

== NOTICE OF MEETING ==

CAPITAL IMPROVEMENTS COMMITTEE

Committee Meeting – Friday, February 28, 2020 – 10:00 a.m.
Municipal Courtroom – Branson City Hall – 110 W. Maddux

AGENDA

- 1) Call to Order.
- 2) Roll Call.
- 3) Construction Status Report.
- 4) Discussion of the Celtic Bridge RFP Response.
- 5) Discussion of Reimbursement Agreement with Morris Hospitality, LLC for a public sewer main improvement.
- 6) Director's Report.
- 7) Adjourn.

Where Values are the Difference
FEBRUARY: LEADERSHIP

Exhibiting a positive example in leading others toward achievement

Project #	Project Name	Type/Phase	Budget	Contract Amt.	Contract Amt. Paid to Date	% Complete	Contractor Arch/Eng	Total Change Order Amt	% change	Notice to Proceed	Anticipated Completion	Comments
UTILITIES												
COP173	Lift Sta. 10 & 34	Engineering	\$35,000.00	\$58,740.00	\$55,713.34	95%	Donohue Assoc			6/19/2019		Plans Complete
SW1901	Dewey Bald Area Water System Improvements	Engineering	\$260,500.00	\$260,500.00	\$238,451.92	92%	Allgeier Martin			1/28/2019	12/7/2020	Butterfly Palace Easements Complete and Recorded. Conservation Department Easements Complete and Recorded. Reviewing easement conditions submitted by Cushman Properties.
SW1901	Dewey Bald Area Water System Improvements	Construction	\$2,025,360.00	\$0.00	\$0.00							Engineers Estimated Construction Cost with 10% contingency - \$4,104,689.00
WS1802	Water Use Amendment - Empire / FERC	Consulting	\$47,800.00	\$42,100.00	\$38,873.01	92%	Black & Veatch					All agency and FERC reviews complete. Awaiting final comments from FERC.
WS1612	Compton WWTP Flood Protection	Preliminary Engineering	\$770,000.00	Estimate \$456,000.00								Finalizing contract terms with HDR Engineering. Tentatively to Board on 3/24/20.
WS1912	Lift Sta 17 Forcemain	Engineering	\$92,000.00	\$77,720.00	\$0.00	0%	Cochran Engineering			2/6/2020	10/3/2020	Cochran is compiling information on existing Lift Station pumping equipment. Preparing to survey proposed forcemain route.
WS2002	Spring Creek Water Mains	Engineering	\$57,728.00	\$57,728.00	\$0.00	0%	Cochran Engineering			2/6/2020	10/3/2020	Cochran is preparing to survey area for proposed water main locations..
WS2002	Spring Creek Sewer Mains	Engineering	\$34,919.00	\$34,919.00			Cochran Engineering			2/6/2020	10/3/2020	Cochran is preparing to survey area for proposed sewer main locations..
	Sewer Collection System Rehab	CIPP Lining	\$350,000.00	\$305,419.59	\$0.00	0%	Ace Pipe			2/26/2020	6/30/2020	Lining of 4,000 feet of existing clay tile sewer mains. Project pre-reconstruction meeting held 2/26/20.
	WD/SC Maintenance Facility - Bldg #2	Engineering	\$24,000.00		\$0.00							RFQ currently advertised. Opens 3/13/20
COP171 & COP173	Lift Station #10 & #34 Upgrade Install Pumps & Controls - Lift Station #46	Construction	\$581,000.00		\$0.00							Advertised. Bids Open 3/25/2020
WS2001	Harmony Lane Sewer Extension	Construction	\$197,430.00	\$197,430.00	\$0.00	0%	Kirk's Construction			3/2/2020	5/31/2020	998 ft of 8" sewer mainPre-construction meeting held 2/24/20
	Pacific St Water Main Extension Taco Habitat	Construction	\$80,000.00									Reimbursement Agreement - Taco Habitat Project
	College St Water Main Extension	Construction	\$160,000.00									Project to be deleted

	24" Sewer Main Upsize - Morris Hospitality Project	Construction	\$0.00	\$51,473.52								Morris Hospitality Sewer Main Re-Locate - 24" main upsize for future planning. Reimbursement Agreement - to Board 3/10/20	
	8" Sewer Extension - Aldi's Project	Construction	\$66,750.00									Sewer extension to annexed property - currently no sewer service.	
			Eligible for 2020 County Sewer Sales Tax Funds - \$1,000,000										
TRANSPORTATION													
	Transportation Master Plan		\$300,000.00									Staff preparing RFQ	
	Hwy. 76 Segment 2 Design		\$300,000.00										
	Celtic Bridge Replacement	Design										Presenting to Capital Improvements	
GR1809	Traffic Signal Improvements AIDD Miovision Grant		\$41,850.00	\$41,850.00	\$38,456.70	92%					4/1/2020	90% installed	
PUBLIC SAFETY													
PS1901	Fire Sta. 4 & Police Facility	Architect Services	\$15,000,000.00	\$121,500.00	\$113,591.74	93%	Architects Design				6/13/2019	Spatial needs assessment complete. Phase 2 architect services agreement for design set for council 2/25/2020	
MISCELLANEOUS													
EN1906	City Hall Carpet Replacement	construction	\$17,000.00	\$21,012.46			Stoneridge Flooring				11/21/2019	6/1/2020	Pre-construction meeting set up with contractor week of March 2, 2020
	City Hall Boiler Unit	construction	\$30,000.00										Bid package being prepared

Engineering and Design Services

Celtic and Caudill Way Bridge Replacement

 Celtic and Caudill Way Bridge Replacement By <u> </u> Keith Francis		Maximum Allowable Points								
CRITERIA ITEM										
1	Experience in Type of Work	25	Listed 2 Box Culvert projects	Only listed 1 box culvert project	Numerous typo's Numerous box culvert projects	Listed numerous projects	Minimal experience with box culverts	Numerous Projects Very similar to our proposed projects	Only listed 3 projects	
			0	20	15	20	25	5	25	2
2	Design Completion Schedule		15	Final Plans in 5 months	Final Plans in 4 months	Final Plans in 2 months	Final Plans in 8 months	Schedule is too small to read.	Final Plans in 2 months Easy to understand	Final Plans in 5 month design time
		0		10	10	15	5	0	15	10
3	Past Projects on Budget	10		Listed 2 Box Culvert	Only listed 1 box culvert project	Listed 5 projects 3 over estimate 2 under estimate	Only provided 2 projects with costs	Had numerous projects but not enough info describing	Numerous Projects of very similar type as city project	
			0	8	8	8	5	7	10	8
4	Quality Assurance/Quality Control		15	No explanation of QA/QC check	Good QA/AC approach	Referenced another project "Blue River Road"	No much info			
		0		10	15	5	10	10	12	12
5	Discuss How Project is to be Completed	15					Discussed sidewalks No sidewalks on this project			
			0	15	15	15	12	12	15	15
6	Detailed Value Engineering Procedures		5							
		0		4	5	5	5	4	5	5
7	Other Relevant Information	5		Did NOT use specified font as stated in RFQ	Firms History Staff Resumes	Company Information Staff Resumes	Company Information Staff Resumes	Company Information Staff Resumes	Company Information Staff Resumes	Company Information Staff Resumes
			0	5	5	5	5	5	5	5
8	Reference Check/Recommendations		10							
		0		0	0	6	9.7	0	9.3	0
TOTAL POINTS		100		0	72	73	79	76.7	43	96.3
	Mike		0	54	55	64	65	43	73	56
	Matt		0	59	74	77	74	58	73	72
			0	61.7	67.3	73.3	71.9	48.0	80.8	61.7



STAFF REPORT

ITEM/SUBJECT: READING OF A BILL APPROVING A REIMBURSEMENT AGREEMENT WITH MORRIS HOSPITALITY, LLC. PERTAINING TO THE INSTALLATION OF A 24 INCH SEWER MAIN IMPROVEMENT AND AUTHORIZING THE MAYOR TO EXECUTE THE CONTRACT.

INITIATED BY: UTILITIES DEPARTMENT

FIRST READING: MARCH 10, 2020 **FINAL READING:** MARCH 24, 2020

EXECUTIVE SUMMARY:

- Morris Hospitality, LLC is in the process of constructing improvements on their property located at 1700 W Highway 76. These improvements will require the development to relocate an existing 8-inch City sewer main which is situated within an existing easement on the development property.
- During the process of relocating the sewer main, staff recommends having the new piping upsized to 24-inch to make accommodation for planned future use. The upsizing of the pipe coincides with the future planned improvement of the City's wastewater conveyance system. When the City's Compton Drive facility nears capacity, or at a time determined necessary by the City, the upsized main can be utilized to convey a portion of sewer flows from the Roark Valley watershed to the Cooper Creek treatment facility.
- Morris Hospitality advertised for bid, following the City of Branson's bidding process, to relocate the existing main with the 24-inch upsized improvement. One bid was received for a total cost of \$278,695.00 to remove the existing 8-inch main and to install 891 feet of new 24-inch main along with associated manholes.
- Staff reviewed the submitted bid and separated out costs that would have already been incurred by the development for the relocation of just an 8-inch main. Staff then utilized a trench volume calculator to determine additional trench area necessary to accommodate the larger components. Calculations indicate an 11% increase in trench excavation will be necessary to install the larger pipe. Using this calculation the public improvement portion of the cost to install the larger components is \$13,975.52. Staff did not agree with the submitted cost for piping and manhole materials and obtained direct pricing for both the 24-inch and 8-inch components. From that information, staff determined an accurate cost difference to upsize the components would be \$37,498.00.
- Morris Hospitality agrees to supply the upsized components at the City's determined cost and to pay their contractor the required prevailing wage for the public improvement portion for the installation at a total not to exceed reimbursement of \$51,473.52.

FINANCIAL IMPACT:

- No impact/Not applicable
 Budgeted in the current year's budget
 Other (see additional explanation)

STAFF RECOMMENDATION:

- Recommended
 Not Recommended
 Neutral/None

COMMUNITY PLAN 2030: EI Strategy 1.1

ATTACHED EXHIBITS:

BILL NO. _____

ORDINANCE NO. _____

AN ORDINANCE APPROVING A REIMBURSEMENT AGREEMENT WITH MORRIS HOSPITALITY, LLC. PERTAINING TO THE INSTALLATION OF A 24 INCH SEWER MAIN IMPROVEMENT AND AUTHORIZING THE MAYOR TO EXECUTE THE CONTRACT.

WHEREAS, Morris Hospitality, LLC is in the process of constructing improvements on their property which require the development to relocate an existing 8-inch City sewer main which is situated within an existing easement on the development property, and;

WHEREAS, the City of Branson desires to have the relocated sewer main upsized to 24-inch as a public sewer improvement to coincide with future planned improvements of the City’s wastewater conveyance system, and;

WHEREAS, Morris Hospitality, LLC agrees to supply the upsized components, perform the required trench excavation and install the upsized 24-inch main, and;

WHEREAS, the Board of Aldermen desires to approve the contract.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF BRANSON, MISSOURI, AS FOLLOWS:

Section 1: The Board of Aldermen hereby approves the contract with Morris Hospitality, LLC. for labor and materials to install the public sewer main improvement in the amount not to exceed \$51,473.52 and authorizes the Mayor to execute the contract in the form attached as Exhibit “1”.

Section 2: This ordinance shall be in full force and effect upon and after its passage and approval.

Read, this first time on this _____ day of _____, 20__.

Read, this second time, passed, and truly agreed to by the Board of Aldermen of City of Branson, Missouri this _____ day of _____, 20__.

E. Edd Akers
Mayor

ATTEST:

APPROVED AS TO FORM:

Lisa K Westfall
City Clerk

Chris Lebeck #51831
City Attorney

Exhibit A

PROPERTY DESCRIPTION: (AS SURVEYED)

ALL OF LOTS 1 AND 3, MORRIS HOSPITALITY PHASE 2, A MINOR SUBDIVISION IN THE CITY OF BRANSON, MISSOURI, RECORDED IN PLAT BOOK L AT PAGE 303, TANEY COUNTY RECORDERS OFFICE.

Exhibit B



PLOTTED 10/14/2019 8:38:48 AM

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MORRIS HOSPITALITY PROPERTY PUBLIC IMPROVEMENT PLANS BRANSON, TANEY COUNTY, MISSOURI

MORRIS HOSPITALITY, LLC
4319 S NATIONAL, SUITE #122
SPRINGFIELD, MO 65810



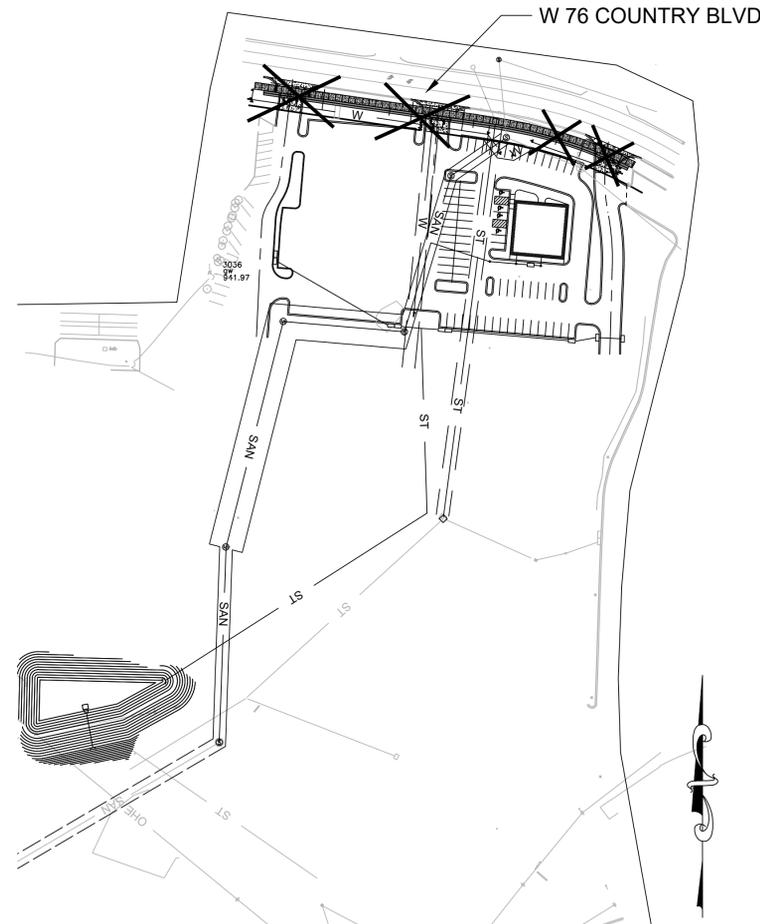
PORTION OF SEC 6, T22N, R21W

GENERAL NOTES:

1. DEVELOPMENT PLANS ARE APPROVED INITIALLY FOR ONE (1) YEAR AFTER WHICH THEY AUTOMATICALLY BECOME VOID AND MUST BE UPDATED AND RE-APPROVED BY THE DIRECTOR OF PUBLIC WORKS BEFORE ANY CONSTRUCTION WILL BE PERMITTED.
2. THE CITY OF BRANSON PLAN REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH CITY OF BRANSON DESIGN CRITERIA AND THE CITY CODE. THE CITY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, OR DIMENSIONS AND ELEVATIONS THAT SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE. THE CITY OF BRANSON THROUGH APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY OTHER THAN AS STATED ABOVE FOR THE COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.
3. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE PLANS (APPROVED BY THE CITY OF BRANSON) AND ONE (1) COPY OF THE APPROPRIATE CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES.
4. CONSTRUCTION OF THE IMPROVEMENTS SHOWN OR IMPLIED BY THIS SET OF DRAWINGS SHALL NOT BE INITIATED OR ANY PART THEREOF UNDERTAKEN UNTIL THE DIRECTOR OF PUBLIC WORKS IS NOTIFIED OF SUCH INTENT, AND ALL REQUIRED AND PROPERLY EXECUTED BONDS AND PERMIT FEES ARE RECEIVED AND APPROVED BY THE DIRECTOR OF PUBLIC WORKS.
5. THE CITY OF BRANSON TECHNICAL SPECIFICATIONS LATEST EDITION SHALL GOVERN CONSTRUCTION OF THIS PROJECT.
6. ALL EXISTING UTILITIES INDICATED ON THE DRAWINGS ARE ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER; HOWEVER, ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR TO OBTAIN THE LOCATION OF SAME SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.
7. ALL BACK FILL SHALL BE INSTALLED IN LIFTS NO DEEPER THAN 8" AND COMPACTED TO 95% STANDARD DENSITY AT OPTIMUM MOISTURE CONTENT.
8. WORK ON SATURDAYS OR LEGAL HOLIDAYS SHALL BE AS APPROVED BY THE CITY. SUCH APPROVAL SHALL BE GRANTED ONLY UPON ADVANCE NOTIFICATION OF A MINIMUM FIVE (5) WORKING DAYS PRIOR TO THE ANTICIPATED DATE OF THE WORK TO BE PERFORMED. SUNDAY WORK WILL NOT BE ALLOWED UNDER ANY CIRCUMSTANCE. LEGAL HOLIDAYS OBSERVED BY THE CITY OF BRANSON ARE NEW YEAR'S DAY, MARIN LUTHER KING DAY, PRESIDENT'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, BETERANS DAY, THANKSGIVING DAY, AND CHRISTMAS. THE ACTUAL DAYS OFF FOR THESE HOLIDAYS MAY VARY AND IN CERTAIN SITUATIONS ADDITIONAL DAYS MAY BE A PART OF THE AMOUNT OF TIME GRANTED AS AN OFFICIAL HOLIDAY BY THE CITY OF BRANSON. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL FOR THESE DAYS PRIOR TO THE ACTUAL REQUEST FOR INSPECTION SERVICES.
9. ALL MATERIALS AND WORKMANSHIP ASSOCIATED WITH THIS PROJECT SHALL BE SUBJECT TO INSPECTION BY THE CITY OF BRANSON. ALL MATERIALS AND WORKMANSHIP MUST CONFORM TO THE CITY OF BRANSON STANDARDS AND TECHNICAL SPECIFICATIONS.
10. THE CONTRACTOR SHALL NOTIFY THE CITY OF BRANSON ENGINEERING/PUBLIC WORKS DEPARTMENT THIRTY-SIX (36) HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
11. RELOCATION OF ANY EXISTING UTILITY THEREOF REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT THEIR EXPENSE.

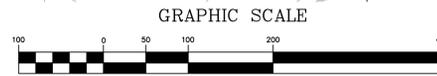
SANITARY SEWER NOTES:

15. ALL STUBLINES SHALL BE LAID ON 1.00% GRADE UNLESS APPROVED OTHERWISE.
16. FFE DENOTES MINIMUM BASEMENT FLOOR ELEVATION.
17. THE CONTRACTOR SHALL NOTIFY THE CITY OF BRANSON UTILITIES DEPARTMENT 36 HOURS PRIOR TO EXCAVATION OF EXISTING SEWER MAIN. CITY PERSONNEL MUST BE ON SITE WHILE DIGGING AROUND EXISTING SEWER MAINS.
18. THE CONTRACTOR SHALL INSTALL AND PROPERLY MAINTAIN A TEMPORARY CAP OR PLUG AT THE END OF ALL SHIFTS AS DESCRIBED ABOVE. CAPS OR PLUGS SHALL BE INSTALLED AT THE OPEN END OF PIPE WITH A SUITABLE MECHANICAL PLUG TO PREVENT ENTRY OF FOREIGN MATERIAL UNTIL WORK IS RESUMED.
19. THE CONTRACTOR SHALL NOT MAKE ANY CONNECTIONS TO THE EXISTING SANITARY SEWER MAIN UNTIL ALL PORTIONS OF THE NEW EXTENSION HAVE BEEN PRESSURE TESTED, VACUUM TESTED AND APPROVED.



LEGEND

FO	FIBER OPTIC UTILITY LINE
G	GAS UTILITY LINE
OHE	OVERHEAD ELECTRIC UTILITY LINE
OHT	OVERHEAD TELECOMMUNICATION UTILITY LINE
SAN	SANITARY SEWER UTILITY LINE
ST	STORM WATER UTILITY LINE
UE	UNDERGROUND ELECTRIC UTILITY LINE
UT	UNDERGROUND TELECOMMUNICATION UTILITY LINE
W	POTABLE WATER UTILITY LINE
PE	PERMANENT EASEMENT
TE	TEMPORARY EASEMENT
PL	PROPERTY LINE
ROW	RIGHT-OF-WAY
- 894 -	TREE LINE
- 1103 -	DESIGN MAJOR CONTOUR
- 1417 -	EXISTING MAJOR CONTOUR
- 1284 -	EXISTING MINOR CONTOUR
- - - -	EASEMENT



APPROVED

DIRECTOR OF PUBLIC WORKS
APPROVED FOR ONE YEAR FROM THIS DATE. Date

BENCHMARK

PROJECT BENCHMARK:

MISSOURI GEOGRAPHIC REFERENCE SYSTEM STATION TA-09. THE STATION IS LOCATED NORTHWEST OF THE SITE, SOUTH OF MISSOURI STATE HIGHWAY 76 ON THE NORTH SIDE OF THE APPLE TREE MALL PARKING LOT, APPROXIMATELY 68 FT WEST OF THE PARKING LOT ENTRANCE AND 22 FT SOUTH OF THE HIGHWAY 76 BACK OF CURB.

ELEVATION: 975.29 (NAVD 88)

SHEET INDEX

C-1	COVER SHEET
C-2	EXISTING CONDITIONS SURVEY
C-4	SANITARY SEWER PLAN AND PROFILE
C-10	CONSTRUCTION DETAILS
C-11	CONSTRUCTION DETAILS

SUMMARY OF QUANTITIES - FOR PUBLIC IMPROVEMENTS ONLY

BID ITEM NO.	DESCRIPTION	QUANTITY	UNITS OF MEASURE
1	MOBILIZATION	1	LUMP SUM
2	REMOVE EXISTING 8" SANITARY SEWER MAIN	825	LINEAR FEET
3	REMOVE EXISTING SANITARY MANHOLE	3	EACH
24	24" SDR-35 SANITARY SEWER MAIN	485	LINEAR FEET
25	24" C900 SANITARY SEWER MAIN	406	LINEAR FEET
26	5'-0" DIA SANITARY SEWER MANHOLE	4	EACH
27	6'-0" DIA SANITARY SEWER MANHOLE	1	EACH



Cribb Philbeck Weaver Group, Inc.
Firm No. 2016037623
301 West Pacific St., Suite B
Branson, Missouri 65616
Tel: 417.320.6665
www.cpwgengineering.com

Project Name and Address
**MORRIS HOSPITALITY PROPERTY
PUBLIC IMPROVEMENT PLANS**
BRANSON, MO 65616

Sheet Title
COVER SHEET



2/6/2020
Date

No.	Revision/Issue	Date
1	PER CITY COMMENTS	9/10/2019
2	PER CITY COMMENTS	9/26/2019
3	REMOVED ALL ITEMS EXCEPT SANITARY SEWER PER CITY	2/6/2020

Project No. 190057
Date 10/14/2019
Scale AS NOTED
Sheet **C-1**



Know what's below.
Call before you dig.

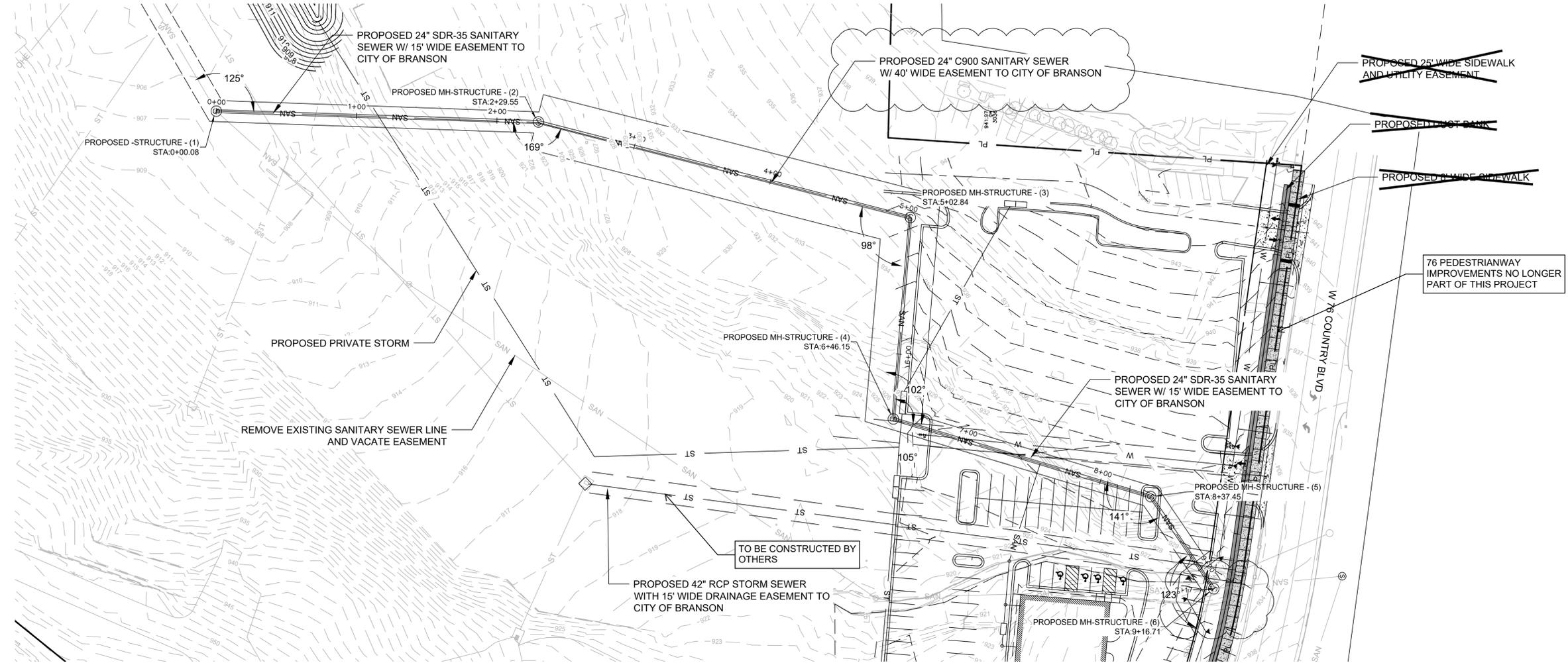
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2/6/2020
 Date

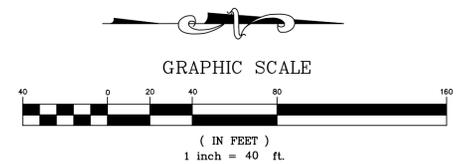
No.	Revision/Issue	Date
1	PER CITY COMMENTS	9/10/2019
2	REMOVED ALL ITEMS EXCEPT SANITARY SEWER PER CITY	2/6/2020

Project No. 190057
 Date 10/14/2019
 Scale AS NOTED
 Sheet C-4

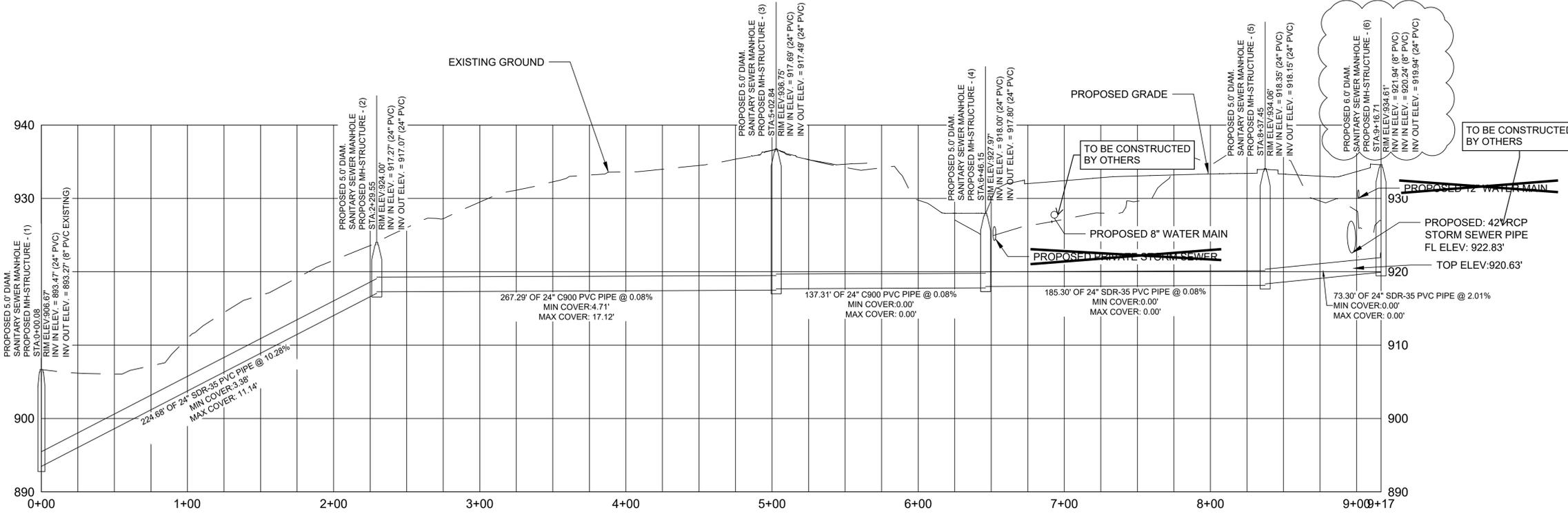


**SANITARY SEWER REALIGNMENT
 PROFILE**

STA. 0+00 TO 9+16.74
 SCALE HORIZONTAL: 1" = 40'
 SCALE VERTICAL: 1" = 8'



- NOTES:
- 1) A PRE-CONSTRUCTION MEETING SHALL OCCUR PRIOR TO BEGINNING WORK ON THE PUBLIC SEWER MAIN.
 - 2) THE CONTRACTOR SHALL SUBMIT A PLAN DETAILING HANDLING EXISTING SEWER FLOWS TO THE ENGINEER AND THE CITY OF BRANSON UTILITY DEPARTMENT FOR APPROVAL PRIOR TO BEGINNING WORK ON THE PUBLIC SEWER MAIN.
 - 3) ANY IMPROVEMENTS TO THE PUBLIC WATER MAIN OR SEWER MAIN MUST MEET THE SPECIFICATIONS LISTED IN THE CITY'S DESIGN CRITERIA AND TECHNICAL SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
 - 4) STORM SEWER AND WATER MAIN AND APPURTENANCES MUST HAVE A HORIZONTAL SEPARATION OF 10' AND VERTICAL SEPARATION OF 18" FROM ALL NON-POTABLE SEWER PIPES AND APPURTENANCES.
 - 5) TRACER WIRE TO BE INSTALLED ON ALL SEWER AND WATER MAINS PER CITY SPECIFICATIONS.
 - 6) OWNER/CONTRACTOR MUST COORDINATE WITH CITY OF BRANSON FOR HANDLING OF EXISTING FLOW.



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TRACER WIRE. Tracer wire shall be installed with all sanitary sewer force mains and all sanitary service stub lines. The tracer wire and appurtenances shall be color coded per American Public Works Association (APWA) standard for the specific utility being marked.

A. TRACER WIRE:

- 1. Open Trench.. Tracer wire shall be a (14, 12 or 10 AWG SOLID HDPE 30 MIL) copper conductor with a 30 mil thick, high-density, high molecular weight polyethylene (HDPE) insulation and rated for 30 volts. Insulation and jacket shall be RoHS compliant and utilize virgin grade material. Insulation color shall meet the APWA color code standard for identification of buried utilities. Tracer wire shall be Pro-Line Safety Products or approved equal and made in the USA.
2. Directional Drilling/Boring. Tracer wire shall be #12 AWG Copper Clad Steel, totally annealed 1055 steel. Extra high strength, minimum breaking load of 1,150 lbs., with a minimum HDPE coating of 45 mills.
3. Pipe Bursting. Tracer wire shall be #.2403" AWG Copper Clad Steel, totally annealed 1055 steel. Extreme strength, stranded, minimum breaking load of 4,700 lbs., with a minimum HDPE coating of 50 mills.

B. LOCATION TAPE: Marking tape shall be installed 12 inches above the pipe in paved areas and shall be green in color and have "Buried Sanitary Sewer Line Below" printed on the tape at 20 to 30 inch intervals. The tape shall be installed directly above the centerline of the pipe.

C. CONNECTORS:

- 1. Direct bury wire connectors, including 3-way lockable connector: "Copperhead SnakeBite Locking Connectors" or approved equal. Mainline splice to service line connection shall be specifically manufactured for use in underground tracer wire installation, shall be dielectric silicon filled to seal out moisture and corrosion, and shall be installed in a manner so as to prevent any uninsulated wire exposure.
2. All mainline tracer wires must be interconnected in intersections, at tees and crosses. At tees, the three wires shall be joined using a single 3-way lockable connector. At crosses, the four wires shall be joined using a 4-way connector. Using two 3-way connectors with a short jumper wire between them is an acceptable alternative.
3. Directional drilling and pipe bursting splicing is not allowed on the main line. Intersection splicing will follow guidance for direct bury connectors.

D. TERMINATION/ACCESS: All tracer wire termination points must utilize an approved tracer wire access box. A minimum of two feet (2') of excess wire is required in all grade level trace wire access boxes after setting at final grade.

- 1. Service Stub lines: Access to the trace wire shall be through the cleanout located at the right-of-way line or permanent easement line. The tracer wire shall terminate at the sewer main connection point with an approved grounding anode. See Standard Detail Drawing.
2. Force Main: Access to the tracer wire shall be through a valve box at both ends of the force main. The tracer wire shall terminate at both ends with and approved grounding anode. See Standard Detail Drawing.
3. Low Pressure Main: Access to the tracer wire shall be through a valve box at both ends of the force main. The trace wire shall terminate at all dead ends with an approved grounding anode. See Standard Detail Drawing.
4. Low pressure stub lines shall have access to the trace wire through the valve box. The tracer wire shall connect to the low pressure main trace wire. See Standard Detail Drawing.
5. On long-runs, in excess of five hundred 500 linear feet without service lines, tracer wire access must be provided utilizing an approved in-ground tracer wire access box. The box must be located out of the roadway and delineated using a polyethylene marker post, color coded per American Public Works Association (APWA) standard for the specific utility being marked.

E. GROUNDING:

- 1. Tracer wire must be properly grounded at all dead ends/stubs.
2. Grounding of tracer wire shall be achieved by use of a drive-in magnesium grounding anode rod with a minimum of 20 linear feet of #14 AWG HDPE copper clad wire connected to the anode.

F. INSTALLATION-GENERAL:

- 1. Tracer wire installation shall be performed in such a manner that allows proper access for connection of line tracing equipment, proper locating of wire without loss or deterioration of low frequency (512 Hz) signal for distances in excess of 1,000 linear feet, and without distortion of signal caused by multiple wires being installed in close proximity to one another.
2. Tracer wire system must be installed as a continuous single wire. No looping or coiling of wire is allowed.
3. Any damage occurring during installation of the trace wire must be immediately repaired in an approved waterproof method. Taping and/or spray coating shall not be allowed.
4. All mainline dead-ends shall go to ground using an approved waterproof connection to a drive-in magnesium grounding anode rod, buried at the same depth as the trace wire. The anode will be buried on the opposite side of the utility at the furthest most point. The anode wire will be connected in the trace wire access box to the trace wire utilizing the connection point in the access box.
5. Mainline tracer wire shall not be connected to existing conductive pipes. Treat as a mainline dead-end, ground using an approved waterproof connection to a grounding anode, buried at the same depth as the tracer wire.
6. All service stub line tracer wires shall be connected to the mainline with a single wire, (no looping will be allowed) using a mainline to lateral lug connector, installed without cutting/splicing the mainline tracer wire.
7. In occurrences where existing tracer wire is encountered on an existing utility that is being extended or tied into, the new and existing tracer wire shall be connected using approved splice connectors, shall be properly grounded at the splice location as specified and be completely waterproof to prohibit corrosion and loss of conductivity.

G. PROHIBITED PRODUCTS AND METHODS: The following products and methods shall not be allowed or acceptable.

- 1. Uninsulated tracer wire
2. Tracer wire insulations other than HDPE
3. Twist-on wire connectors
4. Brass or copper ground rods
5. Wire connections utilizing taping or spray-on waterproofing
6. Looped wire or continuous wire installations, that has multiple wires laid side-by-side or in close proximity to one another
7. Brass fittings with trace wire connection lugs
8. Wire terminations within the roadway
9. Connecting trace wire to existing conductive utilities

H. TESTING: All new tracer wire installations shall be located using typical low frequency (512 Hz) line tracing equipment, witnessed by city personnel, prior to acceptance of ownership. This verification shall be performed upon completion of rough grading and again prior to final acceptance of the project. Continuity testing in lieu of actual line tracing shall not be accepted.

5004 INSTALLATION.

A. General. Laying of ductile-iron pipe, and PVC (poly vinyl chloride) pipe; installation of valves, and hydrants; and embedment and backfill shall conform to the following specifications and the details as shown on the plans.

- 1. Unless otherwise specified or shown on the plans, the water mains shall be laid to have a minimum cover of 42 inches and maximum cover of sixty (60) inches, measured from the finished grade or from established street grades shown on the plans.
2. Whenever pipe laying is stopped, the open end of the line shall be sealed with a watertight plug which will prevent trench water from entering the pipe.

Where the pipe is to be installed inside a casing pipe or tunnel liner, J-Four Pipe Products Model 60 pipe spacers or approved equal shall be bolted to each pipe with stainless steel hardware before it is placed in the casing pipe or tunnel liner in accordance with these specifications and as shown on the plans. The ends of each casing pipe or tunnel liner shall be closed with a J-Four Pipe Products End Seal or approved equal.

5016 SEPARATION OF WATER MAINS, SANITARY SEWERS AND COMBINED SEWERS. When buried water mains are in close proximity to non-potable pipelines, the water mains are vulnerable to contamination that can pose a risk of waterborne disease outbreaks. For example, sewers (sanitary sewer mains and sewage force mains) frequently leak and saturate the surrounding soil with sewage due to structural failure, improperly constructed joints, and subsidence or upheaval of the soil encasing the sewer. If a nearby water main is depressurized and no or negative pressure occurs, that situation is a public health hazard. The public health hazard is compounded if an existing sewer is broken during the installation or repair of the water main. Further, failure of a water main in close proximity to other pipelines may disturb their bedding and cause them to fail. To protect the public health, the following requirements shall be met. These requirements apply to horizontally directionally drilled pipe or pipe installed through other trenchless methods as well as pipe installed by conventional open-cut methods.

1. General

The following factors should be considered in providing adequate separation:

- a. Materials and type of joints for water and sewer pipes;
b. Soil conditions;
c. Service and branch connections into the water main and sewer line;
d. Compensating variation in the horizontal and vertical separations;
e. Space for repair and alterations of water and sewer pipes; and
f. Off-setting of water mains around manholes.

2. Parallel installation

The water main shall be located at least ten feet horizontally from any existing or proposed line carrying non-potable fluids such as, but not limited to drains, storm sewers, sanitary sewers, combined sewers, sewer service connections, and process waste or product lines. The distance shall be measured from edge to edge.

In cases where it is not practical to maintain a ten-foot separation, the Missouri Department of Natural Resources (MDNR) may allow deviation on a case by case basis, if supported by data from the design engineer. Such deviation may allow installation of the water main closer to a non-potable fluid line, provided that the water main is laid in a separate trench located as far away from the non-potable line as feasible and meets other specific construction requirements. Locating a water main on an undisturbed earth shelf located on one side of the non-potable line is not recommended and requires justification by the engineer and specific case-by-case approval of MDNR. In either case, an elevation shall be maintained such that the bottom of the water main is at least 18 inches above the top of the non-potable line while meeting minimum cover requirements.

In areas where the recommended separation cannot be obtained, either the waterline or the non-potable line shall be constructed of mechanical or manufactured restrained joint pipe, fusion welded pipe, or cased in a continuous casing. Casing pipe must be a material that is approved for use as water main. Conventional poured concrete is not an acceptable encasement.

3. Crossings

Water mains crossing sewers, or any other lines carrying non-potable fluids shall be laid to provide a minimum vertical clear distance of 18 inches between the outside of the water main and the outside of the non-potable pipeline. This shall be the case where the water main is either above or below the non-potable pipeline. An 18-inch separation is a structural protection measure to prevent the sewer or water main from settling and breaking the other pipe. At crossings, the full length of water pipe shall be located so both joints will be as far from the non-potable pipeline as possible but in no case less than ten feet or centered on a 20-foot pipe. In areas where the recommended separations cannot be obtained either the waterline or the non-potable pipeline shall be constructed of mechanical or manufactured restrained joint pipe, fusion welded pipe, or cased in a continuous casing that extends no less than ten feet on both sides of the crossing. Special structural support for the water and sewer pipes may be required. Casing pipe must be a material that is approved for use as water main. Conventional poured concrete is not an acceptable encasement.

4. Exception

Any exception from the specified separation distances in paragraphs 2 and 3 above must be submitted to MDNR for approval.

5. Force mains

There shall be at least a ten-foot horizontal separation between water mains and sanitary sewer force mains or other force mains carrying non-potable fluids and they shall be in separate trenches. In areas where the recommended separations cannot be obtained, either the waterline or the non-potable line shall be constructed of mechanical joint pipe or cased in a continuous casing, be constructed of mechanical joint pipe, or be joint less or fusion welded pipe. Where possible, the waterline shall also be at such an elevation that the bottom of the water main is at least 18 inches above the top of the non-potable line. Casing pipe must be a material that is approved for use as water main. Conventional poured concrete is not an acceptable encasement.

6. Sewer manholes

No waterline shall be located closer than ten feet to any part of a sanitary or combined sewer manhole. Where the separation cannot be obtained, the waterline shall be constructed of mechanical or manufactured restrained joint pipe, fusion welded pipe, or cased in a continuous casing. Casing pipe must be a material that is approved for use as water main. The full length of water pipe shall be located so both joints will be as far from the manhole as possible, but in no case less than ten feet or centered on a 20-foot pipe. No water pipe shall pass through or come into contact with any part of a sanitary or combined sewer manhole.

Hydrostatic Testing. The Contractor shall perform hydrostatic pressure and leakage tests in accordance with AWWA C600 procedures. Where practicable, mains shall be tested in lengths between line valves or plugs of no more than 1,500 feet in length. Conduct test at a pressure of 150 psi measured at the highest point of the main. Duration of the test shall be not less than 2 hours. Lines which fail to meet test shall be repaired and retested as necessary until the test requirements are met.

5015 DISINFECTION AND TESTING.

A. Disinfection. After installation, the entire main shall be flushed, disinfected by chlorination and bacteriologically tested. Flushing shall be carried out until a turbidity-free water is obtained from all points along the main.

Immediately prior to disinfection, the main to be disinfected shall be flushed at the maximum velocity which can be developed. The flushing velocity shall be at least 2.5 feet per second.

All flushing work shall be done in the presence of the City. The contractor shall notify the City at least 72 hours in advance of the times and places at which flushing work is to be done.

- 1. Chlorination by the Contractor shall conform to AWWA C651 and be performed using a 1 percent chlorine solution prepared from granular calcium hypochlorite (1 pound of HTH per 8 gallons of water). Water entering the new main shall receive a dose of the chlorine solution fed at a constant rate such that the water will have not less than 25 mg/l free chlorine.

Chlorine Required to Produce 25 mg/l Concentration in 100 feet or Pipe

Table with 2 columns: Pipe Diameter (in) and 1 Percent Chlorine Solution (Gal). Rows for diameters 4, 6, 8, 10, and 12 inches.

- 2. The chlorinated water shall be retained in the main for at least 24 hours, during which time all valves and hydrants in the section treated shall be operated in order to disinfect the appurtenances.
3. At the end of the 24-hour period, the treated water in all portions of the main shall have a residual of not less than 10 mg/l free chlorine.
4. Mains shall be flushed prior to placing in service. The water shall be disposed of without damage to public or private property.
5. After final flushing and before the new water main is connected to the distribution system, two consecutive sets of acceptable samples, taken at least 24 hours apart, shall be taken from the new main and tested by the City for bacteria. No less than three (3) sample points shall be installed on any water main. Locations shall be as follows:
a. Within fifty (50) feet of the beginning of the pipeline, mid-way in the pipeline, and within fifty (50) feet of the end of the Pipeline.
b. For line length longer than two thousand five hundred (2,500) feet, sample points shall be located every one thousand (1,000) feet in addition to the locations at the beginning and end of the line.
6. The contractor shall repeat disinfection procedure should initial treatment fail to yield satisfactory results.



Cribb Philbeck Weaver Group, Inc. Firm No. 2016037628 301 West Pacific St., Suite B Branson, Missouri 65616 [p] 417.320.6065 www.cpwgengineering.com

MORRIS HOSPITALITY PROPERTY PUBLIC IMPROVEMENT PLANS BRANSON, MO 65616

CONSTRUCTION DETAILS

Project Name and Address

Sheet Title



2/6/2020 Date

Revision table with columns for No., Description, Date, and Initials. Row 1: 1, REMOVED ALL ITEMS EXCEPT SANITARY SEWER PER CITY, 2/6/2020, [initials]

Project No. 190057 Date 10/14/2019 Scale AS NOTED Sheet C-11

BID FORM

Bid of Tom Boyce Excavating, Inc.

(hereinafter called the bidder), organized and existing under the laws of the State of

Missouri, and doing business as * Tom Boyce Excavating, Inc.

To: Morris Hospitality LLC (hereinafter called the Owner).

In compliance with your Advertisement for Bids, bidder hereby proposes to perform all work and provide all materials and equipment for Morris Hospitality Property Public Improvements, in strict accordance with the contract documents, within the time set forth, and at the prices stated herein.

	Item Description	Quantity	Unit	Unit Price	Subtotal
1	MOBILIZATION AND BONDING	1	LS	25,000	25,000
Schedule A – Sanitary Sewer Improvements					
2	REMOVE EXISTING 8" SANITARY SEWER MAIN	825	LF	\$ 38	\$ 31,350
3	REMOVE EXISTING SANITARY SEWER MANHOLE	3	EA	\$ 6,164	\$ 18,492
24	24" SDR-35 SANITARY SEWER MAIN	485	LF	\$ 224	\$ 108,640
25	24" C900 SANITARY SEWER MAIN	406	LF	\$ 180	\$ 73,080
26	5'-0" DIA SANITARY SEWER MANHOLE	4	EA	\$ 9,021	\$ 36,084
27	6'-0" DIA SANITARY SEWER MANHOLE	1	EA	\$ 11,049	\$ 11,049
Subtotal Schedule A – Sanitary Sewer Improvements					\$ 278,695
Schedule B – Storm Sewer Improvements					
4	REMOVE EXISTING 60" STORM SEWER	188	LF	\$ 90	\$ 16,920
5	REMOVE EXISTING CONCRETE HEADWALL	1	EA	\$ 1,411	\$ 1,411
6	REMOVE EXISTING FLARED END SECTION	1	EA	\$ 692	\$ 692
7	REMOVE EXISTING GRATED INLET	1	EA	\$ 1,710	\$ 1,710
22	42" RCP STORM SEWER	464	LF	\$ 193	\$ 89,552
23	6'X6' PRECAST STORM JUNCTION BOX	2	EA	\$ 7,956	\$ 15,912
33	POUR NEW CONCRETE LID FOR GRATE INLET	2	EA	\$ 1,200	\$ 2,400
Subtotal Schedule B – Storm Sewer Improvements					\$ 128,597
Schedule C – Water Main Improvements					
8	REMOVE EXISTING 8" WATER MAIN	445	LF	\$ 29	\$ 12,905
10	12" SDR-21 WATER MAIN	455	LF	\$ 85	\$ 38,675
11	12" GATE VALVE	2	EA	\$ 2,341	\$ 4,682
12	12" DEAD END ASSEMBLY	2	EA	\$ 3,100	\$ 6,200

13	6" SDR-21 WATER MAIN	5	LF	\$ 102	\$ 510
14	FIRE HYDRANT ASSEMBLY	1	EA	\$ 3,750	\$ 3,750
15	8" SDR-21 WATER MAIN	226	LF	\$ 42	\$ 9,492
16	8" GATE VALVE	1	EA	\$ 1,298	\$ 1,298
17	8" DEAD END ASSEMBLY	1	EA	\$ 1,950	\$ 1,950
18	8" D.I.M.J. 90 DEGREE BEND WITH THRUST BLOCK	2	EA	\$ 614	\$ 1,228
19	12" X 8" REDUCER	2	EA	\$ 433	\$ 866
20	12" X 12" X 8" D.I.M.J. TEE	1	EA	\$ 1,069	\$ 1,069
21	12" X 12" X 6" D.I.M.J. TEE	1	EA	\$ 888	\$ 888
Subtotal Schedule C – Water Main Improvements					\$ 83,513
Schedule D – Duct Bank Improvements					
28	DUCT BANK	441	LF	\$ 348	\$ 153,468
34	CONDUITS FOR STREET LIGHTING 2" PVC	60	LF	\$ 32	\$ 1,920
36	CONDUITS FOR UNDER DRIVE 4" SCH 40 PVC	375	LF	\$ 25	\$ 9,375
37	PULL BOX	2	EA	\$ 2,500	\$ 5,000
Subtotal Schedule D – Duct Bank Improvements					\$ 169,763
Schedule E – Civil Improvements					
9	REMOVE EXISTING SIGN	2	EA	\$ 1,250	\$ 2,500
29	CONCRETE SIDEWALK	3672	SF	\$ 16	\$ 58,752
30	VANGUARD TRUNCATED DOMES	2	EA	\$ 1,500	\$ 3,000
31	CONCRETE DRIVEWAY	2516	SF	\$ 11	\$ 27,676
32	2'-0" CONCRETE CURB AND GUTTER	232	LF	\$ 25	\$ 5,800
35	CONDUITS FOR IRRIGATION 4" PVC	100	LF	\$ 23	\$ 2,300
38	CONSTRUCTION ENTRANCE	1	EA	\$ 1,787	\$ 1,787
39	COMPOST SOCK	480	LF	\$ 4	\$ 1,920
Subtotal Schedule E – Civil Improvements					\$ 103,735
Total Bid					\$ 789,303

Owner reserves the right to add or remove quantities or any schedules due to budget constraints and availability of funds. Award of bid shall be Total Bid which shall be considered the "base bid".

By submission of this bid, bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, that this bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this bid, with any other bidder or with any competitor.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in the Notice to Proceed and fully complete the project within NA consecutive calendar days thereafter.

~~Bidder further agrees to pay as liquidated damages, the sum of \$ _____ for each calendar day thereafter.~~

Bidder acknowledges receipt of the following addenda:

* Insert "a corporation", "a partnership", "a joint venture" or "an individual" as applicable.

Dated at 9:26 am this 19 day of November, 2019.

FILL IN THE APPROPRIATE SIGNATURE AND INFORMATION BELOW:

IF AN INDIVIDUAL: _____ Doing Business As

Signature and Title

Name of Firm

Business Address of Bidder: _____

Telephone No. _____

IF A PARTNERSHIP:

Name of Partnership

Member of Firm

Business Address of Bidder: _____

Telephone No. _____

IF A CORPORATION:

Tom Boyce Excavating, Inc.
Name of Corporation

By

Tom Boyce, Pres.
Signature & Title
Tom Boyce, President

(CORPORATE SEAL)

ATTEST:

Business Address of Bidder: _____

203 Buccaneer Blvd.
Branson, Mo 65616

Telephone No. 417-335-2589

If Bidder is a Corporation, supply the following information:

State in which Incorporated: Missouri

Name and Address of its: President Tom Boyce
1025 Shady Rapids Dr. Walnut Shade, MO
65771

Secretary Scott Klempel
1612 S.E. Hills Court, Nixa, MO 65714

“Exhibit E”

EXPLANATION OF REIMBURSEMENT CALCULATION

24 inch Sanitary Sewer Main Bid (with prevailing wage and rock excavation)

Total Bid: \$278,695

Deduct:

Item #2 removal of existing 8 inch sewer main - \$31,350

Item #3 removal of existing manholes - \$18,492

New Bid Total: \$228,853

Remove Contractor Pipe cost:

24 inch pipe - \$43,637

Manholes with 24 inch inverts - \$15,417

Base Cost: \$169,799

8 inch Sanitary Sewer Main Pricing (non-prevailing wage without rock excavation)

Total Bid: \$138,290

Deduct:

Item #2 removal of existing 8 inch sewer main - \$23,925

Item #3 removal of existing manholes - \$12,324

New Bid Total: \$102,041

Remove Contractor Material cost:

8 inch pipe - \$10,176

Manholes with 8 inch inverts - \$11,380

Base Cost: \$80,485

To make the base costs comparable prevailing wage was added to the 8 inch pricing. This includes a \$25.50/hour increase for field labor for an increased cost of \$4,794 and a \$26.70/hour increase for the equipment operator labor for an increased cost of \$9,889.68.

Rock excavation was not included in the 8 inch price. To correct the inconsistency a trench volume calculator was used which indicated an 11% increase in trench volume would be necessary to install an upsized 24 inch pipe. The cost for rock excavation from the 24 inch bid totaled \$35,822. This amount was reduced by 11% to indicate the cost of rock excavation for the 8 inch pricing resulting in a cost of \$31,881.58.

Revised 8 inch Pricing:	8 inch Base Cost	\$ 80,485.00
	Field Labor	\$ 4,794.00
	Equipment Labor	\$ 9,889.68
	Rock Excavation	<u>\$ 31,881.58</u>
		\$127,050.26

To compensate labor and equipment cost for a required 11% increase in trench volume:

Base Cost:	\$127,050.26
11% Volume Increase	X <u> .11</u>
Reimbursable Labor & Equipment Cost	\$ 13,975.52

City cost obtained for 24 inch pipe and associated manholes	\$37,498.00
11% increase in installation cost:	<u>\$13,975.52</u>
Total reimbursement cost for upsizing:	\$51,473.52