July 8, 2014

To: **Mayor Bemrich and City Council**

From: **David Fierke, City Manager**

Subject: **Community Sewer Initiative Phase 1 Improvements**

ACTION: **For vote Monday, July 14, 2014**

Brief History

On February 14, 2011, the Council initiated a contract with McClure Engineering for the Sanitary Sewer Evaluation Study (SSES). Following that preliminary evaluation stage, 3 projects were selected to move forward into the design and construction phases. Those 3 projects included:

- Northgate Lift Station Gravity Sewer
- 10th Ave. N. from N. 14th St. to N. 18th St.
- S. 19th St. from 1st Ave. S. to 6th Ave. S. and 6th Ave. S. from S. 19th to S. 17th St.

Analysis of Issue

McClure Engineering is now nearing the completion of the SSES program. McClure has identified $80 million worth of improvements needed to the sanitary sewer system.

Over the last several months Council workshops have been conducted to discuss potential projects and how to fund the improvements. At this time, it is proposed that $30 million of improvements be constructed to improve the sanitary sewer system. Projects were selected to continue to address the overloaded sanitary sewers, eliminate or greatly reduce the chance of sewage backups into basements, and to eliminate or reduce the need for bypass pumping from the sanitary sewer system into the storm sewer system.

Those projects include:

- East Lawn Lift Station Replacement
- Main Lift Station Replacement
- Hydraulic Capacity Improvements
    - S. 17th St. Trunk Sewer
    - 13th & 15th Ave. S. Trunk Sewer
    - 10th Ave. N. Trunk Sewer
    - Ave. E & C St. Trunk Sewers
- Sewer Rehabilitation – Throughout the Community

McClure has submitted an agreement for engineering services for the Community Sewer Initiative – Phase 1 Improvements. Under this agreement, McClure will provide preliminary design, final design, advertising, bidding, and contract award services. The services are further described in the attached agreement. The proposed fee is $2,135,300. Construction administration, observation, and staking services will be negotiated after the final design is complete.

Budget Impact

This project will be funded through the sanitary sewer fund. A Community Sewer Initiative fee will be proposed to pay for these improvements ($30 million). A State Revolving Loan will be sought in order to finance the projects over a 30-year time period. Staff continues to work with the City's financial managers on the most appropriate mechanism to fund the improvements. A $5 increase per year for 3 years is proposed at this time.

Strategic Plan Impact

Policy D.4.2: Advanced planning for all infrastructure facilities shall be supported and routinely updated. Facilities benefitted by advanced planning shall include, at a minimum; schools, health care, residential areas, roads, water, sewer, storm water management, parks, recreation and greenways.

Impact on Existing Plans

Implementation of the results from the Sanitary Sewer Evaluation Study.

Subcommittee or Commission Review / Recommendation

N/A

Staff Conclusions / Recommendations

It is the Engineering Department's recommendation to approve the Contract with McClure Engineering for this project.

Alternatives

None

Implementation and Accountability

The Engineering Department will be responsible for the contracts.

Signed:

Chad W. Schaeffer, P.E.
City Engineer

Approved:

David Fierke
City Manager

AGREEMENT FOR ENGINEERING SERVICES
WASTEWATER SYSTEM IMPROVEMENTS
FORT DODGE COMMUNITY SEWER INITIATIVE (CSI) PHASE I IMPROVEMENTS
FORT DODGE, IOWA

This Agreement is made on the _____ day of _____, 2014, by and between ***McClure Engineering Company, of Fort Dodge, Iowa*** (herein referred to as **"Engineer"**) and ***City of Fort Dodge, Iowa*** (hereinafter referred to as **"Owner"**). Services shall be performed per the fees, terms and conditions outlined in this Agreement and/or the Hourly Rate established on Exhibit 'A'. The **Engineer** shall provide services for the Project which consists of the services listed on Exhibit 'B'. The Project shall be described as:

PROJECT DESCRIPTION:

WASTEWATER SYSTEM IMPROVEMENTS
FORT DODGE COMMUNITY SEWER INITIATIVE (CSI) PHASE I IMPROVEMENTS
FORT DODGE, IOWA

1. The **Owner** shall provide information, which shall set forth the **Owner's** objectives, schedule, constraints, budget with reasonable contingencies and other applicable criteria. (See Exhibit 'C' for **Owner's** Responsibilities).

2. The **Engineer** shall conduct the following services marked "Included", for approval by the **Owner**:

Item	Included	Not Included
A. Preliminary Design		
1. Conduct Project Kickoff Meeting with Owner	☒	☐
2. Confirm scope, extent and character of the project.	☒	☐
▪ Final design criteria		
▪ Preliminary hydraulic profiles		
▪ Major equipment list		
▪ Control concepts		
▪ Process layouts		
▪ Building interior layouts		
▪ Operation & maintenance concepts		
▪ Process piping alignments		
▪ Utility requirements		
▪ Site plans		
3. Topographic Survey	☒	☐
4. Prepare revised "Opinion of Probable Costs"	☒	☐
5. Attend meetings necessary to complete Preliminary Design (2-Meetings)	☒	☐
B. Final Design		
1. Prepare final project drawings.	☒	☐
2. Prepare final project specifications.	☒	☐
3. Prepare written applications for permits for construction from IDNR and other agencies.	☒	☐
4. Prepare revised Opinion of Probable Cost based on final drawing and specifications.	☒	☐
5. Prepare Contract Agreement Form, General Conditions, Supplementary Conditions, Bid Forms, Invitation to Bidders, and Instructions to Bidders.	☒	☐
6. Review 70% and 100% Final Design with Owner (2 Meetings)	☒	☐
7. Furnish the following number of copies of the Report:	☒	☐
▪ Five (5) Copies to Owner		
▪ Two (2) Copies to IDNR		
C. Advertising, Bidding, Contract Award	☒	☐
1. Assist **OWNER** in advertising for and obtaining bids.	☒	☐
2. Conduct Prebid Conference at **OWNER'S** location (1-meeting).	☒	☐
3. Provide drawings, specifications, contract documents and bid documents to prospective bidders.	☒	☐
4. Issue addenda to interpret or clarify bid documents.	☒	☐
5. Review prebid submittals from bidders.	☒	☐
6. Attend Bid opening (at **OWNER** location), prepare bid tabulation (1-meeting).		
7. Review bidder's qualifications, bids, and other documents and make recommendation for award of contract.	☒	☐
8. Attend one (1) meeting to present Bids to Owner.	☒	☐

	Item	Included	Not Included
D.	**Construction Administration**		
	1. Provide general administration of construction contract as **OWNER'S** representative.	☒	☐
	2. Visit site of construction at appropriate stages of construction to observe the Contractors work.	☒	☐
	3. Issue interpretations and clarifications of contract documents.	☒	☐
	4. Review shop drawings.	☒	☐
	5. Act as initial interpreter of the requirements of the contract documents.	☒	☐
	6. Review and process Contractor's application for payment.	☒	☐
	7. Attend Construction Progress Meetings.	☒	☐
E.	**Construction Staking**		
	1. Establish Field Controls	☒	☐
	2. Stake Construction Control Points	☒	☐
F.	**Resident Project Representative**		
	1. Provide a Resident Project Representative to be on site during construction (see Exhibit 'D", A Listing of Duties, Responsibilities and Limitations of Authority of the Resident Project Representative).	☒	☐
G.	**Legal Surveys**		
	1. Courthouse Research/Title Search	☐	☒
	2. Field Work/Surveying	☐	☒
	3. Preparation of Plats/Legal Descriptions	☐	☒
H.	**Soil Boring Coordination**		
	1. Request for Proposal to Geotechnical Firms	☒	☐
	2. Review Proposals/Recommendation for Award	☒	☐
I.	**Erosion Control Monitoring**		
	1. Preparation of Plan	☒	☐
	2. Application for Erosion Control Permit	☒	☐
J.	**Record Drawings**		
	1. As-Built Record Drawings (2 Hard Copies & 1 Electronic Copy Included)	☒	☐
	2. Additional Hard Copies - 1 EA @ $100.00	☒	☐
	3. Additional Electronic Copies - 1 EA @ $25.00	☒	☐
K.	**Operator Training / Startup Services**		
	1. Operator Training/Workshops	☐	☒
	2. Equipment Startup Services	☐	☒
L.	**Operation/Maintenance Manuals**		
	1. O&M Manual Preparation	☐	☒
	2. Hard Copies _____ EA @ $_____	☐	☒
	3. Electronic Copies_____ EA @ $	☐	☒
M.	**SRF Loan Application and Administrative Services:**		
	1. Prepare SRF Application	☒	☐
	2. Preaward Compliance Review Report.	☒	☐
	3. Clearance Requests.	☒	☐
	a. Corps of Engineers		
	b. U.S. Fish and Wildlife Services		
	c. State Historical Society of Iowa		
	d. Flood Plain Division – IDNR		
	e. Preserves & Ecological Services Bureau (IDNR)		
	f. Indian Tribes (if applicable)		
	g. Local and County Historical Societies		
	4. Permit Application to IDNR Floodplain Division and Corps of Engineers.	☒	☐
	5. Attend Public Hearing on Finding of No Significant Impact (FONSI).	☒	☐
	6. Environmental Assessment.	☒	☐
	7. Prepare Outlay Requests.	☒	☐
	8. Submit Works in Operation Report to IDNR.	☒	☐
	9. Submit Loan Closeout to IDNR.	☒	☐
N.	**Other Meetings**		
	1. Special meetings with Council/Staff	☒	☐
	2. Public Informational Meetings	☒	☐
	3. Regulatory Agencies	☒	☐

3. Fee Schedule:

	PART A East Lawn Lift Station	PART B Main Lift Station	PART C Hydraulic Capacity Improvements	PART D Grade 5 & Cost Effective Sewer Rehabilitation
☒ A. Preliminary Design (LS)	$102,025	$151,760	$378,315	$115,255
☒ B. Final Design (LS)	$174,900	$260,160	$648,540	$197,580
☒ C. Advertising, Bidding, Contract Award (LS)	$ 14,575	$ 21,680	$ 54,045	$ 16,465
☒ D. Construction Administration (T&M, NTE)	$ TBD	$ TBD	$ TBD	$ TBD
☒ E. Construction Staking (T&M, NTE)	$ TBD	$ TBD	$ TBD	$ TBD
☒ F. Resident Project Representative (T&M, NTE)	$ TBD	$ TBD	$ TBD	$ TBD
☐ G. Legal Surveys (T&M)	$ N/A	$ N/A	$ N/A	$ N/A
☒ H. Soil Boring Coordination (LS)	$ TBD	$ TBD	$ TBD	$ TBD
☒ I. Erosion Control Monitoring (LS)	$ TBD	$ TBD	$ TBD	$ TBD
☒ J. Record Drawings (T&M, NTE)	$ TBD	$ TBD	$ TBD	$ TBD
☐ K. Operator Training / Startup Services (NIC)	$ N/A	$ N/A	$ N/A	$ N/A
☐ L. Operation / Maintenance Manuals (NIC)	$ N/A	$ N/A	$ N/A	$ N/A
☒ M. SRF Loan Application and Admin. Services (T&M, NTE)	$ TBD	$ TBD	$ TBD	$ TBD
☒ N. Other Meetings (T&M, NTE)	$ TBD	$ TBD	$ TBD	$ TBD

LS	Lump Sum
NTE	Not To Exceed
N/A	Not Applicable
NIC	Not Included
TBD	To Be Determined
T&M	Time & Materials

The Hourly Rate Schedule is included in Exhibit 'A' and attached to this Agreement to be used for work performed on a *Time and Material* basis.

4. Past due amounts owed shall accrue interest at 1.5% per month from the 30th day. If the **Owner** fails to make monthly payments due the **Engineer**, the **Engineer** may, after giving (7) days written notice to the **Owner,** suspend services under this Agreement.

5. This Agreement represents the entire and integrated agreement between the Owner and the Engineer and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both the Owner and the Engineer.

6. This Agreement is subject to all the Terms and Conditions listed on the following page.

Exhibits		Included	Not Included
Exhibit 'A'	Hourly Rate Schedule	☒	☐
Exhibit 'B'	Preliminary Project Scope	☒	☐
Exhibit 'C'	Owner's Responsibilities	☒	☐
Exhibit 'D'	Duties, Responsibilities and Limitations of Authority of the Resident Project Representative	☒	☐

SPECIAL INSTRUCTIONS:

_____

_____

_____

OWNER: **CITY OF FORT DODGE, IOWA**

By: _____
Matt Bemrich

Title: Mayor

ENGINEER: **MCCLURE ENGINEERING COMPANY**
FORT DODGE, IOWA

Signed: _____
Derick Anderson, P.E.

Title: Regional Manager

McCLURE ENGINEERING COMPANY
STANDARD TERMS AND CONDITIONS

ACCESS TO SITE: The Engineer shall at all times have access to the site to complete his Work.

INFORMATION PROVIDED BY OTHERS: The Engineer shall be entitled to rely upon the accuracy and completeness of data provided by the Owner and shall not assume liability for such data. The Engineer does not practice law, insurance or financing, therefore, the Owner shall furnish all legal, accounting and insurance counseling services as may be necessary to protect themselves at any time during the Project. Owner shall hold Engineer harmless from damages that may arise as a result of inaccuracies of information or data supplied by Owner or others to Engineer.

ADDITIONAL SERVICES: As an Additional Service in connection with changes in the scope of the Engineer's work by the Owner, the Engineer shall prepare Drawings, Specifications and other documentation and data, evaluate Contractor's proposal and provide any other services made necessary by such Change Orders and Construction Change Directives. The Engineer will be entitled to additional compensation to coordinate such changes and schedules shall be adjusted accordingly.

OWNERSHIP AND REUSE OF DOCUMENTS: All reports, plans, specifications, field data and other documents written and/or electronic, prepared by Engineer in doing work on the project, shall remain the property of the Engineer. The documents prepared by the Engineer for this Project are for use solely with respect to this Project. The Engineer's Drawings, Specifications or other documents shall not be used by the Owner on other projects or for additions to this Project, except by agreement in writing and with appropriate compensation to the Engineer.

OPINIONS OF PROBABLE COSTS: It is recognized that neither the Engineer nor the Owner has control over the cost of labor, materials or equipment, over the Contractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Engineer cannot and does not warrant or represent that bids or negotiated prices will not vary from any estimate of costs or evaluation prepared or agreed to by the Engineer.

DISPUTE RESOLUTION: Claims, disputes or other matters, involving a value less than $200,000.00, in question between the parties to this Agreement arising out of or relating to this Agreement or breach thereof shall be subject to mediation unless each of the parties mutually agrees otherwise. No mediation arising out of or relating to this Agreement shall include, by consolidation, joinder or in any other manner, an additional person or entity not a party to this Agreement, except by written consent containing a specific reference to this Agreement signed by the Owner, Engineer, and any other person or entity sought to be joined. In no event shall the demand for mediation be made after the date when the institution of legal or equitable proceedings based upon such claim would be barred by the applicable statute of limitations. The award rendered in the mediation shall be non-binding.

TERMINATION: This Agreement may be terminated by either party upon not less than seven days written notice should the other party fail substantially to perform in accordance with the terms of the Agreement through no fault of the party initiating the termination. This Agreement may be terminated by the Owner upon not less than seven days' written notice to the Engineer in the event the Project is permanently abandoned.

Failure of the Owner to make payments to the Engineer in accordance with the Agreement shall be considered substantial non-performance and cause for termination. If the Owner fails to make payment when due the Engineer for services, the Engineer may, upon seven days' written notice to the Owner, suspend performance of services under this Agreement. Unless payment in full is received by the Engineer within seven days of the date of the notice, the suspension shall take effect without further notice. In the event of a suspension of services, the Engineer shall have no liability to the Owner for delay or damage caused the Owner because of such suspension of services.

In the event of termination not the fault of the Engineer, the Engineer shall be compensated for services performed prior to termination and all termination expenses. Termination expenses are in addition to compensation for *Basic and Additional Services*, and include expenses which are directly attributable to termination.

CONTRACTOR MATTERS: The Engineer has no control over the Contractor's means, methods, schedule, costs, quality control, workmanship, on-site storm water runoff/erosion control, or project safety measures. For this reason, the Engineer shall not be responsible for or assume liability for the same.

UNDERGROUND UTILITIES: Information for location of underground utilities may come from the Owner, third parties, and/or research performed by the Engineer or its subcontractors. Unfortunately, the information the Engineer must rely on from various utilities and other records may be inaccurate or incomplete. Therefore, the Owner agrees to indemnify and hold harmless the Engineer for all claims, losses, costs and damages arising out of the location of underground utilities provided by the Engineer under this Agreement.

SHOP DRAWING REVIEW: If, as part of this Agreement Engineer reviews Contractor submittals, such as shop drawings, product data, samples and other data, as required by Engineer, these reviews and approvals shall be only for the limited purpose of checking for conformance with the design concept and the information expressed in the contract documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades or construction safety precautions, all of which are the sole responsibility of the Contractor. Engineer shall not be responsible for any deviations from the contract documents not brought to the attention of Engineer in writing by the contractor. Engineer shall not be required to review partial submissions or those for which submissions of correlated items have not been received.

CONSTRUCTION OBSERVATION: If, as part of this Agreement, Engineer is providing construction observation services, Engineer shall visit the project at appropriate intervals during construction to become generally familiar with the progress and quality of the Contractor's work and to determine if the work is preceding in general accordance with the Contract Documents. Unless otherwise specified in this Agreement, the Owner has not retained the Engineer to make detailed inspections or to provide exhaustive or continuous project review and observation services. Engineer does not guarantee the performance of, and shall have no responsibility for, the acts or omissions of any contractor, subcontractor, supplier or any other entity furnishing materials or performing any work on the project.

HAZARDOUS MATERIALS – INDEMNIFICATION: The Engineer is not in the business of making environmental site assessments for purposes of determining the presence of any toxic, hazardous or other environmental damaging substances. The purpose of this provision is to be certain that the Owner is aware of the potential liability if toxic, hazardous or environmental damaging substances are found on or under the property. Engineer makes no representations regarding an environmental site assessment, relies upon Owner to have fully investigated the need and/or scope of such assessment and assumes no responsibility for the determination to make an environmental site assessment on the subject property.

PAYMENT: Amounts unpaid 30 days after invoice date shall bear interest from the date payment is due at a rate of 1.5% per month compounded and shall include costs for attorney fees and other collection fees related to collecting fees for service.

LIMITATION OF LIABILITY: The Engineer's liability shall be limited to $1,000,000.00 as indicated on the certificate of insurance, or as specifically agreed to by separate agreement.

WAIVERS: The Owner and the Engineer waive all rights against each other and against the contractors, consultants, agents and employees of the other for damages, but only to the extent covered by property insurance during construction. The Owner and Engineer each shall require similar waivers from their contractors, consultants and agents.

ASSIGNMENT: The Owner and Engineer, respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement and to the partners, successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. Neither Owner nor Engineer shall assign this Agreement
without the written consent of the other.

GOVERNING LAW: Unless otherwise provided, the Agreement shall be governed by the law of the principal place of business of the Engineer.

COMPLETE AGREEMENT: This Agreement represents the entire and integrated agreement between the Owner and Engineer and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Engineer. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Owner or Engineer.

EXHIBIT 'A'

McCLURE ENGINEERING COMPANY
HOURLY RATE SCHEDULE
(Effective through December 31, 2014)

PERSONNEL	HOURLY RATE
Administrative Assistant (AA)	$55.00
Engineer II (E-II)	$115.00
Engineer I (E-I)	$145.00
Registered Land Surveyor	$145.00
Principal	$175.00
Senior Principal	$195.00
Engineering Technician (ET)	$90.00
Cad Technician (CT)	$65.00
Senior On-Site Representative (OSR)	$85.00
On-Site Representative (OSR)	$75.00
Survey Crew	$155.00
Crew Chief (CC)	$85.00
Crew Member (CM)	$70.00

MISCELLANEOUS EXPENSES

Survey Vehicle Mileage	$0.75/Mile
Automobile Mileage	$0.55/Mile
Plans	$0.12/Sq. Ft.
Vellums	$0.50/Sq. Ft.
Out-of-Pocket Expenses (Meals, Hotels, etc.)	At Cost + 10%
Large Format Color Prints	$5.00/Sq. Ft.

EXHIBIT 'B'

PRELIMINARY PROJECT SCOPE

Exhibit B – Scope of Work

The City of Fort Dodge has been actively involved in planning the necessary improvements to significantly reduce or ultimately eliminate basement backups resulting from Inflow and Infiltration (I/I) entering the sanitary sewer system. This process started over 40 years ago and most recently the scope has been updated by completing a Sanitary Sewer Evaluation Study. The findings of this study resulted in nearly $80 million worth of improvements. The overall program was broken into four major phases. The scope of this work primarily deals with the Phase 1 improvements.

The Phase 1 program includes targeting the largest areas of basement backups and hydraulically overloaded sewer segments. A balance of Lift Station improvements are included to deal with aging infrastructure, non-compliance with overflows, potential for increased growth and regulatory code issues. Finally, a chuck of work was added to deal with cost effective removal of I/I sources and Grade 5 defects (defects which could cause imminent failure of the infrastructure components).

Future Phases are programed for implementation over a twenty year period.

The *Scope of Work* in Phase 1 will include, but not necessarily be limited to:

- Preliminary Design
- Final Design
- Advertising, Bidding & Contract Award
- Construction Administration
- Construction Staking
- Soil Boring Coordination
- Resident Project Representative Services
- Record Drawings
- SRF Loan Application & Administration Services

MEC shall prepare the plans and specifications necessary to acquire construction permits and receive bids on the projects. After award of a construction contract, MEC shall provide Construction Administration, Construction Staking and Resident Project Representative services.

MEC anticipates working closely with City staff and U.S. Water (for lift station work and impacts on the WWTP) as project plans and specifications are developed. MEC shall report to the City Engineering Department at periodic intervals during design and construction. At critical milestones, MEC shall meet with the City Council and/or subcommittee to keep them informed of the overall progress.

Once the design and cost estimating work is nearing 80 to 90% complete on each individual project, MEC shall review the findings with the City Council.

The Schedule for each project is presented below:

Exhibit 'B'

Table B.1 - CSI Program Phase One Implementation Schedule

Project	Preliminary Design	Final Design	Bidding	Construction Contract Award	Anticipated Substantial Completion	Anticipated Final Completion
Phase One - Part A						
- East Lawn Lift Station Replacement	July 2014	October 2014	January 2014	March 2014	December 2015	May 2016
Phase One - Part B						
- Main Lift Station Replacement	September 2015	January 2015	July 2015	September 2015	December 2016	May 2017
Phase One - Part C						
South 17th Street Trunk Sewer (G10)	July 2014	December 2014	June 2015	August 2015	October 2016	May 2017
13th & 15th Avenue South Trunk Sewer (M05)	July 2014	December 2014	June 2015	August 2015	October 2016	May 2017
10th Avenue North Trunk Sewer (R17)	August 2014	January 2015	July 2015	September 2015	November 2016	May 2017
Avenue E & C Street Trunk Sewers (G02)	August 2014	January 2015	July 2015	September 2015	November 2016	May 2017
Phase One - Part D						
Phase 1 Grade 5 Rehabilitation - Section 1	July 2014	October 2014	January 2015	April 2015	December 2015	May 2016
Phase 1 CEA Rehabilitation - Section 1	July 2014	October 2014	January 2015	April 2015	December 2015	May 2016
Phase 1 Grade 5 Rehabilitation - Section 2	March 2015	September 2015	January 2016	April 2016	December 2016	May 2017
Phase 1 CEA Rehabilitation - Section 2	March 2015	September 2015	January 2016	April 2016	December 2016	May 2017

Phase One includes the following projects:

Part A – East Lawn Lift Station

Lift Station Improvements - East Lawn Lift Station Replacement
This project includes replacing and relocating the East Lawn Lift Station to provide adequate hydraulic capacity, bring the lift station into compliance with current codes, and prepare for growth. The upgraded capacity of the East Lawn Lift Station shall be a minimum of 2.5 MGD for the 10-year design storm event. The lift station shall be designed to facilitate future expansion as the area tributary to the lift station develops. In addition to the lift station, a 12-inch forcemain and 18/24-inch trunk sewer shall be designed to bring the wastewater to the new lift station location. Additional work includes the partial replacement of paving, water main, and storm sewer as required to complete the proposed sanitary improvements. The engineer's opinion of probable cost for the proposed project is $4.430 million.

Part B – Main Lift Station

Lift Station Improvements - Main Lift Station Replacement
This project includes replacing the Main Lift Station with a new lift station on the east side of the Des Moines River. The new lift station shall provide adequate capacity to handle wet weather flow currently transported through the existing Main Lift Station, in addition to the flows currently transported by the Des Moines River Double Siphons. The capacity of the new Main Lift Station shall be 21.2 MGD for the 10-year design storm event. Additional capacity for future growth shall be included during project design. A multi-pump set up is planned for pumping the varying levels of flow. This is similar to the design and operation of the existing Riverside Lift Station. Additionally, new trunk sewers shall be extended from the M02, M03, and M04 basin sewers to the proposed lift station site, as well as an investigation into potentially capping off the M02 basin upstream of M02-0020. Force mains from the proposed lift station shall tie into the existing 48-inch trunk sewer on the east side of the river, as well as into the Water Pollution Control Facility's existing equalization basin. This hydraulic strategy has been benchmarked against the design and operation of the WWTP and will provide increased flexibility in handling wet weather events. Additional work includes the partial replacement of paving, water main, and storm sewer as required to complete the proposed sanitary improvements. The engineer's opinion of probable cost for the proposed project is $6.100 million.

Part C – Hydraulic Upgrades

Hydraulic upgrades consist of upgrading the hydraulic capacity of undersized trunk sewers. Though the SSES it was determined to be more cost effective to increase the capacity of certain pipes in certain areas then to bear the cost of finding and eliminating I/I off the system. The projects were prioritized based on reported basement backup areas and locations of city bypass pumping. Three of these projects were completed in the initial "Immediate Needs" projects, the following are the four areas included in Phase 1.

Collection System Hydraulic Upgrade – South 17th Street Trunk Sewer (G09-01, G10-01, G10-02)
This project includes the replacement of the existing trunk sewer segments along South 17th Street and 12th Avenue South as outlined in the attached Exhibit SS.04. This trunk sewer shall be replaced with a larger diameter trunk sewer to provide a minimum capacity for a 10-year design storm (1.4 MGD of capacity at the G10 basin outlet). The preliminary design includes the construction of 1,010-LF of 10-inch, 2,085-LF of 12-inch, and 2,895-LF of 15-inch interceptor sewer. Additional work includes the partial replacement of paving, water main, and storm sewer as required to complete the proposed sanitary improvements. Alternate routing options along South 18th Street and 11th Avenue South may be considered during project design due to pavement condition. The engineer's opinion of probable cost for the proposed project is $5.200 million.

Collection System Hydraulic Upgrade – 13th & 15th Avenue South Trunk Sewer (M04-02, M05-01)
This project includes the replacement of the existing trunk sewer along South 15th Street, South 23rd Street, 15th Avenue South, and 13th Avenue South serving the M05 Basin as outlined in Exhibit SS.05. This trunk sewer is to be replaced with a larger diameter trunk sewer to provide a minimum capacity for a 10-year design storm (2.1 MGD of capacity at the improvement outlet). The preliminary design includes the construction of 355-LF of 10-inch, 1,690-LF of 12-inch, 3,010-LF of 15-inch, and 1,045-LF of 18-inch interceptor sewer. Alternate routing options along South 21st Street and 13th Avenue South may be considered during project design due to pavement condition. Additional work includes the partial replacement of paving, water main, and storm sewer as required to complete the proposed sanitary improvements. The engineer's opinion of probable cost for the proposed project is $5.185 million.

Collection System Hydraulic Upgrade – 10th Avenue North Trunk Sewer (R17-01, R17-02, R17-03)
This project includes the replacement of the existing trunk sewer along Elmhurst Avenue and 10th Avenue North serving the R17, R18, and R19 Basins as outlined in Exhibit SS.06. This trunk sewer is to be replaced with a larger diameter trunk sewer to provide a minimum of 3.7 MGD of capacity (at the R17 basin outlet) for a 10-year design storm. The preliminary design includes the construction of 825-LF of 15-inch and 2,455-LF of 18-inch interceptor sewer. Alternate routing options along Elmhurst Avenue may be considered during project design due to pavement condition and/or traffic considerations. Additional work includes the partial replacement of paving, water main, and storm sewer as required to complete the proposed sanitary improvements. The engineer's opinion of probable cost for the proposed project is $3.485 million.

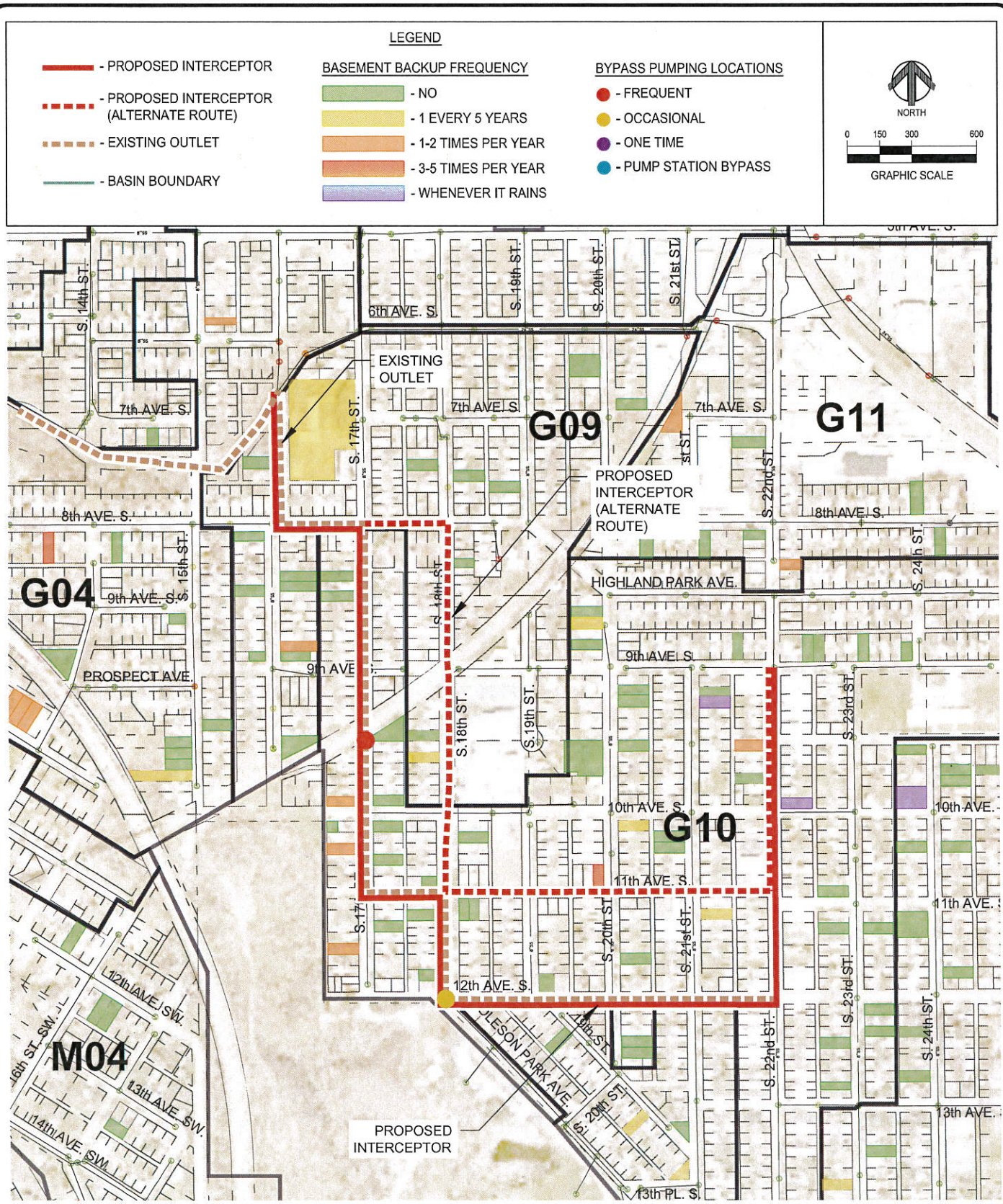
Collection System Hydraulic Upgrade – Avenue E and C Street Trunk Sewers (G02-03, G02-04)
This project includes the replacement and realignment of the existing sewer segments along Avenue E and C Street serving a portion of the G02 Basin as outlined in Exhibits SS.09 and SS.10. The sewer replacement along Avenue E shall provide a minimum of 0.7 MGD of capacity (at the improvement outlet) for a 10-year design storm, with the preliminary design for Avenue E including the construction of 1,260-LF of 12-inch sewer. The sewer realignment along C Street shall maximize the capacity of the proposed 840-LF of sewer, initially proposed as 8-inch. Additional work includes the partial replacement of paving, water main, and storm sewer as required to complete the proposed sanitary improvements. The engineer's opinion of probable cost for the proposed project is $1.595 million.

Part D – Grade 5 & Cost Effective Rehabilitation

Though the SSES analysis it was determined all Grade 5 defects are ultimately imminent failures and need to be addressed before their failure causes more costly problems and/or increased sources of I/I. The Grade 5 defects are ranked in severity and grouped together by sanitary sewer basin area and/or type of defect. These defects have varying degrees of costs and have numerous fixes. They include but are not limited to pipe lining, manhole lining, pipe point repairs, pipe replacement, manhole replacement, capped services or cleanouts and other various repairs.

Collection System Rehabilitation – Grade 5 Rehabilitation
This project includes rehabilitation of the sanitary sewer system to correct significant structural deficiencies in various parts of town. These projects will be grouped together for economies of scale and adequate implementation schedules. The preliminary budget for the proposed improvements is approximately $2.5 million.

Collection System Rehabilitation – Cost Effective Rehabilitation
This project includes rehabilitation of the sanitary sewer system to remove inflow and infiltration in various parts of town. These projects will be grouped together for economies of scale and adequate implementation schedules. The preliminary budget for the proposed improvements is approximately $1.5 million.



G09-01,G10-01,G10-02

Exhibit SS.04 Sanitary System Challenges
South 17th Street Trunk Sewer Replacement
City of Fort Dodge

McCLURE™ ENGINEERING CO.

CITY OF FORT DODGE

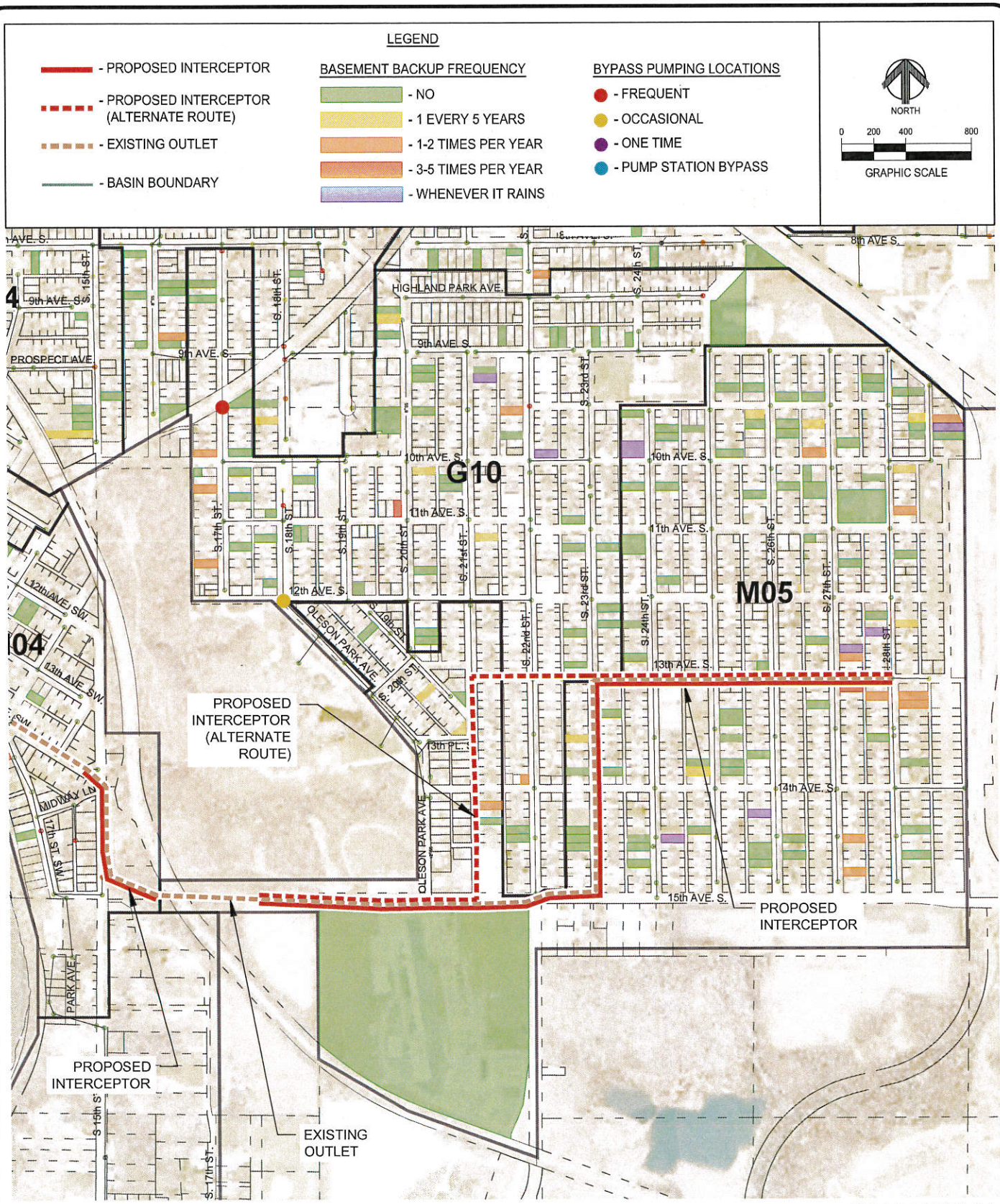
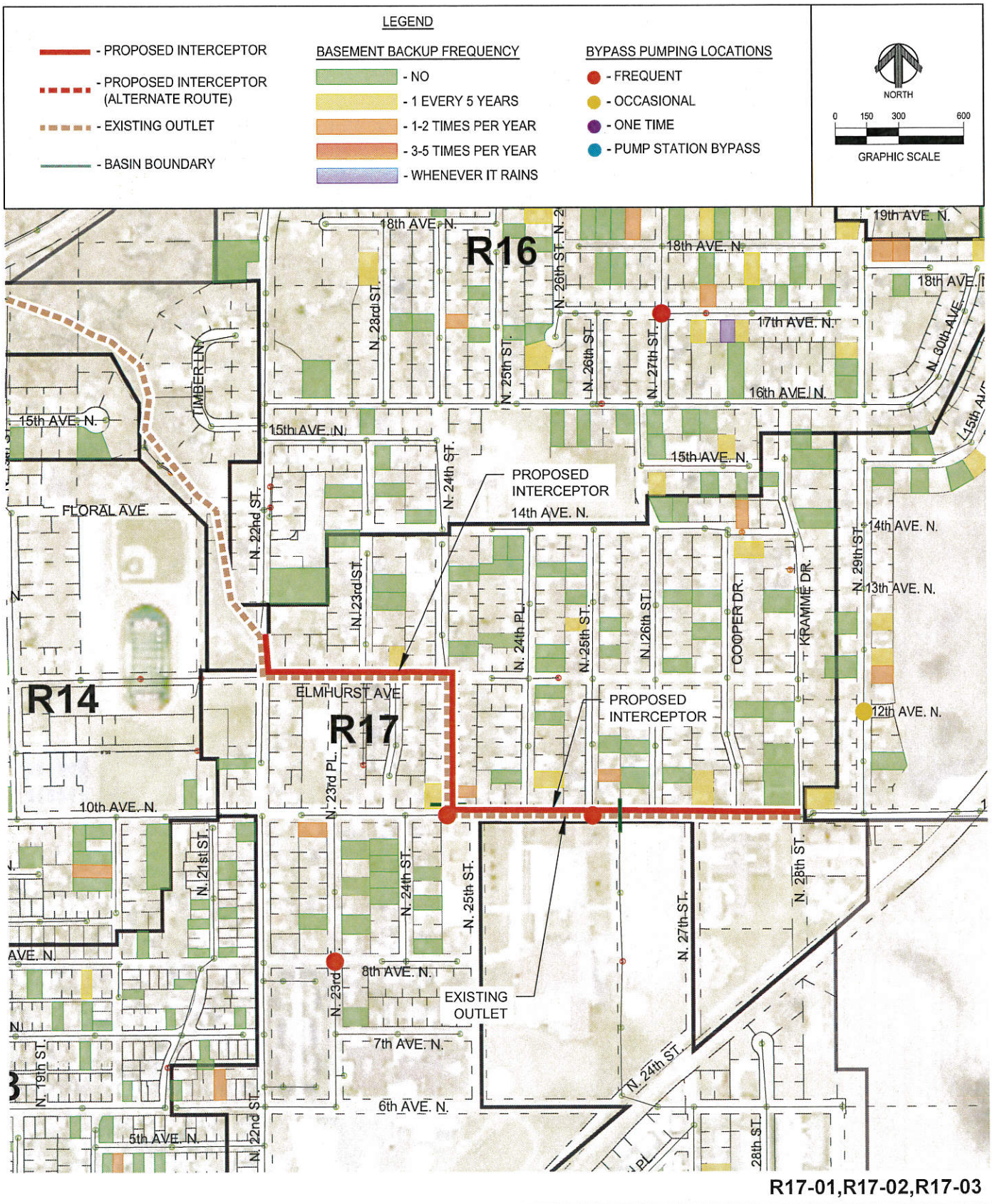


Exhibit SS.05 Sanitary System Challenges
13th Avenue S Trunk Sewer & Relief Sewer
City of Fort Dodge

McCLURE ENGINEERING CO.

CITY OF FORT DODGE



R17-01,R17-02,R17-03

Exhibit SS.06 Sanitary System Challenges
Elmhurst Avenue/10th Avenue N
Trunk Sewer Replacement
City of Fort Dodge

McCLURE ENGINEERING CO.

CITY OF FORT DODGE

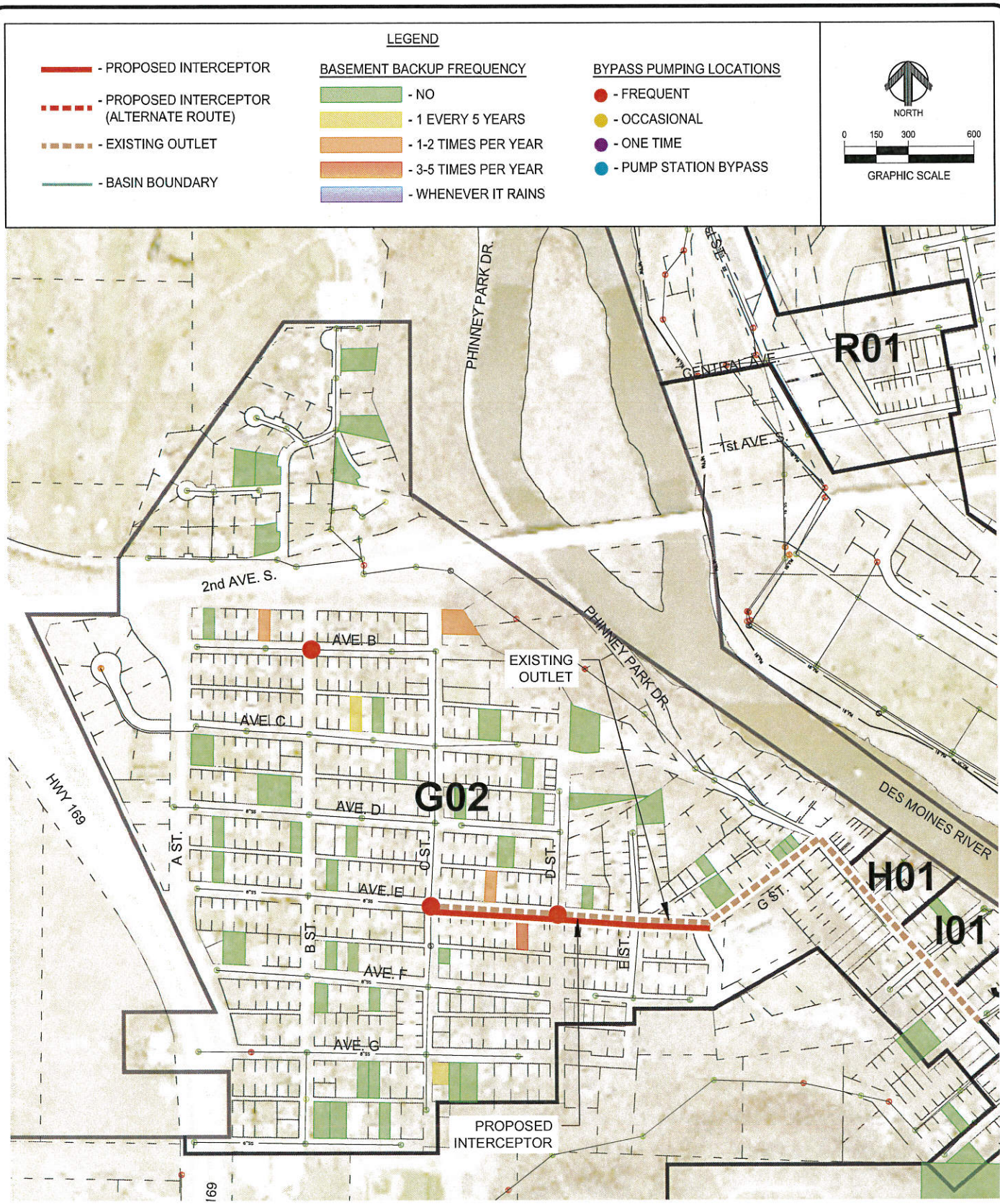


Exhibit SS.09 Sanitary System Challenges
Avenue E Trunk Sewer Replacement
City of Fort Dodge

McCLURE™ ENGINEERING CO.

CITY OF FORT DODGE

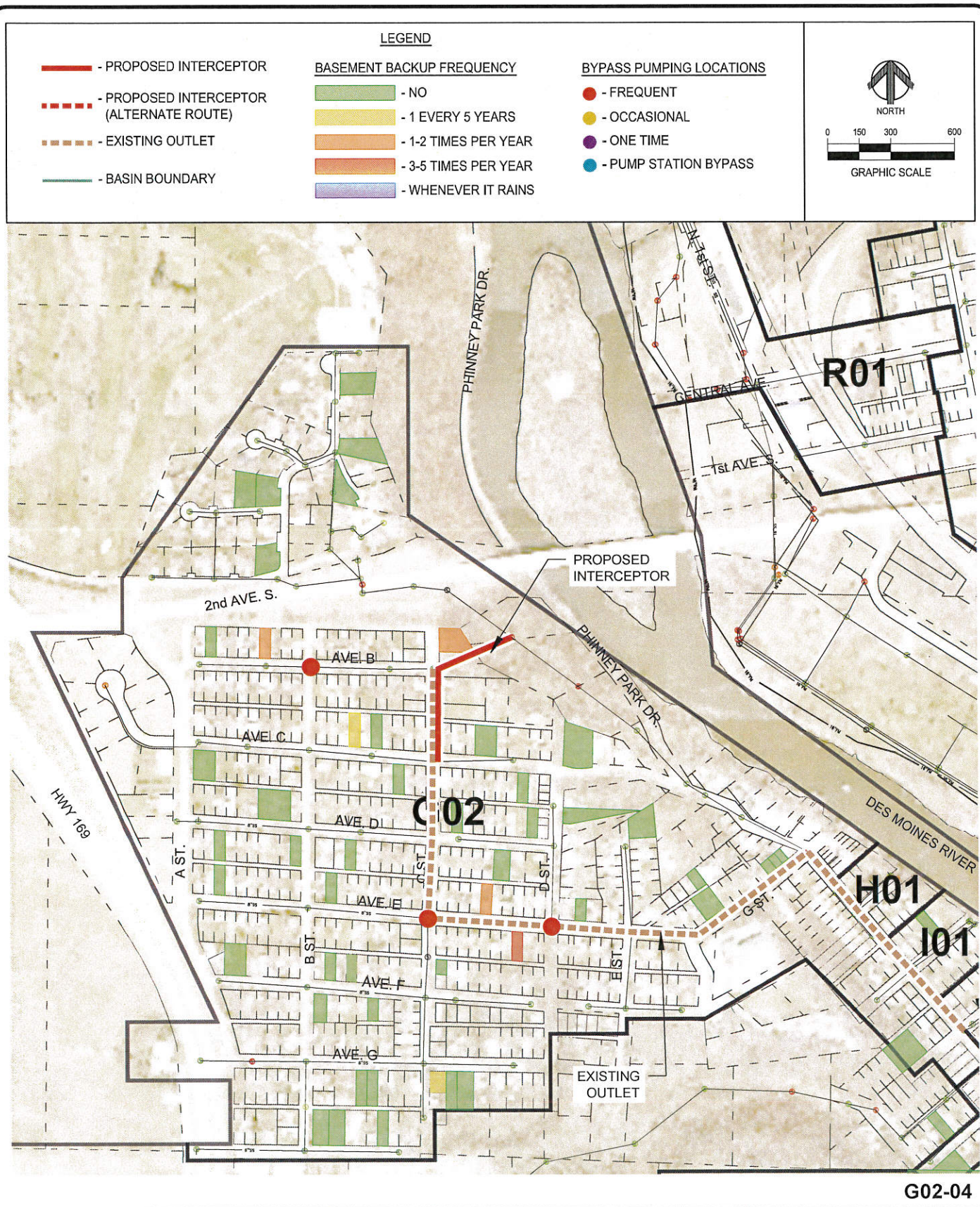
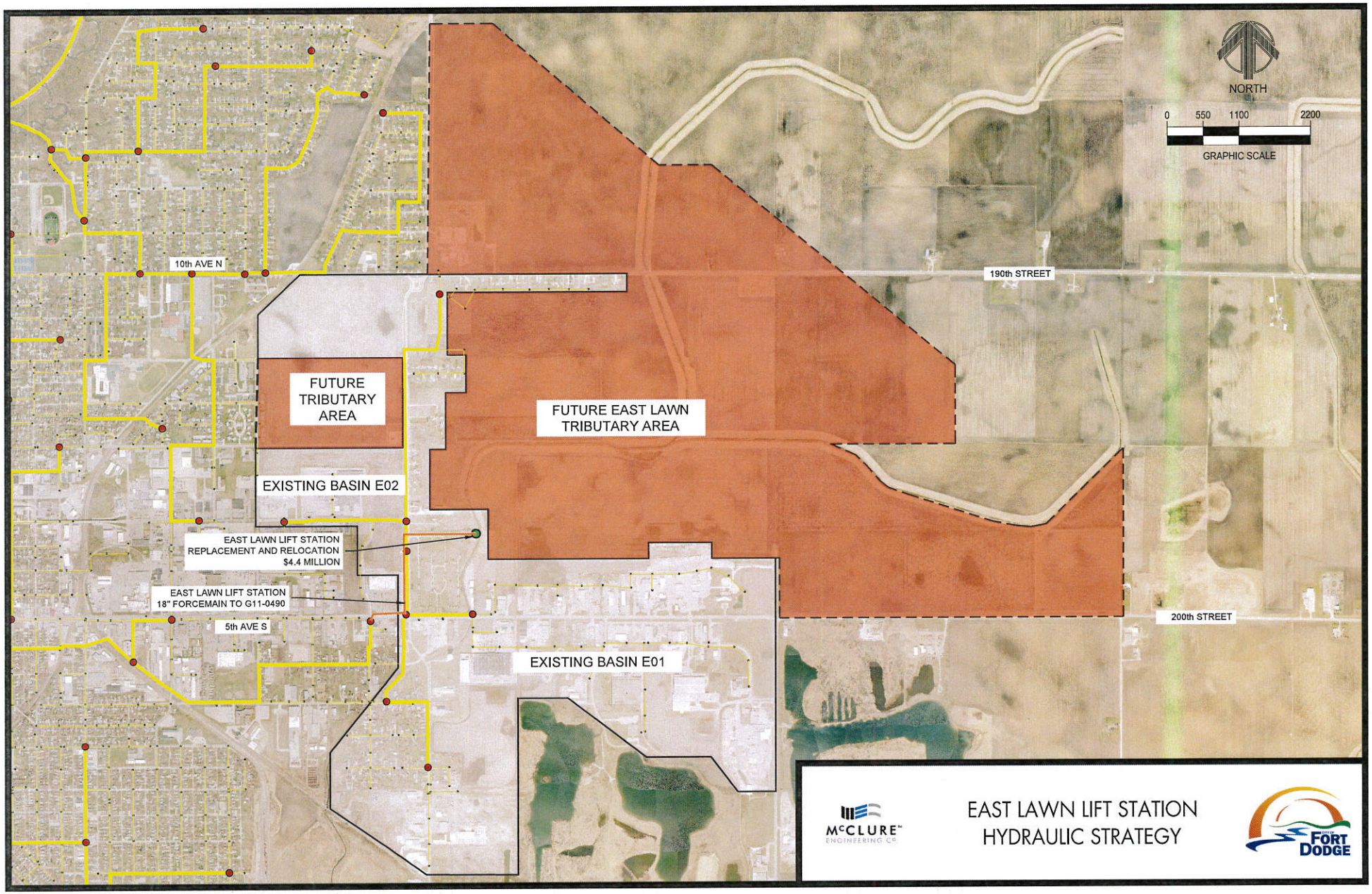
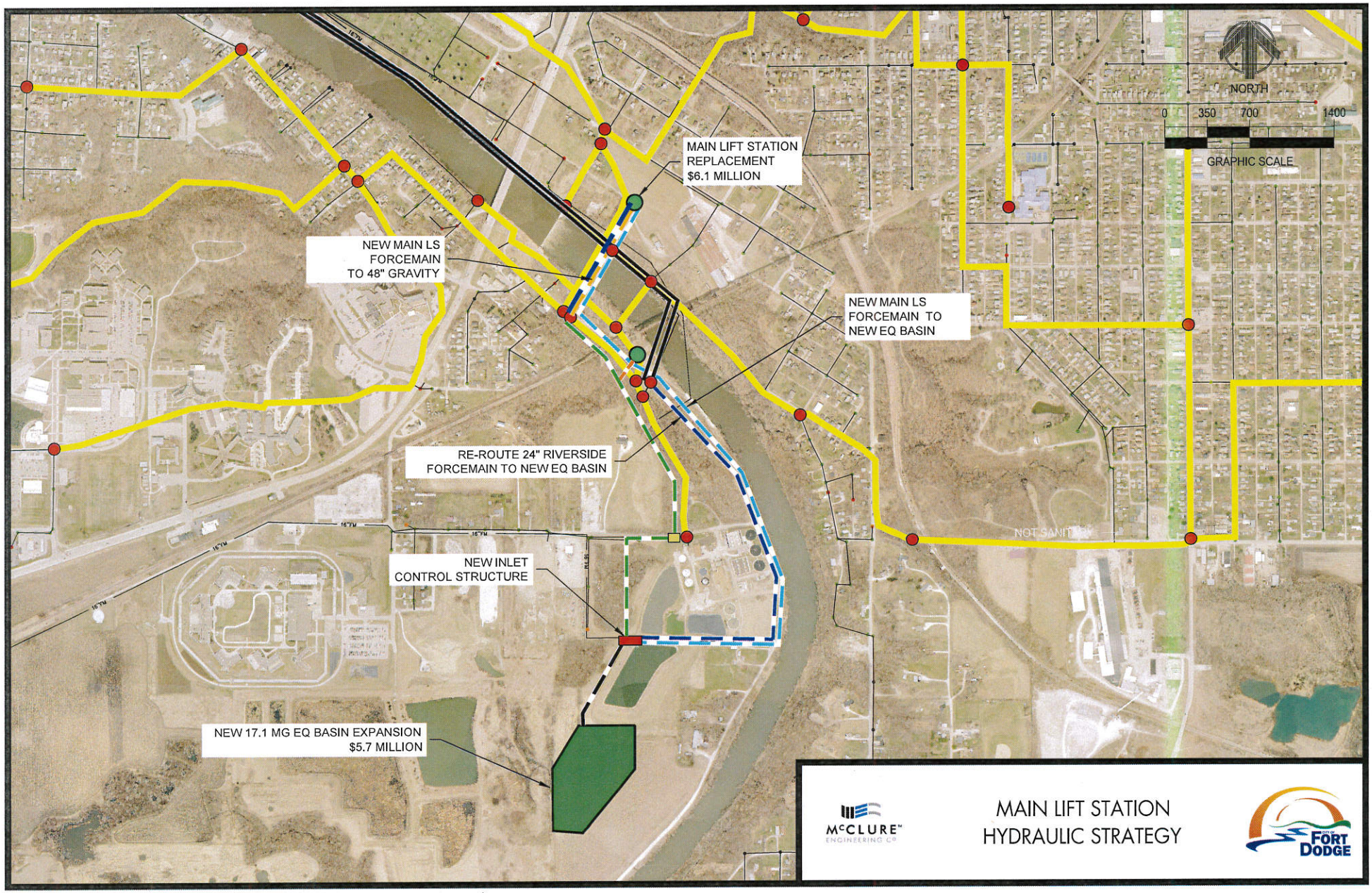


Exhibit SS.10 Sanitary System Challenges
C Street Trunk Sewer Realignment
City of Fort Dodge

McCLURE™ ENGINEERING CO.

CITY OF FORT DODGE


NORTH
0 550 1100 2200
GRAPHIC SCALE
10th AVE N
190th STREET
FUTURE TRIBUTARY AREA
FUTURE EAST LAWN TRIBUTARY AREA
EXISTING BASIN E02
EAST LAWN LIFT STATION REPLACEMENT AND RELOCATION $4.4 MILLION
EAST LAWN LIFT STATION 18" FORCEMAIN TO G11-0490
5th AVE S
EXISTING BASIN E01
200th STREET
McCLURE ENGINEERING CO.
EAST LAWN LIFT STATION
HYDRAULIC STRATEGY
FORT DODGE


MAIN LIFT STATION
REPLACEMENT
$6.1 MILLION
NEW MAIN LS
FORCEMAIN
TO 48" GRAVITY
NEW MAIN LS
FORCEMAIN TO
NEW EQ BASIN
RE-ROUTE 24" RIVERSIDE
FORCEMAIN TO NEW EQ BASIN
NEW INLET
CONTROL STRUCTURE
NEW 17.1 MG EQ BASIN EXPANSION
$5.7 MILLION
NORTH
0 350 700 1400
GRAPHIC SCALE
NOT SANITARY
McCLURE
ENGINEERING CO
MAIN LIFT STATION
HYDRAULIC STRATEGY
FORT DODGE

CITY OF FORT DODGE

Sanitary Collection System Improvements

Sanitary Sewer Evaluation Survey

Hydraulic Upgrade - South 17th Street Trunk Sewer (G09-01, G10-01, G10-02)

PROJECT CAPITAL

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE		EXTENSION
1	Mobilization & Bonding (5%)	1	LS	$181,900	per LS	$181,900
2	Materials Testing & Compaction	1	LS	$7,250	per UNIT	$7,250
3	Clearing & Grubbing	0	AC	$30,000	per AC	$0
4	48-IN Standard Sanitary Manholes w/Chimney Seal	19	EA	$4,250	per UNIT	$80,750
5	60-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$5,500	per UNIT	$0
6	72-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$8,500	per UNIT	$0
7	84-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$12,500	per UNIT	$0
8	96-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$17,500	per UNIT	$0
9	8-IN Sanitary Main Replacement - Trench	0	LF	$50	per LF	$0
10	10-IN Sanitary Main Replacement - Trench	1,010	LF	$57	per LF	$57,570
11	12-IN Sanitary Main Replacement - Trench	2,085	LF	$67	per LF	$139,695
12	15-IN Sanitary Main Replacement - Trench	2,895	LF	$77	per LF	$222,915
13	18-IN Sanitary Main Replacement - Trench	0	LF	$90	per LF	$0
14	21-IN Sanitary Main Replacement - Trench	0	LF	$105	per LF	$0
15	24-IN Sanitary Main Replacement - Trench	0	LF	$120	per LF	$0
16	27-IN Sanitary Main Replacement - Trench	0	LF	$150	per LF	$0
17	30-IN Sanitary Main Replacement - Trench	0	LF	$165	per LF	$0
18	36-IN Sanitary Main Replacement - Trench	0	LF	$195	per LF	$0
19	42-IN Sanitary Main Replacement - Trench	0	LF	$240	per LF	$0
20	48-IN Sanitary Main Replacement - Trench	0	LF	$275	per LF	$0
21	54-IN Sanitary Main Replacement - Trench	0	LF	$320	per LF	$0
22	Sanitary Main Service Wye	144	EA	$750	per UNIT	$108,000
23	6-IN PVC Sanitary Service (30-FT Extension)	4,320	EA	$35	per LF	$151,200
24	6-IN Sanitary Service Clean-out	144	EA	$800	per UNIT	$115,200
25	Sanitary Service Lateral Reconnection	144	EA	$300	per UNIT	$43,200
26	Trench Stabilization Rock	39,795	TN	$25	per TN	$994,875
27	Uncharted Parallel Utilities (Heavy)	2,025	FT	$40	per FT	$81,000
28	Uncharted Utility Crossings (Heavy)	85	EA	$600	per UNIT	$51,000
29	Drain Tile Repair	6	EA	$500	per UNIT	$3,000
30	Traffic Control	1	LS	$28,500	per LS	$28,500
31	Dewatering Excavation	1	LS	$46,000	per LS	$46,000
32	Bypass Pumping	1	LS	$27,000	per LS	$27,000
33	PCC Pavement Removal & Replacement	16,165	SY	$55	per SY	$889,075
34	Asphalt Pavement Removal & Replacement	900	SY	$45	per SY	$40,500
35	Crushed Stone Pavement Removal & Replacement	505	SY	$30	per SY	$15,150
36	Urban Hydro Seeding	110	SQ	$12	per SQ	$1,320
37	PCC Curb and Gutter Removal	11,450	LF	$5	per LF	$57,250
38	PCC Curb and Gutter Replacement	11,450	LF	$20	per LF	$229,000
39	6-IN Subdrain	11,450	LF	$15	per LF	$171,750
40	Connection to Existing Sanitary Sewer	16	EA	$1,250	per UNIT	$20,000
41	SWPPP Preparation	1	LS	$8,500	per LS	$8,500
42	SWPPP Management	1	LS	$7,250	per LS	$7,250
43	Silt Fencing	11,980	LF	$3	per LF	$35,940
44	Other	0	0	$0	0	$0
45	Other	0	0	$0	0	$0
46	Other	0	0	$0	0	$0
47	Other	0	0	$0	0	$0
48	Other	0	0	$0	0	$0
49	Water Main & Storm Sewer Allowance	*Cost Calculated Separately*				TBD
50	Miscellaneous Items Allowance (5%)	1	LS	$181,900	per LS	$181,900
				SUBTOTAL OF PROBABLE CONSTRUCTION BASE COST		$3,996,690
				Contingency Allowance (10%)		$399,700
				Engineering, Legal & Administration (20%)		$799,400
				ENGINEER'S OPINION OF PROBABLE PROJECT BASE COST		$5,195,790

CAPITAL IMPROVEMENT PLAN PROJECT BASE COST $5,200,000

CITY OF FORT DODGE

Sanitary Collection System Improvements

Sanitary Sewer Evaluation Survey

Hydraulic Upgrade - 13th & 15th Avenue South Trunk Sewer (M04-02, M05-01)

PROJECT CAPITAL

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE		EXTENSION
1	Mobilization & Bonding (5%)	1	LS	$181,300	per LS	$181,300
2	Materials Testing & Compaction	1	LS	$7,500	per UNIT	$7,500
3	Clearing & Grubbing	1	AC	$30,000	per AC	$30,000
4	48-IN Standard Sanitary Manholes w/Chimney Seal	22	EA	$4,250	per UNIT	$93,500
5	60-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$5,500	per UNIT	$0
6	72-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$8,500	per UNIT	$0
7	84-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$12,500	per UNIT	$0
8	96-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$17,500	per UNIT	$0
9	8-IN Sanitary Main Replacement - Trench	0	LF	$50	per LF	$0
10	10-IN Sanitary Main Replacement - Trench	355	LF	$57	per LF	$20,235
11	12-IN Sanitary Main Replacement - Trench	1,690	LF	$67	per LF	$113,230
12	15-IN Sanitary Main Replacement - Trench	3,010	LF	$77	per LF	$231,770
13	18-IN Sanitary Main Replacement - Trench	1,045	LF	$90	per LF	$94,050
14	21-IN Sanitary Main Replacement - Trench	0	LF	$105	per LF	$0
15	24-IN Sanitary Main Replacement - Trench	0	LF	$120	per LF	$0
16	27-IN Sanitary Main Replacement - Trench	0	LF	$150	per LF	$0
17	30-IN Sanitary Main Replacement - Trench	0	LF	$165	per LF	$0
18	36-IN Sanitary Main Replacement - Trench	0	LF	$195	per LF	$0
19	42-IN Sanitary Main Replacement - Trench	0	LF	$240	per LF	$0
20	48-IN Sanitary Main Replacement - Trench	0	LF	$275	per LF	$0
21	54-IN Sanitary Main Replacement - Trench	0	LF	$320	per LF	$0
22	Sanitary Main Service Wye	78	EA	$750	per UNIT	$58,500
23	6-IN PVC Sanitary Service (30-FT Extension)	2,340	EA	$35	per LF	$81,900
24	6-IN Sanitary Service Clean-out	78	EA	$800	per UNIT	$62,400
25	Sanitary Service Lateral Reconnection	78	EA	$300	per UNIT	$23,400
26	Trench Stabilization Rock	49,865	TN	$25	per TN	$1,246,625
27	Uncharted Parallel Utilities (Heavy)	2,050	FT	$40	per FT	$82,000
28	Uncharted Utility Crossings (Heavy)	85	EA	$600	per UNIT	$51,000
29	Drain Tile Repair	6	EA	$500	per UNIT	$3,000
30	Traffic Control	1	LS	$33,500	per LS	$33,500
31	Dewatering Excavation	1	LS	$57,250	per LS	$57,250
32	Bypass Pumping	1	LS	$33,500	per LS	$33,500
33	PCC Pavement Removal & Replacement	14,645	SY	$55	per SY	$805,475
34	Asphalt Pavement Removal & Replacement	0	SY	$45	per SY	$0
35	Crushed Stone Pavement Removal & Replacement	620	SY	$30	per SY	$18,600
36	Urban Hydro Seeding	410	SQ	$12	per SQ	$4,920
37	PCC Curb and Gutter Removal	9,850	LF	$5	per LF	$49,250
38	PCC Curb and Gutter Replacement	9,850	LF	$20	per LF	$197,000
39	6-IN Subdrain	9,850	LF	$15	per LF	$147,750
40	Connection to Existing Sanitary Sewer	20	EA	$1,250	per UNIT	$25,000
41	SWPPP Preparation	1	LS	$8,500	per LS	$8,500
42	SWPPP Management	1	LS	$7,500	per LS	$7,500
43	Silt Fencing	12,200	LF	$3	per LF	$36,600
44	Other	0	0	$0	0	$0
45	Other	0	0	$0	0	$0
46	Other	0	0	$0	0	$0
47	Other	0	0	$0	0	$0
48	Other	0	0	$0	0	$0
49	Water Main & Storm Sewer Allowance	*Cost Calculated Separately*				TBD
50	Miscellaneous Items Allowance (5%)	1	LS	$181,300	per LS	$181,300
				SUBTOTAL OF PROBABLE CONSTRUCTION BASE COST		$3,986,555
				Contingency Allowance (10%)		$398,700
				Engineering, Legal & Administration (20%)		$797,400
				ENGINEER'S OPINION OF PROBABLE PROJECT BASE COST		$5,182,655

CAPITAL IMPROVEMENT PLAN PROJECT BASE COST $5,185,000

CITY OF FORT DODGE

Sanitary Collection System Improvements

Sanitary Sewer Evaluation Survey

Hydraulic Upgrade - 10th Avenue North Trunk Sewer (R17-01, R17-02, R17-03)

PROJECT CAPITAL

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE		EXTENSION
1	Mobilization & Bonding (5%)	1	LS	$121,800	per LS	$121,800
2	Materials Testing & Compaction	1	LS	$4,000	per UNIT	$4,000
3	Clearing & Grubbing	0	AC	$30,000	per AC	$0
4	48-IN Standard Sanitary Manholes w/Chimney Seal	18	EA	$4,250	per UNIT	$76,500
5	60-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$5,500	per UNIT	$0
6	72-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$8,500	per UNIT	$0
7	84-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$12,500	per UNIT	$0
8	96-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$17,500	per UNIT	$0
9	8-IN Sanitary Main Replacement - Trench	0	LF	$50	per LF	$0
10	10-IN Sanitary Main Replacement - Trench	0	LF	$57	per LF	$0
11	12-IN Sanitary Main Replacement - Trench	0	LF	$67	per LF	$0
12	15-IN Sanitary Main Replacement - Trench	825	LF	$77	per LF	$63,525
13	18-IN Sanitary Main Replacement - Trench	2,455	LF	$90	per LF	$220,950
14	21-IN Sanitary Main Replacement - Trench	0	LF	$105	per LF	$0
15	24-IN Sanitary Main Replacement - Trench	0	LF	$120	per LF	$0
16	27-IN Sanitary Main Replacement - Trench	0	LF	$150	per LF	$0
17	30-IN Sanitary Main Replacement - Trench	0	LF	$165	per LF	$0
18	36-IN Sanitary Main Replacement - Trench	0	LF	$195	per LF	$0
19	42-IN Sanitary Main Replacement - Trench	0	LF	$240	per LF	$0
20	48-IN Sanitary Main Replacement - Trench	0	LF	$275	per LF	$0
21	54-IN Sanitary Main Replacement - Trench	0	LF	$320	per LF	$0
22	Sanitary Main Service Wye	42	EA	$750	per UNIT	$31,500
23	6-IN PVC Sanitary Service (30-FT Extension)	1,260	EA	$35	per LF	$44,100
24	6-IN Sanitary Service Clean-out	42	EA	$800	per UNIT	$33,600
25	Sanitary Service Lateral Reconnection	42	EA	$300	per UNIT	$12,600
26	Trench Stabilization Rock	36,580	TN	$25	per TN	$914,500
27	Uncharted Parallel Utilities (Heavy)	1,125	FT	$40	per FT	$45,000
28	Uncharted Utility Crossings (Heavy)	55	EA	$600	per UNIT	$33,000
29	Drain Tile Repair	4	EA	$500	per UNIT	$2,000
30	Traffic Control	1	LS	$31,750	per LS	$31,750
31	Dewatering Excavation	1	LS	$43,000	per LS	$43,000
32	Bypass Pumping	1	LS	$25,250	per LS	$25,250
33	PCC Pavement Removal & Replacement	9,820	SY	$55	per SY	$540,100
34	Asphalt Pavement Removal & Replacement	0	SY	$45	per SY	$0
35	Crushed Stone Pavement Removal & Replacement	0	SY	$30	per SY	$0
36	Urban Hydro Seeding	60	SQ	$12	per SQ	$720
37	PCC Curb and Gutter Removal	6,610	LF	$5	per LF	$33,050
38	PCC Curb and Gutter Replacement	6,610	LF	$20	per LF	$132,200
39	6-IN Subdrain	6,610	LF	$15	per LF	$99,150
40	Connection to Existing Sanitary Sewer	15	EA	$1,250	per UNIT	$18,750
41	SWPPP Preparation	1	LS	$4,750	per LS	$4,750
42	SWPPP Management	1	LS	$4,000	per LS	$4,000
43	Silt Fencing	6,560	LF	$3	per LF	$19,680
44	Other	0	0	$0	0	$0
45	Other	0	0	$0	0	$0
46	Other	0	0	$0	0	$0
47	Other	0	0	$0	0	$0
48	Other	0	0	$0	0	$0
49	Water Main & Storm Sewer Allowance	*Cost Calculated Separately*				TBD
50	Miscellaneous Items Allowance (5%)	1	LS	$121,800	per LS	$121,800
				SUBTOTAL OF PROBABLE CONSTRUCTION BASE COST		$2,677,275
				Contingency Allowance (10%)		$267,800
				Engineering, Legal & Administration (20%)		$535,500
				ENGINEER'S OPINION OF PROBABLE PROJECT BASE COST		$3,480,575

CAPITAL IMPROVEMENT PLAN PROJECT BASE COST $3,485,000

CITY OF FORT DODGE

Sanitary Collection System Improvements

Sanitary Sewer Evaluation Survey

Hydraulic Upgrade - Avenue E & C Street Trunk Sewers (G02-03, G02-04)

PROJECT CAPITAL

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE		EXTENSION
1	Mobilization & Bonding (5%)	1	LS	$55,700	per LS	$55,700
2	Materials Testing & Compaction	1	LS	$2,500	per UNIT	$2,500
3	Clearing & Grubbing	2	AC	$30,000	per AC	$60,000
4	48-IN Standard Sanitary Manholes w/Chimney Seal	7	EA	$4,250	per UNIT	$29,750
5	60-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$5,500	per UNIT	$0
6	72-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$8,500	per UNIT	$0
7	84-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$12,500	per UNIT	$0
8	96-IN Standard Sanitary Manholes w/Chimney Seal	0	EA	$17,500	per UNIT	$0
9	8-IN Sanitary Main Replacement - Trench	840	LF	$50	per LF	$42,000
10	10-IN Sanitary Main Replacement - Trench	0	LF	$57	per LF	$0
11	12-IN Sanitary Main Replacement - Trench	1,260	LF	$67	per LF	$84,420
12	15-IN Sanitary Main Replacement - Trench	0	LF	$77	per LF	$0
13	18-IN Sanitary Main Replacement - Trench	0	LF	$90	per LF	$0
14	21-IN Sanitary Main Replacement - Trench	0	LF	$105	per LF	$0
15	24-IN Sanitary Main Replacement - Trench	0	LF	$120	per LF	$0
16	27-IN Sanitary Main Replacement - Trench	0	LF	$150	per LF	$0
17	30-IN Sanitary Main Replacement - Trench	0	LF	$165	per LF	$0
18	36-IN Sanitary Main Replacement - Trench	0	LF	$195	per LF	$0
19	42-IN Sanitary Main Replacement - Trench	0	LF	$240	per LF	$0
20	48-IN Sanitary Main Replacement - Trench	0	LF	$275	per LF	$0
21	54-IN Sanitary Main Replacement - Trench	0	LF	$320	per LF	$0
22	Sanitary Main Service Wye	35	EA	$750	per UNIT	$26,250
23	6-IN PVC Sanitary Service (30-FT Extension)	1,050	EA	$35	per LF	$36,750
24	6-IN Sanitary Service Clean-out	35	EA	$800	per UNIT	$28,000
25	Sanitary Service Lateral Reconnection	35	EA	$300	per UNIT	$10,500
26	Trench Stabilization Rock	11,090	TN	$25	per TN	$277,250
27	Uncharted Parallel Utilities (Heavy)	725	FT	$40	per FT	$29,000
28	Uncharted Utility Crossings (Heavy)	35	EA	$600	per UNIT	$21,000
29	Drain Tile Repair	3	EA	$500	per UNIT	$1,500
30	Traffic Control	1	LS	$8,750	per LS	$8,750
31	Dewatering Excavation	1	LS	$14,500	per LS	$14,500
32	Bypass Pumping	1	LS	$8,500	per LS	$8,500
33	PCC Pavement Removal & Replacement	4,955	SY	$55	per SY	$272,525
34	Asphalt Pavement Removal & Replacement	0	SY	$45	per SY	$0
35	Crushed Stone Pavement Removal & Replacement	0	SY	$30	per SY	$0
36	Urban Hydro Seeding	120	SQ	$12	per SQ	$1,440
37	PCC Curb and Gutter Removal	3,330	LF	$5	per LF	$16,650
38	PCC Curb and Gutter Replacement	3,330	LF	$20	per LF	$66,600
39	6-IN Subdrain	3,330	LF	$15	per LF	$49,950
40	Connection to Existing Sanitary Sewer	5	EA	$1,250	per UNIT	$6,250
41	SWPPP Preparation	1	LS	$3,000	per LS	$3,000
42	SWPPP Management	1	LS	$2,500	per LS	$2,500
43	Silt Fencing	4,200	LF	$3	per LF	$12,600
44	Other	0	0	$0	0	$0
45	Other	0	0	$0	0	$0
46	Other	0	0	$0	0	$0
47	Other	0	0	$0	0	$0
48	Other	0	0	$0	0	$0
49	Water Main & Storm Sewer Allowance	*Cost Calculated Separately*				TBD
50	Miscellaneous Items Allowance (5%)	1	LS	$55,700	per LS	$55,700
				SUBTOTAL OF PROBABLE CONSTRUCTION BASE COST		$1,223,585
				Contingency Allowance (10%)		$122,400
				Engineering, Legal & Administration (20%)		$244,800
				ENGINEER'S OPINION OF PROBABLE PROJECT BASE COST		$1,590,785

CAPITAL IMPROVEMENT PLAN PROJECT BASE COST $1,595,000

CITY OF FORT DODGE

Sanitary Collection System Improvements

Sanitary Sewer Evaluation Survey

Lift Station Improvements - East Lawn Lift Station Replacement & Relocation

PROJECT CAPITAL

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE		EXTENSION
1	Mobilization	1	LS	$20,000	per LS	$20,000
2	General Conditions	1	LS	$30,000	per LS	$30,000
3	Demolition	1	LS	$150,000	per LS	$150,000
4	Dewatering	1	LS	$30,000	per LS	$30,000
5	Excavation	1	LS	$200,000	per LS	$200,000
6	Granular Backfill	1	LS	$70,000	per LS	$70,000
7	Site Grading	1	LS	$5,000	per LS	$5,000
8	Paving	1	LS	$20,000	per LS	$20,000
9	Site Piping (Water, Gas)	1	LS	$10,000	per LS	$10,000
10	Sanitary Sewer	1	LS	$25,000	per LS	$25,000
11	Force Main	1	LS	$0	per LS	$0
12	Fencing	1	LS	$24,000	per LS	$24,000
13	Structure Modification	1	LS	$0	per LS	$0
14	Gates with Access Control	1	LS	$2,000	per LS	$2,000
15	Process Piping	1	LS	$150,000	per LS	$150,000
16	Concrete	1	LS	$736,000	per LS	$736,000
17	Masonry	1	LS	$88,000	per LS	$88,000
18	Metals	1	LS	$5,000	per LS	$5,000
19	Carpentry	1	LS	$5,000	per LS	$5,000
20	Insulation	1	LS	$5,000	per LS	$5,000
21	Roofing	1	LS	$5,000	per LS	$5,000
22	Access Hatches	1	LS	$15,000	per LS	$15,000
23	Joint Sealers	1	LS	$0	per LS	$0
24	Doors / Windows	1	LS	$15,000	per LS	$15,000
25	Gypsum Board	1	LS	$0	per LS	$0
26	Painting	1	LS	$20,000	per LS	$20,000
27	Sluice Gates	1	LS	$0	per LS	$0
28	Mechanical Screen	1	LS	$400,000	per LS	$400,000
29	Pumps	1	LS	$300,000	per LS	$300,000
30	Hoist	1	LS	$20,000	per LS	$20,000
31	Bypass Pumping	1	LS	$5,000	per LS	$5,000
32	Gas Detector	1	LS	$5,000	per LS	$5,000
33	Control Equipment	1	LS	$100,000	per LS	$100,000
34	Plumbing	1	LS	$20,000	per LS	$20,000
35	HVAC	1	LS	$40,000	per LS	$40,000
36	Electrical	1	LS	$115,000	per LS	$115,000
37	Backup Power	1	LS	$70,000	per LS	$70,000
38	Grinder Pump Station	1	LS	$0	per LS	$0
39						
40	Miscellaneous Items Allowance (5%)	1	LS	$134,300	per LS	$134,300
	SUBTOTAL OF PROBABLE CONSTRUCTION BASE COST					$2,839,300
	Contingency Allowance (10%)					$284,000
	Engineering, Legal & Administration (20%)					$567,900
	ENGINEER'S OPINION OF PROBABLE PROJECT BASE COST					$3,691,200

CITY OF FORT DODGE

Sanitary Collection System Improvements

Sanitary Sewer Evaluation Survey

Lift Station Improvements - East Lawn Lift Station Replacement & Relocation

PROJECT CAPITAL

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE		EXTENSION
	Mobilization (5%)	1	LS	$25,700	per LS	$25,700
40	48-IN Sanitary Manholes	6	EA	$5,250	per UNIT	$31,500
41	18" PVC Pipe - Trenched	850	LF	$85	per LF	$72,250
42	24" PVC Pipe - Trenched (to New Lift Station)	1275	LF	$120	per LF	$153,000
43	24" DIP Pipe - Trenchless with Casing Pipe (to New Lift Station)	80	LF	$500	per LF	$40,000
44	12" DIP Forcemain Extension - Trenchless with Casing Pipe (to New Lift Station)	1345	LF	$90	per LF	$121,050
45	12" DIP Forcemain Extension - Trenchless with Casing Pipe (to New Lift Station)	80	LF	$325	per LF	$26,000
46	Connection to Existing Gravity Sanitary Sewer	1	EA	$1,500	per UNIT	$1,500
47	Connection to Existing Sanitary Forcemain	1	EA	$2,500	per UNIT	$2,500
48	Trench Compaction Testing	1	LS	$750	per LS	$750
49	Dewatering Excavation	1	LS	$5,000	per LS	$5,000
50	Silt Fence	1425	FT	$3	per LF	$4,275
51	SWPP Preparation & Management	1	LS	$3,000	per LS	$3,000
52	Uncharted Parallel Utilities	240	FT	$20	per LF	$4,800
53	Uncharted Utility Crossings	15	EA	$525	per UNIT	$7,875
54	Removal of PCC Sidewalk (10-FT Wide Section)	500	SY	$15	per SY	$7,500
55	PCC Sidewalk (10-FT Wide Section)	500	SY	$45	per SY	$22,500
56	Urban Hydroseeding (40-FT Wide Section)	2	AC	$1,500	per AC	$3,000
57	Traffic Control	1	LS	$7,500	per LS	$7,500
58						
59						
60	Miscellaneous Items Allowance (5%)	1	LS	$25,700	per LS	$25,700
	SUBTOTAL OF PROBABLE CONSTRUCTION BASE COST					$565,400
	Contingency Allowance (10%)					$56,600
	Engineering, Legal & Administration (20%)					$113,100
	ENGINEER'S OPINION OF PROBABLE PROJECT BASE COST					$735,100

CAPITAL IMPROVEMENT PLAN PROJECT BASE COST $4,430,000

CITY OF FORT DODGE

Sanitary Collection System Improvements

Sanitary Sewer Evaluation Survey

Lift Station Improvements - Main Lift Station Replacement & Relocation

PROJECT CAPITAL

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE		EXTENSION
1	Mobilization	1	LS	$15,000	per LS	$15,000
2	General Conditions	1	LS	$53,000	per LS	$53,000
3	Demolition	1	LS	$0	per LS	$0
4	Dewatering	1	LS	$10,000	per LS	$10,000
5	Excavation	1	LS	$200,000	per LS	$200,000
6	Granular Backfill	1	LS	$70,000	per LS	$70,000
7	Site Grading	1	LS	$5,000	per LS	$5,000
8	Paving	1	LS	$12,000	per LS	$12,000
9	Site Piping (Water, Gas)	1	LS	$10,000	per LS	$10,000
10	Sanitary Sewer	1	LS	$350,000	per LS	$350,000
11	Force Main	1	LS	$2,070,000	per LS	$2,070,000
12	Siphons	1	LS	$0	per LS	$0
13	Fencing	1	LS	$14,000	per LS	$14,000
14	Structure Modification	1	LS	$25,000	per LS	$25,000
15	Gates with Access Control	1	LS	$1,000	per LS	$1,000
16	Process Piping	1	LS	$133,000	per LS	$133,000
17	Concrete	1	LS	$420,000	per LS	$420,000
18	Masonry	1	LS	$87,500	per LS	$87,500
19	Metals	1	LS	$0	per LS	$0
20	Carpentry	1	LS	$0	per LS	$0
21	Insulation	1	LS	$0	per LS	$0
22	Roofing	1	LS	$0	per LS	$0
23	Access Hatches	1	LS	$10,000	per LS	$10,000
24	Joint Sealers	1	LS	$0	per LS	$0
25	Doors / Windows	1	LS	$15,000	per LS	$15,000
26	Gypsum Board	1	LS	$0	per LS	$0
27	Painting	1	LS	$20,000	per LS	$20,000
28	Sluice Gates	1	LS	$20,000	per LS	$20,000
29	Mechanical Screen	1	LS	$400,000	per LS	$400,000
30	Pumps	1	LS	$350,000	per LS	$350,000
31	Hoist	1	LS	$10,000	per LS	$10,000
32	Bypass Pumping	1	LS	$5,000	per LS	$5,000
33	Gas Detector	1	LS	$5,000	per LS	$5,000
34	Control Equipment	1	LS	$100,000	per LS	$100,000
35	Plumbing	1	LS	$20,000	per LS	$20,000
36	HVAC	1	LS	$30,000	per LS	$30,000
37	Electrical	1	LS	$75,000	per LS	$75,000
38	Backup Power	1	LS	$100,000	per LS	$100,000
39	Grinder Pump Station	1	LS	$10,000	per LS	$10,000
40						
41						
42						
43						
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46						
47						
48						
49						
50	Miscellaneous Items Allowance (5%)	1	LS	$231,600	per LS	$231,600
	SUBTOTAL OF PROBABLE CONSTRUCTION BASE COST					$4,877,100
	Contingency Allowance (5%)					$243,900
	Engineering, Legal & Administration (20%)					$975,500
	ENGINEER'S OPINION OF PROBABLE PROJECT BASE COST					$6,096,500

CAPITAL IMPROVEMENT PLAN PROJECT BASE COST $6,100,000

EXHIBIT 'C'

OWNER'S RESPONSIBILITIES

OWNER shall do the following in a timely manner so as not to delay the services of the **ENGINEER:**

1. Designate in writing a person to act, as **OWNER'S** representative with respect to the services to be rendered under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define **OWNER'S** policies and decisions with respect to **ENGINEER'S** services for the Project.

2. Provide all criteria and full information as to **OWNER'S** requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expendability, and any budgetary limitations; and furnish copies of all design and construction standards, which **OWNER** will require to be included in the drawings and specifications.

3. Assist **ENGINEER** by placing at **ENGINEER'S** disposal all available information pertinent to the Project including previous reports and any other data relative to design or construction of the Project.

4. Arrange for access to make all provisions for **ENGINEER** to enter upon public and private property as required for **ENGINEER** to perform services under this Agreement.

5. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by **ENGINEER**, obtain advice of an attorney, insurance counselor and other consultants as **OWNER** deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of **ENGINEER**.

6. Furnish approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consents from others as may be necessary for completion of the Project.

7. Attend the prebid conference, bid opening, preconstruction conferences, construction progress and other job related meetings and substantial completion inspection and final payment inspection.

8. Give prompt written notice to **ENGINEER** whenever **OWNER** observes or otherwise becomes aware of any development that affects the scope or timing of **ENGINEER'S** services, or any defect or non-conformance in the work of any Contractor.

9. Arrange for financing and pay for services as agreed to in this Agreement.

EXHIBIT 'D'

RESIDENT PROJECT REPRESENTATIVE SERVICES

A LISTING OF THE DUTIES, RESPONSIBILITIES AND LIMITATIONS OF AUTHORITY OF THE RESIDENT PROJECT REPRESENTATIVE

ENGINEER shall furnish a **Resident Project Representative (RPR),** assistants and other field staff to assist **ENGINEER** in observing performance of the Work of the Contractor.

Through more extensive on-site observations of the Work in progress and field checks of materials and equipment by the RPR and assistants, **ENGINEER** shall endeavor to provide further protection for **OWNER** against defects and deficiencies in the Work; but, the furnishing of such services will not make **ENGINEER** responsible for or give **ENGINEER** control over construction means, methods, techniques, sequences, procedures, storm water runoff, erosion control, or for safety precautions or programs, or responsibility for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

The duties and responsibilities of the RPR are limited to those of **ENGINEER** in **ENGINEER'S** agreement with the **OWNER** and in the construction Contract Documents, and are further limited and described as follows:

A. General

RPR is **ENGINEER'S** agent at the site, will act as directed by and under the supervision of **ENGINEER**, and will confer with **ENGINEER** regarding RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with **ENGINEER** and **CONTRACTOR** keeping **OWNER** advised as necessary. RPR's dealings with sub-contractors shall only be through or with the full knowledge and approval of CONTRACTOR. RPR shall generally communicate with **OWNER** with the knowledge of and under the direction of **ENGINEER**.

B. Duties and Responsibilities of RPR

1. Schedules: Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by CONTRACTOR and consult with **ENGINEER** concerning acceptability.

2. *Conferences and Meetings:* Attend meetings with CONTRACTOR, such as pre-construction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.

3. *Liaison:*

    a. Serve as **ENGINEER'S** liaison with CONTRACTOR, working principally through CONTRACTOR's superintendent and assist in understanding the intent of the Contract Documents; and assist **ENGINEER** in serving as **OWNER'S** liaison with CONTRACTOR when CONTRACTOR's operations affect **OWNER'S** on-site operations.

    b. Assist in obtaining from **OWNER** additional details or information, when required for proper execution of the Work.

4. *Shop Drawings and Samples:*

    a. Record date of receipt of Shop Drawings and samples.

    b. Receive samples that are furnished at the site by CONTRACTOR, and notify **ENGINEER** of availability of samples for examination.

    c. Advise **ENGINEER** and CONTRACTOR of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not been approved by **ENGINEER**.

5. *Review of Work, Rejection of Defective Work, Inspections and Tests:*

   a. Conduct on-site observations of the Work in progress to assist **ENGINEER** in determining if the work is in general proceeding in accordance with the Contract Documents.

   b. Report to **ENGINEER** whenever RPR believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise **ENGINEER** of Work that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

   c. Verify that tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records thereof; and observe, record and report to **ENGINEER** appropriate details relative to the test procedures and startups.

   d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to **ENGINEER**.

6. *Interpretation of Contract Documents:* Report to **ENGINEER** when clarifications and interpretations of the Contract Documents are needed and transmit to CONTRACTOR clarifications and interpretations as issued by **ENGINEER**.

7. *Modifications:* Consider and evaluate CONTRACTOR's suggestions for modifications in Drawing or Specifications and report with RPR's recommendations to **ENGINEER**. Transmit to CONTRACTOR decisions as issued by **ENGINEER**.

8. *Records:*

   a. Maintain at the job site orderly files for correspondence, reports of job conferences. Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, and additional Drawings issued subsequent to the execution of the Contract. **ENGINEER'S** clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.

   b. Keep a diary or log book, recording CONTRACTOR hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures; and send copies to **ENGINEER**.

   c. Record names, addresses and telephone numbers of all CONTRACTORS, subcontractors and major suppliers of materials and equipment.

9. *Reports:*

   a. Furnish **ENGINEER** periodic reports as required of progress of the Work and of CONTRACTOR's compliance with the progress schedule and schedule of Shop Drawing and sample submittals.

   b. Consult with **ENGINEER** in advance of schedule major tests, inspections or start of important phases of the Work.

   c. Draft proposed Change Orders and Work Directive Changes, obtaining backup material from CONTRACTOR and recommend to **ENGINEER** Change Orders, Work Directive Changes and Field Orders.

   d. Report immediately to **ENGINEER** and **OWNER** upon occurrence of any accident.

10. *Payment Requests:* Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to **ENGINEER**, noting particularly the relationship of the payment requested to the schedule of values. Work completed and materials and equipment delivered at the site but not incorporated in the Work.

11. *Certificates, Maintenance and Operation Manuals:* During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to **ENGINEER** for review and forwarding to **OWNER** prior to final payment for the Work.

12. *Completion:*

a. Before **ENGINEER** issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring completion or correction.

b. Conduct final inspection in the company of **ENGINEER**, **OWNER** and CONTRACTOR and prepare a final list of items to be completed or corrected.

c. Observe that all items on final list have been completed or corrected and make recommendations to **ENGINEER** concerning acceptance.

C. Limitations of Authority

Resident Project Representative:

1. Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by **ENGINEER**.

2. Shall not exceed limitations of **ENGINEER'S** authority as set forth in the Contract Documents.

3. Shall not undertake any of the responsibilities of CONTRACTOR, subcontractors or CONTRACTOR's superintendent.

4. Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences, storm water management, erosion control or other procedures of construction.

5. Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.

6. Shall not accept Shop Drawings or sample submittals from anyone other than CONTRACTOR.

7. Shall not authorize **OWNER** to occupy the Project in whole or in part.

8. Shall not participate in specialized field or laboratory tests or inspections conducted by other except as specifically authorized by **ENGINEER**.

RESOLUTION NO. _____

ACCEPTING AGREEMENT BETWEEN CITY OF FORT DODGE AND MCCLURE ENGINEERING FOR ENGINEERING SERVICES IN CONNECTION WITH THE PROJECT KNOWN AS COMMUNITY SEWER INITIATIVE – PHASE 1 IMPROVEMENTS PROJECT.

WHEREAS, the City is desirous to obtain engineering services; and

WHEREAS, McClure Engineering has submitted an agreement for engineering services.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Fort Dodge, Iowa, as follows:

1) The City of Fort Dodge shall enter into the Agreement with McClure Engineering to provide Engineering Services for the Community Sewer Initiative – Phase 1 Improvements Project for a fee of $2,135,300 attached hereto, and be further resolved that the Mayor and City Clerk be authorized to execute same for and on behalf of the City.

PASSED AND APPROVED this _____ day of _____, 20___.

AYE: _____

NAY: _____

OTHER: _____

_____
Matt Bemrich, Mayor

ATTEST:

_____
Jeff Nemmers, City Clerk