

SNOW HILL ROAD FORCE MAIN PROJECT



DURHAM COUNTY
SNOW HILL ROAD FORCE MAIN PROJECT
GMP-4.3

Wharton-Smith Contact:

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Senior Preconstruction/Project Manager
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SECTION 1 – EXECUTIVE SUMMARY

April 22, 2022

Mr. Vincent Chirichella
Durham County Engineering and Environmental Services (Owner)
5926 Highway 55 East
Durham, NC 27713

Re: Snow Hill Road Pump Station & Force Main
Guaranteed Maximum Price (GMP-4.3) – Phase 4.3 – Horizontal Directional Drill

Dear Mr. Chirichella:

Wharton-Smith (Design-Builder) is pleased to submit the Guaranteed Maximum Price (GMP-4.3) – Phase 4.3-Package for your review. Construction includes the scope of work for the horizontal directional drill portion of the force main work. This portion of work was previously bid and documented in the GMP4.2 deliverable.

Based on the Hazen and Sawyer Design Set “Snow Hill Road Force Main Project” dated June 2022, the total Guaranteed Maximum Price for the Phase 4.3 Package of the Snow Hill Pump Station is **\$6,659,581**. Following this letter is a comprehensive breakdown of GMP-4.3 including the cost breakdown, bid tabulations and recommendations of award. (Please reference GMP 4.2 Deliverable)

Please note the following clarifications regarding this proposal:

1. Wharton-Smith issued the Bid Set and Addendum #01. Bids were submitted to Wharton-Smith on July 28th, 2022. (GMP 4.2 & 4.3)
2. Wharton-Smith has evaluated the bids for the determination if they are responsive and responsible bidders. Wharton-Smith recommends the following subcontractors and suppliers for award for the various bid packages:
 - a. Force Main Pipeline HDD – JF Wilkerson. Please note, there are inherent and potentially unforeseeable risks with HDD and trenchless installations as actual conditions may differ from soil borings.
 - b. Please reference GMP4.2 deliverable for outreach, bid tabulations, MWBE Summary, Invitation List, etc.
3. The following allowances were set up for items related to the project that require additional details in order to provide Durham County with the most competitive pricing. Allowance overruns to be funded by Owner Contingency:
 - a. Permits Allowance: \$5,000
 - b. Additional HDD Geotechnical Allowance: \$20,000
 - c. HDPE & Accessories - Pipe & Fitting Material Escalation Allowance: \$50,000
 - d. Property Owner Satisfaction Allowance: \$25,000
 - e. Unsuitable Soils & Rock Allowance - HDD: \$40,000
4. A 2.75% Owners Contingency has been carried within GMP-4.3, with an additional contingency carried outside of the GMP for Owner directed changes.

5. A 3.00% Design-Builder Contingency has been carried for uninsurable risk as Design-Builder.
6. Remaining Design-Builder contingency from earlier GMPs shall be available for Phase 4.3 scope.
7. Remaining Allowances from earlier GMPs shall be available for Phase 4.3 scope.
8. Durham County will pay sales taxes to the Design-Builder per each monthly pay application. Design-Builder and its subcontractors will present Sales Tax Paid Certificates with each payment application for the County to request North Carolina sales tax reimbursement.
9. The following items remain provided by Owner – Durham County.
 - a. Material testing and special inspections.
 - b. Property Acquisition
10. Unforeseen conditions and conflicts will be financially resolved with a contract change order or Owner Contingency if necessary. Design-Builder Contingency is not intended for this use.
11. If there are any design changes as a result from any permit review comments it is anticipated that the Owner's Contingency will be utilized.
12. All NCDOT, USACOE, NCDEQ, NRCS, Subaqueous, etc. permit costs are by others. The permit allowance may be utilized if applicable.
13. This pricing and GMP is valid for 60 calendar days. If no formal contract or change Order has been established within 60 days. Wharton-Smith reserves the option for the GMP may be re-priced, to adjust for market conditions.
14. Currently, there has been no formal agreement to allow work to proceed on the McFarland property. A formal easement is required to be in place before work can proceed, the project schedule shall require an additional time extension.
15. The following assumptions have been made for the purposes of this GMP:
 - Formal McFarland acquisition will be completed by July 15, 2024.
16. All of the easement acquisitions for the force main have not yet been acquired. The timeline for these acquisitions is estimated within our project schedule and GMP. Any delays shall impact the project schedule and project costs.
17. Clarifications/Exclusions/Considerations:
 - a. It is assumed that the land use agreement with Durham Tech may be reinstated and the City will provide access to the new Pump Station site and Eno PS area as needed.
 - b. Tie-ins to existing lines and structures are assumed to be viable and in acceptable condition.
 - c. No Office or temporary facilities for inspection personnel has been included.
18. This portion of the project is expected to have a duration of 8.0 months. It is assumed a time extension will be granted for GMP-4.3 once the McFarland easement is finalized.
 - a. We have included project management staff that is appropriate for this phase of work. The Phase 4.3 schedule and associated general conditions are contingent upon the

anticipated receipt of GMP-4.3 approval and contract amendment within 60 calendar days of this submittal. If delayed, Wharton-Smith respectfully reserves the right to adjust the overall duration through amendment to this GMP.

19. General Conditions/General Requirements Clarifications:

- a. Due to the uncertainty regarding the land acquisition and funding timeline, both lump sum and monthly general conditions / general requirements have been included.
- b. General Conditions:
 - i. The lump sum General Conditions shall be billed to GMP 4.3. These costs have been included in the GMP 4.3 value. These costs are independent of the monthly costs detailed below.
 - ii. Monthly General Conditions costs shall be billed per month for every month the HDD work exceeds the duration of the open-cut force main installation. These monthly costs are approximately \$35,561. One (1) month of these costs has been included in GMP 4.3. These monthly general condition costs beyond one month shall be billed to Owner's Contingency, until the City takes over ownership and operation of the HDD.
 - iii. The threshold at which the HDD work exceeds the open-cut force main is defined in "d" below.
- c. General Requirements:
 - i. General Requirements have been included on a basis of 8 months. These costs will be billed on a lump sum and monthly basis per below:
 1. The lump sum General Requirements shall be billed to GMP 4.3. These costs have been included in the GMP 4.3 value. These costs are independent of the monthly costs detailed below.
 2. Monthly General Requirements costs are included. These costs shall be billed on a monthly basis at approximately \$12,540/month for every month the HDD work exceeds the duration of the open cut force main work until the City takes over ownership and operation of the HDD.
 3. Any unbilled General Requirements will be credited to Durham County as these are dependent upon the McFarland easement and GMP approval schedule.
- d. For the purposes of this GMP 4.3 and related costs for the HDD -- the open-cut force main shall be considered complete when the open-cut force main is buried. Testing, as-built submission, site restoration, and permitting close-out are not required to meet this threshold.

Thank you again for this opportunity to serve Durham County. As always, I am available to discuss at your earliest convenience.

Very respectfully,



Davis Riser, PE
Senior Preconstruction/Project Manager - Carolinas Water
Wharton-Smith, Inc.

SECTION 2 – COST SUMMARY, DIRECTS, AND GC BREAKDOWNS



DURHAM COUNTY - SNOW HILL ROAD PUMP STATION & FORCE MAIN

95%
4/24/2024

COST SUMMARY

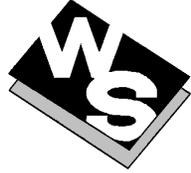
		LABOR	EQUIPMENT	MATERIALS	SUBS	TOTALS
Total Direct Costs		\$ 11,872	\$ 20,350	\$ 75,875	\$ 5,152,900	\$ 5,260,997
Sales Tax on Purchase Orders					\$ 5,691	\$ 5,691
Total GC's		\$ 207,521	\$ -	\$ 32,454	\$ -	\$ 239,975
Owner's Allowance					\$ -	\$ -
D-B Contingency	3.00%				\$ 171,209	\$ 171,209
Owner's Contingency	2.75%				\$ 156,942	\$ 156,942
Bond					\$ 200,306	\$ 200,306
Insurance					\$ 74,587	\$ 74,587
Fee	9.0%				\$ 549,874	\$ 549,874
TOTAL		\$219,393	\$20,350	\$108,329	\$6,311,509	\$6,659,581



DURHAM COUNTY - SNOW HILL ROAD PUMP STATION & FORCE MAIN

95%
4/24/24

COST OF WORK							
DESCRIPTION	QTY	UOM	LABOR	EQUIPMENT	MATERIALS	SUBS	\$ TOTALS
			\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	
GENERAL REQUIREMENTS DIVISION 0							
GENERAL REQUIREMENTS SUMMARY	1	LS	\$ 11,872	\$ 20,350	\$ 75,875	\$ 17,900	\$ 125,997
PURCHASE ORDERS							
SUBCONTRACTS							
SITWORK	1	LS	\$ -	\$ -	\$ -	\$ 20,000	\$ 20,000
HAZEN CONTRACT ADMINISTRATION	1	LS	\$ -	\$ -	\$ -	\$ 60,000	\$ 60,000
FORCEMAIN CONTRACTOR	1	LS	\$ -	\$ -	\$ -	\$ 4,915,000	\$ 4,915,000
ALLOWANCES							
ALLOWANCE FOR PERMITS	1	LS	\$ -	\$ -	\$ -	\$ 5,000	\$ 5,000
ALLOWANCE FOR ADDITIONAL GEOTECHNICAL INVESTIGATION	1	LS	\$ -	\$ -	\$ -	\$ 20,000	\$ 20,000
ALLOWANCES FOR HDPE MATERIAL ESCALATION	1	LS	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000
ALLOWANCES FOR PROPERTY OWNER SATISFACTION	2	LS	\$ -	\$ -	\$ -	\$ 25,000	\$ 25,000
ALLOWANCES FOR UNSUITABLE SOILS & ROCK - HDD	1	LS	\$ -	\$ -	\$ -	\$ 40,000	\$ 40,000
TOTAL DIRECT COST							
			\$ 11,872	\$ 20,350	\$ 75,875	\$ 5,152,900	\$ 5,260,997



Wharton-Smith, Inc.
CONSTRUCTION GROUP

JOB NAME: SNOW HILL ROAD PUMP STATION & FORCE MAIN

ESTIMATE #: 19-275

BASE BID DIRECTS

BID ITEM NUMBER	DESCRIPTION	BASE RATE	LABOR		EQUIPMENT \$ AMOUNT	MATERIAL \$ AMOUNT	SUBCONTRACT \$ AMOUNT	\$ TOTALS	PACKAGE VALUE W/ TAX
			MH	\$ AMOUNT					
GENERAL REQUIREMENTS DIVISION 0									
DIV. 0	GENERAL REQUIREMENTS SUMMARY	\$48.00		\$11,872	\$20,350	\$75,875	\$17,900	\$125,997	\$125,997
		\$48.00	0	\$0	\$0	\$0	\$0	\$0	
SUBCONTRACTS									
		\$48.00	0	\$0	\$0	\$0	\$0	\$0	
DIV. 2	SITWORK	\$48.00	0	\$0	\$0	\$0	\$0	\$0	\$20,000
	ENVIRONMENTAL CONCERNS / EROSION CONTROL	\$48.00	0	\$0	\$0	\$0	\$20,000	\$20,000	w/ above
	HAZEN CONTRACT ADMINISTRATION	\$48.00	0	\$0	\$0	\$0	\$60,000	\$60,000	\$60,000
	FORCEMAIN CONTRACTOR	\$48.00	0	\$0	\$0	\$0	\$0	\$0	\$4,915,000
DIV. 15	FORCEMAIN SUBCONTRACTOR - HDD	\$48.00	0	\$0	\$0	\$0	\$4,915,000	\$4,915,000	w/ above
		\$48.00	0	\$0	\$0	\$0	\$0	\$0	
	ALLOWANCE FOR PERMITS	\$48.00	0	\$0	\$0	\$0	\$5,000	\$5,000	
	ALLOWANCE FOR ADDITIONAL GEOTECHNICAL INVESTIGATION	\$48.00	0	\$0	\$0	\$0	\$20,000	\$20,000	
	ALLOWANCES FOR HDPE MATERIAL ESCALATION	\$48.00	0	\$0	\$0	\$0	\$50,000	\$50,000	
	ALLOWANCES FOR PROPERTY OWNER SATISFACTION	\$48.00	0	\$0	\$0	\$0	\$25,000	\$25,000	
	ALLOWANCES FOR UNSUITABLE SOILS & ROCK - HDD	\$48.00	0	\$0	\$0	\$0	\$40,000	\$40,000	
		\$48.00	0	\$0	\$0	\$0	\$0	\$0	
TOTAL DIRECT COST			0	\$11,872	\$20,350	\$75,875	\$5,152,900	\$5,260,997	\$5,260,997



Wharton-Smith, Inc.
CONSTRUCTION GROUP

JOB NAME: SNOW HILL ROAD PUMP STATION & FORCE MAIN

19-275

ESTIMATE #:

GENERAL CONDITIONS																
DESCRIPTION	QTY	UNIT	MH/ UNIT	BASE RATE	LABOR			HR/UNIT	EQUIPMENT		MATERIAL			SUBCONTRACTS		\$ TOTALS
					U/P	TOTAL MH	\$ AMOUNT		RATE	\$ AMOUNT	U/P	\$ AMOUNT	\$ AMOUNT	U/P	\$ AMOUNT	
PROJECT MANAGEMENT TEAM - LUMP SUM = \$169,050								W/ 7% TAX								
LUMP SUM STAFF																
Project Manager	21	WK	12	\$122.00	\$1,464.00	252	\$30,744		\$0.00		\$0	\$0			\$0	\$30,744
Project Engineer	21	WK	8	\$75.00	\$600.00	168	\$12,600		\$0.00		\$0	\$0			\$0	\$12,600
Assistant Superintendent	21	WK	40	\$108.00	\$4,320.00	840	\$90,720		\$0.00		\$0	\$0			\$0	\$90,720
Project Accountant	21	WK	2	\$123.00	\$246.00	42	\$5,166		\$0.00		\$0	\$0			\$0	\$5,166
Project Assistant	21	WK	2	\$65.00	\$130.00	42	\$2,730		\$0.00		\$0	\$0			\$0	\$2,730
Housing for On-site Staff	21	WK		\$0.00	\$0.00	0	\$0		\$0.00	\$625.00	\$13,125	\$14,109			\$0	\$14,109
Travel Expenses for On-Site Staff	21	WK		\$0.00	\$0.00	0	\$0		\$0.00	\$575.00	\$12,075	\$12,981			\$0	\$12,981
MONTHLY STAFF & RELATED MANAGEMENT COSTS (TO BE COORDINATED w/ TIME EXT. ON A MONTHLY BASIS) = \$35,561/month																
MONTHLY STAFF																
Superintendent	4.33	WK	40	\$122.00	\$4,880.00	173	\$21,130		\$0.00		\$0	\$0			\$0	\$21,130
Project Manager	4.33	WK	12	\$122.00	\$1,464.00	52	\$6,339		\$0.00		\$0	\$0			\$0	\$6,339
Project Assistant	4.33	WK	2	\$65.00	\$130.00	9	\$563		\$0.00		\$0	\$0			\$0	\$563
Cost Accountant	4.33	WK	2	\$60.00	\$120.00	9	\$520		\$0.00		\$0	\$0			\$0	\$520
Safety Coordinator	4.33	WK	4	\$95.00	\$380.00	17	\$1,645		\$0.00		\$0	\$0			\$0	\$1,645
Housing for On-site Staff	1	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$2,500.00	\$2,500	\$2,688			\$0	\$2,688
Travel Expenses for On-Site Staff	1	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$2,489.75	\$2,490	\$2,676			\$0	\$2,676
TOTAL GENERAL CONDITIONS						2,032	\$207,521		\$0	\$30,190	\$32,454			\$0	\$239,975	



Wharton-Smith, Inc.
CONSTRUCTION GROUP

JOB NAME:	SNOW HILL ROAD PUMP STATION & FORCE MAIN				
ESTIMATE #:	19-275				

GENERAL REQUIREMENTS	DURATION =		0 DIRECT MANHOURS		0		MAN WEEKS										
		8	MONTHS, PLANNED		0	MEN											
DESCRIPTION	QTY	UNIT	MH/UNIT	BASE RATE	LABOR			EQUIPMENT			MATERIAL			SUBCONTRACTS		\$ TOTALS	
					U/P	TOTAL MH	\$ AMOUNT	HR/UNIT	RATE	\$ AMOUNT	U/P	\$ AMOUNT	\$ AMOUNT	U/P	\$ AMOUNT		
W/ 7% TAX																	
TEMP. FACILITIES & UTILITIES																	
WATER, INSTALL AND REMOVE TEMPORARY SYSTEM	1	LS	40	\$48.00	\$1,920.00	40	\$1,920		\$0.00	\$3,000.00	\$3,000	\$3,225			\$0	\$5,145	
WATER, MONTHLY	8	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$650.00	\$4,875	\$5,241			\$0	\$5,241	
ELECTRIC, INSTALL & REMOVE TEMP. SYSTEM	1	LS		\$48.00	\$0.00	0	\$0		\$0.00	\$0.00	\$0	\$0	\$5,000.00	\$5,000	\$0	\$5,000	
ELECTRIC, MONTHLY CHARGES	8	MO		\$48.00	\$0.00	0	\$0	1	\$900.00	\$6,750.00	\$800.00	\$6,450			\$0	\$13,200	
INTERNET/TELEPHONE, MONTHLY CHARGES - W-S	8	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$500.00	\$3,750	\$4,031			\$0	\$4,031	
FIELD OFFICE, WHARTON SMITH INC	8	MO	10	\$48.00	\$480.00	75	\$3,600		\$0.00	\$2,500.00	\$18,750	\$20,156			\$0	\$23,756	
FIELD OFFICE, WHARTON SMITH - DELIVERY/RETURN	1	LS		\$48.00	\$0.00	0	\$0		\$0.00	\$7,500.00	\$7,500	\$8,063	\$6,000.00	\$6,000	\$0	\$14,063	
JOB OFFICE SUPPLIES	8	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$800.00	\$6,000	\$6,450			\$0	\$6,450	
TOOL TRAILERS - 1 REQUIRED	8	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$400.00	\$3,000	\$3,225			\$0	\$3,225	
TEMPORARY TOILETS - 2 REQUIRED	8	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$400.00	\$3,000	\$3,225			\$0	\$3,225	
TEMPORARY SEWAGE HOLDING TANKS - ENGINEER & W-S	8	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$300.00	\$2,250	\$2,419			\$0	\$2,419	
CONSTRUCTION EQUIPMENT & TOOLS																	
ATV/SIDE-BY-SIDE	8	MO		\$48.00	\$0.00	0	\$0	2	\$850.00	\$13,600.00	\$250.00	\$2,000	\$2,150		\$0	\$15,750	
SAFETY & HEALTH & HOUSEKEEPING																	
DUMPSTERS	8	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$2,000.00	\$15,000	\$16,125			\$0	\$16,125	
PERMITS, FEES, INSURANCE, LEGAL, ETC.																	
BUILDER'S RISK INSURANCE- NON-COASTAL COUNTY	7.5	MO		\$48.00	\$0.00	0	\$0		\$0.00		\$0	\$0	\$620.00	\$4,650	\$0	\$4,650	
PROJECT DOCUMENTATION AND SERVICES																	
PROJECT SIGNS	1	LS	24	\$48.00	\$1,152.00	24	\$1,152		\$0.00	\$750.00	\$750	\$806			\$0	\$1,958	
DESIGN SERVICES (CADD) - AS-BUILTS	1	LS	80	\$65.00	\$5,200.00	80	\$5,200		\$0.00	\$0	\$0	\$0			\$0	\$5,200	
REGISTERED SURVEYOR SERVICES	8	MO		\$48.00	\$0.00	0	\$0		\$0.00	\$0	\$0	\$0	\$300.00	\$2,250	\$0	\$2,250	
TOTAL GENERAL REQUIREMENTS						219	\$11,872			\$20,350	\$75,875	\$81,566			\$17,900	\$131,688	

SECTION 3 – INVITATION LIST

All the bid packages were publicly advertised. Additionally, individual/specific invitations and phone calls/emails to bid were sent to the following:

- 1) JF Wilkerson
- 2) ECI Contracting
- 3) TB Landmark
- 4) Cherokee Directional Drilling
- 5) The HDD Company
- 6) Mears Group
- 7) Michels Corp.
- 8) Ellingson Trenchless
- 9) Huxted Trenchless