



Formerly P.C. Simonton & Associates, Inc.

Addendum No. Three



Date: August 5, 2020
Project: Floquip Drainage Project, MES No. 2020-14
Engineer: M.E. Sack Engineering
Hinesville, Georgia

The original plans, specifications, and bid documents are amended to include the following:

Bid Document:

- Replace the previous pages listed below with the enclosed of the same. Note the bid opening date has changed from August 11, 2020 to August 18, 2020, and all language referencing bonding has been removed and is no longer required.
 - Table of Contents
 - Advertisement for Bid
 - Instructions to Bidders, I-1 thru I-3
 - Proposal, P-3 thru P-4

Bid Items:

- Replace the previous Bid Items, P-2, with the enclosed Bid Items. Note the Estimated Quantity for the 10" Recycled Concrete Drive (Graded Base) and Haul Off (to include berm removal) was changed; Structure Relocation was changed to Structure Removal/Replacement, and a line item was added for a 6" Insta-Valve, Chain Link Fence, and Orange Fencing.

Specifications:

- Replace the previous Section 01150 Measurement and Payment with the enclosed Section 01150. Note a section for the 6" Insta-Valve, Chain Link Fence, Orange Fence, Erosion Control, and Structure Removal/Replacement was added, and that Detention/Siltation Facilities, Silt Fence, Rip Rap, and Demolition were removed.
- Add the enclosed Section 02711 Chain Link Fence to the Specifications.

Plan Set:

- Replace sheets C101 and C200-C202 of the original plans. Note berm removal was included on sheet C101 for installation of 10" water line.
 - Chain Link fence and gate was added to sheets C200-202 at the end of asphalt drive.
 - Orange Safety Fence was delineated around perimeter of construction site.
 - NAVD88 was removed from Sheet C101 for clarity.

-END-

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ADVERTISEMENT FOR BIDS

Sealed proposals will be received by M.E. Sack Engineering located at 515 N. Main Street, Hinesville, Georgia 31313 on August 18, 2020 until 11:00 a.m. local time for the Floquip Drainage Project.

The work to be performed consists of furnishing all labor and materials to complete the Floquip Drainage Project. More specifically, the project will consist of the removal and replacement of existing drainage pipe and structures, and the installation of proposed drainage structures, water line, and pond excavation.

Plans, Specifications, and Contract documents are open to public inspection at SNF, 4614 S. Coastal Highway, Riceboro, GA 31323, Dodge Data and Analytics, ConstructConnect, The Blue Book Building and Construction Network, and M.E. Sack Engineering, Hinesville, Georgia. Copies of the Plans, Specifications, and Contract Documents may be obtained by contacting M.E. Sack Engineering, 515 North Main Street, P.O. Box 649, Hinesville, Georgia 31310, (912) 368-5212, and by depositing a non-refundable one hundred dollars (\$100) for each set of plans requested.

A mandatory pre-bid meeting will be held on August 5, 2020 at 11:00 a.m. at 515 North Main Street, Hinesville, Georgia 31313.

Each Contractor must prequalify for bid by submitting a completed "Statement of Bidder Qualifications" form supplied by the Engineer. Bids will be accepted from prequalified bidders only.

No bids may be withdrawn for a period of sixty (60) days after the closing time schedule for receipt of bids.

The Owner reserves the right to accept or reject any or all bids and to waive informalities. Award of the contract, if it is awarded, will be to the lowest responsible bidder.

NOTE: Plans and Specifications must be obtained no later than five (5) working days before the bid date. No exceptions.

INSTRUCTIONS TO BIDDER

1. SUBMISSION OF PROPOSALS:

- A. Sealed proposals will be received by M.E. Sack Engineering at 515 N. Main St., Hinesville, GA 31313 until 11:00 a.m. local time, on August 18, 2020 for all labor and materials required to fully complete the work identified in the plans and specifications for Floquip Drainage Project.
- B. At the time and place noted above, the proposals will be publicly opened and read aloud.
- C. The proposal (including Statement of Bidder's Qualifications) shall be submitted **in duplicate** on an exact copy of the proposal form bound herein. Both copies of the Proposal Form must be signed. All blank spaces on the forms shall be filled in and all information called for shall be provided. The terms "NO BID" may be used to fill in a blank space on the Proposal Form. All signatures shall be in ink and in longhand, and the completed forms shall be without alterations or corrections; any interlineations must be initialed by the Bidder.
- D. Failure to submit a proposal in the form requested or the inclusion of any alternates, conditions, limitations, or provisions not called for, will render the bid irregular, and shall be considered sufficient cause for rejection of the bid.
- E. Proposal shall be in opaque, sealed envelope and marked "Floquip Drainage Project" and shall bear the name of the Bidder. Proposal is to reach the above address no later than the hour and date named above, or authorized extension thereof. No proposal will be received after that time.
- F. Proposals may be withdrawn by Bidders prior to the time set for official opening. After time has been called, no proposal may be withdrawn for a period of sixty (60) days after the time and date of the opening.

2. INTERPRETATIONS:

- A. Neither Owner nor Engineer will be responsible for any oral instructions or interpretations of the Drawings and Specifications.
- B. Requests for interpretations of Drawings and Specifications must be made in writing to the Engineer no later than seven (7) days prior to date set for receipt of bids, and failure on the part of the successful bidder to do so shall not relieve him as Contractor of the obligation to execute such work in accordance with a later interpretation by the Engineer.
- C. All interpretations made to bidders will be issued in the form of an addendum to the Plans and Specifications will be sent to all bidders. The requirements of such

an addendum are to be included in the bids, and in closing the contract, the addenda will become a part thereof.

3. BASIS OF CONTRACT AWARD:

- A. The competency and responsibility of a bidder will be considered in making the award. Owner does not obligate himself to accept the lowest bid or any other bid.
- B. The Owner reserves the right to reject any or all proposals and to waive any technicalities.

4. INSPECTING AND TESTING OF MATERIALS:

- A. Whenever, in these Contract Documents, inspecting, testing, or certification of material(s) is called for, the selection of bureau, laboratories and/or agencies for such inspecting and testing shall be made by an Independent Testing Laboratory and the character of the test shall be stipulated by the Engineer. Documentary evidence satisfactory to the Engineer that the materials have passed the required inspection and test must be furnished in quadruplicate to the Engineer by the bureau, agency, or laboratory selected. Materials satisfactorily meeting the requirements of the inspection or tests shall be approved by the Engineer and the Contractor notified of the results. The cost of such inspecting and testing shall be paid for by the Contractor.

6. CONSTRUCTION SCHEDULE:

- A. The Contractor will be required to submit a construction schedule in writing identifying milestones and completion dates at the preconstruction conference. He shall also be required to submit a resume' of the proposed job superintendent for approval by the Engineer.

7. INSURANCE:

- A. The Contractor's attention is directed to Article 11 of the Supplemental General Conditions, "Insurance." He should review these requirements and be prepared to submit insurance certificates providing the coverage identified. On the insurance certificates, the "Certificate Holder" should be listed as **both** the Owner and M.E. Sack Engineering.

8. CONSTRUCTION STAKING:

- A. The Owner will provide horizontal and vertical control. The Contractor will be responsible for construction staking.

9. UTILITY CONTRACTOR LICENSING LAW:

- A. Effective December 31, 1993, a new law took effect which has an indirect effect on engineers. As of that date all utility contractors must be licensed; a utility contractor is anyone who digs 5 feet or deeper on a public or private project and where the cost of work exceeds \$100,000.
- B. Effective July 1, 2004 the law was modified where the cost of work has no dollar amount therefore anyone who digs 5 feet or deeper on a public or private project must have a utility license.
- C. “It shall be unlawful for any person to contract with any other person for the performance of utility contracting work who is known by such person to not have a current, valid license as a utility contractor pursuant to this chapter.” (O.C.G.A. 43-14-8.2(h)) Bids or proposals for utility contracting work will NOT be opened or considered unless the Utility Contractor License number is written on the face of the bid or proposal.

The Bidder further proposes and agrees hereby to commence work under his Contract, with adequate force and equipment, on a date to be specified in written order of the ENGINEER and shall fully complete all work hereunder within one hundred (100) consecutive days from and including said date.

The Bidder declares that he understands that the quantities shown for unit price items, are approximate only, are valid only upon written authorization of the ENGINEER, and are subject to either increase or decrease and that should the quantities of any items of work be increased, the Bidder proposes to do the additional at the unit prices stated herein; and should the quantities be decreased, the Bidder also understands that payment will be made on the basis of actual quantities at the unit price bid and will make no claim for anticipated profits for any decrease in quantities, and that actual quantities will be determined upon completion of the work, at which time adjustment will be made to the Contract amount by direct increase or decrease.

Submitted:

By:

Title:

Bidders Address: _____

City, State, Zip Code: _____

Telephone Number: _____

FAILURE TO COMPLETE THIS SECTION IS GROUNDS FOR REJECTION

BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDUM:

No. _____ Date _____ No. _____ Date _____

No. _____ Date _____ No. _____ Date _____

EXPERIENCE AND REFERENCES

The Bidder shall state what work he had done (minimum of three) of similar nature to that bid for, and give references that will afford the Owner opportunity to judge as to experience, skill, business standing and financial ability. Failure to complete this section is grounds for rejection.

**AD6 Drainage Project
for
FLOQUIP**

Bid Items

Item No.	Estimated Quantity	Units	Description	Unit Price	Total Price
1	82	SY	Asphalt/ Base Removal		
2	442	SY	8" Graded Aggregate Base		
3	442	SY	2" 9.5mm Superpave Asphalt		
4	5,550	SY	10" Recycled Concrete Drive (Graded Base)		
5	10	EA	Flared End Section		
6	7	EA	4'x4' Grate Inlet		
7	3	EA	4'x4' Junction Box		
8	4	EA	8.5'x4' Grate Inlet		
9	3	EA	8.5'x4' Junction Box		
10	1	EA	Outlet Control Structure		
11	138	LF	18" Reinforced Concrete Pipe		
12	750	LF	24" Reinforced Concrete Pipe		
13	2090	LF	30" Reinforced Concrete Pipe		
14	868	LF	36" Reinforced Concrete Pipe		
15	1	LS	Final Grading		
16	7,398	CY	Cut/Fill		
17	16,126	CY	Haul Off		
18	1	EA	Connect To Existing Waterline		
19	720	LF	8" PVC Watermain		
20	151	LF	10" PVC Watermain		
21	1	EA	Water Vault		
22	1	EA	6" RPZ		
23	1	EA	8" RPZ		
24	1	EA	10" Meter		
25	3	EA	6" Gate Valve		
26	3	EA	8" Gate Valve		
27	1	EA	10" Gate Valve		
28	1	EA	6" Insta-Valve		
29	1	TN	Ductile Iron Fittings		
30	40	LF	Chain Link Fence		
31	2,910	LF	Orange Fence		
32	1	LS	Erosion Control		
33	1	LS	Grassing		
34	1	LS	Structure Removal/Replacement		
35	1	LS	Clearing & Grubbing		
36	1	LS	Electrical Complete		
37	1	LS	Mobilization (5% Max)		
				Total Bid	
				Alternate Bid	
1	7,398	CY	Select Fill*		
2	23,524	CY	Haul Off*		
				Total Bid	

*If chosen, the Alternate will affect base bid

SECTION 01150
MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 QUANTITIES

- A. Quantities: Quantities listed in the Proposal are approximate only and are intended to serve as a guide in comparing bids and may be increased or decreased without invalidating the unit price bid.
- B. Payment: Contractor shall be paid for actual in place quantities as determined by the Engineer field measurements.
- C. Discrepancies: In case of discrepancies between the figures shown in the unit prices and totals, the unit prices shall apply, and the totals shall be corrected to agree with the unit price.

PART 2 - MEASUREMENT AND PAYMENT

2.01 PAVEMENT REMOVAL AND REPLACEMENT

- A. Measurement: Measurement shall be made on the basis of each square yard of pavement restored in accordance with the Contract Documents based on the centerline length of the pipe and the width of the pavement restored or the width of the trench specified plus two feet, whichever is less.
- B. Payment: Payment will be made on the basis of the unit price stated in the bid. the work shall include, but is not limited to:
 - 1. Marking, cutting, and removal of pavement material as necessary.
 - 2. Trench maintenance and crusher run stone as required to maintain level traffic surface during construction period and compaction of trench.
 - 3. Finish and install asphalt patch in accordance with City of Riceboro Standard Specifications if on city street or in accordance with plans.
 - 4. Complete surface restoration and cleanup.

2.02 GRANITE ROADWAY BASE

- A. Measurement: Measurement shall be made on the basis of the number of square yards of graded aggregate base applied to the parking lot and roadway at the specified thickness as shown on the construction plans. Irregular areas such as turnouts, filler strips and intersections will be measured to the closest square yard. Prior to installation of the asphalt all areas will be checked for proper thickness.
- B. Payment: Payment will be made on the basis of the number of square yards of granite crusher run (graded aggregated) base at the specified thickness applied to the roadway at the unit price stated in the bid. The price shall include all labor, equipment and material to complete the task. Work shall include, but not be limited to, the furnishing, hauling, placing and compaction of the crusher run base in order

to bring the base to the lines, grades, and cross sections shown on the construction plans or established by the Engineer.

2.03 ASPHALT PAVING

- A. Measurement: Measurement will be made on the basis of each square yard of asphalt in place, in accordance with the construction plans and accepted by the Engineer. Actual weight will be determined by weighing on a certified motor truck scale and presenting a notarized copy of the recorded weight to the Engineer.
- B. Payment: Payment will be made on the basis of the number of square yards of asphalt in place in accordance with the unit price bid as stated in the contract. Work shall include, but is not limited to, the furnishing, hauling, placing and compaction of the asphalt in order to bring the pavement to the lines, grades and cross sections as designated on the construction plans and as determined by the Engineer. The unit price bid shall also include surface cleaning, prime, tack and pavement and handicap striping. All striping will be in accordance with MUTCD and local specifications.

2.04 RECYCLED CONCRETE DRIVE

- A. Measurement: Measurement shall be made on the basis of the number of square yards of recycled concrete applied to the roadway at the specified thickness as shown on the construction plans. Irregular areas such as turnouts, filler strips and intersections will be measured to the closest square yard. Prior to installation of the asphalt all areas will be checked for proper thickness.
- B. Payment: Payment will be made on the basis of the number of square yards of recycled concrete at the specified thickness applied to the roadway at the unit price stated in the bid. The price shall include all labor, equipment and material to complete the task. Work shall include, but not be limited to, the furnishing, hauling, placing and compaction of the recycled concrete in order to bring the drive to the lines, grades, and cross sections shown on the construction plans and specifications.

2.05 DRAINAGE STRUCTURE (Catch Basins, Yard Drain, Junction Box, Headwall, Concrete Flumes, Flared End Section, Pipe End Treatments, Interference Box, Outlet Structures)

- A. Measurement: Measurement will be made on the basis of each drainage structure installed at the elevation and location designated on the construction plans.
- B. Payment: Payment will be made on the basis of each structure installed at the unit price bid. The unit price bid shall include furnishing all labor, materials and necessary equipment to complete the item of work. Work shall include, but not be limited to, excavation, necessary shoring and sheeting, dewatering, forming, form wrecking, foundations as required, furnishing and installing the structure, placement of grates, manhole rings and covers as applicable, grouting around pipe, 6" stub for future underdrain connection, backfill, compaction, grading, complete surface restoration and cleanup.

2.06 DRAINAGE PIPE

- A. Measurement: Measurement will be made on the basis of each linear foot of drainage pipe installed at the elevation, grade and alignment as designated on the construction plans.

- B. Payment: Payment will be made on the basis of each linear foot of drainage pipe installed at the elevation, grade and alignment as designated on the construction plans at the unit price bids as stated in the contract. Work shall include, but not be limited to, all excavation, trenching, necessary shoring and sheeting, all pipe bedding, furnishing and installing pipe, backfill, compaction, complete surface restoration and cleanup.

2.07 GRADING

- A. Measurement: Measurement will be made on the basis of the percent complete of the item of work. All cut and fill quantities are based on the difference between initial topographic data and proposed contours shown on the plans.
- B. Payment: Payment will be made at the price bid for each item. Work shall include all equipment, labor and material to complete each task. This item will include, but is not limited to, excavation, material transportation and placement, grading to the lines and grades shown on the plans, compaction and stabilization.

2.08 HAUL OFF

- A. Measurement shall be made on the basis of number of cubic feet of dirt/earth hauled off site.
- B. Payment will be made at the unit price bid per cubic foot of dirt/earth hauled off site in accordance with the plans and specifications. Price shall include all labor, equipment, and materials necessary to complete the task. The task shall include, but is not limited to, the transport of excess dirt/earth from the construction site to an acceptable land legal repository off site.

2.09 CONNECTIONS TO EXISTING WATERMAINS

- A. Measurement: Measurement shall be made on the basis of each connection made to an existing watermain.
- B. Payment: Payment shall be made on the basis of unit price bid. Unit price bid shall include furnishing all materials, labor and equipment required to complete the connection. Work shall include, but not be limited to, all trenching and excavation, pressure testing, backfill, disinfection, surface restoration and cleanup, furnishing and installing tapping sleeves & tapping valves if noted on the plans, cutting and removing existing pipe where necessary, fittings, and other accessories required to complete the connection.

2.10 WATERMAINS

- A. Measurement: Measurement will be made along the centerline of the pipe trench and through fittings and specials. No deduction in length will be made for fittings or specials.
- B. Payment: Payment will be made on the basis of unit price bid per linear foot for a specific line size. Unit price bid shall include all materials, labor and equipment necessary to complete the installation of the watermain. Work shall include, but not be limited to, trenching and excavation, necessary shoring and sheeting, furnishing and installing pipe, tracer wire, marker tape, backfilling and compaction, concrete

blocking, bedding, pressure testing, disinfection, complete surface restoration and cleanup.

2.11 WATER VAULT

- A. Measurement shall be made on the basis of each unit installed in accordance with the construction plans and specifications.
- B. Payment: Payment will be made at the unit price bid. Unit price bid shall include furnishing all labor, materials and equipment necessary to complete the task. The task shall include, but not be limited to, furnishing, placing, and installing concrete vault to include all fittings, supports necessary to properly operate the unit. Contractor to install water vault to ensure water will drain to adjacent pond. Contractor shall submit shop drawings to engineer for approval prior to construction.

2.12 RPZ

- A. Measurement shall be made on the basis of each unit installed in accordance with the construction plans and specifications.
- B. Payment: Payment will be made at the unit price bid. Unit price bid shall include furnishing all materials, labor and equipment necessary to complete the installation of the reduced pressure zone. Work shall include, but is not limited to, furnishing, placing, testing and installing RPZ to include all fittings, stands and supports necessary to properly operate the unit per manufactures requirements.

2.13 10" WATER METER

- A. Measurement shall be made on the basis of each unit installed in accordance with the construction plans and specifications.
- B. Payment will be made at the unit price bid. Unit price bid shall include furnishing all materials, labor and equipment necessary to complete the installation of the 10" water meter. Work shall include, but not be limited to, furnishing all fittings, hardware, pipe, pipe cutting, approved water meter by the City of Riceboro, installation, coordination with the City of Riceboro, and cleanup.

2.14 GATE VALVES

- A. Measurement: Measurement shall be made on the basis of each unit installed in accordance with the construction plans and specifications.
- B. Payment: Payment will be made at the unit price bid for a specific valve size. Unit price bid shall include furnishing all materials, labor and equipment necessary to complete the installation of the gate valve. Work shall include, but not be limited to, excavation, necessary shoring, sheeting, backfilling, concrete valve box collar, furnishing and installing gate valves, valve boxes, pressure testing, disinfection and complete surface restoration and cleanup.

2.15 INSTA-VALVE

- A. Measurement: Measurement shall be made on the basis of each unit installed in accordance with the construction plans and specifications.

- B. Payment: Payment will be made at the unit price bid for a specific valve size. Unit price bid shall include furnishing all materials, labor, and equipment necessary to complete the installation of the insta-valve. Work shall include, but not be limited to, excavation, necessary shoring, sheeting, backfilling, concrete valve box collar, furnishing and installing insta-valves, valve boxes, pressure testing, disinfection and complete surface restoration and cleanup

2.16 DUCTILE IRON FITTINGS

- A. Measurement: Measurement will be made on the basis of each ton of fittings installed based on weight of the fitting and the accessory kit.
- B. Payment: Payment will be made at the unit price bid per ton of fittings installed in accordance with the plans or directed by the engineer. Price shall include all labor, equipment and materials to complete the task. Work shall include, but is not limited to, furnishing the fitting, all bolts, accessories, trench, excavation, thrust blocking, pressure testing, surface restoration and stabilization.

2.17 CHAIN LINK FENCE

- A. Measurement: Measurement shall be made on the on the basis of each linear foot of chain link fence installed as shown on the plan. The size and type of chain link fence will be shown on the plans.
- B. Payment: Payment will be made on the basis of the unit price stated in the bid. The price shall include all labor, materials and equipment necessary to complete the task. The task shall include, but is not limited to, the placement, fastening, and installation of the chain link fence, gate, fence stands, latches, locks, and appurtenances necessary for a freestanding fence and 12' gate for egress/ingress.

2.18 ORANGE FENCING

- A. Measurement: Measurement shall be made on the on the basis of each linear foot of orange fence installed as shown on the plan. The size and type of orange fencing will be shown on the plans.
- B. Payment: Payment will be made on the basis of the unit price stated in the bid. The price shall include all labor, materials and equipment necessary to complete the task. The task shall include, but is not limited to, the placement, fastening, and installation of the orange fence and fence posts to secure the perimeter of the construction site.

2.19 EROSION CONTROL

- A. Measurement: Measurement shall be made on the basis of the percentage completed item in accordance with the plans, specifications and bid documents.
- B. Payment: Payment will be in accordance with the price stated in the bid. The unit price shall include all labor, materials and equipment necessary to prevent erosion from the site. Work shall include, but not be limited to, installation of all fencing, rock, geofabric, signage, grassing both temporary and permanent, fertilization, water quality monitoring, and other erosion control activities shown on the plans in accordance with the plans, details and state requirements found in the Manual for Erosion and Sediment Control in Georgia.

2.20 GRASSING

- A. Measurement: Measurement shall be made on the basis of the completed item in accordance with the construction plans and bid items.
- B. Payment: Payment will be made in accordance with the price stated in the bid. The unit price shall include, but is not limited to, furnishing all labor, materials and equipment necessary for the satisfactory growth of grass on all disturbed areas in accordance with plans and specifications. Work shall include, but not be limited to, furnishing all materials, fertilizer, soil samples, grass seed, raking, leveling, watering, maintenance and final surface restoration. Final payment will not occur until permanent grass is established.

2.21 STRUCTURE RELOCATION/ REMOVAL

- A. Measurement: Measurement shall be made on the basis of the percentage completed item in accordance with the plans, specifications and bid documents.
- B. Payment: Payment will be made on the basis of the completed item of work. The lump sum price shall include furnishing all labor, materials and equipment necessary to complete the task. The task shall include, but is not limited to, demolition and/or removal of any storm pipe, drainage structures, fencing or other material that may impede construction or that will not be used as part of this project, disposal at an approved site, backfill, compaction and surface restoration.

2.22 CLEARING & GRUBBING

- A. Measurement: Measurement shall be made on the basis of the percentage complete of the task in accordance with the plans and specifications.
- B. Payment: Payment will be made at the lump sum stated in the bid. The price bid shall include furnishing all labor, materials and equipment necessary to complete this item. Work shall include, but is not limited to, removal of all trees, shrubs and undergrowth that presently exist, preventing the construction of this project. All material removed including vegetation, roots and organic mat shall be removed from the site and disposed of at a permitted site. The contractor shall take special care not to disturb the roots of trees that are marked to remain. Trees to be saved shall be marked and approved by the engineer prior. Trees to be saved shall have the appropriate tree protection installed.

2.23 ELECTRICAL COMPLETE

- A. Measurement: Measurement shall be made on the basis of the completed item in accordance with the construction plans and bid items.
- B. Payment: Payment will be made at the lump sum stated in the bid. The price bid shall include furnishing all labor, materials and equipment necessary to complete the task. The task shall include, but is not limited to, trenching, excavation, backfill compaction, 4" conduit, fittings, joints, connections, pull boxes, cleanup and surface restoration.

2.24 MOBILIZATION

- A. Payment will be made for the price as stated in the Contract once the Contractor has established his construction yard, and met the requirements established in the Contract Documents. Mobilization will be recognized complete once the Contractor has provided a construction schedule and moved his equipment and a substantial amount of material to the job site. Construction must be underway and progressing. Payment for mobilization will be limited to a maximum amount not to exceed 5% of the bid price.

SECTION 02711
CHAIN LINK FENCE

PART 1 - GENERAL

1.01 APPLICABLE STANDARDS

- A. American Society for Testing and Materials (ASTM):
 - A 90 Weight of Coating on Zinc-Coated (Galvanized) Iron and Steel Articles
 - E 8 Tension Testing of Metallic Materials

1.02 DEFINITIONS

- A. Chain Link Fence Fabric: Chain link fence fabric shall be fencing material made from wire helically wound and interwoven in such a manner as to provide a continuous mesh without knot or ties except in the form of knuckling or of twisting and barbing the ends of the wires to form the selvage of the fabric.
- B. Knuckling: Knuckling is the term used to describe the type of selvage obtained by interlocking adjacent pairs of wire ends and bending the wire ends back into closed loop.
- C. Twisting and Barbing: Twisting and barbing is the term used to describe the type of salvage obtained by twisting adjacent pairs of wire ends together in a close helix of 1½ machine turns which is equivalent to three full twists and cutting the wire ends at an angle to provide sharp points.

PART 2 - MATERIALS AND INSTALLATION

2.01 FABRIC

- A. Chain link fabric shall be Commercial Grade No. 9 gauge core galvanized wire, with 2" mesh and zinc-coated by electrolytic or hot dipped process before fabrication.

2.02 FABRIC COATING

- A. If specified for on the plans, the chain link fabric coating shall be vinyl and be dipped after material is helically wound. The vinyl coating shall have a 6 gauge finish over a 9 gauge core.

2.03 CORNER AND TERMINAL POSTS

- A. Corner posts shall be 3 inch O.D. standard weight galvanized steel with top caps, except when shown differently on plans. Posts shall be set in concrete footings. Fabric shall not be attached to posts until concrete footings are sufficiently cured. Centerline of posts shall be set 12 inches from the facility property line as shown on the plans. Where specified for vinyl coating, the posts shall be powder coated.
- B. Line posts shall be 2 inch O.D. standard weight galvanized steel with top caps, except where shown on plans differently. Where specified for vinyl coating, the posts shall be powder coated.

2.04 FABRIC CONNECTIONS

- A. Fabric shall be attached to corner and terminal posts with $\frac{3}{16}$ inch x $\frac{3}{4}$ inch tension bars and $\frac{7}{8}$ inch beveled steel. Tension band spaced at a maximum of 14 inches on center. Where specified on the plans for vinyl coating, all hardware shall be powder coated.

2.05 RAILS AND DIAGONAL BRACING

- A. If specified, the top, middle, and bottom rail shall be $1\frac{5}{8}$ inch O.D. standard weight pipe fastened to corner and terminal post with malleable rail end cup and $\frac{7}{8}$ inch beveled steel brace band. Where specified on plans for vinyl coated fence, rails and bracing shall be powder coated.
- B. Install diagonal bracing midway between the top rail and ground level from the terminal post to the corner post and fasten to post with malleable rail end and $\frac{7}{8}$ inch beveled brace bands.
- C. Barbed-wire shall consist of three (3) strands of $12\frac{1}{2}$ gauge zinc-coated wire with 14 gauge 4 point barbs spaced at five (5) inches apart. Furnish barb-wire and supporting arms. Barb-wire and supporting arms shall be zinc-coated.

2.06 GATE FRAMES

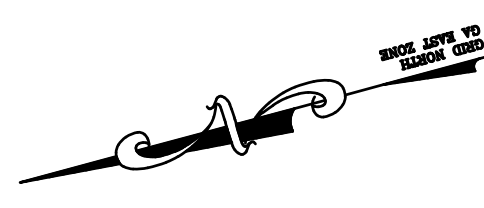
- A. Gate frames shall be constructed of tubular members round welded at all corners or assembled with fittings. Steel welds shall be painted with zinc based paint. Where vinyl coating is called for, welded joints shall be sanded, primed, and repainted with vinyl paint. Where corner fittings are used, gates shall have truss rods of $\frac{3}{8}$ inch nominal diameter to prevent sag or twist. Gate leaves shall have vertical intermediate bracing as required, spaced so that members are no more than 8 feet apart. Gate leave 10 feet or over shall have a horizontal brace or one $\frac{3}{8}$ inch, diagonal truss rod. When barbed wire top is specified at the end members of the gate, frames shall be extended one foot above the top horizontal member to which 3 strands of barbed wire, uniformly spaced, shall be attached by use of bands, clips or hook bolts. Gate filler shall be of the same fabric as specified for fence and shall be attached to gate frame at intervals of 14 inches.

2.07 HINGES

- A. Hinges shall have large bearing surfaces for clamping in position. The hinges shall not twist or turn under the action of the gate. The gate shall be capable of being opened and closed easily by one person. All hardware shall be pressed steel. Where specified on plans for vinyl coated fence, the hinges shall be powder coated.

2.08 LATCHES, STOPS AND KEEPERS

- A. Latches, stops and keepers shall be provided for all gates. Latches shall have a plunger bar arranged to engage the center stop, except that for single gates of openings less than 10 feet wide a fork latch may be provided. Latches shall be arranged for locking. Center stops shall consist of a device arranged to be set in concrete or asphalt and to engage a plunger bar of the latch of double gates. No stop is required for single gates. Keepers shall consist of a mechanical device securing the free end of the gate when in full open position. All hardware shall be pressed steel. Where specified on the plans for vinyl coated fence, the hardware shall be powder coated.



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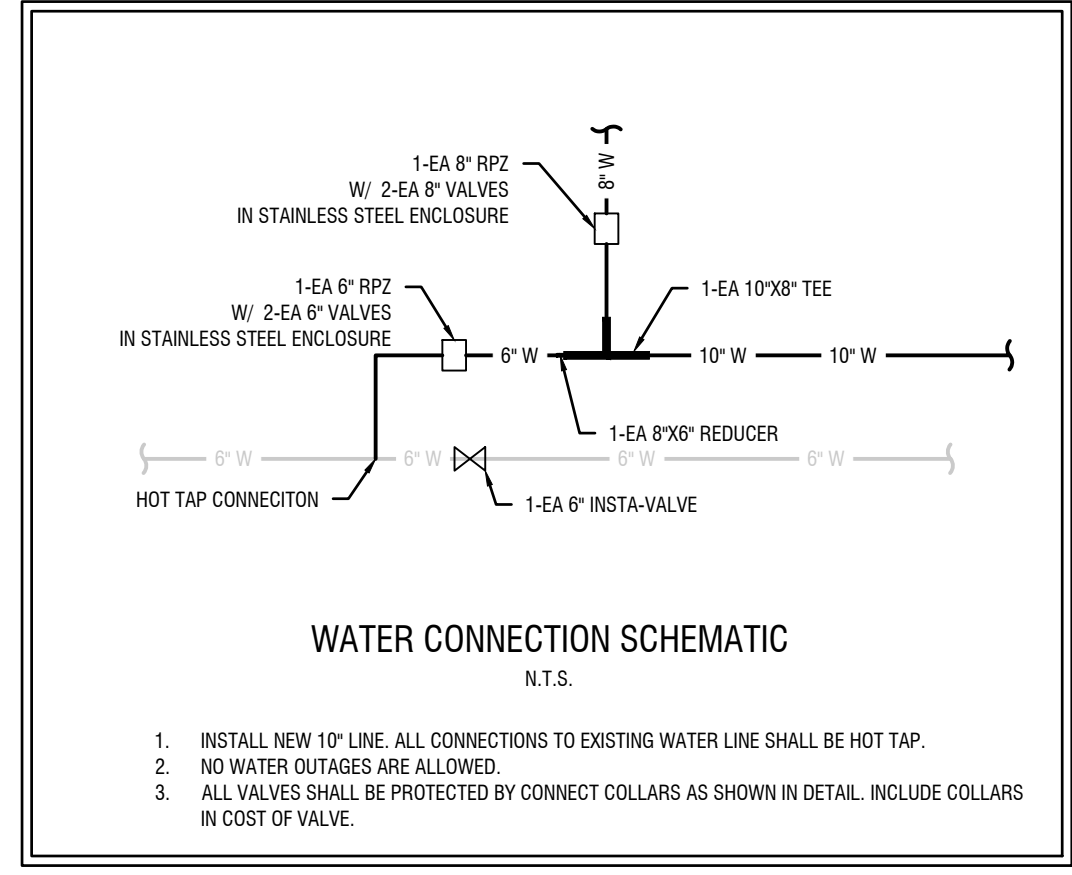
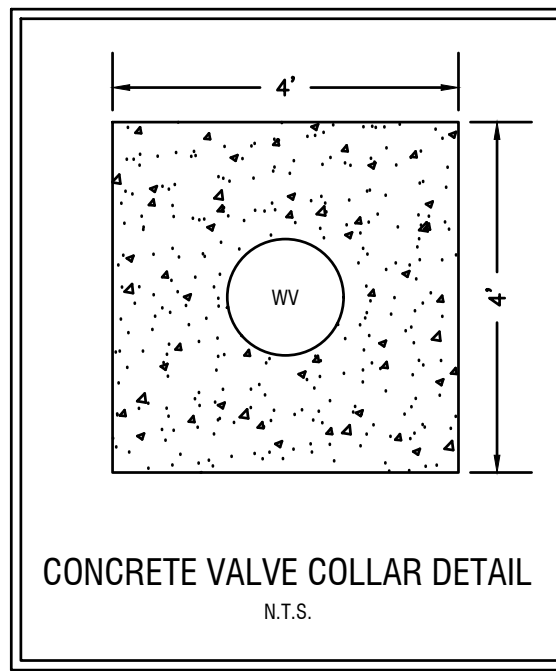
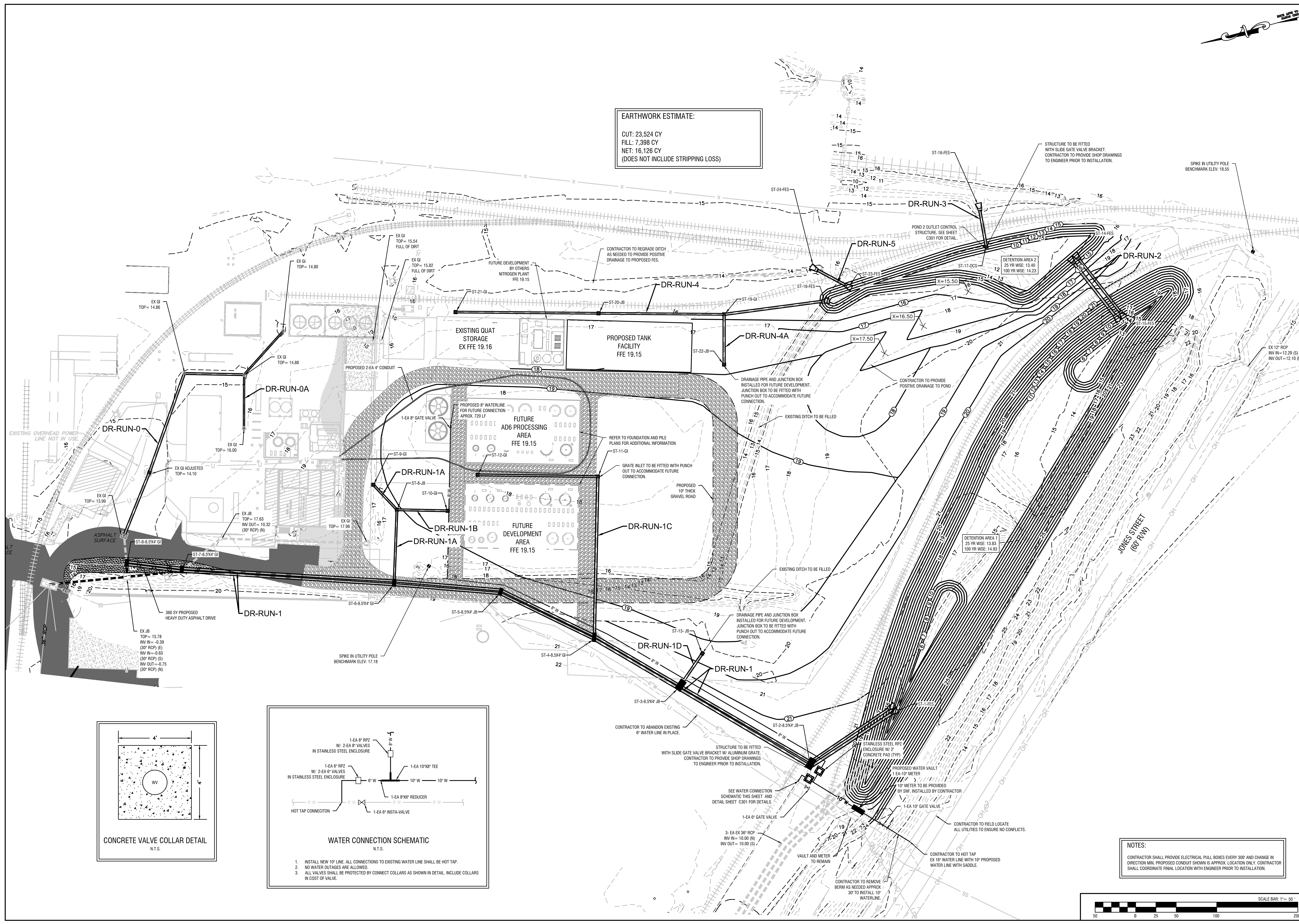
AD6 Drainage Project

GRADING/
UTILITY
PLAN

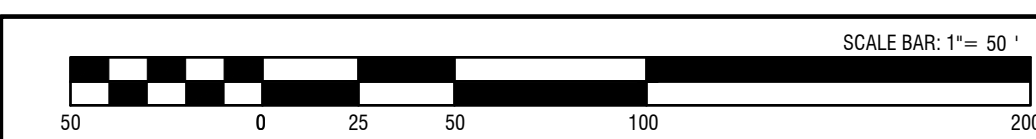
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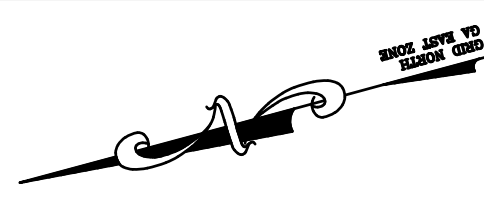
FILE NO: 2020-14
PLOT DATE: August 6, 2020

EARTHWORK ESTIMATE:
CUT: 23,524 CY
FILL: 7,398 CY
NET: 16,126 CY
(DOES NOT INCLUDE STRIPPING LOSS)



NOTES:
CONTRACTOR SHALL PROVIDE ELECTRICAL PULL BOXES EVERY 300' AND CHANGE IN DIRECTION MIN. PROPOSED CONDUIT SHOWN IS APPROX. LOCATION ONLY. CONTRACTOR SHALL COORDINATE FINAL LOCATION WITH ENGINEER PRIOR TO INSTALLATION.

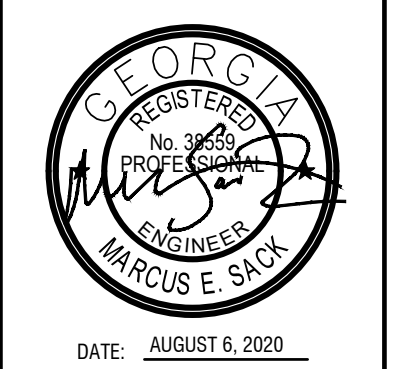




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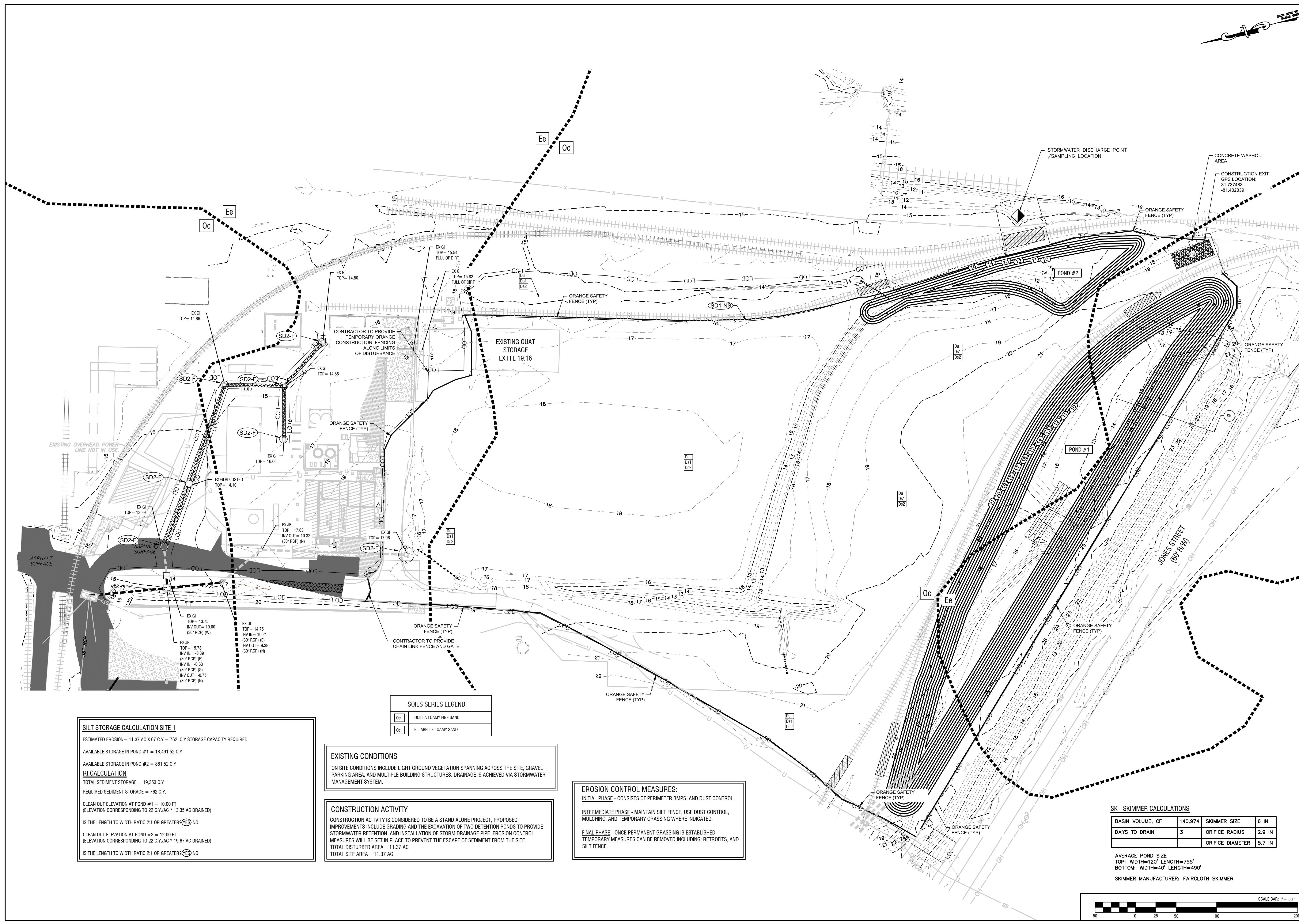
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AD6 Drainage Project

INITIAL ESPC PLAN

C200

FILE NO: 2020-14
 PLOT DATE: August 6, 2020



SILT STORAGE CALCULATION SITE 1

ESTIMATED EROSION = 11.37 AC X 67 C.Y. = 762 C.Y. STORAGE CAPACITY REQUIRED.

AVAILABLE STORAGE IN POND #1 = 18,491.52 C.Y.

AVAILABLE STORAGE IN POND #2 = 861.52 C.Y.

R1 CALCULATION

TOTAL SEDIMENT STORAGE = 19,353 C.Y.

REQUIRED SEDIMENT STORAGE = 762 C.Y.

CLEAN OUT ELEVATION AT POND #1 = 10.00 FT
(ELEVATION CORRESPONDING TO 22 C.Y./AC * 13.35 AC DRAINED)

IS THE LENGTH TO WIDTH RATIO 2:1 OR GREATER YES NO

CLEAN OUT ELEVATION AT POND #2 = 12.00 FT
(ELEVATION CORRESPONDING TO 22 C.Y./AC * 19.67 AC DRAINED)

IS THE LENGTH TO WIDTH RATIO 2:1 OR GREATER YES NO

SOILS SERIES LEGEND

Oc	OCCILLA LOAMY FINE SAND
Ee	ELLABELLE LOAMY SAND

EXISTING CONDITIONS

ON SITE CONDITIONS INCLUDE LIGHT GROUND VEGETATION SPANNING ACROSS THE SITE, GRAVEL PARKING AREA, AND MULTIPLE BUILDING STRUCTURES. DRAINAGE IS ACHIEVED VIA STORMWATER MANAGEMENT SYSTEM.

CONSTRUCTION ACTIVITY

CONSTRUCTION ACTIVITY IS CONSIDERED TO BE A STAND ALONE PROJECT. PROPOSED IMPROVEMENTS INCLUDE GRADING AND THE EXCAVATION OF TWO DETENTION PONDS TO PROVIDE STORMWATER RETENTION, AND INSTALLATION OF STORM DRAINAGE PIPE. EROSION CONTROL MEASURES WILL BE SET IN PLACE TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE.

TOTAL DISTURBED AREA = 11.37 AC
 TOTAL SITE AREA = 11.37 AC

EROSION CONTROL MEASURES:

INITIAL PHASE - CONSISTS OF PERIMETER BMPs, AND DUST CONTROL.

INTERMEDIATE PHASE - MAINTAIN SILT FENCE, USE DUST CONTROL, MULCHING, AND TEMPORARY GRASSING WHERE INDICATED.

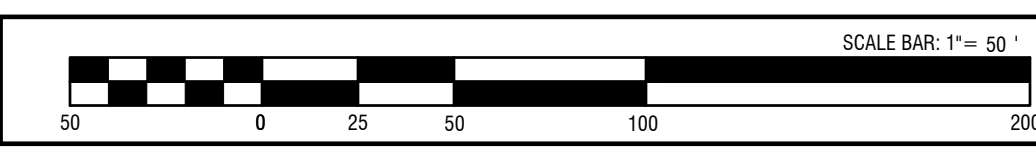
FINAL PHASE - ONCE PERMANENT GRASSING IS ESTABLISHED TEMPORARY MEASURES CAN BE REMOVED INCLUDING: RETROFITS, AND SILT FENCE.

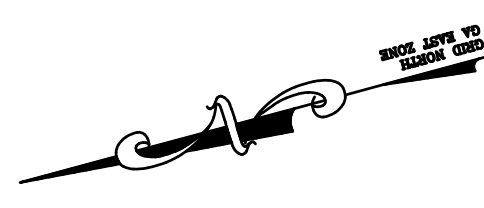
SK - SKIMMER CALCULATIONS

BASIN VOLUME, CF	140,974	SKIMMER SIZE	6 IN
DAYS TO DRAIN	3	ORIFICE RADIUS	2.9 IN
		ORIFICE DIAMETER	5.7 IN

AVERAGE POND SIZE
 TOP: WIDTH=120' LENGTH=75'
 BOTTOM: WIDTH=40' LENGTH=490'

SKIMMER MANUFACTURER: FAIRCLOTH SKIMMER

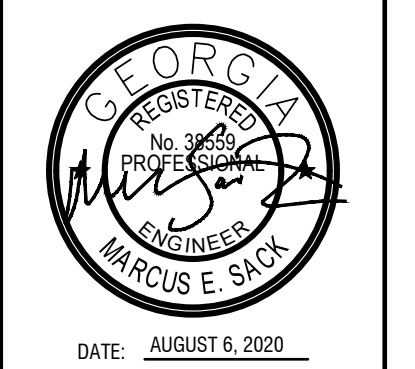




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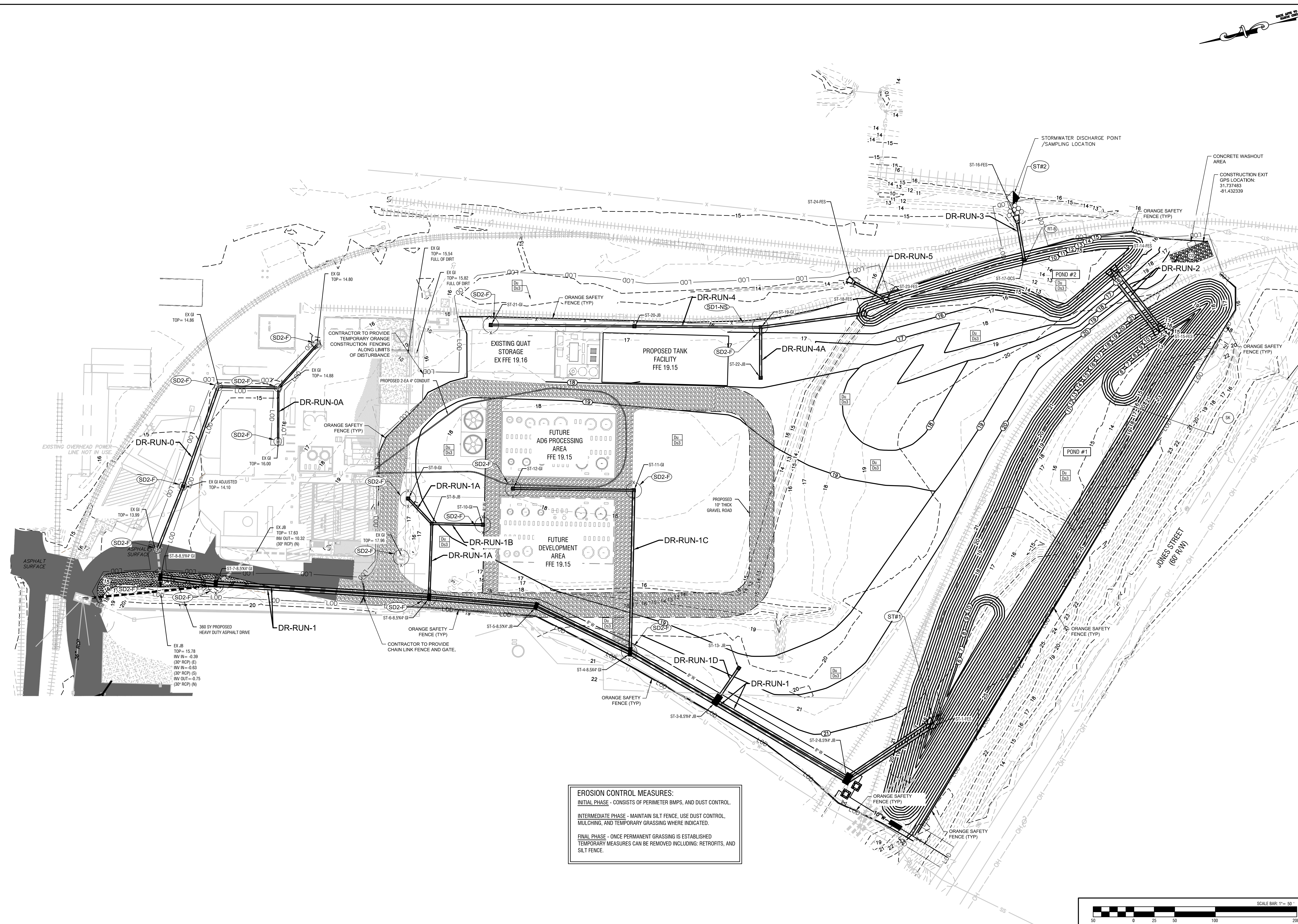
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AD6 Drainage Project

FINAL ESPC PLAN

C202

FILE NO: 2020-14
PLOT DATE: August 6, 2020



EROSION CONTROL MEASURES:
INITIAL PHASE - CONSISTS OF PERIMETER BMPs, AND DUST CONTROL.
INTERMEDIATE PHASE - MAINTAIN SILT FENCE, USE DUST CONTROL, MULCHING, AND TEMPORARY GRASSING WHERE INDICATED.
FINAL PHASE - ONCE PERMANENT GRASSING IS ESTABLISHED TEMPORARY MEASURES CAN BE REMOVED INCLUDING: RETROFITS, AND SILT FENCE.

EX JB
TOP= 15.78
INV IN= -0.29
(30" RCP) (E)
INV IN= -0.63
(30" RCP) (S)
INV OUT= -0.15
(30" RCP) (N)

360 SY PROPOSED HEAVY DUTY ASPHALT DRIVE

CONTRACTOR TO PROVIDE CHAIN LINK FENCE AND GATE.

CONTRACTOR TO PROVIDE TEMPORARY ORANGE CONSTRUCTION FENCING ALONG LIMITS OF DISTURBANCE

EXISTING QUAT STORAGE EX FFE 19.16

PROPOSED TANK FACILITY FFE 19.15

FUTURE AD6 PROCESSING AREA FFE 19.15

FUTURE DEVELOPMENT AREA FFE 19.15

STORMWATER DISCHARGE POINT / SAMPLING LOCATION

CONCRETE WASHOUT AREA

CONSTRUCTION EXIT GPS LOCATION: 31.737483 -81.432339

EXISTING OVERHEAD POWER LINE NOT IN USE.

ASPHALT SURFACE

ASPHALT SURFACE

JONES STREET (60' RW)

