

**BIDDING AND CONTRACT DOCUMENTS
FOR THE
BRUNSWICK COUNTY PUBLIC UTILITIES
NORTHWEST WATER TREATMENT PLANT – EXPANSION AND UPGRADES**

DOCUMENT 009101

ADDENDA

ADDENDUM NUMBER 1

DATE: November 14, 2019

PROJECT: NORTHWEST WATER TREATMENT PLANT – EXPANSION AND UPGRADES

OWNER: BRUNSWICK COUNTY PUBLIC UTILITIES

ENGINEER: CDM SMITH

TO: Project Planholders

This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated October 2019, with amendments and additions noted herein below.

Acknowledge receipt of this Addendum in the space provided in the Bid form. Failure to do so may disqualify the Bidder.

This Addendum consists of 2 pages.



11/14/2019

GENERAL

1. Pre-Bid Meeting Sign-In Sheet, Presentation, and Questions/Answers are incorporated into this Addendum as an attachment.

IN THE SPECIFICATIONS

SECTION 011000

1. On Page 011000-3, delete Paragraph 1.8 B in its entirety and insert the following:

“B. Owner’s Purchase Contracts Information:

1. None”

SECTION 407123.13

1. Replace page 407123.13-3, paragraph 2.2.H.1 with the following:
 - a. “Body: For RO skid service, provide all 316 stainless steel construction; for all other services, cast iron, ASTM A126, Grade B.”
2. Replace page 407123.13-3, paragraph 2.2.H.2 with the following:
 - a. “Throat Section and Vent Bushing: 316 stainless steel.”
3. Replace page 407123.13-3, paragraph 2.2.I.1 with the following
 - a. “Material: For RO skid service, provide 316 stainless steel flange; for all other services, carbon steel flange.”

ATTACHMENTS

1. Pre-Bid Meeting Sign-In Sheet, Presentation, and Questions/Answers

END OF ADDENDUM 1

BRUNSWICK COUNTY
NORTHWEST WTP EXPANSION AND UPGRADES

Pre-Bid Meeting
October 30, 2019

Name	Organization	E-mail	Phone
Brod Adams	Adams Robinson Crawder Construction	ARCO@ADAMSROBINSON.COM	937-274-5318
Rick Turner	"	Turner@CrawderUSA.COM	919-367-2000
Randy Damm	"	R.Damm@CrawderUSA.COM	919-367-2000
GREG EVERHART	GREG EVERHART & ASSOC. CONTRACTORS	GREG@EVERHART.COM	804-559-4259
Tim Bishop	Heyward	tbishop@heyward.net	704-583-2305
Geoff Burdick	Underground Solutions	gburdick@region.com	704-619-0522
Love Theriault	Corey	ltheriault@gamey.com	720-810-9406
Rob Horgan	Core & Main	Rob.Horgan@coreandmain.com	813-382-6560
Manny Paouris	Core & Main	Emmanuel.Paouris@coreandmain.com	864-906-6068
Mike Manning	Core & Main	Mike.Manning@coreandmain.com	910-443-4390
Devin Carroll	CCU	devin.carroll@ccu.com	919-661-5556
CHAO A. VAN HYMING	ULLMAN SCHULTE	cvanhyming@ullmanschulte.com	980-256-4674

BRUNSWICK COUNTY
NORTHWEST WTP EXPANSION AND UPGRADES

Pre-Bid Meeting
October 30, 2019

Name	Organization	E-mail	Phone
Jeff Young	Clark Mata	jett.young@clarkconstruction.com	703-929-0170
Taylor Day	Rainfer Rent	tday@rainfer-rent.com	704-493-7053
Chris Gero	PC Const.	cgero@pcconstruction.com	(802) 238-3357
Karyn Castenson	PC Construction	KCastenson@pcconstruction.com	
Michael Pollard	CDM Smith	Pollard.M@CDMSMITH.COM	919 325 3594
Jonathan Treadway	CDM Smith	treadway.j@cdmsmith.com	919 325 3507
Bob Tweedy	BCPLI	bobtweedy@brunswickcountynj.gov	910 253 2680
Greg Roy	CDM Smith	roy.g@cdmsmith.com	603-222-8375
Glenn Walker	Brunswick County	glenn.walker@brunswickcountynj.gov	910-371-3490

Northwest Water Treatment Plant Expansion and Upgrades - and - Concentrate Discharge Pipeline

Pre-Bid Meeting
Brunswick County, NC

October 30, 2019



**CDM
Smith**

Meeting Agenda

- Introductions
- General Overview of Projects
 - Meeting Logistics
 - Project Description
 - Bidding Details
- Concentrate Discharge Pipeline - Project Details
- NWTP Upgrade and Expansions – Project Details
- Questions and Answers

Introductions

- John Nichols, Utilities Director
- Bob Tweedy, Project Manager
- Glenn Walker, Water Resources Manager

- Greg Roy, Project Manager
- Jonathan Treadway, Design Manager
- Michael Pollard, Pipeline Design Manager



Pre-Bid Meeting is for Two Projects

NWTP Expansion and Upgrades

- Work 'inside the fence' at NWTP
- Includes pipeline portions on the WTP property
- Only Prequalified General Contractors may submit
- Bid Opening: December 12, 2019
- Estimated Value: \$110 million

Concentrate Discharge Pipeline

- 4-mile PVC pipeline
 - Open cut and HDD
- Outfall into Cape Fear River
- Bid Opening: December 12, 2019
- Estimated Value: \$7 million

General Overview of Project

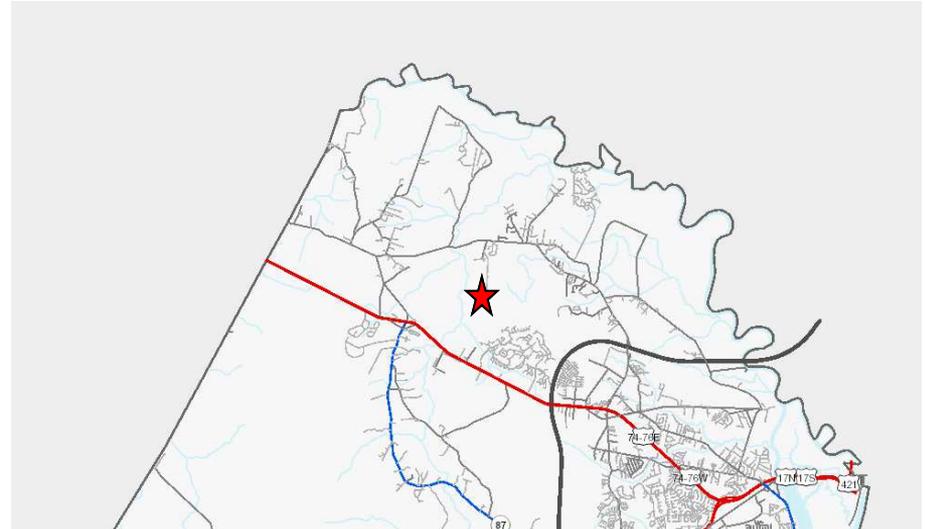


Meeting Logistics

- Sign-in sheet
- Questions and answers during presentation
- Meeting correspondence provided with first addendum
 - Sign-in, presentation, Q&A
- Pre-bid Presentation format
 - Pipeline project
 - NWTP project
 - Adjourn at noon
- Site visits
 - Not mandatory
 - Today @ 2:00 at NWTP, 3954 Clearwell Dr, Leland, NC
 - Other times – refer to contract documents for scheduling

General Project Description

- General Project Description
 - NWTP, Clearwell Drive
Leland, NC
- CDM Smith Role
- Permitting Status
- Project Funding
- Subcontractor Requirements
 - MBE goal 5%



General Project Overview

- NWTP
 - Work in nearly every process area at the site
 - Multiple trades required: Civil, Architectural, Structural, Process, Plumbing, HVAC, Fire protection, Electrical, and Automation/ Controls
- Concentrate Pipeline
 - 4 miles (20,115 feet)
 - Majority in DOT right-of-way
 - Portions in easements on private property
 - Open cut, Jack-and-Bore, and multiple HDDs
 - Construction of outfall at Cape Fear River shoreline

Bidding Details

- Bidding details (common to both projects)
 - Sealed bids with public opening
 - Bid opening December 12, 2019
 - Last addendum before December 5, 2019
- Basis of Award: *The Owner may award on the basis of the base bid, unit prices, any alternates the Owner chooses, as well as meeting the requirements for consideration as a responsible Bidder.*
- What constitutes a complete bid (refer to Instructions to Bidders)?
 - Form of Proposal (all entries completed)
 - Identification of Minority Business Participation Form
 - MBE Affidavit A (Listing of Good Faith Efforts)
 - Form of Bid Bond (5%) or cash deposit
 - Sealed inside envelope “SEALED BID, DO NOT OPEN”

Procedures During Bidding

- Process to submit questions
 - Only written questions will receive responses
 - E-mail:
 - NWTP: Jonathan Treadway, CDM Smith: treadwayjb@cdmsmith.com
 - Pipeline: Michael Pollard, CDM Smith: pollardma@cdmsmith.com
 - Cut-off date for questions is December 2, 2019
 - 10 days prior to bid opening
- Addendum
 - Official changes to the contract documents
 - First addendum in early November
 - Addendum in early December detailing RO Building bid alternate

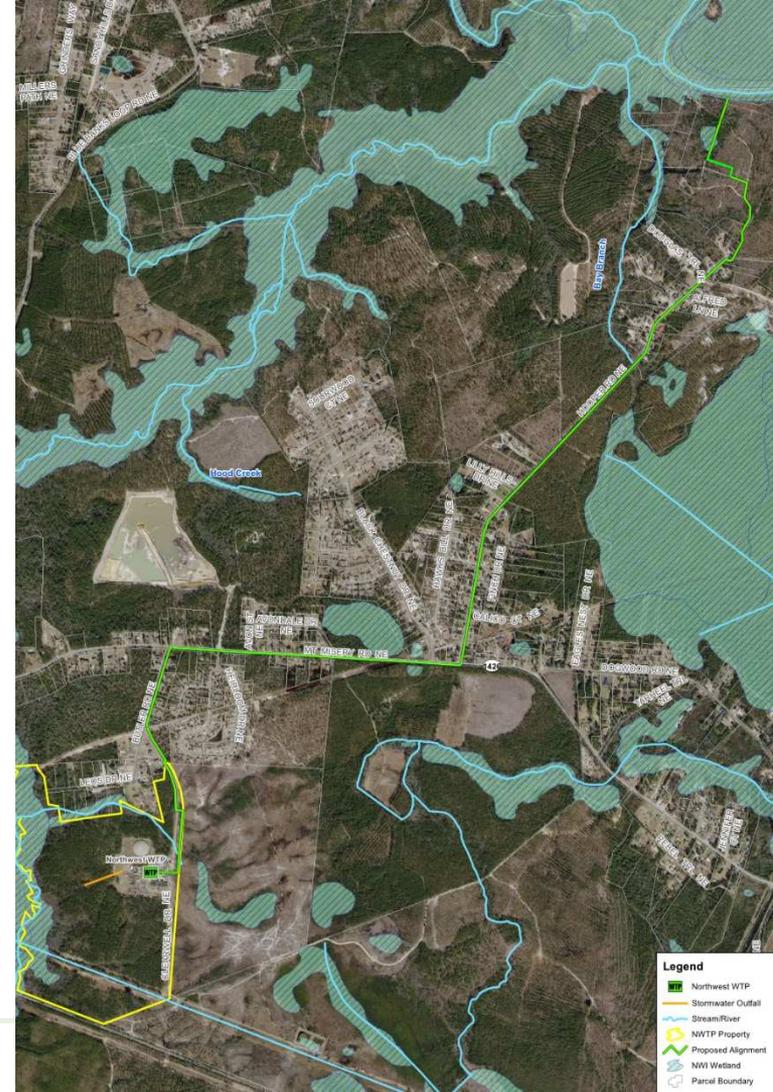
Concentrate Discharge Pipeline



Concentrate Discharge Pipeline

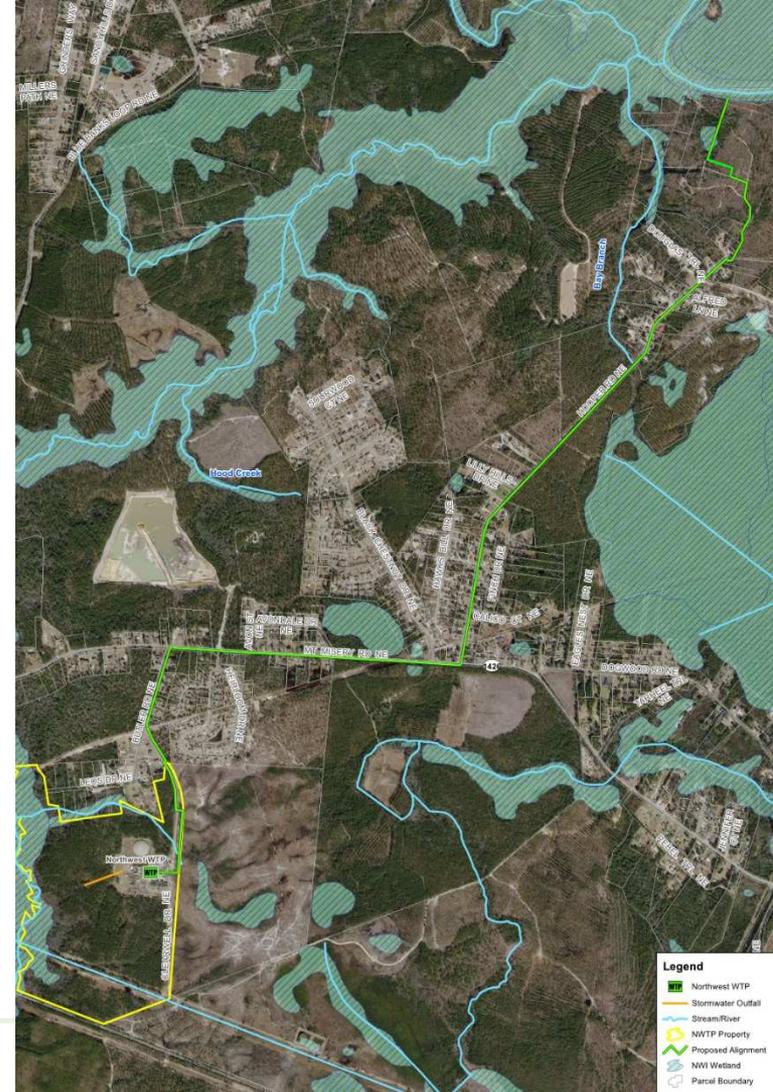
Overview

- Project Description
 - 18" PVC C900, DR18 w/DIP fittings
 - Restrained joints where shown
- Methods of Construction
 - Open cut: Approx. 18,300'
 - Jack-and-bore: Approx. 70'
 - HDD: Approx. 1,800' (3 total)
 - Pull-back from River possible
- Anticipated Pavement Repairs
 - Crossings and Zone of Influence
- Status of Easements



Concentrate Discharge Pipeline Overview

- Driveways and Culverts
 - Driveways from EP to R/W or nearest joint
 - Culverts min. 15" RCP
- Private Property Improvements
 - Replace in kind.
 - Photos on plans



Concentrate Discharge Pipeline

Schedule and Constraints

- Construction Constraints ... work in Cape Fear River
 - Seasonal work in River – July 1 to Jan 31
 - ‘Temporary’ obstructions in the river
- Construction schedule
 - February 1, 2021 – Substantial Completion
- Liquidated Damages
 - Beyond February 1, 2021 - \$2,500/ day
 - Beyond July 1, 2021 - \$10,000/ day

Concentrate Discharge Pipeline

Form of Proposal and Agreement

- Form of Proposal
 - Base Bid = Lump Sum + Unit Price + Allowances

UNIT PRICE ITEMS:

Pay Item	Pay Item Description	Unit	Est. Quantity	Unit Price	Extended Price
1	Change Order (Allowance)			\$150,000	\$150,000
2	Materials Testing (Allowance)			\$40,000	\$40,000
3	AC Pavement Replacement	SY	2,900	\$	\$
4	Concrete Driveway Replacements	SY	525	\$	\$
5	15" RCP Culvert Replacements	LF	860	\$	\$
6	18" RCP Culvert Replacements	LF	65	\$	\$
7	30" RCP Culvert Replacements	LF	110	\$	\$
8	Remove and Replace Unsuitable Pipe Subgrade Material	CY	100	\$	\$
	Unit Price Items (Total Extended Items 1-8)			\$	

Notes:

1. The base bid shall include all items as indicated on this form. Base bid amount shall be recorded where indicated on Form of Proposal page F-1, above.
2. Bidder is advised that pay items 1 and 2 are allowances and will be measured and paid for based on actual costs incurred as indicated in the contract documents.
3. Bidder is advised that Unit Price Items stipulated as part of these contract documents shall be measured and paid for based on the actual quantities installed.
4. Units: LF – Linear Feet. SY – Square Yard. CY – Cubic Yard

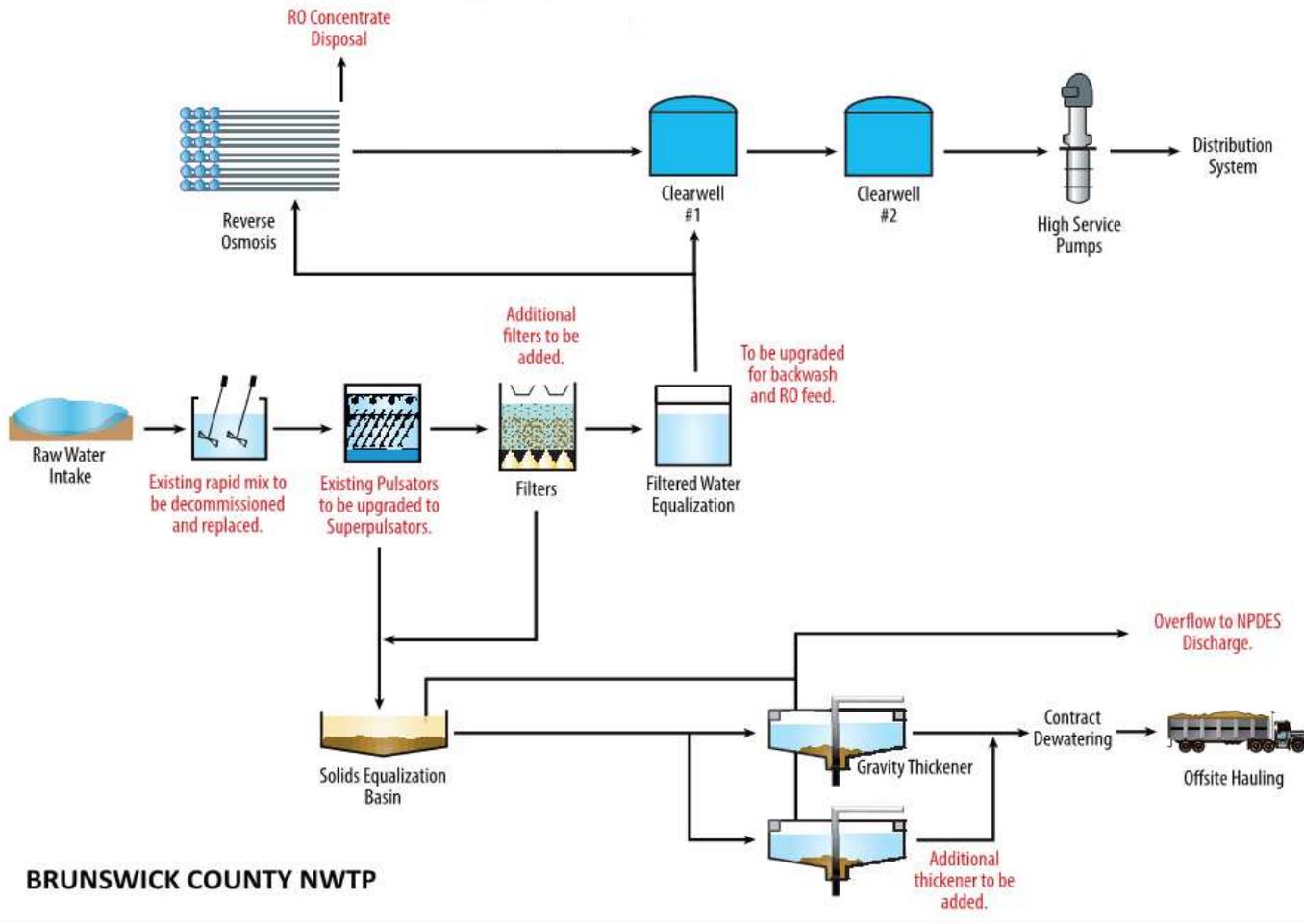


NWTP Expansion and Upgrades

NWTP Upgrade and Expansions

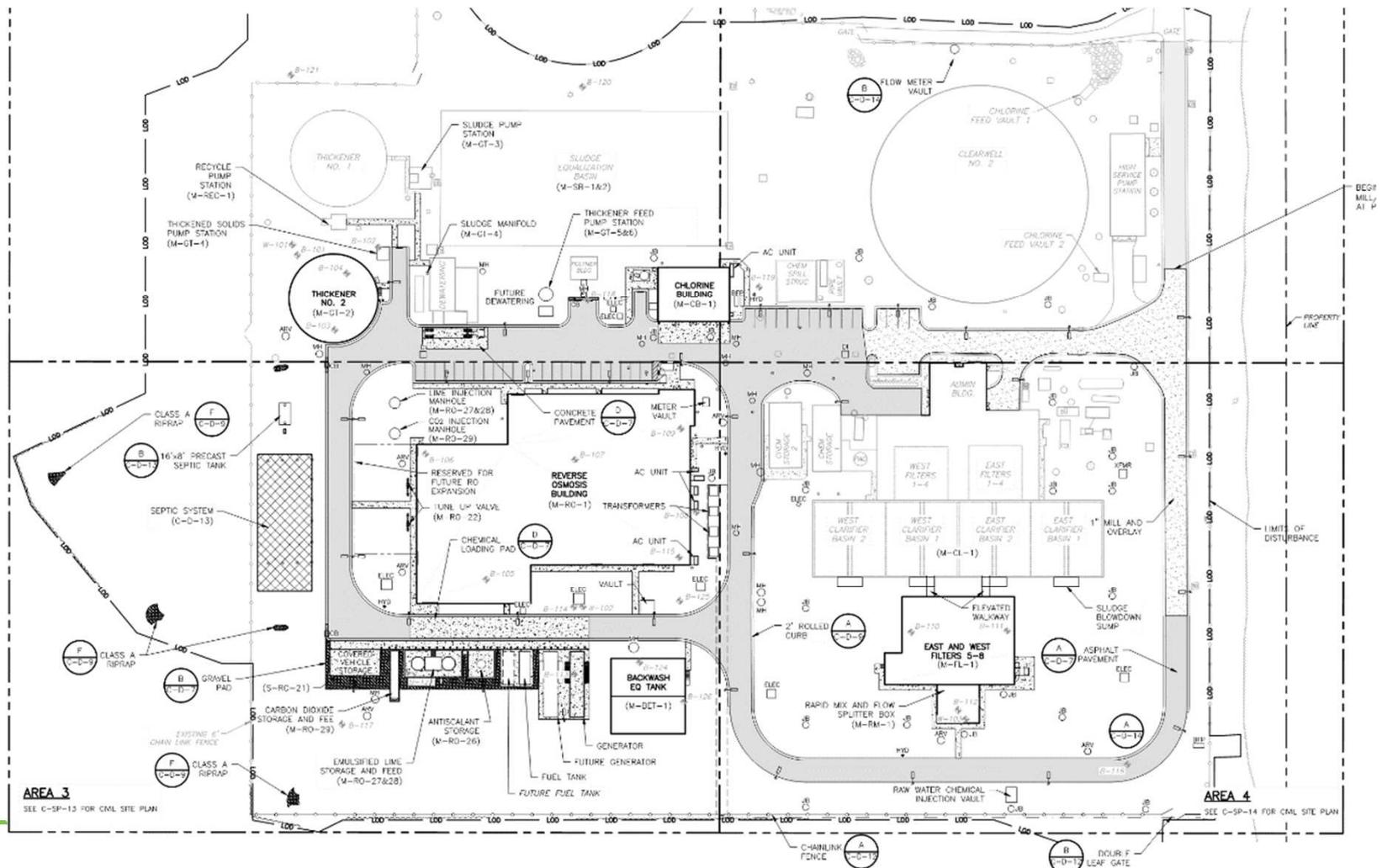
- Project Description
- MOPO
- Construction Constraints
- Dependent Construction Contracts
- Form of Proposal with Bid Alternates
- Construction Schedule





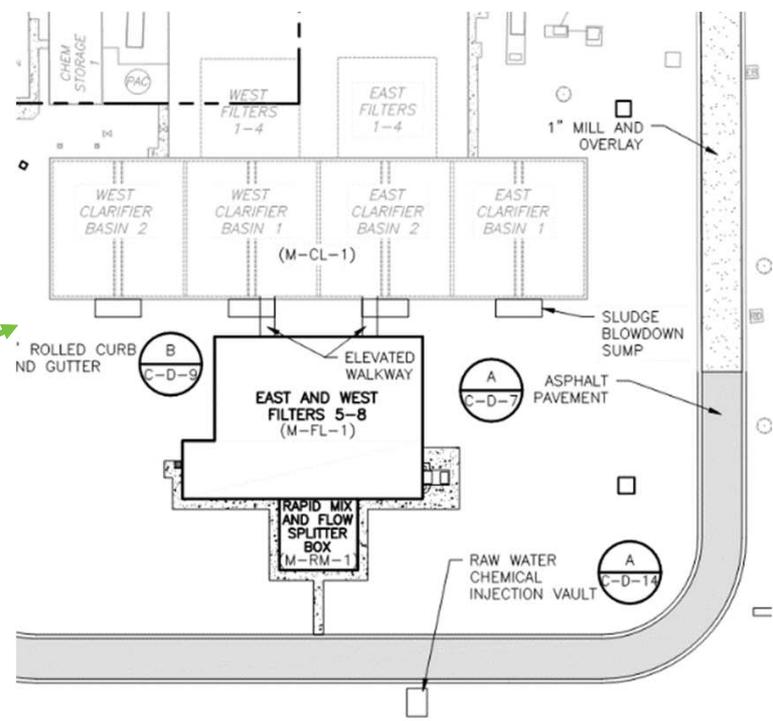
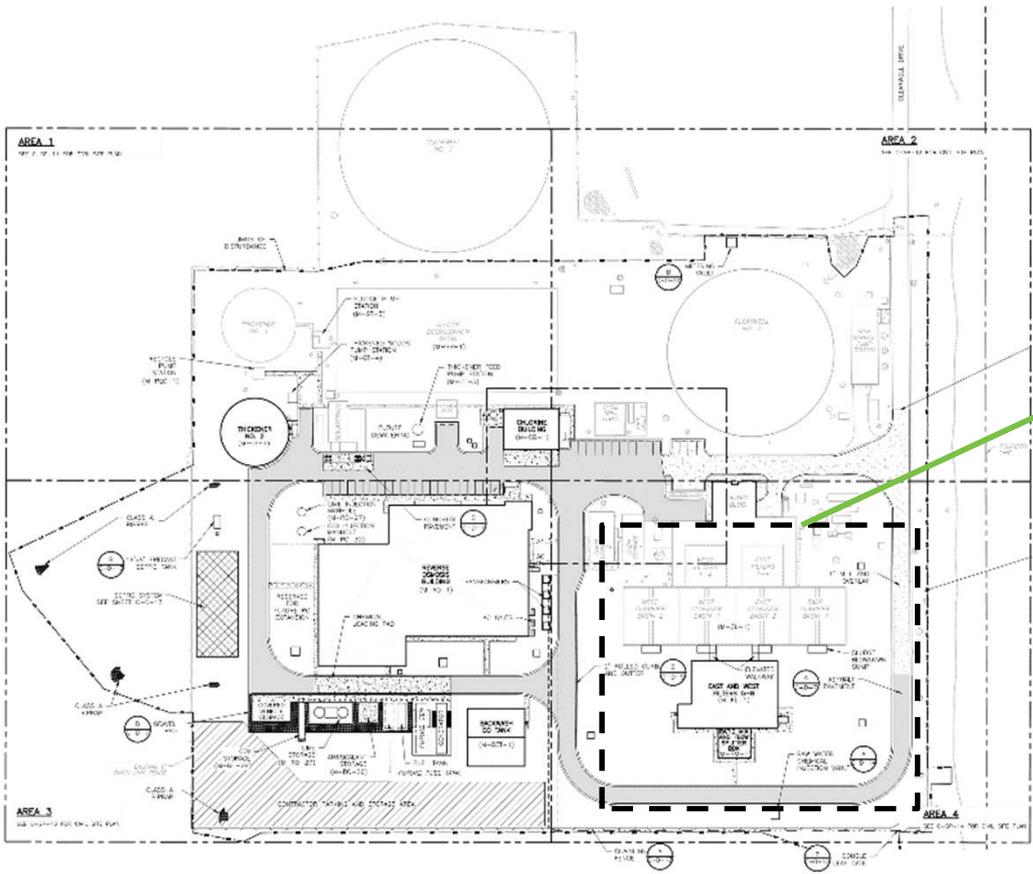
Scope of Work

- New Raw Water Pipe
- New Rapid Mix
- Upgrade Clarifiers
- New Filters
- New EQ Tank
- New RO Building
- New Gravity Thickener
- New Chlorine Building
- New and Upgrades to Chemical Systems
- Yard Piping
- Electrical Upgrades
- I&C Upgrades with SCADA



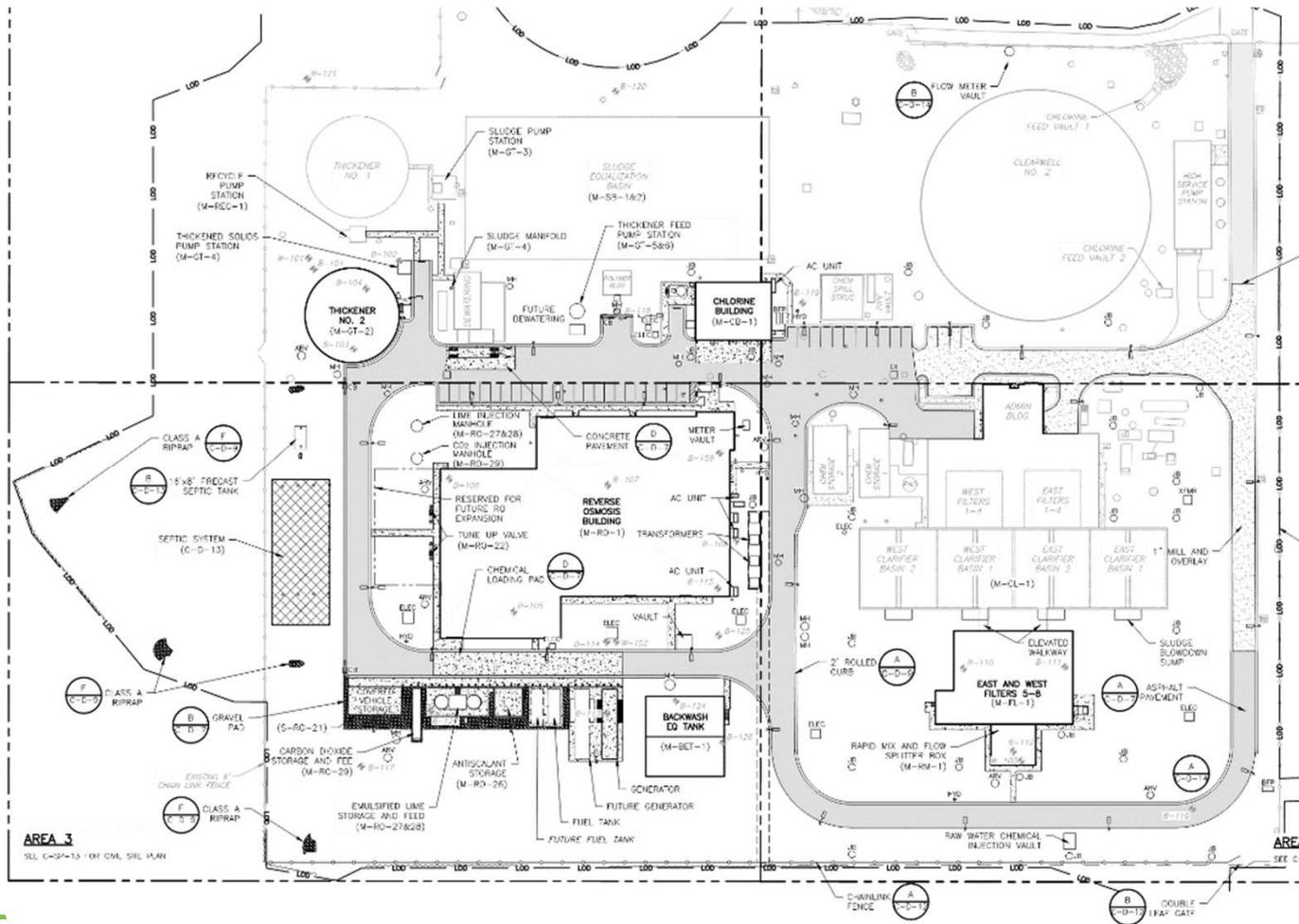
Project Scope of Work Details

- Clarifiers
 - Upgrade existing basins (total of 4)
 - Sole source equipment to Suez for SuperPulsator[®] clarifiers
 - Seasonal work constraint for basin shutdowns
- Filters
 - New filter basins – Two ‘modules’ with 8 total filters
 - Sole source equipment to Suez for Greenleaf[®] filters
 - Deep pile foundations



Project Scope of Work Details

- Reverse Osmosis Building
 - Tilt Up Construction
 - Large Underslab Piping
 - Skid Area, Pump Room, Electrical Room, Training Room, Control Room
 - 'Pre-load', allows for shallow foundation design
 - Early completion milestone
- Reverse Osmosis Equipment
 - 8 skids, 5.15 mgd permeate each
 - Membrane System Suppliers listed in spec have been prequalified



Additional Scope of Work

- Gravity Thickener
- Chlorine Building
- Chemical Systems
- Electrical
- I&C

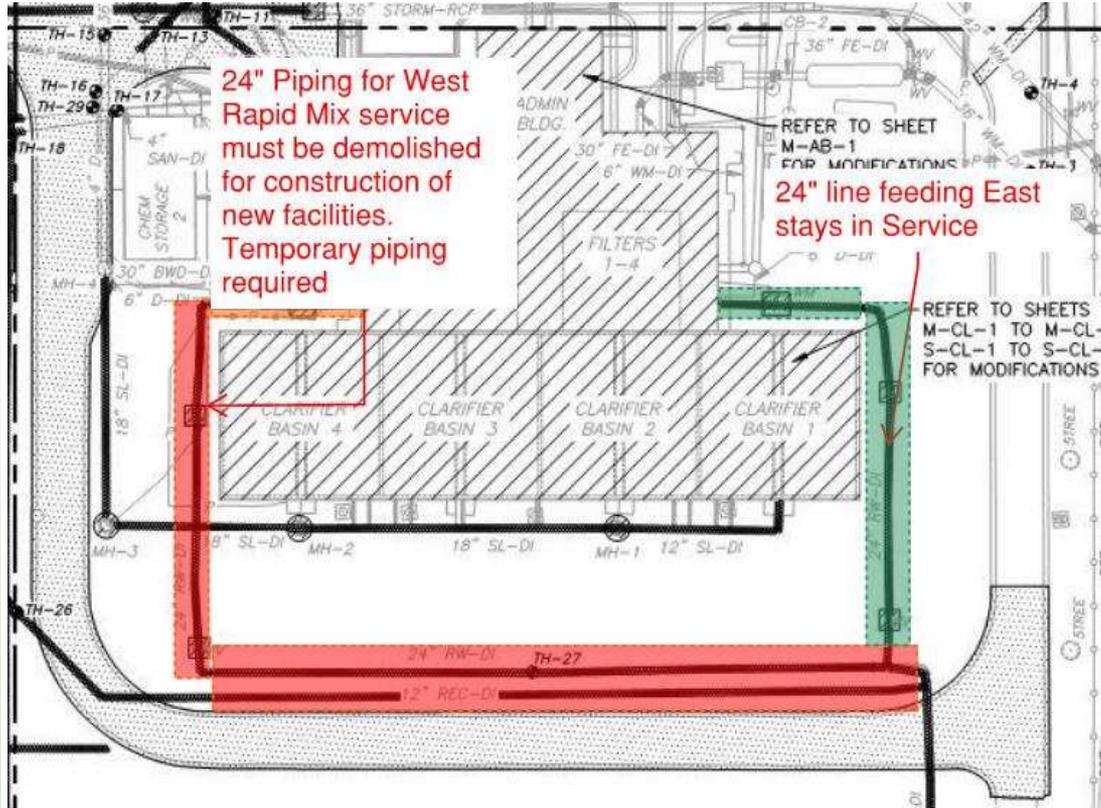
Work By Others

- Concentrate Discharge Pipeline
 - 4.5 mile pipeline
 - Begins at NWTP gate
 - Discharges to Cape Fear River
- Raw Water Pipeline
 - Large Transmission Line By LCFWASA
 - Tie-in with on-site RW pipelines (1 new, 1 existing) required
- Residuals Dewatering Contractor
 - On-site contractor
 - Covered belt filter press
 - Infrequent chemical deliveries
 - Frequent hauling of dewatered cake

Construction Constraints – Section 013513.54

- MOPO/ Capacity
 - 12 mgd capacity at all times
 - 24 mgd (full) capacity in warm months
 - Shutdown constraints
- Traffic
 - Chemical deliveries
 - Residuals contractor hauling
 - Plant O&M staff
 - ‘Contractor’ entrance planned
- Work sequence
 - New electrical service (RO)
 - Raw water pipeline
 - Rapid Mix construction
 - Temporary piping required
 - Early completion milestone for RO

Critical Work Sequences – Temporary Raw Water Piping



Form of Proposal

- Base Bid
 - Lump Sum
 - Unit Price Work
- Deductive Bid Alternates
 - 1 & 2 – modify RO scope of work
 - 3, 4, & 5 – extend RO deadlines
 - 6 – extend project deadline for conventional treatment
 - 7, 8 & 9 – modify conventional treatment scope of work
 - 10 – remove all RO from the scope of work
- Measurement and Payment – Section 01 29 01

Pay Item	Pay Item Description	Unit	Est. Quantity	Unit Price	Extended Price
1	Change Order Allowance	LS	1	\$ 300,000	\$300,000
2	Materials Testing Allowance	LS	1	\$250,000	\$250,000
	Removal and replacement of Unsuitable Material	CY	200	\$	\$
4	Clarifier Concrete Tank Repair - Prepare and Repair equal to or greater than 3/8-inch in depth	SF	6,800	\$	\$
5	Clarifier Concrete Tank Repair - Prepare and Repair less than 3/8-inch and greater than 1/8-inch in depth	SF	10,300	\$	\$
6	Clarifier Concrete Tank Repair – Flexible Polyurethane Coating	SF	56,300	\$	\$
7	Clarifier Concrete Tank Repair – Prepare and Repair less than 1/8-inch in depth	SF	20,400	\$	\$
8	Clarifier Concrete Tank Repair – Crack Repair	LF	400	\$	\$
	Unit Price Items (Total Extended Items 1-8)	\$			

Construction Schedule

Bid Alternate	First 4 RO Skids	36 mgd Conventional Treatment Capacity	Substantial Completion
Base Bid + Alternates 1, 2, 7, 8, & 9	12/16/2021	N/A	6/30/2022
Alternates 3, 4, & 5	12/16/2022	5/15/2022	4/28/2023
Alternate 6	12/16/2022	5/15/2022	4/28/2023
Alternate 10	N/A	N/A	6/30/2022

Note: Final Completion milestone is 3 months following Substantial Completion milestone
 All alternates require conventional expansion to be completed 6/30/2022
 Alternate 6: Extends milestone for final filters and clarifiers until 4/28/2023
 Liquidated Damages are \$5,500 per day for each milestone



Questions?



CLIENT: Brunswick County Public Utilities

PROJECT: Northwest Water Treatment Plant

DESCRIPTION: Pre-bid meeting

LOCATION: Training Room, Utility Operations Center, Supply, NC

DATE AND TIME: Wednesday, October 30, 2019, 10:00 AM

NOTES FOR BOTH NWTP UPGRADE AND CONCENTRATE DISCHARGE PIPELINE:

1. See sign-in sheet for list of attendees.
2. Presenters include: Bob Tweedy, Greg Roy, Michael Pollard, and Jonathan Treadway.
3. During project introduction, it was noted the pre-bid meeting was common to two separate construction contracts currently out for bidding. The first contract is for the Northwest Water Treatment Plant (WTP) Expansion and Upgrades and has a planned contract value of approximately \$110 million. The second contract is for the Northwest Water Treatment Plant Concentrate Discharge Pipeline and has a planned contract value of approximately \$7 million.
4. The Northwest WTP Expansion and Upgrades project is open for bidding by six (6) prequalified general contractors listed in bid advertisement.
5. Project is funded by Brunswick County. Other funding sources such as SRF and WIFIA have been considered but are no longer being pursued for the project. Conditions of these funding sources – such as Davis-Bacon Act wage rates, federal minority business participation, and American Iron and Steel Act requirements – are not required.
6. County has an MBE participation goal of 5%.
7. Bid opening 12/12/19 at 3:00 P.M.
8. Cut-off date for questions is 12/2/19 and last addendum is planned for 12/5/19.

QUESTIONS AND ANSWERS:

1. QUESTION: Since the contracts are written with fixed dates for completion, it is necessary to know the date of 'Notice to Proceed' for project planning. What is the latest date Brunswick County anticipates NTP? As a follow-up, if NTP is delayed until May 2020, the milestone of Feb. 1, 2021 causes concern with having adequate time to complete the work for the Concentrate Discharge Pipeline.
RESPONSE: *Brunswick County will review the schedule for award and construction milestones for the WTP Expansion and Upgrades. The construction period for the concentrate discharge pipeline project is changed to 365 days from NTP. Refer to Addendum #1 for clarification.*
2. QUESTION: When is start-up of the RO facility planned?
RESPONSE: *Brunswick County will review the schedule for award and construction milestones for the WTP Expansion and Upgrades and issue an addendum to clarify the RO facility start-up.*
3. QUESTION: Will the concentrate discharge pipeline project be cancelled if Brunswick County selects the bid alternate that removes RO from the project?

RESPONSE: *Yes. While the County intends to proceed with the full scope of both projects, the concentrate discharge pipeline project would be cancelled if RO is removed from the WTP project.*

4. QUESTION: Given that completion milestones – and associated liquidated damages – for the Concentrate Discharge Pipeline are tied to fixed dates, such as 2/1/2021 and 7/1/2021, will additional time be allowed for weather days?

RESPONSE: *Completion of the pipeline is changed to 365 days from NTP. Additional time will be allowed for abnormal weather conditions when it can be demonstrated said conditions impact the completion date.*

5. QUESTION: Upon initial review, fusible PVC did not appear to be allowed by the specifications for the Concentrate Discharge Pipeline. Will fusible PVC be allowed? Is fusible PVC acceptable for restrained joints?

RESPONSE: *Fusible PVC will be allowed for all open cut and HDD applications. An addendum will be issued to offer needed clarifications. Refer to specification 330531.16 for requirements of PVC and fusible PVC pipe.*

6. QUESTION: On C-CP-29 of the Concentrate Discharge Pipeline drawings, what access is available for areas inside the easements, but outside of areas shown for disturbance?

RESPONSE: *All work and access are by construction easement. Land clearing and disturbance within the wetlands is only allowed in the locations shown on the plans.*

7. QUESTION: On the bid form for the concentrate pipeline, do the quantities in the unit price table match the quantities shown on the plans?

RESPONSE: *Yes. The quantities in Pay Items 3, 4, 5, 6, and 7 of the Unit Price Items match the quantities shown in the drawings.*

8. QUESTION: Is integral locking PVC acceptable as a restrained joint PVC on the Concentrate Discharge Pipeline?

RESPONSE: *Integral locking PVC is acceptable as a restrained joint for open-cut construction. The use of this material for HDD is being evaluated and will be addressed in a future addendum.*

9. QUESTION: Regarding Detail E on C-D-1 and hatched areas of pavement shown on the pipeline plans (such as C-CP-4), what is the extent of the repair to be required?

RESPONSE: *The County will review requirements for both pavement repair and milling and issue clarification via addendum.*

10. QUESTION: On the bid form for the concentrate pipeline, what is the basis of the 2,900 sy estimate for AC pavement replacement?

RESPONSE: *The County will review this estimate and issue clarification via addendum.*

11. QUESTION: With open cut road crossings, what is expected for traffic control?

RESPONSE: *Refer to project specifications for traffic control requirements. If contractor anticipates extended traffic control (i.e., 24-hr flagging), then alternate construction may be considered, subject to NCDOT approval.*

12. QUESTION: Section 013100 of the concentrate pipeline project requires up to ten (10) project management software licenses to be provided to Owner and Engineer. Will the owner consider reducing the number of licenses required given the size of the pipeline project?

RESPONSE: *The County will not require project management software licenses for the pipeline project. Please refer to Addendum #1 for clarification.*

13. QUESTION: Under 'Temporary Facilities' of Section 015000 in the concentrate pipeline project, field offices are required for the engineer. Will the owner consider reducing this requirement given the size of the pipeline project?
RESPONSE: *A field office for contractor's use will be provided at the discretion of the contractor. An engineer's field office will not be required for the pipeline project; refer to Addendum #1 for clarifications.*
14. QUESTION: Section 017823 of the concentrate pipeline project requires an emergency manual. Will the owner consider reducing the requirement given the scope and size of the pipeline project?
RESPONSE: *The emergency manual is intended to focus on procedures for operations and special emergency operating procedures. Note that not all emergency manual procedures will be applicable to the Pipeline project.*
15. QUESTION: Will CDM Smith provide CAD files to aid in the preparation of record drawings?
RESPONSE: *PDF files will be provided.*
16. QUESTION: What are the requirements for tree protection for work outside of the right-of-way (R/W)?
RESPONSE: *Trees outside of the R/W shall not be disturbed without written permission of the property owner. Tree protection measures, when employed, shall be installed within the R/W unless written permission is obtained from the property owner to install protection measures outside of the R/W.*
17. QUESTION: Is a pre- and post-survey by PLS required by DOT?
RESPONSE: *Not required.*
18. QUESTION: Is the reason for limiting clarifier upgrades to November-March due to seasonal demand restrictions?
RESPONSE: *Yes.*
19. QUESTION: If coatings in clarifier require heating, heating and heating enclosures will be required; right?
RESPONSE: *Correct.*
20. QUESTION: Will the Owner provide the security guard for site access?
RESPONSE: *No. This is responsibility of the WTP general contractor. A security guard is only required for the WTP project, not the Pipeline project.*
21. QUESTION: Do specs require 10-hour OSHA and background checks for security guards?
RESPONSE: *Specifications do not address OSHA and background check requirements. General contractors should use discretion when identifying security personnel.*
22. QUESTION: Do spoils have to be taken offsite for the NWTP Upgrade?
RESPONSE: *The base bid shall include removal of all spoils from the site.*
23. QUESTION: For the WTP contract, on pay item descriptions, there is 56,300 sf of coating, but only 36,800 sf of concrete repair. Does that mean there is new concrete that does not require repair?
RESPONSE: *Yes, some of the existing concrete is in good enough shape to not require repair. Additionally, new concrete will be coated.*
24. QUESTION: When will the County decide on selecting Bid Alternate No. 10, deducting RO from the scope of work?

RESPONSE: *The time for deciding has not been determined. The controlling factors include bid price, available project budget, and status of the NPDES discharge permit. More information may become available as the permitting process progresses.*

25. QUESTION: Is it possible that contractors could be waiting for 120 days to find out who will be awarded the project due to the number of bid alternates and unknowns associated with the NPDES permit?

RESPONSE: *Yes. The County is reviewing options to provide more certainty of award following the bid opening.*

26. QUESTION: The method of award presents concerns. Are there considerations to simplify award to just the lowest base bid price?

RESPONSE: *At this time, the Owner's policy for awarding construction projects is based on the definition provided in the instructions to bidders. There is no intent to modify this process at this time.*

27. QUESTION: Why is there a \$300,000 change order allowance on WTP project (approximate value of \$110 million), while the pipeline project (approximate value of \$7 million) has a \$150,000 allowance?

RESPONSE: *The intent of the change order allowance is not to cover all potential changes and costs. Instead, the allowance is intended to cover minor changes that need immediate approval to proceed. Major cost changes will be approved by the Board of Commissioners.*

28. QUESTION: Is the over-excavation shown on the plans (e.g., at the thickener) part of the lump sum or unit price items?

RESPONSE: *Over-excavation to the limits shown on the plans is in the lump sum fee.*

29. QUESTION: Will the County consider changing the project milestones to a 'days from notice to proceed' or are the completion dates going to remain a part of the contract?

RESPONSE: *The pipeline completion date has been changed to 365 days from Notice To Proceed. The plant completion dates remain unchanged. However, changes are being considered. All changes, if any, will be provided by addendum.*

30. QUESTION: Will the County consider reducing the liquidated damages for the NWTP Upgrade? Some contracts have damages at \$2,000/day.

RESPONSE: *No. The liquidated damages of \$5,500/day are appropriate for the NWTP.*