

VILLAGE OF DOWNERS GROVE
Report for the Village Council Meeting
1/19/2016

SUBJECT:	SUBMITTED BY:
Facilities Plan Update	Michael Baker Deputy Village Manager

SYNOPSIS

Discussion is requested regarding the development of strategies and options for the Village's Top Priority Action Item *Create a Facilities Sustainability Plan*.

STRATEGIC PLAN ALIGNMENT

The Strategic Goals established by the Village Council include *Steward of Financial, Environmental and Neighborhood Sustainability* and *Exceptional Municipal Services*. *Create a Facilities Sustainability Plan* is a Top Priority Action Item.

FISCAL IMPACT

N/A

RECOMMENDATION

N/A

BACKGROUND

Between September 2015 and August 2016, the Village will create a facility sustainability plan focusing on the Police Station and Village Hall. The plan will identify improvements that should be made and how to pay for them.

At the meeting of October 20, 2015, the Village Council determined that the following existing financial resources could be considered to support this project. These funding sources have established the total project budget of \$16 million.

Equity: Asset Forfeiture Fund Balance - \$1.5 million in FY2016 plus future revenues

Bond Issuance of approximately \$14.5 million - supported by an annual revenue stream that includes the following revenue sources, which total \$1.1 million/year:

- Property Tax Levy for Library Improvements Bond Debt Service \$600,000/yr
- Local Gasoline Tax for Fairview Ave Improvements Bond Debt Service \$200,000/yr
- Revenues Historically Used for Sidewalk Construction \$300,000/yr

On December 1, following the competitive request-for-proposal (RFP) process, the Village Council approved a preliminary design services contract with Williams Architects to assist the Village in developing

options for Council consideration. Work with Williams Architects has begun and the following has been completed:

Conducted on-site building system observation and reviewed existing condition reports

The results of this review are summarized in the attached report from Williams Architects and W-T Engineering. The architects and engineers confirmed the need to replace existing systems including HVAC, lighting, plumbing and electrical in both facilities as part of this project. The review also determined that the Police Station structure is solid and can be effectively reused, while the Village Hall building requires additional work, though portions of it can be economically reused. A representative from Williams Architects will be in attendance at the meeting on January 19 to discuss this review in further detail.

Developed Preliminary Space Programming Information

The attached summary indicates how the preliminary space programming information developed by Williams Architects compares to the current use of both of the facilities. The proposed figures are still in the process of being refined in conjunction with Village staff.

The Police Station recommended range based on the preliminary work completed is 38,060-47,090 square feet (SF). The facility currently provides 26,700 SF of space. The Village Hall recommended range based on preliminary work completed is 16,500-21,300 SF, which represents the space required for active administrative and operational activities that occur within the building. The current Village Hall facility has a total size of 49,500 SF, and of that amount, approximately 30,200 SF supports active administrative and operational uses. The balance of the space (approximately 17,300 SF) contains equipment, evidence and archived document storage, hallways, open areas and a garage space. The proposed space program figures focus on the requirements for active uses within Village Hall and assumes that remaining space will be used for building support and storage functions.

Challenges and Strategies

Comprehensively addressing the facility maintenance and operational needs of the Police Station and Village Hall includes several challenges given the established budgetary parameters. It will be difficult to address all of the needs of these deficient buildings within a \$16 million total project budget. In addition, due to the system replacement requirements of both facilities, there will be substantial costs incurred before beginning to address operational needs. Finally, building and accessibility codes must be complied with and will dictate the manner in which certain options are developed and evaluated. As options are presented, staff and Williams Architects will describe the extent to which desired outcomes (in the form of a detailed list of maintenance and operational needs for both facilities) are able to be met.

The following strategies have been identified to overcome these challenges and achieve as many of the desired outcomes as possible:

- Apply concepts and approaches described in the Long Range Plan document (attachment)
- Minimize the amount of space to be remodeled and maximize reuse of existing space
- Treat both buildings as organizational resources and identify common solutions
- Create shared-use spaces and avoid large, infrequently used spaces
- Understand and consider solutions consistent with the original design and function of the buildings

Preliminary Design Options

The following options have been identified based on the preliminary work completed to date. At the meeting, staff will be seeking Council input on these options to be explored. The options, which are listed below, expand in scope and cost from one to three.

1. Replace systems only - This option involves replacement/upgrade of the systems within both buildings, including HVAC, plumbing, lighting, electrical and certain structural components, such as windows and roofing.
2. Replace systems and significantly remodel one or both buildings - This option would involve all of the work described in option 1, along with additional renovation to spaces within the existing buildings to improve the highest priority and feasible operational needs.
3. Replace systems, significantly remodel one or both buildings, and construct an addition to the Police Station - This option, in addition to #2 above, would consider a possible addition to the Police Station to relieve the space needs deficiencies within that building.

Proposed Process and Timeline

To develop a Facility Sustainability Plan that will guide decision-making for many years to come, the following process was developed and is currently being implemented. It includes at least monthly public meetings that began in September 2015.

Proposed Process and Timeline

September 2015	October 2015	January-June 2016	July-August 2016
1. Issue >>>	2. Resources >>>	3. Options >>>	4. Plan
<p>1. Define the Issue - The facility issues faced by the Village have been defined.</p> <p>2. Identify Available Resources - Available and potential resources that could be allocated to fund or enable any of the improvements have been identified.</p> <p>3. Create and Consider a Range of Options - During this stage of the process, a range of options will be considered and evaluated, from maintaining the existing facilities to new construction/addition.</p> <p>4. Develop the Plan - The plan will be developed in preparation for the 2017 budget. It will include specific information about which improvements to undertake, where those improvements will occur and how they will be paid for.</p>			

Public Participation

It is important that this process actively engages the community and provides many opportunities for participation. Opportunities for participation include:

- **Attend Public Meetings** - Meeting dates, times and locations will be publicized on the Village webpage and through the Village's Facebook page and Twitter feed.
- **Email the Village** at dgfacilities@downers.us
- **Watch meetings live** on YouTube and Channel 6
- **Look for other opportunities to participate**, such as Town Hall Meetings, Coffee with the Council events, etc. all of which will be publicized in advance.

ATTACHMENTS

W-T Engineering Report
 Space Programming Information Comparison
 Long Range Plan Section on Facilities Plan

W-T MECHANICAL / ELECTRICAL ENGINEERING, LLC

MECHANICAL AND ELECTRICAL ENGINEERS
2675 Pratum Avenue, Hoffman Estates, IL 60192
(224) 293-6333 Fax: (224) 293-6444
www.wtengineering.com

January 07, 2016

Williams Architects
500 Park Blvd, Suite 800
Itasca, IL 60143

Attn: Mr. Scott Lange

**Re: Downers Grove Village Hall and Police Existing Conditions Report -
Mechanical, Electrical, Plumbing and Fire Protection Systems**

Scott,

The following is our report of the existing conditions at the above mentioned facilities. The report is based on our survey of both buildings and review of previous reports.

Mechanical

Village Hall

The building is served by a mixture of heating and cooling equipment. Most of the heating and cooling is done by air handling units (AHUs). These units have hot water heating coils and refrigerant cooling coils. The associated condensing units are located on the roof. The remainder of heating and cooling equipment is hot water unit heaters, hot water fin tube radiation, thru the wall air conditioning (AC) units, fan coil units and packaged rooftop units.

Hot water is provided by two (2) steam boilers located in a separate boiler building. The steam is supplied to heat exchanger which heat the water. The boiler building contains the hot water circulation pumps. The pumps serve both the Village Hall and Police. The boilers appear to be over 60 years old and are past their useful lives.

The Garage has hot water unit heaters. Rooms adjacent to the garage such as storage and fitness room also have hot water unit heaters. These rooms also have thru the wall ac units for cooling. The unit heaters are in poor condition and are well past their useful lives. Some of the ac units appear to be newer and in good condition, however most appear to be older.

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A three (3) zone air handling unit (AHU) serves the council chamber, Ante-Room and committee Room. The Lobby, Finance and Open Office are served by one AHU and has poor temperature control. The perimeter offices are all served by one AHU. Another AHU serves the interior offices. The TV Studio has a dedicated AHU. The Workshop has hot water unit heaters, no cooling. Many of the AHUs have humidifiers, however per the building staff they are no longer in use.

The second floor Computer Room is served by an AHU and a supplementary stand-alone fan coil unit (FCU). The FCU is cooling only with the associated condensing unit on the roof. The Community Events room is served by a dedicated rooftop unit with gas heat and dx cooling. The remainder of the second floor is served by an AHU located in the attic space.

All controls are pneumatic. Per the building staff, the pneumatic controls are not operating properly and causing poor temperature control. There appeared to be some ACM in the piping insulation at the elbows.

Based on this recent field visit, I agree with the findings of the previous existing conditions reports. Most of the HVAC equipment is well beyond its useful life and should be replaced.

Police Department.

The police department is served by a mixture of packaged rooftop units, air handling units, air conditioning units, hot water unit heaters and hot water fintube. The hot water is supplied from the Village Hall building via underground piping. Chilled water is supplied to the building by a grade mounted air cooled chiller. The associated pumps are located in the lower level mechanical room.

The Firing Range is served by an air handling unit and dedicated exhaust fan with hepa filtration.

Most of the upper level is served by a variable volume air handling unit with zone boxes and hot water coils. The General Office and VOC are served by packaged rooftop units with gas heat and dx cooling. The VOC has supplemental air conditioning units at the ceiling with the associated condensing units on the roof. The VOC Server Room is served by an ac unit with associated condensing unit on the roof. The rooftop units and ac units are relatively new and in good condition.

The Fleet Parking Garage and Sally Port have hot water unit heaters. The unit heaters are in poor condition and are well past their useful lives.

All controls are pneumatic. Per the building staff, the pneumatic controls are not operating properly and causing poor temperature control. There appeared to be some ACM in the piping insulation at the elbows.

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Based on this recent field visit, I agree with the findings of the previous existing conditions reports. Much of the HVAC equipment is approximately 35 years old well beyond its useful life and should be replaced. The VOS rooftop units and ac units are less than 10 years old and should have another 5 to 8 years of useful life.

Plumbing

Village Hall

Potable water is distributed throughout the building via galvanized pipe. The galvanized piping is old and should be replaced in order to prevent future leaks and maintenance costs. There is no backflow prevention device on the domestic water service. Plumbing code requires a backflow device and one should be added to bring the building up to code. The sanitary and storm system is cast iron. Although this system is currently in working order, it is aged and should be replaced to prevent leaks and drainage issues.

The plumbing fixtures vary between new and old fixtures. The majority of the fixtures are considered past their service life and should be replaced.

This facility's domestic water system is heated using electric water heaters. The electric heaters are near the end of their life expectancy and should be replaced.

Police Department.

Potable water is distributed throughout the building via copper piping. The system is currently in working order but is aged and should be replaced soon to prevent maintenance issues. There is no backflow prevention device on the domestic water service. Plumbing code requires a backflow device and one should be added to bring the building up to code. The sanitary and storm piping is cast iron and is in working condition. It was brought to WT Engineering's attention that there are drainage issues in the lower level that may be due to a pitch problem. It is recommended that the sewer line be televised to identify any potential low spots. If a new system were installed at 1% slope per code, this issue would likely be resolved.

The plumbing fixtures appear to be in working order but it is recommended that they be replaced.

This facility's domestic water system is heated using a 75 gallon natural gas water heater. The heater was installed in 2010 and is in good working condition. The heater should be replaced in the next 5 to 10 years.

In summary, after surveying both facilities, WT Engineering agrees with the previous report from 2012.

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Fire Protection

Village Hall

The facility is protected by a wet-pipe fire suppression system. Over time, scale can accumulate inside the head which could cause the head to malfunction when it is in use. The sprinkler heads should be tested per NFPA recommendations. If the test areas do not pass, all of the aging heads should be replaced.

5.3.1.1.1 Where sprinklers have been in service for 50 years, they shall be replaced or representative samples from one or more sample areas shall be tested. Test procedures shall be repeated at 10-year intervals.

5.3.1.1.1.1 Sprinklers manufactured prior to 1920 shall be replaced.

5.3.1.1.1.2 Sprinklers manufactured using fast-response elements that have been in service for 20 years shall be tested. They shall be retested at 10-year intervals.

5.3.1.1.1.3* Representative samples of solder-type sprinklers with a temperature classification of extra high 163°C (325°F) or greater that are exposed to semicontinuous to continuous maximum allowable ambient temperature conditions shall be tested at 5-year intervals.

5.3.1.1.1.4 Where sprinklers have been in service for 75 years, they shall be replaced or representative samples from one or more sample areas shall be submitted to a recognized testing laboratory acceptable to the authority having jurisdiction for field service testing. Test procedures shall be repeated at 5-year intervals.

Police Department.

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5.3.1.1.1.3* Representative samples of solder-type sprinklers with a temperature

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Mechanical, Electrical, Plumbing and Fire Protection Systems
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Electrical

Village Hall

The facility does not meet the 2012 IECC energy code for lighting controls and there are many lighting fixtures utilizing T-12 lamps.

There are many areas in the building that lack Fire Alarm system audio/visual or visual alarm devices.

Our recommendation for interior lighting replacement would be to utilize either fluorescent lighting fixtures with linear T-5 or T-8 lamps or lighting fixtures utilizing linear LED lamps. Incandescent lighting should be replaced with lighting fixtures utilizing LED lamps.

Our recommendation for exterior building mounted and site lighting would be to utilize lighting fixtures with LED lamps.

Based on this recent field visit, I agree with the findings of the previous existing conditions reports and additional comments stated.

Police Department.

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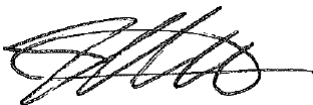
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Our recommendation for exterior building mounted and site lighting would be to utilize lighting fixtures with LED lamps.

Based on this recent field visit, I agree with the findings of the previous existing conditions reports and additional comments stated.

Respectfully Submitted,

W – T MECHANICAL / ELECTRICAL ENGINEERING, LLC

A handwritten signature in black ink, appearing to read 'M. Ventrelli', with a long horizontal flourish extending to the right.

**Mark Ventrelli, P.E.
Vice President**

Current/Preliminary Proposed Space Programming				01-15-16
Findings: 1. Space needs requirements vary from current use by function/department, in some cases substantially				
2. All functions in the Police Station have a space program that is recommended to increase				
3. All but one department in Village Hall has a space program that is recommended to decrease				
Police Station	Current*	Preliminary Proposed Range**		% Increase (Current/Range Midpoint)
Admin/Records	2,550	2,650	3,380	18.2%
Gun Range	2,400	3,010	3,180	29.0%
Detention	2,160	2,860	3,030	36.3%
Dispatch Center	1,664	2,040	2,640	40.6%
Public/Training	1,637	5,280	6,520	260.4%
Patrol	1,390	2,940	3,740	140.3%
Investigations	1,155	2,660	3,380	161.5%
Evidence	1,119	2,430	3,230	152.9%
Police Support	6,438	11,380	14,410	100.3%
Building Support	650	2,810	3,580	391.5%
Private Entry/Hallways/Mechanicals	5,009			
Community Services	528			
Total	26,700	38,060	47,090	59.5%
Village Hall	Current*	Preliminary Proposed Range**		% Increase (Current/Range Midpoint)
Active Administrative/Operational Uses				
Community Development	7,103	3,200	4,000	-49.3%
Lobby/Common Area/Meeting Spaces	6,005	3,400	4,800	-31.7%
Administrative Departments	5,541	2,400	3,000	-51.3%
Communications	3,118	1,300	1,600	-53.5%
Finance	2,737	1,600	2,100	-32.4%
Business Technology	2,551	2,400	3,000	5.8%
Building Services	1,296	600	700	-49.8%
Village Hall Support	1,859	1,500	2,000	-5.9%
Building Support	NA	100	100	NA
Subtotal	30,210	16,500	21,300	-37.4%
Other Uses				
Garage/Shop	4,920			
Archival & Equipment Storage	4,696			
Police Storage	2,037			
Dispatch/Radio Room	450			
Hallways/Open Areas/Mechanical	7,229			
Total	49,542			

* Based on 2007 Facility Needs Assessment Study with modifications to approximate current use

** As determined by Williams Architects based on project parameters and strategies, will require further refinemen

Preparing for Improvements to the Police Station and Village Hall

The Below Average condition of the Police Station and Village Hall require major renovations to both facilities. The Village will examine a range of options to address this issue ranging from renovating the buildings to constructing new buildings. All options will be examined with the following key concepts in mind:

Efficient Use of Facilities

Facilities should be treated as capital assets that must be used efficiently, maximizing the use of each space within each facility.

Consider How Modern Workers Work

Staff members use technology extensively. Access to computers and phones is no longer tied to a specific place or office. Many workers are or can be mobile. Because of our collaborative environment, much of our work is performed in groups while working in common areas or conference rooms.

Create Flexible Work Spaces

Spaces within each facility should be flexible so that they can be used by multiple people for a variety of uses and functions during many times of the work day.

Build Only What is Needed

Facilities should be right-sized such that the Village builds only what is necessary to achieve the stated goals. This means that traditional approaches to space planning and programming based on a staff member's position in the organizational chart should

be re-examined. Spaces should be built, sized and designed based on the functions that will be performed by the staff members and customers using the space. Existing community resources such as existing Village facilities and other public facilities should be considered prior to constructing new facilities. The existing facilities should be used as efficiently as possible in an effort to minimize the facilities that may be constructed or remodeled.

Seek Partnerships

Many of the governments that serve the residents of Downers Grove are facing the same or similar challenges of owning and maintaining facilities. Partnering with other governments and agencies should be encouraged in an effort to reduce the overall costs of owning and maintaining public facilities. The Village should consider all fiscally responsible financing methods and pursue public-private partnerships if the partnership represents a long-term value to the community.

