HOPE COMMUNITY CENTER

-ADDENDUM NUMBER 4

May 22, 2023

PROJECT:

CITY OF MOBILE PARK IMPROVEMENTS

GMC PROJECT NO. AMOB220095

AD4-1 CLARIFICATIONS / RFI RESPONSES / ADDITIONS / ETC.:

AZALEA

- A. Bidders shall acknowledge receipt of the Addendum in writing, as provided on the Acknowledgment Receipt.
- B. Scranton is approved as an equal. See attached substitution request.
- C. The Bid Opening for Azalea will now be on May 31st at 2:30.
- D. **Question:** Is there a brick spec or allowance?
 - **Response:** See B-1 Finish Schedule on A-A801 for brick type. See Unit Masonry spec attached.
- E. **Question:** The wall section on A5.02 shows air/water barrier on the outside of the rigid insulation. Is this correct? Is there an air/water barrier specification?
 - **Response:** The vapor barrier should be on the CMU block. See Cold Fluid-Applied Waterproofing spec attached.
- F. **Question:** Scope of work on the BCS page state that "New Mechanical System.' Please provide more details about mechanical, equipment replacement? Ductwork replacement/relocation? Restroom exhaust equipment replacement/relocation?
 - **Response:** Not any New Mechanical Systems in this project.
- G. Question: What are the type of doors that are needed, because there is no door spec? Response: The Range House doors will be FRP and the doors in the Club House will match existing doors. See FRP door spec attached.
- H. Question: There is no #A03 so what is the door schedule talking about for door 102L. Response: I don't see it listed. A03 will need a lever set storeroom mortise lockset with deadbolt L9080HD SCH, 6 Butts 5BB1 4.5x4.5 IVE, uncombinated SFIC interchangeable core 65-73-7P uncombinated SAR, 2 wall stops WS406/407CCV IVE, 3 silencers SR64 IVE, and 2 surface closers 4040XP SCUSH TBSRT LCN.
- I. Question: Where are the floor plans with the door numbers on the doors at?
 Response: See sheet A-A1.03 for the door numbers for the Range House. The only new doors in the Club House is 102L and it is shown on A-A1.02.

BAUMHAUER

A. Bidders shall acknowledge receipt of the Addendum in writing, as provided on the

TAYLOR PARK

Acknowledgement receipt.

- B. The Bid Opening for Baumhauer will now be on June 7th at 2:30.
- C. Exterior wall paint finishes scheduled on B-A6.01 should be cancelled and changed to split-face CMU with the Sherwin Williams coating system shown on Revised Drawing B-A4.01 Rev 1
- D. Alternate #1, including the restroom/ concession building for Baumhauer is no longer in the project.

TAYLOR

A. There will be no work for Taylor Park bidding at this time.

AD4-2 ISSUED SPECIFICATIONS:

AZALEA

- A. Substitution Request for lockers at Azalea
- B. 042000- Unit Masonry
- C. 042200 Concrete Unit Masonry
- D. 054000 Cold-Formed Metal Framing
- E. 072200 Vented Nail Base Insulation
- F. 071416 Cold Fluid-Applied Waterproofing
- G. 082250 Fiberglass Doors and Frames
- H. 092423 Cement Stucco

BAUMHAUER

- A. Exhibit E- Splashpad Drawing Set
- B. 51-116850 Aquatic Playground

AD4-3 ISSUED DRAWINGS:

AZALEA

- A. Replace sheet A-A3.01 Roof Plan Alternate 1
- B. Replace sheet A-S0.01 Range House General Notes
- C. Replace sheet A-S0.03 Range House Typical Details
- D. Replace sheet A-S1.01 Range House Foundation & Floor, & Roof Framing Plans & Sections

HOPE COMMUNITY CENTER

TAYLOR PARK

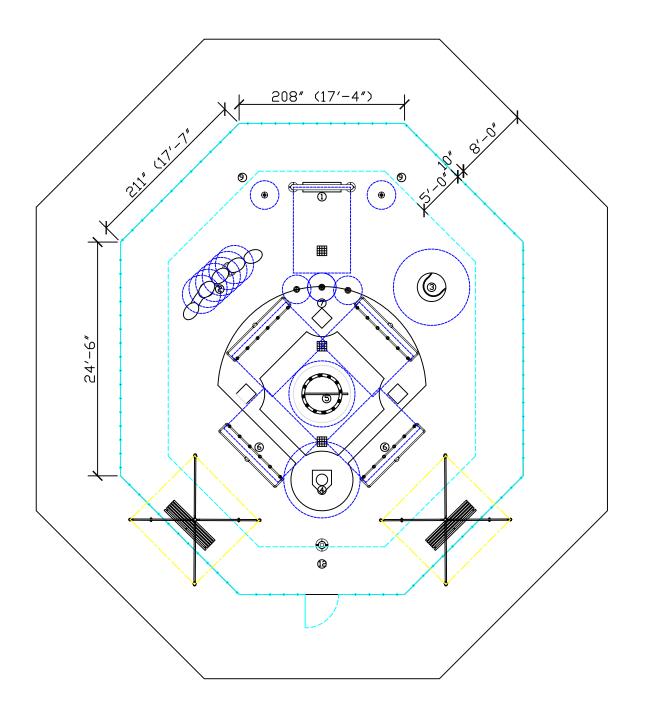
END OF ADDENDUM

PREPARED BY

Sarah M. Downs

Goodwyn Mills Cawood 11 North Water Street Suite 15250 Mobile, Alabama 36602 T 251.460.4006 F 251.460.4223





	FEATURE LIST								
ITE	QTY	FEATURE							
1	1	LOW FLOW DUMPING TROUGH WITH SCOREBOARD OM							
2	1	LOW FLOW FIELDERS GLOVE HOOP OM							
3	1	LOW FLOW BASEBALL SPRAY OM							
4	1	LOW FLOW BIG LEAK BALL BAT OM							
5	1	LOW FLOW CIRCLE TIME 12							
6	4	LOW FLOW TUNNEL ARCH 6							
7	3	MINI POPKORN							
8	3	N/A							
9	2	N/A							
10	2	N/A							
11	2	N/A							
12	1	BASEBALL ACT BOLLARD							
13	1	MANIFOLD WITH 2" PRV & BALL VALVES							
14	1	PROGRAMABLE TIMER							

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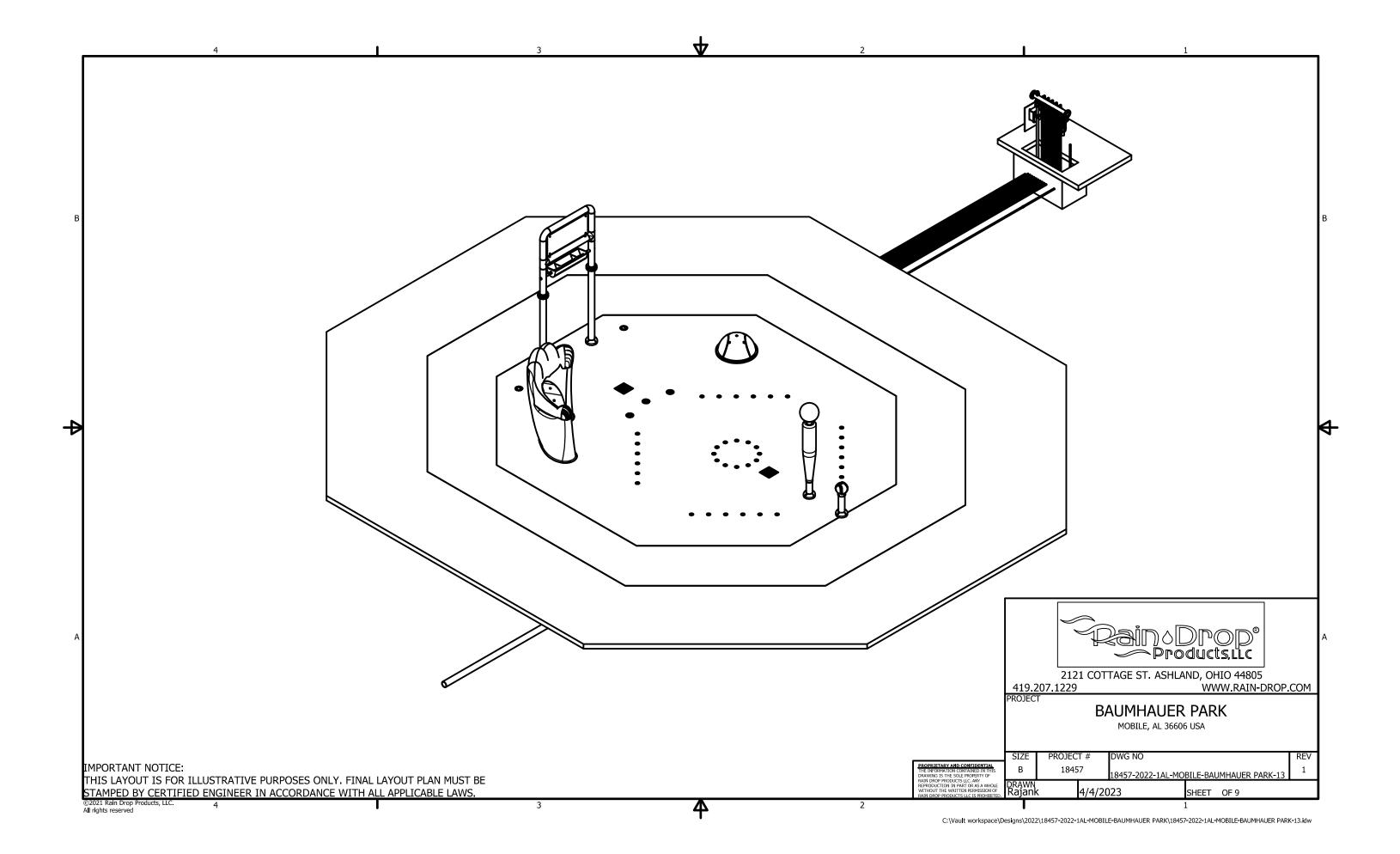
ENCLOSURE & DRAINS PROVIDED BY INSTALLER

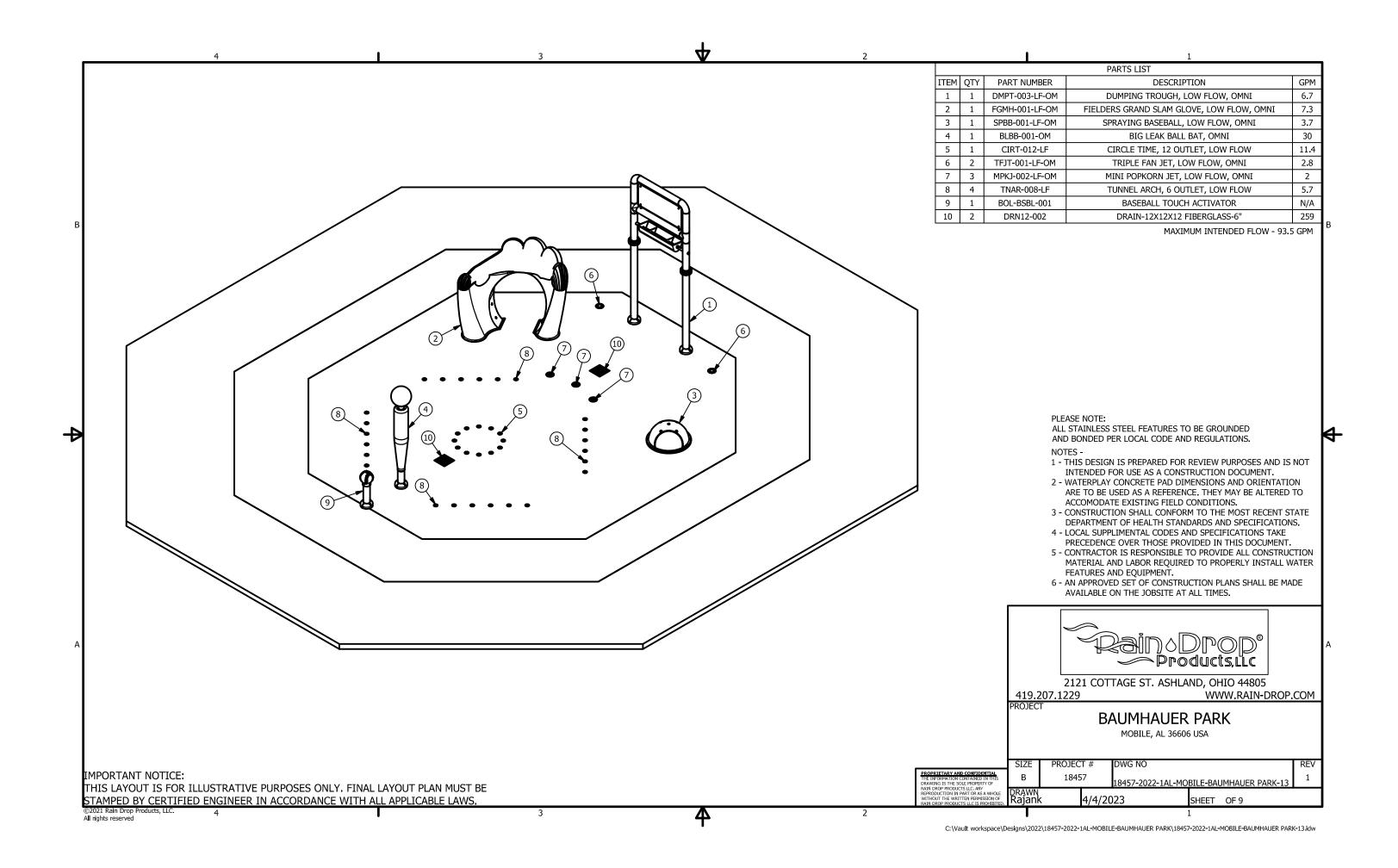


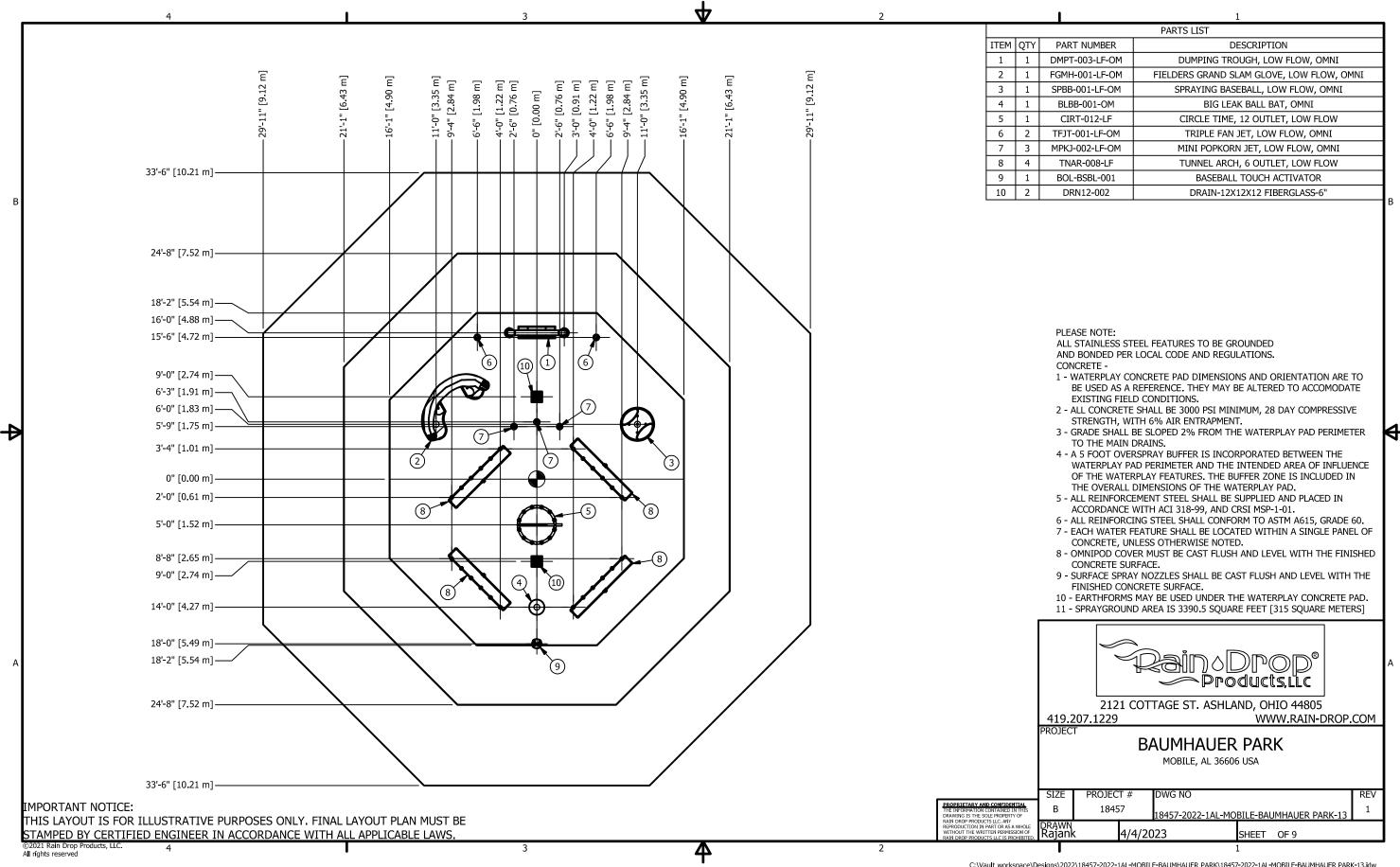


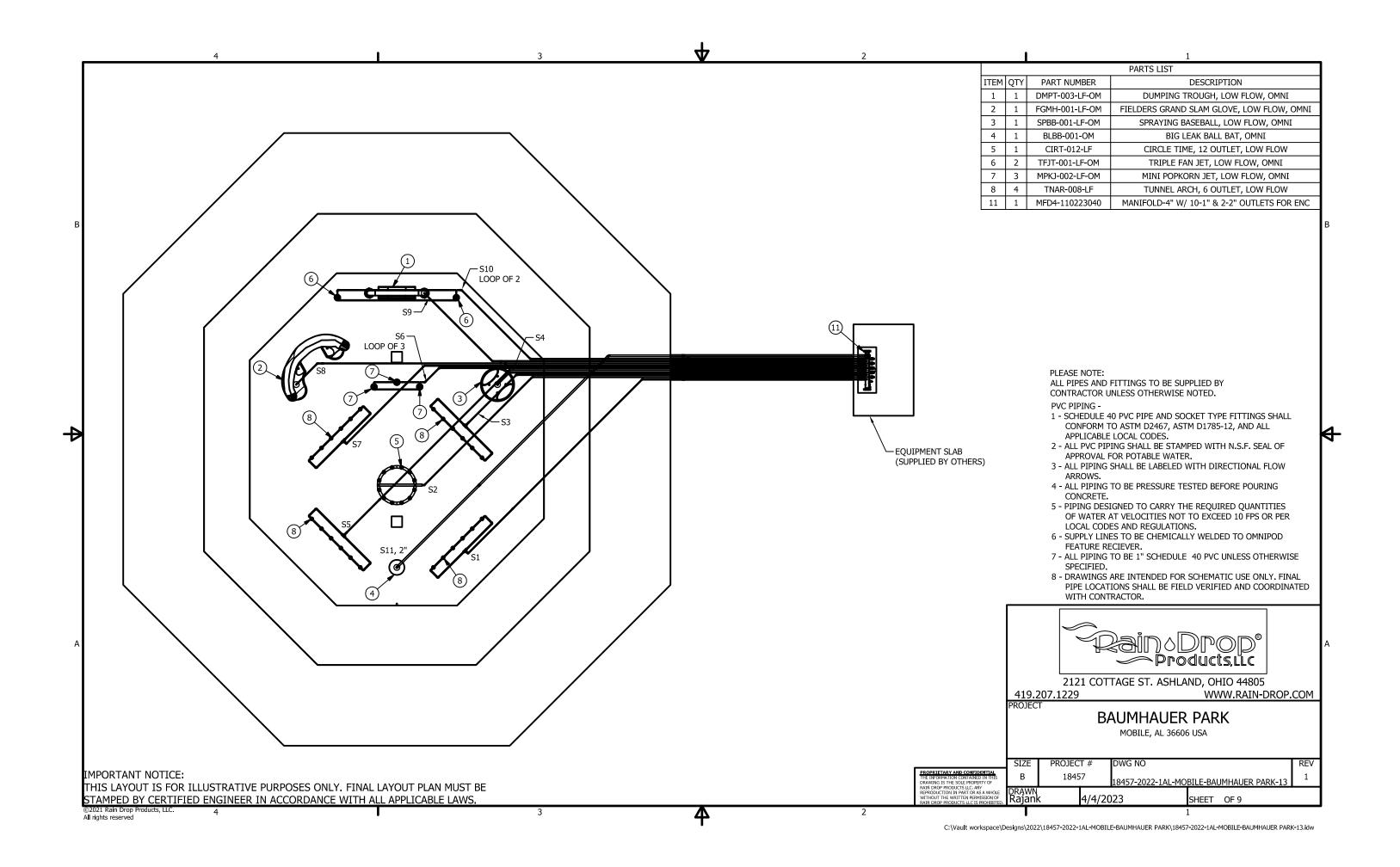


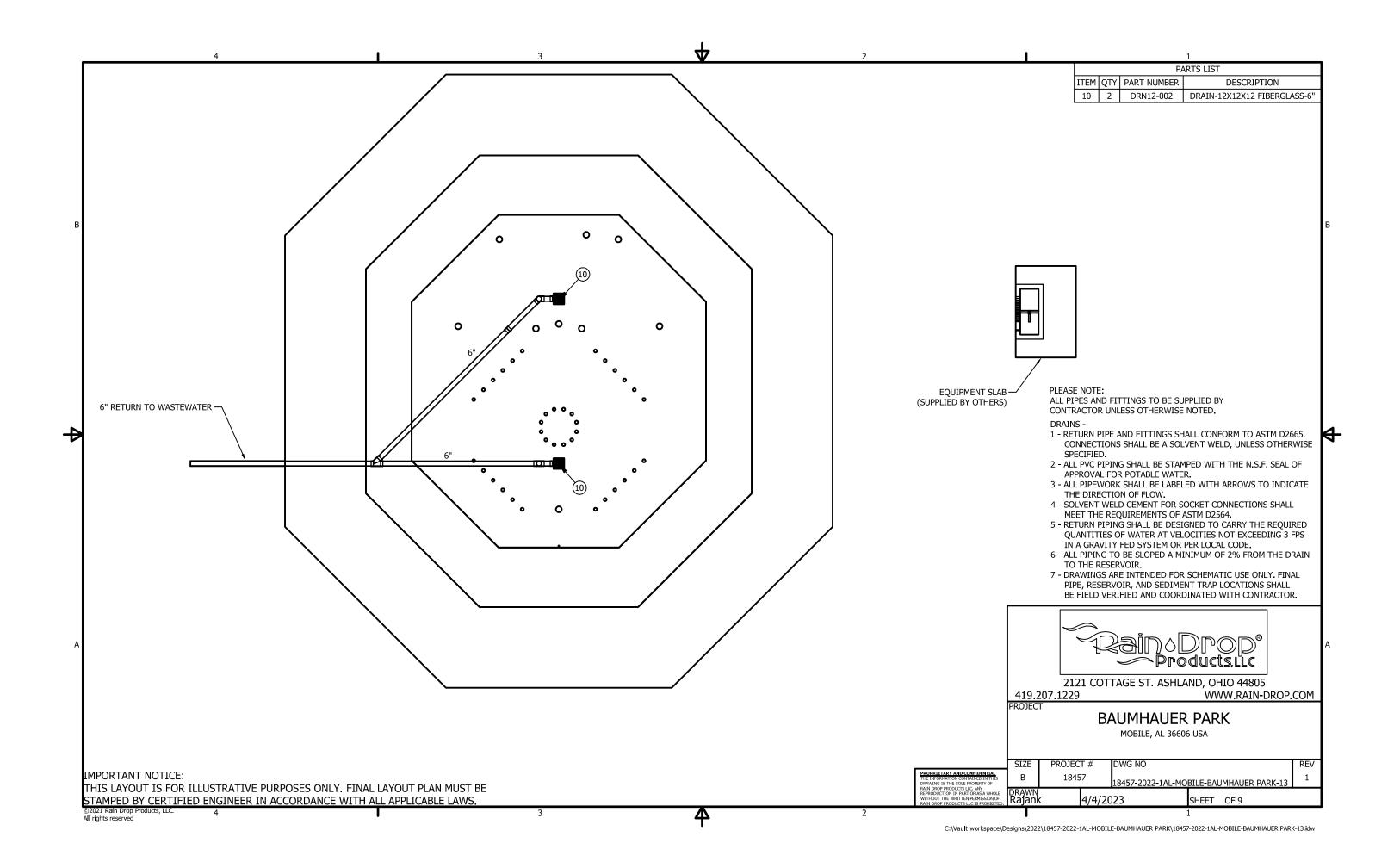


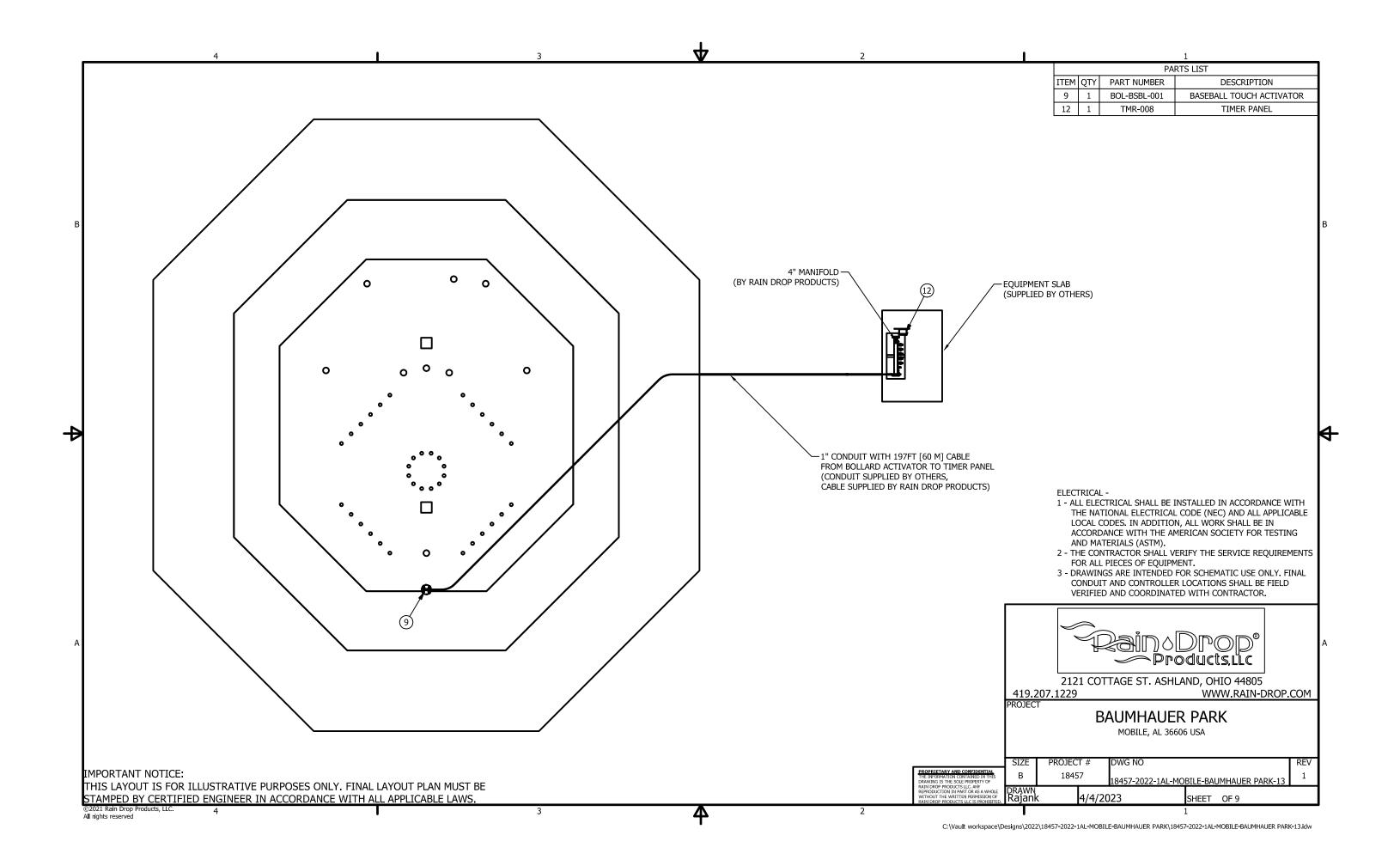


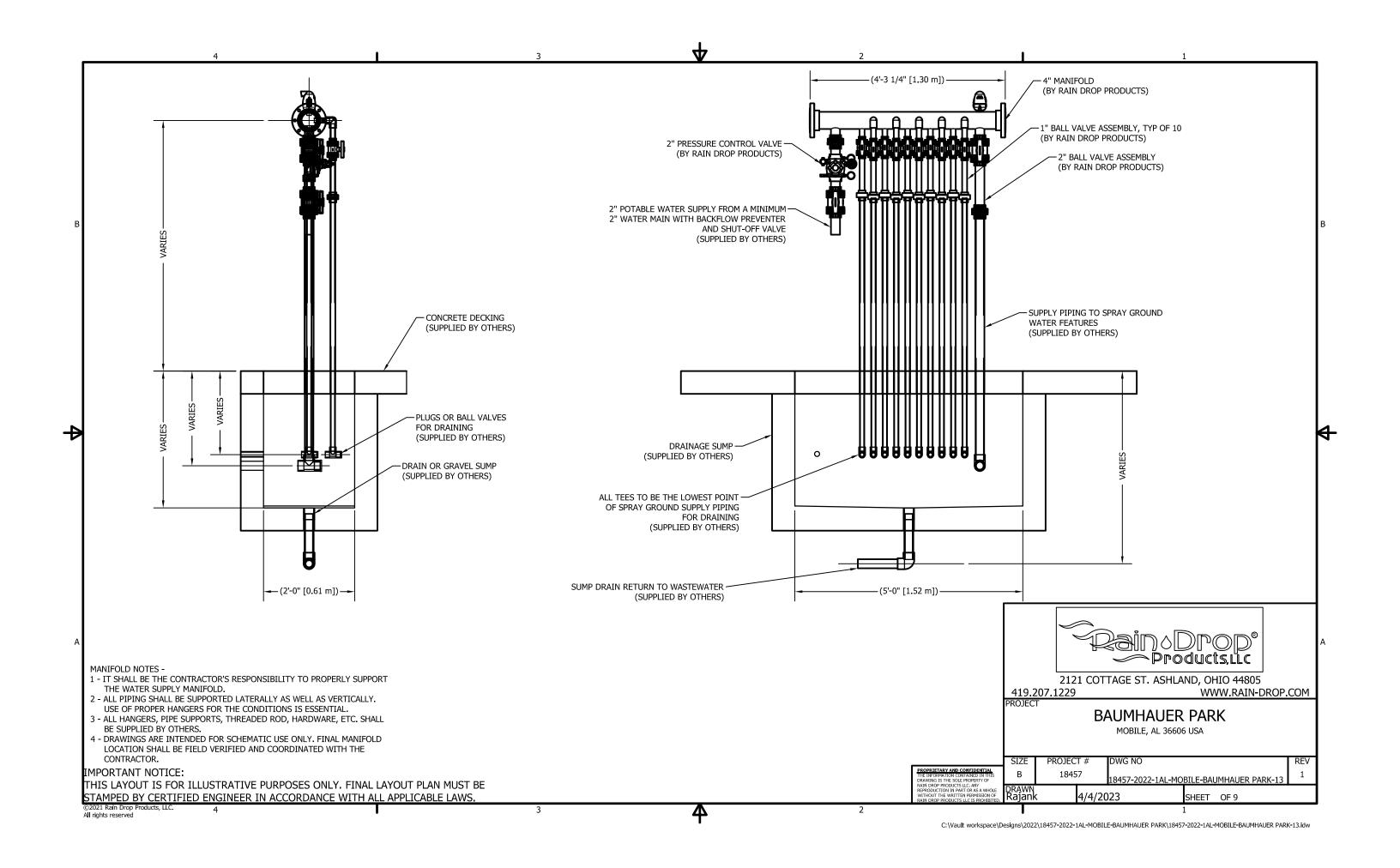




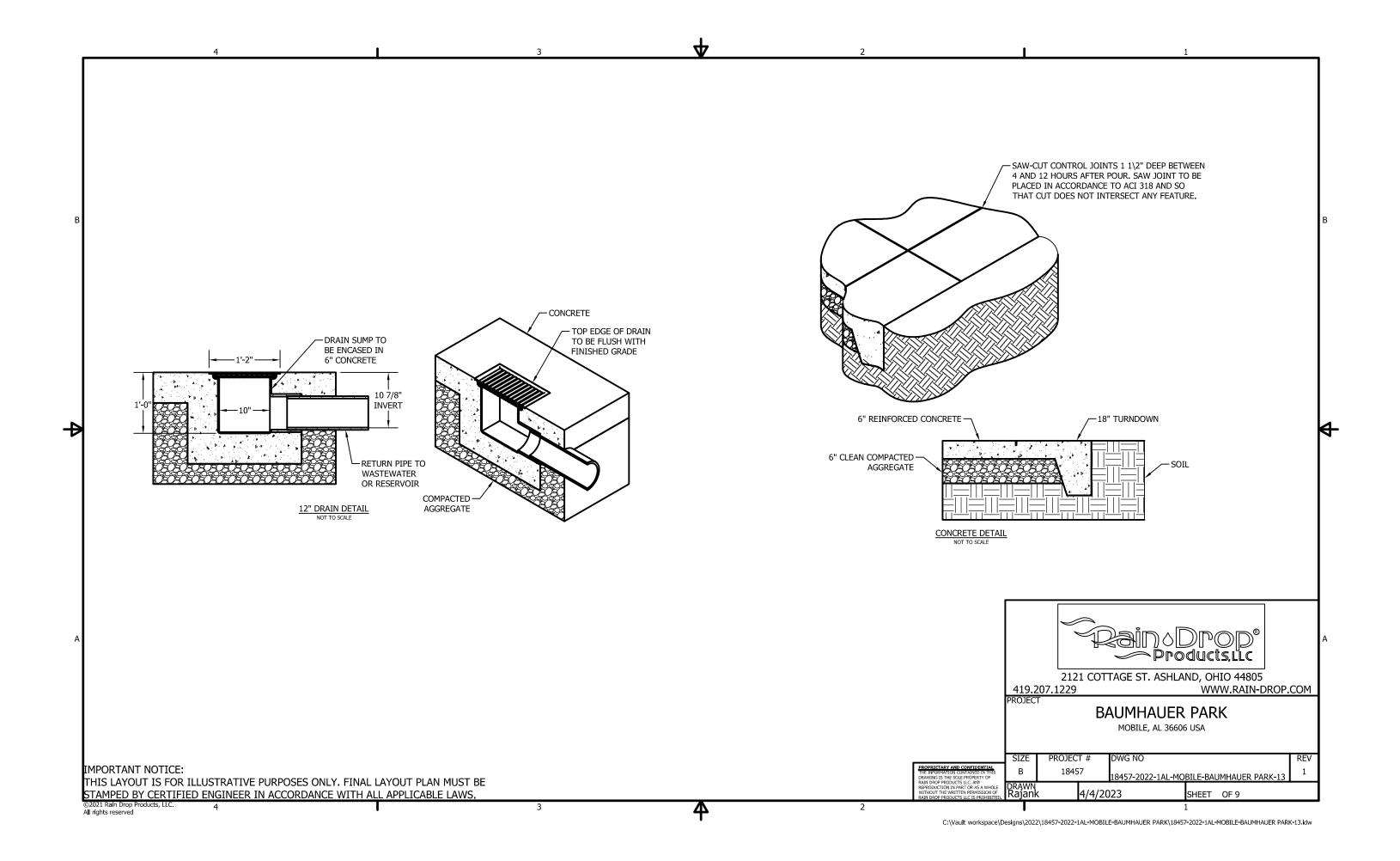








SPRAYGROUND SPECIFICATIONS -RED PIPES = SUPPLY LINES SEQUENCED FLOW RATE DESIGNED AT 93.5 GPM. MINIMUM OF 2" WATER MAIN REQUIRED. WATER MAIN MUST HAVE A BACKFLOW PREVENTER, PRESSURE REDUCING AND/OR BLUE PIPES = RETURN LINES GREEN PIPES = ELECTRICAL CONDUIT PRESSURE SOLENOID VALVE, AND A MAIN SHUT OFF VALVE IN THE LINE. WATER MAIN SHALL NOT EXCEED A WATER VELOCITY OF 10 FPS OR PER LOCAL CODE, AND BE OPERATED AT 22-35 PSI. ALL PIPE WORK SHALL BE SCHEDULE 80 PVC, APPROVED FOR POTABLE WATER USAGE AND PRESSURE TESTED BEFORE PLACING CONCRETE. ALL PIPING SHALL BE LABELED WITH DIRECTIONAL ARROWS. - 4" MANIFOLD (BY RAIN DROP PRODUCTS) TIMER PANEL (BY RAIN DROP PRODUCTS) - 2" PRESSURE CONTROL VALVE (BY RAIN DROP PRODUCTS) 2" POTABLE WATER SUPPLY FROM A MINIMUM 2" WATER MAIN WITH BACKFLOW PREVENTER AND SHUT-OFF VALVE (SUPPLIED BY OTHERS) MECHANICAL ROOM -1 - MECHANICAL ROOM SIZE AND LAYOUT IS FOR REFERENCE ONLY AND MAY BE ALTERED TO ACCOMMODATE EXISTING FIELD CONDITIONS. 2 - PIPE AND EQUIPMENT PLACEMENT MAY BE MODIFIED ACCORDINGLY. 3 - PIPE AND OTHER MATERIAL SHOWN MAY BE SUBSTITUTED WITH PRIOR APPROVAL OF THE PROJECT DESIGNER. 4 - PVC PIPE SHALL BE SCHEDULE 80 PVC AND SOCKET TYPE FITTINGS SHALL CONFORM TO ASTM D2467, AND ASTM D1785-12, AND ALL APPLICABLE STATE AND LOCAL CODES. 5 - ALL PIPING SHALL BE STAMPED WITH N.S.F. SEAL OF APPROVAL FOR POTABLE WATER. 6 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY SUPPORT PIPING AT ALL VALVES, PUMPS, EQUIPMENT, OVERHEAD AREAS, ETC. 7 - ALL PIPING SHALL BE SUPPORTED LATERALLY AS WELL AS VERTICALLY. USE OF PROPER HANGERS FOR THE CONDITIONS IS ESSENTIAL. 8 - ALL HANGERS, PIPE SUPPORTS, THREADED ROD, HARDWARE, ETC. SHALL BE SUPPLIED BY OTHERS. 9 - PIPING SHALL BE DESIGNED TO CARRY THE REQUIRED QUANTITIES OF WATER AT VELOCITIES NOT TO EXCEED LOCAL CODE REQUIREMENTS. SUPPLY PIPING FROM MANIFOLD TO -10 - DRAWINGS ARE INTENDED FOR SCHEMATIC USE ONLY. FINAL SPRAY GROUND WATER FEATURES LOCATION OF EQUIPMENT ROOM AND THE PLACEMENT OF EQUIPMENT (SUPPLIED BY OTHERS) AND PIPE SHALL BE FIELD VERIFIED AND COORDINATED WITH CONTRACTOR. 2121 COTTAGE ST. ASHLAND, OHIO 44805 419 207 1229 WWW.RAIN-DROP.COM **PROJECT** ELECTRICAL SUPPLY CONDUITS (SUPPLIED BY OTHERS) **BAUMHAUER PARK** MOBILE, AL 36606 USA IMPORTANT NOTICE: 18457 8457-2022-1AL-MOBILE-BAUMHAUER PARK-13 THIS LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY. FINAL LAYOUT PLAN MUST BE STAMPED BY CERTIFIED ENGINEER IN ACCORDANCE WITH ALL APPLICABLE LAWS. 4/4/2023 SHEET OF 9 C:\Vault workspace\Designs\2022\18457-2022-1AL-MOBILE-BAUMHAUER PARK\18457-2022-1AL-MOBILE-BAUMHAUER PARK-13.idw



- GENERAL NOTES:

 1. ALL PIPING "NSF-PW" APPROVED / ALL ELECTRICAL WRING IN COMPLIANCE WITH NEC ELECTRICAL INTERLOCK OF ELECTRICAL FEED EQUIPMENT WITH RECIRCULATION PUMP, HYDRAULIC INTERLOCK OF EROSION FEED EQUIPMENT WITH RECIRCULATION PUMP, FLOW PROPORTIONING VALVES WHERE REQUIRED: 3" AND UNDER DIVERTER VALVE, 4" AND ABOVE BUTTERFLY VALVE

 2. ALL MOTORS AND RECEPTACLES ARE PROTECTED BY GFCI BREAKERS AS REQUIRED BY N.E.C

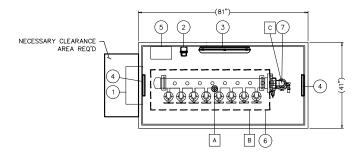
 3. EACH WASTE LINE SHALL HAVE A UNIQUE ANG GAP. WASTE LINES FROM DIFFERENT SOURCES (E.G. POOL, SPA, OVERFLOW, SUMP PUMP) SHALL NOT BE TIED TOGETHER BUT MAY DISCHARGE INTO A COMMON SUMP OR RECEPTACLE.

 3.1. THE WASTE LINE MUST BE CONNECTED TO AN APPROVED WASTE DISPOSAL SYSTEM ACCORDING TO LOCAL OR STATE CODES.

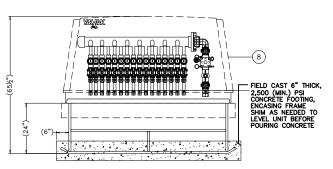
 4. GEOMETRY FOR REFERENCE.

 5. FLOOR DRAIN PIPED TO DRAIN CONNECTIONS OR PLUGGED IF NOT USED. TYP 1X PLCS.

FILTER E	FILTER EQUIPMENT LIST									
MODEL:	MODEL: CS50IWF-16PVP - 42 GPM ® 60 TDH									
ITEM#	# EL# MFG PART# DESCRIPTION									
1	1	SQUARE-D Q0112M100PRB MBR ELECTRICAL PANEL, 12SP, 100A, 1\phi-120V								
2	2	LEVITON 5320 RECEPTACLE W/ EXTRA-DUTY WEATHER-PROOF COVER, 1φ-120V								
3	3	BARRINA LSS-2FT-2P12H LED SERVICE LIGHT, 2FT, 135LM/FT, MIN., 1\$\phi\$-120V								
4	-	VAK PAK INC - (2) EXHAUST VENTS								
5	(5)	RAINDROP	TMR-008	TIMER CONTROLLER, 16-120V						
6	-	VAK PAK INC	(16) VLV'S (16) 1.0"	SCH. 80 MANIFOLD: (16) 1.0" VLVS, POTABLE WATER SUPPLY						
7	7	RAINDROP	_	2.0" SOLENOID/PRESSURE CONTROL VLV, 24VDC (PROVIDED BY OTHERS, INSTALLED BY VPI)						
8	-	VAK PAK INC	-	CB416						



PLAN VIEW - CABINET & BASE



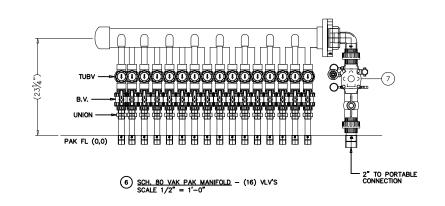
FRONT ELEVATION - CABINET & BASE

٩L٧	SIZE	
Α	FLOOR DRAIN (NOTE 5)	3"
В	MANIFOLD DISCHARGE (16)	1"
С	POTABLE INLET	2"



ø3" PIPE SUPPORT QTY-2 2" TO PORTABLE CONNECTION L (16) 1.0" VALVES

6 SCH. 80 VAK PAK MANIFOLD - (16) VLV'S SCALE 1/2" = 1'-0"



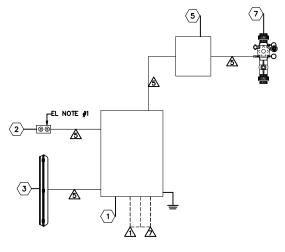
ELECTRICAL NOTES:

1. OUTLETS ARE GFCI PROTECTED.

*ADJUSTABLE—SPEED DRIVE SYSTEMS
NPPA70 NEC: 430.122 CONDUCTORS — MINIMUM SIZE AND AMPACITY
(A) BEANCH/FEEDER CIRCUIT CONDUCTORS, CIRCUIT CONDUCTORS SUPPLYING POWER CONVERSION
EQUIPMENT INCLUDED AS PART OF AN ADJUSTABLE—SPEED DRIVE SYSTEM SHALL HAVE AN
AMPACITY NOT LESS THAN 125 PERCENT OF THE RATED INPUT CURRENT TO THE POWER
CONVERSION EQUIPMENT.
(B) OUTPUT CONDUCTORS — THE CONDUCTORS BETWEEN POWER CONVERSION EQUIPMENT AND THE
MOTOR SHALL HAVE AN AMPACITY EQUAL TO OR LARGER THAN 125 PERCENT OF THE MOTOR FULL
LOAD CURRENT AS DETERMINED BY 430.6(A) or (B).

FEEEDER & CONDUIT SCHEDULE										
		CONDL	REMARKS							
	PHASE	NEUTRAL	GROUND	CONDUIT						
A					PANEL FEED BY OTHERS					
<u>/</u> 5\	1 - #14	1 - #14	1 - #14	1/2"	TYPE LFNC-B UL SEALTITE					
<u>6</u>	1 - #14	1 - #14	1 - #14	1/2"	TYPE SJOOW-3C					
\wedge	INDICATES WIF	RE AND CONDUIT	INSTALLED BY	OTHERS						

PANEL S	PANEL SCHEDULE									
120V, 1	120V, 1 PHASE, 3 WIRE, NEMA 3R, 12SP, 100A MBR									
CIR.	POLES	TRIP	LOAD	AMPS	DEMAND	FACTOR 1.2	25			
1	1	15A-GFCI	SERVICE LIGHT	1.0		1	1.3			
2	1	20A-GFCI	RAINDROP TIMER	5.0		6.	.3			
			TOTAL L	OAD 6.0		7	7.5			



ELECTRICAL SCHEMATIC SCALE: N.T.S.

ENGINEER OF RECORD	[2	ZONE REV.	E.C.N. NO.	DESCRIPTION	DATE	BY	UNLESS OTHERWISE SPECIFIED	DRAWN		DISTRIBUTION STATEMENT:
		A0	N/A	INITIAL RELEASE	09/08/22	KB	DIMENSIONS ARE IN INCHES	KB	09/08/22	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF VAK PAK INC., ANY REPRODUCTION IN DRAWING PAKE INC., THE WINDSTEIN OF VAKE PAKE INC., THE WINDSTEIN
		A1	N/A	RAINDROP MNFLD	03/27/23	EW	TOL ANGLE ± 1.0°, 2 PL ±0.25, 3 PL ±0.125		03/00/22	IN PART OR AS A WHOLE WITHOUT THE WRITTEN
							2 PL ±0.25, 3 PL ±0.125 INTERPRET DIM(S) & TOL(S)	CHECKED		PERMISSION OF VAK PAK INC., IS STRICTLY PROHIBITED.
	-						THIRD ANGLE PROJECTION	EW	09/08/22 TI	TLE CS50IWF-16PVP-S-P-C-0-0-1
	-		-		-		4	MFG CHECK		
		_					┥ , ,			PUBLIC SAFETY MEMORIAL PK
		_						ADDD01/5D		MOBILE, AL
	<u> </u>						1 9 9	APPROVED		
									WT	7. (lbs.) SCALE $\begin{array}{c ccccccccccccccccccccccccccccccccccc$
										1:1 B A1 1 OF 1 34138-M1

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-03300, Division 15 - Plumbing-15400, and Division 16 - Electrical-16100 Specification Sections, 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 fiberglass enclosure. 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. VakPak

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. Substitution requests must be made by the General Contractor. Requests submitted by other manufacturers, vendors, or sub-contractors will not be accepted.

- B. The Landscape Architect must receive, at least ten (10) calendar 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:
 - 1. Must include shop drawings/typical details that show all interactive water features, pumps, valves, piping, and other specialties.
 - 2. 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) DUMPING TROUGH W/ CUSTOM SIGN OMNIPOD, LOW FLOW, by Rain Drop Products
 - 2. (1) GRAND SLAM GLOVE LOW FLOW-OMNI, by Rain Drop Products
 - 3. (1) SPRAYING BASEBALL-LOW FLOW-OMNI, by Rain Drop Products

- 4. (1) BIG LEAK BASEBALL BAT OMNI, by Rain Drop Products
- 5. (1) CIRCLE TIME-12 OUTLET LOW FLOW, by Rain Drop Products
- 6. (2) TRIPLE FAN JET-LOW FLOW-OMNI, by Rain Drop Products
- 7. (3) MINI POPKORN JET-LOW FLOW-OMNI, by Rain Drop Products
- 8. (4) TUNNEL ARCH 6 OUTLET LOW FLOW, by Rain Drop Products
- 9. (1) TIMER PANEL-I TIMER FOR 4 AREAS, by Rain Drop Products
- 10. (1) BASEBALL PUSH BUTTON ACTIVATOR, 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 association with the particular mounting 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 heavy-duty 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 2½" 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

 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.
- 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 to 150 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

- 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