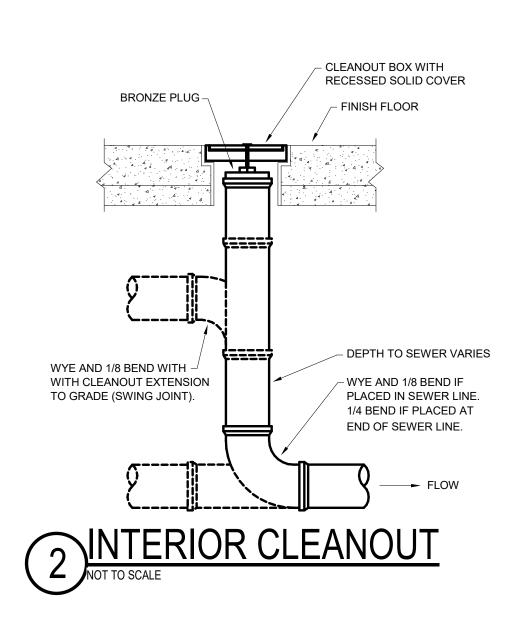


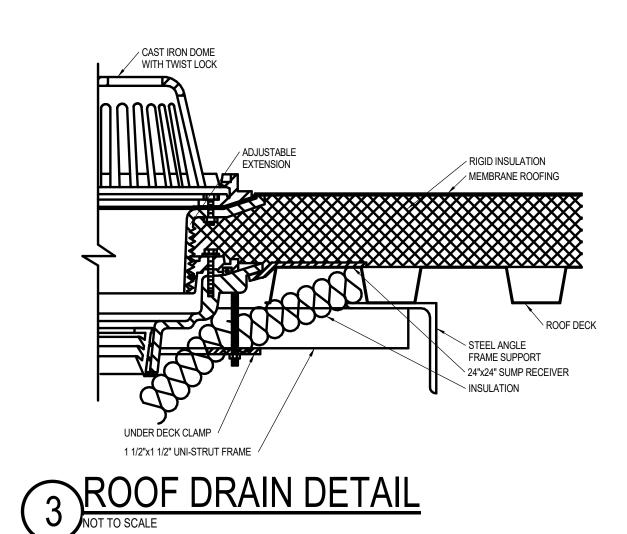


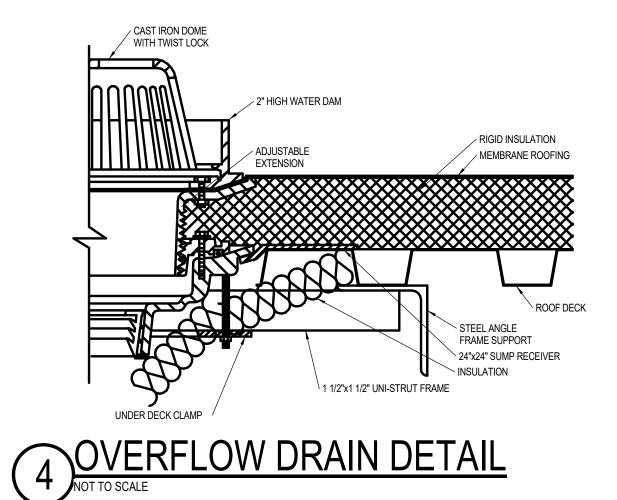


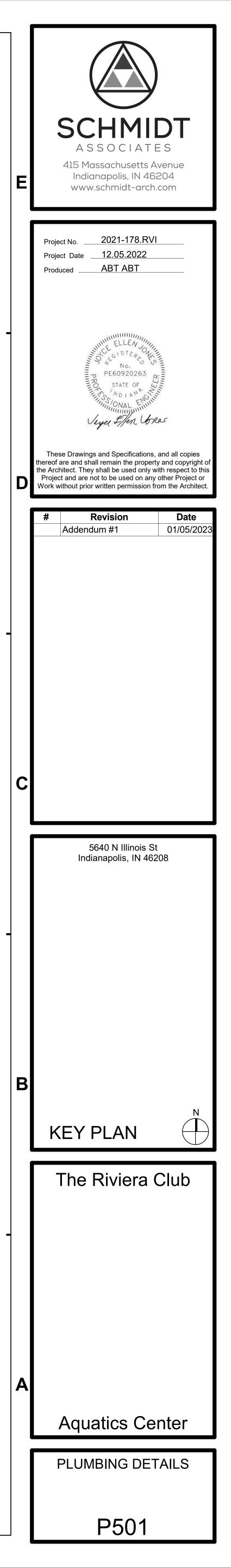




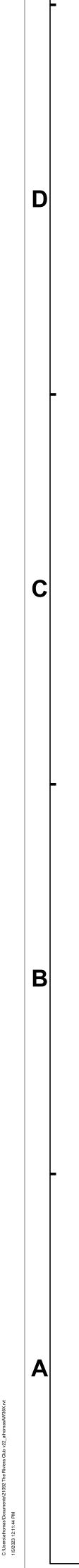








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	PLUMBING FIXT	JRE F	ROUC	GH-IN	SCH	EDUL	.E
TAG	FIXTURE DESCRIPTION	HW	CW	TRAP	W	V	MOUNTING HEIGHT
WC-1	WATER CLOSET - FLUSH VALVE	-	1"	INTEGRAL	4"	2"	15" TO SEAT
WC-2H	WATER CLOSET - FLUSH VALVE, ADA	-	1"	INTEGRAL	4"	2"	17" TO SEAT
UR-1H	URINAL - ADA	-	3/4"	INTEGRAL	2"	2"	17" TO RIM
L-1H	WALL-MOUNTED LAVATORY - ADA	1/2"	1/2"	1-1/4"	2"	2"	34" TO DECK
L-2H	UNDERMOUNT LAVATORY - ADA	1/2"	1/2"	1-1/4"	2"	2"	SEE ARCHITECTURAL ELEVATIONS
SH-1	SHOWER	1/2"	1/2"	-	-	-	78" (HEAD), 48" (VALVE)
SH-2H	SHOWER - ADA	1/2"	1/2"	-	-	-	72" (WATER/HOSE ROUGH-IN), 48" (HANDSPRAY), 48" (VALVE)
EWC-1H	ELECTRIC WATER COOLER WITH BOTTLE FILLER	-	1/2"	1-1/2"	2"	2"	36" TO BUBBLER
HB-1	HOSE BIBB	-	1/2"	-	-	-	36" A.F.F.
HYD-1	WALL HYDRANT - FREEZELESS	-	3/4"	-	-	-	18" ABOVE ADJACENT GRADE
HYD-2	ROOF HYDRANT - FREEZELESS	-	1/2"	-	-	-	
WB-1	WASHER BOX	1/2"	1/2"	2"	2"	2"	42" A.F.F. TO BOTTOM
MB-1	MOP BASIN	3/4"	3/4"	3'	3"	2"	36" A.F.F. TO FAUCET



Mark No.	FIXTURE DESCRIPTION	MANUFACTURER/ MODEL NUMBER
FD-1	FLOOR DRAIN: CAST IRON, FLASHING COLLAR, BOTTOM NO-HUB OUTLET, WITH TRAP SEALER. STRAINER: NICKEL BRONZE, ADJUSTABLE, ROUND, FLAT.	JAY R. SMITH 2005Y-A TRAP SEALER: JAY R SMITH 2692-02
FD-2	FLOOR SINK: CAST-IRON, DEEP BODY RECEPTOR, NO-HUB BOTTOM OUTLET. STRAINER: CAST IRON, ROUND, BAR GRATE, SEDIMENT BUCKET	J.R. SMITH 2240Y
FD-3	FLOOR SINK: HIGH STRENGTH CHEMICALLY RESISTANT PVC, 8" DIA. GRATE, BODY, SEEPAGE HOLES, SEDIMENT BUCKET, FLANGE AND FLASHING CLAMP.	J.R. SMITH 225-H04
FD-4	FLOOR DRAIN: FLOWAY SERIES F1000 POLPROPYLENE ADJUSTABLE FLOOR DRAIN WITH 6" DIAMETER STRAINER, SEDIMENT BUCKET, AND PLAIN END OUTLET. BODY WITH 14-1/2" DIAMETER FLANGE, AND NON-PUNCTURING STYLE FLASHING COLLAR WITH WEEP HOLES.	FLOWAY F1402P
TD-1	SHOWER TRENCH DRAIN: LENGTH = 3'-0" CHANNEL: 2" WIDE, POLYMER FIBER REINFORCED CONCRETE, WITH SQUARE BOTTOM AT 1% SLOPE, SCH. 40 PVC CENTER OUTLET. FRAMES: MEDIUM DUTY 18 GAUGE (T304) STAINLESS STEEL FRAMES, WITH HEAVY GAUGE METAL REBAR BRACKETS AND 1-1/8" LONG BY 1/4" DIAMETER METAL NELSON CONCRETE ANCHOR STUDS. GRATES: 3" WIDE X 1/2" THICK, T404 STAINLESS STEEL "WAVE" PATTERN (DIN CLASS "A") WITH STAINLESS STEEL GRATE LOCKS.	DURA TRENCH #DTPF2-03W48SSA-MDSS05ZSA-GLZN2-NSR-2b
TD-2	SHOWER TRENCH DRAIN: LENGTH = 5'-0" CHANNEL: 2" WIDE, POLYMER FIBER REINFORCED CONCRETE, WITH SQUARE BOTTOM AT 1% SLOPE, SCH. 40 PVC CENTER OUTLET. FRAMES: MEDIUM DUTY 18 GAUGE (T304) STAINLESS STEEL FRAMES, WITH HEAVY GAUGE METAL REBAR BRACKETS AND 1-1/8" LONG BY 1/4" DIAMETER METAL NELSON CONCRETE ANCHOR STUDS. GRATES: 3" WIDE X 1/2" THICK, T404 STAINLESS STEEL "WAVE" PATTERN (DIN CLASS "A") WITH STAINLESS STEEL GRATE LOCKS.	DURA TRENCH #DTPF2-03W48SSA-MDSS05ZSA-GLZN2-NSR-2b
TD-3	SHOWER TRENCH DRAIN: LENGTH = 7'-10" CHANNEL: 2" WIDE, POLYMER FIBER REINFORCED CONCRETE, WITH SQUARE BOTTOM AT 1% SLOPE, SCH. 40 PVC CENTER OUTLET. FRAMES: MEDIUM DUTY 18 GAUGE (T304) STAINLESS STEEL FRAMES, WITH HEAVY GAUGE METAL REBAR BRACKETS AND 1-1/8" LONG BY 1/4" DIAMETER METAL NELSON CONCRETE ANCHOR STUDS. GRATES: 3" WIDE X 1/2" THICK, T404 STAINLESS STEEL "WAVE" PATTERN (DIN CLASS "A") WITH STAINLESS STEEL GRATE LOCKS.	DURA TRENCH #DTPF2-03W48SSA-MDSS05ZSA-GLZN2-NSR-2b
SD-1	SHOWER DRAIN: CAST IRON, FLASHING COLLAR, BOTTOM NO-HUB OUTLET. STRAINER: NICKEL BRONZE, ADJUSTABLE, ROUND.	JAY R. SMITH 2005Y
FCO	FLOOR CLEANOUT: CAST IRON BODY, ROUND ADJUSTABLE SECURED NICKEL BRONZE COVER, BRONZE PLUG, GASKET SEAL.	JAY R. SMITH 4221S
WCO	WALL CLEANOUT: STAINLESS STEEL SHALLOW COVER WITH CENTER VANDAL PROOF SCREW.	JAY R. SMITH 4710
ECO	EXTERIOR CLEANOUT: CAST IRON BODY, DOUGLE FLANGED HOUSING, HEAVY DUTY SECURED SCORIATED CAST IRON COVER WITH LIFTING RING, ABS PLUG, GASKET SEAL.	JAY R. SMITH 4253S
ANB-1	ACID NEUTRALIZATION BASIN: CAPACITY - 15 GAL., WEIGHT - 30 LBS. W/ COVER, STANDARD COVER HANDLES 450 LBS. WHEN UNIT IS INSTALLED ABOVE-GRADE AND 2,500 LBS. WHEN BURIED WITH SR16 RISER, MAXIMUM OPERATING TEMPERATURE 140 DEG. F. CONTINUOUS.	STRIEM LB-15

WATER HAMMER ARRESTERS							
TAG	I.P.S.	F.U. RATING	J.R. SMITH NO.	WADE NO.	REMARK		
A	3/4"	1 - 11	5005	W-5	P.D.I. CERTIFIED		
В	1"	12 - 32	5010	W-10	P.D.I. CERTIFIED		
С	1"	33 - 60	5020	W-20	P.D.I. CERTIFIED		
D	1"	61 - 113	5030	W-50	P.D.I. CERTIFIED		

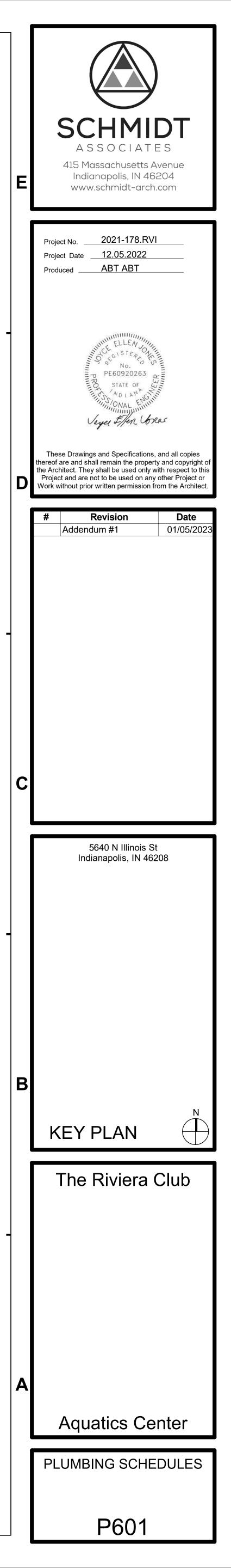
	PLUMBING FIXTURE SCHE	EDULE	PLUMBING FIXTURE SCHEDULE					
TAG	FIXTURE DESCRIPTION	FIXTURE	TRIM & ACCESSORIES					
WC-1, 2H	WATER CLOSET: WALL HUNG, VITREOUS CHINA, 1.28 GPF, 1,000 GRAMS MaP SCORE, ELONGATED BOWL, 1-1/2" TOP SPUD, 10" X 12" WATER SURFACE AREA, 1,000 LBS STATIC WEIGHT LOAD, CONVENTIONAL GLAZE, DIRECT-FED SIPHON JET ACTION. FLUSH VALVE: QUIET, EXPOSED, DIAPHRAGM TYPE, CHROME PLATED, HIGH CHLORAMINE RESISTANT PERMEX SYNTHETIC RUBBER DIAPHRAGM WITH DUAL FILTERED BYPASS, 1" IPS SCREWDRIVER BAK-CHECK ANGLE STOP WITH VANDAL RESISTANT STOP COVER, VACUUM BREAKER WITH FLUSH CONNECTION, 1-1/2" TOP SPUD COUPLING, NON-HOLD-OPEN HANDLE, ADA COMPLIANT.	WATER CLOSET: AMERICAN STANDARD AFWALL MILLENIUM 2257.101	FLUSH VALVE: SLOAN ROYAL 111-1.28-DFB SEAT: BEMIS 1955SSCT CARRIER: JAY R. SMITH 0200 SERIES					
	SEAT: OPEN FRONT LESS COVER, ELONGATED, HEAVY DUTY, INJECTION MOLDED SOLID PLASTIC, MOLDED IN BUMPERS, SELF-SUSTAINING CHECK HINGES, STAINLESS STEEL POSTS AND PINTLES, STA-TITE COMMERCIAL FASTENING SYSTEM. CARRIER: HEAVY DUTY WATER CLOSET CARRIER, 4" WASTE.							
UR-1H	URINAL: VITREOUS CHINA, ULTRA HIGH EFFICIENCY, 1.0 GPF, FLUSHING RIM, ELONGATED 14" RIM FROM FINISHED WALL, WASHOUT FLUSH ACTION, 3/4" INLET SPUD, ADA COMPLIANT. FLUSH VALVE: 1.0 GPF, POLISHED CHROME FINISH, FIXTURE CONNECTION TOP SPUD, SINGLE FLUSH, ROYAL EXPOSED MANUAL URINAL FLUSHOMETER.	URINAL: AMERICAN STANDARD WASHBROOK 6590.001	FLUSH VALVE: SLOAN ROYAL 186-1.0 CARRIER: JAY R. SMITH 0614					
L-1H	LAVATORY: WALL HUNG, VITREOUS CHINA, FRONT OVERFLOW, D-SHAPED BOWL, SELF-DRAINING DECK WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FAUCET LEDGE, ADA COMPLIANT. FAUCET: TWO HANDLE DECK MOUNT LAVATORY FAUCETS FOR 3 HOLE SINKS WITH 4" CENTERS, MAX FLOW RATE OF 1.5 GPM, 1/4 TURN HANDLE STOPS, CHROME FINISH, 1/2"-14 NPSM THREADED MALE INLET SHANKS, ADA COMPLIANT.	LAVATORY: AMERICAN STANDARD LUCERNE 0355.012	FAUCET: DELTA AUBREY 25704LF DRAIN / TAILPIECE: McGUIRE 155A P-TRAP:					
	DRAIN / TAILPIECE: HEAVY CAST BRASS, 1-1/4" DIA., 17 GAUGE, SEAMLESS BRASS, BRASS LOCKNUT, HEAVY RUBBER BASIN WASHER, FIBER FRICTION WASHER, CHROME PLATED. P-TRAP: HEAVY CAST BRASS, 1-1/4" X 1-1/2", ADJUSTABLE, CLEANOUT PLUG, SLIP NUTS, 17 GAUGE TUBULAR WALL BEND, STEEL SHALLOW FLANGE,		McGUIRE 8902C SUPPLIES: McGUIRE LFBV2165 PROTECTIVE COVERING: (L-2H) DEARBORN ADA100					
	CHROME PLATED. SUPPLIES: QUARTER TURN BALL VALVES, 1/2" IPS X 3/8" OD, COPPER FLEXIBLE RISERS, STEEL SHALLOW FLANGES, CHROME PLATED. PROTECTIVE COVERING: (L-1H) OPENS AT 1993 FOR FASY INSTALLATION AND SECURE FIT. FORM FITTING, FVA FORM MATERIAL, FARE RESISTANT, CERTIFIED ANTI-MICROPIAL		CARRIER: JAY R. SMITH 0700 SERIES					
	OPENS AT 180° FOR EASY INSTALLATION AND SECURE FIT, FORM FITTING, EVA FOAM MATERIAL, FADE RESISTANT, CERTIFIED ANTI-MICROBIAL PER ISO 846 METHOD C, ASTM E-84, ADA COMPLIANT, WHITE, COVERS FOR DRAIN, P-TRAP, WALL BEND, SUPPLY STOPS AND SUPPLY LINES. CARRIER: LAVATORY SUPPORT WITH CONCEALED ADJUSTABLE ARMS AND SURE-SET MECHANICAL LOCKING DEVICE, AND ROUND STEEL UPRIGHTS WITH WELDED BASES.							
L-2H	LAVATORY: OVALYN UNIVERSAL ACCESS SINK, UNDERMOUNT, MADE FROM VITREOUS CHINA, UNGLAZED RIM FOR UNDER COUNTER MOUNT, REAR OVERFLOW, SUPPLIED WITH MOUNTING KIT (047194-0070A) AND TEMPLATE. BOWL SIZE: 16-3/4" WIDE, 13-1/4" FRONT TO BACK, 5-1/2" DEEP. 4" BOWL DEPTH. FAUCET:	LAVATORY: AMERICAN STANDARD OVALYN 9482.000	FAUCET: DELTA AUBREY 25704LF DRAIN / TAILPIECE: McGUIRE 155A					
	TWO HANDLE DECK MOUNT LAVATORY FAUCETS FOR 3 HOLE SINKS WITH 4" CENTERS, MAX FLOW RATE OF 1.5 GPM, 1/4 TURN HANDLE STOPS, CHROME FINISH, 1/2"-14 NPSM THREADED MALE INLET SHANKS, ADA COMPLIANT. DRAIN / TAILPIECE: HEAVY CAST BRASS, 1-1/4" DIA., 17 GAUGE, SEAMLESS BRASS, BRASS LOCKNUT, HEAVY RUBBER BASIN WASHER, FIBER FRICTION WASHER, CHROME PLATED.		P-TRAP: McGUIRE 8902C SUPPLIES: McGUIRE LFBV2165					
	P-TRAP: HEAVY CAST BRASS, 1-1/4" X 1-1/2", ADJUSTABLE, CLEANOUT PLUG, SLIP NUTS, 17 GAUGE TUBULAR WALL BEND, STEEL SHALLOW FLANGE, CHROME PLATED. SUPPLIES: QUARTER TURN BALL VALVES, 1/2" IPS X 3/8" OD, COPPER FLEXIBLE RISERS, STEEL SHALLOW FLANGES, CHROME PLATED.							
SH-1	SHOWER VALVE & HEAD ASSEMBLY: SURFACE MOUNTED, PRESSURE ACTUATED SHOWER MIXER, STAINLESS STEEL PRESSURE BALANCING PISTON, BUILT-IN SHUTOFF FOR SINGLE HANDLE OPERATION, COLOR CODED DIAL, ADJUSTABLE HIGH TEMPERATURE LIMIT STOP SET FOR 110°F, INLET STOPS, SOAP DISH, ADJUSTABLE SPRAY BALL JOINT MASSAGE SHOWER HEAD, 1.5 GPM, HIGH-IMPACT ABS BODY CHROME PLATED.		SHOWER VALVE & HEAD ASSEMBLY: LEONARD SS-PAM-H15-RSD					
SH-2H	SHOWER VALVE & HEAD ASSEMBLY: SURFACE MOUNTED, PRESSURE ACTUATED SHOWER MIXER, STAINLESS STEEL PRESSURE BALANCING PISTON, BUILT-IN SHUTOFF FOR SINGLE HANDLE OPERATION, COLOR CODED DIAL, ADJUSTABLE HIGH TEMPERATURE LIMIT STOP SET FOR 110°F, INLET STOPS, SOAP DISH, ADJUSTABLE SPRAY BALL JOINT MASSAGE SHOWER HEAD, 1.5 GPM, HIGH-IMPACT ABS BODY CHROME PLATED, IN-LINE DIVERTER VALVE WITH LEVER HANDLE, HAND SHOWER, 1.5 GPM, 69" HOSE, 24" GLIDE BAR, DOUBLE CHECK VALVE ASSEMBLY SUPPLY ELBOW, ADA COMPLIANT.		SHOWER VALVE & HEAD ASSEMBLY: LEONARD SS-PAM-H-15-D2L/515P(G)-4					
EWC-1H	ELECTRIC WATER COOLER WITH BOTTLE FILLER: SINGLE ADA, HIGH EFFICIENCY FILTERED, CHILLING CAPACITY OF 8 GPH OF 50 DEG F DRINKING WATER BASED ON 80 DEG F INLET WATER AND 90 DEG F AMBIENT PER ASHRAE 18 TESTING, WALL MOUNTED, UL 399, LEAD-FREE NSF 61 & 372, MECHANICAL FRONT PUSHBUTTON ACTIVATION, STAINLESS STEEL TOP, HEAVY DUTY GALVANIZED STEEL FRAME, VANDAL RESISTANT, CHROME PLATED BRASS BUBBLER.	ELECTRIC WATER COOLER WITH BOTTLE FILLER: OASIS PG8SBF	P-TRAP: McGUIRE 8902C SUPPLIES: McGUIRE LFBV2165					
	BOTTLE FILLING STATION: ADA COMPLIANT, INDEPENDENT MANUAL ACTIVATION, ANTIMICROBIAL COMPOUND TO PROTECT ALCOVE AND ACTIVATION BUTTON, BRUSHED STAINLESS STEEL CABINET.							
HB-1	HOSE BIBB: ANTI-SIPHON, VACUUM BREAKER PROTECTED, ASSE 1011 APPROVED, 3/4" MALE HOSE THREAD, EPDM PACKING, ADJUSTABLE BRASS NUT WITH DEEL STEM GUARD, STANDARD "O" SIZE WASHER VALVE SEAT, METAL WHEEL HANDLE, CHROME PLATED FINISH.		HOSE BIBB: WOODFORD 24					
HYD-1	WALL HYDRANT: (FREEZELESS) AUTOMATIC DRAINING WITH ANTI-SIPHON VACUUM BREAKER, ASSE 1011 APPROVED, 3/4" INLET AND OUTLET, HARDENED STAINLESS STEEL OPERATING STEM AND ONE-PIECE VALVE PLUNGER TO CONTROL BOTH FLOW AND DRAIN FUNCTIONS, EXTERIOR FINISH TO BE CHROME PLATED, RECESSED WALL BOX WITH LOCKABLE DOOR, LOOSE TEE KEY (FURNISHED WITH EACH HYDRANT).		WALL HYDRANT: WOODFORD B65					
HYD-2	ROOF HYDRANT: (FREEZELESS) BACKFLOW PROTECTED HOSE CONNECTION, ASSE 1052, 1" NPT FEMALE INLET CONNECTION, 1-1/4" GALVANIZED PIPE CASING, 1/8" NPT DRAIN HOLE (PIPED TO DRAIN), ROOF MOUNTING SYSTEM.		ROOF HYDRANT: WOODFORD RHY2-MS					
WB-1	WASHER BOX: WHITE POWDER COATED RECESSED BOX, QUARTER TURN VALVES AND 2" SLIPNUT DRAIN.		WALL HYDRANT: GUY GREY SSWB1					
MB-1	MOP BASIN: 24" x 24" x 10" OVERALL DIMENSIONS, ONE PIECE HOMOGENOUS MOLD, 3" STAINLESS STEEL DRAIN BODY DESIGNED FOR CAULK CONNECTION, STAINLESS STEEL COMBINATION DOME STRAINER AND LINT BASKET. FAUCET: 8" WALL MOUNT MIXING FAUCET WITH POLICH CHROME PLATED RRASS RODY. POLICH CHROME PLATED RRASS SPOUT WITH VACUUM	MOP BASIN: FIAT MSB-2424	FAUCET: T&S B-0665-BSTR					
	8" WALL MOUNT MIXING FAUCET WITH ROUGH CHROME PLATED BRASS BODY, ROUGH CHROME PLATED BRASS SPOUT WITH VACUUM BREAKER, PAIL HOOK, GARDEN HOSE MALE OUTLET, COMPRESSION CARTRIDGES WITH SPRING CHECKS, LEVER HANDLES, 1/2" NPT FEMALE INLETS, BUILT-IN SERVICE STOPS IN BODY, UPPER SUPPORT ROD, ASME/CSA CERTIFIED, NSF 61 COMPLIANT, ADA COMPLIANT.							

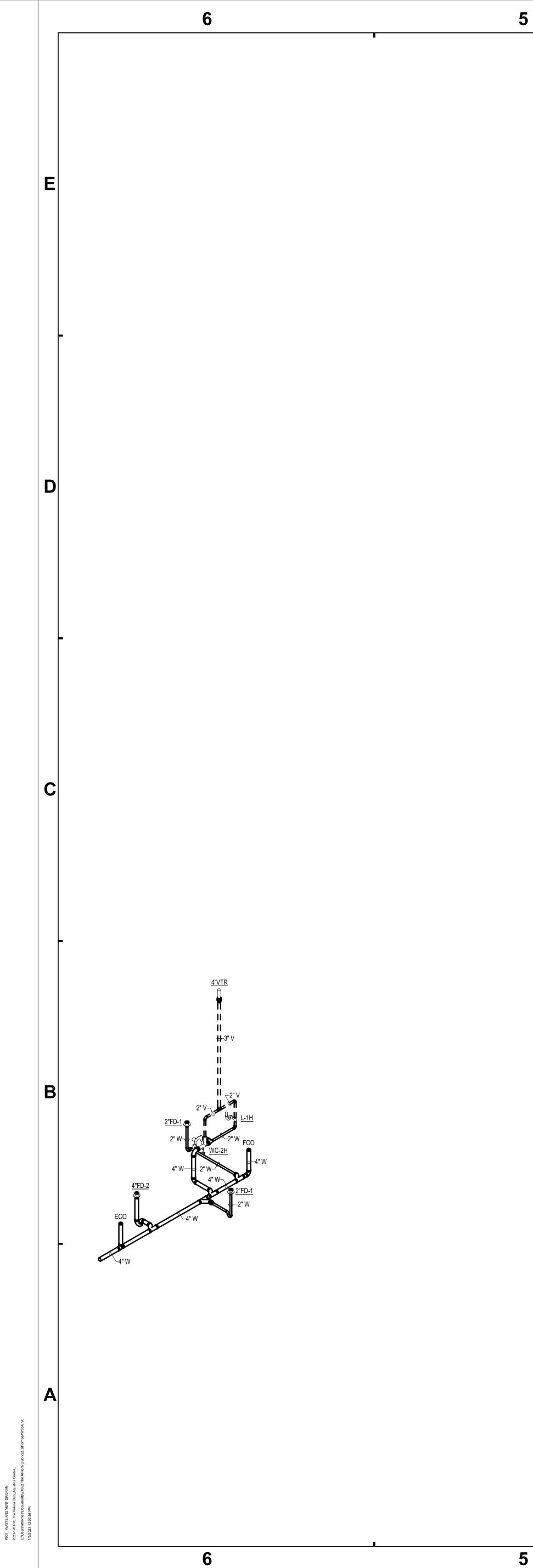
3	PLUMBING EQUIPMENT SCHEDULE											
\		UNIT				ELECTRICAL DATA			GAS DATA			
}	TAG	SPECIFICATION NAME	MANUFACTURER	MODEL #	WEIGHT	CAPACITY	V-PH-HZ	HP	KW	MBH IN	MBH OUT	NOTES
3	WH-1	DOMESTIC WATER HEATER (GAS)	LOCHINVAR	SWR285N		110 GAL. CAPACITY 328 GPH @ 100 DEG TEMPERATURE RISE GAS INPUT: 285,000 BTUH	-	-	-	285	-	1, 2
	TMV-1	THERMOSTATIC MIXING VALVE	LAWLER	MODEL 801 UNIT #86208		16 PSI DROP @ 30 GPM	-	-	-	-	-	7
1	TET-1	THERMAL EXPANSION TANK	CALEFACTIO	HGTE-25		8 GAL. CAPACITY	-	-	-	-	-	3
-	CP-1	CIRCULATOR PUMP	ARMSTRONG	E9		4 GPM FLOW @ 35 FT TOTAL DYNAMIC HEAD	120V-1PH	1/6 HP	-	-	-	4, 5, 6
	RPBP-1A											8, 9
-	RPBP-1B	BACKFLOW PREVENTER	WILKINS	S-975XL2 - 2"		15 PSI PRESSURE DROP @ 90 GPM	-	-	-	-	-	0, 9
	RPBP-2A	BACKFLOW PREVENTER	WILKINS	975XL2-S-AG - 3/4"		13 PSI PRESSURE DROP @ 18 GPM	_	_	_	_		8, 9
	RPBP-28		WIEIKING	973AL2-3-AG - 3/4				-	-	· ·	-	-, -
	WS-1	WATER SOFTENER	AQUA SYSTEMS	WS3DSF1000HL		10 CUBIC FOOT, 250,000 GRAINS OF CAPACITY AT 10 LBS/CU.FT. 98 GPM FLOW RATE AT 15 PSI PRESSURE DROP	24V-1PH					10
	SP-1	SUMP PUMP	MYERS	MS-33		1/2 HP @ 56 GPM	115V-1PH-60Hz	1/2 HP	-	-	-	-
	2. PLU	: OUTLET TEMPERATURE AT 140°F. MB DRAIN FROM TEMPERATURE AND UST TANK PRESSURE TO BE EQUAL T			IN. 7. SET (RATION SCHEDULE: 24-HR, 7-DAY PROGRAMMABLE TIME CLOCK. DUTLET TEMPERATURE AT 110°F. /IDE AIR GAP ASSEMBLY - PIPE TO FLOOR DRAIN.						

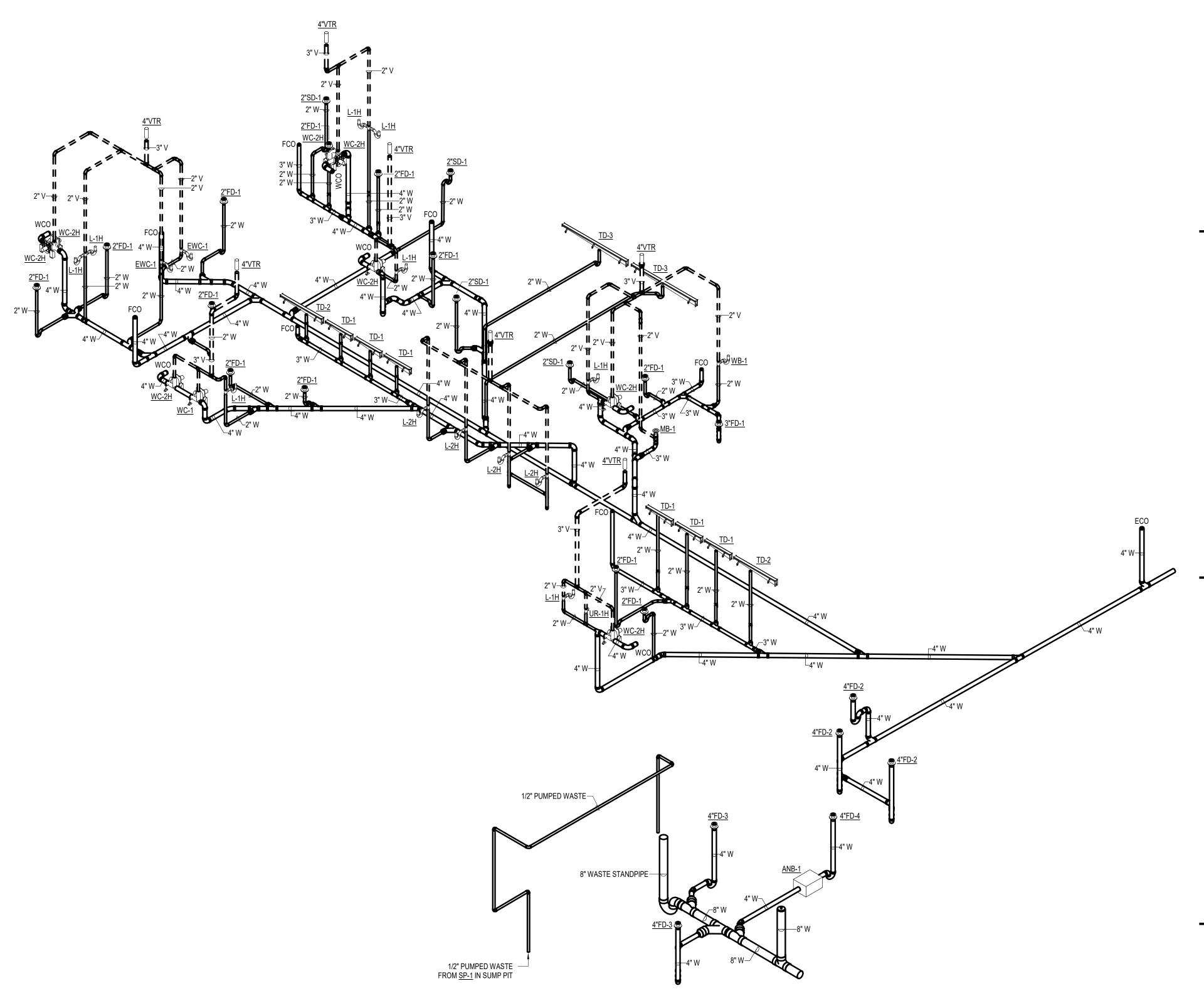
4. LEAD-FREE BRONZE CONSTRUCTION. 5. PUMP ON/OFF: CONTROLLED BY AQUASTAT.

DI LIMBING EIXTURE SCHEDUILE

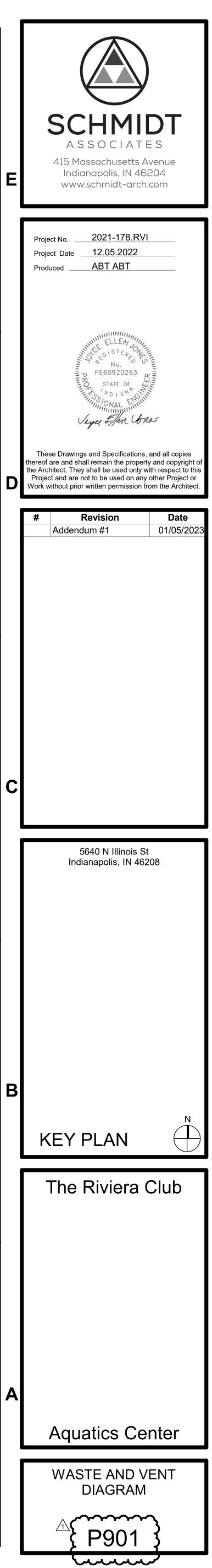
9. PROVIDE IN-LINE Y-STRAINER AHEAD OF BACKFLOW PREVENTER. 10. ROUTE BACKWASH DRAIN LINE AND TERMINATE ABOVE FLOOR DRAIN.

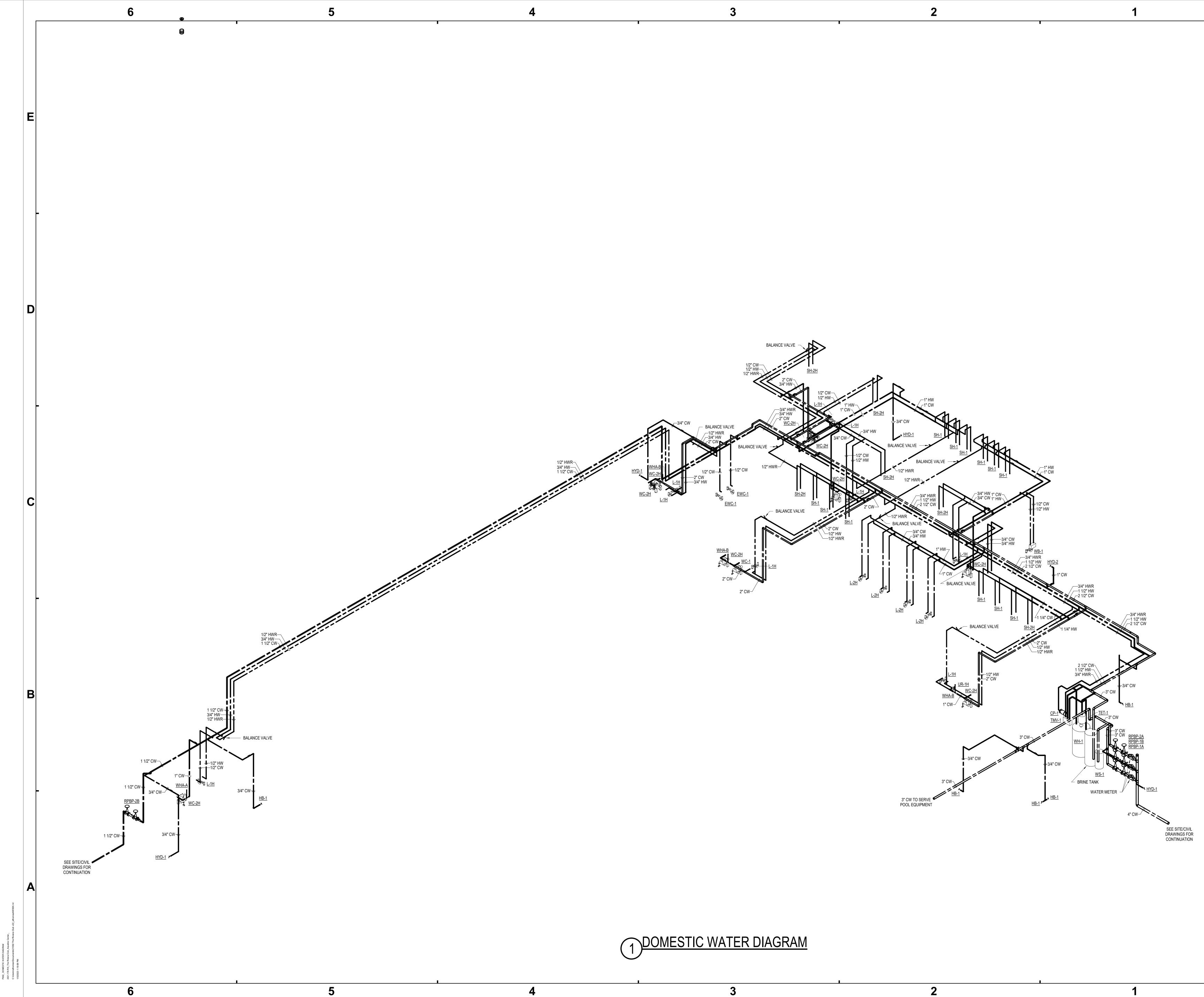


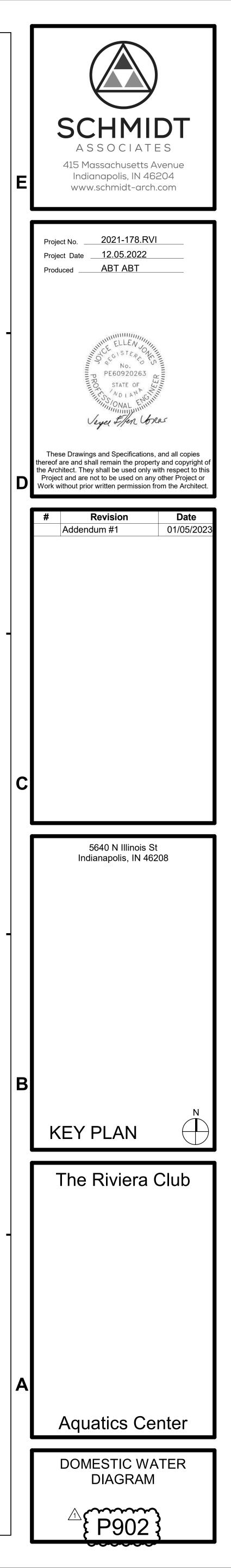


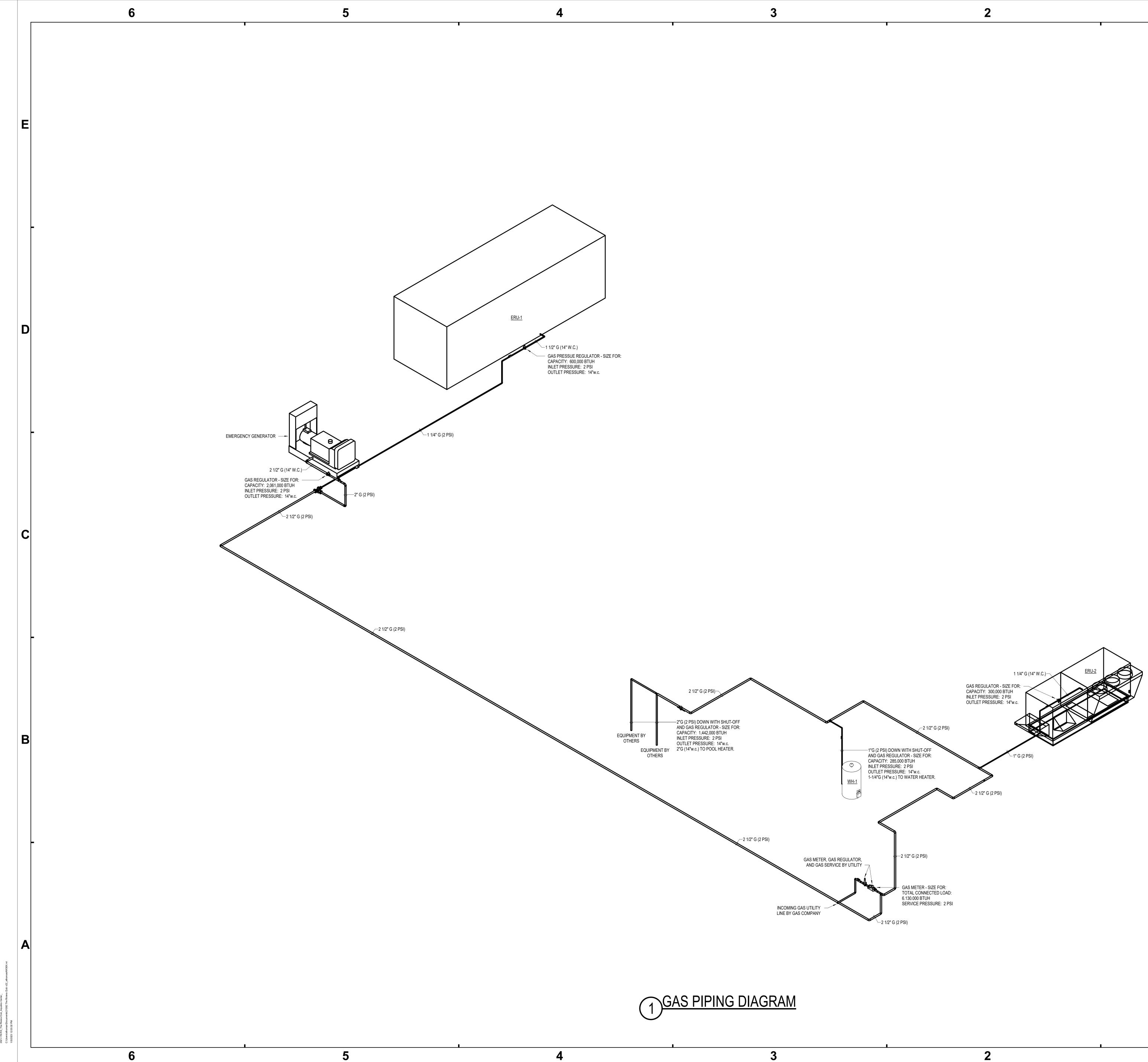


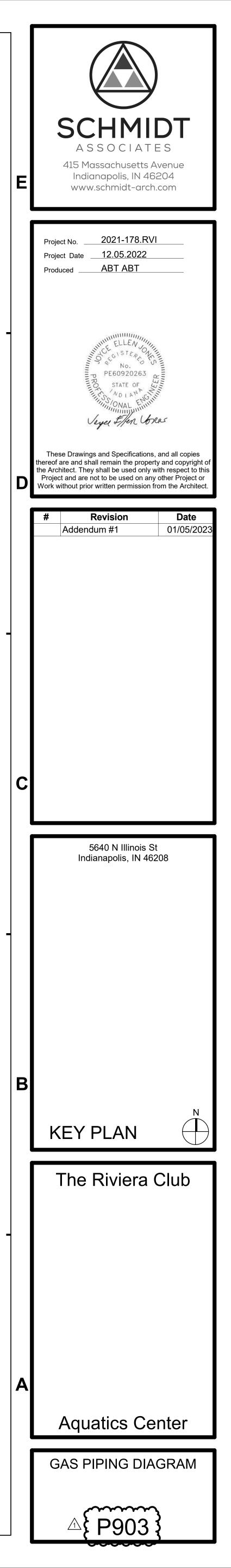












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FIRE ALARM COMM
IDENTITY SYMBOLS

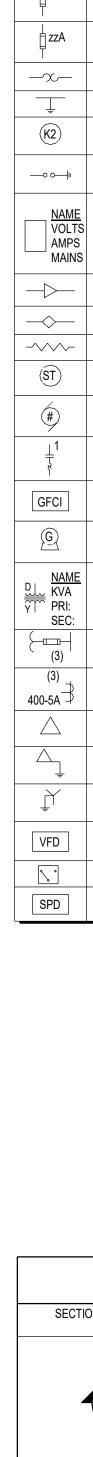
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C	FIRE FIGHTER'S PHONE
FAA	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
NAC	BATTERY PACK AND CHARGER
IAM	INDIVIDUALLY ADDRESSABLE MODULE- MONITOR (PROVIDES ADDRESS FOR CONTACT)
ZAM	INDIVIDUALLY ADDRESSABLE MODULE- RELAY (PROVIDES CONTACT CLOSURE)

FIRE ALARM IDENTITY SYMBOLS

CR	CONTROL RELAY
DH	DOOR HOLDER WITH RELAY
€ F CLNG. WALL	HORN AND STROBE
H	HORN UNIT ONLY
© S◀ CLNG. WALL	STROBE UNIT ONLY
E E CLNG. WALL	EMERGENCY ADDRESS SPEAKER AND STROBE
F	MANUAL PULL STATION
(S) (S) CLNG. WALL	SMOKE DETECTOR
$\langle \mathbb{D} \rangle$	DUCT SMOKE DETECTOR W/ AUX CONTACTS
RTS	REMOTE STATION FOR DUCT DETECTOR USED AT DUCT WORK OPENING
(S∕E	ELEVATOR RECALL WITH AUXILIARY CONTACTS
∕ [®] ∕ _R	BEAM SMOKE DETECTOR, "R" = RECEIVER
⟨B⟩ _S	BEAM SMOKE DETECTOR, "S" = SENDING UNIT
Ô	CARBON MONOXIDE DETECTOR. LINE VOLTAGE WITH BATTERY BACKUP
F	FLAME DETECTOR
Æ	HEAT DETECTOR
∕⊞∕2	HYDROGEN DETECTOR
FS	FLOW SWITCH
TS	TAMPER SWITCH
PIV	POST INDICATOR VALVE

NURSE CALL SYMBOLS				
RE	REMOTE ENTERTAINMENT STATION			
NM	VOIP NURSE CONSOLE			
SS	STAFF STATION			
PC	PULL CORD STATION			
(cc)	CANCEL STATION			
CS	STAFF ASSIST CODE BLUE STATION			
IM	FIRE/AUXILARY MODULE			
PH	CALL BUTTON			
TV	TV WALL PLATE			
$\langle O \rangle$	CORRIDOR 4-POSITION LIGHT			



SURGE PROTECTION DEVICE

20_SYMBOLS AND ABBREVIATIONS 11178.RVI_The Riviera Club_Aquatics Center_ JsersicehtersDocuments/21092 The Riviera Club v22_cehtersF 2023 2:55:47 PM

	ONE-LINE IDENTITY SYMBOLS
	CAPACITOR
	CIRCUIT BREAKER (OPEN), "xxAF" INDICATES FRAME SIZE, "yyAT" INDICATES TRIP SIZE
	CIRCUIT BREAKER (ENCLOSED), "xxAF" INDICATES FRAME SIZE, "yyAT" INDICATES TRIP SIZE
	PRIMARY DRAW OUT TYPE CIRCUIT BREAKER, "xxAF" INDICATES FRAM SIZE, "yyAT" INDICATES TRIP SIZE
	LOW VOLTAGE DRAW OUT TYPE CIRCUIT BREAKER, "xxAF" INDICATES FRAM SIZE, "yyAT" INDICATES TRIP SIZE
	LOW VOLTAGE DRAW OUT TYPE CIRCUIT BREAKER. WITH CURRENT LIMITING FUSES, "xxAF" INDICATES FRAME SIZE, "yyAT" INDICATES TRIP SIZE, "zzA" INDICATES FUSE RATING
	CONTACT NORMALLY OPEN (NO) ("TC"-WITH TIMED CLOSING)
	CONTACT NORMALLY CLOSED (NC) ("TO"-WITH TIMED OPENING) CURRENT TRANSFORMER CABINET
	FUSED CUTOUTS, "ZZA" INDICATES FUSE RATING
	DISCONNECT SWITCH UNFUSED
	DISCONNECT SWITCH AIR BREAK WITH FUSE,"zzA" INDICATES FUSED RATING
	FUSE, "ZZA" INDICATES FUSED RATING
	OVERLOAD RELAY
	GROUNDING CONNECTION-SYSTEM AND OR EQUIPMENT
	KIRK KEY INTERLOCK SYSTEM
	LIGHTNING ARRESTER AND GROUNDING TO PROTECT ALL PHASES
5	PANELBOARD
	POTHEAD
	STRESS CONE
	RESISTOR
	SHUNT TRIP
	MOTOR, "#" DESIGNATES HORSEPOWER
	MAGNETIC STARTER WITH NEMA SIZE INDICATED
	GROUND FAULT CIRCUIT INTERRUPTER, PERSONNEL PROTECTION
	GENERATOR
	TRANSFORMER, DRY TYPE, UNLESS OTHERWISE INDICATED
	POTENTIAL TRANSFORMER, "3" INDICATES QUANTITY
	CURRENT TRANSFORMER, "3" INDICATES QUANTITY, "400-5A" INDICATED RATIO
	3-PHASE, 3-WIRE DELTA CONNECTION
	CORNER GROUNDED DELTA
	3-PHASE, 4-WIRE WYE CONNECTION (GROUNDED NEUTRAL)
	VARIABLE FREQUENCY DRIVE
	AUTOMATIC/MANUAL TRANSFER SWITCH, 4-POLE UON
J	SURGE PROTECTION DEVICE

	SWITCH IDENTITY SYMBOLS
S	SINGLE POLE SWITCH
S _a	"a" INDICATES SWITCH LEG
S ₃	SWITCH 3-WAY

S4 SWITCH 4-WAY SDT SINGLE POLE/DOUBLE THROW SWITCH

- SP
 PILOT SWITCH TOGGLE

 SK
 KEY OPERATED SWITCH

 SMC
 MOMENTARY CONTACT SWITCH

 ST
 DIGITAL TIMER SWITCH
- S_{WP}
 WEATHERPROOF SINGLE POLE SWITCH

 D
 DIMMER SWITCH
- DUAL TECHNOLOGY OCCUPANCY SENSOR, WALL MOUNTED

 WITH OFF-AUTO OVERRIDE SWITCH

 DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILING
- DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILIN MOUNTED

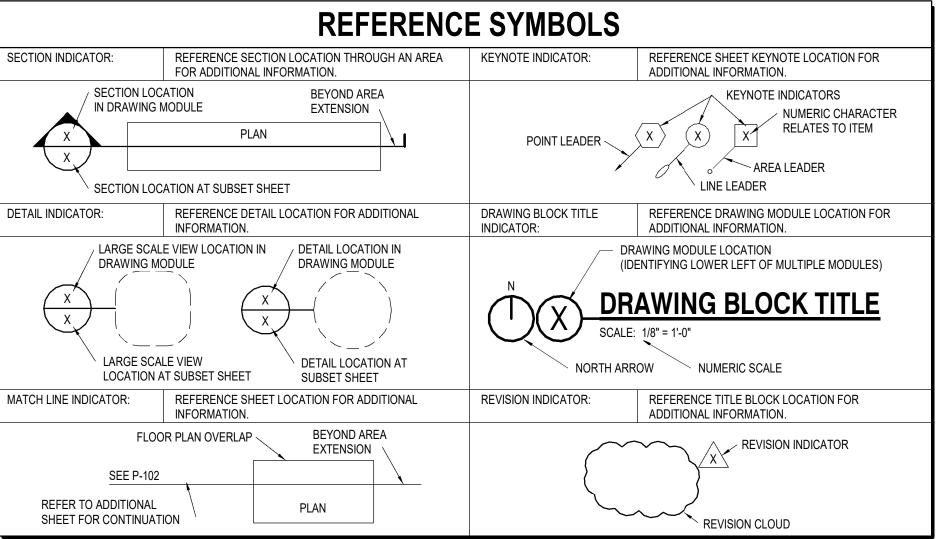
TE	ELECOM AND ROUGH-IN IDENTITY SYMBOLS	K
$\overline{}$	DATA OUTLET WITH 4 CAT-6 CABLES IN 1" C BACK TO IT RM	R
AP	WIRELESS ACCESS POINT WITH 2 CAT-6 CABLES IN 1" C BACK TO IT RM	
y.	VIDEO SURVEILLANCE CAMERA ROUGH-IN LOCATION	ľ
2		

	\bigcirc	
	Ô	DOORBELL/BUZZER/DOOR CHIME
	ES	ELECTRIC DOOR STRIKE
	RX	REQUEST TO EXIT
	CR	CARD READER
	DC	SECURITY DOOR CONTACTS
	К	SECURITY KEYPAD
		SECURITY KEYPAD
-		INTERCOMM SPEAKER ROUGHIN. INTERCONNECT ALL ROUGHINS WITH 1" CONDUIT AND PROVIDE 1" CONDUIT

HOMERUN BACK TO IT ROOM

l	LIGHTING IDENTITY SYMBOLS
	SURFACE MOUNTED 2'x4' FIXTURE
	SURFACE MOUNTED 2'x4' EMERGENCY FIXTURE
	RECESSED MOUNTED 2'x4' FIXTURE
	RECESSED MOUNTED 2'x4' EMERGENCY FIXTURE
	SURFACE MOUNTED 1'x4' FIXTURE
	SURFACE MOUNTED 1'x4' EMERGENCY FIXTURE
\sim	RECESSED MOUNTED 1'x4' FIXTURE
	RECESSED MOUNTED 1'x4' EMERGENCY FIXTURE
0	SURFACE MOUNTED FIXTURE
•	SURFACE MOUNTED EMERGENCY FIXTURE
\otimes	RECESSED MOUNTED FIXTURE
$\mathbf{\hat{v}}$	RECESSED MOUNTED EMERGENCY FIXTURE
0 0	SUSPENDED FIXTURE
	SUSPENDED EMERGENCY FIXTURE
ю	WALL MOUNTED FIXTURE
⊢●	WALL MOUNTED EMERGENCY FIXTURE
	WALL MOUNTED FIXTURE
	WALL MOUNTED EMERGENCY FIXTURE
 € € € ↓ ↓ ↓ 	EXIT LIGHTING FIXTURE, ARROWS AND EXIT FACE AS INDICATED ON DWGS (MOUNTING HEIGHTS TO BE DETERMINED BY JOB SPECIFICATION
	EMERGENCY BATTERY UNIT WITH LIGHTING HEADS
	EMERGENCY BATTERY REMOTE LIGHTING HEADS
<u>7 7 7</u>	LIGHT TRACK, LENGTH AS INDICATED ON DWGS WITH NUMBER OF HEARDS INDICATED ON DWGS
\bigcirc	IN-GROUND OR FLOOR MOUNTED FIXTURE
⊶⊖	SINGLE LUMINAIRE POLE MOUNTED SITE LIGHTING FIXTURE
۰	SINGLE LUMINAIRE POLE MOUNTED SITE LIGHTING FIXTURE
	SINGLE LUMINAIRE POLE MOUNTED SITE LIGHTING FIXTURE
	TWIN LUMINAIRE POLE MOUNTED SITE LIGHTING FIXTURE
↔	ROADWAY LUMINAIRE-COBRA HEAD
۲	BOLLARD TYPE SITE LIGHTING FIXTURE
"A1" "a" "NL"	LIGHTING FIXTURE LEGEND: "A1" - DESIGNATES UNIT ID, REFER TO LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION. "a" - DESIGNATES SWITCH LEG "NL" - DESIGNATES NIGHT LIGHT, FIXTURE TO BE CONNECTED AHEAD OF CONTROLS

3



NON

	POWER IDENTITY
	SYMBOLS
Φ	SINGLE CONVENIENCE RECEPTACLE
Φ	DUPLEX CONVENIENCE RECEPTACLE. 20A 125V. WALL
₩	MOUNT DEVICE DOUBLE DUPLEX CONVENIENCE RECEPTACLE.
\$	DUPLEX RECEPTACLE. 20A 125V. HORIZONTAL WALL MOUNT DEVICE.
\Diamond	GFCI DUPLEX CONVENIENCE RECEPTACLE. 20A 125V. WALL MOUNT DEVICE
\$	GFCI DOUBLE DUPLEX CONVENIENCE RECEPTACLE.
₽× ₽	SLASH INDCIATED DEVICE TO BE INSTALLED ABOVE COUNTER OR COUNTER BACKSPLASH
\heartsuit	SPECIAL RECEPTACLE
۔ ڇ	CLOCK HANGER OUTLET RECESSED MOUNTED 8'-0" AFF OR 8" BELOW CEILING AS INDICATED
$\overline{\Phi}$	FLOOR DUPLEX CONVENIENCE RECEPTACLE, SEE NOTES
	FLUSH MOUNT FLOOR BOX, WITH BOTH
	POWER AND VOICE/DATA RECEPTACLES, SEE NOTES FLUSH MOUNT FIRE RATED POKE-THRU, WITH BOTH POWER AND VOICE/DATA RECEPTACLES, SEE NOTES
$(\)$	CEILING MOUNTED RECEPTACLE
<u> </u>	JUNCTION BOX
<i>\lambda</i>	MOTOR
•	PUSH-BUTTON
•	ON/OFF PUSH-BUTTON STATION
* * *	THREE FUNCTION PUSH-BUTTON SWITCH (UP/DOWN/STOP)
\$	TOGGLE DISCONNECT SWITCH
Ľ	DISCONNECT SWITCH
СВ	ENCLOSED CIRCUIT BREAKER
	MAGNETIC CONTACTOR MAGNETIC MOTOR STARTER
	COMBINATION MAGNETIC STARTER AND DISCONNECT
VFD	SWITCH VARIABLE FREQUENCY DRIVE
	- HOMERUN
	– PHASE – NEUTRAL – GROUND
	GENERIC HARDWIRED ELECTRICAL CONNECTION
_ ∔	
+	3/4"x10' COPPER GROUND ROD

	SYMBOLS
	BRANCH PANEL, RECESSED
	BRANCH PANEL, SURFACE
	DISTRIBUTION PANEL
	SWITCHGEAR SECTION
	MOTOR CONTROL CENTER (MCC)
Т	TRANSFORMER
СТ	CURRENT TRANSFORMER CABINET
	METER
F	GROUNDING ELECTRODE BUS BAR

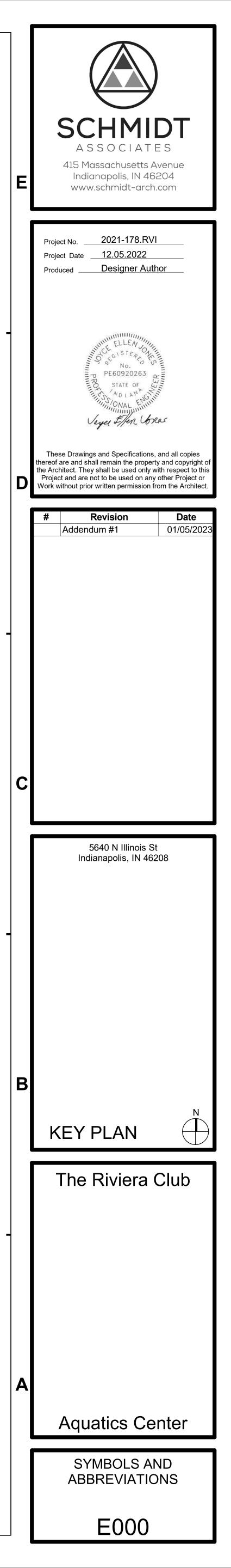
GENERAL	NOTES
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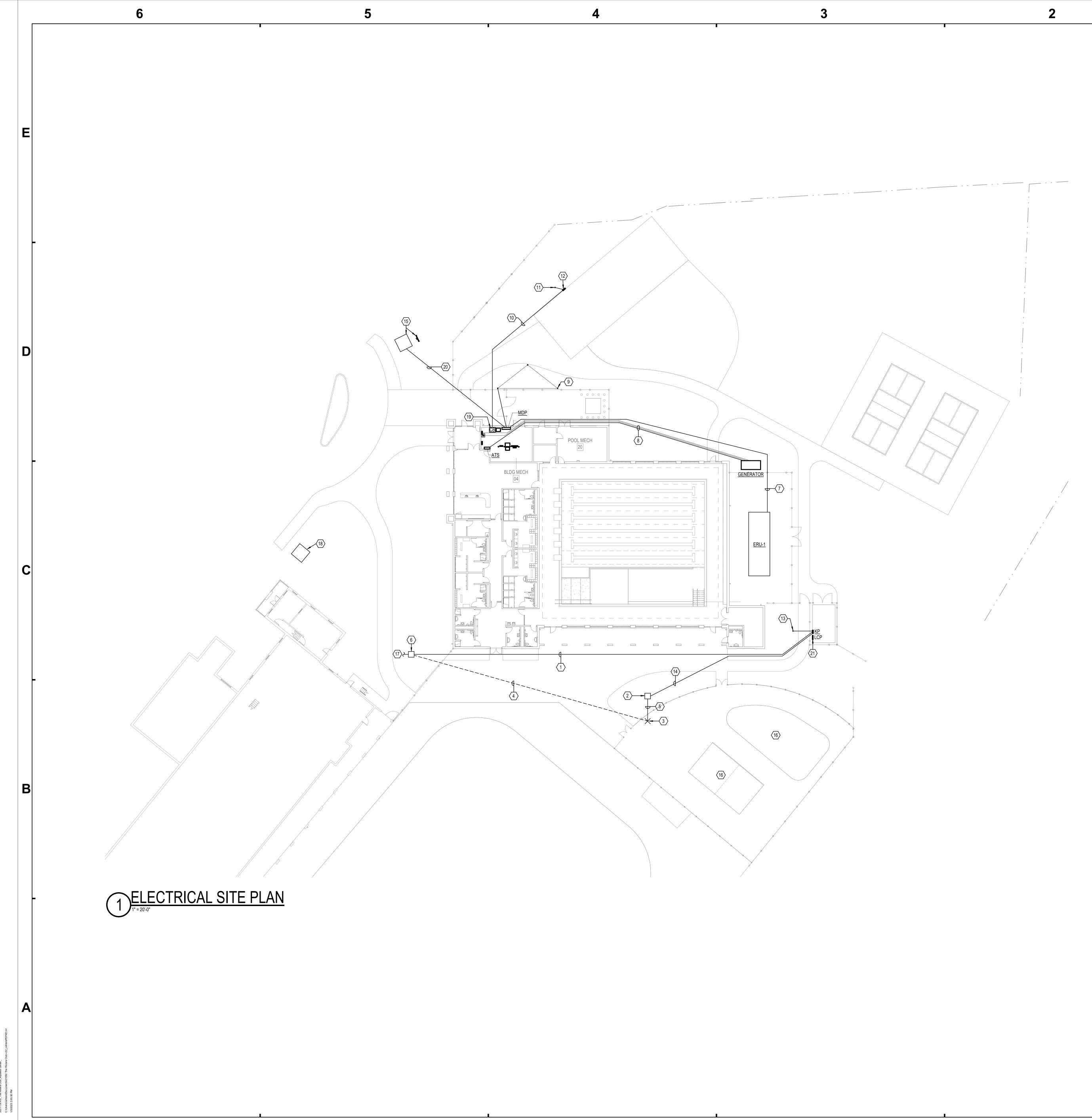
Α	DRAWINGS ARE DIAGRAMMATIC. ALL DIMENSIONS SHOWN ARE
73.	APPROXIMATE. ALL LOCATIONS SHALL BE FIELD VERIFIED.
В.	ALL WORK SHALL BE IN CONFORMANCE WITH THE NATIONAL
	ELECTRICAL CODE - LATEST EDITION ADOPTED BY STATE HAVING
	JURISDICTION, AND THE STATE HAVING JURISDICTION ELECTRICAL
	CODE AMENDMENTS, LOCAL/MUNICIPAL CODES, AND THE AUTHORITY
c	HAVING JURISDICTION. ALL CONDUIT PENETRATIONS SHALL BE SEALED WITH APPROPRIATE
0.	CONDUIT SEALING MATERIAL AND SHALL DE SEALED WITH AFFROFRIATE
	BARRIER BEING PENETRATED.
D.	ALL CABLE SIZES SHALL UTILIZE COPPER CONDUCTORS UNLESS
	NOTED OTHERWISE.
Ε.	FIELD VERIFY LOCATIONS OF BUILDING EXPANSION JOINTS WHEN
	ROUTING CONDUIT. ALL CONDUITS CROSSING EXPANSION JOINTS
	SHALL BE INSTALLED WITH EXPANSION FITTINGS. EXPANSION FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC, AND
	MANUFACTURER'S WRITTEN RECOMMENDATIONS.
F.	REFER TO ONE-LINE DIAGRAM FOR ALL FEEDER SIZES.
	WHEN CABLE TRAY IS SHOWN ON THE PLANS AND PORTIONS OF
	CABLE TRAY CANNOT BE INSTALLED DUE TO CONFLICT WITH
	STRUCTURE, THE CONTRACTOR SHALL PROVIDE (2) 4" C. WITH
	INSULATED BUSHINGS THAT OVERLAP 1" INTO THE TRAY.
н.	FEEDERS SHALL NOT BE COMBINED IN A RACEWAY. SINGLE PHASE BRANCH CIRCUIT HOME RUNS MAY BE COMBINED AT THE
	CONTRACTOR'S DISCRETION NOT GREATER THAN (3) PHASE
	CONDUCTORS, (3) NEUTRAL CONDUCTORS, AND A GROUNDING
	CONDUCTOR. WHERE CIRCUITS ARE COMBINED CONDUCTORS MUST
	BE DERATED ACCORDING TO NEC.
I.	EACH SINGLE PHASE BRANCH CONDUCTOR SHALL HAVE A DEDICATED
J.	NEUTRAL BACK TO THE PANEL. CONDUITS 2" AND LARGER THAT PENETRATE EXTERIOR WALLS SHALL
J.	USE LINK-SEALS.
K.	SUPPORT ALL CABLES AND RACEWAYS ACCORDING TO NEC.
L.	CONTRACTOR TO PROVIDE AND UPDATED TYPE WRITTEN PANEL
	INDEX UPON COMPLETION OF PROJECT.
М.	OCCUPANCY SENSORS LOCATED WITHIN THE SAME ROOM/SPACE
N.	SHALL WORK IN TANDEM UNLESS NOTED OTHERWISE. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES. NO
IN.	ADDITIONAL COMPENSATION WILL BE ALLOWED FOR INCORRECT
	WORK, OR FOR INFRINGMENT UPON OTHERS WORK, DUE TO A LACK
	OF COORDINATION.
0.	COORDINATE LOCATION OF ALL DEVICES TO BE INSTALLED IN
	CEILINGS (LIGHTS, SPEAKERS, DETECTORS, ETC.) WITH THE
	ARCHITECTURAL REFLECTED CEILING PLANS. NOTIFY ENGINEER OF AN CONFLICTS PRIOR TO INSTALLATION.
Ρ.	DEVICES IN GENERAL SHALL BE CENTERED IN WALL SPACE IN WHICH
	THEY ARE INSTALLED OR THEY SHALL BE SPACED SYMMETRICALLY
	(FOR EXAMPLE, CENTER DEVICES WHEN MOUNTED ON FACE OF
0	COLUMNS). WIRING SHALL BE MINIMUM #12AWG UNLESS NOTED OTHERWISE.
Q. R.	CONDUIT SHALL BE MINIMUM #12AWG UNLESS NOTED OTHERWISE.
	LISTED SHORT CIRCUIT RATING ARE ESTIMATED FINAL RATINGS SHALL
	BE DETERMINED BY SHORT CIRCUIT ANALYSIS BASED ON AVAILABLE
	FAULT CURRENT FROM UTILITY.
Τ.	COORDINATE AND VERIFY LOCATIONS OF DEVICES WITH BLOCK
	COURSING, FINISH MATERIALS, CASEWORK, ETC. PRIOR TO ROUGH-IN. WIRING TO ALL RECEPTACLES ON DEDICATED CIRCUITS SHALL BE A
0.	MINING TO ALL RECEPTACLES ON DEDICATED CIRCUTS SHALL BE A MINIMUM #10 AWG UNLESS NOTED OTHERWISE.
V.	ALL RECEPTACLES CONNECTED TO EMERGENCY CIRCUITS SHALL BE
	RED IN COLOR UNLESS NOTED OTHERWISE.
W.	COORDINATE LOCATION OF RECEPTACLES AT ELECTRIC WATER
	COOLERS (EWC) WITH EWC MANUFACTURER. PROVIDE DUPLEX
Х.	RECEPTACLE SO THAT IT IS CONCEALED BY EWC HOUSING. ALL DEVICE BOXES SHALL BE FLUSH MOUNTED AND ALL RACEWAYS
Λ.	SHALL BE CONCEALED UNLESS NOTED OTHERWISE. CONTRACTOR
	SHALL CUT AND PATCH EXISTING WALLS WITH EXTREME CAUTION, SO
	AS TO MINIMIZE INVASIVNESS OF INSTALLATION. ROUTE RACEWAYS
	SO AS TO MINIMIZE THE AMOUNT OF CUTTING AND PATCHING
	REQUIRE. PATCHING SHALL COMPLY WITH ALL BID DOCUMENT
v	REQUIREMENTS. EXISTING CONCEALED RACEWAYS AND DEVICE BOXES MAY BE
Ι.	REUSED IN PLACE IF DEEMED CODE COMPLIANT AND IN GOOD
	CONDITION. CONTRATOR IS RESPONSIBLE FOR VERIFICATION.
Z.	PROVIDE 120V POWER CONNECTION TO ALL MOTORIZED DAMPERS AT
	EXHAUST FANS.
AA.	EMERGENCY EGRESS LIGHTING IS ACCURATE TO BASIS OF DESIGN
	FIXTURES. ALL OTHER APPROVED EQUALS ARE RESPONSIBLE TO PROVIDE ADDITIONAL QUANTITIES AS NEEDED TO ACHIEVE CODE
	REQUIREMENTS.
BB.	FACP SHALL COMMUNICATE USING A DACT CONFIGURATION UNLESS
-	NOTED OTHERWISE. DACT CONFIGURATION SHALL COMPLY WITH ALL
	NFPA REQUIREMENTS AND SPECIFICALLY BUT NOT LIMITED TO NFPA
	72 SECTION 26.6.4.1 FOR APPROPRIATE DACT CONFIGURATION.

LINETYPE DESIGNATION	S
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DEMOLITION	
EXISTING	
NEW WORK	

	4	ABBREVIATIONS AND TER	MS	
AND	EMT	ELECTRICAL METALLIC TUBING	OCP	OVERCURRENT PROTECTION
PHASE	ETR	EXISTING TO REMAIN	OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
DEGREES FAHRENHEIT	EWC	ELECTRIC WATER COOLER	OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
AIR CONDITIONING	EX	EXISTING	OL	OVERLOAD
AMPERES	FCU	FAN COIL UNIT	ΟZ	OUNCE
AIR COOLED CONDENSING UNIT	FLR	FLOOR	P	POLE, PHASE, PARALLEL
AMPERE FUSE	FP	FIRE PUMP	PE	PNEUMATIC ELECTRIC
ABOVE FINISHED COUNTER	FPVAV	FAN POWERED VAV UNIT	PF	POWER FACTOR
ABOVE FINISHED FLOOR	FT	FOOT, FEET	PH	PHASE
ABOVE FINISHED GRADE	FURN	FURNACE	PTAC	PACKAGED TERMINAL AIR CONDITIONER
AIR HANDLING UNIT	G	GROUND, GALLONS	PVC	POLYVINYL CHLORIDE CONDUIT/PIPE
AMPERES INTERRUPTING CAPACITY	GC	GENERAL CONTRACTOR	RCPT	RECEPTACLE
ALUMINUM	GFI	GROUND FAULT INTERRUPTING	REV	REVOLUTIONS
AMERICAN NATIONAL STANDARDS INSTITUT		GROUND FAULT CIRCUIT	RGS	RIGID GALVANIZED CONDUIT
ARCHITECT	GRD	GROUND	RM	ROOM
AUTOMATIC TRANSFER SWITCH	GRD GND	GROUND	RM RPM	ROOM REVOLUTIONS PER MINUTE
	HHWP			
			RPS	REVOLUTIONS PER SECOND
BUILDING AUTOMATION SYSTEM	HOA	HAND-OFF-AUTOMATIC	RTU	ROOF TOP UNIT
BYPASS ISOLATION	HORIZ	HORIZONTAL	SF	SQUARE FOOT
BOTTOM ELEVATION	HP	HORSEPOWER	SPEC	SPECIFICATION
BUILDING	HR	HOUR(S)	SQ	SQUARE
BUILDING MANAGEMENT SYSTEM	HRTU	HEATING ONLY ROOFTOP UNIT	ST	SHUNT TRIP
BASEMENT	Hz	HERTZ	STD	STANDARD
	IAC	INSTRUMENTATIONS AND CONTROLS	SW	SWITCH
	ID		TBD	
	IN		TBI	
COUNTERCLOCKWISE CHILLER	INT JP	INTERIOR JOCKEY PUMP	TBR TC	TO BE REMOVED TEMPERATURE CONTROLS
CHILLER CHILLED WATER PUMP	JP K	KELVIN, KEYED	TCC	TEMPERATURE CONTROLS
CEILING	kW	KILOWATT	TR	TAMPER RESISTANT
	KVV KVA	KILOVOLT AMPS	TEMP	TEMPERATURE
COMPRESSOR	LBS	POUNDS	TF	TRANSFER FAN
CONDENSER	LSI, LSIG	TRIP TYPE - LONG, SHORT, INSTANTANEOUS, GROUND FAULT	TRANS	TRANSITION
CONVECTOR	LTG	LIGHTING	TYP	TYPICAL
COOLING TOWER	MAX	MAXIMUM	UH	UNIT HEATER
CONDENSING UNIT, COPPER	MC	MECHANICAL CONTRACTOR	UON/UNO	UNLESS OTHERWISE NOTED
CABINET UNIT HEATER	MCA	MINIMUM CIRCUIT AMPS	UV	UNIT VENTILATOR
CLASSROOM UNIT VENTILATOR	MCC	MOTOR CONTROL CENTER	V	VOLTS
CLOCKWISE	MFR	MANUFACTURER	VAV	VARIABLE AIR VOLUME
CONDENSER WATER PUMP	MIN	MINIMUM	VB	VACUUM BREAKER
DEDICATED CIRCUIT	MISC	MISCELLANEOUS	VERT	VERTICAL
DIRECT CURRENT	MOP	MAXIMUM OVERCURRENT PROTECTION	VF	VENTILATION FAN
DISCONNECT SWITCH	MTD	MOUNTED	VFD	VARIABLE FREQUENCY DRIVE
DOMESTIC WATER HEATER	MV	MEDIUM VOLTAGE	W	WIRE, WATT
DRAWING	NA	NOT APPLICABLE	WP	WEATHERPROOF
EACH	NEC	NATIONAL ELECTRIC CODE	W/	WITH
ELECTRICAL CONTRACTOR	NIC	NOT IN CONTRACT	W/O	WITHOUT
EXHAUST FAN	NL	NIGHT LIGHT	WSHP	WATER SOURCE HEAT PUMP
EFFICIENCY	NOM	NOMINAL		
ELEVATION	NTS	NOT TO SCALE		





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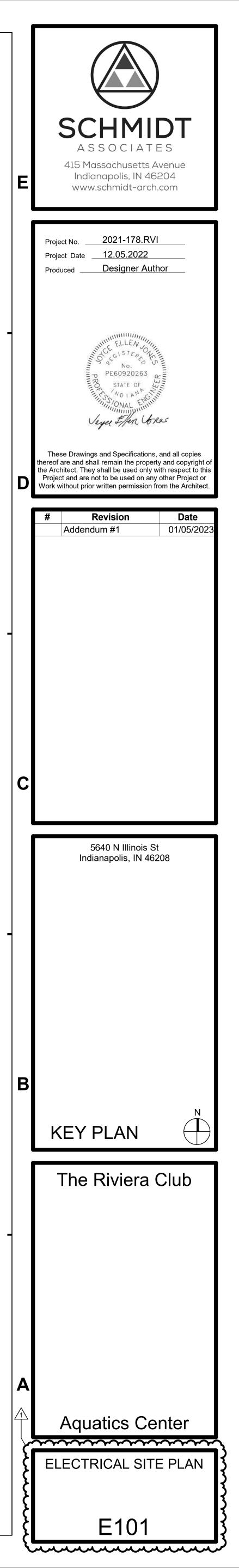
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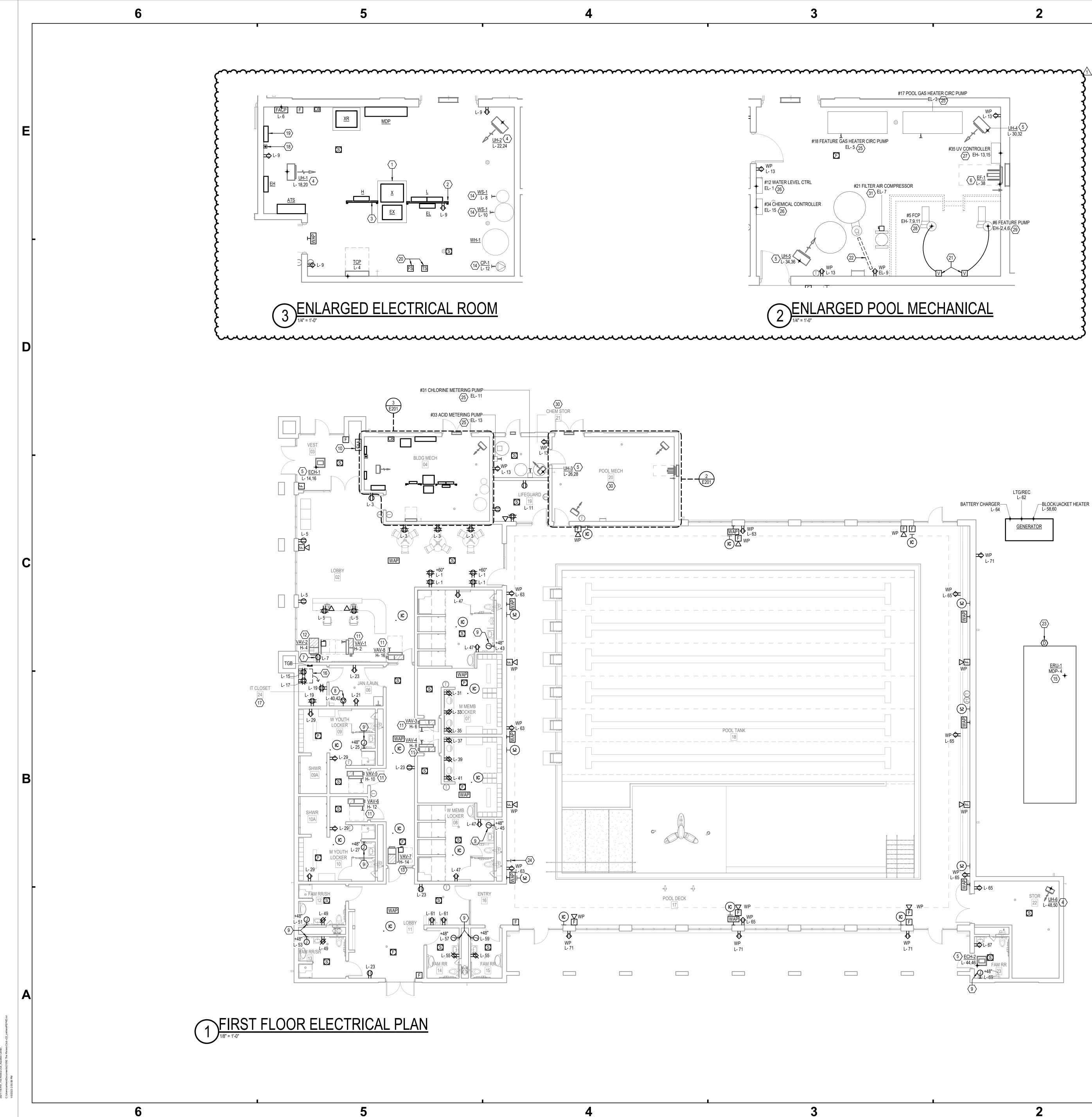
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3

SHEET KEYNOTES

- 1 PROVIDE 2-1/2" CONDUIT FROM HANDHOLE ESTABLISHED IN THE DEMOLISHION PHASE TO NEW PANEL WITHIN SPLASH PAD/KIDDIE POOL EQUIPMENT ROOM. PROVIDE NEW WIRING TO NEW PANEL FROM EXISTING BREAKER SERVING DEMOLISHED PANEL, CIRCUIT SHALL CONSIST OF (4) #3/0, #6 G.
- 2 IN DEMOLITION PHASE OF CONSTRUCTION PROVIDE 36" L x 36" W x 30" D, POLYMER CONCRETE, OPEN BASE HANDHOLE FOR CONSOLIDATION POINT FOR EXISTING CIRCUITS FROM DEMOLISHED PANEL ON UNISTRUT. BASIS OF DESIGN HUBBELL QUAZITE HANDHOLE. PROVIDE LABEL ON LID OF HANDHOLE TO READ "POWER". LOCATION OF HANDHOLE IS SHOWN APPROXIMATLY BUT SHALL BE IN GRASSY AREA OUTSIDE OF KIDDIE POOL ENCLOUSURE SIMILAR TO SHOWN. PROVIDE PROTECTION FOR EXISTING CONDUITS AND HANDHOLE THROUGH CONSTRUCTION TO MAINTAIN MATERIAL INTEGRITY.
- 3 LOCATION OF EXISTING EXTERIOR UNISTRUT MOUNTED PANEL AND LIGHTING CONTACTOR SERVING EXISTING KIDDY POOL MECHANICAL SHED AND EXTERIOR POOL LIGHTING. PANEL TO BE DEMOLISHED DURING SITE PREPERATION PHASE. CONDUITS FOR PANEL SHALL BE EXTENDED AS NOTED BY SEPARATE KEYNOTE. WIRE FROM PANEL SHALL BE REMOVED BACK TO FIRST DEVICE OF CIRCUIT TO BE REPLACED BY NEW WHEN CIRCUITS ARE REFED FROM PANEL KP AND ASSOSOCIATED LIGHTING CONTROL PANEL. ANY CIRCUITS (CONDUIT AND WIRE) FROM PANEL TO LOADS WITHIN EXISTING KIDDDY POOL SHEDS OR LOADS THAT ARE BEING REMOVED AS NOTED BY OTHERS ARE TO BE DEMOLISHED WITH ASSOCIATED LOADS.
- 4 CONDUIT FOR EXISTING UNISTRUT MOUNTED PANEL FROM EXISTING BUILDING TO BE DEMOLISHED FROM PANEL TO HANDHOLE AS SHOWN. AT HANDHOLE CONDUIT TO BE MODIFIED TO STUB UP INTO HANDHOLE. WIRE FOR SERVICE TO PANEL SHALL BE COMPLETELY REMOVED.
 5 CONDUITS FOR CIRCUITS OF THE UNISTRUT PANEL TO BE DEMOLISHED THAT
- ARE TO REMAIN PER THE PANEL'S KEYNOTE SHALL BE DEMOLISHED THAT ARE TO REMAIN PER THE PANEL'S KEYNOTE SHALL BE DEMOLISHED DOWN TO FIRST BELOW GRADE STRAIGHT HORIZANTAL SECTION. FROM NEW END OF CONDUIT, CONDUIT SHALL BE EXTEDED TO HANDHOLE AS SHOWN AND STUBBED UP INTO ASSOCIATED HANDHOLE TO BE USED AS A JUCTION POINT FOR REFEED TO EXISTING LOADS.
- 6 IN DEMOLITION PHASE OF CONSTRUCTION PROVIDE 24" L x 24" W x 30" D, POLYMER CONCRETE, OPEN BASE HANDHOLE FOR JUNCTION POINT FOR NEW KP PANEL FEEDER. BASIS OF DESIGN HUBBELL QUAZITE HANDHOLE. PROVIDE LABEL ON LID OF HANDHOLE TO READ "POWER". LOCATION OF HANDHOLE IS SHOWN APPROXIMATLY BUT SHALL BE IN GRASSY AREA, OUTSIDE OF POOL ENCLOUSURE, AND ALONG FEEDER PATH TO EXISTING UNISTRUT MOUNTED PANEL, SIMILAR TO SHOWN. PROVIDE PROTECTION FOR EXISTING CONDUITS AND HANDHOLE THROUGH CONSTRUCTION TO MAINTAIN MATERIAL INTEGRITY.
- 7 APPROXIMATE ROUTING OF FEEDER FROM PANEL MDP TO ERU-1. ROUTING SHALL AVOID GOING UNDER GENERATOR AND BUILDING EXCEPT WITHIN MECHANICAL ROOM AS REQUIRED.
- 8 APPROXIMATE ROUTING OF FEEDER FROM GENERATOR TO ATS. ADDITIONALLY, CONTROL CONDUITS FOR ESTOP AND ANNUNCIATOR PANEL ARE TO BE ROUTED PARRALLEL WITH FEEDER BETWEEN GENERATOR AND ATS. ROUTING SHALL AVOID GOING BUILDING TO THE EXCEPT WITHIN MECHANICAL ROOM ATS IS IN.
- 9 PROVIDE BUILDING GROUNDING TRIAD WITHIN GRASSY AREA AS SHOWN. ARROW SHOWN INDICATES TYPICAL GROUND ROD.
 10 APPROXIMATE ROUTING FOR NEW FEEDER TO EXISTING PANEL ON RIVIERA
- APPROXIMATE ROUTING FOR NEW FEEDER TO EXISTING PANEL ON RIVIERA PAVILLION. REFER TO RISER DIAGRAM FOR FUTHER FEEDER INFORMATION.
 PROVIDE REMOTE BUILDING GROUND ROD FOR EXISTING PANEL IN GRASSY AREA AS SHOWN.
- 12 EXISTING PANEL NOTED AS PANEL EX ON RISER DIAGRAM. ENSURE EXISTING PANEL HAS A NEUTRAL TO GROUND CONNECTION. IF PANEL DOES NOT HAVE NEUTRAL TO GROUND CONNECTION CREATE NEUTRAL TO GROUND CONNECTION. IF REQUIRED TO MAKE NEUTRAL TO GROUND CONNECTION REPLACE MAIN CIRCUIT BREAKER WITH SERVICE ENTRY RATED 125A/3P BREAKER COMPATIBLE WITH PANEL. PANEL IS SEIMENS P1X30MC250AT. EXISTING CONDUIT FEED SHALL BE ABANDONED AND MODIFIED TO ALLOW FOR NEW FEED PER RISER DIAGRAM.WIRE OF EXISTING FEED SHALL BE REMOVED.
- PROVIDE REMOTE BUILDING GROUND ROD FOR NEW PANEL KP IN GRASSY AREA AS SHOWN.
 EXTEND EXISTING LOAD CONDUITS FROM THE DEMOLISHED UNISTRUT MOUNTED PANEL TO NEW PANEL KP. USING RENOVATED CONDUIT PATHS PROVIDE WIRE TO EXIKSTING LOADS UTILIZE (2) #10, #10 G. TO FEED ALL 20A/1
- POLE CIRCUITS REMAINING. FOR ANY LOADS OF HILLE (2) #10, #10 C. TO FELD ALL 2007 POLE CIRCUITS REMAINING. FOR ANY LOADS REMAINING OF HIGHER APPERAGE OR POLE COUNT SUBMIT RFI FOR ENGINEER SHOWING LOAD LOCATION AND LOAD NAMEPLATE INFORMATION FOR ASSOCIATED WIRE SIZE. 15 NEW UTILITY TRANSFORMER AND UNISTRUT MOUNTED METER. PROVIDE
- TRANSFORMER PAD PER AES STANDARDS. COORDINATE WITH AES FOR ANY ADDITIONAL ROUGH IN REQUIREMENTS.
 PRIOR TO EXCAVATION SITEWORK ELECTRICAL CONTRACTOR SHALL
- CONFIRM THAT NO EXISTING TO REMAIN CONDUITS/CIRCUITS ARE WITHIN 5'
 FOOTPRINT OF WATER FEATURE. IF THERE ARE CONDUITS IN SUCH SENERIO
 CONTACT ENGINEER FOR DIRECTION.
 TO PANEL AND BREAKER WITHIN EXISTING BUILDING PREVIOUSLY SERVING
- EXTERIOR UNISTRUT PANEL. 18 EXISTING UTILITY TRANSFORMER TO REMAIN
- 19 ENCLOSED CIRCUIT BREAKER FOR PAVILION PANEL EX. PROVIDE AS NOTED ON ELECTRICAL RISER DIAGRAM.
- APPROXIMATE ROUTING OF SECOINDARY FROM UTILITY TRANSFORMER TO MDP. PROVIDE AS NOTED ON ELECTRICAL RISER DIAGRAM.
 PROVIDE LIGHTING CONTROL PANEL TO REPLACE EXISTING CONTACTOR
- PREVIOUSLY ON EXTERIOR UNISTRUT RACK. LIGHTING CONTROL PANEL SHALL HAVE 365-DAY PROGRAMABLE CONTROL ASTONOMICAL TIMECLOCK AND PHOTOCELL COMPATIBILITY.

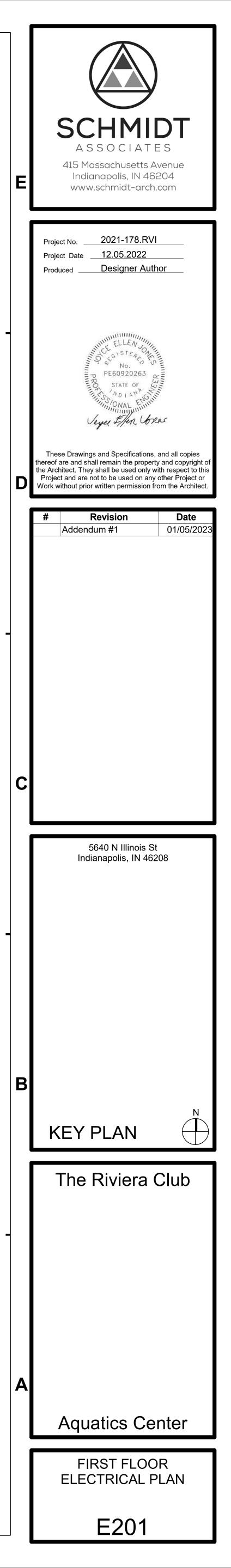


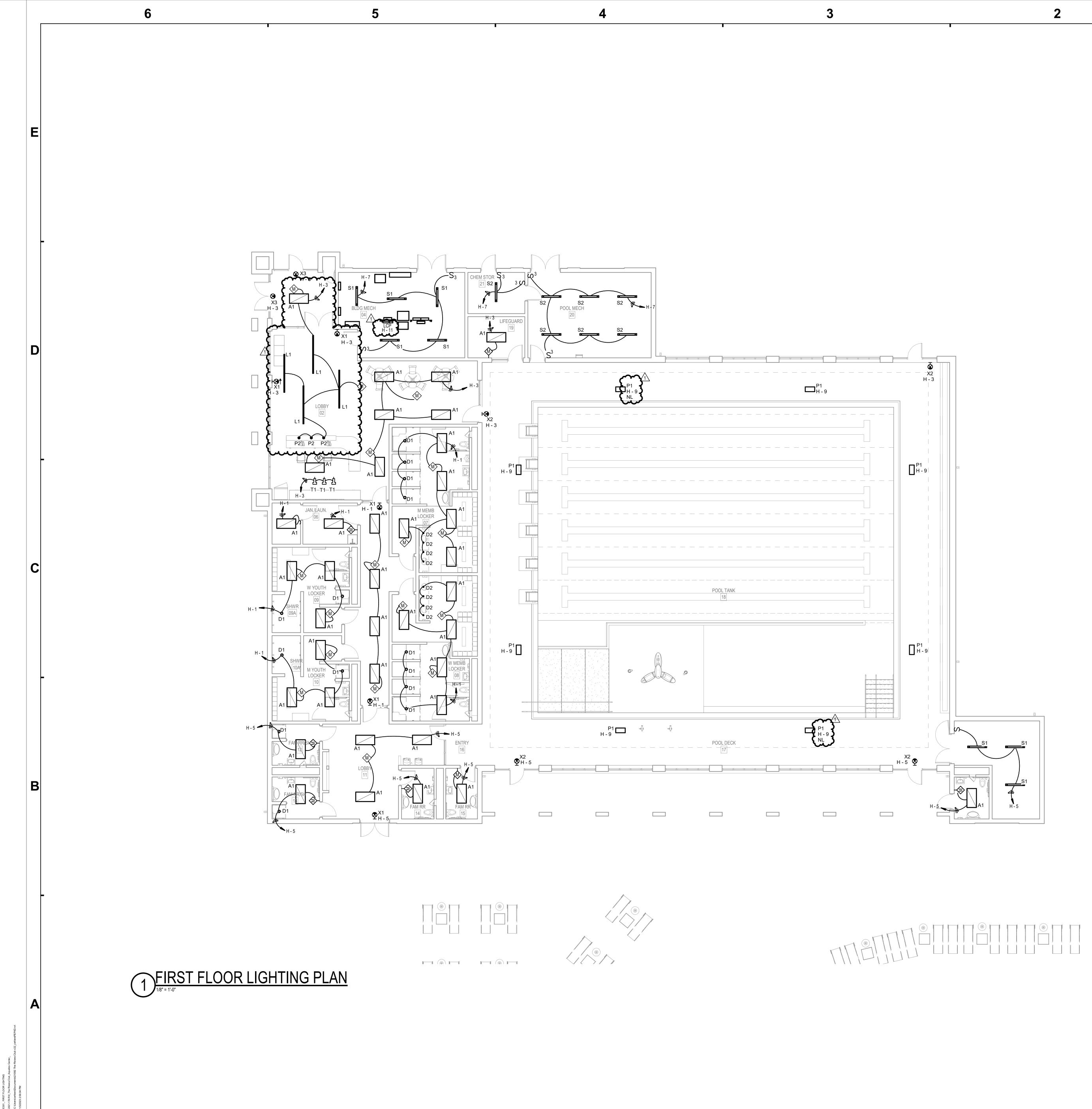


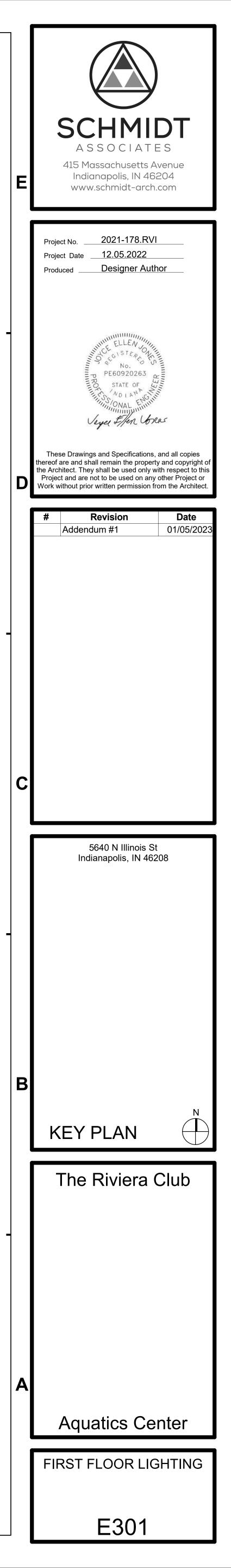
GENERAL NOTES A REFER TO SHEET E-000 FOR GENERAL ELECTRICAL NOTES, SYMBOLS AND ABBREVIATIONS. B CIRCUIT DESIGNATION AT THE CENTER OF THE ROOM OR BELOW ROOM TAG SIGNIFIES THAT ALL DEVICES WITHIN THAT SPACE ARE TO BE ON NOTED CIRCUIT. D COORDINATE ALL POOL EQUIPMENT LOCATIONS WITH POOL CONTRACTOR. MODIFY POWER FEEDS AND LOCAL DISCONNECT LOCATIONS PER POOL CONTACTOR COORDINATION. uuuuuuuuuuu SHEET KEYNOTES 1 PROVIDE 4" TALL EQUIPMENT PAD FOR EQUIPMENT AS SHOWN. DIMINSIONS OF PAD SHALL EXTEND 4" PAST THE EXTENT OF EQUIPMENT FOOTPRINT. 2 PROVIDE 6'-6" TALL, 4'-6" WIDE, DOUBLE SIDED, FLOOR MOUNTED SECTION OF ALUMINUM UNISTRUT RACK. PROVIDE HORIZANTAL SUPPORTS AS REQUIRED TO SUPPORT ELEMENTS AS SHOWN.MOUNT UNISTRUT DIRECTLY ADJACENT TO TRANSFORMER EQUIPMENT PAD. 3 PROVIDE 6'-6" TALL, 3'-4" WIDE, DOUBLE SIDED, FLOOR MOUNTED SECTION OF ALUMINUM UNISTRUT RACK. PROVIDE HORIZANTAL SUPPORTS AS REQUIRED TO SUPPORT ELEMENTS AS SHOWN.MOUNT UNISTRUT DIRECTLY ADJACENT TO TRANSFORMER EQUIPMENT PAD. 4 PROVIDE ELECTRICAL CONNECTION TO 208V 2 POLE MECHANICAL EQUIPMENT WITH INTERGRAL DISSCONNECTING MEANS. CIRCUIT SHALL BE 2 #12, #12G IN ¾" CONDUIT. 5 PROVIDE ELECTRICAL CONNECTION TO 208V 2 POLE MECHANICAL EQUIPMENT WITH INTERGRAL DISSCONNECTING MEANS. CIRCUIT SHALL BE 2 #10, #10G IN 3/4" CONDUIT. 6 PROVIDE ELECTRICAL CONNECTION TO 120V SINGLE POLE MECHANICAL EQUIPMENT WITH INTERGRAL DISCONNECTING MEANS. CIRCUIT SHALL BE 2 #12, #12G IN ¾" CONDUIT. 7 INSTALL RECEPTACLE SO THAT IT IS FLUSH WITH BACK OF CASEWORK. PROVIDE GROMMETED HOLE ON SIDE OF CASEWORK FOR PATHWAY FOR CORDED CONNECTION OF REFRIGERATED MERCHANDISER. RECEPTACLE SHALL BE DEDICATED TO REFRIGERATED MERCHANDISER. 8 PROVIDE NEMA 14-30R FOR CLOTHES DRYER. CIRCUIT TO RECEPTACLE SHALL BE 3 #10, #10G IN 3/4" CONDUIT. 9 PROVIDE DEDICATED 20A ELECTRICAL CONNECTION FOR HAND DRYER PROVIDED BY OTHERS. CIRCUIT TO HAND DRYER SHALL BE 2#12, #12 G. IN 3/4" CONDUIT. 10 FIRE ALARM ANNUNCIATOR PANEL SHALL BE RECESS MOUNTED SO THAT FLUSH WITH WALL. 11 PROVIDE ELECTRICAL CONNECTION TO 277V SINGLE POLE MECHANICAL EQUIPMENT. PROVIDE A 20A SINGLE POLE TOGGLE SWITCH AS EQUIPMENT DISCONNECTING MEANS. CIRCUIT SHALL BE 2 #12, #12G IN 3/4" CONDUIT. 12 PROVIDE ELECTRICAL CONNECTION TO 277V SINGLE POLE MECHANICAL EQUIPMENT. PROVIDE A 60A/1P/N1 NON-FUSED DISCONNECT SWITCH AS EQUIPMENT DISCONNECTING MEANS. CIRCUIT SHALL BE 2 #6, #10G IN 1" CONDUIT. 13 PROVIDE ELECTRICAL CONNECTION TO 277V SINGLE POLE MECHANICAL EQUIPMENT, PROVIDE A 20A SINGLE POLE TOGGLE SWITCH AS EQUIPMENT DISCONNECTING MEANS. CIRCUIT SHALL BE 2 #12, #12G IN 3/4" CONDUIT. 14 PROVIDE ELECTRICAL CONNECTION TO 120V SINGLE POLE PLUMBING EQUIPMENT. PROVIDE A 20A SINGLE POLE TOGGLE SWITCH AS EQUIPMENT DISCONNECTING MEANS. CIRCUIT SHALL BE 2 #12, #12G IN 3/4" CONDUIT. 15 PROVIDE ELECTRICAL CONNECTION TO 480V 3 POLE MECHANICAL EQUIPMEN WITH INTERGRAL DISCONNECTING MEANS. CIRCUIT SHALL BE 4 #350, #4G IN 3" CONDUIT FED UNDERGROUND ALONG THE PERIMETER OF THE BUILDING. 16 PROVIDE A WALL MOUNT HINGED 26 RU TECHNOLOGY RACK ENCLOUSURE. PROVIDE HINGING SO THAT RACKK WILL SWING AS SHOWN BY ARROW. 17 ENTIRETY OF ROOM FROM 1' AFF TO 1' BELOW FINISHED CEILING SHALL BE COVERED BY 3/4" PLYWOOD PAINTED IN FIRE RETARDANT PANIT. ALL DEVICES SHALL BE MOUNTED SO THAT FLUSH WITH PLYWOOD. 18 GENERATOR REMOTE STOP EPO. PROVIDE CONNECTIONS PER GENERATOR NOTES DETAIL. 19 GENERATOR ANNUNCIATOR PANEL. PROVIDE CONNECTIONS PER GENERATOR NOTES DETAIL. 20 PROVIDE TAMPER AND FLOW SWITCHES FOR FIRE PROTECTION RISER. PROVIDE INTERCONNECTION FROM EACH SWITCH TO FACP. COORDINATE QUANITY AND LOCATIONS OF TAMPER AND FLOW SWITCHES WITH FIRE PROTECTION CONTRACTOR AND PROVIDE QUANTITY PER FIRE PROTECTION CONTRACTOR COORDINATION. 21 VFD FURNISHED BY OTHERS INSTALLED BY ELECTRICAL CONTRACTOR. ALL ASSOCIATED CONNECTIONS TO BE BY ELECTRICAL CONTRACTOR. 22 PROVIDE 2 CHANNEL HEAVY DUTY CABLE PROTECTOR FOR CABLE PATHWAY BETWEEN DEDICATED RECEPTACLE AND REGENERATIVE FILTER VACUUM TRANSFER UNIT AS SHOWN BY DASHED LINES. BASIS OF DESIGN IS ULINE H-9437 2 CHANNEL CABLE PROTECTOR. 23 PROVIDE WEATHER PROOF DUCT DETECTOR ON RETURN DUCT IN LOCATION SHOWN ON MECHANICAL DRAWINGS. PROVIDE INTERCONNECTION TO FACP. 24 PROVIDE LOW VOLTAGE DIAL STYLE TIMER SWITCH WITH STAINLESS STEEL FACEPLATE AND PLASTIC DIAL TO BE INTERCONNECTED WITH RELAY TO CONTROL POOL THERAPY JETS. PROVIDE WITH LOCKABLE OPAQUE ENCLOSURE. 25 PROVIDE ELECTRICAL CONNECTION TO 120V SINGLE POLE POOL EQUIPMENT. PROVIDE A 20A SINGLE POLE COMBONATION MOTOR STARTER DISCONNECT AS EQUIPMENT DISCONNECTING MEANSAND STARTING METHOD. CIRCUIT SHALL BE 2 #12, #12G IN 3/4" CONDUIT. 26 PROVIDE ELECTRICAL CONNECTION TO 120V SINGLE POLE POOL EQUIPMENT WITH INTERGRAL DISCONNECTING MEANS. CIRCUIT SHALL BE 2 #8, #10G IN 3/4" CONDUIT 27 PROVIDE ELECTRICAL CONNECTION TO 480V TWO POLE POOL EQUIPMENT WITH INTERGRAL DISCONNECTING MEANS. CIRCUIT SHALL BE 3 #8, #10G IN 3/4" CONDUIT. 28 PROVIDE ELECTRICAL CONNECTION TO 480V THREE POLE POOL EQUIPMENT WITH VFD WITH DISCONNECTING MEANS. VFD TO BE PROVIDED BY OTHERS CONNECTIONS BETWEEN EQUIPMENT VFD AND PANEL TO BE BY ELECTRICAL CONTRACTOR. CIRCUIT SHALL BE 3 #6, #10G IN 1" CONDUIT. 29 PROVIDE ELECTRICAL CONNECTION TO 480V THREE POLE POOL EQUIPMENT WITH VFD WITH DISCONNECTING MEANS. VFD TO BE PROVIDED BY OTHERS

CONNECTIONS BETWEEN EQUIPMENT VFD AND PANEL TO BE BY ELECTRICAL CONTRACTOR. CIRCUIT SHALL BE 3 #8, #10G IN 1" CONDUIT. 30 EQUIPMENT SHOWN WITHIN ROOM IS SHOWN AS REFERENCE ONLY. COORDINATE EXACT EQUIPMENT LOCATIONS WITH POOL EQUIPMENT

CONTRACTOR PRIOR TO ROUGH IN. 31 PROVIDE ELECTRICAL CONNECTION TO 120V SINGLE POLE POOL EQUIPMENT. PROVIDE A 60A SINGLE POLE, NEMA 4X SS, NON-FUSED DISCONNECT AS EQUIPMENT LOCAL DISCONNECTING MEANS. CIRCUIT SHALL BE 2 #6, #10G IN 1" CONDUIT.

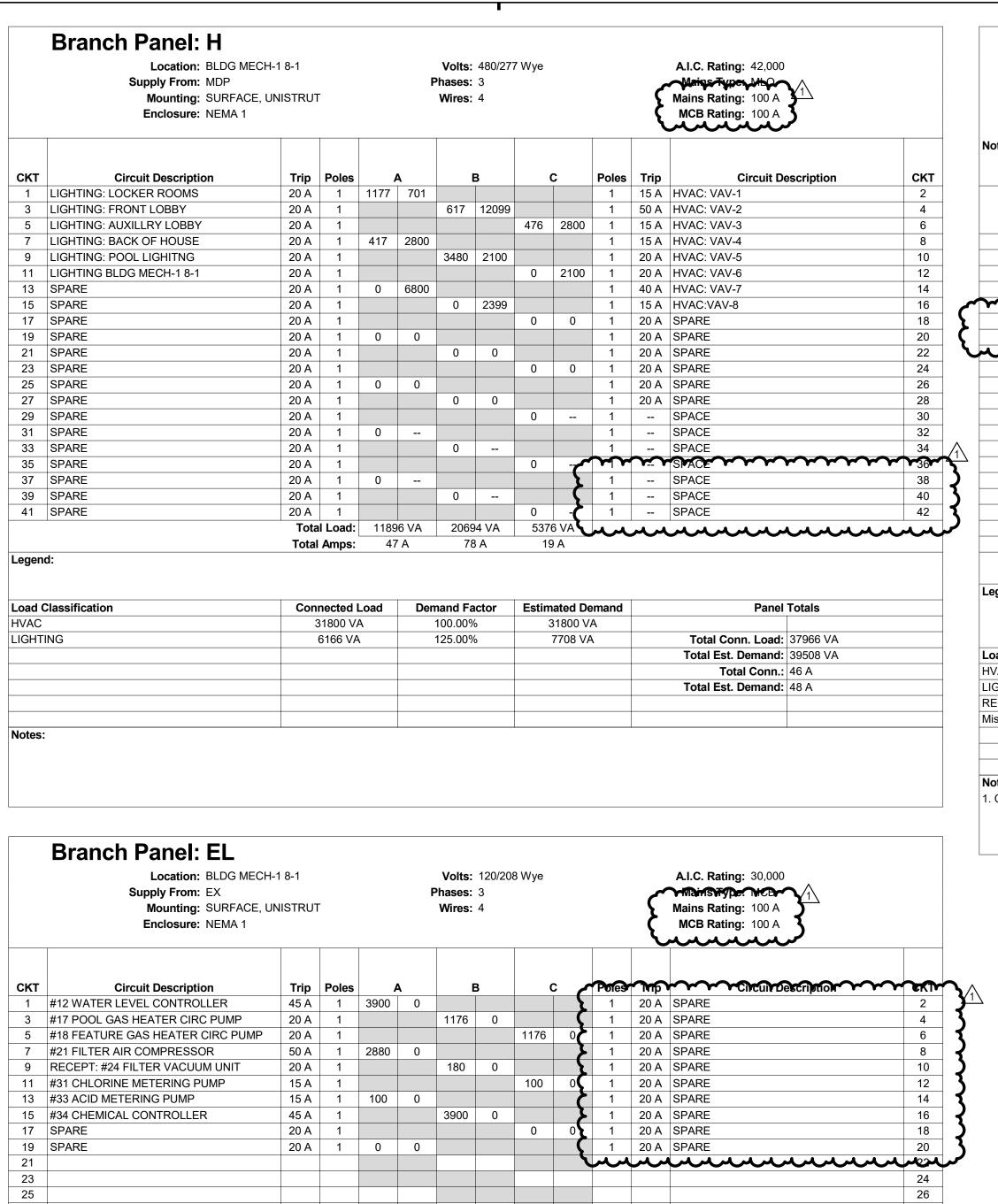






		6						— ———————————————————————————————————					5		
		Branch Panel: L Location: BLDG MECH Supply From: X Mounting: SURFACE, U Enclosure: NEMA 1		Г		F	Volts: Phases: Wires:		8 Wye				A.I.C. Rating: 30,000 Mains Type: MCB Mains Rating: 250 A MCB Rating: 250 A		
	СКТ	Circuit Description RECEPT: LOBBY	Trip 20 A	Poles	1440	A		B		C	Poles	Trip 20 A	Circuit Des	cription	СКТ 2
Е	3 5 7 9 11 13	RECEPT: ENTRY VEST, LOBBY RECEPT: LOBBY DESK RECEPT: LOBBY FRIDGE RECEPT: BLDG MECH RECEPT: LIFEGUARD RECEPT: CHEM STORAGE, POOL MECH	20 A 20 A 20 A 20 A 20 A 20 A 20 A	1 1 1 1 1 1 1	180	200	1260 720	180 200	1080 720	180 0	1 1 1 1 1	20 A 20 A 20 A	MECHANICAL CONTRO FACP WATER SOFTENER WS WATER SOFTENER WS CIRCULATION PUMP C	5-1 5-1	4 6 8 10 12 14
	15 17 19 21 23	RECEPT: IT EQUIPMENT RECEPT: IT EQUIPMENT RECEPT: IT CLOSET RECEPT: CLOTHES WASHER RECEPT: JANITOR, LOBBY, CORRIDOR W YOUTH LOCKER HAND DRYER	20 A 20 A 20 A 20 A 20 A 20 A 20 A	1 1 1 1 1 1 1	720	1500	1500	1997 1500	1500 720	1500	2 2 2 2		HVAC: ECH-1 HVAC: UH-1 HVAC: UH-2		16 18 20 22 24
	29 31 33	M YOUTH LOCKER HAND DRYER M YOUTH LOCKER HAND DRYER RECEPT: YOUTH LOCKERS RECEPT: M MEMBER VANITY RECEPT: M MEMBER VANITY RECEPT: M MEMBER VANITY	20 A 20 A 20 A 20 A 20 A 20 A	1 1 1 1 1 1 1	1200 180	1737	1200 180	1737 1737	720	1737 1737 1737	2 2 2	25 A	HVAC: UH-3 HVAC: UH-4 HVAC: UH-5		26 28 30 32 34 36
		RECEPT: W MEMBER VANITY RECEPT: W MEMBER VANITY RECEPT: W MEMBER VANITY		1 1 1 I Load: Amps:		1176 37 VA 4 A		3120 31 VA 4 A		3120 6 VA 5 A	2	15 A 30 A	HVAC: EF-1 RECEPT: CLOTHES DR	YER	38 40 42
	Load (HVAC RECER	Classification	2	nected 30352 V 25300 V 16912 V	Ά Ά		nand Fa 100.00% 69.76% 100.00%	6	3	ated De 30352 V 17650 V 16912 V	A A		Panel Total Conn. Load: 7 Total Est. Demand: 6 Total Conn.: 2	2564 VA 4914 VA 01 A	
D		: LE TUB PANEL SECOND SECTION CONTINU ND SECTION LOAD.	JED ON F	PANEL	SCHEDI		/ITH CIF		IUMBEF	RS 42-84	LOAD	CALCI	Total Est. Demand: 1		INTS FOR
		Branch Panel: L Location: BLDG MECH Supply From: L				F	hases:		8 Wye				A.I.C. Rating: 30,000	1	
	скт	Mounting: SURFACE, U Enclosure: NEMA 1 Circuit Description	Trip	Poles		A	Wires:	4 B		C	Poles	Trip	Mains Rating: 250 A MCB Rating: 250 A Circuit Des	cription	СКТ
	49 51	M MEMBER LOCKER HAND DRYER W MEMBER LOCKER HAND DRYER RECEPT: MEMBER LOCKERS RECEPT: FAMILY RR/SH FAMILY RR/SH HAND DRYER	20 A 20 A 20 A 20 A 20 A	1 1 1 1 1	1200 360	1997 1508	1200	1997 528	720	1508	2	25 A 20 A 15 A	HVAC: ECH-2 HVAC: UH-6 HVAC: EF-2 HVAC: EF-3	-	44 46 48 50 52
	55 57 59 61	FAMILY RR/SH HAND DRYER RECEPT: FAMILY RR FAMILY RR HAND DRYER FAMILY RR HAND DRYER RECEPT: EDF RECEPT: N & W POOL SPACE	20 A 20 A 20 A 20 A 20 A 20 A 20 A	1 1 1 1 1 1 1	360 360	696 180	1200 720	2496 2496 180	1200	2496	1 1 2 1 1	15 A 30 A		Т	54 56 58 60 62 64
С	67 69 71	RECEPT: N & E POOL SPACE RECEPT: FAMILY RR FAMILY RR HAND DRYER RECEPT: EXTERIOR RECEPT: ROOF SPARE	20 A 20 A 20 A 20 A 20 A 20 A 20 A	1 1 1 1 1 1 1	180 900	0	1200 0	0	900 720	0	1 1 1 1 1 1	20 A 20 A 20 A	SPARE SPARE SPARE SPARE SPARE SPARE		66 68 70 72 74 76
	77 79 81 83	SPARE SPARE SPARE SPARE		1 1 1 1 1 1 1 1 1 0 1 1 0 0		0 1 VA		0 21 VA		0 0 2 VA	1 1 1 1		SPARE SPARE SPARE SPARE		78 80 82 84
	Legen Load (HVAC	Classification	Con	Amps: nected 8762 V/	Load		91 nand Fa 100.00%		Estim) A ated De 8762 V/			Panel T	otals	
	RECEF Miscell	PT laneous Power		5220 V/ 13752 V			100.00% 100.00%			5220 VA 13752 V			Total Conn. Load:2Total Est. Demand:2Total Conn.:7Total Est. Demand:7	7734 VA 7 A	
	Notes: DOUB	E TUB PANEL FIRST SECTION SCHEDULE	IS ON P/	ANEL S	CHEDUI	LE L WI	TH CIRC	CUIT NU	JMBERS	6 1-42.		<u> </u>			
B															
	-														
A															
		6											5		

4



Connected Load

180 VA

13232 VA

4

Total Amps: 62 A 49 A

Total Load: 6880 VA 5256 VA 1276 VA

Demand Factor

100.00%

100.00%

11 A

Estimated Demand

13232 VA

180 VA

Panel Totals

Total Conn. Load: 13412 VA

Total Est. Demand: 13412 VA Total Conn.: 37 A

Total Est. Demand: 37 A

3

 58

 60

 62

 64

 66

 68

 70

 72

 74

 76

 78

 80

 82

 84

27

29

Legend:

RECEPT

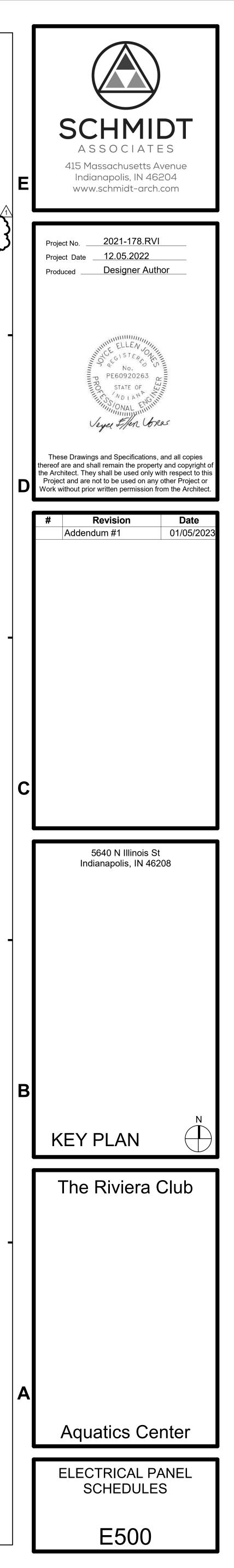
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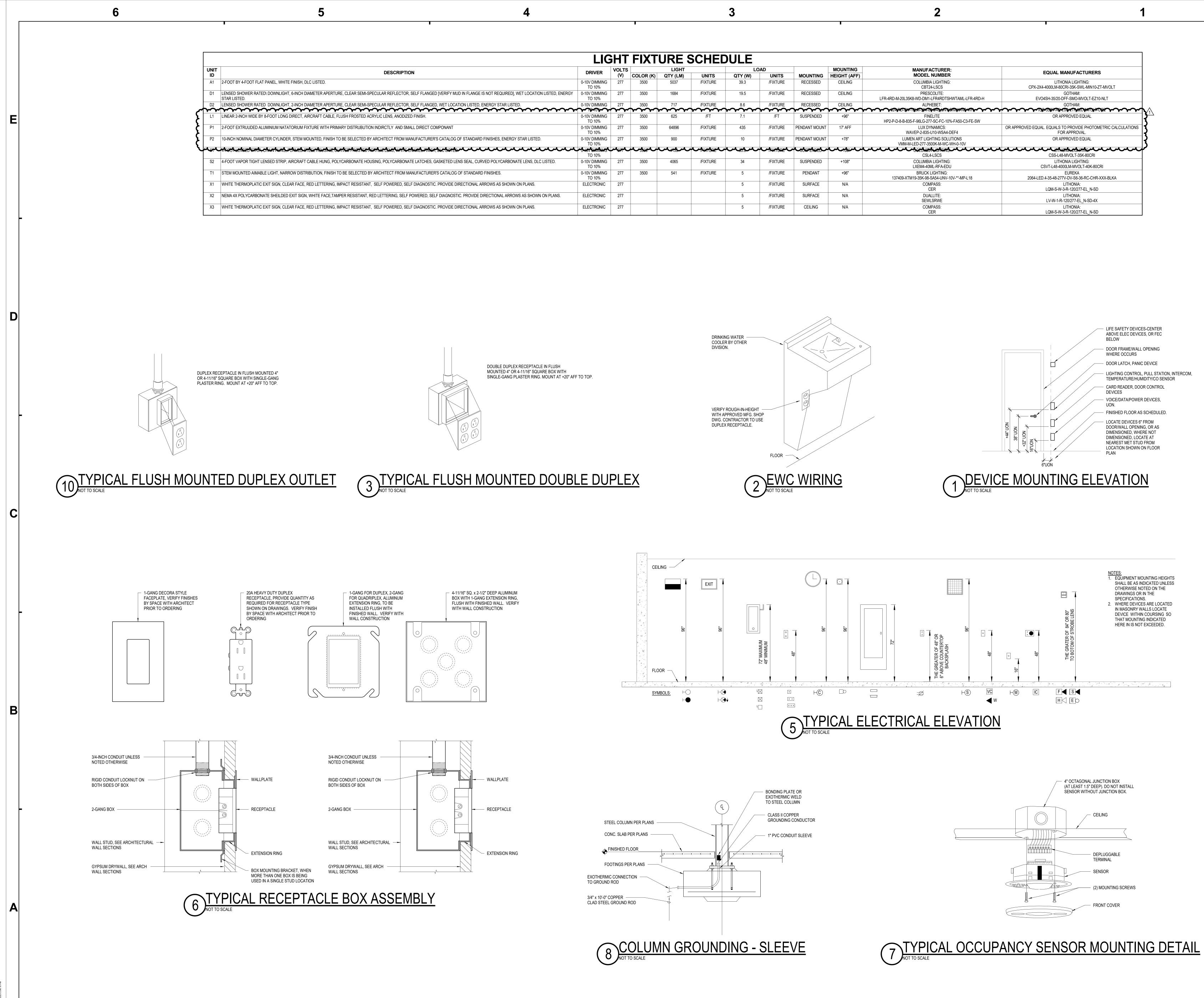
Load Classification

Miscellaneous Power

	Switchboard: MDP						
	Location: BLDG MECH Supply From: Mounting: SURFACE Enclosure: NEMA 1	I-1 8-1	Volts: 480/27 Phases: 3 Wires: 4	7 Wye	м	LI.C. Rating: 65,000 Mains Type: MCB ains Rating: 1200 A MCB Rating: 1200 A	
otes:							
СКТ	Circuit Desc	ription	# of Poles	Trip Rating	Load	Remarks	
1	SPD TYPE 1		3	60 A	0 VA	REFER TO NOTE	1 IN NOTES SECTION
2	PANEL H		3	100 A	37966 VA		
3 4	ATS HVAC: ERU-1		3	200 A 300 A	58602 VA 215645 VA		
$\overline{\mathbf{r}}^{4}$	NVAC. ERU-1	~~~~~	$\sim\sim\sim\sim$		215045 VA		
6	TRANSFORMER XR		3	70 A	0 VA		
7	TRANSFORMER X		3	125 A	72564 VA		
	dearer and a second			120 A			
9	SPARE			400 A	0 VA		
10					0 171		
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
					434803 VA		
					523 A		
egend:							
ad Class	ification	Connected Load	Demand Factor	Estimated Demai	nd	Panel	Totals
/AC		327822 VA	100.00%	327822 VA			
GHTING		6166 VA	125.00%	7708 VA		Total Conn. Load:	
ECEPT		25480 VA	69.62%	17740 VA		Total Est. Demand:	
scellaneo	us Power	75334 VA	100.00%	75334 VA		Total Conn.:	
						Total Est. Demand:	516 A
otes:							

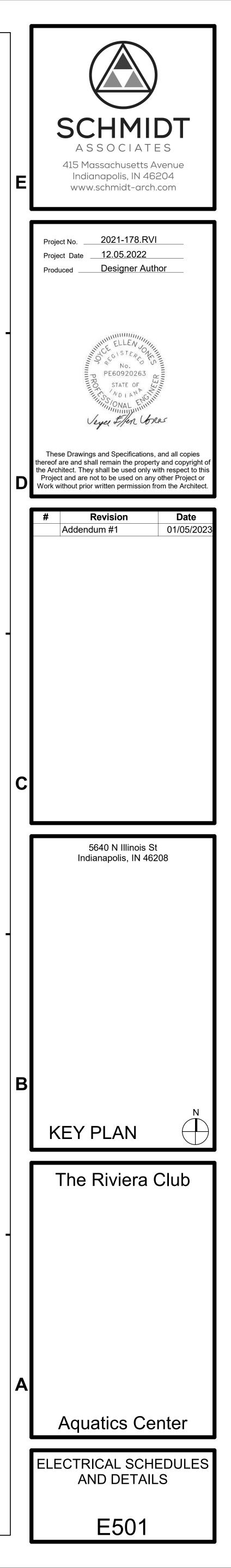
	Location: BLDG MECH- Supply From: ATS Mounting: SURFACE Enclosure: NEMA 1	1 8-1			F	Volts: Phases: Wires:		7 Wye			Ę	A.I.C. Rating: 42,000 Wains Type: WOR Mains Rating: 200 A MCB Rating: 200 A	} ^	
скт	Circuit Description	Trip	Poles		4	E	3		5	Poles	Trip	Circuit De	escription	СК
1				6880	3730									2
3	TRANSFORMER EX	45 A	3			5256	3730			3	35 A	A #6 FEATURE PUMP		4
5				0040				1276	3730					6
7	#5 FILTER SYSTEM CIRCULATING PUMP (FCP)	00.4		6213		0040								8
9 11		60 A	3			6213		6213						10 12
13				7680				0215						12
15	#35 UV CONTROLLER	40 A	2	7000		7680								16
17						1000								18
19														20
21														22
23														24
25														26
27														28
29														30
			al Load: Amps:		03 VA 5 A	2287	'9 VA 9 A	1121 41						
Legend	d: Classification		nected			nand Fa			ated De	mand		Panel	Totolo	
RECEF		CON	180 VA			100.00%			180 VA			Fallel	TOLAIS	
	aneous Power		58422 V			100.00%			60 VA			Total Conn. Load:	58602 VA	
		`		•			•			•		Total Est. Demand:		
												Total Conn.:		
												Total Est. Demand:		
Notes:														

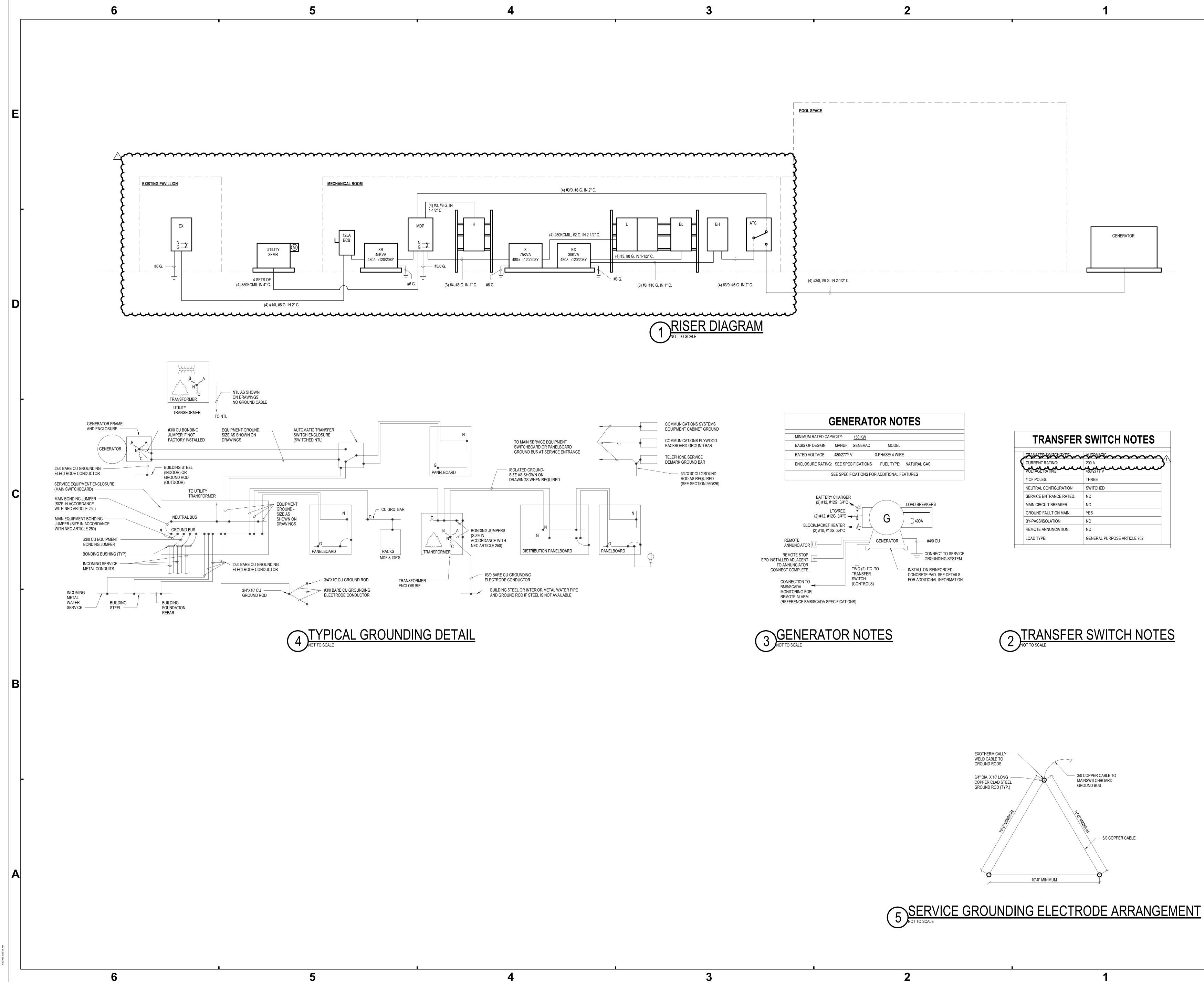




	LIG	ΗT	FIXT	URE S	SCHE	DULE					
DESCRIPTION	DRIVER	VOLTS		LIGHT	1		DAD		MOUNTING	MANUFACTURER:	EQUAL MANUFACTURERS
		(V)	COLOR (K)	QTY (LM)	UNITS	QTY (W)	UNITS	MOUNTING	HEIGHT (AFF)	MODEL NUMBER	
	0-10V DIMMING TO 10%	277	3500	5037	/FIXTURE	39.3	/FIXTURE	RECESSED	CEILING	COLUMBIA LIGHTING: CBT24-LSCS	LITHONIA LIGHTING: CPX-2X4-4000LM-80CRI-35K-SWL-MIN10-ZT-MVOLT
REFLECTOR, SELF FLANGED [VERIFY MUD IN FLANGE IS NOT REQUIRED], WET LOCATION LISTED, ENERGY	0-10V DIMMING TO 10%	277	3500	1684	/FIXTURE	19.5	/FIXTURE	RECESSED	CEILING	PRESCOLITE: LFR-4RD-M-20L35K8-WD-DM1-LFR4RDTSHWTAML-LFR-4RD-H	GOTHAM: EVO4SH-35/20-DFF-SMO-MVOLT-EZ10-NLT
REFLECTOR. SELF FLANGED. WET LOCATION LISTED. ENERGY STAR LISTED.	0-10V DIMMING	277	3500	717	/FIXTURE	8.6	/FIXTURE	RECESSED	CEILING	ALPHEBET:	GOTHAM:
		\sim		\sim				\sim			
ENS, ANODIZED FINISH.	0-10V DIMMING TO 10%	277	3500	625	/FT	7.1	/FT	SUSPENDED	+96"	FINELITE HP2-P-D-8-B-835-F-96LG-277-SC-FC-10%-FA50-C3-FE-SW	OR APPROVED EQUAL
TLY AND SMALL DIRECT COMPONANT	0-10V DIMMING TO 10%	277	3500	64896	/FIXTURE	435	/FIXTURE	PENDANT MOUNT	17' AFF	LUX DYNAMICS: WAVEP-2-835-U10-WSA4-DEF4	OR APPROVED EQUAL. EQUALS TO PROVIDE PHOTOMETRIC CALCULATIONS FOR APPROVAL.
ECT FROM MANUFACTURER'S CATALOG OF STANDARD FINISHES, ENERGY STAR LISTED.	0-10V DIMMING TO 10%	277	3500	900	/FIXTURE	10	/FIXTURE	PENDANT MOUNT	+78"	LUMEN ART LIGHTING SOLUTIONS VMM-M-LED-277-3500K-M-WC-WH-0-10V	OR APPROVED EQUAL
		Jose	man and a second	Mar Mar		man					
	TO 10%	211	0000		// WHORE					CSL4-LSCS	CSS-L48-MVOLT-35K-80CRI
DLYCARBONATE LATCHES, GASKETED LENS SEAL, CURVED POLYCARBONATE LENS, DLC LISTED.	0-10V DIMMING TO 10%	277	3500	4065	/FIXTURE	34	/FIXTURE	SUSPENDED	+108"	COLUMBIA LIGHTING: LXEM4-40ML-RFA-EDU	LITHONIA LIGHTING: CSVT-L48-4000LM-MVOLT-40K-80CRI
ECT FROM MANUFACTURER'S CATALOG OF STANDARD FINISHES.	0-10V DIMMING TO 10%	277	3500	541	/FIXTURE	5	/FIXTURE	PENDANT	+96"	BRUCK LIGHTING: 137409-XTM19-35K-98-SA54-UNV-10V-**-MP-L18	EUREKA 2064-LED.4-35-48-277V-DV-S6-36-RC-CHR-XXX-BLKA
OWERED, SELF DIAGNOSTIC. PROVIDE DIRECTIONAL ARROWS AS SHOWN ON PLANS.	ELECTRONIC	277				5	/FIXTURE	SURFACE	N/A	COMPASS: CER	LITHONIA: LQM-S-W-3-R-120/277-EL_N-SD
ERING, SELF POWERED, SELF DIAGNOSTIC. PROVIDE DIRECTIONAL ARROWS AS SHOWN ON PLANS.	ELECTRONIC	277				5	/FIXTURE	SURFACE	N/A	DUALLITE: SEWLSRWE	LITHONIA: LV-W-1-R-120/277-EL N-SD-4X
OWERED, SELF DIAGNOSTIC. PROVIDE DIRECTIONAL ARROWS AS SHOWN ON PLANS.	ELECTRONIC	277				5	/FIXTURE	CEILING	N/A	COMPASS: CER	LITHONIA: LQM-S-W-3-R-120/277-EL N-SD

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(2) #12, #12G. 3/4"C BLOCK/JACKET HEATER (2) #10, #10G. 3/4"C	G) 400A
	GENERATOR	#4/0 CU
	TWO (2) 1"C. TO TRANSFER SWITCH (CONTROLS)	 INSTALL ON REINFORCED CONCRETE PAD. SEE DETAILS FOR ADDITIONAL INFORMATION.
RING FOR ALARM NCE BMS/SCADA SPECIFICATI	IONS)	

