

AGENDA

**FORT SMITH BOARD OF DIRECTORS
STUDY SESSION**

September 13, 2011 ~ 12:00 NOON

**FORT SMITH PUBLIC LIBRARY
COMMUNITY ROOM
3201 ROGERS AVENUE**

1. Discuss amendment to the Municipal Code of Ordinances regarding residential lighting ~ *Requested at the June 28, 2011 study session ~*
2. Discuss funding for continued wet weather sanitary sewer improvements and water transmission facilities
3. Review of the Mayor C. Ray Baker Endowment Fund created by the Fort Smith Area Community Foundation ~ *Requested at the September 6, 2011 regular meeting ~*
4. Presentation regarding the plan for softball fields at Chaffee Crossing ~ *Requested at the September 6, 2011 regular meeting ~*
5. Review preliminary agenda for the September 20, 2011 regular meeting

MEMORANDUM

To: Ray Gosack, City Administrator
From: Wally Bailey, Director of Development Services
Date: September 9, 2011
Subject: Outdoor Residential Lighting

The Board of Directors requested the staff research the subject of regulating outdoor lighting on residential properties. The direction came as a result of citizen complaints regarding light trespass from a single family residence to other single family residences.

We have been researching ordinances from other cities to better understand the issues and typical requirements found should the Board be interested in adopting an ordinance.

We found the scope of most outdoor lighting ordinances are written to prevent light trespass, glare or to prevent light pollution. High illumination levels can deprive residents of the darkness needed for sound sleep and deprive residents of their view of the night sky. It was my understanding the Board's request related to the nuisance issues such as glare and not the Skyglow or dark sky issues.

A definition for *glare* is the effect produced by a light source within the visual field that is sufficiently brighter than the level to which the eyes are adapted, to cause annoyance, discomfort, or loss of visual performance and ability. A definition for *light trespass* is unwanted light spilling onto an adjacent property and/or an excessive brightness (i.e., glare) is occurring in the normal field of vision.

The outdoor lighting ordinances we researched ranged from simple to complex. Also, many cities specifically exempted properties developed with single family and duplexes. We surveyed and checked with the Arkansas cities of Springdale, Fayetteville, Little Rock, North Little Rock, Benton, Conway, Rogers, and Hot Springs.

Springdale was the only Arkansas city that had any code language governing outdoor lighting for single family properties. The language is as follows:

To protect adjoining uses, all exterior lighting fixtures on property in single family residential districts shall be designed so that it will not interfere, annoy, or disturb the comfort, health, or peace of reasonable persons of ordinary sensibility.

Regionally we researched cities, including Springfield, Joplin, Oklahoma City, Tulsa and Muskogee, and several cities in the Dallas Metro area. Two cities in the region have code language governing outdoor lighting in single family areas of their cities.

Springfield, MO has the following code language:

The use of exterior lighting in residential areas so that the light shines on adjoining residential property thereby adversely affecting the use and enjoyment of those persons who own, occupy or use the adjoining property is declared to be a nuisance.

Eules, Texas has the following code language:

Primary and secondary glare (both direct and reflective) having a source on private property shall not be permitted to produce visual discomfort for viewers on other property in any residential zoning district or on adjacent street rights-of-way. Direct glare which produces visual discomfort is to be corrected or avoided by reducing the intensity of the light source and/or the uses of directional lighting or shading devices. Welding, new construction and repairs of facilities shall be exempt from these regulations. Provided, however, that no requirements will be imposed in derogation of federal or state safety and health regulations.

We did discover some ordinances from locations such as Asheville, North Carolina, that are much more detailed. These ordinances go so far as to regulate the amperage of the bulbs, spacing of outdoor lights, directional angle of flood lights and many other details.

Enforcement of a residential lighting ordinance would require scheduling staff to work in the evenings which would result in a loss of productivity normally obtained during the day. Our goal is to avoid overtime. Therefore, we would need to reschedule an inspector to investigate the complaints in the evening. Also, we think it is important for complaints regarding lighting be made in writing and that we not accept anonymous complaints because of the cost impact to investigate these complaints.

I have attached a form used by Missoula, Montana that is used for lighting complaints. We think a form similar to this would be important for us to use. Of significance, are the statements at the bottom of the form which make the complainant aware that their complaint may require court action and their presence in court may or will be necessary to substantiate their claims.

The cost impact of a proposed ordinance would be the enforcement and scheduling impacts which could also have an affect on the overall productivity of the inspections division.

Should the Board want to proceed with an ordinance the staff could implement such an ordinance. We need some direction on how much detail we should include within the ordinance and thoughts on the enforcement details of the ordinance. We will need to work closely with John Settle, Prosecuting Attorney, to develop enforceable language for the proposed ordinance.

Please contact me if you have any questions.

INTER-OFFICE MEMO

TO: Ray Gosack, City Administrator**DATE:** September 7, 2011**FROM:** Steve Parke, Director of Utilities**SUBJECT:** Wet Weather Sanitary Sewer Improvements
Project Financing 2012 Through 2016

Since 1993 the city has invested about \$124 million toward wet weather capacity improvements to its wastewater treatment and collection systems to address overflows and bypasses. These overflows and bypasses harm residences and business, and are violations of the Clean Water Act. The correction of these conditions was required through a 1989 EPA Administrative Order issued following the dismissal of an earlier Consent Decree in 1989. In 2005 the EPA referred the city's Administrative Order to the Department of Justice (DOJ) for conversion to a Consent Decree due to their position that the city was not making adequate progress to implement its wet weather program. The remaining capacity improvements identified by our 1993 Wastewater Management Plan have been estimated at \$95 million in today's costs and are proposed to be completed by 2027. Both the EPA and DOJ have expressed concern about the proposed 15-year period to complete the identified capacity improvements and about the city's progress in undertaking sewer system evaluation surveys and rehabilitation/reconstruction projects within the collection system.

Beginning in 2006, the construction of wet weather sewer improvements has been financed through the issuance of \$93.7 million in sales and use tax bonds. The current bond funding will be exhausted by May 2012. If the construction of wet weather sewer projects is to be continued through the use of sales and use tax bonds for the next series of projects, it will be necessary to place this question to the voters before the end of March 2012 to assure that the bond proceeds will be available by May. We currently have three projects which depend on this next round of funding in order to continue without interruption.

The Arkansas Supreme Court recently issued a decision related to usury limits which benefitted cities by allowing ballot questions to ask voter approval to use sales and use taxes for longer time periods and larger dollar amounts to finance programs such as the city's wet weather improvements. With that decision staff is recommending that the ballot question for the continued use of sales and use tax bonds ask for an amount of \$67 million. This would allow us to construct projects through 2016. The bonds would be sized and issued in increments which would allow the city to meet the three year IRS spenddown requirements. A table listing the projects proposed to be completed over the next four years and an exhibit showing the project locations are attached. If sales tax bonds are not used, the other financing mechanisms are general obligation bonds supported by a property tax levy or water and sewer bonds supported by a sewer rate adjustment.

Should you or members of the Board have any questions or desire additional information, please let me know.

attachment

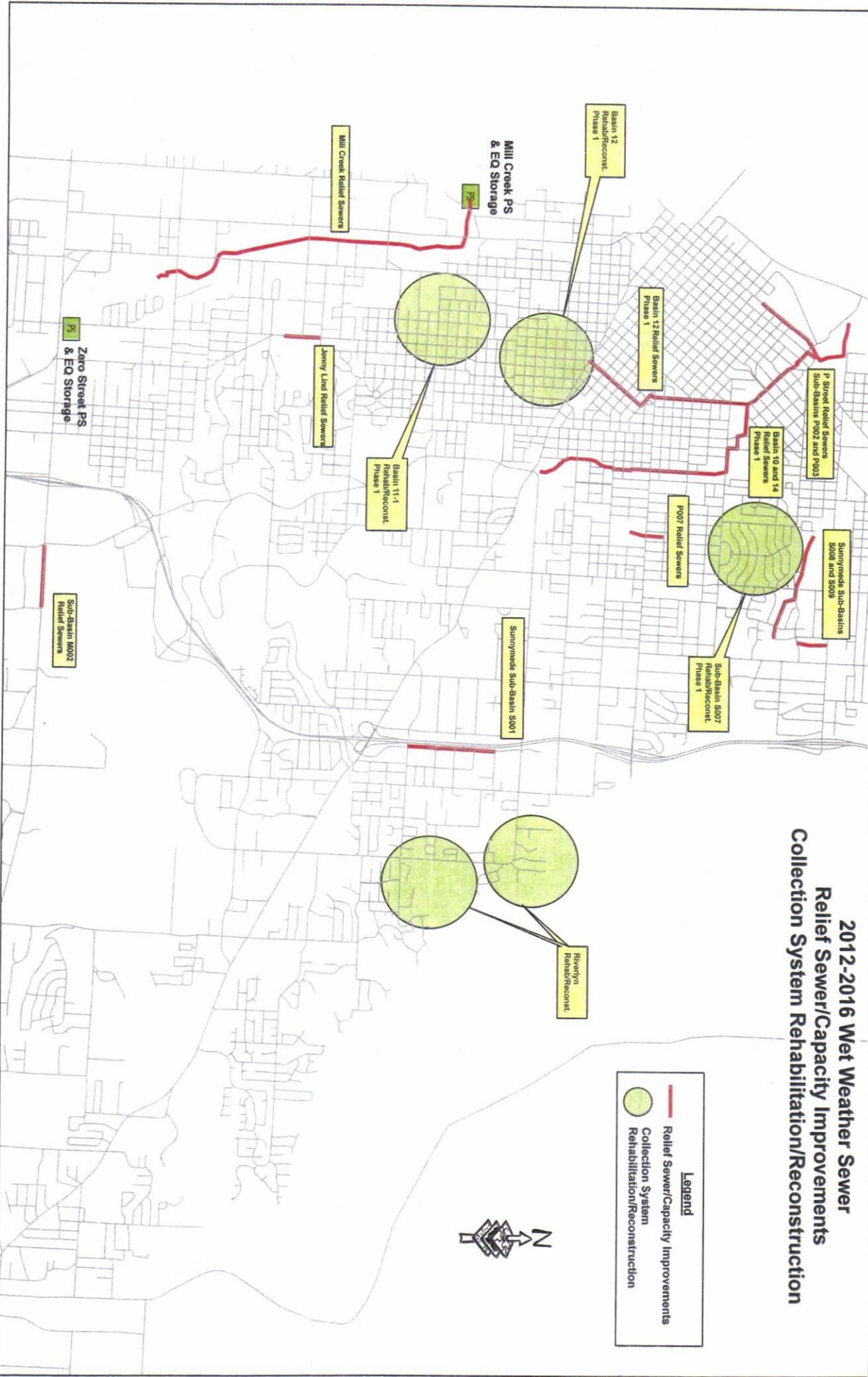
pc: Jeff Dingman

2012-2016 Wet Weather Sewer Relief Sewer/Capacity Improvements Collection System Rehabilitation/Reconstruction	Amount	
	Continued	New
Relief Sewer/Capacity Improvements		
Mill Creek Pump Station Improvements	\$14,250,000.00	
Zero Street Pump Station and EQ Basin Improvements	\$15,000,000.00	
South 28th Street Relief Sewer	\$250,000.00	
Candlestick P.S. Force Main Replacement		\$1,700,000.00
Jenny Lind Relief Sewers		\$180,000.00
Mill Creek Relief Sewer (Mill Creek Pump Station to Phoenix Ave)		\$4,300,000.00
Sunnymede Sub-Basin S001		\$1,500,000.00
Sunnymede Sub-Basin S008-S009		\$895,000.00
P Street Relief Sewers - Sub-Basin P002 & P003		\$6,710,000.00
Basin 10 & 14 Relief Sewers Phase 1		\$5,400,000.00
P007 Relief Sewers		\$200,000.00
Basin 12 Relief Sewers Phase 1		\$2,370,000.00
4th Street Relief Sewer		\$1,825,000.00
Management Plan Update		\$350,000.00
Subtotal	\$29,500,000.00	\$25,430,000.00
Total	\$54,930,000.00	
Collection System Rehabilitation/Reconstruction		
Basin 11-1		\$2,000,000.00
Sub-Basin S007 Phase 1		\$2,000,000.00
Riverlyn		\$2,000,000.00
Basin 12 Phase 1		\$2,000,000.00
Sunnymede Basin 09-04		\$1,500,000.00
Buried Pump Station Upgrades		\$850,000.00
P.S. Standby Power Improvements		\$1,450,000.00
Subtotal		\$11,800,000.00
Grand Total	\$66,730,000.00	

2012-2016 Wet Weather Sewer Relief Sewer/Capacity Improvements Collection System Rehabilitation/Reconstruction

Legend

-  Relief Sewer/Capacity Improvements
-  Collection System Rehabilitation/Reconstruction



INTER-OFFICE MEMO

TO: Ray Gosack, City Administrator**DATE:** September 8, 2011**FROM:** Steve Parke, Director of Utilities**SUBJECT:** Water Transmission System Facilities

In April 2010 staff provided an update to the Board on water transmission improvements needed to provide additional supply from Lake Fort Smith along with improvements needed within the southern growth area of the city to serve continuing development. With the upcoming discussion of alternatives for the continued financing for the wet weather sewer improvements, staff feels it would be appropriate to also discuss the financing options for the needed water transmission system facilities. The information related to improvements needed for the Lake Fort Smith water transmission line and the Chaffee Crossing portion of the southern growth area is presented separately.

Lake Fort Smith Water Transmission Line

As part of the planning for the expansion of the Lake Fort Smith water supply it was identified that the expansion of the treatment plant capacity and a new 48-inch diameter water transmission line from the plant to Fort Smith would be required. This new transmission line will provide the additional capacity needed to meet the region's future water demands and also allow the city to retire the existing 27-inch transmission line which was placed in service in 1936. The water treatment plant is currently under construction to expand its treatment capacity to 40 million gallons-per-day. The corridor study and route selection for the new transmission line has been completed. Construction of the first approximately 32,000 feet of the new 48-inch line is required now as the pipe pressure class of one of the existing transmission lines will limit delivery capability from the plant to about 35 million gallons-per-day. The remaining portions of the new transmission line will need to be completed in the 2020 to 2025 time frame. An exhibit showing the route for the first 32,000 feet of the new 48-inch line is attached. The cost for this portion of the new line is estimated at \$16,820,000. That amount includes engineering services, easement acquisition and the work needed to transfer existing direct service customers being served from the portion of existing line to be abandoned over to one or more of the city's wholesale customers systems providing service in the vicinity of the project.

This project cost is now made part of the water rate work being performed by Burns & McDonnell and included in the capital improvement plan anticipated to be financed through revenue bonds supported by user rates. Should the Board desire to consider financing this work utilizing bonds supported by sales and use taxes instead, the project could be included as part of the ballot to be presented to the voters at the same time as wet weather sewer improvements. An updated opinion of probable cost prepared by Mickle Wagner Coleman for the entire transmission line project is also attached as additional information about the future year transmission line cost.

Water System Improvements to Serve Chaffee Crossing

The master plan for water and sewer service in the southern growth area and Chaffee Crossing was completed by Mickle Wagner Coleman in 2010. Since the 2007 and 2008 study period for the production of that master plan, that portion of the service area in and around Chaffee

Crossing has seen significant growth. The residential development projects and the attraction of industry has essentially all taken place in this area while almost no new development has occurred in the southwestern and Rye Hill areas. This development shift prompted the update of the mater plan for the southeastern portion of the water service area.

The updated report presents the impact of the concentration of development to this southeastern water service area as near term (currently needed), intermediate term (through 2014) and long term (through 2022). The time required for the design and construction of any improvements identified for the near term and intermediate term essentially places those as back-to-back projects if they are to be in service by the end of 2014. The water system hydraulic modeling shows that a conflict exists between providing water and fire flow demands. The city's ability to meet the contract obligation with the Department of Defense to serve the Fort Chaffee military reservation was also considered.

The water system improvements needed to serve the continued growth in the southeastern portion of the city's southern service area for the near and intermediate terms are identified as an interconnecting 24-inch line along Geren Road between Highway 45 and Massard Road, a 30-inch line and 2.5 million gallon ground storage reservoir along Massard Road south of Zero Street. These facilities will provide water delivery and storage into Chaffee Crossing and support future system needs south of Rye Hill. This will allow both the Wildcat Mountain and Luce reservoir systems to support the projected water and fire flow demands until 2022. Also identified are interconnecting 14 and 24-inch lines along Custer Boulevard, Taylor Avenue and Chad Colley within Chaffee Crossing to create a looped system. An exhibit showing the location of these improvements is attached. Looping the internal water system allows the ability to take full advantage of the water delivery from the Wildcat Mountain and Luce reservoirs. After 2022 the completed water transmission line from Lake Fort Smith will be needed to support continued growth. A copy of the September 2011 updated report is also attached to provide more detailed information related to the updated water and fire flow demands in the southeastern portion of the southern growth area.

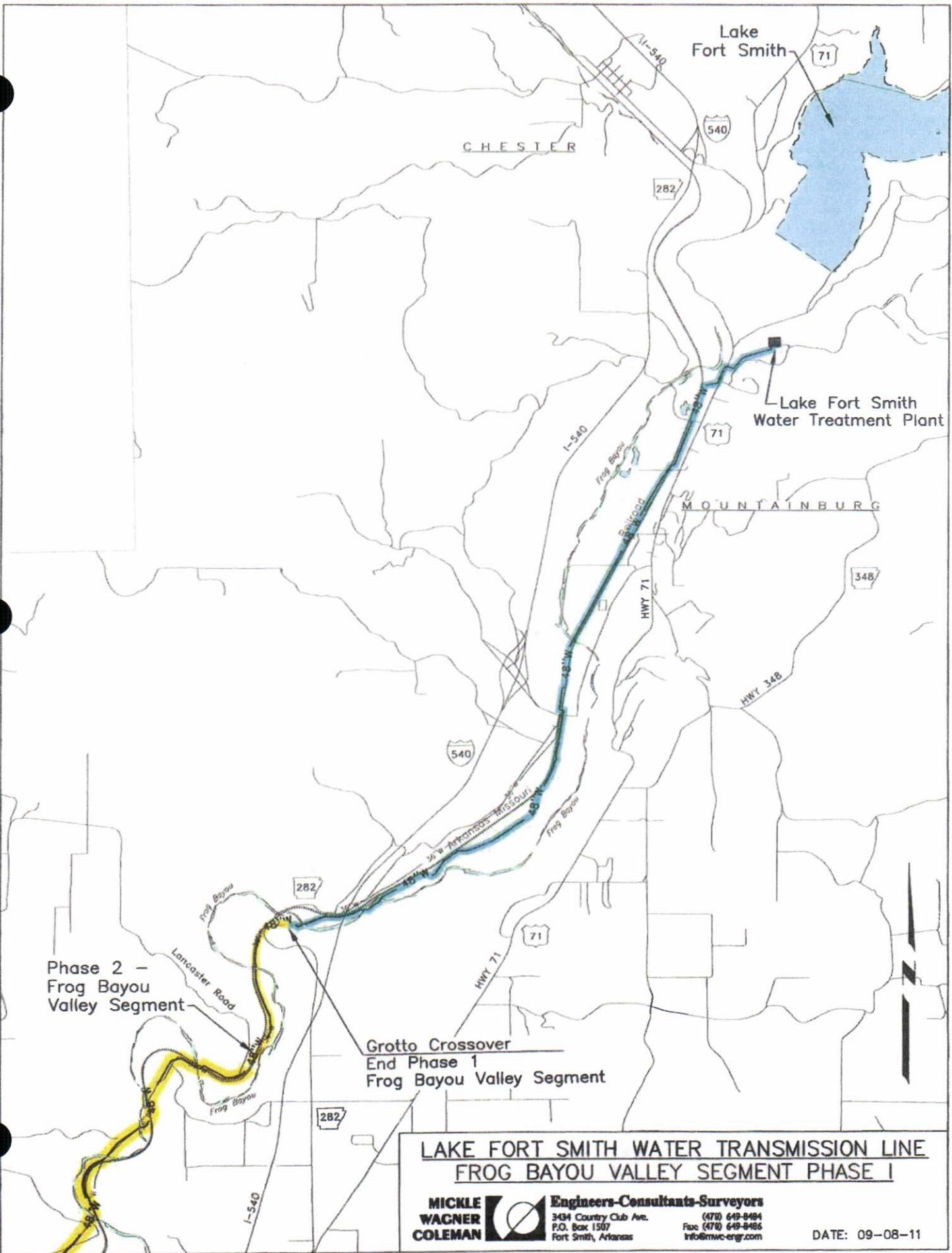
The updated report identifies the estimated cost for the near term improvements at \$6,089,000 and intermediate term improvements at \$3,491,000 for a total of \$9,580,000. The project costs for the ground storage reservoir and 30-inch lines along Massard Road, \$4.2 million of the identified improvements, are currently part of the capital improvement plan being considered with the rate work being performed by Burns & McDonnell. The remaining \$5.38 million in improvements is not part of the current capital plan financing. If this work is to be undertaken, then the full financing mechanism must be identified. Should the Board desire to consider financing this work utilizing bonds supported by sales and use taxes, these project costs could be included as part of the ballot to be presented to the voters at the same time as wet weather sewer improvements.

Should you or members of the Board have any questions or desire additional information, please let me know.

attachment

pc: Jeff Dingman

K:\Fort Smith\CD\MISSION LINE\dwg\EXHIBITS\MISC\Exhibit-frog bayou valley segment - phase 1.dwg 5/20/11 5:33:14 PM, 1:2.60323



Phase 2 -
Frog Bayou
Valley Segment

Grotto Crossover
End Phase 1
Frog Bayou Valley Segment

**LAKE FORT SMITH WATER TRANSMISSION LINE
FROG BAYOU VALLEY SEGMENT PHASE I**

**MICKLE
WAGNER
COLEMAN**



Engineers-Consultants-Surveyors
3434 Country Club Ave. (478) 649-8484
P.O. Box 1507 Fax (478) 649-8485
Fort Smith, Arkansas info@mwc-engr.com

DATE: 09-08-11



Patrick J. Mickle, P.E.
Neal B. Wagner, PLS
Randell C. Coleman, P.E.
Andrew J. Dibble, P.E.

August 16, 2011

RECEIVED

AUG 18 2011

UTILITY DEPARTMENT

Mr. Steve Parke, Director
City of Fort Smith – Utilities
3900 Kelley Highway
Fort Smith, AR 72904

Re: Lake Fort Smith
Water Transmission Line
Engineer's Opinion of Probable Costs

Dear Steve,

We have finished the update of the Engineer's Opinion of Probable Costs for the entire Lake Fort Smith Water Transmission Line Project i.e., from Mountainburg to Massard Road including the River Crossing Interconnect and the Lee Creek Interconnect. The attached summary spreadsheet details the costs for Construction, Engineering, Meter Relocations, and Easement Acquisition. The attached map shows the different segments that construction costs were subdivided into: Frog Bayou Valley Segment Phase I & II, Arkansas River Valley Segment, Lee Creek Interconnect, River Crossing Interconnect, and the Arkansas River Crossing.

The construction costs are based on ductile iron pipe prices provided from suppliers and bid tabulations from recent transmission line projects in Springdale and Central Arkansas. The costs from these sources were inflated at a rate of 3.5% to the appropriate year. The construction costs for the first phase, from the finished water pump station to the Grotto Crossover, are based on 3.5% inflation to year 2013. The construction costs for the remainder of the project are based on 3.5% inflation to year 2017.

Please review the cost estimate and if necessary feel free to schedule a meeting to discuss.

Sincerely,

A handwritten signature in blue ink, appearing to read "Nick Griffin".

Nick Griffin, P.E.

NJG/cgb

Enclosure

F:\DOC\Letters\Transmission Line Costs 8-16-11.doc

MICKLE WAGNER COLEMAN, INC.

3434 Country Club Avenue 72903 • P O Box 1507 72902 • Fort Smith, Arkansas • (479) 649-8484 • Fax (479) 649-8486
info@mwc-engr.com

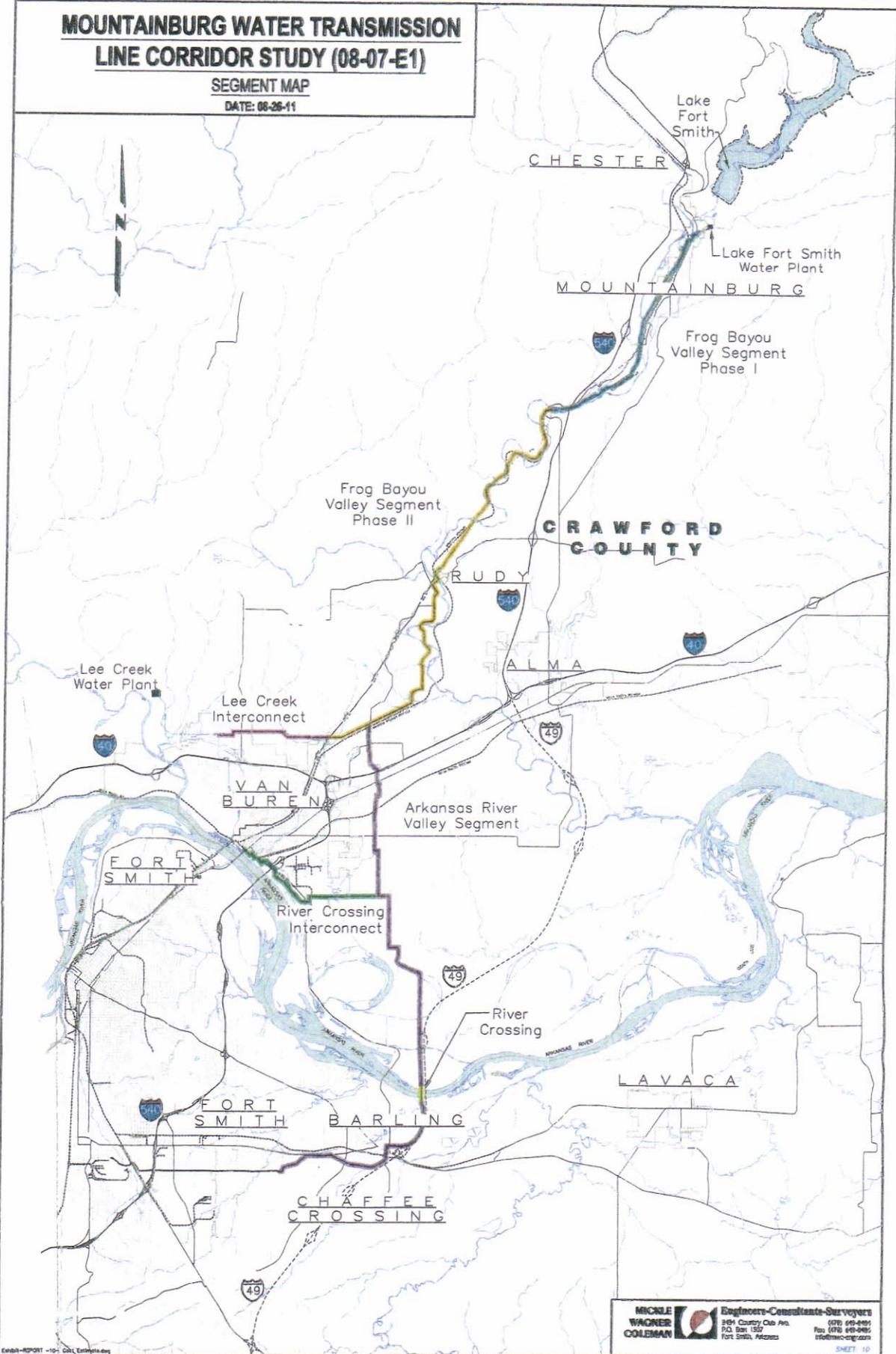
**ENGINEER'S OPINION OF PROBABLE COSTS
LAKE FORT SMITH WATER TRANSMISSION LINE**

8/16/2011

		<u>Construction Costs</u>	<u>Engineering / Observation</u>	<u>Total</u>
Frog Bayou Segment Phase I (LFS Pump Station - Grotto)	32,150 LF	\$ 13,700,000	\$ 2,055,000	\$ 15,755,000
Frog Bayou Segment Phase II (Grotto - North Van Buren)	63,400 LF	\$ 30,000,000	\$ 4,500,000	\$ 34,500,000
Arkansas River Valley Segment	78,000 LF	\$ 36,600,000	\$ 5,490,000	\$ 42,090,000
Lee Creek Interconnect	14,800 LF	\$ 5,800,000	\$ 870,000	\$ 6,670,000
River Crossing Interconnect	22,000 LF	\$ 10,500,000	\$ 1,575,000	\$ 12,075,000
Arkansas River Crossing	2350 LF	\$ 7,000,000	\$ 1,050,000	\$ 8,050,000
Direct Service User Changeover		\$ 1,000,000	\$ 150,000	\$ 1,150,000
Easements		\$ 1,055,000	\$ 415,000	\$ 1,470,000
TOTAL		\$ 105,655,000	\$ 16,105,000	\$ 121,760,000

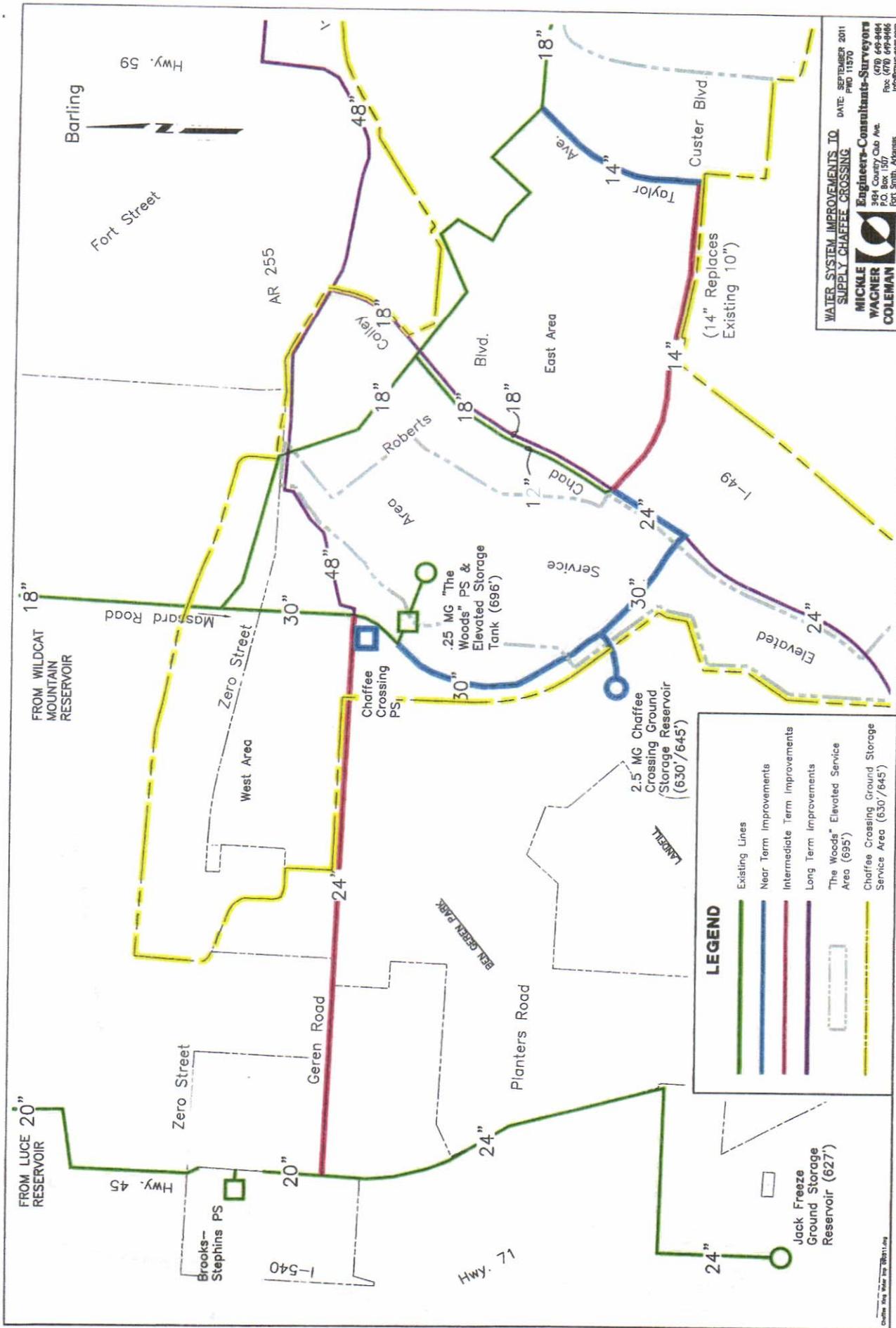
MOUNTAINBURG WATER TRANSMISSION LINE CORRIDOR STUDY (08-07-E1)

SEGMENT MAP
DATE: 06-26-11

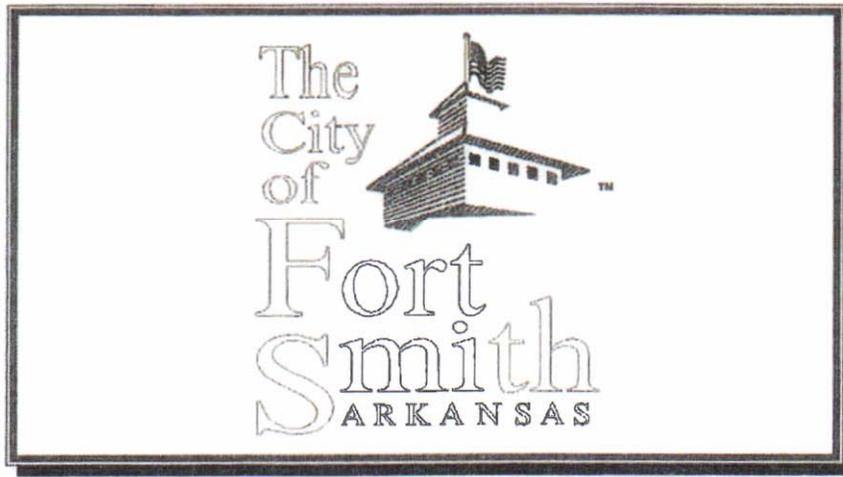


MICHAEL WAGNER COLEMAN Engineers-Consultants-Surveyors
2904 Country Club Ave. P.O. Box 1507 Fort Smith, Arkansas
(479) 640-6491 Fax (479) 640-6495
mwc@mcw-cog.com
SHEET 10

Attachments - Water System Improvements to Serve Chaffee Crossing

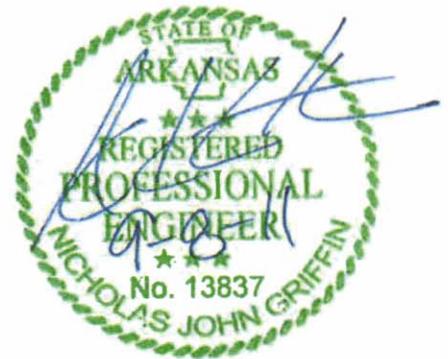


DATE: SEPTEMBER 2011
 PRO 11570
**WATER SYSTEM IMPROVEMENTS TO
 SUPPLY CHAFFEE CROSSING**
**MICKLE
 WAGNER
 COLEMAN** Engineers-Consultants-Surveyors
 349 Country Club Ave.
 P.O. Box 1507
 Fort Smith, Arkansas
 (479) 649-9494
 Fax: (479) 649-9466
 info@mwcenr.com



Study of Water System Improvements to Supply Chaffee Crossing's Continued Growth

SEPTEMBER 2011



Engineers

*Mickle Wagner Coleman, Inc.
3434 Country Club Avenue
P. O. Box 1507
Fort Smith, Arkansas 72902*

Prepared for

*City of Fort Smith
Utilities Department
3900 Kelley Highway
Fort Smith, Arkansas 72904*

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INTRODUCTION

The 2010 *Master Plan for Water and Sewer Service in the Southern Growth Area & Chaffee Crossing* was developed to guide water system improvements within the developable areas of South Fort Smith and Chaffee Crossing. The water distribution improvements in that report were based on water demand projections for year 2035. The Lake Fort Smith Water Transmission Line was originally scheduled to be partially complete by 2012 and fully complete by 2020. As such, the water system master plan was based on the assumption that the existing transmission system along with the Lake Fort Smith Water Transmission Line would be available to deliver water to the Southern Growth Area and Chaffee Crossing.

Continued development has prompted this study of water delivery to Chaffee Crossing. Specifically, this study will determine how much water the existing system can deliver to Chaffee Crossing, what improvements can be made to the existing system to increase the amount of water available for further development in Chaffee Crossing, and at what point the Lake Fort Smith Water Transmission Line must be in place to provide service for continued development in Chaffee Crossing.

SERVICE AREA AND EXISTING WATER DISTRIBUTION SYSTEM

The Fort Chaffee Military Reservation originally had a steel ground storage reservoir and a concrete elevated storage tank. Both have been removed from service; the concrete elevated storage tank due to poor physical condition, and the steel ground storage reservoir due to being at a lower elevation than the Fort Smith water system and thus no longer being useful. A 2.5 MG ground storage reservoir is planned for Chaffee Crossing which will create the Chaffee Crossing 630/645 service area (see map in appendix). The service area is bounded by the Barling city limits to the north and extends south to the Chaffee Crossing boundary near Steep Hill Road. The service area is bounded on the west by Ben Geren Park and the City of Fort Smith landfill, and extends east to include Fort Chaffee.

A portion of Chaffee Crossing has higher ground elevations than even Fort Smith's system could serve. As such, in 2006, the FCRA constructed "The Woods" elevated storage tank and pump station near the McClure Amphitheater thereby creating "The Woods" elevated service area. This elevated service area splits the Chaffee Crossing service area into eastern and western areas. The western portion of the service area is made up primarily of residential development along Massard Road (i.e. The Woods, Cisterna Villa, Huntington Chase, and Reata) along with some commercial/industrial development along Zero Street. Much of the property in the western portion of the service area will remain open/green space because it lies within either Ben Geren Park or the City's landfill property.

The eastern portion of the service area serves primarily commercial and industrial property lying east of Wells Lake Road to Fort Chaffee. This area serves three times as much developable acreage as the western portion of the service area as well three major contract users: Franklin-Sebastian PWA, Central Water Users, and Fort Chaffee. This area is also the furthest distance from Fort Smith's water system and is on a single one-

way feed from the 18-inch transmission line. Because the two original water storage facilities were decommissioned by the Military, this eastern area is without fire and peak demand storage. This also means that the water system analysis and design is largely governed by the issues with water delivery to the eastern portion of the service area.

Water service to Chaffee Crossing is currently provided by the City of Fort Smith's 630 service area from the 7.5 MG Wildcat Mountain ground storage reservoir. An existing 18-inch transmission line currently delivers water into Chaffee Crossing from the Wildcat Mountain reservoir. This 18-inch line runs from the reservoir along Massard Road until turning east along the Fort Smith Railroad just north of Zero Street where it runs cross country until entering Chaffee Crossing near the Zero Street/ South 92nd Street intersection.

In 2007, in anticipation the above mentioned 2.5 MG reservoir, a new 30-inch transmission line was extended south along Massard Road from the 18-inch transmission line on the north side of Zero Street. This 30" line was built to provide service to residential developments in the western portion of the service area as well as the pump station for "The Woods" elevated service area. This line also tied in an existing 12" line along Zero Street which provides a redundant feed to and from the western portion of the service area.

DEMANDS

Maximum day demands for commercial and residential areas were calculated using values developed in *The Master Plan for Water and Sewer Service in the Southern Growth Area & Chaffee Crossing*. An average daily water demand of 750 gallons/acre/day was estimated for projecting usage for commercial and industrial development. A peaking factor of 2.5 was applied to the average day water demand to get a maximum day demand of 1,875 gallons/acre/day. The projected residential water demands for the proposed planning area were determined based upon a per capita basis. A density of 2.7 persons / dwelling unit was used and an average day demand of 170 gallons per capita day was used. A peaking factor of 2.3 was applied to give a maximum day demand of 385 gallons per capita day.

Maximum day demands were determined for Near Term, Intermediate Term, and Long Term projections. Near Term Demands include properties that have current development plans. These demands are expected to be reached within the next two years (2014). Intermediate term demands include properties that are likely to develop between two and 10-years out. Long Term Demands are fully developed projections assuming development of 85% of developable properties. This demand is expected to be reached 25-years out.

Fire flows were combined with maximum day demands to check the adequacy of the system. A fire flow of 1000 gpm is recommended for residential areas and a fire flow of 1500 gpm is recommended for commercial and industrial areas. A fire flow of 1500 gpm was used in the analysis since commercial and industrial areas are spread throughout

the entire service area. The exception is a fire demand of 2500 gpm was used for Fort Chaffee.

The maximum flow allowed to Central Water Users Authority is 175 gpm. This number was used in all models for Central Water Users Authority demands. Franklin-Sebastian Public Works Authority initial pumping arrangement will draw 500 gpm. The pump station is upgradeable to 700 gpm and ultimately to 1400 gpm. The appropriate demand was used for Franklin-Sebastian Public Works Authority depending on the time scenario. A review of the meter readings reveal that Fort Chaffee's actual usage is 187 gpm during the maximum month. After applying a peaking factor, 400 gpm was used as the peak domestic demand for Fort Chaffee.

ANALYSIS

WATERGEMS™ water distribution system analysis program was used to model the existing and future water improvements. The computer model was developed from the City's 630 ground storage service area starting at the Euper pump station. Attached in the Appendix to this report is a copy of the input and output data for maximum day demand conditions with fire flow analysis.

The first set of models were run to simulate existing conditions to determine how much water is currently available for further development at Chaffee Crossing. The water supply currently available to the Chaffee Crossing service area is 2800 gpm. The current non-fire water demand at Chaffee Crossing is 1300 gpm. This leaves 1500 gpm available to the elevated service area, to additional water demand in the Chaffee Crossing service area, and to fire demand. "The Woods" pump station is rated at 725 gpm, which was the design full development demand. Because it will be several years before this much water is needed, the pump station can be modified to reduce the pumping rate to 325 gpm. This essentially borrows capacity from the undeveloped elevated service area and utilizes it in the 630/645 service area. If "The Woods" pump station is modified to reduce the pumping rate to 325 gpm, 1175 gpm is available for fire demand and/or additional water demand. 325 gpm will serve the elevated service area projected demands thru 2014.

The next set of models were run to determine improvements necessary to serve projected demands within the next two years. To eliminate the competition between fire and water demands, a reservoir should be built which will store the fire demand and make all the uncommitted water available for domestic/industrial use. However, to fill the reservoir, a pump station must be built. This station will be located on Massard Road near Cisterna Villa Subdivision. Initially the pump station can deliver 2160 gpm; which will serve the demand until 2014; this represents an increase in industrial/domestic use of about 800 gpm over current levels.

The final set of models were run to determine what modifications to the 630 system south of the Euper pump station would be necessary to deliver more water to Chaffee Crossing. The Euper pump station was picked as the start point because all water in this part of the 630 system must pass thru the pump station. The maximum amount of water that the City's system can currently deliver to the Chaffee Crossing area is 2160

gpm. A new transmission line from Highway 45 at Geren Road east to Massard Road will deliver the maximum amount of water available to Chaffee Crossing. This line will increase the water supply from 2160 gpm to 3370 gpm. This should meet water demands up to 2022.

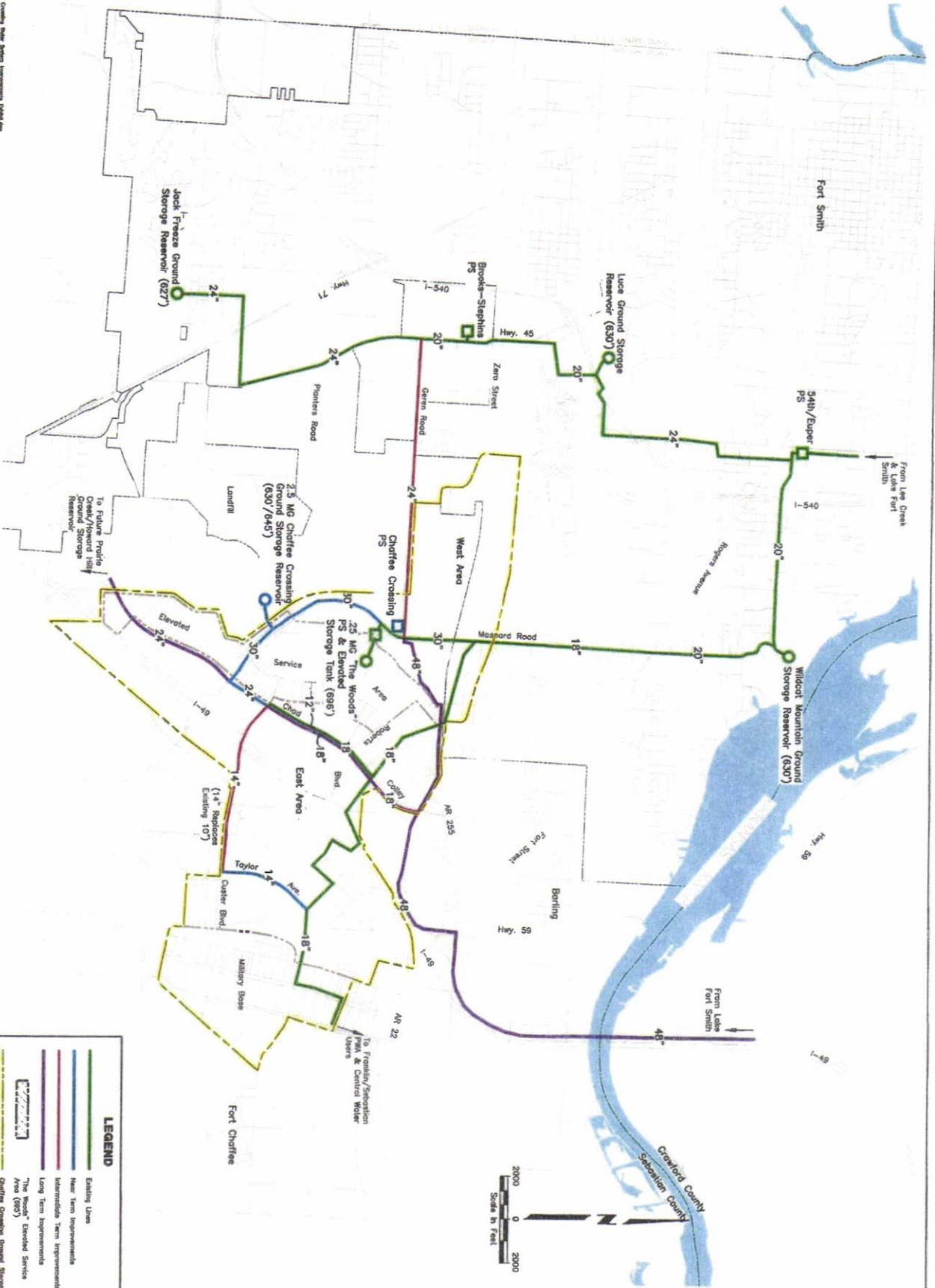
CONCLUSIONS

The dates that are outlined above are the dates that the described improvements will be at their maximum capacity. Thus, improvements must be in service at the beginning of the study period so that water is available as growth occurs. Improvements should be started immediately to provide water service for near term demands. These improvements include the Chaffee Crossing Ground Storage Reservoir, the new pump station, and the Massard Road/Chad Colley Transmission Lines. These improvements should be placed on-line as soon as possible. The costs of these improvements are approximately \$6,100,000. These improvements will meet demands until 2014.

The next phase of improvements should be completed by 2014 to provide service for intermediate term demands. These improvements include the extension of the Chad Colley transmission line and the transmission interconnection from Highway 45 to Massard Road. These improvements will cost approximately \$3,500,000. These improvements will meet demand until 2022. The Lake Fort Smith Water Transmission line along with the remainder of the Southeast Fort Smith Transmission lines must be in service by 2022 to serve long term demands.

	Construction Completion date	Date Capacity Reached	Cost
NearTerm	2012	2014	\$6,000,000
Intermediate Term	2014	2022	\$3,000,000
Long Term	2022	-	-

Chaffee Crossing Water System Improvements 08/04/11



APPENDIX A

**WATER SYSTEM IMPROVEMENTS TO
SUPPLY CHAFFEE CROSSING**

FORT SMITH, SEBASTIAN COUNTY, ARKANSAS

MICKLE WAGNER COLEMAN
 Engineers-Consultants-Surveyors
 254 Country Club Ave.
 P.O. Box 1547
 Fort Smith, Arkansas
 (479) 649-8494
 (479) 649-8486
 info@mwc-engr.com

DATE	REVISION	BY

SHEET 1 OF 1

APPENDIX A-2:
COST ESTIMATE SUMMARY

August 26, 2011

**Preliminary Cost Estimate
Water System Improvements
Southeast Fort Smith**

	2.5 MG Ground Storage Reservoir	2,105,000
	30" Line - Reservoir to Chad Colley Blvd.	1,135,000
NEAR TERM	24" Line - Massard Road to Custer Blvd.	324,000
	30" Line - Reservoir to Pump Station	960,000
	Massard Pump Station	550,000
	Engineering, Easements, & Contingency	<u>1,015,000</u>
	NEAR TERM TOTAL	6,089,000
	24" Line - Highway 45 to Massard Road	2,180,000
INTERMEDIATE TERM	14" Line - Custer Blvd. to Taylor Avenue	729,000
	Engineering, Easements, & Contingency	<u>582,000</u>
	INTERMEDIATE TERM TOTAL	3,491,000
	GRAND TOTAL	9,580,000

**APPENDIX A-3:
CHAFFEE WATER DEMAND PROJECTION SUMMARY**

Chaffee Crossing Service Area Water Demands

Existing Development Conditions

Western Area	Direct Service	575	575
Eastern Area	Direct Service	242	1,317
	Fort Chaffee	400	
	Franklin/Sebastian	500	
	Central Water	175	

TOTAL 1,892 gpm

Near Term Development 2012 - 2014

Western Area	Direct Service	791	791
Eastern Area	Direct Service	1,087	2,162
	Fort Chaffee	400	
	Franklin/Sebastian	500	
	Central Water	175	
	Woods Elevated	725	725

TOTAL 3,678 gpm

Intermediate Term Development 2014- 2022

Western Area	Direct Service	1,135	1,135
Eastern Area	Direct Service	2,093	3,368
	Fort Chaffee	400	
	Franklin/Sebastian	700	
	Central Water	175	
	Woods Elevated	725	725

TOTAL 5,228 gpm

Long Term Development (85% of Full Development)-Beyond 2022

Direct Service	3,919
Fort Chaffee	400
Franklin/Sebastian	1,400
Central Water	175
Woods Elevated	1,060
Howard Hill	3,617

TOTAL 10,571 gpm

Full Development (if 100% of developable property developed)

Direct Service	4,204
Fort Chaffee	2,500
Franklin/Sebastian	1,400
Central Water	175
Woods Elevated	1,060
Howard Hill	3,617

TOTAL 12,956 gpm

**APPENDIX A-4:
SYSTEM ANALYSIS AND DESIGN PARAMETERS**

Several controlling parameters were used to check the adequacy of the existing and proposed water transmission facilities:

- Residual pressures above 20 pounds per square inch (psi) during a maximum day demand, including fire flow
- Residual pressures above 35 psi during maximum day demand only
- Water line velocities below five (5) feet per second (fps) during maximum day demands, including fire flow
- Headlosses below 3 feet / 1,000 feet in transmission lines



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MEMORANDUM

September 8, 2011

TO: Mayor and Board of Directors

FROM: Ray Gosack, City Administrator

SUBJECT: Mayor C. Ray Baker Endowment Fund

Attached is information about the Mayor C. Ray Baker Endowment Fund which has been created by the Fort Smith Area Community Foundation. The board requested discussion of this at the September 13th study session. Ray Baker served as mayor of Fort Smith for 20 years from 1991-2010.

The purpose of the endowment fund is to improve the quality of life in Fort Smith and education. The community foundation is now accepting donations into the fund. It hopes to raise at least \$10,000 so that disbursements can be made for the identified purposes. The foundation is seeking an endorsement from the board of directors. A draft resolution is attached for the board's consideration.

A handwritten signature in cursive script that reads "Ray".

Attachments

cc: Susan Krafft, Fort Smith Area Community Foundation
Nancy Baker

DRAFT

RESOLUTION NO. _____

**A RESOLUTION ENDORSING THE
MAYOR C. RAY BAKER ENDOWMENT FUND**

WHEREAS, C. Ray Baker served as Mayor of Fort Smith for 20 years from 1991 - 2010, making countless contributions to the betterment of Fort Smith during his tenure; and

WHEREAS, the Fort Smith Area Community Foundation has created the Mayor C. Ray Baker Endowment Fund to continue his legacy; and

WHEREAS, the purposes of the Mayor C. Ray Baker Endowment Fund are to improve the quality of life in Fort Smith and education, two purposes which were cherished by C. Ray Baker;

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Board of Directors of the City of Fort Smith, Arkansas that:

The City of Fort Smith endorses the Mayor C. Ray Baker Endowment Fund created by the Fort Smith Area Community Foundation, and encourages citizens, businesses and community organizations to contribute to the endowment fund.

This Resolution passed this _____ day of September, 2011.

Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM

No Publication Required

DRAFT

Gosack, Ray

From: Susan Krafft [fortsmitharea@arcf.org]
Sent: Tuesday, September 06, 2011 12:44 PM
To: Sandy Sanders; Gosack, Ray; 'Philip_Merry@aig.com'; Weber, Pam (Board of Directors); Good, Andre (Board of Directors); Settle, Kevin (Board of Directors); Catsavis, George (Board of Directors); Hutchings, Don (Board of Directors); Tyler, Steve (Board of Directors)
Cc: Taylor, John; dcraig@octwealth.com; Winchell, Tracy
Subject: Mayor C. Ray Baker Memorial Endowment Fund established

Good afternoon Fort Smith City Directors, Mayor, and Administrator,
Very happy to let all of you know that the Fort Smith Area Community Foundation Board has unanimously approved the creation of the **Mayor C. Ray Baker Endowment Fund**. This fund will serve both as a memorial to the late Mayor, but also as a way to continue his legacy of making "*Life Worth Living in Fort Smith Arkansas!*" Mayor Baker was on our FSACF Board when he passed away; the remaining (and new) members of the Board felt this was the best way to honor his passion for Fort Smith and further the mission of the Arkansas Community Foundation. John Taylor, our Board Chairman, did get support and blessing from Mrs. Baker before proceeding with this fund.

This fund, simply put, is "ready to go" and can immediately start receiving contributions from donors in the form of cash/check or transfer of funds. All donations are tax-deductible and made directly to the fund via the Foundation-- in no way will this money co-mingle with city funds, nor be any expense to the city of Fort Smith. While the fund is officially open, a \$10,000 balance is required before the invested funds will start producing a "spendable balance." We will be soliciting donations from the public to reach (and hopefully surpass) that amount; press releases will be going out soon to all local media outlets.

The FSACF Board will determine what projects will eventually receive grants from this endowment each year (it will be a year before dividends will be available). The two areas that the Board felt were most important to Mayor Baker were improving the **quality of life** in Fort Smith and **education**. For a list of current Board members, please see <http://www.arcf.org/LocalOffices/FortSmithArea/tabid/267/Default.aspx> You can also go to the home page (www.arcf.org) to learn more about how endowment funds are managed.

It is my hope that we will receive your endorsement of this fund at an upcoming BOD meeting in the form of a resolution. I understand that right now you all have a lot on your plate...but I hope we can squeeze this in. Probably too short notice for tonight, but in the coming weeks would be wonderful. All of us at the FSACF appreciate your support!

Best,
Susan Krafft

Susan Krafft, Executive Director
Fort Smith Area Community Foundation
5111 Rogers Avenue Room 502
Fort Smith, AR 72903
479-484-5150



Arkansas Community Foundation engages people, connects resources, and inspires solutions to build community.

 Find us on **Facebook** ARCF is on Facebook. [Visit our page here.](#)



Arkansas Community Foundation
Fort Smith Area

Fort Smith Area Community Foundation Profile – 2011

The Fort Smith Area Community Foundation (FSACF) is one of 27 affiliates of the Arkansas Community Foundation (ARCF) which was established in Little Rock in 1976. ARCF is Arkansas' only statewide community foundation and is exclusively for charitable, benevolent, scientific, religious and educational purposes for the people of Arkansas. ARCF administers 1,500 charitable funds from around the state; current assets are more than \$145 million dollars.

FSACF was established in 1988 and serves a three-fold mission:

1. To serve as a resource/contact in Sebastian County for philanthropic efforts.
2. To develop endowment funds from local individuals and organizations for local grant making
3. To help solve community problems and connect resources.

The FSACF was founded largely by the efforts of Mr. Carter Hunt, who at the time served on the state ARCF Board and recognized the need for representation in the Fort Smith area. After 10 years of existence in 1998, assets were just over \$850,000; *now the FSACF boasts over \$7 million in assets and 45 endowment funds.* Donor-advised funds, endowments, distribution funds all serve as vehicles to create a better community in Sebastian County through charitable giving.

While many worthy charitable organizations exist (such as service providers like Salvation Army or combined appeals like United Way), **community foundations fill a different niche by developing permanent endowment funds which can support charitable purposes in perpetuity.** Funds can be established to support a field of interest, such as education, or a designated entity such as a specific school, or to provide annual income to support the operation of a non-profit organization such as the Fort Smith Symphony. Donors may advise on fund distribution or let others make that decision. **Community foundation contributions receive the most favorable tax treatment available.**

Grants from most FSACF funds are determined by individual fund donors. The FSACF Board has discretion over several local endowments, including the Giving Tree Endowment.

Examples of organizations that have received grants since 1999:

South Sebastian County Historical Society
Greenwood Public Schools
Bass Reeves Initiative
FS Heritage Foundation/Clayton House
Reynolds Cancer Support House
Lincoln Child Care Center
Interfaith Preschool
Fountain of Youth Adult Day Care Center
First Serve Tennis Program for children
Fort Smith Little Theater
Community Dental Clinic
Community Services Clearinghouse

Good Samaritan Clinic
Children's Emergency Shelter
American Red Cross
The Gregory Kistler Treatment Center
Fort Smith Symphony
Western Arkansas Ballet
Integrity Ministries
Children's Services League
Habitat for Humanity
Retired and Senior Volunteer Program
River Valley Animal Welfare Coalition
U.S. Marshals Museum

Frequently Asked Questions:

What is a Community Foundation?

It is a non-profit public charity which manages endowment funds, makes grants to non-profits and helps solve community problems. There are more than 750 across the United States; the Arkansas Community Foundation is the only statewide foundation, established in 1976. The mission of ARCF is to engage people, connect resources, and inspire solutions to build community.

What does the Fort Smith Area Community Foundation do?

As one of 27 affiliates of the Arkansas Community Foundation, FSACF provides services in Sebastian County for donors and grantees. Through Giving Tree Grants and other endowment funds available, the FSACF is able to provide funding to non-profits so they can continue making our area a better place to live. Charitably-minded citizens can use an endowment or donor-advised fund as a vehicle to support their favorite organizations.

Where does the money come from?

Individuals, families, companies and non-profits establish endowments to support charitable causes and organizations. These range from a minimum of \$10,000 to more than \$1,000,000. Funds are pooled and invested so that dividends are available each year for charitable purposes. Arkansas Community Foundation now has assets exceeding \$145 million in 1,500 funds; this includes 45 funds with almost \$7 million in assets at FSACF.

Why an endowment fund?

ARCF preserves and protects your investments and charitable intentions forever. The unique power of endowments means that as your gifts grow, they continue to benefit your community now and into the future. The funds are pooled together for investment purposes, but are kept separate in the accounting system. By having a multi-million dollar investment pool, assets can be diversified to increase the return while decreasing the risk. The larger the financial resources, the better the quality of investment managers and lower the administrative cost.

Who can I contact with questions:

2011-2012 FSACF Board members:

John Taylor, Chair; David C. Craig, Vice Chair; David Armbruster, Darryl Cunningham, W.R. Bud Harper, Matthew Holland, Carter Hunt, Harold F. MacDowell, J. Randall McGinnis, Dorothy Rappeport, Craig Rivaldo, Sue Plattner-Smith, Judith Stillwell, Joan Van Vactor, Emma Watts. Advisory Board members: Rick Beauchamp, Brent McCord, Robert Y. (Bob) Cohen II, Carolyn Moore **Executive Director:** Susan Krafft (fortsmitharea@arcf.org)

You can also go to www.arcf.org for more information about grant opportunities, investment information, how to start an endowment, etc. You can also find us on Facebook!

The Board of the Fort Smith Area Community Foundation unanimously approved the creation of the Mayor C. Ray Baker Endowment Fund, to be established in his memory. Mayor Baker was a member of the FSACF Board when he passed away earlier this year.

Mayor Baker was a champion of Fort Smith where he served as Mayor for 20 years and also as an educator for 40+ years, teaching American History at Southside High School. The Board felt that establishing an endowment fund in Mayor Baker's memory was the best way to both honor his service and continue his legacy of making "Live worth living in Fort Smith Arkansas."

The Board members provided their approval by email: all were in favor and pledged their personal financial support. The executive committee of the Board met on Friday, August 26th to complete the New Fund Form. Board Chair John Taylor provided the first donation of \$500.00 to open the fund account.

The executive committee decided that each year the proceeds from this fund would be used for two purposes: 1. to fund projects that provide **educational opportunities** in Fort Smith 2. to fund projects that **improve the quality of life** in Fort Smith

Both of these areas were passions for Mayor Baker and tie into his firm belief that *live is worth living in Fort Smith.*



MEMORANDUM

TO: Sherry Gard, City Clerk
FROM: Wendy Beshears, Administrative Assistant
DATE: September 9, 2011
SUBJECT: Presentation

Presentation regarding the plan for softball fields at Chaffee Crossing will be presented at the study session on September 13, 2011.



September 8, 2011

TO: Members of the Board of Directors
Members of the Oak Cemetery Commission

RE: Appointments:

The terms of Ms. Phanita Williams, Mr. Gary Petersen and Ms. Barbara Coleman of the Oak Cemetery Commission will expire November 30, 2011. In accordance with Ordinance No. 2926 nominations for this prospective vacancy are now being received.

Please submit nominations to the city administrators office no later than the close of business on September 30, 2011. A list will be compiled for review by the Board of Directors. Applications are available on the City of Fort Smith website. Go to www.fortsmithar.gov and click on boards and commissions.

Sincerely,

A handwritten signature in blue ink that reads "Ray Gosack".

Ray Gosack
City Administrator

623 Garrison Avenue
P.O. Box 1908
Fort Smith, Arkansas 72902
(479) 785-2801
Administrative Offices FAX (479) 784-2430

AGENDA - *Summary*

FORT SMITH BOARD OF DIRECTORS STUDY SESSION

September 13, 2011 ~ 12:00 NOON

FORT SMITH PUBLIC LIBRARY COMMUNITY ROOM 3201 ROGERS AVENUE

1. Discuss amendment to the Municipal Code of Ordinances regarding residential lighting ~ *Requested at the June 28, 2011 study session ~ Ordinance placed on October 4, 2011 regular meeting agenda.*
2. Discuss funding for continued wet weather sanitary sewer improvements and water transmission facilities
The Board concurred to continue existing sales tax to fund both water and sewer improvements, with approval submitted to the voters via special election in spring 2012.
3. Review of the Mayor C. Ray Baker Endowment Fund created by the Fort Smith Area Community Foundation ~ *Requested at the September 6, 2011 regular meeting ~ Resolution placed on September 20, 2011 regular meeting agenda.*
4. Presentation regarding the plan for softball fields at Chaffee Crossing ~ *Requested at the September 6, 2011 regular meeting ~ Presentation only by Senator Jake Files. The Board concurred to continue discussion at the upcoming joint meeting with the Sebastian County Quorum Court at 6:00 p.m., September 13, 2011 at the Elm Grove Community Center.*
5. Review preliminary agenda for the September 20, 2011 regular meeting