



**Request for Proposal
 Splash Pad Design and Permitting/Playground Equipment
 City of Troy, IL**

BID RESPONSES MUST BE RECEIVED BY: 10:00am local time on Thursday, June 16, 2022

The City of Troy seeks a qualified site contractor for construction of Serenade Park Improvements.
 Please submit any questions regarding this bid in writing to the Director of Public Works, Robert Hancock via email to: tom.cissell@oatesassociates.com
 All addenda will be posted on: www.troyil.us

MAILING INSTRUCTION: Print or type Bid Title and Due Date on the lower left hand corner of the envelope or package. Delivered **SEALED BIDS** must be received in the Administration Office prior to **10:00am on Thursday, June 16, 2022**. Bids will be opened by the Purchasing Manager at the location listed below.

RETURN BID TO: City of Troy Public Works
 Attn: Tom Cissell
 116 E. Market St.
 Troy, IL 62294

By signing this cover page, the bidder shall hereby declare understanding, agreement and certification of compliance to provide the items and/or services, at the prices quoted, in accordance with all requirements and specifications contained herein and the Terms and Conditions. In addition, the bidder shall further agree that upon receipt of an authorized purchase order from the City of Troy or when a Contract Resolution is signed and issued by an authorized official of the City of Troy, a binding contract shall exist between the bidder and the City of Troy.

SIGNATURE REQUIRED / RETURN WITH BID

LEGAL NAME OF ENTITY/INDIVIDUAL FILED WITH IRS FOR THIS TAX ID NO.	DOING BUSINESS AS (DBA) NAME
MAILING ADDRESS	
CITY, STATE, ZIP CODE	
CONTACT PERSON	EMAIL ADDRESS
PHONE NUMBER	FAX NUMBER
TAXPAYER ID NUMBER (TIN)	TAXPAYER ID (TIN) TYPE (CHECK ONE) _____ FEIN _____ SSN
VENDOR TAX FILING TYPE WITH IRS (CHECK ONE) _____ Individual/Sole Proprietor _____ C Corporation _____ S Corporation _____ Partnership _____ LLC, Class _____ Other	
AUTHORIZED SIGNATURE	DATE
PRINTED NAME	TITLE

The City of Troy reserves the right to accept or refuse any or all bids.

CITY OF TROY, ILLINOIS
GENERAL TERMS AND CONDITIONS OF BIDDING

1. **Opening Location:** *Sealed proposals will be received at City of Troy Municipal Building, 116 E. Market. St., Troy, IL 62294, until the proposal closing date and time indicated above.*
2. **Opening of advertised proposals:** *The vendor and public are invited, but not required, to attend the opening of proposals. No decision related to an award of a contract or purchase order will be made at the opening.*
3. **Submittal of Proposals:** *Proposals must be submitted in a sealed envelope identified with the bid title and date of closing on the outside. Facsimile, telephone and email proposals will NOT be considered. Proposals will not be accepted after the due date and time.*
4. *All proposals shall be submitted FOB Destination Troy, Illinois 62294, freight prepaid (unless otherwise stated).*
5. **Prices Bid:** *Give unit price, extended total or both if applicable. Price must be stated in units of quantity specified in the bidding specifications. In case of discrepancy in computing the amount of the Bid, the unit price of the Bid will govern. Each item must be bid separately and no attempt is to be made to tie any item or items in with any other item or items.*
6. **Taxes:** *Do NOT include Federal Excise Tax or Sales and Use Tax in the bid prices, as the City is exempt from them by law. Tax Exemption Certificate will be furnished if required.*
7. **Estimated Quantities:** *The estimated quantities indicated in this Request for Proposal represent anticipated requirements only. The right is reserved to exceed or diminish these estimates.*
8. **Bid Forms, Variances, and Alternates:** *Bids must be submitted on attached City bid forms, although additional information may be attached. Bidders must indicate any variances from the City requested specifications and/or terms and conditions, on the Affidavit of Compliance. Otherwise, bidders must fully comply with the City requested specifications and terms and conditions. Alternate Bids may or may not be considered at the sole discretion of the City of Troy.*
9. **“Or Equal” Interpretation:** *When a particular manufacturer’s name or brand is specified along with the words “or equal”, Quotations will be considered on other brands or the product of other manufacturers. On all such Quotations the bidder shall indicate clearly the product (brand and model number) on which he is bidding, and shall supply a sample or sufficient data in detail to enable an intelligent comparison to be made with the particular brand or manufacturer specified. Catalog cuts and technical descriptive data shall be attached to the original copy of the quote where applicable. Failure to submit the above information may be sufficient grounds for the rejection of quote.*
10. **Withdrawal of Bids:** *Bids or proposals may be revised, modified, or withdrawn by the bidder at any time prior to opening. Any such revision, modification, or withdrawal shall be in writing. After the bids are opened, they shall be irrevocable for the period sixty (60) days. Bids or proposals may not be withdrawn or revised after opening unless specified in the RFP.*
11. **Clarification and Addenda:** *Each bidder shall examine all Bid documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries or suggestions, concerning interpretation, clarification, or additional information pertaining to the Request for Proposal shall be made through the Administration Office in writing or through email. The Administration Office shall not be responsible for oral interpretations given by any City employee, representative, or others. The issuance of written addenda is the official method whereby interpretation, clarification, or additional information can be given. It shall be the responsibility of each bidder, prior to submitting their Bid, to contact the Administration Office at phone number 618-667-9924 or jkeeven@troyil.us, to determine if addenda were issued and to make such addenda a part of their Bid. Any and all addendums will be posted on the City’s web site (www.troyil.us) under Current Bid Opportunities.*
12. **Contract Forms:** *Any agreement, contract, or purchase order resulting from the acceptance of a Bid shall be on forms either supplied by or approved by the City.*
13. **Reserved Rights:** *The City reserves the right to make such investigations as it deems necessary to make the determination of the bidder’s responsiveness and responsibility. Such information may include, but shall not be limited to: current financial statement, verification of availability of equipment and personnel, and past performance records.*

14. **The Right to Audit:** *The bidder agrees to furnish supporting detail as may be required by the City to support charges or invoices, to make available for audit purposes all records covering charges pertinent to the purchase, and to make appropriate adjustments in the event discrepancies are found.*
15. **Applicable Law:** *All applicable laws and regulations of the State of Illinois and the City will apply to any resulting agreement, contract, or purchase order. Further, any and all disputes arising out of and/or related in any way to this RFB process or any contract executed after bid acceptance. and/or the work at issue which is the subject of this RPB, shall be filed exclusively in the Circuit Court for the Third Judicial Circuit, Madison County, Illinois.*
16. **Right to Protest:** *Protestors shall seek resolution of their complaints initially with the City Administration Office. Any protest must state the basis upon which the solicitation or award is contested and shall be submitted within ten (10) calendar days after such aggrieved person knew or could have reasonably been expected to know of the facts giving rise thereto.*
17. **Quality Guaranty:** *If any product delivered does not meet applicable specifications or if the product will not produce the effect that the bidder represents to the City, the bidder shall pick up the product from the City at no expense. Also, the Bidder shall refund to the City any money which has been paid for same. The bidder will be responsible for any and all costs and attorney fees in the event the bidder defaults and court action is required.*
18. **Quality Terms:** *The City reserves the right to reject any or all materials if, in its judgment, the item reflects unsatisfactory workmanship, manufacturing, or shipping damages.*
19. **No-Bid:** *In the event you are unable to quote on this requirement, please return the "No-bid Response Form", on or before the bid closing date. Please indicate the reason(s) you are unable to participate in this solicitation.*
20. **Bid Tabulation:** *Bidders may request a copy of the bid tabulation of the Request for Bid through the City's Administration Office.*
21. **Expenses:** *All expenses for making Proposals to the City of Troy are to be borne by the bidder.*
22. **Collusion:** *By offering a submission to this Request for Bid, the bidder certifies the bidder has not divulged, discussed, or compared the Bid with other bidders and has not colluded with any other bidder or parties to this RFB whatsoever. Also, the bidder certifies, and in the case of a joint Bid, each party thereto certifies as to their own organization, that in connection with this RFB:*
 - a. *Any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices and/or cost data, with any other bidder or with any competitor.*
 - b. *Any prices and/or cost data for this Bid have not knowingly been disclosed by the bidder and will not knowingly be disclosed by the bidder prior to the scheduled opening directly or indirectly to any other bidder or to any competitor.*
 - c. *No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a Bid for the purpose of restricting competition.*
 - d. *The only person or persons interested in this Bid, principal or principals are named therein and that no person other than therein mentioned has any interest in this Bid or in the contract to be entered into.*
 - e. *No person or agency has been employed or retained to solicit or secure the contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee exempting bona fide employees or established commercial agencies maintained by the Purchaser for the purpose of doing business.*
23. **Liability and Indemnity:**
 - a. *In no event shall the City be liable to the Contractor for special, indirect, or consequential damages, except those caused by the City's gross negligence or willful or wanton misconduct arising out of or in any way connected with The RFB process or any contract executed after bid acceptance. The maximum liability of the City shall be limited to the amount of money to be paid or received by the City under any contract executed after bid acceptance.*
 - b. *The Contractor shall defend, indemnify and save harmless the City, its elected or appointed officials, agents and employees from and against any and all liability, suits, damages, costs (including attorney fees), losses, outlays and expenses from claims in any manner caused by, or allegedly caused by, or arising out of, or connected with the RFP process or any contract executed after bid acceptance, including, but not limited to, claims for personal injuries, death, property damage, or for damages from the award of this contract to Contractor.*

- c. *The Contractor shall indemnify and hold the City harmless from all wages or overtime compensation due any employees in rendering services pursuant to any contract executed after bid acceptance, including payment of reasonable attorneys' fees and costs in the defense of any claim made under the Fair Labor Standards Act, the Illinois Prevailing Wage Law or any other federal or state law.*
24. **Bid Information is Public:** *All documents submitted with any bid or proposal shall become public documents and subject to Illinois State Statute 5 ILCS140/, which is otherwise known as the "Illinois Sunshine Law". By submitting any document to the City of Troy in connection with a bid or proposal, the submitting party recognizes this and waives any claim against the City of Troy and any of its officers and employees relating to the release of any document or information submitted. Each submitting party shall hold the City of Troy and its officers and employees harmless from any claims arising from the release of any document or information made available to the City of Troy arising from any bid opportunity.*
25. **Authorized Product Representation:** *The successful bidder(s) by virtue of submitting the name and specifications of a manufacturer's product will be required to furnish the named manufacturer's product. By virtue of submission of the stated documents, it will be presumed by the City that the bidder(s) is legally authorized to submit and the successful bidder(s) will be legally bound to perform according to the documents.*
26. **Regulations:** *It shall be the responsibility of each bidder to assure compliance with OSHA, EPA, Federal, State of Illinois, and City rules, regulations, or other requirements, as each may apply.*
27. **Awards:**
- a. *Unless otherwise stated in the Request for Proposal, cash discounts for prompt payment of invoices will not be considered in the evaluation of prices. However, such discounts are encouraged to motivate prompt payment.*
- b. *As the best interest of the City may require, the right is reserved to make awards by item, group of items, all or none, or a combination thereof; to reject any and all Bids or waive any minor irregularity or technicality in Bids received.*
- c. *Awards will be made to the Bidder whose Bid (1) meets the specifications and all other requirements of the Request for Proposal and (2) is the lowest and best Bid, considering price, delivery, responsibility of the bidder, and all other relevant factors.*
28. **Termination of Award:** *Any failure of the bidder to satisfy the requirements of the City shall be reason for termination of the award. Any Bid may be rejected in whole or in part for good cause when in the best interest of the City.*
29. **Budgetary Constraints:** *The City reserves the right to reduce or increase the quantity, retract any item from the Bid, or upon notification, terminate entire agreement without any obligations or penalty based upon availability of funds.*
30. **Insurance:** *The city shall require all contractors performing public works projects or performing work on city property in connection with a contract or purchase order, to maintain insurance of the types and with limits of liability not less than those set out below at the contractor's expense during the term (including the warranty period) of the purchase order from insurers reasonably acceptable to the city covering items, risks and operations required to fulfill the contract or purchase order.*
- a. *Such policies shall name the City of Troy as an additional named insured with limits of liability.*
- i. **Workers' compensation:** *Insurance that the contractor is obliged by law to carry that covers all of contractor's employees performing work under this purchase order ("worker compensation")*
- ii. **Employer's liability insurance:** *Employer's liability insurance with a minimum limit of \$1,000,000 per occurrence/\$2,000,000 aggregate. Such insurance shall protect the city as an alternate employer against claims asserted against the contractor by the contractor's workers as "borrowed servants," statutory employees or maritime employees ("employer' liability")*
- iii. **Commercial or comprehensive general liability insurance:** *Commercial or comprehensive general liability insurance, including contractual liability coverage, with a minimum limit of \$2,000,000 per occurrence/\$5,000,000 aggregate. .*
- iv. **Automobile liability insurance:** *Automobile liability insurance with a combined bodily injury and property damage minimum limit of \$1,000,000 per occurrence/\$2,000,000 aggregate, for all owned and leased vehicles.*
- b. *Builders Risk Insurance for contracts involving unoccupied structures. The Contractor shall secure All Risk Builder's Risk Insurance. Unless specifically authorized by the City, the amount of such insurance shall not be less than the*

total contract price. The policy shall name as insured the Contractor and the City of Troy.

- c. *Subcontracts: in case any or all of this work is sublet, the contractor shall require the subcontractor to procure and maintain all insurance required in subparagraphs (a) and (b) hereof and in like amounts. The contractor shall require any and all subcontractors with whom it enters a contract to perform work on this project to protect the City of Troy through insurance against applicable hazards or risks and shall, upon request from the City, provide evidence of such insurance.*

31. **Requirement for Bid Security:** *Bid Security shall be required for all formal Bids, requiring City Council approval, as set forth in the City of Troy's Purchasing Policy, for the purchase of Capital Improvement items, and City projects entailing engineering or construction. Bid security shall be a bond provided by a surety company authorized to do business in the State of Illinois, or the equivalent in cash, cashier's check or otherwise supplied in a form satisfactory to the City of Troy in an amount equal to 10% of the total amount of the bid. Failure to provide security, as set forth shall result in the City's rejection of bid.*
32. **Withdrawal of Bids:** *After the bids are opened, they shall be irrevocable for the period of up to sixty (60) days from bid opening date. If a bidder is permitted to withdraw its bid before the opening of bids, no action shall be taken against the bidder or the bid security.*
33. **Correction or Withdrawal of Bids:** *Correction or withdrawal of inadvertently erroneous bids after bid opening, or cancellations of awards or contracts based on such bid mistakes shall not be permitted and shall mandate forfeiture of Bid Performance Security to the City of Troy.*
34. **Return of Bid Security:** *The City shall return the security bond to bidders who do not receive the bid. The City shall hold the security bid bond of the awarded bidder until Capital Improvement Project is delivered to the City of Troy or a 100% percent performance bond is issued to the City for awarded contractual services or project construction.*
35. **CONTRACT PERFORMANCE AND BOND PAYMENT:** *When a bid is awarded for contractual services or construction, a bond shall be delivered to the City of Troy and shall become binding on the parties upon the execution of the contract; such bond shall be a performance labor and materials bond satisfactory to the City of Troy, executed by a surety company authorized to do business in the State of Illinois or otherwise secured in a manner satisfactory to the City of Troy, in the amount equal to one hundred percent (100%) of the price specified in the contract. The requirement may be modified upon recommendation of the City Administration, City Council and approved by the City Attorney.*
36. **CONTRACT TERM:** *The term of this contract shall be for the duration and completion of this project.*
37. **COMPLETION TIME:** *The Contractor will be required to commence work under this contract within **Ten (10)** calendar days after the date of receipt by him of the Notice to proceed, to prosecute said work diligently and to complete the work by **May 12th, 2023**. The Contractor is required to provide a sufficient work force and construction management so that no time extension will be granted for delay of contract award, weather conditions, utility conflicts, excavation encountering rock, changing excavation quantities, or Contractor scheduling of equipment or construction progress. The Contractor shall have a superintendent or a responsible foreman on the project at all times when construction is in progress. Any claim for extension of time shall be made in accordance with the City of Troy General Conditions and Technical Specifications. The project is not considered completed until final acceptance by the City of Troy.*

SCOPE OF WORK

Project proposals shall include all labor, material, time, equipment, insurance, etc. for a complete Scope of Work outline below and per plans, specs, and other referenced documents listed in this bid set. Scope of Works consists of the following work items (which also includes all necessary and incidental materials, equipment and work required for the completed system in proper working condition):

1. SITE DEVELOPMENT.

- a. Description: Installation and construction of site improvements per the attached drawings to include, but not limited to the following:
 - i. Grading and Drainage
 - ii. Storm Sewer Pipe
 - iii. Sanitary Sewer Pipe and connections to existing
 - iv. Waterline pipe, metering, and connection
 - v. Pavements including asphalt parking lot and concrete sidewalk
 - vi. Foundations including foundations for building and open shelter. Any footing required for alternative bid items to be included in each said alternate.
 - vii. Splash Pad/Water Play Area – refer to description below.
 - viii. Nature based Play Area – refer to description below.
 - ix. Pre-Engineered Building – refer to description below.
 - x. Landscaping including lawn seed/sod, native plantings, rpm trees, shrubs/grasses, and ornamental/shade trees.

2. SPLASH PAD/WATER PLAY AREA.

- a. Description: Installation and construction of splash pad/water play area to consist of embedded, powder coated, ground spray features per the attached drawings.
- b. Equipment: Recirculation system including cartridge filter skid, chemical treatment system, feature skid, distribution manifold, prefabricated water reservoir, step pad activator, control panel, collector box, and rain diverting waste valve box will be provided, shipped to site, by LSI (Landscape Structures, Inc.) under a separate contract, refer to attached drawings.
- c. Design and Construction Documents: Will be provided by LSI (Landscape Structures, Inc.) under a separate contract. LSI will provide contractor with signed and sealed drawings for inclusion into Application for swimming facility construction permit to IDPH.
- d. System Startup and Training: Will be provided by LSI (Landscape Structures, Inc.) under a separate contract.
- e. Contractor: Installation of splash pad/water play area equipment and associated concrete decking to be performed by a IDPH pre-qualified contractor, pre-qualified contractor will be responsible for obtaining IDPH permit for splash pad.

3. NATURE BASED PLAY FEATURES:

- a. Description: Installation of Nature Inspired Play Area to consist of freestanding nature inspired play features constructed of natural wood products or FRC (fiberglass reinforced concrete) molded to emulate natural wood.
- b. Equipment: Play equipment including log steppers, crawl tunnel, rock climber, and log balance beam will be provided, shipped to site, by LSI (Landscape Structures, Inc.) under a separate contract, refer to attached drawings.
- c. Playground Surfacing: Poured-in-Place rubber surfacing will be provided and installed by LSI (Landscape Structures, Inc.) under a separate contract.

4. PRE-ENGINEERED SHELTER/RESTROOM BUILDING.

- a. Description: This work shall include furnishing the sealed architectural, structural, mechanical, and electrical plan sets and the furnishing and installation of the structural, mechanical, and electrical building components as a complete, pre-designed restroom building package as shown on drawings and as

specified herein. Building shall consist of an approximate 12'-8" x 16'-8" CMU block building containing an 8'-8" x 8'-4" family restroom and mechanical room with a 16'-0" x 16'-8" open wood shelter.

- b. Basis of Design: Building design based on drawings and specifications provided by:
 - i. Supplier: Romtec, Inc.
 - ii. Address: 18240 North Bank Road, Roseburg, OR 97470
 - iii. Phone: 541-496-0801
 - c. Substitutions: Alternate methods of delivery will be considered including contractor designed and constructed as long as building meets the requirements set forth in the contract documents
5. Alternative Items:
- a. Sidewalk and Boardwalk (Along Bradley R. Smith Drive) – Installation and construction of sidewalk and boardwalk along Bradley R. Smith Drive as shown and detailed in the plans and specifications
 - b. Fishing Dock and Gangway – Design, Engineering, and installation of the fishing dock and gangway as shown and detailed in the plans and specifications. Plans to be sealed by licensed engineer in the State of Illinois and should be designed in accordance with all local codes and standards.
 - c. Landscaping – RMP Trees – Installation of RPM trees as shown and detailed in the plans and specifications.
 - d. Landscape Maintenance – Native Plantings (2 yr. Option). – Provide 2-year maintenance of native plantings after initial 1 year maintenance period. Refer to plans and specifications

City of Troy, IL

Bid Form

SUBMITTED BY: _____

(Company Name)

The pricing information is hereby provided in accordance with the Terms and Conditions of this **Request for Bid**. *Provide the cost for each bid item listed.*

Bid item	Description	Cost
1	Site Development	
	Total Base Bid Items	
Alt. 1	Bradley R Smith Drive Sidewalk and Boardwalk	
Alt. 2	Fishing Dock and Gangway	
Alt. 3	RPM Trees	
Alt. 4	Native Seed Maintenance (2 year option)	

Onsite Visit Made by: NOT REQUIRED	Date	
Upon notice to proceed, contractor will complete the project in (calendar days)		
Bid Security enclosed: (10% of total bid)		

The City of Troy reserves the right to accept or refuse any or all bids. Each Bid will be scored based on the following criteria: Play Value of Splashpad Design (25%), Play Value of Nature Based Playground (20%), Quality of Materials (20%), Cost (15%), Project Experience/References (15%), and Schedule (5%).

RETURN WITH BID

VENDOR REFERENCES:

The proposal must include the following information:

1. List at least three (3) references for whom you have performed similar products/services for other public entities, local governments or private companies.

Company Name: _____ Address: _____
_____ Contact _____

Person: _____

Telephone #: () _____

Company Name: _____ Address: _____
_____ Contact _____

Person: _____

Telephone #: () _____

Company Name: _____ Address: _____
_____ Contact _____

Person: _____

Telephone #: () _____

2. State how long you have been operating under your present company name?

3. Have you ever defaulted on a contract? _____

If so, where and why? _____

RETURN WITH BID

City of Troy
“No-Bid Response Form”
Serenade Park Improvements

COMPLETE AND RETURN THIS FORM ONLY IF YOU DO NOT WANT TO SUBMIT A PROPOSAL RESPONSE.

If you do not wish to respond to this proposal request, but would like to remain on the City of Troy vendor list, please fill out this form and return to the Administration Office by email.

RETURN TO: Robert Hancock, Public Works Director
Email: rhancock@troyil.us

We the undersigned have declined to bid on your proposal for the following reasons:

- Insufficient time to respond to invitation for bid.
- We do not offer this product/s or equivalent.
- Unable to meet specifications.
- Unable to meet insurance requirements.
- Our schedule would not allow us to perform.
- Specifications are to “tight”, i.e. geared towards one brand or manufacturer.
- Specifications unclear.
- Other (please specify below).

Comments: _____

VENDOR INFORMATION:

Company Name: _____
Signature and Title: _____
Phone #: _____
Email: _____

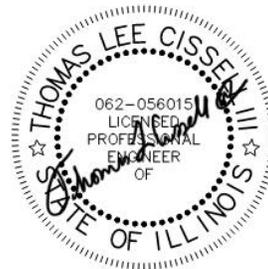
RETURN WITH BID

PROJECT MANUAL

SERENDADE PARK

SPECIAL PROVISIONS TROY, ILLINOIS

CONTRACT: General Contract



06/01/2022
EXP: 11/30/2023

BY:



Collinsville
100 Lanter Court, Suite 1
Collinsville, IL 62234
618.345.2200

St. Louis
720 Olive, Suite 700
St. Louis, MO 63101
314.588.8381

Belleville
1 South Church Street
Belleville, IL 62220
618.416.4688

St. Charles
330 North Main, Suite 201
St. Charles, MO 63301
636.493.6277

BID DOCUMENTS

DATE: June 1, 2022

SPECIAL PROVISIONS

**CITY OF TROY
SERENADE PARK
TROY, ILLINOIS**

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SPECIAL PROVISIONS

CITY OF TROY SERENADE PARK TROY, ILLINOIS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2022, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways" and the "Manual of Test Procedures of Materials" in effect on the date of the invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein and the "Standard Specifications for Water and Sewer Construction in Illinois", Adopted January 2020 which apply to and govern the construction of City of Troy Serenade Park, Troy, Illinois, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

SHOP DRAWINGS

The Contractor shall submit shop drawings of the following items according to Articles 1042.03(b) and 105.04 of the "Standard Specifications for Road and Bridge Construction":

- Bicycle Rack
- Detectable Warnings
- Precast Concrete Parking Block
- Sign Panel Assembly
- Water Pipe, Sewer Pipe, and Fittings

Submit shop drawings for review and approval to:

Mr. Tom Cissell
Oates Associates, Inc.
20 East Main Street
Belleville, Illinois 62220

A maximum of two reviews by the Engineer will be provided for each shop drawing submittal. If any additional reviews are required, the Contractor shall pay the Engineer for all costs incurred at an hourly rate of \$200. Payment for additional reviews shall be made directly to the City.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

The Contractor and Owner will be required to complete a Notice of Intent (NOI) on-line form and the Contractor's Certification Statement (attached), in compliance with the NPDES Phase II guidelines. These forms will be completed by the Engineer, prior to the pre-construction meeting. Work may commence 30 calendar days after the NOI form is submitted to the Illinois Environmental Protection Agency for the purpose of obtaining a General Construction Permit.

The Storm Water Pollution Prevention Plan, the General Permit, and the Contractor's Certification Statement must be kept on site during working hours. Compliance with this special provision shall be considered as included in the contract unit prices for the various items of work involved.

MEASUREMENT AND PAYMENT

Delete all Articles regarding "Method of Measurement" and "Basis of Payment" in the "Standard Specifications for Road and Bridge Construction".

EMBANKMENT

This work shall consist of the construction of embankments according to Section 205 of the "Standard Specifications for Road and Bridge Construction", except as modified herein.

Material, which is proposed for use by the Contractor to be used for embankment construction, must be inspected and approved by the Engineer. In order to be approved for use as embankment material, it must meet all applicable requirements of Sections 202, 203, 204, 205, and 502 of the "Standard Specifications for Road and Bridge Construction", and meet the following requirements:

1. It must fall in one of the following Highway Research Board Classifications: A-1, A-2, A-3, A-4, A-6, or A-7-6.
2. It shall have a Liquid Limit of 49 or less.
3. Any A-4, A-6, or A-7-6 material to be used as borrow for embankment construction shall not have an organic content greater than 7 percent.
4. Classification of the material for points 1 and 2 shall be determined according to the latest AASHTO Designation: M 145.
5. When tested for density in place, all soil classified as A-4 shall not contain more than 100 percent of optimum moisture content determined according to AASHTO T-99.

The outside 10 ft. of those portions of the embankment that will be permanently exposed in the completed roadway shall be constructed using native materials of a classification that will support vegetation and contain a plasticity index of 12 or greater as directed by the Engineer.

Those portions of the lime modified soil layer shall be constructed with a minimum thickness of 18 in. of "reactive" soil as defined by Article 1009.02 of the "Standard Specifications for Road and Bridge Construction".

Existing slopes steeper than 5H:1V shall be benched to provide a level surface prior to placing any fill material.

TRENCH BACKFILL

This work shall be constructed according to Section 208 of the "Standard Specifications for Road and Bridge Construction", except as modified herein:

Fine aggregate according to Article 1003.04 may be used for bedding only, except as follows: Fine aggregate will be required for trench backfill within 2 ft. of all gas mains and gas service lines that are exposed during trenching operations.

Material for trench backfill shall be coarse aggregate gradation CA 6, CA 10 or CA 18 as specified in Article 1004.05.

Trench backfill material shall be compacted according to Method 1, as specified in Article 550.07(a) of the "Standard Specifications for Road and Bridge Construction".

STONE RIPRAP, CLASS A3

This work shall consist of furnishing, transporting and placing a protective course of stone as shown on the plans, according to Section 281 of the "Standard Specifications for Road and Bridge Construction", except as modified herein.

Filter fabric for use with riprap is required and shall be installed according to Section 282 of the "Standard Specifications for Road and Bridge Construction". A fabric weight of 6 oz. / sq. yd. shall be used.

The stone riprap shall be gradation RR 3, quality designation A. The minimum thickness of riprap shall be 12 in.

This work shall include all excavation and material necessary for proper installation of the riprap. Filter Fabric will be included in the cost of this item.

PROCESSING MODIFIED SOIL, THICKNESS SPECIFIED

This work shall consist of constructing a modified soil layer composed of soil, water and lime according to Section 302 of the "Standard Specifications for Road and Bridge Construction".

The soil modifier shall consist of dry lime at the locations shown on the plans, and as directed by the Engineer. The estimated lime-to-soil (by dry weight) ratio is 5 percent.

The application of modifiers shall be accomplished by slurry placement method or with a mechanical spreader capable of applying the modifier uniformly and minimizing the airborne release of dry modifiers, or other method approved by the Engineer.

INCIDENTAL HOT-MIX ASPHALT SURFACING

This work shall consist of the preparation of the base, the application of bituminous priming material and aggregate, and the construction of a hot-mix asphalt (HMA) surface on a prepared base at the locations shown on the plans according to Section 408 the "Standard Specifications for Road and Bridge Construction."

Bituminous prime coat and prime coat aggregate are required, but will not be measured separately for payment.

This work shall include the bituminous priming material and aggregate for covering the prime coat.

PORTLAND CEMENT CONCRETE SIDEWALK

This work shall consist of constructing Portland cement concrete sidewalk at the locations shown on the plans and according to Section 420 of the "Standard Specifications for Road and Bridge Construction."

The concrete sidewalk shall be constructed at slopes that meet ADA requirements. Proposed slope may be adjusted if needed to meet ADA requirements with approval of the Engineer.

EXPANSION JOINTS

This work shall consist of constructing expansion joints in concrete sidewalk according to Articles 424.07 of the "Standard Specifications for Road and Bridge Construction" and Highway Standard 424001 except as modified herein:

Expansion joints required under Article 424.07(b) shall be preformed fiber joint filler according to Article 1051.04 of the "Standard Specifications for Road and Bridge Construction" and shall have a perforated tear off wood or plastic strip to provide a uniform 3/4 in. reservoir/channel for the required sealant.

Expansion joints required under Article 424.07(a) shall consist of preformed flexible foam expansion joint filler according to Article 1051.09 of the "Standard Specifications for Road and Bridge Construction" and shall have a pre-scored removable strip to provide a uniform 1/2 in. reservoir/channel for the required sealant.

Expansion joint filler and backer rod materials shall be a non-impregnated type that will not bond with the sealant.

Expansion joints shall be sealed with self-leveling (pour grade), or nonsag (gun) grade urethane sealant. The color of the sealant shall be limestone, unless otherwise approved by the Engineer.

DETECTABLE WARNINGS

This work shall consist of constructing detectable warning surfaces in curb ramps and other locations shown on the plans according to Articles 424.09 of the "Standard Specifications for Road and Bridge Construction" and Highway Standard 424006 and 424026, and as modified herein:

Materials shall be:

Cast-in-Place replaceable detectable warning surface panel embedded in concrete with a heavy-duty metal anchoring system by ADA Solutions, Inc., or approved equal. Panels shall consist of an exterior grade homogenous glass, carbon and fiberglass reinforced composite material which is colorfast and UV stable. Product shall incorporate an in-line truncated dome pattern.

Color shall be black.

Panel sections shall be of equal size and dimensions with no fragments unless approved by the Engineer.

Detectable warning panels shall be protected when applying curing compound to the adjoining concrete sidewalk. Any overspray on the panels shall be cleaned immediately to the satisfaction of the Engineer.

Joints between panels and around the perimeter of the panels shall be caulked with a self-leveling (pour grade), or nonsag (gun) grade urethane sealant. The color of the sealant shall be limestone, unless otherwise approved by the Engineer.

The concrete thickness under the panels shall be increased 1 inch. The subgrade shall be well-drained and properly compacted. Forms shall be positioned for proper grade, slope, and uniform slab thickness.

Detectable warning panels shall be placed as shown in the drawings and shall have visual contrast with the adjoining concrete surface. Adequate drainage shall be provided to prevent the accumulation of water and debris at the bottom of the ramp.

Panels shall be installed immediately in fresh concrete and adjusted to grade to ensure 100% surface contact with square edges of panels butted tightly together. The base of the truncated domes shall be set flush with the adjoining concrete surface. The maximum tolerance between the panels and the adjoining surface is 1/16 inch. Immediately after placement, the panels shall be checked for slope, elevation and proper grade. The concrete around the panels shall be edged with 1/8 in. radius edger and finished according to the contract specifications.

PIPE CULVERTS, CLASS A, TYPE AND DIAMETER SPECIFIED

This work shall consist of furnishing and installing pipe culverts of the required type and inside diameter at locations shown on the plans according to Section 542 of the "Standard Specifications for Road and Bridge Construction".

All pipe culverts shall be Reinforced Concrete Culvert, Storm Drain and Sewer Pipe according to Article 1042.06 of the "Standard Specifications for Road and Bridge Construction". Each pipe section shall be sealed with a preformed flexible rubber gasket. The gasket shall be confined in a recessed groove cast into the spigot of the pipe, which will hold the gasket in place when the joint is assembled, forming a watertight seal, according to ASTM C443.

SANITARY SERVICE SEWERS

This work shall consist of furnishing and installing a PVC sanitary service lateral and related components as shown on the plans and according to Section 550 of the "Standard Specifications for Road and Bridge Construction" and Division III, Sanitary Sewers, of the "Standard Specifications for Water and Sewer Construction in Illinois".

A PVC sanitary service lateral and connection to the public sewer shall be installed in compliance with requirements of the City of Troy.

An ADS Inserta Tee, or approved equal, shall be installed at the connection to the public sewer. Inserta Tee service connections shall consist of a PVC hub, rubber sleeve and stainless steel band. Connections shall be a compression fit into the cored wall of a mainline pipe. The hub shall be made from heavy-duty PVC material. Stainless steel clamping assembly shall be made from minimum 301 grade steel. Rubber sleeve and gasket, when applicable, shall meet the requirements of ASTM F477. Gaskets shall be installed by the manufacturer. The water-based solution provided the manufacturer shall be used during assembly. Pipe lube shall not be used. A watertight bell connection meeting the requirements of ASTM D3212 shall be utilized. To assure watertightness, field performance verification may be accomplished in accordance with manufacturer's recommended testing procedure. Installation shall be in accordance with manufacturer's recommended installation guidelines.

Testing and inspection of the sanitary service lateral shall be performed in accordance with Section 31 of "Standard Specifications for Water and Sewer Construction in Illinois". Do not enclose, cover, or put into service before inspection and approval. Schedule tests and inspections a least 24 hours in advance with the City of Troy. Deflection, exfiltration of air under pressure and exfiltration of water tests shall be performed. Clean dirt and superfluous material from interior of piping and flush with potable water.

WATER SERVICE LINE

This work shall consist of furnishing and installing a water service line and related components as shown on the plans and according to Section 562 of the "Standard

Specifications for Road and Bridge Construction” and Division IV, Water Distribution, of the “Standard Specifications for Water and Sewer Construction in Illinois”.

Underground copper water service pipe installation shall meet requirements of Section 40-20.06A of the “Standard Specifications for Water and Sewer Construction in Illinois” and comply with requirements of the City of Troy, including backflow prevention, materials, installation, testing, and disinfection. Use proprietary crimping tool and procedure recommended by copper pressure-seal fitting manufacturer for joints. The water service line tap and meter shall be provided by The City of Troy at no cost to the Contractor.

Terminate water service piping at building wall until building water piping systems are installed. Terminate piping with caps, plugs or flanges as required for piping material. Make connections to building water piping systems when those systems are installed. Install underground piping with restrained joints at horizontal and vertical changes in direction. Use restrained joint piping, thrust blocks, anchors, tie-rods and clamps, and other supports. Conduct piping tests before joints are covered and after concrete thrust blocks have hardened sufficiently. Fill pipeline with potable water 24 hours before testing and apply test pressure to stabilize system. Perform hydrostatic testing according to Section 41 of the “Standard Specifications for Water and Sewer Construction in Illinois”.

TELESCOPING STEEL SIGN SUPPORT

This item shall consist of furnishing and installing telescoping steel sign supports according to Sections 728, 1006, and 1093 of the “Standard Specification for Road and Bridge Construction”, except as modified herein.

Telescoping steel sign supports and sign brackets shall be coated as specified below. The color of the top coating shall be black. The coating shall be applied only after the telescoping steel sign support has been fabricated. The final product shall not contain cracks in the coating, ripples in the curved areas, not any damage due to fabrications and or shipping.

- a. Telescoping steel sign support shall be galvanized according to Articles 1093.01 and 1093.02 of the “Standard Specifications for Road and Bridge Construction”. The galvanizing method shall provide surfaces suitable for painting.
- b. Prepare all galvanized surfaces to be painted in accordance with ASTM D 6386 and the manufacturer of the coating system’s specifications. Provide a clean and suitable galvanized surface that maximizes coating system adhesion.
- c. Measure the thickness of the zinc coating after completion of surface preparation using a magnetic thickness gage to ensure sufficient galvanizing remains on the substrate to meet the requirements listed in AASHTO M 111. Correct any deficient areas to meet the requirements listed in the Standard Specifications prior to painting.

- d. All galvanized exterior surfaces visually exposed are to be coated with a urethane or triglycidly isocyanurate (TGIC) polyester powder coating to a minimum dry film thickness (DFT) of 2.0 mils. Prior to application, the surfaces to be powder coated shall be mechanically etched by brush blasting and the zinc coated substrate preheated to 230 °C (450 °F) for a minimum of one hour in a gas fired convection oven. The coating shall be electrostatically applied and cured by elevating the zinc-coated substrate temperature to a minimum of 180 °C (350 °F) in a gas-fired convection oven.
- e. Manufacturer shall certify:

Impact Resistance – With the finish surface at room temperature, subject it to a 160 inch-pound direct force by use of a Gardner variable impact tester, Model 1G-1120. Evaluate the test per ASTM D-2794.

Adhesion – Using a sharp blade, scribe a series of eight parallel cuts through the finish of the base material. Scribe another series of eight parallel cuts at a right angle to and crossing the former cuts to form 1/8 inch squares. Press a strip of pressure sensitive adhesive tape (Scotch Brand No 600) over the squares. After two minutes, remove the tape. Results must be level 4 or better as described in ASTM-3359-B.

Salt spray resistance shall be according to ASTM B-117.
Humidity Resistance shall be according to ASTM D-2247.

Weatherability – Power painted products shall meet the minimum weatherability standards as set forth in ASTM 336.

- f. Prior to painting, the Contractor shall provide the Engineer product data sheets including Material Safety Data Sheets on preparation material, prime materials and finish materials. Product data sheets shall include manufacturer recommendations for surface preparation and paint application. The contractor shall also furnish manufacturer's certification attesting that the materials supplied conform to the requirements of these specifications.
- g. Prior to shipment, telescoping steel sign supports shall be protected so that shipping does not cause damage to the painted surface. The Engineer will reject items that exhibit paint damage upon delivery. After delivery, the Contractor shall take care not to damage the painted surface. The Contractor shall replace, at their expense, any painted items that exhibit paint damage as directed by the Engineer.

PIPE BOLLARDS

This work shall consist of furnishing, installing and painting bollards at the locations shown on the plans as directed by the Engineer.

Steel pipe shall be Schedule 40. Installation shall be in-ground and the steel pipe shall be filled with concrete and rounded-off to form a smooth convex cap.

This work shall include all primer, paint, concrete and foundation work as detailed on the plans.

PAINT PAVEMENT MARKINGS, TYPE SPECIFIED

This work shall consist of furnishing and applying pavement marking according to Section 780 of the "Standard Specifications for Road and Bridge Construction".

This work shall include application of two coats of paint for all paint pavement markings.

Glass beads are not required.

UNDERGROUND ELECTRIC SERVICE INSTALLATION

This work shall consist of furnishing and installing an underground electrical service installation.

The direct buried conduit system for the new 200-amp single phase electric service as shown on the plans shall be in accordance with Ameren Illinois "Specifications for Customer-Installed Underground Distribution Facilities (Non-Residential)" and the City of Troy "Electric Service Installation Guide".

All conduits for primary voltage conductors shall be electrical grade, rigid, nonmetallic, gray PVC, Schedule 40 when below grade and Schedule 80 when above grade. The conduit size shall be a minimum of 2-1/2" with a minimum of 42" of cover. The backfill material shall be 1/4" minus limestone screenings where beneath proposed paved surfaces.

All conduit, wire, enclosures, meters, circuit breakers, outlets, connectors, etc. from the transformer to the building and in the building shall be provided according to the City's Building Code. The Contractor shall supply a full submittal package sealed by a professional engineer that states the materials and equipment provided will provide a full-functioning and Code compliant project.

BICYCLE RACKS

This work shall consist of furnishing and installing bike racks at locations and according to the details shown on the plans. This work shall be performed according to the "Supplemental Specifications and Recurring Special Provisions", and as specified herein.

Bike rack shall be Metro 9-bike / 3 loop rack, or approved equal, powder coated, and shall be ground mounted in accordance with manufacturers recommendations. The concrete pad requirements shall match that of the adjacent concrete sidewalk with 4 in. of aggregate base and 5 in. of concrete with welded wire fabric.

SIGN PANEL ASSEMBLY

This work shall consist of furnishing and installing sign panel assemblies at the required locations show on the plans and in accordance with applicable portions of Sections 720, 728, and 729 of the "Standard Specifications for Road and Bridge Construction", the Manual on Uniform Traffic Control Devices and as directed by the Engineer. This work shall include sign panels, complete with sign faces, legend, supplemental panels, posts, mounting hardware, and appurtenances.

The backs of all sign panels shall be painted black to match the sign post.

Sign panel assemblies will be measured as each and shall include the post, all sign panels, supplemental panels, and appurtenances.

PARKING BLOCKS

This work shall consist of furnishing and installing precast concrete parking blocks at the required locations and according to the construction details shown on the plans.

Material shall be precast concrete. Parking blocks shall be set two feet from the end of the parking space. Parking blocks shall be secured in place with 5/8 in. x 24 in. iron pins driven through the pavement. Pilot holes shall be drilled through concrete parking lot pavement prior to driving the iron pins.

STATUS OF UTILITIES TO BE ADJUSTED

<u>NAME AND ADDRESS OF UTILITY</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>ESTIMATED DATE OF COMPLETION</u>
<u>City of Troy (Water & Sewer)</u> 116 East Market Street Troy, IL 62294 Contact Person: Rob Hancock Phone: (618) 667-9924	Water	Existing 12" main extends along the ROW on the east side of SRA Bradley R Smith Drive. A 2" service line to the restroom facility is proposed.	Tap & meter for new service to be completed by City.
	Sewer	Existing 10" main extends along the ROW on the east side of SRA Bradley R Smith Drive. An 8" service line to the restroom facility is proposed.	No main adjustments anticipated
<u>Ameren</u> 2600 North Center Maryville, IL 62062 Contact Person: Penny Cunningham Phone: (618) 346-1275	Gas	No known conflicts.	No known conflict
	Electric	The existing underground electric line is located along the east side of the ROW on SRA Bradley R Smith Drive. An underground service line is proposed to the new restroom facilities at 1932 SRA Bradley R Smith Drive.	TBD

The above represents the best information of the Department or responsible Local Agency and is only included for the convenience of the Contractor. The applicable provisions of Section 102 and Articles 105.07, and 107.20 of the "Standard Specifications for Road and Bridge Construction" shall apply.

Underground facilities, structures and utilities have been plotted from available surveys and records. Their locations must be considered to be approximate only. It is possible there may be others, the existence of which is not presently known or shown. Such information represents only the opinion of the Local Agency and their Engineer as to the location of such utilities and is only included for the convenience of the bidder. The Local Agency and their Engineer assume no responsibility in respect to the sufficiency or the accuracy of the information shown on the plans relative to the location of underground utility facilities.

If any utility adjustment or removal has not been completed when required by the Contractor's operation, the Contractor should notify the Engineer in writing. A request for an extension of time will be considered to the extent the Contractor's operations were affected.

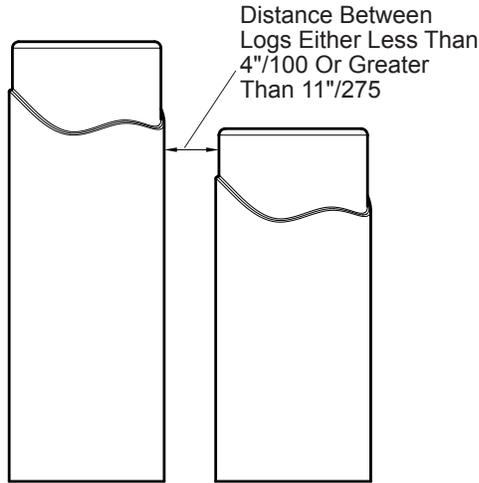
APPENDIX A

**CITY OF TROY
SERENADE PARK
TROY, ILLINOIS**

PLAYGROUND INSTALLATION INSTRUCTIONS

LANDSCAPE STRUCTURES 13 PAGES

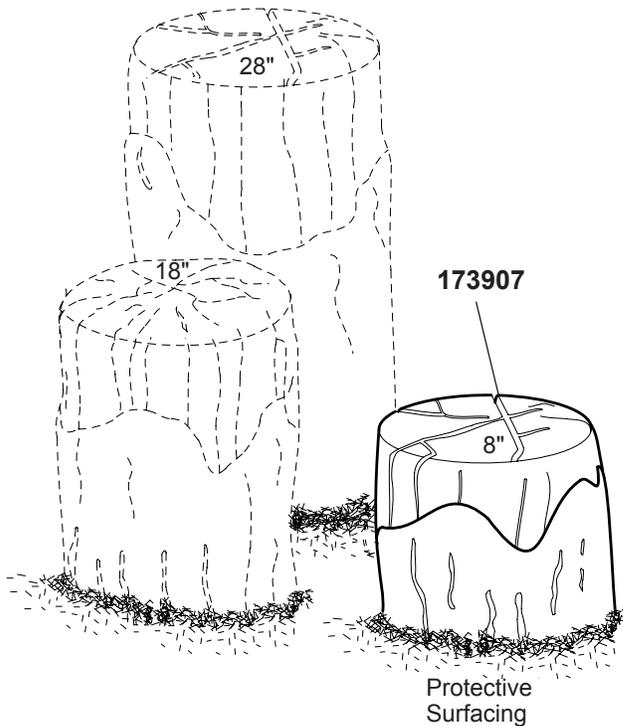
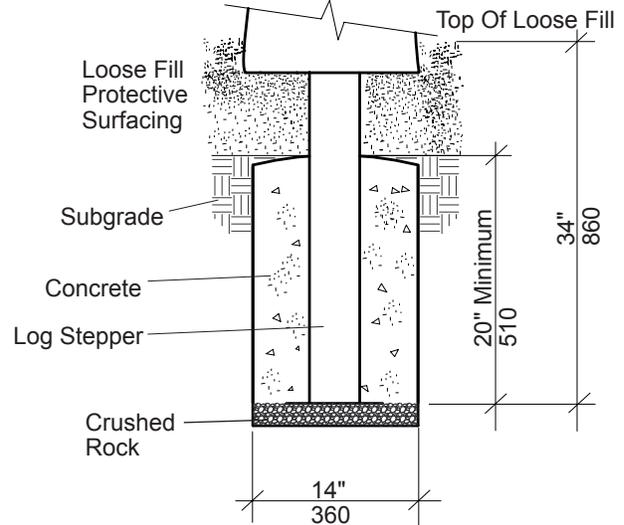
**DETAIL
LOG STEPPER
SPACING**



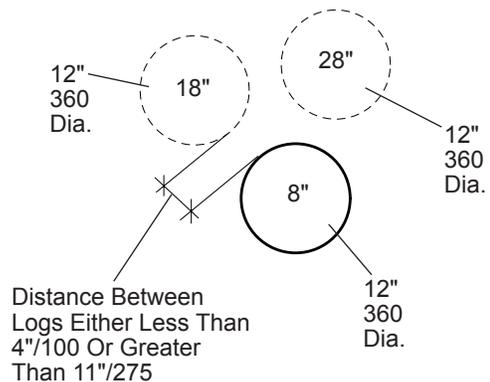
SAFETY NOTE
Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

20070000

**DETAIL
DIRECT BURY**



**PLAN VIEW/FOOTING LAYOUT
(LAYOUT VARIES - SEE YOUR PLAN)**



Play Naturally™

- 173907 8" Height (Shown)
- 173908 18" Height
- 173909 28" Height

Climbers

Log Steppers

Parts List

Part#	Description	Qty.
200691	8" Log Stepper (DB), Natural.....	*
200692	18" Log Stepper (DB), Natural.....	*
200693	28" Log Stepper (DB), Natural.....	*
224345	Warning Label Package 2-12 (8" Stepper Only)....	1
183064	Label Warning.....	1
200331	Label 2-5 Yrs.	1
200332	Label 2-12 Yrs.	1
200333	Label 5-12 Yrs.	1

DB = Direct Bury

* = Quantity Determined By Your Order

Specifications

Log Stepper Assy.: (Footer Post) Weldment comprised of 5" O.D. x 11 GA. (.120") wall galvanized steel tubing and 3/16" HRPO steel plate. Finish: ProShield, color specified.
(Log Stepper-fully assembled) Glass reinforced wet cast solid pour concrete product. Finish: Latex paint made for concrete, natural colors.

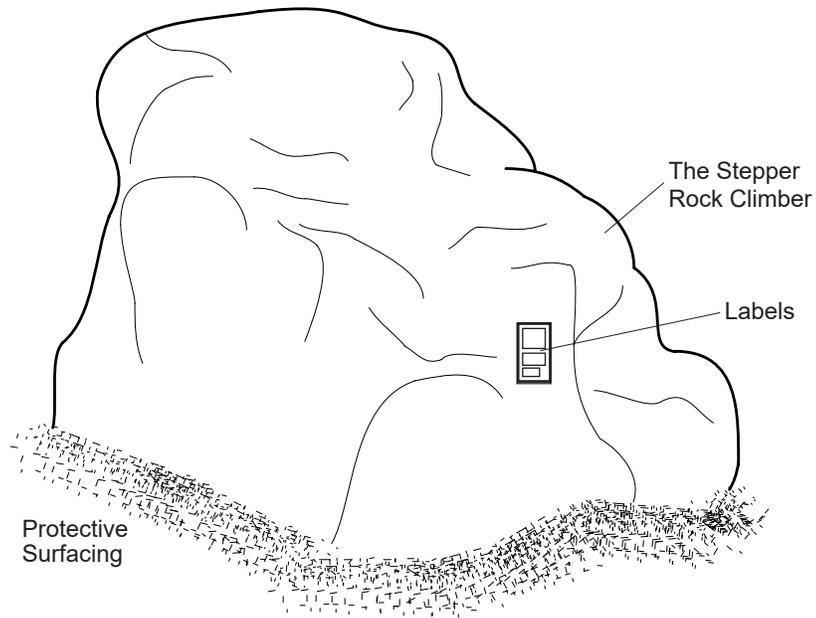
Installation Time: Approx. 1/2 man hour each

Concrete Req.: Approx. 1.78 cu. ft. each

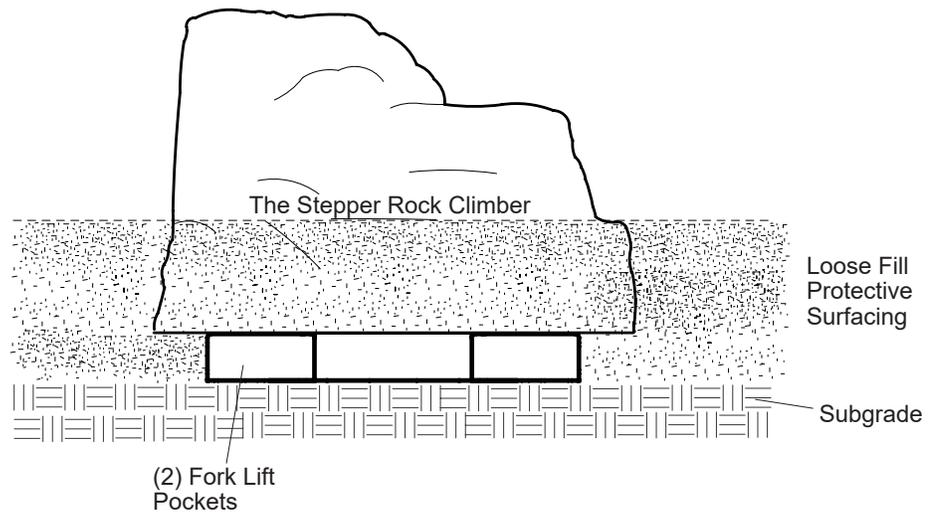
Weight:
 8" - 162 lbs.
 18" - 230 lbs.
 28" - 424 lbs.

Installation Instructions

- 1) **(Direct Bury)** Dig footing as shown. See your Plan View/Footing Layout.
- 2) To unload the log steppers and place in footing holes, a "Lull" type material handler and strap are recommended. Position log steppers in footing holes at dimensions shown, and prop in plumb position. With log steppers and handrail plumb, pour concrete footings. Allow concrete footings to cure for a minimum of 72 hours before users are allowed to play on the structure.
- 3) **(8" Stepper Only)** Apply the warning label and age label for the intended age range.
- 4) Install protective surfacing before users are allowed to play on the structure



**DETAIL
 FORK LIFT POCKETS**



Play Naturally™

Nature-Inspired Climbers 160419 The Stepper™ Rock Climber



160419 The Stepper™ Rock Climber

Parts List

Part#	Description	Qty.
173221	The Stepper Rock Climber Assembly	1
224345	Warning Label Package, 2-12 Yrs.....	1
183064	Warning Label.....	1
200331	Label 2-5 Yrs.....	1
200332	Label 2-12 Yrs.....	1
200333	Label 5-12 Yrs.....	1

Specifications

Stepper Assembly: (Base) Weldment comprised of 1/4" (.250") HRPO sheet steel and 1/8" (.125") HRPO steel plate. Finish: ProShield®. (Stepper-fully assembled) Glass reinforced wet cast solid pour concrete product. Finish: Latex paint made for concrete, Stone in color.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 1/2 man hour

Weight: 1150 lbs.

Min. Use Zone: 6' (1,83 m)

Area Required: 15' 4" x 14' 9" (4,67 m x 4,50 m)

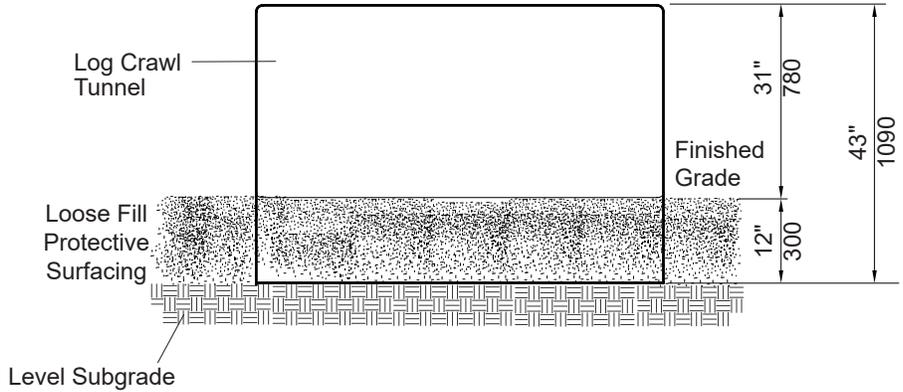
Actual Size: Stepper measures 40" x 33" x 26" high (1020 mm x 840 mm x 660 mm high)

Fall Height: Varies based on surfacing.

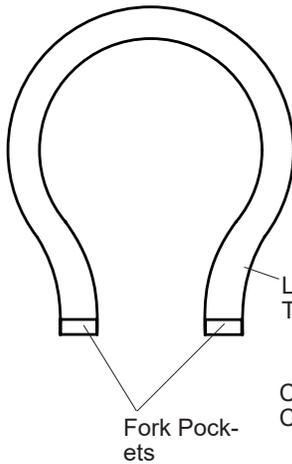
Installation Instructions

- 1) To unload The Stepper Rock Climber a fork lift is recommended. Pick up The Stepper Rock Climber by inserting the fork lift forks into the fork lift pockets. Be very careful to keep The Stepper Rock Climber to the ground when raising or lowering. Do not tip The Stepper Rock Climber on a corner or edge. Do not contact the concrete face of The Stepper Rock Climber with material handler forks, chipping can occur.
- 2) Apply the warning label and age label for the intended age range.
- 3) Install protective surfacing before users are allowed to play on the structure.
- 4) **NOTE: After installation if Touch-up/Repairs are needed, contact Landscape Structures at 1-888-574-4678.**

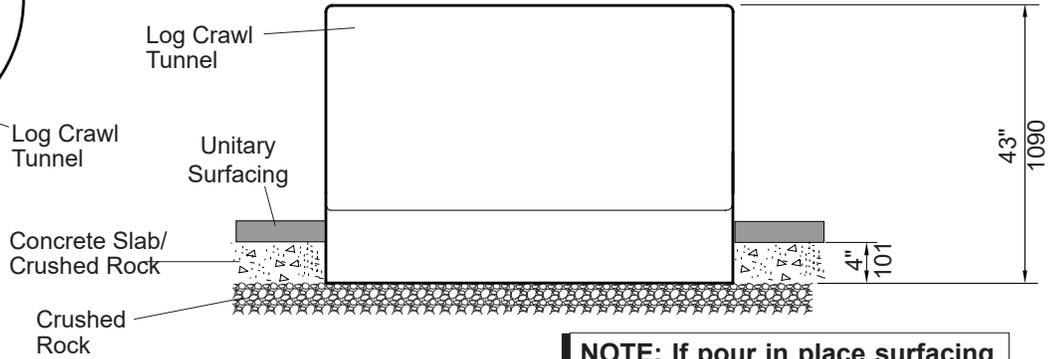
Loose Fill Protective Surfacing



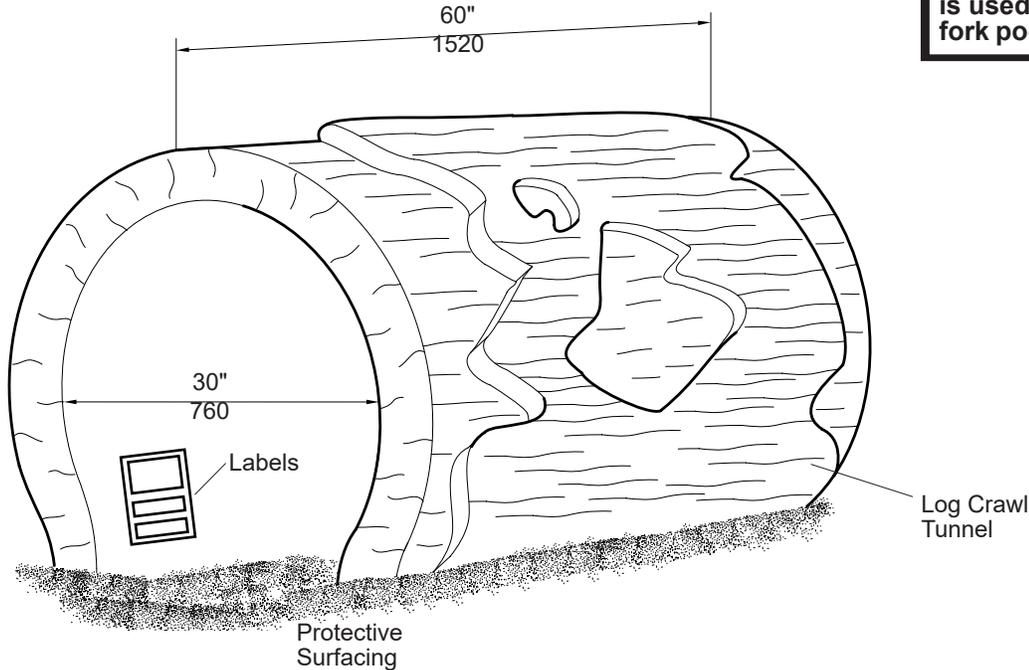
**DETAIL
END VIEW**



Unitary Surfacing



NOTE: If pour in place surfacing is used, blend surfacing to cover fork pockets.



Play Naturally™

More Fun

173594 Log Crawl Tunnel

Parts List

Part#	Description	Qty.
175710	Log Crawl Tunnel.....	1
224345	Warning Label Package 2-12.....	1
183064	Label Warning	1
200331	Label 2-5 Yrs	1
200332	Label 2-12 Yrs.....	1
200333	Label 5-12 Yrs.....	1

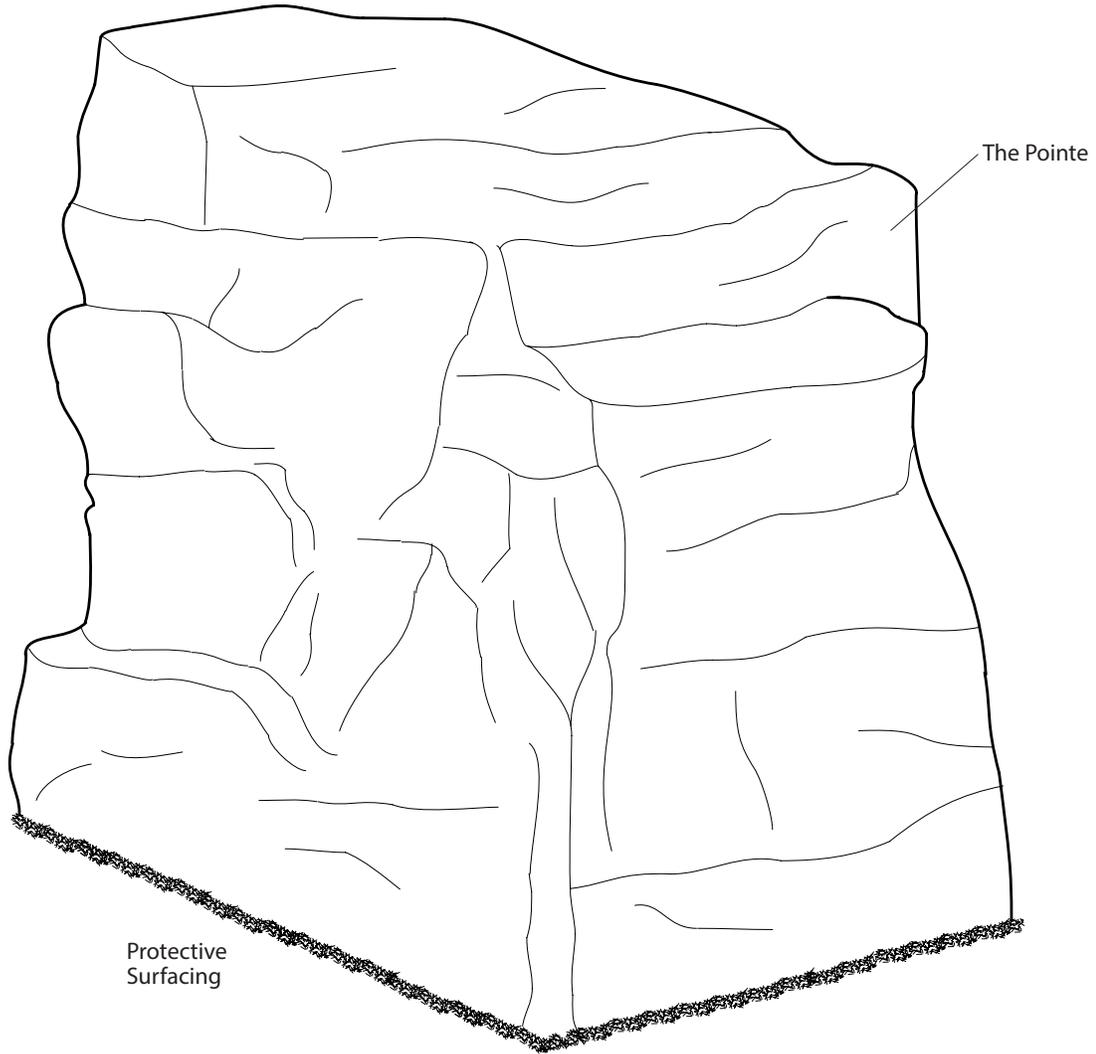
Specifications

Log Crawl Tunnel Assembly: Weldment comprised of 1.900" (48,26 mm) O.D. RS20 (.090"-1.100") (2,29 mm-2,54 mm) wall galvanized steel tubing, $\frac{3}{16}$ " HRPO steel plate and 7" x 3" x $\frac{3}{16}$ " (178 mm x 76 mm x 4,75 mm) wall rectangular tube. **(Log Crawl Tunnel assembled)** Glass reinforced wet cast solid pour concrete product. Finish: Latex paint made for concrete, natural colors.

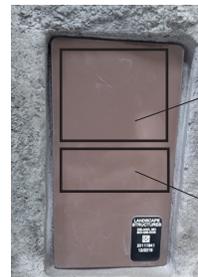
Installation Time: Approx. $\frac{1}{4}$ man hour
Weight: 2010 lbs.
Min. Use Zone: 6' (1830 mm)
Actual Size: Log measures 60" long x 43" high (1520 mm x 1090 mm high)
Fall Height: 41" (1040 mm) Max.

Installation Instructions

- 1) The log crawl tunnel must be installed over an area of firm stable soil.
Warning: Never crawl under any part of The Log Crawl Tunnel especially when it is only supported by a forklift.
- 2) To unload the log crawl tunnel, a "Lull" type material handler with at least an 4,000 lb. capacity is recommended. Maximum fork extension size is 2 $\frac{1}{2}$ " high x 6 $\frac{1}{2}$ " wide with no maximum length. **NOTE: At least 2 people are recommended for the log crawl tunnel installation. One person to operate the material handling equipment and one person to spot for the operator.**
- 3) The log crawl tunnel should be placed on firm stable soil. Pick up the log crawl tunnel by inserting the material handling forks into the forklift pockets. Be very careful to keep the log crawl tunnel level to the ground when raising or lowering. Do not contact the concrete face of the log crawl tunnel with material handler forks, chipping can occur.
- 4) Apply the warning label and age label for the intended age range.
- 5) Install protective surfacing before users are allowed to play on the structure.
- 6) **NOTE: After installation if Touch-up/Repairs are needed, contact Landscape Structures at 1-888-574-4678.**



**DETAIL
 LABELS**



Warning Label

Age Appropriate Label

Play Naturally™

PlayBooster®
 Nature-Inspired
 Climbers

156068/156067 The Pointe™

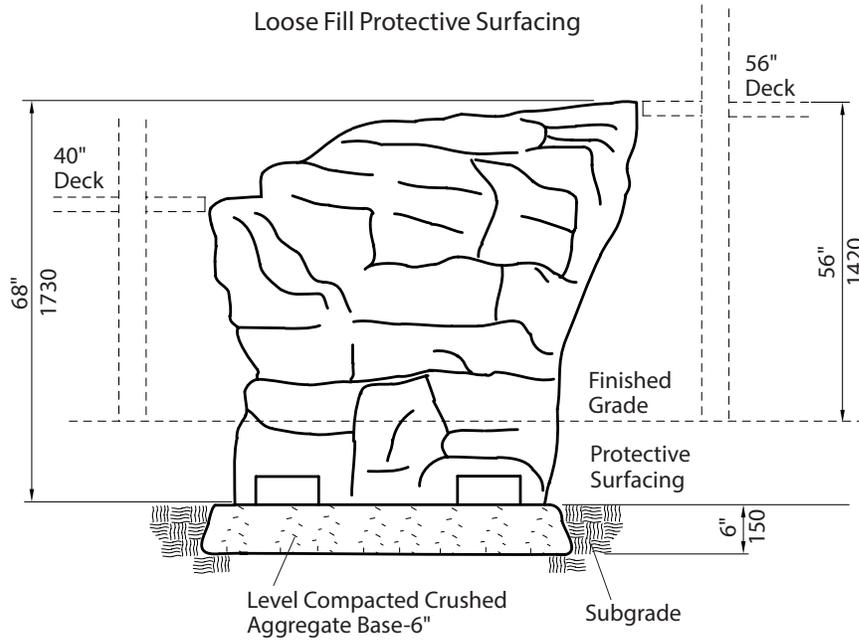
Sheet 1 of 3

SAFETY NOTE
 Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

163229b0

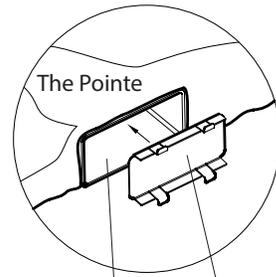
PLAN VIEW/POINTE TO DECKS

Loose Fill Protective Surfacing



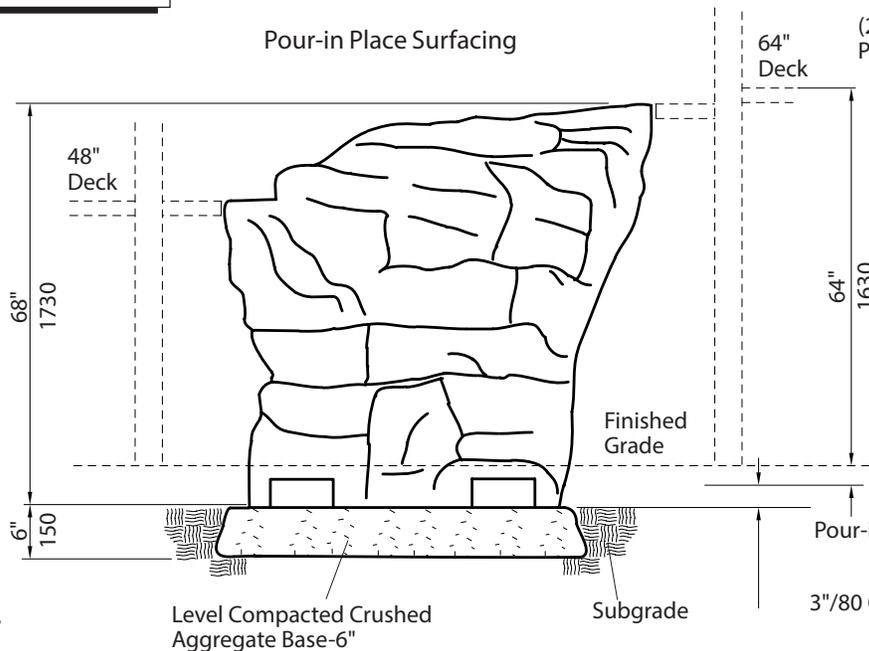
NOTE: NOTE: If you are connecting The Pointe to a Playbooster Deck an Extension Deck is required.

**DETAIL
 POINTE POCKETS**



NOTE: Aggregate must be at same level as subgrade, or below subgrade.

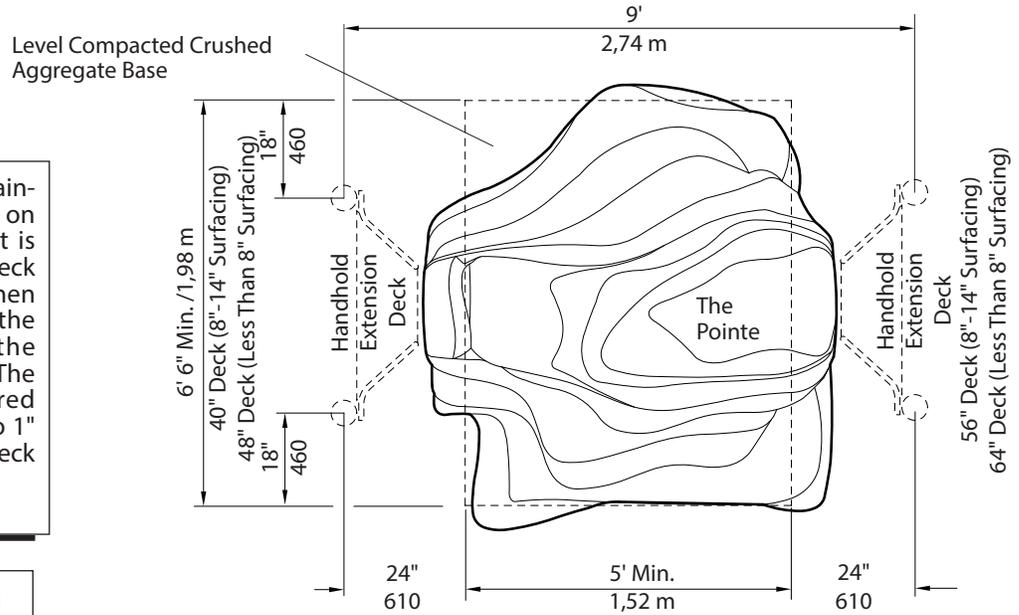
Pour-in Place Surfacing



(2) Forklift Pockets
 (4) Rock Pocket Covers

NOTE: Steel shims (not supplied), may be required to stabilize the Pointe when installed on a concrete slab.

PLAN VIEW/POINTE TO DECKS

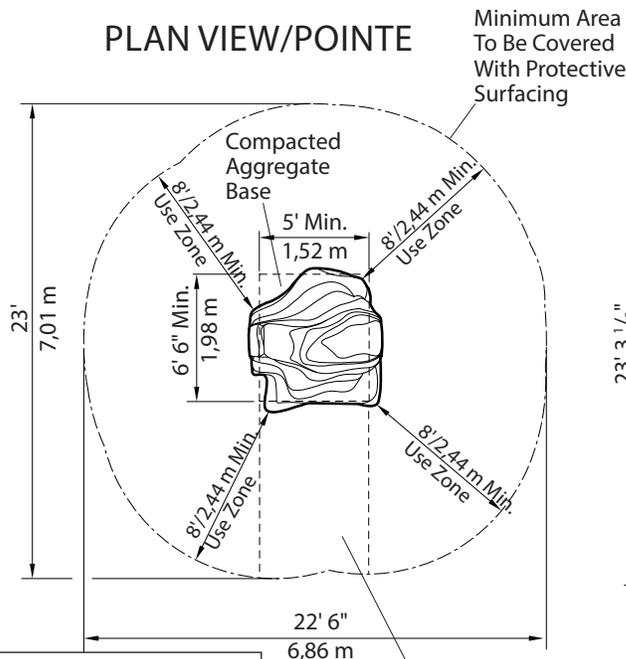


NOTE: When installing a main-structure deck with posts on each end of the Pointe, it is recommended that one deck with posts be installed, then place the Pointe next to the deck before installing the second deck with posts. The Pointe should be centered between decks with 1/2" to 1" gap between Extension Deck and the Pointe.

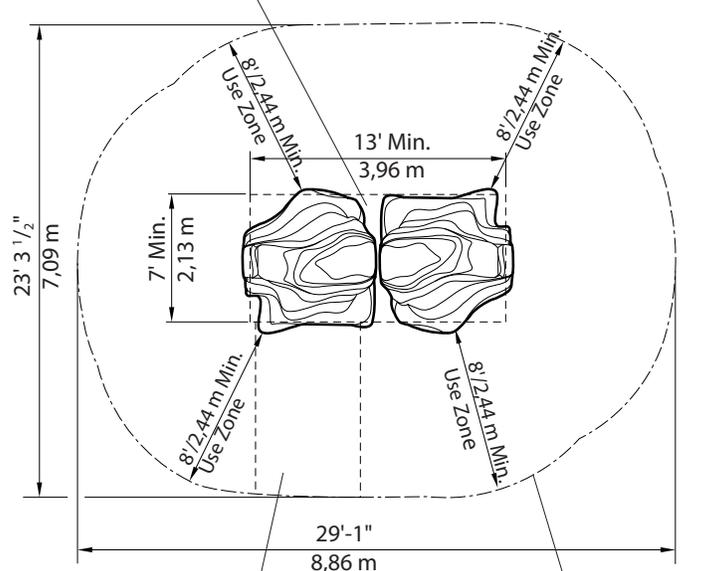
NOTE: If you are connecting The Pointe to a Playbooster Deck an Extension Deck is required.

PLAN VIEW/POINTE TO POINTE

PLAN VIEW/POINTE



Compacted Aggregate Base



NOTE: When placing the Pointe next to the Pinnacle or another Pointe, there must be a 3/4" to 1 1/4" gap between them.

Accessible Path Minimum 5' Wide

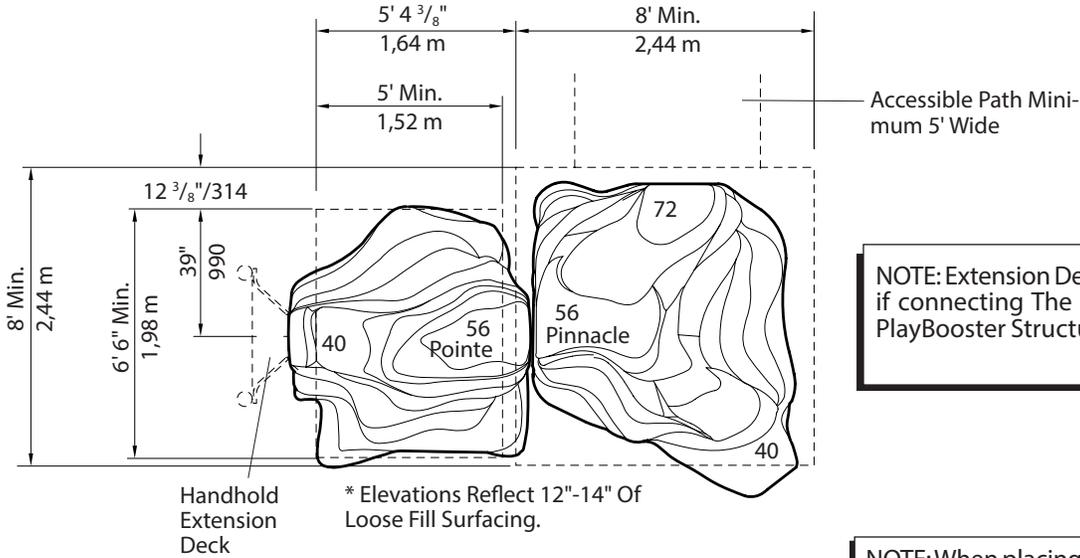
Accessible Path Minimum 5' Wide

Minimum Area To Be Covered With Protective Surfacing

SAFETY NOTE
 Choose a protective surfacing material that has a Critical Height Value of at least the height of the Highest Accessible Part/Fall Height of the adjacent equipment. (Ref. ASTM F1487.)

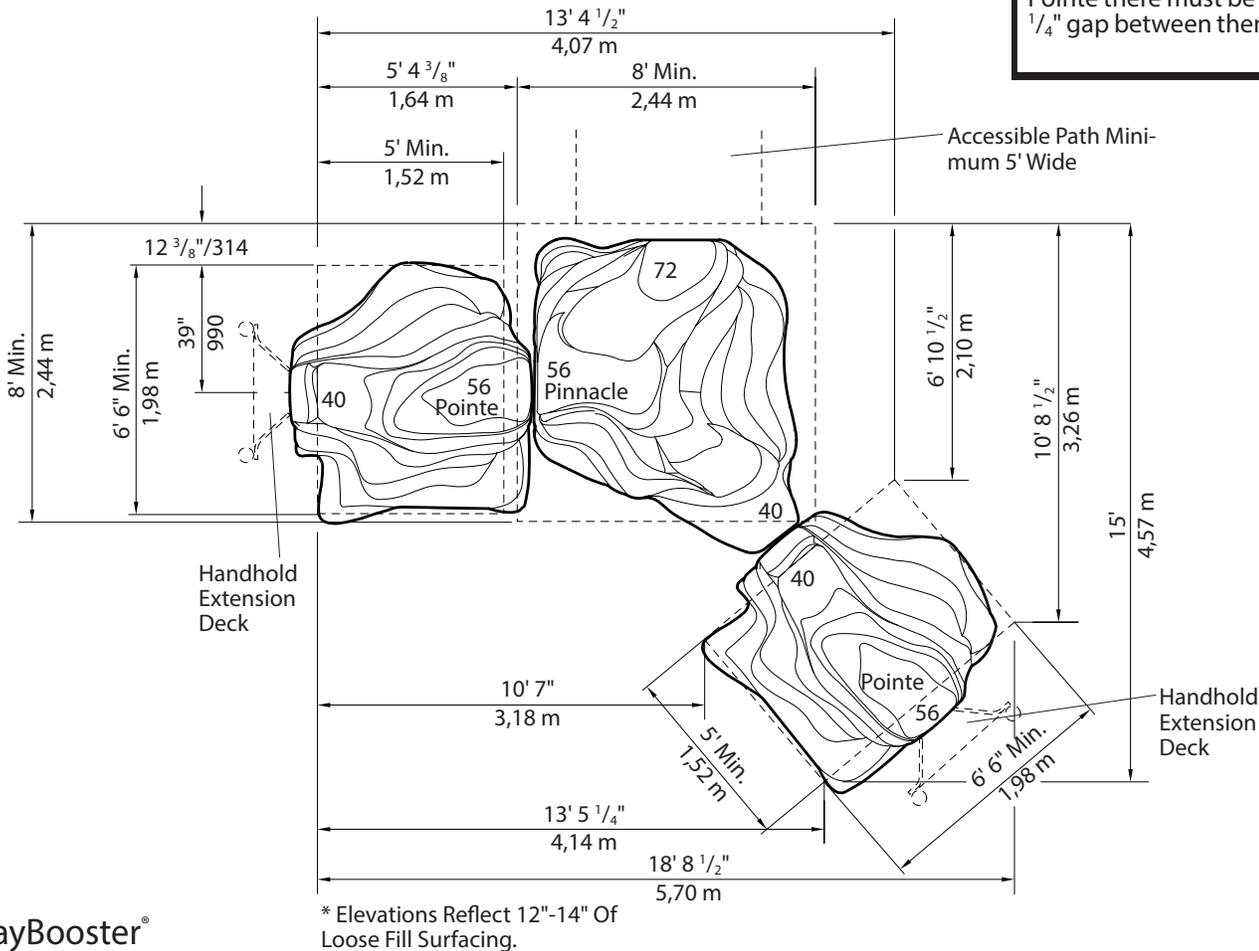
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PLAN VIEW/POINTE TO PINNACLE



NOTE: Extension Deck required if connecting The Pointe to a PlayBooster Structure.

PLAN VIEW/POINTE TO PINNACLE TO POINTE



NOTE: When placing the Pointe next to the Pinnacle or another Pointe there must be a 3/4" to 1 1/4" gap between them.

Parts List

Part#	Description	Qty.
157644-00	The Pointe Assembly.....	1
146301-00	Rock Pocket Cover.....	4
241541	Warning Label Hardware Package, 5-12	1
183064	Warning Label.....	1
200333	Label 5-12 Yrs.....	1

Specifications

The Pointe Assy.:	(Base) Weldment comprised of 7 GA. (.179")(4,54 mm) HRPO sheet steel, C8 x 13.75 steel channel, 3" x 1 1/2" x .120" (76 mm x 38,1 mm x 3,04 mm) wall galvanized steel tube and 1 1/8" (28,58 mm) square bar. Finish: ProShield®. (Pointe-fully assembled) Castings are made from Glass Fiber Reinforced Concrete (GFRC). Glass fiber is Alkali Resistant (AR) type glass formulated for concrete. Nominal wall thickness of 1" and weighs about 11 1/2 lbs. per square foot. Castings have a strength of 1,500 lbs. per square inch in tension and 5,000 lbs. per square inch in compression. Finish: Latex paint made for concrete, Stone in color.
Rock Pocket Cover:	Fabricated from 13 Ga. (.090") HRPO flat steel conforming to ASTM A1011. Finish: Zinc plate with yellow chromate finish.
Installation Time:	30 Minutes (Aggregate preparation and safety surfacing installation time not included.)
Area Req:	22'-6" (6,86 m) x 23' (7,01 m) Pointe 28'-9 1/2" (8,78 m) x 23' 3 1/2" (7,09 m) Pointe to Pointe
Actual Size:	The Pointe measures 84" (2,13 m) long x 78" (1,98 m) wide x 68" (1,73 m) high
Fall Height:	Deck Height
Weight:	2750 lbs.

Installation Instructions

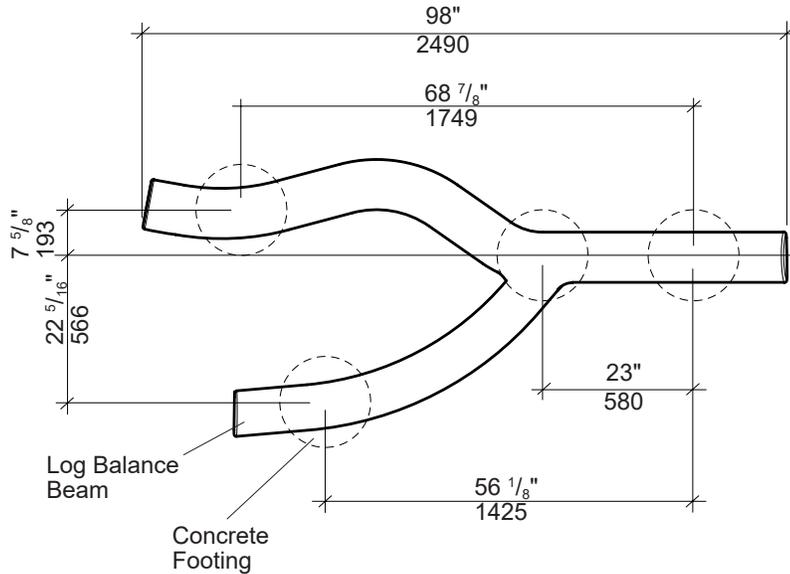
- 1) The Pointe must be installed over an area of compacted firm stable soil. The base for the Pointe requires an area of compacted 3/4" minus crushed aggregate, 78" wide x 60" long. The crushed aggregate should be 6" thick and compacted to at least 95% with a vibratory compactor. The compacted crushed aggregate surface must be flat and level with subgrade. Refer to the Plan/View Pointe To Decks Detail.

Warning: Never crawl under any part of a Pointe or Pinnacle - especially when it is only supported by a forklift.
- 2) To unload the Pointe a "Lull" type material handler with a 4000 lb. capacity is recommended. To unload the Pinnacle a "Lull" type material handler with a 8000 lb. capacity is recommended. Maximum fork extension size is 3 1/2" high x 7 1/2" wide with no maximum length.

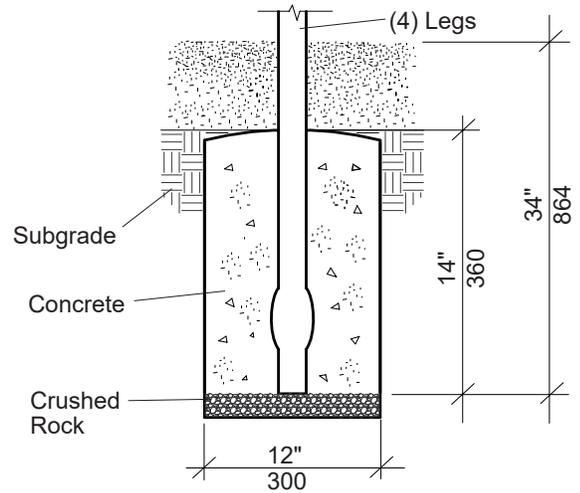
NOTE: At least 2 people are recommended for Pointe installation. One person to operate the material handling equipment and one person to spot for the operator.
- 3) Pick up the Pointe by inserting the material handling forks into the forklift pockets. Be very careful to keep a Pointe or Pinnacle level to the ground when raising or lowering. Do not tip a Pointe or Pinnacle on a corner or edge. Do not contact the concrete face of Pointe or Pinnacle with material handler forks, chipping can occur. Place the Pointe in the center of the crushed aggregate base. Refer to the Pointe Pocket Details & Plan View for proper orientation.

NOTE: When placing the Pointe next to a deck or between decks there must be a 1/2" to 1" gap between the extension deck and the Pointe. The Pointe should be centered with the deck or decks. When installing a mainstructure deck with posts on each end of the Pointe, it is recommended that one deck with posts be installed, then place the Pointe next to the extension deck before installing the second deck with posts. When placing the Pointe next to the Pinnacle or another Pointe there must be a 3/4" - 1 1/4" gap between them. If you are connecting The Pointe to a Playbooster Deck an Extension Deck is required. Steel shims (not supplied), may be required to stabilize the Pointe when installed on a concrete slab.
- 4) Using a hammer, tap Rock pocket covers into Pointe pockets until tight. Refer to the Pointe Pocket Details.
- 5) When placing a Pointe next to a Pinnacle, the two adjoining surfaces should be a flush as possible. The same applies to Pointe to Pointe and Pinnacle to Pinnacle connections.
- 6) Apply the warning label and age label.
- 7) **NOTE: After installation if Touch-up/Repairs are needed, contact Landscape Structures at 1-888-574-4678.**

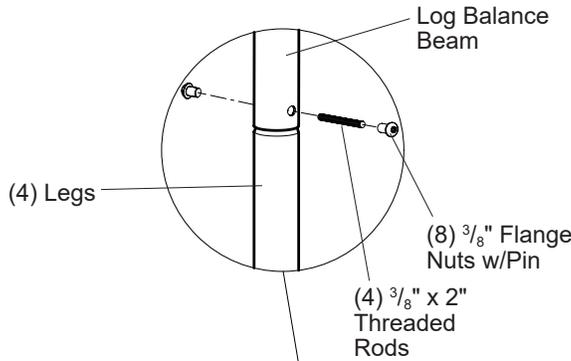
PLAN VIEW/FOOTING LAYOUT



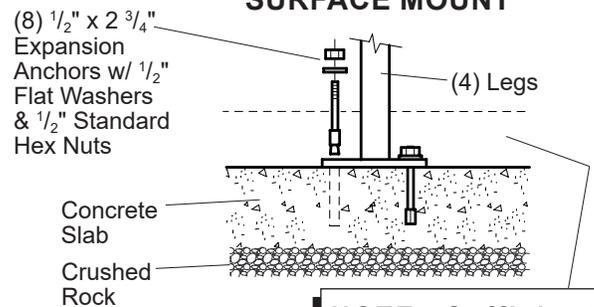
**DETAIL
DIRECT BURY**



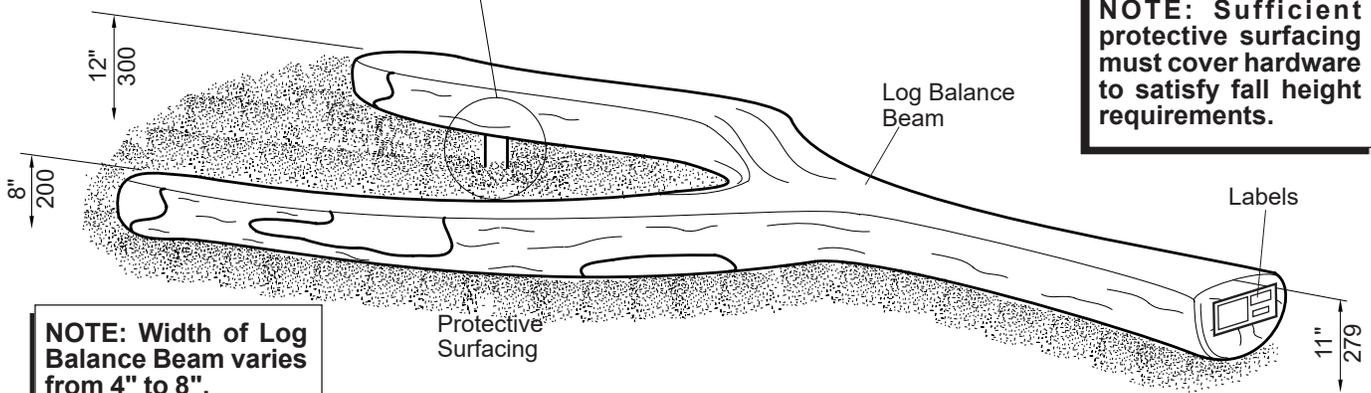
**DETAIL
LEG ATTACHMENT**



**DETAIL
SURFACE MOUNT**



NOTE: Sufficient protective surfacing must cover hardware to satisfy fall height requirements.



NOTE: Width of Log Balance Beam varies from 4" to 8".

Play Naturally™

Sports & Fitness 173596 Log Balance Beam



Sports & Fitness 173596 Log Balance Beam

Parts List

Part#	Description	Qty.
175712	Log Balance Beam	1
175706	Leg, SM, Brown	4
175707	Leg, DB, Brown	4
175717	Log Balance Beam Hardware Package	1
100353	3/8" Flange Nut w/Pin, SST	8
116942	3/8" x 2" Threaded Rod, SST	4
111392	2-Hole (SM) Hardware Package	4
100266	1/2" x 2 3/4" Expansion Anchor	8
100322	1/2" Standard Hex Nut, SST	8
100363	1/2" Flat Washer, SST	8
224345	Warning Label Package 2-12	1
183064	Label Warning	1
200331	Label 2-5 Yrs	1
200332	Label 2-12 Yrs	1
200333	Label 5-12 Yrs	1

DB = Direct Bury
SM = Surface Mount

Specifications

Log Balance Beam

Assembly: Weldment comprised of 1.900" O.D. RS20 (.090"-.100" wall) galvanized steel tubing and 2.375" O.D. RS20 (.095"-.105" wall) galvanized steel tubing. Finish: ProShield, brown in color. (Log-fully assembled) Wet cast solid pour concrete product. Finish: Latex paint made for concrete, natural colors.

Leg: Fabricated from 2.375" O.D. RS20 (.095"-.105" wall) galvanized steel tubing. Finish: ProShield, brown in color.

Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

Installation Time: Approx. 2 man hours

Concrete: Approx. 3.66 cu. ft.

Weight: 455 lbs. (DB) 435 lbs. (SM)

Min. Use Zone: 6' (1830 mm)

Actual Size: Log measures 98" long x 42" wide
(2490 mm x 1070 mm wide)

Fall Height: 12" (200 mm)

Installation Instructions

1) **(Direct Bury)** - Dig footing holes, spaced as shown. Attach legs to log balance beam, using 3/8" x 2" threaded rods and 3/8" flange nuts with pin. Place log balance beam in footing holes and temporarily brace in plumb and level position. Pour concrete footings and let cure for a minimum of 72 hours before users are allowed to play on the structure.

(Surface Mount) - Attach legs to log balance beam, using 3/8" x 2" threaded rods and 3/8" flange nuts with pin. Set log balance beam in proper position and mark anchor bolt locations on concrete slab through holes in anchor plates. Move log balance beam aside and drill 1/2" x 3" deep holes in marked locations on concrete slab using 1/2" masonry bit and hammer drill. Reposition log balance beam over drilled holes and tap expansion anchors into holes. Fasten using and 1/2" standard hex nuts with 1/2" flat washers.

2) Apply the warning label and age label for the intended age range.

3) Install protective surfacing before users are allowed to play on the structure.

4) **NOTE: After installation if Touch-up/Repairs are needed, contact Landscape Structures at 1-888-574-4678.**

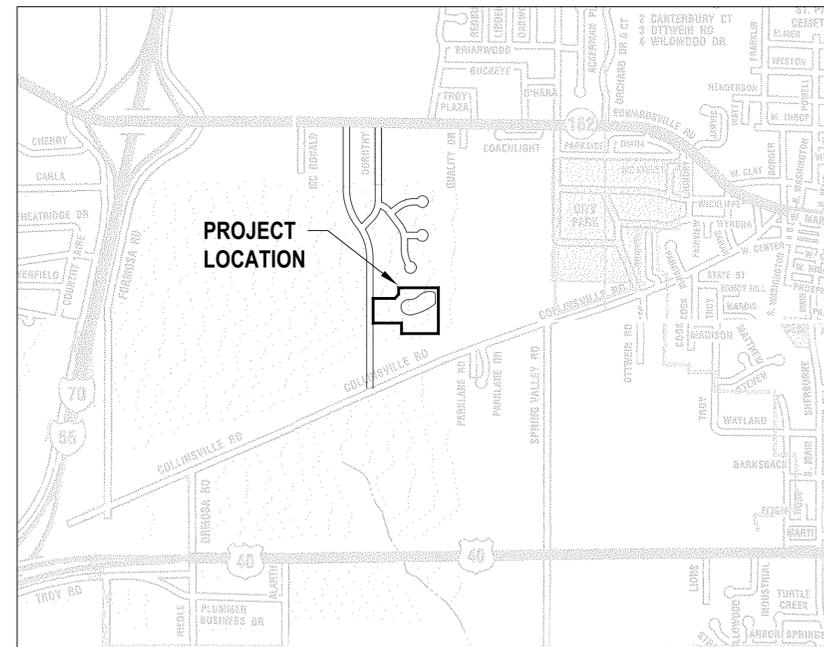
INDEX OF SHEETS

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C1.1	EXISTING CONDITIONS & REMOVAL PLAN
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13 SHEETS	AQUATIX - SPLASH PAD DRAWINGS



116 E MARKET ST
TROY, IL 62294

CITY OF TROY SERENADE PARK



LOCATION MAP

SCALE: 1" = 1000 FEET

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

June 1, 2022 - BID DOCUMENTS



LOCATION OF SECTION INDICATED THUS: - ■ -

CITY OF TROY, IL

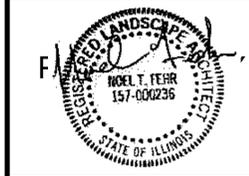
APPROVED _____ DATE _____
DAVID NONN MAYOR OF TROY

OATES ASSOCIATES

THOMAS L. CISSELL, P.E. _____ DATE _____
LICENSE EXPIRES: 11 / 30 / 2023

PLANNING DESIGN STUDIO

NOEL T. FEHR, LANDSCAPE ARCHITECT _____ DATE _____



NAME: NOEL T. FEHR
DISCIPLINE: LANDSCAPE ARCHITECT
LICENSE NO.: 157-000236
EXPIRATION DATE:
CERT. OF AUTHORITY:
EXPIRATION DATE:
COMPANY INFO:
2816 SUTTON BOULEVARD, SUITE 1
SAINT LOUIS, MO 63143
PHONE: 314.241.3600

SERENADE PARK
CITY OF TROY
COVER

NO.	DATE	REVISION

THIS DRAWING AND DETAILS ON IT, AS AN INSTRUMENT OF SERVICE, IS THE PROPERTY OF PDS OR ITS CONSULTANTS AND MAY BE USED FOR THIS SPECIFIC PROJECT ONLY AND SHALL NOT BE LOANED, COPIED OR REPRODUCED WITHOUT THE CONSENT OF PDS.

DATE: June 1, 2022
DESIGNED: J. NILGES
DRAWN: J. CORBETT
CHECKED: J. NILGES

PDS PROJECT NO: J.2115

COVER

GENERAL NOTES

UTILITIES

- EXISTING UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEIR LOCATIONS MUST BE CONSIDERED TO BE APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERETO. ILLINOIS LAW REQUIRES A MINIMUM 48-HOUR NOTICE TO ALL UTILITY COMPANIES BEFORE DIGGING. FIELD LOCATIONS OF UNDERGROUND FACILITIES MAY BE OBTAINED BY CALLING THE J.U.L.I.E. SYSTEM AT 800-892-0123 AND PROVIDING 48 HOURS ADVANCE NOTICE. NON-J.U.L.I.E. MEMBERS MUST BE CONTACTED DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT LIMITS ARE LISTED BELOW.
- ANY FACILITIES OR APPURTENANCES WHICH ARE THE PROPERTY OF ANY PUBLIC UTILITY LOCATED WITHIN THE LIMITS OF CONSTRUCTION SHALL BE RELOCATED OR ADJUSTED BY THEIR RESPECTIVE OWNERS. THE CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE OWNERS OF ANY SUCH FACILITY IN THEIR REMOVAL AND REARRANGEMENT OPERATIONS IN ORDER THAT THESE OPERATIONS AND THE CONSTRUCTION OF THIS PROJECT MAY PROGRESS IN A REASONABLE MANNER. THE COST OF ANY NECESSARY RELOCATIONS SHALL BE INCURRED BY THE OWNER UNLESS NOTED OTHERWISE AND IF PRIOR AGREEMENTS ARE NOT IN PLACE.
- THE FOLLOWING UTILITY COMPANIES MAY HAVE FACILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION WHICH MAY REQUIRE ADJUSTMENT, RELOCATION OR REMOVAL. ALL ARE MEMBERS OF J.U.L.I.E. UNLESS NOTED OTHERWISE.

AMEREN IP (GAS & ELECTRIC)
2600 NORTH CENTER STREET
MARYVILLE, IL 62062
346-1287

CHARTER COMMUNICATIONS (CABLE TV)
210 WEST DIVISION STREET
MARYVILLE, IL 62062
(618) 345-8121

AT&T (TELEPHONE)
150 WEST DIVISION STREET
MARYVILLE, IL 62026
252-1133

CITY OF TROY (WATER & SANITARY SEWER)
116 EAST MARKET STREET
TROY, IL 62294
(618) 667-9924

THE ABOVE INFORMATION REPRESENTS THE BEST INFORMATION AVAILABLE TO THE OWNER AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR HAS TAKEN THE FOREGOING INTO CONSIDERATION IN PREPARING HIS/HER BID, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY DELAYS OR INCONVENIENCE CAUSED BY SAME.

JOINT UTILITY LOCATING INFORMATION FOR EXCAVATIONS 800-892-0123

- THE CONTRACTOR SHALL KEEP ALL UTILITIES IN SERVICE DURING CONSTRUCTION OPERATIONS. MEANS & METHODS TO ACCOMPLISH THIS ARE THE CONTRACTOR'S RESPONSIBILITY, BUT SOME EXAMPLES INCLUDE POTHOLES TO AVOID DISRUPTION, SHORING TO LIMIT EXCAVATION, PUMPING TO MAINTAIN FLOW, AND TEMPORARY SUPPORTING TO MAINTAIN STABILITY.
- SHOULD UNCHARTED OR INCORRECTLY CHARTED UTILITIES BE ENCOUNTERED DURING EXCAVATION, THE CONTRACTOR SHALL CONSULT WITH THE UTILITY OWNER AND ENGINEER IMMEDIATELY FOR DIRECTIONS. THE CONTRACTOR SHALL COOPERATE WITH THE SERVICES AND FACILITIES IN OPERATION AND REPAIR DAMAGED UTILITIES TO THE SATISFACTION OF THE UTILITY OWNER. IF THE UTILITY OWNER IS FOUND NOT RESPONSIBLE, THE COST TO REPAIR DAMAGED UTILITIES UNCHARTED OR INCORRECTLY CHARTED WILL BE CONSIDERED AN UNFORESEEN CONDITION AND WILL BE PAID FOR AT AN AGREED UPON PRICE OR ON A TIME AND MATERIAL BASIS.
- ALL EXISTING UTILITY ACCESS COVERS SUCH AS MANHOLES, VALVE BOXES, VAULT COVERS, METER COVERS, AND OTHER SURFACE APPURTENANCES - EVEN IF THERE IS NO SPECIFIC CALLOUT - SHALL BE ADJUSTED TO THE PROPER FINISH GRADE ELEVATION ACCORDING TO THE REQUIREMENTS OF THE AFFECTED UTILITY COMPANY.

GENERAL

- ALL SITE WORK SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS INCLUDING THE CITY OF TROY'S MUNICIPAL CODE AND WITH THE LATEST EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATIONS, "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND "HIGHWAY STANDARDS", IN SO FAR AS THEY APPLY, EXCEPT THAT ALL REFERENCES TO MEASUREMENT AND PAYMENT SHALL BE DELETED.
- ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF TROY'S MUNICIPAL CODE AND WITH THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS", UNLESS OTHERWISE PROVIDED HEREIN.
- IF THERE ARE ANY DISCREPANCIES BETWEEN THESE PLANS, SPECIFICATIONS, OR STANDARDS BY GOVERNING BODIES, THE MOST STRINGENT AND RELEVANT REQUIREMENT SHALL BE BINDING AND APPLICABLE.
- UNLESS OTHERWISE INDICATED, THE COST OF WORK REQUIRED UNDER ANY GENERAL, PLAN, OR KEYED NOTE WILL NOT BE PAID FOR SEPARATELY, BUT IT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR THE VARIOUS ITEMS OF WORK INVOLVED.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO ACCOMPLISH THE WORK. NO CONSTRUCTION ACTIVITIES SHALL BE PERFORMED UNTIL ALL NECESSARY PERMITS HAVE BEEN SECURED. THE COST OF THE PERMITS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- ALL CONSTRUCTION SHALL CONFORM TO THE PLANS AND SPECIFICATIONS. IF THE CONTRACTOR CHOOSES TO MAKE MODIFICATION DURING CONSTRUCTION, EVEN IF THE WORK IS AFFECTED BY OMISSION OR DISCREPANCY, WITHOUT THE APPROVAL OF THE ENGINEER, HE/ SHE IS MAKING SUCH CHANGES AT HIS/ HER OWN RISK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF ANY CHANGES FROM THE APPROVED DOCUMENTS.
- THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION LAYOUT AND MATERIAL TESTING NECESSARY TO COMPLETE THE PROJECT TO THE PLANS AND SPECIFIED TOLERANCES.
- AT THE CONCLUSION OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS FOR THE OWNER'S RECORDS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD, INCLUDING POTHOLES POTENTIAL UTILITY CONFLICTS, PRIOR TO ORDERING MATERIALS AND COMMENCING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE CONSTRUCTION SITE FREE OF DEBRIS AT ALL TIMES AND SHALL KEEP DIRT/ MUD OFF ALL PUBLIC STREETS ADJACENT TO THE CONSTRUCTION SITE.
- THE CONTRACTOR SHALL CONFINE ALL OPERATIONS TO THE AREA SHOWN ON THE PLANS. ANY AREA DISTURBED BEYOND THESE LIMITS SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL FERTILIZE, SEED, AND MULCH ALL EARTH SURFACES DISTURBED BY CONSTRUCTION, EXCEPT AS NOTED OTHERWISE IN THE PLANS. FERTILIZE, SEED, AND MULCH WITHIN THE CONSTRUCTION LIMITS AS PROVIDED IN THE CONTRACT. FERTILIZER, SEEDING, AND MULCH OUTSIDE THESE LIMITS DUE TO CONSTRUCTION ENCROACHMENTS SHALL BE RESTORED TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE CONTRACT.
- IF INDICATED, A PORTION OF THE CONSTRUCTION SITE MAY BE USED AS A STAGING AND CONTRACTOR PARKING AREA. IF SIDEWALKS, LAWNS, DRIVEWAYS, OR ANY OTHER AREA WITHIN OR IN THE HAUL PATH FROM THE STAGING AREA ARE DAMAGED BY THE CONTRACTOR, THEY SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
- CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED ON THE PROPOSED CONSTRUCTION SITE AND NOT ON ANY PUBLIC STREET OR RIGHT OF WAY OUTSIDE THE DESIGNATED CONSTRUCTION ZONE.
- THE CONTRACTOR SHALL STAGE ALL WORK TO MAINTAIN INGRESS AND EGRESS TO ALL ADJACENT BUILDINGS AND PROPERTIES AT ALL TIMES DURING CONSTRUCTION. AGGREGATE FOR TEMPORARY ACCESS OR OTHER TEMPORARY ELEMENTS MAY BE REQUIRED TO ACCOMPLISH REQUIREMENT.
- THE CONTRACTOR SHALL PROVIDE A PORTABLE RESTROOM FACILITY WITHIN THE CONSTRUCTION LIMITS. ADJACENT BUILDING RESTROOMS ARE NOT AVAILABLE FOR USE.
- THE CONTRACTOR SHALL PROVIDE THE NECESSARY SIGNS AND BARRICADES AT THE PROJECT ENTRANCES TO PREVENT PUBLIC ENTRY. ALL MATERIAL PILES, EQUIPMENT, OPEN EXCAVATIONS OR THEIR OBSTRUCTIONS, OR HAZARDS TO MOTORISTS OR PEDESTRIANS SHALL BE ENCLOSED BY FENCES OR PROTECTED BY BARRICADES. BARRIER SHALL BE EITHER 4' TALL SNOW FENCE WITH T-POSTS SPACED ON 5' CENTERS, CHAIN LINK FENCE ON STANDS, OR OTHER PRE-APPROVED METHODS. CAUTION TAPE IS NOT CONSIDERED ADEQUATE TO PROTECT EXCAVATIONS.
- THE CONTRACTOR SHALL PROVIDE A STABILIZED CONSTRUCTION ENTRANCE AND INSTALL OTHER EROSION CONTROL ITEMS AS SHOWN ON THE "STORMWATER POLLUTION PREVENTION PLAN" AND AS DIRECTED BY THE ENGINEER. TO CONTROL SITE RUNOFF, THE ENGINEER MAY REQUEST EROSION CONTROL ITEMS NOT SHOWN ON THE PLANS AT NO ADDITIONAL COST TO THE CONTRACT WHEN STAGED OPERATIONS CREATE A TEMPORARY CONDITION THAT WOULD ALLOW OFFSITE EROSION IF NOT CONTAINED.
- THE UNITED STATES ACCESS BOARD, AND THE ILLINOIS ACCESSIBILITY CODE SHALL GOVERN ALL ACCESS ROUTE IMPROVEMENTS.
- THE CONTRACTOR SHALL GUARANTEE ALL WORK, MATERIALS, AND LABOR ASSOCIATED WITH THIS WORK FOR A PERIOD OF ONE (1) YEAR.

REMOVALS

- THE CONTRACTOR SHALL INSPECT AND ACCEPT THE SITE CONDITIONS PRIOR TO MOBILIZATION. DOCUMENTATION FOR ANY CONCERNS SHALL BE PROVIDED TO OWNER IN WRITING AND WITH PHOTOGRAPHS PRIOR TO MOBILIZATION. NO ADDITIONAL PAYMENT WILL BE MADE FOR REPAIR OF DAMAGED EXISTING FEATURES TO REMAIN THAT WERE NOT ADDRESSED BEFORE THE CONTRACTOR ASSUMED THE SITE FROM THE OWNER.
- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL EXISTING FEATURES SUCH AS SIGNS, PAVEMENT, CURB, AND TREES FROM DAMAGE. IF ANY FEATURE TO REMAIN IS DAMAGED, IT SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR'S EXPENSE AS DIRECTED BY THE OWNER OR ENGINEER.
- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AN AUTHORIZED SURVEYOR, OR AGENT, HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. IF ANY PROPERTY MARKER IS TO REMAIN AND IS DAMAGED, IT SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AS DIRECTED BY THE ENGINEER OR OWNER.
- THE CONTRACTOR SHALL REMOVE ALL EXISTING FEATURES INCLUDING BUT NOT LIMITED TO PAVEMENT, CURB, SIDEWALK, DRIVEWAY PAVEMENT, CULVERTS, HEADWALLS, RIPRAP, FENCING, AND RETAINING WALLS WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION UNLESS NOTED OTHERWISE ON THE PLANS. ALL FEATURES WHICH ARE TO BE REMOVED AND FOR WHICH THERE IS NOT A SPECIFIC CALLOUT, WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.
- THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN AND AVOID COMPACTING THE AREA UNDER THE TREE'S DRIPLINE. IF TREE ROOTS ARE ENCOUNTERED, THEY SHALL BE SAWN OFF AT THE EDGE OF THE EXCAVATION RATHER THAN RIPPED WITH EQUIPMENT.
- ANY EXCESS EARTH EXCAVATION SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED.
- WHERE TREE REMOVAL CONFLICTS WITH EXISTING UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CUT THE TREE OFF AT THE GROUND LINE AND GRIND THE STUMP AS DIRECTED BY THE ENGINEER. THIS SHALL INCLUDE COMPLETELY REMOVING TREES AND ROOTS UNDER PAVED SURFACES.
- ANY UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR AND REPLACED WITH SUITABLE MATERIAL AS APPROVED BY THE ENGINEER. UNLESS NOTED OTHERWISE IN THE PLANS, THE COST TO REMOVE AND REPLACE UNSUITABLE MATERIAL WILL BE CONSIDERED AN UNFORESEEN CONDITION AND WILL BE PAID FOR AT AN AGREED UPON PRICE OR ON A TIME AND MATERIAL BASIS.

EARTHWORK & GRADING

- THE CONTRACTOR SHALL CONTACT THE ENGINEER DURING SUBGRADE PREPARATION AND PRIOR TO SOIL MODIFICATION TO DETERMINE THE NECESSITY OF THE PROPOSED SUBGRADE IMPROVEMENT. IF THE SUBGRADE IS FOUND TO REQUIRE OR NOT TO REQUIRE REMEDIAL PROCEDURES, SOIL MODIFICATION AND MODIFIER MAY BE ADDED OR DELETED.
- PRIOR TO COMPACTION AND THE PLACEMENT OF PAVEMENT BASE COURSE LAYERS, THE CONTRACTOR SHALL PREPARE A DRY, STABLE SUBGRADE BY DISKING OR OTHERWISE AERATING THE SOIL. WHEN AIR DRYING IS NOT FEASIBLE, THE CONTRACTOR MAY USE A MOISTURE REDUCING CHEMICAL ADDITIVE SUCH AS HYDRATED LIME TO ADJUST THE MOISTURE IN THE SOIL AT NO ADDITIONAL COST TO THE CONTRACT. IN ASPHALT PAVEMENT AREAS WHERE LIME STABILIZATION IS REQUIRED PER PLANS, THE COST SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- AT THE BEGINNING OF CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL STRIP THE TOP 6" OF EXISTING LAWN AREAS TO SALVAGE EXISTING, CLEAN TOPSOIL FOR USE DURING FINAL GRADING AND LAWN RESTORATION. THE CONTRACTOR SHALL STOCKPILE THE TOPSOIL AS INDICATED ON THE PLANS OR AT AN AGREED UPON LOCATION.
- FINAL PAYMENT ON RETAINAGE WILL NOT BE MADE UNTIL THE LAWN HAS ESTABLISHED TO A 95% LEVEL WITH NO INDIVIDUAL BARE SPOTS LARGER THAN 6'X6" IN SIZE AFTER ONE GROWING SEASON (APRIL TO MAY OR SEPTEMBER TO OCTOBER).
- DURING GRADING OPERATIONS, THE SURFACE SHALL BE SMOOTH AND NOT BE LEFT TO IMPOUND WATER IF THERE MAY BE RAIN PRIOR TO THE NEXT WORKING DAY. IF THE SURFACE IS FINISHED SMOOTH FOR ANY REASON, IT SHALL BE SCARIFIED BEFORE PROCEEDING WITH THE PLACEMENT OF SUCCEEDING EARTH LIFTS.
- DEWATERING OF EXCAVATION AREAS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION FROM NEW AREAS TO ADJACENT, EXISTING AREAS AS NECESSARY.



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OATES ASSOCIATES, INC.
COLLINSVILLE, ILLINOIS
PHONE: 618.345.2200



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SERENADE PARK
CITY OF TROY
GENERAL NOTES

NO.	DATE	REVISION

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DATE: June 1, 2022

DESIGNED: T. CISSSELL
DRAWN: S. WRIGLEY
CHECKED: S. MELENDEZ

PDS PROJECT NO: J.2115

SHEET 2 OF 35

C0.1

GENERAL NOTES

PAVING & PAVEMENT MARKING

- PAVEMENT MARKING LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE. PROPOSED PAVEMENT MARKINGS MAY BE ADJUSTED BY THE CONTRACTOR, AS APPROVED BY THE ENGINEER, TO MATCH FIELD CONDITIONS.
- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH IDOT HIGHWAY STANDARDS AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD). ALL PAVEMENT MARKINGS SHALL BE WHITE, EXCEPT HANDICAP PARKING STALLS AND PAINTED ISLANDS, WHICH SHALL BE YELLOW.
- THE CONTRACTOR SHALL APPLY TWO COATS OF PAINT FOR ALL PAVEMENT MARKINGS.

DRAINAGE

- FLARED END SECTIONS ARE HORIZONTALLY AND VERTICALLY LOCATED AT THE MIDPOINT AT END OF THE FLARED END SECTION.
- CULVERTS MAY HAVE MINIMAL DEPTH BELOW THE SOIL SUBGRADE LAYER. THE CONTRACTOR SHALL TAKE WHATEVER PRECAUTIONS ARE NECESSARY TO PROTECT THE CULVERTS FROM DAMAGE DURING HAULING AND/ OR DURING THE SOIL MODIFICATION OR CONDITIONING PROCESS. IF THE CULVERTS ARE DAMAGED, THEY SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- FOR CULVERTS WITH A DESIGN GRADE OF LESS THAN ONE PERCENT (1%), FIELD VERIFICATION OF THE CULVERTS GRADE WILL BE REQUIRED PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. VERIFICATION SHALL BE BY VISUAL INSPECTION, LASER LEVEL, OR FIELD SURVEY, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- ALL PIPE TRENCHES UNDER AND WITHIN 2 FEET OF PAVED AREAS SHALL BE BACKFILLED TO FINAL GRADE WITH COARSE AGGREGATE, GRADATION CA 6.

EROSION CONTROL

- THE CONSTRUCTION OF THIS PROJECT WILL BE GOVERNED BY THE CONDITIONS OF THE GENERAL NPDES STORMWATER PERMIT ISSUED BY I.E.P.A. DIVISION OF WATER POLLUTION CONTROL. HOWEVER, A "STORMWATER POLLUTION PREVENTION PLAN" HAS BEEN PREPARED BY THE ENGINEER IN CONJUNCTION WITH THIS PLAN SET. THE "STORMWATER POLLUTION PREVENTION PLAN" CONTAINS INFORMATION SUCH AS REQUIRED SEQUENCE OF CONSTRUCTION, SEED, FERTILIZER AND LIME APPLICATION RATES AND PROCEDURES, AND PROVISION FOR MAINTENANCE OF EROSION CONTROL STRUCTURES AND MEASURES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP A COPY OF THE PLAN AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES, AND TO ENSURE COMPLIANCE WITH THE PLAN.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SILTATION CONTROL, AS NEEDED, TO PREVENT SILTATION OF OFF SITE PROPERTIES, UNTIL THE VEGETATION IN ALL DISTURBED AREAS HAS BEEN ESTABLISHED (75% COVERAGE OR MORE), AT WHICH TIME HE/SHE SHALL BE RESPONSIBLE FOR REMOVAL OF ALL TEMPORARY SILTATION CONTROL AND REPAIR OF ANY ERODED AREAS. EROSION CONTROL MEASURES SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH APPLICABLE PLAN DETAILS AND THE ILLINOIS URBAN MANUAL. NO CONSTRUCTION ACTIVITIES SHALL BE PERFORMED UNTIL EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED ON AND ADJACENT TO THE PROJECT SITE.
- THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES BY WATERING OR USING SLURRY MATERIALS DUE TO THE PROXIMITY OF ADJACENT BUILDINGS. THE CONTRACTOR SHALL WATER THE SITE FREQUENTLY AS NEEDED AND IF DIRECTED BY THE ENGINEER.
- DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSIOR, SILT WEDGES, OR OTHER PRE-APPROVED MATERIALS. HAY BALES SHALL NOT BE PERMITTED.
- THE CONTRACTOR SHALL PROVIDE A STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE DETAIL IN THE PLANS.

STANDARDS

BO	BY OTHERS (USED IN CONJUNCTION WITH TBA & TBR)
CONSTR	CONSTRUCTION
CP	CONTROL POINT
ESMT	EASEMENT
ELEV	ELEVATION
FES	FLARED END SECTION
N/F	NOW OR FORMERLY
O/C	OIL AND CHIP
PERM	PERMANENT
PVC	POLYVINYL CHLORIDE PIPE
TCE	TEMPORARY CONSTRUCTION EASEMENT
TBA	TO BE ADJUSTED
TBR	TO BE REMOVED
TBRL	TO BE RELOCATED
TYP	TYPICAL
W	WIDTH
WWF	WELDED WIRE FABRIC



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SERENADE PARK
 CITY OF TROY
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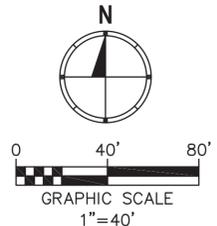
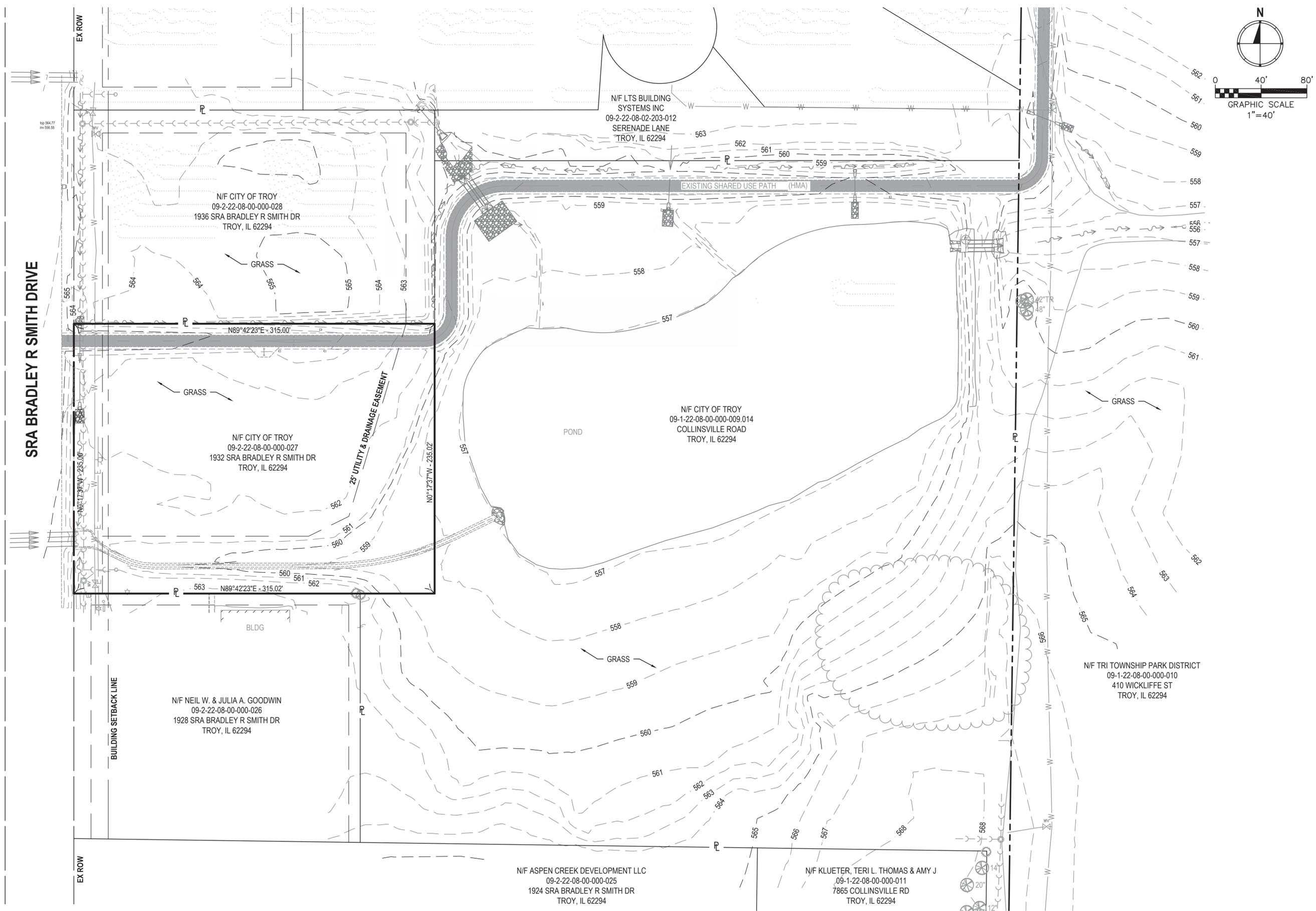
DESIGNED: T. CISSELL
 DRAWN: S. WRIGLEY
 CHECKED: S. MELENDEZ

PDS PROJECT NO: J.2115

SHEET 3 OF 35

C0.2

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SERENADE PARK
 CITY OF TROY

OVERALL EXISTING CONDITIONS

NO.	DATE	REVISION

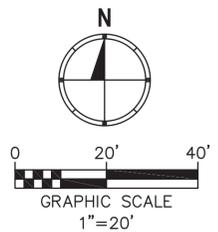
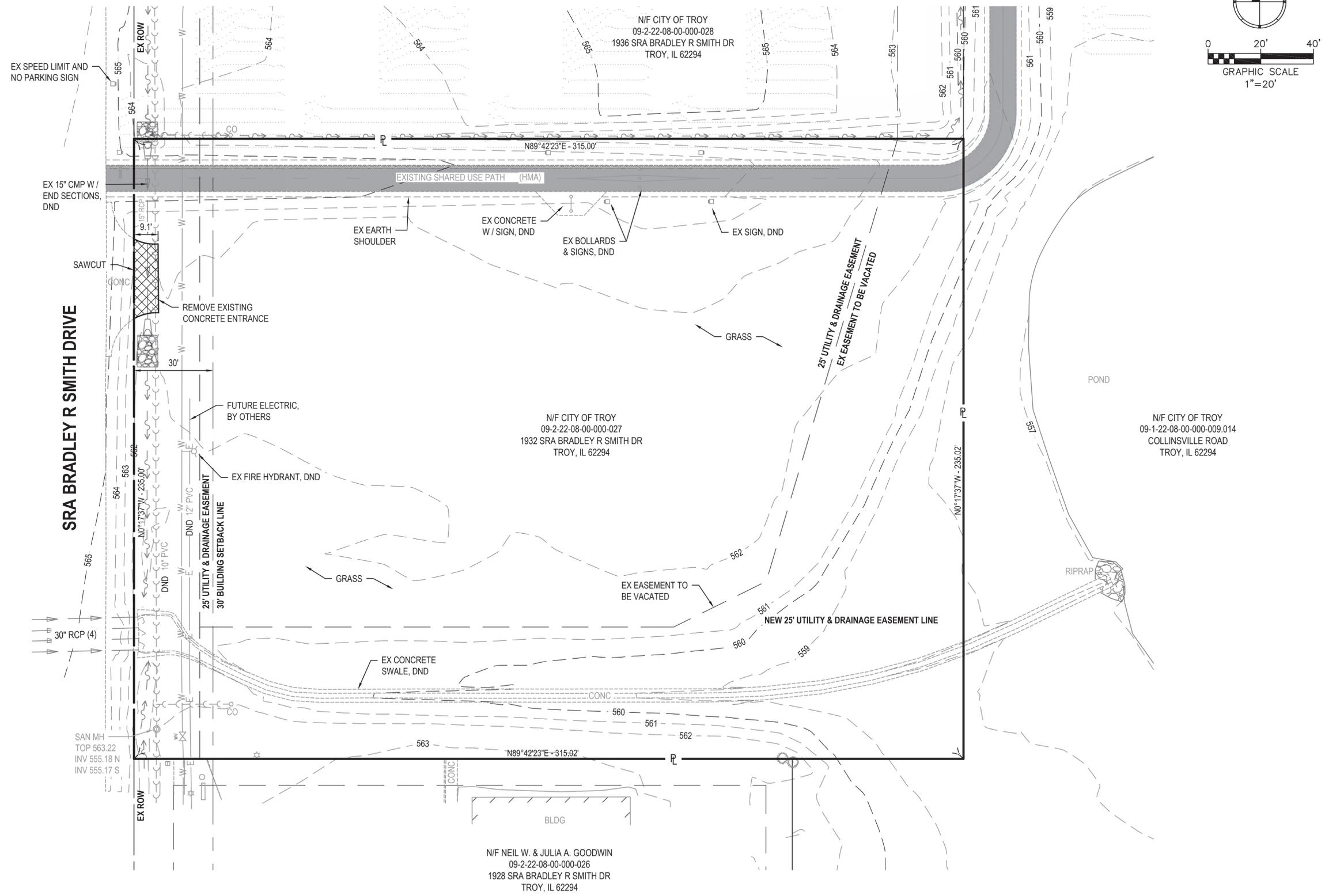
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SERENADE PARK
CITY OF TROY
EXISTING CONDITIONS & REMOVAL PLAN

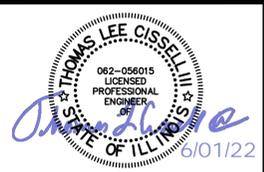
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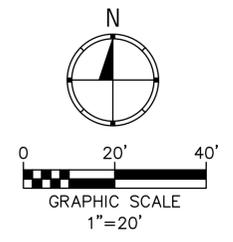
PDS PROJECT NO: J.2115

C1.1



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SERENADE PARK
CITY OF TROY
SITE PLAN

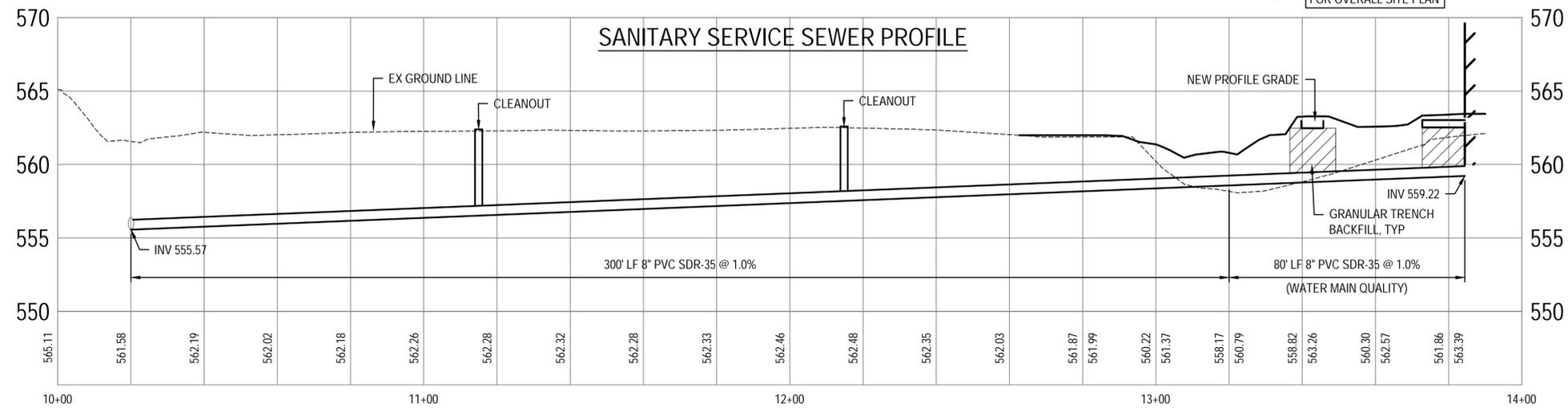
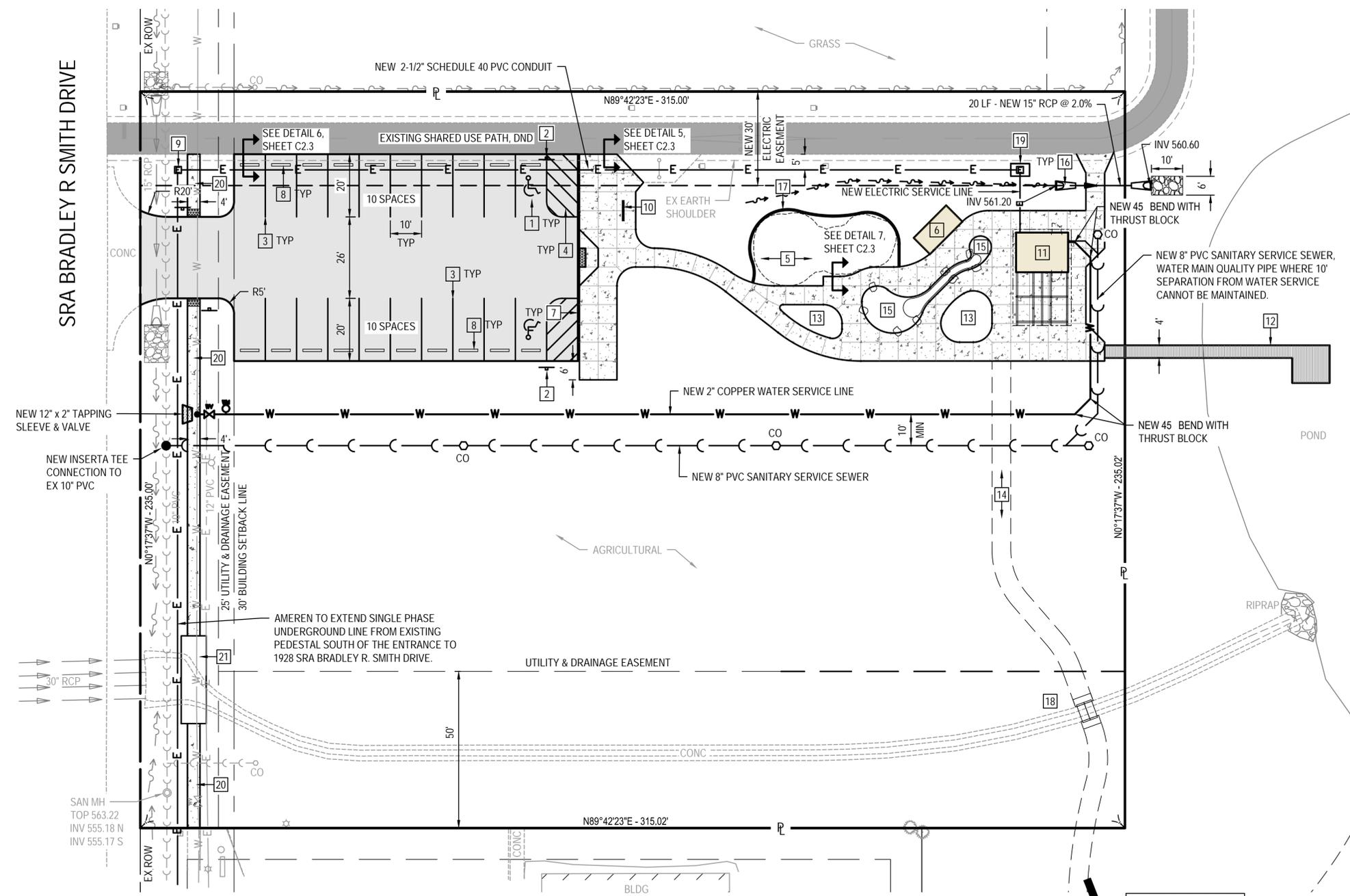


LEGEND

- NEW HOT-MIX ASPHALT PAVEMENT
SEE DETAIL 1 ON C2.2
- NEW CONCRETE PAVEMENT, SIDEWALK, OR RAMP
SEE DETAILS ON 2 AND 3 ON C2.2
- NEW RIP RAP AT FLARED END SECTION, SEE
DETAIL 3 ON C2.4

KEYED NOTES

- 1 NEW ACCESSIBLE PARKING STALL, SEE DETAIL 4 ON C2.2
- 2 NEW ACCESSIBLE PARKING SIGN, SEE DETAILS 1 AND 3 ON C2.3
- 3 NEW 4" PAINT PAVEMENT MARKING, WHITE
- 4 NEW 4" PAINT PAVEMENT MARKING, 45 DEGREE ON 2' CENTERS, YELLOW
- 5 NEW RUBBERIZED PLAYGROUND, SEE LANDSCAPE PLANS
- 6 EQUIPMENT VAULT, SEE LANDSCAPE PLANS
- 7 NEW COMBINATION CONCRETE CURB & SIDEWALK, SEE DETAIL 5 ON SHEET C2.2
- 8 NEW CONCRETE PARKING BLOCK, SEE DETAIL 2 ON SHEET C2.3
- 9 NEW ELECTRICAL JUNCTION BOX TO BE INSTALLED BY OTHERS.
- 10 NEW BICYCLE RACK, SEE DETAIL 7, SHEET C2.2
- 11 NEW OPEN PAVILION W / BATHROOMS, SEE LANDSCAPE PLANS
- 12 NEW FISHING DOCK, SEE LANDSCAPE PLANS
- 13 NEW LANDSCAPING AREA, SEE LANDSCAPE PLANS
- 14 NEW GRASS TRAIL, SEE LANDSCAPE PLANS
- 15 NEW WATER FEATURE, SEE LANDSCAPE PLANS
- 16 NEW FLARED END SECTION, SEE DETAIL 2 ON SHEET C2.4
- 17 NEW CONCRETE BARRIER CURB DETAIL, SEE DETAIL 6 ON SHEET C2.2
- 18 NEW FOOT BRIDGE OVER EXISTING SWALE, SEE LANDSCAPE PLANS
- 19 NEW ELECTRIC TRANSFORMER AND PAD TO BE INSTALLED BY OTHERS
- 20 ALTERNATE BID #1 - CONCRETE SIDEWALK, SEE DETAILS 2 & 3 ON SHEET C2.2
- 21 ALTERNATE BID #1 - PERMATRACK BOARDWALK, SEE LANDSCAPE PLANS



OWNER / DEVELOPER
CITY OF TROY, ILLINOIS
116 EAST MARKET STREET
TROY, IL 62294

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SHEET 6 OF 35
C2.0



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SERENADE PARK
CITY OF TROY
SITE PLAN DETAILS

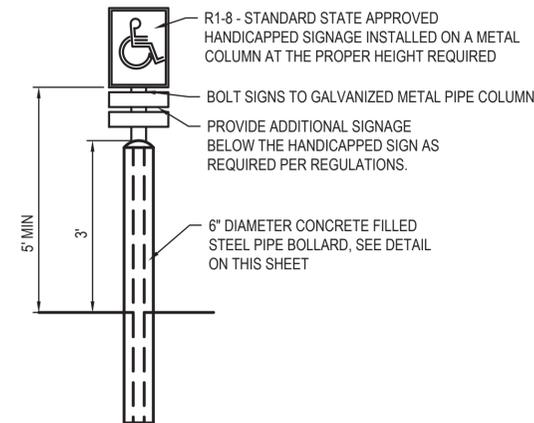
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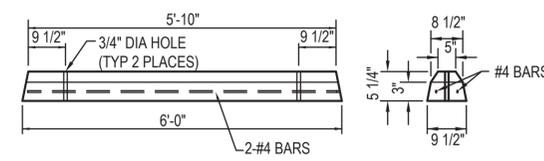
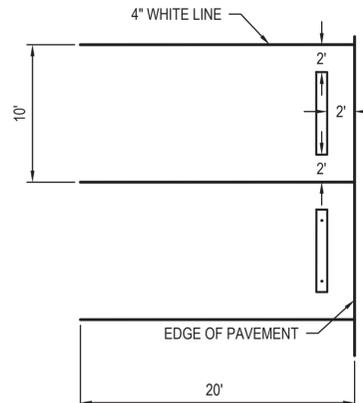
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12" X 18" SIGN



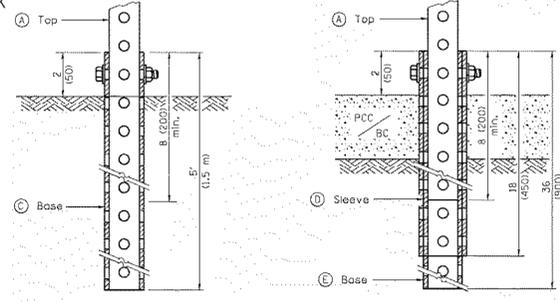
3 ACCESSIBLE SIGN & POST
SCALE: NO SCALE



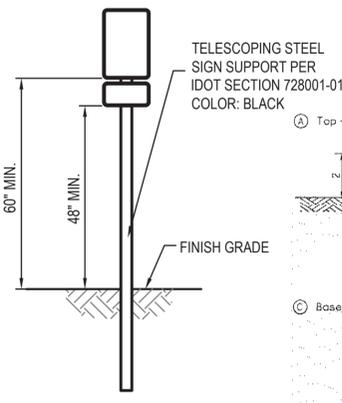
- NOTE:
1. PARKING BLOCKS SHALL BE MADE OF PRECAST CONCRETE.
 2. PARKING BLOCKS TO BE ANCHORED WITH 5/8" x 24" IRON PINS (2 EACH) DRILLED INTO THE PAVEMENT & FIT SNUG AS TO NOT RACK WHEN SHOVED.
 3. PARKING BLOCKS TO BE PLACED ONLY AS SHOWN ON SITE PLAN.

2 PARKING BLOCK DETAIL
SCALE: NO SCALE

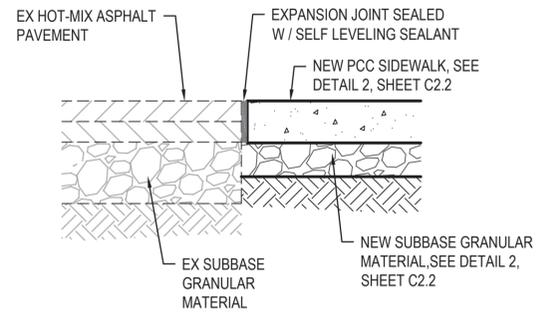
(A)	2 x 2 x var. (51 x 51 var.)
(B)	1 3/4 x 1 3/4 x 12 (44 x 44 x 300)
(C)	2 1/4 x 2 1/4 x 60 (57 x 57 x 1500)
(D)	2 1/2 x 2 1/2 x 18 (64 x 64 x 450)
(E)	2 1/4 x 2 1/4 x 36 (57 x 57 x 900)



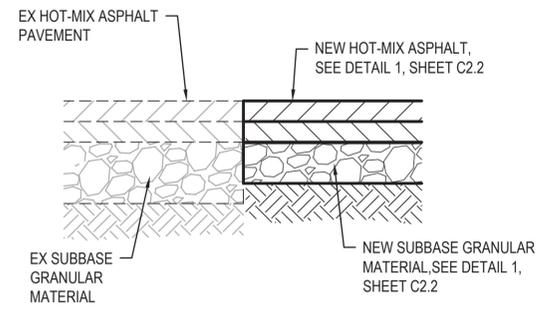
GROUND MOUNT DETAIL



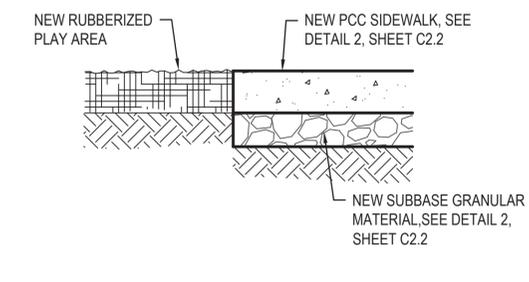
1 TELESCOPING STEEL SIGN DETAIL
SCALE: NO SCALE



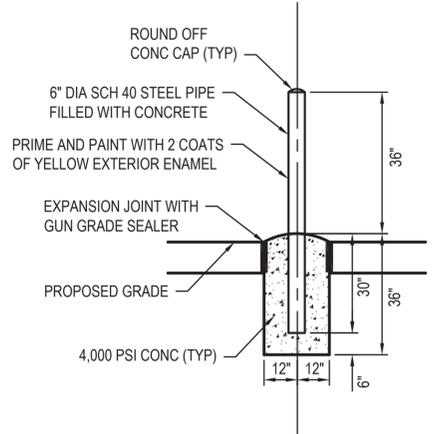
5 CONCRETE WALK ADJACENT TO HOT-MIX ASPHALT PAVEMENT
SCALE: NO SCALE



6 ASPHALT PAVEMENT ADJACENT TO HOT-MIX ASPHALT PAVEMENT
SCALE: NO SCALE



7 RUBBERIZED PLAYGROUND ADJACENT TO CONCRETE WALK
SCALE: NO SCALE



4 PIPE BOLLARD
SCALE: NO SCALE

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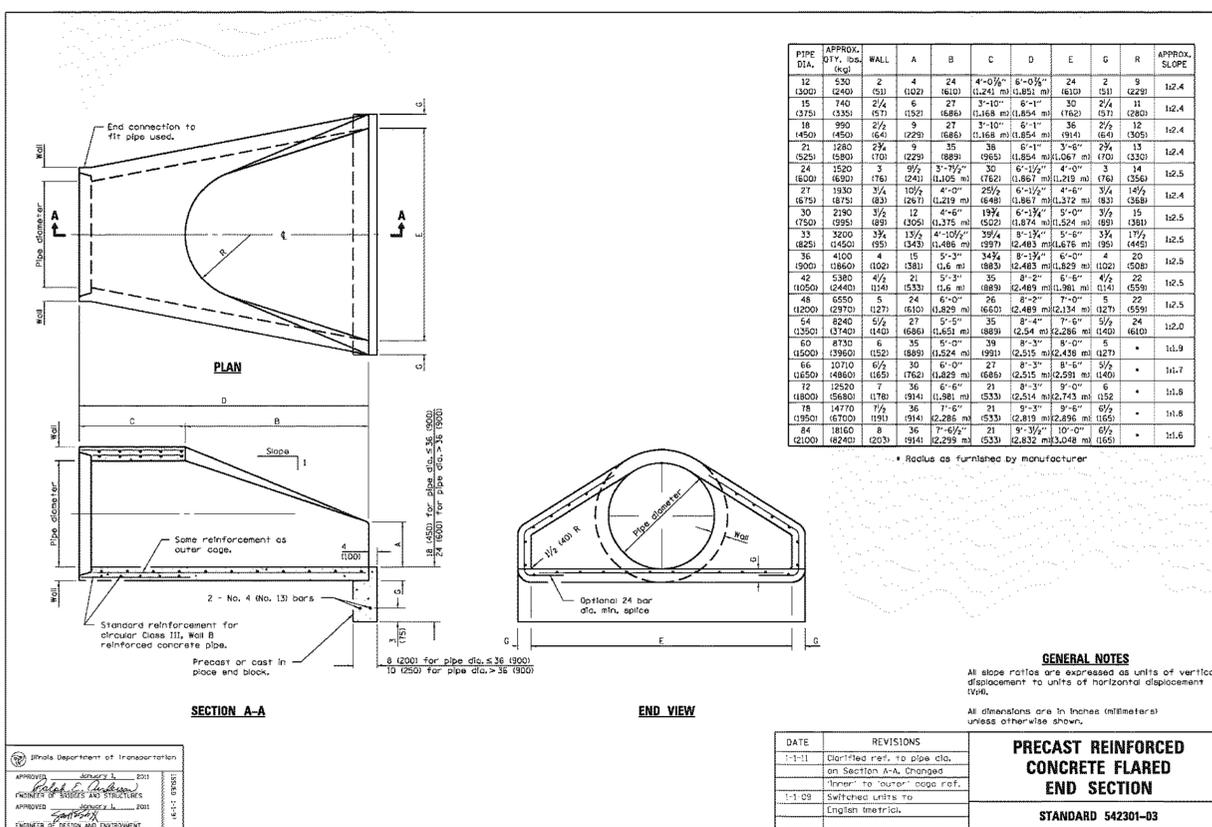
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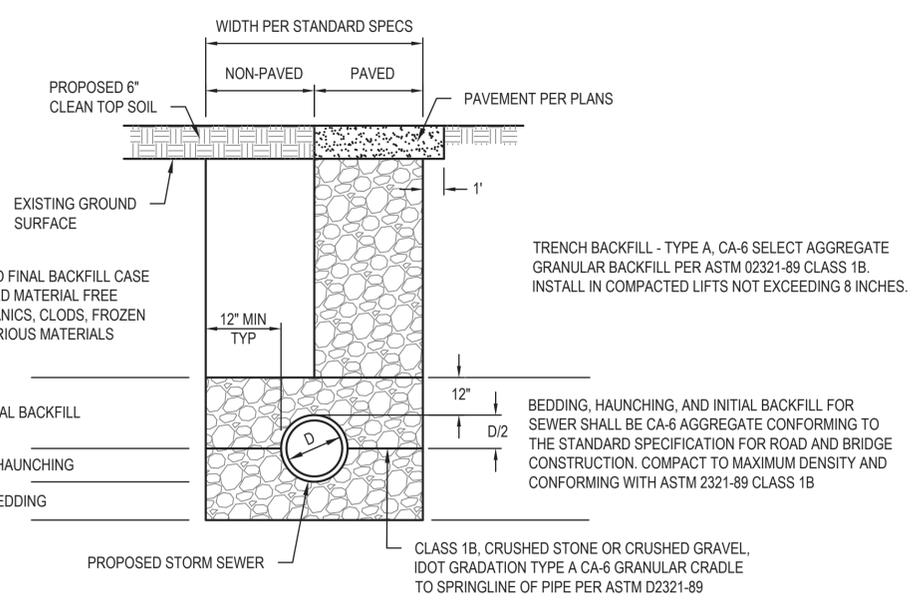
PIPE DIA.	APPROX. QTY. (Dsgs)	WALL	A	B	C	D	E	G	R	APPROX. SLOPE	
12	530	(240)	2	4	24	4'-0 1/2"	6'-0 1/2"	24	2	9	12.4
15	740	(350)	2 1/2	6	27	3'-10"	6'-1"	30	2 1/2	11	12.4
18	990	(450)	2 1/2	9	27	3'-10"	6'-1"	36	2 1/2	12	12.4
21	1280	(580)	2 1/2	9	35	3'	6'-1"	3'-6"	2 1/2	13	12.4
24	1520	(630)	3	9 1/2	3'-7 1/2"	30	6'-1 1/2"	4'-0"	3	14	12.5
27	1930	(870)	3 1/2	10 1/2	4'-0"	25 1/2	6'-2 1/2"	4'-6"	3 1/2	14 1/2	12.4
30	2190	(950)	3 1/2	12	4'-6"	19 1/2	6'-3 1/4"	5'-0"	3 1/2	15	12.5
33	3200	(1450)	3 1/2	13 1/2	4'-10 1/2"	39 1/4	6'-3 1/4"	5'-6"	3 1/2	17 1/2	12.5
36	4100	(1860)	4	15	5'-3"	34 3/4	6'-3 1/2"	6'-0"	4	20	12.5
42	5380	(2440)	4 1/2	21	5'-3"	35	6'-2"	6'-6"	4 1/2	22	12.5
48	6550	(2970)	5	24	6'-0"	26	6'-2"	7'-0"	5	22	12.5
54	8240	(3740)	5 1/2	27	5'-5"	35	6'-4"	7'-6"	5 1/2	24	12.0
60	8730	(3950)	6	35	6'-0"	39	6'-3"	8'-0"	6	24	11.9
66	10710	(4860)	6 1/2	30	6'-0"	27	6'-3"	8'-6"	5 1/2	24	11.7
72	12530	(5580)	7	36	6'-6"	21	6'-3"	9'-0"	6	24	11.8
78	14770	(6700)	7 1/2	36	7'-6"	21	6'-3"	9'-6"	6 1/2	24	11.8
84	18160	(8240)	8	36	7'-6"	21	6'-3"	10'-0"	6 1/2	24	11.6

• Radius as furnished by manufacturer
All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
All dimensions are in inches (millimeters) unless otherwise shown.

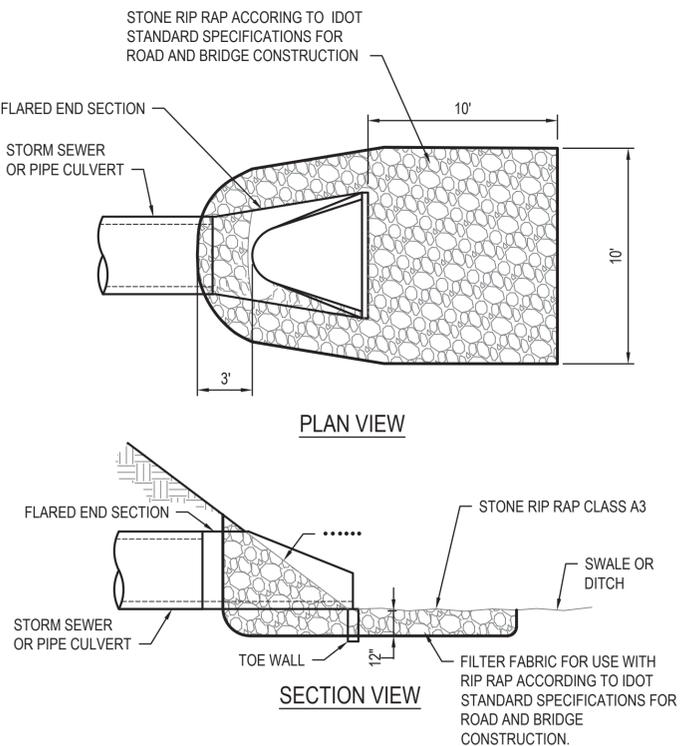
DATE	REVISIONS	PRECAST REINFORCED CONCRETE FLARED END SECTION
1-1-11	Clarified ref. to pipe dia. on Section A-A. Changed "inner" to "outer" case ref.	STANDARD 542301-03
1-1-09	Switched units to English metric.	



2 PRECAST REINFORCED CONCRETE FLARED END SECTION
SCALE: NO SCALE



1 PIPE CULVERT / STORM SEWER INSTALLATION DETAIL
SCALE: NO SCALE

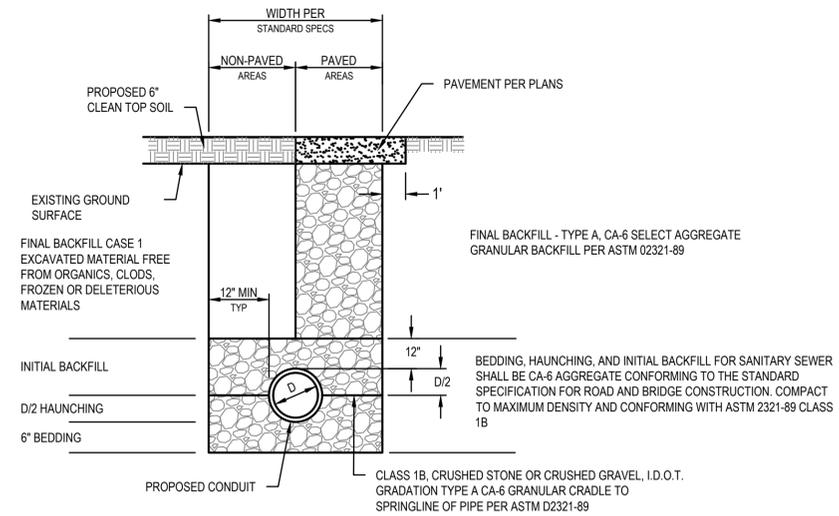


3 STONE RIP RAP AT DOWNSTREAM END SECTION
SCALE: NO SCALE

WATER SERVICE SPECIFICATIONS

(These specifications supplement the project specifications)

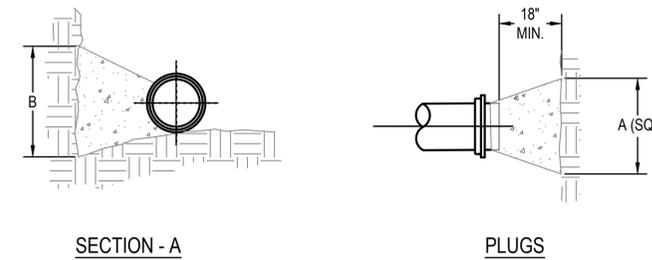
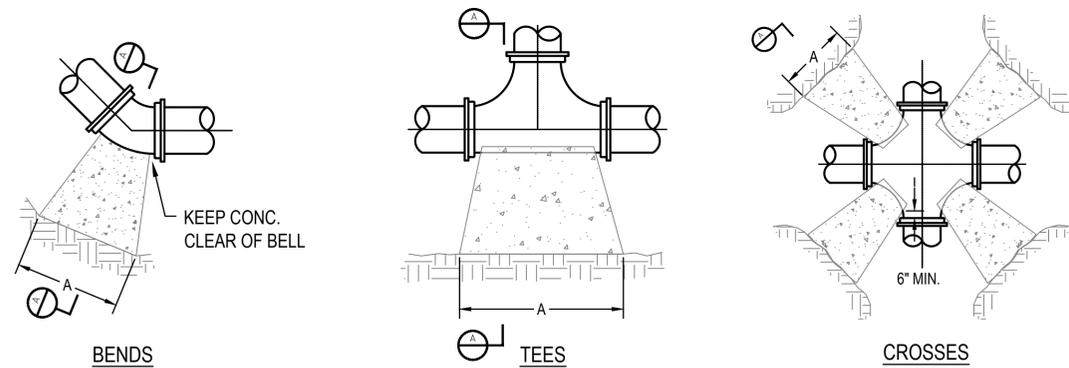
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS" 8TH EDITION, THESE PLANS, THE SPECIAL PROVISIONS, THE CONDITIONS OF THE I.E.P.A. PERMIT, AND THE CITY OF TROY SUBDIVISION ORDINANCE.
- ALL WATER SERVICE SHALL COMPLY WITH THE SPECIFICATIONS AS OUTLINED IN SECTION 40 OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS", 8TH EDITION OR MOST CURRENT AND THE ILLINOIS PLUMBING CODE. WHEN IN CONFLICT THE STRICTER CODE SHALL GOVERN. WATER SERVICE SHALL BE TYPE K COPPER OR CTS SDR 9 250 PSI POLYETHYLENE TUBING. FITTINGS SHALL BE BRASS AND OF THE COMPRESSION TYPE FOR TYPE K TUBING.
- PRIOR TO COMMENCEMENT OF ANY WORK, THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE PLANS WITH THE ACTUAL DIMENSIONS AND CONDITIONS OF THE SITE. THE GENERAL CONTRACTOR MUST VERIFY THE ENGINEER'S LINES AND GRADES. IF A DISCREPANCY OCCURS FROM WHAT IS SHOWN ON THE PLANS, STANDARD SPECIFICATIONS, AND/OR DETAILS, THE GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER AND SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE AFFECTED WORK. FAILING TO DO SO WILL BE CONSIDERED AS THE GENERAL CONTRACTOR HAVING PROCEEDED AT HIS OWN RISK AND EXPENSE.
- ALL WATER MAIN AND WATER SERVICE WORK SHALL BE COORDINATED WITH THE PUBLIC WORKS DIRECTOR OF THE CITY OF TROY.
- ALL THRUST BLOCKING SHALL BE WITH POURED CONCRETE BLOCKS AGAINST UNDISTURBED VERTICAL EARTH FACE.
- DETAILED "AS-BUILT" DRAWINGS SHALL BE PROVIDED TO THE CITY UPON COMPLETION OF THE PROJECT.
- ALL EXISTING FIRE HYDRANTS, METER LIDS AND FRAMES SHALL REMAIN THE PROPERTY OF THE CITY.
- ALL WATER MAINS AND SERVICES SHALL BE INSTALLED BY A STATE OF ILLINOIS LICENSED PLUMBER.
- CONTRACTOR SHALL NOTIFY THE TROY WATER DEPARTMENT 48 HOURS PRIOR TO STARTING WORK.
- ALL WORK SHALL BE INSPECTED BY WATER DEPARTMENT STAFF PRIOR TO BACKFILLING.
- ALL WATER METER LIDS AND VALVE BOXES TO BE ADJUSTED TO THE PROPER FINISH GRADE.
- CONTRACTOR SHALL WARRANT ALL WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK BY THE CITY OF TROY.



NOTES:

WATER MAIN BEDDING FOR CONDUITS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS" EIGHTH EDITION"

1 WATER SERVICE INSTALLATION DETAIL
SCALE: NO SCALE



2 BENDS, TEES & CROSSES
SCALE: NO SCALE

REQUIRED BEARING AREA ON UNDISTURBED SOIL AND TYPICAL DIMENSIONS

PIPE SIZE	90 DEGREE BENDS			45 DEGREE BENDS			11.25 DEGREE BENDS			22.5 DEGREE BENDS			TEES/PLUGS		
	AREA (sq ft)	"A"	"B"	AREA (sq ft)	"A"	"B"	AREA (sq ft)	"A"	"B"	AREA (sq ft)	"A"	"B"	AREA (sq ft)	"A"	"B"
2 - 6	5.3	43"	18"	2.9	23"	18"	0.7	6"	18"	1.5	12"	18"	3.7	30"	18"
8	9.2	55"	24"	5.0	30"	24"	1.3	8"	24"	2.5	15"	24"	6.4	39"	24"
10	13.8	66"	30"	7.5	36"	30"	1.9	9"	30"	3.8	18"	30"	9.7	46"	30"
12	19.4	78"	36"	10.6	42"	36"	2.7	11"	36"	5.3	21"	36"	13.8	55"	36"
14	26.0	89"	42"	14.0	48"	42"	3.6	12"	42"	7.2	25"	42"	18.5	63"	42"
16	33.7	101"	48"	18.3	55"	48"	4.7	14"	48"	9.4	28"	48"	23.9	72"	48"

Area in square feet "A" and "B" in inches
 Bearing table area is based on 200 psi maximum with soil bearing capacity of 2000 lbs/square foot.
 For higher water pressures or lower soil pressures, consult Engineer for adjustments.
 Bearing table area does not include a safety factor.
 A safety factor and additional bearing area may be required as directed by the Engineer.



NAME: THOMAS L. CISSSELL, PE
 DISCIPLINE: CIVIL
 LICENSE NO.: 062-058015
 EXPIRATION DATE: 11/30/23
 CERT. OF AUTHORITY:
 EXPIRATION DATE:
 COMPANY INFO:
 OATES ASSOCIATES, INC.
 COLLINGSVILLE, ILLINOIS
 PHONE: 618.345.2200

SERENADE PARK
 CITY OF TROY
 WATER MAIN DETAILS

NO.	DATE	REVISION

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DATE: June 1, 2022
 DESIGNED: T. CISSSELL
 DRAWN: S. WRIGLEY
 CHECKED: S. MELENDEZ

PDS PROJECT NO: J.2115

SHEET 11 OF 35

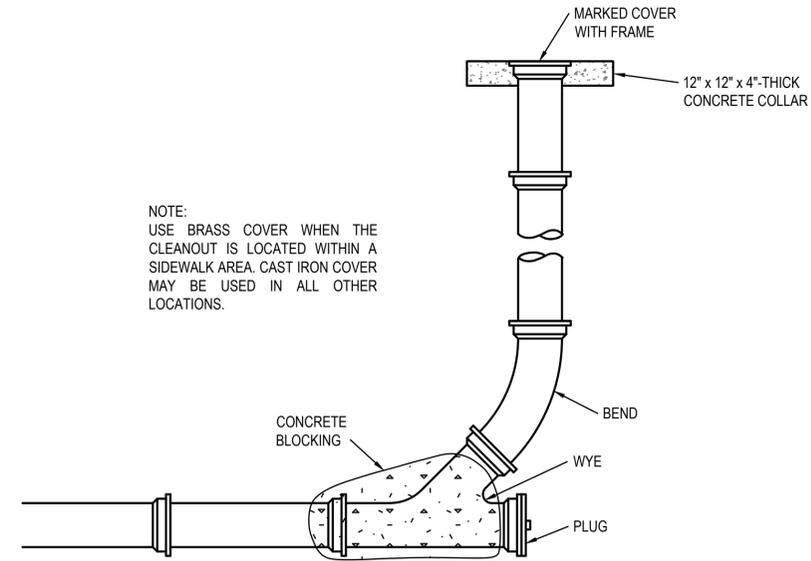
C2.5

H:\P221091 - SERENADE PARK DEVELOPMENT\SITE\DWG 221091 - DETAILS.DWG - 6/2/2022

GRAVITY SANITARY SERVICE SEWER SPECIFICATIONS

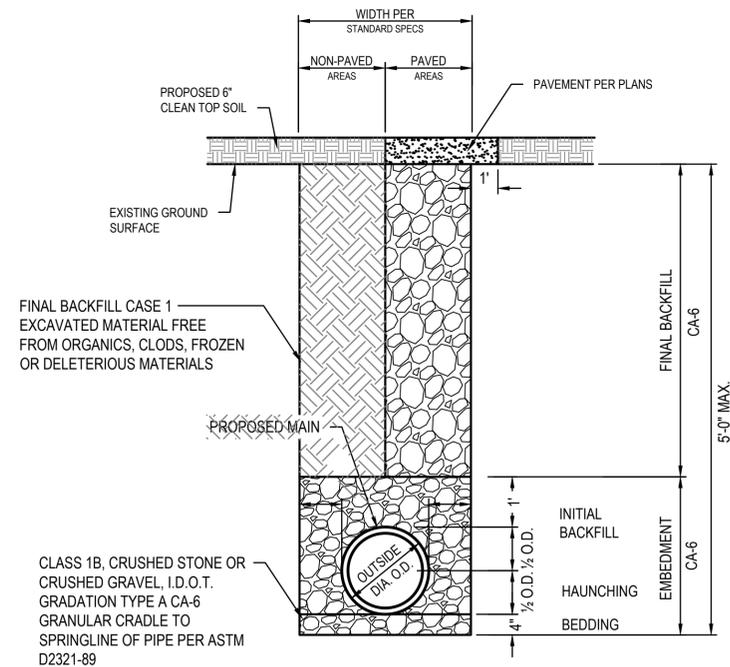
(These specifications supplement the project specifications)

- ALL MATERIALS, INSTALLATION, AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS", THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, THE ILLINOIS DEPARTMENT OF PUBLIC HEALTH, THE ILLINOIS PLUMBING CODE, AND THE REQUIREMENTS OF THE CITY OF TROY.
- PRIOR TO COMMENCEMENT OF ANY WORK, THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE PLANS WITH THE ACTUAL DIMENSIONS AND CONDITIONS OF THE SITE. THE GENERAL CONTRACTOR MUST VERIFY THE ENGINEER'S LINES AND GRADES. IF A DISCREPANCY OCCURS FROM WHAT IS SHOWN ON THE PLANS, STANDARD SPECIFICATIONS, AND/OR DETAILS, THE GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER AND SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE AFFECTED WORK. FAILING TO DO SO WILL BE CONSIDERED AS THE GENERAL CONTRACTOR HAVING PROCEEDED AT HIS OWN RISK AND EXPENSE.
- ALL SANITARY SERVICE SEWER PIPES SHALL BE PVC SDR-35 (OR SDR-26 IF GREATER THAN 14 FEET DEEP) MEETING THE REQUIREMENTS OF ASTM D3034 WITH PIPE AND FITTINGS CONFORMING TO ASTM D-3034 AND HAVING AN INTEGRAL BELL, GASKETED JOINT CONFORMING TO ASTM D-3212
- BEDDING OF THE PIPE AND BACKFILL SHALL BE DONE IN ACCORDANCE WITH ASTM D2321-89 CLASS 1B, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" AND AS SHOWN IN THE PLANS. GRANULAR TRENCH BACKFILL SHALL BE USED AS INDICATED ON THE PLANS AND WHEN THE EDGE OF ANY TRENCH IS WITHIN 2 FT. OF ANY PAVEMENT, CURB, SIDEWALK, OR OTHER STRUCTURE. TRENCH BACKFILL SHALL BE COMPACTED WITH A ROLLER, VIBRATORY PLATE, OR OTHER COMPACTING DEVICE IN 6-INCH LIFTS.
- ALL GRAVITY SANITARY SERVICE SEWER PIPES SHALL BE TESTED IN ACCORDANCE WITH ARTICLE 31-1.13 METHOD A, EXFILTRATION OF AIR UNDER PRESSURE, OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS". CONTRACTOR SHALL REPAIR OR REPLACE ANY LINE WHICH FAILS ANY OF THE REQUIRED TESTS, AND RETEST. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND THE CITY OF TROY. CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY OF TROY 48 HOURS IN ADVANCE OF ANY TESTING TO BE PERFORMED.
- A MINIMUM 10-FOOT HORIZONTAL AND 18-INCH VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL WATER AND SEWER SERVICE LINES IN ACCORDANCE WITH ARTICLE 41-2.01C OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS". WHERE PHYSICAL CONSTRAINTS PREVENT THIS REQUIREMENT FROM BEING MET, ALTERNATIVE METHODS FOR PREVENTING CROSS-CONTAMINATION BETWEEN THE SEWER AND WATER SERVICE SHALL BE PROVIDED IN ACCORDANCE WITH STANDARD DRAWINGS 18-24 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, 8TH EDITION.
- PVC PIPE SHALL BE STORED UNDER COVER TO PROTECT FROM ULTRAVIOLET LIGHT.
- WHENEVER PIPE LAYING IS NOT ACTIVELY IN PROGRESS, OPEN ENDS OF ALL INSTALLED PIPE AND FITTINGS SHALL BE FITTED WITH A WATERTIGHT PLUG.
- SEE SITE PLAN FOR CLEANOUT LOCATIONS.
- CONNECTION TO THE SEWER MAIN SHALL BE MADE WITH AN ADS INSERTA TEE, OR APPROVED EQUAL, FOR SANITARY SERVICE SEWER. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED INSTALLATION GUIDELINES.



NOTE:
USE BRASS COVER WHEN THE CLEANOUT IS LOCATED WITHIN A SIDEWALK AREA. CAST IRON COVER MAY BE USED IN ALL OTHER LOCATIONS.

1 SANITARY SEWER CLEANOUT
SCALE: NO SCALE



2 SANITARY SEWER DETAIL
SCALE: NO SCALE

H:\P221091 - SERENADE PARK DEVELOPMENT\SITE\DWG\221091 - DETAILS.DWG - 6/2/2022



NAME: THOMAS L. CISSELL, PE
DISCIPLINE: CIVIL
LICENSE NO: 062-056015
EXPIRATION DATE: 11/30/23
CERT. OF AUTHORITY:
EXPIRATION DATE:
COMPANY INFO:
OATES ASSOCIATES, INC.
COLLINSVILLE, ILLINOIS
PHONE: 618.345.2200

SERENADE PARK
CITY OF TROY
SANITARY SEWER DETAILS

NO.	DATE	REVISION

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DATE: June 1, 2022
DESIGNED: T. CISSELL
DRAWN: S. WRIGLEY
CHECKED: S. MELENDEZ

PDS PROJECT NO: J.2115

SHEET 12 OF 35
C2.6



NAME: THOMAS L. CISSSELL, PE
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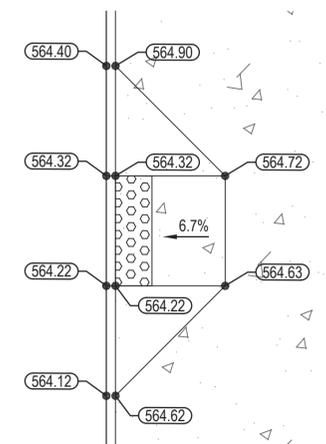
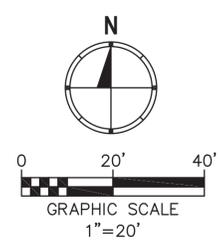
SERENADE PARK
CITY OF TROY
GRADING PLAN

NO.	DATE	REVISION

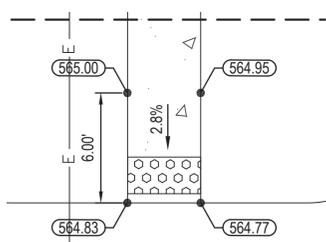
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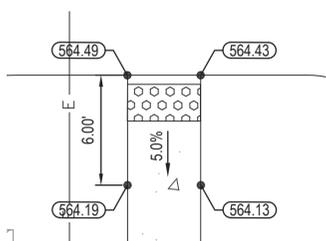
PDS PROJECT NO: J.2115



RAMP DETAIL A
SCALE: 1" = 5'



RAMP DETAIL B
SCALE: 1" = 5'



RAMP DETAIL C
SCALE: 1" = 5'

NORMAL POOL = 557.0
100 YR HIGH WATER = 561.4

SEE SHEET C3.1 FOR
ADDITIONAL GRADING.

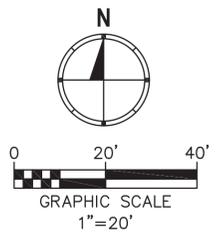
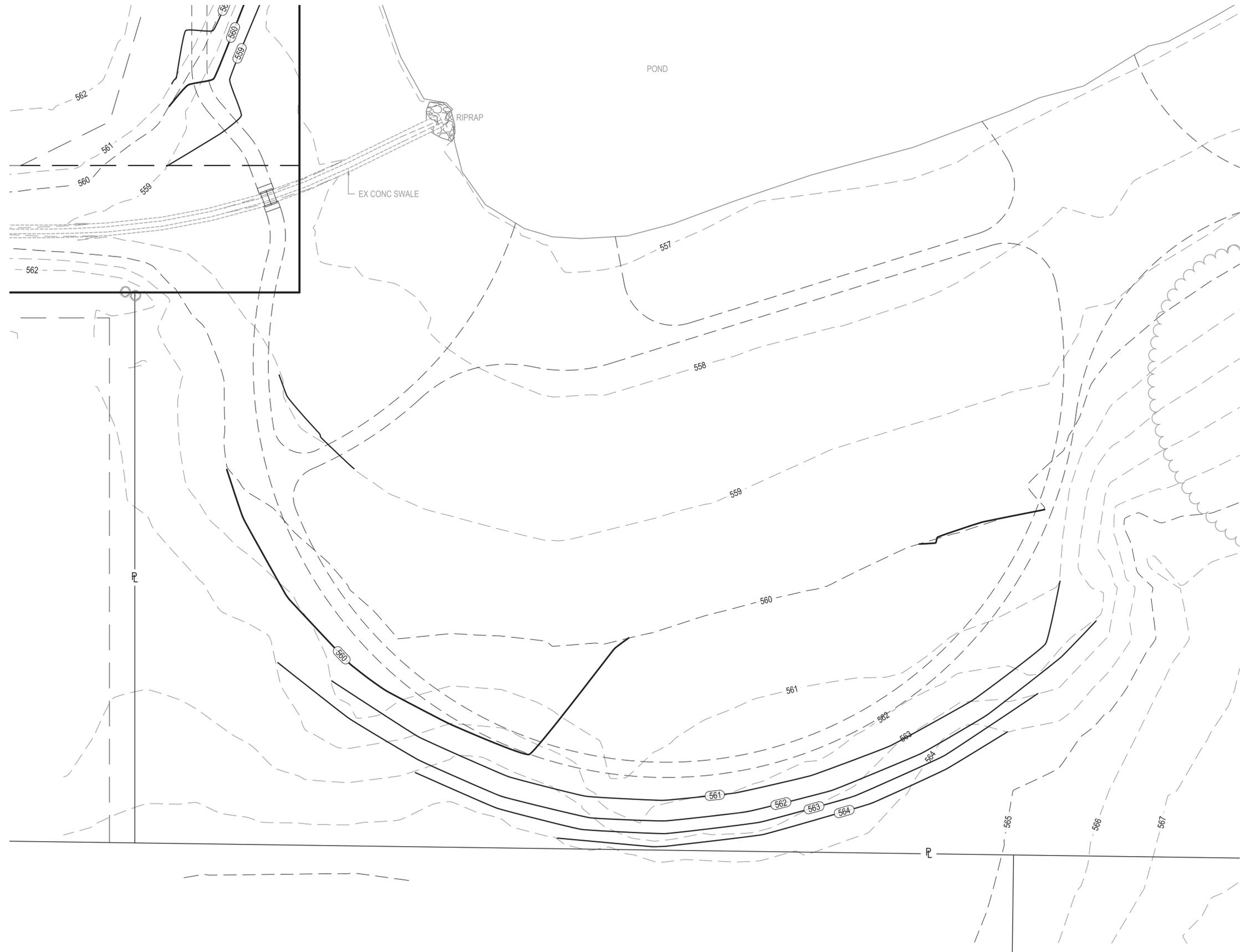
SRA BRADLEY R SMITH DRIVE

REMOVE & STOCKPILE EXISTING
RIP-RAP FOR REUSE AFTER FINAL
GRADING

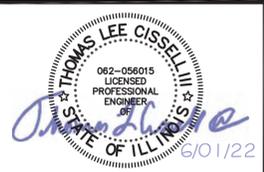
SAN MH
TOP 563.22
INV 555.18 N
INV 555.17 S

H:\P221091 - SERENADE PARK DEVELOPMENT\SITE\DWG\221091 - DESIGN.DWG - 5/31/2022

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NAME: THOMAS L. CISSELL, PE
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 LICENSE NO: 062-058015
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 COLLINGSVILLE, ILLINOIS
 PHONE: 618.345.2200

SERENADE PARK
 CITY OF TROY
 GRADING PLAN

NO.	DATE	REVISION

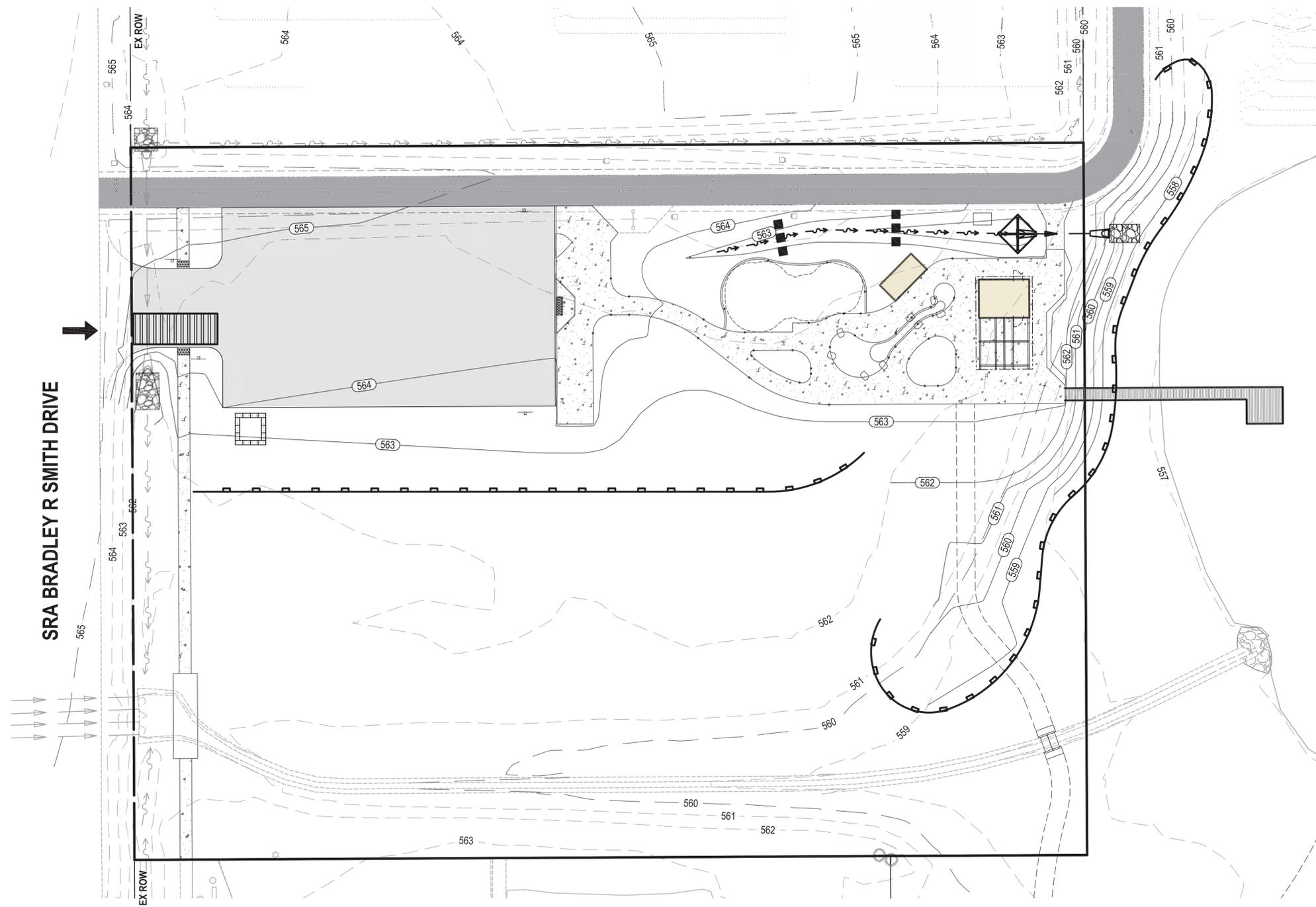
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DATE: June 1, 2022
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 DRAWN: S. WRIGLEY
 CHECKED: S. MELENDEZ

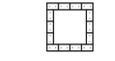
PDS PROJECT NO: J.2115

C3.1

H:\P221091 - SERENADE PARK DEVELOPMENT\SITE\DWG\221091 - EROSION CONTROL PLANS.DWG - 5/31/2022

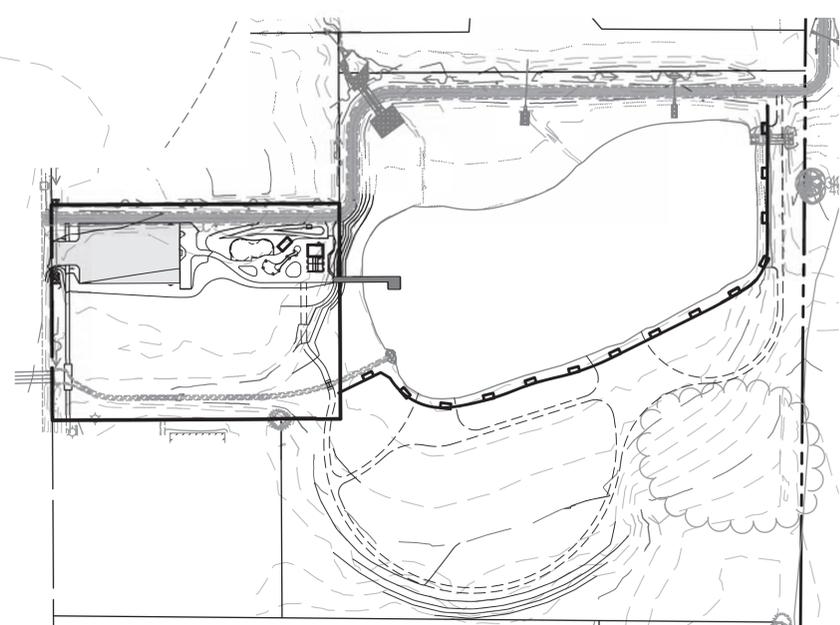


LEGEND

-  PERIMETER EROSION BARRIER, SEE DETAIL 3 ON SHEET C4.3
-  INLET & PIPE PROTECTION, SEE DETAIL 2 ON SHEET C4.3
-  TEMPORARY DITCH CHECKS, SEE DETAIL 5 ON SHEET C4.3
-  NEW STABILIZED CONSTRUCTION ENTRANCE, SEE DETAIL 1 ON SHEET C4.3
-  NEW TEMPORARY CONCRETE WASHOUT SEDIMENT BASIN, SEE DETAIL 4 ON SHEET C4.3
-  SITE ACCESS LOCATION. CONSTRUCTION DELIVERIES ARE DIRECTED TO USE THIS LOCATION TO ACCESS THE SITE

EROSION CONTROL PLAN NOTES

1. INLET PROTECTION FOR DRAINAGE STRUCTURES TO BE ADJUSTED OR USED IN PLACE SHALL REMAIN OPERATIONAL.
2. ALL EROSION CONTROL ITEMS SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF THE LOCAL GOVERNING BODIES.
3. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED TO PREVENT STORM WATER RUNOFF FROM THE SITE. THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONTRACT.
4. ALL TRUCKS MUST BE WASHED DOWN PRIOR TO LEAVING THE SITE.
5. CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES DUE TO THE PROXIMITY OF THE SURROUNDING RESIDENTIAL HOMES. CONTRACTOR SHALL WATER SITE FREQUENTLY AS NEEDED.
6. CONTRACTOR SHALL PROVIDE PERIMETER EROSION BARRIER ALONG POND AND AT ALL CONSTRUCTION LOCATIONS ADJACENT TO OR DIRECTING GROUND WATER TOWARDS THE EXISTING POND.



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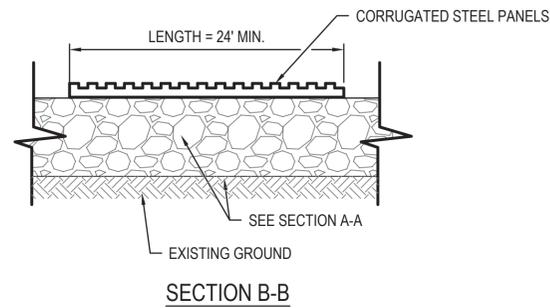
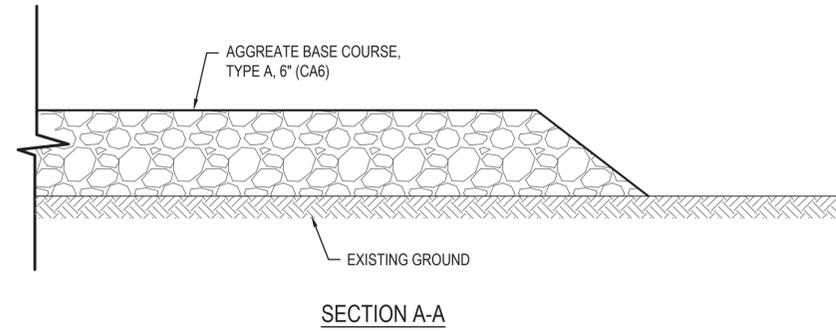
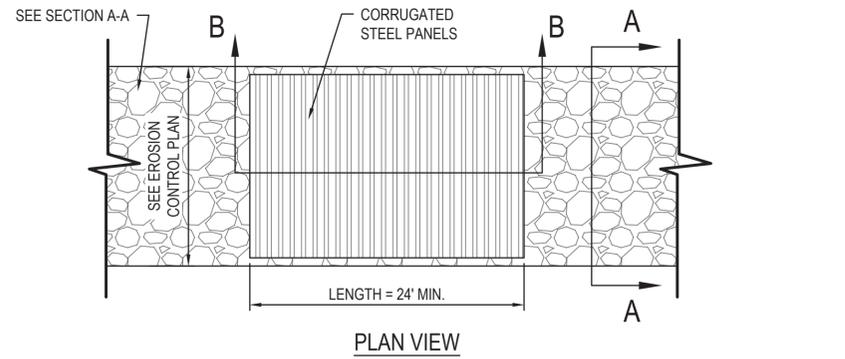
SERENADE PARK
CITY OF TROY
STORM WATER POLLUTION PREVENTION PLAN

NO.	DATE	REVISION

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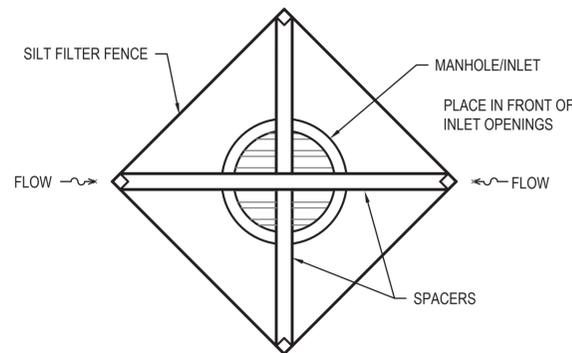
DATE: June 1, 2022
DESIGNED: T. CISSELL
DRAWN: S. WRIGLEY
CHECKED: S. MELENDEZ

PDS PROJECT NO: J.2115

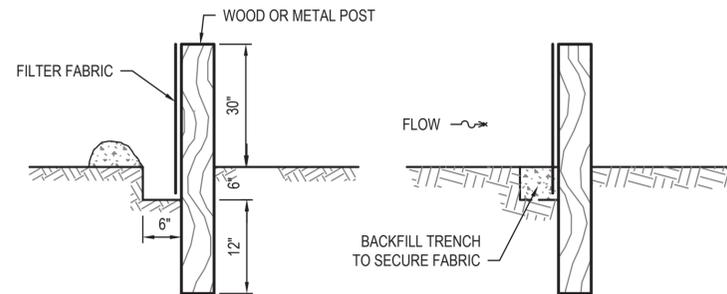


NOTE: CONTRACTOR SHALL GRADE CONSTRUCTION ENTRANCE TO PROPOSED GRADES FOR NEW ENTRANCE (SEE DETAIL 2 ON C2.2.1 FOR ASPHALT PAVEMENT THICKNESS). THE CONSTRUCTION ENTRANCE SHALL BE USED AS THE NEW BASE FOR THE ROAD / PARKING LOT. THE AGGREGATE BASE COURSE SHALL BE FREE OF ALL MUD AND DEBRIS AND RE-SHAPED PRIOR TO PAVING, UPON APPROVAL FROM OWNER'S REPRESENTATIVE.

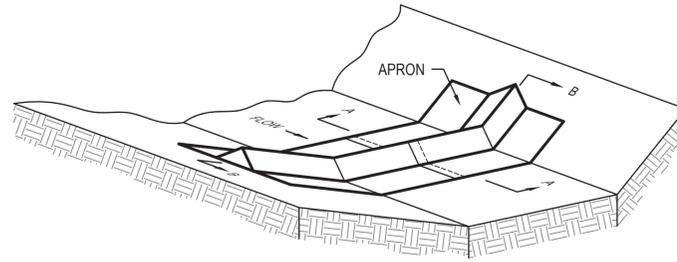
1 STABILIZED CONSTRUCTION ENTRANCE
SCALE: NO SCALE



2 INLET PROTECTION
SCALE: NO SCALE



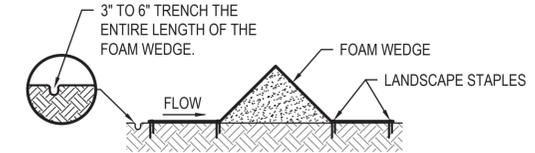
3 SILT FILTER FENCE AS A PERIMETER EROSION BARRIER
SCALE: NO SCALE



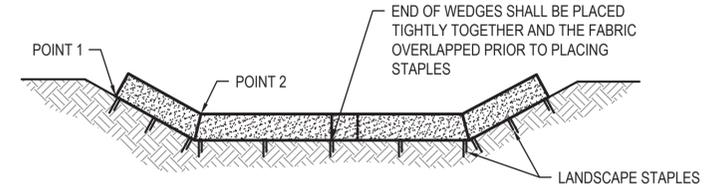
NOTE: POINT 1 SHALL BE HIGHER THAN POINT 2 TO ALLOW WATER TO RUN OVER THE WEDGES AND NOT AROUND THE ENDS.

STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT AS SHOWN IN THE DETAIL.

IN THE SUMMARY OF QUANTITIES, SCHEDULES, OR PLANS, THE QUANTITY "EACH" REFERS TO EACH LOCATION. THE CONTRACTOR SHALL INSTALL THE NUMBER OF INDIVIDUAL FOAM WEDGES REQUIRED TO ENSURE THAT POINT 1 IS HIGHER THAN POINT 2

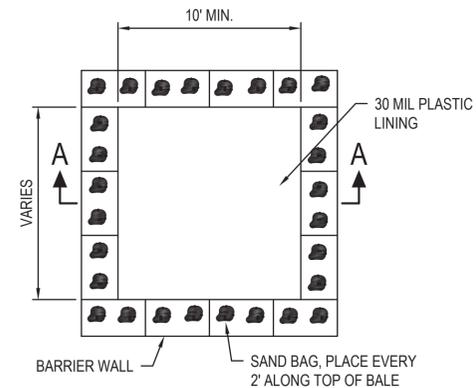


SECTION A-A

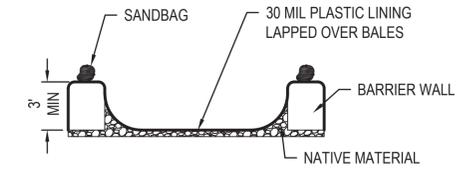


SECTION B-B

5 TEMPORARY DITCH CHECK
SCALE: NO SCALE



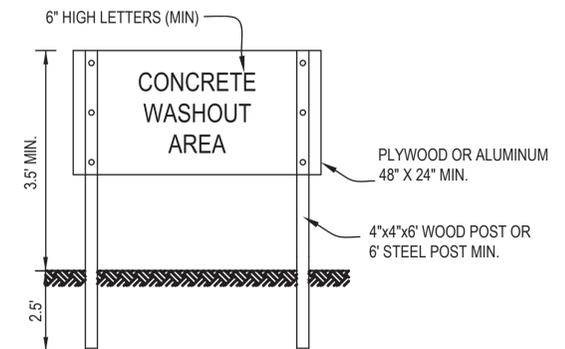
PLAN



SECTION A-A

NOTES:

1. THE GENERAL CONTRACTOR SHALL INSPECT THE WASHOUT AREA WEEKLY.
2. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 4 INCHES.
3. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION. HARDENED CONCRETE MATERIALS SHOULD BE REMOVED AND DISPOSED OF.
4. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.



SIGN DETAIL

4 CONCRETE WASHOUT
SCALE: NO SCALE

NO.	DATE	REVISION

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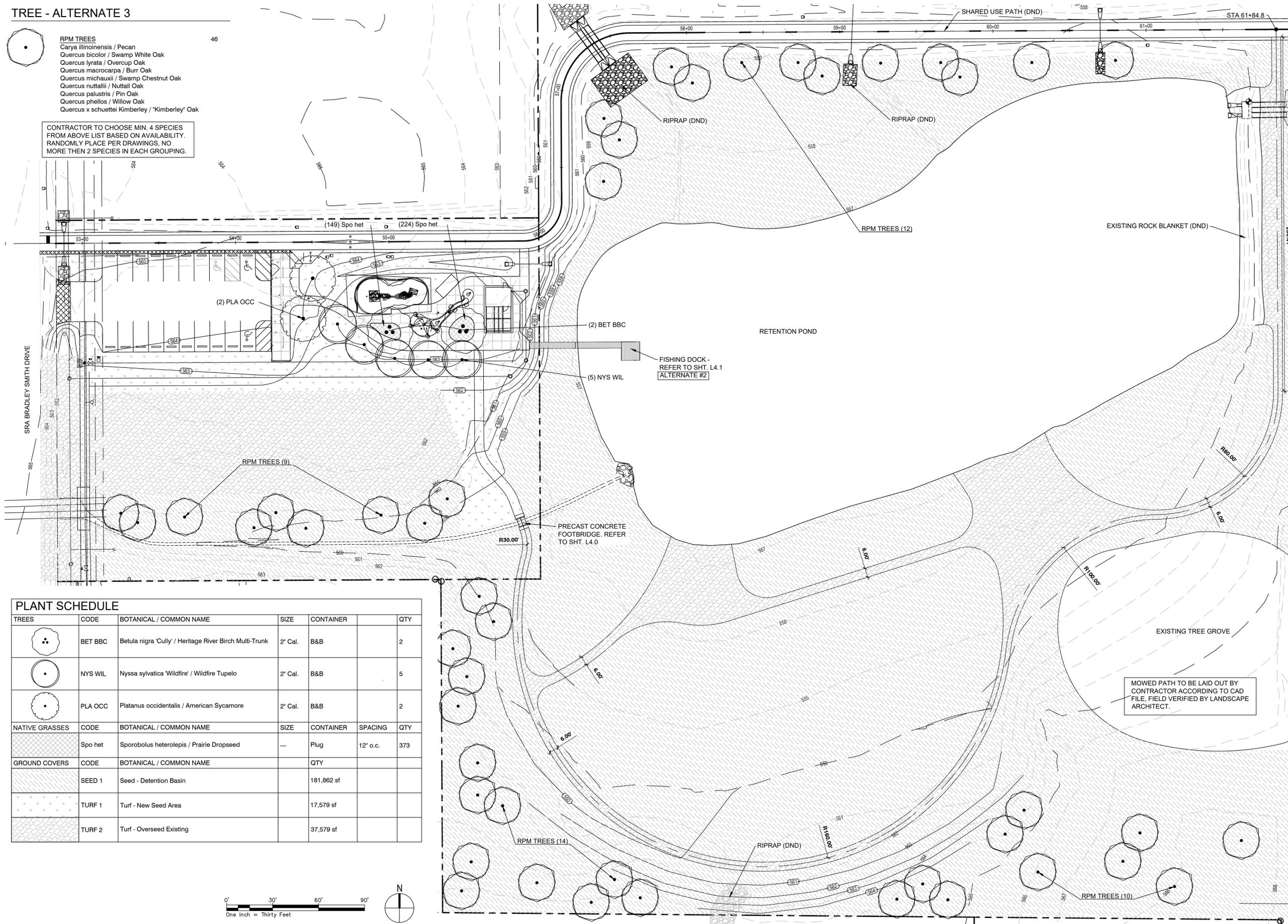
DESIGNED: T. CISSELL
DRAWN: S. WRIGLEY
CHECKED: S. MELENDEZ

PDS PROJECT NO: J.2115

TREE - ALTERNATE 3

- RPM TREES
 Carya illinoensis / Pecan
 Quercus bicolor / Swamp White Oak
 Quercus lyrata / Overcup Oak
 Quercus macrocarpa / Burr Oak
 Quercus michauxii / Swamp Chestnut Oak
 Quercus nuttallii / Nuttall Oak
 Quercus palustris / Pin Oak
 Quercus phellos / Willow Oak
 Quercus x schuettei Kimberley / "Kimberley" Oak

CONTRACTOR TO CHOOSE MIN. 4 SPECIES FROM ABOVE LIST BASED ON AVAILABILITY. RANDOMLY PLACE PER DRAWINGS. NO MORE THEN 2 SPECIES IN EACH GROUPING.



PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY	
	BET BBC	Betula nigra 'Cully' / Heritage River Birch Multi-Trunk	2" Cal.	B&B	2	
	NYS WIL	Nyssa sylvatica 'Wildfire' / Wildfire Tupelo	2" Cal.	B&B	5	
	PLA OCC	Platanus occidentalis / American Sycamore	2" Cal.	B&B	2	
NATIVE GRASSES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SPACING	QTY
	Spo het	Sporobolus heterolepis / Prairie Dropseed	---	Plug	12" o.c.	373
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	QTY			
	SEED 1	Seed - Detention Basin	181,862 sf			
	TURF 1	Turf - New Seed Area	17,579 sf			
	TURF 2	Turf - Overseed Existing	37,579 sf			



NAME: NOEL T. FEHR
 DISCIPLINE: LANDSCAPE ARCHITECT
 LICENSE NO.: 157-000239
 EXPIRATION DATE:
 CERT. OF AUTHORITY:
 EXPIRATION DATE:
 COMPANY INFO:
 2816 SUTTON BOULEVARD, SUITE 1
 SAINT LOUIS, MO 63143
 PHONE: 314.241.3600

SERENADE PARK
 CITY OF TROY
 LANDSCAPE PLAN

NO.	DATE	REVISION

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DATE: June 1, 2022
 DESIGNED: J. NILGES
 DRAWN: J. CORBETT
 CHECKED: J. NILGES

PDS PROJECT NO: J.2115

CONTINUED FROM PREVIOUS SHEET.....

3.5 PLANTING

- A. Place plants for best appearance for review and final orientation by Owner's Representative.
B. Set plants vertical, where possible.
C. Remove non-biodegradable root containers.
D. Set plants in pits or beds, partly filled with prepared plant mix, at minimum depth as indicated on Drawings under each plant.
E. Saturate soil with water when pit or bed is half full of topsoil and again when full.
F. For Perennial, Ground Cover Planting: Set out and space plants in even rows with triangular spacing.
G. Planting Times:
1. Balled and Burlap Trees: Ball and burlap trees shall only be installed between September 1 through November 30 and February 1 through May 31.
2. RPM Trees: RPM trees shall be installed between October 20 through December 10 and March 1 through April 30.
3. Container Grown Material: Container grown material shall only be installed between September 1 through November 30 and February 1 through May 31.
4. Plug and Rhizome Material: Plug and rhizomes shall only be installed between February 15 through May 31.

3.6 PLANT RELOCATION AND RE-PLANTING

- A. Relocate plants as indicated by the Owners Representative.
B. Ball or pot removed plants when temporary relocation is required. Plants with broken balls will be replaced.
C. Replant plants in pits or beds, partly filled with prepared topsoil mixture, at minimum depth as indicated on Drawings under each plant. Scarify the burlap halfway down the ball.
D. Saturate soil with water when pit or bed is half full of topsoil and again when full.

3.7 INSTALLATION OF ACCESSORIES

- A. Wrap deciduous shade and flowering tree trunks and place guying system. Maintain guys throughout planting process.

3.8 PLANT SUPPORT

- A. Brace plants vertically with plant protector wrapped guy wires and stakes to the following:

Table with 2 columns: Tree Caliper, Tree Support Method. Rows include: Less than 2 inches (2 stakes with two ties minimum), Less than 2 inches (multi-stem) (3 stakes with two ties minimum), 2 - 6 inches (3 guy wires).

3.9 TREE PRUNING

- A. When pruning of newly installed trees is required, lightly prune trees in accordance with ANSI A300 Maintenance Pruning Type: Crown Cleaning. Refer to Section 01450 for pruning of existing trees.

3.10 FIELD QUALITY CONTROL

- A. Plants will be rejected when ball of earth surrounding roots has been disturbed or damaged prior to or during planting.

PART 4 METHOD OF MEASUREMENT

- 4.1 Plants and all related incidental items will be installed and upon installation and acceptance, the contractor will be paid 90 percent of the lump sum amount for this work within 30 days of receipt of invoice for this work. The contractor will receive the final 10 percent payment following the first successful leafing out of the plants within 60 days of the first following growing season when leafing out occurs. The replacement (material and installation) of the successful planting material shall be the responsibility of the contractor at no cost to the owner. Replacement shall be made at the direction of the owner.

PART 5 BASIS OF PAYMENT

- 5.1 The accepted quantities of plants, complete in place, will be paid for at the lump sum price required by the contract. No direct payment will be made for any incidental items such as supporting posts, mulch, edging, erosion control, topsoil placement, and establishment watering necessary for this work. Costs for insurance shall be considered incidental and be included in the contract lump sum price.

END OF SECTION

SECTION 32 9219 - SEEDING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Preparation of subsoil.
2. Placing topsoil.
3. Seeding.
4. Mulching.
5. Soil testing and fertilizer.
6. Maintenance Until Final Acceptance.
7. Inspections.
8. Insurance.
B. Related Sections:
1. 329300 - Plants
2. 329400B - Invasive Species Management
3. 329700 - Establishment Maintenance

1.2 REFERENCES

- A. American Society for Testing and Materials:
1. ASTM C602 - Standard Specification for Agricultural Liming Materials.
B. Current State seed laws.

1.3 DEFINITIONS

- A. Weeds: Include Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

1.4 SUBMITTALS

- A. Product Data: Submit data for seed mix including third party pure Live Seed (PLS) results, fertilizer, mulch and hydroseeding information.
B. Test Reports: Complete a soil test which includes six (6) soil samples taken from locations that are evenly distributed throughout the project site. Indicate topsoil nutrient and pH levels with a customized soil amendment program with recommended soil supplements and application rates.
C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Include maintenance instructions, cutting method and maximum grass height; types, application frequency, and recommended coverage of fertilizer.

1.6 QUALITY ASSURANCE

- A. Provide seed mixture in containers showing percentage of seed mix, germination percentage, inert matter percentage, weed percentage, year of production, net weight, date of packaging, and location of packaging.

1.7 QUALIFICATIONS

- A. Seed Supplier: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.
B. Installer: Company specializing in performing work of this section with minimum 5 years documented experience, approved by manufacturer.

1.8 INSURANCE

- A. The contractor shall provide insurance to cover "Acts of God" for flood events, to cover the replacement and installation of seeding lost as a result of a flood in the project area. The period of coverage shall conclude at Final Acceptance by the Owner.
B. The contractor shall provide an insurance certificate for the above-mentioned insurance and the City of Brentwood shall be listed on the certificate as additional insured.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver seed mixture in sealed containers. Seed in damaged packaging is not acceptable.
B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.10 INITIAL MAINTENANCE

- A. Native Seeding: Maintain native seeded areas immediately after placement until plants are well established and exhibit vigorous growing conditions acceptable to Owner.
1. Scattered bare spots will be allowed up to a maximum of 20% of any seeded area.
2. A minimum of 80% coverage is required as part of substantial completion.
3. Use a cover crop to hold soil when bare spots develop outside ideal native seed installation times.
4. Refer to Section 3.8 for maintenance requirements until final acceptance.
5. Warranty: Include coverage for one continuous growing season. Replacements: Plants of same size and species as specified, planted in the next growing season, with a new warranty commencing on date of replacement.
B. Turf Seeding: Maintain seeded areas immediately after placement until grass is well established and exhibits vigorous growing condition for two cuttings. Scattered bare spots, no larger than one square foot, will be allowed up to a maximum of 5% of any planted area. A minimum of 80% coverage is required as part of substantial completion. Refer to Section 3.8 for maintenance requirements until final acceptance.

PART 2 PRODUCTS

2.1 SEED MIXTURE

- A. Suppliers: Suppliers shall be from within a 300-mile radius of the project site at a location with similar climate conditions to the project site. Approved local suppliers:
1. Genesis Nursery, Inc. 23200 Hurd Rd., Tampico, IL 61283, (877) 817-5325, www.genesisnurseryinc.com.
2. Pure Air Natives, 4630 W Florissant Ave., Saint Louis, MO. 63115, (636) 357-6433., www.pureairnatives.com.
B. Dry Detention Seed Mixture: Native seed mixture from Pure Air Natives, Inc, 2205 Ebert Lane, Wentzville, MO 63385, Phone: 636.357.6433 or approved equal, as indicated on the drawings.
1. Third party PLS results must be clearly displayed on the product tag
2. Seed shall be fresh, not older than one year from time of harvest and free of mold, or insects and diseases.
C. Turf Seeding:
1. Standard Seed Mixture (including all Flood Bench turf seeding areas) : Turf-type tall fescue mixture shall contain fresh, clean, new-crop seed with a minimum germination of 85%. The seed mixture (by weight) shall be 75% improved turf-type tall fescue containing a five-way blend varieties, in equal amounts of equal color and texture, containing acceptable varieties, including Aird, Bonanza, Mustang, Olympic, Falcon, Jaguar, Rebel II, or approved equal, 10% improved Kentucky Bluegrass containing acceptable varieties, including Adelphi, America, Baron, Majestic, Ram, Touchdown, Nassau, or approved equal, and 15% 50/50 blend of annual and perennial rye.

2.2 SEEDING RATES

- A. Native Seed Mixture - Dry Detention Seed Mixture, or approved equal: 12.18 lbs./acre.
B. Turf Seeding: Standard Seed Mix: 350 lbs./acre.

2.3 SOIL MATERIALS

- A. Topsoil:
1. Excavated from site and free of weeds if available.
2. Topsoil: Imported from approved, local sources.
a. Provide loam topsoil, friable, free of weeds and other materials deleterious to plant growth and rocks larger than 1/2-inch diameter.
b. Acceptable sources include but are not limited to the following:
1) Fick Supply Company, Wildwood, MO (636) 532-4978
2) Kirkwood Material Supply, Kirkwood, MO (314) 822-9644
3) Brentwood Material Company, St. Louis, MO (314) 968-0184
4) St. Louis Composting, St. Louis, MO (314) 868-1612
c. Topsoil shall be medium textured soil complying with UDSA soil texture triangle values for loam to sandy loam topsoil with the following neutral to medium acid pH ranges:
d. Topsoil for lawns areas - 6.5 to 7.5 pH
e. Add pH modifiers to topsoil as required to meet the above pH ranges based on soil test results.
f. Customized soil amendments based on soil test results to address site specific issues.

2.4 ACCESSORIES

- A. Mulching Material: Oat or wheat straw, free from weeds, foreign matter detrimental to plant life, and dry. Hay or chopped cornstalks are not acceptable.
B. Fertilizer: Grade recommended for grass, of proportion necessary to eliminate deficiencies of topsoil, as indicated in analysis. Apply only if recommended by and at rates identified in soil test results.
C. Lime: ASTM C602, Class T agricultural limestone containing a minimum 80 percent calcium carbonate equivalent.
D. Amendment for Existing Topsoil: Amendment for existing topsoil shall be Black Gold Compost or approved equal, available from St. Louis Composting, 39 Old Eliam Ave., Valley Park, MO Phone: (636) 861-3344.
E. Water: Clean, fresh and free of substances or matter capable of inhibiting vigorous growth of grass.
F. Erosion Control Fabric: Straw Coconut Mat 400 by Erosion Control products or approved equal.
G. Herbicide: As recommended by soil test.
H. Stakes: Softwood lumber, chisel pointed.
I. String: Inorganic fiber.
J. Hydroseeding Mulch: Mulch shall be composed of cellulose or wood fiber products with no growth or germination inhibiting substances, and shall be manufactured in such a manner that when thoroughly mixed with seed, fertilizer, organic stabilizer, and water, in the proportions specified, will form homogeneous slurry which is capable of being sprayed to form a porous mat. The fibrous mulch in its air-dry state shall contain no more than 15% by weight of water. The fiber shall have a temporary green dye and shall be accompanied by a certificate of compliance stating that the fiber conforms to these specifications.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify prepared soil base is ready to receive the Work of this section.

3.2 PREPARATION OF SUBSOIL

- A. Prepare sub-soil to eliminate uneven areas and low spots. Maintain lines, levels, profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
B. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated sub-soil.
C. Scarify subsoil to depth of 3 inches where topsoil is to be placed. Repeat cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted sub-soil.

3.3 PLACING AND AMENDING TOPSOIL

- A. Spread topsoil to minimum depth of 4 inches over area to be seeded. Rake until smooth.
B. Amend topsoil by tilling Black Gold Compost, or approved equal, into top 2 inches of topsoil.
C. Place topsoil during dry weather and on dry unfrozen subgrade.

- D. Remove vegetable matter and foreign non-organic material from topsoil while spreading.
E. Grade topsoil to eliminate rough, low or soft areas, and to ensure positive drainage.

3.4 FERTILIZING

- A. Apply fertilizer at application rate recommended by soil analysis.
B. Apply after smooth raking of topsoil and prior to roller compaction, as needed.
C. Do not apply fertilizer at same time or with same machine used to apply seed.
D. Mix fertilizer thoroughly into upper 2 inches of topsoil.
E. Lightly water soil to aid dissipation of fertilizer. Irrigate top level of soil uniformly.

3.5 SEEDING

- A. Apply seed mixtures at the rate indicated on the drawings evenly in two intersecting directions. Rake in lightly.
B. Allowable seeding methods are: drill or hydroseed. Broadcast seeding is only permitted in small areas of less than 100 square feet.
C. Do not seed areas in excess of that which can be mulched on same day.
D. Planting Season: March 15 through May 30 and August 15 through October 15.
E. Do not sow immediately following rain, when ground is too dry, or when winds are over 12 mph.
F. Roll seeded area with roller not exceeding 112 lbs./linear foot.
G. Immediately following seeding and compacting, apply mulch to thickness of one inch. Maintain clear of shrubs and trees.
H. Apply water with fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.

3.6 SEED PROTECTION

- A. Identify seeded areas with stakes and string around area periphery. Set string height to 24 inches. Space stakes at 48 inches.
B. Cover seeded slopes where grade is 4 inches per foot or greater with erosion control fabric. For areas where grade is less than 4 inches per foot, seeded areas can be covered with mulching material as indicated above or erosion control fabric. Roll fabric onto slopes without stretching or pulling.
C. Lay fabric smoothly on surface, bury top end of each section in 6-inch-deep excavated topsoil trench. Overlap edges and ends of adjacent rolls minimum 12 inches. Backfill trench and rake smooth, level with adjacent soil.
D. Secure outside edges and overlaps at 36-inch intervals with stakes.
E. Lightly dress slopes with topsoil to ensure close contact between fabric and soil.
F. At sides of ditches, lay fabric laps in direction of water flow. Lap ends and edges minimum 6 inches.

3.7 HYDROSEEDING

- A. Hydroseeding Preparation: Do all slurry preparation at the job site:
1. Water, mulch, fertilizer, binder and other ingredients shall be added to the tank simultaneously so that the finished load is a homogenous mix of the specified ingredients.
2. Seed shall be added last and shall be discharged within 2 hours.
3. Loads held over 2 hours will be recharged with 1/2 the seed rate before application.
4. Once fully loaded, the complete slurry shall be agitated for 3-5 minutes to allow for uniform mixing.
B. General
1. All hydroseed applications are to be applied in a sweeping motion to form a uniform application and form a mat.
2. Unused Loads: If mixture remains in tank for more than 8 hours it shall be removed from the job site at contractor's expense.

3.8 TEMPORARY SEEDING

- A. The work of temporary seeding and protection of erosive earth areas shall be done promptly, where needed.
B. Timing: Temporary seeding and protection shall be done under the following conditions:
1. When it is impossible or impractical to bring an area to final line, grade and finish so that permanent seeding and protection work can be performed without subsequent serious disturbance by additional grading.
2. When soil erosion occurs or is considered to be a potential problem on areas where construction operations are temporarily suspended.
3. When an immediate cover would be desirable to minimize erosion, siltation or pollution of any area.

3.9 MAINTENANCE UNTIL FINAL ACCEPTANCE

- A. Native Mix Seeded Areas:
1. Maintain seed areas for a period of one growing season including mowing, spotseeding/plugging and weed control, including spot herbicide application to establish a stand of native plants complying with coverage requirements specified in Initial Maintenance and final acceptance by the Owner.
2. Mow native plants at 12 inches high a maximum of three (3) lime during the growing season covered by the maintenance period as recommended by seed manufacturer to reduce weed competition. CONFIRM
3. Recommended timing: April, June & August.
4. Selective weeding shall be done manually as recommended by seed manufacturer and/or industry standards for establishing native plants.
B. Turf Seeded Areas:
1. Maintenance shall begin immediately after planting. The seed shall be protected and maintained by watering, mowing, fertilizing and replanting until final acceptance by the owner.
2. Mow grass at regular intervals to maintain at maximum height of 2-1/2 inches. Do not cut more than 1/3 of grass blade at each mowing. Perform first mowing when seedlings are 40 percent higher than desired height.
3. Immediately remove clippings after mowing and trimming. Do not let clippings lay in clumps.
4. Water to prevent grass and soil from drying out.
5. Control growth of weeds. Apply herbicides when necessary to inhibit excessive weed growth. Remedy damage resulting from improper use of herbicides.
6. Immediately reseed areas showing bare spots.
7. Repair washouts or gullies.
8. Protect seeded areas with warning signs during maintenance period.
9. The maintenance of the seeded turf areas shall be the Contractor's responsibility until final acceptance by the Owner. Contractor shall protect seeded areas by watering, fertilizing, applying weed killer, and replanting as necessary, for a uniform stand of established grass and until approved by the Owner's Representative. Scattered bare spots, no larger than one square foot, will be allowed up to a maximum of 5% of any planted area.

3.10 INSPECTIONS

- A. Final Project Acceptance
1. The Contractor shall notify the Owner's Representative for final inspection. The request shall be in written form and received at least ten (10) calendar days before the anticipated date of inspection.
2. Based on the sole judgment of the Owner's Representative, he shall certify in writing as to the satisfaction and substantial completion of the project, which shall be deemed final acceptance. Final acceptance is defined as when all punch list items have been determined to be complete by either the Owner or the Owner's Representative and the Contractor is authorized to submit the final pay application.
B. End of Initial Maintenance Until Final Acceptance
1. The Contractor shall notify the Owner's Representative for final inspection and turnover of maintenance activities. The request shall be in written form and received at least ten (10) calendar days before the anticipated date of inspection.
2. Based on the sole judgment of the Owner's Representative, he shall certify in writing as to the satisfaction and substantial completion of the Initial Maintenance Until Final Acceptance, which shall be deemed final acceptance. Final acceptance is defined as when all punch list items have been determined to be complete by either the Owner or the Owner's Representative and the Contractor is authorized to submit the final pay application. Establishment Maintenance shall begin when Initial Maintenance is complete and Final Acceptance of the project by the Owner is complete.

END OF SECTION



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NAME: NOEL T. FEHR
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SERENADE PARK
CITY OF TROY
LANDSCAPE SPECIFICATIONS
PLANTINGS AND SEEDING

NO. DATE REVISION

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DATE: June 1, 2022

DESIGNED: J. NILGES
DRAWN: J. CORBETT
CHECKED: J. NILGES

PDS PROJECT NO: J.2115

L3.1

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Invasive Species Vegetation Removal

1.2 REFERENCES

- A. Drawings and general provisions of the Contract, including general and supplementary conditions, apply to this section.
B. Missouri Department of Conservation Invasive Plant Website.

1.3 WORK INCLUDED

- A. The Contractor shall furnish all labor, equipment, and materials necessary for and to properly complete Invasive Species Management to the satisfaction of Owner and according to the Contract Drawings.

1.4 DEFINITIONS

- A. Invasive Species: A plant that causes ecological or economic harm in a new environment where it is not native. Invasive species are capable of causing extinctions of native plants and animals, reducing biodiversity, competing with native organisms for limited resources, and altering habitats.
B. Mulch: Mulch is a wood chip covering placed on the ground surface around plants (or covering the ground in lieu of plants) to prevent the growth of unwanted species and to provide erosion control.

1.5 SUBMITTALS

- A. Contractor will prepare an invasive species management plan that includes a description of the species to be managed, the procedures proposed to remove the invasive species, herbicide use, and spill prevention procedures, and safe handling and disposal of herbicides. Contractor shall refer to the Missouri Department of Conservation Invasive Plant Section of its website at https://mdc.mo.gov/trees-plants/problem-plant-control/invasive-plants.

- B. Contractor and/or its sub-contractor shall have current permits for any chemical treatment activities and submit a copy to Owner.

1.6 QUALITY ASSURANCE

- A. Contractor will learn to identify the priority target invasive plant species (see Missouri Department of Conservation Invasive Plant Section of its website at https://mdc.mo.gov/trees-plants/problem-plant-control/invasive-plants).

B. Priority Target Species:

- 1. The priority target species are Autumn Olive (Elaeagnus umbellata), Bush Honeysuckle (Lonicera maackii or Lonicera x bella) Callery Pear (Pyrus calleryana), and Wintercreeper (Euonymus fortunei). Additional invasive species that may be of priority concern in the area will be identified by the Owner.

1.7 MINIMIZE SOIL DISTURBANCE

- A. Due to the nature of invasive plants to rapidly colonize areas of disturbed soil, out-compete native species and become firmly established very quickly, it is essential to minimize areas of soil disturbance during clearing.
B. Some of the methods described herein require actual digging or pulling of plants from the soil. Each removal technique must be evaluated to determine if the proposed management method will destabilize soils to the point where erosion is threatened.

1.8 MULCH

- A. Invasive plants rapidly colonize any area of disturbed soil, it is essential that all disturbed areas be mulched and seeded as soon as possible. If outside the growing season for seed germination, disturbed sites should still be mulched. Outside sources of mulch should be free of invasive plant parts or seeds. Use of wood fiber mulch is preferred.

1.9 DISPOSITION OF COLLECTED MATERIAL

- A. Collected plant material will be hauled off-site. Invasive plants shall NOT be left on-site, nor burned nor ground on-site. Transport the material to an appropriate disposal location as at the time of removal.

1.10 HERBICIDES

- A. All herbicide use shall be applied by hand applicator and in accordance with label instructions, state and federal laws and will be conducted by, or under the supervision of experience applicators. Herbicide application techniques will generally fall under two types; foliar application and steam cut and treat. Foliar herbicides will be applied to actively growing plants prior to flowering.

PART 2 PRODUCTS

2.1 MATERIAL AND EQUIPMENT

- A. Contractor shall furnish all material, tools, equipment, facilities and services as required for performing clearing and removal of invasive target species.

2.2 NOT USED

PART 3 EXECUTION

3.1 GENERAL

- A. Accepted methods of exotic and invasive management include:
1. Hand pulling
2. Foliar herbicide application.
3. Cut stump method.
4. Clear, mulch, and spray with herbicide.

3.2 INVASIVE VEGETATION REMOVAL

- A. This work shall consist of managing invasive plants in accordance with the Contract Documents.
B. Hand Pulling:
1. All target species;
2. Plants with stems one inch or smaller can be removed by hand pulling. Since the root system of most of these plants is extensive, pulling larger plants is seldom possible.
3. Stems up to 2 in diameter can be removed using a weed wrench or similar uprooting tools. The entire root must be removed since broken fragments may re-sprout.
C. Foliar Herbicide Application:
1. Autumn Olive (Elaeagnus umbellata)
a. Foliar application of a solution of 1 to 2% glyphosate or triclopyr with a 0.5% nonionic surfactant may be adequate for small patches of autumn olive. Ambient air temperature should be above 65 degrees F.
b. If Garlon is used, apply according to manufactures specifications.
c. Application of herbicide should be done in late August or September when the plant is actively translocating materials to the roots.
2. Bush honeysuckle (Lonicera maackii or Lonicera x bella);
a. Apply a solution of 2% glyphosate or triclopyr and 0.5% nonionic surfactant to thoroughly wet all foliage. For vines climbing into surrounding trees use a 25% solution of glyphosate or triclopyr on cut vine surfaces. Ambient air temperature should be above 65 degrees F.

D. Cut Stump Method:

- 1. All target species;
a. This management method should be considered when treating individual bushes or where the presence of other desirable species precludes foliar applications over a given area.
b. The plant will be cut off at the main stem 1 to 2 inches above ground and immediately painted with a 50% solution of glyphosate or triclopyr. Cover the outer 20% of all cut stumps.
c. In addition, the basal section of the plant (ground to 12 inches) can be treated with a solution of 25% triclopyr and 75% horticultural oil. After treatment, wet the area thoroughly. Ambient air temperature should be above 65 degrees F.
d. If Garlon is used, apply according to manufactures specifications.

E. Clear, Mulch, and Spray with Herbicide:

- 1. All target species;
a. This management method should be considered when treating nonspecific stand of invasive species or where the presence of desirable plant species is not abundant and do not provide a significant cover.

- b. This method must be used before fruit is produced, generally in the summer and before August.
c. Clearing limits of monospecific stand of exotic and invasive species will be identified and marked with flagging by the Contractor and shown in the invasive species management plan specified in SUBMITTALS section of this specification.
d. Desirable shrub and tree species will be marked by the Owner. Contractor will install protection barrier fencing on marked shrub and trees. Protection fencing will consist of 3 feet high orange barrier fence. Radius of the barrier will extend 3 feet from trunk of each individual plant. No vegetation shall be removed until all protection zones are established and approved by the Owner.
e. Undesirable vegetation will be ground to 1 to 2 inches above ground using a mechanical grinder specified in Part 2 of this section. Cut vegetation will be sprayed with herbicide within 30 minutes after cutting.
f. Cleared and mulched areas will be painted with a 50% solution of glyphosate or triclopyr.
g. If Garlon is used, apply according to manufactures specifications.
h. Mulching on or near stream channel banks shall be done in manner so as not to disturb the soil.
i. Maximum dimension of chipped material used for on-site mulch shall be 1/2 inch by 6 inches.

3.3 DISPOSAL OF MATERIAL NOT USED AS A MULCH

- A. Proper disposal of harvested invasive plant parts and soil containing invasive plant seeds or rootstock (rhizomes) is essential to managing the spread of invasive plants and should not be used as mulch. Full consideration should be given, as appropriate, as follows:
1. Transportation: Cut living plant material will be transported to processing areas in covered vehicles with tarp, topper, cap or other method to securely fasten the load in order to prevent spread of the plant material from the project work site.

END OF SECTION

SECTION 32 9700 - ESTABLISHMENT MAINTENANCE

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Work Period and Schedule
2. Woody and Herbaceous Plant Care and Maintenance
3. Native Seeded and Plant Care and Maintenance
4. Invasive Species Vegetation Removal
5. Insurance.

1.2 REFERENCES

- A. American National Standards Institute:
1. ANSI A300 - Tree Care Operations - Tree, Shrub and Other Woody Plant Maintenance - Standard Practices. (Most current versions)
2. Section 32 9400B Invasive Species Management

1.3 DEFINITIONS

- A. Weeds: Include Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, Brome Grass and any plant life not specified.
B. Invasive Species: As defined in Section 329400B.
C. Woody and Herbaceous Plants: Installed and living trees, plants, and ground cover installed as part of the construction of project improvements.
D. Seeded, Sodded and Turf Area Plants: Seeded and living plants installed as part of the construction of project improvements.
E. Establishment Maintenance Period of Service: Time period during which maintenance services shall be provided for both 1) Woody and Herbaceous Plants and 2) Native Seeded areas installed as part of the construction of project improvements. The Establishment Maintenance Period of Service shall be 12 months (1 year) starting with Final Acceptance by the Owner.
F. Initial Maintenance Period: Time period from when plant material is installed until Final Acceptance by the Owner.

1.4 SUBMITTALS

- A. Maintenance Schedule:
1. Submit maintenance schedule, outlined by week for entire Establishment Maintenance period showing the following:
a. Proposed mowing activities
b. Proposed watering activities
c. Proposed spot seeding
d. Proposed weed control plan and invasive species management plan for the Establishment Maintenance Period as described in Section 329400B.
e. Proposed litter removal prior to mowing
B. Photographs or videos of project area to receive establishment maintenance at the time of final project acceptance which is understood to be the start of establishment maintenance.
1. Photographs or videos shall capture the extents of the project and installed plant material. In lieu of photographs or videos, a walk through with the Owners representative to document the condition of the installed plant material will be completed. The results of this walk through will be documented on a digital copy of the as-built drawings of the project.
2. Images shall include a scale figure or measuring device to indicate true size.
3. Photographs and/or videos may be transmitted electronically but the title of electronic files must bear the plant name, nursery, and date.
C. Maintenance Contractor Qualifications: Provide qualifications for the Project Manager and Foreman/Site Supervisor showing years of experience, and a minimum of three project references. For each reference list client, design or engineering professional hired by the client, type, cost and duration of project and role of personnel.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Include a maintenance report describing recommended annual maintenance procedures for landscape maintenance of the project.

1.6 QUALITY ASSURANCE

- A. Tree Pruning: ANSI A300 Pruning Standards for Woody Plants.

1.7 QUALIFICATIONS

- A. Maintenance Services Contractor:
1. Contractor shall specialize in maintenance services of the type specified with a minimum of five years' experience in the field. Contractor must have the following personnel performing maintenances services on site:
2. A horticulturist who shall demonstrate knowledge of best horticultural practices and best maintenance practices for all aspects of grounds maintenance.
3. A state certified arborist who shall demonstrate knowledge of best horticultural practices and best maintenance practices for all trees. Only certified arborists shall perform pruning work on all on trees.
4. A state licensed applicator of fertilizers and pesticides shall perform all pesticide, herbicide, fertilization and micronutrient services based on State requirements and shall not apply chemicals that will harm the owner, neighbors or general public.
5. Contractor shall be responsible for appearance and conduct of his/her employees at all times. Contractor's employees shall wear uniform shirts or other acceptable identification while performing maintenance duties for the Owner. Pants shall not be cut-offs, nor have rips or tears. Contractor employees shall wear orange, or other bright colored, safety vests at all times.
6. All work being performed under this contract shall be done in accordance with Federal and State labor laws and will adhere to O.S.H.A. regulations.

1.8 QUARTERLY MAINTENANCE REVIEW MEETINGS

- A. Attend an on-site meeting, four times as appropriate with the Owner to review the project site conditions and on-going maintenance activities and discuss any adjustments or changes to the establishment maintenance procedures.

1.9 SCHEDULE OF WORK AND PAYMENT

- A. Prior to commencement of work, the Contractor shall submit a proposed monthly payment schedule breakdown covering the entire

- annual contract period to the Owner for approval. Include items of work to be accomplished for each month clearly associated with the payment schedule. Adjustment to actual payments will be made as needed and mutually agreed to by the Contractor and Owner. Maintenance activities are scheduled to occur between March and November of the maintenance contract year.
B. The Contractor shall submit a work ticket to the Owner each month of planned work listing specific tasks and work that will be accomplished. Monthly work tickets shall be available to the Owner at the end of each month and included as backup with the monthly invoices. Contractor shall sign the ticket attesting that the work was completed. The Owner shall sign the ticket indicating that it was received and picked-up.
C. Contractor shall provide Owner a copy of the approved monthly payment schedule before authorization to proceed is issued by the Owner.
D. Payment for work completed shall be conditional upon the approval of the Owner. The contractor shall submit, to the Owner an invoice itemizing services provided. Invoice shall be submitted monthly and be itemized on a per occurrence basis.
E. Payment for any and all additional services shall pre-approved by Owner and be based on a time and materials basis or other mutually agreed to amount by the Owner and Contractor prior to proceeding with additional work.

PART 2 PRODUCTS

2.1 MATERIAL AND EQUIPMENT

- A. Contractor shall furnish all material, tools, equipment, facilities and services as required for performing the Establishment Period Maintenance specified here within, including Invasive Species Management to be accomplished during this period as described in Section 329400B.
B. Water for use during Establishment Maintenance
1. Water will be available at hose bib locations shown on the Plans.

2.2 ESTABLISHMENT PERIOD INSURANCE

- A. The contractor shall provide insurance to cover "Acts of God" for flood events, to cover the replacement and installation of plant material (trees, live stakes, shrubs and seeding) lost as a result of a flood in the project area. The period of coverage shall be for each year of Establishment Maintenance.
B. The contractor shall provide an insurance certificate for the above-mentioned insurance and the City of Brentwood shall be listed on the certificate as additional insured.

PART 3 EXECUTION

3.1 ESTABLISHMENT MAINTENANCE - NATIVE SEED AREAS

- A. Maintain plant life immediately after final acceptance through end of Establishment Maintenance Period.
B. Maintenance activities include:
1. Invasive Species Management per Section 329400B
2. Watering sufficient to saturate root system. Plants that are installed during the spring planting period shall be watered once a week during the following summer months of May, June, July and August. Plants that are installed during the fall planting period shall be watered once a week during the following spring months of March, April and May only if there is less than 1" of rain during each week, and once a week during the following summer months of June, July and August regardless of rainfall. Weeks shall be measured 12:00 a.m. Monday to 12:00 a.m. Monday.
3. Maintain riparian seed areas for a period of one growing season including mowing, spotseeding/plugging and weed control, including spot herbicide application to establish a stand of native plants complying with coverage requirements specified in the Maintenance section of Specification 329219 and final acceptance by the Owner.
4. Mow native grasses at 12 inches high a maximum of three (3) time during the growing season covered by the maintenance period as recommended by seed manufacturer to reduce weed competition.
5. Recommended timing: April, June & August.
6. Selective weeding shall be done manually as recommended by seed manufacturer and/or industry standards for establishing native grasses.

3.2 ESTABLISHMENT MAINTENANCE - TREES (Both Balled and Burlaped and RPM)

- A. Maintain plant life immediately after final acceptance through end of Establishment Maintenance Period.
B. Maintenance activities include:
1. Invasive Species Management per Section 329400B.
2. Weeding of trees.
3. Watering sufficient to saturate root system. Contractor shall thoroughly water installed plants within 24 hours of installation. Installed plants shall be watered sufficient to saturate root system at least once each week during construction unless otherwise instructed by the Owner's Representative. Plants that are installed during the spring planting period shall be watered once a week during the following summer months of May, June, July and August. Plants that are installed during the fall planting period shall be watered once a week during the following spring months of March, April and May only if there is less than 1" of rain during each week, and once a week during the following summer months of June, July and August regardless of rainfall. Weeks shall be measured 12:00 a.m. Monday to 12:00 a.m. Monday.
4. Pruning, including removal of dead or broken branches.
5. Disease control.
6. Maintaining wrapping, guys, turnbuckles, and stakes. Adjust turnbuckles to permit sway and movement of trunk and limbs. Repair or replace accessories when required.
7. Replacement of mulch, except in events as a result of an act of God or vandalism.
8. Contractor shall monitor plantings on a regular basis for damage due to waterfowl and animals. Any damage shall be reported to the Owners Representative along with a recommendation for reducing future damage.

3.3 ESTABLISHMENT MAINTENANCE CLOSEOUT

- A. Final Project Acceptance
1. The Contractor shall notify the Owner's Representative for final inspection. The request shall be in written form and received at least ten (10) calendar days before the anticipated date of inspection.
2. Based on the sole judgment of the Owner's Representative, he shall certify in writing as to the satisfaction and substantial completion of the project, which shall be deemed final acceptance. Final acceptance is defined as when all punch list items have been determined to be complete by either the Owner or the Owner's Representative and the Contractor is authorized to submit the final pay application.
B. End of Maintenance Final Acceptance
1. The Contractor shall notify the Owner's Representative for final inspection and turnover of maintenance activities. The request shall be in written form and received at least ten (10) calendar days before the anticipated date of inspection.
2. Based on the sole judgment of the Owner's Representative, he shall certify in writing as to the satisfaction and substantial completion of the Establishment Maintenance, which shall be deemed final acceptance. Final acceptance is defined as when all punch list items have been determined to be complete by either the Owner or the Owner's Representative and the Contractor is authorized to submit the final pay application.

PART 4 METHOD OF MEASUREMENT

- 4.1 Monthly work tickets as described above, and field identification that maintenance work has been completed.

PART 5 BASIS OF PAYMENT

- 5.1 Submission of monthly work ticket as described above. The accepted quantity of establishment maintenance will be paid for on a monthly basis at the lump sum price required by the contract.
5.2 The Establishment Maintenance for a Period of Service of one (1) year starting after the Initial Maintenance Period.
5.3 Pricing for additional years (Years 2 and 3) of Establishment Maintenance shall be provided as described on the Bid Form.
5.4 Costs for insurance shall be considered incidental and be included in the contract lump sum price.

END OF SECTION



NAME: NOEL T. FEHR
DISCIPLINE: LANDSCAPE ARCHITECT
LICENSE NO.: 157-000236
EXPIRATION DATE:
CERT. OF AUTHORITY:
EXPIRATION DATE:
COMPANY INFO:
2616 SUTTON BOULEVARD, SUITE 1
SAINT LOUIS, MO 63143
PHONE: 314.241.3600

SERENADE PARK
CITY OF TROY
LANDSCAPE SPECIFICATIONS
BID ALTERNATE 4 -
INVASIVE SPECIES/PLANT ESTABLISHMENT

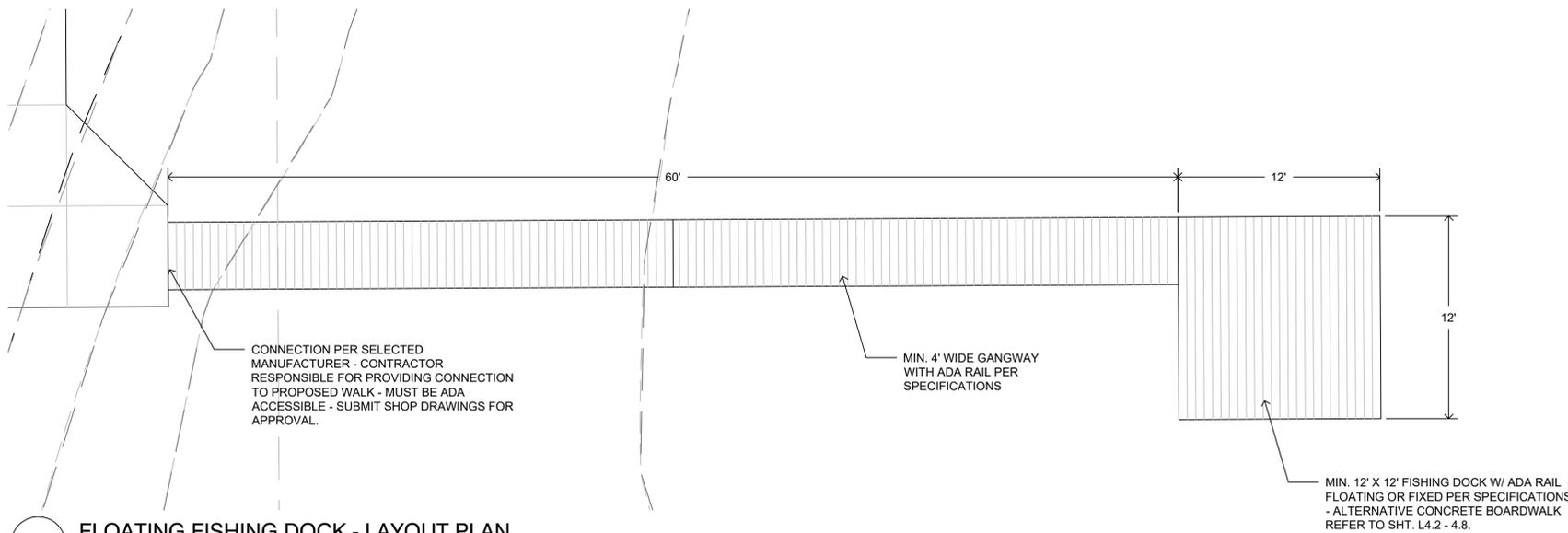
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DATE: June 1, 2022

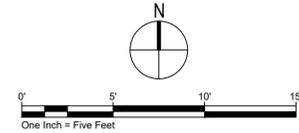
DESIGNED: J. NILGES
DRAWN: J. CORBETT
CHECKED: J. NILGES

PDS PROJECT NO: J.2115



FISHING DOCK NOTES:

1. CONTRACTOR TO PROVIDE SIGNED AND SEALED SHOP DRAWINGS FOR APPROVAL BY OWNERS' REPRESENTATIVE.
2. CONTRACTOR TO STAKE LOCATIONS OF COMPONENTS FOR APPROVAL BY OWNERS' REPRESENTATIVE.
3. VERIFY ALL DIMENSIONS AND JOB CONDITIONS AND REPORT, IN WRITING, ANY DISCREPANCIES OR OMISSIONS WHICH WOULD INTERFERE WITH THE SATISFACTORY COMPLETION OF WORK.
4. CONTRACTOR TO VERIFY AND CONFIRM THE LOCATION OF ALL PROPERTY LINES AND UTILITY EASEMENTS PRIOR TO COMPLETING ANY WORK NEAR ADJACENT PROPERTIES OR IN ANY EASEMENT AREA.
5. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS NOT PRESENTLY KNOWN OR SHOWN. CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE AND VERIFY THE EXISTENCE OF AND EXACT LOCATION OF ALL UTILITIES.



1 FLOATING FISHING DOCK - LAYOUT PLAN

02924 - FISHING DOCK

PART 1 GENERAL

1.1 SUMMARY

- A. CONTRACTOR SHALL DESIGN AND CONSTRUCT ONE (1) FLOATING BOAT DOCK WITH AN ADA ACCESSIBLE RAMP THE CONTRACTOR MUST COMPLY WITH ALL MANDATORY REQUIREMENTS AND SPECIFICATIONS PRESENTED HEREIN PERTAINING TO PROVISION OF THIS SPECIFICATION.
- B. THE DOCKS MUST CONFORM TO INDUSTRY AND BUSINESS STANDARDS APPLICABLE TO PROVISION OF PUBLIC BOAT DOCKS. THE DOCKS MUST BE BUILT TO COMPLY WITH AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS, AND OTHER APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND STANDARDS

1.2 REFERENCES

- A. AMERICAN SOCIETY FOR TESTING AND MATERIALS:
 1. ASTM D4883 - STANDARD TEST METHOD FOR DENSITY OF POLYETHYLENE BY THE ULTRASOUND TECHNIQUE.
 2. ASTM D4976 - STANDARD SPECIFICATION FOR POLYETHYLENE PLASTICS MOLDING AND EXTRUSION MATERIALS.
 3. ASTM D638 - STANDARD TEST METHOD FOR TENSILE PROPERTIES OF PLASTICS
- B. DESIGN OF THE ALUMINUM MEMBERS SHALL CONFORM TO THE CURRENT EDITION OF THE ALUMINUM ASSOCIATION SPECIFICATIONS AND GUIDELINES FOR ALUMINUM STRUCTURES.

1.3 SUBMITTALS

- A. PRODUCT DATA: SUBMIT DATA FOR FLOATS, DOCK STRUCTURE, DECKING, GANGWAYS, AND ACCESSORIES.
- B. PRODUCT SHOP DRAWINGS: SUBMIT SHOP DRAWINGS SIGNED AND SEALED, BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF ILLINOIS, SHOP DRAWINGS SHOWING DESIGN OF DOCK, GANGWAY AND ANCHOR ATTACHMENTS.
- C. MANUFACTURER'S CERTIFICATE: CERTIFY PRODUCTS MEET OR EXCEED SPECIFIED REQUIREMENTS.
- D. INSTRUCTIONS FOR DOCK AND RAMP INSTALLATION, INCLUDING DOCK MAINTENANCE

1.4 WARRANTY

- A. THE CONTRACTOR SHALL PROVIDE A MINIMUM TWENTY (20) YEAR WARRANTY ON PVC MATERIAL, AND A FIFTEEN (15) YEAR WARRANTY FOR FLOATS. THE CONTRACTOR SHALL UNDERSTAND AND AGREE THAT THE WARRANTY SHALL COMMENCE UPON SUCCESSFUL CONSTRUCTION AND ACCEPTANCE OF THE FISHING DOCK.

1.5 QUALITY ASSURANCE

- A. ALL EXPOSED SURFACES SHALL BE SMOOTH AND FREE OF SHARP OR JAGGED EDGES.
- B. ALUMINUM WELDING SHALL BE IN ACCORDANCE WITH THE ANSII/AWS D1.2-97 GMAW/GTAW PROCESS AND SHALL BE PERFORMED BY EXPERIENCED OPERATORS. EACH SHALL DEMONSTRATE SATISFACTORY EVIDENCE OF EXPERIENCE AND ABILITY TO PERFORM THE TYPE AND QUALITY OF WELDING REQUIRED.

1.6 QUALIFICATIONS

- A. INSTALLER: COMPANY SPECIALIZING IN PERFORMING WORK OF THIS SECTION WITH MINIMUM 5 YEARS DOCUMENTED EXPERIENCE, APPROVED BY MANUFACTURER.

1.7 INSURANCE

- A. THE CONTRACTOR SHALL PROVIDE INSURANCE TO COVER "ACTS OF GOD" FOR FLOOD EVENTS, TO COVER THE REPLACEMENT AND INSTALLATION OR LOST AS A RESULT OF A FLOOD IN THE PROJECT AREA. THE PERIOD OF COVERAGE SHALL CONCLUDE AT FINAL ACCEPTANCE BY THE OWNER.
- B. THE CONTRACTOR SHALL PROVIDE AN INSURANCE CERTIFICATE FOR THE ABOVE-MENTIONED INSURANCE AND THE CITY OF TROY SHALL BE LISTED ON THE CERTIFICATE AS ADDITIONAL INSURED.

1.8 SUBSTITUTIONS

- A. THE CONTRACTOR SHALL NOT SUBSTITUTE ANY ITEM(S) THAT HAS BEEN AWARDED TO THE CONTRACTOR WITHOUT THE PRIOR WRITTEN APPROVAL.
- B. IN THE EVENT AN ITEM BECOMES UNAVAILABLE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SUITABLE SUBSTITUTE ITEM TO BE APPROVED BY THE OWNER. THE CONTRACTOR'S FAILURE TO PROVIDE AN ACCEPTABLE SUBSTITUTE MAY RESULT IN CANCELLATION OR TERMINATION OF THE CONTRACT.
- C. ANY ITEM SUBSTITUTION MUST BE A REPLACEMENT OF THE CONTRACTED ITEM WITH A PRODUCT OF EQUAL OR BETTER CAPABILITIES AND QUALITY, AND WITH EQUAL OR LOWER PRICING. THE CONTRACTOR SHALL UNDERSTAND THAT THE CITY RESERVES THE RIGHT TO ALLOW THE SUBSTITUTION OF ANY NEW OR DIFFERENT PRODUCT/SYSTEM OFFERED BY THE CONTRACTOR.
- D. ANY ITEM SUBSTITUTION SHALL REQUIRE A FORMAL CONTRACT AMENDMENT AUTHORIZED BY THE CITY

1.9 DELIVERY, STORAGE, AND HANDLING

- A. THE CONTRACTOR AND/OR THE CONTRACTOR'S SUBCONTRACTOR(S) SHALL DELIVER PRODUCTS IN ACCORDANCE WITH THE CONTRACT.

- B. THE CONTRACTOR SHALL COORDINATE HIS/HER DELIVERY SCHEDULE WITH THE CITY. ANY CHANGE IN THE DELIVERY SCHEDULE MUST BE APPROVED BY THE CITY AND MUST BE PRECEDED WITH A WRITTEN REQUEST AT LEAST TWO (2) WEEKS PRIOR TO THE IMPLEMENTATION DATE OF SUCH.

PART 2 PRODUCTS

2.1 FISHING DOCK

- A. **MODULE FRAME MATERIAL:** THE STANDARD MODULE FRAME MUST BE A UNITIZED WELDED MINIMUM 16-GAUGE GALVANIZED STEEL FRAME IN E-COATED GALVANIZED OR 6061-T6 MARINE GRADE ALUMINUM WITH MIN WALL THICKNESS OF 0.125". EACH FRAME MUST BE STRUCTURALLY ENGINEERED AND CERTIFIED TO SUPPORT THE MIN. LIVE AND DEAD LOAD PER CODE REQUIREMENTS
- B. **PVC MATERIAL:** THE DECKING, SIDE RAILS, AND POST COVERS MUST BE EXTRUDED UV INHIBITED PVC WITH A 20-YEAR LIMITED WARRANTY. THE PVC MATERIAL MUST CONTAIN A SPECIAL INHIBITOR THAT KEEPS EXPOSED SURFACES COOL TO THE TOUCH IN EXTREME TEMPERATURE AND MUST PROVIDE UNUSUAL RESILIENCY AND COLOR FASTNESS.
- C. **RAILING MATERIAL:** ALL RAILINGS MUST BE FABRICATED OF 6005-T5 EXTRUDED ALUMINUM AND MUST BE POWDER COATED WITH A MARINE GRADE EXTERIOR COATING OF AN ANODIZED SILVER COLOR.
- D. **BRACKET MATERIAL:** ALL STANDARD BRACKETS MUST BE FABRICATED OF MINIMUM 8-GAUGE GALVANIZED STEEL. BRACKETS WITH SLEEVES MUST HAVE A 1/2" STAINLESS STEEL SET SCREW TO PROVIDE INFINITE LEG ADJUSTMENT. ALL BRACKETS MUST BE FINISHED WITH A WHITE, MARINE GRADE, POWDER COATING. ALL BRACKETS MUST BE 304 OR 316 STAINLESS STEEL.
- E. **SUPPORT LEGS (STATIONARY DOCKS):** LEGS FOR ALL STATIONARY DOCKS MUST BE A MINIMUM 1.90" OD (OUTSIDE DIAMETER) X .120" WALL HIGH TENSILE GALVANIZED STEEL LEGS THAT ARE ENGINEERED FOR THE FOLLOWING MINIMUM SUPPORT STANDARD: 50,000 PSI YIELD/55,000 PSI TENSILE.
- F. **FLOTATION (FLOATING DOCKS):** ALL FLOATS MUST BE COMPOSTED OF A ROTATIONALLY MOLDED POLYETHYLENE SHELL WHICH MUST BE FILLED WITH EXPANDED POLYSTYRENE. ALL FLOATS MUST HAVE A 15-YEAR WARRANTY AND MUST HAVE CERTIFIED TANK TESTED BUOYANCY RATINGS.
- G. **FASTENERS:** ALL STANDARD FASTENERS MUST BE ZINC OR GALVANIZED COATED OR STAINLESS STEEL. ALL BRACKET BOLTS MUST BE FITTED WITH A UV INHIBITED PVC WASHER TO PROTECT THE BRACKET FINISH
- H. **SIGNAGE:** CONTRACTOR TO SUPPLY AND INSTALL SIGNAGE DELINEATING LOADING REQUIREMENTS OF INSTALLED DOCK INCLUDING DESIGN LOAD AND MAXIMUM OCCUPANCY BASED ON DOCK DESIGN.
- I. THE FLOATING FISHING DOCK WITH RAMP SHALL ALSO CONSIST OF THE FOLLOWING SPECIFICATIONS
 1. DOCK MODULES
 2. GANGWAY RAMP - MIN. 4' WIDE
 3. MODULE HINGE KIT, PER MANUFACTURER DESIGN
 4. SEAWALL HINGE KIT, PER MANUFACTURER DESIGN
 5. ANODIZED ALUMINUM RAILING ASSEMBLY; AND
 6. ALL FASTENERS, BRACKETS, AND HARDWARE NECESSARY TO ASSEMBLE DOCK SYSTEM.
 7. LOAD REQUIREMENTS SHALL MEET THE REQUIREMENTS OF APPLICABLE STATE AND LOCAL CODES WITH A MINIMUM LOAD REQUIREMENT OF 100 PSF AND XXX PSF CONCENTRATED LOAD

PART 3 EXECUTION

3.1 INSTALLATION

- A. INSTALL PER MANUFACTURERS' APPROVED INSTALLATION INSTRUCTIONS.

3.2 INSPECTIONS

- A. **FINAL PROJECT ACCEPTANCE**
 1. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR FINAL INSPECTION. THE REQUEST SHALL BE IN WRITTEN FORM AND RECEIVED AT LEAST TEN (10) CALENDAR DAYS BEFORE THE ANTICIPATED DATE OF INSPECTION.
 2. BASED ON THE SOLE JUDGMENT OF THE OWNER'S REPRESENTATIVE, HE SHALL CERTIFY IN WRITING AS TO THE SATISFACTION AND SUBSTANTIAL COMPLETION OF THE PROJECT, WHICH SHALL BE DEEMED FINAL ACCEPTANCE. FINAL ACCEPTANCE IS DEFINED AS WHEN ALL PUNCH LIST ITEMS HAVE BEEN DETERMINED TO BE COMPLETE BY EITHER THE OWNER OR THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR IS AUTHORIZED TO SUBMIT THE FINAL PAY APPLICATION.



NAME: NOEL T. FEHR
 DISCIPLINE: LANDSCAPE ARCHITECT
 LICENSE NO: 157-000236
 EXPIRATION DATE:
 CERT. OF AUTHORITY:
 EXPIRATION DATE:
 COMPANY INFO:
 2816 SUTTON BOULEVARD, SUITE 1
 SAINT LOUIS, MO 63143
 PHONE: 314.241.3600

SERENADE PARK
 CITY OF TROY
SITE DETAILS
DOCK AND BOARDWALK

NO.	DATE	REVISION

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DATE: June 1, 2022

DESIGNED: J. NILGES
 DRAWN: J. CORBETT
 CHECKED: J. NILGES

PDS PROJECT NO: J.2115

GENERAL NOTES

GENERAL

1. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE PROJECT ARCHITECTS PLAN LAYOUT AND GUIDELINES. SUITABILITY FOR ACCESS AND INTENDED USAGE SHALL BE THE RESPONSIBILITY OF THE ARCHITECT.
2. VEHICULAR ACCESS LARGER THAN THE DESIGN LIVE LOAD SHALL BE LIMITED BY PERMANENT PHYSICAL MEANS.
3. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS THROUGH THE PROJECT ARCHITECT. PRIOR TO CONSTRUCTION, ALL FOUNDATION LOCATIONS SHALL BE STAKED BY THE SURVEYOR PER THE APPROVED DRAWINGS MARKED 'FOR CONSTRUCTION'.
4. ONLY PERMATRAK NORTH AMERICA MAY PROVIDE THE PRECAST STRUCTURE SHOWN ON THESE PLANS.
5. INSTALLER SHALL NOT CUT OR MODIFY ANY PERMATRAK COMPONENTS WITHOUT PERMATRAK'S APPROVAL.
6. THE INSTALLER IS RESPONSIBLE FOR THE APPROPRIATE MEANS AND METHODS FOR THIS PROJECT, INCLUDING ENSURING PROPER CONSTRUCTIBILITY OF ALL COMPONENTS SHOWN ON THESE PLANS. NO EQUIPMENT MAY BE OPERATED ON THE STRUCTURE, UNLESS NOTED OTHERWISE IN THE DESIGN DATA ON THIS SHEET.
7. A MATERIAL CHANGE TO THE BOARDWALK SYSTEM IS NOT ALLOWED AND NOT CONSIDERED AN EQUAL.
8. PRIOR TO CONSTRUCTION, ALL EXISTING UTILITIES, BUILDING LOCATIONS, EXISTING FOUNDATIONS AND TREE ROOTS (AS APPLICABLE) SHALL BE LOCATED TO VERIFY NO CONFLICTS EXIST WITH THE STRUCTURES SHOWN ON THESE PLANS.

DESIGN DATA

1. BOARDWALK SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE LRFD GUIDE SPECIFICATION FOR THE DESIGN OF PEDESTRIAN BRIDGES.
2. DESIGN LIVE LOAD: PEDESTRIAN LOADING - 90 PSF UNIFORM VEHICULAR LOADING - 5,000 LB. MAINTENANCE VEHICLE

FOUNDATIONS SHALL BE DESIGNED FOR THE FOLLOWING.

APPLIED PIER/PILE LOADS:
COMPRESSION: 15 KIPS (SERVICE)
LATERAL: = 1 KIPS (SERVICE)
3. A HYDRAULIC ANALYSIS, INCLUDING SCOUR EVALUATION, HAS NOT BEEN PERFORMED BY PERMATRAK. THIS SCOPE IS THE RESPONSIBILITY OF THE DESIGN CONSULTANT.
4. RAILING SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO SPECIFICATIONS. THE RAILING SUPPLIER IS RESPONSIBLE FOR THE ENGINEERING OF THE DETAILED RAILING IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
5. AT THE TIME THESE DRAWINGS WERE CREATED, GEOTECHNICAL INFORMATION WAS UNAVAILABLE FOR ANALYSIS OF THE SUBSTRUCTURE. PRIOR TO CONSTRUCTION, A SITE SPECIFIC GEOTECHNICAL REPORT SHALL BE PROVIDED AT THE LOCATION OF THE STRUCTURES SHOWN IN THESE PLANS

MATERIAL

1. FASTENERS, BOLTS AND HARDWARE SHALL BE EITHER FIBERGLASS REINFORCED POLYMER (FRP) OR GRADE 316 STAINLESS STEEL.
2. ALL REINFORCING SHALL BE GRADE 60 CONFORMING TO ASTM A615.
3. CAST-IN-PLACE CONCRETE SHALL HAVE A 28-DAY CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI.

PROJECT COMPONENTS

SUPPLIED BY PERMATRAK
PRECAST CONCRETE TREADS
PRECAST CONCRETE BEAMS
4X4 TIMBER POST BRACKET AND CONNECTION HARDWARE
3/4" DIAMETER THREADED BARS WITH NUTS AND WASHERS (BEAM TO PIER CONNECTION)
3/8X4X10 ELASTOMER BEARING PADS
RUBBER SPACER PADS (BETWEEN TREADS)
CLIP ANGLE KITS

SUPPLIED BY CONTRACTOR
HILTI HY-200 EPOXY ADHESIVE (ANCHORING SYSTEM CONNECTION)
SHIMS AND NON-SHRINK GROUT (LEVELING FOR PRECAST COMPONENTS)
RAILING AND CONNECTION HARDWARE
SIKAFLEX SELF LEVELING SEALANT
CAST-IN-PLACE CONCRETE



"DESIGN REQUIREMENTS FOR BIDDING NOT FOR CONSTRUCTION"

NAME: NOEL T. FEHR
DISCIPLINE: LANDSCAPE ARCHITECT
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EXPIRATION DATE:
CERT. OF AUTHORITY:
EXPIRATION DATE:
COMPANY INFO:
2816 SUTTON BOULEVARD, SUITE 1
SAINT LOUIS, MO 63143
PHONE: 314.241.3600

SERENADE PARK
CITY OF TROY
SITE DETAILS
FIXED DOCK AND BOARDWALK

NO.	DATE	REVISION

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DATE: June 1, 2022

DESIGNED: PERMATRAK
DRAWN: PERMATRAK
CHECKED: PERMATRAK

PDS PROJECT NO: J.2115

L4.2

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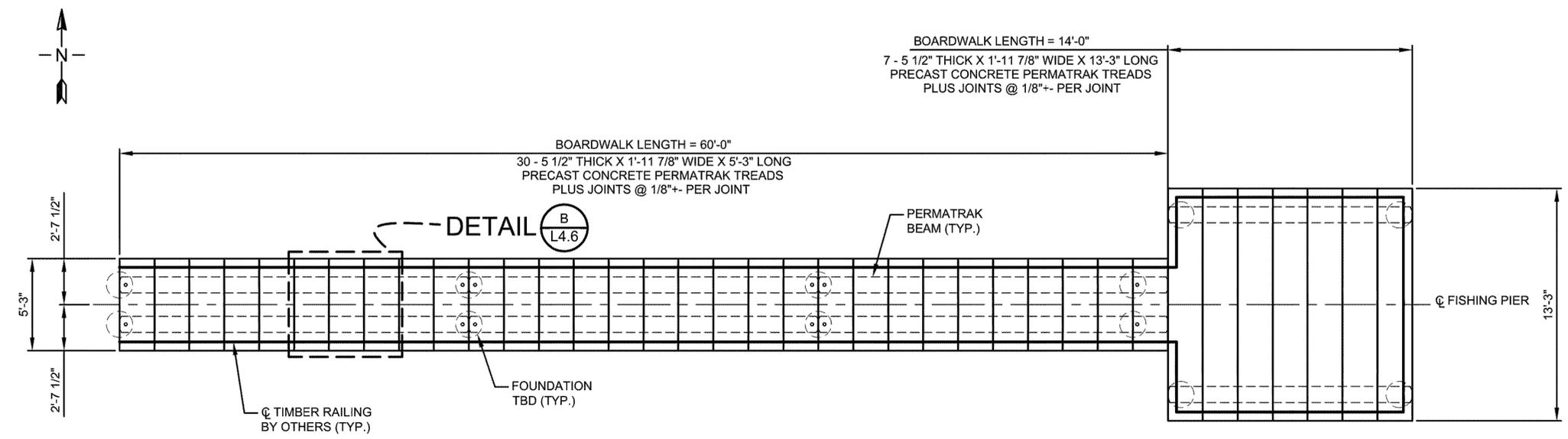
DRAWINGS FOR BOARDWALK/FIXED DOCK ARE FOR ESTABLISHING DESIGN INTENT AND REQUIREMENTS OF THE BOARDWALK/DOCK STRUCTURE AND ARE FOR BIDDING INFORMATION ONLY. PLANS SHOWN ESTABLISHES THE MINIMUM LEVEL OF BOARDWALK/DOCK CONSTRUCTION, MATERIALS, FURNISHINGS, QUALITY AND AESTHETICS REQUIRED. CONTRACTOR SHALL PROVIDE SEALED, ILLINOIS LICENSED PROFESSIONAL, DRAWINGS FROM THE MANUFACTURER THAT MEET ALL JURISDICTIONAL REQUIREMENTS FOR APPROVAL BY AUTHORITIES HAVING JURISDICTION PRIOR TO FABRICATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

USE OF THE TERMS ARCHITECTURAL, ENGINEERED OR ANY DERIVATION THEREOF DO NOT IMPLY THE INFORMATION ON THESE DRAWINGS WERE PREPARED BY ONE OF THESE PROFESSIONALS FOR CONSTRUCTION

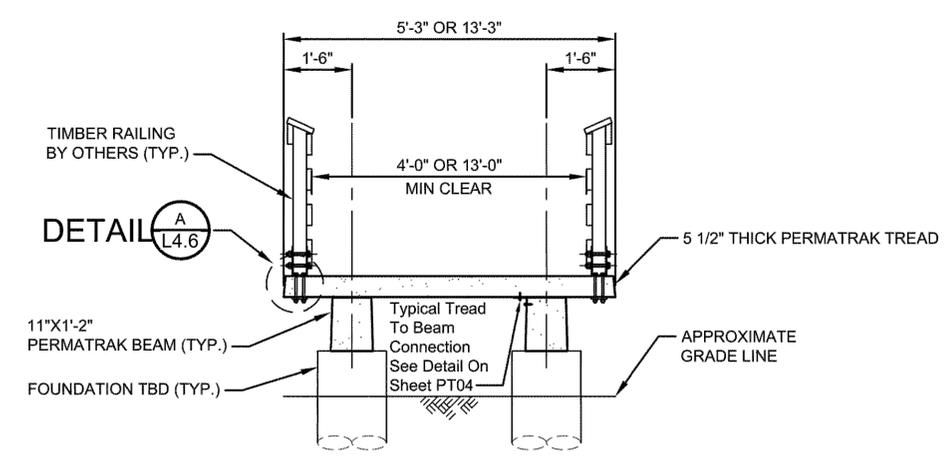
"DESIGN REQUIREMENTS
FOR BIDDING
NOT FOR CONSTRUCTION"

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2816 SUTTON BOULEVARD, SUITE 1
SAINT LOUIS, MO 63143
PHONE: 314.241.3600

SERENADE PARK
CITY OF TROY
SITE DETAILS
FIXED DOCK AND BOARDWALK



FISHING PIER PLAN
SCALE = 1/4" = 1'-0"



FISHING PIER TYPICAL SECTION
SCALE = 1/2" = 1'-0"

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DATE: June 1, 2022
DESIGNED: PERMATRAK
DRAWN: PERMATRAK
CHECKED: PERMATRAK

PDS PROJECT NO: J.2115

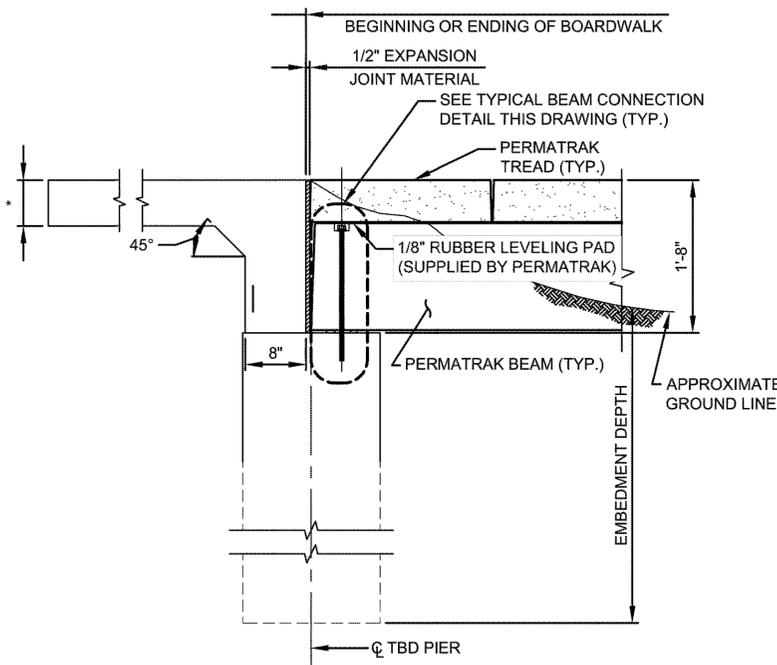
"DESIGN REQUIREMENTS
FOR BIDDING
NOT FOR CONSTRUCTION"

NAME: NOEL T. FEHR
DISCIPLINE: LANDSCAPE ARCHITECT
LICENSE NO.: 157.000236
EXPIRATION DATE:
CERT. OF AUTHORITY:
EXPIRATION DATE:
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SAINT LOUIS, MO 63143
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SERENADE PARK
CITY OF TROY
SITE DETAILS
FIXED DOCK AND BOARDWALK

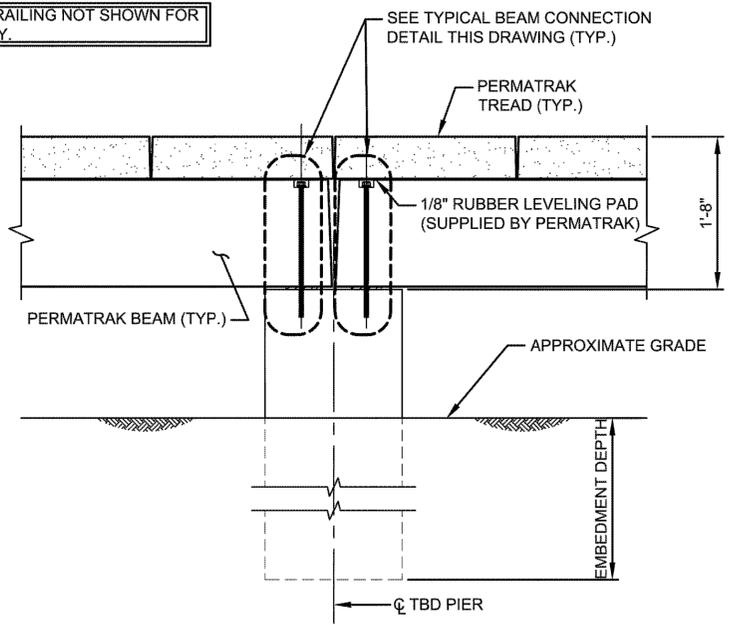
NOTE: RAILING NOT SHOWN FOR CLARITY.

* SEE SITE DRAWINGS FOR DIMENSIONING, REINFORCEMENT, AND CONCRETE MATERIAL REQUIREMENTS OF APPROACH SLAB.

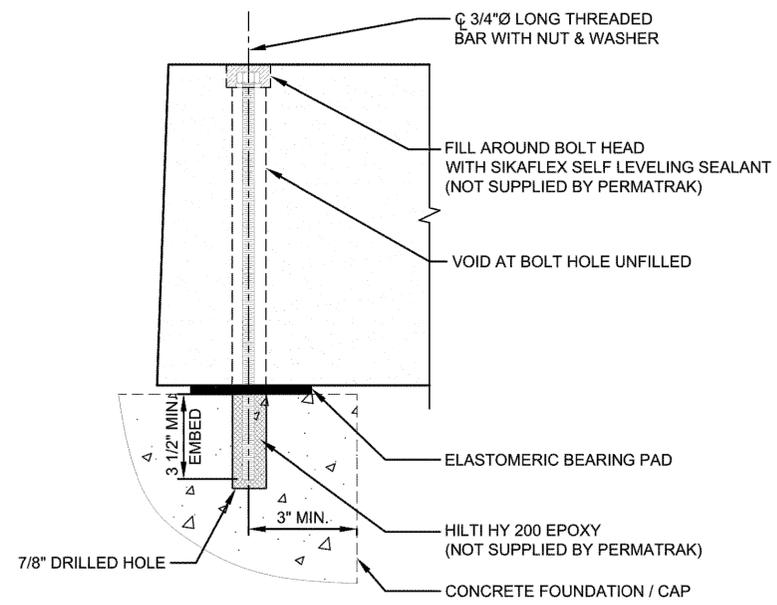


TYPICAL APPROACH DETAIL
SCALE: 1" = 1'-0"

NOTE: RAILING NOT SHOWN FOR CLARITY.



TYPICAL PIER CONNECTION DETAIL
SCALE: 1" = 1'-0"



**TYPICAL BEAM TO CONCRETE
FOUNDATION/CAP CONNECTION DETAIL**
SCALE: NOT TO SCALE

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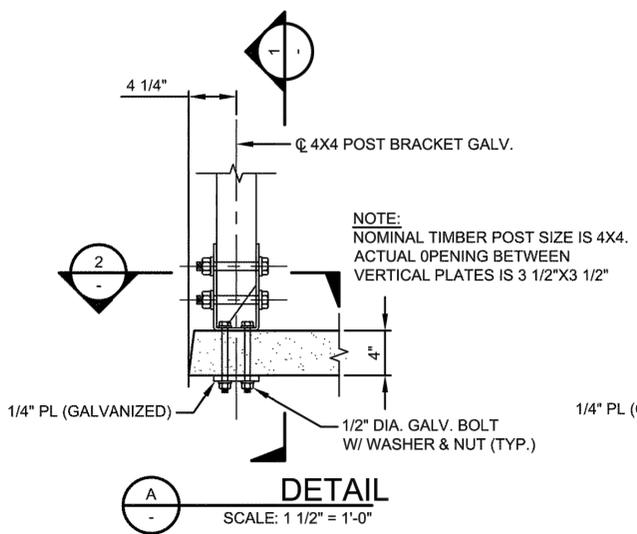
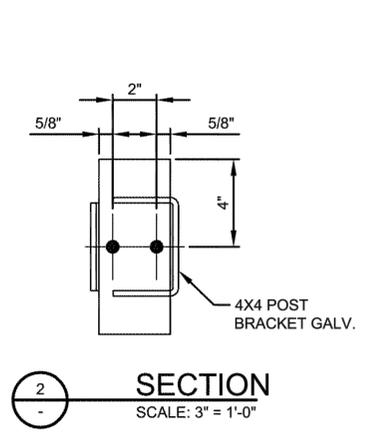
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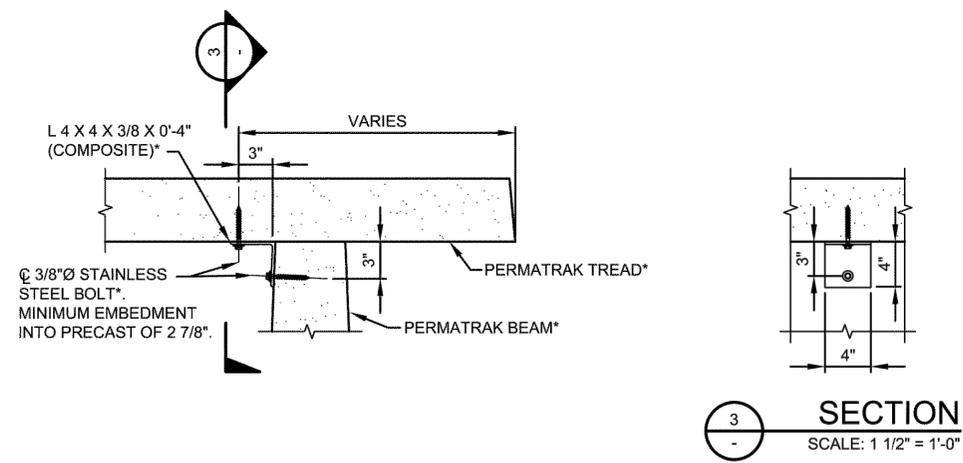
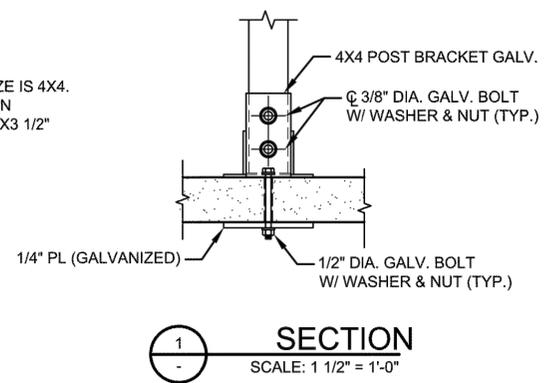
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SERENADE PARK
CITY OF TROY
SITE DETAILS
FIXED DOCK AND BOARDWALK

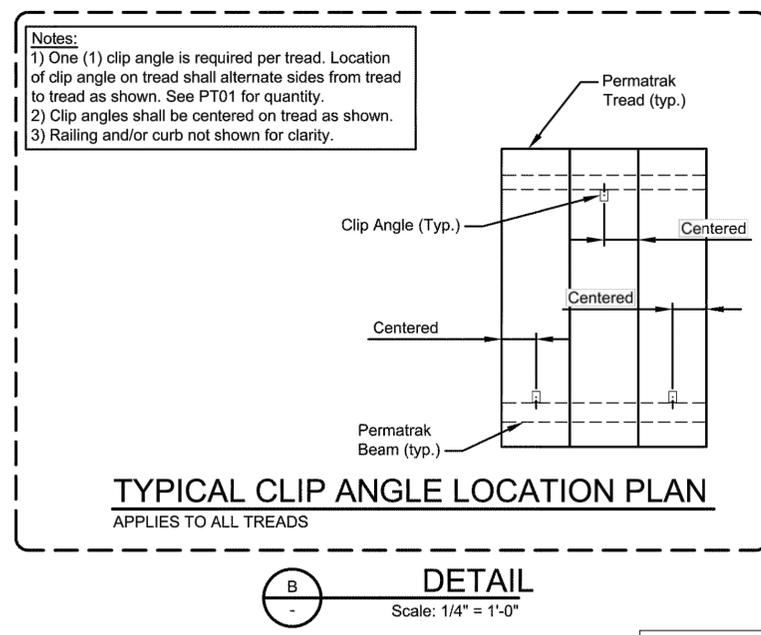


NOTE:
RAILING & CONNECTION HARDWARE
SUPPLIED BY OTHERS (TYP.)



- NOTES:
1. ALL HOLES IN PRECAST SHALL BE DRILLED BY CONTRACTOR.
 2. DRILLED HOLES IN PRECAST SHALL BE 2 7/8" DEEP AND 3/8" Ø.
 3. PRIOR TO INSTALLING BOLT, HOLE SHALL BE THOROUGHLY CLEANED.
 4. REMOVE DUST AND DEBRIS FROM HOLE DURING DRILLING TO EXTRACT LOOSE PARTICLES.
 5. MAXIMUM INSTALLATION TORQUE: 35 FT-LB.
 6. * INDICATES SUPPLIED BY PERMATRAK.

TREAD TO BEAM CONNECTION
SCALE: NOT TO SCALE



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D. SHOP DRAWINGS: Shop drawings shall:

- a. Be stamped by a licensed Professional Engineer in the State of the project location.
- b. Show actual field conditions and true elevation and location supplied after field verification.
- c. Clearly detail reinforcement in beams, treads and curbs including clear dimension from concrete edge, size and amount of rebar.
- d. Clearly state concrete compressive strength, steel type and strength, and a listing of all component weights including lifting locations.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Field Measurements: Where handrails and railings are indicated to fit to other construction, check actual dimensions of other construction by accurate field measurements before fabrication; show recorded measurements on final shop drawings:

1. Where field measurements cannot be made without delaying the railing fabrication and delivery, obtain guaranteed dimensions in writing by the Contractor and proceed with fabrication of products so as not to delay fabrication, delivery and installation.

C. Coordinate fabrication and delivery schedule of handrails with construction progress and sequence to avoid delay of railing installation.

- e. Air entrained composed of Portland cement, fine and course aggregates, admixtures and water. The air-entraining feature may be obtained by the use of either an air entraining Portland cement or an air entraining admixture. The entrained air-content shall be not less than four percent or more than seven percent.

1.8 WARRANTY:

A. Contractor will be responsible for installation defects associated with the boardwalk and abutment components, foundation system, and railings for a period of 12 calendar months from the date of final acceptance by the Owner.

B. Boardwalk manufacturer shall warranty all precast concrete components against defects in material and workmanship for a period of 10 years.

C. Railing manufacturer shall warranty the railing against defects in materials and workmanship for a period of 12 months.

1.9 MEASUREMENT AND PAYMENT

A. Precast concrete boardwalk, railings, and foundations shall be paid for at the contract lump sum price as listed in the bid proposal for "Precast Concrete Boardwalk". This price shall include all materials, equipment, labor and work necessary for and incidental to the design, construction, delivery, unloading, assembly, and placement of the boardwalk and foundation as shown in the contract plans including all railings on the superstructure.

PART 2-MATERIALS & TESTING

2.1 PRECAST CONCRETE: shall conform to the following:

- a. The minimum compressive strength of the concrete shall be 4000 psi measured at 28 days.
- b. All precast concrete shall contain structural steel reinforcement as designed by the Engineer of record.
- c. All precast concrete components shall be air entrained composed of Portland cement, fine and course aggregates, admixtures and water. The air-entraining feature may be obtained by the use of either an air entraining Portland cement or an air entraining admixture. The entrained air-content shall be not less than four percent or more than seven percent.
- d. All reinforcing steel shall be standard uncoated steel conforming to ASTM A615

PART 3 - EXECUTION

1.1 PRECAST CONCRETE BOARDWALK

A. Installation of the precast concrete boardwalk system and railings, if applicable, shall be performed in accordance to the approved plans and manufacturers installation instructions. Boardwalk manufacturer shall provide a field representative to review installation instructions with the Contractor and Engineer and to certify that the installation has been performed according to the approved drawings and manufacturer's instructions.



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SERENADE PARK
 CITY OF TROY
 SITE DETAILS
 FIXED DOCK AND BOARDWALK

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L4.8

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SERENADE PARK
CITY OF TROY
PRE-ENGINEERED
RESTROOM/SHELTER
BUILDING ELEVATIONS

NO.	DATE	REVISION

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DATE: June 1, 2022
DESIGNED: ROMTEC
DRAWN: ROMTEC
CHECKED: ROMTEC

PDS PROJECT NO: J.2115

L5.1

ARCHITECTURAL NOTES

1. REFER TO G-002 FOR ALL APPLICABLE NOTES AND PROJECT INFORMATION.
2. VERIFY ALL DIMENSIONS AND JOB CONDITIONS AND REPORT, IN WRITING, ANY DISCREPANCIES OR OMISSIONS WHICH WOULD INTERFERE WITH THE SATISFACTORY COMPLETION OF WORK.
3. CONTRACTOR TO VERIFY AND CONFIRM THE LOCATION OF ALL PROPERTY LINES AND UTILITY EASEMENTS PRIOR TO COMPLETING ANY WORK NEAR ADJACENT PROPERTIES OR IN ANY EASEMENT AREA.
4. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS NOT PRESENTLY KNOWN OR SHOWN. CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE AND VERIFY THE EXISTENCE OF AND EXACT LOCATION OF ALL UTILITIES.

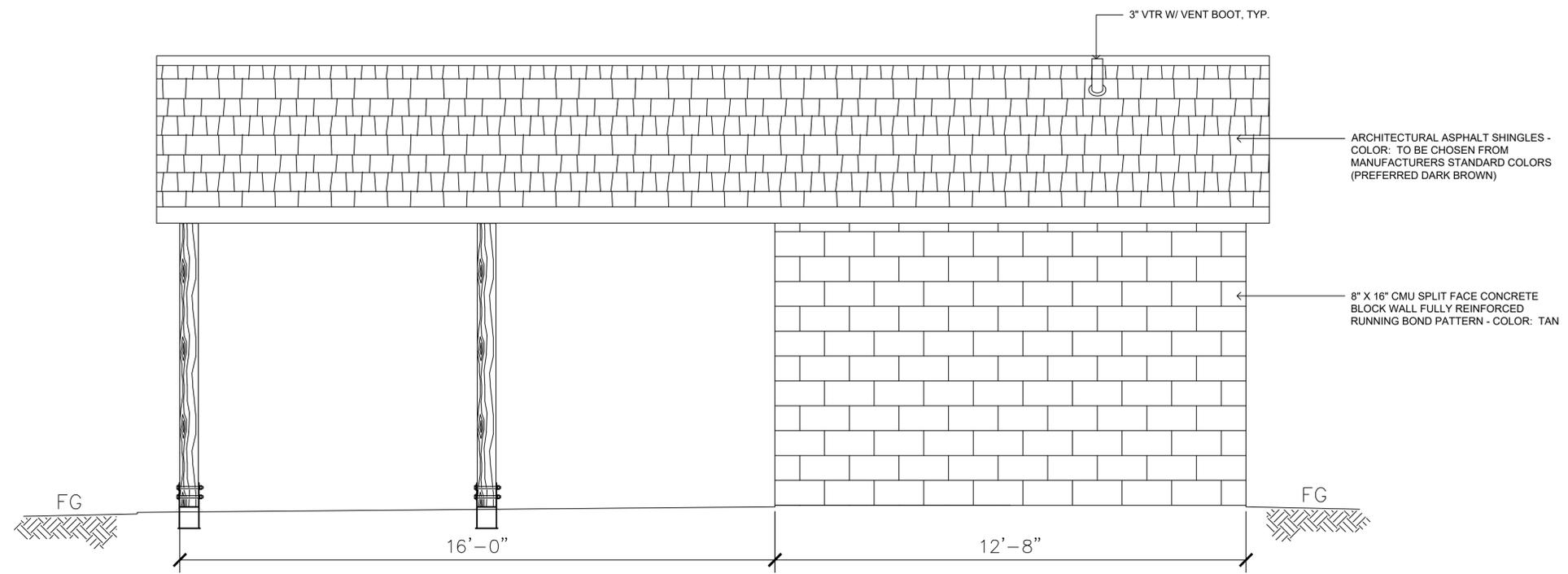
ARCHITECTURAL LEGEND

SYMBOL	DESCRIPTION	AREA/ QUANTITY
	GABLE WINDOW	4
	2x8 WOOD FILLER WALL	1
	EXTERIOR WALL LIGHTS	2
	INTERIOR CEILING LIGHTS	3
	FLOOR DRAIN	3
	WALL HYDRANT	1
	ELECTRICAL OUTLET	1
	GLU-LAM BEAM	5
	ROMTEC VENTILATION PACKAGE	2
	ERV INTAKE SYSTEM	1

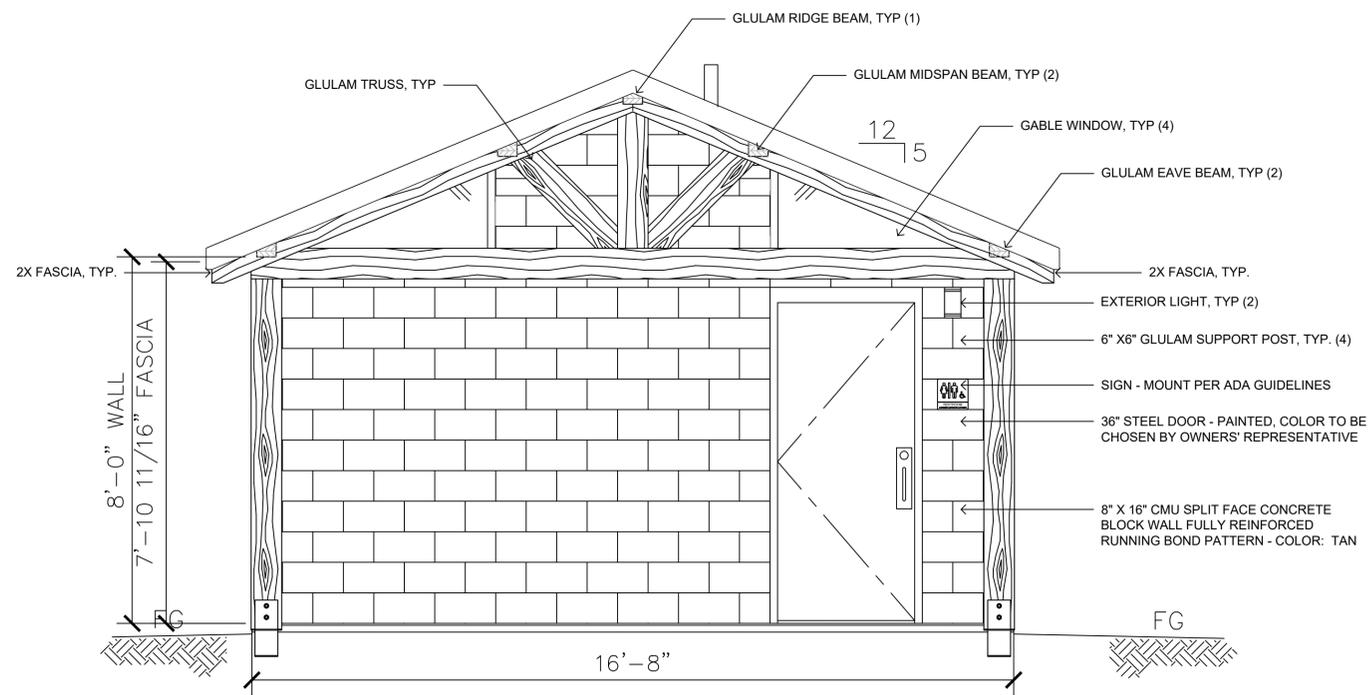
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DRAWINGS FOR RESTROOM/OPEN SHELTER ARE FOR ESTABLISHING DESIGN INTENT AND REQUIREMENTS OF THE PRE-ENGINEERED STRUCTURE AND ARE FOR BIDDING INFORMATION ONLY. BUILDING SHOWN ESTABLISHES THE MINIMUM LEVEL OF RESTROOM CONSTRUCTION, MATERIALS, FURNISHINGS, QUALITY AND AESTHETICS REQUIRED. CONTRACTOR SHALL PROVIDE SEALED, ILLINOIS LICENSED PROFESSIONAL, DRAWINGS FROM THE BUILDING MANUFACTURER THAT MEET ALL JURISDICTIONAL REQUIREMENTS FOR APPROVAL BY AUTHORITIES HAVING JURISDICTION PRIOR TO FABRICATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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1 ELEVATION VIEW "B"
1/2" = 1'-00"



2 ELEVATION VIEW "C"
1/2" = 1'-00"

THESE PLAN VIEW AND ELEVATION DRAWINGS ARE A PRELIMINARY ARCHITECTURAL REPRESENTATION OF THE BUILDING. ALL DIMENSIONS, FEATURES AND COMPONENTS SHOWN ON THESE PRELIMINARY DRAWINGS MAY OR MAY NOT BE PART OF THE QUOTE. PLEASE REFER TO THE "SCOPE OF SUPPLY AND SERVICES" LETTER PROVIDED WITH YOUR QUOTE FOR ROMTEC'S PROPOSED SCOPE OF SUPPLY.

PRE-ENGINEERED RESTROOM BUILDING

SECTION 1: BUILDING SUPPLIER SCOPE

1.1 SUMMARY

A. THE WORK SHALL INCLUDE FURNISHING THE SEALED ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL PLAN SETS AND FURNISHING THE STRUCTURAL, MECHANICAL, AND ELECTRICAL BUILDING COMPONENTS AS A COMPLETE, PRE-DESIGNED RESTROOM BUILDING PACKAGE AS SHOWN ON DRAWINGS AND AS SPECIFIED HEREIN.

1.2 GENERAL REQUIREMENTS

- A. PACKAGED RESTROOM BUILDING DESIGN AND ENGINEERING AND FURNISHING ALL SPECIFIED BUILDING PACKAGE COMPONENTS SHALL BE SUPPLIED BY ROMTEC, INC., OR PRE-APPROVED ALTERNATE, HEREAFTER DESIGNATED AS THE BUILDING SUPPLIER.
B. THE BUILDING SUPPLIER SHALL BE A SINGLE SOURCE DESIGN, ENGINEERING, AND MANUFACTURING FIRM WHO SHALL MEET ALL THE FOLLOWING REQUIREMENTS.
C. THE PACKAGED RESTROOM BUILDING SHALL BE A CURRENT STANDARD PRODUCT OF BUILDING SUPPLIER.
D. BUILDING SUPPLIER SHALL BE REGULARLY ENGAGED IN AND HAVE AT LEAST TEN (10) YEARS OF EXPERIENCE IN PACKAGED RESTROOM BUILDING ENGINEERING, DESIGN, SUPPLY, AND CONSTRUCTION.
E. THE BUILDING SUPPLIER MUST MEET OR EXCEED THE PRODUCT SPECIFICATIONS. THE ROMTEC, INC. BUILDING PACKAGE IS AN APPROVED GUIDE AND EXAMPLE.
F. ALTERNATE BUILDING SUPPLIERS SHALL DEMONSTRATE THAT THEY HAVE DESIGNED, ENGINEERED, PRODUCED, DELIVERED, AND CONSTRUCTED AT MINIMUM TEN (10) FUNCTIONING SITE-BUILT RESTROOM BUILDINGS OF SIMILAR TYPE. PROJECT COMPLETION DATES AND A REFERENCE CONTACT FROM THE OWNER OF EACH PROJECT MUST BE PROVIDED.
G. ALTERNATE BUILDING SUPPLIERS MUST DISCLOSE ALL INSTANCES OF ANY PRIOR MUNICIPAL REVIEWER OR LANDSCAPE ARCHITECT'S REJECTION OF THE SAME OR SIMILAR PRODUCT AS AN "OR EQUAL" TO THE SPECIFIED BASIS OF DESIGN BUILDING PACKAGE.
H. BIDDERS WHO PROPOSE AND ALTERNATE BUILDING SUPPLIER OTHER THAN ROMTEC, INC. ARE REQUIRED TO PROVIDE A COMPLETE SUBMITTAL PACKAGE MINIMUM OF TEN (10) CALENDAR DAYS PRIOR TO THE BID OPENING DATE WITH FULL SEALED PLAN SETS, CALCULATIONS, AND ALL PRE-ENGINEERED STRUCTURAL ITEMS.
I. ANY PRODUCTS PROPOSED AS "OR EQUAL" THAT ARE NOT AS SPECIFIED MUST BE SPECIFICALLY LISTED IN THE ALTERNATE BUILDING SUPPLIER SUBMITTAL PACKAGE AND ACCOMPANIED BY MANUFACTURERS DATA SHEETS FOR REVIEW. THESE PRODUCTS WILL BE APPROVED OR DENIED PRIOR TO THE BID OPENING. INCOMPLETE SUBMITTALS WILL BE REJECTED AND RETURNED TO THE BIDDER.
J. THE BUILDING AND ITS CONCRETE FOOTINGS, FOUNDATION, AND SLAB ARE TO BE ENGINEERED BY THE BUILDING SUPPLIER TO MEET SITE-SPECIFIC CONDITIONS, INCLUDING WIND AND SNOW LOADING, LOCAL FROST DEPTH, AND GROUND CONDITIONS.
K. FASTENERS THAT ARE NORMALLY INCLUDED WITH INDIVIDUAL COMPONENTS, AS WE ALL ANY ATYPICAL FASTENERS, SHALL BE SUPPLIED BY BUILDING SUPPLIER.
L. BUILDING IS TO BE DESIGNED AND CONSTRUCTED TO MEET LOCAL CODES AND APPROVALS FOR PERMANENT STRUCTURES. ANY BUILDING THAT IS TEMPORARY, PERMANENTLY RELOCATABLE, PREFABRICATED MODULAR, AN OFFSITE CONSTRUCTED PRODUCT, OR CONSTRUCTED OF PRECAST MATERIAL IS NOT AN ACCEPTED EQUAL TO PERMANENT, ONSITE, CONVENTIONAL CONSTRUCTION.
M. NO APPROVAL BY ANY EXTERNAL ENTITY WILL OVERRIDE THE LOCAL BUILDING AUTHORITY'S CODES AND INSPECTIONS. SEALS MEANT FOR MODULAR HOMES AND PRODUCTION PLANT CERTIFICATIONS WILL NOT BE ALLOWED IN LIEU OF SEALED PLANS FROM A LICENSED ENGINEER AND CONVENTIONAL INSPECTION DURING CONSTRUCTION.
N. BUILDING SIDINGS, TREATMENTS, AND ROOFING ARE TO BE AS SPECIFIED. PRECAST BUILDINGS WITH PAINTED TEXTURES ARE NOT CONSIDERED ARCHITECTURALLY EQUIVALENT.
O. THE BUILDING SUPPLIER SHALL PROVIDE COMPLETE, CODE-COMPLIANT BUILDING PLANS INCLUDING PLANS, ELEVATIONS, SECTIONS, AND DETAILS, UNDER SEAL OF A NATIONAL KITCHEN AND BATHROOM ASSOCIATION (NKBA) CERTIFIED TECHNICAL DESIGNER.
P. THE BUILDING SUPPLIER SHALL PROVIDE COMPLETE STRUCTURAL CALCULATIONS MEETING CODE FOR DESIGN LOADS AND SEISMIC DESIGN UNDER SEAL OF A PROFESSIONAL ENGINEER WITH CURRENT LICENSE IN THE STATE OF ILLINOIS.
Q. THE REVIEWING AUTHORITY RESERVES THE RIGHT TO REVIEW OR REJECT ALL SUBMITTALS AT ITS SOLE DISCRETION.
R. ALL WORK AND MATERIALS SHALL COMPLY WITH CURRENT INDUSTRY BUILDING CODES AND REGULATIONS FOR THE STATE OF ILLINOIS.
S. AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) WILL BE FOLLOWED IN DESIGN, MANUFACTURE, AND CONSTRUCTION.

1.3 DESIGN & SUBMITTAL DOCUMENTATION

- A. THE BUILDING SUPPLIER WORK SHALL INCLUDE THE DESIGN OF THE ARCHITECTURAL, MECHANICAL, STRUCTURAL, AND ELECTRICAL COMPONENTS THAT WILL BE REQUIRED FOR THIS BUILDING.
B. THE BUILDING WILL BE DESIGNED AS A COMPLETE BUILDING PACKAGE TO BE DELIVERED TO THE JOB SITE FOR CONSTRUCTION ON-SITE BY THE CONTRACTOR.
C. WITHIN ONE (1) WEEK OF CONTRACT AWARD, THE BUILDING SUPPLIER SHALL SUBMIT THE PACKAGED RESTROOM BUILDING PRELIMINARY SCOPE OF SUPPLY AND DESIGN SUBMITTAL (SSDS), INCLUDING THE BUILDING PLAN VIEW AND ELEVATION DRAWINGS.
D. THE BUILDING SUPPLIER WILL PROVIDE COMPLETE SUBMITTAL DOCUMENTATION IN THE BUILDING SUPPLIER'S STANDARD ELECTRONIC SUBMITTAL FORMAT FOR REVIEW.
E. THE PRELIMINARY SSDS WILL BE REVIEWED BY RELEVANT PARTIES AND RETURNED TO THE BUILDING SUPPLIER WITH ANY REQUIRED REVISIONS TO THE TERMS, PRODUCT DATA SHEETS, AND/OR BUILDING PLAN VIEW AND ELEVATION DRAWINGS NOTED AS COMMENTS.
F. THE BUILDING SUPPLIER SHALL MAKE ANY REQUIRED CORRECTIONS OR REVISIONS AND RESUBMIT THE PRELIMINARY SSDS UNTIL THE PRELIMINARY SSDS IS APPROVED BY THE RELEVANT PARTIES.
G. ONCE THE PRELIMINARY SSDS HAS BEEN APPROVED, THE BUILDING SUPPLIER WILL PROVIDE FULL SEALED PLAN SETS STAMPED BY AN ENGINEER LICENSED IN THE STATE THAT THE BUILDING IS LOCATED FOR REVIEW BY THE PERMITTING AUTHORITY.
H. UP TO THREE (3) WET STAMPED SETS OF THE PLANS AND STRUCTURAL CALCULATIONS SHALL BE PROVIDED BY BUILDING SUPPLIER BEFORE ANY ADDITIONAL FEES APPLY. STANDARD PLAN SET SIZE IS 11" X 17".
I. PERMITTING AUTHORITY WILL REVIEW THE FULL SEALED PLAN SET AND RETURN WITH ANY REQUIRED REVISIONS OR CORRECTIONS NOTED AS COMMENTS.
J. BUILDING SUPPLIER SHALL PROVIDE ONE FULL ROUND OF SEALED PLAN REVISIONS IN RESPONSE TO PERMITTING AUTHORITY COMMENTS BEFORE ANY ADDITIONAL FEES ARE ALLOWED.
K. THE FOLLOWING SECTIONS SHALL BE INCLUDED IN THE BUILDING SUPPLIER'S PRELIMINARY SCOPE OF SUPPLY AND DESIGN SUBMITTAL. INCOMPLETE SUBMITTALS WILL BE REJECTED AND RETURNED TO THE BIDDER.

- 1. INTRODUCTION
2. BUILDING DESIGN,
(a) SUPPLIED ITEMS
(b) EXCLUDED ITEMS
(c) PLAN VIEW AND ELEVATION DRAWINGS
3. PRODUCT DATA
4. WARRANTY & LIMITATIONS

NOTE: OVERALL SITE PLAN IS NOT PART OF BUILDING SUPPLIER'S SCOPE.

1.4 WARRANTY

- A. THE BUILDING PACKAGE AND ALL ASSOCIATED COMPONENTS PROVIDED BY BUILDING SUPPLIER SHALL BE WARRANTED AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM THE DATE OF ACCEPTANCE. ACCEPTANCE IS THE DATE OF DELIVERY OF THE BUILDING PACKAGE, OR, IF DELIVERY IS DELAYED FOR ANY REASON BEYOND BUILDING SUPPLIER'S CONTROL, THE DATE THAT THE BUILDING AND ALL ITS ASSOCIATED COMPONENTS WERE READY TO DELIVER.
B. BUILDING SUPPLIER SHALL PASS THROUGH TO OWNER ALL RELEVANT MANUFACTURERS WARRANTIES FOR INDIVIDUAL PRODUCTS AND COMPONENTS OF THE BUILDING PACKAGE.

SECTION 2: BUILDING PACKAGE PRODUCTS

2.1 APPROVED BUILDING SUPPLIERS

A. ROMTEC, INC.,
18240 NORTH BANK ROAD, ROSEBURG, OR 97470
TEL: 541-496-3541; FAX: 541-496-0803; EMAIL: TRAVIS.OLSON@ROMTEC.COM
WEB: WWW.ROMTEC.COM

B. REQUESTS FOR USE OF AN ALTERNATE BUILDING SUPPLIER WILL BE CONSIDERED IN ACCORDANCE WITH PROVISIONS OF SECTION 1.

C. ALTERNATIVE BUILDING DELIVERY METHOD: IN LIEU OF PACKAGED BUILDING SUPPLIER, CONTRACTOR IS ALLOWED TO DESIGN, ENGINEER AND CONSTRUCT BUILDING UTILIZING LOCAL DESIGNERS/ENGINEERS AND MATERIALS AS LONG AS THE PROPOSED BUILDING MEETS ALL REQUIREMENTS SET FORTH IN THIS SPECIFICATION AND DRAWINGS ARE MEET INCLUDING, BUT NOT LIMITED TO BUILDING DESIGN/ENGINEERING, SIZE (INCLUDING DIMENSIONS), MATERIALS, AND CODE COMPLIANCE.

2.2 BUILDING DESCRIPTION

- A. REFER TO DRAWINGS FOR QUANTITIES, DIMENSIONS, LOCATIONS, AND INSTALLATION METHODS FOR THE MATERIALS AND ITEMS DESCRIBED IN THIS SECTION.
B. BUILDING DIMENSIONS SHALL MATCH WHAT IS INDICATED ON DRAWINGS.

2.3 WALLS

- A. CONCRETE MASONRY UNITS (CMU) SHALL BE SUPPLIED BY BUILDING SUPPLIER.
1. WALLS SHALL BE CONSTRUCTED OF 8"W X 16"L X 8"H SPLIT-FACE MORTAR JOINT CONCRETE MASONRY UNITS (CONCRETE BLOCKS).
2. BLOCKS SHALL BE MANUFACTURED TO ASTM C90 DESIGNATION FOR LOAD BEARING CONCRETE MASONRY UNITS.
3. BLOCK COLOR TO BE TAN.
B. EXTERIOR TO HAVE RAIN GUARD ANTI-GRAFFITI COATING SHALL BE SUPPLIED BY BUILDING SUPPLIER.
C. SANITARY TILE COVE BASE ON INTERIOR WALLS TO BE SUPPLIED BY BUILDING SUPPLIER.
D. POLYCARBONATE GABLE WINDOWS SHALL BE SUPPLIED BY BUILDING SUPPLIER.

- 1. WINDOWS SHALL INCLUDE PRE-ASSEMBLED STEEL FRAME WITH 1/8" THICK POLYCARBONATE WITH TRANSLUCENT PEBBLE FINISH.
2. STEEL FRAMES ARE PRIMED AND PAINTED BLACK.
E. DOOR SYSTEM COMPONENTS SHALL BE SUPPLIED BY BUILDING SUPPLIER.
1. DOORS SHALL BE STEELCRAFT® SL18 STANDARD LAMINATED HONEYCOMB CORE AND 18-GAUGE GALVANIZED STEEL.
2. DOOR FRAME SHALL BE PRE-WELDED STEELCRAFT® 3-SIDED FLUSH FRAME, 16-GAUGE GALVANNEALED A-60 STEEL.
3. DOORS AND FRAMES TO BE POWDER COATED WITH UNDERCOATING (COLOR TO BE SELECTED BY OWNER).
4. MASONRY DOOR CLIPS (3/16" DIA.) FOR DOOR FRAME SHALL BE FITTED BETWEEN THE DOORFRAME AND CONCRETE BLOCKS TO BOND FRAME TO WALL. DOOR CLIPS ALLOW FULL INTERNAL GROUTING OF THE FRAME DURING INSTALLATION.
5. HINGES SHALL MEET ANSI A5112 WITH NON-REMOVABLE PIN AND TWO BALL BEARINGS.
6. HAGER 5100 SERIES GRADE 1 DOOR CLOSER IS CONSTRUCTED OF CAST IRON, WHICH MAKES IT IDEAL FOR HEAVY DUTY, HIGH USE AND ABUSIVE ENVIRONMENTS.
7. DOOR TO HAVE 0.038" GAUGE, STAINLESS STEEL PROTECTION PLATES.
8. DOORS TO HAVE ALUMINUM ALLOY 6063, T5 TEMPER MILL FINISH SADDLE THRESHOLDS, MODEL 424E.
9. RESTROOM DOORS TO HAVE PULL HANDLES WITH STAINLESS STEEL PLATES AND DEADBOLT LOCKS.
10. MECHANICAL ROOM DOOR LOCK SHALL BE GRADE 2, STANDARD DUTY COMMERCIAL CYLINDRICAL LEVER LOCKS WITH NO EXPOSED MOUNTING SCREWS.
(i) HAGER 341C LATCH PROTECTION PLATE WITH LOCK CUT OUT.

2.4 ROOFING

- A. THE FOLLOWING ROOF COMPONENTS SHALL BE SUPPLIED BY BUILDING SUPPLIER.
1. GLULAM BEAM SHALL BE 24F-V4 AND ARCHITECTURAL GRADE.
2. TONGUE & GROOVE DECKING SHALL BE 2X6 V-EDGE DECK BOARDS, SELECT DECK DOUGLAS FIR.
B. ARCHITECTURAL COMPOSITION ROOFING SHALL HAVE A 5-5/8 IN. EXPOSURE AND A NOMINAL SIZE OF 13-1/4 IN. X 39-3/8 IN.
1. ROOFING COLOR TO BE SELECTED BY THE OWNER FROM THE MANUFACTURERS STANDARD COLOR CHART.
C. GLULAM TRUSS AND POST ROOF EXTENSION.

2.5 PLUMBING FIXTURES & ACCESSORIES

- A. THE FOLLOWING PLUMBING FIXTURES AND ACCESSORIES SHALL BE SUPPLIED BY BUILDING SUPPLIER.
B. TOILET SHALL BE FLOOR MOUNT, TOP SUPPLY, WHITE VITREOUS CHINA.
1. FLUSH VALVE SHALL BE A CHROME, MANUAL LEVER WITH ADA COMPLIANT METAL OSCILLATING NON-HOLD-OPEN HANDLE.
C. LAVATORY SHALL BE 19 IN. X 17 IN. WHITE VITREOUS CHINA AND WALL HUNG WITH ANTI-SPLASH RIM AND CONCEALED FRONT OVERFLOW.
1. FAUCETS SHALL BE A 2.2GPM, PIVOT ACTION LEVER STYLE FAUCET.
D. GRAB BARS SHALL BE STAINLESS STEEL.

2.6 ELECTRICAL

- A. THE FOLLOWING ELECTRICAL FIXTURES SHALL BE SUPPLIED BY BUILDING SUPPLIER.
B. LIGHT FIXTURES SHALL BE SUPPLIED BY BUILDING SUPPLIER.
1. EXTERIOR LIGHTS TO BE LED DOWNLIGHTS WITH CAST-ALUMINUM HOUSING WITH CORROSION-RESISTANT PAINT IN DARK BRONZE. POLYCARBONATE LENS PROTECTS THE LED FROM MOISTURE, DIRT AND OTHER CONTAMINANTS, CONTROLLED BY PHOTOCCELL.
2. INTERIOR SURFACE MOUNT, 48" LED LIGHT FIXTURES.
3. LIGHTS CONTROLLED BY MOTION SENSOR IN RESTROOM, LIGHT SWITCH IN MECHANICAL ROOM.
C. ELECTRIC TANK, 20-GALLON, 2.5KW WATER HEATER WITH EXPANSION TANK SUPPLIED BY BUILDING SUPPLIER.

- D. SURFACE MOUNT, 1000 - 2750-WATT WALL HEATER IN MECHANICAL ROOM ONLY FOR FREEZE PROTECTION SHALL BE SUPPLIED BY BUILDING SUPPLIER.
E. MECHANICAL EXHAUST SYSTEM SUPPLIED BY BUILDING SUPPLIER.
F. MAIN BREAKER PANEL SHALL BE SUPPLIED BY BUILDING SUPPLIER.
1. BREAKER PANEL SHALL BE 200 AMP, SINGLE-PHASE, INDOOR.

SECTION 3: CONTRACTOR SCOPE

THE INSTALLING CONTRACTOR OR SUBCONTRACTOR, HEREAFTER DESIGNATED AS THE CONTRACTOR, IS RESPONSIBLE FOR BUILDING PACKAGE INSTALLATION. CONTRACTOR WORK WILL GENERALLY INCLUDE FOUNDATION/PAD CONSTRUCTION AND BUILDING PACKAGE ASSEMBLY/CONSTRUCTION.

NOTE: BUILDING SUPPLIER'S SCOPE IS SEPARATE FROM THE CONTRACTOR'S SCOPE. ROMTEC, INC., IS THE APPROVED BUILDING SUPPLIER, NOT A DESIGNATED CONTRACTOR.

3.1 CONSTRUCTION SUBMITTALS

A. IF REQUIRED BY OWNER AND/OR REVIEWING AUTHORITY, CONTRACTOR SHALL SUBMIT PRODUCT DATA SHEETS AND RELEVANT INFORMATION ABOUT THE SPECIFIED CONTRACTOR SUPPLIED PRODUCTS BELOW FOR REVIEW AND APPROVAL.

3.2 CAST IN-PLACE CONCRETE FOR BUILDING PACKAGE

- A. ALL EQUIPMENT, LABOR, TRADES, AND MATERIALS FOR CAST-IN-PLACE CONCRETE SHALL BE PROVIDED BY CONTRACTOR.
1. INCLUDES ALL MATERIALS AND LABOR FOR BUILDING PACKAGE FOUNDATIONS/FOOTINGS AND INTERIOR SLABS.
B. FOOTINGS FOR THE BUILDING PACKAGE ARE TO BE DUG BY THE CONTRACTOR AND POURED ON-SITE TO MEET LOCAL CODE FOR PERMANENT STRUCTURES. A PREFABRICATED, MODULAR MAT PLACED ON COMPACTED BASE IS NOT AN ACCEPTED EQUAL TO A SITE SPECIFIC, SITE POURED, ENGINEERED FOUNDATION.
C. ENGINEERED FILL SHALL BE 3/4" MINUS CRUSHED AGGREGATE AROUND FOOTINGS, FOUNDATIONS, AND SLABS, OR AS REQUIRED IN THE FINAL APPROVED PLANS.
D. SLAB VAPOR BARRIER SHALL BE 6-MIL CONTINUOUS PLASTIC UNDER THE CONCRETE SLAB, OR AS REQUIRED IN THE FINAL APPROVED PLANS.
E. THE FOUNDATION SHALL BE INSTALLED AS DESIGNED WITH ALL CAST IN-PLACE CONCRETE POURED TO DIMENSIONS SPECIFIED, OR AS REQUIRED IN THE FINAL PLANS.
1. FOOTINGS WILL BE BUILT TO 24" DEPTH.
2. MINIMUM COMPRESSIVE STRENGTH OF FOUNDATION CONCRETE SHALL BE 3,000 PSI AT 28 DAYS, 4" +/-1" SLUMP, WITH MAX 3/4" AGGREGATE, CURED IN ACCORDANCE WITH ACI 308, OR AS REQUIRED IN APPROVED FINAL PLANS.
3. SLABS SHALL HAVE A FINE BROOM FINISH WITH JOINTS REQUIRED IN FLAT WORK AS SHOWN ON PLANS.
4. STEEL REBAR SHALL BE INSTALLED AS SPECIFIED IN FINAL PLANS.

F. CONTRACTOR SHALL SUPPLY AND INSTALL CONCRETE SLAB SEALER.

- 1. CONCRETE SLAB SEALER SHALL BE A WATER-BASED, TRANSPARENT CURING, SEALING AND DUST PROOFING COMPOUND WITH TWO (2) COATS TO BE APPLIED PER MANUFACTURER'S INSTRUCTIONS.

3.3 STRUCTURE

- A. MASONRY (CONCRETE) GROUT SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR.
1. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS, 9+/-1" SLUMP, WITH MAX 1/2" AGGREGATE.
2. FINE OR COARSE GROUT MAY BE USED IN ACCORDANCE WITH 2009 UBC.
3. ALL CMU BLOCK MUST BE FULLY GROUTED AND MAY NOT BE WETTED.
NOTE: IF REQUIRED FOR INSTALLATION, CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING APPROPRIATE EQUIPMENT AND LABOR FOR NOTCHING CMU BLOCK FOR BOND BEAMS, CUTTING CMU BLOCK TO MAKE ANY REQUIRED SHAPES, AND/OR GRINDING CMU BLOCK FOR FIXTURE MOUNTING.
B. REBAR FOR WALLS SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR.
1. ALL WALLS SHALL HAVE # 4 AND # 5 REBAR. SEE FINAL APPROVED PLANS FOR SPACING.
2. ALL REBAR USED IN THE BUILDING MUST MEET ASTM A615 MANUFACTURING STANDARDS AND IS TO BE PLACED PER THE FINAL APPROVED PLANS.
C. INTERIOR BLOCK WALL FINISH SHALL BE LATEX EPOXY PAINT SUPPLIED AND INSTALLED BY CONTRACTOR.
D. INTERIOR FLOORS TO BE SEALED CONCRETE FINISH SUPPLIED BY CONTRACTOR.
E. SEALANT FOR ALL EXPOSED WOOD SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR.
F. SEALANT FOR ALL EXTERIOR CMU BLOCK IS REQUIRED, TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
G. DOORS AND FRAMES ARE FACTORY PRIMED TO BE PAINTED ON-SITE BY CONTRACTOR.

>>>> CONTINUE NEXT SHEET

DISCLAIMER

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NAME: NOEL T. FEHR
DISCIPLINE: LANDSCAPE ARCHITECT
LICENSE NO.: 157-000236
EXPIRATION DATE:
CERT. OF AUTHORITY:
EXPIRATION DATE:
COMPANY INFO:
2816 SUTTON BOULEVARD, SUITE 1
SAINT LOUIS, MO 63143
PHONE: 314.241.3600

SERENADE PARK
CITY OF TROY
PRE-ENGINEERED
RESTROOM/SHELTER
BUILDING SPECIFICATION

Table with 3 columns: NO., DATE, REVISION. The table is currently empty.

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DATE: June 1, 2022

DESIGNED: ROMTEC
DRAWN: ROMTEC
CHECKED: ROMTEC

PDS PROJECT NO: J.2115

3.4 PLUMBING

- A. PLUMBING ROUGH-IN, INSTALLATION AND TRIM WITHIN 10' OF THE BUILDING FOOTPRINT SHALL BE PROVIDED BY **CONTRACTOR**.
1. ALL UNDERGROUND WATER SERVICE AND SEWER DRAIN(S) FROM BUILDING TO BE AS SPECIFIED IN FINAL APPROVED SITE PLAN.
 2. BUILDING WATER SHUTOFF VALVE, DRAIN, AND ALL ROUGH PIPING SHALL BE AS SHOWN ON FINAL BUILDING PLANS. FINAL INSTALLATION LOCATION TO BE DETERMINED ONSITE.
 3. INSTALL THE BUILDING PACKAGE PLUMBING FIXTURES PER THE FINAL APPROVED PLANS.
 4. PIPING SHALL BE INSTALLED PER THE FINAL APPROVED PLANS WITH MINIMUM PIPE SIZING PER 2009 UNIFORM ALL UNDERGROUND WATER SERVICE AND SEWER DRAIN(S) FROM BUILDING TO BE AS SPECIFIED IN FINAL APPROVED SITE PLAN.
 5. BUILDING WATER SHUTOFF VALVE IS TO BE SUPPLIED AND INSTALLED BY **CONTRACTOR**.
 6. **CONTRACTOR** IS RESPONSIBLE TO ENSURE THAT INCOMING WATER PRESSURE IS SUFFICIENT TO MEET BUILDING PACKAGE FIXTURE DEMANDS.
 7. MINIMUM WATER PRESSURE AT TOILET AND URINAL FLUSH VALVES SHALL BE 40 PSI WITH MINIMUM PIPE SIZING AS PER 2009 UNIFORM PLUMBING CODE SECTION 610, OR AS REQUIRED IN FINAL APPROVED PLANS.
 8. PLUMBING CODE SECTION 610.
- B. FLOOR DRAINS IN THE BUILDING SHALL BE SUPPLIED AND INSTALLED BY **CONTRACTOR**. ALL FLOOR DRAINS SHALL BE AS SHOWN ON FINAL APPROVED PLANS.

3.5 ELECTRICAL

- C. ELECTRICAL ROUGH-IN, INSTALLATION AND TRIM SHALL BE PROVIDED BY **CONTRACTOR**.
1. ALL UNDERGROUND AND/OR OVERHEAD SERVICE TO BUILDING SHALL BE AS SPECIFIED IN THE FINAL SITE PLAN.
 2. **CONTRACTOR** IS RESPONSIBLE FOR ALL NECESSARY WIRE, CONNECTORS, GROUNDING, CONDUIT, AND RELATED ITEMS TO INSTALL THE BUILDING PACKAGE ELECTRICAL COMPONENTS AND MEET ALL RELEVANT NATIONAL, STATE, AND LOCAL CODES.
 3. **CONTRACTOR** SHALL SUPPLY AND INSTALL ALL SWITCHES AND OUTLETS REQUIRED TO COMPLETE THE BUILDING PACKAGE INSTALLATION.

3.6 OTHER MATERIALS & EQUIPMENT

- A. UNLESS OTHERWISE SPECIFIED, THE FOLLOWING PRODUCTS AND MATERIALS ARE SUPPLIED BY **CONTRACTOR** (IF APPLICABLE).
1. BUILDING PACKAGE INSTALLATION
 2. CAST-IN-PLACE CONCRETE FOUNDATIONS, FOOTINGS, INTERIOR SLABS
 3. CONCRETE SLAB & BLOCK SEALER
 4. MORTAR
 5. CONCRETE GROUT
 6. REBAR
 7. LATEX EPOXY PAINT
 8. CAULK FOR SIDING
 9. PLUMBING ROUGH IN, INSTALLATION AND TRIM
 10. DRAIN VALVES AND BACKFLOW CHECK VALVES
 11. ELECTRICAL ROUGH IN, INSTALLATION AND TRIM
 12. BRANCH CIRCUIT BREAKERS
 13. SWITCHES & OUTLETS
 14. TYPICAL FASTENERS; FOR EXAMPLE: ROOFING NAILS, STAPLES, ETC.
 15. FASTENERS NOT INCLUDED IN PRODUCT PACKAGING
 16. WOOD SEALANT FOR ALL DECKING, GLULAM BEAMS, POSTS, AND EXTENSIONS
 17. ALL OTHER ITEMS WITHIN THE BUILDING FOOTPRINT INDICATED ON FINAL PLANS OR REQUIRED BY BUILDING CODES TO COMPLETE INSTALLATION OF THE BUILDING PACKAGE WHICH ARE NOT SPECIFICALLY STATED AS SUPPLIED BY **BUILDING SUPPLIER**.

SECTION 4: DELIVERY, STORAGE, AND HANDLING

- A. THE **BUILDING SUPPLIER** FREIGHT SHALL BE BASED ON DELIVERING THE PRODUCT ON A 48' TO 53' FLATBED OR VAN TRUCK AND TRAILERS, OR AS CLOSE TO THOSE DIMENSIONS AS CAN LEGALLY ACCESS THE SITE. OVERALL DIMENSIONS OF THE TRUCK AND TRAILERS ALLOWED TO ACCESS THE SITE ARE: 70' OVERALL LENGTH, 102' WIDE AND 168" HIGH.
- B. **BUILDING SUPPLIER** SHALL DELIVER ORGANIZED BUILDING PACKAGE COMPONENTS IN STAGES AS SHRINK-WRAPPED PALLETS THAT CORRESPOND TO A TYPICAL SEQUENCE OF CONSTRUCTION. A BILL OF MATERIAL STATING THE STAGES OF PALLETIZED COMPONENTS SHALL BE INCLUDED WITH EVERY DELIVERY.
1. STAGE 1 PALLETS SHALL INCLUDE STRUCTURAL COMPONENTS SUCH AS BLOCK, FRAMES, VENTS, BEAMS, CONNECTORS, TRUSSES, ETC.
 2. STAGE 2 PALLETS SHALL INCLUDE SECOND STAGE STRUCTURAL COMPONENTS SUCH AS FILLER WALL MATERIAL, WINDOWS, SKYLIGHTS, ROOFING, ETC.
 3. STAGE 3 PALLETS SHALL INCLUDE STRUCTURAL FINISH COMPONENTS SUCH AS SIDING MATERIAL, TILE, DOORS ETC.
 4. STAGE 4 PALLETS SHALL INCLUDE PLUMBING AND ELECTRICAL FIXTURES AND OTHER FINISH MATERIALS SUCH AS TOILETS, SINKS, DRINKING FOUNTAINS, ELECTRICAL FIXTURES, ACCESSORIES, ET
- C. THE **CONTRACTOR** WILL BE RESPONSIBLE FOR ALL EQUIPMENT AND LABOR REQUIRED FOR OFF-LOADING OF THE DELIVERED BUILDING PACKAGE ONSITE.
- D. THE **CONTRACTOR** WILL ASSUME RESPONSIBILITY FOR ADEQUATE PROTECTION AND MAINTENANCE OF DELIVERED BUILDING PACKAGE MATERIALS FROM WEATHER, DAMAGE, AND PILFERAGE DURING INSTALLATION WORK. ANY FAILURE TO ADEQUATELY PROTECT BUILDING PACKAGE MATERIALS THAT AFFECTS THE WARRANTY OF THOSE MATERIALS WILL BE AT **CONTRACTOR'S** EXPENSE.
- E. **CONTRACTOR** SHALL COLLECT AND MAINTAIN FOR FINAL DELIVERY TO OWNER ANY OPERATION & MAINTENANCE MANUALS INCLUDED BY INDIVIDUAL PRODUCT MANUFACTURERS WITH THEIR RESPECTIVE PRODUCT PACKAGING. ANY FAILURE TO COLLECT, MAINTAIN, AND/OR DELIVER THESE O&M MANUALS TO THE **OWNER** THAT RESULTS IN FEES FROM **BUILDING SUPPLIER** FOR ADDITIONAL COPIES SHALL BE AT **CONTRACTOR'S** EXPENSE.

SECTION 5: WARRANTY

- A. **CONTRACTOR'S** WORK SHALL BE WARRANTED AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM THE DATE OF ACCEPTANCE. ACCEPTANCE IS THE DATE THAT INSTALLATION WORK FOR THE BUILDING PACKAGE IS COMPLETED, INCLUDING ANY RELEVANT FINAL PUNCH LIST. IN THE EVENT THAT FINAL ACCEPTANCE OF THE COMPLETED BUILDING IS DELAYED FOR REASONS BEYOND **CONTRACTOR'S** CONTROL, THE WARRANTY SHALL BE ONE (1) YEAR FROM THE COMPLETION OF **CONTRACTOR'S** INSTALLATION WORK AND DEMOBILIZATION.
- B. **CONTRACTOR** SHALL PASS THROUGH TO **OWNER** ALL RELEVANT MANUFACTURERS WARRANTIES FOR INDIVIDUAL PRODUCTS AND COMPONENTS SUPPLIED BY **CONTRACTOR**.

SECTION 6: OWNER'S SCOPE

- A. **OWNER** IS RESPONSIBLE FOR ONGOING MAINTENANCE OF THE COMPLETED RESTROOM BUILDING AFTER COMPLETION OF WORK BY CONTRACTOR AND CONTRACTOR.
- B. **OWNER** (OR OWNER'S SITE ENGINEER) IS RESPONSIBLE FOR PROVIDING THE FINAL APPROVED SITE PLAN TO **BUILDING SUPPLIER** AND/OR **CONTRACTOR**.
- C. IF REQUIRED, SPECIAL INSPECTION(S) SERVICES SHALL BE PROVIDED BY **OWNER**.
- D. IF SPECIAL INSPECTION(S) ARE REQUIRED BY THE PERMITTING AUTHORITY OR RELEVANT AGENCY(IES), THEN THE **BUILDING SUPPLIER, CONTRACTOR, AND/OR CONTRACTOR** SHALL PROVIDE REASONABLE ASSISTANCE TO THE **OWNER** TO ACCOMMODATE THE SPECIAL INSPECTION(S).



NAME: NOEL T. FEHR
 DISCIPLINE: LANDSCAPE ARCHITECT
 LICENSE NO: 157-000236
 EXPIRATION DATE:
 CERT. OF AUTHORITY:
 EXPIRATION DATE:
 COMPANY INFO:
 2816 SUTTON BOULEVARD, SUITE 1
 SAINT LOUIS, MO 63143
 PHONE: 314.241.3600

SERENADE PARK
 CITY OF TROY
 PRE-ENGINEERED
 RESTROOM/SHELTER
 BUILDING SPECIFICATION

NO.	DATE	REVISION

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DATE: June 1, 2022

DESIGNED: ROMTEC
 DRAWN: ROMTEC
 CHECKED: ROMTEC

PDS PROJECT NO: J.2115



SERENADE PARK Splash Pad

TROY, IL

INTRODUCTION:

SPLASH PAD TO CONSIST OF A 51'-4" X 41'-2" FREEFORM CONCRETE PAD WITH THE FOLLOWING PLAY FEATURES:

NO	PRODUCT	QTY
1	ARCH JET	4
2	SEA CRAWLER	1
3	STREAM JET TRIANGLE	1
4	SUPPLY FITTING	1

DRAINAGE SYSTEM TO CONSIST OF (1) COLLECTOR BOX W/ COVERING GRATE.

MECHANICAL SYSTEM TO BE LOCATED IN A NEARBY MECHANICAL ROOM. RECIRCULATION SYSTEM TO INCLUDE:

- 1 - CONTROL PANEL ON/OFF
- 1 - FEATURE PUMP SKID
- 1 - FILTRATION SKID
 - 1 - FILTRATION PUMP
 - 1 - CARTRIDGE FILTER
 - 1 - CHEMICAL CONTROL SYSTEM
- 1 - CHLORINE TANK AND PUMP
- 1 - ACID TANK AND PUMP
- 1 - DISTRIBUTION HEADER
- 1 - UNDERGROUND WATER RESERVOIR

REQUIRED UTILITIES:

1. DOMESTIC WATER MAKE-UP:
 - 1. DOMESTIC WATER SUPPLY WITH AN APPROVED BACKFLOW PREVENTER AND PRESSURE REGULATOR REGULATED TO 25-30PSI AND AN AIR GAP IN ACCORDANCE WITH LOCAL AND STATE CODES
 - ***IT IS RECOMMENDED THAT A HOSE BIBB AND A VACUUM BREAKER TO BE PROVIDED FOR WASHING DOWN THE ENTIRE DECK AREA.***
2. UNDERGROUND STORAGE TANK OVERFLOW:
 - 3" SCH 80 PVC TO WASTE. AIR GAP REQUIRED.
3. DRAIN:
 - 3a) 2" SCH 80 PVC TO WASTE (FROM UNDERGROUND STORAGE TANK SUMP PUMP). AIR GAP REQUIRED.
 - 3b) 3" SCH 80 PVC OVERFLOW TO WASTE (FROM UNDERGROUND STORAGE TANK). AIR GAP REQUIRED.
 - 3c) 2" SCH 80 PVC DRAIN TO WASTE W/ BUTTERFLY ACTUATED VALVE (FROM COLLECTOR BOXES). AIR GAP REQUIRED.
 - 3d) 2" SCH 80 PVC DRAIN TO WASTE (FROM WINTERIZATION PIT) AIR GAP REQUIRED.
4. ELECTRICAL SERVICE:
 - (1) FEED @ 230V, 1Ø, 60hz, 40amps W/ NEUTRAL (SPLASH PAD MECH)
 - (1) FEED @ 120V, 1Ø, 60hz, 20 amps (SPLASH PAD CONTROLS)
 - (1) FEED @ 120V, 1Ø, 60hz, 15amps W/ NEUTRAL (TANK SUMP PUMP)



1101 McKinley Parkway Delano, MN 55328
 Contact: Chuck Schmitz
 952-345-6443 (Direct) - 952-345-6444 (Fax)
 chuckschmitz@playlsi.com (Email)

SPLASH PAD DRAWING LIST:

- C: COVER SHEET
- 1: GENERAL INFORMATION
- 2: SITE PLAN
- 3: SPLASH PAD LAYOUT
- 4: CONCRETE PLAN
- 5: CONCRETE FORM
- 6: CONCRETE SECTION AND DETAILS
- 7: SUPPLY PIPING PLAN
- 8: DRAIN PIPING PLAN
- 9: ELECTRICAL PLAN
- 10: ELECTRICAL LAYOUT
- 11: MECHANICAL PLAN
- 12: STORAGE TANK DETAILS

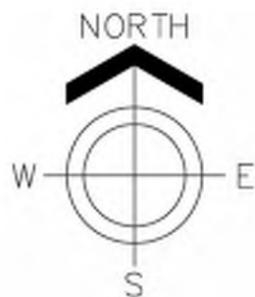
NO.	REVISION	DATE
A	RELEASE FOR APPROVAL	3/7/22

1101 McKinley Parkway Delano, MN 55328 952-345-6443 (Direct) 952-345-6444 (Fax) chuckschmitz@playlsi.com	 by landscape structures
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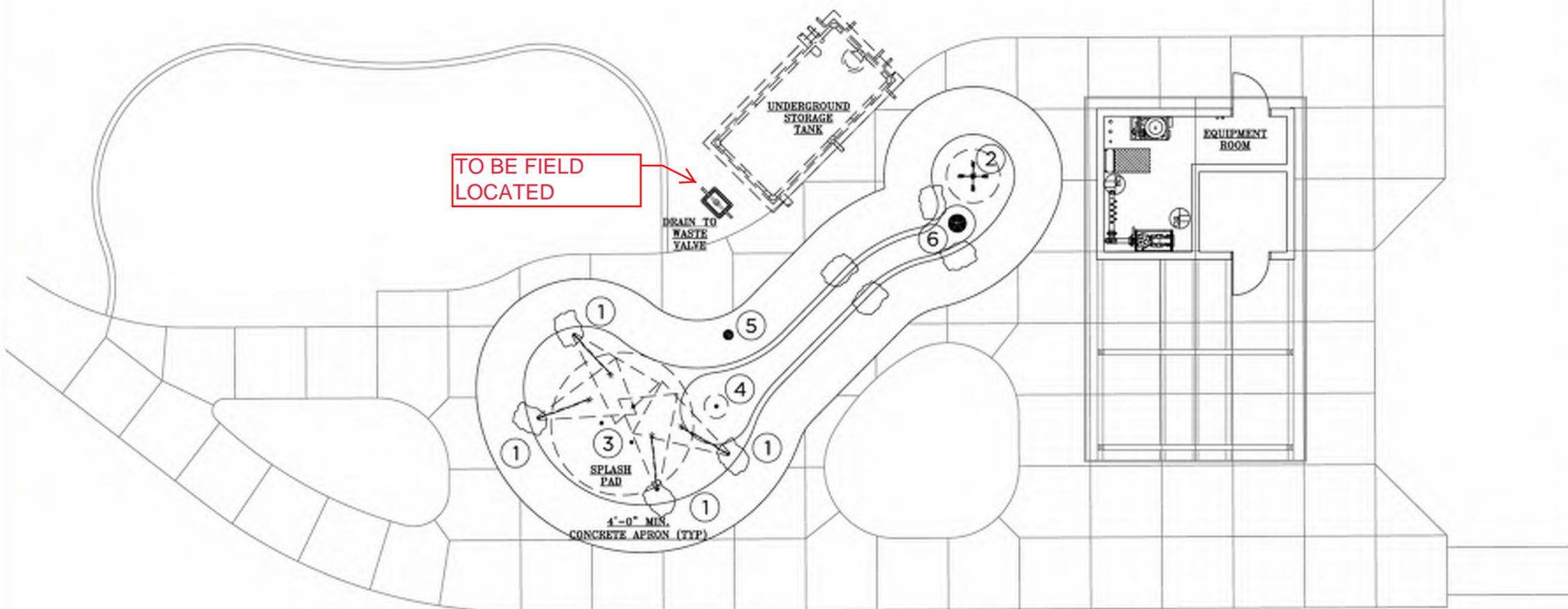
JOB TITLE SERENADE PARK SPLASH PAD	LOCATION TROY, IL
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DWS FILE 1159648-01-02-C	DATE 3/7/22
CHECKED [Signature]	SCALE SEE VIEWS
DRAWN CTS	SHEET TITLE COVER SHEET

JOB NO. 1159648-01-02	C OF 12
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NOTE:
INSTALLERS RESPONSIBILITY TO
LOCATE STORAGE TANK AS CLOSE
AS POSSIBLE TO SPLASH PAD.



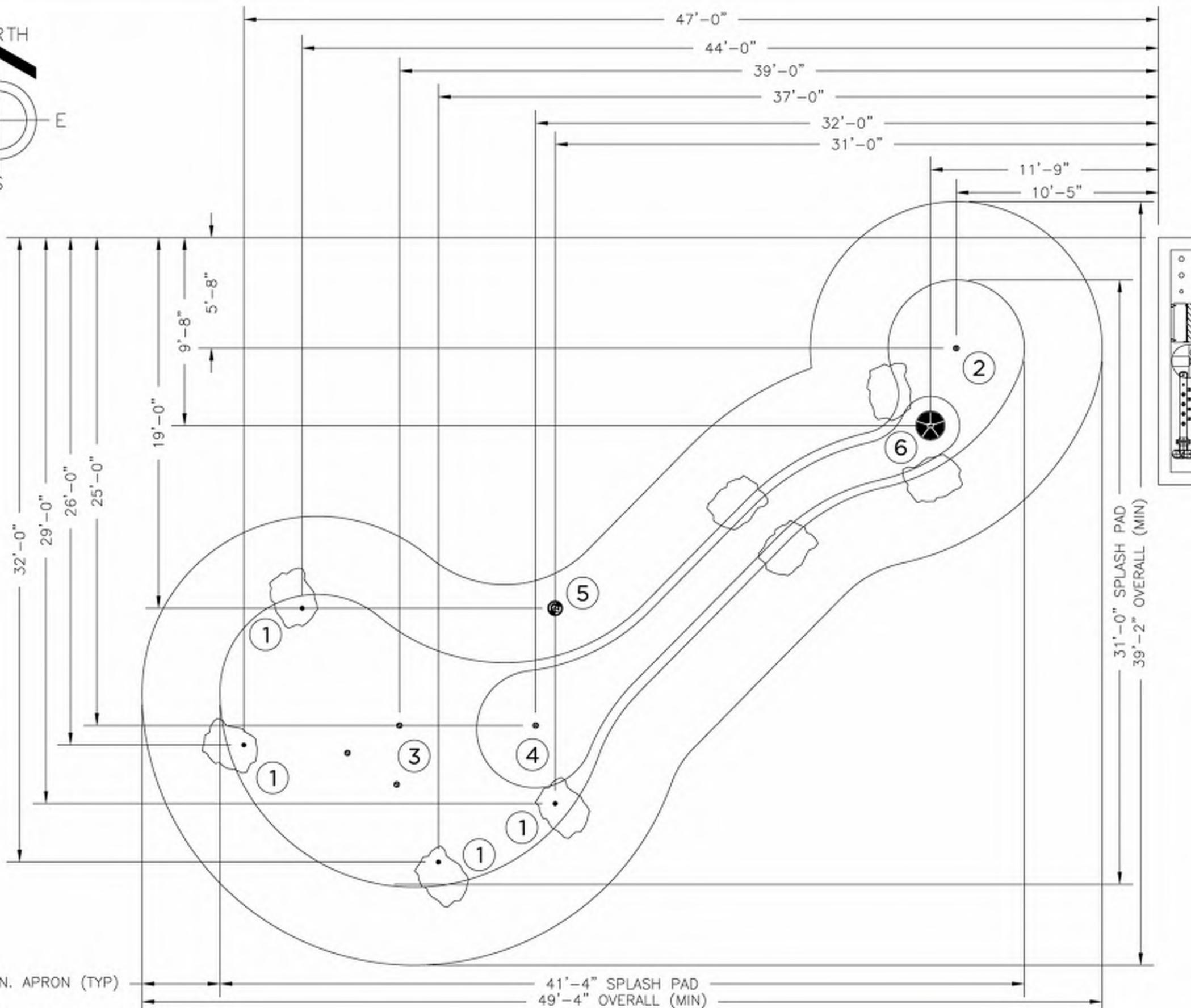
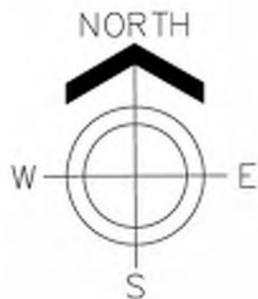
NO	PRODUCT	QTY	GPM	LINE SIZE
1	ARCH JET	4	10 EA	1" EA
2	SEA CRAWLER	1	5	1"
3	STREAM JET TRIANGLE	1	30	1½"
4	SUPPLY FITTING	1	30	1½"
5	STEP PAD ACTIVATOR	1	--	--
6	COLLECTOR BOX	1	--	--

- NOTE:**
- ALL CONCRETE SLOPES TO BE ¼"/FT MIN. AND ½"/FT MAX.
 - SITE ELEVATIONS OF SPLASH PAD AND CONCRETE APRON TO BE VERIFIED BY OTHERS. ARC ELEVATION REFERENCE IS 0'-0" FOR TOP OF DRAINAGE BOX. ALL OTHER NOTED ELEVATIONS ARE REFERENCED FROM THAT POINT.
 - SURFACE MOUNTED STRUCTURES MAY REQUIRE A FLAT/LEVEL SURFACE FOR PROPER INSTALLATION. SEE INDIVIDUAL STRUCTURE MOUNTING INSTALLATION INSTRUCTIONS.
 - ACTUAL SIZE, SHAPE, AND LOCATION OF SPLASH PAD TO BE FIELD DETERMINED BY OTHERS. ALL DIMENSIONS OF SIZE AND SHAPE OF SPLASH PAD FOR REFERENCE ONLY.
 - INDICATES SAW CUT JOINT
 - — — INDICATES EXPANSION JOINT
 - THE INTENT OF A SPLASH PAD IS TO BE A DRY DECK WITH NO STANDING WATER. THE WATER IS TO BE CONTAINED WITHIN THE PERIMETER OF THE SPLASH PAD AND ALL WATER IS TO DRAIN INTO THE DRAINAGE BOX. THE CONCRETE IS TO BE FORMED AND SLOPED TO ACCOMMODATE THIS DRAIN PATTERN.
 - UNDER NO CIRCUMSTANCES SHALL THE SURROUNDING HARDSCAPE AREA BE SLOPED TO ALLOW WATER TO BE DRAINED INTO THE SPLASH PAD DECK.
 - ALL CONCRETE SURFACES TO HAVE A MEDIUM BROOM FINISH.
 - EXPANSION JOINT TO BE EVERY 20'x20'.
 - SAW CUT JOINT TO BE EVERY 10'x10'.
 - COORDINATE EXPANSION JOINT AND SAW CUT LOCATIONS WITH PLAY EQUIPMENT LOCATIONS.
 - SEE SHEET 3 OF 10 FOR SPLASH PAD LAYOUT.
 - SEE SHEET 4 OF 10 FOR CONCRETE LAYOUT.
 - DRAWINGS ARE FOR DESIGN/LAYOUT PURPOSES ONLY. PLEASE SEE AQUATIC RECREATION COMPANY PROPOSAL FOR INCLUDED STRUCTURES, EQUIPMENT, SERVICES, AND EXCLUSIONS.
 - INDICATES SPLASH ZONE.
 - SPLASH ZONES ARE APPROXIMATE. ACTUAL SPLASH ZONE MAY VARY BASED ON VARIOUS ENVIRONMENTAL CONDITIONS, FLOW RATES, SLOPE OF THE SPLASH PAD, SUBMERGENCE DEPTH AND WIND.

1 SITE PLAN LAYOUT
2 3/32" = 1'-0"

SITE LAYOUT ASSUMES NO STRONG PREVAILING WINDS FROM ANY SPECIFIC DIRECTION. PLEASE ADVISE ARC AS SOON AS POSSIBLE IF WIND CONDITIONS MAY EFFECT PRODUCT SPRAY ZONES.

DATE: 3/7/22
 DIVISION: RELEASE FOR APPROVAL
 NO: A
 PROJECT: SERENADE PARK SPLASH PAD
 LOCATION: TROY, IL
 DRAWN BY: CTS
 CHECKED BY: SHELBY HANCOCK
 DATE: 3/7/22
 DWS FILE: 1159648-01-02-2
 SHEET TITLE: SITE PLAN
 SCALE: SEE VIEWS
 JOB NO.: 1159648-01-02
 2 OF 12



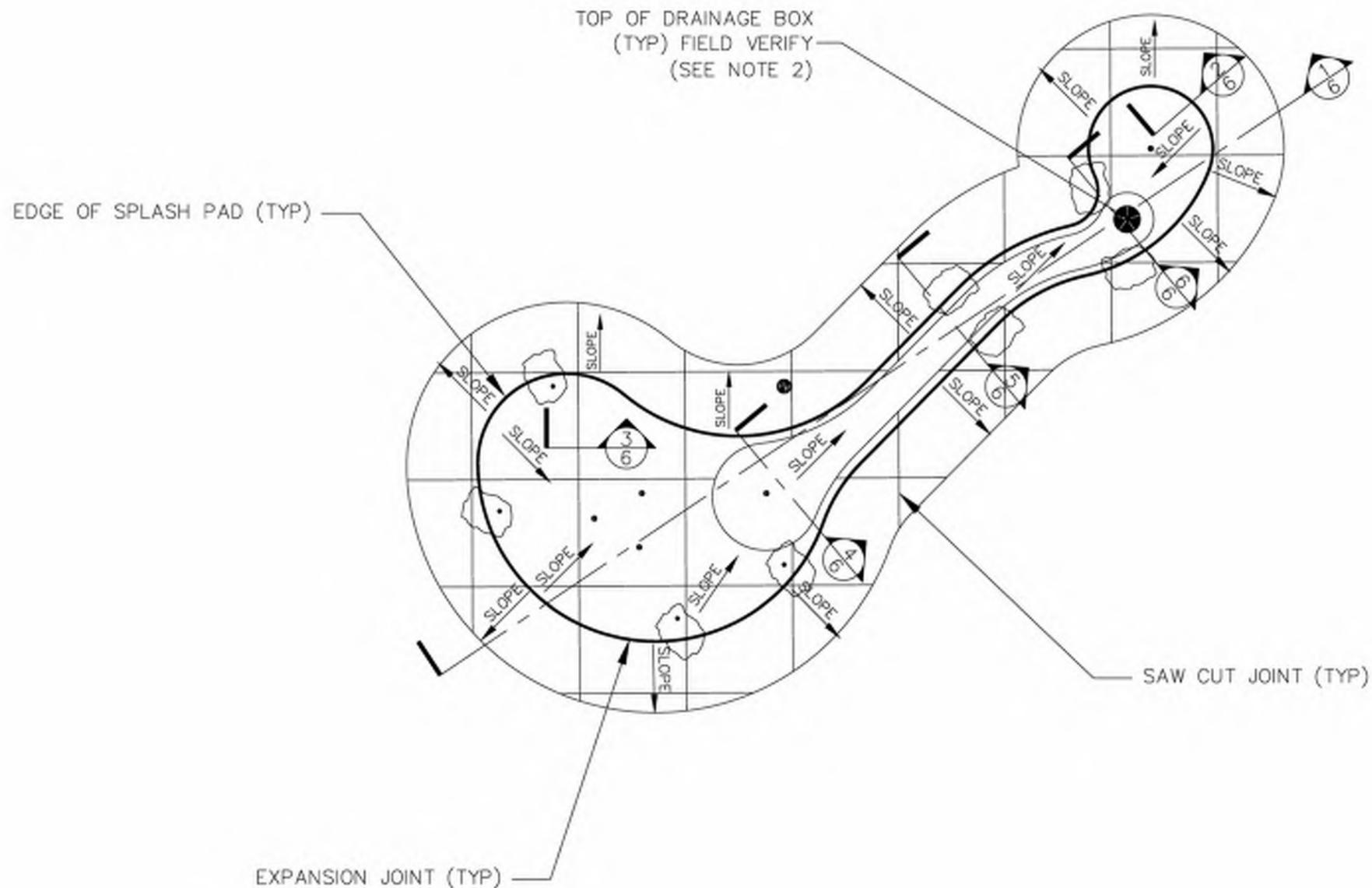
NO	PRODUCT	QTY	GPM	LINE SIZE
1	ARCH JET	4	10 EA	1" EA
2	SEA CRAWLER	1	5	1"
3	STREAM JET TRIANGLE	1	30	1½"
4	SUPPLY FITTING	1	30	1½"
5	STEP PAD ACTIVATOR	1	--	--
6	COLLECTOR BOX	1	--	--

- NOTE:
- ALL CONCRETE SLOPES TO BE ¼"/FT MIN. AND ½"/FT MAX.
 - SITE ELEVATIONS OF SPLASH PAD AND CONCRETE APRON TO BE VERIFIED BY OTHERS. ARC ELEVATION REFERENCE IS 0'-0" FOR TOP OF DRAINAGE BOX. ALL OTHER NOTED ELEVATIONS ARE REFERENCED FROM THAT POINT.
 - SURFACE MOUNTED STRUCTURES MAY REQUIRE A FLAT/LEVEL SURFACE FOR PROPER INSTALLATION. SEE INDIVIDUAL STRUCTURE MOUNTING INSTALLATION INSTRUCTIONS.
 - ACTUAL SIZE, SHAPE, AND LOCATION OF SPLASH PAD TO BE FIELD DETERMINED BY OTHERS. ALL DIMENSIONS OF SIZE AND SHAPE OF SPLASH PAD FOR REFERENCE ONLY.
 - INDICATES SAW CUT JOINT
 - ===== INDICATES EXPANSION JOINT
 - THE INTENT OF A SPLASH PAD IS TO BE A DRY DECK WITH NO STANDING WATER. THE WATER IS TO BE CONTAINED WITHIN THE PERIMETER OF THE SPLASH PAD AND ALL WATER IS TO DRAIN INTO THE DRAINAGE BOX. THE CONCRETE IS TO BE FORMED AND SLOPED TO ACCOMMODATE THIS DRAIN PATTERN.
 - UNDER NO CIRCUMSTANCES SHALL THE SURROUNDING HARDSCAPE AREA BE SLOPED TO ALLOW WATER TO BE DRAINED INTO THE SPLASH PAD DECK.
 - ALL CONCRETE SURFACES TO HAVE A MEDIUM BROOM FINISH.
 - EXPANSION JOINT TO BE EVERY 20'x20'.
 - SAW CUT JOINT TO BE EVERY 10'x10'.
 - COORDINATE EXPANSION JOINT AND SAW CUT LOCATIONS WITH PLAY EQUIPMENT LOCATIONS.
 - SEE SHEET 3 OF 10 FOR SPLASH PAD LAYOUT.
 - SEE SHEET 4 OF 10 FOR CONCRETE LAYOUT.
 - DRAWINGS ARE FOR DESIGN/LAYOUT PURPOSES ONLY. PLEASE SEE AQUATIC RECREATION COMPANY PROPOSAL FOR INCLUDED STRUCTURES, EQUIPMENT, SERVICES, AND EXCLUSIONS.
 - INDICATES SPLASH ZONE.
 - SPLASH ZONES ARE APPROXIMATE. ACTUAL SPLASH ZONE MAY VARY BASED ON VARIOUS ENVIRONMENTAL CONDITIONS, FLOW RATES, SLOPE OF THE SPLASH PAD, SUBMERGENCE DEPTH AND WIND.

1 SPLASH PAD LAYOUT
3 3/16" = 1'-0"

DATE	3/7/22
REVISION	RELEASE FOR APPROVAL
NO.	A
DESIGNED BY	COLLEEN HANRAHAN
CHECKED BY	COLLEEN HANRAHAN
DRAWN BY	COLLEEN HANRAHAN
SCALE	SEE VIEWS
JOB TITLE	SERENADE PARK SPLASH PAD
LOCATION	TROY, IL
DATE	3/7/22
DWG. FILE	1159648-01-02-3
CHECKED	SEE TITLE
DRAWN	CTS
SCALE	SEE VIEWS
JOB NO.	1159648-01-02
3 OF 12	



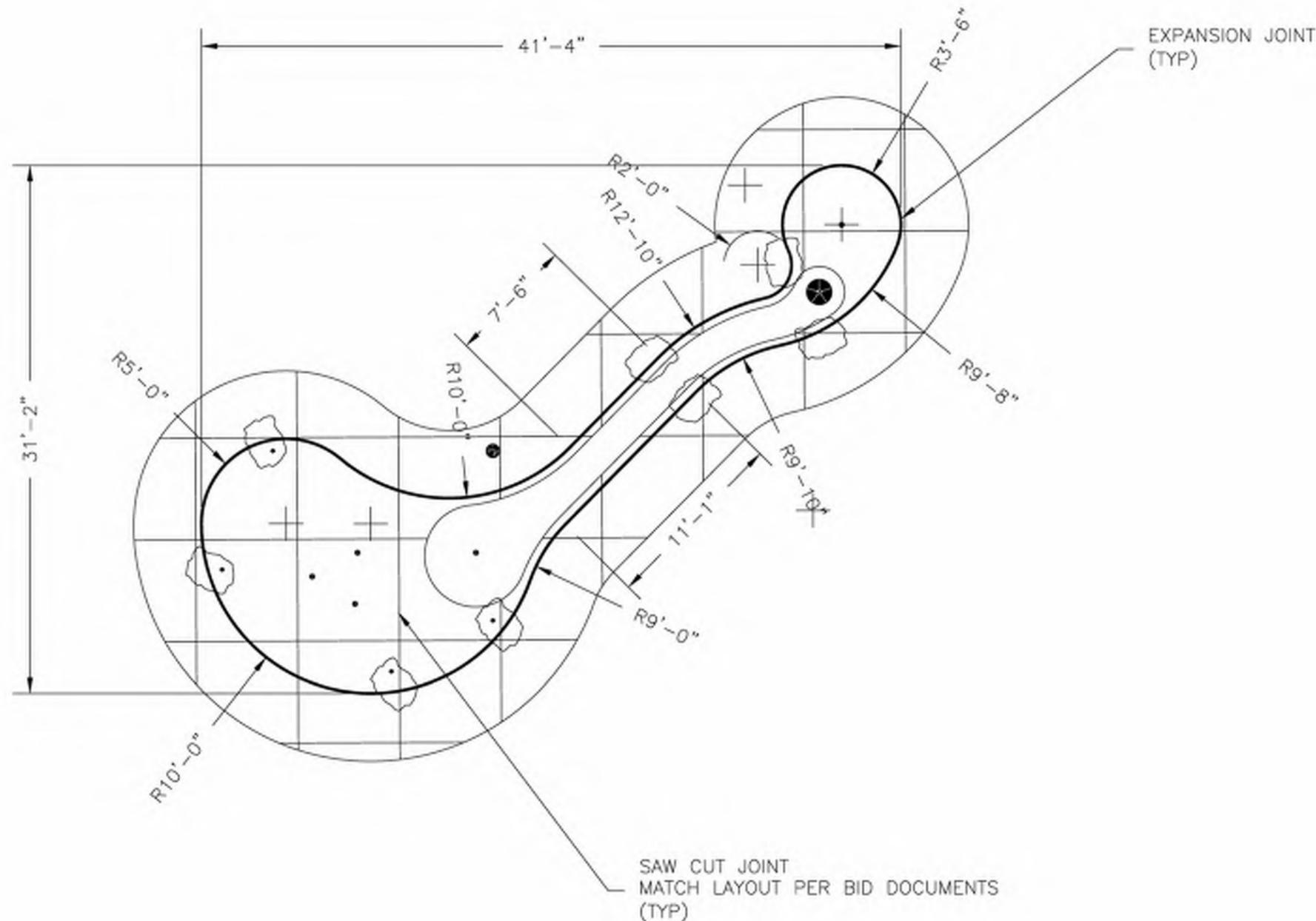


- NOTE:
1. ALL CONCRETE SLOPES TO BE 1/8"/FT MIN. AND 1/4"/FT MAX.
 2. SITE ELEVATIONS OF SPLASH PAD AND CONCRETE APRON TO BE VERIFIED BY OTHERS. ARC ELEVATION REFERENCE IS 0'-0" FOR TOP OF COLLECTOR BOX. ALL OTHER NOTED ELEVATIONS ARE REFERENCED FROM THAT POINT.
 3. SURFACE MOUNTED STRUCTURES MAY REQUIRE A FLAT/LEVEL SURFACE FOR PROPER INSTALLATION. SEE INDIVIDUAL STRUCTURE MOUNTING INSTALLATION INSTRUCTIONS.
 4. REFER TO SPEC SHEET AND INSTALLATION DRAWING FOR EACH PRODUCT.
 5. ACTUAL SIZE, SHAPE, AND LOCATION OF SPLASH PAD TO BE FIELD DETERMINED BY OTHERS. ALL DIMENSIONS OF SIZE AND SHAPE OF SPLASH PAD FOR REFERENCE ONLY.
 6. --- INDICATES SAW CUT JOINT
 7. ——— INDICATES EXPANSION JOINT
 8. THE INTENT OF A SPLASH PAD IS TO BE A DRY DECK WITH NO STANDING WATER. THE WATER IS TO BE CONTAINED WITHIN THE PERIMETER OF THE SPLASH PAD AND ALL WATER IS TO DRAIN INTO THE COLLECTOR BOX(S). THE CONCRETE IS TO BE FORMED AND SLOPED TO ACCOMMODATE THIS DRAIN PATTERN.
 9. ALL TREATED SPLASH PAD WATER IS INTENDED TO REMAIN WITHIN DESIGNATED SPLASH PAD DECK. UNDER NO CIRCUMSTANCES SHOULD SLOPE OF SPLASH PAD ALLOW WATER TO DRAIN OFF PAD
 10. UNDER NO CIRCUMSTANCES SHALL THE SURROUNDING HARDSCAPE AREA BE SLOPED TO ALLOW WATER TO BE DRAINED INTO THE SPLASH PAD DECK
 11. ALL CONCRETE SURFACES TO HAVE A MEDIUM BROOM FINISH.
 12. EXPANSION JOINT TO BE EVERY 20'x20'.
 13. SAW CUT JOINT TO BE EVERY 10'x10'.
 14. COORDINATE EXPANSION JOINT AND SAW CUT LOCATIONS WITH PLAY EQUIPMENT LOCATIONS.

SEE PAGE 6 OF 10
FOR SECTION DETAILS

IMPORTANT: SEE NOTE
#8 CONCERNING
SPLASH PAD SLOPE

DATE	3/7/22
REVISION	RELEASE FOR APPROVAL
NO.	A
DESIGNED BY	COLLEEN HANRAHAN
DRAWN BY	COLLEEN HANRAHAN
CHECKED BY	COLLEEN HANRAHAN
DATE	3/7/22
DWG. FILE	1159648-01-02-4
CHECKED	1159648-01-02-4
DRAWN	CTS
SCALE	SEE VIEWS
SHEET TITLE	CONCRETE PLAN
JOB TITLE	SERENADE PARK SPLASH PAD
LOCATION	TROY, IL
JOB NO.	1159648-01-02
4 OF 12	



- NOTE:
1. ALL CONCRETE SLOPES TO BE 1/8"/FT MIN. AND 1/4"/FT MAX.
 2. SITE ELEVATIONS OF SPLASH PAD AND CONCRETE APRON TO BE VERIFIED BY OTHERS. ARC ELEVATION REFERENCE IS 0'-0" FOR TOP OF COLLECTOR BOX. ALL OTHER NOTED ELEVATIONS ARE REFERENCED FROM THAT POINT.
 3. SURFACE MOUNTED STRUCTURES MAY REQUIRE A FLAT/LEVEL SURFACE FOR PROPER INSTALLATION. SEE INDIVIDUAL STRUCTURE MOUNTING INSTALLATION INSTRUCTIONS.
 4. REFER TO SPEC SHEET AND INSTALLATION DRAWING FOR EACH PRODUCT.
 5. ACTUAL SIZE, SHAPE, AND LOCATION OF SPLASH PAD TO BE FIELD DETERMINED BY OTHERS. ALL DIMENSIONS OF SIZE AND SHAPE OF SPLASH PAD FOR REFERENCE ONLY.
 6. - - - - INDICATES SAW CUT JOINT
 7. ——— INDICATES EXPANSION JOINT
 8. THE INTENT OF A SPLASH PAD IS TO BE A DRY DECK WITH NO STANDING WATER. THE WATER IS TO BE CONTAINED WITHIN THE PERIMETER OF THE SPLASH PAD AND ALL WATER IS TO DRAIN INTO THE COLLECTOR BOX(S). THE CONCRETE IS TO BE FORMED AND SLOPED TO ACCOMMODATE THIS DRAIN PATTERN.
 9. ALL TREATED SPLASH PAD WATER IS INTENDED TO REMAIN WITHIN DESIGNATED SPLASH PAD DECK. UNDER NO CIRCUMSTANCES SHOULD SLOPE OF SPLASH PAD ALLOW WATER TO DRAIN OFF PAD
 10. UNDER NO CIRCUMSTANCES SHALL THE SURROUNDING HARDSCAPE AREA BE SLOPED TO ALLOW WATER TO BE DRAIN INTO THE SPLASH PAD DECK
 11. ALL CONCRETE SURFACES TO HAVE A MEDIUM BROOM FINISH.
 12. EXPANSION JOINT TO BE EVERY 20'x20'.
 13. SAW CUT JOINT TO BE EVERY 10'x10'.
 14. COORDINATE EXPANSION JOINT AND SAW CUT LOCATIONS WITH PLAY EQUIPMENT LOCATIONS.

SEE PAGE 6 OF 10
FOR SECTION DETAILS

IMPORTANT: SEE NOTE
#8 CONCERNING
SPLASH PAD SLOPE

DATE	3/7/22
REVISION	RELEASE FOR APPROVAL
NO.	A
DESIGNED BY	COLLEEN HANRAHAN
DRAWN BY	COLLEEN HANRAHAN
CHECKED BY	COLLEEN HANRAHAN
DATE	3/7/22
DWG. FILE	1159648-01-02-5
CHECKED	
DRAWN	CTS
SCALE	SEE VIEWS
SHEET TITLE	CONCRETE FORM
JOB TITLE	SERENADE PARK SPLASH PAD
LOCATION	TROY, IL
JOB NO.	1159648-01-02
5 OF 12	



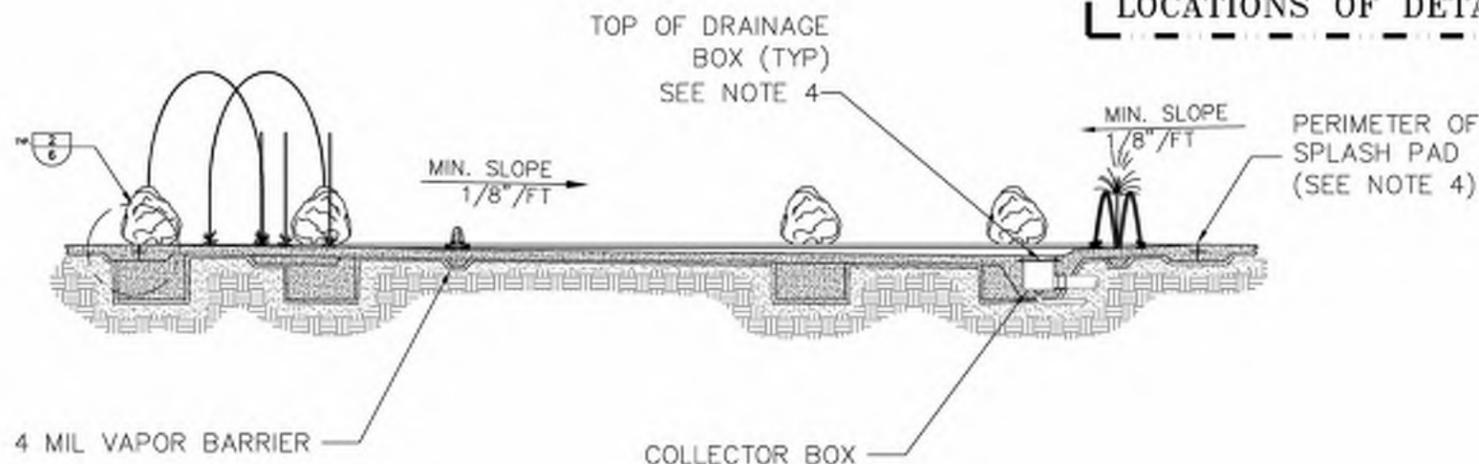
NOTE:

1. ALL SUB-BASE MATERIALS BY OTHERS, CONTRACTOR CAN ASSUME SITE TO BE LEVEL TO ROUGH GRADE WITH COMPACTED FILL, COMPACTION TEST BY OTHERS.
2. CONCRETE TO BE THICKENED AT ALL PRODUCT INSTALLATION LOCATIONS (BOTH EMBED AND ABOVE GROUND STRUCTURES). REFER TO INSTALLATION DRAWINGS FOR EACH PRODUCT.
3. ALL CONCRETE SLOPES TO BE 1/8" / FT MIN.
4. SITE ELEVATIONS OF SPLASH PAD AND CONCRETE APRON TO BE VERIFIED BY OTHERS. AQUATIX™ ELEVATION REFERENCE IS 0.00 FOR TOP OF COLLECTOR BOX AND TOP OF GRADE AT UNDERGROUND STORAGE TANK.
5. ACTUAL SIZE, SHAPE, AND LOCATION OF SPLASH PAD TO BE FIELD DETERMINED BY OTHERS. ALL DIMENSIONS OF SIZE AND SHAPE OF SPLASH PAD FOR REFERENCE ONLY.
6. THE INTENT OF A SPLASH PAD IS TO BE A DRY DECK WITH NO STANDING WATER. THE WATER IS TO BE CONTAINED WITHIN THE PERIMETER OF THE SPLASH PAD AND ALL WATER IS TO DRAIN INTO COLLECTOR BOX. THE CONCRETE IS TO BE FORMED AND SLOPED TO ACCOMMODATE THE DRAIN PATTERN.
7. ALL TREATED SPLASH PAD WATER IS INTENDED TO REMAIN WITHIN DESIGNATED SPLASH PAD DECK. UNDER NO CIRCUMSTANCES SHOULD SLOPE OF SPLASH PAD OR SLOPE OF SURROUNDING AREA ALLOW WATER TO DRAIN OFF PAD.

NOTE: (CONTINUED)

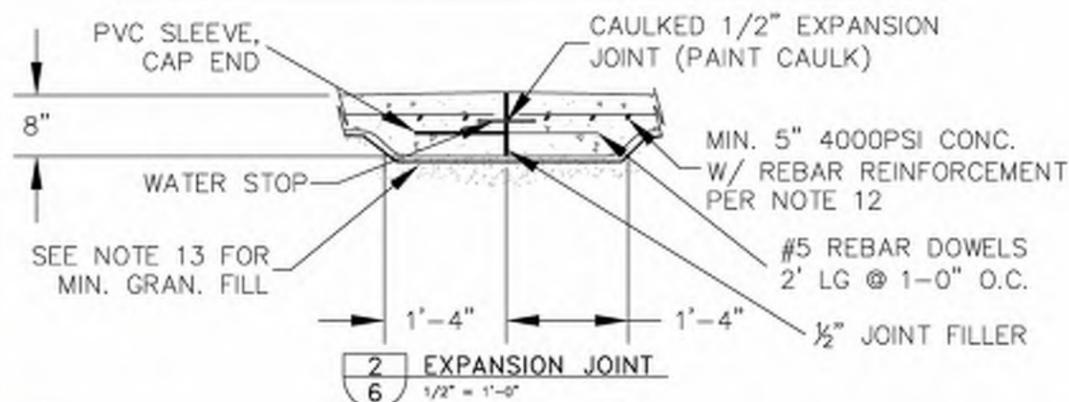
8. UNDER NO CIRCUMSTANCES SHALL THE SURROUNDING HARDSCAPE AREA BE SLOPED TO ALLOW WATER TO BE DRAINED INTO THE SPLASH PAD DECK
9. ALL CONCRETE SURFACES TO HAVE A MEDIUM BROOM FINISH.
10. COORDINATE EXACT LOCATION OF SAW CUTS AND EXPANSION JOINTS WITH PLAY EQUIPMENT LOCATIONS.
11. VERIFY LOCAL/STATE CODES FOR TYPE, THICKNESS, & REINFORCEMENT REQUIREMENTS FOR CONCRETE SLAB.
12. CONCRETE REINFORCEMENT TO BE #4 REBAR @ 12" O.C. EACH WAY OR EQUIVALENT WELDED WIRE MESH (W6 ON 4"X4" SPACING OR W10 ON 6"X6" SPACING)
13. 18" OF GRANULAR FILL RECOMMENDED, OR AS SOIL CONDITIONS AND/OR LOCAL CODE REQUIRES WITH A MINIMUM OF 2500 PSF SOIL BEARING CAPACITY
14. THERE IS TO BE A MINIMUM OF 6" OF GRANULAR FILL AROUND ALL PIPING

SEE PAGE 4 OF 12 FOR LOCATIONS OF DETAILS



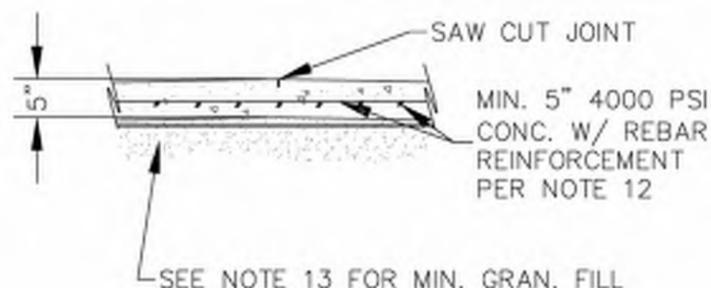
1 SPLASH PAD SECTION
6 3/16" = 1'-0"

NOTE:
-FIELD VERIFY LOCATION AND ELEVATIONS OF JOINTS.
CONTRACTOR MAY SUBMIT NEW LOCATIONS FOR APPROVAL
-DIAGRAMMATIC ONLY

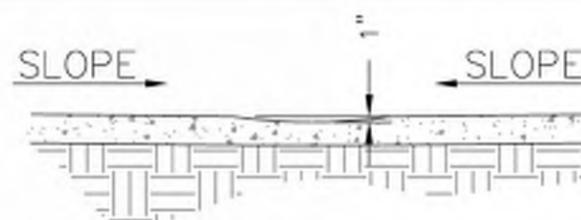


2 EXPANSION JOINT
6 1/2" = 1'-0"

NOTE:
-FIELD VERIFY LOCATION AND ELEVATIONS OF JOINTS.
CONTRACTOR MAY SUBMIT NEW LOCATIONS FOR APPROVAL
-DIAGRAMMATIC ONLY



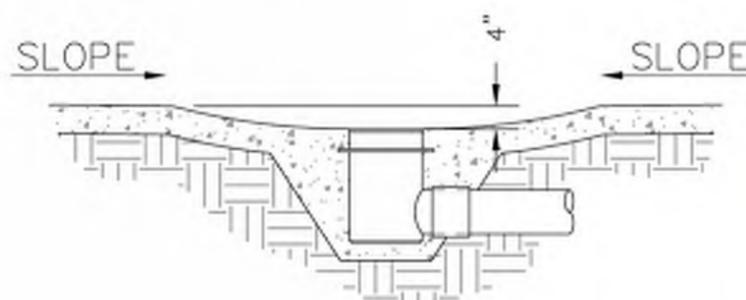
3 SAW CUT JOINT
6 1/2" = 1'-0"



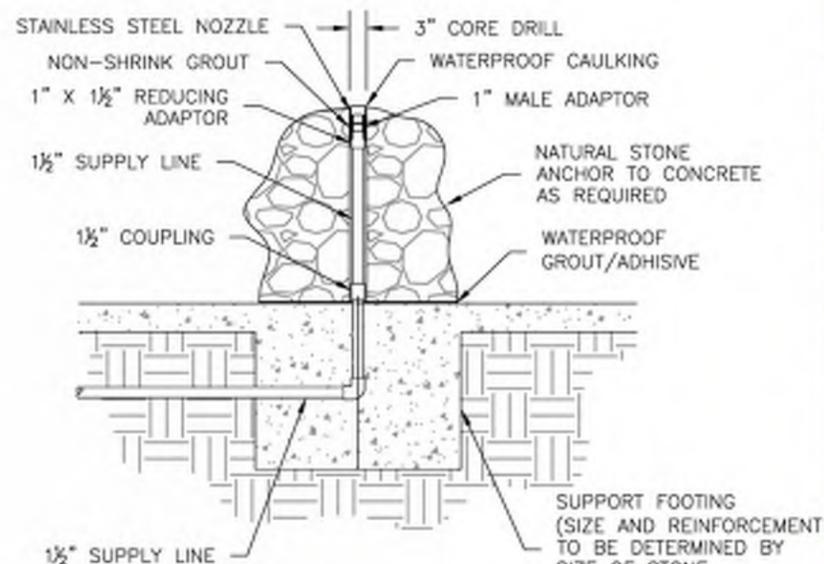
4 SWALE UPPER SECTION
6 3/8" = 1'-0"



5 SWALE MID SECTION
6 3/8" = 1'-0"



6 SWALE LOWER SECTION
6 3/8" = 1'-0"

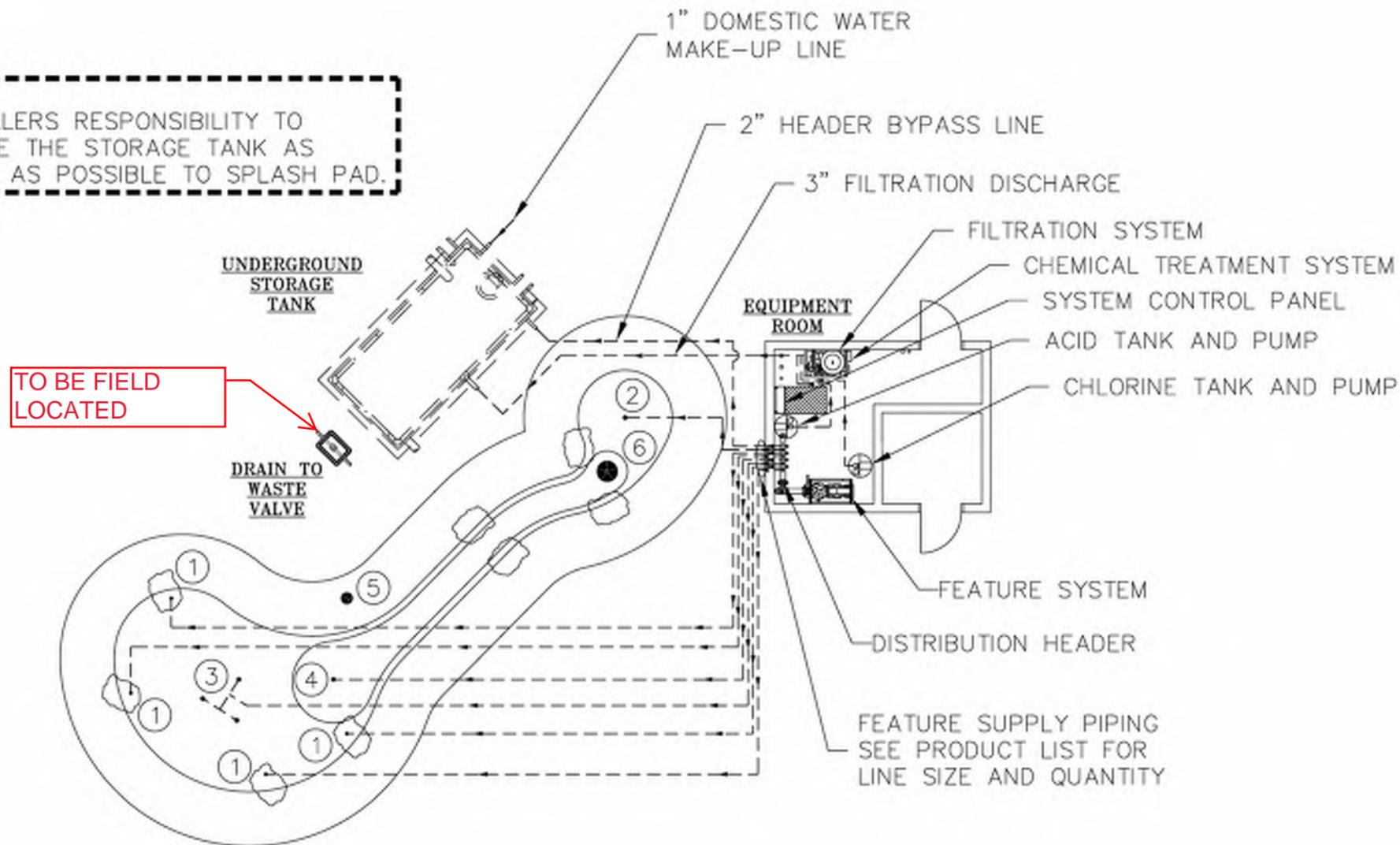


7 STONE FEATURE DETAIL
6 3/8" = 1'-0"

DATE	3/7/22
REVISION	RELEASE FOR APPROVAL
NO.	A
CONTRACTOR	COASTAL LANDSCAPE
PROJECT	SERENADE PARK SPLASH PAD
LOCATION	TROY, IL
DATE	3/7/22
DWG. FILE	1109648-01-02-4
CHECKED	
DRAWN	CTS
SCALE	SEE VIEWS
CONCRETE SECTIONS AND DETAILS	
JOB NO.	1159648-01-02
6 OF 12	

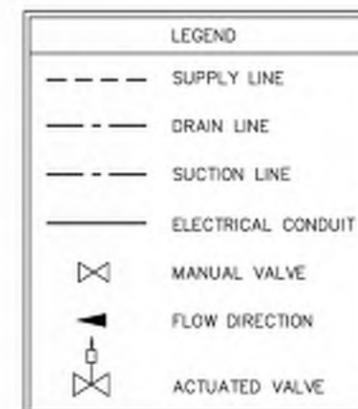


NOTE:
INSTALLERS RESPONSIBILITY TO
LOCATE THE STORAGE TANK AS
CLOSE AS POSSIBLE TO SPLASH PAD.



NO	PRODUCT	QTY	GPM	LINE SIZE
1	ARCH JET	4	10 EA	1" EA
2	SEA CRAWLER	1	5	1"
3	STREAM JET TRIANGLE	1	30	1½"
4	SUPPLY FITTING	1	30	1½"
5	STEP PAD ACTIVATOR	1	--	--
6	COLLECTOR BOX	1	--	--

NOTE:
1. ALL SUPPLY AND DRAIN LINES TO SLOPE
1/8" / FT AWAY FROM SPLASH PAD.
2. GRAVITY DRAIN LINE VELOCITY NOT TO
EXCEED 3.0 FT/SEC.
3. REFER TO SPEC SHEET AND INSTALLATION
DRAWING FOR EACH PRODUCT.
4. ALL PIPING SHOULD BE SCH 80 PVC.
5. ALL LINES FROM PIPE MANIFOLDS TO
FEATURES SHOULD NOT BE CROSSED.
6. ANY REQUIRED BACKFLOW DEVICE OR
WATER METER ON THE CITY WATER MAIN
SHALL BE PROVIDED BY OWNER.
7. EXACT ROUTING OF PIPING TO BE
DETERMINED BY INSTALLING CONTRACTOR.
8. INCOMING FRESH WATER SUPPLY TO BE
PROVIDED WITH AN APPROVED REGULATOR
SET TO 25-30PSI IN ACCORDANCE WITH
LOCAL AND STATE CODES.
(VERIFY LINE SIZE W/ MUNICIPALITY
PRIOR TO CONSTRUCTION.)

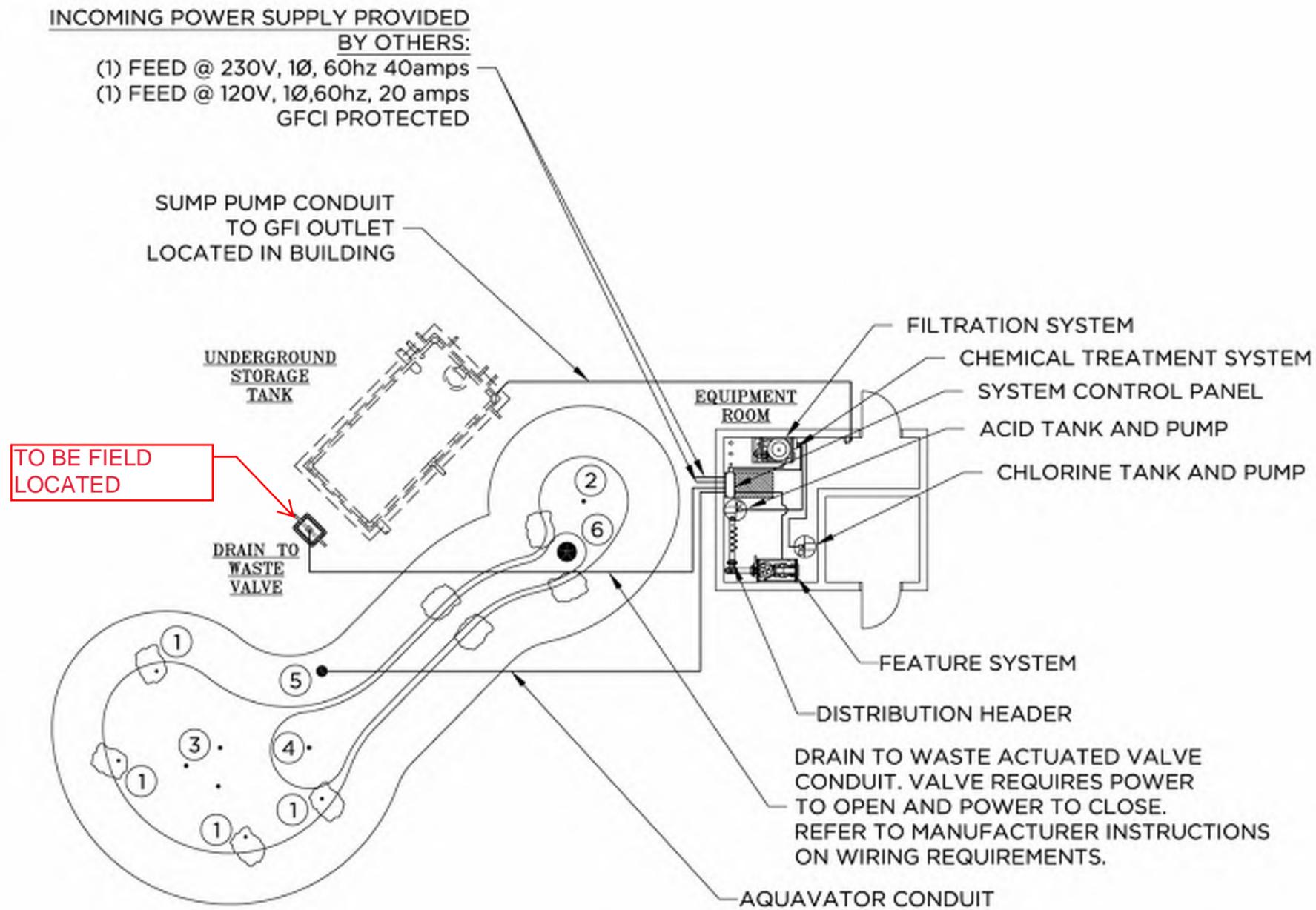


1 SUPPLY PIPING PLAN
7 3/32" = 1'-0"

NO	PRODUCT	QTY	GPM	LINE SIZE
1	ARCH JET	4	10 EA	1" EA
2	SEA CRAWLER	1	5	1"
3	STREAM JET TRIANGLE	1	30	1½"
4	SUPPLY FITTING	1	30	1½"
5	STEP PAD ACTIVATOR	1	--	--
6	COLLECTOR BOX	1	--	--

- NOTE:
1. REFER TO SPEC SHEET AND INSTALLATION DRAWING FOR EACH PRODUCT.
 2. WIRING FROM THE CONTROLLER TO THE ACTIVATION BOLLARD SHALL BE #14 AWG, (3) CONDUCTORS TOTAL.
 3. ALL CONNECTIONS TO THE CONTROLLER SHALL BE PERFORMED USING AN APPROVED NEMA 4X CONNECTOR.
 4. EXACT ROUTING OF WIRING TO BE DETERMINED BY CONTRACTOR.
 5. PROVIDE BOND WIRES FOR REBAR PER LOCAL AND STATE CODES.
 6. ALL STAINLESS STEEL STRUCTURES REQUIRE BONDING PER NEC AND LOCAL CODES

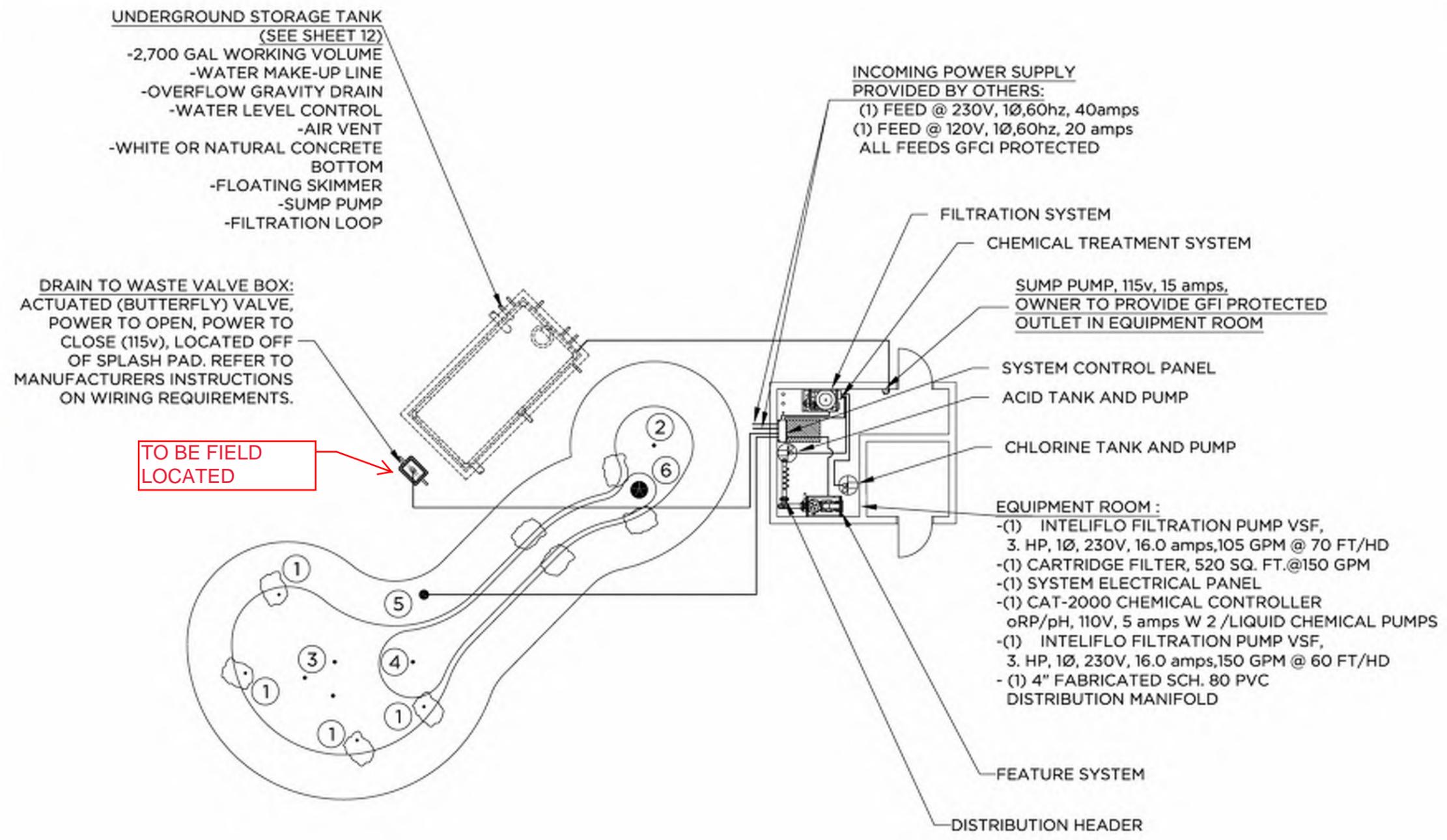
LEGEND	
-----	SUPPLY LINE
-----	DRAIN LINE
- - - - -	SUCTION LINE
—————	ELECTRICAL CONDUIT
⊗	MANUAL VALVE
▶	FLOW DIRECTION
⊗	ACTUATED VALVE



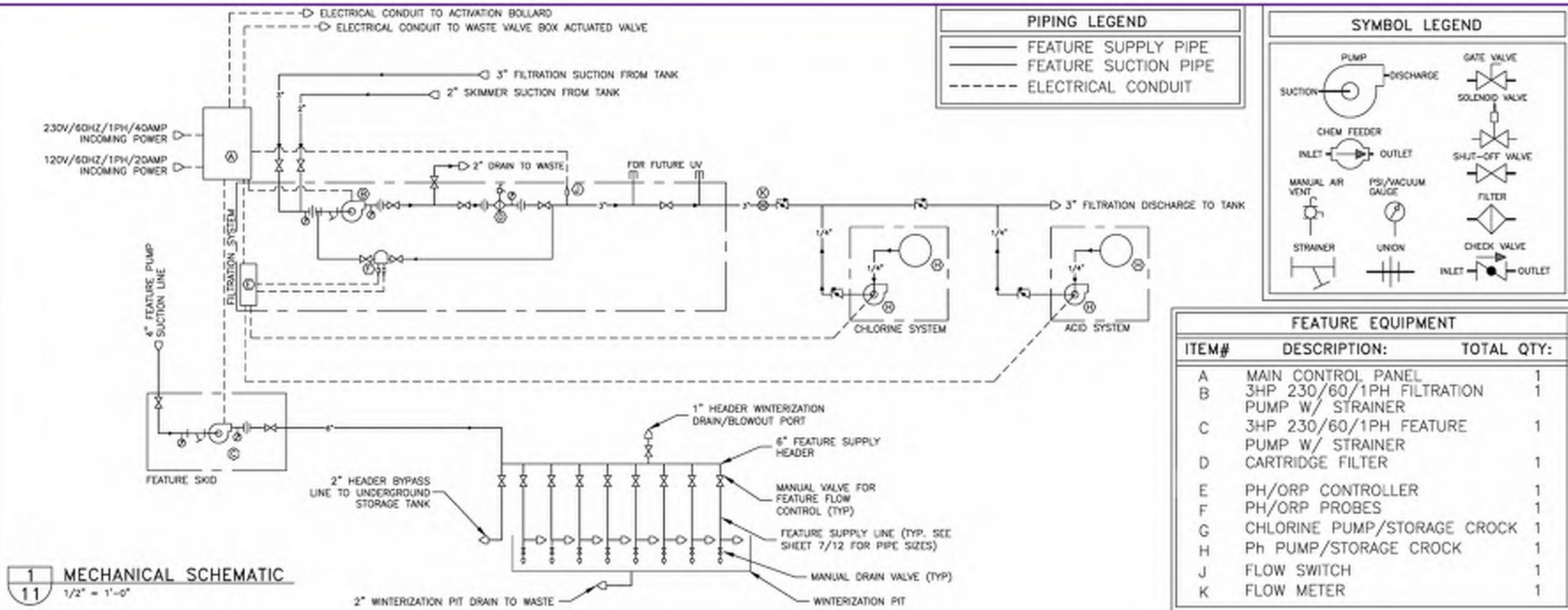
NO	PRODUCT	QTY	GPM	LINE SIZE
1	ARCH JET	4	10 EA	1" EA
2	SEA CRAWLER	1	5	1"
3	STREAM JET TRIANGLE	1	30	1½"
4	SUPPLY FITTING	1	30	1½"
5	STEP PAD ACTIVATOR	1	--	--
6	COLLECTOR BOX	1	--	--

NOTE:
 1. EXACT ROUTING OF CONDUIT TO BE DETERMINED BY CONTRACTOR.
 2. LOCATION AND SIZE OF UNDERGROUND STORAGE TANK NOT TO SCALE.
 3. ALL ELECTRICAL WORK BETWEEN ACTIVATION BOLLARD, UNDERGROUND STORAGE TANK, DRAIN TO WASTE ACTUATED VALVE AND OPERATING SYSTEM SHALL COMPLY WITH THE NFPA 70, NATIONAL ELECTRIC CODE 2008 EDITION THAT IS INCORPORATED BY REFERENCE.
 4. UNDERGROUND STORAGE TANK AND UTILITY BUILDING MUST BE SECURE TO PREVENT UNAUTHORIZED ACCESS.
 5. SEE SHEET 10/12 FOR REFERENCE.

LEGEND	
-----	SUPPLY LINE
-----	DRAIN LINE
-----	SUCTION LINE
-----	ELECTRICAL CONDUIT
⊗	MANUAL VALVE
▶	FLOW DIRECTION
⊗	ACTUATED VALVE
-----	CHEMICAL LINE



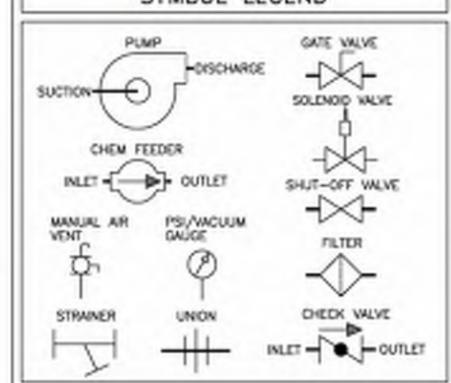
DATE: 3/7/22
 REVISION: RELEASE FOR APPROVAL
 NO. A
 CO. HANLEY PARKWAY
 COLUMBIANA, MISSISSIPPI 39232
 TEL: 662-890-1000
 FAX: 662-890-0444
 WWW.AQUATIX.COM
 aquatix
 by landscape structures
 JOB TITLE: SERENADE PARK SPLASH PAD
 LOCATION: TROY, IL
 CHECKED: 1159648-01-02-10 3/7/22
 DRAWN: CTS
 DATE: 1159648-01-02-10 3/7/22
 SCALE: SEE VIEWS
 SHEET TITLE: ELECTRICAL PLAN
 JOB NO.: 1159648-01-02
 10 OF 12



PIPING LEGEND

- FEATURE SUPPLY PIPE
- FEATURE SUCTION PIPE
- - - ELECTRICAL CONDUIT

SYMBOL LEGEND



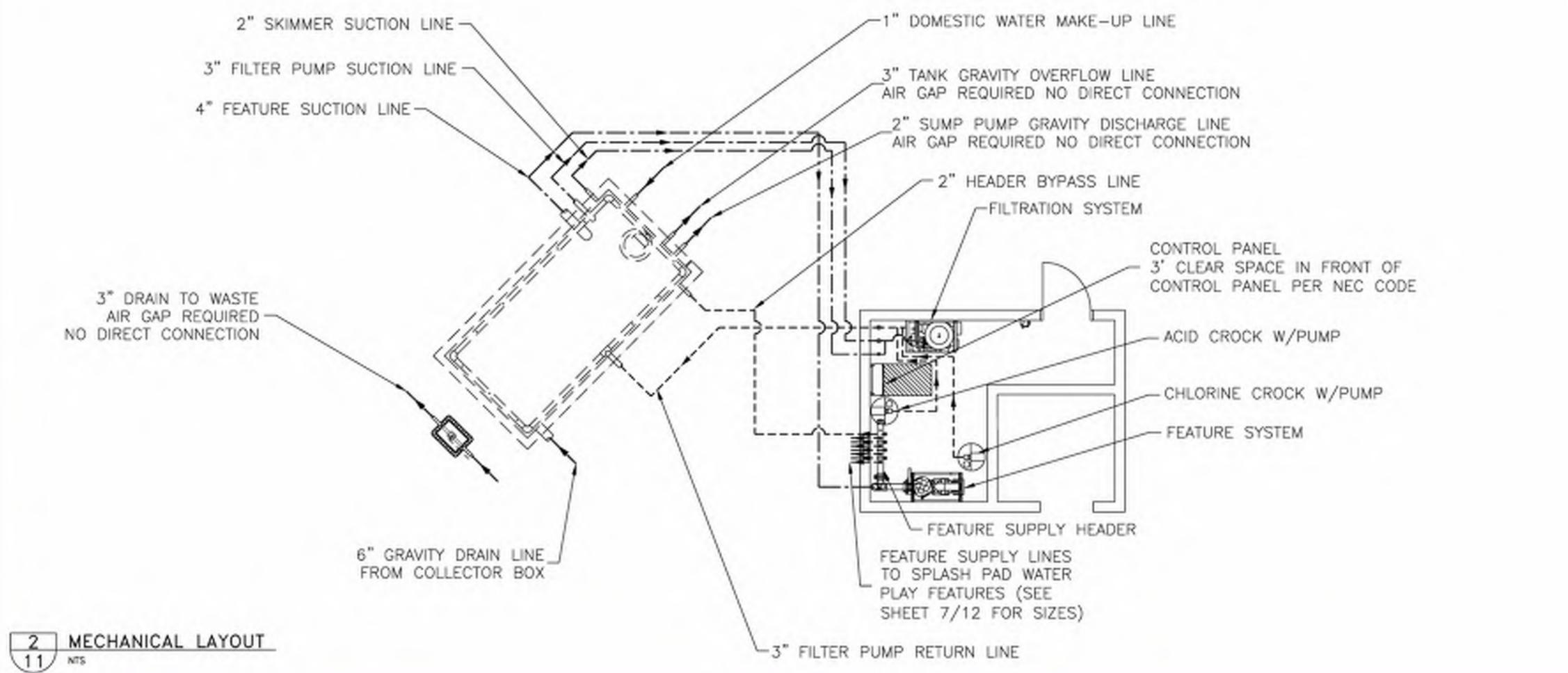
FEATURE EQUIPMENT

ITEM#	DESCRIPTION:	TOTAL QTY:
A	MAIN CONTROL PANEL	1
B	3HP 230/60/1PH FILTRATION PUMP W/ STRAINER	1
C	3HP 230/60/1PH FEATURE PUMP W/ STRAINER	1
D	CARTRIDGE FILTER	1
E	PH/ORP CONTROLLER	1
F	PH/ORP PROBES	1
G	CHLORINE PUMP/STORAGE CROCK	1
H	PH PUMP/STORAGE CROCK	1
J	FLOW SWITCH	1
K	FLOW METER	1

- NOTE:**
1. ALL GRAVITY DRAIN LINES TO SLOPE 1/8" FT AWAY FROM SPLASH PAD.
 2. GRAVITY DRAIN LINE VELOCITY NOT TO EXCEED 3.0 FT/SEC.
 3. REFER TO SPEC SHEET AND INSTALLATION DRAWING FOR EACH PRODUCT.
 4. LOCATION AND SIZE OF UNDERGROUND STORAGE TANK NOT TO SCALE.
 5. ALL PIPING BETWEEN COLLECTOR BOXES, UNDERGROUND STORAGE TANK, AND OPERATING SYSTEM SHOULD BE SCH 80 PVC.
 6. ALL LINES FROM PIPE MANIFOLDS TO FEATURES SHOULD NOT BE CROSSED.
 7. ANY REQUIRED BACKFLOW DEVICE OR WATER METER ON THE CITY WATER MAIN SHALL BE PROVIDED BY OTHERS.
 8. EXACT ROUTING OF PIPING TO BE DETERMINED BY CONTRACTOR.
 9. UNDERGROUND STORAGE TANK AND ALL EQUIPMENT MUST BE SECURE TO PREVENT UNAUTHORIZED ACCESS.
 10. → INDICATES FLOW DIRECTION.

- EQUIPMENT ROOM:**
- (1) INTELIFLO PUMP VSF, 3HP, 14, 230V, 16.0 amps, 118 GPM @ 70 FT/HD
 - (1) CLEAN AND CLEAR CARTRIDGE FILTER, 520 SQ. FT. @ 150 GPM
 - (1) SYSTEM ELECTRICAL PANEL
 - (1) CHEMICAL CONTROLLER ORP/pH, 230V, 10amps
 - (1) CHLORINE SYSTEM (CROCK AND PERISTALTIC PUMP)
 - (1) PH ADJUSTING SYSTEM (CROCK AND PERISTALTIC PUMP)
 - (1) INTELIFLO PUMP VSF, 3HP, 14, 230V, 16.0 amps, 150 GPM @ 50 FT/HD
 - (1) 4" FABRICATED SCH. 80 PVC DISTRIBUTION MANIFOLD

1 MECHANICAL SCHEMATIC
1/2" = 1'-0"



2 MECHANICAL LAYOUT
NTS

DATE: 3/27/22

REVISION: RELEASE FOR APPROVAL

NO. A

DESIGNED BY: J. HANLEY

CHECKED BY: J. HANLEY

DATE: 3/27/22

PROJECT: SERENADE PARK SPLASH PAD

LOCATION: TROY, IL

DATE: 3/27/22

DWG. FILE: 1159648-01-02-11

CHECKED: J. HANLEY

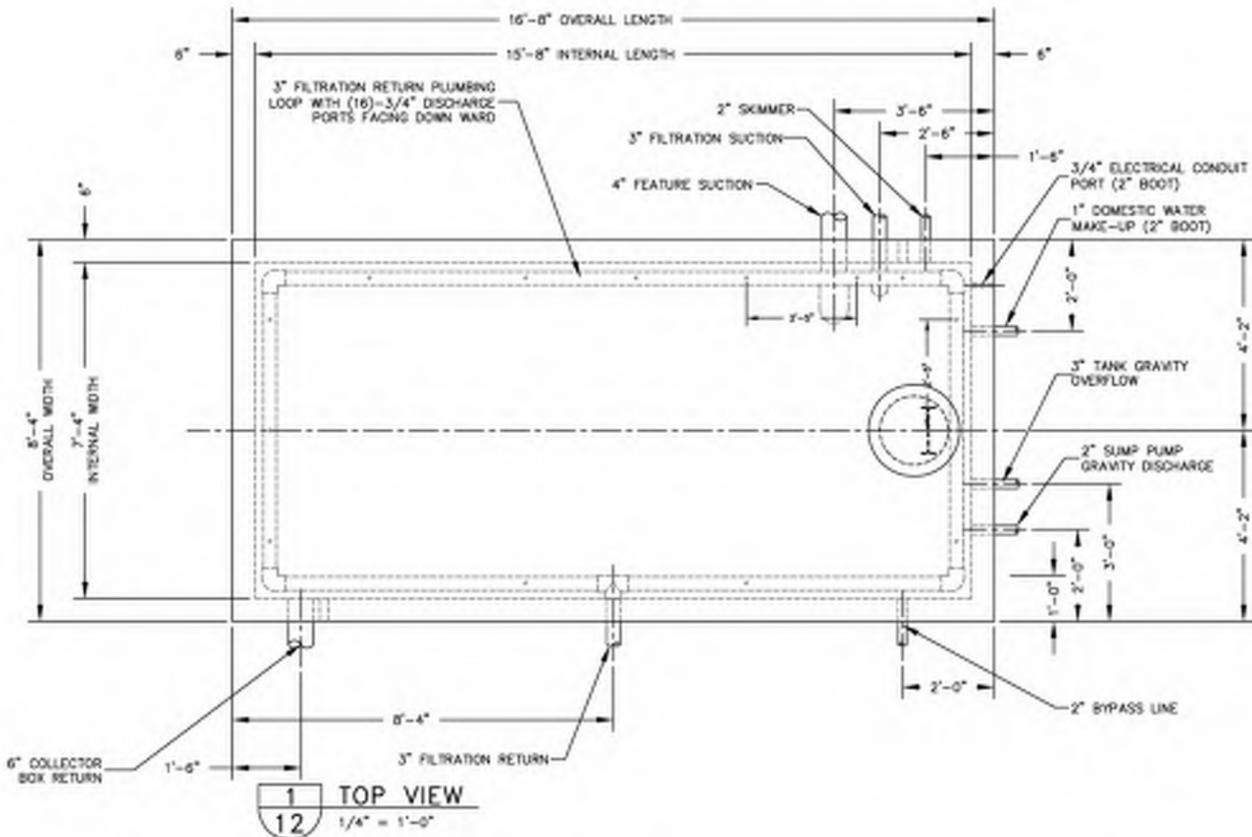
BRANN: CTS

SCALE: SEE VIEWS

SHEET TITLE: MECHANICAL PLAN

DWG. NO.: 1159648-01-02

11 OF 12



NOTE:

1. ALL ELEVATIONS MUST BE FIELD VERIFIED.
2. TANK TO BE A 3,000 GALLON TANK.
3. WORKING VOLUME OF TANK TO BE APPROXIMATELY 2,700 GALLONS (SEE APPROXIMATE WATER LEVEL DIMENSION IN SIDE VIEW)
4. INTERIOR OF TANK TO BE PAINTED WHITE OR NATURAL CONCRETE FINISH.
5. COORDINATE ALL PIPE CONNECTION ELEV.S TO PROVIDE PROPER SLOPE OF PIPING.
6. COLLECTOR BOX RETURN FITTING ELEVATION TO BE DETERMINED BY OTHERS TO ACHIEVE APPROPRIATE SLOPE OF 1/8" /FT.

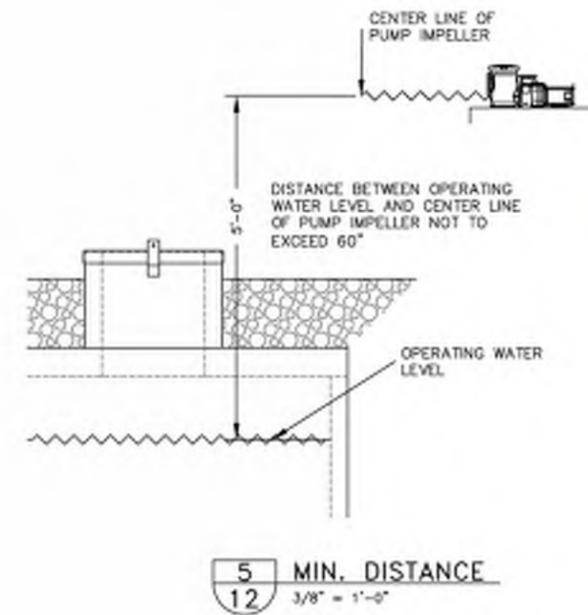
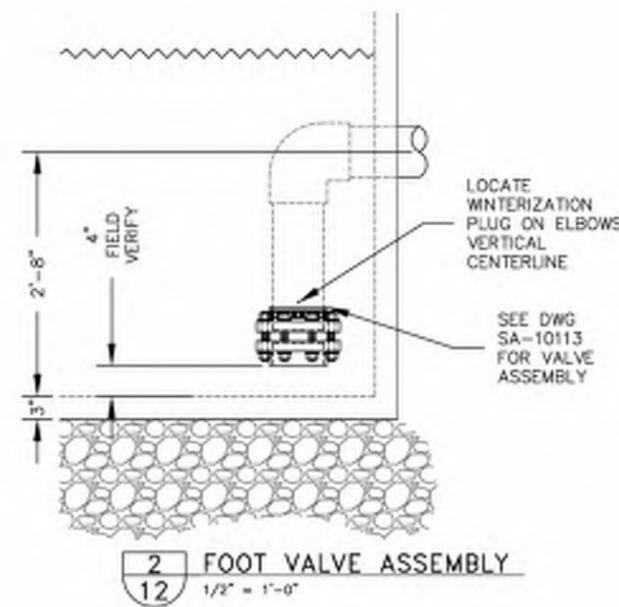
ATTENTION INSTALLER:

SEE SHEET 1/12 FOR INSTALLATION INSTRUCTIONS.

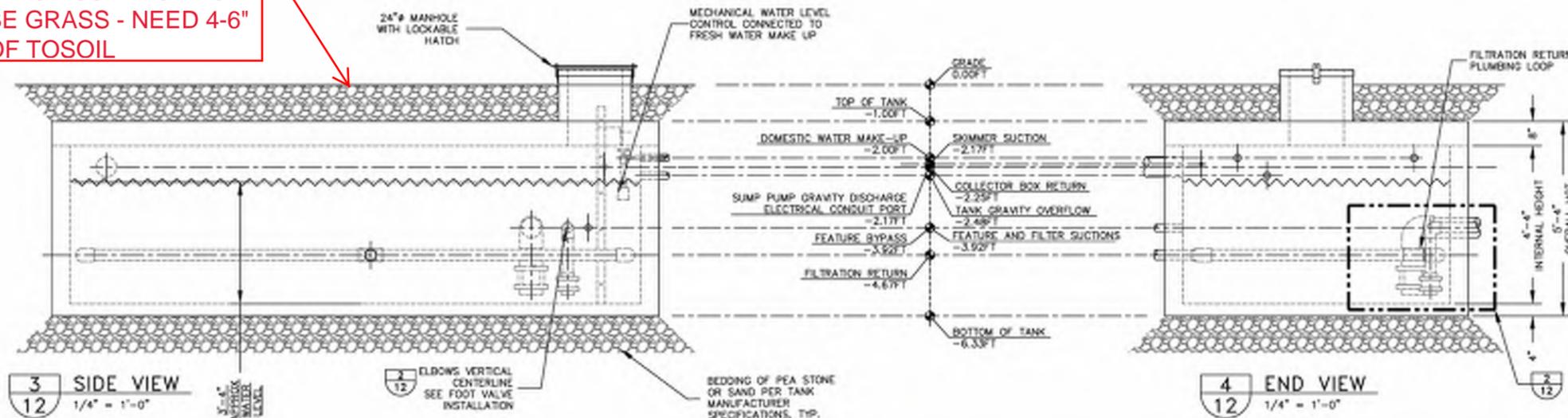
CRITICAL NOTE:

TANK NOZZLE LOCATIONS CAN BE MODIFIED DEPENDING ON ACTUAL SITE CONDITIONS, DO NOT "SHORT CIRCUIT" FILTRATION SUPPLY AND RETURN.

TANK PENETRATION ELEVATIONS BASED ON SITE PLAN AN SHEET 2/12



FINISH SURFACE TO BE GRASS - NEED 4-6" OF TOSOIL



DATE	3/7/22
REVISION	RELEASE FOR APPROVAL
NO.	A
DESIGNER	COLLEEN HANRAHAN
CHECKER	COLLEEN HANRAHAN
DRAWN	COLLEEN HANRAHAN
SCALE	SEE VIEWS
PROJECT	SERENADE PARK
LOCATION	TROY, IL
TITLE	STORAGE TANK LAYOUT AND DETAILS
DATE	3/7/22
DWG FILE	159648-01-02-0
CHECKED	159648-01-02-0
SCALE	SEE VIEWS
PROJECT	SERENADE PARK
LOCATION	TROY, IL
TITLE	STORAGE TANK LAYOUT AND DETAILS
DATE	3/7/22
DWG FILE	159648-01-02-0
CHECKED	159648-01-02-0
SCALE	SEE VIEWS
PROJECT	SERENADE PARK
LOCATION	TROY, IL
TITLE	STORAGE TANK LAYOUT AND DETAILS