

# City of Bruceville-Eddy

## NEW WASTEWATER SYSTEM - USDA RURAL DEVELOPMENT ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST

DESCRIPTION	QUANTITY	UNITS	UNIT COST	TOTAL COST
1 Mobilization & Demobilization	1	L.S.	\$250,000.00	\$250,000
2 Site Preparation & Erosion Control	1	L.S.	\$50,000.00	\$50,000
3 OSHA Trench Safety	106,887	LF	\$1.50	\$160,331
4 Select Material (within Pipe Zone)	106,887	LF	\$2.50	\$267,218
5 New 6" SDR 26 Sewer Line (0'-10')	63,970	LF	\$35.00	\$2,238,950
6 New 6" SDR 26 Sewer Line (10'-18')	10,042	LF	\$50.00	\$502,100
7 New 8" SDR 26 Sewer Line (0'-10')	15,337	LF	\$40.00	\$613,480
8 New 8" SDR 26 Sewer Line (10'-18')	7,139	LF	\$60.00	\$428,340
9 New 10" SDR 26 Sewer Line (0'-10')	5,100	LF	\$45.00	\$229,500
10 New 10" SDR 26 Sewer Line (10'-18')	4,867	LF	\$80.00	\$389,360
11 New 10" SDR 26 Sewer Line (18'-22')	432	LF	\$100.00	\$43,200
12 New 6" Road Bore & Steel Encasement	650	LF	\$200.00	\$130,000
13 New 8" Road Bore & Steel Encasement	450	LF	\$225.00	\$101,250
14 New 10" Road Bore & Steel Encasement	500	LF	\$250.00	\$125,000
15 New 6" Clean Out	10	EA	\$500.00	\$5,000
16 New Manholes (0'-10')	214	EA	\$2,500.00	\$535,000
17 New Manholes (10'-18')	74	EA	\$3,500.00	\$259,000
18 New Manholes (20'-22')	1	EA	\$5,000.00	\$5,000
19 New Manhole Drop Fixture	40	EA	\$1,000.00	\$40,000
20 Service Connection to include New WYE, 1/8 Bend & 2-Way Cleanout in Public, & City Service Line	589	EA	\$1,000.00	\$589,000
21 Service Line in Private Property (Easements)	5,000	LF	\$20.00	\$100,000
22 Service Connection to Include 2-Way Cleanout, Cap OSSF in Private Property (Easements)	32	EA	\$500.00	\$16,000
23 Large Lift Station Including Electrical	3	EA	\$65,000.00	\$195,000
24 Small Lift Station Including Electrical	6	EA	\$50,000.00	\$300,000
25 Large Lift Station Generator	3	EA	\$25,000.00	\$75,000
26 Small Lift Station Generator	6	EA	\$15,000.00	\$90,000
27 New 1-1/2" HDPE Force Main	6,570	LF	\$7.50	\$49,275
28 New 2" HDPE Force Main	2,940	LF	\$7.50	\$22,050
29 New 3" HDPE Force Main	3,560	LF	\$10.00	\$35,600
30 New 5" HDPE Force Main	5,890	LF	\$17.00	\$100,130
31 New 6" HDPE Force Main	2,780	LF	\$17.00	\$47,260
32 New 1-1/2" Force Main Bore & Encasement	400	LF	\$100.00	\$40,000
33 New 5" Force Main Bore & Steel Encasement	800	LF	\$190.00	\$152,000
34 New 6" Force Main Bore & Steel Encasement	100	LF	\$200.00	\$20,000
35 230,000 Gallon Sewage Treatment Plant	1	EA	\$1,400,000.00	\$1,400,000
36 50 Acre Irrigation (Green Infrastructure)	1	EA	\$400,000.00	\$400,000
<b>ESTIMATED ITEMIZED CONSTRUCTION COST:</b>				<b>\$10,004,000</b>
CONTINGENCY:			17%	\$1,700,700
<b>ESTIMATED TOTAL CONSTRUCTION COST:</b>				<b>\$11,704,700</b>
ADMINISTRATION OF LEGAL EXPENSES:				\$7,500
LAND, STRUCTURES, RIGHT-OF-WAY, APPRAISALS, ETC:				\$400,000
PRELIMINARY ENGINEERING-SECTION B-1:				\$31,500
ENVIRONMENTAL ASSESSMENT-SECTION B-1:				\$31,500
ENGINEERING FEES-SECTION B-2 (b):				\$630,000
OTHER ENGINEERING FEES-SECTION D:				\$40,000
PROJECT INSPECTION FEES-SECTION C:				\$100,000
<b>Required Additional Administrative Costs</b>				
ADMINISTRATION OF LEGAL EXPENSES:				\$50,000
LAND ACQUISITION (SURVEY, LEGAL, AGENT, CLOSING)				\$160,000
ENGINEER AMENDMENT NO. 2 (American Iron & Steel plus Scope of Work)				\$280,500
<b>MINIMUM TOTAL ESTIMATED PROJECT COST:</b>				<b>\$13,436,000</b>

**City of Bruceville-Eddy**  
**NEW WASTEWATER SYSTEM - USDA RURAL DEVELOPMENT**  
**ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST**

**MINIMUM TOTAL ESTIMATED PROJECT COST:**

**\$13,436,000**

**City Optional Bid Items:**

**Customer Private Property Service Work**

1 Residential Grinder Pump & Service Line in Private Property	14	EA	\$4,000.00	\$56,000
2 Service Line in Private Property (12.7 miles)	67,250	LF	\$20.00	\$1,345,000
3 Service Connection to Include 2-Way Cleanout, Cap OSSF in Private Property	543	EA	\$500.00	\$271,500
4 Decommission OSSF in Private Property	575	EA	\$500.00	\$287,500
<b>Estimated Customer Private Property Service Work</b>				<b>\$1,960,000</b>

**Street Rehabilitation Options:**

1 <b>Option 1:</b> Street Rehabilitation including, Full Depth Recycle 6", Street Base Cement Added & Remix, 1-1/2" HMAC Type D Paving (13.25 miles)	70,000	LF	\$39.00	\$2,730,000
2 <b>Option 2:</b> Street Rehabilitation including, Full Depth Recycle 6", 1-1/2" HMAC Type D Paving (13.25 miles)	70,000	LF	\$31.00	\$2,170,000
3 <b>Option 3:</b> Street Rehabilitation including, Full Depth Recycle 6", 2 course surface treatment (13.25 miles)	70,000	LF	\$22.00	\$1,540,000
4 <b>Option 4:</b> Street Rehabilitation including, Full Depth Recycle 6", 1 course surface treatment (13.25 miles)	70,000	LF	\$17.00	\$1,190,000

**WORKSHEET FOR AVERAGE USER COST**

**Borrower Name:** CITY OF BRUCEVILLE - EDDY (SEWER SYSTEM)  
**County:** McLennan **Date:** March 4, 2020  
**INITIAL LOAN & GRANT OBLIGATED 9-27-2017**

**Total Project Funding:** \$10,181,000 **Total Loan:** \$5,861,000

**Interest Rate:** 2.625% **Number of Years:** 38 **Type of Payment:** Semi-Annual

**Total Customers:** 635 **Total Grant:** \$4,320,000  
 (595 residential; 40 other)

**Borrower's Contribution:** \$0

**Loan Amount:** \$5,861,000 X 41.91 (Amortization Factor) = \$ 245,635 Annual Debt Service this loan

**Plus Existing Loans** \$0

**\$245,635 TOTAL ANNUAL DEBT SERVICE**

<b>Debt Service</b> (Principal & Interest)	\$245,635 / (# of Customers)	635	=	\$386.83	Per user per year
	\$386.83 / 12 months		=	<b>\$32.24</b>	Per user per month
<b>Reserves **</b>	\$24,563.45 /	635	=	\$38.68	Per user per year
	\$38.68 / 12 months		=	<b>\$3.22</b>	Per user per month
<b>Short-Lived Asset Reserves</b>	\$26,133.00 /	635	=	\$41.15	Per user per year
	\$41.15 / 12 months		=	<b>\$3.43</b>	Per user per month
<b>Oper. &amp; Maint.</b>	\$130,500 /	635	=	\$205.51	Per user per year
	\$205.51 / 12 months		=	<b>\$17.13</b>	Per user per month

\*\* City may request a waiver of this reserve account requirement in writing

DEBT SERVICE PER USER PER MONTH	\$32.24
RESERVE PER USER PER MONTH	\$3.22
SLA PER USER PER MONTH	\$3.43
O&M PER USER PER MONTH	\$17.13

**TOTAL AVERAGE USER COST PER MONTH \$56.01**

**WORKSHEET FOR AVERAGE USER COST**

**Borrower Name:** CITY OF BRUCEVILLE - EDDY (SEWER SYSTEM)  
**County:** McLennan **Date:** March 5, 2020  
**Total Project Funding:** \$13,436,000 **Total Proposed Loan:** \$3,255,000  
**Interest Rate \*** 2.250% **Number of Years:** 38 **Type of Payment:** Semi-Annual  
**Total Connections** 635 **Total Grant** \$4,320,000  
 (595 residential; 40 other)  
**Borrower's Contribution:** \$0

**Proposed Loan:** \$3,255,000 X 39.43 (Amortization Factor) = \$128,345 Annual Debt Service this loan

**Plus Existing Loans** \$245,635  
 (approved USDA loan of \$5,861,000)  
**TOTAL ANNUAL DEBT SERVICE** \$373,980

<b>Debt Service</b> (Principal & Interest)	\$373,980 / 635 (# of Customers)	=	\$588.94	Per user per year
	\$588.94 / 12 months	=	<b>\$49.08</b>	Per user per month
<b>Reserves **</b>	\$37,397.97 / 635	=	\$58.89	Per user per year
	\$58.89 / 12 months	=	<b>\$4.91</b>	Per user per month
<b>Short-Lived Asset Reserves</b>	\$26,133.00 / 635	=	\$41.15	Per user per year
	\$41.15 / 12 months	=	<b>\$3.43</b>	Per user per month
<b>Oper. &amp; Maint.</b>	\$130,500 / 635	=	\$205.51	Per user per year
	\$205.51 / 12 months	=	<b>\$17.13</b>	Per user per month

\* Interest rate in effect until 3-31-2020  
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DEBT SERVICE PER USER PER MONTH	\$49.08
RESERVE PER USER PER MONTH	\$4.91
SLA PER USER PER MONTH	\$3.43
O&M PER USER PER MONTH	\$17.13
<b>TOTAL AVERAGE USER COST PER MONTH</b>	<b>\$74.54</b>

**WORKSHEET FOR AVERAGE USER COST**

**Borrower Name:** CITY OF BRUCEVILLE - EDDY (SEWER SYSTEM)  
**County:** McLennan **Date:** March 5, 2020  
**Total Project Funding:** \$15,396,000 **Total Proposed Loan:** \$5,215,000  
**Interest Rate \*** 2.250% **Number of Years:** 38 **Type of Payment:** Semi-Annual  
**Total Connections** 635 **Total Grant** \$4,320,000  
 (595 residential; 40 other)  
**Borrower's Contribution:** \$0

**Proposed Loan:** \$5,215,000 X 39.43 (Amortization Factor) = \$ 205,627 Annual Debt Service this loan

**Plus Existing Loans** \$245,635  
 (approved USDA loan of \$5,861,000)  
**\$451,262 TOTAL ANNUAL DEBT SERVICE**

<b>Debt Service</b> (Principal & Interest)	\$451,262 /	635	=	\$710.65 Per user per year
	\$710.65 / 12 months		=	<b>\$59.22</b> Per user per month
<b>Reserves **</b>	\$45,126.25 /	635	=	\$71.06 Per user per year
	\$71.06 / 12 months		=	<b>\$5.92</b> Per user per month
<b>Short-Lived Asset Reserves</b>	\$26,133.00 /	635	=	\$41.15 Per user per year
	\$41.15 / 12 months		=	<b>\$3.43</b> Per user per month
<b>Oper. &amp; Maint.</b>	\$130,500 /	635	=	\$205.51 Per user per year
	\$205.51 / 12 months		=	<b>\$17.13</b> Per user per month

\* Interest rate in effect until 3-31-2020

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DEBT SERVICE PER USER PER MONTH	\$59.22
RESERVE PER USER PER MONTH	\$5.92
SLA PER USER PER MONTH	\$3.43
O&M PER USER PER MONTH	\$17.13
<b>TOTAL AVERAGE USER COST PER MONTH</b>	<b>\$85.70</b>

**WORKSHEET FOR AVERAGE USER COST**

**Borrower Name:** CITY OF BRUCEVILLE - EDDY (SEWER SYSTEM)  
**County:** McLennan **Date:** March 5, 2020  
**Updated Costs + Private Property Service Work + Street Rehab Option 3**  
**Total Project Funding:** \$16,936,000 **Total Proposed Loan:** \$6,755,000  
**Interest Rate \*** 2.250% **Number of Years:** 38 **Type of Payment:** Semi-Annual  
**Total Connections** 635 **Total Grant** \$4,320,000  
 (595 residential; 40 other)  
**Borrower's Contribution:** \$0

**Proposed Loan:** \$6,755,000 X 39.43 \$ 266,350 Annual Debt Service this loan  
 (Amortization Factor)

**Plus Existing Loans** \$245,635  
 (approved USDA loan of \$5,861,000)  
 \$511,985 TOTAL ANNUAL DEBT SERVICE

<b>Debt Service</b>	\$511,985 /	635	=	\$806.28	Per user per year
(Principal & Interest)	(# of Customers)				
	\$806.28 / 12 months		=	<b>\$67.19</b>	Per user per month
<b>Reserves **</b>	\$51,198.47 /	635	=	\$80.63	Per user per year
	\$80.63 / 12 months		=	<b>\$6.72</b>	Per user per month
<b>Short-Lived Asset Reserves</b>	\$26,133.00 /	635	=	\$41.15	Per user per year
	\$41.15 / 12 months		=	<b>\$3.43</b>	Per user per month
<b>Oper. &amp; Maint.</b>	\$130,500 /	635	=	\$205.51	Per user per year
	\$205.51 / 12 months		=	<b>\$17.13</b>	Per user per month

\* Interest rate in effect until 3-31-2020

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DEBT SERVICE PER USER PER MONTH	\$67.19
RESERVE PER USER PER MONTH	\$6.72
SLA PER USER PER MONTH	\$3.43
O&M PER USER PER MONTH	\$17.13
<b>TOTAL AVERAGE USER COST PER MONTH</b>	<b>\$94.46</b>



## **WATER & WASTE DISPOSAL ITEMS REQUIRED TO REQUEST ADDITIONAL FUNDS**

1. **Standard Form 424 “Application for Federal Assistance”**, together with:
  - a. **424C – Budget Information – Construction Programs**
  - b. **424D – Assurances – Construction Programs**
2. **Form RD 400-1 “Equal Opportunity Agreement”**
3. **Form RD 400-4 “Assurance Agreement”**
4. **Form AD 1047 “Certification Regarding Debarment, Suspension, and Other Responsibility Matters – Primary Covered Transactions”** executed by applicant
5. **Form AD 1049 “Certification Regarding Drug-Free Workplace Requirements”**
6. **Form RD 1910-11 “Applicant Certification, Federal Collection Policies”**
7. **RD Instruction 1940-Q, Exhibit A-1, “Certification for Contracts, Grants and Loans”**
8. **Standard Form LLL “Disclosure of Lobbying Activities”** (if applicable)
9. **Amended Owner/Engineer Agreement** - EJCDC E-500 Standard Form of Agreement between Owner & Engineer (2014), modified in accordance with RUS Bulletin 1780-26 “Guidance for the Use of Engineers Joint Contract Documents Committee (EJCDC) Documents on Water and Waste Disposal Projects with RUS Financial Assistance” and RUS Bulletin 1780-35, “Guidance for the Implementation of American Iron and Steel (AIS) Requirements with Rural Utilities Service (RUS) Financial Assistance.”
10. **Form AD 1048 “Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transaction”** executed by project engineer
11. **Audit / Financial Statements** - for the prior 2 fiscal years, and a current (not more than 90 days old) Balance Sheet and Statement of Income and Expenses for General Fund and Water Operations Fund
12. **Copies of existing debt instruments** for NON-Rural Development debt only (copy of bond ordinance for wastewater plant loan through
13. **Breakdown of active meters and flow data** – see page 3 for further information on this requirement
14. **List of current council members** with Positions & Terms of each appointment
15. **Proposed budget and utility rate schedule/ordinance** & documentation of other income sources to be used to repay the proposed loan (e.g., taxes, assessments, etc.)