MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

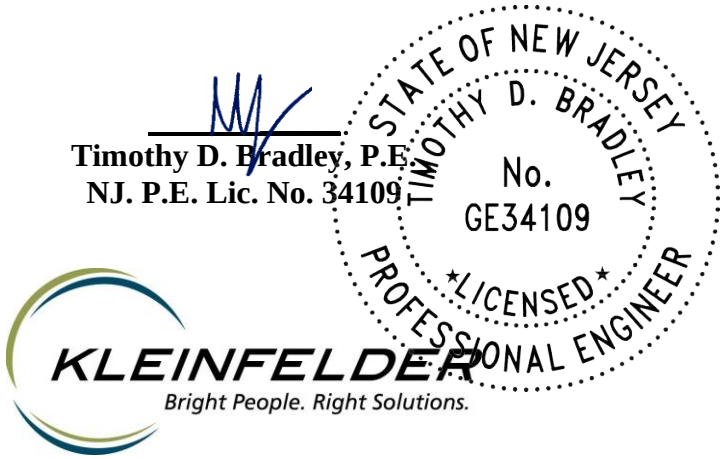
ADDENDUM NO. 3
TO
CONTRACT DOCUMENTS

for

STAGE II WASTEWATER TREATMENT PLANT
FLOOD PROTECTION PROJECT

BID PACKAGE #B06-2022

August 31, 2022



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The following changes and additional information are hereby made part of the Contract Documents:

Responses to Questions:

1. It would be appreciated if the Bid Proposal were to be revised to include the following additional Pay Items: (a) a Unit Priced Pay Item for all Excavation, Unclassified (except for Rock) (b) A Unit Priced Pay Item for Rock Excavation; and. (c) a Lump Sum Pay Item for the Three Stand-by Pumping Systems that are required for this project.

   Response: (a) The Bid Proposal will not be revised to include a unit price pay item for unclassified excavation, these costs may be included in the lump sum Bid Item 11 Miscellaneous Site Improvements and Site Lighting; (b) The Bid Proposal has been revised to include a unit price pay item for rock excavation and is included in this Addendum; (c) Costs for bypass pumping for the standby pumping systems to allow for constructing improvements at the Rocky Hill Pump Station, Headworks and lining of the Plant Outfall should be included as part of the work associated those improvements.

2. With regard to the Sandblasting and Painting of the existing Process Aeration Tank, please clarify the following: (a) is the existing paint considered to be Lead Paint; (b) provide the number of coats and the specific paint systems that are to be used for the submerged and non-submerged portions of the tank; and, (c) are any existing stairs, gratings, railings, or piping to be painted that are attached to the Process Aeration Tank.

   Response: (a) The existing paint does not contain lead; (b) Finish coating of the tank shall be provided in accordance with the Paint Schedule in Section 09941. Submerged tank surfaces shall be coated with System No. 7 and exposed, non-submerged tank surfaces shall be coated with System No. 9 as indicated in the Paint Schedule; (c) Aluminum gratings and railings at the Process Aeration Tank are not required to be sandblasted and coated. Existing stairs shall be sandblasted and coated. Sheet M-8 has been revised to show the locations of the aluminum gratings and handrails and is

included in this Addendum. Existing piping will be removed from the Tank as shown on Sheet D-2.

3. Part 1.8 of the Metal Building Spec Section 13125 requires Mock-Ups to verify selections and aesthetic effects. Please clarify whether or not Mock-ups are applicable to this project.

   Response: The requirement to provide mock-ups will be waived. Samples shall be provided in accordance with Section 13125, Part 1.5.D.

4. As per Part 2.3 of the Metal Building Spec Section 13125, the primary and secondary structural framing for the Metal Building are to be hot-dipped galvanized. Please clarify whether or not the primary and secondary structural framing members for the Metal Building are to be field painted.

   Response: Hot-dipped galvanized primary and secondary structural framing members for the Metal Building are not to be field painted.

5. Please clarify whether or not Pipe Supports and Conduit Supports are to be made from Aluminum.

   Response: Refer to Section 15056 – Piping Supports, Part 2.2 for pipe support materials. Conduit support material shall be either galvanized steel or stainless steel depending on the area classification. Indoor dry conditions NEMA 1/12 shall be galvanized CS. Wet and Corrosive and hazardous NEMA 4/4X/7 are stainless steel. Refer to Section 16110 for conduit support materials. Aluminum support material is not acceptable.

6. Please provide typical details for the Headwalls shown on Dwg C8, along with the Slide Gate and Tide-Flex Valve.

   Response: A detail has been prepared for the Headwall for the 12" x 12" slide gate and is attached to this Addendum. Please reference the revised Headwall detail on Sheet C-17 included in this Addendum for updated details for the Headwall outlet and installation of the TideFlex (or equal) check valve.

7. With regard to the Storm Drainage on Dwg C9 please clarify the following: (a) please provide typical details for the construction of the Headwall at the Stormwater Outfall that also show the Tide-Flex Check Valves; (b) please provide Rim Elevations and Invert Elevations for all three Manholes; and, (c) provide typical details for the Trench Drain that is to be provided.

   Response: (a) Please refer to the revised Headwall detail on Sheet C-17 included in this Addendum for updated details for the Headwall outlet and installation of the TideFlex (or equal) check valves. (b) See attached revised Sheet C-9 included in this Addendum indicating rim elevations and invert elevations for the new manholes. Contractor shall

verify inverts of existing drain manholes to ensure a minimum slope of 2% is achieved for new drain piping to new drain manholes (3); (c) The trench drain shall be a Zurn model Z886-HDS or equal, refer to the attached trench drain detail included in this Addendum.

8. Please confirm that the 20" STM FM and the 24" STM Piping from the Stormwater Pump Station to the Stormwater Outfall shown on Dwg C9 is to be made from Ductile Iron Pipe. If this is correct, then please make the necessary revision to the Pipe Schedule on Dwg M2 which indicates that all STM Piping is to be RCP.

   Response: The 20" STM Force Main and 24" STM Outfall piping shall be ductile iron. The 8" through 24" STM piping upstream of the Storm Water Pump Station shall be RCP. The Pipe Schedule on Sheet M-2 has been revised accordingly and is included in this Addendum.

9. The Process Piping Schedule on Dwg M2 indicates that there are to be Testing Requirements for the Rubber Gasketed RCP Stormwater Piping. Please be advised that no manufacturer or supplier of Rubber Gasketed RCP will guarantee that the pipe joints will hold any pressure.

   Response: Pressure testing requirements for the RCP STM piping will be waived. The Pipe Schedule on M-2 has been revised accordingly and is included in this Addendum.

10. Please note that the Process Piping Schedule on Dwg M2 does not indicate any Type or Thickness of Pipe Insulation for any new Process Piping, which does not appear to be correct. Please clarify.

    Response: On Sheet M-2, Process Piping Note 4 has been revised to refer to Section 15085 – Piping Insulation for piping insulation requirements, and pipe insulation thickness has been added to the Process Piping Schedule.

11. Please confirm our assumption that the Aluminum Stairs, Railings, Gratings, Hatches, etc. will not require any Field Painting.

    Response: Aluminum stairs, railing, gratings, hatches, etc. will not require any field painting, except aluminum surfaces in contact with concrete shall be coated with bituminous paint or isolated from the concrete with a 1/8" thick neoprene pad as noted on Sheets GS-7 and GS-8.

12. Please confirm our assumption that the no existing or new concrete walls, floors, and slabs will require any Field Painting.

    Response: Existing or new concrete floors, walls and slabs will not require any field painting.

13. Please clarify the type of treatment or sealant that is to be applied to the Concrete Surfaces, as per Concrete Note #6 on Dwg GS1.

Response: Treatment of concrete surfaces is in reference to finish concrete requirements per Section 03300, Part 2.1 and Part 3.11. Surface coating application on concrete surfaces is not required.

14. Please confirm our assumption that all new concrete floor slabs, roof slabs and other horizontal surfaces are to receive a broom finish.

Response: Surfaces accessible for personnel to walk shall receive a broom finish. Reference Section 03300 for requirements on all other surface finishes.

15. With regard to the Sandblasting and Painting of the existing Process Aeration Tank, please clarify the following: (a) does it matter which half of the outer ring tank is to be taken out of service first; (b) can the Aeration Tank be drained by gravity by using existing piping, or will pumping be required; (c) if pumping is required to drain the tank, please identify the location(s) where the pumped water can be discharged; and, (d) please clarify whether or not the exterior surfaces of the outer tank will require sandblasting and painting.

Response: (a) Either half of the outer tank ring may be taken out of service first; (b) the Tank can be drained by gravity using the existing piping; (c) pumping is not required to drain the Tank; (d) the exterior surfaces of the outer tank will require sandblasting and recoating.

16. While we see that the Sequence of Work is provided in Spec Section 01005, it would be appreciated if the Bidders could be provided with the Engineer's Bar Chart or CPM Schedule that shows the overall schedule for this project, including the expected sequence of work and expected durations for the main activities.

Response: The Contractor shall develop their own schedule and work sequencing plan as required in Section 01005, Part 1.2.A.

17. We are concerned about the possibility of providing Temporary Heat in order to perform the Field Painting of the existing Process Aeration Tank. At this point in time it is not possible for Bidders to predict when the three stages of painting will be performed for the existing Process Aeration Tank. This uncertainty creates a bidding problem because the Bidders do not know if Temporary Heat will be needed for the panting of the tank. Also, there will be significant logistical challenges as well as significant costs to provide Temporary Heat for the large tank if Temporary Heat is required. Therefore, we request that a new Fixed Allowance Pay Item of $50,000.00 be added to the bid proposal to cover the possible cost of providing Temporary Heat for the Painting of the existing Process Aeration Tank.

Response: The Contractor may choose to either select coating products from the specified products or equivalent products that allow application in colder temperatures

(as low as 35 degrees F), sequence the work to allow coating during warmer temperatures, or provide temporary heating if required.

18. The Electrical Work for this project is supposed to include the furnishing of Temporary Power for three By-Pass Pumping Set-ups. However, Part 1.1.B of the General Electrical Spec Section 16050 only identifies two of the three By-Pass Pumping Set-ups. Please revise this Spec Section as soon as possible to include the requirement to provide Temporary Power for the third By-Pass Pumping Set-up to pump from the Post Aeration Tank to the Outfall Discharge during the CIPP Work on the 12" Effluent Line.

    Response: Section 16050 has been revised to include the requirement for a temporary power feed for the Plant Outfall bypass pumping system. See the Revisions to Specifications section below.

19. Dwg GS7 provides typical details for Aluminum Platforms, Walkways, Gratings and Railings, and these details call-out sizes for some of the structural members. However, not all structural members are identified by size on this drawing. It would be appreciated if this drawing could be revised to show the sizes of all structural members that will be used to fabricate and construct the Aluminum Platforms, Walkways, Gratings and Railings.

    Response: Requirements for structural members for the aluminum stairs, walkways and personnel platforms shall be developed by the Contractor as part of their delegated design. For bidding purposes, the beam size for the Platform Bracket Support Detail 4/GS-7 and the stair stringer size on Detail 6/GS-7 have been added to Sheet GS-7 and is attached to this Addendum.

20. We believe that some of the Aluminum Gratings, Walkways and Platforms for the various structures will require intermediate supports to be provided, which is due to the geometry as well as the widths and lengths. Please revise the drawings to show the locations and sizes of the intermediate supports that will be required to support the Aluminum Gratings, Walkways and Platforms.

    Response: Requirements for intermediate supports for the walkways and personnel platforms shall be developed by the Contractor as part of their delegated design. Refer to the attached markups on Sheets M-14, M-16, M-18, M-22 and GS-7 for sizes and locations of beams and columns for the platforms that may be used for bidding purposes. Note that an analysis of beam and column sizes has not been performed by the Engineer and the Contractor shall determine final requirements as part of their delegated design.

21. Please specify the depth and thickness of the bearing bars for the Aluminum Gratings that are to be provided for the stair treads, walkways, platforms and gratings for the various structures.

Response: Depth and thickness of bearing bars shall be determined by the Contractor as part of their delegated design and final layout development of structures. For bidding purposes, Contractors may assume 1-1/2" x 3/16" bearing bars for grating.

22. The Access Stair for the Sludge Storage Tank on Dwg M22 shows an intermediate landing. Is this intermediate landing required?

Response: Based on the height of the stairs (approximately 13 feet) an intermediate landing is required.

23. We appreciate the Add #2 Response to Question #30, which pointed out that the two existing Clarifier Tanks are to be Sandblasted and Painted. However, please note that the need to Sandblast and Paint the two existing Clarifier Tanks is not mentioned in the Construction Sequence in Spec Section 01005. Whereas, the Sandblasting and Painting of the existing Process Aeration Tanks is clearly mentioned in that same Construction Sequence Spec Section. We request that Spec Section 01005 be revised to include the need to Sandblast and Paint the two existing Clarifier Tanks.

Response: Section 01005 includes the requirement to "Rehabilitate Final Clarifier Nos. 1 and 2." The scope of work for rehabilitation of the Final Clarifiers is specified under Section 11441 and includes sandblasting and recoating of the existing Tanks and other clarifier components.

24. In order to comply with Part 3.2.A of the Field Painting Spec Section 09941, heated enclosures will need to be erected around and over the three existing tanks in order to maintain a dry environment and a minimum 50 degree ambient air temperature. However, at this point in time the Bidders cannot predict the future weather conditions that will prevail during the blast cleaning and painting of the three existing tanks, which will occur at different times in the schedule. These heated enclosures will be time consuming and costly to construct, maintain and remove, and the use of the heat enclosures will impact the schedule. However, since the Bidders will not know how many, if any, heated enclosures will be required, we request that a new Owner Allowance Bid Item be provided to cover the potential of providing these heated enclosures.

Response: The Contractor may choose to either select coating products from the specified products or equivalent products that allow application in colder temperatures (as low as 35 degrees F), sequence the work to allow coating during warmer temperatures, or provide temporary heated enclosures if required.

25. Part 3.2.C of the Field Painting Spec Section 09941 requires the submerged surfaces/component of the three existing tanks to be blast cleaned to a SP10 Near While Finish, and the non-submerged surfaces/components to a SP6 Commercial Finish. It would be helpful it these two types of surfaces/components were called-out and identified on the Mechanical Dwg's M8, M9, M10 & M11 for clarity.

Response: Submerged tank surfaces/components include all interior surfaces up to the maximum liquid level (shown at elevation 60.50 on Sheet M-9).

26. Please identify the company that is currently providing I&C services to the treatment plant, and clarify whether or not this current provider of I&C services is preferred.

Response: ACS has completed plant integration work for the Township and is currently providing annual support services to maintain the system. The Township does not have a preferred provider and other qualified integrators are acceptable.

27. Please provide the following revised bid documents that were referenced in Addendum #2 but were not included in the Addendum #2 package: Revised Sheet C-5, and Revised Spec Section 01005.

Response: The revisions to Sheet C-5 and Section 01005 as described in Addendum No. 2 are minor and therefore reissuing these documents is not warranted.

28. We request that new Structural Drawings be provided for the Precast Sludge Storage Tank, which is a major structural component of this project. The new structural drawings need to show the components that are to be supplied by the precast tank supplier, typical joinery details, typical post-tensioning details, and typical anchoring details. The new structural drawings also need to show how the foundation for the tank is to be prepared and constructed; and, these new structural drawings need to provide all dimensions for the tank so that the Contractor and the precast tank supplier know exactly what is to be provided and constructed.

Response: As described in Section 03420, Part 1.1.B, the Tank Supplier shall design, furnish and install the Tank and the reinforced concrete base slab. As described in Part 1.1.B, the General Contractor shall be responsible for preparing the subgrade and installing the stone base for the base slab, maintaining clear access for the tank construction, for furnishing and installing all piping, diffusers, handrailing, stairs, lighting, and other appurtenances, backfilling, and for the coordination of the shop drawing submittals and tank construction, and for field quality control testing.

For bidding purposes, assume a minimum 6 inch thickness for the stone base, consisting of clean ¾" aggregate (AASHTO #57 or similar), extending one foot beyond the base slab.

29. We are very concerned about the adequacy of the 630 calendar day completion time that has been established for this project due to the very sequential nature of the work and due to the unprecedented supply chain issues that continue to plague the construction industry. These supply chain issues are creating very long lead times for custom made equipment as well as the most basic constructions materials such as Ductile Iron Pipe and Reinforced Concrete Pipe. As just one example of these unprecedented supply chain issues, we were recently told by a well-established pipe supplier that we should expect a 36 week minimum lead time for Ductile Iron Pipe orders instead of the typical lead time of 2 to 3 weeks. Since these supply chain issues are beyond the control of the Contractor, it makes it very difficult for Contractors to plan their projects and commit to

meeting fixed completion deadlines. Based on these concerns, we request that a minimum of 6 months be added to the completion time for this project.

Response: The need for extension of the project completion time due to circumstances beyond the Contractor's reasonable control (supply chain issues or other) will be evaluated during the Contract.

30. With regard to the Sandblasting and Painting of the two existing Clarifier Tanks, please clarify the following: (a) the Painting Note on Dwg M11 mentions the need to recoat the existing Access Bridges and Handrails, but Dwg D4 identifies the existing Railings as being made of Aluminum, and Dwg D4 also indicates that the Access Bridges have Aluminum Gratings. Would the existing Aluminum Railings and Aluminum Gratings need to be blast cleaned and painted; and. (b) it would be appreciated if the same Painting Note on Dwg D4 could be revised to clarify and identify all of the existing components that need to be blast cleaned and painted in the two tanks.

    Response: The gratings at the Final Clarifiers are aluminum as indicated on the drawings and sandblasting and cleaning of these surfaces is not required. The bridge and the handrails are painted steel. As indicated on Note 1 on Sheet M-11, surfaces to be sandblasted and recoated include the tanks, clarifier components that are not to be replaced, the access bridge and handrails.

31. Please review the Heat Tracing & Insulation Limits that are noted on Dwg M2 because the Note states that the lower limits start at 4 feet below grade. However, the Addendum #2 Responses to Questions #7 & #61 state that the lower limits of the Heat Tracing & Insulation start at the ground level. Please clarify which lower limits are to be followed.

    Response: Heat tracing, insulation and jacketing shall extend to 4 feet below grade per Note 4.B on Sheet M-2.

32. Please confirm our assumption that the excavated soils shall be re-used to backfill the Flood Wall and other structures that will be constructed for this project, and that Imported Backfill is not required at this time.

    Response: Bidders may assume that excavated soils may be used as backfill for the Flood Wall and other structures.

33. In order to legally dispose of the grit and residuals under the new Pay Item #14, the Contractor will need to have analytical data to determine the type of landfill that can accept the grit and residuals as solid waste. If these types of materials have been tested by the WWTP in the past, then please provide that past analytical data to the Bidders. If this information cannot be provided to the Bidders then please instruct the Bidders as how these materials are to be disposed. If none of these approaches are deemed to be acceptable or feasible, then please make Pay item #14 another Owner Allowance Item.

Response: Analytical data is not available for the grit and residuals. For bidding purposes, assume that the grit and residuals are typical grit and residual materials found in municipal wastewater treatment plants.

34. The Addendum #2 Response to Question #49 clarifies the need to provide Temporary Fencing when the existing perimeter fence is removed. Please specify the height of the Temporary Fence and clarify whether or not barbed wire is to be provided for the Temporary Fence. Also, please confirm that driven posts will be acceptable for the Temporary Fence.

    Response: Temporary fencing shall be 7 ft height. Barbed wire is not required. Driven posts are acceptable.

35. Please review the #4 roof slab rebar shown on Dwg S8 for the Effluent Pump Station. We believe that all roof slab rebar should be #5's, typical.

    Response: All roof slab rebar at the Effluent Pump Station shall be #5.

36. With regard to the Lining of the existing Manhole, please clarify which type of Lining System is required, because the Notes on Dwg C10 specify a cementitious & epoxy liner system. However, the specifications call for a cementitious liner with a Con-Shield additive.

    Response: The Note on Sheet C-10 has been revised to reference Section 02770 – Structural Cementitious Liner for Manhole Rehabilitation.

37. Please clarify whether or not the Weir Brush Cleaning System, that is identified on Dwg's M10 & M11 for the two Clarifiers, is a new system or an existing system, because the Notes on Dwg M10 & M11 do not state that it is New or Existing.

    Response: The weir brush cleaning systems are new. See Section 11441, Part 2.5 for requirements.

38. With regard to Dwg M16, please provide information that shows how the intermediate landing of the two flight Access Stair for the Effluent Pump Station is to be supported. It would appear that at least four columns and footings are needed to support the intermediate landing.

    Response: Refer to the typical platform footing – section detail on Sheet GS-7 for the support columns for the stair landing.

39. With regard to the elevated platforms shown on Dwg M14 for the Filter-UV Disinfection Building, please clarify the following: (a) the Platform Elevation for the platform in the upper right corner of the building is called-out as Elev. 54.00, but we believe that it should be Elev. 55.50; (b) please indicate the expected column spacing to support the dead load of the equipment as well as the personnel loads for the Equipment Platform;

and, (c) please indicate the expected column spacing to support only the personnel loads for the other elevated platforms.

Response: (a) The platform elevation for the platform in the upper right hand corner of the Building on Sheet M-14 shall be elevation 55.50+/-; (b) and (c) Refer to the attached markups on Sheets M-14, M-16, M-18 and M-22 for sizes and locations of beams and columns for the platforms that may be used for bidding purposes. Note that an analysis of beam and column sizes has not been performed by the Engineer and the Contractor shall determine final requirements as part of their delegated design.

40. It would be appreciated if the Bidders could be provided with As-Built Drawings or Shop Drawings for the existing Metal Building that is to be demolished and removed from the Filter/UV Disinfection Building.

Response: See attached Record Drawings A-3 and A-4 from the previous plant upgrade project. Note that elevations shown on the Record Drawings are in 1929 vertical datum which is approximately 1.03 feet higher than 1988 vertical datum.

41. Please provide details that show the method of anchoring the existing Metal Building to the concrete foundation of the Filter/UV Disinfection Building.

Response: Refer to specification section 13125 for the "System Performance" requirements including loading and structural requirements. The building designer / manufacturer must determine the anchoring system suitable for erection of the building on the existing Filter Building foundations.

42. Please provide As-Builts or Design Drawings for the existing reinforced concrete foundation for the Filter/UV Disinfection Building.

Response: See attached Record Drawings ST-5 and ST-6 from the construction project for the last plant upgrade which included construction of the existing Filter Building. Note that elevations shown on the Record Drawings are in 1929 vertical datum which is approximately 1.03 feet higher than 1988 vertical datum.

43. Please clarify why the existing Metal Building is being demolished and replaced by a new Metal Building at the Filter/UV Disinfection Building.

Response: The Metal Building is being demolished because it has been damaged by prior flooding at the site.

44. Please confirm our assumption that the Contractor's Misc. Metals Delegated Design Responsibilities do not apply to the Steel Monorail Hoist Support for the Storm Water Pump Station and the Effluent Pump Station, which is completely designed and detailed on the drawings, and that shop drawings are only required for the Steel Monorail Hoist Supports.

Response: That is correct. The monorail support systems at the Pump Stations have been designed and detailed as shown on the drawings.

45. We take exception to the Delegated Design Approach that is being applied to this project because it is expecting Misc. Metals Fabricators to assume too much structural design responsibility during the bidding phase and during the construction phase. The Misc. Metals Fabricators should only be responsible for providing the final detailing and joinery for the platforms, gratings and stairs and not the entire structural design for these items. Therefore, we request that more structural information be provided to the Bidders regarding the sizes and spacing of critical load bearing members for the platforms, gratings and stairs. This information is especially important for the Equipment Platforms that are to be provided for the existing Filter /UV Disinfection Building so that the heavy equipment loads are properly distributed to the existing floor slab in a manner will not overstress and crack that slab. Please provide this structural information as soon as possible.

Response: Refer to the attached markups on Sheets M-14, M-16, M-18, M-22 and GS-7 for sizes and locations of beams and columns for the platforms that may be used for bidding purposes. Note that an analysis of beam and column sizes has not been performed by the Engineer and the Contractor shall determine final requirements as part of their delegated design.

46. Please clarify which Spec's govern the fabrication of the Ladders, which are included in the Hatches & Ladders Spec Section 08311 as well as in the Miscellaneous Metal Spec Section 05500. For example, it was our understanding that the Ladders and Cages were to be made from Aluminum, but Galvanized Cages are referenced in Part 2.9 of Section 05500.

Response: Refer to Section 08311 – Access Doors and Ladders for all ladders. References to ladders in Section 05500 may be ignored.

47. Please clarify the difference between the Type 1A and Type 1B Flood Walls as referenced in the title to Section #1 on Dwg S4. Section 1/S4 states that the Type 1B Flood Wall is "As Noted", but we do not see any notes that pertain to the Type 1B Flood Walls.

Response: Refer to the Stage II WWTP – Flood Wall Pile Parameters table on Sheet S-4 which provides parameters for each wall type.

48. The notes for Section #2 on Dwg S5 for the Storm Water Pump Station state that a Type 1B Flood Wall is to be constructed adjacent to Section #2/S5, and the note states that the Micropiles, Keyway and Sheet Pile Cut-Off Wall are not shown for clarify. However, Section #2/S5 does need to show the Micropiles, Keyway and Cut-Off Wall for the Flood Wall so that the Bidders and the Contractor can see how those important design elements will impact the construction of the Storm Water Pump Station. For example, it would appear to us that the some of the Micropiles for the Flood Wall at this location will

conflict with the foundation of the Storm Water Pump Station. Please revise Section #2/S5 to show this important information as soon as possible.

Response: Refer to Stage II WWTP – Flood Wall Pile Parameters table on Sheet S-4 for flood wall type parameters, including the battering angle of the piles for each wall type.

49. Section #3 on Dwg S5 for the Storm Water Pump Station shows the bottom slab of the Storm Water Pump Station extending underneath the footing for the Flood Wall, which complicates the construction of the Flood Wall at this location. However, Section #3/S5 does not show the Keyway and Sheet Pile Cut-Off Wall that are supposed to be continuous through this area according to the notes on Dwg S3. These important design elements need to be shown on Section #3/S5 so that the Bidders and the Contractor can see how the Keyway and Sheet Pile Cut-Off Wall are to be incorporated into this complicated arrangement. Please revise Section #2/S5 to show this important information as soon as possible.

Response: Section 2 on Sheet S-5 has been revised to show the keyway and sheet piling and is included in this Addendum.

50. According to the Notes on Dwg S3, the Keyway and Sheet Pile Cut-off Wall are to be continuous through the area where the Effluent Pump Station is integrated into the Flood Wall. However, none of the Effluent Pump Station structural sections on Dwg's S7 & S8 show the continuous Keyway and Sheet Pile Cut-Off Wall. The Bidders and the Contractor need to see how these important design elements are to be incorporated into the Effluent Pump Station foundation. Please revise Dwg's S7 & S8 to show this important information as soon as possible.

Response: Section 1 and Section 2 on Sheet S-7, and Section 3 on Sheet S-8 have been revised to show the keyway and sheet piling and are included in this Addendum.

51. It would be helpful for the Bidders, as well as for the Contractor, if the Flood Wall Site Plans Dwg's S-2 & S-3 could be revised to show the Flood Wall Stationing and Working Point Survey Coordinates.

Response: Sheets S-2 and S-3 have been revised to show the Flood Wall Stationing and are included in this Addendum.

52. Please confirm our assumption that the Measurement and Payment for the Micropiles will be from the Top of Pile to the Bottom of Pile. If this is the correct method of payment for the Micropiles, then please check and verify the accuracy of the Bid Quantity of 4,125 LF for Bid item #13.

Response: The length of the micropiles is from the top of the pile to the bottom of the pile. The estimated total linear feet of the micropiles in the Bid Proposal Bid Item 13 has been revised from 4,125 feet to 5,600 feet.

53. Please clarify which Bottom of Footing Elevation is correct for the Gravity Flow By-Pass Channel of the Storm Water Pump Station because Elevation 39'-3" is shown in Section #1 on Dwg S5, yet Elevation 38'-0" is shown in Section #5 on Dwg S6 for the same floor slab.

Response: Elevation 39'-3" is correct.

54. Mech Dwg M16 shows a 3" SW with a Gate Valve entering the Effluent Pump Station. However, the same piping shown for this same area on Dwg C-9 calls out a 4" SW and there is no gate valve shown on Dwg C-9. Please clarify which is to be followed.

Response: Provide 3" SW piping and gate valve as shown on Sheet M-16.

55. Mech Dwg M20 shows a 3" SW with a Yard Hydrant and two Gate Valves entering the Storm Water Pump Station. However, the same piping shown for this same area on Dwg C-9 does not call-out the Yard Hydrant or the Gate Valve. Please clarify which drawing is to be followed.

Response: Provide 3" SW piping and gate valves as indicated on Sheet M-20.

56. Assuming that a Yard Hydrant will be required for the Storm Water Pump Station, please provide a typical detail and suggested manufacturer for the Yard Hydrant.

Response: A detail has been prepared for the yard hydrant and attached to this addendum.

57. With regard to the Bio-Retention Swale Detail on Dwg C-17, please address and clarify the following: (a) please provide a minimum thickness for the Stone Underdrain Layer that is to be placed underneath the 6" Sand Layer; (b) please clarify whether or not the 2'-0" wide percolation trench is required for this project because this trench is not mentioned in the Bio-Retention Swale Spec Section 02905; and, (c) if the 2-'0" wide percolation trench is required, then please provide a specification for the type material that is to be used for the trench backfill.

Response: a) The stone trench shall be a minimum of 12" thick. b) The two foot wide trench extended to sandy substrate is required per Delaware Raritan Canal Commission (DRCC). c) The two foot wide trench is to be filled with AASHTO #4 stone.

58. Note #3 under the ERNMX-183 Bio-Retention Swale Seed Mix Note on Dwg C17 makes reference to the use of Erosion Control Blankets to be placed on seeded areas with slopes. Since all seeded areas on this project, including the Bio-Retention Swale, will have surfaces areas that are sloped to some degree, please clarify the following: (a) does the entire surface area of Bio-Retention Swale require the protection of the Erosion Control Blankets; (b) does this note only pertain to the Bio-Retention Swale, or do all newly seeded slopes around the entire project site require the protection of Erosion

Control Blankets; and, (c) please note that the Bio-Retention Spec Section 02905 does not make reference to the use of Erosion Control Blankets.

Response: a) Sloped areas in excess of 3H:1V shall be provided with erosion control blankets; b) Applies to all sloped areas in excess of 3H:1V.

59. Part 3.17 of the Bio-Retention Swale Spec Section 02905 discusses the need to perform Post-Construction Maintenance, which should not be part of this construction contract, and this responsibility should be performed by township personnel. Therefore, we request that Part 3.17 be deleted from Spec Section 02905.

Response: The health and condition of all plantings shall be the responsibility of the Contractor for the first one year after installation.

60. Please note that the Limits of Disturbance on Dwg C15 does not include the work areas that extend towards the Millstone River, as shown on Dwg C10.

Response: We anticipate temporary equipment staging within existing grassed maintained access path towards the Millstone River for the purpose of the trenchless CIPP work. The Contractor shall replace in-kind any incidental disturbance to maintained grassed areas.

61. The Limits of Disturbance shown on Dwg's C14 & C15 for the reinforced concrete Flood Wall are very narrow, and this is especially true for the southern portion of the Flood Wall where the Limits of Disturbance appears to be only 12' wide. Please confirm that the Contractor will be permitted to make these work areas wider in order to provide sufficient working room for the equipment, materials and logistics that will be needed to excavate, install the Micropiles, install the Sheet Pile Cut-Off Wall, and to construct the reinforced concrete Flood Wall.

Response: The limits of disturbance associated with the concrete flood wall are the maximum disturbance allowed by NJDEP given the various onsite environmental constraints.

62. Dwg C8 shows an existing underground sewer that crosses underneath the alignment of the proposed Sheet Pile Flood Wall, and no invert elevations or top of pipe elevations are provided for this sewer. Please confirm that the tip elevations of the Sheet Pile Flood Wall will be above this existing sewer

Response: As noted on sheet C-7, the existing 24-inch sewer top of pipe elevation at the location of the flood wall crossing is 46.10. The revised sheet C-13 has been attached to this Addendum, noting the bottom of sheet pile flood wall at elevation 48.0.

63. Dwg C8 shows the location of the relocated PSE&G overhead power line, and the relocated power line crosses over the alignment of the proposed Sheet Pile Flood Wall. Please be advised that this overhead power line needs to be relocated at least 20' beyond the limits of the Sheet Pile Flood Wall, and this overhead power line needs to be relocated prior to the construction of the Sheet Pile Flood Wall so that it does not hold-up

the start of the Sheet Pile Flood Wall. Contrary to the Addendum #2 Response to Question #31, the relocation of this overhead power line cannot wait until after the Bio-Retention Swale is constructed because the Swale will be constructed after the Flood Wall is completed.

Response: The need for any additional relocation of the overhead power line beyond that shown on the Drawings will be evaluated during construction and on discussions with PSE&G. Based on discussions with PSE&G they require that the Bio-Retention Swale be constructed before the poles are relocated.

64. With regard to the Concrete Flood Wall, Dwg C13 identifies the locations and lengths for the various types of Walls (Type 1A, Type 1B, Type 2, etc.) and the same Wall Types are identified on the Flood Wall Site Plan Dwg's S2 & S3. However, the lengths of the Wall Types on Dwg S1 & S2 do not correlate with the lengths of the Wall Types provided on Dwg C13. Just one example of this discrepancy is the Type 4 Wall Type that is shown to be 25 feet long on Dwg C13 but is shown to be almost 48 feet long on Dwg S2. Since we believe that Dwg C13 is correct, please revise the Wall Types shown on Dwg's S2 & S3 to correlate with the Wall Types shown on Dwg C13.

Response: Sheet C-13 has been revised and is attached to this Addendum.

65. Please review the Top of Footing and Bottom of Footing Elevations provided on the Concrete Flood Wall Schedule on Dwg C13 for Panels #15 & #17 (at the two Pump Stations) because those TOF & BOF Elevations on Dwg C13 do not correlate with the TOF & BOF Elevations for the same Flood Wall Footings that are located at the two Pump Stations as shown on Dwg 's S5 & S7.

Response: Sheet C-13 has been revised and is attached to this Addendum.

66. With regard to Note #12 on Electrical Dwg E3, which makes reference to "the IPS By-Pass Pumping System", please clarify the following: (a) provide a definition for the IPS abbreviation; (b) is this the same IPS (Influent Pump Station) that is referenced in Part 1.1.E.5 of Electrical Spec Section 16050; (c) please show on Dwg E3 where the IPS is located; (d) is the IPS a reference to the existing Headworks Facility; and, (e) please cross reference Note 12 to the areas on Dwg ES where the temporary power is to be provided.

Response: (a) IPS refers to the Influent Pump Station; (b) Correct; (c) The Influent Pump Station is located at the Headworks Facility; (d) The Influent Pump Station is part of the Headworks Facility; (e) As indicated on Note 12 on Sheet E-3, temporary power is to be provided from the MDP which is located at the Electrical Room in the Control Building as shown on the Drawing. On Note 12, revise "IPS BYPASS PUMPING SYSTEM" to "HEADWORKS BYPASS PUMPING SYSTEM".

67. Part 1.1.B and Part 1.1.E.5 of Electrical Spec Section 16050 make reference to the need for electrical work, by-pass pumping, and mechanical work to be performed at the Influent Pump Station (IPS), but the location of the IPS is not shown on any of the drawings, and there is no Mechanical Drawing that covers the installation of the backwash return pipe that is referenced in Part 1.1.E.5 of Electrical Spec Section 16050.

Since this is a Lump Sum Project, the Bidders need to be provided with all information pertaining to the IPS as soon as possible.

Response: In Part 1.1.B.3 and Part 1.1.C.2, replace "Influent Pump Station" with "Headworks by-pass pumping system". The backwash return pipe referenced in Part 1.1.E.5 is the 12" DR piping shown on Sheet M-5 and M-6. The Influent Pump Station is part of the Headworks Facility.

68. It would be appreciated if the wording provided in Spec Section 01501 were revised to avoid confusion and misinterpretation about the need for the Contractor to provide By-Pass Pumping Systems for this project. The confusion is caused by the repeated reference in Spec Section 01501 (including the title of Spec Section 01501) to provide Standby Pumping Systems, which is not the same as providing By-Pass Pumping Systems. This is because a Standby Pumping System requires the pumping equipment to be set-up at the site and ready to pump if and when necessary, but the Stand-BY Pumps may never be needed. Whereas, a By-Pass Pumping System requires the pumping equipment to be set-up and operated continuously in order to intercept a flow and continuously By-Pass the flow around a work area. Our interpretation of the bid documents, as a whole, is that the Contractor is to provide By-Pass Pumping and not Stand-By Pumping. Please clarify.

Response: Bypass and Standby Pumping Systems are used interchangeably in the specifications and shall be interpreted to mean continuously bypassing flow around a work area.

69. Please clarify the Temporary Shoring Notes on Dwg C-1, which make reference to temporary shoring needed for the following structures: the Influent Screening and Pumping Facility, the Primary Clarifier, and the Filter/UV Disinfection Building. Since we are not aware that any excavation is to be performed for these structures, please clarify why any temporary shoring would be needed for these structures. Also, we do not know where the Influent Screening and Pumping Facility is located at the site, and we are not aware that any work that is required for this structure.

Response: On Sheet C-1, Geotechnical Notes, Note 3, delete references to the Influent Screening and Pumping Facility, Primary Clarifier, Filter and UV Disinfection Building, Effluent Pumping Chamber.

70. Please confirm that the By-Pass Pumping System for the work at the Rocky Hill Pump Station can be removed immediately following the completed Electrical and Mechanical modifications at the Rocky Hill Pump Station.

Response: The bypass pumping system may be removed after the modifications to the Rocky Hill Pump Station are completed and tested.

71. Please confirm that the By-Pass Pumping System for the existing Headworks Facility can be removed immediately following the completed installation of the Mechanical Work that is shown on Dwg M5 & M6.

Response: The bypass pumping system may be removed after completion of the work shown on Sheets M-5 and M-6 and confirmation of successful operation of the wetwell mixer.

72. Please clarify the scope of the Mechanical Work that is to be performed at the existing Headworks Facility on Dwg's M5 & M6: (a) the Plan View on Dwg M5 shows a 12" DR Pipe and there is a note calling for the wall of the existing facility to be core-drilled for the installation of this pipe. Other than this core-drilling note, both Dwg M5 and Dwg M6 do not provide any notes that explain what is to be done with the 12" DR Pipe. Also, please confirm our interpretation of the bid documents that there is no other work to be performed at the existing Headworks Facility other than what is shown on Dwg's M5 & M6.

    Response: The 12" DR piping is to extend through the wall at the Headworks wetwell and extend into the wetwell as shown on Sheets M-5 and M-6. The other work at the Headworks includes installing the Owner Furnished wetwell mixer and guiderail as shown on Sheets M-5 and M-6.

73. With regard to the FRP Sheet Piles, we have received the following feedback from the supplier which differs from the contract requirements: (a) while the UC-95 Sheet Piles are made from FRP, the SG-425 Sheet Piles are made from Vinyl and will not comply with the FRP specifications; and (b) while a 50 year manufacturer's warranty comes with the SG-425 Sheet Piles, a 20 year manufacturer's warranty comes with the UC-95 Sheet Piles, which does not meet the specifications. Based on this feedback, please clarify whether or not the Bidders are to base their Sheet Pile Pricing on the UC-95 Sheet Piles and the SG-425 Sheet Piles that are called-out on the Flood Wall Profile Dwg C-13.

    Response: Bidders shall base their pricing on providing the UC-95 and SG-425 sheet piles as shown on Sheet C-13.

74. Reference: Site Class Dwg GS-1 & Specs 13125-4. Drawing specifies Site Class as C, while Specs specify Site Classification D. Please advise, or Site Class C to be assumed.

    Response: Site Classification C may be used.

75. Reference: Structural Steel Notes Dwg GS-1 #11, 12, 14. These are structural steel specs and not PEMB Specs. PEMB would not be using these. Please advise.

    Response: For structural steel for the metal building refer to the pertinent specifications in Section 13125 – Metal Building Systems.

76. Reference: Wall Panels Specs 13125-14. Type 1 (36") & Type 2 (42") - Please clarify if there are 2 types of wall panels to be used.

    Response: Delete Part 2.5.A.3 in Section 13125. Wall panel coverage to be determined by the building manufacturer.

77. Reference: Wall Panels Specs 13125-14. All Wall Panel Coverage to be 42" wide, unless told otherwise.

Response: Delete Part 2.5.A.3 in Section 13125. Wall panel coverage to be determined by the building manufacturer

78. After reviewing the project drawings, I cannot find Structural Drawing and Section for the New Sludge Storage Tank. Please provide these drawings.

Response: As described in Section 03420, Part 1.1.B, the Tank Supplier shall design, furnish and install the Tank and the reinforced concrete base slab, therefore structural drawings have not been provided. Inner tank dimensions, depths, elevations, etc. shall be as indicated on Sheets M-22 and M-23. As described in Part 1.1.B, the General Contractor shall be responsible for preparing the subgrade and installing the stone base for the base slab, maintaining clear access for the tank construction, for furnishing and installing all piping, diffusers, handrailing, stairs, lighting, and other appurtenances, backfilling, and for the coordination of the shop drawing submittals and tank construction, and for field quality control testing.

For bidding purposes, assume a minimum 6 inch thickness for the stone base, consisting of clean ¾" aggregate (AASHTO #57 or similar), extending one foot beyond the base slab.

79. According to the Sequence of Work in Spec Section 01005 the Filter Building Demolition Work is to be started first. However, there are very long lead times associated with the procurement and installation of the new Metal Building for the Filter Building, and there will also be long lead times for the procurement and installation of the new equipment for the Filter Building. We are concerned that these long lead times will impact the ability of the Contractor to meet the 630 calendar days completion time that has been established for this project, especially if the Filter Building Work needs to be completed prior to commencing work on the other portions of the Treatment Plant. Were these long lead times factored into the Engineer's Schedule for this project and the 630 day completion time?

Response: Equipment lead times were considered in developing the Engineer's Schedule. The work at the Filter Building does not need to be completed prior to commencing work on other portions of the treatment plant. Other work identified in Section 01005, Part 1.4.B may be done concurrently with the Filter Building work as long as continuous operation of the plant is maintained as described in Section 01005.

80. When the Filter Building is demolished and the Contractor is waiting for the new platforms, mechanical equipment and metal building to be furnished and installed at the Filter Building, can the Contractor proceed with the other work Treatment Plant work that is identified in the Sequence of Construction Work in Part 1.4 of Spec Section 01005?

Response: See response to Question 79.

81. With regard to the Filter/UV Disinfection Building, please clarify whether or not the demolition of the existing Metal Building will affect the operation of the existing Sodium Hypochlorite and Sodium Bisulfite Systems that are to be maintained until the new Filters and UV Disinfection systems are in service. Once the Metal Building is removed, the existing equipment will be exposed to the weather for a considerable amount of time due to the long lead time to procure the Metal Building. Can the existing equipment operate properly when exposed to the weather?

Response: The Township has recently relocated the existing sodium hypochlorite and sodium bisulfite systems to the existing Blower Building. When the work at the Blower Building commences, the Township will relocate the sodium hypochlorite and sodium bisulfite systems to allow the work to proceed.

82. While it is understood that the Contractor is to maintain the plant operations during the staged construction work, please confirm that the Contractor will not be responsible for operating the Waste Water Treatment Plant.

Response: The Contractor will at no time be required to operate any portion of the treatment plant.

83. Dwg E-11 provides a Ductbank Section for "ND", which would appear to be a designation for a new ductbank. However, the Electrical Site Plan Dwg E3 does not show a new ductbank "ND". Please clarify.

Response: Ductbank ND is shown on Sheet E-3 at the Rocky Hill Pump Station.

Specifications:

1. Section BP: This section has been revised to include a bid item (Item No. 15) for removal of rock. Replace Section BP with the attached revised Section BP.
2. Section 01151 – Measurement and Payment: Insert the following in Part 1.2:
   N. Item 15 – Remove Rock

      1. Under the unit price bid price for Item 15, the Contractor shall furnish all materials, equipment and labor required for removal and disposal of rock. Rock shall be as defined in Section 01000, Part 1.1.D.
3. Section 05120 – Structural Steel: Insert the following as Part 1.7.C:
   "C. Elevated platforms for the disc filters shall be designed for a dry weight of 4,960 pounds and an operating weight of 13,780 pounds."
4. Section 05500 – Miscellaneous Metals: Delete Part 2.1.A and 2.1.B.
5. Section 13125 – Metal Building Systems: Delete Part 2.5.A.3.
6. Section 16050 – Electrical Work – General:
   - Add the following to Part 1.1.B:
     "5. Plant Outfall by-pass pumping system"
   - Add the following to Part 1.1.C:

"4. Plant Outfall Bypass Pumping: 3-10HP pumps, single feed rated 70A, 460VAC, 3 phase"

Drawings:

1. Sheet C-9: Replace this Sheet with the attached revised Sheet. Revisions include callouts for the rim elevations and pipe invert elevations at the drain manholes (3).

2. Sheet C-10: Revise the callout at the existing manhole to "LINE EXISTING MANHOLE WITH A CEMENTITIOUS LINER PER SECTION 02770. EQUIP MANHOLE WITH COMPOSITE WATERTIGHT LOCKDOWN COVER."

3. Sheet C-13: Replace this Sheet with the attached revised Sheet. The following revisions have been included with this revised Sheet:

    - Sheet pile wall sections are coordinated with Sheets S-2, S-3, and S-4 to reflect proper depth of concrete footing, footing type, footing thickness, and footing section lengths.
    - Revised elevation F in flood wall typical section with concrete above grade detail to reflect approximate existing grade elevation
    - Revised elevation G in flood wall typical section with concrete above grade detail from "bottom of wall" to "bottom of footing".

4. Sheet C-17: Replace this Sheet with the attached revised Sheet which includes revisions to the Concrete Headwall and Check Valve Detail.

5. Sheet S-7: Replace this Sheet with the attached revised Sheet which includes revisions to Section 1 and Section 2.

6. Sheet S-8: Replace this Sheet with the attached revised Sheet which includes revisions to Section 5.

7. Sheet M-2: Replace this Sheet with the attached revised Sheet. The following revisions have been included with this revised Sheet:

    - DEC and WAS piping has been added to the Process Piping Schedule
    - Revised "SE" and "SETTLING TANK EFFLUENT" to "FC" and "FINAL CLARIFIER INFLUENT, EFFLUENT" in the Process Piping Schedule
    - Added STM (FORCE MAIN, OUTFALL) piping to the Process Piping Schedule
    - Deleted pressure testing requirements for the STM (STORM) piping in the Process Piping Schedule
    - Added pipe insulation thickness to the Process Piping Schedule
    - In the Process Piping Notes, Note C, revised "SECTION 15370" to "SECTION 15085"

- In the Process Piping Notes, replaced Note D with "REFER TO SHEET E-13 FOR HEAT TRACING REQUIREMENTS"

8. Sheet M-8: Replace this Sheet with the attached revised Sheet which has been revised to identify the locations of the existing aluminum gratings and railing which do not require sandblasting and recoating.

9. Sheet M-14: Revise the elevation shown for the platform in the upper right hand corner of the Building from 54.00 to 55.50.

10. Sheet M-15: In Note 1, revise "SEE SPECIFICATION 05500" to "SEE SPECIFICATION 05120"

Details and Other Attachments:

1. The following details are included in this Addendum:
    - Figure A3-1: Concrete Headwall and Manual Slide Gate Detail
    - Figure A3-2: Typical Trench Drain Detail
    - Figure A3-3: Yard Hydrant Assembly Typical Detail
2. Refer to the attached markups on Sheets M-14, M-16, M-18, M-22 and GS-7 for sizes and locations of support beams and columns for the walkways and platforms that may be used for bidding purposes.
3. Record Drawings A-3 and A-4 showing the floor plan and building elevations for the existing metal building that is to be demolished are provided for reference.
4. Record Drawings ST-5 and ST-6 showing the existing Filter Building concrete foundation are provided for reference.

END OF ADDENDUM NO. 3

SECTION BP

BID PROPOSAL FORM
CONTRACT TIME: 630 DAYS FROM DATE LISTED ON THE NOTICE TO PROCEED SCHEDULE OF LIQUIDATED DAMAGES: $1,000 PER DAY

PENNIED OR UNBALANCED BIDS MAY BE REJECTED

Item No.	Description and Unit Price in Words	Units	Approx. Quantity	Unit Price in Numbers	Total
1	Site mobilization _____ lump sum in words	LS	N/A	N/A	
2	Cast In Place Pipe Lining of 12-inch Outfall _____ lump sum in words	LS	N/A	N/A	
3	Flood Wall _____ lump sum in words	LS	N/A	N/A	

PENNIED OR UNBALANCED BIDS MAY BE REJECTED

Item No.	Description and Unit Price in Words	Units	Approx. Quantity	Unit Price in Numbers	Total
4	Filter Building Improvements _____ lump sum in words	LS	N/A	N/A	
5	Final Effluent Pump Station _____ lump sum in words	LS	N/A	N/A	
6	Storm Water Pump Station _____ lump sum in words	LS	N/A	N/A	
7	Rehabilitation of Final Clarifiers _____ lump sum in words	LS	N/A	N/A	
8	Process Aeration Tank Improvements _____ lump sum in words	LS	N/A	N/A	
9	Blower Building Improvements _____ lump sum in words	LS	N/A	N/A	
10	Sludge Storage Tank _____ lump sum in words	LS	N/A	N/A	

PENNIED OR UNBALANCED BIDS MAY BE REJECTED

Item No.	Description and Unit Price in Words	Units	Approx. Quantity	Unit Price in Numbers	Total
11	Miscellaneous Site Improvements and Site Lighting _____ lump sum in words	LS	N/A	N/A	
12	Drilled Micropiles Verification Load Testing _____ lump sum in words	LS	N/A	N/A	
13	Drilled Micropiles Installation, the unit price per lineal foot of _____ unit price in words	Feet	5,600		
14	Remove and dispose of grit and residuals from the existing Process Aeration Tank and the existing Sludge Storage Tank, the unit price per cubic yard of _____ unit price in words	Cubic Yards	120		
15	Remove and dispose of rock, the unit price per cubic yard of _____ unit price in words	Cubic Yards	10		
16	Demobilization and Project Closeout _____ lump sum in words	LS	N/A	N/A	

17	ALLOWANCE FOR OWNER REQUESTED CHANGES Thirty Thousand allowance in words	N/A	N/A	N/A	$30,000.00

Base Bid Amount in Words_____

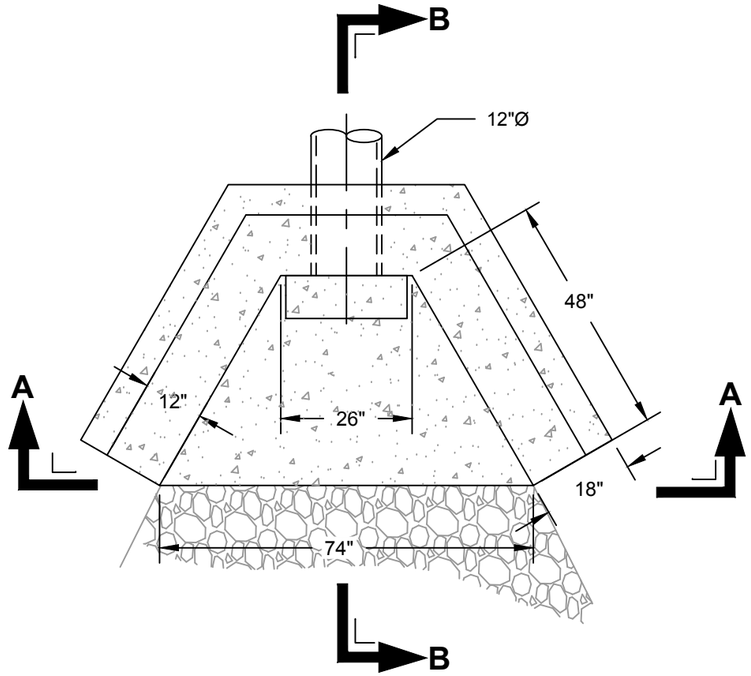
Base Bid Amount in Numbers_____

I am making the proposal for the above named Contract/order, and I am executing the said proposal with full authority so to do; that said I have not, directly or indirectly, entered into any agreement, participate in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named Contract/order; and that all statements contained in said proposal and in this affidavit are true and correct, and made with full knowledge that the Township of Montgomery relied upon the truth of the statements contained in said Proposal and in the statements contained in this affidavit in awarding the Contract/order for the said proposal.

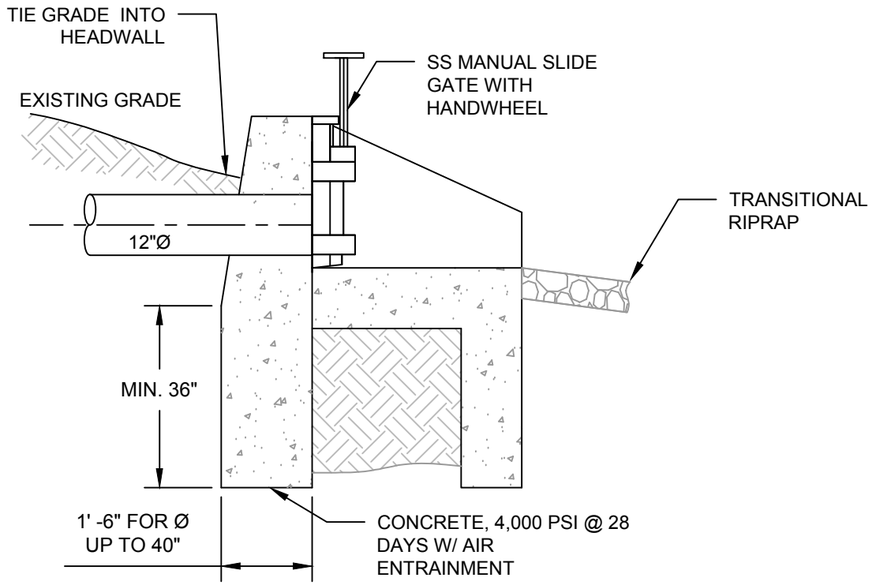
I further warrant that no person or selling agency has been employed or retained to solicit or secure such Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by

Award of Contract shall be based on the lowest responsible bid in conformance with N.J.S.A. 40A:11-1 et seq. and N.J.A.C. 5:34.

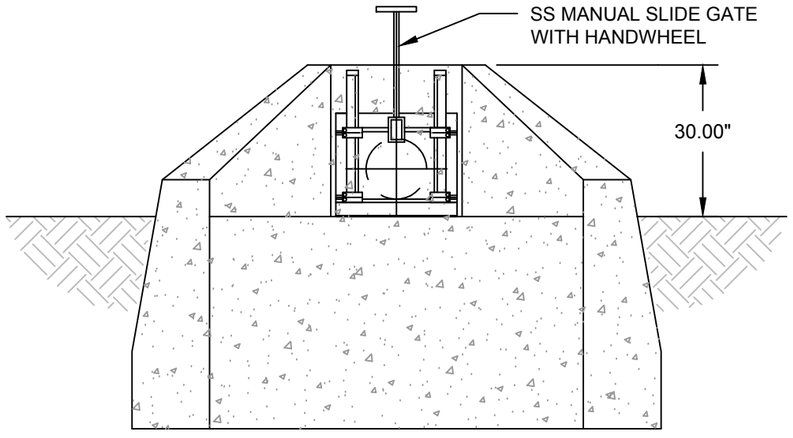
Printed Name of Authorized Agent	Signature of Authorized Agent
Title	Date
Company Name	Federal I.D. # or Social Security #
Address	
Telephone Number	Fax Number
E-mail address	



PLAN



SECTION B-B



SECTION A-A

1. ALL EDGES SHALL BE CHAMFERED 1".
2. CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS.
3. STEEL REINFORCEMENT: ASTM A-615 GRADE 60. MINIMUM COVER 2".
3. APRONS SHALL BE FLAT, MINIMUM 6" THICK CONC.
4. FOOTINGS SHALL EXTEND MINIMUM 3 FT. BELOW GRADE PER NJAC 7:13-11.10

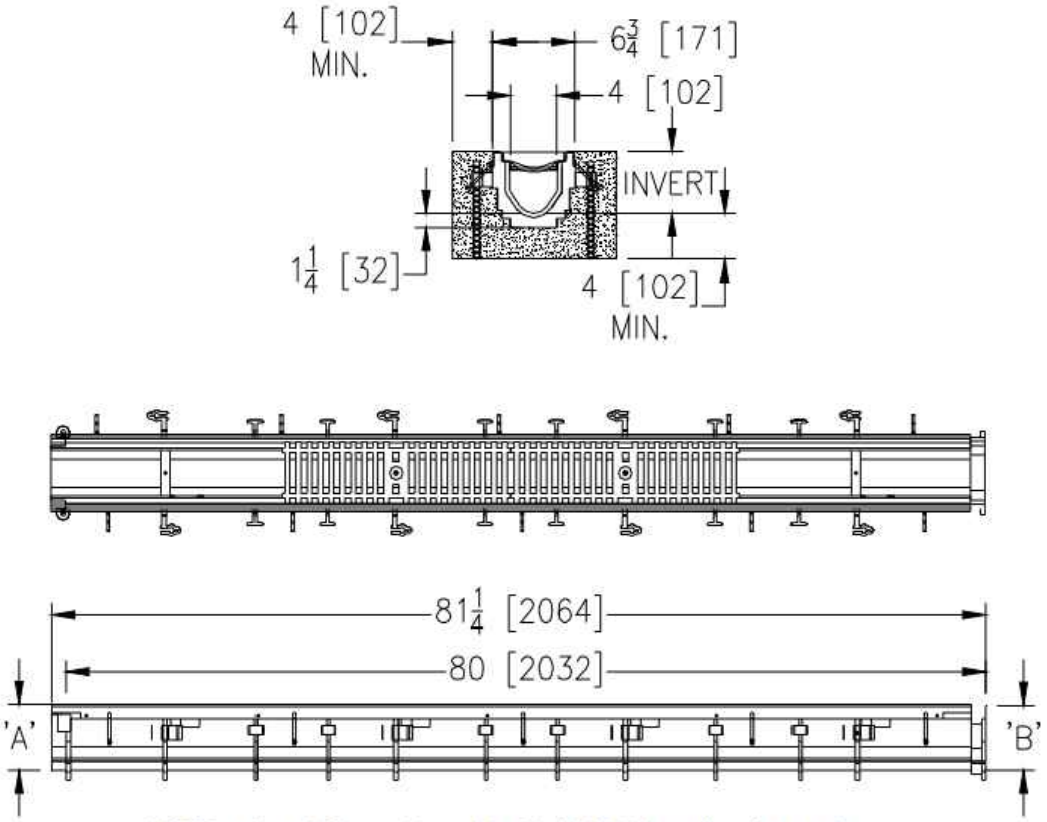
KLEINFELDER
Bright People. Right Solutions.

PROJECT NO.	6484F
DRAWN BY	ELD
CHECKED BY	CSF
DATE:	08-24-2022
REVISED:	---

CONCRETE HEADWALL AND MANUAL SLIDE GATE DETAIL

STAGE II WWTP
FLOOD PROTECTION PROJECT
MONTGOMERY TWP, NJ

FIGURE
A3-1



NOTE: + Actual Channel length is 81 1/4 [2064] to allow for overlap.

NOTES:

1. UNITS ARE IN INCHES AND [mm].
2. A 4-INCH NEW CONCRETE ENCASEMENT IS REQUIRED, VIBRATED TO REMOVE AIR VOIDS ESPECIALLY BENEATH FRAME RAILS.
3. MODULAR CHANNEL SECTIONS SHALL BE MADE OF 0% WATER ABSORBENT HDPE.
4. CHANNELS SHALL HAVE A SMOOTH RADIUS SELF CLEANING BOTTOM WITH A MANNINGS COEFFICIENT OF 0.009 AND 0.75% OR NEUTRAL 0% BUILT IN SLOPE
5. STAINLESS STEEL BAR GRATE SHALL CONFORM TO ASTM SPECIFICATION A351, GRADE CF8 (TYPE 304), CAST GRATE IS RATED CLASS E PER THE DIN EN1433 TOP LOAD CLASSIFICATION.
6. THE STAINLESS STEEL FRAME ASSEMBLY CONFORMS TO ASTM SPECIFICATION A-240 (TYPE 304).
7. GRATE LOCKDOWN BARS ARE TO BE INTEGRAL TO THE FRAME.
8. ALL WELDS MUST BE PERFORMED BY A CERTIFIED WELDER PER ASTM STANDARD AWS D1.6.

KLEINFELDER
Bright People. Right Solutions.

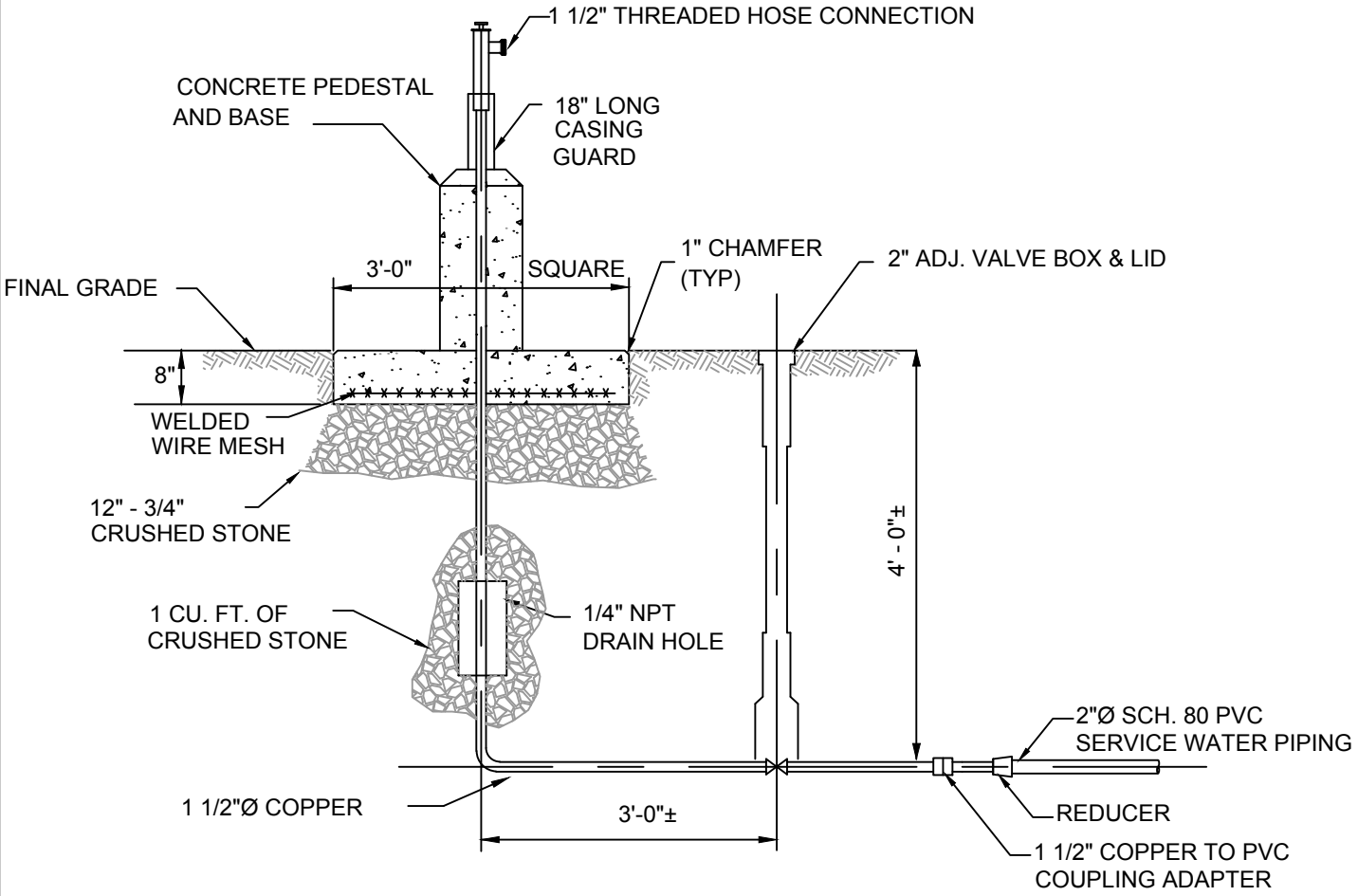
PROJECT NO.	6484E
DRAWN BY:	ELD
CHECKED BY:	CSF
DATE:	08-23-2022
REVISED:	---

TYPICAL TRENCH DRAIN DETAIL

STAGE II WWTP
FLOOD PROTECTION PROJECT
MONTGOMERY TWP, NJ

FIGURE

A3-2



NOTES:

1. CONTRACTOR SHALL PROVIDE ONE (1) "TEE" HANDLE FOR CURB STOP & ONE (1) "TEE" HANDLE FOR EACH POST HYDRANT.

2. ALL SERVICE WATER HYDRANTS TO BE DISTINCTLY IDENTIFIED TO PREVENT CONFUSION WITH DOMESTIC WATER OUTLETS AS SPECIFIED.

KLEINFELDER
Bright People. Right Solutions.

PROJECT NO.	6484E
DRAWN BY:	ELD
CHECKED BY:	CSF
DATE:	08-29-2022
REVISED:	---

YARD HYDRANT ASSEMBLY
TYPICAL DETAIL

STAGE II WWTP
FLOOD PROTECTION PROJECT
MONTGOMERY TWP, NJ

FIGURE
A3-3

PLOTTED: 8/30/2022 4:18 PM BY: eric.dowd

MATCHLINE SEE SHEET C-8

MATCHLINE SEE SHEET C-10

10' WIDE GRASS MAINTENANCE ACCESS PATH

STAGE II WWTP PROPERTY BOUNDARY

GREEN ACRES MITIGATION EASEMENT

INLET 3
TYPE "E" INLET
GRATE EL. 46.50
24" INV. 43.40

INLET 4
TYPE "E" INLET
GRATE EL. 46.50
24" INV. 43.15

INLET 5
TYPE "E" INLET
GRATE EL. 45.75
24" INV. 42.82

CONCRETE FLOOD WALL TOC 57.0

SCOUR HOLE
INV. 40.00
D50 = 6"

24" X 20" REDUCER

T-2 TIDEFLEX CHECK VALVE OR EQUAL (2 TYP)

STORMWATER OUTFALL HEADWALL TOW 44.00
INV. 41.00

20" STM FM

24" STM

PUMP STATION

SEE SHEET M-24 FOR MODIFICATIONS TO THE ROCKY HILL PUMP STATION

EX 8" DIP
INV. 28.87

VAULT

METER PIT

VALVE CHAMBER

ROCKY HILL PUMP STATION

CONNECT TO EXIST 4" SW

SEE NOTE 2

3" UVR

EX 8" DI
ROCKY HILL
FORCE MAIN

RE-ROUTE EXIST 8" DI AS REQUIRED

INSTALL BURIED GATE VALVE WITH VALVE BOX ON EXIST 4" SW

16" PE

4" SW

CONNECT TO EXIST 4" SW

NEW SLUDGE STORAGE TANK

INLET 9
TYPE "E" INLET
GRATE EL. 45.75
24" INV. 42.70
12" INV. 42.86
24" INV OUT 41.60

STORMWATER PUMP STATION

3" SW

2" SPD

24" STM
INV. 41.38

44.00

7+00.00

SAN SEWER MH
RIM EL. 46.00
INV. EL. 41.04

3

ALUMINUM LADDER WITH SAFETY EXTENSION AND SAFETY CAGE

12" STM INV. 43.39
16" PE INV. 41.3
SEE CONCRETE ENCASEMENT DETAIL SHEET C-18

3" A

12" STM

4" SW

16" PE

16" WYE

TRANSITION COUPLING

16" X 12" REDUCER

16" WYE WITH CLEANOUT

EXIST 12" RCP EFFLUENT

EFFLUENT PUMP STATION

WETLANDS AREA B

EX EDGE OF PAVEMENT (TYP)

EX 15" DIP EFFLUENT LINE

12" RCP

EXIST. 4" SW

INLET 2
TYPE "E" INLET
GRATE EL. 47.00
14"X23" INV. 44.72
24" INV. 43.75

4+00.00

ADD MANHOLE RISER TO RESET RIM TO EL. 47.75

NEW DOUBLE SWING GATE

EX ELEC MH

1" SPD

SEE NOTE 2

14"X24" STM

DR MH
RIM EL. 46.70±
INV. EL. 41.05±

3

12" DR

10" DR

8" DR

6" WAS

EXIST MANHOLE #3

14"X24" STM INV. 44.86
EXIST 24" SEWER INV. 42.28

INLET 1
TYPE "E" INLET
GRATE EL. 47.00
6" INV. 43.75
8" INV. 44.95
14"X23" INV. 44.95

CONNECT TO EXIST MANHOLE

8" STM

TRENCH DRAIN
GRATE EL. 46.50
8" INV. 45.12

REPLACE EXIST 6" BURIED PLUG VALVE

REPLACE EXIST 8" BURIED PLUG VALVE

6" RAS

FILTER BUILDING
ELEV AT DOOR SILL: 50.86
BOTTOM FLOOR: 43.86

BLOWER BUILDING

8" A

4" DEC

6" WAS

CONNECT TO EXIST 6" WAS APPROX. ℄ EL = 40.97

INLET 8
TYPE "A" INLET
GRATE EL. 46.60
12" INV. 44.16

INLET 7
TYPE "A" INLET
GRATE EL. 46.00
SE 12" INV. 43.91
SW12" INV. 43.91
INV. OUT 43.50

3" A FROM BLOWER BUILDING

6" SW

12" RCP

8" DR

PAVEMENT

SEE NOTE 2

12" RCP STM INV. 43.05
EXIST DUCT BANK INV. 42.50

EXIST DUCT BANK (TYP)

ADD MANHOLE RISERS EXISTING MANHOLES AS REQUIRED TO ENSURE UNIFORM GRADE

12" RCP STM INV. 43.95
EXIST DUCT BANK INV. 42.40

SEE NOTE 2

SPEED BUMP

STAIRWELL (±, TYP)

ACCESS STAIRWELL TO ABOVE (±)

CLARIFIER #1
FINAL CLARIFIER NO. 1

EXIST. 16" SECONDARY EFFLUENT

EXIST. 16" FINAL CLARIFIER EFFLUENT (SEE NOTE 1)

EXIST 12" INFLUENT, SEE NOTE 1

EXIST 6" RAS PIPING, SEE NOTE 1

EXIST 16" FINAL CLARIFIER INFLUENT, SEE NOTE 1

EXIST. 16" FINAL CLARIFIER EFFLUENT (SEE NOTE 1)

PROCESS AERATION TANK

12" STM

MODIFY EXIST GRADE TO CONVEY STORMWATER RUNOFF TO INLET 6

INLET 6
TYPE "E" INLET
GRATE EL. 46.25
12" INV. 44.22

8+00.00

CONNECT TO EXIST 4" SW

4" SW

EXIST. 4" SW

HEADWORKS FACILITY
TOP: 53.24

CONTROL BUILDING
FF: 50.62

FINAL CLARIFIER NO. 2

CLARIFIER #2
WEIR: 56.68

CONCRETE PAD

NEW CHAIN LINK FENCE, TIED INTO EXIST FENCE AND FLOOD WALL AND EXIST FENCE

MATCHLINE A-A

9+00.00

9+08.79

TIE INTO EXISTING GRADE AT ELEVATION 57.0

PIPE SUPPORT
WALKWAY
12" INFLUENT FROM AERATION TANK (TYP);
TOP OF TANK ELEV. 59.67
INV. 58.00
REPLACE PIPING INSULATION AND HEAT TRACING
INV. 52.50
FINAL CLARIFIER NO. 1
FINAL CLARIFIER NO. 2
EXIST. GRADE
SECTION A-A
NTS
REPLACE EXIST 12" PLUG VALVES

16" EFFLUENT FROM CLARIFIER (TYP)
TOP OF TANK ELEV. 59.67
INV. 55.00
REPLACE PIPING INSULATION AND HEAT TRACING. UTILIZE EXISTING POWER CIRCUITS AND CONDUIT (TYP ALL EXISTING TO BE REPLACED) REF E7.
FINAL CLARIFIER NO. 2
EXIST. GRADE
SECTION B-B
NTS

NOTE: SIMILAR FOR FINAL CLARIFIER NO.1.

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

0 1"

IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

0 10 20

SCALE: 1" = 10' SCALE IN FEET

NOTES:

1. REPLACE PIPING INSULATION AND HEAT TRACING ON EXPOSED PIPING, WHERE NOTED.
2. REMOVE EXIST MANHOLE COVER AND INSTALL PRESSURE MANHOLE COVER, WHERE NOTED.

YARD PIPING LEGEND

PROPOSED PIPE (> 4" DIA.)

PROPOSED PIPE (LESS THAN 4" DIA.)

KLEINFELDER
Bright People. Right Solutions.
150 College Road West, Suite 100
Princeton, NJ 08540
Phone: 609.924.8821
www.kleinfelder.com

ISSUED FOR BIDDING

TIMOTHY D. BRADLEY, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 24100

SIGNATURE 12/10/2021 DATE

KLEINFELDER, INC.
CERT. OF AUTH. 24A27001200

	DATE
ADDENDUM 3	08/29/2022
ADDENDUM 1	08/16/2022
ISSUED FOR BIDDING	12/10/2021
REVISED PER DRCC COMMENTS	02/22/2021
REVISED PER DRCC COMMENTS	12/10/2020
TWA SUBMISSION	08/31/2020
90% PROGRESS SUBMISSION	06/03/2020
30% PROGRESS SUBMISSION	08/06/2019
REVISIONS	

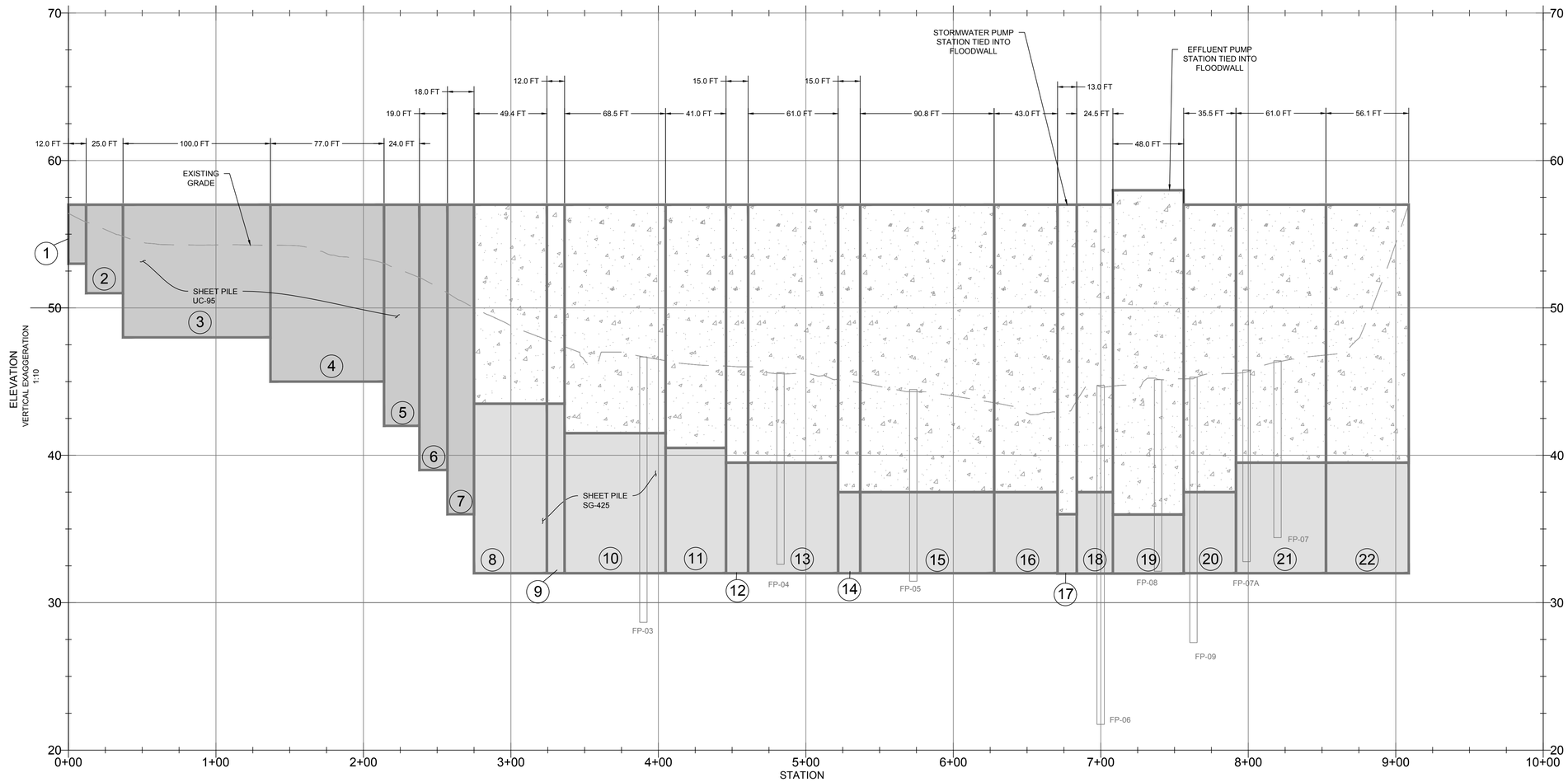
DATE	02/16/2018
PROJECT NO.	8484D
DRAWN BY	ELD
CHECKED BY	CSF
FILE NAME	C- C-9_Revised.dwg

PROPOSED SITE PLAN
3 OF 4

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
C-9

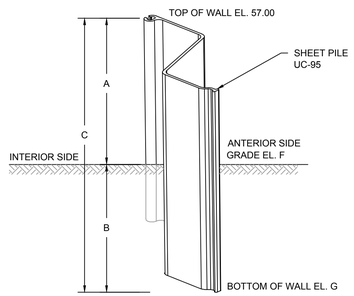
CAD FILE: S:\8484F Stage II Flood Protection Bidding And CA\DWG\C- C-9_Revised.dwg LAYOUT: C-9



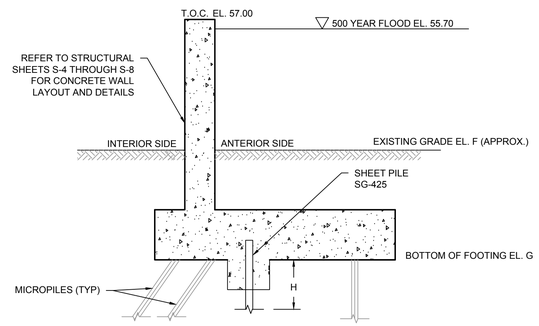
FLOOD WALL PROFILE
SCALE: 1" = 40'

NOTE:

1. REFER TO STRUCTURAL DRAWINGS FOR FLOODWALL SITE PLAN AND CONSTRUCTION DETAILS



FLOOD WALL - TYPICAL SECTION W/ SHEET PILE ABOVE GRADE
SCALE: N.T.S



FLOOD WALL - TYPICAL SECTION W/ CONCRETE ABOVE GRADE
SCALE: N.T.S

	SHEET PILE FLOOD WALL (SECTIONS 1-7)							CONCRETE FLOOD WALL (SECTIONS 8-22)															
SECTION NUMBER	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
LENGTH	12.00	25.00	100.00	77.00	24.00	19.00	18.00	49.4	12.0	68.5	41.0	15.0	61.0	15.0	90.8	43.0	13.0	24.5	48.0	35.5	61.0	56.1
STATION START	0+00.0	0+12.0	0+37.0	1+37.0	2+14.0	2+38.0	2+57.0	2+75.0	3+24.0	3+36.4	4+04.9	4+46.0	4+61.0	5+22.0	5+37.0	6+27.7	6+70.7	6+83.7	7+08.2	7+56.2	7+91.7	8+52.7
STATION END	0+12.0	0+37.0	1+37.0	2+14.0	2+38.0	2+57.0	2+75.0	3+24.0	3+36.4	4+04.9	4+46.0	4+61.0	5+22.0	5+37.0	6+27.7	6+70.7	6+83.7	7+08.2	7+56.2	7+91.7	8+52.7	9+08.8
SHEET PILE TYPE	UC-95	UC-95	UC-95	UC-95	UC-95	UC-95	UC-95	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425	SG-425
CONCRETE WALL TYPE	---	---	---	---	---	---	---	Type 4	Type 3	Type 3	Type 3	Type 3	Type 2	Type 2	Type 1A	Type 1B	SW PS	Type 1B	EFF PS	Type 2	Type 2	Type 3
CONCRETE FOOTING THICKNESS	---	---	---	---	---	---	---	3	3	3	3	3	3.5	3.5	3.5	3.5	---	3.5	---	3.5	3.5	3
A	1.0	2.0	3.0	4.0	5.0	6.0	7.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B	3.0	4.0	6.0	8.0	10.0	12.0	14.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
C	4.0	6.0	9.0	12.0	15.0	18.0	21.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
F	56.0	55.0	54.0	53.0	52.0	51.0	50.0	48.5	47.5	47.0	46.0	46.0	45.5	45.0	44.3	42.5	43.0	45.0	45.2	45.5	46.4	50.0
G	53.0	51.0	48.0	45.0	42.0	39.0	36.0	43.5	43.5	41.5	40.5	39.5	39.5	37.5	37.5	37.5	36.0	37.5	35.0	37.5	39.5	39.5
H	---	---	---	---	---	---	---	11.5	11.5	9.5	8.5	7.5	7.5	5.5	5.5	5.5	4	5.5	3	5.5	7.5	7.5

ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED. DIMENSION F AND G DENOTE ELEVATION (NAVD88)

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ISSUED FOR BIDDING

TIMOTHY D. BRADLEY, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 24100
SIGNATURE
12/10/2021
DATE
KLEINFELDER, INC.
CERT. OF AUTH. #GA0027100

6	ADDENDUM 3	08/17/2022
5	ISSUED FOR BIDDING	12/10/2021
4	REVISED PER DRCC COMMENTS	02/22/2021
3	REVISED PER DRCC COMMENTS	12/10/2020
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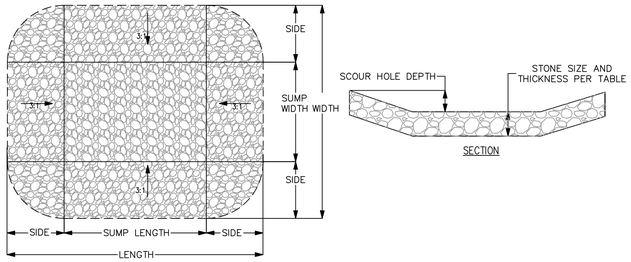
	30% PROGRESS SUBMISSION	08/06/2019
	REVISIONS	

DATE	02/16/2018
PROJECT NO.	64840
DRAWN BY	ELD
CHECKED BY	CSF
FILE NAME	C-13 SheetPile - Revised.dwg

SHEET PILE PROFILE AND DETAILS

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

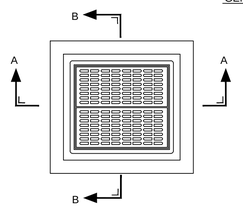
SHEET
C-13



SCOUR HOLE	ELEV.	PIPE SIZE	SUMP WIDTH	SUMP LENGTH	DEPTH	SIDES	TOTAL WIDTH	TOTAL LENGTH	DESIGN FLOW	d50 SIZE	THICK
24" STORM OUTLET	41.00	2 x 24"	7.0'	8.0'	1.00'	3.00'	13.00'	14.00'	6.75 CFS	6	12"
12" CULVERT	45.00	12"	2.0'	3.0'	0.50'	1.50'	5.00'	6.00'	4.38 CFS	6	12"

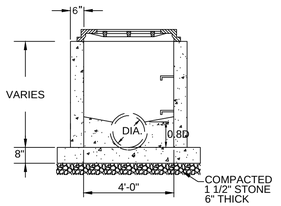
SCOUR HOLE DETAIL

NTS

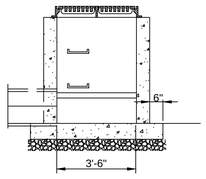


GENERAL NOTES:

1. FOOTING SHALL BE N.J.D.O.T., CLASS "C"
2. INVERT SHALL BE CLASS "C"
3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER
4. FRAME AND GRATE SHALL BE No.3425 AS MANUFACTURED BY CAMPBELL FOUNDRY CO. OR APPROVED EQUAL.
5. PROVIDE ALUMINUM LADDER RUNGS @ 12" CENTER TO CENTER
6. WHEN ADDITIONAL DEPTH IS SCHEDULE WALLS BELOW THE DEPTH OF 8'-0" MEASURED FROM THE INLET GUTTER TO THE INVERT, SHALL BE 12" THICK. THE FOUNDATION DIMENSIONS SHALL BE INCREASED TO 12" WIDTH AND TO 12' IN DEPTH.



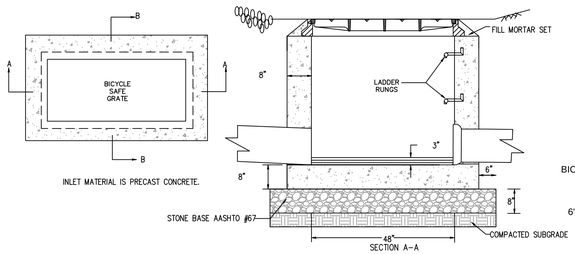
SECTION A-A
THROUGH INLET DETAIL

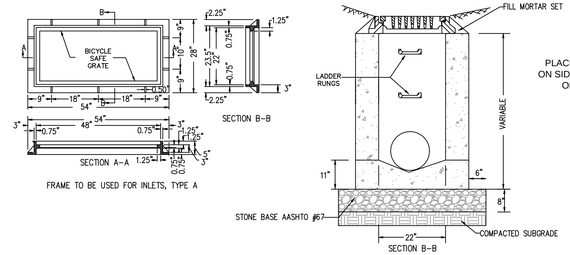


SECTION B-B
TERMINAL INLET DETAIL

TYPE "E" INLET (TYP)

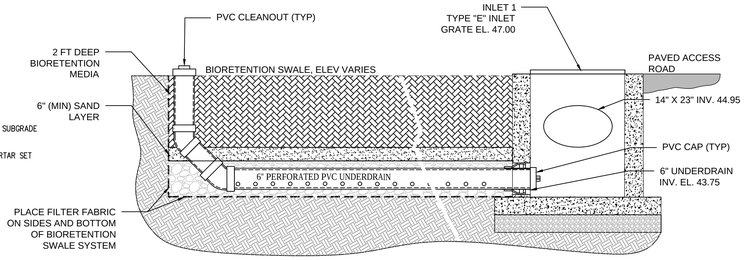
NTS





TYPE "A" INLET (TYP)

NTS



CAPPED UNDERDRAIN DETAIL

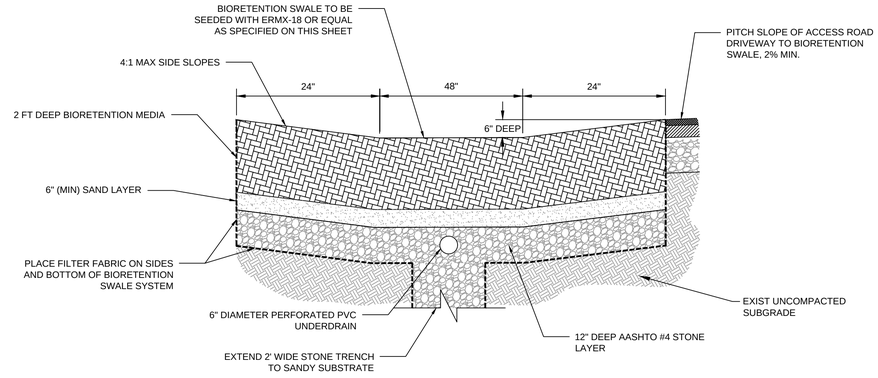
NTS

BIORETENTION SWALE SEED MIX (ERNMX-183 OR EQUAL)

%	BOTANICAL NAME	COMMON NAME
25 %	Panicum clandestinum	Deertongue
25 %	Carex vulpinoidea	Fox Sedge
20 %	Elymus virginicus	Virginia Wildrye
20%	Panicum virgatum	Switchgrass
5 %	Agrostis perennans	Autumn Bentgrass
2 %	Agrostis scabra	Ticklegrass, Rough Bentgrass
1 %	Juncus effusus	Soft Rush
1 %	Juncus tenius	Path Rush
1 %	Scirpus atrovirens	Green Bulrush

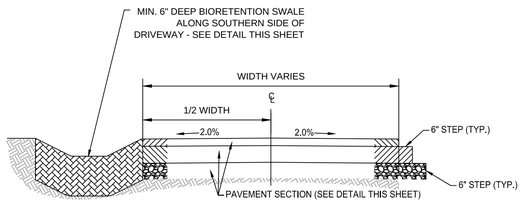
PLANTING NOTES:

1. WITHIN THE BIORETENTION BASIN, THE SEED MIX IS TO BE APPLIED TO SIDE SLOPES OF BASINS TO AN ELEVATION EQUAL TO THREE FEET ABOVE THE BASIN BOTTOM.
2. CONTACT ERNST SEEDS (WWW.ERNSTSEED.COM) OR EQUAL FOR ERNMX-183 SEED MIX PRICING AND AVAILABILITY.
3. ALL SEEDED AREAS ON SLOPES SHALL BE STABILIZED WITH A BIODEGRADABLE EROSION CONTROL BLANKET SUCH AS LANDLOCK C2, NORTH AMERICAN GREEN S150, OR EQUIVALENT MATERIAL, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. SEED AT 20LB./ACRE OR PER MANUFACTURER SPECIFICATIONS.
5. PROVIDE COVER CROP OF GRAIN RYE AT A RATE OF 30 LBS/ACRE.



BIORETENTION SWALE DETAIL

NTS

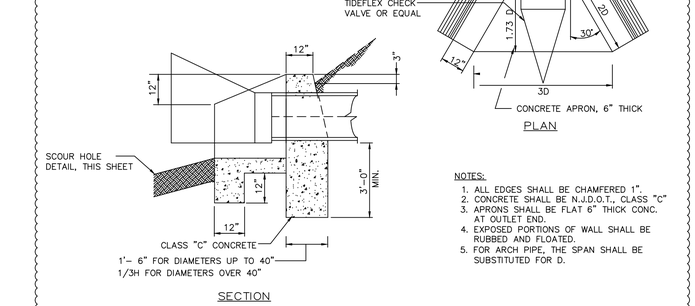


NOTES:

1. FINAL GRADE TO BE SET @ 50' INTERVALS ON TANGENT, 25' INTERVALS ON CURVES, 1/4 POINTS FOR CURB RETURNS, AND ALL RADII POINTS, OR AS DIRECTED BY THE RESIDENT ENGINEER.
2. UNSUITABLE/UNSTABLE SUBGRADE TO BE REMOVED AND REPLACED WITH APPROVED MATERIAL.
3. BEFORE CONSTRUCTION OF THE SURFACE COURSE, THE BASE COURSE MUST BE CLEANED OF ALL FOREIGN MATTER.

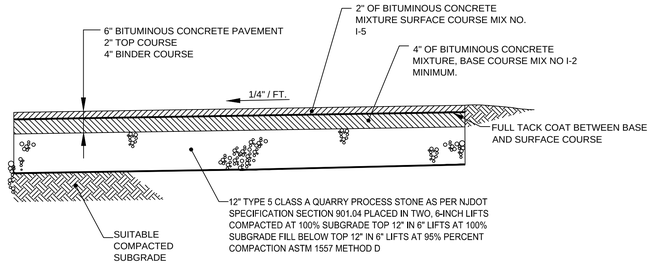
PROPOSED ACCESS DRIVEWAY PAVEMENT CROSS-SECTION (TYP)

NTS



CONCRETE HEADWALL AND CHECK VALVE DETAIL

NTS



PROPOSED ACCESS DRIVEWAY PAVEMENT SECTION (TYP)

NTS

BIORETENTION MEDIA NOTES

1) MEDIA SOIL CONTENT
THE BIORETENTION MEDIA SHALL BE COMPRISED OF SAND, ORGANIC TOPSOIL, COIR PEAT AND AGED HARDWOOD MULCH. THE PLANTING SOIL SHALL BE PERMEABLE TO ALLOW INFILTRATION OF RUNOFF AND PROVIDE ADSORPTION OF ORGANIC NITROGEN AND PHOSPHORUS. THE MATERIALS SHALL BE BLENDED IN THE APPROPRIATE QUANTITIES TO MEET THE FOLLOWING PARAMETERS:

PARAMETER	MINIMUM VALUE	MAXIMUM VALUE
PERCENT SAND (W/W)*	85%	95%
PERCENT FINE OR VERY FINE SAND (W/W)*	N/A	25%
PERCENT SILT AND CLAY (W/W)*	5%	15%
PERCENT CLAY (W/W)*	2%	5%

*BASED ON PERCENTAGE BY WEIGHT IN EACH TEXTURE CLASS.

ENTIRE MIX MUST BE AMENDED WITH 3 TO 7% ORGANICS, BY WEIGHT. THE PH OF THE FINAL SOIL BED MATERIAL TO RANGE FROM 5.5 TO 6.5.

NOTE THAT THESE VALUES FALL WITHIN THE RANGES RECOMMENDED IN THE NJDEP BMP MANUAL. THE FINAL BLENDED MEDIA SHALL BE TESTED TO DETERMINE THE VALUES OF THE ABOVE REFERENCED PARAMETERS. IF THE BLENDED MEDIA DOES NOT CONFORM TO THESE SPECIFICATIONS AS TO GRADATION AND PH, IT SHALL BE AMENDED WITH THE APPROPRIATE MATERIALS TO FALL WITHIN THE ABOVE SPECIFICATIONS. THE PLACED BIORETENTION MEDIA SHALL HAVE A MINIMUM INFILTRATION RATE OF 8 INCHES/HOUR.

BIORETENTION MEDIA TO BE PRE-MIXED SOIL CERTIFIED TO BE CONSISTENT WITH THESE REQUIREMENTS BY EITHER THE VENDOR OR BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF NEW JERSEY.

2) MEDIA NUTRIENT CONTENT
PROVIDE NUTRIENT ANALYSIS OF BIORETENTION MEDIA, INCLUDING MACRONUTRIENTS AND MICRONUTRIENTS (MEHLICH-3) WITH SOIL FERTILITY INTERPRETATION AND RECOMMENDATIONS RELEVANT TO THE SPECIFIED PLANT SPECIES. TESTING SHALL BE PERFORMED BY A QUALIFIED LAB, SUCH AS THE RUTGERS SOIL TESTING LABORATORY. NUTRIENT VALUES SHALL FALL WITHIN THE RECOMMENDED RANGES FOR THE SPECIFIED PLANT SPECIES.

3) A 1-INCH LAYER OF COMPOST AND CALCITIC LIME (IF NEEDED) MAY BE TILLED INTO TOP TWO INCHES OF THE SURFACE PLANTING BED. THIS WILL PROVIDE THE NUTRIENTS, CALCIUM AND ORGANIC MATTER NEEDED TO ASSIST IN GERMINATION AND GROWTH. THIS ADDITION WILL INCREASE ORGANIC MATTER CONTENT BY 0.3%.

4) THE ENGINEER SHALL APPROVE OF THE MIXTURE RATIO AND METHOD BEFORE PERMITTING THE BIORETENTION MEDIA TO BE PLACED IN THE FACILITY.

5) EXISTING FILL DIRT AND TOPSOIL MUST BE COMPLETELY REMOVED BEFORE INSTALLING BIORETENTION MEDIA.

6) ALL BIORETENTION MEDIA SHALL BE PLACED IN 6-INCH LIFTS FROM THE SIDES OF THE FACILITIES, AND IN NO EVENT SHALL ANY TRACKED OR WHEELED EQUIPMENT BE PERMITTED TO CROSS THE BIORETENTION MEDIA. THE OWNER'S REPRESENTATIVE SHALL BE PRESENT TO WITNESS THE PLACEMENT OF BIORETENTION MEDIA. THE BULK DENSITY OF THE INSTALLED MEDIA SHALL BE NO MORE THAN 95 POUNDS PER CUBIC FOOT.

7) TO ALLOW FOR SETTLEMENT, THE BIORETENTION MEDIA SHALL BE LOOSELY PLACED AT A DEPTH ABOVE FINAL GRADE EQUAL TO 115% OF THE SPECIFIED DEPTH. IT SHALL BE LEVELED BY HAND AND MOISTENED OR TAMPED TO ACCELERATE SETTLEMENT PRIOR TO FINAL GRADING AND INSTALLATION OF PLANT MATERIAL.

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

0 1"

IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

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150 College Road West, Suite 100
Princeton, NJ 08540
Phone: 609-924-8821
www.kleinfelder.com

ISSUED FOR BIDDING

TIMOTHY D. BRADLEY, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 24100
SIGNATURE: 12/10/2021 DATE
KLEINFELDER, INC.
CERT. OF AUTH. 24GA27921200

REVISIONS		
6	ADDENDUM 3	08/17/2022
5	ISSUED FOR BIDDING	12/10/2021
4	REVISED PER DRCC COMMENTS	02/22/2021
3	REVISED PER DRCC COMMENTS	12/10/2020
2	TWA SUBMISSION	08/31/2020
1	90% PROGRESS SUBMISSION	06/03/2020
	30% PROGRESS SUBMISSION	08/06/2019

DATE	02/16/2018
PROJECT NO.	6484D
DRAWN BY	ELD
CHECKED BY	CSF
FILE NAME	C-17 Revised.dwg

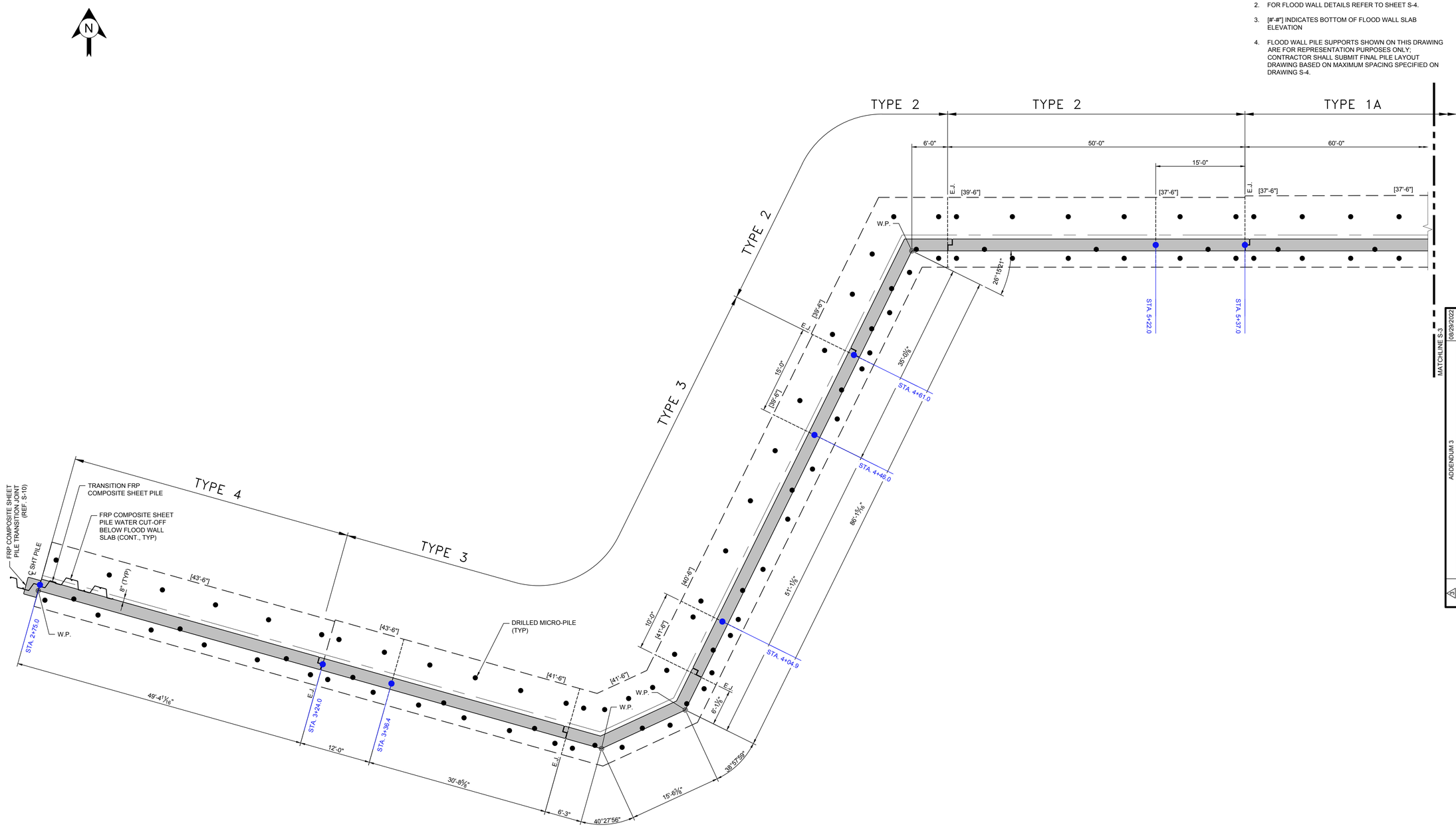
CONSTRUCTION DETAILS
1 OF 2

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
C-17

NOTES:

1. FOR GENERAL NOTES, LOADS, AND ABBREVIATIONS REFER TO SHEETS GS-01 TO GS-03.
2. FOR FLOOD WALL DETAILS REFER TO SHEET S-4.
3. [#'-#"] INDICATES BOTTOM OF FLOOD WALL SLAB ELEVATION
4. FLOOD WALL PILE SUPPORTS SHOWN ON THIS DRAWING ARE FOR REPRESENTATION PURPOSES ONLY; CONTRACTOR SHALL SUBMIT FINAL PILE LAYOUT DRAWING BASED ON MAXIMUM SPACING SPECIFIED ON DRAWING S-4.



FLOOD WALL PART PLAN

SCALE: 1/8" = 1'-0"

KLEINFELDER
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ISSUED FOR BIDDING

TIMOTHY D. BRADLEY, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 24100
SIGNATURE
12/10/2021
DATE
KLEINFELDER, INC.
CERT. OF AUTH. #GA0027100

7	08/29/2022	ADDENDUM 3
6	08/16/2022	ADDENDUM 1
5	12/10/2021	ISSUED FOR BIDDING
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	08/06/2019	30% PROGRESS SUBMISSION
		REVISIONS

DATE	02/16/2018
PROJECT NO.	6484D
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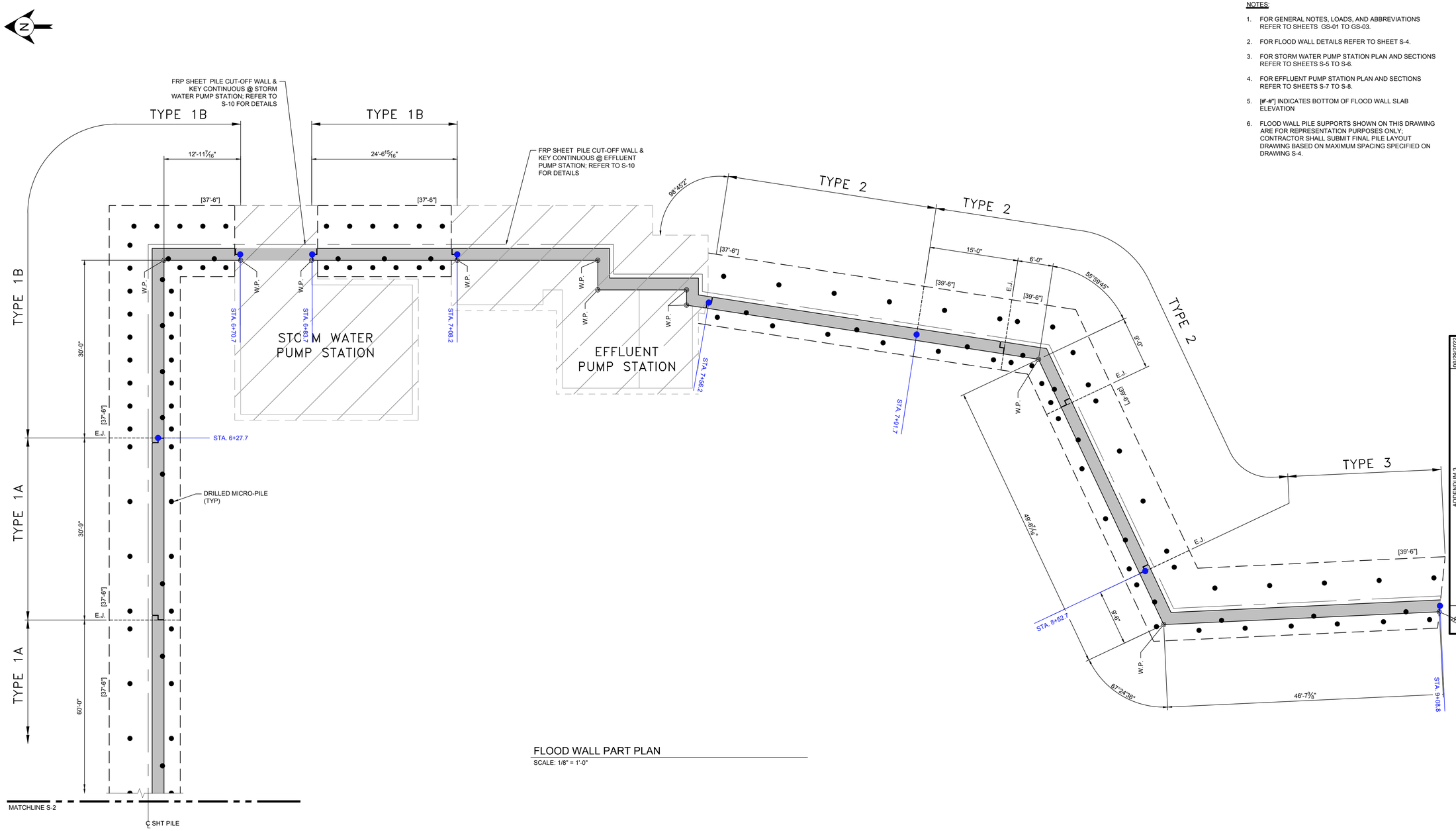
FILE NAME	S - Stage II WWTP Flood Protection Design_Structural_Revised.dwg

FLOOD WALL PART PLAN

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
S-2



FLOOD WALL PART PLAN

SCALE: 1/8" = 1'-0"

NOTES:

1. FOR GENERAL NOTES, LOADS, AND ABBREVIATIONS REFER TO SHEETS GS-01 TO GS-03.
2. FOR FLOOD WALL DETAILS REFER TO SHEET S-4.
3. FOR STORM WATER PUMP STATION PLAN AND SECTIONS REFER TO SHEETS S-5 TO S-6.
4. FOR EFFLUENT PUMP STATION PLAN AND SECTIONS REFER TO SHEETS S-7 TO S-8.
5. [#'-#"] INDICATES BOTTOM OF FLOOD WALL SLAB ELEVATION
6. FLOOD WALL PILE SUPPORTS SHOWN ON THIS DRAWING ARE FOR REPRESENTATION PURPOSES ONLY; CONTRACTOR SHALL SUBMIT FINAL PILE LAYOUT DRAWING BASED ON MAXIMUM SPACING SPECIFIED ON DRAWING S-4.

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KLEINFELDER, INC.
CERT. OF AUTH. 24A27001500

REVISIONS	DATE
6 ADDENDUM 3	08/29/2022
5 ADDENDUM 1	08/16/2022
4 ISSUED FOR BIDDING	12/10/2021
3 REVISED PER DRCC COMMENTS	02/22/2021
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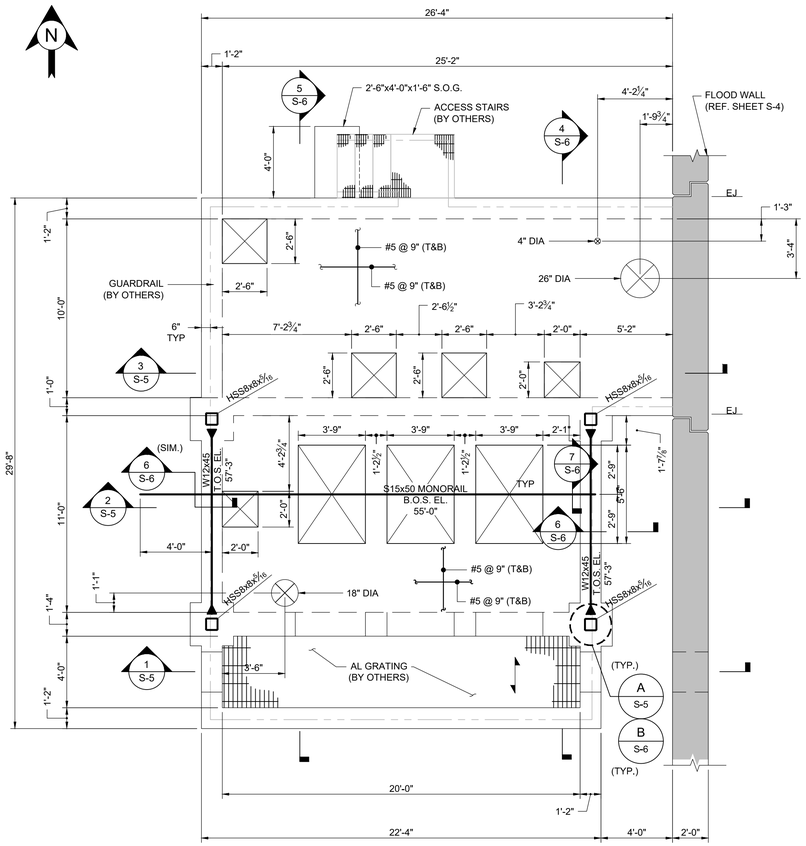
90% PROGRESS SUBMISSION	06/03/2020
30% PROGRESS SUBMISSION	08/06/2019

DATE	02/16/2018
PROJECT NO.	64844D
DRAWN BY	
CHECKED BY	
FILE NAME	S - Stage II WWTP Flood Protection Design_Structural_Revised.dwg

FLOOD WALL PART PLAN

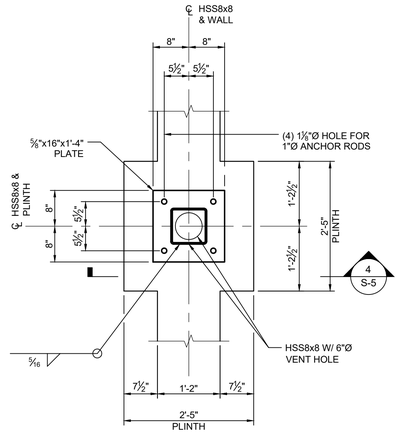
STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
S-3

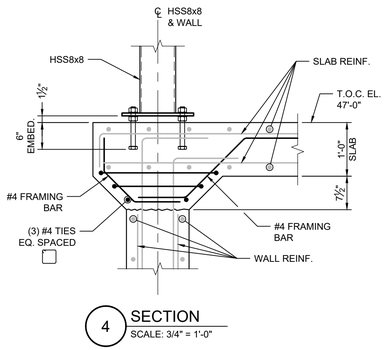


STORM WATER PUMP STATION PLAN

SCALE: 1/4" = 1'-0"
(T.O.C. EL. 47'-0" U.N.O.)



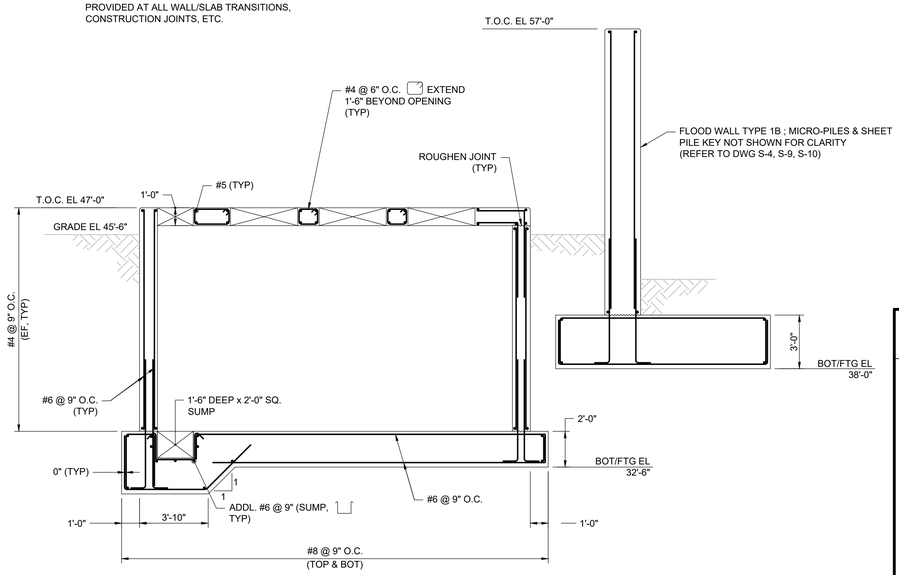
A DETAIL
SCALE: 3/4" = 1'-0"



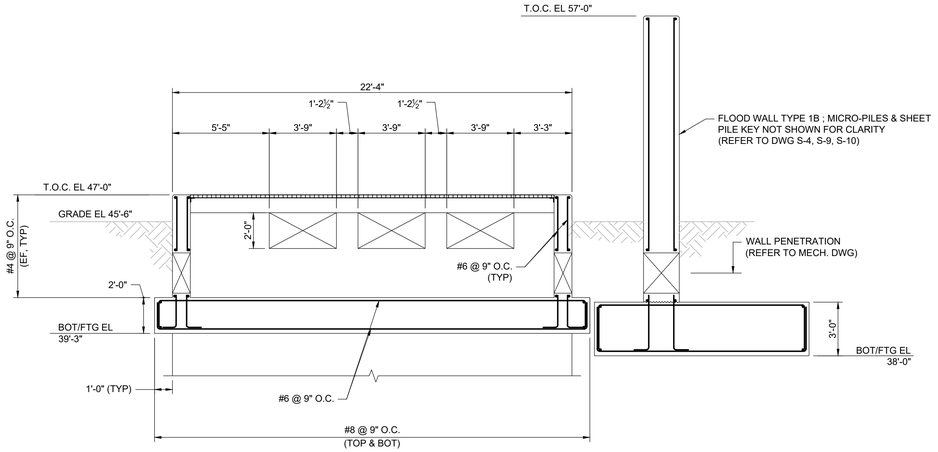
4 SECTION
SCALE: 3/4" = 1'-0"

NOTES:

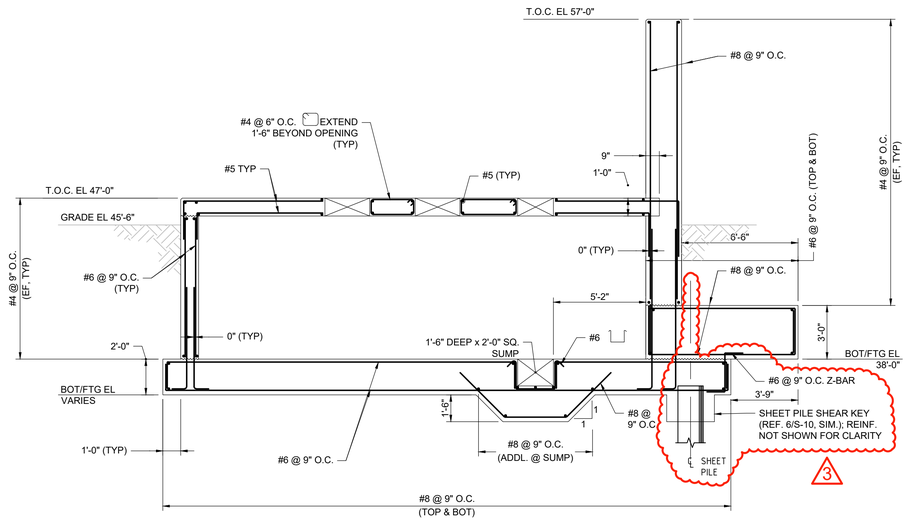
1. FOR GENERAL NOTES, LOADS, AND ABBREVIATIONS REFER TO SHEETS GS-01 TO GS-03.
2. REFER TO GS-04 TO GS-08 FOR TYPICAL DETAILS.
3. VALUES INDICATED AS [#'-#"] REFERS TO TOP OF CONCRETE ELEVATION.
4. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS OF PENETRATIONS AND OPENING IN CONCRETE SLABS AND WALLS.
5. SEE CIVIL DRAWINGS FOR STRUCTURE & WALL LOCATIONS.
6. WATERSTOPS AT JOINTS NOT SHOWN FOR CLARITY. REFER TO GS-4 FOR DETAILS. WATERSTOPS TO BE PROVIDED AT ALL WALL/SLAB TRANSITIONS, CONSTRUCTION JOINTS, ETC.
7. MONORAIL BEAM RATED FOR 2,000 LBS.



2 SECTION
SCALE: 1/4" = 1'-0"



1 SECTION
SCALE: 1/4" = 1'-0"



3 SECTION
SCALE: 1/4" = 1'-0"

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12/10/2021
DATE
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NJ CERT. OF AUTH. #24GA27972100

7	ADDENDUM 3	08/29/2022
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5	ISSUED FOR BIDDING	12/10/2021
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	30% PROGRESS SUBMISSION	08/06/2019
	REVISIONS	

DATE	02/16/2018
PROJECT NO.	64840
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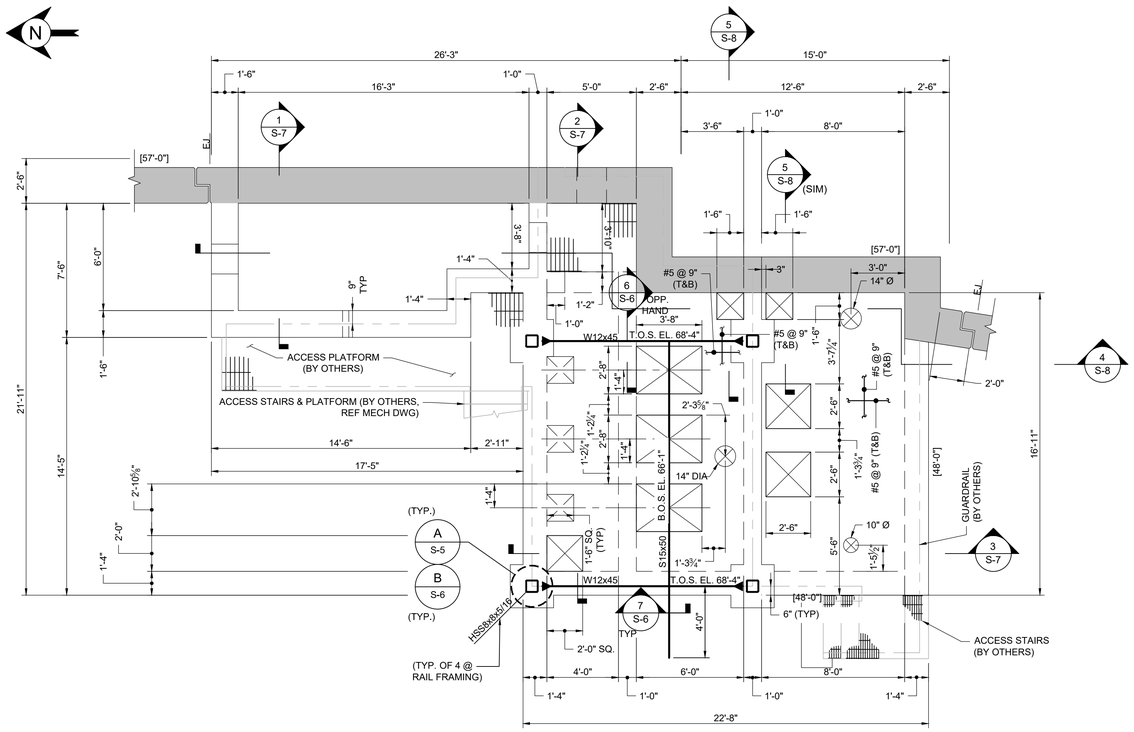
CHECKED BY	
FILE NAME	S - Stage II WWTP Flood Protection Design, Structural_Revised.dwg

STORM WATER PUMP STATION PLAN & SECTIONS

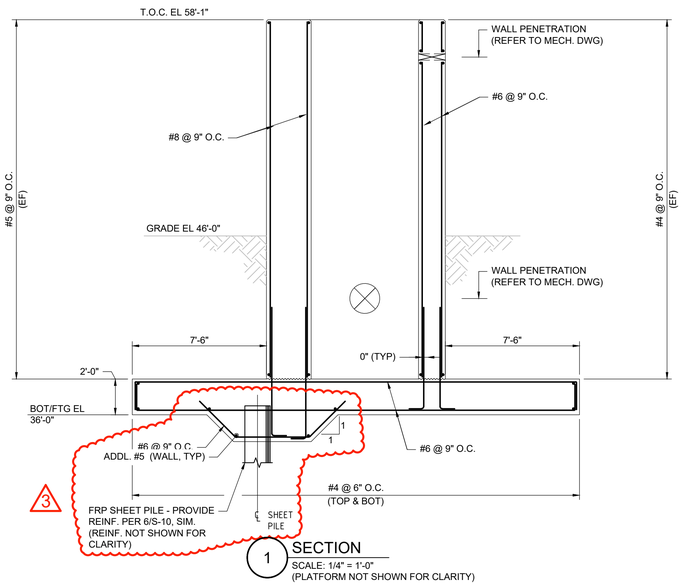
STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
S-5



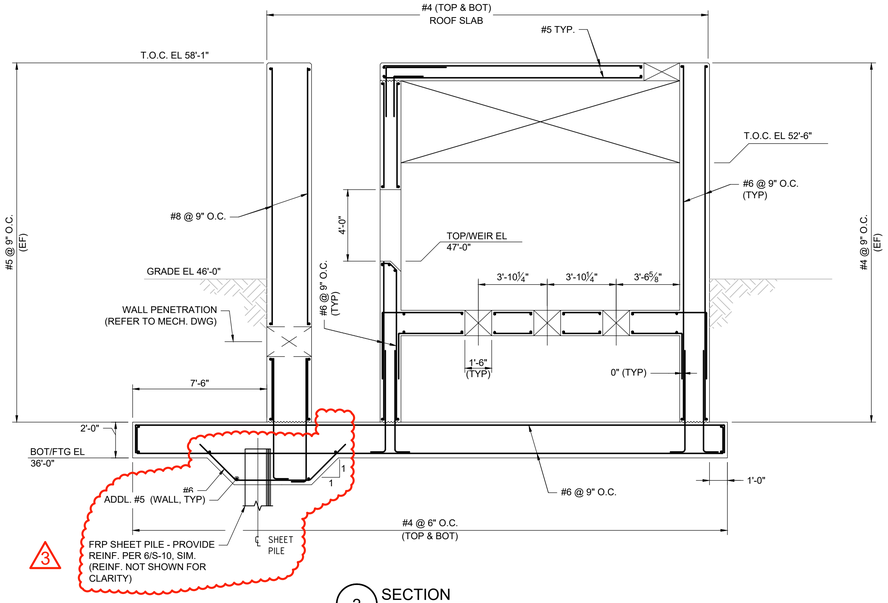
EFFLUENT PUMP STATION PLAN

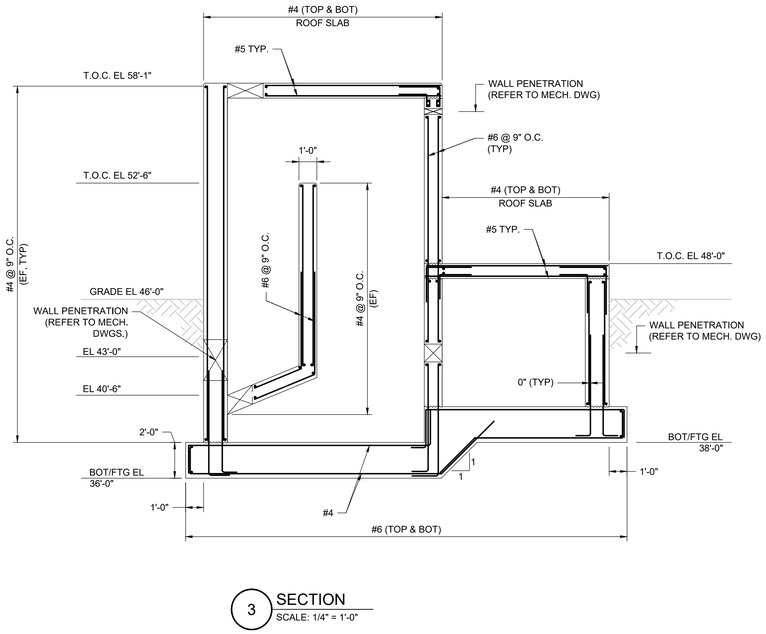
SCALE: 1/4" = 1'-0"
(T.O.C. EL. 58'-1" U.N.O.)



NOTES:

1. FOR GENERAL NOTES, LOADS, AND ABBREVIATIONS REFER TO SHEETS GS-01 TO GS-03.
2. REFER TO GS-04 TO GS-08 FOR TYPICAL DETAILS.
3. VALUES INDICATED AS [#'-#"] REFERS TO TOP OF CONCRETE ELEVATION.
4. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS OF PENETRATIONS AND OPENING IN CONCRETE SLABS AND WALLS.
5. SEE CIVIL DRAWINGS FOR STRUCTURE & WALL LOCATIONS.
6. WATERSTOPS AT JOINTS NOT SHOWN FOR CLARITY. REFER TO GS-4 FOR DETAILS. WATERSTOPS TO BE PROVIDED AT ALL WALL/SLAB TRANSITIONS, CONSTRUCTION JOINTS, ETC.
7. MONORAIL BEAM RATED FOR 2,000 LBS.





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	REVISIONS	

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DATE	02/16/2018
PROJECT NO.	6484D
DRAWN BY	
CHECKED BY	
FILE NAME	

EFFLUENT PUMP STATION PLAN & SECTIONS

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
S-7

NOTES:

1. FOR GENERAL NOTES, LOADS, AND ABBREVIATIONS REFER TO SHEETS GS-01 TO GS-03.
2. REFER TO GS-04 TO GS-08 FOR TYPICAL DETAILS.
3. VALUES INDICATED AS [#'-#"] REFERS TO TOP OF CONCRETE ELEVATION.
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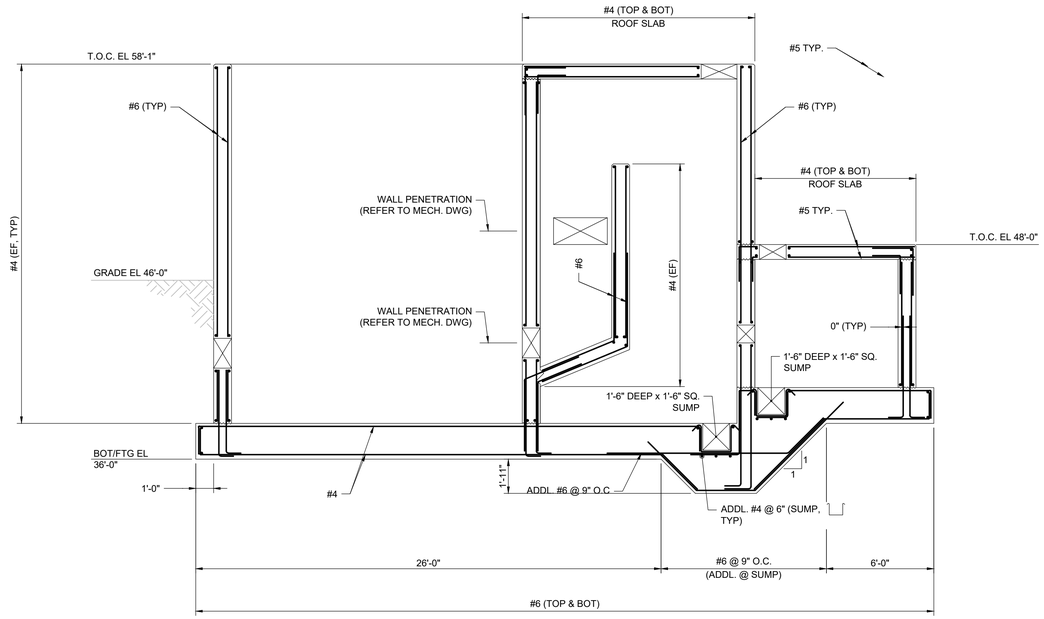
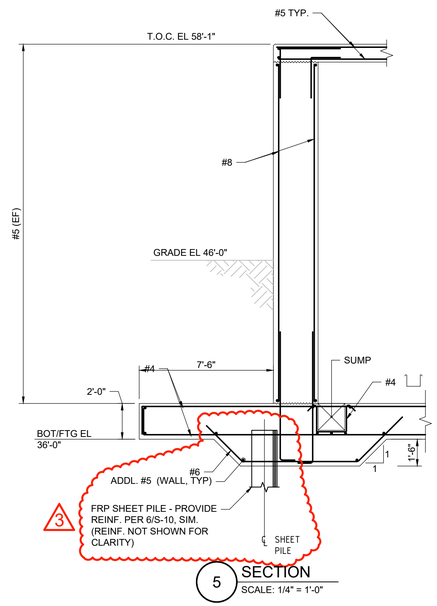


4 SECTION
SCALE: 1/4" = 1'-0"



5 SECTION
SCALE: 1/4" = 1'-0"

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NJ CERT. OF AUTH. #24GA27912100

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		REVISIONS

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EFFLUENT PUMP STATION SECTIONS

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
S-8

PROCESS PIPING SCHEDULE

SYSTEM DESIGN CONDITIONS						PIPING						INSULATION			TEST REQUIREMENTS					
LEGEND	SYSTEM	TEMP. (DEG. F)		PRESSURE (PSI)		MATERIAL	DIAMETER RANGE	SCH/ CLASS	LINING	COATING	JOINT TYPE	TYPE	THICKNESS (INCH)	PRESSURE (PSI)	MEDIUM	TEST DURATION (MIN.)	LEAKAGE ALLOWANCE (SEE NOTES)	SPEC. SECTION NUMBER	REMARKS
		MIN.	MAX.	WORK.	MAX														
A	BLOWER AIR	180	225	4	7.5	TYPE 304 STAINLESS STEEL	4"-12"	SCH 10	--- --- ---	--- --- ---	WELDED, FLANGED	--- --- ---	--- --- ---	20	AIR	60	ZERO	15066	
DEC	DECANT	45	65	10	20	DUCTILE IRON	4"	CLASS 53	DOUBLE CEMENT LINED	BITUMINOUS (BURIED) PAINTED (EXPOSED)	SUBMERGED / EXPOSED: FLANGED / GROOVED BURIED: RESTRAINED FLEX JOINT W/ MJ FITTINGS RESTRAINED W/ RETAINER GLAND	--- --- ---	2	30	WATER	60	ZERO	02615	
DR	DRAIN LINES	45	65	10	20	DUCTILE IRON	3"-12"	CLASS 53	DOUBLE CEMENT LINED	BITUMINOUS (BURIED) PAINTED (EXPOSED)	FLANGED	--- --- ---	--- --- ---	30	WATER	10	ZERO	02615	
FC	FINAL CLARIFIER INFLUENT & EFFLUENT	45	65	10	20	DUCTILE IRON	12" - 16"	CLASS 53	DOUBLE CEMENT LINED	BITUMINOUS (BURIED) PAINTED (EXPOSED)	SUBMERGED / EXPOSED: FLANGED / GROOVED BURIED: RESTRAINED FLEX JOINT W/ MJ FITTINGS RESTRAINED W/ RETAINER GLAND	SEE NOTE 4	2	30	WATER	60	ZERO	02615	
OF	OVERFLOW	45	65	10	20	DUCTILE IRON	6" - 10"	CLASS 53	DOUBLE CEMENT LINED	BITUMINOUS (BURIED) PAINTED (EXPOSED)	SUBMERGED / EXPOSED: FLANGED / GROOVED BURIED: RESTRAINED FLEX JOINT W/ MJ FITTINGS RESTRAINED W/ RETAINER GLAND	--- --- ---	--- --- ---	30	WATER	60	ZERO	02615	
SW	SERVICE WATER	45	65	60	100	PVC / DUCTILE IRON	1" - 6"	SCH. 80 / CL 53	SEE SPEC	BITUMINOUS (BURIED) PAINTED (EXPOSED)	PVC: SOLVENT WELDED / FLANGED DIP: FLANGED / RESTRAINED FLEX JOINT	SEE NOTE 4	2	100	WATER	60	ZERO	02615,15370	
PE	PLANT EFFLUENT	45	65	10	20	DUCTILE IRON	12" - 16"	CLASS 53	DOUBLE CEMENT LINED	BITUMINOUS (BURIED) PAINTED (EXPOSED)	SUBMERGED / EXPOSED: FLANGED / GROOVED BURIED: RESTRAINED FLEX JOINT W/ MJ FITTINGS RESTRAINED W/ RETAINER GLAND	SEE NOTE 4	2	30	WATER	60	ZERO	02615	
SPD	SUMP PUMP DISCHARGE	45	65	10	20	PVC	1"-2"	SCH 80	--- --- ---	--- --- ---	SOLVENT WELDED	--- --- ---	--- --- ---	30	WATER	60	ZERO	15370	
STM	STORM	45	65	10	20	RCP	8" - 24"	CLASS V	--- --- ---	--- --- ---	RUBBER GASKET	--- --- ---	--- --- ---	--- --- ---	--- --- ---	--- --- ---	--- --- ---	02609	
STM (FORCE MAIN, OUTFALL)	STORM	45	65	10	20	DUCTILE IRON	12" - 24"	CLASS 53	DOUBLE CEMENT LINED	BITUMINOUS (BURIED) PAINTED (EXPOSED)	SUBMERGED / EXPOSED: FLANGED / GROOVED BURIED: RESTRAINED FLEX JOINT W/ MJ FITTINGS RESTRAINED W/ RETAINER GLAND	SEE NOTE 4	2	30	WATER	60	ZERO	02615	
WAS	WASTE ACTIVATED SLUDGE	45	65	20	30	DUCTILE IRON	6"	CLASS 53	GLASS LINED	--- --- ---	SUBMERGED / EXPOSED: FLANGED / GROOVED BURIED: RESTRAINED FLEX JOINT W/ MJ FITTINGS RESTRAINED W/ RETAINER GLAND	SEE NOTE 4	2	50	WATER	60	ZERO	02615	

PROCESS PIPING NOTES:

1. PIPING SCHEDULE ABOVE REFERS TO CIVIL AND MECHANICAL PROCESS PIPING ONLY. REFER TO OTHER DISCIPLINES FOR ANY NON-PROCESS PIPING SHOWN AS BACKGROUND INFORMATION ON THE MECHANICAL DRAWINGS AND FOR CONTINUATION OF PIPING BEYOND MECHANICAL DISCIPLINE LIMITS OF WORK. ALL PIPING THAT IS NOT BURIED OR IN CONCRETE SLABS AND FOOTINGS SHALL BE CONSIDERED EXPOSED.
2. IN AREAS NOTED ON DRAWINGS CONTRACTOR SHALL FIELD ROUTE SERVICE WATER PIPE TO EQUIPMENT. CONTRACTOR SHALL SUBMIT SHOP DRAWING SHOWING PIPE ROUTING PLAN AND DETAILS FOR ENGINEER'S REVIEW. EXPOSED SERVICE WATER PIPING OUTSIDE OF HEATED BUILDING STRUCTURES TO BE HEAT TRACED, INSULATED AND JACKETED.
3. PROVIDE BURIED PIPING WITH RESTRAINED JOINTS.
   A. DUCTILE IRON - RESTRAINED PUSH-ON JOINTS WITH MECHANICAL JOINT FITTINGS RESTRAINED WITH MEGALUGS OR APPROVED EQUAL.
   B. STAINLESS STEEL - BOLTED SPLIT SLEEVE (FXF) OR GROOVED COUPLINGS PROVIDING RESTRAINED JOINT AND ALLOWING FOR ANGULAR DEFLECTION.
4. HEAT TRACING AND INSULATION:
   A. CONTRACTOR SHALL PROVIDE HEAT TRACING, INSULATION AND JACKETING FOR EXPOSED PIPING IN SCHEDULE OUTSIDE OF STRUCTURES WHERE NOTED ON THE DRAWINGS.
   B. EXTEND HEAT TRACING, INSULATION AND JACKETING TO 4 FEET BELOW GRADE. INSULATION SHALL BE OF THE MINIMUM THICKNESS INDICATED.
   C. TYPE OF INSULATION, REFER TO SECTION 15085 OF THE SPECIFICATIONS.
   D. REFER TO SHEET E-13 FOR HEAT TRACING REQUIREMENTS
5. ALL PIPING AND FITTINGS UNDER CONCRETE SLABS AND CONCRETE STRUCTURES SHALL BE CONCRETE ENCASED.

GATE SCHEDULE

TAG NO.	NUMBER OF UNITS	LOCATION SERVICE	GATE SIZE W(IN.) x H(IN.)	GATE TYPE	CONFIGURATION	OPERATING HEAD (MAX. WATER TO GATE ℄) (FT.)	FRAME TYPE	CLOSURE TYPE	OPERATOR TYPE	SPEC. SECTION	REMARKS
G-1, G-2, G3	3	EFFLUENT PUMP STATION GATE	16 X 16	NON SELF CONTAINED RISING STEM	FABRICATED	7.5	WALL MOUNTED	UPWARD OPENING	ELECTRIC MOTOR ACTUATED	15103	OPERATOR SUPPORTED BY WALL MOUNT WITH STEM GUIDE
G-4	1	EFFLUENT PUMP STATION WEIR GATE	36 X 48	NON SELF CONTAINED RISING STEM	FABRICATED	2.0	WALL MOUNTED	DOWNWARD OPENING	ELECTRIC MOTOR ACTUATED	15103	OPERATOR SUPPORTED BY WALL MOUNT WITH STEM GUIDE
G-5	1	STORMWATER PUMP STATION GATE	24 X 24	NON SELF CONTAINED RISING STEM	FABRICATED	2.0	WALL MOUNTED	UPWARD OPENING	ELECTRIC MOTOR ACTUATED	15103	OPERATOR SUPPORTED BY WALL MOUNT WITH STEM GUIDE
G-6	1	STORMWATER DRAIN	12 X 12	NON SELF CONTAINED RISING STEM	FABRICATED	2.0	WALL MOUNTED	UPWARD OPENING	MANUAL	15103	OPERATOR SUPPORTED BY WALL MOUNT WITH STEM GUIDE

PROCESS PUMP SCHEDULE

TAG NO.	NUMBER OF UNITS	NAME	LOCATION	TYPE	RATING POINT				IMPELLER TYPE	SEAL TYPE	MOTOR DATA			DRIVE TYPE	SPEC. SECTION	REMARKS
					CAPACITY (GPM)	HEAD (FEET)	STATIC HEAD (FT.)	MIN. EFF. %			HP	RPM (MAX.)	ENCL. TYPE			
PUEF-1 TO PUEF-3	3	EFFLUENT PUMPS	EFFLUENT PUMP STATION	SUBMERSIBLE NON-CLOG PUMP	1,250	27	12	67	2 SEMI-OPEN VANE	SEE SPEC	15	1,200	SUBMERGED	DIRECT COUPLED (VFD)	11319	
PUST-1 TO PUST-3	3	STORMWATER PUMPS	STORMWATER PUMP STATION	SUBMERSIBLE NON-CLOG PUMP	3,740	31	18	81	2 SEMI-OPEN VANE	SEE SPEC	40	900	SUBMERGED	DIRECT COUPLED (VFD)	11319	

BLOWER SCHEDULE

TAG NO.	NUMBER OF UNITS	NAME	LOCATION	TYPE	CAPACITY (SCFM)	PRESSURE (PSIG)	INLET TEMP (DEG. F)	BAROMETRIC PRESSURE (PSIA)	BLOWER SPEED (RPM)	MOTOR DATA			DRIVE TYPE	SPEC SECTION	REMARKS
										HP	RPM (MAX)	ENCL TYPE			
BLAE - 200 BLAE - 201 BLAE - 202	3	PROCESS AERATION BLOWERS	BLOWER BUILDING	POSITIVE DISPLACEMENT	640	8.0	100	14.64	4,100	40	1,800	TEFC	V-BELT	11377	SEE NOTES
BLSL-300 BLSL-301	2	SLUDGE STORAGE TANK BLOWERS	BLOWER BUILDING	POSITIVE DISPLACEMENT	850	8.0	100	14.64	3,900	50	1,800	TEFC	V-BELT	11377	SEE NOTES

EQUIPMENT SCHEDULE NOTES:

1. EQUIPMENT SCHEDULES ARE FOR QUICK REFERENCE, SHOULD THERE BE A CONFLICT BETWEEN SCHEDULE AND SPECIFICATION, SPECIFICATION SHALL BE FOLLOWED.

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www.kleinfelder.com

ISSUED FOR BIDDING

TIMOTHY D. BRADLEY, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 24100
12/10/2021
DATE
SIGNATURE
KLEINFELDER, INC.
NJ CERTIFICATE OF AUTHORIZATION
CERT. OF AUTH. NUMBER 21100

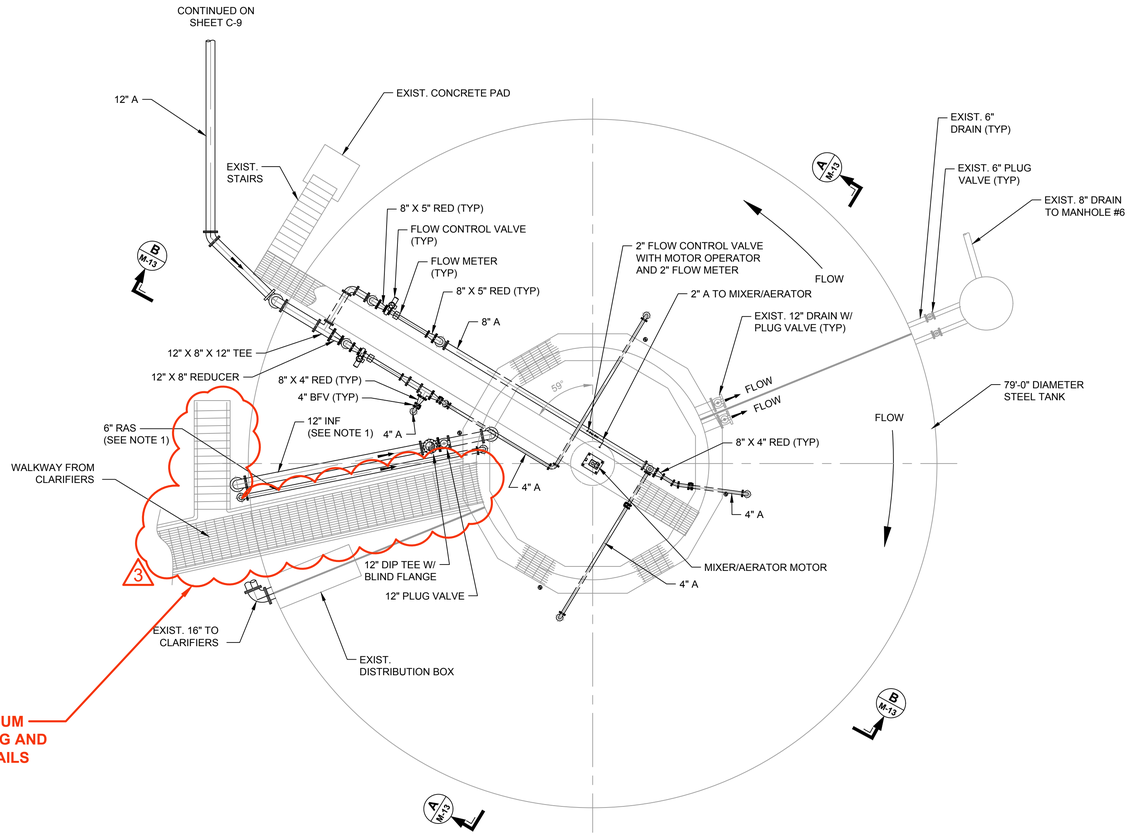
6	ADDENDUM 3	08/29/2022
5	ADDENDUM 1	08/16/2022
4	ISSUED FOR BIDDING	12/10/2021
3	REVISED PER DRCC COMMENTS	02/22/2021
2	REVISED PER DRCC COMMENTS	12/10/2020
1	TWA SUBMISSION	08/31/2020
	90% PROGRESS SUBMISSION	06/03/2020
	30% PROGRESS SUBMISSION	08/06/2019
	REVISIONS	

DATE	02/16/2018
PROJECT NO.	6484D
DRAWN BY	ELD
CHECKED BY	CSF
FILE NAME	M - Schedules_Revised.dwg

PIPING AND EQUIPMENT SCHEDULES

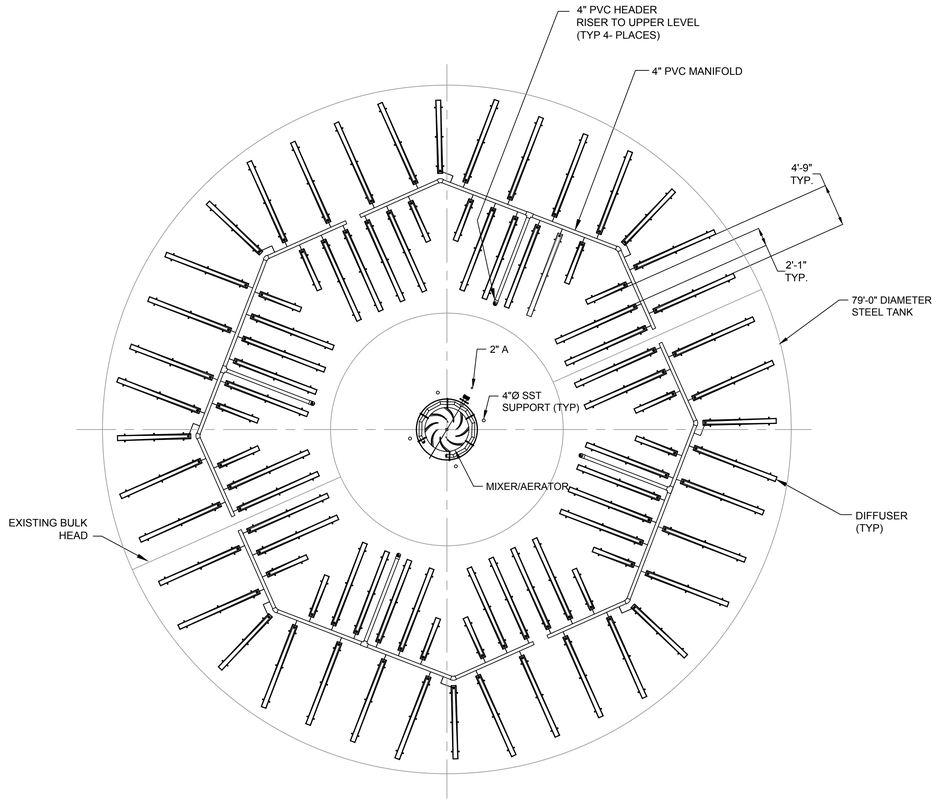
STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
M-2



PROCSS AERATION TANK UPPER LEVEL PLAN

SCALE: $\frac{3}{8}$" = 1'-0"



PROCSS AERATION TANK LOWER LEVEL PLAN

SCALE: $\frac{3}{8}$" = 1'-0"

NOTES

1. SANDBLAST AND COAT ALL STEEL TANK SURFACES IN ACCORDANCE WITH SECTION 09941 FIELD PAINTING.
2. REFER TO SECTION 01005 - MISCELLANEOUS REQUIREMENTS, PART 1.04 FOR SEQUENCING OF THE WORK.
3. RAISE 6" RAS AND 12" INF PIPING SO THAT IT CLEARS THE TOP OF THE TANK WALL.

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PROFESSIONAL ENGINEER
NJ LIC. NO. 24100
SIGNATURE
12/10/2021
DATE
KLEINFELDER, INC.
CERT. OF AUTH. #24A27001200

6	ADDENDUM 3	08/29/2022
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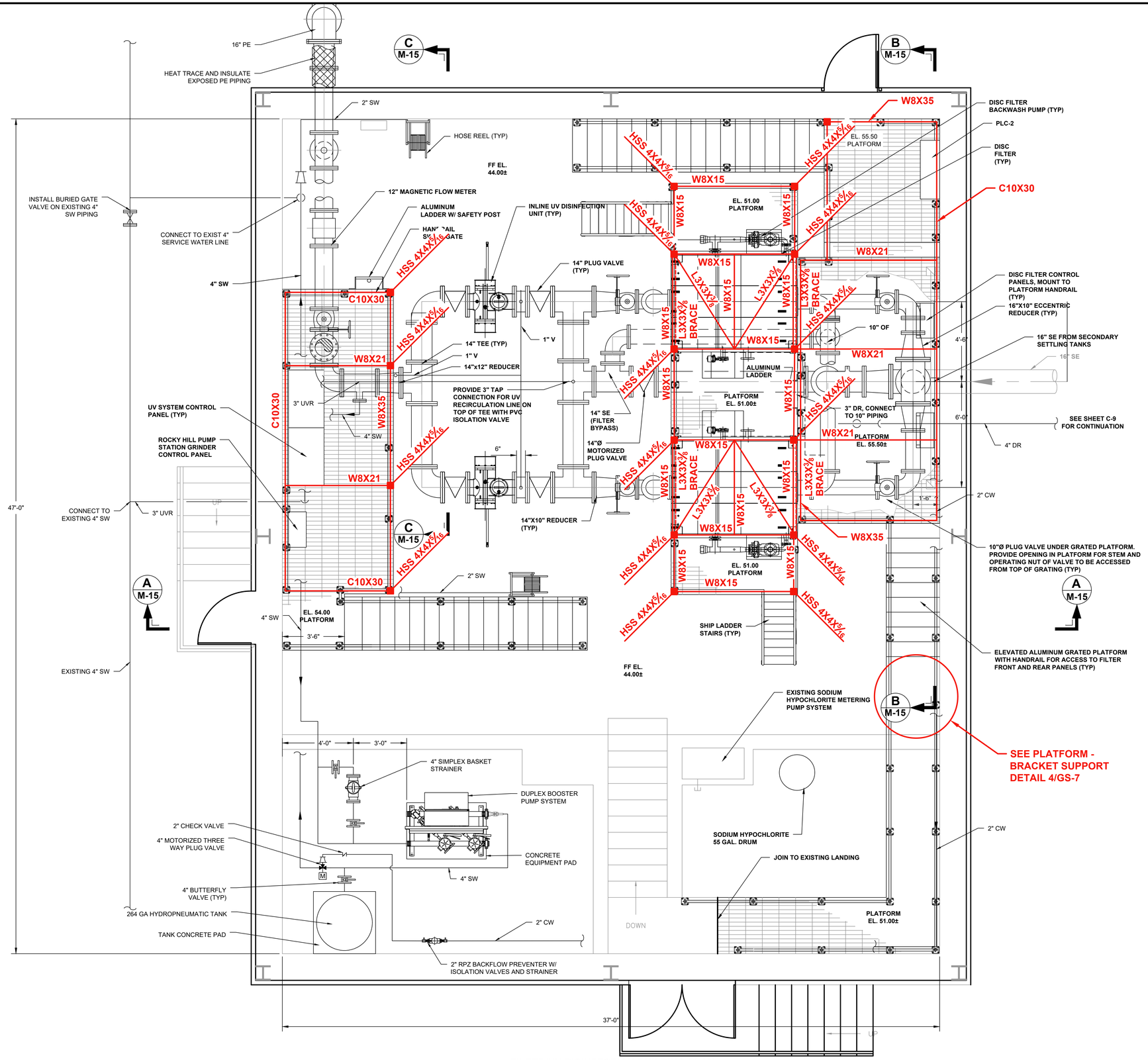
	30% PROGRESS SUBMISSION	08/06/2019
	REVISIONS	

DATE	02/16/2018
PROJECT NO.	64940
DRAWN BY	ELD
CHECKED BY	CSF
FILE NAME	M - PROCESS AERATION TK_Revised.dwg

PROCESS AERATION TANK PLANS

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
M-8



FILTER/UV DISINFECTION BUILDING PLAN

SCALE: 3/8" = 1'-0"

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TIMOTHY D. BRADLEY, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 24100
SIGNATURE
12/10/2021
DATE
KLEINFELDER, INC.
CERT. OF AUTH. 24290/21100

6	ADDENDUM 3	08/29/2022
5	ADDENDUM 1	08/16/2022
4	ISSUED FOR BIDDING	12/10/2021
3	REVISED PER DRCC COMMENTS	02/22/2021
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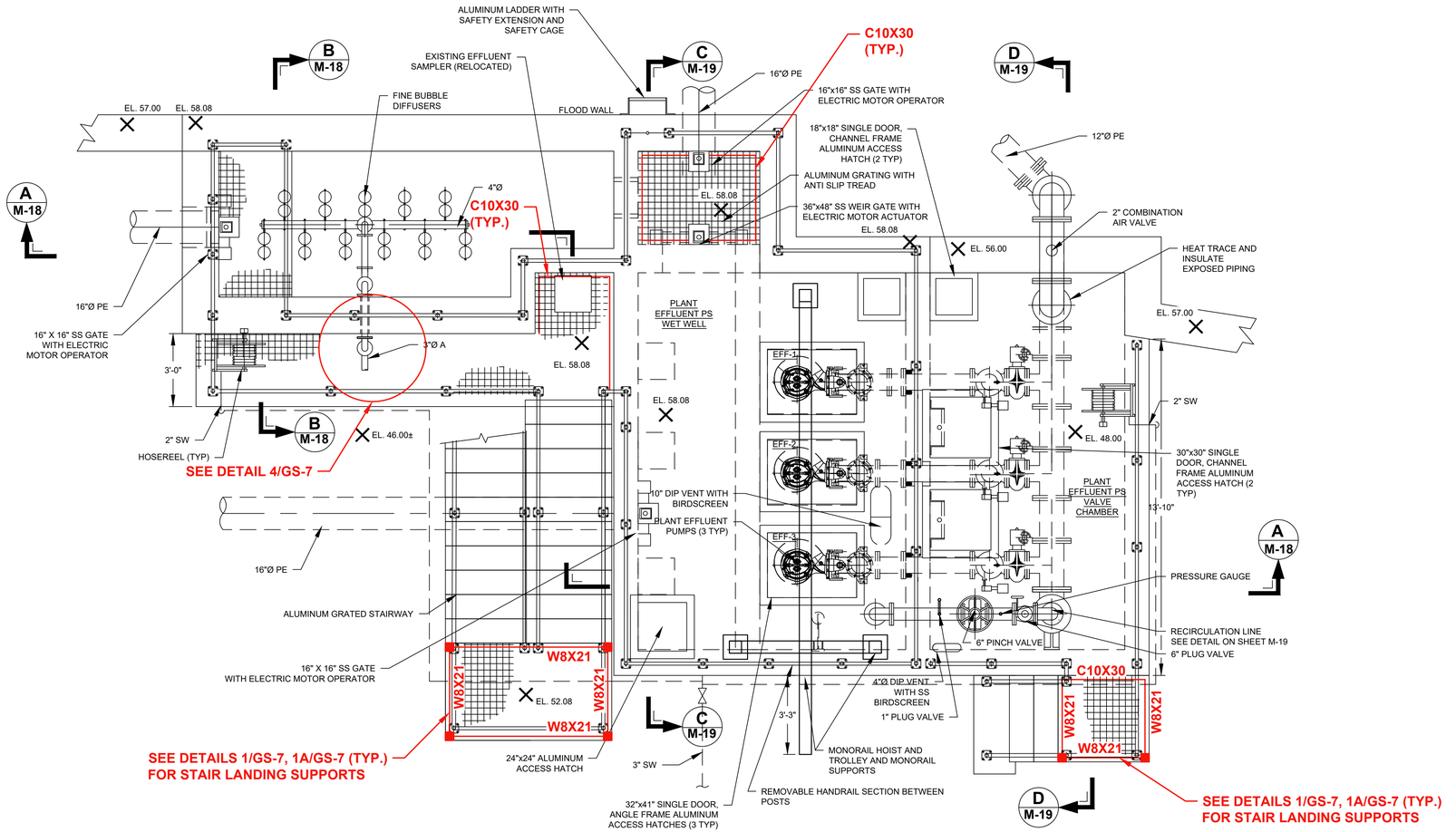
	30% PROGRESS SUBMISSION	08/06/2019
	REVISIONS	

DATE	02/16/2018
PROJECT NO.	6484D
DRAWN BY	ELD
CHECKED BY	CSF
FILE NAME	M - UV Building_Revised.dwg

FILTER/ UV DISINFECTION BUILDING PLAN

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
M-14



EFFLUENT PUMP STATION ABOVE GRADE PLAN

SCALE: ⅜" = 1'-0"

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Princeton, NJ 08540
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ISSUED FOR BIDDING

TIMOTHY D. BRADLEY, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 34169
SIGNATURE
12/10/2021
DATE
KLEINFELDER, INC.
CERT. OF AUTH. #GA0027100

7	ADDENDUM 3	08/29/2022
6	ADDENDUM 1	08/16/2022
5	ISSUED FOR BIDDING	12/10/2021
4	REVISED PER DRCC COMMENTS	02/22/2021
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1	90% PROGRESS SUBMISSION	06/03/2020
	30% PROGRESS SUBMISSION	08/06/2019
	REVISIONS	

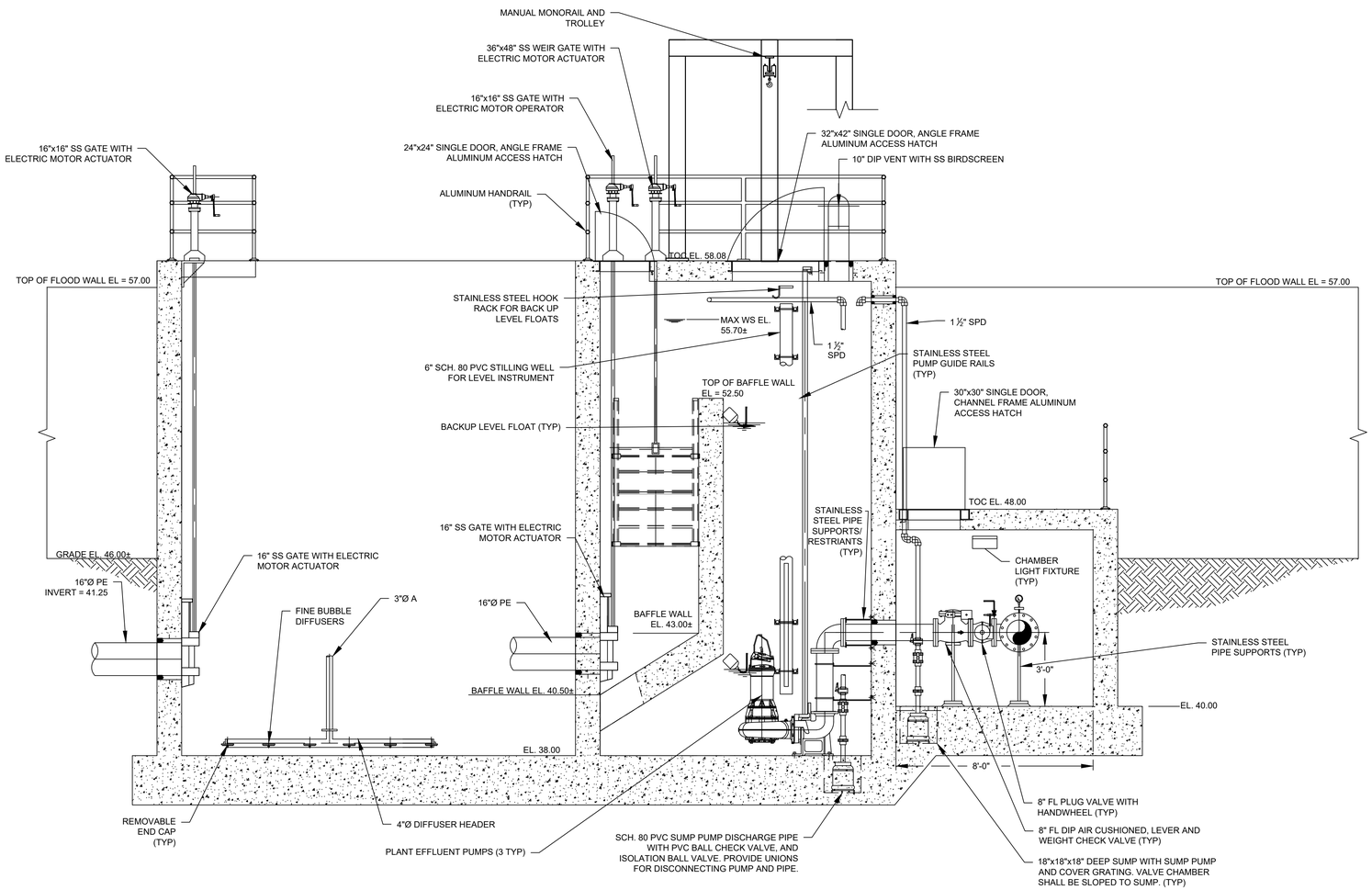
DATE	02/16/2018
PROJECT NO.	64844
DRAWN BY	ELD
CHECKED BY	CSF
FILE NAME	M - Effluent_Storm PS_Revised.dwg

EFFLUENT PUMP STATION ABOVE GRADE PLAN

STAGE II WWTP FLOOD PROTECTION PROJECT

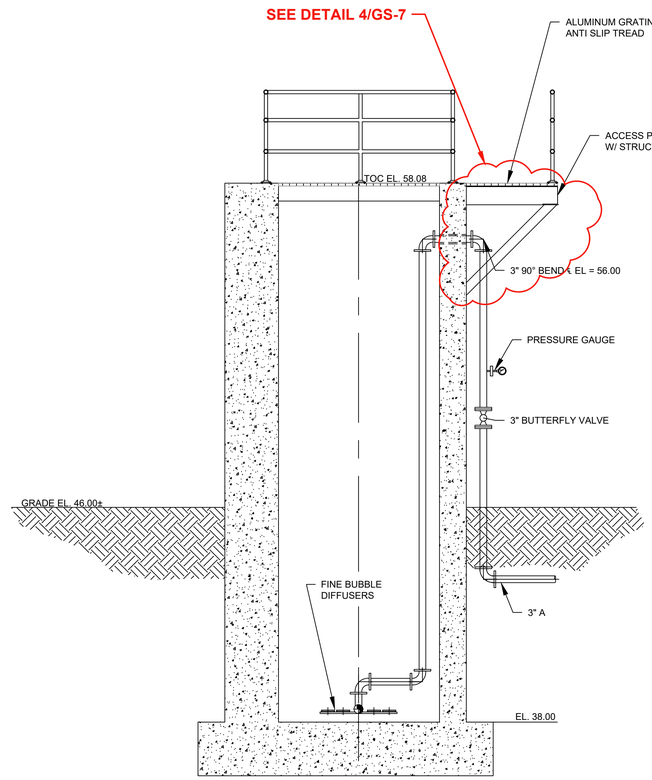
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
M-16



EFFLUENT PUMP STATION SECTION A-A

SCALE: ⅜" = 1'-0"



EFFLUENT PUMP STATION SECTION B-B

SCALE: ⅜" = 1'-0"

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Princeton, NJ 08540
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TIMOTHY D. BRADLEY, P.E.
PROFESSIONAL ENGINEER
N.J. LIC. NO. 54109
SIGNATURE
12/10/2021
DATE
KLEINFELDER, INC.
CERT. OF AUTH: 24GA28270100

6	ADDENDUM 3	08/29/2022
5	ADDENDUM 1	08/16/2022
4	ISSUED FOR BIDDING	12/10/2021
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	90% PROGRESS SUBMISSION	06/03/2020
	30% PROGRESS SUBMISSION	08/06/2019
	REVISIONS	

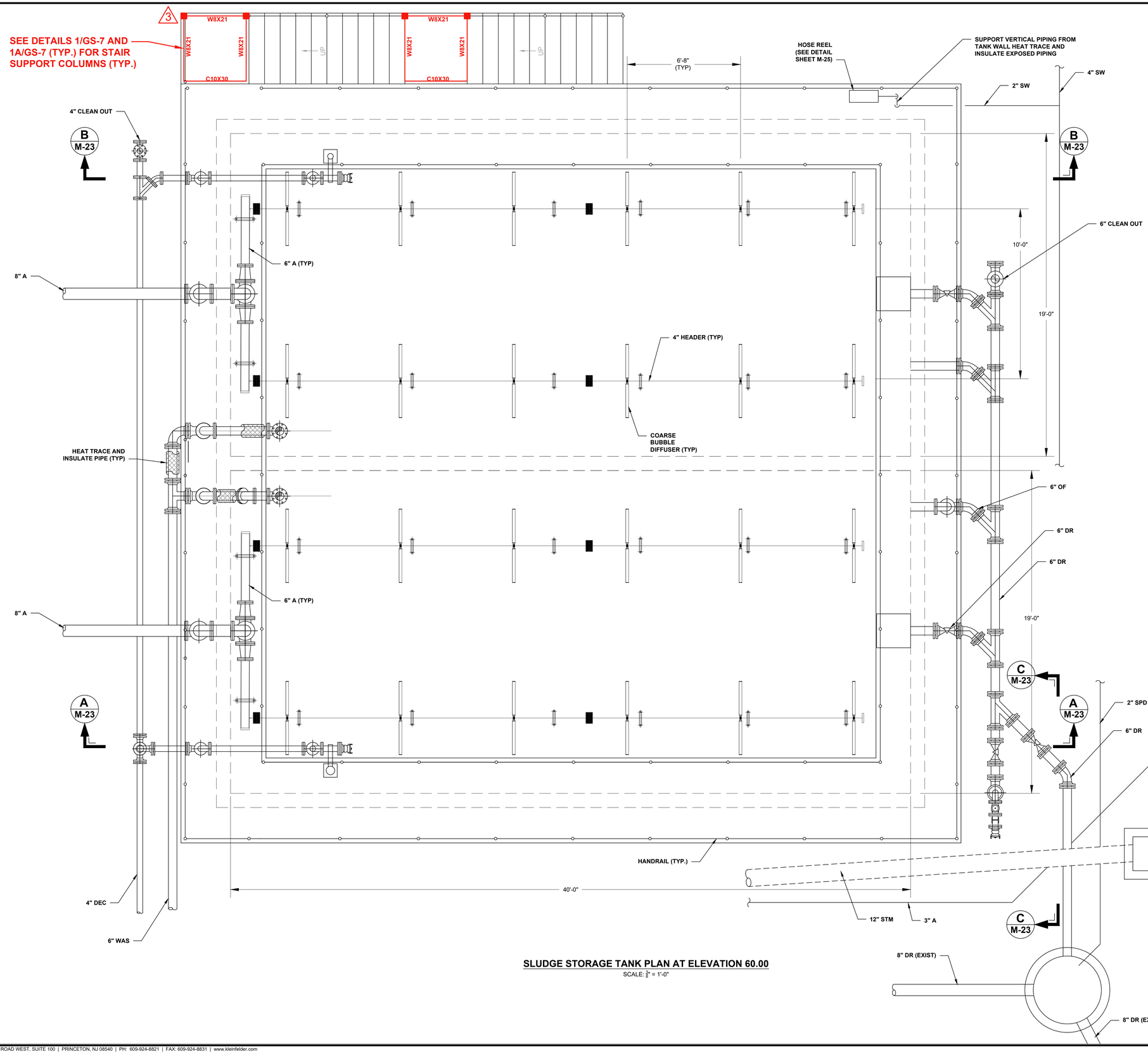
DATE	02/16/2018
PROJECT NO.	64848
DRAWN BY	ELD
CHECKED BY	CSF
FILE NAME	M - Effluent_Storm PS_Revised.dwg

EFFLUENT PUMP STATION SECTION - 1

STAGE II WWTP FLOOD PROTECTION PROJECT

MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
M-18



SLUDGE STORAGE TANK PLAN AT ELEVATION 60.00

SCALE: 3/8" = 1'-0"

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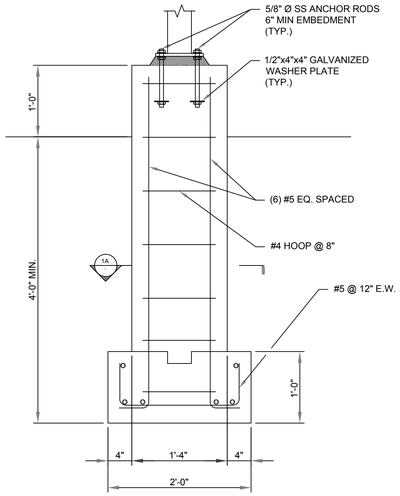
	30% PROGRESS SUBMISSION	08/06/2019
	REVISIONS	

DATE	02/16/2018
PROJECT NO.	6484D
DRAWN BY	CAN
CHECKED BY	CSF
FILE NAME	M - Sludge Storage_Revised.dwg

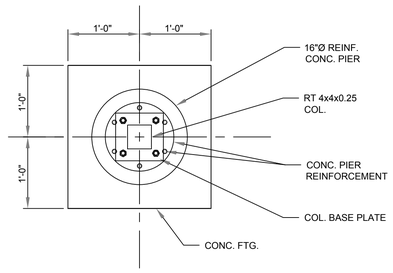
SLUDGE STORAGE TANK PLAN

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

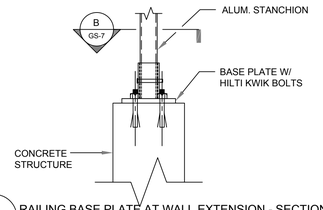
SHEET
M-22



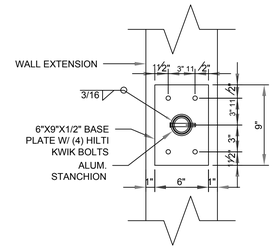
1 / GS-7 TYPICAL NEW PLATFORM FOOTING - SECTION
1" = 1'-0"



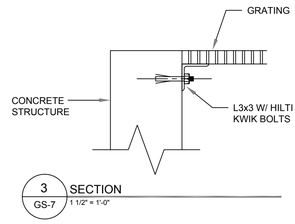
1A / - TYPICAL NEW PLATFORM FOOTING - PLAN
1" = 1'-0"



2 / S-2 RAILING BASE PLATE AT WALL EXTENSION - SECTION
1 1/2" = 1'-0"

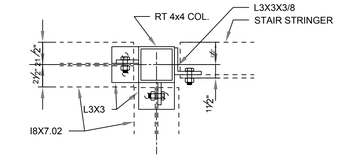


B / - RAILING BASE PLATE AT WALL EXTENSION - PLAN
1 1/2" = 1'-0"

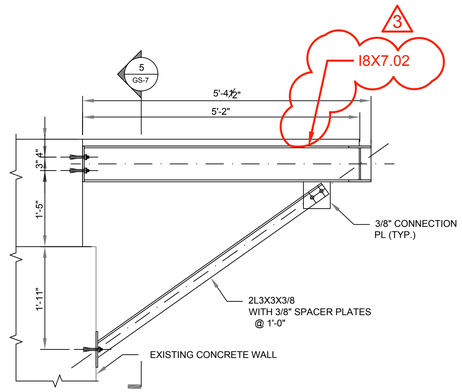


3 / GS-7 SECTION
1 1/2" = 1'-0"

NOTE:
1. APPLY BITUMASTIC COATING TO ALUMINUM SURFACES IN CONTACT WITH CONCRETE.

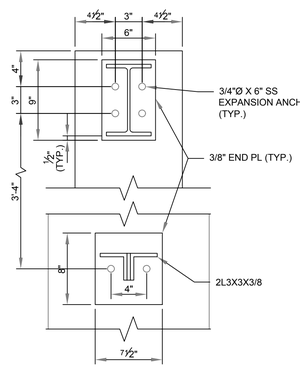


3 / GS-7 FRAMING CONNECTION AT STAIR STRINGER
1 1/2" = 1'-0"

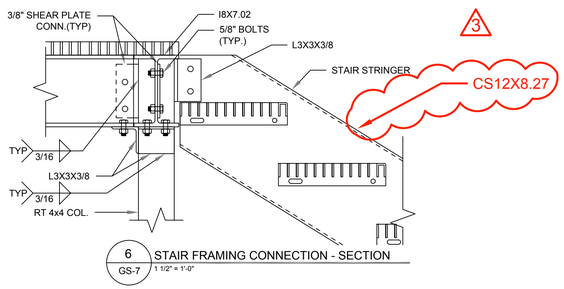


4 / GS-7 PLATFORM - BRACKET SUPPORT
3/4" = 1'-0"

NOTE:
1. APPLY BITUMASTIC COATING TO ALUMINUM SURFACES IN CONTACT WITH CONCRETE.



5 / GS-7 PLATFORM - BRACKET SUPPORT - SECTION
3/4" = 1'-0"



6 / GS-7 STAIR FRAMING CONNECTION - SECTION
1 1/2" = 1'-0"

NOTES:

1. FOR GENERAL NOTES - SEE GS-1 & GS-2.
2. ALL ANCHORS - HILTI KWIK BOLT 3 - STAINLESS STEEL, 1/2" Ø W/ 4" EMBED. (U.N.O.).
3. ALL WELD 3/16 FILLET WELDS (U.N.O.).
4. ALL BOLTS - 5/8"Ø 304 STAINLESS STEEL (U.N.O.).
5. ALL GRATING IS: 1-1/2x3/16 15 SPACE GRATING.
6. ALL ALUMINUM STAIR TREADS ARE: 2" DEEP, 2x3/16,10 BARS AT 1-3/16 WITH NON-SLIP NOSING.

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N.J. LIC. NO. 34109
SIGNATURE
12/10/2021
DATE
KLEINFELDER, INC
CERT. OF AUTH. #24GA28270100

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6	08/16/2022	ADDENDUM 1
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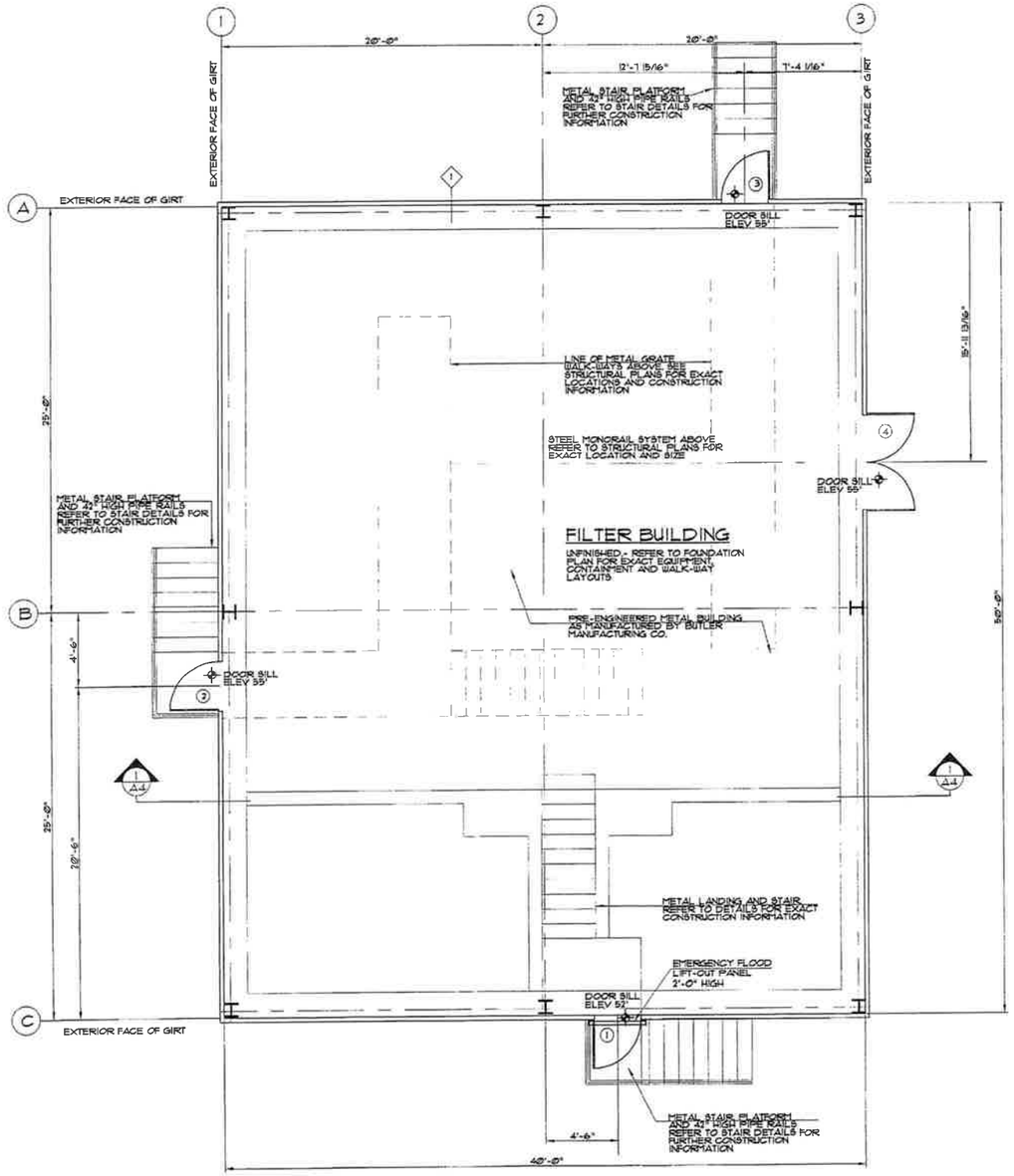
	08/06/2019	30% PROGRESS SUBMISSION
		REVISIONS

DATE	02/16/2018
PROJECT NO.	64840
DRAWN BY	
CHECKED BY	
FILE NAME	S - Stage II WWTP Flood Protection Design_Structural_Revised.dwg

TYPICAL DETAILS

STAGE II WWTP FLOOD PROTECTION PROJECT
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

SHEET
GS-7



FLOOR PLAN
1/4"=1'-0"

DOOR & FRAME SCHEDULE

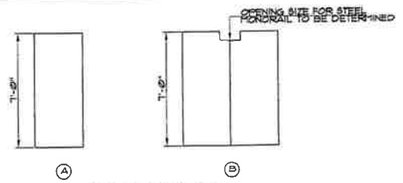
DOOR No	DOORS SIZE	TYPE	MATL	FN	LABEL	GLASS	LOUVER	HRDWRE	REMARKS	FRAMES TYPE	MATL	HEAD	JAMB	SILL	LABEL	REMARKS
1	3'-0" X 7'-0" X 1 3/4"A	HM	PAINT	-			-	1	1 3							
2	3'-0" X 7'-0" X 1 3/4"A	HM	PAINT	-			-	1	1 3							
3	3'-0" X 7'-0" X 1 3/4"A	HM	PAINT	-			-	1	1 3							
4	(2) 3'-0" X 7'-0" X 1 3/4"	HM	PAINT	-				2	1 2 3							

HARDWARE SETS
HARDWARE SETS SHALL PER THE FOLLOWING MANUFACTURERS

LOCKSETS:	BEST LOCK
MORTISE HINGES:	HAGER
CLOSERS:	NORTON
FLUSH BOLTS:	HAGER
DOOR SWEEP	ZERO INTERNATIONAL

1 HINGES: AB1100 3.5" X 3.5" (3 PER/DR)
LOCKSET: 93K-7-A25-15D-STK (626)
CLOSER 8301BF-P
DOOR SWEEP 2A

2 HINGES: AB1100 3.5" X 3.5" (3 PER/DR)
FLUSH BOLT 282D
LOCKSET: 93K-7-N-15D-STK (626)
CLOSER 8301BF-P



DOOR TYPES

DOOR REMARKS:
1. PROVIDE EXTERIOR WEATHER STRIPPING
2. OPENING FOR STEEL MONORAIL TO BE DETERMINED SEE STRUCTURAL PLANS FOR FURTHER INFO.
3. ALL EXTERIOR DOORS TO BE SUPPLIED BY BUTLER MANUFACTURING CO.

RECORD DRAWING

A-3

AJA0566\ARCHITECT\F-A3.DWG

REVISION NO.	DATE	REVISION

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RAMESH BHATIA
PROFESSIONAL ENGINEER, N.J. LIC. No. 28511

Kwiecinski & Zero ARCHITECTS collaboration upon planning

SCHOOR DEPALMA
Engineers and Design Professionals
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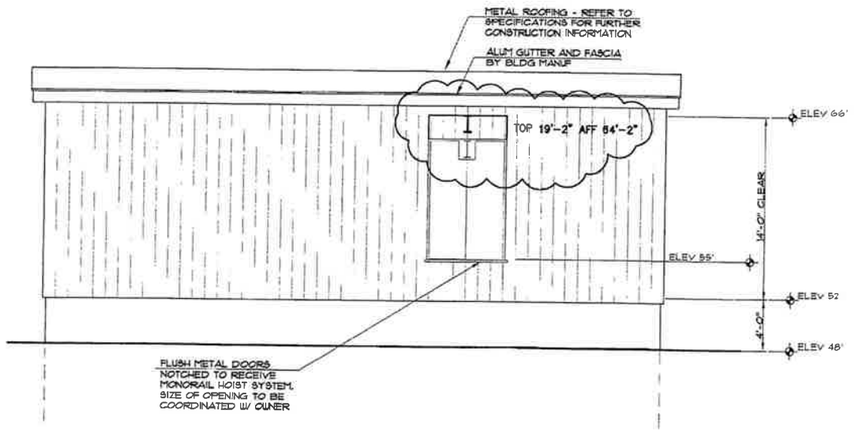
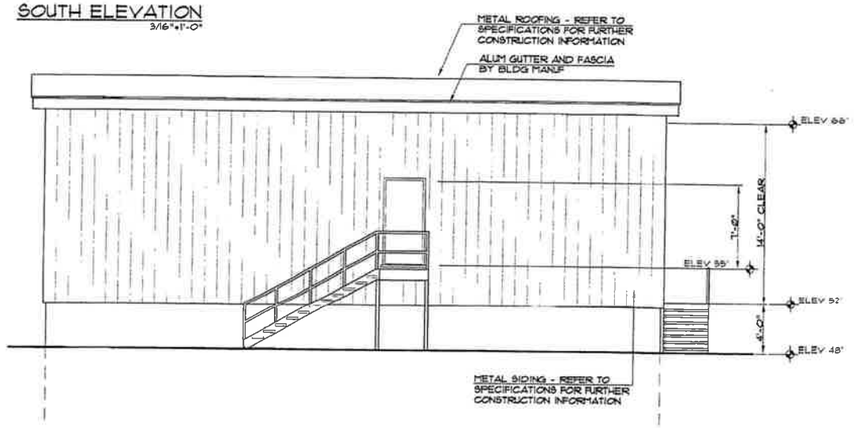
FAX. (732)577-9888

STAGE II TREATMENT PLANT EXPANSION
FILTER BUILDING
ARCHITECTURAL FLOOR PLAN
MONTGOMERY TOWNSHIP SOMERSET COUNTY NEW JERSEY

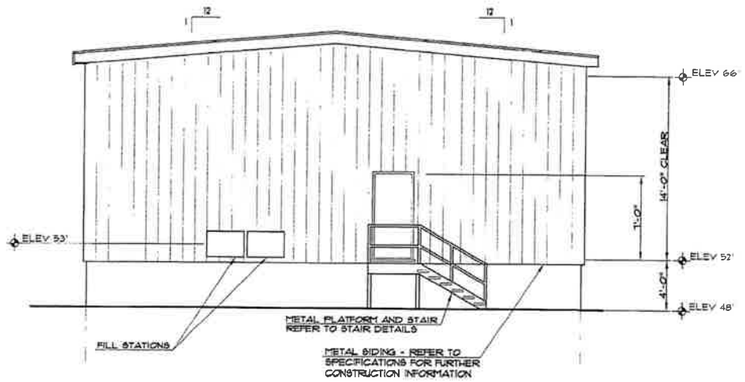
PROJECT NO.	DATE
AJA0566	6/18/99
DRAWN BY	DESIGNED BY
T.N.J.	S.W.M.
SCALE	FIELD BOOK
AS SHOWN	
SCHOOR DEPALMA	
SHEET NO.	
67 of 94	



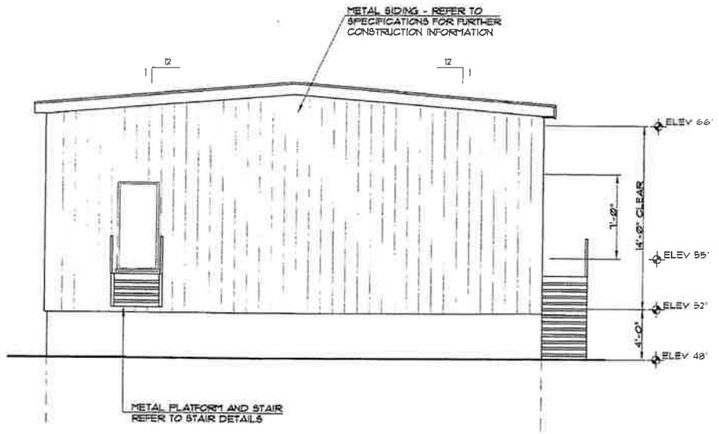
SOUTH ELEVATION
3/16"=1'-0"



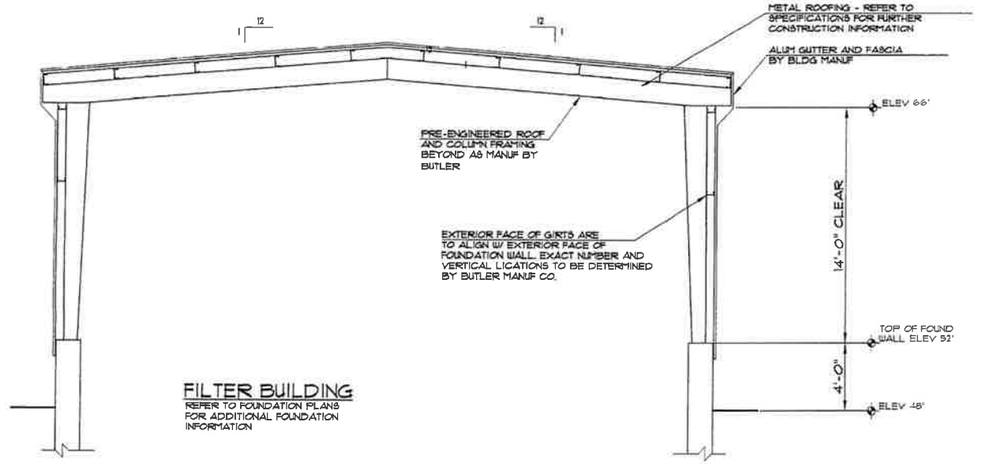
NORTH ELEVATION
3/16"=1'-0"



WEST ELEVATION
3/16"=1'-0"



EAST ELEVATION
3/16"=1'-0"



FILTER BUILDING
REFER TO FOUNDATION PLANS FOR ADDITIONAL FOUNDATION INFORMATION

SECTION - 1
1/4"=1'-0"

RECORD DRAWING

A-4

REVIS ION NO	DATE	REVISION

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TERRY O. BLACKBURN
PROFESSIONAL ENGINEER, N.J. LIC No 19593

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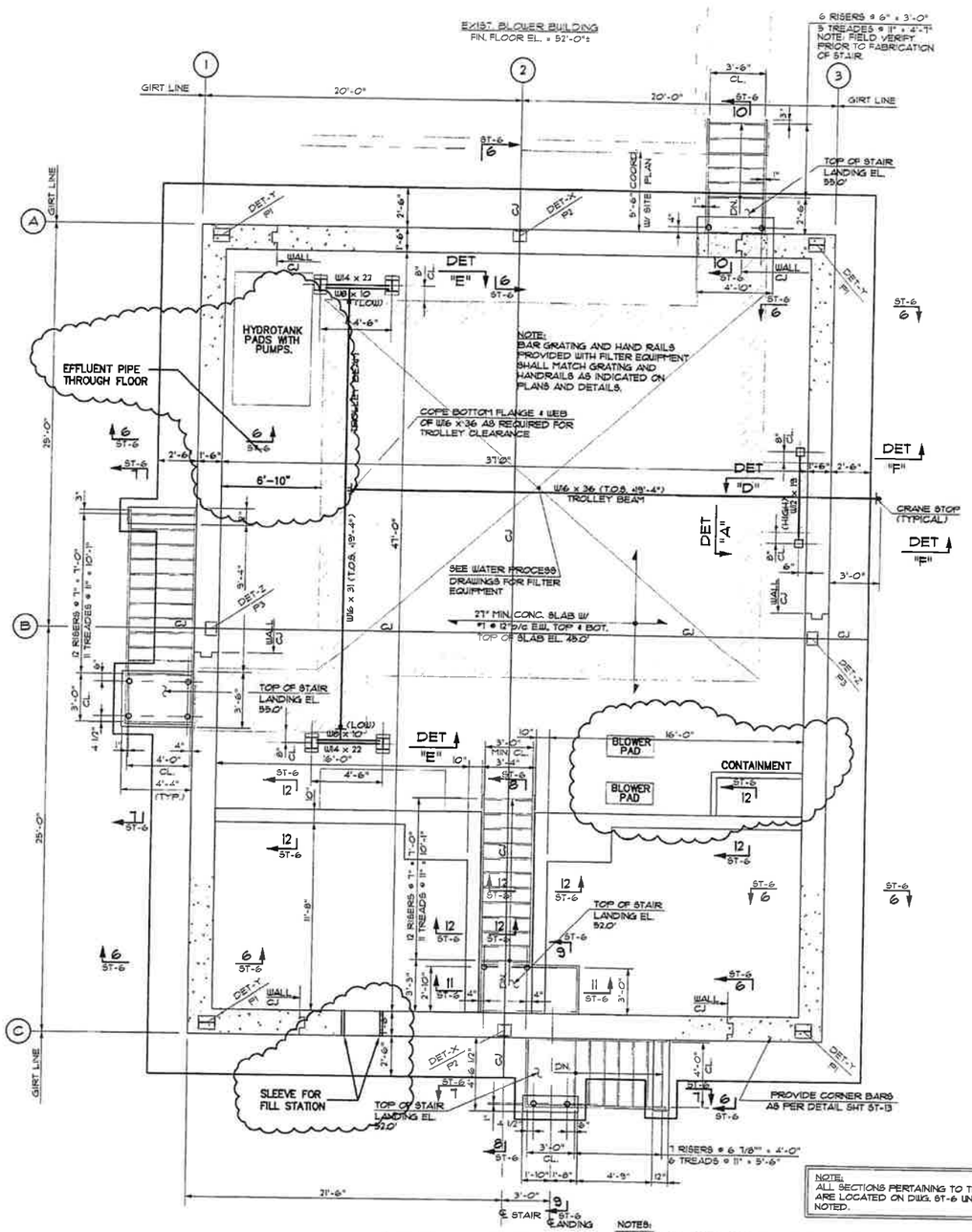
STAGE II TREATMENT PLANT EXPANSION
FILTER BUILDING
EXTERIOR ELEVATIONS
MONTGOMERY TOWNSHIP SOMERSET COUNTY NEW JERSEY

PROJECT NO	DATE
AJA0566	6/18/99
DRAWN BY	DESIGNED BY
T.N.J.	S.W.M.
SCALE	FIELD BOOK
AS SHOWN	
SCHOOR DEPALMA	
SHEET NO	68 of 94

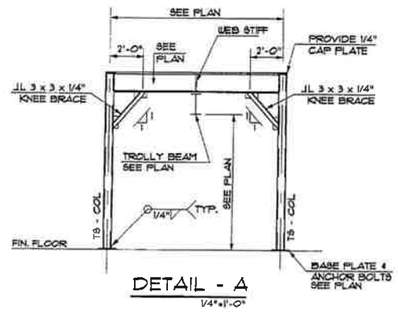
AJA0566\ARCHITECT\A-A4.DWG



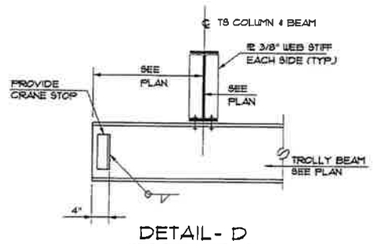
FOUNDATION PLAN
1/4"=1'-0"

NOTE:
ALL SECTIONS PERTAINING TO THIS BUILDING ARE LOCATED ON DWG. ST-6 UNLESS OTHERWISE NOTED.

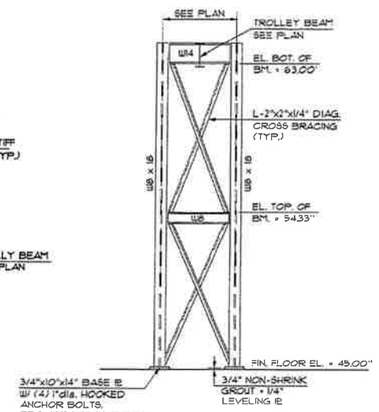
NOTES:
F1 - INDICATES 18"x21" CONC. PIER W/ (6) #6 VERT. BARS & #3 TIES, 2 @ 3"o/c T.& B., BAL. @ 12"o/c.
F2 - INDICATES 18"x18" CONC. PIER W/ (4) #7 VERT. BARS & #3 TIES, 2 @ 3"o/c T.& B., BAL. @ 12"o/c.
F3 - INDICATES 18"x20" CONC. PIER W/ (6) #7 VERT. BARS & #3 TIES, 2 @ 3"o/c T.& B., BAL. @ 12"o/c.
CJ - INDICATES SLAB CONSTRUCTION OR CONTROL JOINT.
WALL CJ - INDICATES WALL CONSTRUCTION OR CONTROL JOINT.



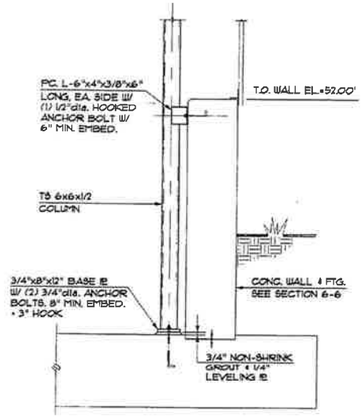
DETAIL - A
1/4"=1'-0"



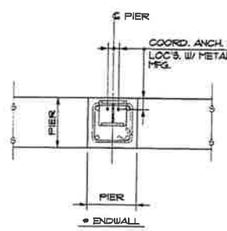
DETAIL - D
3/4"=1'-0"



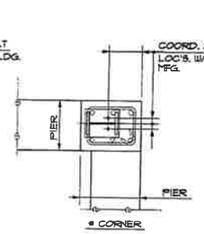
DETAIL - E



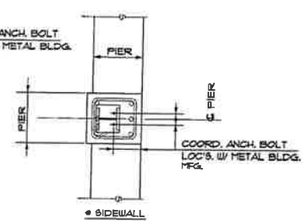
DETAIL - F
3/8"=1'-0"



DETAIL - " X "
N.T.S.



DETAIL - " Y "
N.T.S.



DETAIL - " Z "
N.T.S.

RECORD DRAWING

ST-5

AJA0566/STRUCTDWG/F-ST-5.DWG

REVISION NO.	DATE	REVISION

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0 AS SHOWN
GRAPHIC SCALE IN FEET

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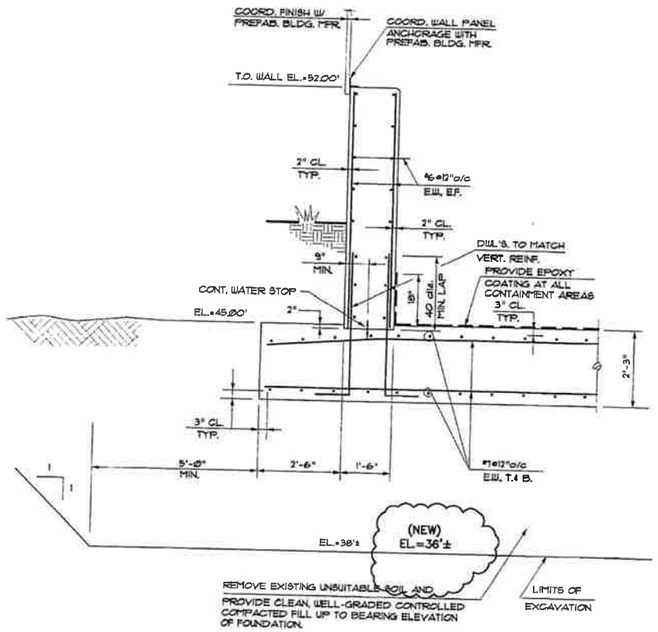
STAGE II TREATMENT PLANT EXPANSION
FILTER BUILDING
STRUCTURAL PLANS AND DETAILS
MONTGOMERY TOWNSHIP SOMERSET COUNTY NEW JERSEY

PROJECT NO.	DATE
AJA0566	6/18/99
DRAWN BY	DESIGNED BY
T.N.J.	S.W.M.
SCALE	FIELD BOOK
AS SHOWN	

SCHOOR DEPALMA
SHEET NO. 57 of 94

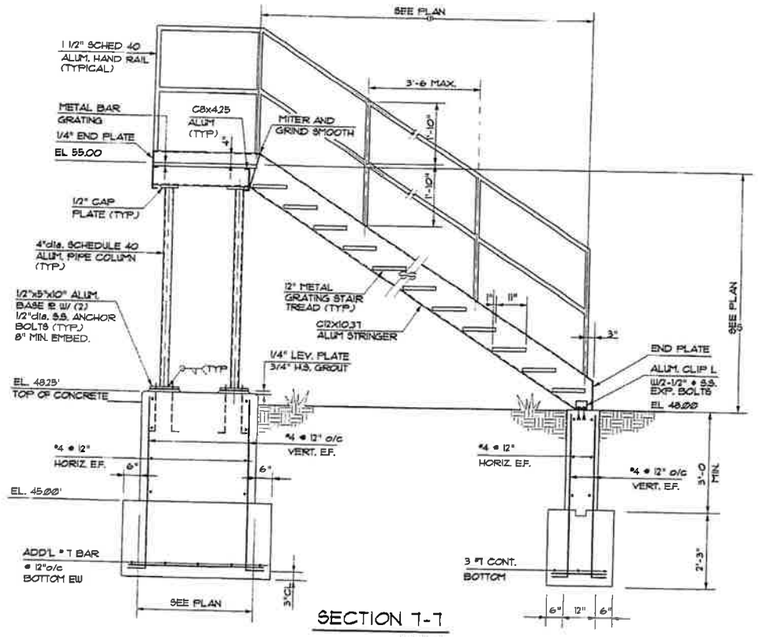


SECTION 6-6

3/8"=1'-0"

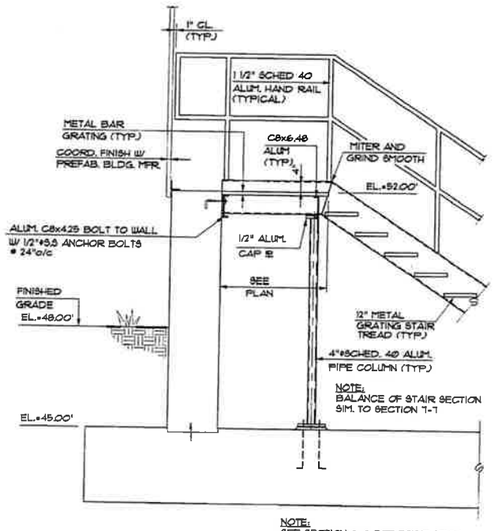
NOTE:

ACTUAL DEPTH OF UNSUITABLE SOILS MAY VARY AND MUST BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION BY A QUALIFIED SOILS ENGINEER.



SECTION 7-7

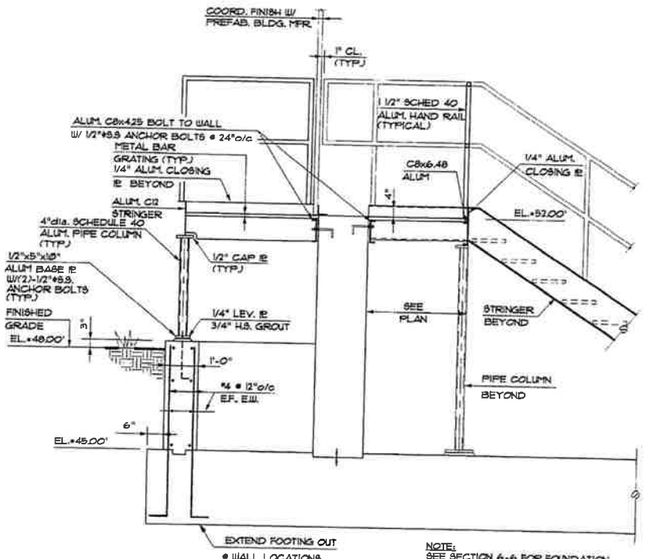
1/2"=1'-0"



NOTE:
SEE SECTION 6-6 FOR FOUNDATION AND WALL INFORMATION NOT SHOWN.

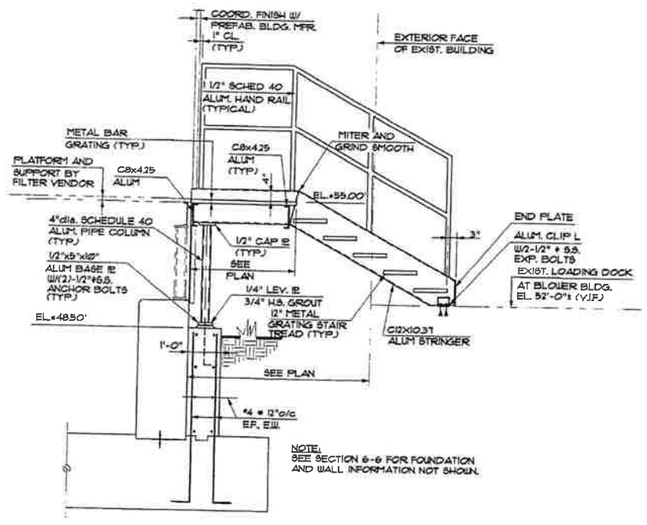
SECTION 8-8

3/8"=1'-0"



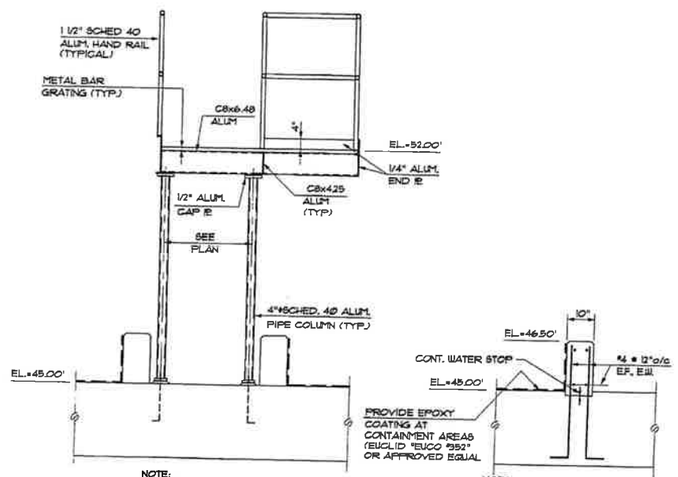
SECTION 9-9

3/8"=1'-0"



SECTION 10-10

3/8"=1'-0"



SECTION 11-11

3/8"=1'-0"

SECTION 12-12

3/8"=1'-0"

RECORD DRAWING ST-6

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STAGE II TREATMENT PLANT EXPANSION
FILTER BUILDING
STRUCTURAL SECTIONS

MONTGOMERY TOWNSHIP SOMERSET COUNTY NEW JERSEY

PROJECT NO	AJA0566
DATE	6/18/99
DRAWN BY	T.N.J.
DESIGNED BY	S.W.M.
SCALE	AS SHOWN
FIELD BOOK	
	SCHOOR DEPALMA
SHEET NO	58 of 94

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