

ADDENDUM NUMBER TWO

Langan Park – Amphitheater Pavilion & Restroom Project No: PR-031-21

Public Safety Memorial Park Restroom, Skateboard Park & Splashpad

OCTOBER 24, 2022

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualifications.

This addendum consists of two pages and six attachments.

PART 1 - GENERAL CHANGES

- 1.01 When a change is shown on a drawing, in a specification section or in a Document, keep that change consistent through all drawings, specifications and documents.
- 1.02 Responses to Questions:
 - Question: Is there irrigation in this project: *Response: Refer to Addendum 01*.
 - Question: How many mosaic ice bloom bollards in both jobs? *Response: See Electrical Drawings.*

PART 2 - CHANGES TO THE FORMS AND CONDITIONS

- 2.01 Reference Document 00400 BID FORM:
 - A. Replace BID FORM in its entirety with attached REVISED BID FORM ADDENDUM 02 dated October 24, 2022. Changes made to Bid Form Area Base Bids.

PART 3 - CHANGES TO THE SPECIFICATIONS

- 3.01 Reference Section 011000 Summary Revision 1, Addendum 02 dated October 24, 2022 to make the following changes:
 - At 1.7 B, add the following:
 - "2. Site bounds of each separate work area are shown on the drawings."
 - At 1.8 and 1.9: Modify names of each work area to match names on the Bid Form.
 - At 1.9, add the following between Paragraphs B and C:
 - "C. Pavilion Improvements:
 - 1. Work of the Pavilion Improvement shall run concurrently with the work of the New Restroom.
 - 2. New Restroom and Pavilion Improvement site enclosure fence shall encompass both work areas. Notice to Proceed for installation for site enclosure fence shall be a single Notice to Proceed for both work areas."
- 3.02 Reference "Section 102113 Phenolic Core Toilet Compartments" Revision 1, Addendum 02 dated October 24, 2022 for changes to <u>both Langan Park and Public Safety</u> Memorial Park. At 2.1, A add the following: "7. Accurate Partitions with custom hardware and fittings as required for compliance with the requirements."

3.03 Add the attached *new "Section 116850 Aquatic Playground*" Addendum 02 dated October 24, 2022 to the <u>Public Safety Memorial Park Project</u>.

PART 4 - CHANGES TO THE DRAWINGS

- 4.01 Revised General Drawing Index:
 - A. Replace G001 with attached *new G001 Title Sheet, Drawing Index, Vicinity Map,* Addendum 02 dated October 24, 2022. Changes made to site map to include work areas to conform to Bid Form Area Base Bids.

LANGAN PARK

- 4.02 Reference *Attached Drawing E-100* Symbols, Abbreviations, General Notes for the following changes:
 - A. The <u>Light Fixture Schedule</u> shall be revised. The *Fixture "E"* catalog number shall be changed from a Lithonia Catalog No. DSXSC LED 30C 700 50K T5WMVOLT DMG to *Lithonia Catalog No. DSXSC LED 30C 700 50K T5WMVOLT DMG-PIR*. The fixture shall dim to 30% of output during times without motion and daylight until motion is detected, then the fixture shall ramp up to full output.
 - B. The <u>Light Fixture Schedule</u> shall be revised to add *Fixture "E1"*. *The fixture shall be a* U.S. Architectural Catalog No. DSDP25-PLED-VSQ-M-36LED-1050mA-NW-VOLT *RAL-XXXX-T-SM+L-HLSW*.
- 4.03 Reference attached *Drawing ES-103* Pavilion Proposed New Work Plan for the following changes:
 - A. The four (4) Fixture "E" in the center of the Pavilion (mounted approximately 30 feet above grade) shall be changed from Fixture "E" *to Fixture "E1"* and a dimmer switch shall be installed in the Lighting Control Panel to control the fixtures.
 - B. The security light fixtures (mounted approximately 12 feet above grade) shall remain a Type "E".

PUBLIC SAFETY MEMORIAL PARK

4.04 A. Replace G002 with attached *new G002 – Symbols, Abbreviations, General Notes* Addendum 02 dated October 24, 2022. Note site plan change made to site map to include Work Areas to conform to Bid Form Area Base Bids.

END OF ADDENDUM 02

TAG 2113 COM Project PR-031-21 COM Project PR-093-21 Addendum Two 22-1024

SECTION 00400

BID FORM

Copies of the following Bid Forms shall be used. Bids submitted on alternate forms may be rejected. Fill in <u>all</u> blank spaces with an appropriate entry. Bid Form must be signed by an officer of the company and notarized.

TO: City of Mobile, 205 Government St., P.O. Box 1827, Mobile, AL, 36633

REF :	PROJECT NO.:	PR-031-21
	PROJECT NAME:	Langan Park – Amphitheater Pavilion &
		Restrooms
	PROJECT LOCATION:	4901 Zeigler Boulevard
		Mobile, Alabama, 36608

And

PROJECT NO.:	PR-093-21
PROJECT NAME:	Public Safety Memorial Park – Restroom,
	Skateboard Park, & Splashpad
PROJECT LOCATION:	2301 Airport Boulevard
	Mobile, Alabama, 36606

In compliance with the Bid Documents and having carefully and thoroughly examined said documents for the subject Work prepared by the City of Mobile, Architectural Engineering Department and Consultant dated September 28; and all Addendum (a) Number(s) ______, dated ______, 2022 (<u>CAUTION</u>: before submitting any bid it is the Bidder's responsibility to check with the Architectural Engineering Department for all Addenda or special instructions that may impact the Bid) thereto, receipt of which is hereby acknowledged, the premises and all conditions affecting the Work prior to making this Proposal, the Undersigned Bidder, hereby

COMPANY NAME:

PHONE _____

ALABAMA GENERAL CONTRACTOR LICENSE NO.

CITY OF MOBILE BUSINESS LICENSE NO.	
CITION MODILE DUSINESS LICENSE NO.	

SECRETARY OF STATE OF ALABAMA BUSINESS IDENTITY NO.

SECRETARY OF STATE OF ALABAMA ACCOUNT NO._____

(Note: Secretary of State Account Number shall be filled in only by non-resident bidders)

Section 00400 - 1

(Check one) [] A Corporation [] A Partnership [] An Individual Doing Business

hereby proposes to furnish all labor, materials, tools, equipment, and supplies and to sustain all the expenses incurred in performing the Work on the above captioned Project in accordance with the terms of the Contract Documents, and all applicable laws and regulations for the sum listed below. The initial term of the Contract shall extend for two hundred seventy (270) calendar days from the date of the Notice to Proceed.

LANGAN PARK:

1. Langan Park New Restroom and Parking Lot Base Bid:	5	5		.00
2. Langan Park Amphitheater Pavilion Base Bid:		\$.00
3. Langan Park Restroom Improvement Base Bid:	<u> </u>	5		.00
4. Langan Park Fire Line Base Bid:	<u>,</u>	5		.00
Contingency Allowance:		+	\$	25,000.00
Site Work Allowance:	+	\$		25,000.00
LANGAN PARK TOTAL BASE BID: (Langan 1 through 4 plus Contingencies)	<u>\$</u>			.00
Doll (Amount in Words)	ars	, (\$ _ (An	nount ir	.00) n Figures)
1. Public Safety Memorial Park Skateboard Park Base Bid:		\$.00
2. Public Safety Memorial Park Splashpad Base Bid:	\$	6		.00
3. Public Safety Memorial Park New Restroom Base Bid:	4	5		.00
4. Public Safety Memorial Park Pavilion Improv. Base Bid:	<u>\$</u>)		.00
Contingency Allowance:	<u>+</u>	\$		25,000.00
PUBLIC SAFETY MEMORIAL PARK TOTAL BASE BID: (PSMP 1 through 4 plus Contingency)	<u>\$</u>			.00
Doll (Amount in Words)	ars	, (\$ _ (An	nount ir	.00) n Figures)

TOTAL BID LANGAN PARK PLUS PUBLIC SAFETY MEMORIAL PARKS:

	_Dollars, (\$	(Amount in Fig	.00)
(Amount in Words)		(Amount in Fig	ures)
Unit Price #1: Provide and install one (1) trash receptacle, mode surface mounted to the concrete, per the specifications. Include other necessary construction components for installation.			
		\$	EA
Unit Price #2: Unsuitable Soil Material – Cubic Yards In Place, and disposal of unsuitable material.	includes exca	avation, haul	off
	ę	\$	CYIP
Unit Price #3: Structural Fill – Cubic Yards In Place, Provide ar spread, compaction, and all other necessary construction comp	onents for ins		
Unit Price #4: Provide and install 4" concrete flatwork (sidewall Include excavation, fill, compaction, grading, concrete, reinforce all other necessary construction components for installation.			
	:	\$	SF
Unit Price #5: Demolish and properly dispose offsite existing co specified on drawings. Include excavation, sawing, jack hamme proper disposal.			
		\$	SF
Unit Price #6: Provide and install Asphalt Patch as specified. In compaction, grading, disposal, placement, footings, and all othe components for installation.			
		\$	SY
Unit Price #7: Provide and install solid sod, Bermuda. Include necessary construction components for installation.	grading, place	ement, and al	l other
······································		\$	SY
Unit Price #8: Provide and install fascia wood at the Pavilion. I placement, and all other necessary construction components for		val, new mate	rial,
	\$	<u> </u>	10 LF
Unit Price #9: Provide and install modified Bitumen roofing at the new material, placement, and all other necessary construction of			

City of Mobile (COM) TAG 2113 Langan Park – Amphitheater Pavilion & Restrooms COM Project PR-031-21 Public Safety Memorial Park – Restroom, COM Project PR-093-21 Skateboard Park, & Splashpad \$ Roll Width x 10 LF Unit Price #10: Provide and install roof decking at toilet renovation. Include removal, new material, placement, and all other necessary construction components for installation. \$ 32 SF Unit Price #11: Unclassified Excavation - Provide excavation and off-site disposal of unclassified excavation material. \$ CY Unit Price #12: Undercut Excavation - Provide excavation and off-site disposal of undercut excavation material. \$____ CY Unit Price #13: Barrow Excavation - Provide off-site select borrow compacted in place. Measurement shall be by in-place survey. \$ CY Unit Price #14: Topsoil from Stockpile – Provide Topsoil from stockpile 6" thickness compacted in place. \$ CY Unit Price #15: Barrow Excavation, Backfill Material - Provide off-site select borrow, Loose granular soil backfill material, compacted in place. \$ CY Unit Price #16: 8" Storm Sewer Pipe (PVC).- Provide 8" Storm Sewer Pipe (PVC) with fittings and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). 10'-0" maximum depth. \$ LF Unit Price #17: 15" Storm Sewer Pipe (PVC).- Provide 8" Storm Sewer Pipe (PVC) with fittings and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). 10'-0" maximum depth. \$ LF Unit Price #18: 15" Storm Sewer Pipe (RC).- Provide 8" Storm Sewer Pipe (RC) in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). 10'-0" maximum depth. LF Unit Price #19: Loose Riprap with Filter Fabric – Provide Loose Riprap with Filter Fabric in place. Measurement shall be by in-place survey. \$ SY Unit Price #20: Grate Inlet – Provide Grate Inlet (all Pipe Sizes) in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). 10 ft maximum depth. \$ EA

City of Mobile (COM) Langan Park – Amphitheater Pavilion & Restrooms Public Safety Memorial Park – Restroom, Skateboard Park, & Splashpad

Unit Price #21: Storm Sewer Cleanout – Provide Storm Sewer Cleanout with connections and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). 10 ft maximum depth.

Unit Price #22: 6" Underdrain Pipe – Provide 6" Underdrain Pipe with connections and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). LF Unit Price #23: Concrete Curb and Gutter – Provide 6" Underdrain Pipe with connections and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils).

Unit Price #24: Concrete Header Curb – Provide Concrete Header Curb in place

Unit Price #25: Water Pipe, 8" Ductile Iron – Provide 8" Ductile Iron Water Pipe with fittings and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). Cover 30" minimum, 60" maximum.

Unit Price #26: Water Pipe, 6" Ductile Iron – Provide 6" Ductile Iron Water pipe with fittings and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). Cover 30" minimum, 60" maximum.

- Unit Price #27: 8" Gate Valve and Box Provide 8" Gate Valve and Box in place \$_____ EA
- Unit Price #28: 6" Gate Valve and Box Provide 8" Gate Valve and Box in place \$_____ EA

Unit Price #29: Fire Hydrant – Provide Fire Hydrant with connections and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils).

Unit Price #30: 6" Ductile Iron Sanitary Sewer Pipe – Provide 6" Ductile Iron Sanitary Sewer Pipe with fittings and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). 12 ft maximum depth.

Unit Price #31: 6" PVC Sanitary Sewer Pipe – Provide 6" PVC Sanitary Sewer Pipe with fittings and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). 12 ft maximum depth.

\$_____LF

\$ EA

\$ LF

MEMORIAL PARK CONT

conditions to the site as approved by the Owner.

PUBLIC SAFETY MEMORIAL PARK CONTINGENCY ALLOWANCE: \$25,000.00 lump sum Contingency Allowance shall be included in the Total Bid for work related to unforeseen conditions as approved by the Owner.

BID SECURITY: The undersigned Bidder agrees that the attached Bid Security, as a Cashier's Check drawn on a bank registered to do business in the State of Alabama and which is a member of the Federal Deposit Insurance Corporation, or a Bid Bond, made payable to the City of Mobile, in the amount of 5% of the bid amount, but in no event more than \$10,000, as the proper measure of liquidated damages which the City will sustain by the failure of the undersigned to execute the Contract. Said Bid Security shall become the property of the City of Mobile as liquidated damages as specified in the Contract Documents.

AMERICANS WITH DISABILITIES ACT (ADA): The undersigned Bidder agrees to fully comply with all requirements of the Americans with Disabilities Act of 1990 and the Amendment Act.

NONDISCRIMINATION: Contractor shall comply with all Federal, State and local laws concerning nondiscrimination, including but not limited to City of Mobile Ordinance No. 14-034 which requires, *inter alia*, that all contractors performing work for the City of Mobile not discriminate on the basis of race, creed, color, national origin or disability, require that all subcontractors they engage do the same, and make every reasonable effort to assure that fifteen percent of the work performed under contract be awarded to socially and economically disadvantaged individuals and business entities.

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Unit Price #32: Sanitary Sewer Cleanout – Provide Sanitary Sewer Cleanout with connections and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). 12 ft maximum depth.

\$_____EA

COM Project PR-031-21

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TAG 2113

Unit Price #33: Sanitary Sewer Manhole – Provide Sanitary Sewer Manhole with fittings and in place. Includes excavation, shoring/sheeting and compacted fill (existing soils). 12 ft maximum depth.

\$_____ EA

Unit Price #34: Erosion Control Blanket – Provide Erosion Control Blanket, ALDOT Type S3 in place. Includes staking and all accessories for complete installation.

\$_____SY

LANGAN PARK CONTINGENCY ALLOWANCE: \$25,000.00 lump sum Contingency Allowance shall be included in the Total Bid for work related to unforeseen conditions as approved by the Owner.

LANGAN PARK SITE WORK CONTINGENCY ALLOWANCE: \$25,000.00 lump sum Contingency Allowance shall be included in the Total Bid for work related to unforeseen

shall govern). Bids shall be provided in whole dollar amount with no cents.

(Note: Show amount in both words and figures. In case of discrepancy, the amount in words



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SIGNATURE: If the undersigned Bidder is incorporated, the entire legal title of the company followed by "a corporation" should be used. If Bidder is an individual, then that individual's full legal name followed by doing business as (d/b/a) and name of firm, if any, should be used. If Bidder is a partnership, then full name of each partner should be listed followed by "d/b/a" and name of firm, if any.

Ensure that name and exact arrangement thereof is the same on all forms submitted with this Bid. If a word is abbreviated in the official company name, such as "Co.", then use that abbreviation. If not abbreviated in the official name, spell out.

Bidder agrees not to revoke or withdraw this Bid until sixty (60) calendar days following the time and date for receipt of bids. If notified in writing of the acceptance of this Bid within this time period, Bidder agrees to execute a Contract based on this Bid on the proscribed form within ten (10) calendar days of said notification and to furnish Performance Bond and Materials and Payment Bond as specified.

COMPANY N	AME:			
		(Printe	ed or Typed)	
BY:				
		(Signature of C	company Officer)	
COMPANY O	FFIC	ER:		
		(Printe	ed or Typed)	
TITLE			DATE	, 2022
	(Print	ed or Typed)		
Sworn to and	subso	cribed before me this	dav of	2022.
		Notony Publi	•	
		Notary Publi	G	
Attachments:	1.	Bid Security, with P		
	2.	Secretary of State A	Authorization (Out of	state bidders only)
	3.	Sales Tax Form C-3	3A	

4. Supplier Diversity Subcontracting & Major Supplier Plan

END OF BID FORM

SECTION 116850 - AQUATIC PLAYGROUND

PART 1- GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 3 - Cast-In-Place-033000, Mechanical and Electrical Drawings, apply to this Section.

1.02 SUMMARY

- A. General: The below specification describes the components of a complete Sprayground equipment system. The system includes but is not limited to those components necessary to make up a completely operational system. The spray pad system is designed to operate as a "Flow Through" system.
 - 1. The system will be located at Public Safety Memorial Park in Mobile, Alabama. The intent is to operate the sprayground during the summer months.
 - 2. All embed spray features and above grade spray features must be interchangeable to allow reconfiguration of the Sprayground.
 - 3. The perimeter of the spraygound will have a five foot buffer beyond the feature area of influence.
 - 4. The spraygound system will be served by a potable water source. The system control will be comprised of a Timer Panel CPU with a touch screen interface that will be located in the equipment room. All suction and discharge headers, piping, interconnecting wiring (both control and power wiring inside and outside the equipment room not supplied by manufacturer), concrete, connections, finishes, and safeguards for a full and complete Sprayground will be located in the equipment room. All construction must be in compliance with all applicable codes and ordinances and in compliance with the plans and specifications. Work shall be performed in accordance with the best practices of the respective trade and all other applicable requirements.
 - 5. The Sprayground equipment (spray features, embed sprays, drains, controls, manifold, sensors) will be furnished under this contract. The Sprayground equipment manufacturer will coordinate the delivery of the equipment to accommodate the installing contractor installation schedule. Should the spraygound equipment be ready prior to the installing contractors required delivery, the sprayground equipment manufactured shall store the equipment out of the weather at no additional charge to the Owner.
- B. The Sprayground system shall consist of:
 - 1. Multi-station interactive features as itemized herein;

- 2. Sprayground display system including pump(s), valves, piping, manifold, and specialties.
- 3. Sprayground plumbing services including water and sewer, to designated points of connection with site utilities.
- 4. All electrical equipment, wiring, and conduit necessary for full operation of the sprayground as shown on the drawings.
- 5. Any other necessary specialties required for proper installation of the sprayground and related equipment resulting in a complete and useable sprayground.

1.03 SUBMITTALS

- A. Product Data: For each of the products indicated. Include construction details, material descriptions, dimensions of individual components and profiles. Include rated capacities, operating characteristics, electrical characteristics, and furnish specialties and accessories.
- B. Shop Drawings: For fabricated equipment. Include plans, elevations, sections, roughing-in dimensions, fabrication details, utility service requirements and attachments to other work.
- C. Wiring Diagram: For power, signal, and control wiring. Provide both power and control signal line drawings and ladder diagrams. Provide interconnecting control wiring diagrams with lags and labels for each wire and termination. Wiring diagrams will be provided no later than 30 days from signed contract.
- D. Coordination Drawings: Indicate locations of Aquatic Playground and connections to utilities. Include plans and elevations; clearance requirements for equipment access and maintenance; details of support for equipment; and utility service characteristics.
- E. Operation and Maintenance Data: Provide all operation and maintenance manuals for all individual components and complete system. The operation and maintenance manuals shall include all seasonal requirements of start-up and shutdown, and any other information unique to this system. At minimum the manufacturer will provide the following:
 - 1. Sequence of operation
 - 2. Controls functions; internal and external
 - 3. Control equipment requirements
 - 4. Seasonal start-up and shutdown requirements
 - 5. Filter & chemical system requirements
 - 6. Parts lists
 - 7. Warranty information
- F. Sprayground equipment manufacturer assumes sole responsibility for the delivery and successful integration of all equipment to meet the performance requirements of the contract documents and specifications.
- G. Product Schedule: For each Aquatic Playground item, include the following:
 - 1. Designation indicated on drawings.

- 2. Manufacturer's name and model number.
- 3. List of factory-authorized service agencies including their address and telephone numbers.

1.04 QUALITY ASSURANCE

- A. All materials shall be new and shall conform to applicable standards as specified herein.
- B. All work shall be executed by workmen skilled in the craft that they are assigned.
- C. All products shall be made in the USA.
- D. The Manufacturer must currently be in the business of supplying Aquatic Playground equipment, similar in size and complexity. The Manufacturer shall provide written documentation of supplying Aquatic Playground equipment, for a minimum ten (10) years experience and shall have previously supplied Aquatic Playground system design, drawing and equipment, similar in size and complexity to this project.
- E. The Manufacturer shall also provide engineering design as it pertains to the Aquatic Playground system and the equipment supplied, referring specifically to complete hydraulic and electrical design. This shall include, but not limited to: spray effects, Aquatic Playground system, filtration system, water level control system, pump selection, piping system sizing and layout.
- F. The engineering design information shall be delineated on the final schematic, installation, and detail shop drawings showing the proper installation of the Manufacturer's equipment. The drawings shall be furnished as an integral part of their Aquatic Playground equipment package. Preliminary drawings shall not be used for installation.
- G. Pre-installation Conference: Conduct conference at Project site prior to commencement of construction of Aquatic Playground system and equipment.

1.05 DELIVERY, STORAGE & HANDLING

A. All equipment delivered and placed in storage shall be stored with protection from weather, humidity and temperature variations, dire and dust or other contaminants, and theft of vandalism. Contractor shall handle all equipment so as to prevent damage or marring, paying particular attention to any handling instructions on the equipment of packaging.

1.06 COORDINATION

- A. Coordinate Aquatic Playground layout and installation with other work, including potable water distribution, electrical power, sanitary system, storm drain system, etc.
- B. Coordinate location and requirements of utility service connections.
- C. Coordinate size, location, and requirements of the following:
 - 1. Overhead equipment supports.
 - 2. Equipment bases.

- 3. Floor depressions.
- 4. Slab areas with positive slopes to drains.

1.07 WARRANTY

- A. Sprayground Equipment Warranty: manufacturer's standard form in which manufacturer agrees to repair or replace components or equipment that fail in a materials or workmanship within specified warranty period.
 - 1. Warranty Period: 15 years from date of substantial completion against corrosion, material and workmanship will be warranted for not less than 5 years, and electrical components will be warranted for not less than 1 year.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A. This section covers Sprayground equipment, devices, filter & chemical system, controls, piping, and other components of the complete system. All components described below are to be supplied by a single manufacturer. All plastic spray nozzles, fiberglass water features, and complete system will be designed and manufactured by approved manufacturer.
- B. Sprayground System: Approved manufacturer to provide all equipment and features equal to basis-of-design product at scheduled on drawings and as specified herein.
- C. All equivalents or equals must be pre-approved, in writing, 10 business days prior to the bid opening.
- D. Approved manufacturer:
 - 1. Rain Drop Products
 - 2. Water Odyssey

2.02 SUBSTITUTIONS

- A. Contractors seeking to use alternate equipment, materials, or installers other than approved manufacturers must obtain the Landscape Architect's pre-approval. Any product that is not pre-approved will not be considered.
- B. The Landscape Architect must receive, at least ten (10) business days prior to bid opening, all documents and other submittals required to establish equality of a proposed substitute. Any submissions for approval that do not allow for a 10-day review period will not be accepted.
- C. Landscape Architect shall approve, disapprove, or require additional information for each request. Any approved substitutes shall be identified in an addendum.
- D. Any alternate products being submitted for equivalency shall disclose all instances of any prior municipal or Landscape Architect's rejection of the same or similar product for "as equal" status to the product specified for this project. Failure to

disclose a prior rejection is grounds for denial of any request to approve an alternate product.

- E. Landscape Architect shall have absolute discretion to determine whether any submitted product is an equal. The Landscape Architect has the authority to accept or reject submissions for any reason including prior experience or knowledge of a specific product or firm.
- F. Requirements for alternate equipment pre-bid submittals:
 - Must include shop drawings/typical details that show all interactive water features, pumps, valves, piping, and other specialties.
 Product warranty.
- G. The pre-bid submittals shall list any and all deviations from items specified, and the advantages to be derived if the deviation is approved. If no deviations are noted, it will be assumed that no such deviations exist, and the final submittals will allow no deviations.

2.03 GENERAL

- A. Provide all equipment as specified according to this document. All substitutions must be submitted by the Contractor for approval by the Engineer or his authorized representative 10 business days prior to the bid opening.
- B. Provide all special tools and winterization plates or inserts for proper operation and maintenance of the equipment provided under this Section.

2.04 SPRAYGROUND FOUNTAIN SUMMARY

- A. Playground features at Splash Pad shall include:
 - 1. (1) Two Tier Toolip Spray, Omni by Rain Drop Products
 - 2. (5) Basket Weave, Low Flow, Omni, by Rain Drop Products
 - 3. (5) Water Tiara, Low Flow, Omni, by Rain Drop Products
 - 4. (10) Upstream Jet, Low Flow, Omni by Rain Drop Products
 - 5. (1) 6" Bollard Activator, Touch Senser, by Rain Drop Products
 - 6. (4) DRN12-002 Drain-12x12x12 Fiberglass-6", by Rain Drop Products

B. Deck Drains

- 1. Deck Drains shall be factory assembled
- 2. Drains shall have non-skid surface with slot openings no wider than 5/16".
- 3. Each drain shall flow not less than 135 GPM at a velocity of 1.5 ft/sec.
- 4. Drains shall have not less than a 6" diameter outlet
- 5. Drains shall be fiberglass composite with smooth interior gelcoat surface, and fiberglass non-skid grate.

C. Activation Devices

Activation device shall not have any moving parts, and shall operate on low voltage. The activation device shall serve as a direct interface between the users and the splash pad features.

D. Universal Mounting Fixture

- 1. The OmniPod, universal mounting fixture (UMF) for installation of water feature apparatus comprising: a housing designed to be positioned within a water park surface, the housing having a sealing surface, and an inlet adapted to be coupled to a water supply for providing water to a water feature mounted in association with the housing, the sealing surface defining an opening, the opening dimensioned to accept an inlet of a water feature fixture in sealing relationship, such that water supplied to the receptacle housing will flow to the water feature mounted therewith, wherein the housing and mounting surface accommodate both inlets from above ground and below ground water feature fixtures.
- 2. The Omnipod (UMF) is to be cast into a concrete surface.
- **3.** The OmniPod (UMF) must allow above grade or below grade water features to be installed and interchangeable.
- 4. The OmniPod (UMF) of further comprising a cover to be selectively positioned to enclose the interior of the receptacle housing when not in use or for winterization.
- 5. The OmniPod (UMF) of claim 1, wherein the seal member is formed to seal with an inlet of the water feature fixture, and to allow the water feature fixture to be leveled or rotated with respect to the water park surface while in sealing engagement.
- 6. The OmniPod (UMF) is formed to accommodate alternative sized inlets of the water feature fixtures.
- 7. The OmniPod (UMF)provides altering the configuration of water feature fixtures within a water park comprising the steps of: providing a plurality of universal mounting fixtures, each mounting fixture having a receptacle housing designed to be cast in position within a water park surface, the receptacle housing having a mounting surface with a seal, wherein both above grade and below grade water feature fixtures are accommodated by the mounting fixture, and having an inlet, providing a supply of water from a water supply to the inlet of each mounting fixture, and thereby selectively to a water feature fixture mounted in association with the receptacle housing, selectively installing an above grade or below grade water feature fixture in a sealing manner, and selectively changing the water feature fixture in one or more of the mounting fixtures so as to alter the configuration of the water features in the water park.
- 8. The OmniPod (UMF)allows adjustable below grade water feature apparatus, comprising: a housing having a water inlet and internal conduit through which water is supplied to a water dispensing system associated therewith, the water dispensing system comprising a plurality

of selectively installed covers, each of which provide predetermined and varying water dispensing characteristics from the water feature when provided therewith, wherein alternative covers may be installed to selectively alter the water dispensing characteristics of the water feature.

- 9. Construction: The body shall be manufactured from heavy wall PVC and shall be impervious to rust and corrosion. The top plate/cover shall be white high strength PVC .250 inch this. The plate shall be installed with removable tamper resistant screws. Cover can be removed when a features is ready to be installed. The cover may be replaced over opening; if the feature is removed at any time. The tamper resistant screws must be stainless steel to prevent corrosions.
- 10. Supply Piping: All piping connections shall be made from heavy-duty high tensile strength PVC.
- 11. Connections: A female socket shall be supplied to connect the water supply line supplied by others.
- 12. Shall be packaged to protect against damage in transit.
- **13**. Drawings and installation instructions shall be supplied by manufacturer to ease installation.
- 14. Shall be furnished by manufacturer providing a guarantee against all defects in workmanship and material for a period of five years from the date of shipment, on all components. Excluding improper installation.
- E. Flush Mounted Components
 - 1. The specified fountain shall be suitable for installation in Spraygrounds, Zero Entry Public Swimming Facilities, and perimeter deck of Public Swimming Facilities and shall be manufactured by Rain Drop Products LLC. Pumps and valves to regulate the flow shall be supplied separately. Installation shall be supplied by others.
 - 2. Construction: The body shall be manufactured from heave duty, high tensile strength PVC, and shall be impervious to rust and corrosion. The nozzle shall be adjustable high strength, corrosion resistant HDPE.
 - **3**. Supply Piping: All piping and connections shall be made from heavyduty high tensile strength schedule 40 PVC.
 - 4. Shall be packaged to protect against damage in transit.
 - 5. Drawings and instructions shall be supplied by the manufacturer for ease of installation.
 - 6. An OmniPod (UMF), for Sprayground or Pools, is provided for installation ease at a later date, or removal for winterization, or for moving to another location.
 - 7. A tamper resistant cover shall be provided to winterize the feature. It shall be made from high strength PVC material. Manufacturer to supply installation instructions.
 - 8. Shall be furnished by manufacturer providing a guarantee against all defects in workmanship and material for a period of five years from the date of shipment, on all components. Excluding only normal wear and tear and improper operations or installation.

2.04 CENTRAL PROCESSING UNIT (CPU)

- A. The timer controller will be programmable as to hours of operation, and run time for the features when activated.
- B. The timer controller will turn all water features on and off at the same time.
- C. The timer controller will be enclosed in a NEMA 4 enclosure designed for wall mount installation in an indoor application.

2.05 FEATURE SYSTEM

- A. Discharge manifold shall be 4" Schedule 80 PVC not to exceed 10 fps flow rate with associated valves, pipe, and fittings.
- B. Two inch Pressure Control Valve Assembly
- C. Timer Panel-I Timer for 4 areas.

2.06 AQUATIC PLAYGROUND SURFACE AREA

A. Provide brushed concrete surface at the entire Aquatic Playground area with slopes to drains and control joints. SGM One Step Spray Deck Surfacing to be applied with up to 3 colors chosen by the owner.

PART 3 EXECUTION

- 3.01 GENERAL
 - A. Install all equipment specified herein and/or shown on the drawings in strict accordance with the manufacturer's instructions and recommendations unless otherwise noted and in compliance applicable codes.
 - B. Spray ground feature manufacturer shall provide drawings and instructions of spray ground play features for ease in installation.
 - C. Mounting shall be manufacturer's standard methods for both features requiring Omnipod templates and those that do not utilize Omni-pods. Refer to the feature schedules shown on the drawings.

3.02 PREPARATION

A. Prior to submitting a bid, the Contractor shall visit the site and compare with the drawings and specifications covering this work. Contractor satisfy himself with the conditions existing at the site and/or shown on the drawings which affect or are affected by the work and all other matters incidental to the work. Contractor shall assume all responsibility relating to his requirement in submitting his bid.

3.03 INSTALLATION

- A. Pipe
 - 1. All feature piping shall be schedule 40 PVC.

- 2. Provide flanges or unions as indicated and/or as necessary to allow removal and reinstallation of any item of equipment or accessory without cutting, welding or soldering.
- 3. Cut pipe into measurements established at the site. Work into place without springing or forcing.
- 4. Protect all openings in piping during construction to prevent entrance of foreign matter.
- 5. Cut pipe and tubing ends square. Remove rough edges and burrs so that a smooth and unobstructed flow will be obtained.
- 6. Close or short nipples should be used only where shown on the drawings, or absolutely necessary to satisfy dimensional constraints.
- 7. Make changes in pipe size using reducing fittings. Use bushings only if shown on the drawings.
- 8. Connections to equipment or accessories shall be screwed for sizes 2" or smaller, and flanged for sizes 2¹/₂" and larger.
- 9. Arrange exposed piping straight, parallel and perpendicular to the walls of the structures unless, otherwise shown on the Drawings.
- 10. Whenever two or more pipes are installed in parallel, allow sufficient space for required connections labeling and/or the application of insulation.
- B. Pipe Joints
 - 1. Cut all threads accurately, axis of thread coinciding with axis of pipe.
 - 2. No more than two threads shall show beyond fittings.
 - 3. Make up joints with Teflon tape or pipe dope compound.
 - 4. Remake leaky joints with new materials.
- C. Copper and brass pipe and tubing:
 - 1. Clean surfaces to be jointed of oil, grease, rust, and oxides before assembly or heating.
 - 2. Apply an appropriated flux to each joint surface and spread evenly. Apply heat with an oxyacetylene torch.
 - 3. Make up all joints using non-corrosive flux and 95-5 solder, ASTM B32 Grade A.
- D. PVC pipe
 - 1. Bevel all pipe ends with a coarse file or beveling tool.
 - 2. Clean surfaces to be joined of all loose dirt and moisture from the I.D. and O.D. of the pipe end and the I.D. of the fitting socket.
 - 3. Apply a coating of appropriate primer to the entire I.D. surface of the fitting socket and to an equal area on the O.D. of the pipe end.
 - 4. Apply solvent cement using an appropriate natural bristle brush. Apply a liberal coating of cement around the entire depth of the socket surface, avoiding excessive cement application. Apply a second liberal coating onto the pipe end.

- 5. Immediately after cementing, insert the pipe into the fitting to the full socket depth while rotating the pipe or fitting one quarter turn. Hold joint together for at least 15 seconds after joining to make sure pipe does not back out of socket.
- 6. Do not solvent weld pipe if atmospheric temperature is below 40 degrees F or above 90 degrees F, or if it is raining.
- 7. Discard cement when an appreciable change in viscosity takes place or if cement is lumpy or stringy. Do not thin. Cement must be used before the expiration date shown on container.
- 8. All systems shall be left in good operating condition. If defects of materials or workmanship in piping systems or equipment are disclosed as a result of tests and operation, repairs shall be made by the Contractor at his expense, using new materials, and all defective materials shall be retested until a satisfactory test has been made.
- 9. No caulking or screwed joints, cracks, or holes will be acceptable. Replacing shall be the full length of defective sections of pipe. Defective apparatus shall be removed from the site and replaced by apparatus conforming to the requirements of these requirements. The entire cost of repairs and replacements shall be borne by the Contractor.
- E. Wiring Materials
 - 1. Electrical conductors connected to equipment having a tendency to cause noise or vibration, shall be installed in flexible conduit not to exceed four feet in length. All flexible conduit subject to moisture shall be covered with watertight plastic and all connections shall made with watertight fittings.
 - 2. All other electrical conductors shall be installed in rigid conduit unless otherwise specified or indicated on the drawings. All connections shall be made with approved fittings.
 - 3. All conduit and stub-ups located within areas under water shall be red brass pipe, type K copper tubing of full hard temper, or Everdur.
 - 4. All interconnecting conduits shall be steel, P.V.C. or other material approved for application.
 - 5. All connections between dissimilar metals shall be made with dielectric fittings.
 - 6. Minimum conduit size shall be ³/₄" unless otherwise specified or indicated on the drawings.
 - 7. All wire, flexible cord, cable and/or conductors shall be selected as to size, type, current carrying capacity, voltage and insulation based on intended service, and shall conform to the latest ASTM and IPECA specifications and standards.
 - 8. All connecting and terminating devices used for making connections, taps and/or splices shall be as approved for application.
 - 9. All junction and/or pull boxes located outside the water containment areas shall conform to applicable codes and shall be of sufficient size, suitable design and approved construction to meet the conditions and requirements involved.

F. Installation of Conduit

- 1. All wiring shall be in conduit installed and sealed in accordance with the best modern practice as specified.
- 2. All conduit located in finished areas shall be concealed unless otherwise specified or indicated on the drawings.
- 3. The ends of all conduits shall be cut square and shall be carefully reamed to remove rough edges.
- 4. Open ends of conduit shall be kept closed with approved conduit seals during construction.
- 5. Where conduit enters a box or other fitting, a bushing shall be provided to protect conductors from abrasion.
- 6. Where junctions, bends, or offsets are required, for exposed runs of conduit, fittings shall be provided. Fitting covers shall be accessible. Bends will not be permitted around corners of beams, walls, or equipment.
- 7. Threadless couplings and/or connectors used with conduit shall be made tight. Where installed in wet locations or where buried in concrete or other fill, threadless couplings and connectors shall be suitable for preventing water from entering the conduit. Running threads will not be permitted.
- 8. Sliding expansion joints with bonding straps shall be furnished where conduits cross building expansion joints or as otherwise required.
- 9. Bends in conduit shall be made so that the conduit is not damaged and such that the inside diameter of the conduit will not be effectively reduced. No more than the equivalent of four 90-degree bends shall be used on any single run of conduit between outlets and/or other fittings.
- 10. All concealed and/or exposed conduit shall be supported in an approved manner.
- G. Installation of Conductors
 - 1. All conductors shall be installed in conduit after all conduits, except exposed conduit with removable conduit seals, has been installed as a complete raceway system.
 - 2. All debris and moisture shall be removed from all conduit, boxes, and other fittings before installing conductors. Cleaning agents or materials used as lubricants that might have a deteriorating effect on conductor coverings shall not be used.
 - 3. The connection of conductors to terminals shall be made using approved connectors. Wires in panel cabinets, pull boxes, and wiring gutters shall be neatly grouped and fanned out to the terminals.
 - 4. Care shall be taken to protect conductors from damage caused by further mechanical work completed after conductors have been installed. Damaged conductors shall be replaced.
 - 5. All circuits fed by ground fault interrupters shall have their own separate neutral wire. No common neutrals will be acceptable.

- I. Conductor Color Coding
 - 1. All conductors (600 volts and under) shall be color-coded and numbered. Color continuity being maintained throughout the project.
 - 2. Color-coding shall be as follows: Phase "A" shall be "Black", Phase "B" shall be "Red", Phase "C" shall be "Blue", "Neutral" shall be "White", and "Grounding Conductors" shall be "Green".
- J. Excavating, Trenching and Backfilling
 - 1. The Contractor shall perform all excavating, trenching and backfilling specified, as indicated on the plans and/or as required for the installation of the work under this section.
 - 2. Trenches shall be excavated and underground conduit shall be laid and supported in accordance with the best modern practice as specified.
 - 3. Prior to lowering into the trenches, all conduit fittings and accessories shall be inspected for defects and all defective, damaged or unsound conduit shall be replaced.

3.04 TEST AND ADJUSTMENTS

- A. This Contractor shall test all equipment as necessary to show that it complies with all requirements specified. Testing shall be done in a manner approved by the Owner's Representative.
- B. All water piping systems shall be flushed free of debris and pressure tested at 150% of operating pressure or 75psi minimum for discharge lines, 30p.s.i. minimum for suction lines, and 15p.s.i. minimum for drain lines, for a period of not less than 4 hours, and proven free of leaks or other defects, prior to and after backfilling and concrete pours. Repair leaks and repeat test as necessary until satisfactory results are obtained.
 - 1. Sprayground flow manifold assemblies shall be pressure tested to150 PSI for 30 minutes with zero leakage. Repair any leaks and retest until acceptable results are obtained.
 - 2. All open ended pipes and equipment, such as drain bodies, shall be left long for testing, and then cut to length before final installation of equipment
- C. All electrical circuits, feeders, and equipment shall be tested and proven free of improper grounds, open circuits or shorts, as required by the authorities having jurisdiction, to demonstrate compliance with codes and laws.
- D. The Contractor shall place the installation in operation and make tests, adjustments, and corrections, until it is shown to be in proper operating condition.
- **3.05** GUARANTEE

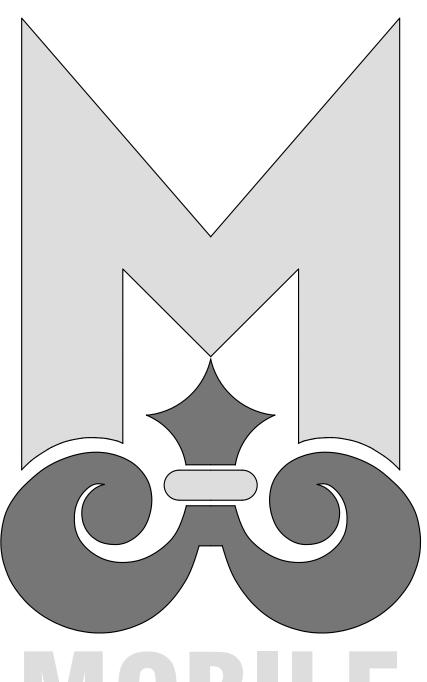
AQUATIC PLAYGROUND

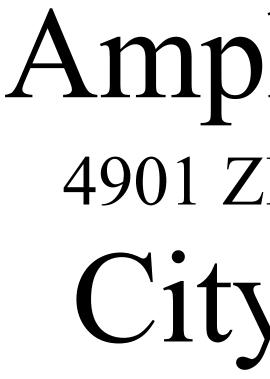
- A. In entering into a contract covering this work, each contractor accepts the specifications and drawings and guarantees that the work will be performed in accordance with the requirements of the specifications and drawings, or such modifications to said specifications and drawings, as may be made in the contract documents and applicable codes and laws.
- B. Each Contractor further guarantees that the workmanship and material will be of best quality procurable, and that none but experienced workmen, familiar with each particular class of work, will be employed.
- C. Each Contractor further agrees to hold himself responsible for any defects which may develop in any part of the entire system, including equipment as provided for under this specification, due to faulty workmanship, design or material and to replace and make good, without cost to the Owner, any such faulty parts or construction that may develop at any time within one year from the date of the final acceptance or longer where dictated by manufacturer's warranty periods. Any repairs or replacements required because of defects, as outlined in this clause, are to be made promptly and approved in writing by the Owner's Representative prior to replacement/repair of defective work.

3.06 CLEAN-UP

- A. Upon completion of the work of this section, the Contractor shall remove from the sites all rubbish, trash, and debris resulting from the operations; remove all used equipment and implements of service; and leave the entire area involved in a neat, clean, and acceptable condition as approved by the Owner's Representative.
- B. All soiled, abraded or discolored surfaces of spray ground and stream feature work shall be cleaned, polished and left free from blemishes or defects.

END OF SECTION 116850



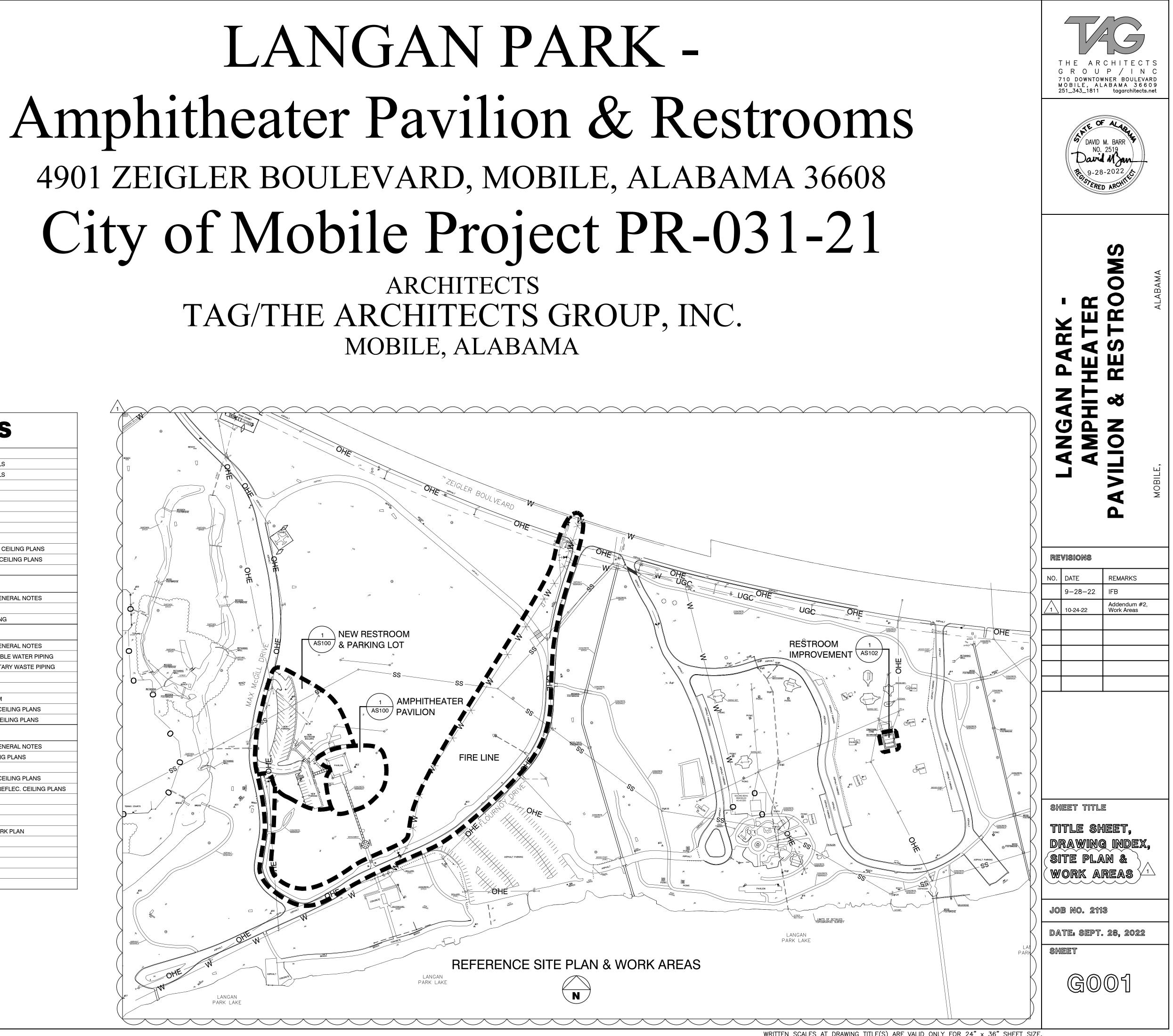


ALABAMA

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ARCHITECTS

MOBILE, ALABAMA



WRITTEN SCALES AT DRAWING TITLE(S) ARE VALID ONLY FOR 24" x 36" SHEET SIZE

21.

22.

	ELECTRICAL SYMBOL LEGEND	1	. ALL WOF ELECTRI CODES I
SYMBOL	DESCRIPTION		IN THE P
1	BRANCH CIRCUIT CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING. ARROWS INDICATE CIRCUIT HOMERUNS. HASH MARKS INDICATE NUMBER OF CONDUCTORS. NEUTRAL AND/OR SWITCH LEG CONDUCTORS. "A" DENOTES PANEL BOARDS SERVING CIRCUITS, XX CIRCUIT BREAKER SPACES IN PANELBOARD. SEE RESPECTIVE PANEL CIRCUIT SCHEDULE.	2	FEES.
/ A – XX	MINIMUM CONDUCTOR SIZE = #12 AWG.	3	. CONTRA AND INC COMPLE
	BRANCH CIRCUIT CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING. ARROWS INDICATE CIRCUIT HOMERUNS. "A" DENOTES PANEL BOARDS SERVING CIRCUITS, XX CIRCUIT BREAKER SPACES IN PANELBOARD. SEE RESPECTIVE PANEL CIRCUIT SCHEDULE. MINIMUM CONDUCTORS 2#12, 1#12 GND, 1 CAT 5 CABLE, 3/4" C.	4	
A - XX	BRANCH CIRCUIT CONDUIT RUN BELOW GRADE OR CONCEALED IN SLAB. ARROWS INDICATE CIRCUIT HOMERUNS. HASH MARKS INDICATE NUMBER OF CONDUCTORS, REVERSE HASH MARK INDICATES GROUND CONDUCTOR, ABSENCE OF HASH MARKS INDICATES TWO CONDUCTORS AND GROUND. GROUND CONDUCTORS SHALL BE RUN IN EACH CONDUIT WITH PHASE, NEUTRAL AND/OR SWITCH LEG CONDUCTORS. "A" DENOTES PANELBOARD SERVING CIRCUITS, "1,3,5" INDICATES CIRCUIT BREAKER SPACES IN PANELBOARD. SEE RESPECTIVE PANEL CIRCUIT	5	THROUG REVISIO
	SCHEDULE. MINIMUM CONDUCTOR SIZE = #12 AWG.	6	. THE COI 1/2" LETT
	DISCONNECT (SAFETY) SWITCH - SIZE AND TYPE AS NOTED. TOP OF SWITCH 6'-6" A.F.F. MAX.	7	PVC, etc.
×M)	ELECTRIC MOTOR- SEE RESPECTIVE EQUIPMENT SCHEDULE	8	POWER
\$	20A, 120/277 VAC SINGLE POLE TOGGLE SWITCH - FLUSH WALL MOUNTED 48" A.F.F. UNLESS NOTED OTHERWISE. LOWER CASE LETTER INDICATES FIXTURE AND/OR LAMPS CONTROLLED.	9	. ELECTRI
³ \$	20A, 120/277 VAC THREE WAY TOGGLE SWITCH - FLUSH WALL MOUNTED 48" A.F.F. UNLESS NOTED OTHERWISE. LOWER CASE LETTER INDICATES FIXTURE AND/OR LAMPS CONTROLLED.		
⁴ \$	20A, 120/277 VAC FOUR WAY TOGGLE SWITCH - FLUSH WALL MOUNTED 48" A.F.F. UNLESS NOTED OTHERWISE JOWER CASE LETTER INDICATES FIXTURE AND/OB LAMPS CONTROLLED		0. CONCEA 1. ELECTRI
			REQUIRE
€ YY A-XX	230 VAC 2P., 3W., GROUNDING TYPE RECEPTACLE. FLUSH WALL MOUNTED MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE. "A - XX" INDICATES		2. CONTRA ASSOCI/ 3. ALL EQU
	PANEL NAME AND CIRCUIT NUMBER. "YY" INDICATES AMPERAGE RATING. TWO 20A, 125 VAC 2P., 3W., GROUNDING TYPE, DUPLEX RECEPTACLES.	1.	REQUIRE
A - XX	FLUSH WALL MOUNTED: ONE AT 18" A.F.F. AND THE OTHER AT 48" A.F.F. "A — XX" INDICATES PANEL NAME AND CIRCUIT NUMBER	1,	4. NO CHAI AND OW
	20A, 125 VAC 2P., 3W., GROUND FAULT INTERRUPTING TYPE, DUPLEX RECEPTACLE. FLUSH WALL MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE. "A - XX" INDICATES PANEL NAME AND CIRCUIT NUMBER	1:	5. CONTRA STRUCT
A - XX	(2) 20A, 125 VAC 2P., 3W., GROUNDING TYPE, DUPLEX RECEPTACLES. FLUSH WALL MOUNTED IN 2-GANG BOX 18" A.F.F. UNLESS NOTED OTHERWISE. "A - XX" INDICATES PANEL NAME AND CIRCUIT NUMBER	1	6. ALL ELE BE NEW BE CARF
J	JUNCTION BOX. MINIMUM SIZE 4" SQUARE X 2-1/8" DEEP WITH COVER PLATE. FLUSH WALL MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE.		OF SUCH FREE FR
SYMBOLS NOTES:		1	7. ANY PAT
	E TO BE FLUSH MOUNTED. ITS ARE FROM THE CENTER LINE OF THE DEVICE UNLESS OTHERWISE NOTED.		
	AND TWO GANG DEVICES SHALL USE A 4" SQ. BOX WITH EXTENSION RING.	1	B. ELECTRI OF THE
4. ALL MULTI-GANG	DEVICES SHALL USE A COMMON COVER PLATE.	1:	9. ALL 120\
	VER DEVICES (i.e. SWITCHES, RECEPTACLES, TELEPHONE OUTLETS, ETC.) AND ATES SHALL BE WHITE OR BLACK FOR OUTLETS IN DARK GRANITE.	2	0. REFEREI
	MOUNTING HEIGHT ABOVE FINISHED FLOOR.		CATALO EQUIPMI PRODUC
		0	

ABBREVIATIONS

		_	
A A/C.F. AHUC. A MUX B C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C	AMPS AIR CONDITIONING ABOVE FINISHED FLOOR AIR HANDLING UNIT AMPS INTERRUPTING CAPACITY (SHORT CIRCUIT) ALUMINUM AMMETER AUTOMATIC AUXILIARY AMERICAN WIRE GAUGE BARE CONDUIT CIRCUIT BREAKER CHILLED CIRCUIT COPPER CONTROL POWER TRANSFORMER CONTROL POWER TRANSFORMER CONTROL POWER TRANSFORMER CONTROL POWER TRANSFORMER DEEP DIRECT CURRENT DISCONNECT DOWN EACH ELECTRIC OPERATOR ELECTRIC EMERGENCY EXIST. RELOCATED EOUPMENT (GROUND) FIRE ALARM FUSE(S) FUTURE GROUND FAULT INTERRUPTING HIGH, (MOUNTING HEIGHT TO CENTER LINE) HAND HOLE HAND OFF AUTOMATIC SWITCH HEAT ISOLATED INSTALL OR INSTRUMENT JUNCTION BOX KNOCK OUT KLOWATTS LIGHTING LONG	MAG MAN M.B. MCM MCS MECH. MT. N.D. N. NEUT N.C. N.O. OHE O.L.'S OUT P NL P.T. #(SUFFIX) Ø REC. RECEPT S.C. SN SOL SQ. ST STR. SW. T.B.B. TEL TEMP. T.O.E. TYP. UPS UG UGP UGS W W.H. WP WW V VAC VDCTP VM	MAGNETIC MANUAL MAIN BREAN THOUSAND MOLDED CA MECHANICA MOUNT MOUNTED NEUTRAL NORMALLY OVER HEAD OVERLOADS OUTPUT POLE(S) PANEL OR F POTENTIAL POUNDS WI WIRE GAUG PHASE RECEPTACL SHORT CIRC SOLID NEUT SOLID CON SQUARE SHUNT TRIF STARTER SWITCH TELEPHONE TELEPHONE TELEPHONE TELEPHONE TEMPERATU TIMED ON E TYPICAL UNINTERRU UNDERGRO UNDERGRO WATTS OR N 100W (WATER HEA WEATHERPI WIREWAY (C VOLTS VOLTS ALTE VOLTS ALTE

	MAGNETIC (METER or STARTER)
	MANUAL
	MAIN BREAKER THOUSAND CIRCULAR MILS
	MOLDED CASE SWITCH
	MECHANICALLY (HELD)
	MOUNT MOUNTED
	NEUTRAL
	NORMALLY CLOSED
	NORMALLY OPEN
	OVER HEAD ELECTRICAL LINE OVERLOADS (THERMAL)
	OUTPUT
	POLE(S)
	PANEL OR PANELBOARD POTENTIAL TRANSFORMER
)	POUNDS WEIGHT
	WIRE GAUGE (AWG) PHASE
	RECEPTACLE
	RECEPTACLE
	SHORT CIRCUIT (DUTY) SOLID NEUTRAL
	SOLID (CONDUCTOR)
	SQUARE
	SHUNT TRIP STARTER
	SWITCH
	TELEPHONE BACK BOARD TELEPHONE
	TEMPERATURE (CONTROL) TIMED ON ENERGIZAITON
	TYPICAL UNINTERRUPTIBLE POWER SYSTEM
	UNDERGROUND
	UNDERGROUND PRIMARY
	UNDERGROUND SECONDARY WATTS OR WIRE (USE CONTEXT)
	100W (WATTS) 3W (WIRE)
	WATER HEATER Ó WEATHERPROOF
	WEATHERPROOF WIREWAY (or GUTTER)
	VOLTS `
	VOLTS ALTERNATING CURRENT VOICE, DATA AND CABLE
	TERMINATION PANEL
	VOLTMETER

GENERAL NOTES:

ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL RIC CODE, THE OCCUPATIONAL SAFETY AND HEALTH ACT, ALL ELECTRICAL S LOCALLY BEING ENFORCED BY LOCAL AUTHORITY HAVING JURISDICTION (AHJ) E PROJECT AREA AND THE CONTRACTING OFFICER (C.O.).

RACTOR TO OBTAIN AND PAY FOR ALL PERMITS, INSPECTION AND CONNECTION

RACTOR TO PROVIDE ALL LABOR, MATERIAL, EQUIPMENT AND SUPERVISION FOR NCIDENTAL TO THE COMPLETION OF A FULLY FUNCTIONAL, SAFE AND LETE ELECTRICAL AND LIGHTING SYSTEMS.

RACTOR TO TEST SYSTEM THOROUGHLY IN THE PRESENCE OF OWNER AND ER IT FREE FROM DEFECTS. CONTRACTOR TO PROVIDE OWNER WITH A ONE WARRANTY AFTER ACCEPTANCE.

ONTRACTOR SHALL PROPERLY SEAL ALL PENETRATIONS. ALL PENETRATIONS JGH FIRE BARRIERS SHALL BE SEAL IN ACCORDANCE WITH THE LATEST ONS OF NEC 300.21 AND IBC 712.4.

ONTRACTOR SHALL PROVIDE TYPE WRITTEN PANEL DIRECTORIES WITH BLACK TTERS "CK # & VOLTAGE" FOR A POWER CONTROL PANEL.

IRING SHALL BE COPPER AND IN A CONTINUOUS CONDUIT SYSTEM (MT, RIGID tc.) AS ALLOWED BY CODE AND APPROVED BY AHJ. MINIMUM WIRE SIZE FOR R ŚHALL NO. 12 AWG.

ECTRICAL PANELS SHALL HAVE COPPER BUS BARS.

RICAL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID ANY LICTS AND/OR CREATING A SAFETY HAZARD.

EAL ALL CONDUITS AND BOXES UNLESS OTHERWISE NOTED.

RICAL CONTRACTOR TO COORDINATE WITH THE OWNER FOR ANY ELECTRICAL REMENTS FOR SPECIAL EQUIPMENT.

RACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL CIRCUITS CIATED WITH THE PROJECT WORK AREA.

QUIPMENT AND MATERIALS SHALL MEET OR EXCEED THE SCHEDULED AND/OR RED ITEMS. SUBMIT FOR PRIOR APPROVAL FOR ANY DEVIATIONS.

IANGES SHALL BE MADE IN MATERIALS OR INSTALLATION WITHOUT ENGINEER WNER'S APPROVAL.

RACTOR SHALL VERIFY CLEARANCE SPACE AVAILABLE, OFFSETS REQUIRED, TURAL OPENINGS, AND WORK BY OTHER TRADES.

ECTRICAL MATERIAL AND EQUIPMENT PROVIDED BY THE CONTRACTOR SHALL W AND FREE OF DEFECTS. ALL WORK PERFORMED FOR THIS PROJECT SHALL RRIED OUT BY SKILLED WORKERS REGULARLY ENGAGED IN THE PERFORMANCE ICH DUTIES. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED CLEAN AND FROM DENTS, SCARS OR DEFORMITIES.

ATCHING OF WALLS SHALL MATCH NEW ARCHITECTURAL FINISHING REMENTS.

RICAL CONTRACTOR SHALL PROVIDE A GROUNDING SYSTEM PER SECTION 250 E NATIONAL ELECTRICAL CODE.

OV BRANCH CIRCUITS SHALL HAVE A DEDICATED NEUTRAL (L2) CONDUCTOR

ENCE TO A PARTICULAR PRODUCT BY MANUFACTURER, TRADE NAME, OR OG NUMBER ESTABLISHES THE QUALITY STANDARDS OF MATERIAL AND MENT REQUIRED FOR THIS INSTALLATION AND IS NOT INTENDED TO EXCLUDE UCTS EQUAL IN QUALITY AND SIMILAR DESIGN.

THE ACCURACY OF GRADE, ELEVATION, DIMENSIONS, OR LOCATIONS OF THE EXISTING CONDITION IS NOT GUARANTEED BY THE ENGINEER OR THE OWNER. IF THE CONTRACTOR PERFORMS A CONSTRUCTION ACTIVITY WHEN THE CONTRACTOR KNOWS, OR SHOULD KNOWING EXERCISE IN REASONABLE DILIGENCE THAT AN ACTIVITY INVOLVES AN ERROR IN CONSISTENCY OR OMISSION IN CONTRACT DOCUMENTS, THE CONTRACTOR SHALL ASSUME APPROPRIATE RESPONSIBILITY FOR SUCH PERFORMANCE AND BEAR AND APPROPRIATE AMOUNT OF THE COSTS ATTRIBUTABLE FOR CORRECTIONS.

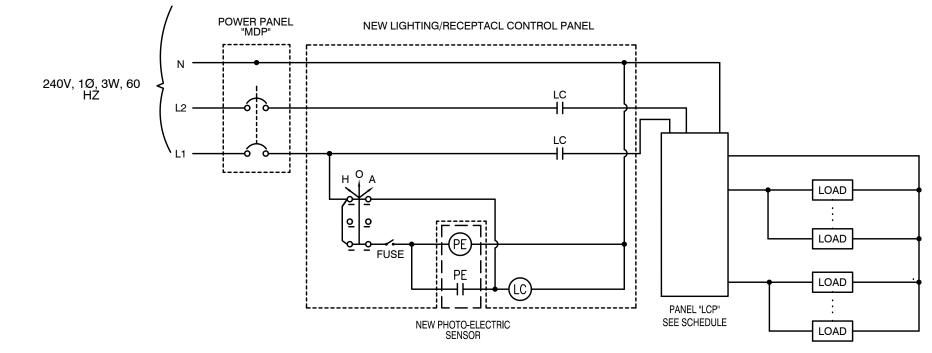
ALL ELECTRICAL INSTALLATION SHALL BE INSPECTED PRIOR TO BEING CLOSED OR COVERED UP. FAILURE TO GET THE INSTALLATION INSPECTED SHALL RESULT IN THE CONTRACTOR PROVIDING THE LABOR AND MATERIALS EXPOSE THE INSTALLATION FOR INSPECTION AND TO RECOVER THE INSTALLATION AT CONTRACTOR'S EXPENSE.

DISCONNECT SWITCH SCHEDULE							
SERVICE AMPERE VOLTAGE NO. FUSE ENCLO							
1	30	240	2	NON	NEMA 3R		
-2	30	240	2	NON	NEMA 1		

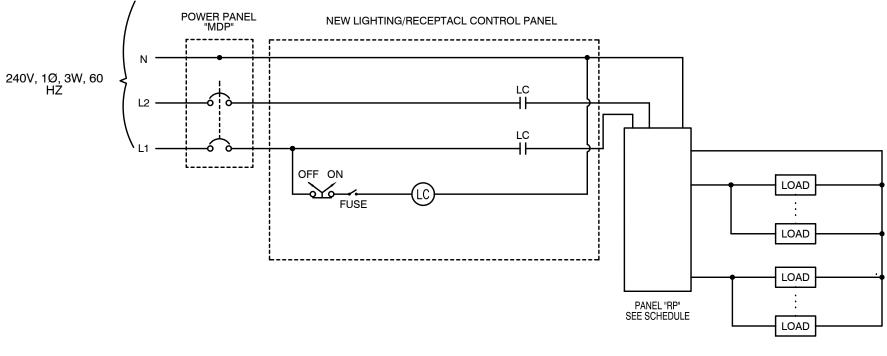
NOTE: CONTRACTOR SHALL COORDINATE EXACT SIZES WITH ACTUAL EQUIPMENT BEING INSTALLED.

LIGHT FIXTURE SCHEDULE

NEW TYPE	MANUFACTURER	CATALOG NUMBER	MOUNTING		LAMPS
				NO.	ТҮРЕ
А	TOPAZ	F-L4/40W/50K/D-87	CEILING	1	40W LED
В	LITHONIA	WPX1 LED	WALL	1	24W LED
С	MORRIS	71603B	CEILING	1	45W LED
D	MOSAIC	MSC110/I WW UNV-CC-DIM	BALLARD	1	15W LED
EX/EM	LITHONIA	LHQM R M6	WALL	1	4.3W LED
E	LITHONIA	DSXSC LED 30C 700 50K T5W MVOLT DMG-PIR	PENDANT	1	67W LED
E1	U.S. ARCHITECTURAL	DSDP25-PLED-VSQ-M-36LED-1050mA-NW-VOLT RAL- XXXX-T-SM+L-HLSW.		1	126W LED
LP	STRESSCRETE	K124R-R1AR-V-100(SSL)-1063-120:277-K12-WRS W/GFI	POLE	1	100W LED
LP1	STRESSCRETE	K124R-R1AR-III-100(SSL)-1063-120:277-K12-WRS W/GFI	POLE	1	100W LED
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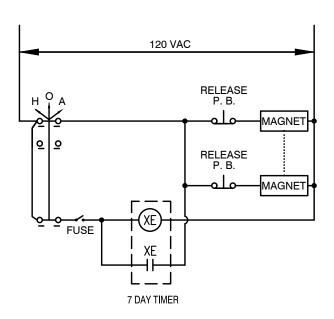


NOT TO SCALE

NOTE: ALL FIXTURES AND ACCESSORIES SHALL BE APPROVED BY THE ARCHITECT, ENGINEER AND OWNER.

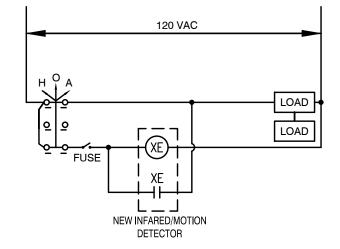
TYPICAL LIGHTING CONTROL PANEL DIAGRAM

TYPICAL RECEPTACLE CONTROL PANEL DIAGRAM

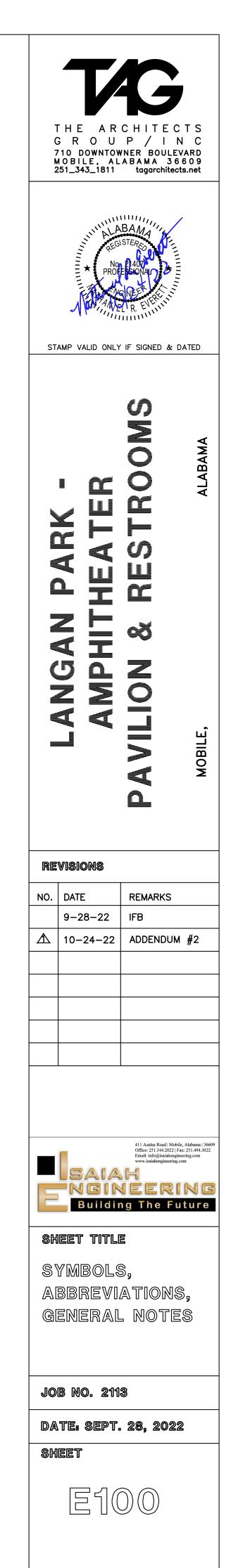


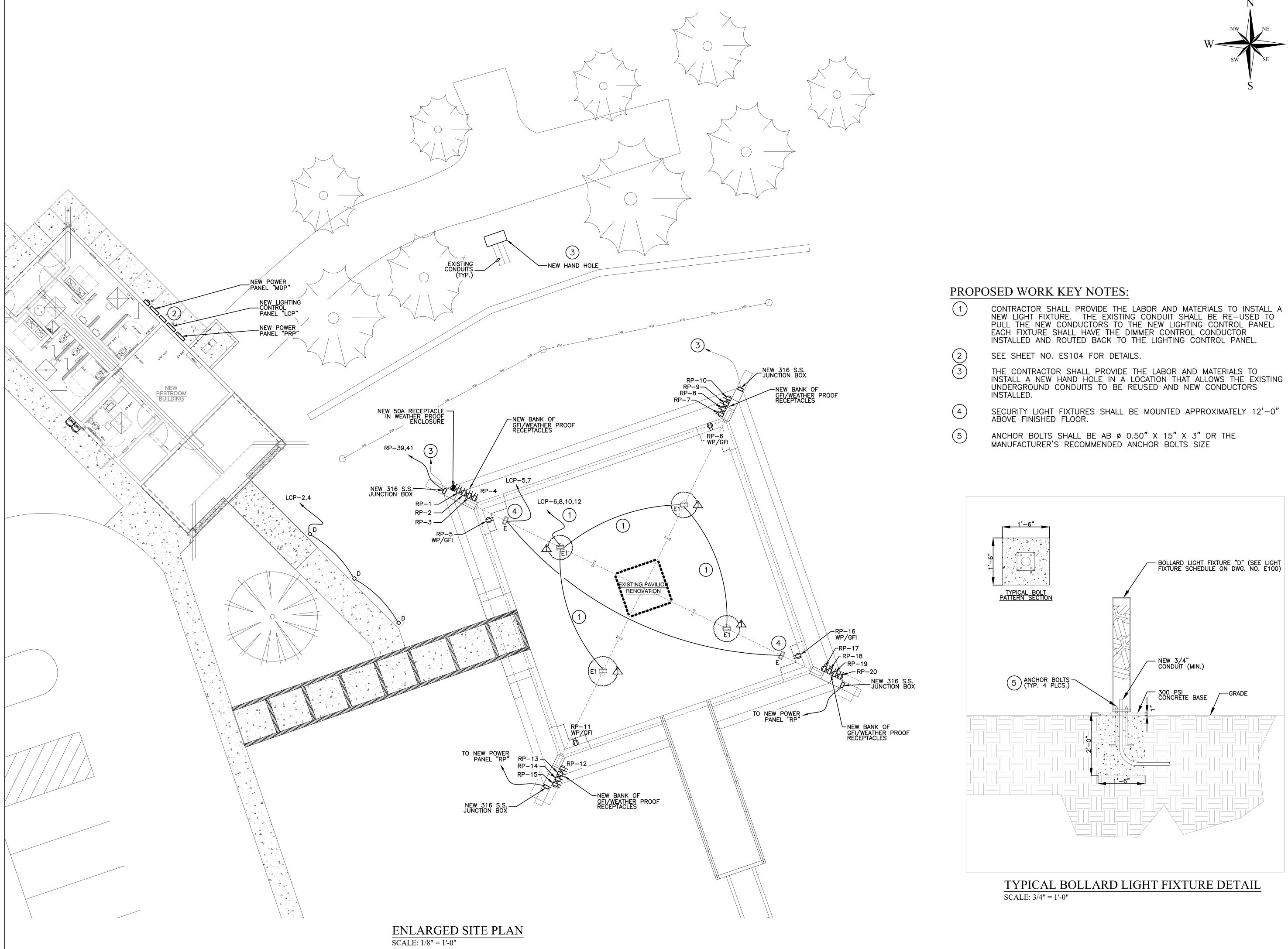
TYPICAL ELECTROMAGNETIC DOOR LOCK CONTROL PANEL DIAGRAM

NOT TO SCALE



TYPICAL INTERIOR LIGHTING CONTROL PANEL DIAGRAM NOT TO SCALE







STAMP VALID ONLY IF SIGNED & DATED

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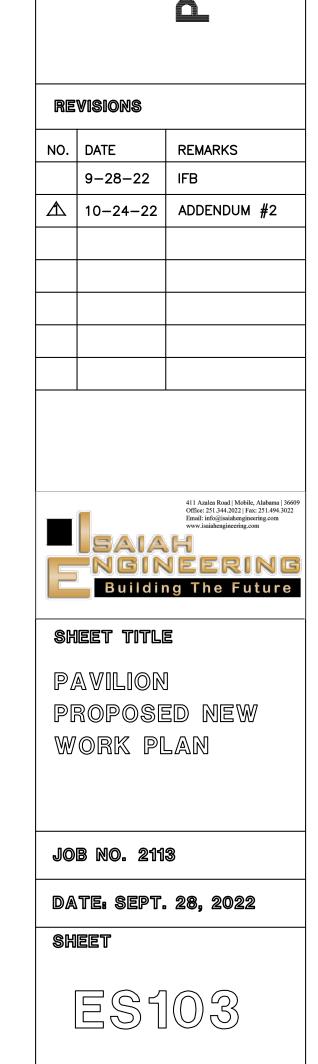
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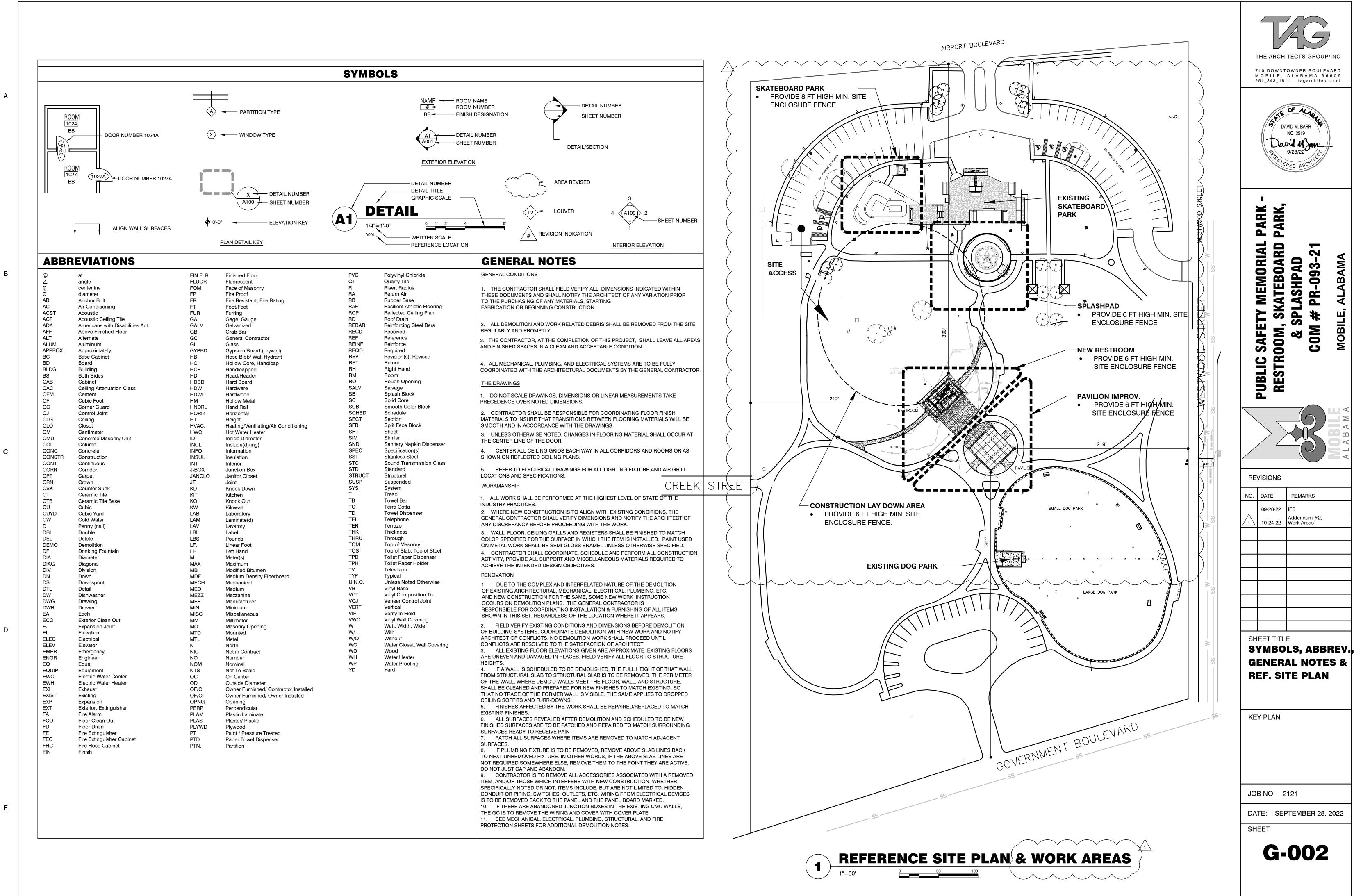
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WRITTEN SCALES AT DRAWING TITLE(S) ARE VALID ONLY FOR 24" x 36" SHEET SIZE.