

Brunswick County Engineering Department

Interoffice Memorandum

Date: December 15, 2021

To: Steve Stone, MPA
Deputy County Manager

Cc: Haynes Brigman, MPA
Deputy County Manager

From: *WLP, PS*
Wm. L. Pinnix, P.E. – County Engineer

Subject: FY16 Enterprise Water Main Top (7) & Apollo Street
Contract C and D – updated Opinion of Probable Cost (OPC)

Steve,

Per your recent request the updated OPCs for Contract C and Contract D of the FY16 Enterprise Water Main Top (&) & Apollo Street project are:

Contract C: Country Meadows Subdivision, Ludlum Road, & Russ Town Road
Original Cost Estimate: \$1,310,000
Updated Cost Estimate: \$1,965,000

Contract D: Big Neck Road & Mill Branch Road
Original Cost Estimate: \$1,125,000
Updated Cost Estimate: \$1,687,500

Some key points:

Original Board approval of the design contract, structuring of the project into four contracts, and temporary suspension of the Neighborhood Water Main program until all four areas were built was October 19, 2015

Contracts A and B have been built and are in service

Original OPC for Contract C & D total of \$2,435,000 has been carried on the Enterprise CIP as a placeholder in the ON THE HORIZON column since Contract C and D were placed on hold due to a lack of funding

Contract C and D were placed on hold due to funding needs for the NWWTF low pressure reverse osmosis installation due to PFAS and other water project needs

Updated OPCs were obtained by increasing the original OPC by 50% based upon recent water projects being installed in the county by developers and cost estimates they shared, discussions with local utility contractors on the cost of PVC and DIP pipe, valves, fittings, etc, and increased costs due to the ongoing supply chain issues.

Yours,

Bill



Brunswick County Board of Commissioners
ACTION AGENDA ITEM
2015

From:

Wm. L. Pinnix, P.E. - Engineering Director

Action Item # IX. - 4.

Engineering - FY16 Enterprise Water Mains Top (7) and Apollo Street - (William L. Pinnix, P.E., Engineering Director)

Issue/Action Requested:

Request that the Board of Commissioners approve an engineering services contract with East Coast Engineering & Surveying for the FY16 Enterprise Water Main Top (7) Areas and Apollo Street project in the amount of \$305,000 for surveying, design, permitting, bidding, and construction services, with a CPI inflation rider for FY18 and FY19, and also approve the temporary suspension of the Neighborhood Water Main program until all the water mains in the FY16 Top (7) Areas and Apollo street project are constructed.

Background/Purpose of Request:

Brunswick County has a yearly program on the Capital Improvement Plan titled System Improvement Mains - Neighborhood. On a yearly basis ten areas within the county are surveyed to gauge interest in connecting to a new water main if one is installed in their area. An area that returns a 30% or better affirmative response remains on the list for new water main design, permitting, and eventual construction.

For the FY16 program seven areas achieved a 30%, or better, response to remain on the list for new water main design and permitting. These areas are:

High Meadows Subdivision
Old Town Creek Road
Taft Road/Sea Wynd Subdivision
Country Meadows Subdivision
Ludlum Road
Russ Town Road
Big Neck / Mill Branch Road

At the August 17th Board meeting Apollo Street was also added to the FY16 Neighborhood Water Main project for design and permitting of a new water main due to documented well contamination issues in that neighborhood.

These eight areas comprise approximately 86,500 LF of new water main design and construction. This is the largest neighborhood water main project in the past few years in terms of linear feet of new main to be permitted and constructed. Based upon the sizes of the previous Neighborhood Water Main projects (approximately 20,000 - 25,000 LF each) this is basically a three year water main project.

Per standard procedure a Request for Qualifications for engineering services was issued, and responses were received on July 9th. Subsequent to that the selection committee recommended East Coast Engineering & Surveying as the design engineer for the FY16 Top (6) and Apollo Street project.

Due to the size of this project, County Engineering is making the following recommendations for the surveying, design, permitting, and construction of these eight areas:

- (1) Enter into a contract with East Coast Engineering to survey, design, and obtain all permits for construction for all areas as one project for FY16 in the lump sum amount of \$305,000, with the allowance for an increase in Bidding, Construction Administration & Observation, and Certification Services fees only that is indexed to the yearly CPI increase in the final years FY18 and FY19.
- (2) Bid and construct Apollo Street, High Meadows Subdivision, Old Town Creek Road, and Taft Road/Sea Wynd Subdivision in FY17 based upon available funding (cost est. \$1,435,000),
- (3) Bid and construct Country Meadows Subdivision, Ludlum Road, and Russ Town Road in FY18 based upon available funding (cost est. \$1,310,000),
- (4) Bid and construct Big Neck / Mill Branch Road in FY19 based upon available funding (cost est. \$1,125,000),
- (5) Resume mailing new neighborhood survey letters in FY20 only after all of the FY16 project water mains are installed and in service.
- (6) Mail an explanation letter to the citizens in the FY16 project areas explaining that the construction will be spread over several years due to the size of the project.

There are three attachments with this item that show the proposed construction areas for FY17, 18, and 19, as well as the proposed letter that will be mailed to the homeowners in these seven areas.

County Engineering respectfully requests Board consideration and approval of this proposed project schedule and approach, and permission to enter into the contract with East Coast Engineering & Surveying in the amount of \$305,000 for full surveying, design, and permitting of all of the streets

and areas as proposed. Additionally, we are asking for approval to (1) temporarily suspend the mailing of additional survey letters for new water mains and (2) mail the construction delay letter to the homeowners of the Top (7) areas.

Fiscal Impact:

Budget Amendment Required, Capital Project/Grant Ordinance Required, Pre-Audit Certification Required, Reviewed By Director of Fiscal Operations

Budget Amendment and the associated capital project ordinance are to transfer funds designated for FY 16 Top 7 and Apollo Street in the reserve to the project in the amount of \$340,000 for design and construction services of \$305,000 with 10% contingency for reimbursable and easements associated with the project.

Approved By County Attorney:

Yes

Advisory Board Recommendation:

Not Applicable.

County Manager's Recommendation:

Recommend that the Board of Commissioners approve an engineering services contract with East Coast Engineering & Surveying for the FY16 Enterprise Water Main Top (7) Areas and Apollo Street project in the amount of \$305,000 for surveying, design, permitting, bidding, and construction services, with a CPI inflation rider for FY18 and FY19, and also approve the temporary suspension of the Neighborhood Water Main program until all the water mains in the FY16 Top (7) Areas and Apollo street project are constructed.

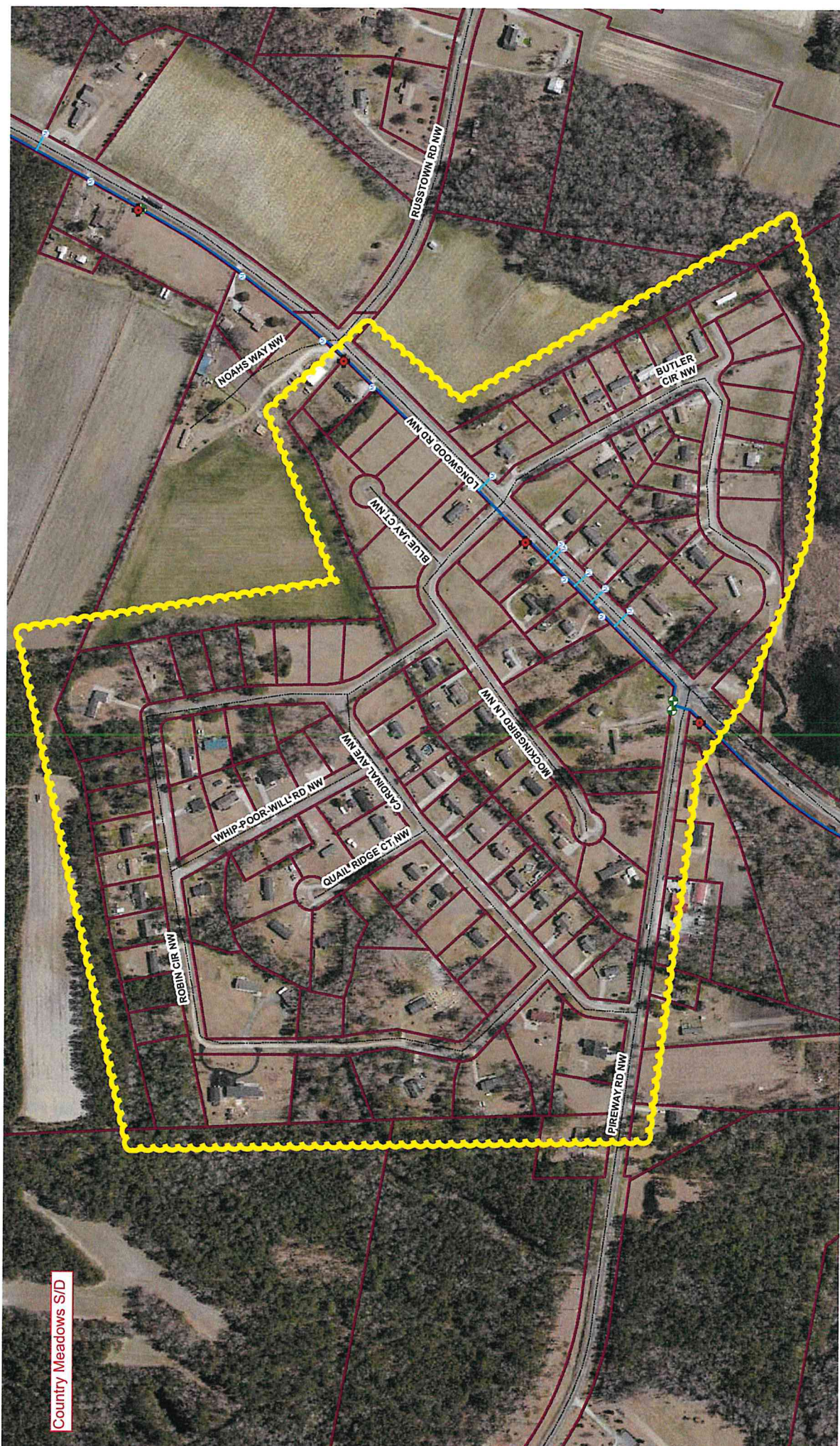
ATTACHMENTS:

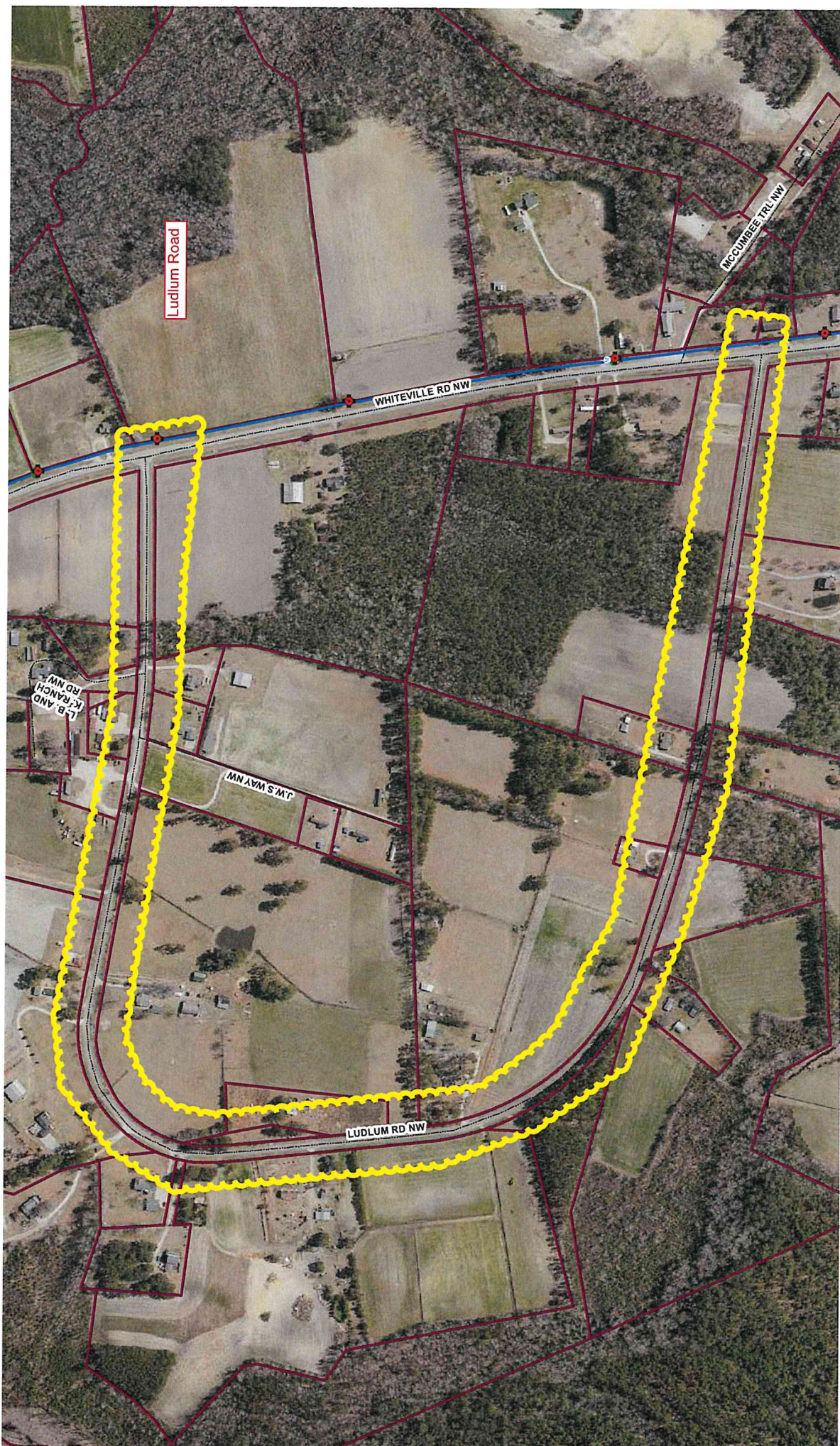
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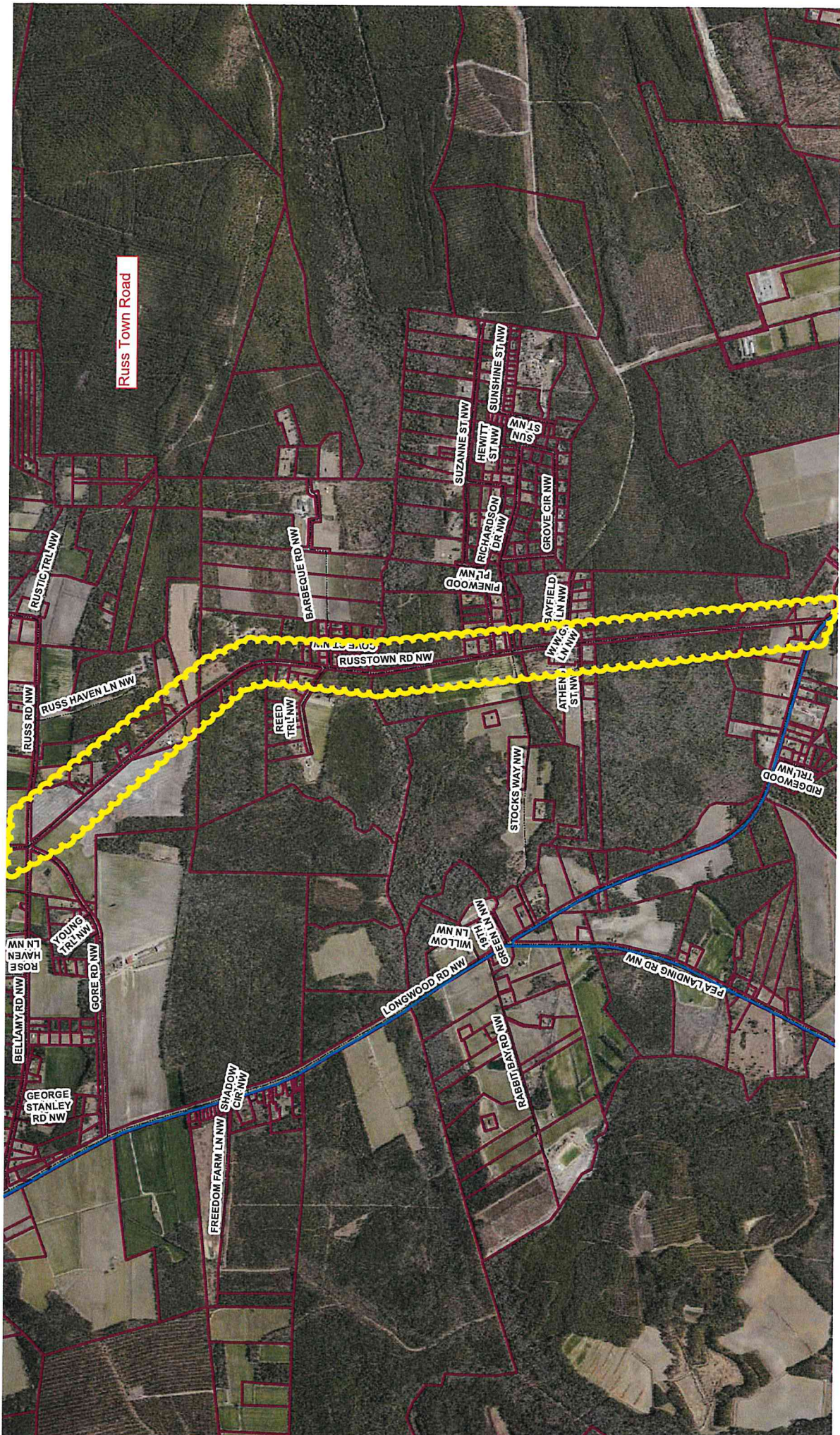
- ☐ FY16 EWM Top (7) and Apollo ECES contract
- ☐ Proposed FY17 Water Main Construction
- ☐ Proposed FY18 Water Main Construction
- ☐ Proposed FY19 Water Main Construction
- ☐ Citizen Construction Delay Update Letter
- ☐ 151019 Budget Amendment FY16 Enterprise Water Mains Reserve
- ☐ 151019 Budget Amendment FY16 Enterprise Water Mains
- ☐ 151019 CPO FY16 Enterprise Water Mains

BRUNSWICK COUNTY
CAPITAL IMPROVEMENT PLAN
APPROVED

Water Capital Improvement Plan-Projects	Prior to FY 2022	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Totals	On the Horizon
Shallotte Water Transmission Main	\$ 5,892,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,892,000	\$ -
Utility Operations Center Expansion	590,000	510,000	-	-	-	-	1,100,000	-
Northwest Water Plant Low Pressure Reverse Osmosis Advanced Treatment	167,345,190	-	-	-	-	-	167,345,190	-
54" LCFWSA Parallel Raw Water Main (Cost estimate includes cost sharing with other utilities)	28,683,127	-	-	-	-	-	28,683,127	-
Hwy 74/76 Water - Mintz Dr. to Old Maco	85,000	-	-	-	-	-	85,000	775,000
Southeast Area Improvements	50,550	-	-	-	-	-	50,550	3,410,000
FY16 Top 7 and Apollo Water Mains	1,773,285	-	-	-	-	-	1,773,285	2,435,000
Hwy 74/76 Industrial Park Waterline Extension	1,727,715	-	-	-	-	-	1,727,715	-
Transmission Improvements - NWWTP to Bell Swamp	-	-	2,031,000	-	-	-	2,031,000	23,850,000
NWWTP Raw Water Reservoir	-	-	-	-	-	-	-	22,890,000
Maco Road Water Transmission Improvements	-	-	593,500	4,085,000	-	-	4,678,500	-
Navassa Water System Improvements	-	372,000	1,846,967	-	-	-	2,218,967	-
Hwy 74/76 Industrial Park Tank	-	-	-	-	-	-	-	3,077,000
System Improvement Mains - Neighborhood	-	-	-	-	-	-	-	650,000
Asbestos Cement Pipe Replacement Program	-	-	-	-	-	-	-	950,000
NC 211-Gilbert-Old Lennon Road Improvements	-	-	-	-	-	-	-	1,500,000
Highway 87 Transmission System Improvements	-	-	-	-	-	-	-	6,105,000
Hwy. 211 County Site Water Main Extension	-	-	-	-	-	-	-	760,000
Total Water Capital Improvement Plan	206,146,867	882,000	4,471,467	4,085,000	-	-	215,585,334	66,402,000
Water Capital Improvement Plan-Sources								
Capital Reserve	\$ 10,118,550	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,118,550	\$ -
Debt Proceeds	196,028,317	-	-	-	-	-	196,028,317	-
Grant	-	372,000	1,846,967	-	-	-	2,218,967	-
To be Determined	-	-	593,500	4,085,000	-	-	4,678,500	59,332,000
Pay Go	-	510,000	2,031,000	-	-	-	2,541,000	7,070,000
Total County Capital Improvement Plan Sources	\$ 206,146,867	\$ 882,000	\$ 4,471,467	\$ 4,085,000	\$ -	\$ -	\$ 215,585,334	\$ 66,402,000







Russ Town Road

RUSTIC TRL NW

RUSS RD NW

RUSS RD NW

GEORGE STANLEY RD NW

BELAMY RD NW

ROSE LN NW

YOUNG TRL NW

GORE RD NW

SHADOW CIR NW

FREEDOM FARM LN NW

WILLOW LN NW

RUSS HAVEN LN NW

REED TRL NW

BARBEQUE RD NW

SUZANNE ST NW

HEWITT ST NW

RUSSTOWN RD NW

PINEWOOD PL NW

RICHARDSON DR NW

SUNSHINE ST NW

MN L'S

STOCKS WAY NW

WILLOW LN NW

GREEN LN NW

RABBIT BAY RD NW

PEA LANDING RD NW

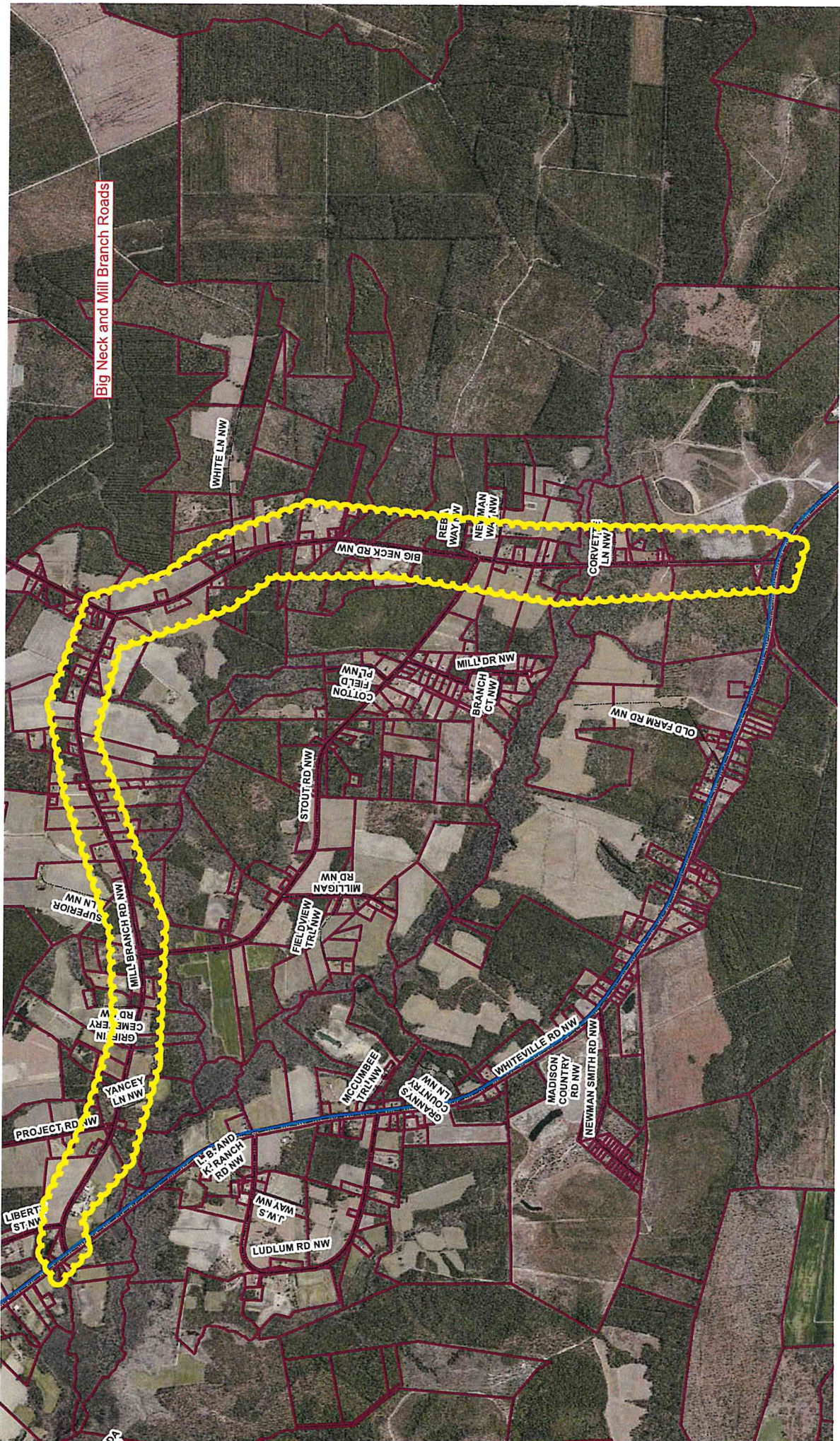
AYFIELD LN NW

ATHEN ST NW

WING LN NW

GROVE CIR NW

RIDGEWOOD TRL NW



Big Neck and Mill Branch Roads