

City of Tipton, Iowa

Meeting: Tipton City Council Meeting
Place: Tipton Fire Station, 301 Lynn Street, Tipton, Iowa 52772
Date/Time: Monday, June 3, 2019, 5:30 p.m.
Web Page: www.tiptoniowa.org
Posted: Friday, May 31, 2019 (Front door of City Hall & City Website)

Mayor:	Bryan Carney		
Council At Large:	Abby Cummins-VanScoy	Council At Large:	Pam Spear
Council Ward #1:	Ross Leeper	Council Ward #2:	Dean Anderson
Council Ward #3:	Tim McNeill		
City Manager:	Brian Wagner	City Attorney:	Lynch Dallas, P.C.
Finance Director:	Melissa Armstrong	Gas Utilities Supt:	Virgil Penrod
City Clerk:	Amy Lenz	Electric Utilities Supt:	Floyd Taber
Dir. of Public Works:	Steve Nash	Water & Sewer:	Brian Brennan
Police Chief:	Lisa Kepford	Emergency Med Dir:	Brad Ratliff
Park & Recreation:	Adam Spangler	Economic Dev. Director:	Linda Beck

- A. **Call to Order**
- B. **Roll Call**
- C. **Pledge of Allegiance**
- D. **Agenda Additions/Agenda Approval**
- E. **Communications:**

If you wish to address the City Council regarding an issue, whether on the agenda or something not on the agenda, please approach the lectern at this time and give your name and address for the public record before discussing your item. Scheduled communications are allowed to speak up to five minutes. Unscheduled communications are allowed to speak up to three minutes.

F. **Consent Agenda**

Note: These are routine items and will be enacted by one motion without separate discussion unless a Council Member requests separate consideration.

1. Approval – Work Session City Council Minutes, May 20, 2019
2. Approval – City Council Minutes, May 20, 2019
3. Approval – Claims List

G. **New Business**

1. Resolution No. 060319A: Resolution Approving Contract for Professional Audit Services
2. Resolution No. 060319B: Resolution Concerning an Application for Voluntary Annexation to the City of Tipton Submitted, Individually and Jointly, by Keith L. Lamp, and Donald C. Lamp (*Public Hearing for this matter is Monday, June 17, 2019, at 5:30 p.m.*)
3. Discussion and possible action concerning barricading area on Meridian and East 3rd Street to have painting done for the Downtown Art Project.
4. Discussion and possible action concerning Council/Mayor/City Manager to ride in the 4th of July parade.
5. Discussion and possible action concerning beautification of the Green Space.

6. Discussion and possible action concerning DRIP Program Request for Madison Doughty with Ameriprise Financial.
7. Discussion and possible action concerning raising the payment amount for distributed generation.
8. Discussion on an operational change in the new power plant.
9. Discussion and possible action concerning Change Order for the 2019 Street Project.
10. Discussion and possible action concerning trench shoring.
11. Discussion and possible action concerning vacuum excavation system.
12. Discussion and possible action concerning Terracon proposal for additional soil borings.
13. Discussion and possible action concerning televising project for Hwy 38 for the BUILD Grant.
14. Discussion and possible action concerning a council appointment for a school contact.
15. Discussion and possible action concerning approval of route for the Focus Up on Mental Health 5K walk/run.
16. Discussion and possible action approving going into closed session pursuant to Iowa Code Chapter 21.5(1)(c) to discuss strategy with counsel in matters that are presently in litigation or where litigation is imminent where its disclosure would be likely to prejudice or disadvantage the position of the governmental body in that litigation.
17. Resolution No. 060319C: Resolution to approve and authorize settlement agreement with respect to pending litigation.

H. Reports of Mayor/ Council/ Manager/ Department Heads

1. Mayor's Report
2. Council Reports
3. Committee Reports
4. City Manager's Report
5. Department Heads

I. Adjournment

Pursuant to §21.4(2) of the Code of Iowa, the City has the right to amend this agenda up until 24 hours before the posted meeting time.

If anyone with a disability would like to attend the meeting, please call City Hall at 886-6187 to arrange for accommodations/transportation.

May 20, 2019
Tipton Fire Station
301 Lynn Street
Tipton, Iowa

The City Council of the City of Tipton, Cedar County, Iowa, met in a work session at 5:00 p.m. Mayor Carney called the meeting to order. Upon roll being called the following named council members were present: Leeper and Spear. Also present: Wagner, Armstrong, Lenz, Nash, B. Brennan, other visitors and the press.

Agenda:

Motion by Spear, second by Leeper to approve the agenda as presented. Following the roll call vote the motion passed unanimously.

Council member McNeill in attendance at 5:11 p.m.

Council member Anderson in attendance at 5:19 p.m.

New Business:

1. Discussion concerning options for upcoming storm water projects.

Water/Wastewater Superintendent Brennan hoped for a lining project this summer but during the planning process a few road blocks have arose and have set back the schedule. Televising of the sewers has revealed multiple problems that have to be addressed before lining can be done. Brennan shared what some of the problems are. V & K Engineering prepared a comprehensive list of point repairs and lining for an eight block area and the estimate came to \$302,000. The intent was to do a \$40,000 project. Brennan recommends doing as much in-house repairs as we can for the next 12 months.

Adjourn:

With no further business to come before the council a motion to adjourn was made by Spear, second by Leeper. Following the roll call vote the motion passed unanimously.
Meeting adjourned at 5:21 p.m.

Mayor_____

Attest:_____ City Clerk

May 20, 2019
Tipton Fire Station
301 Lynn Street
Tipton, Iowa

The City Council of the City of Tipton, Cedar County, Iowa, met in regular session at 5:30 p.m. Mayor Carney called the meeting to order. Upon roll being called the following named council members were present: Leeper, McNeill, Spear and Anderson. Also present: Wagner, Armstrong, Lenz, Nash, Kepford, Spangler, Taber, B. Brennan, other visitors and the press.

Agenda:

Motion by McNeill, second by Spear to approve the agenda as presented. Following the roll call vote the motion passed unanimously.

Consent Agenda:

Motion by Spear, second by McNeill to approve the consent agenda which includes the May 6th Council Meeting Minutes, May 7th Special Council Meeting Minutes, April 2019 Treasurer's and Investment Report, May 2019 Development Director's Report, May 8th Airport Minutes, and the following Claims List. Following the roll call vote the motion passed unanimously.

ACCESS SYSTEMS LEASING	COPIER AGREEMENT	1173.35
ACTION SERVICES INC	PORT A POTTIE SERVICES	285.00
ACTION SEWER & SEPTIC SERV	SEWER JETTING ON CEDAR ST	326.50
ALBAUGH PHC INC	SHOWER REPAIRS	1638.00
AUCA CHICAGO LOCKBOX	MATS	102.15
BARRON MOTOR SUPPLY	IMPACT DRIVERS	199.00
BITUMINOUS MATERIALS & SUP	160.27 GL ASPHALT EMULSION	304.51
BOUND TREE MEDICAL LLC	MEDICAL SUPPLIES	410.27
CEDAR COUNTY CO-OP	FUEL DISCOUNT	3238.25
CEDAR COUNTY ENGINEER	62.64 TN ROAD ROCK OLD MSCTNE	3051.59
CEDAR COUNTY SOLID WASTE	TRANSFER FEES	3112.00
CINTAS LOC	UNIFORMS	531.78
CLARENCE LOWDEN SUN-NEWS &	FAC SCHEDULE	183.00
CUSTOM BUILDERS INC	UPS CHARGES	187.90
CYPRESS ENGINE ACCESSSORIE	ENGINE REPAIRS	14692.63
D & R PEST CONTROL	PEST CONTROL	190.99
EASTERN IOWA LIGHT & POWER	EAST LAGOON	1319.84
ECIA	HARDACRE GRANT WRITING	722.50
EMCASA WEST LLC	MISC SUPPLIES	1607.50
ERIC STORJOHANN	ASH BURIAL	250.00
ESBECK MASONRY	SIDEWALK AROUND KIOSK	1950.00
FAMILY FOODS	OPERATING SUPPLIES	3.99
FARNER-BOCKEN COMPANY	CONCESSIONS	512.93
FILTRATION CORP. OF AMERIC	CARTRIDGE, GASKET	150.26
FLETCHER-REINHARDT CO.	UNDERGROUND SUPPLIES	1572.90
FOREMOST MEDICAL EQUIPMENT	CPR PADS	612.00
FRIENDS OF THE ANIMALS	1 DOG	150.00
GARDEN & ASSOCIATES INC	2018-19 STREET PROJECTS	2183.40

GRAYBILL COMMUNICATIONS	ANTENNA END	955.13
GROEBNER & ASSOCIATES INC	GAS MAIN SUPPLIES	2840.84
H & H AUTO	TIRE REPAIRS #66	15.00
HBK ENGINEERING LLC	AQUATIC CENTER	2075.00
IMAGE TREND INC	CLEARING HOUSE SERVICES	68.00
INTEGRATED TECHNOLOGY PART	TECH SERVICES	6015.15
IOWA ASSOCIATION OF	OVERHEAD SCHOOL TRAINING	585.00
IOWA DEPARTMENT OF TRANSP	210 GL ASPHALT EMULSION	501.90
JOHNSON COUNTY AMBULANCE S	ALS INTERCEPT	200.00
KIRKWOOD COMMUNITY COLLEGE	TRAINING	22.00
KUNDE OUTDOOR EQUIPMENT	OPERATING SUPPLIES	197.69
LATHAM & ASSOCIATES INC	CONSULTING SERVICES	500.00
LAWSON PRODUCTS INC	CASTERS SHOP CART	148.16
LINCOLN AQUATICS	POOL PARTS	61.50
LYNCH DALLAS PC	LEGAL SERVICES	4524.56
M & K ELECTRIC	REPAIR RUNWAY LIGHTS	343.31
MAILFINANCE	POSTAGE MACHINE LEASE	846.78
MC CLURE ENGINEERING COMPA	WWTP IMPROVEMENTS	34187.50
MIDWEST SAFETY COUNSELORS	CALIBRATION	60.00
MITCHELL 1	WEB BASED SUBSCRIPTIONS	253.05
MODERN MARKETING INC	MISC SUPPLIES	531.37
MUNICIPAL SUPPLY INC	AUTOGUN REPAIR	475.00
NORTH CEDAR RECYCLING LLC	DOCUMENTS SHREDDED	22.08
OFFICE EXPRESS	PAPER	349.00
POWER LINE SUPPLY	SAFETY GEAR	1061.07
PRAXAIR DISTRIBUTION INC	OXYGEN	47.99
REPUBLIC SERVICES OF IOWA	RECYCLING SORT FEES	1464.09
SIGMA-ALDRICH	TESTING KIT	54.56
SPAHN & ROSE LUMBER CO	SMALL TOOLS	353.79
SPINUTECH INC	MAY EMAIL MARKETING	25.00
STATE HYGIENIC LABORATORY	TESTING FEES	989.50
STEVE GRITTON	REPAIR GARAGE DOOR	855.00
STORM STEEL	SHOP SUPPLIES	48.60
STUART C IRBY CO	STREET LIGHT LAMPS	128.40
T & M CLOTHING CO.	SLING BAG	181.00
THE PARADIGM ALLIANCE INC	PUBLIC AWARENESS PROGRAM	1658.56
TIPTON CONSERVATIVE	GRAND MARSHAL FOR THE 4TH	1002.96
TIPTON ELECTRIC MOTORS	PRESSURE WASHER RENTAL	75.00
TIPTON GREENHOUSE & FLORIS	PARK SUPPLIES	21.00
TIPTON VETERINARY SERVICES	MISC SERVICES	85.50
VEENSTRA & KIMM INC	SEWER PRELIM/RFP	2015.22
WENDLING QUARRIES INC	134.44 TN ROAD STONE	1990.02
ZOLL MEDICAL CORPORATION	VENTILATOR PM, BATTERY	1590.00

RPLCMNT

** TOTAL **	110087.52	
FUND TOTALS		
001 GENERAL GOVERNMENT	20822.85	
110 ROAD USE TAX FUND	2358.55	
160 ECONOMIC/INDUSTRIAL DEVEL	722.50	
315 JKFAC CP	2075.00	
600 WATER OPERATING	1254.37	
610 WASTEWATER/AKA SEWER REVE	38034.16	
630 ELECTRIC OPERATING	19948.55	
640 GAS OPERATING	4923.37	
660 AIRPORT OPERATING	523.34	
670 GARBAGE COLLECTION	4592.59	
740 STORM WATER	19.72	
810 CENTRAL GARAGE	6716.99	
835 ADMINISTRATIVE SERVICES	8095.53	
GRAND TOTAL	110087.52	
City Credit Card Statement	Card Ttl	7,405.59
Ambulance		
Bldg Maint Supplies - Menards, Paypal	180.67	
Operating Supplies - EBAY	101.70	
Misc Supplies - Plotter Paper	52.00	
Training - Jones & Bartlett Learning	64.15	
Bldg Maint Supplies - EBAY	136.20	
Misc Supplies - RX Pads	43.45	
Dues - Iowa Dept of Public Health	25.00	
Training - Iowa EMS Association	520.00	
Total Charges		1,123.17
City Check Out Card		
Travel Training (police) - Isle Casino Hotel	300.03	
Total Charges		300.03
City Clerk		
Training - Iowa League of Cities	125.00	
Total Charges		125.00
City Manager		
Training - Iowa League of Cities	350.00	
Total Charges		350.00
Development Director		
Misc Supplies - Cedar County Treasurer	11.72	
Supplies for Job Fair - Greenhouse	21.40	
Meeting Supplies - Casey's	21.38	
Total Charges		54.50
Electric		

Operating Supplies - The Rust Store	132.48	
Training - IAEE	330.00	
Safety Supplies - Traffic Safety Store	64.79	
Total Charges		527.27
Finance Director		
Misc Supplies - Adobe	216.11	
Office Supplies - Amazon	10.69	
Phone Cover - Amazon	11.76	
Training - Iowa League of Cities	375.00	
Tech Services - Microsoft	51.94	
Total Charges		665.50
Fire		
Misc Supplies - Walmart, S & S Builders Hardware	103.36	
52 Uniform Shirts - Galls	976.92	
Total Charges		1,080.28
Gas		
Thermostat for Pool - EBAY	111.04	
Truck Mirrors - EBAY	163.03	
Total Charges		274.07
Aquatic Center		
Misc Supplies - Walmart	15.32	
Training - Ames Park & Rec	90.00	
Operating Supplies - Trophy Depot	77.84	
Operating Supplies - Comp & Save Ink	169.96	
Misc Supplies - Walmart	19.96	
Office Supplies - Walmart	21.68	
Dues - Iowa Dept of Public Health	175.00	
Total Charges		569.76
Library		
Postage/Shipping - USPS	178.99	
Materials - Amazon, Walmart	683.62	
Program Supplies - OTC Brands, Pizza Hut, Walmart	179.66	
Office Supplies - Walmart, Demco	247.90	
Tech Services, Amazon, Faronics	168.43	
Total Charges		1,458.60
Police		
Postage/Shipping - USPS	14.60	
Misc Supplies - R.A.D. Systems, Family Foods, Skillet Café	164.88	
Total Charges		179.48
Public Works		
Repair Parts - JCWhitney, Alternator Service	464.28	
Office Supplies - Walmart	38.65	

Training - IAMU

195.00

Total Charges

697.93

Statement Total

7,405.59

Public Hearing:

1. Public Hearing to Amend the FY 2018-2019 Budget Ending June 30, 2019

Motion by McNeill, second by Spear to open the public hearing amending the FY 2018-2019 budget ending June 30, 2019, at 5:32 p.m. Following the roll call vote the motion passed unanimously.

With no written or oral objections, a motion was made by Anderson, second by Leeper to close the public hearing at 5:33 p.m. Following the roll call vote the motion passed unanimously.

Old Business:

1. Ordinance No. 571: Ordinance Amending Chapter 106, Collection of Solid Waste; Section 106.08, Collection Fees; Subsection 1, "Schedule of Fees" (Third Reading)

Motion by Leeper, second by Anderson to pass the third and final reading of Ordinance No. 571, the ordinance amending solid waste collection fees. Each residential and commercial non-dumpster premises with a City of Tipton garbage tote will increase \$3.50. Following the roll call vote the motion passed unanimously.

2. Amendment No. 1 Regarding James Kennedy Family Aquatic Center Repairs

Motion by Spear, second by McNeill to approve Amendment No. 1 regarding James Kennedy Family Aquatic Center repairs. Following the roll call vote the motion passed unanimously.

3. Update on Louisa Generating Station and the City's Request for Proposals

Manager Wagner shared that there were not any viable responses received, therefore the process is over.

New Business:

1. Resolution No. 052019A: Resolution Amending the Current Budget for Fiscal Year Ending June 30, 2019

Motion by Spear, second by Leeper to approve Resolution No. 052019A, the resolution amending the current budget for fiscal year ending June 30, 2019. Following the roll call vote the motion passed unanimously.

2. Options for Upcoming Storm Water Projects (previously discussed in the Work Session)

Motion by Spear, second by Leeper to approve doing in-house repairs and authorizing going out for quotes up to \$69,000. Following the roll call vote the motion passed unanimously.

3. Estoppel Certificate/Antenna Site Agreement with Kirkwood Community College

Motion by Leeper, second by McNeill to approve the Estoppel Certificate/Antenna Site Agreement with Kirkwood Community College. The commencement date of the lease was March 8, 1982, and the current term of the lease will end on June 30, 2019. If all renewals or extension under the lease are exercised, the lease will expire on June 30, 2029. The City's share of revenue of 50 percent will remain the same. Following the roll call vote the motion passed unanimously.

4. Barricade 5th Street from Cedar to Meridian for Drive One for Your Community Fundraiser, July 25th

Motion by Leeper, second by Spear to approve the request to barricade 5th Street from Cedar to Meridian for Drive One for Your Community fundraiser on July 25th, from 4-8 p.m. The proceeds will go to the Hardacre Theater. Following the roll call vote the motion passed unanimously.

5. Art Downtown and at the Park

Motion by Anderson, second by Leeper to continue with Phase II of Art Downtown and in the park by Christine Boeve. The cost of painting this year's designed areas will be \$500, plus \$100 for paint. Christine will be finishing and touching up art work from last year. Following the roll call vote the motion passed unanimously.

6. TRIP Program Request, Michael Thomas, Thomas Heating and Air

Motion by McNeill, second by Spear to approve the TRIP Program request for Michael Thomas with Thomas Heating and Air located at 330 West South Street. Following the roll call vote the motion passed unanimously.

7. TRIP Program Request, Sean Malone, Garuda Farms Herbs and Vegetables

Motion by Anderson, second by McNeill to approve the TRIP Program request for Sean Malone with Garuda Farms Herbs and Vegetables located at the Tipton Business Park subdivision. Following the roll call vote the motion passed unanimously.

8. TRIP Program Request, Mike Cook, Cook Storage Units

Motion by Spear, second by Leeper to approve the TRIP Program request for Mike Cook's storage units located on West South Street. Following the roll call vote the motion passed unanimously.

9. Copy Machine, James Kennedy Family Aquatic Center

Motion by Spear, second by McNeill to approve a 60-month lease with Access Systems for a copy machine. The monthly cost will be \$89.88. Following the roll call vote the motion passed unanimously.

10. Mass Casualty Incident (MCI) Trailer, Ambulance Department

Motion by McNeill, second by Anderson to approve the purchase of a Mass Casualty Incident (MCI) trailer from Disaster Response Solutions, in the amount of \$4,500. Following the roll call vote the motion passed unanimously.

11. Tree Removal in Powerline Right of Way (ROW)

Motion by Leeper, second by Spear to authorize a joint project with the County to share in the labor costs for tree removal in a powerline ROW. Following the roll call vote the motion passed unanimously.

12. RPM Revival, Refurbish Traffic Signal Poles

Motion by Spear, second by Leeper to approve RPM Revival to refurbish three of the traffic signal poles. Following the roll call vote the motion passed unanimously.

13. Wire Purchase for Cedar County Coop Project

Motion by Leeper, second by Anderson to approve the purchase of wire for the Cedar County Coop project from Terry-Durin Company, in the amount of \$15,742.50. Following the roll call vote the motion passed unanimously.

14. Garbage Exemption, 620 West 6th Street

Motion by Anderson, second by Leeper to approve the garbage exemption for Chris Sorgenfrey at 620 West 6th Street. Following the roll call vote the motion passed unanimously.

15. Closed session pursuant to Iowa Code Chapter 21.5(1c) to discuss strategy with counsel in matters that are presently in litigation or where litigation is imminent where its disclosure would be likely to prejudice or disadvantage the position of the governmental body in that litigation.

Motion by McNeill, second by Leeper to adjourn from regular session to closed session at 6:11 p.m. Following the roll call vote the motion passed unanimously.

Roll call to return to regular session:

The council reconvened to regular session from closed session at 6:28 p.m. with the following Council Member's present: Anderson, Spear, Leeper and McNeill.

16. Action as a result of the Closed Session

Motion by McNeill, second by Spear to proceed with what was discussed in the closed session. Following the roll call vote the motion passed unanimously.

17. Resolution No. 052019B: Resolution Appointing _____ to Fill the Vacancy of At-Large Council Person Created by the Resignation of Council Member Leanne Boots

Motion by Leeper, second by McNeill to appoint Abby Cummins-VanScoy as a result of Resolution No. 052019B, the resolution making an appointment to fill the vacancy of at-large council person created by the resignation of Council Member Leanne Boots. Following the roll call vote the motion passed unanimously.

Reports of Mayor/Council/Manager/Department Heads

Electric Superintendent Taber attended a meeting with ITC and RPGI and stated that a transmission rate increase of three to five percent will be taking place.

Adjourn:

With no further business to come before the council a motion to adjourn was made by Anderson, second by Spear. Following the roll call vote the motion passed unanimously.
Meeting adjourned at 6:34 p.m.

Mayor_____

Attest: _____
City Clerk

REVENUE RECEIVED

Apr, 2019

Property Taxes	607,220.08
Local Option Sales Tax	21,727.46
Licenses & Permits	5,220.00
Use of Money and Property	46,189.34
Intergovernmental	52,014.62
Charge for Services	893,975.19
Special Assessment	266.00
Miscellaneous	104,125.49
Sale of Fixed Assets	0.00
TOTAL	\$1,730,738.18

PACKET: 02978 COUNCIL MTG 060319

VENDOR SET: 01

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

01-0060	ALBAUGH PHC INC									
I 852		RESTROOM REPAIRS	AP		R	6/29/2019		73.25	73.25CR	
		G/L ACCOUNT						73.25		
	001 5-430-2-63500	OPERATIONAL EQUIPT MAINT & REP				73.25		RESTROOM REPAIRS		
				REG. CHECK				73.25	73.25CR	0.00
								73.25	0.00	

01-0143	AUCA CHICAGO LOCKBOX									
I 1888155949		MATS	AP		R	6/29/2019		102.15	102.15CR	
		G/L ACCOUNT						102.15		
	001 5-650-2-63100	BUILDING MAINTENANCE & REPAIR				102.15		MATS		
				REG. CHECK				102.15	102.15CR	0.00
								102.15	0.00	

01-0211	BAUER BUILT TIRE									
I 220113934		BALANCE TIRES #30	AP		R	5/30/2019		65.25	65.25CR	
		G/L ACCOUNT						65.25		
	810 5-899-2-63321	REPAIR PARTS				65.25		BALANCE TIRES #30		
				REG. CHECK				65.25	65.25CR	0.00
								65.25	0.00	

01-0249	BITUMINOUS MATERIALS & SUPP									
I 2213192849		180.88 GL CRS-2	AP		R	5/30/2019		343.67	343.67CR	
		G/L ACCOUNT						343.67		
	001 5-210-2-65070	OPERATING SUPPLIES				343.67		180.88 GL CRS-2		
I 2213193406		63.56 GL CRS-2	AP		R	5/30/2019		120.76	120.76CR	
		G/L ACCOUNT						120.76		
	001 5-210-2-65070	OPERATING SUPPLIES				120.76		63.56 GL CRS-2		
				REG. CHECK				464.43	464.43CR	0.00
								464.43	0.00	

PACKET: 02978 COUNCIL MTG 060319

VENDOR SET: 01

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

01-0247	BORDER STATES ELECTRIC SUPP									
I 91777		12 SECONDARY PEDESTALS	AP		R	5/30/2019		1,020.65	1,020.65CR	
		G/L ACCOUNT						1,020.65		
	630 5-820-2-65304	UNDERGROUND SUPPLIES					1,020.65	12 SECONDARY PEDESTALS		
				REG. CHECK				1,020.65	1,020.65CR	0.00
								1,020.65	0.00	

01-0253 BOUND TREE MEDICAL LLC										
I 83211547		MEDICAL SUPPLIES	AP		R	5/30/2019		41.02	41.02CR	
		G/L ACCOUNT						41.02		
	001 5-160-2-65070	OPERATING SUPPLIES					41.02	MEDICAL SUPPLIES		
I 83218738		MEDICAL SUPPLIES	AP		R	5/30/2019		208.50	208.50CR	
		G/L ACCOUNT						208.50		
	001 5-160-2-65070	OPERATING SUPPLIES					208.50	MEDICAL SUPPLIES		
				REG. CHECK				249.52	249.52CR	0.00
								249.52	0.00	

01-0465 CEDAR CO PUBLIC HEALTH										
I 052319CCPH		HEP B SERIES	AP		R	6/29/2019		45.00	45.00CR	
		G/L ACCOUNT						45.00		
	001 5-160-2-64121	HEALTH SERVICES					45.00	HEP B SERIES		
				REG. CHECK				45.00	45.00CR	0.00
								45.00	0.00	

01-0551 CHALLIS LAWN CARE										
I 4498		SPRAYING IN PARK	AP		R	5/30/2019		2,275.00	2,275.00CR	
		G/L ACCOUNT						2,275.00		
	001 5-430-2-63200	GROUNDS MAINTENANCE & REPAIR					2,275.00	SPRAYING IN PARK		
				REG. CHECK				2,275.00	2,275.00CR	0.00
								2,275.00	0.00	

PACKET: 02978 COUNCIL MTG 060319

VENDOR SET: 01

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

01-0581	CINTAS CORPORATION									
I	5013832016	FIRST AID SUPPLIES	AP		R	5/30/2019		254.25	254.25CR	
		G/L ACCOUNT						254.25		
	810 5-899-2-65100	SAFETY					60.67	FIRST AID SUPPLIES		
	630 5-820-2-65100	SAFETY					42.63	FIRST AID SUPPLIES		
	630 5-821-2-65100	SAFETY					73.94	FIRST AID SUPPLIES		
	001 5-650-2-65980	MISCELLANEOUS					77.01	FIRST AID SUPPLIES		
								REG. CHECK	254.25	254.25CR
								254.25	0.00	0.00
									0.00	

01-0580 CINTAS LOC

I	23M150237	UNIFORMS	AP		R	5/30/2019		110.95	110.95CR	
		G/L ACCOUNT						110.95		
	670 5-840-2-64350	UNIFORMS/EQUIPMENT					8.25	UNIFORMS		
	600 5-810-2-64350	UNIFORMS/EQUIPMENT					7.64	UNIFORMS		
	001 5-210-2-64350	UNIFORMS/EQUIPMENT					79.33	UNIFORMS		
	810 5-899-2-64350	UNIFORMS/EQUIPMENT					8.04	UNIFORMS		
	001 5-299-2-64350	UNIFORMS/EQUIPMENT					7.69	UNIFORMS		
I	342131479	UNIFORMS, SHOP TOWELS, MATS	AP		R	5/30/2019		183.29	183.29CR	
		G/L ACCOUNT						183.29		
	630 5-820-2-64350	UNIFORMS/EQUIPMENT					91.88	UNIFORMS, SHOP TOWELS, MATS		
	640 5-825-2-64350	UNIFORMS/EQUIPMENT					44.47	UNIFORMS, SHOP TOWELS, MATS		
	630 5-820-2-65070	OPERATING SUPPLIES					46.94	UNIFORMS, SHOP TOWELS, MATS		
I	342133539	UNIFORMS, SHOP TOWELS, MATS	AP		R	5/30/2019		180.72	180.72CR	
		G/L ACCOUNT						180.72		
	630 5-820-2-64350	UNIFORMS/EQUIPMENT					89.31	UNIFORMS, SHOP TOWELS, MATS		
	640 5-825-2-64350	UNIFORMS/EQUIPMENT					44.47	UNIFORMS, SHOP TOWELS, MATS		
	630 5-820-2-65070	OPERATING SUPPLIES					46.94	UNIFORMS, SHOP TOWELS, MATS		
								REG. CHECK	474.96	474.96CR
								474.96	0.00	0.00
									0.00	

01-0725 DECKER SPORTING GOODS

I	112706	KNOTLESS BATTING CAGE NET	AP		R	5/30/2019		935.00	935.00CR	
		G/L ACCOUNT						935.00		
	001 5-441-2-65070	OPERATING SUPPLIES					935.00	KNOTLESS BATTING CAGE NET		
								REG. CHECK	935.00	935.00CR
								935.00	0.00	0.00
									0.00	

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VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DISC	DT DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

01-0807	DORSEY & WHITNEY LLP									
I 3499982		LEGAL SERVICES	AP		R	6/29/2019		4,000.00	4,000.00	0.00
		G/L ACCOUNT						4,000.00		
	125 5-699-2-64110	LEGAL EXPENSE						4,000.00		
I 3500090		LEGAL SERVICES	AP		R	6/29/2019		5,464.50	5,464.50	0.00
		G/L ACCOUNT						5,464.50		
	125 5-699-2-64110	LEGAL EXPENSE						5,464.50		
		REG. CHECK						9,464.50	9,464.50	0.00
								9,464.50	0.00	

01-0854	EASTERN IOWA TIRE									
I 100069827		SKID STEER TIRES	AP		R	5/30/2019		1,580.00	1,580.00	0.00
		G/L ACCOUNT						1,580.00		
	810 5-899-2-63322	TIRES						1,580.00		
		REG. CHECK						1,580.00	1,580.00	0.00
								1,580.00	0.00	

01-0905	ELECTRICAL ENGINEERING & EQ									
I 6428545-00		600 VAC CONTACTOR	AP		R	5/30/2019		300.61	300.61	0.00
		G/L ACCOUNT						300.61		
	610 5-815-2-63500	OPERATIONAL EQUIPT MAINT & REP						300.61		
I 6428545-01		600 VAC CONTACTOR	AP		R	5/30/2019		282.29	282.29	0.00
		G/L ACCOUNT						282.29		
	610 5-815-2-63500	OPERATIONAL EQUIPT MAINT & REP						282.29		
I 6436598-00		600 VAC CONTACTOR	AP		R	5/30/2019		282.29	282.29	0.00
		G/L ACCOUNT						282.29		
	610 5-815-2-63500	OPERATIONAL EQUIPT MAINT & REP						282.29		
		REG. CHECK						865.19	865.19	0.00
								865.19	0.00	

01-0970	FARNER-BOCKEN COMPANY									
I 7094057		CONCESSIONS	AP		R	6/29/2019		1,127.33	1,127.33	0.00
		G/L ACCOUNT						1,127.33		
	001 5-465-2-65031	CONCESSIONS						1,127.33		

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VENDOR SET: 01

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

				REG. CHECK				1,127.33	1,127.33CR	0.00
								1,127.33	0.00	

01-0983	FELD FIRE									
I 0346487		TOOLS	AP		R	6/29/2019		510.55	510.55CR	
		G/L ACCOUNT						510.55		
	001 5-150-2-65053	SMALL TOOLS					510.55	TOOLS		
I 0348070		4 AIR PACKS	AP		R	6/29/2019		1,600.00	1,600.00CR	
		G/L ACCOUNT						1,600.00		
	001 5-150-2-65980	MISCELLANEOUS					1,600.00	4 AIR PACKS		
I 0349248		LUMEN LIGHT	AP		R	6/29/2019		1,406.00	1,406.00CR	
		G/L ACCOUNT						1,406.00		
	001 5-150-2-65980	MISCELLANEOUS					1,406.00	LUMEN LIGHT		
				REG. CHECK				3,516.55	3,516.55CR	0.00
								3,516.55	0.00	

01-1020	FLETCHER-REINHARDT CO.									
I S1198792.001		UNDERGROUND SUPPLIES	AP		R	6/29/2019		219.76	219.76CR	
		G/L ACCOUNT						219.76		
	630 5-820-2-65304	UNDERGROUND SUPPLIES					219.76	UNDERGROUND SUPPLIES		
I S1199403.001		UNDERGROUND SUPPLIES	AP		R	6/29/2019		353.10	353.10CR	
		G/L ACCOUNT						353.10		
	630 5-820-2-65304	UNDERGROUND SUPPLIES					353.10	UNDERGROUND SUPPLIES		
				REG. CHECK				572.86	572.86CR	0.00
								572.86	0.00	

01-1032	FOREMOST MEDICAL EQUIPMENT									
I 92089		CPR PADS, PEDI PADS	AP		R	5/30/2019		484.00	484.00CR	
		G/L ACCOUNT						484.00		
	001 5-160-2-65980	MISCELLANEOUS					484.00	CPR PADS, PEDI PADS		
I 92155		CPR PADS	AP		R	5/30/2019		153.00	153.00CR	
		G/L ACCOUNT						153.00		
	001 5-160-2-65980	MISCELLANEOUS					153.00	CPR PADS		
				REG. CHECK				637.00	637.00CR	0.00
								637.00	0.00	

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

01-1046	FOX APPARATUS REPAIR & MAIN									
I 1166		MISC SUPPLIES	AP		R	5/30/2019		300.85	300.85CR	
		G/L ACCOUNT						300.85		
	001 5-150-2-65980	MISCELLANEOUS					300.85	MISC SUPPLIES		
				REG. CHECK				300.85	300.85CR	0.00
								300.85	0.00	

01-1066	GARDEN & ASSOCIATES INC									
I 38032		2018-19 STREET PROJECTS	AP		R	6/29/2019		594.15	594.15CR	
		G/L ACCOUNT						594.15		
	110 5-210-2-64070	ENGINEERING					594.15	2018-19 STREET PROJECTS		
I 38033		SANITARY SEWER RELIEF 13TH	AP		R	6/29/2019		458.00	458.00CR	
		G/L ACCOUNT						458.00		
	610 5-815-2-64070	ENGINEERING					458.00	SANITARY SEWER RELIEF 13TH ST		
				REG. CHECK				1,052.15	1,052.15CR	0.00
								1,052.15	0.00	

01-1098	GRASSHOPPER LAWN CARE DBA A									
I 19-1059		WEED CONTROL	AP		R	6/29/2019		100.00	100.00CR	
		G/L ACCOUNT						100.00		
	630 5-821-2-63200	GROUNDS MAINTENANCE & REPAIR					100.00	WEED CONTROL		
I 19-1092		WEED CONTROL	AP		R	6/29/2019		53.50	53.50CR	
		G/L ACCOUNT						53.50		
	630 5-821-2-63200	GROUNDS MAINTENANCE & REPAIR					53.50	WEED CONTROL		
				REG. CHECK				153.50	153.50CR	0.00
								153.50	0.00	

01-1172	HAWKINS INC									
I 4498827		CHEMICALS	AP		R	5/30/2019		394.00	394.00CR	
		G/L ACCOUNT						394.00		
	001 5-465-2-65010	CHEMICALS					394.00	CHEMICALS		
I 4500707		CHEMICALS	AP		R	5/30/2019		1,047.95	1,047.95CR	
		G/L ACCOUNT						1,047.95		
	600 5-810-2-65010	CHEMICALS					1,047.95	CHEMICALS		

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VENDOR SEQUENCE

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I 4501656		CHEMICALS	AP		R	5/30/2019		817.29	817.29CR	
		G/L ACCOUNT						817.29		
	001 5-465-2-65010	CHEMICALS					817.29	CHEMICALS		
				REG. CHECK				2,259.24	2,259.24CR	0.00
								2,259.24	0.00	

01-1176 HENDERSON PRODUCTS INC

I 288439		PARTS FOR PLOW #29	AP		R	5/30/2019		108.23	108.23CR	
		G/L ACCOUNT						108.23		
	810 5-899-2-63321	REPAIR PARTS					108.23	PARTS FOR PLOW #29		
				REG. CHECK				108.23	108.23CR	0.00
								108.23	0.00	

01-1197 HMP

I 0519HMP		EMS WORLD EXPO	AP		R	5/30/2019		825.00	825.00CR	
		G/L ACCOUNT						825.00		
	001 5-160-1-62300	TRAINING					825.00	EMS WORLD EXPO		
				REG. CHECK				825.00	825.00CR	0.00
								825.00	0.00	

01-1314 IOWA LAW ENFORCEMENT ACADEM

I 312388		MMPI ROBERTS	AP		R	6/29/2019		150.00	150.00CR	
		G/L ACCOUNT						150.00		
	001 5-110-2-64121	HEALTH SERVICES					150.00	MMPI ROBERTS		
I 312420		MMPI ADOLPH	AP		R	6/29/2019		150.00	150.00CR	
		G/L ACCOUNT						150.00		
	001 5-110-2-64121	HEALTH SERVICES					150.00	MMPI ADOLPH		
				REG. CHECK				300.00	300.00CR	0.00
								300.00	0.00	

01-1332 IOWA ONE CALL

I 210829		LOCATES	AP		R	6/29/2019		85.50	85.50CR	
		G/L ACCOUNT						85.50		
	600 5-810-2-65307	SERVICE LINES					28.50	LOCATES		

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING
	630	5-820-2-65304	UNDERGROUND SUPPLIES				28.50	LOCATES		
	640	5-825-2-65307	SERVICE LINES				28.50	LOCATES		
				REG. CHECK				85.50	85.50CR	0.00
								85.50	0.00	

01-1375	IOWA PRISON INDUSTRIES									
I 30138		SMALL TOOLS, COMPUTER SUPP	AP		R	6/30/2019		1,170.00	1,170.00CR	
		G/L ACCOUNT						1,170.00		
	001	5-160-1-62300	TRAINING				925.00	SMALL TOOLS, COMPUTER SUPP		
	001	5-160-2-65065	COMPUTER SUPPLIES				50.00	SMALL TOOLS, COMPUTER SUPP		
	810	5-899-2-65053	SMALL TOOLS				195.00	SMALL TOOLS, COMPUTER SUPP		
I 951255		STREET SIGNS	AP		R	6/29/2019		1,722.90	1,722.90CR	
		G/L ACCOUNT						1,722.90		
	110	5-240-2-65070	OPERATING SUPPLIES				1,722.90	STREET SIGNS		
				REG. CHECK				2,892.90	2,892.90CR	0.00
								2,892.90	0.00	

01-1	JASON VERSCHOORE									
I 19-007		VEHICLE SUPP	AP		R	5/31/2019		722.00	722.00CR	
		G/L ACCOUNT						722.00		
	001	5-150-2-65980	MISCELLANEOUS				722.00	JASON VERSCHOORE:VEHICLE SUPP		
				REG. CHECK				722.00	722.00CR	0.00
								722.00	0.00	

01-1400	JERRY'S ELECTRIC INC									
I 050459		75 KVA PAD MOUNT	AP		R	6/29/2019		4,990.00	4,990.00CR	
		G/L ACCOUNT						4,990.00		
	630	5-820-2-65305	TRANSFORMERS				4,990.00	75 KVA PAD MOUNT		
				REG. CHECK				4,990.00	4,990.00CR	0.00
								4,990.00	0.00	

01-1426	JOHNSON COUNTY AMBULANCE SE									
I 041919JCA		ALS INTERCEPT	AP		R	6/29/2019		200.00	200.00CR	
		G/L ACCOUNT						200.00		
	001	5-160-2-64130	PAYMENT TO OTHER AGENCIES/FUND				200.00	ALS INTERCEPT		

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VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

				REG. CHECK				200.00	200.00CR	0.00
								200.00	0.00	

01-1495		KLUESNER CONSTRUCTION INC								
I 24008		STREET PATCHING	AP		R	6/29/2019		14,587.53	14,587.53CR	
		G/L ACCOUNT						14,587.53		
	001 5-210-2-63991	MAINTENANCE - STREET DEPT				14,587.53		STREET PATCHING		
				REG. CHECK				14,587.53	14,587.53CR	0.00
								14,587.53	0.00	

01-1528		LAWSON PRODUCTS INC								
I 9306714546		TOOLS	AP		R	6/29/2019		77.13	77.13CR	
		G/L ACCOUNT						77.13		
	810 5-899-2-65053	SMALL TOOLS				77.13		TOOLS		
				REG. CHECK				77.13	77.13CR	0.00
								77.13	0.00	

01-1748		MITCHELL 1								
I 22999281		WEB BASED SUBSCRIPTIONS	AP		R	5/30/2019		253.05	253.05CR	
		G/L ACCOUNT						253.05		
	810 5-899-2-65065	COMPUTER SUPPLIES				253.05		WEB BASED SUBSCRIPTIONS		
				REG. CHECK				253.05	253.05CR	0.00
								253.05	0.00	

01-1832		MUNICIPAL SUPPLY INC								
I 0726063		WATER MAIN PARTS	AP		R	5/30/2019		597.25	597.25CR	
		G/L ACCOUNT						597.25		
	600 5-810-2-65308	MAINS				597.25		WATER MAIN PARTS		
				REG. CHECK				597.25	597.25CR	0.00
								597.25	0.00	

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

01-1	NFP									
I	0519NFP	MEDICAL DIRECTOR INSURANCE	AP		R	5/30/2019		3,996.00	3,996.00CR	
		G/L ACCOUNT						3,996.00		
	001	5-160-2-64080	INSURANCE				3,996.00	NFP:MEDICAL DIRECTOR INSURANCE		
				REG. CHECK				3,996.00	3,996.00CR	0.00
								3,996.00	0.00	

01-1914	OFFICE EXPRESS									
I	44435	OFFICE SUPPLIES	AP		R	5/30/2019		115.54	115.54CR	
		G/L ACCOUNT						115.54		
	835	5-899-2-65060	OFFICE SUPPLIES				115.54	OFFICE SUPPLIES		
				REG. CHECK				115.54	115.54CR	0.00
								115.54	0.00	

01-2019	PEPSI-COLA									
I	21143657	DRINK ORDER	AP		R	5/30/2019		646.95	646.95CR	
		G/L ACCOUNT						646.95		
	001	5-465-2-65031	CONCESSIONS				646.95	DRINK ORDER		
I	59966117	DRINK ORDER	AP		R	5/30/2019		760.59	760.59CR	
		G/L ACCOUNT						760.59		
	001	5-465-2-65031	CONCESSIONS				760.59	DRINK ORDER		
				REG. CHECK				1,407.54	1,407.54CR	0.00
								1,407.54	0.00	

01-2070	POWER LINE SUPPLY									
I	56365564	UNDERGROUND SUPPLIES	AP		R	5/30/2019		436.56	436.56CR	
		G/L ACCOUNT						436.56		
	630	5-820-2-65304	UNDERGROUND SUPPLIES				436.56	UNDERGROUND SUPPLIES		
I	56366769	UNDERGROUND SUPPLIES	AP		R	5/30/2019		216.87	216.87CR	
		G/L ACCOUNT						216.87		
	630	5-820-2-65304	UNDERGROUND SUPPLIES				216.87	UNDERGROUND SUPPLIES		
I	56367131	OVERHEAD SUPPLIES	AP		R	5/30/2019		1,765.39	1,765.39CR	
		G/L ACCOUNT						1,765.39		
	630	5-820-2-65302	OVERHEAD SUPPLIES				1,765.39	OVERHEAD SUPPLIES		

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VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

I 56367486		STREET LIGHT SUPPLIES	AP		R	5/30/2019		962.22	962.22CR	
		G/L ACCOUNT						962.22		
	630 5-820-2-65303	STREET LIGHTS					962.22	STREET LIGHT SUPPLIES		
				REG. CHECK				3,381.04	3,381.04CR	0.00
								3,381.04	0.00	

01-2057	PRAXAIR DISTRIBUTION INC									
I 89490788		OXYGEN	AP		R	6/29/2019		46.44	46.44CR	
		G/L ACCOUNT						46.44		
	001 5-160-2-65070	OPERATING SUPPLIES					46.44	OXYGEN		
				REG. CHECK				46.44	46.44CR	0.00
								46.44	0.00	

01-2084	QC ANALYTICAL SERVICES LLC									
I 1905069		WASTEWATER TESTING	AP		R	5/30/2019		1,936.00	1,936.00CR	
		G/L ACCOUNT						1,936.00		
	610 5-815-2-64920	TESTING FEES					1,936.00	WASTEWATER TESTING		
				REG. CHECK				1,936.00	1,936.00CR	0.00
								1,936.00	0.00	

01-2131	ROTH ELECTRIC									
I 932		ALLEY PROJECT CONVERSION	AP		R	5/30/2019		47,301.45	47,301.45CR	
		G/L ACCOUNT						47,301.45		
	630 5-820-2-64910	CONTRACT SERVICES					47,301.45	ALLEY PROJECT CONVERSION		
				REG. CHECK				47,301.45	47,301.45CR	0.00
								47,301.45	0.00	

01-2165	SANDRY FIRE SUPPLY LLC									
I 5453		GATED WYE	AP		R	5/30/2019		931.13	931.13CR	
		G/L ACCOUNT						931.13		
	001 5-150-3-67270	OTHER CAPITAL EQUIPMENT					931.13	GATED WYE		
I 5576		TURNOUT REPAIR	AP		R	5/30/2019		32.15	32.15CR	
		G/L ACCOUNT						32.15		
	001 5-150-2-65980	MISCELLANEOUS					32.15	TURNOUT REPAIR		

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING
				REG. CHECK				963.28	963.28CR	0.00
								963.28	0.00	

01-2182	SHIELD TECHNOLOGY CORPORATI									
I 019-100		SHIELDWARE ANNUAL SUPPORT	AP		R	5/31/2019		341.25	341.25CR	
		G/L ACCOUNT						341.25		
	001 5-160-2-64190	TECHNOLOGY					341.25	SHIELDWARE ANNUAL SUPPORT		
				REG. CHECK				341.25	341.25CR	0.00
								341.25	0.00	

01-2260	STUART C IRBY CO									
I S011028519.003		SAFETY SUPPLIES	AP		R	5/31/2019		42.46	42.46CR	
		G/L ACCOUNT						42.46		
	630 5-820-2-65100	SAFETY					42.46	SAFETY SUPPLIES		
I S011028519.004		SAFETY SUPPLIES	AP		R	5/31/2019		432.38	432.38CR	
		G/L ACCOUNT						432.38		
	630 5-820-2-65100	SAFETY					432.38	SAFETY SUPPLIES		
				REG. CHECK				474.84	474.84CR	0.00
								474.84	0.00	

01-2310	SWICK CABLE CONTRACTOR'S IN									
I 23963		PULL IN DUCT	AP		R	6/30/2019		1,005.00	1,005.00CR	
		G/L ACCOUNT						1,005.00		
	630 5-820-2-64910	CONTRACT SERVICES					1,005.00	PULL IN DUCT		
				REG. CHECK				1,005.00	1,005.00CR	0.00
								1,005.00	0.00	

01-2317	T & M CLOTHING CO.									
I 2321		144 TBALL SHIRTS	AP		R	6/30/2019		900.00	900.00CR	
		G/L ACCOUNT						900.00		
	001 5-441-2-64350	UNIFORMS/EQUIPMENT					900.00	144 TBALL SHIRTS		
I 2325		STAFF UNIFORMS	AP		R	6/30/2019		497.50	497.50CR	
		G/L ACCOUNT						497.50		
	001 5-465-2-64350	UNIFORMS/EQUIPMENT					497.50	STAFF UNIFORMS		

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VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

I 2326		LIFEGUARD UNIFORMS	AP		R	6/30/2019		488.00	488.00CR	
		G/L ACCOUNT						488.00		
	001 5-465-2-64350	UNIFORMS/EQUIPMENT					488.00	LIFEGUARD UNIFORMS		
I 2327		EMBROIDERY	AP		R	6/30/2019		16.00	16.00CR	
		G/L ACCOUNT						16.00		
	001 5-440-2-64350	UNIFORMS/EQUIPMENT					8.00	EMBROIDERY		
	001 5-465-2-64350	UNIFORMS/EQUIPMENT					8.00	EMBROIDERY		
		REG. CHECK						1,901.50	1,901.50CR	0.00
								1,901.50	0.00	

01-2366	TERRACON CONSULTANTS INC									
I TC09295		WEST WWTP IMPROVEMENTS	AP		R	5/31/2019		2,628.75	2,628.75CR	
		G/L ACCOUNT						2,628.75		
	303 5-815-2-64070	ENGINEERING					2,628.75	WEST WWTP IMPROVEMENTS		
		REG. CHECK						2,628.75	2,628.75CR	0.00
								2,628.75	0.00	

01-2352	THOMPSON TRUCK & TRAILER									
I X101086951:01		SHOP SUPPLIES	AP		R	5/31/2019		47.76	47.76CR	
		G/L ACCOUNT						47.76		
	810 5-899-2-65070	OPERATING SUPPLIES					47.76	SHOP SUPPLIES		
		REG. CHECK						47.76	47.76CR	0.00
								47.76	0.00	

01-2450	TIPTON PHARMACY									
I 0419TP		PHARMACEUTICALS	AP		R	6/30/2019		229.02	229.02CR	
		G/L ACCOUNT						229.02		
	001 5-160-2-65070	OPERATING SUPPLIES					229.02	PHARMACEUTICALS		
		REG. CHECK						229.02	229.02CR	0.00
								229.02	0.00	

PACKET: 02978 COUNCIL MTG 060319

VENDOR SET: 01

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

01-2592	VEENSTRA & KIMM INC									
I 2		SEWER PRELIM/RFP	AP		R	5/31/2019		2,044.00	2,044.00CR	
		G/L ACCOUNT						2,044.00		
	610 5-815-2-64070	ENGINEERING					2,044.00	SEWER PRELIM/RFP		
				REG. CHECK				2,044.00	2,044.00CR	0.00
								2,044.00	0.00	

01-2574	WALMART COMMUNITY									
I 1341		OPERATING SUPPLIES	AP		R	6/30/2019		57.26	57.26CR	
		G/L ACCOUNT						57.26		
	600 5-810-2-65070	OPERATING SUPPLIES					57.26	OPERATING SUPPLIES		
I 1469		BLDG MAINT SUPPLIES	AP		R	6/30/2019		16.08	16.08CR	
		G/L ACCOUNT						16.08		
	001 5-650-2-63100	BUILDING MAINTENANCE & REPAIR					16.08	BLDG MAINT SUPPLIES		
I 529		PROGRAMMING SUPPLIES	AP		R	6/30/2019		72.54	72.54CR	
		G/L ACCOUNT						72.54		
	001 5-410-2-65021	PROGRAMMING					72.54	PROGRAMMING SUPPLIES		
I 5661		OFFICE & BLDG MAINT SUPPLIE	AP		R	6/30/2019		41.01	41.01CR	
		G/L ACCOUNT						41.01		
	835 5-899-2-65060	OFFICE SUPPLIES					12.54	OFFICE & BLDG MAINT SUPPLIES		
	001 5-650-2-63100	BUILDING MAINTENANCE & REPAIR					28.47	OFFICE & BLDG MAINT SUPPLIES		
I 5767		OPERATING SUPPLIES	AP		R	6/30/2019		119.91	119.91CR	
		G/L ACCOUNT						119.91		
	001 5-160-2-65070	OPERATING SUPPLIES					119.91	OPERATING SUPPLIES		
I 773		OFFICE SUPPLIES	AP		R	6/30/2019		34.78	34.78CR	
		G/L ACCOUNT						34.78		
	001 5-525-2-65060	OFFICE SUPPLIES					34.78	OFFICE SUPPLIES		
I 9643		OPERATING SUPPLIES	AP		R	6/30/2019		13.86	13.86CR	
		G/L ACCOUNT						13.86		
	001 5-110-2-65070	OPERATING SUPPLIES					13.86	OPERATING SUPPLIES		
				REG. CHECK				355.44	355.44CR	0.00
								355.44	0.00	

PACKET: 02978 COUNCIL MTG 060319

VENDOR SET: 01

VENDOR SEQUENCE

VENDOR	ITEM NO#	DESCRIPTION	BANK	CHECK	STAT	DUE DT	DISC DT	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING

01-2640	WENDLING QUARRIES INC									
I 771460		48.16 TN CHIPS & RD STONE	AP		R	6/30/2019		560.56	560.56	CR
		G/L ACCOUNT						560.56		
	001 5-210-2-65070	OPERATING SUPPLIES						560.56	48.16 TN CHIPS & RD STONE	
I 772691		5 TN WASHED CHIPS	AP		R	6/30/2019		64.00	64.00	CR
		G/L ACCOUNT						64.00		
	001 5-210-2-65070	OPERATING SUPPLIES						64.00	5 TN WASHED CHIPS	
								REG. CHECK	624.56	624.56
								624.56	0.00	0.00

01-1	XV TECHNOLOGY									
I 330		TOUGHBOOK	AP		R	5/31/2019		960.00	960.00	CR
		G/L ACCOUNT						960.00		
	001 5-110-3-67271	COMPUTER EXPENSE						960.00	XV TECHNOLOGY:TOUGHBOOK	
								REG. CHECK	960.00	960.00
								960.00	0.00	0.00

PACKET: 02978 COUNCIL MTG 060319

VENDOR SET: 01

===== R E P O R T T O T A L S =====

F U N D D I S T R I B U T I O N

FUND NO#	FUND NAME	AMOUNT
001	GENERAL GOVERNMENT	39,466.16CR
110	ROAD USE TAX FUND	2,317.05CR
125	TIF SPECIAL REVENUE FUND	9,464.50CR
303	WASTEWATER PROJECT	2,628.75CR
600	WATER OPERATING	1,738.60CR
610	WASTEWATER/AKA SEWER REVE	5,303.19CR
630	ELECTRIC OPERATING	59,319.48CR
640	GAS OPERATING	117.44CR
670	GARBAGE COLLECTION	8.25CR
810	CENTRAL GARAGE	2,395.13CR
835	ADMINISTRATIVE SERVICES	128.08CR
** TOTALS **		122,886.63CR

---- TYPE OF CHECK TOTALS ----

	NUMBER	GROSS BALANCE	PAYMENT DISCOUNT	OUTSTANDING
HAND CHECKS		0.00	0.00	0.00
		0.00	0.00	
DRAFTS		0.00	0.00	0.00
		0.00	0.00	
REG-CHECKS		122,886.63	122,886.63CR	0.00
		122,886.63	0.00	
EFT		0.00	0.00	0.00
		0.00	0.00	
NON-CHECKS		0.00	0.00	0.00
		0.00	0.00	
ALL CHECKS		122,886.63	122,886.63CR	0.00
		122,886.63	0.00	

TOTAL CHECKS TO PRINT: 53

ERRORS: 0 WARNINGS: 0

**AGENDA INFORMATION
TIPTON CITY COUNCIL COMMUNICATION**

DATE:	06/03/19
AGENDA ITEM:	Discussion and Possible Action Concerning a Request for Proposals for City Audit Services
ACTION:	Discussion and Possible Action

SYNOPSIS:

The City of Tipton sent out a Request for Proposals (RFP) in April for our City's annual auditing services for years ending June 30, 2019, June 30, 2020 and June 30, 2021.

The City only received one proposal from that RFP. The proposal was from Clifton, Larson & Allen (CLA), the auditing firm the City has used since 2003.

CLA proposed the following three-year term:

- FY2019 - \$25,300
- FY2020 - \$26,100
- FY2021 - \$26,900

I reached out to the other firms to see why they didn't submit a proposal. Most of the responses indicated a staffing issue for the upcoming audit season and timing of the audit in general with their current customers.

PREPARED BY: MA

DATE PREPARED: 05/23/19

RESOLUTION NO. 060319A

RESOLUTION APPROVING CONTRACT FOR PROFESSIONAL AUDIT SERVICES

WHEREAS, annually the City of Tipton is required by Iowa Code to conduct an audit by an independent accounting firm; and

WHEREAS, Clifton Larson Allen LLP meets the qualifications required as identified in the RFP and has provided adequate service in previous audit work conducted for the City; and

WHEREAS, Clifton Larson Allen LLP has quoted the following:

FY2019	\$25,300
FY2020	\$26,100
FY2021	\$26,900

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Tipton, Iowa, that the contract for Professional Audit Services is hereby awarded to Clifton Larson Allen LLP

PASSED AND APPROVED this 3rd day of June 2019 by the City Council of the City of Tipton, Iowa.

Bryan Carney, Mayor

ATTEST:

Amy Lenz, City Clerk

CERTIFICATION

I, Amy Lenz, City Clerk, do hereby certify the above is a true and correct copy of Resolution 060319A which was passed by the Tipton City Council this 3rd day of June 2019.

Amy Lenz, City Clerk

RESOLUTION NO. _____

RESOLUTION CONCERNING AN APPLICATION FOR VOLUNTARY ANNEXATION TO THE CITY OF TIPTON SUBMITTED, INDIVIDUALLY AND JOINTLY, BY KEITH L. LAMP, RONALD W. LAMP, AND DONALD C. LAMP

WHEREAS, Keith L. Lamp, Ronald W. Lamp, and Donald C. Lamp, individually and jointly, submitted an application for Voluntary Annexation to the City of Tipton, Cedar County, Iowa on or about November 28, 2018; and

WHEREAS, the City of Tipton placed the following notice in the May 22, 2019 edition of the Tipton Conservative newspaper:

“Pursuant to Iowa Code Chapter 368.7, the City of Tipton, Iowa is considering a voluntary annexation of territory within Cedar County. The proposed annexation territory includes property owned by Donald Lamp, Ronald Lamp, and Keith Lamp. The application proposes the annexation of a roadway easement measuring approximately 2265 feet X 45 feet. The annexation includes either the continuation or establishment of zoning districts for the annexed properties at the time of annexation.

Notice is hereby given that the City of Tipton will hold a public hearing at 5:30 PM on Monday, June 17, 2019 at the Tipton Fire Station, 301 Lynn St. for the purpose of soliciting written and oral comments. Interested persons should attend or respond in writing to: City of Tipton; Attn: Brian Wagner, City Manager or Melissa Armstrong, Finance Director; 407 Lynn St., Tipton, IA 52772.”

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Tipton, Cedar County, Iowa, that it will hold a public hearing concerning the Application for Voluntary Annexation submitted to the City Council by Keith L. Lamp, Ronald W. Lamp, and Donald C. Lamp, individually and jointly, on June 17, 2019 at 5:30 p.m. at the Tipton Fire Station located at 301 Lynn Street.

PASSED, APPROVED, AND ADOPTED this 3rd day of June 2019.

Brian Carney, Mayor

Attest:

Amy Lenz – City Clerk

CERTIFICATION

I, Amy Lenz, City Clerk, do hereby certify the above is a true and correct copy of Resolution
_____ which was passed by the Tipton City Council this 3rd day of June 2019.

Amy Lenz – City Clerk

AGENDA ITEM 63

**AGENDA INFORMATION
TIPTON CITY COUNCIL COMMUNICATION**

DATE:	6/3/2019
AGENDA ITEM:	Block area on Meridian and East 3 rd Street to paint the crosswalk
ACTION:	Move to Approve, Deny or Table

SYNOPSIS: Downtown Art Project. Painting Crosswalk on Meridian and 3rd Street

Christine Boeve will paint the crosswalk on Meridian and 3rd Street. Area must be blocked for safety with barricades, orange cones or both. I cannot give an exact date as weather conditions play into this project.

Steve Nash will supply requested items.

BUDGET ITEM: N/A

RESPONSIBLE DEPARTMENT: Economic Development – Linda Beck

MAYOR/COUNCIL ACTION: Approve, deny or table

ATTACHMENTS: None

PREPARED BY: Linda Beck

DATE PREPARED: 5/28/2019

AGENDA ITEM 64

**AGENDA INFORMATION
TIPTON CITY COUNCIL COMMUNICATION**

DATE:	6/3/2019
AGENDA ITEM:	Council/Mayor/City Manager in the 4 th of July Parade
ACTION:	Move to Approve, Deny or Table

SYNOPSIS: Council/Mayor/City Manager to ride in the 4th of July Parade.

Candy will be provided. Report to the East Side of the Cedar County Courthouse by 10:30 a.m. Parade starts at 11:00 a.m.

BUDGET ITEM: N/A

RESPONSIBLE DEPARTMENT: Economic Development – Linda Beck

MAYOR/COUNCIL ACTION: Approve, deny or table

ATTACHMENTS:

PREPARED BY: Linda Beck

DATE PREPARED: 5/30/2019

AGENDA ITEM GS

**AGENDA INFORMATION
TIPTON CITY COUNCIL COMMUNICATION**

DATE:	6/3/2019
AGENDA ITEM:	Green Space
ACTION:	Move to Approve, Deny or Table

SYNOPSIS: Beautician of the Green Space

An AARP Grant has been applied for. In July will be notified if awarded.

I'd like to continue with this project if grant is awarded or not. Requesting first phase of concrete work by WJ Leeper be approved for \$3,200.00 and ground sleeve mounting system from Waterloo Tent and Tarp for \$200.00

For several years there's been numerous requests for outdoor seating downtown. Attached is a picture of the Cantilever Hex Umbrella and ADA compliant tables.

BUDGET ITEM: 001-5-525-2-65120

RESPONSIBLE DEPARTMENT: Economic Development – Linda Beck

MAYOR/COUNCIL ACTION: Approve, deny or table

ATTACHMENTS: See below

PREPARED BY: Linda Beck

DATE PREPARED: 5/30/2019

Cantilever Hex Umbrella/Sunshade mesh Fabric and ADA Compliant Tables



WJ Leeper Construction Invoice Estimate \$3,200.00

W J Leeper Construction LTD
480 Rose Avenue
Clarence, IA 52216

Invoice

Date 4/11/2019
Invoice # 1154

Bill To:
City of Tipton
ATT: Linda Beck
407 Lynn Street
Tipton, Iowa 52772

Ship To:

P.O. #
Terms

Ship Date 4/11/2019
Due Date 4/11/2019
Other

Description	Amount
HEXAGON PAD FOR UMBRELLA AT CORNER CITY PARK CONNECTED PAD WITH CITY WALK SET UMBRELLA HARDWARE	
Machine use:concrete/rebar/material & labor	3,200.00

CONTACT WELBY @ 563-357-4091

W J Leeper Construction LTD
jleeper@netins.net

563-452-3574 (office)

Subtotal	\$3,200.00
Sales Tax (0.00%)	\$0.00
Total	\$3,200.00
Payments /Credits	\$0.00
Balance Due	\$3,200.00

AGENDA ITEM *BL*

**AGENDA INFORMATION
TIPTON CITY COUNCIL COMMUNICATION**

DATE: 6/3/2019
AGENDA ITEM: DRIP Program Request
ACTION: Motion to approve, deny or table

SYNOPSIS:

Downtown Revitalization Incentive Program (DRIP) Request

Applicant: Madison Doughty DBS: Ameriprise Financial

Amount approved by the Commission: \$3,150.00 to begin project. Reimbursement will be made after will be made after completion of the project

Replacing building with stone and re-shingling overhang



BUDGET ITEM: 125-5-590-2-65800

RESPONSIBLE DEPARTMENT: Economic Development – Linda Beck

MAYOR/COUNCIL ACTION: Approve, deny or Table

ATTACHMENTS: See attachments below

PREPARED BY: Linda Beck

DATE PREPARED: 5/30/2019



417 Cedar
Street
Tipton, IA 52772
(563) 886-4597
www.tiptoniowa.org

5/30/2019

Dear City Council Members:

The Tipton Development Commission met on May 30, 2019 to consider a DRIP (Downtown Revitalization Incentive Program) request. Request was approved.

DRIP Request:

Madison Doughty – DBA: Ameriprise Financial

- Project Total: \$6,300.00
- Program Category: Exterior Façade Grant
- **\$3,150.00** approved by the Commission
- Project meets the guidelines

Respectfully Submitted,

Linda Beck
Tipton Development Director

AGENDA ITEM 67

AGENDA INFORMATION
TIPTON CITY COUNCIL COMMUNICATION

DATE: June 3rd, 2019
AGENDA ITEM: Raise the payment to Distributed Generation
ACTION: Motion to Approve or Disapprove

SYNOPSIS: This is for raising the amount we pay for Distributed Generation in the system from renewable energy.

Currently Tipton pays 0.028 cents per KWH sold back to the utility, we would be raising the rate to 0.03292 this is an increase of about 5 tenths of a cent. This will affect us financially but not in a huge amount:

Customer A Sells back to us annually 1500 kwh the difference would look like this.

1500 kwh x 0.0280 = \$42.00 1500 kwh x 0.03292 = \$49.38 A difference of \$7.38 per year

Customer B Sells back to us annually 25000 kwh the difference would look like this.

25000 kwh x 0.0280 = \$700.00 25000 kwh x 0.03292 = \$823.00 A difference of \$123.00 per year

This change would go into effect on July 1st 2019 pending council approval.

BUDGET ITEM:

RESPONSIBLE DEPARTMENT: Electric

MAYOR/COUNCIL ACTION: Approval or Disapproval

ATTACHMENTS: Attachment A:

PREPARED BY: Floyd Taber

DATE PREPARED: May 29, 2019

AGENDA ITEM 68

**AGENDA INFORMATION
TIPTON CITY COUNCIL COMMUNICATION**

DATE:	June 3 rd , 2019
AGENDA ITEM:	Operational Change in New Power Plant
ACTION:	Informational and discussion currently.

Currently in the New Power Plant the two MTU engines ramp to speed quite quickly from 0 rpm to 1800 rpm in less than 3 seconds. This does come with some major concerns. One is the fact we typically only run the engines every 60 days on a rotational basis from Old Plant to New Plant. Example Old Plant May, July. New Plant June, August.

I am very concerned we could spin rod or main bearings due to lack of adequate lubrication, to make the engines less susceptible to a catastrophic disaster. We would increase the ramp up time and allow the engine to follow this profile for startup. 300 rpm then to 600, 900, 1200, 1500, to the final stage of 1800 rpm. This would be done in 10 to 15 second intervals. Meanwhile, this will increase outage time if able to generate from about 6 minutes to 8 minutes.

I feel it is important for the council and the citizens to know that we must protect and maintain this very valuable asset that the city relies heavily upon.

BUDGET ITEM: NA

RESPONSIBLE DEPARTMENT: Electric

MAYOR/COUNCIL ACTION: Informational Only

ATTACHMENTS: None

PREPARED BY: Floyd Taber

DATE PREPARED: May 29, 2019

B9

memo

City of Tipton

To: City Council

From: Steve Nash, Director of Public Works

CC: Brian Wagner, City Manager; Melissa Armstrong, Finance

Date: May 28, 2019

Re: Street Project – Change orders -2019

The Preconstruction meeting last week went well. We do have about \$90,000 in RUT money remaining that can be used to expand the original 2019 Project. If we add the block from Orange to Lemon and the block from Lynn to Sycamore on West 4th, we will still have about \$23,000 to use. This is based on the Engineers estimate. I'd like to propose that we use that money to complete the street by reconstructing from Sycamore to the West edge of Spahn & Rose. This would construct a new asphalt surface from Lynn to Lemon.

West 4th has needed a new surface for several years. The possibility of the additional resurfacing costing a little more than we have set aside, is very likely. We do have some additional funds in RUT reserve that might come into play, if you, the Council, decide to go that direction.

The Precon Meeting established the start date as June 3rd. The concrete work that is included in the Project will be done first. Weather pending, that should take 7-10 days. The asphalt milling and reconstruction should only take a few days if the weather cooperates. If we can get a motion to proceed on Monday, June 3rd the concrete involved in the Change Order can be worked into the schedule.

Thanks for your consideration of this positive Change Order.

BIO
memo

City of Tipton

To: City Council
From: Steve Nash, Director of Public Works
CC: Brian Wagner, City Manager; Melissa Armstrong, Finance
Date: May 28, 2019
Re: Trench Shoring

You are all aware of our upcoming sewer project bypass on 13th street which ties into our newer West Trunk line. One piece of safety equipment that we've not owned as a City is trench box that we can handle with our backhoe. We do have an old trench box made of steel. This box is too heavy for our equipment to handle. I have never seen this utilized in my time here. Typically, we shelf the trench back for safety or construct something within the small area we are working in.

This project will require a trench box (shoring) that we can move with the pipe as we dig the trench. If we get an 8' by 8' box we'll be able to use it on smaller water main breaks when needed, as well. I have included some information on the type and size of what we are looking at. This shoring is something that is overdue from a safety standpoint. We've worked safely in most situations by shelving back and borrowing equipment.

I'm currently working on more information and availability for suitable shoring. I'll try to have a recommendation for you all on Monday.

If you have questions, feel free to give me a call.

Thanks,

Steve

G11
memo

City of Tipton

To: City Council
From: Steve Nash, Director of Public Works
CC: Brian Wagner, City Manager; Melissa Armstrong, Finance
Date: May 28, 2019
Re: Vermeer Vacuum Excavation System

Last year all 3 Departments, (Gas, Electric and Public Works) looked at and tested 2 or 3 different models of "Pot-hole Vacs" or Vacuum Excavation Systems. These were looked at by all 3 Departments for similar, yet different applications. As most of you know this works with a high-pressure water wand that is used to turn dirt into a slurry. Then the slurry is vacuumed into a holding tank with a 3- or 4-inch suction hose. The primary use for this type of equipment is to locate underground utilities and communication lines. These need to be located prior to any dirt removal work. Additional uses would include:

- **Cleaning out around water main breaks, during repair work.**
- **Removing debris from Water main valve boxes.**
- **Cleaning out Storm Intakes**
- **Cleaning out drain pits in shops.**
- **Vacuuming out Sanitary Sewer manholes, if they aren't too deep.**
- **Opening holes for Power line poles in crowded underground areas.**

The primary issues we face with underground excavation are safety and efficiency. With the increased underground infrastructure, we are challenged to accurately locate gas, electric and media cable with spades and an excavator.

I have enclosed the quote from Vermeer, here in town, which reflects a price lower than the established

Sourcewell low bid for this piece of equipment. There were a couple of additional features that we felt would serve the City well. After using the machine, we felt the hydraulic boom and the "Hot Box" were worth the additional expense. The hot box will allow us to go thru frozen ground. The hydraulic boom takes the weight of the suction hose off the operator.

I would be happy to give anyone more information regarding this equipment. Keep in mind this will be used by all 3 Departments (Gas, Electric and Public Works). The cost will also be equally shared by all 3 departments, in next Fiscal Year's budget.

G12



To: Honorable Mayor and City Council
Subject: Additional Terracon Soil Borings

From: Brian Brennan
Date: May 28, 2019

Dear Mayor and Council,

Engineering of the West Lagoon SAGR project called for soil borings. Terracon recently did the soil borings and followed up with a lengthy written report (attached) which does indicate concerns about soil conditions in the project area. Compacted material on top of "Expansive Soil" has created concern for the soil stability within proposed dikes, SAGR trenches, and under building foundations.

Terracon and McClure have suggested six additional borings. These additional borings will add detail to the soil cross section. This added information will potentially add detail to soil quantification. More precise quantification will potentially prevent contractor over bidding that might otherwise result from soil condition unknowns.

The Terracon proposal and quote for \$9900 to \$11,500 is attached. McClure Engineering recommends approval of the Terracon quote.

Respectfully submitted,

Brian Brennan

Water/Wastewater Superintendent

City of Tipton



SOILBORING TABLE			
No.	NORTHING	EASTING	DEPTH
11	649,817.37	2,284,466.08	25-FT
12	649,945.38	2,284,735.32	30-FT
13	649,661.86	2,284,536.04	20-FT
14	649,793.86	2,284,818.32	30-FT
15	649,544.32	2,284,591.53	20-FT
16	649,672.71	2,284,871.99	20-FT
17	649,928.59	2,285,113.66	20-FT
18	650,148.12	2,285,122.81	20-FT
19	650,366.60	2,285,095.26	25-FT

West WWTP Additional Soil Boring Exhibit
 City of Tipton, Iowa



SUPPLEMENT TO AGREEMENT FOR SERVICES

CHANGE TO SCOPE OF SERVICES AND FEES

This **SUPPLEMENT to AGREEMENT FOR SERVICES** to the original Agreement for Services (original Agreement dated 02/15/2019, Agreement reference number P06195025R) is between City of Tipton Iowa ("Client") and Terracon Consultants, Inc. ("Consultant") for additional or changed Services to be provided by Consultant for Client on the Project, as described in the Agreement for Services. This Supplement is incorporated into and part of the Agreement for Services.

- 1. Scope of Services.** The scope of the additional or changed Services are described in the Scope of Services section of the Consultant's Supplemental Proposal, unless Services are otherwise described below or in Exhibit B to this Supplement (which section or exhibit are incorporated into the Supplement).

Field Exploration Services

- Perform nine (9) soils borings at the requested locations to the depths shown on the Anticipated Exploration Plan, with sampling similar to our April 2019 site exploration.

Soil Laboratory Services

- Anticipated tests and quantities are shown on Exhibit C.

Geotechnical Engineering Services

- Prepare an addendum to our original Geotechnical Engineering Report (GER) containing boring logs, laboratory data, global slope stability analysis of the berm at one (1) cross-section, and revised recommendations to our GER as applicable.

- 2. Compensation.** Client shall pay compensation for the additional or changed Services performed at the fees stated in the Supplemental Proposal unless fees are otherwise stated below or in Exhibit C to this Supplement (which section or exhibit are incorporated into the Supplement).

Per attached Exhibit C.

All terms and conditions of the **Agreement for Services** shall continue in full force and effect. This Supplement is accepted and Consultant is authorized to proceed.

Consultant: **Terracon Consultants, Inc.**
By: Thomas W Sherman Date: **5/29/2019**
Name/Title: **Thomas W Sherman, P.E. / Project Manager**
Address: **2640 12th St SW**
Cedar Rapids, IA 52404-3440
Phone: **(319) 366-8321** Fax: **(319) 366-0032**
Email: **Tom.Sherman@terracon.com**

Client: **City of Tipton Iowa**
By: _____ Date: _____
Name/Title: **Brian Carney / Mayor**
Address: **407 Lynn St**
Tipton, IA 52772-1633
Phone: **(563) 886-6187** Fax: _____
Email: **mayor@tiptoniowa.org**

ANTICIPATED EXPLORATION PLAN

West WWTP Improvements and Sanitary Sewer ■ Tipton, Iowa
May 29, 2019 ■ Terracon Project No. 06195025

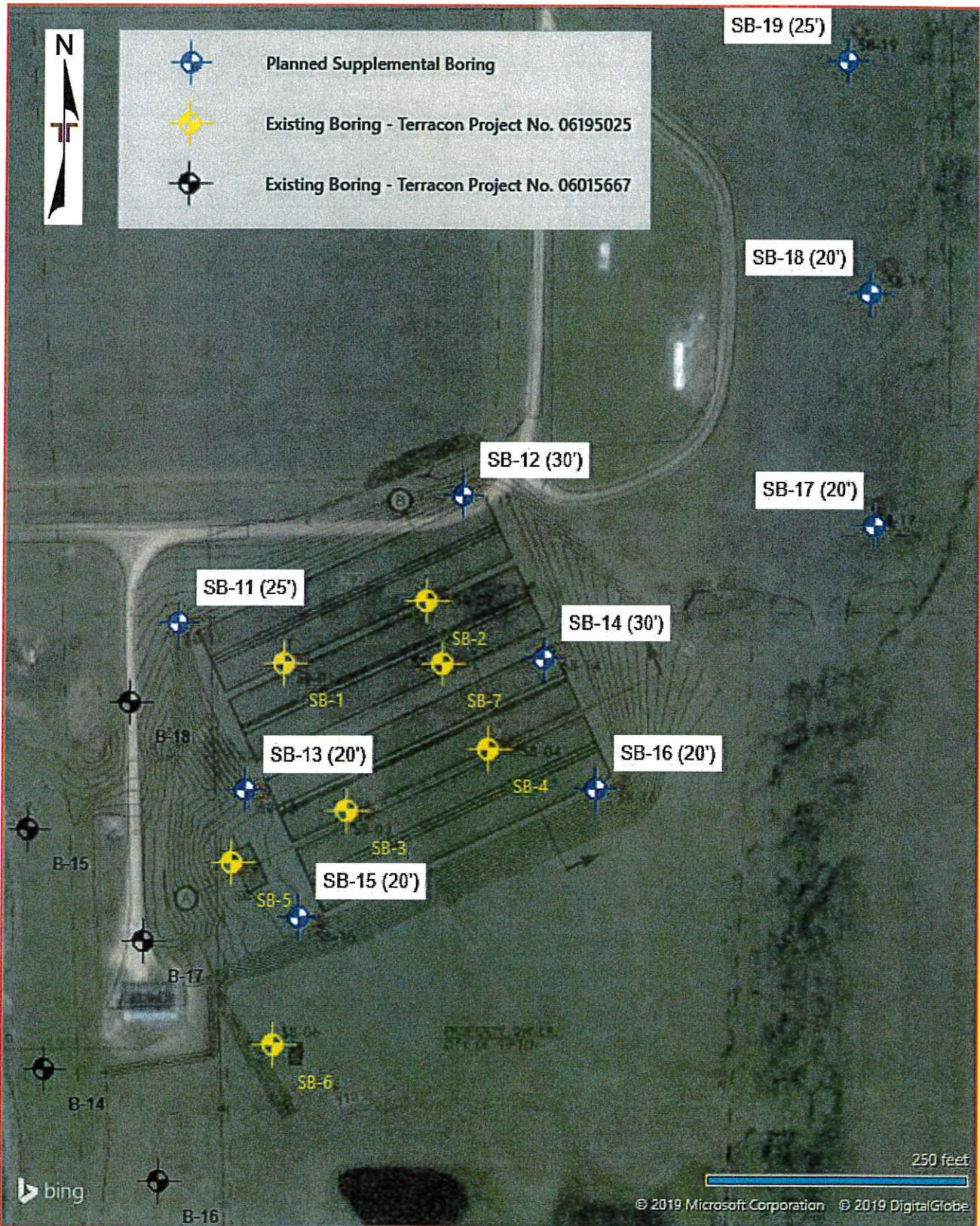


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

EXHIBIT C
BUDGET ESTIMATE - FEE SCHEDULE
SUPPLEMENTAL SUBSURFACE EXPLORATION
WEST WWTP IMPROVEMENTS
Tipton, Iowa
Terracon Project No. 06195025

5/29/2019

DESCRIPTION	QUANTITY	UNIT	UNIT PRICES	TOTAL FEE
-------------	----------	------	-------------	-----------

FIELD EXPLORATION SERVICES

Anticipate nine borings from 20 to 30 feet in depth.

Drill Rig Mobilization	1 - 1	L.S.	\$300.00	\$ 300.00 - 300.00
Boring Access/Movement/Standby	1 - 1	hour	\$150.00	\$ 150.00 - 150.00
Truck-Mounted Drill Rig	-	day	\$450.00	\$ - - -
All-Terrain Drill Rig	1 - 1	day	\$550.00	\$ 550.00 - 550.00
Track-Mounted Drill Rig	-	day	\$650.00	\$ - - -
Drilling Support Truck	1 - 1	day	\$75.00	\$ 75.00 - 75.00
Auger Drilling & Sampling (0-20ft.)	180 - 180	foot	\$13.50	\$ 2,430.00 - 2,430.00
Auger Drilling & Sampling (20-40ft.)	30 - 30	foot	\$14.50	\$ 435.00 - 435.00
Auger Drilling & Sampling (40-80 ft.)	-	foot	\$16.00	\$ - - -
Hard Bedrock/Rubble Drilling	-	foot	\$28.00	\$ - - -
Delayed Water Levels	2 - 3	hour	\$75.00	\$ 150.00 - 225.00
Vehicle Use (Non-Drilling)	80 - 80	mile	\$0.62	\$ 49.60 - 49.60
Bentonite Borehole Backfill	6 - 8	bag	\$10.00	\$ 60.00 - 80.00
Location-Elevations of Borings*	-	hour	\$150.00	\$ - - -
Drilling Supervisor	2 - 3	hour	\$105.00	\$ 210.00 - 315.00
			Total	\$ 4,409.60 - 4,609.60
ESTIMATED FIELD EXPLORATION SERVICES				\$ 4,400.00 to \$ 4,600.00

*Boring layout, coordinates, and elevations by MEC

SOIL LABORATORY SERVICES

Anticipate obtaining about 65 samples.

Stratification of Boring Logs	4 - 5	hour	\$65.00	\$ 260.00 - 325.00
Moisture Content & Visual Classification	65 - 65	each	\$10.00	\$ 650.00 - 650.00
Dry Density (Thin-Wall Tube Sample)	20 - 30	each	\$7.50	\$ 150.00 - 225.00
Unconfined Compressive Strength Test	10 - 15	each	\$17.50	\$ 175.00 - 262.50
Hand Penetrometer Test	40 - 60	each	\$3.00	\$ 120.00 - 180.00
Atterberg Limits - Three Point Method	4 - 5	each	\$125.00	\$ 500.00 - 625.00
Organic Content - Loss on Ignition	2 - 3	each	\$55.00	\$ 110.00 - 165.00
Grain Size Analysis (Washed)	2 - 3	each	\$85.00	\$ 170.00 - 255.00
Combined Hydrometer and Sieve	4 - 5	each	\$150.00	\$ 600.00 - 750.00
P200 Wash (% Passing No. 200 Sieve)	-	each	\$40.00	\$ - - -
			Total	\$ 2,735.00 - 3,437.50
ESTIMATED SOIL LABORATORY SERVICES				\$ 2,750.00 to \$ 3,450.00

GEOTECHNICAL ENGINEERING SERVICES

Project Direction, Sample Review, Coordination, Data Reduction, and Report Preparation

Senior Principal Engineer, P.E.	-	hour	\$195.00	\$ - - -
Office Manager/Principal Engineer, P.E.	-	hour	\$150.00	\$ - - -
Department/Senior Project Manager	2.0 - 3.0	hour	\$135.00	\$ 270.00 - 405.00
Project Engineer/Manager	20.0 - 24.0	hour	\$125.00	\$ 2,500.00 - 3,000.00
Field/Staff Engineer	-	hour	\$105.00	\$ - - -
CAD Operator	-	hour	\$65.00	\$ - - -
Secretarial Services	1.0 - 2.0	hour	N.C.	\$ - - -
			Total	\$ 2,770.00 - \$ 3405.00
ESTIMATED GEOTECHNICAL ENGINEERING SERVICES				\$ 2,750.00 to \$ 3,400.00

TOTAL ESTIMATED SERVICES	\$ 9,900.00 to \$ 11,450.00
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Terracon *GeoReport*

Geotechnical Engineering Report
West WWTP Improvements and Sanitary Sewer
Tipton, Iowa
May 15, 2019
Terracon Project No. 06195025_01

Prepared for:
City of Tipton, Iowa
Tipton, Iowa

Prepared by:
Terracon Consultants, Inc.
Cedar Rapids, Iowa

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials

May 15, 2019

City of Tipton, Iowa
407 Lynn Street
Tipton, Iowa 52772



Attn: Mr. Brian Carney - Mayor
P: (563) 886-6187
E: citymanager@tiptoniowa.org

Re: Geotechnical Engineering Report
West WWTP Improvements and Sanitary Sewer
Cedar Valley Road to Cedar Street
Tipton, Iowa
Terracon Project No. 06195025_01

Dear Mr. Carney:

Terracon Consultants, Inc. (Terracon) has performed geotechnical engineering services for the referenced projects. Our services were performed in general accordance with Terracon Proposal No. P06195025R, dated February 15, 2019. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning site preparation/earthwork, the design and construction of foundations and floor slabs, lateral earth pressures, and pipe trench bedding and backfill for the proposed projects.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,

Terracon Consultants, Inc.

A handwritten signature in blue ink that reads "Thomas W. Sherman".

Thomas W. Sherman, P.E. (WI)
Geotechnical Engineer

A handwritten signature in blue ink that reads "Justin D. Widdel".

Justin D. Widdel, P.E.
Iowa No. 20495

Copies: PDF – Addressee
PDF – Mr. Alex Potter – McClure Engineering Company – aPotter@mecresults.com
PDF – Mr. Mark Pearson – McClure Engineering Company – MPearson@mecresults.com
PDF – Mr. Trent Wilson – McClure Engineering Company – twilson@mecresults.com

Terracon Consultants, Inc. 2640 12th Street SW Cedar Rapids, Iowa
P (319) 366 8321 F (319) 366 0032 terracon.com

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Note: This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the **GeoReport** logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

SITE LOCATION AND EXPLORATION PLANS

EXPLORATION RESULTS (Geotechnical Model, Boring Logs, and Laboratory Data)

SUPPORTING INFORMATION (General Notes and Unified Soil Classification System)

Geotechnical Engineering Report
West WWTP Improvements and Sanitary Sewer
Cedar Valley Road to Cedar Street
Tipton, Iowa
 Terracon Project No. 06195025_01
 May 15, 2019

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed West WWTP Improvements and Sanitary Sewer projects located at the existing West WWTP and southwest of the intersection of Highway 38 and West South Street, respectively, in Tipton, Iowa. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Site preparation and earthwork
- Foundation design and construction
- Lateral earth pressures
- Frost considerations
- Groundwater conditions
- Seismic site classification per IBC
- Floor slab design and construction
- Pipe trench bedding and backfilling

The geotechnical engineering scope of services for this project included the advancement of ten test borings to depths ranging from approximately 10 to 25 feet below existing site grades.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs and/or as separate graphs in the **Exploration Results** section.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Project Locations	<ul style="list-style-type: none"> ■ The West WWTP project site and sanitary sewer alignment are located between Cedar Valley Road and Cedar Street in Tipton, Iowa ■ See Site Location

Item	Description
Existing Improvements	Existing water, sanitary sewer, and storm sewer lines in both areas (per drawings provided by MEC)
Current Ground Cover	Primarily grass
Existing Topography (from MEC)	<ul style="list-style-type: none"> ■ West WWTP improvements area <ul style="list-style-type: none"> ○ Per provided cross-sections, existing grades range from about 768 to 789 feet (NAVD88) ■ Sanitary sewer extension <ul style="list-style-type: none"> ○ Per provided topographic plan existing grades along the alignment range from about 782 to 790 feet (NAVD88)
Geology	<ul style="list-style-type: none"> ■ Existing fill in some areas of the WWTP improvements, then and/or ■ Loess and silty alluvium, then ■ Glacial till, then ■ Gower formation dolomite of the Silurian series

PROJECT DESCRIPTION

Our understanding of the project conditions at the time of this report is as follows.

Item	Description
Information Provided	<ul style="list-style-type: none"> ■ <i>Request for Proposal</i> dated January 31, 2019 <ul style="list-style-type: none"> ○ Includes <i>West WWTP Soil Boring Exhibit</i> with existing and planned grades, requested boring locations and depths, and a site plan of proposed improvements ○ Includes <i>Sanitary Sewer Soil Boring Exhibit</i> with existing grades, requested boring locations and depths, and a plan of the proposed alignment
Project Description	<ul style="list-style-type: none"> ■ Consolidation of existing East WWTP and West WWTP by constructing new facilities at the West WWTP site and decommissioning the East WWTP ■ New gravity sanitary sewer extension

Item	Description
<p>Proposed Improvements - West WWTP</p>	<ul style="list-style-type: none"> ■ Submerged attached growth reactor (SAGR) system <ul style="list-style-type: none"> ○ Eight, wood-framed earthen structures with a geomembrane liner over an area of approximately 2 acres with a depth of 10 feet below final grades ■ Blower building with plan dimensions of about 25 feet by 50 feet <ul style="list-style-type: none"> ○ Reinforced masonry walls and slab on grade floor ■ Ultraviolet (UV) disinfection system with plan dimensions of about 15 feet by 25 feet <ul style="list-style-type: none"> ○ Cast-in-place concrete structure
<p>Proposed Improvements - Gravity Sanitary Sewer</p>	<p>Planned alignment extends from the existing East WWTP outfall, west of Highway 38</p> <ul style="list-style-type: none"> ■ Approximately 950 lineal feet in length ■ 10-inch diameter, pipe type not provided ■ Invert depths ranging between 8 and 10 feet below existing grades
<p>Maximum Loads</p>	<p>Blower building</p> <ul style="list-style-type: none"> ■ Walls: 5 kips per linear foot (klf) ■ Slabs: 150 pounds per square foot (psf)
<p>Grading/Slopes</p>	<ul style="list-style-type: none"> ■ Cuts up to about 16 feet and fills up to about 9 feet in SAGR area <ul style="list-style-type: none"> ○ Bottom elevations of the SAGRs will range from about 772 to 772.5 feet ○ Top elevation of berms will range from about 783 to 784 feet ■ Cuts and fills of less than about 3 feet in blower building and UV system areas ■ Final slope angles no steeper than 3H: 1V (horizontal: vertical)
<p>Below Grade Structures</p>	<p>SAGR system and UV disinfection system</p>
<p>Free-Standing Retaining Walls</p>	<p>None anticipated</p>
<p>Pavements</p>	<p>None anticipated</p>

GEOTECHNICAL CHARACTERIZATION

Subsurface Profile

We have developed a general characterization of the subsurface soil and groundwater conditions based upon our review of the subsurface exploration, laboratory data, and geologic setting. This characterization, termed *GeoModel*, is provided in the **Exploration Results** section. Conditions encountered at each boring location are indicated on the individual boring logs shown in the **Exploration Results** section of this report. Stratification boundaries on the boring logs represent

Geotechnical Engineering Report

West WWTP Improvements and Sanitary Sewer ■ Tipton, Iowa
May 15, 2019 ■ Terracon Project No. 06195025_01



the approximate location of changes in soil types; in situ, the transition between native materials may be gradual. As noted in **General Comments**, the characterization is based upon widely spaced exploration points across the WWTP site and along the sanitary sewer alignment, and variations are likely.

As part of our analyses, we identified the following model layers within the subsurface profile. For a more detailed view of the model layer depths at each boring location, refer to the **GeoModel**.

Model Layer	Layer Name	General Description
1	Surficial	Topsoil
2	Existing Fill	Fat Clay with Organics, Lean Clay
3	Moderate to High Plasticity Alluvium	Fat Clay (CH), Fat Clay with Organics (CH-OH), Lean Clay (CL) - Moderate Plasticity (LL>45 and/or PI>23)
4	Low Plasticity Alluvium	Silty Clay (CL-ML) Lean Clay (CL) - Low Plasticity (LL<45 and/or PI<23), Sandy Lean Clay (CL), Silt with Sand (ML)
5	Alluvial Sand	Silty Sand (SM), Poorly Graded Sand with Silt (SP-SM)
6	Upper Glacial Till	Sandy Lean Clay (CL)
7	Lower Glacial Till	Sandy Lean Clay (CL)

Groundwater Conditions

The boreholes were observed while drilling and after completion for the presence and level of groundwater. The water levels observed in the boreholes can be found on the boring logs in **Exploration Results**.

In borings where more permeable sand and silt soils were present, these water level observations provide an approximate indication of the groundwater conditions existing at the boring locations at the time the observations were made. Where primarily clay soils were present in a boring, the absence of groundwater does not necessarily mean the boring terminated above groundwater, or the water levels observed are stable groundwater levels. Longer-term observations using cased holes or piezometers, sealed from the influence of surface water, would be required for a better evaluation of the groundwater conditions at the WWTP site and along the sanitary sewer alignment.

The United States Department of Agriculture - Natural Resources Conservation Service (USDA NRCS) Soil Survey of Cedar County, Iowa was reviewed for information relating to anticipated seasonally high groundwater levels as well as the ponding and flooding frequency class which are tabulated below.

Map Unit Name	Map Unit Symbol ¹	Seasonal High Water Table (feet)	Ponding	Flooding
Colo silty clay loam, 0 to 2 percent slopes, occasionally flooded	133	0	None	Occasional
Colo-Ely complex, 0 to 5 percent slopes	911B	0	None	None
Downs silt loam, till plain, 2 to 5 percent slopes	M162B	None listed	None	None
Downs silt loam, till plain, 9 to 14 percent slopes, eroded	M162D2	None listed	None	None

1. As shown in Figures 1 and 2 below.

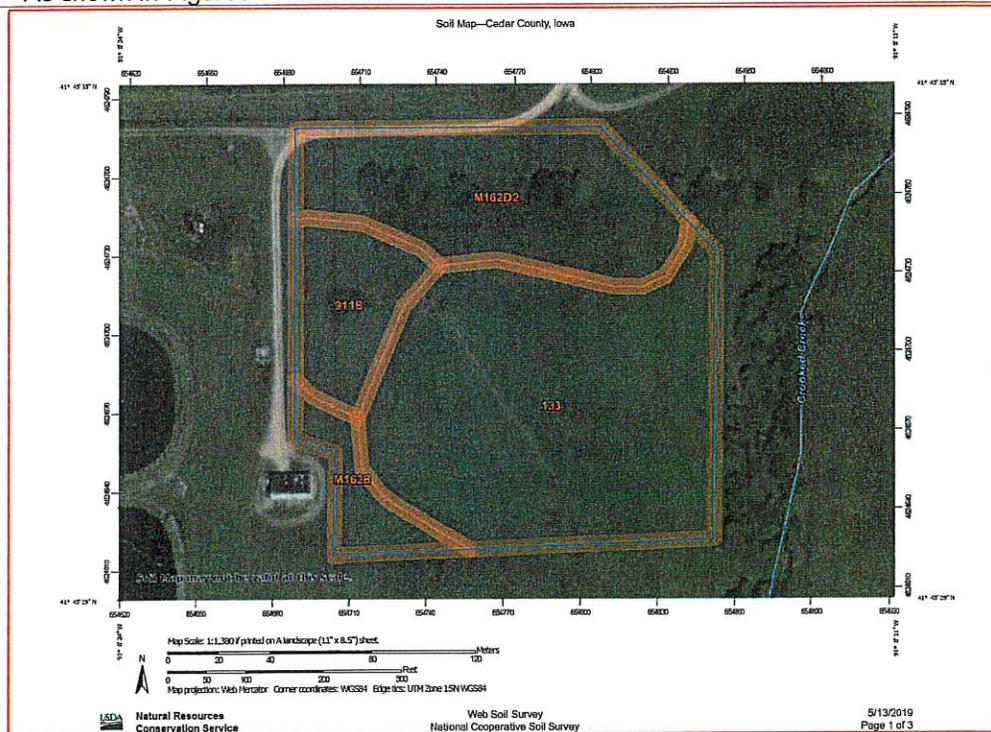


Figure 1 - Soils mapped by the NRCS in West WWTP improvement area.



Figure 2 - Soils mapped by the NRCS along the sanitary sewer alignment.

Fluctuations of the groundwater levels will likely occur due to seasonal variations in the amount of rainfall, runoff, level of Crooked Creek, and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the projects may be different than the levels indicated on the boring logs. Also, trapped or “perched” water could be present within the sand or silt seams within native clay soils and/or in cohesionless soils above lower permeability clay soil. Significant quantities of perched water may be present in the topsoil, particularly in plow zones and in the near surface soils that have been loosened by freeze-thaw action, during wetter/cooler climatic conditions. The possibility of groundwater level fluctuations and perched water should be considered when developing the design and construction plans for the project.

GEOTECHNICAL OVERVIEW

Existing Fill

As noted in **Geotechnical Characterization**, all of the West WWTP area borings except for Boring SB-2 encountered existing fill (i.e., **GeoModel** Layer 2) to depths ranging from about 5 to more than 16 feet. Based on the SPT “N” values, moisture contents, dry densities, unconfined compressive strengths, and generally higher plasticity and organic contents, the existing fill does not appear to have been placed as structural fill. Records regarding fill placement were not

Geotechnical Engineering Report

West WWTP Improvements and Sanitary Sewer ■ Tipton, Iowa
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provided to Terracon for review and may not exist. The fill was likely sourced from the existing basin excavations and placed in an area that was designated “green space” at the time.

Due to the risks of greater than normal settlements, all foundation excavations should extend through the existing fill to suitable native soils; similarly, existing fill should be removed from below the new berms and SAGR units. Support of floor slabs above existing fill soils is discussed in this report. However, even with the recommended testing, overexcavation, and replacement procedures presented in the **Site Preparation** section, there is an inherent risk for the City that compressible fill or unsuitable material within or buried by the fill will not be discovered. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill but can be reduced by following the recommendations contained in this report.

Settlement from Site Grading

Where site grades are raised significantly (i.e., the new SAGR area berms, settlement of the underlying native soils will occur. Regrading of the berms may be required to maintain their desired top elevations. Alternatively, the berms could be built about 0.5 taller than designed to compensate for future settlements.

Higher Plasticity Clay Soils

The moderate plasticity lean clay and high plasticity fat clay soils have a relatively high potential to shrink and swell as soil moisture contents fluctuate, and desiccated clay soils have a particularly high swell potential. The resulting subgrade movement from volume changes of the moderate to high plasticity clay with changes in moisture content could have detrimental effects on SAGR walls and grade-supported slabs. The greatest risk of movement would occur if the soils become dry during construction and return to their natural, relatively high moisture contents during the life of the structures.

This report provides recommendations to help mitigate the effects of soil shrinkage and expansion in **Site Preparation** and **Earthwork** sections. However, even if these procedures are followed, some movement should be anticipated. The magnitude of movement will probably increase if any modification of the site results in excessive wetting or drying of the expansive soils. Eliminating the risk of movement and distress may not be likely not economical, but it may be possible to further reduce the risk of movement if significantly more expensive measures are used during construction. We would be pleased to discuss other construction alternatives with you upon request.

Lower Strength Native Soils

Native, higher moisture content, soft to medium stiff clay soils were encountered in most of the borings. Some foundation bearing soil correction overexcavation and backfilling, as well as stabilization of subgrade soils should be anticipated during constructions, particularly if earthwork

is performed during cooler and/or wetter climatic conditions. Further recommendations are provided in the **Site Preparation** and **Earthwork**, and **Shallow Foundations** sections.

SITE PREPARATION

Site Grading

Topsoil, vegetation, and any otherwise unsuitable materials should be removed from the construction areas. Excessively wet or dry material should either be removed, or moisture conditioned and recompacted. Soft and/or low-density soil should be removed or compacted in place prior to placing new fill.

If the City elects to construct grade-supported slabs above the existing fill, the following protocol should be followed. The slab area should be undercut at least 2 feet below the bottom of slab elevation, with the undercut extending at least 5 feet beyond the perimeter of the slabs. Once existing fill materials have been undercut, the entire area should be proofrolled with heavy, rubber tire construction equipment, to aid in delineating areas of soft or otherwise unsuitable soil. Areas of soft or otherwise unsuitable material should be undercut and replaced with either new structural fill or suitable, existing on site materials.

Similarly, where moderate to high plasticity (i.e., lean clay with $LL \geq 45$ and/or $PI \geq 23$, lean to fat clay, and fat clay) soils are present below floor slabs and any other areas sensitive to shrink-swell movement, they should be undercut at least 2 feet below finished subgrade elevation and 5 feet laterally beyond the perimeter of the slab, and replaced with low plasticity (i.e., $LL < 45$ and $PI < 23$) cohesive fill, or granular fill with at least 12 percent passing the U.S. No. 200 sieve. The minimum fines content of the granular fill is intended to reduce moisture loss of the underlying clay subgrade soils.

Note that the undercut and replacement thicknesses recommended above are minimums, and greater thicknesses of removal and replacement could be used to reduce the risks of unsatisfactory performance of grade-supported slabs.

After rough grade has been established, the exposed subgrade should be proofrolled by the contractor and test probed by Terracon. Proofrolling on clay subgrades could be accomplished by using heavy, rubber-tired construction equipment or a tandem axle dump truck (gross weight of 20 to 25 tons). This surficial proofroll would help to provide a stable base for the compaction of new structural fill, and delineates low density, soft, or disturbed areas that may exist below subgrade level. Note that proofrolling of the SAGR bottoms is not intended. Soft or loose areas should be undercut, moisture conditioned, and recompacted or replaced with approved structural fill. Subgrade conditions should be observed by Terracon during construction.

The moisture content of exposed moderate plasticity lean clay and fat clay soils should be determined and adjusted to appropriate moisture contents prior to placement of new fill. This step

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is recommended to reduce the potential for volume change (swell) if the soils are initially dry and subsequently increase in moisture. Where moisture contents are below the optimum as determined by the standard Proctor test, we recommend the soils be scarified to depths of about 9 inches and adjusted to moisture contents above optimum and compacted to at least 95 percent of their maximum standard Proctor (ASTM D698) dry density.

Upon completion of filling and grading, care should be taken to maintain the subgrade moisture content prior to construction of grade-supported slabs and the SAGR bottoms. Construction traffic over the completed subgrade should be avoided to the extent practical. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become frozen, desiccated, saturated, or disturbed, the affected material should be removed, or these materials should be scarified, moisture conditioned, and recompacted prior to floor slab and SAGR bottom construction.

Similarly, the side walls of excavations of SAGR units, utilities, or foundations should not be allowed to dry prior to backfilling. The zone of dry and desiccated soils on the side walls, if present, should be removed prior to backfilling.

Soil Stabilization

Corrective measures will probably be required to increase subgrade stability during subgrade preparation. The City and MEC should budget for additional costs to provide the required corrective measures. Based on our experience in soils of these types, crushed stone thicknesses on the order of 1 to 2 feet could be required to stabilize subgrade soils. A geotextile stabilization material could also be placed below the crushed stone to help stabilize the subgrade soils, but only after all below-grade construction in the area is completed. As an alternative, the unstable subgrade soils could be undercut, scarified on-site, and compacted with moisture and density control in maximum 9-inch loose lifts up to final subgrade elevation to provide a uniform thickness of well-compacted material.

Incorporation of hydrated lime, portland cement, or Class C fly ash could be considered for chemical stabilization of the unstable soils, and/or to reduce their plasticity. Chemical modification should be performed by a pre-qualified contractor having experience with successfully stabilizing subgrades in the project area on similar sized projects with similar soil conditions. Results of chemical analysis of the additive materials should be provided to Terracon prior to use. Equipment which limits fugitive dust and/or wet application of the additive should be used to limit the hazards associated with chemicals blowing across the site or onto adjacent property. Additional testing would be needed for us to develop specific recommendations to improve subgrade stability by blending chemicals with the site soils. However, on a preliminary basis, 15 percent by soil weight of Class C fly ash and 5 percent by soil weight of hydrated lime or portland cement could be used for budgeting purposes. Additional testing could include, but not be limited to, determining the most suitable stabilizing agent, the optimum amounts required, the potential for sulfate induced heave, and freeze-thaw durability of the subgrade.

Excavation Considerations

All excavations should comply with the requirements of OSHA 29CFR, Part 1926, Subpart P, "Excavations" and its appendices, as well as other applicable codes. This document states that the excavation safety is the responsibility of the contractor. Reference to this OSHA requirement should be included in the project specifications. Slope heights, slope inclinations and/or excavation depths should in no case exceed those specified in local, state or federal safety regulations, including current OSHA excavation and trench safety standards.

Sloped excavations could be considered if the lateral extent would not impact adjacent utilities, pavements or structures. Where poorly compacted variable fill materials are encountered, flatter slopes than those required by OSHA could be required to maintain the stability of the excavation(s).

The information provided in this report is intended for its use by our client for this project only. Under no circumstances should the information provided below be interpreted to mean that Terracon is assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred. Construction site safety is the sole responsibility of the contractor, who shall also be solely responsible for the means, methods, and sequencing of construction operations.

Dewatering Considerations

Based on the water levels encountered in the borings and the anticipated high water levels provided by the NRCS, foundation bearing soil, SAGR, utility trench, and sanitary sewer excavations could extend below the water table. Dewatering during construction should be anticipated, and we recommend that the contractor(s) performing excavations submit a dewatering plan to the engineer (i.e., MEC) for approval prior to construction. We expect that sump pits and pumps would generally be adequate for dewatering excavations in clay soils. More extensive dewatering measures, such as well points and sheeting may be required for excavations extending into water bearing sand soils.

Shallow groundwater may contribute to subgrade instability. Depending on groundwater levels at the time of SAGR and sanitary sewer construction, it may be necessary to establish an effective means of controlling groundwater to minimize disturbance of subgrade soils. This may be accomplished with a series of ditches, "French drains", and/or drain lines in order to lower the groundwater level to at least 2 feet below the excavation depth. It is important to note that stable soil or compacted fill can lose strength or soften if groundwater is allowed to rise above the working construction grade and may require removal and replacement of the disturbed materials.

EARTHWORK

Fill Material Requirements

Fill placed in areas that will support future structures or other improvements should be inorganic, low plasticity cohesive soil or granular soil. Fill placed in confined excavations and utility trenches (where low permeability is not required) should consist of relatively clean and well-graded granular material. This should provide for greater ease of placement and compaction in confined areas where larger compaction equipment cannot be operated. The use of granular fill in these isolated and potentially deeper excavations would reduce the potential for differential settlement. Where low permeability is required, utility trenches should be backfilled with a low-permeability flowable fill.

The lean clay inorganic (i.e., less than 5 percent organic content) cohesive soils and the sand soils encountered in the borings (i.e., *GeoModel* Layers 4 through 7) are considered suitable for use as site mass grading fill; however, only limited quantities of these soils are anticipated to be obtained from the SAGR and utility trench excavations. Significant moisture conditioning (e.g. drying of clays) should be anticipated if on-site soils are used as fill. The majority of the existing fill soils (*GeoModel* Layer 2) and *GeoModel* Layer 3 soils will have Atterberg limits and/or organic contents greater than those recommended and should not be used as fill within 4 feet of finished grade-supported slab or SAGR bottom subgrade elevation. Consideration could be given to lowering the plasticity of the moderate to high plasticity clay soils by treatment with hydrated lime, Class C fly ash, or portland cement. We can provide additional recommendations for chemical treatment of the soils upon request.

Granular fill placed for floor slab support below the aggregate base course in areas where moderate to high plasticity soils have been undercut should have 12 percent or more fines passing the U.S. No. 200 sieve to reduce moisture loss from the underlying clay soils.

Care should also be taken to avoid inter-layering of granular soils and clay soils during fill placement. This could result in perched water conditions and lead to development of frost lenses and loss of subgrade strength both during and after construction. If granular soils are placed above clay soils, we suggest the subgrades have significant slope to drain/subdrain locations or that trench subdrains be installed.

Compacted structural fill should meet the following material property requirements:

Fill Type ¹	USCS Classification	Acceptable Location for Placement
Low Plasticity Cohesive ²	CL-ML, CL (LL<45, PI<23)	General site grading fill
High Plasticity Cohesive	CL (LL≥45 and/or PI≥23) CL/CH, CH	Green (non-structural) locations, general site grading fill ³

Fill Type ¹	USCS Classification	Acceptable Location for Placement
Granular ⁴	GW, GP, GM, GC SW, SP, SM, SC	General site grading fill and utility trench backfill in non-berm areas
Unsuitable	CL-OL, CH-OH, MH, OL, OH, PT	Green (non-structural) locations
On-Site Soils	CL-ML, CL (LL<45, PI<23), CL (LL≥45 and/or PI≥23), SP-SM, SM, CH, CH-OH, ML	Per the USCS classifications noted in this table

1. Structural fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the geotechnical engineer for evaluation prior to use on this site.
2. Low plasticity cohesive soil has a liquid limit less than 45 and a plasticity index less than 23.
3. CL (LL≥45 and/or PI≥23) CL/CH, and CH soils should not be used for structural fill within 4 feet of finished subgrade elevation.
4. Granular fill should not be used in areas where low permeability is required.

Appropriate laboratory tests, including Atterberg Limits for cohesive soils, organic content tests for dark colored soils and/or those that exhibit a noticeable odor, and standard Proctor (ASTM D698) moisture-density relationship tests should be performed on proposed fill materials prior to their use as structural fill. Further evaluation of any on-site soils or off-site fill materials should be performed by Terracon prior to their use in compacted fill sections.

Compaction Requirements

Item	Description
Maximum Fill Lift Thickness	<ul style="list-style-type: none"> ■ 9 inches or less in loose thickness when heavy, self-propelled compaction equipment is used ■ 4 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is used
Minimum Compaction Requirements ^{1,2,3}	<ul style="list-style-type: none"> ■ 98% beneath foundations ■ 95% above foundations
Moisture Content Range ¹	<ul style="list-style-type: none"> ■ Low plasticity cohesive: -2% to +3% ■ High Plasticity cohesive: 0 to +4% ■ Granular: -3% to +3%

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Item	Description
1.	As determined by the standard Proctor test (ASTM D698).
2.	Moderate plasticity lean clay, lean to fat clay, and fat clay should not be compacted to more than 100 percent of standard Proctor maximum dry density.
3.	If the granular material is a coarse sand or gravel, or of a uniform size, or has a low fines content, compaction comparison to relative density may be more appropriate. In this case, granular materials should be compacted to at least 70 percent relative density (ASTM D 4253 and D 4254).

Grading and Drainage

Final surrounding grades should be sloped to provide effective drainage away from the blower building and any other structures during and after construction. In addition, roof drainage should be collected by a system of gutters and downspouts and transmitted by pipe to the storm water drainage system or discharged a minimum of 5 feet away from the structure. As an alternative, splash blocks may be used as long as the ground surface is paved and slopes away from the structure. Grades around the structure should also be periodically inspected and adjusted as necessary, as part of the structure's maintenance programs.

Water permitted to pond next to the building can result in greater soil movements than those discussed in this report. These greater movements can result in unacceptable differential floor slab movements, cracked slabs and walls, and roof leaks. Estimated movements described in this report are based on effective drainage for the life of the structure and cannot be relied upon if effective drainage is not maintained.

Utility Trench Backfill

For low permeability subgrades, utility trenches are a common source of water infiltration and migration. All utility trenches that penetrate beneath buildings should be effectively sealed to restrict water intrusion and flow through the trenches, which could migrate below the buildings. The trenches should have an effective trench plug that extends at least 5 feet out from the face of the building exterior. The plug material should consist of cementitious flowable fill or low permeability clay. The trench plug material should be placed to surround the utility line. If used, the clay trench plug material should be placed and compacted to comply with the water content and compaction recommendations for structural fill stated previously in this report.

Sanitary Sewer Pipe Bedding and Backfill

Pipe bedding materials, if used, should comply with the current requirements of the pipe manufacturer or with SUDAS Section 3010 3.05. We anticipate that the materials that will be removed during the sewer and other excavations will not be suitable for reuse as pipe bedding material. The use of imported granular fill for pipe bedding should be included in budget estimates and bid documents.

We recommend backfill be placed in accordance with SUDAS Section 3010 and/or the recommendations contained in this report. To prevent damage to the pipes, caution should be exercised while compacting fill lifts immediately above the pipe.

Care should be taken so that the subgrade at the base of the excavations is not disturbed during construction. Disturbed or unstable materials should be removed before placing any granular bedding material. Groundwater, lower strength soils, and unstable conditions should be anticipated along the sanitary sewer alignment. We recommend fill placement and compaction be observed and tested by Terracon in areas that may in the future support slab, pavements, or other improvements.

Construction Observation and Testing

Earthwork should be observed and tested by Terracon, including site stripping, fill placement and compaction, and floor slab and pavement subgrade preparation. Foundation bearing soils should be evaluated by Terracon. In addition to the documentation of the essential parameters necessary for construction, the continuation of Terracon into the construction phase of the project provides the continuity to maintain our evaluation of geotechnical conditions, including assessing variations and associated design changes.

SHALLOW FOUNDATIONS

Design Parameters – Compressive Loads

The following design parameters are applicable for spread footing foundations for the planned blower building. Based on the presence of existing fill and the probability of lower strength native soils, some bearing soil correction overexcavation and backfilling should be anticipated.

Item	Description
Maximum Net Allowable Bearing pressure ^{1, 2}	2,000 psf
Required Bearing Stratum	<ul style="list-style-type: none"> ■ Stiff or greater consistency native clay soil <ul style="list-style-type: none"> ○ Field tested to have a shear strength of 1,000 psf or greater ○ Properly compacted dense-graded crushed stone extending to suitable native soils³
Minimum Foundation Dimensions	<ul style="list-style-type: none"> ■ Columns: 30 inches ■ Continuous: 16 inches
Ultimate Passive Resistance ⁴ (equivalent fluid pressures)	See Lateral Earth Pressures section

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Item	Description
Ultimate Coefficient of Sliding Friction ⁵	<ul style="list-style-type: none">■ 0.30 on native clay soil■ 0.35 on crushed stone
Minimum Embedment below Finished Grade ⁶	<ul style="list-style-type: none">■ Exterior footings in unheated areas: 54 inches■ Exterior footings in heated areas: 48 inches■ Interior footings in heated areas: 24 inches
Estimated Total Settlement from Structural Loads ²	Less than about 1 inch
Estimated Differential Settlement ²	About 2/3 of total settlement

1. The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. An appropriate factor of safety has been applied. Values assume that exterior grades are no steeper than 20% within 10 feet of structure.
2. Values provided are for maximum loads noted in **Project Description**. Settlement estimates were developed using the recommended bearing soil correction and overexcavation procedure where unsuitable soils (existing fill or lower strength soil) are encountered.
3. Overexcavation for bearing soil correction backfill placement below footings should extend laterally beyond all edges of the footings at least 8 inches per foot of overexcavation depth below footing base elevation.
4. Use of passive earth pressures require the sides of the excavation for the spread footing foundation to be nearly vertical and the concrete placed neat against these vertical faces or that the footing forms be removed and compacted structural fill be placed against the vertical footing face.
5. Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Should be neglected for foundations subject to net uplift conditions.
6. Embedment necessary to minimize the effects of frost and/or seasonal water content variations. For sloping ground, maintain depth below the lowest adjacent exterior grade within 5 horizontal feet of the structure.

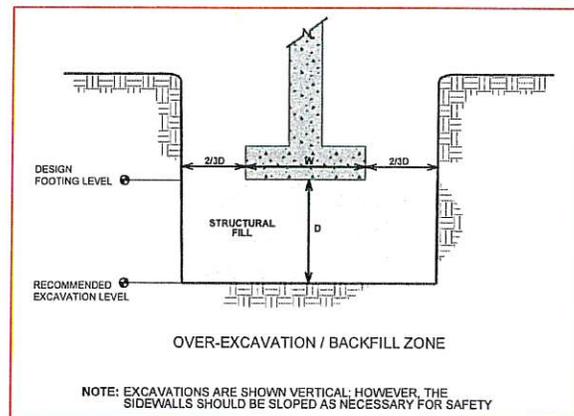
Foundation Construction Considerations

Foundation excavations should be observed by Terracon. If the soil conditions encountered differ significantly from those presented in this report, supplemental recommendations will be required.

Where unsuitable bearing soils are encountered in footing excavations, the excavations should be extended deeper to suitable soils. Overexcavation for compacted backfill placement below footings should extend laterally beyond all edges of the footings at least 8 inches per foot of overexcavation depth below footing base elevation. The overexcavation should then be backfilled up to the footing base elevation with dense-graded crushed stone material placed in lifts of 6 inches or less in loose thickness and compacted to at least 98 percent of the material's maximum standard Proctor dry density (ASTM D698). The overexcavation and backfill procedure is shown in the figure below.

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The base of all foundation excavations should be free of water and loose or soft soils prior to placement of bearing soil correction backfill, reinforcing steel, and/or concrete. If groundwater is encountered at the time of construction, it should be lowered and controlled to a minimum depth of 2 feet below the foundation excavation elevation. Should the soils at the bearing level become disturbed, the affected soil should be removed and replaced with dense-graded crushed stone prior to foundation construction.

SEISMIC CONSIDERATIONS

The seismic design requirements for buildings and other structures are based on the Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7 and the International Building Code (IBC).

Based on the soil properties encountered at the site and as described on the exploration logs and results, it is our professional opinion that the **Seismic Site Classification is D**. Soil borings at this site were extended to a maximum depth of 25 feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper borings and/or geophysical testing may be performed to evaluate the conditions below the current maximum boring depth.

GRADE-SUPPORTED SLABS

Variable fill, higher plasticity, organic and/or lower strength clay soils are anticipated to be present below the blower building floor slab subgrade level, and potentially other grade-supported slabs. As a minimum, where these soils are present within 2 feet of finished subgrade elevation, they should be removed and replaced with structural fill such that at least 2 feet of suitable native soils

and/or new structural fill (which may include the aggregate base course) are present below the bottom of the slab.

Design parameters for floor slabs assume that the recommendations in **Site Preparation and Earthwork** have been followed. Specific attention should be given to providing positive drainage away from the structure. This also includes the positive drainage of the aggregate base beneath the floor slab.

Floor Slab Design Parameters

Item	Description
Floor slab support ¹	<ul style="list-style-type: none"> ■ Minimum 6 inches of free-draining (less than 6 percent passing the U.S. No. 200 sieve) crushed aggregate compacted to at least 95 percent of ASTM D 698 ² ■ At least 2 feet of new fill should be present below floor slabs where a portion of existing fill soils, higher plasticity soils (i.e., LL≥45, PI≥23), and/or higher organic content (i.e., greater than 5 percent) are left in place <ul style="list-style-type: none"> ○ The aggregate base course could be considered part of the 2-foot thick layer
Estimated modulus of subgrade reaction ²	100 pounds per square inch per inch (psi/in) for point loads

1. Floor slabs should be structurally independent of any building footings or walls to reduce the possibility of floor slab cracking caused by differential movements between the slab and foundation.

2. Modulus of subgrade reaction is an estimated value based upon our experience with the subgrade condition, the requirements noted in **Earthwork**, and the floor slab support as noted in this table. It is provided for point loads. For large area loads the modulus of subgrade reaction would be lower.

The use of a vapor retarder should be considered beneath concrete slabs on grade that will be covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates that any differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks that occur beyond the length of the structural dowels. The structural engineer should account for this potential differential settlement through use of sufficient control joints, appropriate reinforcing or other means.

It should be noted that settlements of floor slabs supported on existing fill materials cannot be accurately predicted but could be larger than normal and result in some cracking. Any unsuitable subgrade materials observed during construction should be overexcavated and replaced with new structural fill. Additional replacement of existing fill materials below the slab areas with new structural fill could also be considered to help reduce the risk and to provide a more uniform bearing surface. A high modulus geogrid placed between the subgrade and base course could also be used to improve the degree and uniformity of subgrade support. However, all below-grade construction should be completed before the geogrid is placed.

Floor Slab Construction Considerations

On most project sites, the site grading is generally accomplished early in the construction phase. However, as construction proceeds, the subgrade will likely be disturbed due to utility excavations, construction traffic, desiccation, rainfall, etc. Correction to subgrades prior to placement of base course crushed stone and concrete should be anticipated, particularly where subgrades consist of and/or are underlain by high moisture content clay soils or loose sands.

We recommend the area underlying the floor slabs be rough graded and then thoroughly proofrolled with a loaded rubber-tire skid-steer loader prior to final grading and placement of the crushed stone base course. Particular attention should be paid to high traffic areas that were rutted and disturbed earlier and to areas where backfilled trenches are located. Areas where unsuitable conditions are located should be repaired by removing and replacing the affected material with properly compacted fill. Dry and/or desiccated subgrade soils should be removed, or subjected to a procedure of scarification, moisture conditioning, and recompaction prior to placing the floor slab base course.

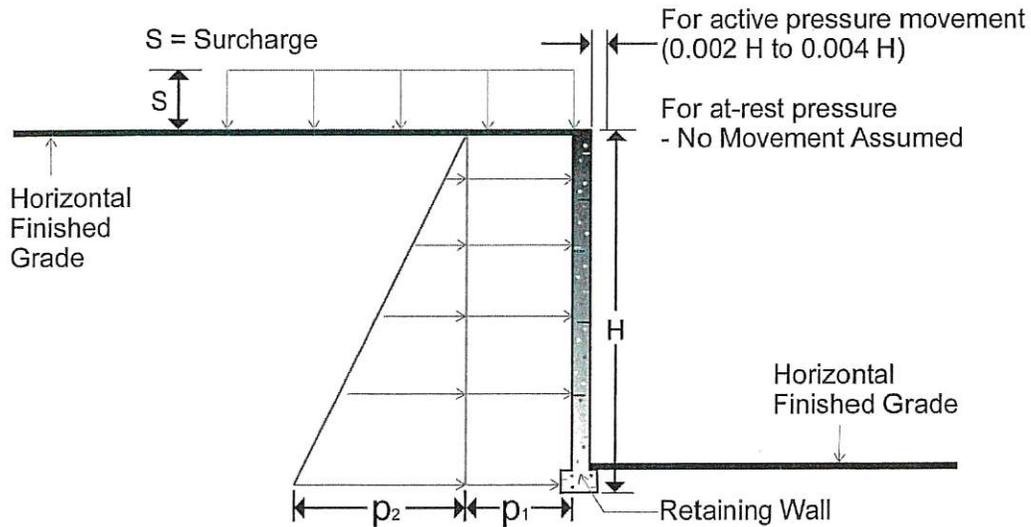
The recommended crushed stone base thickness is not intended to be used as a working surface for construction activities. Some redressing and correction of the crushed stone base disturbed or contaminated with fines should be anticipated if the stone base is placed early during construction.

Where practical, we recommend "early-entry" cutting of crack-control joints in floor grade supported slabs. Cutting of the concrete in its "green" state typically reduces the potential for micro-cracking of the slabs prior to the crack control joints being formed, compared to cutting the joints after the concrete has fully set. Micro-cracking of slabs may lead to crack formation in locations other than the sawed joints, and/or reduction of fatigue life of the slabs.

BELOW-GRADE STRUCTURES

Lateral Earth Pressure Design Parameters

The SAGR walls should be designed for earth pressures at least equal to those indicated in the following table. Earth pressures will be influenced by structural design of the walls, conditions of wall restraint, methods of construction and/or compaction and the strength of the materials being restrained. Two wall restraint conditions are shown. Active earth pressure assumes wall movement. The "at-rest" condition assumes no wall rotation and should be used where the SAGR walls are restrained from movement. The surcharge components would apply where drives, equipment parking or other loading will be applied adjacent to the below grade walls. The recommended design lateral earth pressures do not include a factor of safety, and do not include any provision for possible hydrostatic pressure on the walls.



Earth Pressure Coefficients				
Earth Pressure Conditions	Coefficient for Backfill Type	Equivalent Fluid Density (pcf)	Surcharge Pressure, p_1 (psf)	Earth Pressure, p_2 (psf)
Active (K_a)	Granular - 0.33	40	(0.33)S	(40)H
	Lean Clay - 0.42	50	(0.42)S	(50)H
	Fat Clay - 0.49	59	(0.49)S	(59)H
At-Rest (K_o)	Granular - 0.46	55	(0.46)S	(55)H
	Lean Clay - 0.60	70	(0.60)S	(70)H
	Fat Clay - 0.66	79	(0.66)S	(79)H
Passive (K_p)	Granular - 3.0	360	---	---
	Lean Clay - 2.4	290	---	---
	Fat Clay - 2.04	245	---	---
Ultimate Coefficient of Sliding Resistance on Suitable Bearing Soils		<ul style="list-style-type: none"> ■ 0.30: On cohesive bearing soils ■ 0.45: On at least 2 feet of crushed stone backfill 		

Applicable conditions to the above include:

- For active earth pressure, wall must rotate about base, with top lateral movements of about 0.002 **H** to 0.004 **H**, where **H** is wall height;
- For passive earth pressure to develop, wall must move horizontally to mobilize resistance;
- Uniform surcharge, where S is surcharge pressure;
- In-situ soil backfill weight a maximum of 120 pcf;
- Horizontal backfill, compacted between 95 and 100 percent of standard Proctor maximum dry density;
- Loading from heavy compaction equipment not included;
- No hydrostatic pressures acting on wall;
- No dynamic loading;
- No safety factor included;
- Ignore passive pressure in frost zone.

Note that higher earth pressures on the SAGR walls could result from hydrostatic pressures due to the potential for high groundwater on this site. If a subdrainage system (as discussed below in this section) is not practical, the SAGR walls should be designed to resist hydrostatic pressures below the maximum anticipated groundwater level, which may be as high as the existing ground surface (see **Groundwater Conditions** in **Geotechnical Characterization**).

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For the granular values to be valid, the granular backfill must extend out and up from the base of the wall at an angle of at least 45 from vertical for the active and at-rest cases and at least 60 degrees from vertical for the passive cases.

Heavy construction equipment should not operate within a distance closer than the exposed height of SAGR walls to prevent lateral pressures greater than those provided. Backfill placed in non-structural areas adjacent to the walls should be placed in thin lifts and compacted using hand-operated equipment to at least 95 percent, but no more than 100 percent, of the material's maximum standard Proctor dry density (ASTM D 698).

A perforated rigid plastic or metal drain line installed behind the base of walls that extend below adjacent grade is recommended to prevent hydrostatic loading on the walls. The invert of a drain line around a SAGR wall should be placed near the wall base level. The drain line should be sloped to provide positive gravity drainage or to a sump pit and pump. The drain line should be surrounded by clean, free-draining granular material having less than 6 percent passing the No. 200 sieve. The free-draining aggregate should be encapsulated in a filter fabric. The granular fill should extend to within 2 feet of final grade, where it should be capped with compacted cohesive fill to reduce infiltration of surface water into the drain system.

As an alternative to free-draining granular fill, a pre-fabricated drainage structure may be used. A pre-fabricated drainage structure is a plastic drainage core or mesh which is covered with filter fabric to prevent soil intrusion and is fastened to the wall prior to placing backfill.

FROST CONSIDERATIONS

The soils on this site are frost susceptible, and small amounts of water can affect the performance of the slabs-on-grade. Exterior slabs should be anticipated to heave during winter months. If frost action needs to be eliminated in critical areas, we recommend the use of non-frost susceptible structural or structural slabs (e.g., structural stoops in front of building doors). Placement of non-frost susceptible material in large areas may not be feasible; however, the following recommendations are provided to help reduce potential frost heave:

- Providing surface drainage away from the building and slabs;
- Grading clayey subgrades such that groundwater potentially perched in overlying more permeable subgrades, such as sand or aggregate base, toward the site drainage system.

GENERAL COMMENTS

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or

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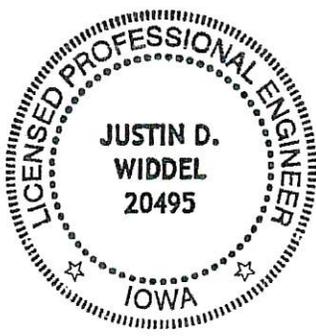
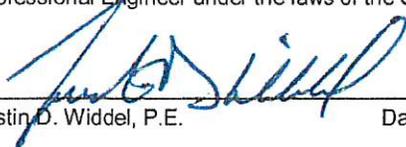


weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our scope of services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client, and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly affect excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

	<p>I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p> <p> 5-15-19 Justin D. Widdel, P.E. Date</p> <p>My license renewal date is December 31, 2020.</p>
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ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Terracon performed the following borings requested by MEC with their approximate locations shown on the **Exploration Plan** and depths tabulated below. Boring SB-10A was substituted for planned Boring SB-10 due to property access permission considerations.

Number of Borings	Boring Designations	Boring Depth (feet) ¹	Planned Location
3	SB-1 to SB-3	19.5 to 20	SAGR
1	SB-4	25	SAGR
1	SB-5	20	Blower building
1	SB-6	10	UV disinfection
1	SB-7	16	Borrow pit
3	SB-8, SB-9, and SB-10A	15	Sanitary sewer

1. Below existing ground surface.

Boring Layout and Elevations: The borings were staked by MEC, and we were provided coordinates (Iowa State Plane) and surface elevations (rounded to the nearest foot and 0.1-foot, respectively on the boring logs) at the boring locations, except for Boring SB-10A where we estimated the coordinates from the offset distance and elevation (both rounded to the nearest foot on the boring log) by plotting the coordinates on the IDNR LiDAR Elevation Tool. The coordinates and elevations shown on the boring logs should only be considered as accurate as the means and methods used to develop them.

Subsurface Exploration Procedures: We advanced the borings with an ATV-mounted rotary drill rig using continuous flight augers. Soil sampling was performed using thin-wall tube and/or split-barrel sampling procedures. In the thin-walled tube sampling procedure, a thin-walled, seamless steel tube with a sharp cutting edge is pushed hydraulically into the soil to obtain a relatively undisturbed sample. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon is driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. Based on calibration performed in October 2018 the CME automatic hammer used has an energy transfer ratio (ETR) of about 91 percent (i.e., hammer efficiency correction (C_E) of 1.51). Once the samples were collected and classified in the field, they were placed in appropriate sample containers and transported to our laboratory.

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We observed and recorded groundwater levels during and after drilling and sampling. Following the completion of water level observations, the borings were backfilled with auger cuttings to within 3 feet of existing grade, then the remainder of the boreholes were backfilled with bentonite chips.

Our exploration team prepared field boring logs as part of standard drilling operations including sampling depths, penetration resistances, and other relevant sampling information. Field logs included visual classifications of materials encountered during drilling, and our interpretation of subsurface conditions between samples.

Laboratory Testing

Water content tests were performed on the samples obtained from the borings. Dry density and unconfined compressive strength tests were performed on intact tube samples of cohesive soil, and hand penetrometer tests were also performed on select native samples. Atterberg (liquid and plastic) limits, organic content by loss on ignition, and grain size analyses were performed on selected samples to better evaluate the site conditions and develop engineering recommendations for the project. Native soil samples were visually classified in accordance with the Unified Soil Classification System (USCS). The results of the laboratory testing are presented on the boring logs next to the sample depths, and/or as separate plots in the **Exploration Results** section.

Computer generated boring logs, prepared from field logs, represent the geotechnical engineer's interpretation, and include modifications based on observations and laboratory tests.

SITE LOCATION AND EXPLORATION PLANS

Contents:

Site Locations

Exploration Plans

SITE LOCATIONS

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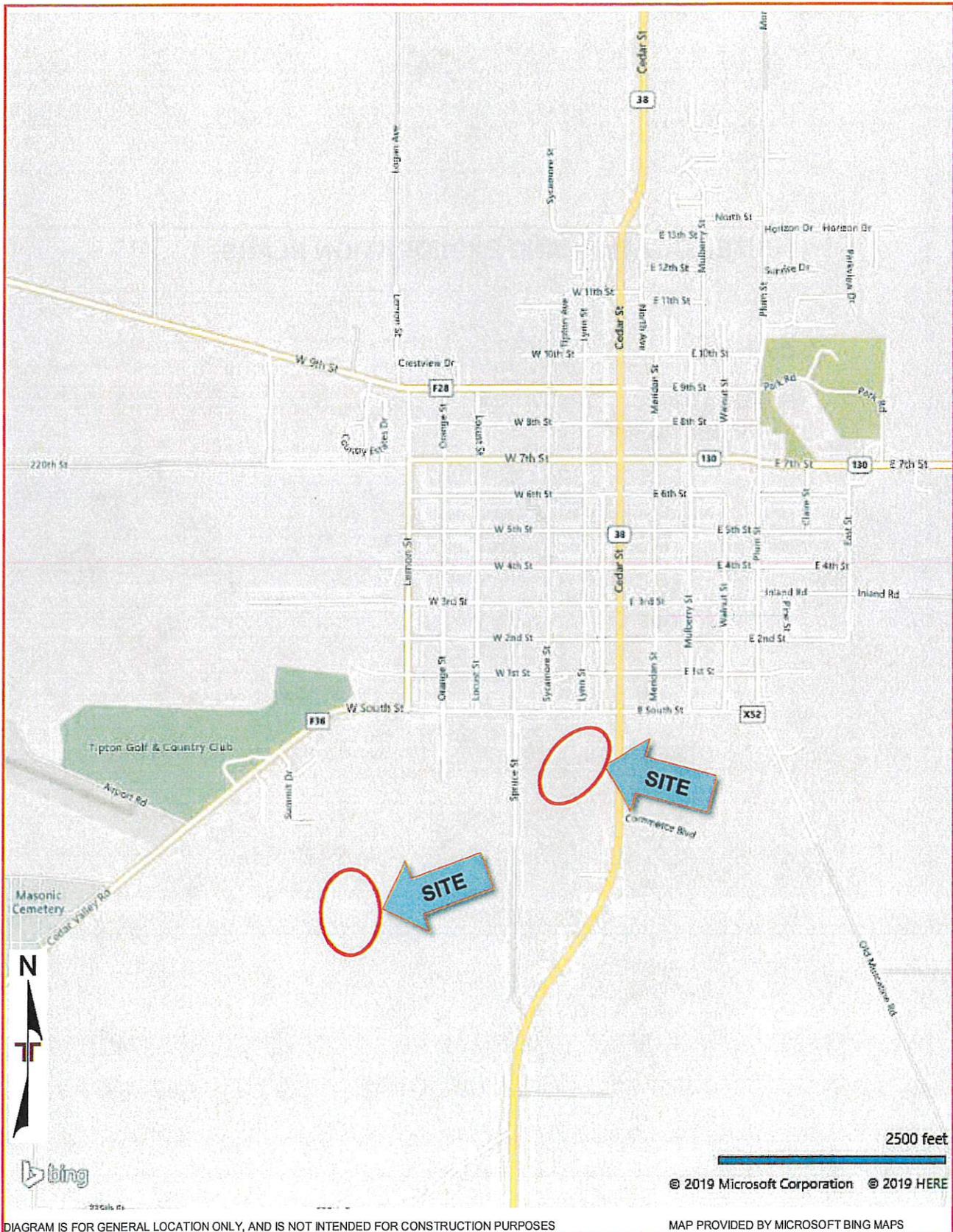


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXPLORATION PLAN - WWTP

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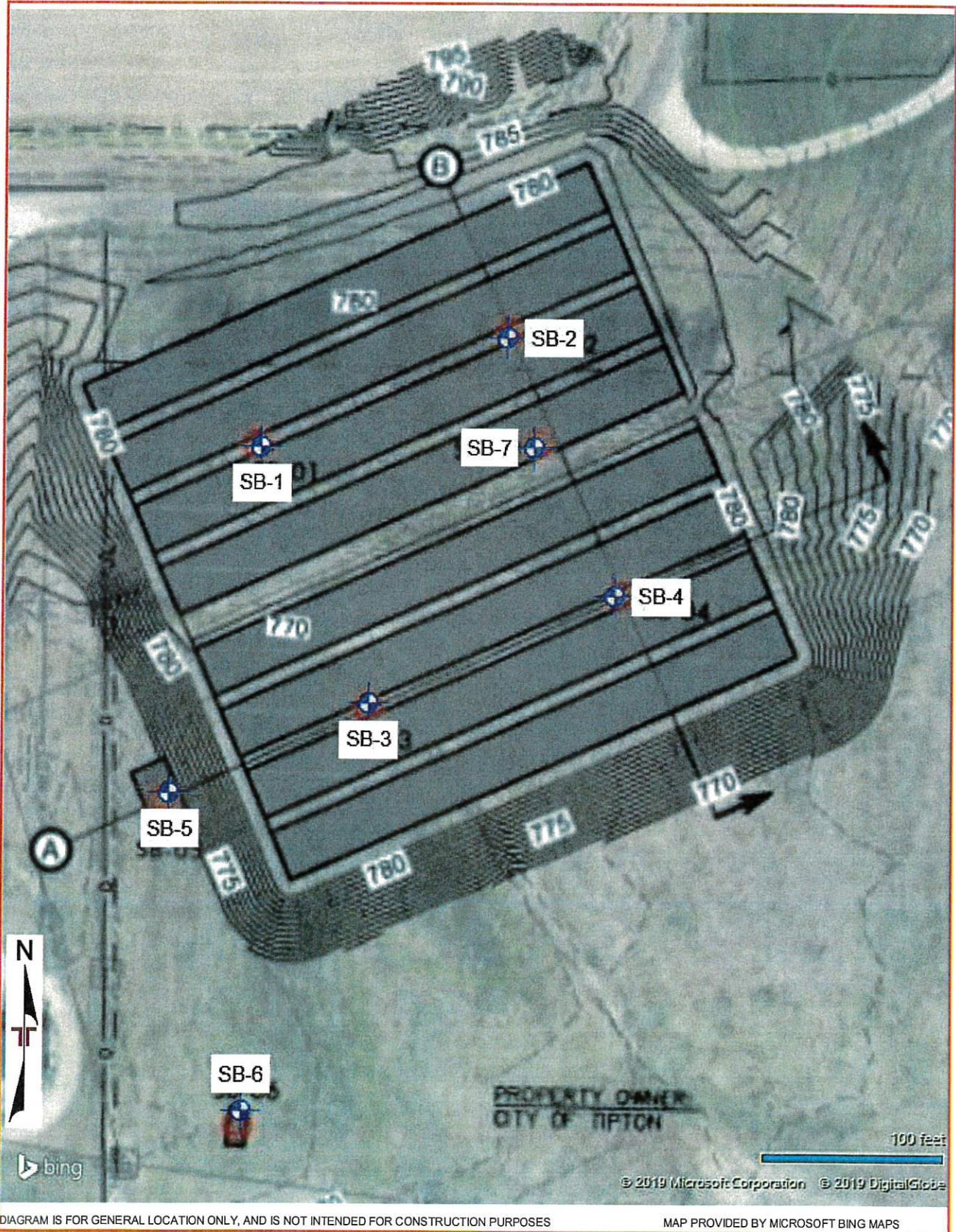
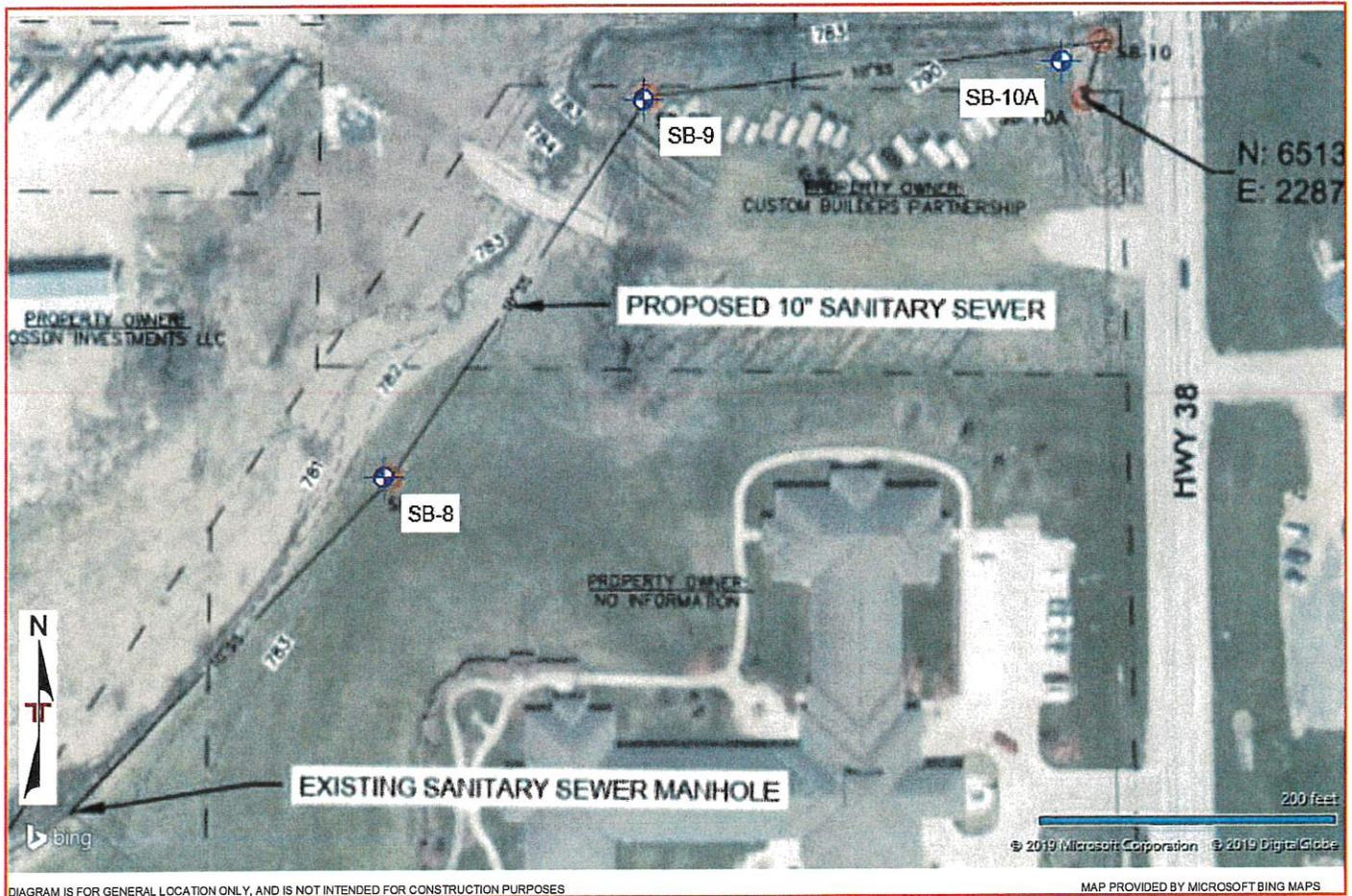


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXPLORATION PLAN – SANITARY SEWER

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EXPLORATION RESULTS

Contents:

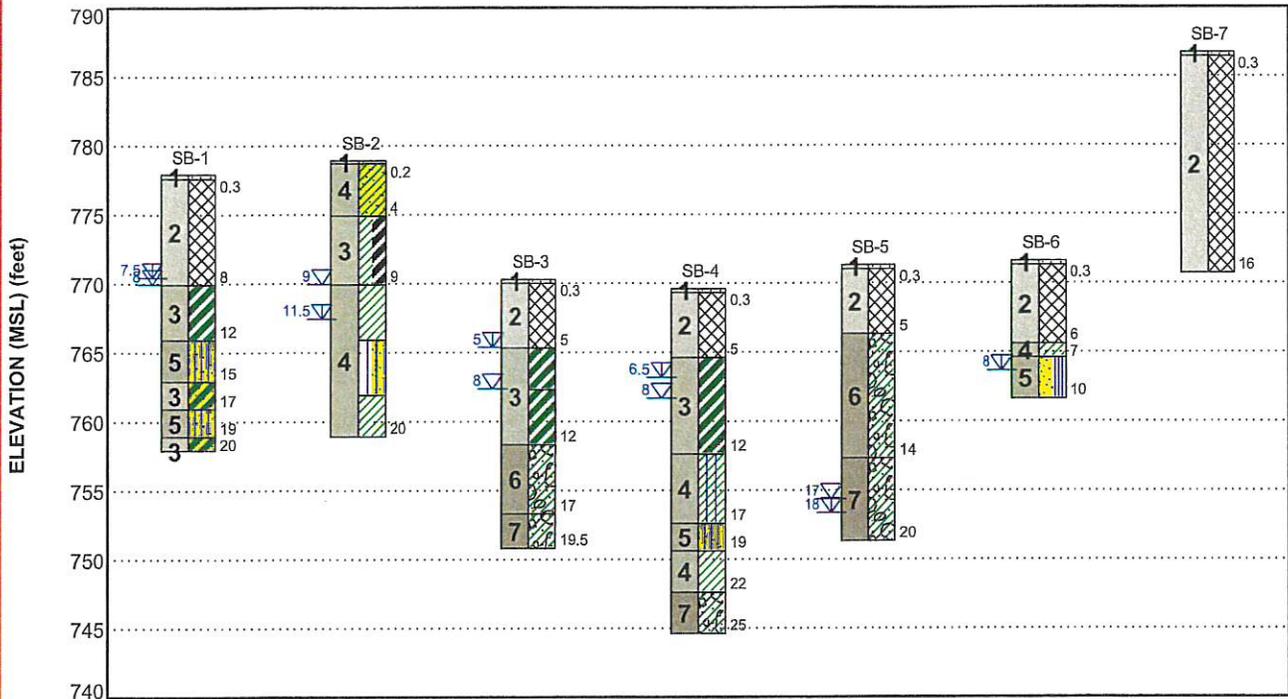
GeoModel

Boring Logs (B-1 through B-10A)

Laboratory Test Results

GEOMODEL

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This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

LEGEND

Model Layer	Layer Name	General Description
1	Surficial	Topsoil
2	Existing Fill	Fat Clay with Organics, Lean Clay
3	Moderate to High Plasticity Alluvium	Fat Clay (CH), Fat Clay with Organics (CH-OH), Lean Clay (CL) - Moderate Plasticity (LL>45 and/or PI>23)
4	Low Plasticity Alluvium	Silty Clay (CL-ML), Lean Clay (CL) - Low Plasticity (LL<45 and/or PI<23), Sandy Lean Clay (CL), Silt with Sand (ML)
5	Alluvial Sand	Silty Sand (SM), Poorly Graded Sand with Silt (SP-SM)
6	Upper Glacial Till	Sandy Lean Clay (CL)
7	Lower Glacial Till	Sandy Lean Clay (CL)

	Topsoil		Fill
	Fat Clay		Silty Sand
	Sandy Fat Clay		Sandy Lean Clay
	Lean Clay (Md. Pl.)		Lean Clay
	Silt with Sand		Glacial Till
	Silty Clay		Poorly-graded Sand with Silt

NOTES:

Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.

- First Water Observation
- Second Water Observation
- Third Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time. Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

BORING LOG NO. SB-1

PROJECT: West WWTP Improvements and Sanitary Sewer

CLIENT: City of Tipton
Tipton, Iowa

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa

ENGINEER: McClure Engineering Company

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.759437° Longitude: -91.138787° Northing: 649782 Easting: 2284570 Surface Elev.: 777.9 (Ft.)	DEPTH (FL.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES	
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)					
1	3" Topsoil		0.3														
2	FILL - LEAN CLAY, trace sand, brown		777.5			6					UC	1.51	5.5	21	103	36-19-17	90
3	FAT CLAY (CH), trace sand, organics, and rootlets, dark brown, medium stiff		770	▽		6					UC	1.33	8.1	21	100		
3	FAT CLAY (CH), trace sand, organics, and rootlets, dark brown, medium stiff		766			6		4	1.0 (HP)	UC	0.94	14.6	27	96			
5	SILTY SAND (SM), fine to medium grained, gray and brown, loose		763		X	14	2-1-5 N=6						20			50	
3	SANDY FAT CLAY (CH), gray and brown, medium stiff		761		X	18	1-2-3 N=5		0.75 (HP)				21				
5	SILTY SAND (SM), fine to medium grained, brown		759										18				
3	SANDY FAT CLAY (CH), gray and brown, medium stiff		758			20			1.0 (HP)	UC	0.71	14	23	105		22	
		Boring Terminated at 20 Feet															

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: CME Automatic

Advancement Method:
Power auger to boring termination.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:
Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation provided by MEC.

WATER LEVEL OBSERVATIONS

- ▽ 8' while drilling.
- ▽ 7.5' after boring.



2640 12th St SW
Cedar Rapids, IA

Boring Started: 04-05-2019

Boring Completed: 04-05-2019

Drill Rig: CME-550X

Driller: DL

Project No.: 06195025

Wet cave-in at 13' after boring.

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL_06195025 WEST WWTP IMPROVEMENTS.GPJ MODEL LAYER.GPJ 5/8/19

BORING LOG NO. SB-2

PROJECT: West WWTP Improvements and Sanitary Sewer

CLIENT: City of Tipton
Tipton, Iowa

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa

ENGINEER: McClure Engineering Company

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL_06195025 WEST WWTP IMPROVEMENTS.GPJ MODEL LAYER.GPJ 5/8/19

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.759599° Longitude: -91.138289° Northing: 649845 Easting: 2284705 Surface Elev.: 778.9 (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)				
		DEPTH ELEVATION (Ft.) 0.2 2" Topsoil 778.5														
4		SANDY LEAN CLAY (CL) , trace sand and organics, brown and dark brown, medium stiff	4.0			9			1.0 (HP)	UC	0.67	10.5	19	100	25-17-8	60
3		LEAN CLAY (CL) , trace sand, brown and light brown, stiff, moderate plasticity	9.0			8			1.25 (HP)	UC	1.23	14.6	28	95	44-18-26	97
		LEAN CLAY (CL) , trace sand, brown and gray, soft to medium stiff	13.0			10			0.5 (HP)	UC	0.55	14.6	29	91	40-17-23	95
4		SILT WITH SAND (ML) , with clay seams, brown and gray, soft to medium stiff	17.0			11			UC	0.21	3.2	17	114			
		LEAN CLAY (CL) , trace sand, gray, very soft	20.0			12	1-2-2 N=4		0.5 (HP)	UC	0.35	5	25	90		76
		Boring Terminated at 20 Feet	20													

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: CME Automatic

Advancement Method:
Power auger to boring termination.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation provided by MEC.

WATER LEVEL OBSERVATIONS

▽ 9' while drilling.
▽ 11.5' after boring.

Wet cave-in at 11.5' after boring.



Boring Started: 04-05-2019

Boring Completed: 04-05-2019

Drill Rig: CME-550X

Driller: DL

Project No.: 06195025

BORING LOG NO. SB-3

PROJECT: West WWTP Improvements and Sanitary Sewer

CLIENT: City of Tipton
Tipton, Iowa

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa

ENGINEER: McClure Engineering Company

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.759057° Longitude: -91.138564° Northing: 649645 Easting: 2284635 Surface Elev.: 770.3 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)				
1		0.3 - 3" Topsoil	770													
2		FILL - FAT CLAY WITH ORGANICS, trace sand, dark brown and brown	5.0			16		5		UC	1.19	13.2	32	87	51-18-33	94
		FAT CLAY (CH), trace sand, dark gray, brown, and gray, medium stiff	8.0	▽		9		7		UC	0.94	12.8	30	89		
3		FAT CLAY (CH), trace sand, bluish-gray and gray, stiff	12.0	▽		5		0.75 (HP)		UC	0.66	14.6	35	86		
		FAT CLAY (CH), trace sand, bluish-gray and gray, stiff	12.0	▽		12				UC	1.94	12.2	30	88		
6		SANDY LEAN CLAY (CL), trace gravel, occasional sand seams, bluish-gray, greenish-gray, and brown, stiff	17.0			14		2.0 (HP)		UC	1.72	10.8	18	115		
7		SANDY LEAN CLAY (CL), trace gravel, occasional sand seams, dark gray, stiff	19.5			18	3-4-4 N=8	1.5 (HP)					21			
		Boring Terminated at 19.5 Feet														

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: CME Automatic

Advancement Method:
Power auger to boring termination.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation provided by MEC.

WATER LEVEL OBSERVATIONS

▽ 8' while drilling.
▽ 5' after boring.

⊗ Wet cave-in at 11.5' after boring.

Terracon

2640 12th St SW
Cedar Rapids, IA

Boring Started: 04-05-2019

Boring Completed: 04-05-2019

Drill Rig: CME-550X

Driller: DL

Project No.: 06195025

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 06195025 WEST WWTP IMPROVEMENTS.GPJ MODEL LAYER.GPJ 5/8/19

BORING LOG NO. SB-4

PROJECT: West WWTP Improvements and Sanitary Sewer

CLIENT: City of Tipton
Tipton, Iowa

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa

ENGINEER: McClure Engineering Company

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL_06195025 WEST WWTP IMPROVEMENTS.GPJ MODEL LAYER.GPJ 5/8/19

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.759217° Longitude: -91.138068° Northing: 649707 Easting: 2284769 Surface Elev.: 769.6 (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)				
		DEPTH ELEVATION (Ft.) 0.3 3" Topsoil 769.5														
2		FILL - FAT CLAY WITH ORGANICS , trace sand, dark brown and brown	7							UC	1.27	9.7	30	95		
			3									38				
3		FAT CLAY (CH) , trace sand, greenish-gray, gray, and brown, soft to medium stiff bluish-gray below about 8 feet	7	▽					0.5 (HP)	UC	0.38	14.6	43	77		
			13	▽					0.5 (HP)	UC	0.52	14.1	37	79		
4		SILTY CLAY (CL-ML) , trace sand, gray, soft to medium stiff	16						0.75 (HP)	UC	0.29	6.1	23	95		
5		SILTY SAND (SM) , trace gravel, fine to coarse grained, brown and gray	12						1.0 (HP)				17 24		38	
4		LEAN CLAY (CL) , trace sand, gray, medium stiff														
7		SANDY LEAN CLAY (CL) , trace gravel, occasional sand seams, dark gray, stiff	18				3-4-5 N=9		1.75 (HP)				19			
		Boring Terminated at 25 Feet	25													

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: CME Automatic

Advancement Method:
Power auger to boring termination.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.

See [Supporting Information](#) for explanation of symbols and abbreviations.
Elevation provided by MEC.

WATER LEVEL OBSERVATIONS

▽	8' while drilling.
▽	6.5' after boring.
⊗	Wet cave-in at 15' after boring.



Boring Started: 04-05-2019

Boring Completed: 04-05-2019

Drill Rig: CME-550X

Driller: DL

Project No.: 06195025

BORING LOG NO. SB-5

PROJECT: West WWTP Improvements and Sanitary Sewer

CLIENT: City of Tipton
Tipton, Iowa

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa

ENGINEER: McClure Engineering Company

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.758924° Longitude: -91.138967° Northing: 649594 Easting: 2284526 Surface Elev.: 771.3 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS		PERCENT FINES
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)			LL-PL-PI		
1	0.3' 3" Topsoil		771.3														
2	FILL - FAT CLAY WITH ORGANICS, trace sand and rootlets, gray, brown, and dark brown		5.0		6					UC	1.62	4.1	22	97			
			5.0		5								22				
6	SANDY LEAN CLAY (CL), trace gravel, occasional sand seams, gray and brown, medium stiff brown, stiff below about 8 feet		14.0		18		2-3-4 N=7		1.0 (HP)				20				
			14.0		23				2.0 (HP)	UC	1.78	14.9	16	113			
7	SANDY LEAN CLAY (CL), trace gravel, occasional sand seams, dark gray, stiff		15.0	▽	18		3-3-5 N=8		1.5 (HP)				18				
			15.0	Wet	18		3-4-5 N=9		1.5 (HP)				22				
	Boring Terminated at 20 Feet		20.0		18		3-4-5 N=9		1.5 (HP)				22				

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: CME Automatic

Advancement Method:
Power auger to boring termination.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.

See Supporting Information for explanation of symbols and abbreviations.

Elevation provided by MEC.

WATER LEVEL OBSERVATIONS

- ▽ 17' while drilling.
- ▽ 18' after boring.

Wet cave-in at 18' after boring.



Boring Started: 04-05-2019

Boring Completed: 04-05-2019

Drill Rig: CME-550X

Driller: DL

Project No.: 06195025

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 06195025 WEST WWTP IMPROVEMENTS.GPJ MODEL LAYER.GPJ 5/8/19

BORING LOG NO. SB-6

PROJECT: West WWTP Improvements and Sanitary Sewer

CLIENT: City of Tipton
Tipton, Iowa

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa

ENGINEER: McClure Engineering Company

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.758456° Longitude: -91.138817° Northing: 649424 Easting: 2284572 Surface Elev.: 771.6 (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)				
		DEPTH ELEVATION (Ft.)														
1	3" Topsoil	0.3 771.5														
2	FILL - FAT CLAY WITH ORGANICS, trace sand and rootlets, brown, gray, and dark brown					6					UC	1.23	9.9	25	89	
						4								28	88	
4	LEAN CLAY (CL), trace sand, gray, brown, and dark brown mottled, soft	6.0 765.5														
5	POORLY GRADED SAND WITH SILT (SP-SM), fine to medium grained, brown, medium dense	7.0 764.5				9			0.5 (HP)	UC	0.40	12.1	20	106		
	Boring Terminated at 10 Feet	10.0 761.5		▽		18	4-6-4 N=10									11

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: CME Automatic

Advancement Method:
Power auger to boring termination.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation provided by MEC.

WATER LEVEL OBSERVATIONS

- ▽ 8' while drilling.
- ▽ 8' after boring.



Boring Started: 04-05-2019

Boring Completed: 04-05-2019

Drill Rig: CME-550X

Driller: DL

Project No.: 06195025

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL_06195025 WEST WWTP IMPROVEMENTS.GPJ MODEL LAYER.GPJ 5/8/19

BORING LOG NO. SB-7

PROJECT: West WWTP Improvements and Sanitary Sewer

CLIENT: City of Tipton
Tipton, Iowa

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa

ENGINEER: McClure Engineering Company

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.759437° Longitude: -91.138232° Northing: 649786 Easting: 2284722 Surface Elev.: 786.7 (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)				
		DEPTH: 0.3' ELEVATION (Ft.): 786.5														
	3" Topsoil															
	FILL - FAT CLAY WITH ORGANICS, trace sand and rootlets, dark brown, gray, and brown		5		X	12	2-2-2 N=4					25				
			10		X	16	3-3-3 N=6	5				24				
			15		X	6	2-2-3 N=5					27				
			16.0		X	14	2-3-3 N=6					22				
		Boring Terminated at 16 Feet														

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: CME Automatic

Advancement Method:
Power auger to boring termination.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation provided by MEC.

WATER LEVEL OBSERVATIONS

No water observed during or after drilling.



Boring Started: 04-05-2019

Boring Completed: 04-05-2019

Drill Rig: CME-550X

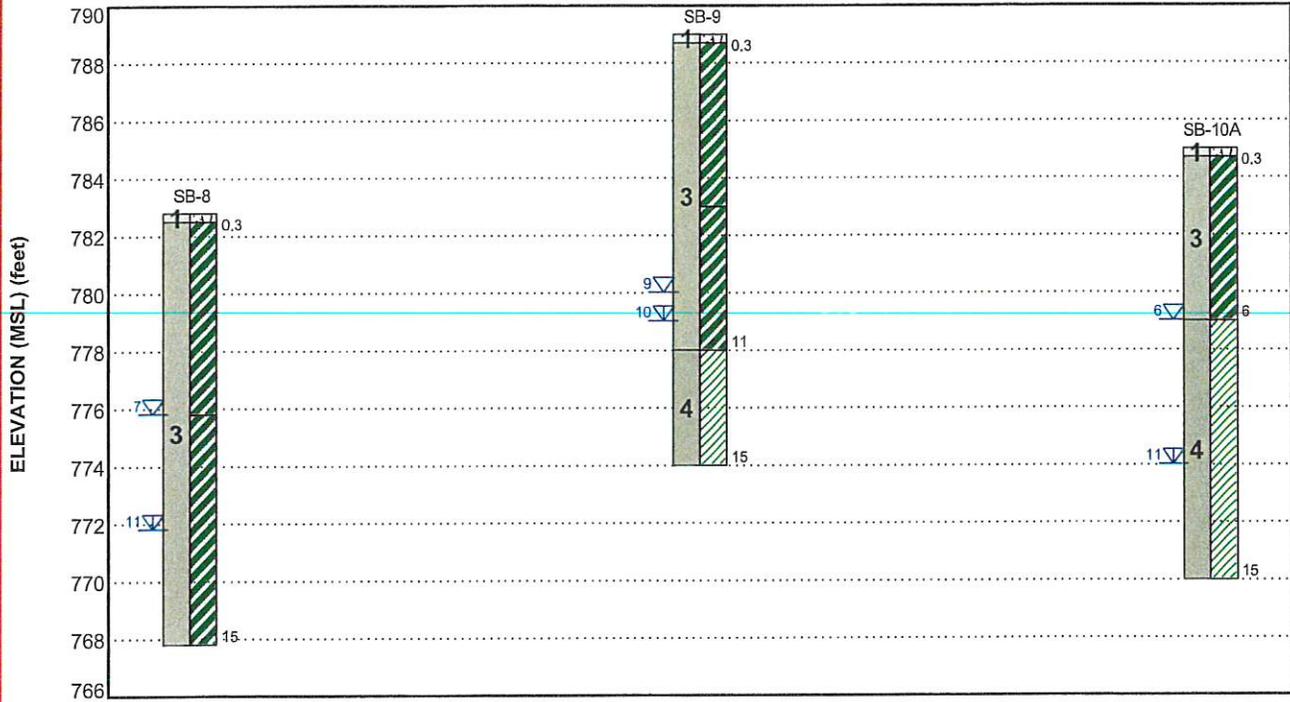
Driller: DL

Project No.: 06195025

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL_06195025 WEST WWTP IMPROVEMENTS.GPJ MODEL LAYER.GPJ 5/8/19

GEOMODEL

West WWTP Improvements and Sanitary Sewer ■ Tipton, Iowa
5/15/2019 ■ Terracon Project No. 06195025



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

LEGEND

Model Layer	Layer Name	General Description
1	Surficial	Topsoil
2	Existing Fill	Fat Clay with Organics, Lean Clay
3	Moderate to High Plasticity Alluvium	Fat Clay (CH), Fat Clay with Organics (CH-OH), Lean Clay (CL) - Moderate Plasticity (LL>45 and/or PI>23)
4	Low Plasticity Alluvium	Silty Clay (CL-ML) Lean Clay (CL) - Low Plasticity (LL<45 and/or PI<23), Sandy Lean Clay (CL), Silt with Sand (ML)
5	Alluvial Sand	Silty Sand (SM), Poorly Graded Sand with Silt (SP-SM)
6	Upper Glacial Till	Sandy Lean Clay (CL)
7	Lower Glacial Till	Sandy Lean Clay (CL)

- Topsoil
- Fat Clay
- Lean Clay

NOTES:

Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.

- First Water Observation
- Second Water Observation
- Third Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time. Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

BORING LOG NO. SB-8

PROJECT: West WWTP Improvements and Sanitary Sewer

CLIENT: City of Tipton
Tipton, Iowa

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa

ENGINEER: McClure Engineering Company

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.762891° Longitude: -91.130331° Northing: 651103 Easting: 2286842 Surface Elev.: 782.8 (Ft.) ELEVATION (FL.)	DEPTH (FL.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)				
1		0.3' 3" Topsoil	0.3													
2		FAT CLAY WITH ORGANICS (CH-OH) , trace sand and rootlets, dark brown, medium stiff	7.0	▽		16	2-2-2 N=4		0.75 (HP)			32				
3		FAT CLAY (CH) , trace sand, light gray, and brown, soft	7.0	▽		18	0-2-2 N=4		0.5 (HP)			32				
			15.0	▽		14	2-1-2 N=3		0.5 (HP)			34				
		Boring Terminated at 15 Feet	15													

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: CME Automatic

Advancement Method:
Power auger to boring termination.

See **Exploration and Testing Procedures** for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.

See **Supporting Information** for explanation of symbols and abbreviations.

Elevation provided by MEC.

WATER LEVEL OBSERVATIONS

- ▽ 7' while drilling.
- ▽ 11' after boring.



Boring Started: 04-05-2019

Boring Completed: 04-05-2019

Drill Rig: CME-550X

Driller: DL

Project No.: 06195025

2640 12th St SW
Cedar Rapids, IA

Wet cave-in at 12.5' after boring.

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL_06195025 WEST WWTP IMPROVEMENTS.GPJ MODEL LAYER.GPJ 5/8/19

BORING LOG NO. SB-9

PROJECT: West WWTP Improvements and Sanitary Sewer	CLIENT: City of Tipton Tipton, Iowa
SITE: Cedar Valley Road to Cedar Street Tipton, Iowa	ENGINEER: McClure Engineering Company

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.763572° Longitude: -91.129688° Northing: 651356 Easting: 2287011 Surface Elev.: 789.0 (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)				
		DEPTH ELEVATION (Ft.) 0.3 3" Topsoil 788.5														
		FAT CLAY (CH) , trace sand and organics, brown and dark brown, medium stiff to stiff	5	▽	X	18	4-3-3 N=6		1.5 (HP)			23				
		FAT CLAY WITH ORGANICS (CH-OH) , trace sand, dark brown, medium stiff to stiff	10	▽	X	18	2-3-3 N=6		1.25 (HP)			28				
		LEAN CLAY (CL) , trace sand, gray and brown, soft	15	▽	X	16	1-1-2 N=3		0.5 (HP)			25				
		Boring Terminated at 15 Feet														

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: CME Automatic

Advancement Method: Power auger to boring termination.	See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any). See Supporting Information for explanation of symbols and abbreviations. Elevation provided by MEC.	Notes:												
Abandonment Method: Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">WATER LEVEL OBSERVATIONS</td> <td style="width: 50%; padding: 5px;">Terracon</td> </tr> <tr> <td style="padding: 5px;">▽ 9' while drilling.</td> <td style="padding: 5px;">Boring Started: 04-05-2019</td> </tr> <tr> <td style="padding: 5px;">▽ 10' after boring.</td> <td style="padding: 5px;">Boring Completed: 04-05-2019</td> </tr> <tr> <td style="padding: 5px;">Wet cave-in at 10.5' after boring.</td> <td style="padding: 5px;">Drill Rig: CME-550X</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">Driller: DL</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">Project No.: 06195025</td> </tr> </table>		WATER LEVEL OBSERVATIONS	Terracon	▽ 9' while drilling.	Boring Started: 04-05-2019	▽ 10' after boring.	Boring Completed: 04-05-2019	Wet cave-in at 10.5' after boring.	Drill Rig: CME-550X		Driller: DL		Project No.: 06195025
WATER LEVEL OBSERVATIONS	Terracon													
▽ 9' while drilling.	Boring Started: 04-05-2019													
▽ 10' after boring.	Boring Completed: 04-05-2019													
Wet cave-in at 10.5' after boring.	Drill Rig: CME-550X													
	Driller: DL													
	Project No.: 06195025													

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL_06195025 WEST WWTP IMPROVEMENTS.GPJ MODELLAYER.GPJ 5/8/19

BORING LOG NO. SB-10A

PROJECT: West WWTP Improvements and Sanitary Sewer

CLIENT: City of Tipton
Tipton, Iowa

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa

ENGINEER: McClure Engineering Company

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.763639° Longitude: -91.128658° Northing: 651387 Easting: 2287291 Approximate Surface Elev.: 785 (Ft.) +/-	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	ORGANIC CONTENT (%)	LABORATORY HP (tsf)	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS		PERCENT FINES
										TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)			LL-PL-PI		
1			0.3														
	3" Topsoil																
3		FAT CLAY (CH) , trace sand, organics, and rootlets, dark brown and brown, medium stiff				18	1-2-2 N=4		1.0 (HP)			30					
			6.0	▽													
4		LEAN CLAY (CL) , trace sand, gray and brown, soft				18	2-1-2 N=3		0.5 (HP)			30					
				▽													
		medium stiff below about 13 feet				12	2-2-3 N=5		1.0 (HP)			21					
		Boring Terminated at 15 Feet	15.0														

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: CME Automatic

Advancement Method:
Power auger to boring termination.

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled to within 3 feet of grade with auger cuttings, then bentonite chips to the surface.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation estimated using IDNR LIDAR Data Elevation Tool

WATER LEVEL OBSERVATIONS

- ▽ 6' while drilling.
- ▽ 11' after boring.

Wet cave-in at 12' after boring.



Boring Started: 04-05-2019

Boring Completed: 04-05-2019

Drill Rig: CME-550X

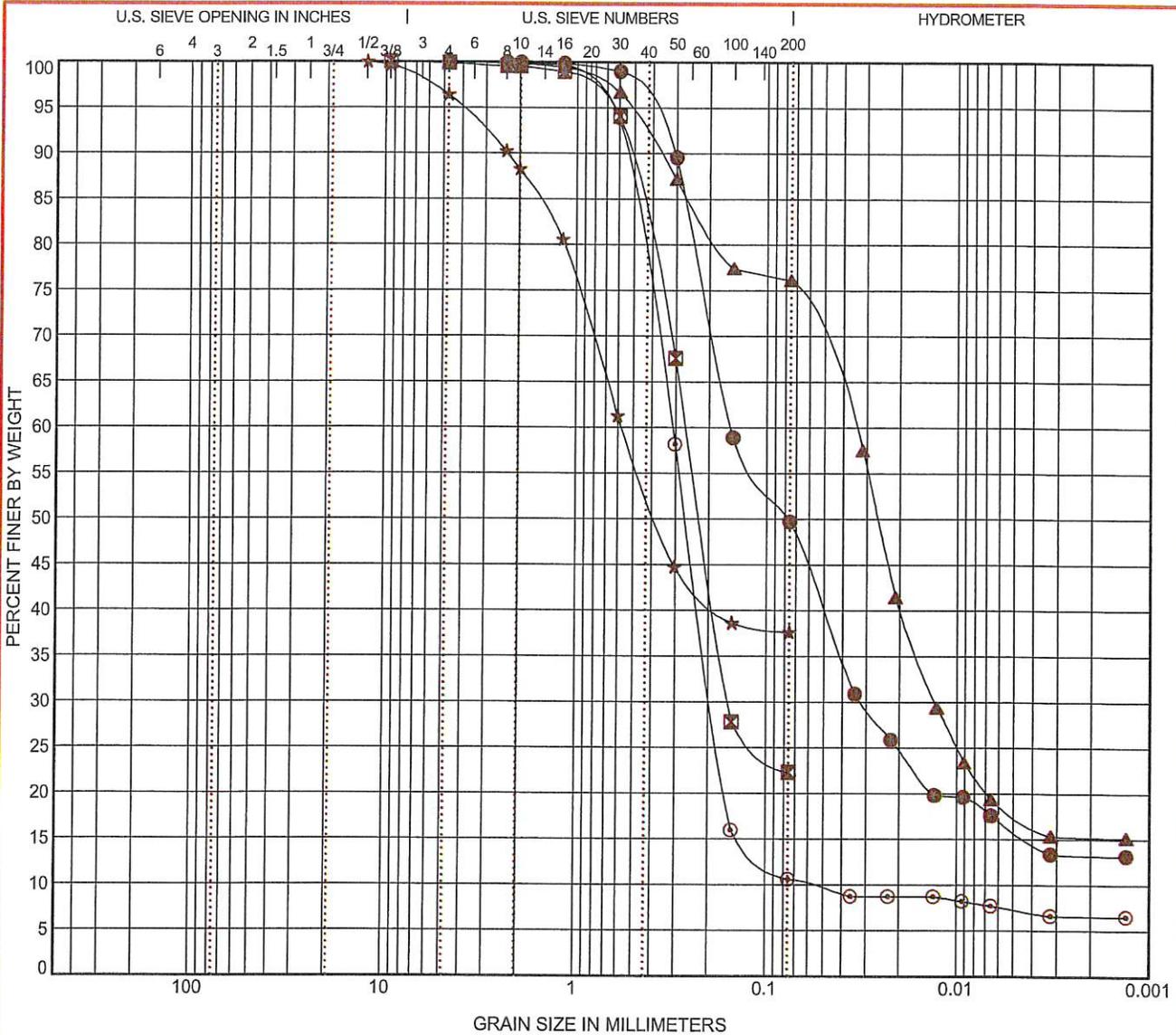
Driller: DL

Project No.: 06195025

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 06195025 WEST WWTP IMPROVEMENTS.GPJ MODEL LAYER.GPJ 5/8/19

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
●	SB-1	12.5 - 14	SILTY SAND (SM)		20			
⊠	SB-1	18 - 20	SILTY SAND (SM)		23			
▲	SB-2	15.5 - 17	SILT WITH SAND (ML)		24			
★	SB-4	18 - 20	SILTY SAND (SM)		17			
⊙	SB-6	8.5 - 10	POORLY GRADED SAND WITH SILT (SP-SM)		18		1.90	5.14

Boring ID	Depth	D ₁₀₀	D ₆₀	D ₃₀	D ₁₀	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
●	SB-1	12.5 - 14	4.75	0.154	0.032		0.0	0.0	50.3	33.7	16.0
⊠	SB-1	18 - 20	9.5	0.263	0.156		0.0	0.1	77.6		22.3
▲	SB-2	15.5 - 17	4.75	0.035	0.013		0.0	0.0	23.9	58.2	17.8
★	SB-4	18 - 20	12.5	0.57			0.0	3.6	58.8		37.6
⊙	SB-6	8.5 - 10	2.36	0.311	0.189	0.061	0.0	0.0	89.5	3.2	7.3

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 06195025 WEST WWTP IMPROVEMENTS.GPJ TERRACON_DATATEMPLATE.GDT 5/8/19

PROJECT: West WWTP Improvements and Sanitary Sewer

SITE: Cedar Valley Road to Cedar Street
Tipton, Iowa



PROJECT NUMBER: 06195025

CLIENT: City of Tipton
Tipton, Iowa

SUPPORTING INFORMATION

Contents:

General Notes

Unified Soil Classification System

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

West WWTP Improvements and Sanitary Sewer ■ Tipton, Iowa

May 15, 2019 ■ Terracon Project No. 06195025



SAMPLING	WATER LEVEL	FIELD TESTS
 Shelby Tube  Standard Penetration Test	 Water Initially Encountered  Water Level After a Specified Period of Time  Water Level After a Specified Period of Time Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	N Standard Penetration Test Resistance (Blows/Ft.) (HP) Hand Penetrometer (T) Torvane (DCP) Dynamic Cone Penetrometer UC Unconfined Compressive Strength (PID) Photo-Ionization Detector (OVA) Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	Standard Penetration or N-Value Blows/Ft.	Descriptive Term (Consistency)	Unconfined Compressive Strength Qu, (tsf)	Standard Penetration or N-Value Blows/Ft.
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30
		Hard	> 4.00	> 30

RELATIVE PROPORTIONS OF SAND AND GRAVEL		RELATIVE PROPORTIONS OF FINES	
Descriptive Term(s) of other constituents	Percent of Dry Weight	Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	<15	Trace	<5
With	15-29	With	5-12
Modifier	>30	Modifier	>12

GRAIN SIZE TERMINOLOGY		PLASTICITY DESCRIPTION	
Major Component of Sample	Particle Size	Term	Plasticity Index
Boulders	Over 12 in. (300 mm)	Non-plastic	0
Cobbles	12 in. to 3 in. (300mm to 75mm)	Low	1 - 10
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)	Medium	11 - 30
Sand	#4 to #200 sieve (4.75mm to 0.075mm)	High	> 30
Silt or Clay	Passing #200 sieve (0.075mm)		

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A				Soil Classification		
				Group Symbol	Group Name ^B	
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	Gravels: More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels:	$Cu \geq 4$ and $1 \leq Cc \leq 3$ ^E	GW	Well-graded gravel ^F	
		Less than 5% fines ^C	$Cu < 4$ and/or $1 > Cc > 3$ ^E	GP	Poorly graded gravel ^F	
		Gravels with Fines:	Fines classify as ML or MH	GM	Silty gravel ^{F, G, H}	
		More than 12% fines ^C	Fines classify as CL or CH	GC	Clayey gravel ^{F, G, H}	
	Sands: 50% or more of coarse fraction passes No. 4 sieve	Clean Sands:	$Cu \geq 6$ and $1 \leq Cc \leq 3$ ^E	SW	Well-graded sand ^I	
		Less than 5% fines ^D	$Cu < 6$ and/or $1 > Cc > 3$ ^E	SP	Poorly graded sand ^I	
		Sands with Fines:	Fines classify as ML or MH	SM	Silty sand ^{G, H, I}	
		More than 12% fines ^D	Fines classify as CL or CH	SC	Clayey sand ^{G, H, I}	
Fine-Grained Soils: 50% or more passes the No. 200 sieve	Silts and Clays: Liquid limit less than 50	Inorganic:	$PI > 7$ and plots on or above "A"	CL	Lean clay ^{K, L, M}	
			$PI < 4$ or plots below "A" line ^J	ML	Silt ^{K, L, M}	
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay ^{K, L, M, N}
			Liquid limit - not dried			Organic silt ^{K, L, M, O}
	Silts and Clays: Liquid limit 50 or more	Inorganic:	PI plots on or above "A" line	CH	Fat clay ^{K, L, M}	
			PI plots below "A" line	MH	Elastic Silt ^{K, L, M}	
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay ^{K, L, M, P}
			Liquid limit - not dried			Organic silt ^{K, L, M, Q}
Highly organic soils:	Primarily organic matter, dark in color, and organic odor			PT	Peat	

^A Based on the material passing the 3-inch (75-mm) sieve

^B If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

^C Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

^D Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

$$E \quad Cu = D_{60}/D_{10} \quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^F If soil contains $\geq 15\%$ sand, add "with sand" to group name.

^G If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^H If fines are organic, add "with organic fines" to group name.

^I If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

^J If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

^K If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

^L If soil contains $\geq 30\%$ plus No. 200 predominantly sand, add "sandy" to group name.

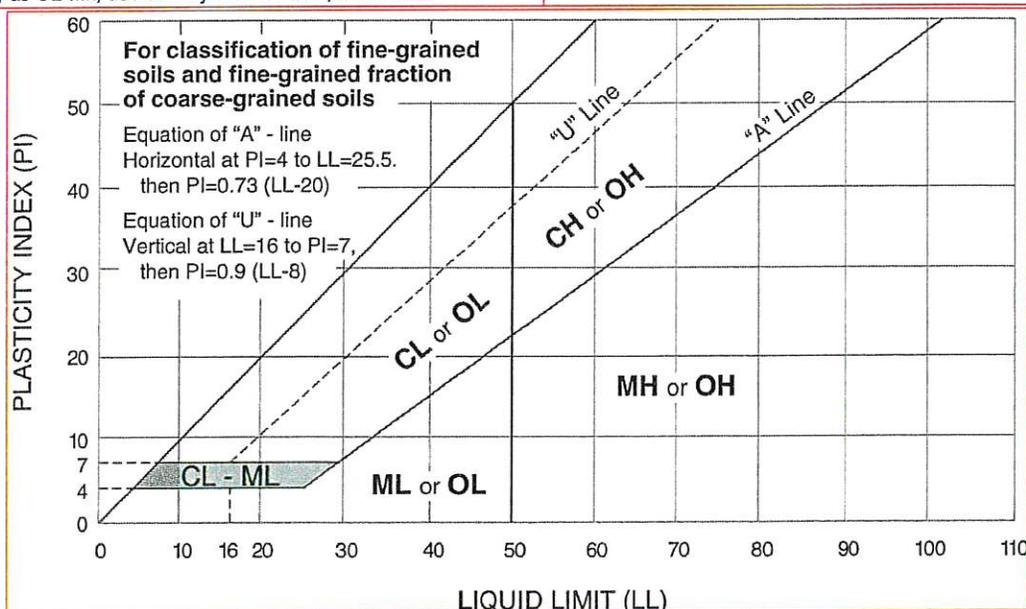
^M If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.

^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^P PI plots on or above "A" line.

^Q PI plots below "A" line.



G13



Televising Utilities

To: Honorable Mayor and City Council

From: Brian Brennan

Subject: Televising Project – Hwy 38

Date: May 28, 2019

Dear Mayor and Council,

In preparation for the Hwy 38 project and for the Build Grant application process, IIW Engineering is requesting televising of all sanitary and storm sewer main under Cedar Street and North Avenue. It's very important that we discover and address any utility deficiencies prior to paving.

In total we have 6000 feet of sanitary and 3900 feet of storm sewer in need of televising within the Hwy 38 and North Avenue corridor. We have requested quotes from two companies including Municipal Pipe Tool (MPT) of Hudson Iowa and Visu-Sewer (VS) of Mason City Iowa. The quotes are attached and are based on per foot and per hour pricing. A summary can be seen below.

MPT

Jet/Vac Cleaning	\$.67/foot
Televising	\$.98/foot
Storm Sewer Jet/Vac/Televise	\$350/hr

VS

Jet/Vac Cleaning and Combination Televising \$1.84/foot

Storm Sewer Jet/Vac/Televise \$3.26/foot or \$315/hour

Due to Build Grant timelines, IIW requires the results of the televising by June 15th. It's never easy to get a televising contractor on this short of notice but it so happens that Visu-Sewer has an opening in their schedule and can begin next week (June 3rd).

Based on the pricing and availability I recommend approval of Visu-Sewer to conduct the needed televising.

Total cost of the televising will likely reach \$25,000. This can be paid in part or whole from any remaining surplus bottom line of our 2018/2019 Sanitary Sewer and Storm Sewer Budgets. It also can be placed in part or whole on Planning and Design Loan for the Hwy 38 Project.

Respectfully submitted,

Brian Brennan

Water/Wastewater Superintendent

City of Tipton



Proposal

To: Brian Brennan
City of Tipton
407 Lynn Street
Tipton, IA 52772
563-886-3953

From: Bob Moen
Visu-Sewer, Inc.
1065 15th Street SW
Mason City, IA 50401
641-425-2788

Date: 5/28/2019

Project: Cedar Street Sanitary & Storm Sewer CCTV Inspection

Visu-Sewer is pleased to offer the following services:

1.) CCTV inspection of approximately 6,000 linear feet of 8" sanitary sewer lines, in the City of Tipton. The proposal cost includes DVD's, inspection reports with PACP codes & defect still photos, and up to two (2) pass with a jet truck for light cleaning prior to televising.

Price - \$1.84 per linear foot
(Based on a minimum of 6,000 linear feet)

2.) CCTV inspection of approximately 3,900 linear feet of 8" to 24" storm sewer lines, in the City of Tipton. The proposal cost includes DVD's, inspection reports with PACP codes & defect still photos, and up to two (2) pass with a jet truck for light cleaning prior to televising.

Price - \$3.26 per linear foot
(Based on a minimum of 3,900 linear feet)

Note: If needed, reverse set-ups, root cutting, removal of protruding taps and reaming of mineral deposits will be completed at \$315.00 per hour. If needed heavy cleaning will be completed at \$400.00 per hour. Easement lines and will be quoted individually.

The City of Tipton shall provide any Iowa DOT road permits, access to all manholes, water for our jet truck from nearby hydrants (without charge), a dump site for captured debris, and traffic control beyond cones and signs. Visu-Sewer will provide labor and equipment to complete the project.

Thank you for the opportunity to quote on this project. If you have any questions, please do not hesitate to contact us at 800-876-8478.

All material guaranteed to be as specified. All work to be completed in a substantial workmanlike manner according to specifications submitted, per standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workmen's Compensation Insurance. This proposal may be withdrawn if not accepted within 30 days of issue. Time and material rates are charges "port to port". Terms - Net 30 days.

Acceptance of Proposal

The above prices, specifications and conditions are satisfactory and are hereby accepted. Visu-Sewer, Inc. is authorized to do the work as specified.

Date: _____ Signature: _____

www.visu-sewer.com

WISCONSIN - ILLINOIS - MINNESOTA - IOWA - MISSOURI

Dear valued customer,

Municipal Pipe Tool Company, LLC has fought hard to keep our maintenance contract prices low. Unfortunately, ever-increasing costs of labor force, equipment, and maintenance are requiring us to adjust our pricing. We are giving notice that our current contracts will be replaced with amended terms that will take effect June 1, 2019.

This restructuring will allow us to dedicate more resources to the sanitary sewer maintenance segment of our business which, in time, will significantly improve our ability to provide our customers more responsive and timely service.

We would like to thank you for your continued support. If you have any questions regarding this increase or anything else, please feel free to contact me (see contact information below), or Chuck Schrader at 319-230-1082.

Enclosed you will find a new contract with the current pricing, please sign and return to our office by mail or email as soon as possible.

Thank you,



Aaron Wilson
Field Engineer / Maintenance Service Manager
Municipal Pipe Tool Co., LLC
Office: 319-988-4205
Cell: 319-830-4607
aaronw@municipipe.com

“We Protect the Environment!”

Our Core Values:

Safety - Unity - Relationships - Proactive - Determination - Results

Five Year Sewer Maintenance Contract

The City of Tipton, IA hereby enters into a five year contract with Municipal Pipe Tool Company LLC, 515 5th St. - Hudson, Iowa, to maintain the sewers of the City by use of Municipal Pipe Tool Company LLC's equipment for the duration of a five-year period at frozen prices, according to the following terms:

1. The City will furnish a sewer map, the necessary water, expose all manhole lids, provide a disposal area for debris removed and furnish legal access to all manholes, which may include traffic control.
2. The City will be responsible for all excavations and/or replacement of manholes, sewer tile, or damages caused by storms, floods, blowbacks or other unavoidable causes. Stoppages caused by structural failure or sewer tile, manholes, frozen sewer lines or other utilities are not covered by this agreement. Should Municipal Pipe Tool Company LLC, equipment (hose, camera, cleaners, nozzles, etc.) become lodged during attempts to perform duties specified by the customer, all costs associated with removal and replacement of equipment will be the responsibility of the customer.
3. **It will be the responsibility of the City to notify us of any stoppages that occur in lines maintained the previous year so that any such stoppage may be opened by us without charge.**
4. Municipal Pipe Tool Company LLC agrees to furnish all equipment, manpower, insurances and other incidentals necessary for proper maintenance. All services will be performed by experienced workmen in a neat and orderly manner. It is the responsibility of Municipal Pipe Tool to be compliant with all applicable OSHA regulations. A copy of our Confined Space Entry Program is available for review by the City upon request.
5. Complete records, maps and other information will be kept by Municipal Pipe Tool Company LLC with a copy available to the City upon request. A written report will be sent to the city after each performance, as per this contract.
6. The time and performance of this contract, such as frequency of cleaning, methods used, and extent of cleaning necessary, will be determined by actual conditions found. The areas of the sewers to be maintained each year will be determined from discussions between Municipal Pipe Tool representatives, the City, and the City's representative at a time preceding each year's work.

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Five-year Maintenance Contract, page 2

7. Prices plus inflation clause (item 12) are guaranteed to the City for services during the 5-year agreement. Prices per year are as follows:

5-year contract pricing for Tipton, IA from June 2019-2024		Price Per Unit	Unit
a.	Jet/Vac Cleaning 8" - 12" (two passes or less)	\$0.67	FT
	Jet/Vac Cleaning with Easement Machine 8" – 12" (two passes or less)	\$0.99	FT
	Jet/Vac Cleaning 15" – 18" (two passes or less)	\$0.76	FT
	Jet/Vac Cleaning with Easement Machine 15" – 18" (two passes or less)	\$1.17	FT
b.	Hydro root sawing	\$0.92	FT
c.	Television inspection- pan & tilt (includes choice of CD/DVD/flash drive, & Electronic or Paper Report)	\$0.98	FT
	PACP (Pipe Assessment Certification Program) Reports	\$0.22	FT
d.	Vacuum Cleaning Service	\$275.00	HR
	Vacuum Cleaning Service with Easement Machine	\$325.00	HR
e.	Smoke Testing	\$0.43	FT
f.	Joint grouting sealing & testing (per diameter inch per joint)	\$5.00	DIAM IN
	Grout materials	\$15.00	GAL
g.	Emergency Calls		
	Jet cleaning- port to port mobilization and one technician	\$199.00	HR
	Vacuum Cleaning or Televising - port to port mobilization and up to two technicians	\$350.00	HR
	Additional required technicians (see item 10)	\$115.00	HR
h.	Rehabilitation Recommendation Report	\$0.14	FT
i.	Mobilization (per visit)	\$550	Lump Sum

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Five-year Maintenance Contract, page 3

8. Manhole exposing, cleaning or televising of storm sewers, cleaning of catch basins, grit chambers, more than two passes of cleaning etc., will be performed with the vacuum unit due the large amounts of sand and debris that normally collect in these locations and will be charged according to item 7-d.
9. Total amount of work to be performed yearly by Municipal Pipe Tool Company LLC, will be in a minimum amount of \$3,000.00 per year. This work may be a combination of any of the services offered in paragraph 7.

The minimum amount of prescheduled work to be performed will be \$2,000.00 per visit. If customer wishes to schedule work under the minimum amount specified above, the hourly rates described in section 7.g "Emergency Calls" will apply. For emergency calls outside of sewer lines covered by item 3 of this contract please see pricing for emergency calls above.

10. Examples of work requiring additional personnel include (but are not limited to) off-road manholes more than 50 feet from hard-surfaced access, pits, lift stations, and wet wells. Any emergency call taking place **during normal working hours** (Monday-Friday 6:30a.m. to 5:00 p.m.) requires the entire crew of a pre-scheduled jobsite to be rerouted, and as such the additional technician surcharge will be added automatically for each extra member of the crew that is dispatched.
11. Fuel Escalation Clause – if diesel fuel prices rise above \$5.00 per gallon per the IDNR Fuel Price Survey at www.iowadnr.gov/news/index.html, the price for each per foot charge above will increase four cents a foot; the hourly prices increase eleven dollars an hour.
12. Prices listed will increase 3% annually on the first day of June.
13. If at any time in the 5-year contract period, either the city of or Municipal Pipe Tool Company LLC, wishes to terminate or amend the contract, either party may do so by giving thirty (30) days written notice.

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Safety - Unity - Relationships - Proactive - Determination - Results

Five-year Maintenance Contract, page 4

This contract period extends from June 2019 to June 2024.

Agreement dated this 1st day of June, 2019 with the city of Tipton, IA.

Attest:

Authorized City Representative

Scheduling Contact Phone and Email

Authorized Municipal Pipe Tool Co., LLC Representative

Contacts:

Main Office
319-988-4205

Aaron Wilson – Maintenance Service Manager
Cell – 319-830-4607
aaronw@municipipe.com

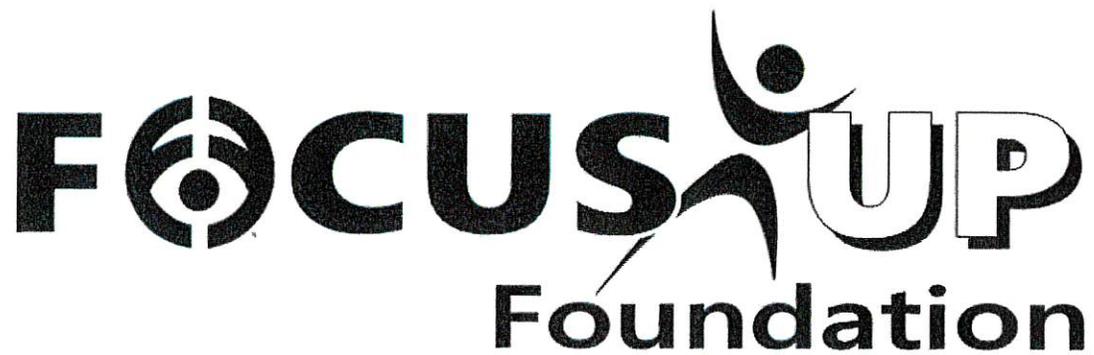
Chuck Schrader – Service Marketing Representative
Mobile – 319-230-1082
balloon01@aol.com

Weekend Emergency
319-404-7501

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Focus Up on Mental Health 5k walk/run

Goal: *To raise awareness on mental health, fight stigmas and encourage understanding.*

Event Name: Focus Up on Mental Health

Goal: To raise awareness on mental health, fight stigma and encourage understanding.

Hosted by: Focus Up Foundation (501c3)

What: 5K Walk/Run Road Race

Where: Tipton, Iowa City Park

Why: To raise awareness on mental health. In loving memory of Austin "AJ" Zaruba (Tipton graduate) who took his own life on February 23rd, 2018.

When: Saturday August 10th, 2019

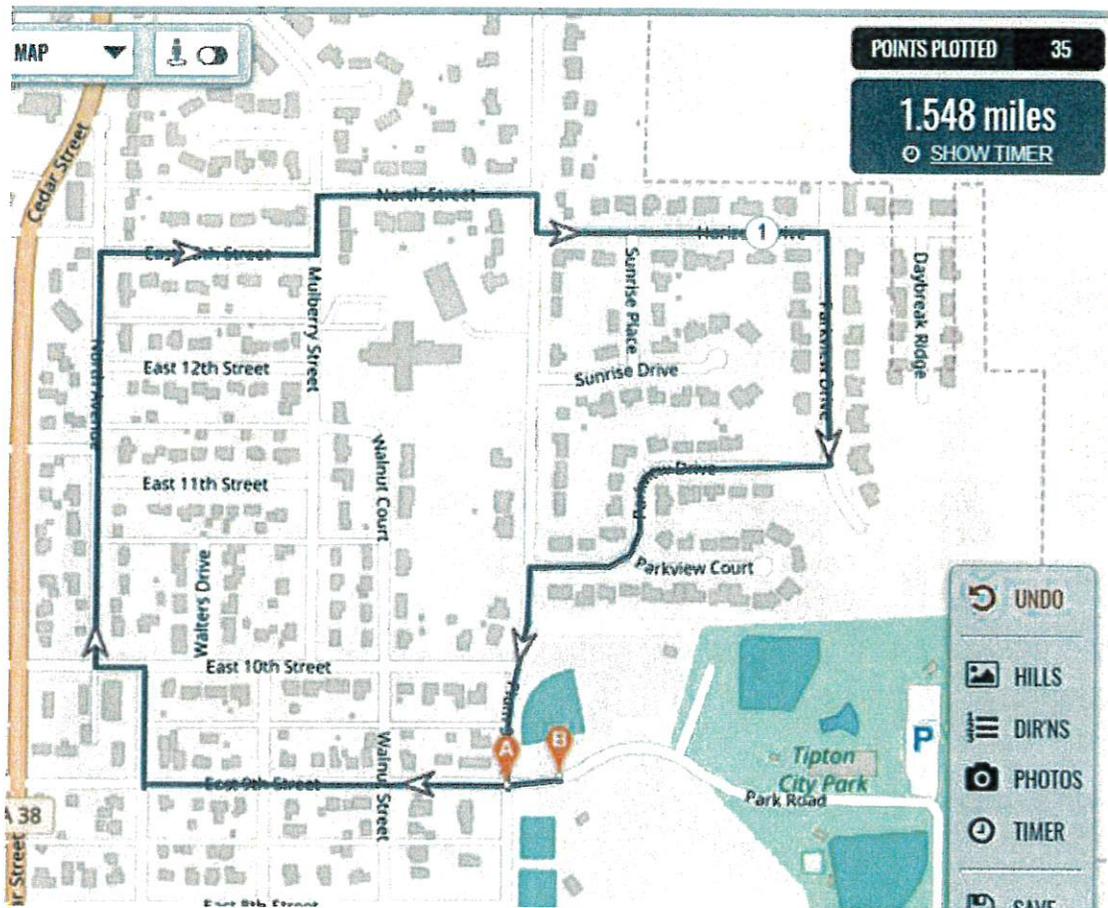
Time: Check-in/registration 7:00am Start time: 8:00am (giving runners until 12:00pm to complete the course)

Packet pickup: Friday August 9th 5pm-7:00pm *Lower shelter has been rented at the park (4:00 pm-7:00 pm).

This road race event has been designed to bring awareness to the many mental health issues that people deal with every day. Runners and walkers throughout the community can join together to support our efforts in increasing mental health awareness, fight stigmas and encourage understanding by providing resources and support. Proceeds will be donated to CommUnity formerly the Crisis Center. They provide a wide variety of services including:

- Call/Text/Chat
 - *CommUnity Crisis Hotline available 24/7. CommUnity Chat and Text available from 9am-2am Central. Between the hours of 2am and 9am Central*
- Mobile Crisis Outreach
 - *Mental health counselors are dispatched to homes, schools, emergency rooms, or public places where a mental health crisis is occurring with a response time within 60 minutes of dispatch*
- Support Groups
 - *Coping with suicide loss*
 - *Hearing voices & special messages*
 - *STOP: secondary trauma of providers and training*
- Food Bank/Mobile food Pantry
 - *Residents of Johnson County, IA can receive grocery assistance once per week. Clients may choose their own items, with some limits based on family size. Pre-made bags are available for clients who prefer not to shop.*

Race Route



*Participants will be starting on the track at the typical starting line, running the pictured course twice, and end back on the track.

*Approval of this race route has been granted by Police Chief Lisa Kepford as of 5/15/19

*Permission has been granted to use the track for August 10th from 7am-12pm via email communication from Michele Gipson, Secretary/Central Office

FOCUS UP PRESENTS:
Foundation

FOCUS UP ON MENTAL HEALTH

**2ND ANNUAL
5K WALK/RUN**

Join us @ Tipton City Park

AUGUST 10th 2019

Registration: 7 am

Race begins: 8 am

Proceeds will be donated
to CommUnity (Formerly
The Crisis Center)



IN LOVING MEMORY OF
AUSTIN "AJ" ZARUBA

VISIT FOCUSUPFOUNDATION.ORG FOR MORE INFORMATION

FOCUS
your

the **office**

**FULLY
FOCUSED**
SPORTS & FITNESS

Thank you for your consideration!!

-The Focus Up Foundation

RESOLUTION NO. _____

WHEREAS, the City instituted litigation against Gott Ice Cream, LLC and David G. Gott arising from non-payment on loan obligation.

WHEREAS, Gott Ice Cream, LLC and David G. Gott have proposed or otherwise agreed to a proposed settlement agreement to resolve the pending litigation on certain terms and conditions; and

WHEREAS, the Tipton City Council finds acceptable the terms and conditions of such settlement agreement as set forth in Exhibit A, attached hereto.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Tipton, Cedar County, Iowa, that the Mayor is hereby authorized and directed to execute such documentation as may be required to effectuate Exhibit A, "Stipulation of Settlement." The City Clerk is directed to attest to the Mayor's signature as necessary.

PASSED, APPROVED, AND ADOPTED this 3rd day of June, 2019.

Brian Carney, Mayor

Attest:

Amy Lenz - City Clerk

CERTIFICATION

I, Amy Lenz, City Clerk, do hereby certify the above is a true and correct copy of Resolution _____ which was passed by the Tipton City Council this 3rd day of June, 2019.

Amy Lenz - City Clerk

EXHIBIT A – STIPULATION OF SETTLEMENT

IN THE IOWA DISTRICT COURT FOR CEDAR COUNTY

CITY OF TIPTON Plaintiff,	EQCV 036179
v.	STIPULATION OF SETTLEMENT
GOTT ICE CREAM, LLC and, DAVID GLENN GOTT, individually, Defendants.	

WHEREAS, the Plaintiff, City of Tipton, has filed a Petition in the above-captioned matter, represented by Kyle A. Sounhein of Lynch Dallas, P.C.

WHEREAS, the Defendants, Gott Ice Cream, LLC and David Glenn Gott, have been personally served with the Original Notice and Petition in this matter, proceeding unrepresented.

WHEREAS, the Plaintiff and the Defendants hereby enter into this agreement to settle and resolve all claims and matters currently pending in the above-captioned matter and to release any and all future or potential claims arising from the circumstances. This agreement is made upon the following terms and conditions:

1. **FULL DISCLOSURE.** The parties hereto stipulate that they have made a full disclosure of all the facts and circumstances known or otherwise waive any opportunity to obtain further information from the other party or a third party.
2. **ENTIRE UNDERSTANDING.** This Stipulation of Settlement constitutes the entire understanding of the parties. There are no representations or warranties other than those expressly herein set forth.
3. **EFFECT OF EXECUTION.** This agreement shall be binding once signed by all parties hereto. This agreement shall not be subject to court approval, nor shall it be filed with the court. Thereafter, the parties will complete their respective obligations as set forth below.
4. **PLAINTIFF'S OBLIGATIONS.** The Plaintiff, City of Tipton, hereby agrees to the following:
 - a. Upon receipt and clearance of the funds to be paid by the Defendants, as set forth below, the Plaintiff will issue a release of the UCC lien.
 - b. Upon receipt and clearance of the funds to be paid by the Defendants, as set forth below, the Plaintiff will issue a dismissal with prejudice in the above-captioned matter.
5. **DEFENDANTS' OBLIGATIONS.** The Defendants, Gott Ice Cream, LLC and David Glenn Gott, hereby agree to the following:

- a. By June 7, 2019, at 12:00 p.m., the Defendants shall deliver to the Plaintiff a certified check payable to the City of Tipton in the amount of Twenty-Seven Thousand Three Hundred Seventy-Nine and 03/100 dollars (\$27,379.03).

6. MISCELLANEOUS.

- a. All parties agree to sign promptly all papers and documents necessary to release and carry out the intended effect of this Stipulation of Settlement upon the request of either party, including any documentation necessary or helpful to convey title to any property awarded herein.
- b. Except as otherwise provided herein, the parties hereby mutually release, acquit and forever discharge one another from any and all claims, demands, debts, suits and obligations of whatsoever nature, kind or description which either of them ever had or may now have against the other by reason of any matter, cause or thing up to the date of execution of this Stipulation of Settlement. However, nothing in this Stipulation of Settlement shall be construed to release any claim or lien which may arise by reason of the failure of either party to follow out and perform the terms of this Stipulation of Settlement.
- c. This stipulation shall be binding upon the heirs, successors, agents, or other related parties, individuals, or entities of the original parties herein.

IN WITNESS WHEREOF, the parties have caused this Stipulation of Settlement to be executed on the dates respectively indicated therefor.

Date: _____

City of Tipton, Plaintiff

By: _____
Bryan Carney, Mayor

Attested to:

By: _____
City Clerk

Date: _____

Gott Ice Cream, LLC, Defendant

By: _____
David G. Gott, Manager

David G. Gott, Defendant

By: _____
David G. Gott, individual

STATE OF IOWA
COUNTY OF CEDAR, SS:

This instrument was executed and acknowledged before me on this _____ day of _____, 2019, by Bryan Carney, Mayor of the City of Tipton, Iowa, on behalf of said municipal corporation.

Notary Public

STATE OF IOWA
COUNTY OF CEDAR, SS:

This instrument was executed and acknowledged before me on this _____ day of _____, 2019, by David Glenn Gott, in his capacity as manager, for Gott Ice Cream, LLC.

Notary Public

STATE OF IOWA
COUNTY OF CEDAR, SS:

This instrument was executed and acknowledged before me on this _____ day of _____, 2019, by David Glenn Gott, in his individual capacity.

Notary Public