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Memorandum

To: Mayor Danielowski and City Council

From: Clay Wilfahrt, City of Big Lake City Administrator

Date: December 14, 2016

Re: City Engineer Advertisement

Staff has been doing research on the potential to hire a City Engineer. We have done extensive data analysis, talked to other cities, and looked at different structures. For purposes of this conversation, we need to look at the data from the past and projections into the future, consider the current structure of staffing, and consider future staffing.

Financial analysis

For the data analysis, we considered a few things. First we examined two years of bills to determine the total cost of engineering, and what could have been handled in house. Our estimations were built using advice from a City Engineer from another community as to what could and could not be done by a staff Engineer. We determined that during 2014 and 2015, the City spent $489,672 on engineering fees. Of that $256,864 could have been handled by a staff Engineer.

The Cost to hire an engineer between base salary plus fringe and equipment and materials will cost almost $175,000 annually if the engineer is on the high end of the pay scale. Subtracting the 128,432 of annual work that would have been able to be done, the total additional cost to the City will be around $45,000 to $50,000. That is assuming that our engineering fees stay at 2014 and 2015 levels, which were the lowest they have been in the past 15 years. Staff expects fees to increase in the next few years with projects ramping up following the recession.

The City's engineering fees have been kept artificially low in the past few years due to a lack of infrastructure project being completed. During the recession, the Council cut capital funding in an effort to ease the tax burden to residents in a difficult financial time. The consequence of this was a lack of funding to complete infrastructure projects. Given that the City pays approximately 10% of infrastructure projects towards engineering, it is obvious why engineering spending dipped without such projects. Now that the City is again in stronger financial position, staff expects significant investment in

roads is likely to occur in the next decade to catch up on a decade without a single major street project. Anticipating that the budgeted amount we have for streets projects continues to be funded, we expect an average of $1.9million in annual projects for the next five years. This would mean an additional $190,000 in engineering fees annually.

On top of the streets spending, the City's Wastewater flow treatment system is nearing its capacity. Though the timeline for the project is not certain at this point, the City will need to do something within the next 5-7 years. The cost of the project is expected to be about $20million. A project of that magnitude will be spread out over 4-5 years, so there will be an additional $400,000-$500,000 in engineering for 4-5 years. Below is a table estimating the engineering spending for the next six years.

Projected Future Costs	2017	2018	2019	2020	2021	2022
Streets	$190,000	$190,000	$190,000	$190,000	$190,000	$190,000
WWTF Plant Project		$400,000	$400,000	$400,000	$400,000	$400,000
Annual Average	$244,835	$244,835	$244,835	$244,835	$244,835	$244,835
Annual Engineering Spending	**$434,835**	**$834,835**	**$834,835**	**$834,835**	**$834,835**	**$834,835**

To give some context to these figures, we looked at the last 15 years of spending in engineering. Below is a table representing the historic spending on engineering.

Average Engineering Spending Per Year		
Year		Spending
2002	$	569,808.61
2003	$	1,410,589.63
2004	$	1,551,711.67
2005	$	1,854,335.68
2006	$	1,740,046.49
2007	$	1,366,158.43
2008	$	1,291,330.74
2009	$	1,202,737.90
2010	$	1,128,517.78
2011	$	811,182.95
2012	$	554,765.15
2013	$	270,927.87
2014	$	243,452.89
2015	$	260,803.32
2016(projected)	$	308,415.96
Average Year	**$**	**970,985.67**

The $834,835 we are expecting in five of the next six years is pretty close to the average annual spending over the past fifteen years. Undoubtedly a $600,000 increase in engineering due to infrastructure projects will lead to additional work for the City's staff engineer. Even if only 10% of the additional work is able to be completed by the staff engineer, the City would be in a position where there was a financial benefit to the City to make this switch. As an additional measure of cost/benefit, staff discussed hiring engineers with other communities. The general rule of thumb is that at an average annual expenditure of $500,000 on engineering, it makes financial sense to staff engineering in house. Given the expected future spending, and the past 15 years of data, staff believes that the City will spend on average beyond $500,000.

Using current spending, historic spending, and expected future spending, staff believes that the financial aspect of hiring an engineer is justified, and will continue to be sustainable into the future. This is further justified if we look at how different structures of a Public Works Department can look in the present and the future.

Structural Options

Staff has researched what options can look like for a Public Works Department with the addition of a City Engineer. There are four Major structures that are adopted by cities that we will discuss for the engineer position.

City Engineer - The first option is to have the Engineer be titled a City Engineer and work on only engineering duties. This is the most common format for cities over 20,000 people. The advantage is obviously that the Engineer then dedicates all of their time to Engineering and have adequate time to devote to it. In cities with large engineering budgets, this is necessary since there is a lot of work to do in house for engineering. This position often pays well enough to attract experienced engineers who will be able to give good guidance to the City with little or no assistance. It creates a strong City Engineering staff.

The downside to this, particularly for smaller communities is that there often is a gap in funding between have a standalone engineer and consulting everything. Additionally, smaller communities may not have enough work to justify a dedicated engineer. This structure is not extremely common for smaller communities. Staff reviewed 16 communities that have populations under 15,000 and how they structure their Engineering and Public Works Departments. Of the 16, three use this model.

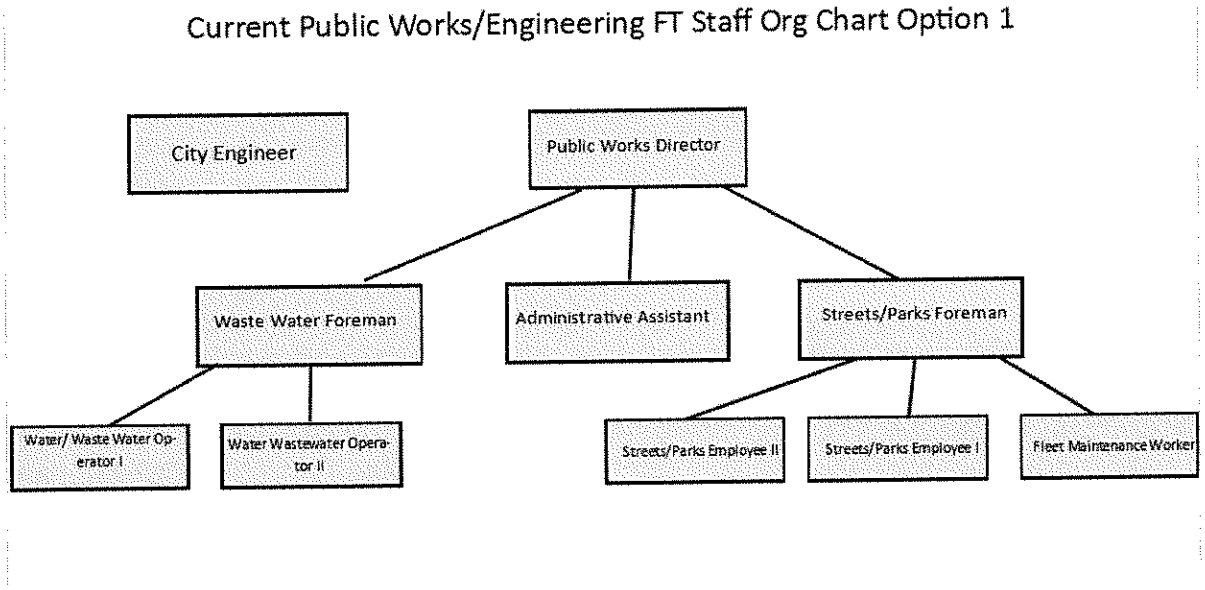
City Engineer/Public Works Director – Many cities choose to have their Public Works Director serve a dual role as Public Works Director and City Engineer. The philosophy is that the two roles are intertwined and deal largely in infrastructure management. There is a cost advantage to combining the two positions as well. Additionally in cities on the fringe of being able to justify an engineer, the position fills up a work schedule with additional responsibilities. This is the most common structure for cities with a population under 15,000 with 11 of the 16 communities surveyed using this form.

The detriment to this form is it can be overly burdensome to the individual in the position if there is not an adequate support structure around them. Being expected to fully manage Public Works and Engineering is not reasonable, so if this option were chosen, it would require filling in of some additional staff to help with Public Works operations.

City Engineer/Asst. Public Works Director – Only a few cities use this option where the Engineer actually reports to the Public Works Director. One of the 16 cities surveyed used this option. The benefit is a reduced cost due to a lower salary. It also creates a succession plan to the Public Works Director. The lower salary will be a deterrent to some applicants, however. The position also spends significantly less time on Engineering than either of the other options listed.

Graduate Engineer/Project engineer – The remaining three cities listed used some form of project or graduate engineer. This structure relies more heavily on a consultant engineer with an inexperienced engineer doing some project work for the City. It doesn't fit the scope of a full-fledged City Engineer that the Council has discussed. Nonetheless, this is the structure used by neighboring Monticello, which is why staff thought it important to bring up.

Of the options listed, staff believes that the option of moving towards a Public Works Director/City Engineer is the best fit for the City. However, we already have a Public Works Director who has been with the City for a long time and has a wealth of knowledge about the Public Works system. Because of that, staff recommends hiring the person as a City Engineer, but giving them some Public Works administrative duties. They would report directly to the City Administrator, and focus mostly on engineering, but 20-30% of their work would be Public Works administrative duties. The org Chart for the Public Works and Engineering would look like this:



Those would be an additional cost to the City as mentioned in the financial analysis. Under this structure, the City would pay a total of $1.465 million on staff annually for

Public Works and engineering. The intention would be in the future to shift this organization to be a Public Works Director/City Engineer. Since the Public Works Director/Engineer would need additional administrative help, there are a couple of options of what a new organizational chart would look like. The Council does not need to make that decision at this time, but adding additional staff to compensate for managerial and administrative duties can be accomplished for anywhere from a savings of $25,000 annually to a cost of $50,000 annually.

In Conclusion, staff would like the Council's direction to move with hiring a City Engineer. The plan will be to have them be a dedicated Engineer to begin with while working on a few administrative duties. They will be paid at Grade 20, or the same at the Police Chief. Attached is a job Description and position announcement for the position.

By approving this item on the Consent Agenda, Council would be approving the City Engineer Job Description and Authorizing Staff to Advertise for the Position.

City of Big Lake Employment Ad

Job Title: City Engineer

Contact: Clay Wilfahrt, City Administrator
Phone Number: 763.263-2107
Fax Number: 763.263-0133
E-mail: clay.wilfahrt@ci.big-lake.mn.us

Ad for Employment:

The City of Big Lake is now accepting applications for one (1) City Engineer opening. Starting Salary per Month: $7,345.82 – 9,305.47 DOQ. Minimum requirements are as follows: Bachelor's Degree in civil engineering or similar field and two years' experience in municipal engineering, public works operations, and budgeting, or equivalent combination of education and experience sufficient to successfully perform the duties listed above. Must possess Professional Civil Engineer license.

Application packets are available at Big Lake City Hall, 160 Lake Street N., Big Lake, MN 55309 or online at www.biglakemn.org under City Job Postings EEOC. Deadline for applications is January 16, 2017 at 4:00pm.

TITLE: City Engineer
DEPARTMENT: Engineering
ACCOUNTABLE TO: City Administrator
JOB STATUS: Full Time/Exempt

JOB OBJECTIVES

This position is in charge of planning, budgeting, design, development and maintenance of the City's infrastructure. The position is also responsible for assisting the Public Works department with various administrative duties.

QUALIFICATION REQUIREMENTS

To perform this job successfully, an individual must be able to perform each essential function satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

ESSENTIAL JOB FUNCTIONS

a. Oversee and direct the planning, budgeting, design, inspection and construction of the city's infrastructure/public improvements/facilities.
b. Oversee issuance of licenses and permits related to engineering by interpreting city policy and ordinance and establishing the type of licenses needed and relevant fees.
c. Liaison to City Council, Planning Commission, EDA, Park Commission and other local government entities regarding engineering and municipal service functions, attend city council meetings, responsible for the preparation of agenda items, meeting/workshop presentations, conduct public hearings, and resolve issues forwarded by council.
d. Member of the city's management team which involves discussions, problem solving, decision making and actions regarding personnel, policies, customer service and a variety of city issues that range across all departments.
e. Oversees the preparation of the engineering budget, prepare reports related to the department and advises the City Administrator of issues affecting the department and/or division.
f. Prepares and assembles reports, long-range capital improvement programs, publications and articles for city newsletter and website.
g. Represents the city in interactions with multiple county, state and federal agencies including MNDOT, DNR, and MPCA.
h. Assist in the application and submission of grants and other funding opportunities to further the city's Public Works.
i. Assist Public Works Director with other administrative duties as necessary.
j. Work effectively with other departments/consultants: Administration, Finance, Public Works, and Community Development and external partners.
k. Assist and conduct research for all city departments as needed.
l. Other duties as assigned.

MINIMUM REQUIREMENTS

Bachelor's degree in civil engineering, 2 years' experience in municipal engineering, public works operations, and budgeting; or, an equivalent combination of education and experience sufficient to successfully perform the duties listed above. Must possess Professional Civil Engineer license.

KNOWLEDGE, SKILLS AND ABILITIES

a. Knowledge of engineering design and construction.
b. Excellent written and oral communication skills.
c. Ability to work effectively in a team environment.
d. Ability to establish and maintain effective working relationships with elected officials, City employees and the public.
e. Knowledge of computer applications including database, spreadsheets and word processing.
f. Skill in the use of computers.

PHYSICAL REQUIREMENTS

This work requires the occasional exertion of up to 10 pounds of force; work regularly requires sitting, speaking or hearing, using hands to finger, handle or feel and repetitive motions, frequently requires reaching with hands and arms and occasionally requires standing, walking, pushing or pulling and lifting; work has standard vision requirements; vocal communication is required for expressing or exchanging ideas by means of the spoken word and conveying detailed or important instructions to others accurately, loudly or quickly; hearing is required to perceive information at normal spoken word levels and to receive detailed information through oral communications and/or to make fine distinctions in sound; work requires preparing and analyzing written or computer data, operating machines and observing general surroundings and activities; work has no exposure to environmental conditions; work is generally in a quiet location (e.g. library, private offices).

SPECIAL REQUIREMENTS

Valid Class D driver's license.

REVIEWED BY:

_____	_____
Employee	Date
_____	_____
Supervisor	Date