

30-May-17

SANITARY SEWER (SAS) IMPROVEMENTS
PRELIMINARY CONSTRUCTION COST ESTIMATE

| NO. | DESCRIPTION | AMOUNT |
|---|---------------------------|-------------------|
| 1 | SAS Point Repairs (Total) | \$ 320,000 |
| | | |
| TOTAL PRELIMINARY CONSTRUCTION COST - SAS IMPROVEMENTS | | \$ 320,000 |

*Estimate to replace entire public sanitary sewer system is approximately \$10,049,000.00

STORM SEWER (STS) IMPROVEMENTS
PRELIMINARY CONSTRUCTION COST ESTIMATE

| NO. | DESCRIPTION | AMOUNT |
|---|---------------------------|-------------------|
| 1 | STS Point Repairs (Total) | \$ 633,000 |
| | | |
| TOTAL PRELIMINARY CONSTRUCTION COST - STS IMPROVEMENTS | | \$ 633,000 |

*Estimate to replace entire public storm sewer system is approximately
\$7,381,000.00 (This estimate does not include installing new storm sewers on
roads that do not currently have existing storm sewers).

**SANITARY SEWER (SAS) IMPROVEMENTS
PRELIMINARY CONSTRUCTION COST ESTIMATE**

30-May-17

| NO. | DESCRIPTION | QUANTITY | UNIT | UNIT COST | AMOUNT |
|--|--|----------|------|------------|-------------------|
| East St. Near Third St. (Hole, Soil Visible) | | | | | |
| 1 | 8-Inch VCP Sanitary Sewer | 10 | LF | \$ 600 | \$ 6,000 |
| 2 | Backfill Material | 9 | CY | \$ 50 | \$ 500 |
| 3 | Asphalt Pavement Replacement | 6 | SY | \$ 200 | \$ 1,200 |
| | | | | | \$ 7,700 |
| East St., Third St., New Fourth St., Chestnut St., Vine St., Second St., Fifth St. (Holes, Fractures, Cracks) | | | | | |
| 4 | 8-Inch CIPP Liner | 2600 | LF | \$ 45 | \$ 117,000 |
| 5 | Service Lateral Reinstatement | 80 | EA | \$ 200 | \$ 16,000 |
| 6 | Service Lateral Connection Grouting | 80 | EA | \$ 500 | \$ 40,000 |
| 7 | Manhole Lining | 170 | LF | \$ 450 | \$ 76,500 |
| | | | | | \$ 249,500 |
| Second St. Repair 1 (Broken Tee Connection) | | | | | |
| 8 | 8"x6" VCP Sanitary Sewer Tee Connection (Including Spool Pieces) | 1 | EA | \$ 7,000 | \$ 7,000 |
| 9 | Backfill material | 5 | CY | \$ 50 | \$ 300 |
| 10 | Asphalt Pavement Material | 5 | SY | \$ 200 | \$ 1,000 |
| | | | | | \$ 8,300 |
| Second St. Repair 2 (Broken Tee Connection) | | | | | |
| 11 | 8"x6" VCP Sanitary Sewer Tee Connection (Including Spool Pieces) | 1 | EA | \$ 7,000 | \$ 7,000 |
| 12 | Backfill material | 5 | CY | \$ 50 | \$ 300 |
| 13 | Asphalt Pavement Material | 5 | SY | \$ 200 | \$ 1,000 |
| | | | | | \$ 8,300 |
| Fifth St. Repair 1 (Broken Tee Connection) | | | | | |
| 14 | 8"x6" VCP Sanitary Sewer Tee Connection (Including Spool Pieces) | 1 | EA | \$ 7,000 | \$ 7,000 |
| 15 | Backfill material | 5 | CY | \$ 50 | \$ 300 |
| 16 | Asphalt Pavement Material | 5 | SY | \$ 200 | \$ 1,000 |
| | | | | | \$ 8,300 |
| Fifth St. Repair 2 (Broken Tee Connection) | | | | | |
| 17 | 8"x6" VCP Sanitary Sewer Tee Connection (Including Spool Pieces) | 1 | EA | \$ 7,000 | \$ 7,000 |
| 18 | Backfill material | 5 | CY | \$ 50 | \$ 300 |
| 19 | Asphalt Pavement Material | 5 | SY | \$ 200 | \$ 1,000 |
| | | | | | \$ 8,300 |
| PRELIMINARY CONSTRUCTION COST - SAS POINT REPAIRS | | | | | |
| CONTINGENCY | | | | 10% | \$ 29,000 |
| PRELIMINARY CONSTRUCTION COST - SAS POINT REPAIRS | | | | | |
| | | | | | \$ 320,000 |

*Estimated costs reflect each improvement as an individual project and mobilization

STORM SEWER (STS) IMPROVEMENTS
PRELIMINARY CONSTRUCTION COST ESTIMATE

30-May-17

| NO. | DESCRIPTION | QUANTITY | UNIT | UNIT COST | AMOUNT |
|---|-------------------------------------|----------|------|-----------|------------|
| East St. (Broken Pipe) | | | | | |
| 1 | 10-Inch VCP Storm Sewer | 5 | LF | \$ 1,500 | \$ 7,500 |
| 2 | Backfill Material | 5 | CY | \$ 50 | \$ 300 |
| 3 | Asphalt Pavement Replacement | 6 | SY | \$ 200 | \$ 1,200 |
| | | | | | \$ 9,000 |
| New Fourth St. (Intruding Pipe, Buried Manhole) | | | | | |
| 4 | Raise Existing Manhole To Grade | 1 | EA | \$ 3,000 | \$ 3,000 |
| 5 | 8-Inch VCP Storm Sewer | 5 | LF | \$ 1,000 | \$ 5,000 |
| 6 | Backfill Material | 6 | CY | \$ 50 | \$ 300 |
| 7 | Asphalt Pavement Replacement | 7 | SY | \$ 200 | \$ 1,400 |
| | | | | | \$ 9,700 |
| New Fourth St. (Replace Incorrect Size Tee Connection) | | | | | |
| 8 | 10-Inch VCP Storm Sewer | 5 | LF | \$ 800 | \$ 7,000 |
| 9 | 10-Inch x 6-Inch Tee Connection | 1 | EA | \$ 1,000 | \$ 1,000 |
| 10 | Backfill Material | 5 | CY | \$ 50 | \$ 300 |
| 11 | Asphalt Pavement Replacement | 5 | SY | \$ 200 | \$ 1,000 |
| | | | | | \$ 9,300 |
| New Fourth St. (Broken Pipe) | | | | | |
| 12 | 10-Inch VCP Storm Sewer | 50 | LF | \$ 800 | \$ 40,000 |
| 13 | Backfill Material | 44 | CY | \$ 50 | \$ 2,300 |
| 14 | Asphalt Pavement Replacement | 28 | SY | \$ 200 | \$ 5,600 |
| | | | | | \$ 47,900 |
| New Fourth St. Lining (Holes, Fractures, Cracks) | | | | | |
| 15 | 10-Inch CIPP Liner | 800 | LF | \$ 50 | \$ 40,000 |
| 16 | Service Lateral Reinstatement | 5 | EA | \$ 200 | \$ 1,000 |
| 17 | Service Lateral Connection Sealing | 5 | EA | \$ 2,500 | \$ 12,500 |
| 18 | Manhole Lining | 70 | LF | \$ 450 | \$ 31,500 |
| | | | | | \$ 85,000 |
| Third St. (Intruding Pipe) | | | | | |
| 19 | 10-Inch VCP Storm Sewer | 5 | LF | \$ 1,500 | \$ 7,500 |
| 20 | Backfill Material | 5 | CY | \$ 50 | \$ 300 |
| 21 | Asphalt Pavement Replacement | 5 | SY | \$ 200 | \$ 1,000 |
| | | | | | \$ 8,800 |
| Easement - High School (Deformed Pipe) | | | | | |
| 22 | 18-Inch VCP Storm Sewer | 155 | LF | \$ 400 | \$ 62,000 |
| 23 | Backfill Material | 138 | CY | \$ 50 | \$ 6,900 |
| 24 | Grading and Seeding | 1 | LS | \$ 500 | \$ 500 |
| | | | | | \$ 69,400 |
| Plum St. (Deformed Pipe) | | | | | |
| 25 | 24-Inch CMP Storm Sewer | 70 | LF | \$ 700 | \$ 49,000 |
| 26 | Backfill Material | 62 | CY | \$ 50 | \$ 3,200 |
| 27 | Asphalt Pavement Replacement | 39 | SY | \$ 200 | \$ 7,800 |
| | | | | | \$ 60,000 |
| Third St. Lining (Hole, Fractures) | | | | | |
| 28 | 10-Inch CIPP Liner | 400 | LF | \$ 50 | \$ 20,000 |
| 29 | Service Lateral Reinstatement | 4 | EA | \$ 250 | \$ 1,000 |
| 30 | Service Lateral Connection Grouting | 4 | EA | \$ 500 | \$ 2,000 |
| 31 | Manhole Lining | 20 | LF | \$ 450 | \$ 9,000 |
| | | | | | \$ 32,000 |
| Third St./Easement Through High School Lining (Hole, Fractures) | | | | | |
| 32 | 18-Inch CIPP Liner | 800 | LF | \$ 85 | \$ 68,000 |
| 33 | Service Lateral Reinstatement | 4 | EA | \$ 250 | \$ 1,000 |
| 34 | Service Lateral Connection Grouting | 4 | EA | \$ 500 | \$ 2,000 |
| 35 | Manhole Lining | 36 | LF | \$ 450 | \$ 16,200 |
| 36 | New Precast Manhole | 1 | EA | \$ 5,000 | \$ 5,000 |
| | | | | | \$ 92,200 |
| Gully From Eagle St. Through Lyondell Property (Fractures, Slight Deformity) | | | | | |
| 37 | 24-Inch CIPP Liner | 815 | LF | \$ 120 | \$ 97,800 |
| 38 | Service Lateral Reinstatement | 4 | EA | \$ 250 | \$ 1,000 |
| 39 | Service Lateral Connection Grouting | 4 | EA | \$ 500 | \$ 2,000 |
| 40 | Manhole Lining | 72 | LF | \$ 450 | \$ 32,400 |
| | | | | | \$ 133,200 |
| Gully From Building to Manhole 100052 (Fractures) | | | | | |
| 41 | 15-Inch CIPP Liner | 70 | LF | \$ 75 | \$ 5,300 |
| 42 | Manhole Lining | 10 | LF | \$ 450 | \$ 4,500 |
| 43 | New Precast Manhole | 1 | EA | \$ 5,000 | \$ 5,000 |
| | | | | | \$ 14,800 |
| York St. - Rehab Catch Basin | | | | | |
| 44 | Rehab Existing Catch Basin | 1 | EA | \$ 3,000 | \$ 3,000 |
| | | | | | \$ 3,000 |
| SUBTOTAL PRELIMINARY CONSTRUCTION COST - STS POINT REPAIRS | | | | | |
| | CONTINGENCY | 1 | 10% | \$ 57,500 | \$ 58,000 |
| TOTAL PRELIMINARY CONSTRUCTION COST - STS POINT REPAIRS | | | | | |
| | | | | | \$ 633,000 |

*Estimated costs reflect each improvement as an individual project and mobilization

LAKE COUNTY DEPARTMENT OF UTILITIES
 I/I INVESTIGATION - VILLAGE OF FAIRPORT HARBOR
 STORM SEWER (STS) IMPROVEMENTS

BURGESS & NIPLE
 Engineers ■ Architects ■ Planners

STS CLEANING & INSPECTION
 PRELIMINARY CONSTRUCTION COST ESTIMATE

30-May-17

| NO. | DESCRIPTION | QUANTITY | UNIT | UNIT COST | AMOUNT |
|-----|---|----------|------|-----------|-------------------|
| 1 | Mobilization | 1 | LS | \$ 5,000 | \$ 5,000 |
| | Cleaning & Inspection of Remaining STS* | | | | |
| 2 | Cleaning and CCTV Inspection of Storm Sewer Pipes and Catch Basin Laterals | 30,900 | LF | \$ 6 | \$ 185,400 |
| | SUBTOTAL PRELIMINARY CONSTRUCTION COST - STS CLEANING & INSPECTION | | | | \$ 191,000 |
| | CONTINGENCY | 1 | 10% | \$ 18,500 | \$ 19,000 |
| | TOTAL PRELIMINARY CONSTRUCTION COST - STS CLEANING & INSPECTION | | | | \$ 210,000 |

*Total storm sewer system pipe is estimated at 35,700 ft. For this investigation, LCSMD had 4,800 feet within and tributary to the pilot area cleaned and inspected

LAKE COUNTY DEPARTMENT OF UTILITIES
I/I INVESTIGATION - VILLAGE OF FAIRPORT HARBOR
SANITARY SEWER (SAS) AND STORM SEWER (STS)
REPLACEMENT OF ENTIRE PUBLIC SYSTEMS
PRELIMINARY CONSTRUCTION COST ESTIMATE

BURGESS & NIPLE
 Engineers ■ Architects ■ Planners

30-May-17

| NO. | DESCRIPTION | QUANTITY | UNIT | UNIT COST | AMOUNT |
|--------------------------------|---|----------|------|--------------|----------------------|
| Sanitary Sewer Quantity | | | | | |
| 1 | 6-Inch VCP Sewer | 898 | LF | \$ 60 | \$ 54,000 |
| 2 | 8-Inch VCP Sewer | 38,706 | LF | \$ 65 | \$ 2,516,000 |
| 3 | 10-Inch VCP Sewer | 3,093 | LF | \$ 70 | \$ 217,000 |
| 4 | 12-Inch VCP Sewer | 6,217 | LF | \$ 80 | \$ 498,000 |
| 5 | 15-Inch VCP Sewer | 251 | LF | \$ 100 | \$ 26,000 |
| 7 | 18-Inch VCP Sewer | 8,035 | LF | \$ 150 | \$ 1,206,000 |
| 8 | Sanitary Manholes | 172 | EA | \$ 7,000 | \$ 1,204,000 |
| 9 | Backfill | 53,000 | CY | \$ 35 | \$ 1,855,000 |
| 10 | Pavement Replacement & Restoration | 33,000 | SY | \$ 75 | \$ 2,475,000 |
| | | | | | \$ 10,051,000 |
| | | | | | |
| | | | | | |
| Storm Sewer Quantity | | | | | |
| 1 | 6-Inch PVC Sewer | 5,000 | LF | \$ 40 | \$ 200,000 |
| 2 | 8-Inch PVC Sewer | 5,000 | LF | \$ 45 | \$ 225,000 |
| 3 | 10-Inch PVC Sewer | 6,000 | LF | \$ 60 | \$ 360,000 |
| 4 | 12-Inch RCP Sewer | 7,700 | LF | \$ 120 | \$ 924,000 |
| 5 | 18-Inch RCP Sewer | 6,000 | LF | \$ 140 | \$ 840,000 |
| 6 | 24-Inch RCP Sewer | 5,000 | LF | \$ 175 | \$ 875,000 |
| 7 | 48-Inch RCP Sewer | 1,000 | LF | \$ 350 | \$ 350,000 |
| 8 | Storm Manholes | 89 | EA | \$ 4,000 | \$ 356,000 |
| 9 | Storm Catch Basins | 330 | EA | \$ 2,200 | \$ 726,000 |
| 10 | Backfill | 30,000 | CY | \$ 35 | \$ 1,050,000 |
| 11 | Pavement Replacement & Restoration | 22,000 | SY | \$ 75 | \$ 1,650,000 |
| | | | | | \$ 7,556,000 |
| | | | | | |
| | SUBTOTAL PRELIMINARY SANITARY AND STORM SEWER COST | | | | \$ 17,607,000 |
| | CONTINGENCY | | 10% | \$ 1,760,700 | \$ 1,761,000 |
| | TOTAL PRELIMINARY SANITARY AND STORM COST | | | | \$ 19,400,000 |

*Quantities for storm sewer are estimated as exact quantities are unknown.

*Pavement replacement estimated for all sewers; manholes; catch basins