



WEST DES MOINES WATER WORKS BOARD OF TRUSTEES MEETING COMMUNICATION

ITEM:

5. Recommendation from Committee
 - a. Planning and Regionalization
 2. Discussion

DATE: August 20, 2018

-Summary of Shive Hattery Scope
Refinement Discussions and Conclusions

FINANCIAL IMPACT:

N/A

SUMMARY:

Included for discussion by the Board of Trustees is a Summary of Scope Refinement Discussions and Conclusions from Shive Hattery and an internal spreadsheet detailing the estimated long term cost of maintaining separate administrative and plant offices.

The analysis from Shive Hattery describes drawbacks in additional cost and uncertainty in future code requirements if future vertical expansion is planned. The preliminary layout was also modified to eliminate the drive-up service window to create a less confusing traffic pattern. In conversations with the architect, the estimated costs presented at the July Board meeting remain the same.

The spreadsheet provides anticipated cost savings over a 50-year period with all Water Works staff located at the AC Ward property. Cost savings were calculated based on labor costs, travel time, mileage and vehicle costs from the current City Hall location, and an alternative office site under consideration.

BACKGROUND:

The informational items included with this memo were requested by the Board of Trustees for necessary analysis and selection of the best available alternative for the future WDMWW Administrative Office location.

RECOMMENDED ACTION BY THE BOARD OF TRUSTEES:

The Board discuss the Summary of Shive Hattery Scope Refinement Discussions and Conclusions and spreadsheet of anticipated cost savings.

Prepared by: 

Approved for Content by: 

West Des Moines Water Works Administration Building

Summary of Scope Refinement Discussions and Conclusions

Working with West Des Moines Water Works staff, Shive-Hattery has evaluated various design options for the proposed Administration Building to be located at the A. C. Ward Municipal Water Treatment Plant. Part of this evaluation included setting up a Pre-App review with the City of West Des Moines and preparing for the topographical survey of the site including underground utilities locations.

During this time the staff of the Water Works Department asked several questions about possible future expansion. They wanted to know how various options might influence design and flexibility of the space, increase the initial costs, and how the future expansion activities would impact the work environment. The primary expansion options that were considered included:

1. Designing the building to support a future vertical expansion
2. Building a two-story facility with shell space on the second floor
3. Planning for the office to take over the garage in the current building and construct a future garage elsewhere on site

Designing any structure for a future vertical expansion is not technically difficult as long as the expected future use is known and not likely to change. In our conversations the future use was identified as storage and or office space. This knowledge is used by the engineering staff to determine factors for estimating various structural and mechanical system loads. During the design process, these future loads are incorporated when sizing various system components (columns, beams, water service, etc.). In this situation, the addition of a second floor would change the roof structure from what was included in the original feasibility study. With a single story building, the roof structure can span the full width of the building leaving the interior free of columns. This promotes flexibility of use and reorganization of space in the future. Planning for a second floor, either shelled space or future addition, would increase the weight requirements such that at least one row of columns would be required to support the floor structure. In the case of a future vertical expansion, the insulation of the roof would be built up to achieve the slope required for proper rain water control which carries a higher construction cost than consistent insulation on a sloped structure.

Having a second floor in any building also triggers vertical circulation systems that are costly and take up valuable floor area. In buildings with large footprints, 20,000 square feet or more, the ratio of floor space dedicated to elevators and stairs is not noticeable. The planned office structure here is small enough that the required space would impact either the available space or add considerable footprint to the building. By law, a new two-story building where the second floor is office or storage (or anything except mechanical equipment) would require a minimum of two stairwells and an elevator. Even if a second floor built today was labeled as “shell” space and planned to be unoccupied, the stairs and elevators would have to be installed at this time.



The impact on daily operations of a facility for the construction of a vertical expansion can be quite disruptive. The construction process requires the removal of thermal and water barriers so the new construction can be tied into the existing systems which creates risk of damage to property. While the contractor carries insurance that can compensate for material loss, the disruption to the services offered by the people working in the building can be difficult to recover. While rooms can be designed to be converted to elevators or stairwells in the future, the process of converting those spaces will be extremely intrusive to the people trying to work in the building.

The third option discussed was to build a new garage in the future adjacent to the current dewatering facility and expand the office into the proposed garage area. This would allow the office space to add nearly half of its current planned floor area. This option removes the requirement for consideration of vertical circulation. It also allows for the open office area design to have the preferred clear span structure and more cost effective sloped roof system.

The program as outlined in the feasibility study includes possible expansion of the current administrative staff housed at West Des Moines City Hall by five employees. This number was based on conversations with the Water Works staff and what growth they foresaw over the next 20 years. They felt the majority of staffing needs would be at the technician levels where the employees do not spend much time in the office or require large work stations.

Both of the options that would allow for second floor space would add cost to the current project. To build a single story building with allowances for future expansion would increase the expected first construction costs by between 20% and 25%. While this is an investment in a potential future, there is considerable uncertainty with what technologies would be in use or how changes in life safety codes might impact the ability to make use of the work included in the facility today. Building a second story today removes the risk, but increases both construction and operational costs. Though the space would not be regularly occupied, it would have to be heated and cooled. The increase in construction costs to build a second story in the initial construction would be between 60% and 75%. While considerations for the potential conversion of the garage space to office area in the future might slightly change the design, they would not be of a magnitude that would impact costs.

Additional discussions occurred to refine the scope of the design. While evaluating the work required to create a functional drive-up service window, it was agreed that a vehicle accessible drop box would reduce construction costs and help with traffic flow on the site. There was a discussion about keeping the existing storage garage and reducing the overall area of the building. While this might reduce the construction costs, it was felt that having multiple smaller buildings across the Railroad Avenue side of the property would create a less desirable "hodge-podge" appearance for the facility as a whole. It would also limit the option to use the garage space for future office expansion. There were conversations about whether it would be possible to maintain the current bulk water fill pylon location. This is something we can evaluate further during the actual design process, but one concern is the existing water supply to the pylon would interfere with the building foundations in its current proposed location.

Feedback provided by other city departments during the pre-application meeting was limited. Concerns about the traffic flow and parking layout were voiced. Both concerns would be incorporated into the final design. Other statements included required landscaping on the site. Shive-Hattery has not yet received the official review letter.

With this information, the Water Works management staff feels the responsible proposal is to proceed with removal of the current storage garage and construction of a single story facility as presented in the feasibility study. Any required growth in the future can be achieved by building a new garage facility and expanding the office into the garage area programmed into this building.

Attachments:

Preliminary Concept perspective as included in Feasibility Study dated July 6, 2017.

Preliminary Concept perspective showing two-story option.

Revised site plan showing modified drive lanes and a payment drop box in parking area.



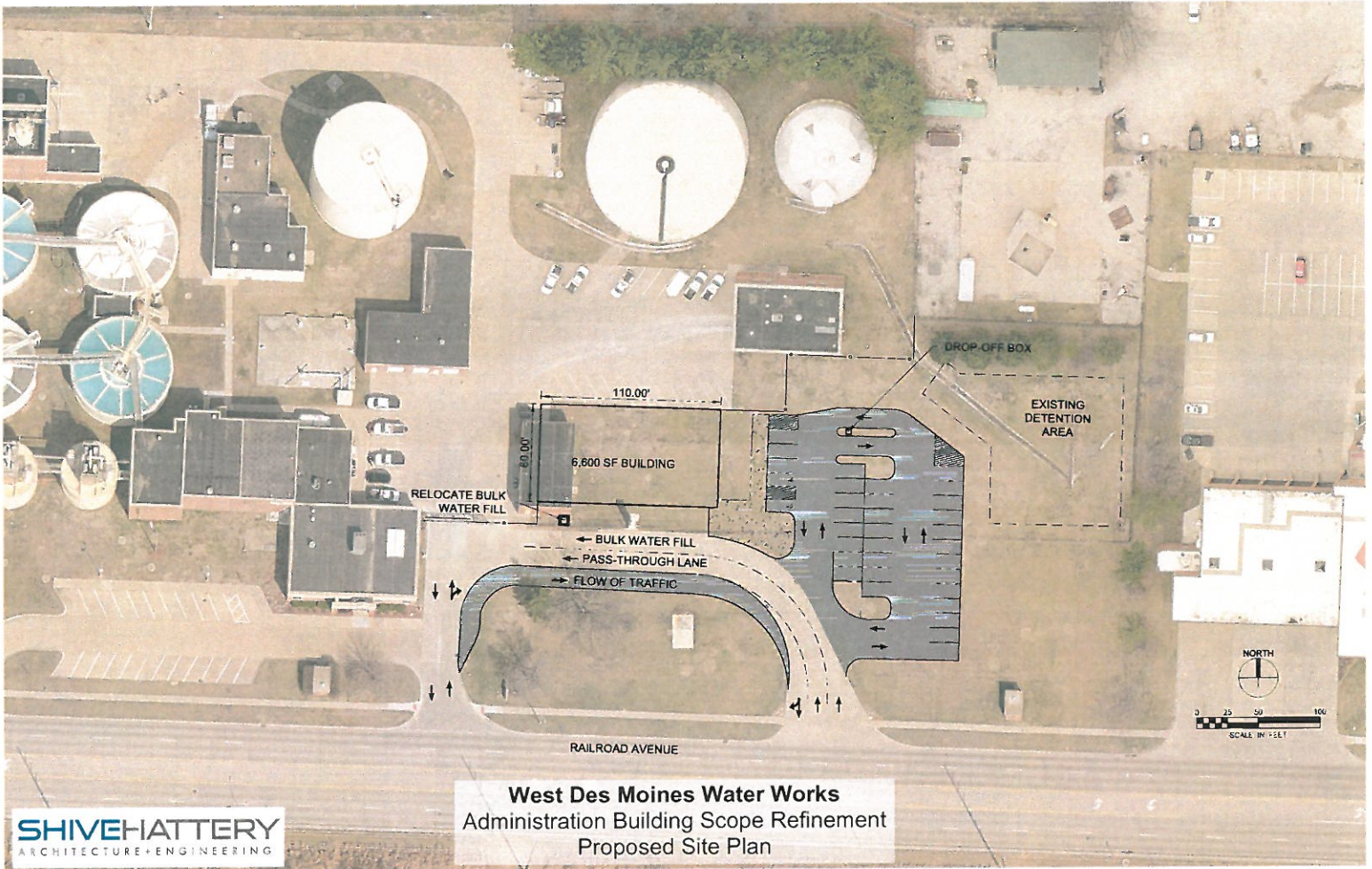
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West Des Moines Water Works
Administration Building Feasibility Study
Preliminary Concept



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West Des Moines Water Works
Administration Building Scope Refinement
Preliminary Concept - Two Story Concept



West Des Moines Water Works

Administration Building Feasibility Study

Estimate of Probable Cost

Project #: 418384-0

ITEM		COST
Demolition		\$250,000
Architectural Improvements		\$1,240,000
Civil/Site Improvements		\$400,000
Subtotal		\$1,890,000
Design Contingency	20%	\$378,000
Construction General Conditions	10%	\$227,000
TOTAL CONSTRUCTION COSTS		\$2,495,000

Other Project Costs		
Design Fees (New Construction)	8%	\$200,000
Geotechnical Testing (Soil Borings)		\$5,000
Special Inspections During Construction		\$5,000
Insurance and Bonds	5%	\$125,000
Furniture, Fixtures, and Equipment	5%	\$125,000
Contract Review Legal Fees		\$1,000
Signage Allowance		\$5,000
Hazardous Materials Testing (Placeholder)		\$5,000
TOTAL OTHER COSTS		\$471,000

TOTAL PROBABLE PROJECT COSTS **\$2,966,000**

DISCLAIMER ON THE ESTIMATE OF PROBABLE COST

The opinion of probable construction cost is made on the basis of experience and qualifications and represents the best judgment as an experienced and qualified professional generally familiar with the industry. However, since Shive-Hattery has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Shive-Hattery cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared. This cost opinion is also based on preliminary discussions without specific design of any specific construction.

Cost Analysis - New Construction on WDMWW Property

Year	Estimated Long Term Cost of Current Administrative Office Location in Labor and Travel Costs									
	Meter Technicians					Managers/IT				
	Hourly Wage	Labor Cost	Mileage Rate	Vehicle Cost	Hourly Wage	Labor Cost	Vehicle Cost	Total	NPV of Total	
2020	\$22.47	\$2,921.10	0.545	\$1,190.28	\$50.44	\$5,245.76	\$952.22	\$10,309.36	\$10,309.36	
2021	\$23.14	\$3,008.73	0.555	\$1,212.12	\$51.95	\$5,403.13	\$969.70	\$10,593.68	\$10,384.09	
2022	\$23.84	\$3,098.99	0.565	\$1,233.96	\$53.51	\$5,565.23	\$987.17	\$10,885.35	\$10,458.88	
2023	\$24.55	\$3,191.96	0.575	\$1,255.80	\$55.12	\$5,732.18	\$1,004.64	\$11,184.59	\$10,533.77	
2024	\$25.29	\$3,287.72	0.585	\$1,277.64	\$56.77	\$5,904.15	\$1,022.11	\$11,491.62	\$10,608.81	
2025	\$26.05	\$3,386.36	0.595	\$1,299.48	\$58.47	\$6,081.27	\$1,039.58	\$11,806.69	\$10,684.03	
2026	\$26.83	\$3,487.95	0.605	\$1,321.32	\$60.23	\$6,263.71	\$1,057.06	\$12,130.03	\$10,759.45	
2027	\$27.64	\$3,592.58	0.615	\$1,343.16	\$62.03	\$6,451.62	\$1,074.53	\$12,461.90	\$10,835.11	
2028	\$28.46	\$3,700.36	0.625	\$1,365.00	\$63.90	\$6,645.17	\$1,092.00	\$12,802.53	\$10,911.05	
2029	\$29.32	\$3,811.37	0.635	\$1,386.84	\$65.81	\$6,844.53	\$1,109.47	\$13,152.21	\$10,987.30	
2030	\$30.20	\$3,925.71	0.645	\$1,408.68	\$67.79	\$7,049.86	\$1,126.94	\$13,511.20	\$11,063.88	
2031	\$31.10	\$4,043.49	0.655	\$1,430.52	\$69.82	\$7,261.36	\$1,144.42	\$13,879.78	\$11,140.82	
2032	\$32.04	\$4,164.79	0.665	\$1,452.36	\$71.92	\$7,479.20	\$1,161.89	\$14,258.24	\$11,218.17	
2033	\$33.00	\$4,289.73	0.675	\$1,474.20	\$74.07	\$7,703.58	\$1,179.36	\$14,646.87	\$11,295.94	
2034	\$33.99	\$4,418.43	0.685	\$1,496.04	\$76.30	\$7,934.68	\$1,196.83	\$15,045.98	\$11,374.16	
2035	\$35.01	\$4,550.98	0.695	\$1,517.88	\$78.58	\$8,172.72	\$1,214.30	\$15,455.89	\$11,452.86	
2036	\$36.06	\$4,687.51	0.705	\$1,539.72	\$80.94	\$8,417.90	\$1,231.78	\$15,876.91	\$11,532.07	
2037	\$37.14	\$4,828.13	0.715	\$1,561.56	\$83.37	\$8,670.44	\$1,249.25	\$16,309.38	\$11,611.82	
2038	\$38.25	\$4,972.98	0.725	\$1,583.40	\$85.87	\$8,930.56	\$1,266.72	\$16,753.65	\$11,692.13	
2039	\$39.40	\$5,122.17	0.735	\$1,605.24	\$88.45	\$9,198.47	\$1,284.19	\$17,210.07	\$11,773.03	
2040	\$40.58	\$5,275.83	0.745	\$1,627.08	\$91.10	\$9,474.43	\$1,301.66	\$17,679.00	\$11,854.54	
2041	\$41.80	\$5,434.11	0.755	\$1,648.92	\$93.83	\$9,758.66	\$1,319.14	\$18,160.82	\$11,936.68	
2042	\$43.05	\$5,597.13	0.765	\$1,670.76	\$96.65	\$10,051.42	\$1,336.61	\$18,655.92	\$12,019.49	
2043	\$44.35	\$5,765.04	0.775	\$1,692.60	\$99.55	\$10,352.96	\$1,354.08	\$19,164.68	\$12,102.99	
2044	\$45.68	\$5,937.99	0.785	\$1,714.44	\$102.53	\$10,663.55	\$1,371.55	\$19,687.54	\$12,187.19	
2045	\$47.05	\$6,116.13	0.795	\$1,736.28	\$105.61	\$10,983.46	\$1,389.02	\$20,224.90	\$12,272.13	
2046	\$48.46	\$6,299.62	0.805	\$1,758.12	\$108.78	\$11,312.96	\$1,406.50	\$20,777.19	\$12,357.82	
2047	\$49.91	\$6,488.61	0.815	\$1,779.96	\$112.04	\$11,652.35	\$1,423.97	\$21,344.88	\$12,444.29	
2048	\$51.41	\$6,683.27	0.825	\$1,801.80	\$115.40	\$12,001.92	\$1,441.44	\$21,928.43	\$12,531.56	
2049	\$52.95	\$6,883.76	0.835	\$1,823.64	\$118.87	\$12,361.98	\$1,458.91	\$22,528.29	\$12,619.65	
2050	\$54.54	\$7,090.28	0.845	\$1,845.48	\$122.43	\$12,732.84	\$1,476.38	\$23,144.98	\$12,708.58	
2051	\$56.18	\$7,302.98	0.855	\$1,867.32	\$126.10	\$13,114.82	\$1,493.86	\$23,778.98	\$12,798.37	
2052	\$57.86	\$7,522.07	0.865	\$1,889.16	\$129.89	\$13,508.27	\$1,511.33	\$24,430.83	\$12,889.06	
2053	\$59.60	\$7,747.74	0.875	\$1,911.00	\$133.78	\$13,913.51	\$1,528.80	\$25,101.05	\$12,980.64	
2054	\$61.39	\$7,980.17	0.885	\$1,932.84	\$137.80	\$14,330.92	\$1,546.27	\$25,790.20	\$13,073.15	
2055	\$63.23	\$8,219.57	0.895	\$1,954.68	\$141.93	\$14,760.85	\$1,563.74	\$26,498.84	\$13,166.61	
2056	\$65.12	\$8,466.16	0.905	\$1,976.52	\$146.19	\$15,203.67	\$1,581.22	\$27,227.57	\$13,261.03	
2057	\$67.08	\$8,720.15	0.915	\$1,998.36	\$150.57	\$15,659.78	\$1,598.69	\$27,976.98	\$13,356.43	
2058	\$69.09	\$8,981.75	0.925	\$2,020.20	\$155.09	\$16,129.58	\$1,616.16	\$28,747.69	\$13,452.84	
2059	\$71.16	\$9,251.20	0.935	\$2,042.04	\$159.74	\$16,613.46	\$1,633.63	\$29,540.34	\$13,550.26	
2060	\$73.30	\$9,528.74	0.945	\$2,063.88	\$164.54	\$17,111.87	\$1,651.10	\$30,355.59	\$13,648.73	
2061	\$75.50	\$9,814.60	0.955	\$2,085.72	\$169.47	\$17,625.22	\$1,668.58	\$31,194.12	\$13,748.26	

2062	\$77.76	\$10,109.04	0.965	\$2,107.56	\$174.56	\$18,153.98	\$1,686.05	\$32,056.63	\$13,848.86
2063	\$80.09	\$10,412.31	0.975	\$2,129.40	\$179.79	\$18,698.60	\$1,703.52	\$32,943.83	\$13,950.56
2064	\$82.50	\$10,724.68	0.985	\$2,151.24	\$185.19	\$19,259.56	\$1,720.99	\$33,856.47	\$14,053.38
2065	\$84.97	\$11,046.42	0.995	\$2,173.08	\$190.74	\$19,837.34	\$1,738.46	\$34,795.31	\$14,157.32
2066	\$87.52	\$11,377.81	1.005	\$2,194.92	\$196.47	\$20,432.46	\$1,755.94	\$35,761.13	\$14,262.41
2067	\$90.15	\$11,719.15	1.015	\$2,216.76	\$202.36	\$21,045.44	\$1,773.41	\$36,754.75	\$14,368.67
2068	\$92.85	\$12,070.72	1.025	\$2,238.60	\$208.43	\$21,676.80	\$1,790.88	\$37,777.00	\$14,476.11
2069	\$95.64	\$12,432.84	1.035	\$2,260.44	\$214.68	\$22,327.11	\$1,808.35	\$38,828.74	\$14,584.75
2070	\$98.51	\$12,805.83	1.045	\$2,282.28	\$221.12	\$22,996.92	\$1,825.82	\$39,910.85	\$14,694.61
Total		\$342,296.76		\$88,550.28		\$614,702.21	\$70,840.22	\$1,116,389.47	\$629,983.67

Assumptions

Meter Techs travel a total of 10 times per week from current admin office to plant

Managers and IT travel a total of 8 times per week between current admin office and plant

Average time for round trip travel between current admin office and plant is 15 minutes (8 min travel plus walking to vehicle)

Average mileage cost for travel - \$0.545 per mile in 2020, increased by one-cent each year

Roundtrip mileage is 4.2 miles

Average (salary only) cost for meter technicians is \$22.47 per hour, to increase 3% annually

Average (salary only) cost for managers/IT is \$50.44 per hour, to increase by 3% annually

Discount Rate 2%

Estimated Long Term Cost of Relocating Administrative Office to Bank Site in Property Tax Elimination, Labor and Travel Costs										
Year	Property Tax	Meter Technicians				Managers/IT				
		Hourly Wage	Labor Cost	Mileage Rate	Vehicle Cost	Hourly Wage	Labor Cost	Vehicle Cost		
2020	\$62,288.00	\$22.47	\$4,790.60	0.545	\$2,550.60	\$50.44	\$8,603.05	\$2,040.48	\$17,984.73	\$17,984.73
2021	\$62,443.72	\$23.14	\$4,934.32	0.555	\$2,597.40	\$51.95	\$8,861.14	\$2,077.92	\$18,470.78	\$18,105.34
2022	\$62,599.83	\$23.84	\$5,082.35	0.565	\$2,644.20	\$53.51	\$9,126.97	\$2,115.36	\$18,968.88	\$18,225.71
2023	\$62,756.33	\$24.55	\$5,234.82	0.575	\$2,691.00	\$55.12	\$9,400.78	\$2,152.80	\$19,479.40	\$18,345.93
2024	\$62,913.22	\$25.29	\$5,391.87	0.585	\$2,737.80	\$56.77	\$9,682.80	\$2,190.24	\$20,002.71	\$18,466.06
2025	\$63,070.50	\$26.05	\$5,553.62	0.595	\$2,784.60	\$58.47	\$9,973.29	\$2,227.68	\$20,539.19	\$18,586.18
2026	\$63,228.18	\$26.83	\$5,720.23	0.605	\$2,831.40	\$60.23	\$10,272.49	\$2,265.12	\$21,089.24	\$18,706.35
2027	\$63,386.25	\$27.64	\$5,891.84	0.615	\$2,878.20	\$62.03	\$10,580.66	\$2,302.56	\$21,653.26	\$18,826.63
2028	\$63,544.72	\$28.46	\$6,068.59	0.625	\$2,925.00	\$63.90	\$10,898.08	\$2,340.00	\$22,231.68	\$18,947.11
2029	\$63,703.58	\$29.32	\$6,250.65	0.635	\$2,971.80	\$65.81	\$11,225.02	\$2,377.44	\$22,824.92	\$19,067.83
2030	\$63,862.84	\$30.20	\$6,438.17	0.645	\$3,018.60	\$67.79	\$11,561.77	\$2,414.88	\$23,433.43	\$19,188.86
2031	\$64,022.49	\$31.10	\$6,631.32	0.655	\$3,065.40	\$69.82	\$11,908.63	\$2,452.32	\$24,057.66	\$19,310.26
2032	\$64,182.55	\$32.04	\$6,830.26	0.665	\$3,112.20	\$71.92	\$12,265.89	\$2,489.76	\$24,698.10	\$19,432.10
2033	\$64,343.01	\$33.00	\$7,035.16	0.675	\$3,159.00	\$74.07	\$12,633.86	\$2,527.20	\$25,355.23	\$19,554.42
2034	\$64,503.86	\$33.99	\$7,246.22	0.685	\$3,205.80	\$76.30	\$13,012.88	\$2,564.64	\$26,029.54	\$19,677.29
2035	\$64,665.12	\$35.01	\$7,463.60	0.695	\$3,252.60	\$78.58	\$13,403.27	\$2,602.08	\$26,721.55	\$19,800.76
2036	\$64,826.79	\$36.06	\$7,687.51	0.705	\$3,299.40	\$80.94	\$13,805.36	\$2,639.52	\$27,431.80	\$19,924.88
2037	\$64,988.85	\$37.14	\$7,918.14	0.715	\$3,346.20	\$83.37	\$14,219.52	\$2,676.96	\$28,160.82	\$20,049.71
2038	\$65,151.32	\$38.25	\$8,155.68	0.725	\$3,393.00	\$85.87	\$14,646.11	\$2,714.40	\$28,909.19	\$20,175.30
2039	\$65,314.20	\$39.40	\$8,400.35	0.735	\$3,439.80	\$88.45	\$15,085.49	\$2,751.84	\$29,677.49	\$20,301.71

2040	\$65,477.49	\$40.58	\$8,652.36	0.745	\$3,486.60	\$91.10	\$15,538.06	\$2,789.28	\$30,466.30	\$20,428.97
2041	\$65,641.18	\$41.80	\$8,911.93	0.755	\$3,533.40	\$93.83	\$16,004.20	\$2,826.72	\$31,276.26	\$20,557.15
2042	\$65,805.29	\$43.05	\$9,179.29	0.765	\$3,580.20	\$96.65	\$16,484.33	\$2,864.16	\$32,107.98	\$20,686.28
2043	\$65,969.80	\$44.35	\$9,454.67	0.775	\$3,627.00	\$99.55	\$16,978.86	\$2,901.60	\$32,962.13	\$20,816.42
2044	\$66,134.72	\$45.68	\$9,738.31	0.785	\$3,673.80	\$102.53	\$17,488.22	\$2,939.04	\$33,839.37	\$20,947.61
2045	\$66,300.06	\$47.05	\$10,030.46	0.795	\$3,720.60	\$105.61	\$18,012.87	\$2,976.48	\$34,740.41	\$21,079.90
2046	\$66,465.81	\$48.46	\$10,331.37	0.805	\$3,767.40	\$108.78	\$18,553.25	\$3,013.92	\$35,665.95	\$21,213.32
2047	\$66,631.97	\$49.91	\$10,641.32	0.815	\$3,814.20	\$112.04	\$19,109.85	\$3,051.36	\$36,616.73	\$21,347.93
2048	\$66,798.55	\$51.41	\$10,960.56	0.825	\$3,861.00	\$115.40	\$19,683.15	\$3,088.80	\$37,593.50	\$21,483.76
2049	\$66,965.55	\$52.95	\$11,289.37	0.835	\$3,907.80	\$118.87	\$20,273.64	\$3,126.24	\$38,597.05	\$21,620.86
2050	\$67,132.96	\$54.54	\$11,628.05	0.845	\$3,954.60	\$122.43	\$20,881.85	\$3,163.68	\$39,628.18	\$21,759.27
2051	\$67,300.80	\$56.18	\$11,976.89	0.855	\$4,001.40	\$126.10	\$21,508.31	\$3,201.12	\$40,687.72	\$21,899.03
2052	\$67,469.05	\$57.86	\$12,336.20	0.865	\$4,048.20	\$129.89	\$22,153.56	\$3,238.56	\$41,776.52	\$22,040.18
2053	\$67,637.72	\$59.60	\$12,706.29	0.875	\$4,095.00	\$133.78	\$22,818.16	\$3,276.00	\$42,895.45	\$22,182.75
2054	\$67,806.82	\$61.39	\$13,087.48	0.885	\$4,141.80	\$137.80	\$23,502.71	\$3,313.44	\$44,045.42	\$22,326.79
2055	\$67,976.33	\$63.23	\$13,480.10	0.895	\$4,188.60	\$141.93	\$24,207.79	\$3,350.88	\$45,227.37	\$22,472.34
2056	\$68,146.27	\$65.12	\$13,884.50	0.905	\$4,235.40	\$146.19	\$24,934.02	\$3,388.32	\$46,442.25	\$22,619.42
2057	\$68,316.64	\$67.08	\$14,301.04	0.915	\$4,282.20	\$150.57	\$25,682.04	\$3,425.76	\$47,691.04	\$22,768.08
2058	\$68,487.43	\$69.09	\$14,730.07	0.925	\$4,329.00	\$155.09	\$26,452.50	\$3,463.20	\$48,974.77	\$22,918.35
2059	\$68,658.65	\$71.16	\$15,171.97	0.935	\$4,375.80	\$159.74	\$27,246.08	\$3,500.64	\$50,294.49	\$23,070.27
2060	\$68,830.30	\$73.30	\$15,627.13	0.945	\$4,422.60	\$164.54	\$28,063.46	\$3,538.08	\$51,651.27	\$23,223.87
2061	\$69,002.37	\$75.50	\$16,095.95	0.955	\$4,469.40	\$169.47	\$28,905.37	\$3,575.52	\$53,046.23	\$23,379.19
2062	\$69,174.88	\$77.76	\$16,578.82	0.965	\$4,516.20	\$174.56	\$29,772.53	\$3,612.96	\$54,480.51	\$23,536.26
2063	\$69,347.81	\$80.09	\$17,076.19	0.975	\$4,563.00	\$179.79	\$30,665.70	\$3,650.40	\$55,955.29	\$23,695.11
2064	\$69,521.18	\$82.50	\$17,588.47	0.985	\$4,609.80	\$185.19	\$31,585.67	\$3,687.84	\$57,471.79	\$23,855.78
2065	\$69,694.99	\$84.97	\$18,116.13	0.995	\$4,656.60	\$190.74	\$32,533.24	\$3,725.28	\$59,031.25	\$24,018.30
2066	\$69,869.22	\$87.52	\$18,659.61	1.005	\$4,703.40	\$196.47	\$33,509.24	\$3,762.72	\$60,634.97	\$24,182.70
2067	\$70,043.90	\$90.15	\$19,219.40	1.015	\$4,750.20	\$202.36	\$34,514.52	\$3,800.16	\$62,284.28	\$24,349.02
2068	\$70,219.01	\$92.85	\$19,795.98	1.025	\$4,797.00	\$208.43	\$35,549.95	\$3,837.60	\$63,980.54	\$24,517.28
2069	\$70,394.56	\$95.64	\$20,389.86	1.035	\$4,843.80	\$214.68	\$36,616.45	\$3,875.04	\$65,725.16	\$24,687.51
2070	\$70,570.54	\$98.51	\$21,001.56	1.045	\$4,890.60	\$221.12	\$37,714.95	\$3,912.48	\$67,519.58	\$24,859.75
Total	\$3,383,587.21		\$561,366.68		\$189,750.60		\$1,008,111.63	\$151,800.48	\$5,294,616.61	\$1,081,220.64

Assumptions (Different than above)

25 min or 0.41 hours

9 miles

Property Tax Annual Escalation - 0.25%