



CITY OF DUVALL CITYWIDE FACILITIES ASSESSMENT AND MASTER PROGRAMMING REPORT

Prepared by ARC Architects in accordance with the
Agreement for Professional Services with the City of Duvall contract # 2021-26 as amended

JULY 2023

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A

EXECUTIVE SUMMARY

PROJECT OVERVIEW

Duval is a city in King County Washington with a simple beginning that is now a growing populous. According to current US Census data for 2022, the population of Duval is 8,434. Beginning in 2021 through 2022, ARC Architects and its team of consultants conducted facilities assessments for the City. The assessments outlined existing architectural, structural, mechanical, electrical, plumbing, and building envelope conditions for nine (9) city-owned facilities. Detailed assessments can be found in the facility condition assessments section. The scope of this report explores these facilities, staff growth and space needs, and its impact on those facilities, through five (5) tasks:

Task 1 - Facilities Condition Assessments - ARC Architects led a consultant team to interview City Staff, review original drawings and historical improvement/maintenance data, and visit facilities to provide ASTM E2018-15 formatted condition assessments of each facility.

Task 2 - City Capital Facilities Improvements - Long-term costs are provided to supplement the city's on-going Capital Improvement Plan (CIP) in an effort to make recommendations for 1-, 6-, and 20 year expenditures as well as a space needs analysis recommendations for the City to consider as part of its long-term goals and anticipated growth.

Task 3 - Operational Work Planning - Development of maintenance standards to set a level of service delivery for maintenance personnel in three work groups: facility maintenance, HVAC and custodial.

Task 4 - Financial Cost Analysis - Long-range funding is accomplished by identifying the rate of renewal (ROR) required to maintain components as they depreciate and become unusable. The financial analysis used data provided by the City (Property Inspection reports, Facilities Inventory Summary Plans, and City budgeting documentation).

Task 5 - Concept Planning Options - This report provides four (4) Concept level Planning studies that explore potential long-term solutions for space needs:

- Combined City Hall/Police Facility - 2 options
- New singular Police Station
- New Public Works Yard

Programming sessions conducted via remote and inperson council workshops aided in the potential future expansion options. Cost estimates for these scenarios are provided in this report.

TASK 1 - FACILITY CONDITION ASSESSMENT OUTCOMES

This process began with a review of facility assets through an initial RAPID quality assessment matrix using a ranked index that extends from 5 - the most critical items requiring immediate attention (i.e. the component poses a life safety, code, or welfare issue) to 1 - items of lowest priority that address on-going maintenance issues. Further detailed site visits resulted in a deficiency rating for determining an overall Facility Condition Index (FCI) rating. Each consultant reviewed key building components or systems in terms of their critical need for maintenance and repair. The RAPID quality assessment index was then integrated into a Capital Needs Assessment (CNA) for each facility.

Excluding the WWTP Engineering building of which is currently in renovation under separate contracts the facilities evaluated as part of this project are generally in **Poor** overall condition - lacking building area, site development, and parking needs desired for future growth projections which limits the City's capabilities of serving the public and community and community at large.

TASK 2 - CAPITAL IMPROVEMENT OUTCOMES

The building area or space needs were calculated by city departments using full-time-employees (FTEs) for a projected population of 12,000 people. Current FTEs and projected FTEs are as follows:

- Administration, Community Development, Engineering, and Finance Departments
Current: 27 FTEs
Projected: 28 FTEs
- Police Department
Current: 14 FTEs
Projected: 26 FTE

- Public Works Maintenance Crew (excluding WWTP staff)
Current: 10 FTEs
Projected: 19 FTE

ARC and consultants analyzed three population projections of 8.2/10/12,000. Details can be found in the facility condition assessment section and appendix. Using FTE growth projections and planning facility guideline criteria, building area requirements were calculated:

- Administration, Community Development, Engineering, and Finance Departments
Current facility space of 5,430 SF
Recommend an increase to 13,785 SF
- Police Department
Current facility space is 5,762 SF
Recommend an increase to 9,613 SF
- Public Works Maintenance Crew
Current facility/yard storage of 19,690 SF
Recommend an increase to 31,586 SF

Parking needs are holistically lacking at all the existing facilities. Using the same growth factors as above and calculated at 75% of the total staff (personal transport), summarized projected needs are:

- City Hall + Police + Public Works Yard = 51 parking stalls
- Additional parking for city vehicles, day counter and meetings = 24 parking stalls
- Total = 75 stalls

The existing properties for City Hall, Police, Engineering, and Public Works Maintenance Crew **do not** have the capacity to house the projected growth space needs nor required site area if they are kept at their current conditions and locations.

TASK 3 - OPERATIONAL WORK PLANNING

If the City does not already have an established operational and maintenance plan, we recommend The National Institute of Building Sciences who has developed the WBDG-Whole Building Design Guide to foster communication and knowledge to be shared among federal, industry and academic partners to advance numerous building typologies. In addition to the assessments and facility-specific recommendations in this report, maintenance and operational recommendations and references are found at the end of Section B - Facility Conditions Assessments.

TASK 4 - FINANCIAL COST ANALYSIS OUTCOMES

Cost analysis for the facility assessments is provided for each facility within the CNA matrix. Our cost estimator assumed the initial expenditures, over a five-year capitalization spending plan. The CNA matrix includes an estimate of cost per square foot (SF) for each building system evaluated (in 2022 dollars) to be used as a tool when finalizing total capital construction expenditures for improvements at each facility.

Each CNA provides recommendations for the City to consider allocating its resources for continued operations. It is for informational purposes only and represents rough order of magnitude costs typical of replacement not repair and maintenance. The CNA was distributed to the City as a "working" document to manipulate according to capital facility and planning needs.

TASK 5 - CONCEPT PLANNING OPTIONS OUTCOMES

In addition to the assessments and facility-specific recommendations, ARC Architects conceptualized design options and provided costs for the City to consider as part of their master planning process. These options consider both the demolition and renovation of existing assets to construct new facilities as well as the construction of new facilities on amorphous, undefined sites. The purpose of these design options is to illustrate the space needs for the City's facilities as the population continues to grow. The high-level planning concepts test land area necessary for locating such facilities.

To understand facility replacement costs and to further plan for future development, four options were created based upon the city's programming exercise. The cost outcomes to four options are summarized:

1. **Option A** City Hall + Police:
 - a. NEW construction and renovation to incorporate the existing Visitors Center (assumes demolishing and relocating the Public Works Yard) to connect the two parcels via an elevated walkway for direct access to Main Street.
 - Construction Costs = \$25,200,000
 - Soft Costs (40%) = \$10,100,000
 - PRELIMINARY Project Cost = \$35,300,000**
2. **Option B** City Hall + Police:
 - a. NEW construction at amorphic site (excluding building or land acquisition).
 - Construction Costs = \$16,000,000
 - Soft Costs (40%) = \$6,400,000
 - PRELIMINARY Project Cost = \$22,400,000**
3. **Option C** Police:
 - a. NEW construction on 2-acre city owned parcel off Big Rock Road.
 - Construction Costs = \$7,200,000
 - Soft Costs (40%) = \$2,900,000
 - PRELIMINARY Project Cost = \$10,100,000**
4. **Option D** Public Works Maintenance Yard:
 - a. NEW construction at amorphic site (approximately 2-acres is required).
 - Construction Costs = \$4,500,000
 - Soft Costs (40%) = \$1,800,000
 - PRELIMINARY Project Cost = \$6,300,000**

OVERALL RECOMMENDATIONS

The City owns and operates out of six of its properties. The City should strive to consolidate staff and buildings from which they operate. While maintenance and life cycle costs could be managed for many, if not all the City's facilities, our review in this report confirms that the **existing facilities do not meet the long-term needs for City Hall, Police, Engineering, or Public Works Maintenance Crew**. The concept-level outcomes and construction costs associated to meet future needs demand new and expanded facilities.

While **City Hall** is usable and poses no observed immediate life/safety issue, maintenance efforts will continue to increase as the building continues to age and system replacement becomes the only option. It has "Main Street" frontage but no welcoming appeal. This building lacks the area and parking needs for future staff growth projections and proper citizen support.

During building reviews and the creation of this report, **the Police department** has received a remodel. Gender specific changing/locker rooms have been created, all floor surfaces replaced, new interior and exterior painting along with a full kitchen remodel and some window replacements. While the building is suited to function well for the next 5-10 years, this is a modular building that is considered a temporary condition and lacks any ability to expand in meeting future growth projections. The existing site cannot accommodate that growth due to its location in greenbelt and its proximity to surrounding wetlands.

Current steps are being taken to improve the operational situation that the city is in. The City is in the process of consolidating the Building, Engineering and Planning departments to form a "Permit Center" at the **WWTP Engineering building**. The building is undergoing a full renovation, coming into compliance with current building codes and improving access to the facility and services for the community. This is a step in the right direction. It housed the Public Works Engineering team of nine (9) staff and barely functioned as conditioned office space. The redesign includes the Building, Planning, and Engineering departments. The remodel will bring public access to the site meeting ADA compliance and house up to 20 staff members. Construction is expected to be complete in March 2024. If a future city hall comes to fruition, we recommend that planning of the city hall project takes into account the future program use of this "new" WWTP Engineering Building. Once remodel is complete in March of 2024, life expectancy can be assumed at 30 years.

The Visitors Center continues to operate as a stand-alone structure for City Council meetings along with being a rental space for the community. It is old and difficult to renovate or expand on. It does not meet functional requirements for modern day use. Without

continued maintenance, it has about 5 years of remaining useful life. We do however, consider this building an important “jewel” in representing the history of Duvall and suggest it’s renovation in full as part future planning level Option A of this report.

The WRECK Center also continues to operate as a stand-alone structure for the City and represents an era of Duvall history. During the course of developing this report it was used mainly as a temporary (summer) crew surge space and from our observations there was a lack of significant city use. Without continued maintenance this building has about 14 years of remaining useful life. For any use, parking is very limited. For potential long-term use, we recommend a focused city workshop to determine programmatic outcome for this asset.

The Public Works Maintenance Yard (and structure) is in poor condition, lacking proper programmatic space and is not code compliant. The current site is lacking necessary area, restricting industry standard maneuverability with no means to provide for future growth. While the “Quonset” - like structure is sound, it does meet current seismic needs for this area. Public Works facilities and the services they provide are the back-bone of the municipalities we work in and the community they support. Our recommendation is to prioritize a new location and begin programmatic design for a new structure or structures to support this important public entity.

The historic properties and assets of **Dougherty Farmstead** and **The Depot** should remain with historic designation in perpetuity. We recommend continued on-going maintenance to keep these assets the jewels they’ve become.

The review of all structures at the **Big Rock Ballfields** did not reveal anything significant and no remediations are necessary other than continued standard maintenance.

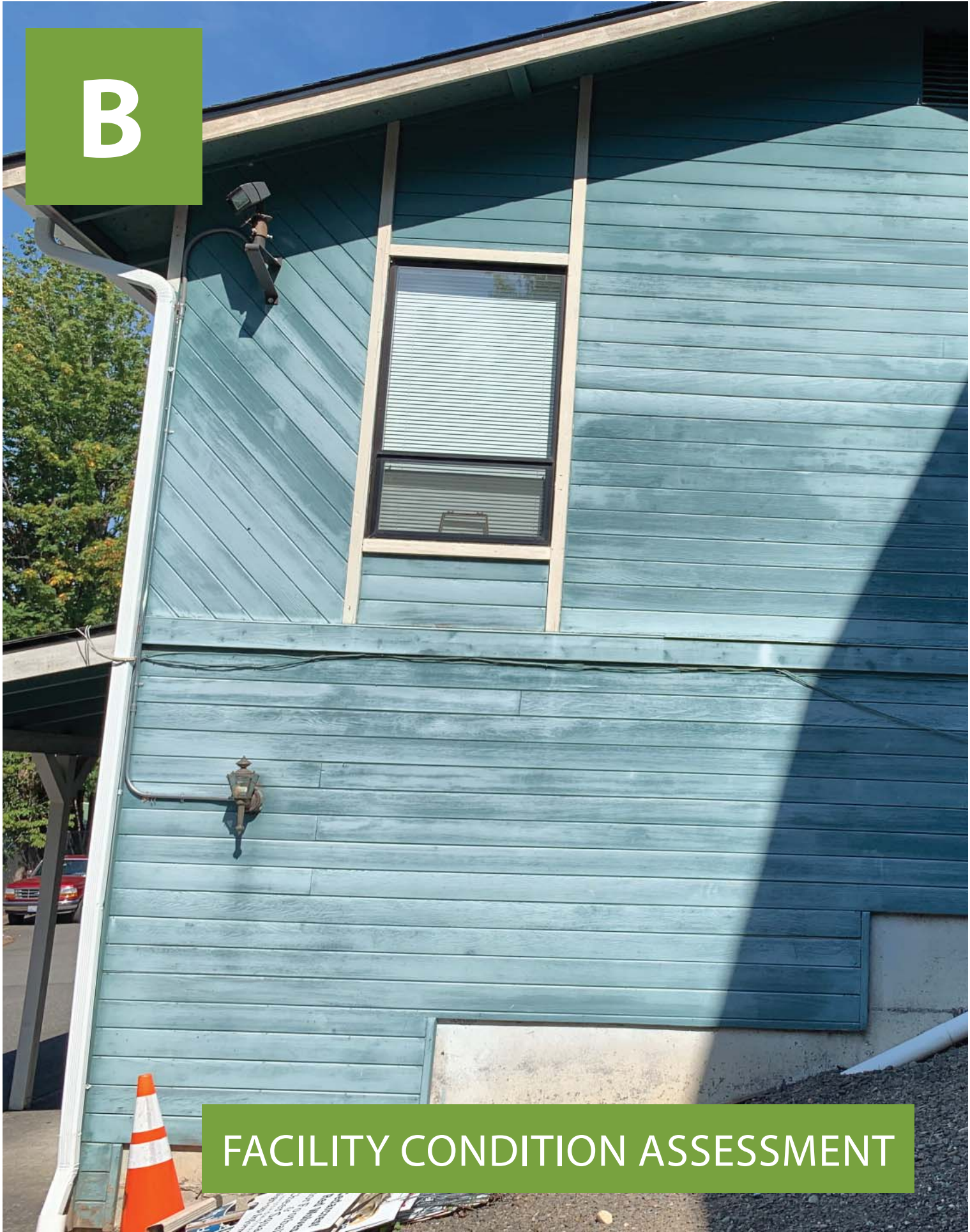
From **City Council workshops**, the potential for asset reallocation was presented; where the sale of assets could play a significant role towards lessening capital costs for new construction or long-term continued maintenance. (Asset “outcomes” /detailed pros and cons can be found in section D of this report.) Several iterations were discussed and in coordination with City staff the final iterations are included in section D. Bond procurement with several potential funding alternatives was also discussed and presented at a very high level as a way and means for potential funding capital projects.

ARC recommends the City continue towards full design and construction improvements to meet their long-term needs prior to their current facilities becoming compromised to a point where public / staff safety and/or capacity levels are exceeded.



B

FACILITY CONDITION ASSESSMENT

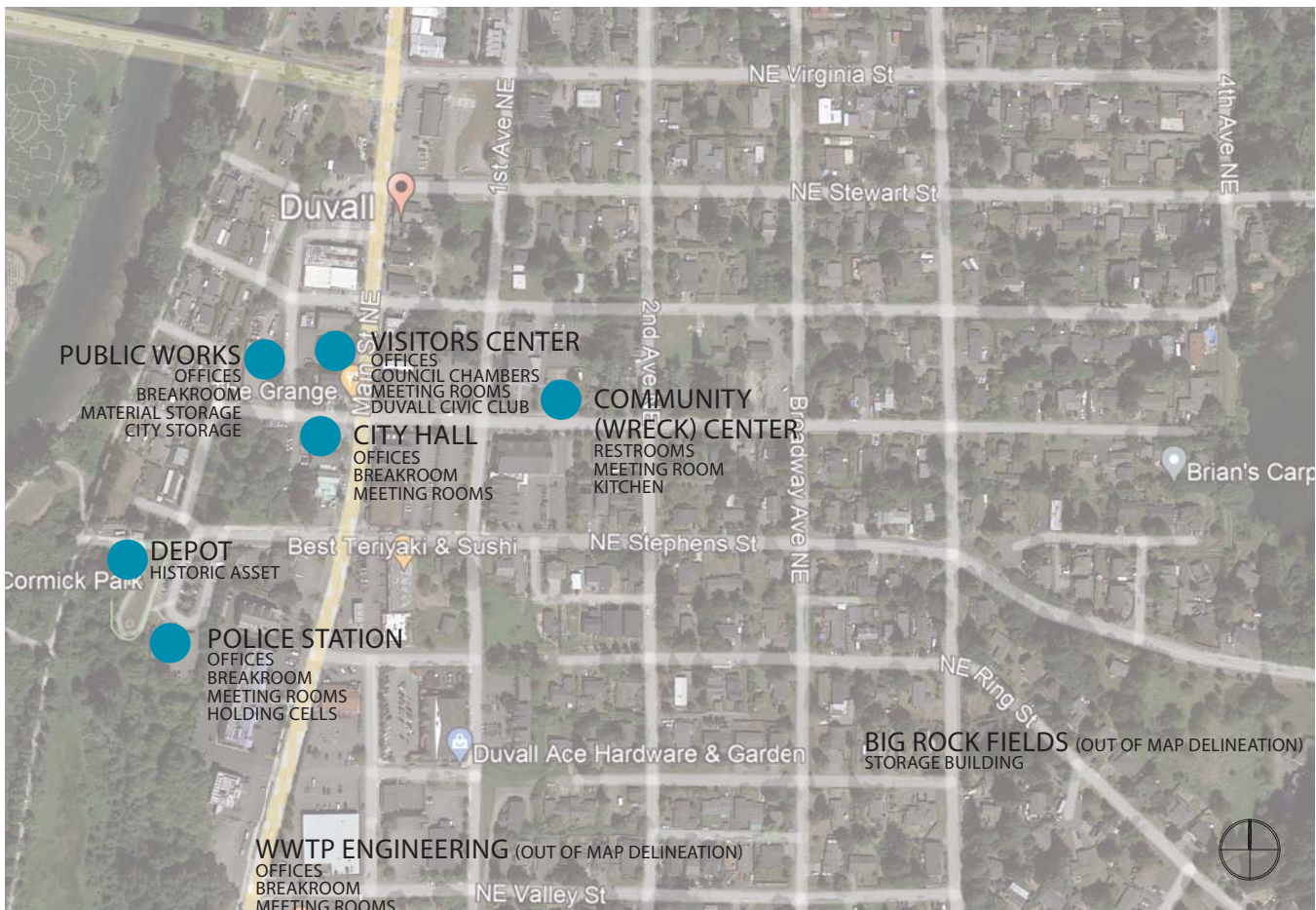


B

FACILITY CONDITION ASSESSMENT

FACILITY CONDITION ASSESSMENT LIST:

- City Hall (parcel 213070-0130) 15535 Main St NE, Duvall, WA 98109
- Public Works Yard/Covered Storage (parcel 213070-0005) 26301 NE Cherry St, WA 98109
- Police Station (parcel 1326069-118) 26225 NE Burhen Way, Duvall, WA 98109
- Visitors Center (parcel 213070-0175) 15619 Main St NE, Duvall, WA 98109
- Community "WRECK" center (parcel 213070-0960) 26512 NE Stella St, Duvall, WA 98109
- WWTP Engineering Building (parcel 132606-9132)
- Dougherty Farmstead (parcel 122606-9049) 26526 NE Cherry Valley Rd, Duvall, WA 98109
- Depot (parcel 132606-9118) 26227 NE Stephens St, Duvall, WA 98109
- Big Rock Storage building (parcel 212970-0250)



Duvall Aerial Key Plan

ASSESSMENT OVERVIEW, METHODOLOGY & IMPLEMENTATION

In assessing the condition of the facilities, ARC's team identified items in need of repair, retrofit or replacement necessary to preserve the existing facilities and enhance the safety and longevity of the facilities for the next 6 years. The methodology used in this assessment included a non-destructive visual inspection of the facilities using ASTM standards (ASTM E2018-15) and industry best-practices checklists, interviews with City staff in City Hall, Police and Public Works; analysis based on the available documentation (original and as-built drawings, city parcel information, inspection reports and related documentation); and input from City staff. Observed physical deficiencies at each facility were assigned a budget-level construction correction estimate.

In Summer of 2021 and Spring of 2022, ARC conducted facility conditions assessment of the following properties:

- City Hall (parcel 213070-0130)
- Community "WRECK" center (parcel 213070-0960)
- Police Station (parcel 1326069-118)
- Public Works Yard/Covered Storage (parcel 213070-0005)
- Visitors Center (parcel 213070-0175)
- WWTP Engineering Building (parcel 132606-9132)
- Dougherty Farmstead (parcel 122606-9049)
- Depot (parcel 132606-9118)
- Big Rock Ballfield (Storage building) (parcel 212970-0250)

Site and building elements were grouped into components. Components assessed include the following:

Site

Visual examination of the hardscape and landscape features, vehicular and pedestrian traffic flow within and around the property, review of safety and security features such as site lighting and access-controlled and/or manual fencing, placement of the building(s) on the property, topography, erosion and settlement concerns.

Exterior and Interior (architectural and limited structural elements)

Visual examination of roof material, flashing, penetrations, skylights and other appurtenances on the roof. Exterior walls, windows and doors were examined for irregularities, wear and damage. Visual evaluation of the building envelope included roofing, exterior skin, signs of water intrusions, and windows. Interior finishes were observed for deficiencies and wear. The site was observed for pavement damage, curb damage, and obvious access barriers.

Building Systems (mechanical/electrical/plumbing/fire suppression system)

Visual examination of mechanical, electrical, plumbing, and fire sprinkler systems to determine capacities, condition, and remaining useful life. Electrical Systems reviewed included power distribution, emergency power, lighting systems and fire alarm, where applicable. Mechanical systems reviewed included HVAC, plumbing fixtures, visible waste and vent lines, pumps and motors, and sprinkler system adequacy.

ADA Compliance

Accessibility overview includes a limited scope visual survey and whether general conditions comply with known ADA 2010 standards.

Structural Elements

Detailed structural evaluation was not part of the Conditions Assessment. The scope of ARC's and KPFF structural assessment was limited to the visual observation and notation of apparent structural deficiencies and does not include calculations or analysis.

EVALUATION, FINDINGS, REPORTING OVERVIEW

Facility evaluation begins with a review of building assets through an initial RAPID quality assessment using a ranked index. This subjective observation of building components extends from the most critical items - scored as 5 - requiring immediate attention (i.e. a component poses a life safety, code, or welfare issue) to items of lowest priority - scored as 1 (i.e. on-going maintenance issues). The rapid assessment was to determine if there were any immediate life/safety issues needing resolved. An example of the RAPID assessment matrix is on the following page.

B FACILITY CONDITION ASSESSMENT

RAPID ASSESSMENT MATRIX (EXAMPLE)

5 YEAR CAPITAL NEEDS ASSESSMENT

City Hall		For City Financial Manipulation			
Year Built/Rehabbed	1977/expanded 1994/int remodel 2004				
Age of Building Since Remodel	18				
	10				
Building Components	1	Typ'l Useful Life	Useful Remaining Life	Quality Assess. Index (0-5)	Qual (\$)
Site					
Landscape	Replacement / Maintenance	20	2	0	33
Parking	Replacement / Maintenance	50	32	5	33
Drives/Access	Replacement / Maintenance	50	32	5	33
Walk Areas	Replacement / Maintenance	50	32	4	33
Utilities	Replacement / Maintenance	50	32	1	33
Exterior					
Foundations	Replacement / Maintenance	100	82	3	33
Structure	Replacement / Maintenance	100	82	4	33
Cladding	Replacement / Maintenance	12	12	4	33
Weather Barriers	Replacement / Maintenance	12	12	4	33
Doors	Replacement / Maintenance	30	12	1	33
Windows	Replacement / Maintenance	30	12	1	33
Roof	Replacement / Maintenance	20	20	1	33
Interior					
Floor Finishes	Replacement / Maintenance	15	-3	2	33
Wall Finishes	Replacement / Maintenance	10	-8	2	33
Ceilings	Replacement / Maintenance	20	2	4	33
Partitions	Replacement / Maintenance	30	12	4	33
Doors	Replacement / Maintenance	15	5	4	33
Interior Relites	Replacement / Maintenance	15	-3	0	33
Casework	Replacement / Maintenance	15	-3	0	33
Daylighting	Replacement / Maintenance	15	-3	0	33
Building Systems					
HVAC	Replacement / Maintenance	25	7	3	33
Plumbing	Replacement / Maintenance	25	7	2	33
Fire Suppression	Replacement / Maintenance	50	32	1	33
Electrical	Replacement / Maintenance	50	32	1	33
Telecom	Replacement / Maintenance	50	32	1	33
Other	Replacement / Maintenance	20	2	0	33

BUILDING ELEMENTS

USEFUL LIFE REMAINING = ORIGINAL CONSTRUCTION DATE OR RECENT RENOVATION - INDUSTRY STANDARD LIFE EXPECTANCY

RAPID REVIEW SCORING

B FACILITY CONDITION ASSESSMENT

FACILITY CONDITION (FCI) MATRIX (EXAMPLE)

To form a comprehensive Facility Condition Index (FCI) rating, the RAPID assessment ranking is further broken into detail. For each facility, building components and criteria are rated on deficiencies from 0 - 100 and each element is given our best estimated percentage of total building replacement and assumed percentage of replacement costs. Formulas within the worksheet auto-populate the total FCI. Unless an item needed immediate attention in protection of life/safety, "priorities" remain subjective and are recommended for planning purposes only. Assuming a percentage of replacement, POTENTIAL 2022 building costs are shown by component. An example of that detail is shown here:



General Comments:
 Built - 1977; interior renovated in 2005-2006; Plated wood trusses in one story space and a two story addition at west. There is some vertical movement at the transition from one to two story condition. There is a rat infested crawlspace under the one story level. Conventional spread footings. Generally, well maintained; roofing appears newly replaced.

Property Name: City Hall - Offices 3,300 SF p # 213070-0130 Property Address: 15535 Main Street NE Date of Assessment: 7/14/2021 Assessment by: ARC Architects:		FCI Rating Excellent (0-5%) Good (5-10%) Fair (10-30%) Poor (>30%)						
Category	Component	Deficiency Rating (0-100)	% Required Replacement	% of Existing to be Replaced	Assumed % of Replacement Cost	Cost from CNA	Cost in 2022	Priority (1-3)
Site	Landscape	20	20%	0.00%	0.0%	\$20,790	\$0	3
	Parking	20	20%	0.00%	0.0%	\$60,984	\$0	3
	Access/Drives	20	20%	0.00%	0.0%	\$4,125	\$0	3
	Accessibility	60	60%	1.80%	3.0%	\$20,493	\$615	1
	Utilities	80	80%	0.00%	0.0%	\$23,100	\$0	3
Building Exterior	Foundations	60	60%	5.40%	9.0%	\$94,710	\$8,524	3
	Structure	60	25%	10.0%	10.0%	\$274,890	\$27,489	2
	Cladding	80	60%	4.80%	8.0%	\$229,845	\$18,388	2
	Weather Barriers	80	100%	2.00%	2.0%	\$19,140	\$383	1
	Doors	20	50%	1.00%	2.0%	\$18,942	\$379	3
	Windows	20	100%	1.80%	1.8%	\$35,805	\$644	3
	Roof	20	20%	0.60%	3.0%	\$104,874	\$3,146	3
Interior	Floors	40	40%	0.80%	2.0%	\$40,887	\$818	3
	Walls	40	40%	1.60%	4.0%	\$21,945	\$878	3
	Ceilings	80	100%	2.00%	2.0%	\$54,978	\$1,100	1
	Partitions	80	80%	1.60%	2.0%	\$21,945	\$1,022	1

BUILDING ELEMENTS

BEST ESTIMATE

SUGGESTED PRIORITY OF IMPROVEMENT

(From Field Observation) BEST ESTIMATE

BUILDING SF TOTAL COST / COMPONENT

From RAPID REVIEW MATRIX :
 Rating of 1 - 2 - 3 - 4 and 5 = RatingS of 20 - 40 - 60 - 80 and 100 on the FCI Rating Index

B FACILITY CONDITION ASSESSMENT

Deficiencies and recommendations are categorized into four priority groupings (Excellent, Good, Fair, and Poor). A deficiency yields a percentage reduction in value for a particular site or building feature. The sum of all deficiencies for a location is then compared to a non-deficient similar site or building feature if constructed today on the same site. This yields the Facility Condition Index (FCI) for each facility that coincides with a recommended condition “rating” by ARC for renovation or replacement decision making purposes. The prioritization categories are defined as follows:

- **IMMEDIATE (PRIORITY 1):** Facility prioritization description that defines the condition of the facility in the category as requiring improvement to prevent imminent failure, correct a deficiency critical to operation, or safety hazard. Deficiencies in this category should be addressed in Year 0-2.
- **CRITICAL (PRIORITY 2):** Facility prioritization description that defines the condition of the facility in the category as requiring expected maintenance to avoid predictable deterioration, potential downtime, and associated damage or higher costs if deferred further. Deficiencies in this category should be addressed in Years 2-5.
- **RECOMMENDED (PRIORITY 3):** Facility prioritization description that defines the condition of the facility in the category as in need of future improvement but not yet critical. These items include sensible improvements to existing conditions that are not required for basic function or usability of the facility. They provide long-term maintenance cost reductions. Deficiencies in this category should be addressed in Years 5-10.

FACILITY CONDITION INDEX

The FCI was first published in 1991 by the National Association of College and University Business (NACUBO) and quickly became the standard for post-secondary institutions across North America. Recently, condition index measures have been adopted by the US Federal Real Property Council, American Public Works Association, and other public agencies across North America. It is an industry standard asset management tool which measures the “constructed asset’s condition at a specific point in time” (US Federal Real Property Council, 2008). It is a functional indicator resulting from an analysis of operational indicators (such as building repair needs) to obtain an overview of a building’s condition as a numerical value.

FCI is obtained by aggregating the total deficiency of any needed or outstanding repairs proportional to the entire facility, renewal or upgrade requirements compared to the current replacement value of the facility components. The FCI describes the relative state of the physical condition of a facility versus a new facility with identical program and compliance with all current code requirements. Land value is not considered when evaluating FCI.

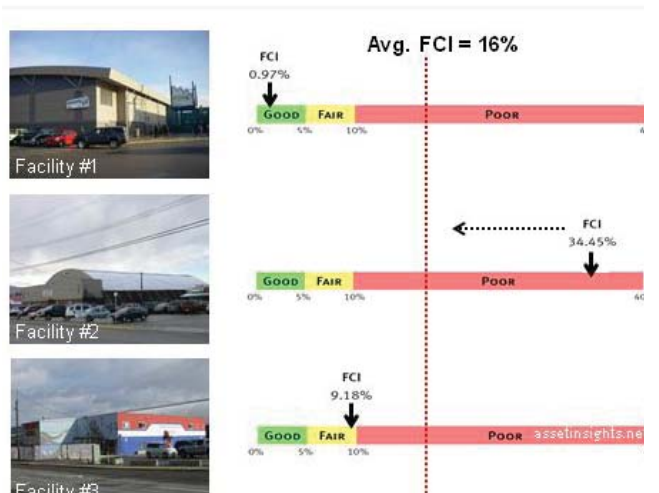
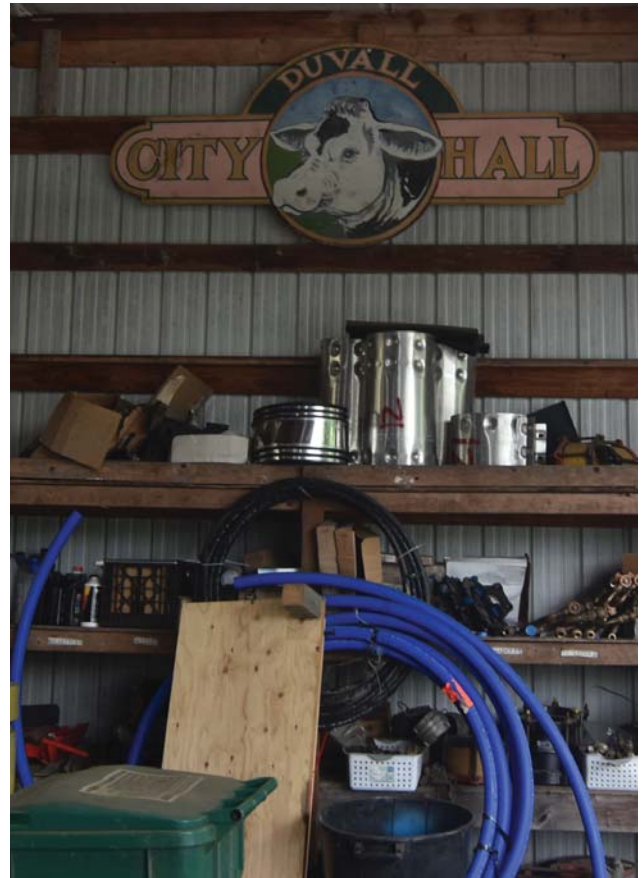


Table 1. Facility Condition Index Grade and Impact to Component Failure Risk, Residents and Staff

Common Implications of FCI to Asset Portfolios				
FCI Grade	Impact to Facilities and Components	Examples of Component Issues	User Complaints and Morale	Maintenance Personnel Impact
A Grade Excellent (FCI 0 to 4%)	Facilities will look clean and functional. Limited and manageable component and equipment failure may occur.	Repairs and replacement are more of an aesthetic or general nature, such as wall painting, carpet replacement, roof repair, window caulking.	User complaints will be low and manageable. User morale will be positive and evident.	Facilities personnel time will be devoted to regular scheduled maintenance.
B Grade Good (FCI 5 to 10%)	Facilities are beginning to show signs of wear. More frequent component and equipment failure will occur.	Repairs and replacement of specific systems, i.e. boiler, window replacements, interior renovations.	User complaints will occur with higher level of frequency. User morale may be affected.	Facilities personnel time may at times be diverted from regular scheduled maintenance.
C Grade Fair (FCI 11 to 30%)	Facilities will look worn with apparent and increasing deterioration. Frequent component and equipment failure may occur. Occasional building shut down will occur.	Replacement of specific major systems required, such as heating and plumbing systems, complete interior renovations, building envelope restoration. Shut down may affect users (i.e. roof or pipe leakage)	User complaints will be high with increased level of frequency. Concern about negative user morale will be raised and become evident.	Facilities personnel time will likely be diverted from regular scheduled maintenance and forced to “reactive” mode.
D Grade Poor (FCI over 31%)	Facilities will look worn with obvious deterioration. Equipment failure occurring frequently. Occasional building shut down will likely occur. Management risk is high. Health and safety issue figure prominently.	Replacement of multiple systems required (i.e. mechanical, electrical, architectural and structural). Building heating system failure. Evacuation of upper floor due to unaddressed roof leakage. Structural issues including envelope replacement.	User complaints will be very high with an unmanageable level of frequency. Lack of maintenance will affect user attitudes and morale.	Facilities personnel will not be able to provide regular scheduled maintenance due to high levels of “reactive” calls.

B

FACILITY CONDITION ASSESSMENT

CITY HALL (PARCEL 213070-0130) 15535 MAIN ST NE, DUVALL, WA 98109



General Comments:
 Built - 1977; interior renovated in 2005-2006; Plated wood roof trusses in one story space and a two story addition at west. There is some vertical movement at the transition from one to two story condition There is a rat infested crawlspace under the one story level. Conventional spread footings. Generally, well maintained; roofing appears newly replaced.

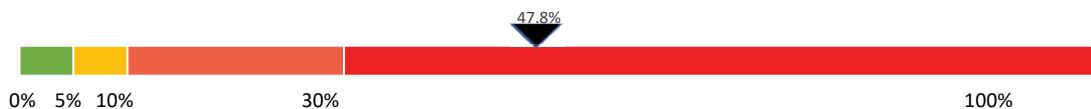
Property Name: City Hall - Offices 3,300 SF p # 213070-0130
 Property Address: 15535 Main Street NE
 Date of Assessment: 7/14/2021
 Assessment by: ARC Architects:

FCI Rating	
Excellent (0-5%)	
Good (5-10%)	
Fair (10-30%)	
Poor (+30%)	

Category	Component	Deficiency Rating (0-100)	% Required Replacement	% of Existing to be Replaced	Assumed % of Replacement Cost	Cost from CNA	Cost in 2022	Priority (1-3)	
Site	Landscape	20	20%	0.00%	0.0%	\$20,790	\$0	3	
	Parking	20	20%	0.00%	0.0%	\$60,984	\$0	3	
	Access/Drives	20	20%	0.00%	0.0%	\$4,125	\$0	3	
	Accessibility	60	60%	1.80%	3.0%	\$20,493	\$615	1	
	Utilities	80	80%	0.00%	0.0%	\$23,100	\$0	3	
Building Exterior	Foundations	60	60%	5.40%	9.0%	\$94,710	\$8,524	3	
	Structure	60	25%	2.50%	10.0%	\$274,890	\$27,489	2	
	Cladding	80	60%	4.80%	8.0%	\$229,845	\$18,388	2	
	Weather Barriers	80	100%	2.00%	2.0%	\$19,140	\$383	2	
	Doors	20	50%	1.00%	2.0%	\$18,942	\$379	3	
	Windows	20	100%	1.80%	1.8%	\$35,805	\$644	3	
	Roof	20	20%	0.60%	3.0%	\$104,874	\$3,146	3	
Building Interior	Floors	40	40%	0.80%	2.0%	\$40,887	\$818	3	
	Walls	40	40%	1.60%	4.0%	\$21,945	\$878	3	
	Ceilings	80	100%	2.00%	2.0%	\$54,978	\$1,100	1	
	Partitions	80	80%	1.60%	2.0%	\$51,150	\$1,023	1	
	Doors	80	80%	0.80%	1.0%	\$31,878	\$319	1	
	Interior Relites	0	0%	0.00%	1.0%	\$7,762	\$78	3	
	Casework	80	80%	2.40%	3.0%	\$35,805	\$1,074	1	
	Daylighting	20	20%	0.20%	1.0%	\$16,170	\$162	3	
Mechanical	HVAC	60	40%	4.80%	12.0%	\$264,000	\$31,680	2	
	Plumbing	40	40%	2.48%	6.2%	\$85,800	\$5,320	3	
	Fire Sprinkler	20	20%	0.60%	3.0%	\$46,200	\$1,386	3	
	Controls	20	20%	0.60%	3.0%	\$52,800	\$1,584	3	
Electrical	Power	20	20%	1.20%	6.0%	\$75,900	\$4,554	3	
	Lighting	80	80%	3.20%	4.0%	\$85,800	\$3,432	1	
	Fire Alarm	20	20%	0.60%	3.0%	\$39,600	\$1,188	3	
	Security	100	100%	5.00%	5.0%	\$28,644	\$1,432	1	
	Communications	0	0%	0.00%	3.0%	\$32,802	\$984	3	
						47.8%	100.0%	\$116,578	

Facility Condition Index (FCI)

47.8%



CITY HALL (PARCEL 213070-0130) 15535 MAIN ST NE, DUVALL, WA 98109

ARC ARCHITECTS

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04/29/2022 (rev. 12/25/23)

To: Gavin Harrold, Project Manager, City of Duvall
Steven Leniszewski, Public Works Director, City of Duvall

From: Dan Podoll, ARC Architects
Lillian Wu, ARC Architects

RE: City of Duvall City Hall Assessment

Inspection Date: October 27, 2021



Executive Summary

This assessment follows a 2019 property inspection report that was part of a larger city-wide facilities assessment. For this current assessment, structural, mechanical, electrical, and building envelope conditions were observed and are outlined below. The building envelopment assessment and recommendations are included as a separate report.

Based on the observed site conditions, we developed a Quality Assessment Matrix (QAM) that scores building components on a scale from 1 to 5, with 1 indicating a low priority maintenance and replacement concern and 5 indicating a high priority concern. Building components are outlined at the site, exterior, interior, and building system level. The QAM, in turn, was used to produce a Capital Needs Assessment estimate and a Facility Condition Index (FCI) outlining building component needs and the financial impacts for maintaining this facility over the next five-year period, with ability to stretch maintenance over a 20 year period. That assessment is included in this memo.

The following are recommendations for the City to consider implementing at City Hall.

- Seal top edge of galvanized vent flashings at the roof, including the tops of the flashing bonnets.
- Replace flashing collars at the (2) "solar-tube" skylights.
- Monitor the roof for evidence of condensation.
- To reduce deterioration, raise the siding along the north elevation or lower the grade.
- Reinstall batt insulation at the crawl space in order to properly insulate the floor
- Remove all existing HVAC systems and install a high-efficiency split heat pump system and energy recovery unit(s) to provide combined heating, cooling, and ventilation of the space. Upgrade the filters to provide at least a MERV-8 quality filter.
- Add domestic water recirculation if feasible. If the building undergoes a significant renovation, adding this system would help the City have a better hot water system.. However if changes to the building are minimal, the cost of adding recirculation would be cost-prohibitive and we would recommend keeping the existing system in place.
- Add fire protection only if feasible. If the building is significantly renovated, adding sprinklers would be a benefit to the life safety of the building. However, if only minor changes are made, we do not recommend adding fire protection. The facility has several emergency exits so there is not a significant evacuation threat. Adding fire protection would likely require a second water service from the city water main in the street and would be cost-prohibitive in the absence of a larger renovation project.
- Replace all existing lighting fixtures with energy efficient LED.
- Provide emergency lighting units for egress.

Site Information

The City Hall Building at 15535 Main St. NE is a 3,300 square foot, Type VB, unsprinklered building that was originally built in 1977 and expanded in 1994 when the building was expanded to the west and a lower floor was added. An interior remodel was completed in 2004 after the police department moved out. The building was reroofed in 2020 and repainted in 2021.

The building is T-shaped with a one-story wood-framed structure over a crawlspace that measures approximately 60' x 26' that is connected to a two-story structure that measures approximately 34' x 25'.

Fire Protection

There is no fire suppression system in the City Hall. The building has a Silent Knight SK-5208 fire alarm control panel. Smoke detectors are located in the halls. Horn/strobes and strobes are located throughout and pull stations are located at exits. The fire alarm system is in satisfactory condition and meets code requirements.

Building Structure

Available drawings for the building do not include structural information. The roof structure consists of plated wood trusses @ 24" oc with plywood sheathing. The one story original structure floor has a timber decking floor over a crawl space spanning to exterior concrete walls and interior wood beams supported by isolated spread footings. The elevated floor of the two story addition consists of conventional wood framing and a concrete slab on grade at the lower level.

The structure appears in generally good condition. There are some indications of differential movement at the transition from the one to two-story condition with some cracking noted in the ceiling and exterior foundation walls, but not significant.

Lighting

Light fixtures in the building are predominately a mix of surface mounted fluorescent wraparounds and incandescent downlights. Downlights are using LED replacement lamps. Fixtures are aging and in marginal condition. Flood lights are located on exterior walls of the building primarily to provide light for parking areas. Flood lights can be replaced with LED fixtures with sharp cutoff optics. Lighting controls are basic on/off switches in each room. These do not meet Washington State Energy Code requirements. Occupancy sensors in most rooms and photosensors in some areas will be required by Energy Code. The building has exit signs but no emergency lighting units ("bugeyes"). Exit signs are in satisfactory condition. Emergency lighting units (or other methods of battery backup) are needed to meet code requirements for egress lighting.

HVAC

The HVAC systems is made up of two residential gas furnaces that have cooling coils attached with two separate condensing units. The same filter media is installed in the furnaces as in the police station. The furnaces appear to be in decent condition. The furnace in the addition has a date of 1989, service life is typically 25 years. The condensing unit for the addition is old and will need repair or replacement in the next year or two.

Plumbing & Domestic Water Heating System

Plumbing consists of a traditional gas water heater with a 45-gallon storage tank. There is no recirculation system for the domestic hot water.

Electrical Power Service & Distribution

The power service to the building is provided underground from a pad mounted PSE transformer. There is also a PSE pad switch at the NW corner of the site. Service is 240/120V, 1 phase, 3 wire, 200 amps. Main panel is located in the mechanical closet and is by Square D with a 200-amp main breaker. The existing electrical service can remain and panel is in satisfactory condition.

Emergency Power

The building does not have a generator but does have a manual generator switch and exterior mounted service plug to accept a mobile generator connection.

Data/Voice

King County INet fiber and utility telephone lines route into building. Services terminate on telecom board in the mechanical closet. Incoming services are underground. A floor mounted telecom rack sits in the communications closet. The cabinet houses network equipment and patch panels for termination of data cables. The cabinet is in satisfactory condition and the closet is tight but still adequately sized for the equipment located within. Much of the data cabling is routed in the attic. It was observed that many cable binders are not properly supported in compliance with telecommunications standards.

SITE VISIT PHOTOS



City Hall exterior.



Two-story elevation.



Transition cracks at the ceiling.



Roof trusses.

B

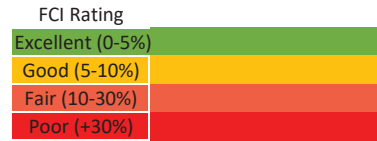
FACILITY CONDITION ASSESSMENT

COMMUNITY "WRECK" CENTER (PARCEL 213070-0960) 26512 NE STELLA ST, DUVALL, WA 98109



General Comments:
 The community center was originally constructed in 1938. The interior was remodeled in 1996 and there were major renovations completed in 2002. There were no drawings available for this building or any of the renovation work. Cracking observed at several west side foundation locations and basement beams/stud wall bearing plates exposed to weather. Age of structure likely negates lateral force resisting system. Lack of structural info is concerning.

Property Name: Community (WRECK) Center 3,080 SF
 Property Address: 26512 NE Stella St. tp# 213070-0960
 Date of Assessment: 7/14/2021
 Assessment by: ARC Architects:

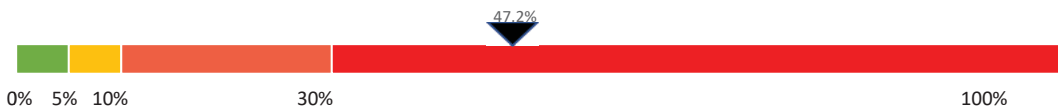


Category	Component	Deficiency Rating (0-100)	% Required Replacement or new (first time)	% of Existing to be Replaced	Assumed % of Replacement Cost	Cost from CNA	Cost in 2022	Priority (1-3)
Site	Landscape	80	80%	0.00%	0.0%	\$19,404	\$0	3
	Parking	100	100%	2.00%	2.0%	\$56,918	\$1,138	3
	Access/Drives	100	100%	2.00%	2.0%	\$3,850	\$77	3
	Accessibility	80	80%	0.80%	1.0%	\$19,127	\$191	2
	Utilities	40	40%	0.40%	1.0%	\$21,560	\$216	3
Building Exterior	Foundations	80	80%	2.40%	3.0%	\$88,396	\$2,652	3
	Structure	80	80%	4.00%	5.0%	\$223,762	\$11,188	2
	Cladding	80	80%	2.40%	3.0%	\$188,342	\$5,650	2
	Weather Barriers	100	100%	10.00%	10.0%	\$17,864	\$1,786	1
	Doors	40	40%	2.00%	5.0%	\$17,679	\$884	1
	Windows	20	20%	1.00%	5.0%	\$33,418	\$1,671	3
	Roof	40	40%	0.80%	2.0%	\$97,882	\$1,958	3
Building Interior	Floors	20	20%	0.60%	3.0%	\$34,342	\$1,030	3
	Walls	20	20%	1.00%	5.0%	\$16,324	\$816	3
	Ceilings	20	20%	1.00%	5.0%	\$38,346	\$1,917	3
	Partitions (ADA)	80	80%	1.60%	2.0%	\$47,740	\$955	1
	Doors	100	100%	5.00%	5.0%	\$18,942	\$947	1
	Interior Relites	0	0%	0.00%	0.0%	\$7,244	\$0	3
	Casework	20	20%	0.20%	1.0%	\$21,868	\$219	3
	Daylighting	20	20%	0.20%	1.0%	\$15,092	\$151	3
Mechanical	HVAC	20	20%	2.60%	13.0%	\$246,400	\$32,032	3
	Plumbing	20	20%	1.40%	7.0%	\$80,080	\$5,606	3
	Fire Sprinkler	100	100%	0.00%	0.0%	\$43,120	\$0	1
	Controls	20	20%	0.60%	3.0%	\$49,280	\$1,478	3
Electrical	Power	20	20%	1.20%	6.0%	\$70,840	\$4,250	3
	Lighting	40	40%	1.60%	4.0%	\$80,080	\$3,203	3
	Fire Alarm	100	100%	0.00%	0.0%	\$36,960	\$0	2
	Security	80	80%	2.40%	3.0%	\$26,734	\$802	1
	Communications	0	0%	0.00%	3.0%	\$30,615	\$918	3

47.2% 100.0% \$81,737

Facility Condition Index (FCI)

47.2%



04/29/2022 (rev.12/25/2023)

To: Gavin Harrold, Project Manager, City of Duvall
Steven Leniszewski, Public Works Director, City of Duvall

From: Dan Podoll, ARC Architects
Lillian Wu, ARC Architects

RE: City of Duvall (WRECK) Center Assessment

Inspection Date: October 27, 2021



Executive Summary

This assessment follows a 2019 property inspection report that was part of a larger city-wide facilities assessment. For this current assessment, structural, mechanical, electrical, and building envelope conditions were observed and are outlined below. The building envelopment assessment and recommendations are included as a separate report.

Based on the observed site conditions, we developed a Quality Assessment Matrix (QAM) that scores building components on a scale from 1 to 5, with 1 indicating a low priority maintenance and replacement concern and 5 indicating a high priority concern. Building components are outlined at the site, exterior, interior, and building system level. The QAM, in turn, was used to produce a Capital Needs Assessment estimate and a Facility Condition Index (FCI) outlining building component needs and the financial impacts for maintaining this facility over the next five-year period, with ability to stretch maintenance over a 20 year period. That assessment is included in this memo.

The following are recommendations for the City to consider implementing at the Community WRECK Center.

- Install insect screen at vent openings. Consider working with an insect control contractor to review and seal up openings that the flies can access.
- Refer to the building envelope report for recommendations on roof repair.
- Re-coat the entry porch with urethane traffic coating.
- Apply Kryton T1 waterproofing at the basement foundation wall to address efflorescence/moisture entry.
- Replace the rooftop AHU. If the existing electric panel has the capacity to handle the added load, we recommend replacing the existing AHU with a rooftop heat pump. If the electrical panel does not have adequate capacity, replacing the AHU with a similar air conditioning and gas heat unit would be more cost-effective. FSI recommends upgrading the furnace filter to a MERV-8 filter.
- Remove and cap abandoned sanitary drainpipes. There are several sanitary drainpipes in the basement that appeared to be abandoned and are open to the basement.
- Add fire protection if feasible. If the building is significantly renovated, and especially if the City continues to use the building for gatherings, adding a comprehensive fire protection sprinkler system would be a benefit to the life safety of the building and occupants. Adding fire protection would likely require a second water service from the city water main in the street. The facility currently has several emergency exits so there is not a significant evacuation threat.
- Replace lighting fixtures, particularly the incandescent flood lights, with LED.

Site Information

The Community Center at 26512 NE Stella St. was originally constructed in 1938. The interior was remodeled in 1996 and there were major renovations completed in 2002. There were no drawings available for this building or any of the renovation work.

The building is a two-story gable roof structure with a tower attached to a one-story slab-on-grade structure with a low slope roof. The building measures approximately 54' x 50'. The space has a significant fly infestation problem, particularly at the bell tower. It is FSI's suspicion that the bell tower is leaking, and the degrading material in it is attracting the flies. The bell tower does not have any obvious vents. This is likely contributing to the flies getting stuck in the tower and then finding their way into the building through the adjoining wall.



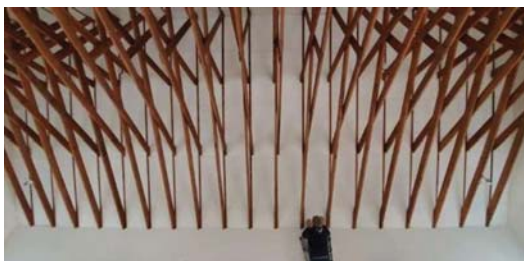
Fire Protection

The community center has a fire alarm system but no fire suppression. The building has a Silent Knight SK-5208 fire alarm control panel. An LCD annunciator is located at the west entry. Smoke detectors are located throughout. Horn/strobes and strobes are located in most areas and pull stations are located at exits. A couple more strobes are needed to achieve code requirements for visible notification. The fire alarm system is in satisfactory condition and mostly meets code requirements except for a couple more strobes being required.

Building Structure

The building consists of conventional wood framed construction and spread footings. The wood framing at the high roof appears to be comprised of stick built trusses @ 24" oc with minimal connections. The floor framing above the unfinished basement has been significantly strengthened by the addition of steel channels and steel connections to existing foundation walls and posts. All wall framing is concealed by GWB but assumed to be conventional stud wall framing based on limited access.

Cracking was noticed at several locations in the concrete foundation wall at the west side. The cracks are fairly wide, which would be an indication that the walls are not reinforced and there are also indications that the west wall has shifted and settled. There are locations at the north wall of the basement where the beams and stud wall bearing plates are exposed to weather; they have been painted but a more permanent closure may be warranted. Based on the age of this structure it may not have a complete lateral force resisting system. There are concerns about the lack of structural information about this structure, especially considering its age and the conditions of the concrete at the west and north walls.



High bay roof trusses



Cracks and signs of movement on the west wall

Lighting

The light fixtures in the building consist of a mix of styles. The Lower (East) Hall has low bay fluorescent pendants. The Lower (West) Hall has wall-mounted fluorescent up lights plus incandescent floods mounted in the rafters. The back of house spaces has utilitarian fluorescent fixtures. Fixtures are in satisfactory condition and can remain but replacement with energy efficient LED should be considered particularly for the incandescent flood lights. Lighting controls are basic on/off switches in each room. These do not meet Washington State Energy Code requirements. Occupancy sensors in most rooms and photosensors in both halls will be required by Energy Code. The building has exit signs and emergency lighting units ("bugeyes"). Devices are in satisfactory condition and meet code requirements for egress lighting.

HVAC

The Community Center has a rooftop-mounted package air handling unit (AHU) with air conditioning and gas heat. The rooftop AHU cabinet appears to have had rainwater leakage, as someone has applied a significant amount of water sealant to the duct connection and several seams on the AHU. Bulk filter media is used in the AHU, like the rest of the buildings.

Plumbing & Domestic Water Heating System

The two public restrooms are served by a 10-gallon electric water heater. The kitchen sink has a point-of-use electric water heater under the sink. There were several sanitary drainpipes in the basement that appeared to be abandoned in place with open ends so that the sanitary drains were venting to the basement.

Electrical Power Service & Distribution

Power service to the building is overhead from a utility pole southeast of the building. Service disconnect is located on the wall just inside the east entry door. Service is 240/120V, 1 phase, 3 wire, 200 amps. Main panel is in the electrical closet and is a GE A Series panel board with main lugs only. Existing service can remain and panel is in satisfactory condition, but the electrical closet is too narrow and does not provide code required clearance. Code requires 30" wide horizontal clearance in front of the panel and the closet is not 30" wide at the door opening. This can remain as an existing condition but if any significant work occurs in the building and/or at the panel, inspector will likely require the clearance issue to be addressed. There is a grid of floor outlets in the upper (west) hall. They are not operational and have been blanked off.

Emergency Power

The building does not have a generator.

Data/Voice & Security

King County INet fiber and utility telephone lines route into building. Services terminate on telecom board in the custodial closet. Incoming services are overhead. Network equipment and patch panels for termination of data cables are wall mounted in the custodial closet. This arrangement is adequate given the number of data outlets in the building are minimal. The building has a few CCTV cameras. An exterior camera views the entry area and interior cameras view the east and west halls.

B

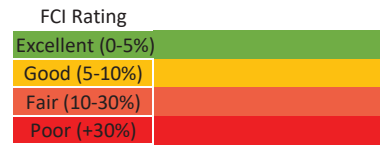
FACILITY CONDITION ASSESSMENT

POLICE STATION (PARCEL 1326069-118) 26225 NE BURHEN WAY, DUVALL, WA 98109



General Comments:
 Main Building: Original building constructed in 2004 no (original drawings); Notes indicate design per 1997 UBC; was intended to be a temporary structure (8-10 years); Modular wood construction (Williams Scotsman); Indications that building has experienced some settlement. Tenant indicates vertical movement in floor, doors jamming, etc. Sally port added in 2014 (80% progress drawings reviewed); designed to 2012 IBC; No indication of structural engineer on sally port drawings; all structural information shown on architectural drawings; No geotechnical report; 2000 psf allowable soil bearing assumed

Property Name: Police Department 5,762 SF (inc sallyport)
 Property Address: 26225 NE Burhen Way tp #1326069118
 Date of Assessment: 7/14/2021
 Assessment by: ARC Architects:



Category	Component	Deficiency Rating (0-100)	% Required Replacement or new (first time)	% of Existing to be Replaced	Assumed % of Replacement Cost	Cost from CNA	Cost in 2022	Priority (1-3)
Site	Landscape	20	20%	0.00%	0.0%	\$36,301	\$0	3
	Parking	20	20%	0.00%	0.0%	\$106,482	\$0	3
	Access/Drives	20	20%	0.00%	0.0%	\$7,203	\$0	3
	Accessibility	20	20%	0.00%	0.0%	\$35,782	\$0	1
	Utilities	40	40%	0.00%	0.0%	\$40,334	\$0	1
Building Exterior	Foundations	20	20%	1.90%	9.5%	\$150,964	\$14,342	3
	Structure	80	80%	12.00%	15.0%	\$379,024	\$56,854	3
	Cladding	60	60%	4.80%	8.0%	\$373,378	\$29,870	3
	Weather Barriers	60	60%	1.20%	2.0%	\$33,420	\$668	3
	Doors	80	80%	1.60%	2.0%	\$33,074	\$661	3
	Windows	40	40%	0.72%	1.8%	\$42,927	\$773	3
	Roof	20	20%	0.60%	3.0%	\$183,116	\$5,493	3
Building Interior	Floors	80	80%	1.60%	2.0%	\$76,058	\$1,521	1
	Walls	20	20%	0.80%	4.0%	\$42,351	\$1,694	3
	Ceilings	80	80%	1.60%	2.0%	\$83,261	\$1,665	1
	Partitions (ADA)	80	80%	1.60%	2.0%	\$129,069	\$2,581	1
	Doors	100	100%	1.00%	1.0%	\$35,436	\$354	1
	Interior Relites	20	20%	0.20%	1.0%	\$25,065	\$251	3
	Casework	40	40%	0.40%	1.0%	\$50,706	\$507	2
	Daylighting	80	80%	0.80%	1.0%	\$28,234	\$282	3
Mechanical	HVAC	100	100%	13.50%	13.5%	\$460,960	\$62,230	1
	Plumbing	40	40%	2.48%	6.2%	\$149,812	\$9,288	3
	Fire Sprinkler	100	100%	3.00%	3.0%	\$80,668	\$2,420	1
	Controls	20	20%	0.60%	3.0%	\$92,192	\$2,766	3
Electrical	Power	20	20%	1.20%	6.0%	\$132,526	\$7,952	3
	Lighting	40	40%	1.60%	4.0%	\$149,812	\$5,992	2
	Fire Alarm	20	20%	0.60%	3.0%	\$69,144	\$2,074	3
	Security	80	80%	2.40%	3.0%	\$61,653	\$1,850	1
	Communications	20	20%	0.60%	3.0%	\$74,330	\$2,230	3

56.8% 100.0% \$214,319
 Facility Condition Index (FCI) 56.8%



04/29/2022 (rev.12/25/2023)

To: Gavin Harrold, Project Manager, City of Duvall
Steven Leniszewski, Public Works Director, City of Duvall

From: Dan Podoll, ARC Architects
Lillian Wu, ARC Architects

RE: City of Duvall Police Station Assessment

Inspection Date: October 27, 2021



Executive Summary

This assessment follows a 2019 property inspection report that was part of a larger city-wide facilities assessment. For this current assessment, structural, mechanical, electrical, and building envelope conditions were observed and are outlined below. The building envelopment assessment and recommendations are included as a separate report.

Based on the observed site conditions, we developed a Quality Assessment Matrix (QAM) that scores building components on a scale from 1 to 5, with 1 indicating a low priority maintenance and replacement concern and 5 indicating a high priority concern. Building components are outlined at the site, exterior, interior, and building system level. The QAM, in turn, was used to produce a Capital Needs Assessment estimate and a Facility Condition Index (FCI) outlining building component needs and the financial impacts for maintaining this facility over the next five-year period, with ability to stretch maintenance over a 20 year period. That assessment is included in this memo.

The following are recommendations for the City to consider implementing at the Police Station.

- Install additional crawl space vents (approx. 290 square inches) of NFVA in order to meet the minimum required ventilation. This will likely require constructing wells where the foundation wall is buried.
- Seal the crawl space access door to prevent rodent entry.
- Install additional rodent protection at the mechanical penetrations into the crawl space as needed.
- Monitor roof for leakage over time. Install sheet metal troughs that extend from the upper roof downspouts to the gutters on the lower roof.
- Replace batt insulation between the floor joists at the crawl space and remove the reinforced polyethylene product installed on the underside of the floor joists.
- Remove all existing HVAC systems and install a high-efficiency, split heat pump system, along with energy recovery unit(s) to provide combined heating, cooling, and ventilation of the space. All filters should be upgraded to provide at least a MERV-8 quality. If no repairs are to be done to the HVAC system, we recommend a professional ductwork cleaning to remove the debris that has accumulated in the existing ductwork, as well as upgrading the filters to a MERV-8, factory-built filter.
- Upgrade the domestic hot water to include a recirculation system to provide immediate hot water to all fixtures, if the building is intended to be used as a police station for an extended period.
- Provide a comprehensive fire protection investigation to confirm the entire building is protected, since the building is a made up of four combined structures.
- Replace all existing light fixtures with LED.

Site Information

The Police Station at 26225 NE Burhen Way is a 5,762 sf, Type VB, sprinklered one-story building originally built in 2004 as a temporary facility, intended to be utilized for 8-10 years, for the City of Duvall Police Department. In 2014, the sally port was added to the building. The building measures approximately 90' x 60' and was originally constructed as separate pre-manufactured buildings that were joined together on site and covered with roof trusses. The property is zoned Public Facilities (PF).

Fire Protection System

There is a 1-hour fire separation between the original building and the sally port. Fire protection system in the police station includes a 4" dry pre-action sprinkler system and a 2" wet system. The building has a Silent Knight 5808 fire alarm control panel located in the sprinkler riser room. An LCD annunciator is located at the main entry. Smoke detectors are located in the halls. Horn/strobes and strobes are located throughout and pull stations are located at exits. The fire alarm system is in satisfactory condition and meets code requirements.

Building Structure - Police Station Building

There are no structural drawings for the original 2004 police station building; this structural assessment is based on visual observations. The police station structure appears in good condition. The structure is a wood framed modular building consisting of (6) modular sections with a typical size of 13'-10" x 55'-4". The modular sections were constructed off site with integral floor and ceiling joists and spliced together in the field. The roof consists of plate wood trusses (PWT) @ 24" oc. The modular sections bear on a crawl space system consisting of wood stud cricket walls supported by concrete stem walls and conventional spread footings. There was some cracking in the vinyl tile noted in the break room at the location of one of modular splices but it was not significant and corresponds to the location of a cricket wall in the crawl space so adequate support is provided.

The structure observed in the attic and crawl spaces appears in very good condition. The general notes in the approved shop drawings indicate design loads consistent with an office building and a roof snow live load of 25 psf, which meets current code. Appropriate wind and seismic design loads are indicated but there is no indication this was treated as an essential facility per the 1997 Uniform Building Code, as would typically be required for a police station, which would have dictated a higher importance factor for wind and seismic design. It is likely that the allowable soil bearing pressure indicated was assumed and that no geotechnical investigation was completed; this is true of the sally port as well, which indicates the allowable soil bearing pressure is assumed.

Building Structure - Sally Port

A set of bid documents was provided for the 2014 sally port addition to the police station. The sally port roof structure consist of plated wood trusses, which are supported by a system of CMU bearing walls and steel framing at the overhead door openings. The existing police station building east stud wall provides support for the sally port roof. The foundations consist of conventional spread wall footings. The lateral system for the addition consists of CMU shear walls and the existing east wall of the police station is acting as a light framed shear wall. The roof structure at the sally port is exposed and appeared in excellent condition. It should be noted however that the structural notes indicate that the sally port was engineering in accordance with the 2012 International Residential Code and does not appear to have been treated as an essential facility as you would expect for a facility of this type.



Police Station Roof Structure



Sally Port Roof Structure



Cracks at the break room

Lighting

Light fixtures in the building and on exterior of building are aging and in marginal condition. Fixtures are mainly fluorescent and can be replaced with more energy efficient LED. It is recommended to replace all existing fixtures when the building is renovated. There is no lighting in the parking lot except for spill from building mounted fixtures. Lighting controls are basic on/off switches in each room. These do not meet Washington State Energy Code requirements. Occupancy sensors in most rooms and photosensors in some areas will be required by Energy Code. The building has exit signs and emergency lighting units ("bugeyes") in place as required by code for egress lighting. Devices are in satisfactory condition.

HVAC

There have been reports of air quality issues and allergy issues among the police force. The building does not have any mechanical design drawings. The HVAC system consists of inline gas heat fan coils with an additional split system refrigerant cooling coil on the outlet of the fan coil. Five outdoor condensers serve the cooling coils. Bulk filter media sheets are used for filters in the fan coils, along with a metal structure to hold the filter in place. The metal structure appears to be homemade.

FSi observed gaps up to 1/2" gaps between the filter and the sealing surface, along with significant particulates and debris on the "clean" side of the filter. The metal filter holder does not seal well. This and the coarse nature of the filter is allowing particulate matter and debris to bypass the filter. The filter media had no writing on it to indicate the MERV level of filtration. FSi understands this type of filter media is inexpensive but the filters do not function well and are likely contributing to indoor respiratory and allergy issues. There is also evidence of rodent activity in the crawl space, above the drop ceilings and in the attic. This may also impact air quality.

Plumbing

Plumbing in the space consists of two private restrooms, a sink and shower in the locker room, and a sink in an office area. The domestic heating water system has an instantaneous water heater with no recirculation.

Electrical Power Service & Distribution

Power service to the building is underground from a pad-mounted PSE transformer. Service is 240/120V, 1 phase, 3 wire, 400 amps. Main panel is located near south entry door and is a Square D Type NQOD panel with a 400-amp main breaker. The existing service can remain and main panel is in satisfactory condition. There are two branch panelboards in the building. One is located in locker room and one in the utility closet. The branch panelboards are in satisfactory condition.

Emergency Power

A Generac Guardian Elite generator is located outside on the south side of the building. The generator is natural gas fueled. An automatic transfer switch is located outside near the generator. It is fed at 100 amps from the generator and the main panel. Selected building loads are on the generator including lights and receptacles. It was observed that the gas line to the generator appears to route through the building. This could be problematic due to potential for the gas line to be interrupted. The generator system is in fair condition.

Data/Voice

King County INet fiber and utility telephone lines route into the building. Services terminate on telecom board in the utility closet. Incoming services are underground. A floor mounted telecom rack sits in the hall near the utility closet. The cabinet houses network equipment and patch panels for termination of data cables. The cabinet is in satisfactory condition but would be better located in a dedicated room along with the telecom board.

Security System

The building has a security system with door switches at all exterior doors and selected interior doors. Break glass detectors are located in rooms with windows. There is a panic switch at the front desk. Card readers are located at selected interior doors including Evidence and Booking rooms.

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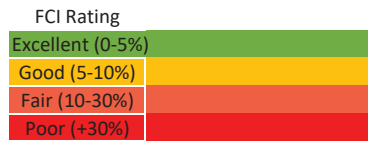
FACILITY CONDITION ASSESSMENT

PUBLIC WORKS YARD/COVERED STORAGE (PARCEL 213070-0005) 26301 NE CHERRY ST, WA 98109



General Comments: This 9,000 square foot covered structure was constructed in 1997 after the collapse of the original barn structure. A 1,200 square foot office/locker facility was subsequently constructed within the footprint of the structure in the northeast corner. No drawings exist for either the covered structure or office/locker facility. Total economic life of 30 years. Structure has a remaining economic life of approximately 5 years. Pole buildings are often intended as unoccupied storage buildings, so the assumptions employed in its design are unknown. An unoccupied structure would have likely been designed for lower forces. For these reasons it is our recommendation that this building either be substantially upgraded to provide a complete lateral system or be replaced.

Property Name: Public Works Yard/Covered Storage #213070-0005
 Property Address: 26320 NE Stella St.
 Date of Assessment: 7/14/2021
 Assessment by: ARC Architects:



Category	Component	Deficiency Rating (0-100)	% Required Replacement or new (first time)	% of Existing to be Replaced	Assumed % of Replacement Cost	Cost from CNA	Cost in 2022	Priority (1-3)
Site	Landscape	100	100%	0.00%	0.0%	\$20,790	\$0	3
	Parking	100	100%	0.00%	0.0%	\$60,984	\$0	1
	Access/Drives	100	100%	0.00%	0.0%	\$4,125	\$0	1
	Accessibility	80	80%	0.00%	0.0%	\$20,493	\$0	1
	Utilities	60	60%	3.00%	5.0%	\$23,100	\$1,155	1
Building Exterior	Foundations	100	100%	13.00%	13.0%	\$94,710	\$12,312	1
	Structure	100	100%	25.00%	25.0%	\$274,890	\$68,723	1
	Cladding	80	80%	6.40%	8.0%	\$229,845	\$18,388	2
	Weather Barriers	100	100%	2.00%	2.0%	\$19,140	\$383	1
	Doors	80	80%	1.60%	2.0%	\$18,942	\$379	1
	Windows	80	80%	0.00%	0.0%	\$35,805	\$0	3
	Roof	100	100%	3.00%	3.0%	\$104,874	\$3,146	1
Building Interior	Floors	80	80%	2.40%	3.0%	\$40,887	\$1,227	1
	Walls	40	40%	0.00%	0.0%	\$21,945	\$0	3
	Ceilings	40	40%	0.00%	0.0%	\$54,978	\$0	3
	Partitions (ADA)	80	80%	1.60%	2.0%	\$51,150	\$1,023	2
	Doors	60	60%	0.00%	0.0%	\$31,878	\$0	3
	Interior Relites	100	100%	0.00%	0.0%	\$7,762	\$0	3
	Casework	40	40%	0.40%	1.0%	\$35,805	\$358	2
	Daylighting	20	20%	0.20%	1.0%	\$16,170	\$162	2
Mechanical	HVAC	20	20%	0.60%	3.0%	\$264,000	\$7,920	3
	Plumbing	20	20%	0.60%	3.0%	\$85,800	\$2,574	3
	Fire Sprinkler	100	100%	5.00%	5.0%	\$46,200	\$2,310	1
	Controls	100	100%	5.00%	5.0%	\$52,800	\$2,640	1
Electrical	Power	20	20%	0.40%	2.0%	\$75,900	\$1,518	3
	Lighting	20	20%	0.40%	2.0%	\$85,800	\$1,716	3
	Fire Alarm	100	100%	5.00%	5.0%	\$39,600	\$1,980	1
	Security	100	100%	5.00%	5.0%	\$28,644	\$1,432	1
	Communications	100	100%	5.00%	5.0%	\$32,802	\$1,640	1

85.6% 100.0% \$130,985

Facility Condition Index (FCI)

85.6%



04/29/2022 (rev. 12/25/2023)

To: Gavin Harrold, Project Manager, City of Duvall
Steven Leniszewski, Public Works Director, City of Duvall

From: Dan Podoll, ARC Architects
Lillian Wu, ARC Architects

RE: City of Duvall Public Works Maintenance Yard Assessment

Inspection Date: October 27, 2021



Executive Summary

This assessment follows a 2019 property inspection report that was part of a larger city-wide facilities assessment. For this current assessment, structural, mechanical, electrical, and building envelope conditions were observed and are outlined below. The building envelopment assessment and recommendations are included as a separate report.

The following are recommendations for the City to consider implementing at the Public Works Yard.

- We believe this structure has an economic life of approximately 5 years remaining. It should either be upgraded to provide a complete lateral system or be replaced.
- Replace gasketed screw fasteners with new fasteners of slightly larger diameter if leaking occurs during periods of heavy rain. This will help fill the existing hole and provide a seal at the roof panels.
- Remove the existing furnace and install a high-efficiency heat pump system.
- Upgrade the filters to provide at least a MERV-8 quality filter.
- Replace all fluorescent fixtures with energy efficient LED.
- Provide emergency lighting units for egress.

Site Information

The existing site of the Public Works Maintenance Facility is located at 26301 NE Stella St. between Stella and Cherry Streets in the downtown area. The overall site is approximately 19,690 square feet and is enclosed with a chain link fence surrounded by commercial and residential buildings. The center of the site has a drive through connecting the entrance from the south to the north.

The metal shed structure is approximately 125' x 75', constructed in 1998 after the collapse of the original barn structure on the site during a snowstorm in 1996. A 1,200 square foot office/locker facility was subsequently constructed within the footprint of the structure in the northeast corner. No drawings exist for either the covered structure or office/locker facility. There is a 500-gallon diesel fuel tank on site.

Fire Protection

The building does not have a fire protection system. Residential style smoke alarms are located in the conditioned area.

Building Structure

The existing covered storage structure is a two-sided open-ended Class "D" pole type construction. Roof framing consists of a standing seam metal roof spanning to wood joists @ 24" o.c supported by steel trusses. The trusses are attached at each end by pressure-treated posts. These pressure-treated posts are embedded in concrete piers and function as a cantilevered column system, which is the lateral force resisting system for the building.

Because the pressure-treated posts are embedded in concrete and exposed to moisture, they can be expected to eventually rot and fail. The building's gravity and lateral stability relies entirely on these columns. Additionally, the structure has little diaphragm capacity to transfer lateral forces to the columns as the metal panels are low profile and light gauge. The March 2013 facilities

PUBLIC WORKS YARD/COVERED STORAGE (PARCEL 213070-0005) 26301 NE CHERRY ST, WA 98109

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inventory indicates that this building has a 20-year life span and a total economic life of 30 years. We concur with that assessment and believe this structure has a remaining economic life of approximately 5 years. Pole buildings are often intended as unoccupied storage buildings. There are no drawings for this structure so the assumptions employed in its design are unknown as an unoccupied structure would have likely been designed for lower forces. Soil capacities are critical in the design of embedded columns and footings and it is unknown if a geotechnical engineer was involved in the original design. For these reasons it is our recommendation that this building either be substantially upgraded to provide a complete lateral system or be replaced.

Lighting

Light fixtures in the building are fluorescent wraparounds in the conditioned area and LED high bays in the open area. Fluorescent fixtures are aging and in marginal condition. It is recommended to replace all fluorescent fixtures with energy efficient LED. LED high bays are in satisfactory condition and can remain or be re-used. Lighting controls are basic on/off switches in each room. These do not meet Washington State Energy Code requirements. Occupancy sensors in most rooms and photo sensors in some areas will be required by Energy Code. The building has an exit sign but no emergency lighting units ("bugeyes"). Exit sign is in satisfactory condition. Emergency lighting unit (or other methods of battery backup) is needed to meet code requirements for egress lighting.

HVAC

The facility consists of a large open storage area, along with an interior heated building that has a small office, kitchen, bathroom, and laundry/locker room. The gas furnace for the heated area is old and has the same bulk media filter as the Police Station and City Hall.

Plumbing & Domestic Water Heating System

The 50-gallon gas water heater appears to be in good condition. There is no domestic hot water circulation.

Electrical Power Service & Distribution

Power service to the building is overhead from a pole to the northeast. Service is 240/120V, 1 phase, 3 wire, 200 amps. Main panel is located in the break room area and is a Square D load center with a 200-amp main breaker. Existing service can remain and panel is in satisfactory condition.

Emergency Power

The building does not have a generator but does have a manual generator switch and exterior mounted service plug to accept a mobile generator connection.

Data/Voice

King County INet fiber and utility telephone lines route into building. Services terminate in a small cabinet in the break room. Incoming services are overhead. A small wall mounted telecom cabinet is located in the break room. The cabinet houses network equipment and patch panels for termination of data cables. The cabinet is in satisfactory condition.



Left: Roof trusses at the maintenance yard with separate office structure below.

Above: Roof truss to column connection

B

FACILITY CONDITION ASSESSMENT

VISITORS CENTER (PARCEL 213070-0175) 15619 MAIN ST NE, DUVALL, WA 98109



General Comments:
 The visitors center was constructed in 1935 with a 320 square foot wing added at the south face in 1959 and a large two story 2720 square foot addition to the west in 1988. No drawings existing for the 1935 or 1959 construction but a complete set of drawings for the 1988 expansion was provided for our review. This building was used primarily as a library until KCLS completed construction of a new library in 2004.



Property Name:	Visitors Center	3,040 SF	tp# 213070-0175	FCI Rating Excellent (0-5%) Good (5-10%) Fair (10-30%) Poor (+30%)	
Property Address:	15619 Main St. NE				
Date of Assessment:	7/14/2021				
Assessment by:	ARC Architects:				

Category	Component	Deficiency Rating (0-100)	% Required Replacement or new (first time)	% of Existing to be Replaced	Assumed % of Replacement Cost	Cost from CNA	Cost in 2022	Priority (1-3)	
Site	Landscape	20	20%	0.00%	0.0%	\$16,720	\$0	3	
	Parking	100	100%	5.00%	5.0%	\$24,320	\$1,216	2	
	Access/Drives	100	100%	5.00%	5.0%	\$3,800	\$190	2	
	Accessibility	80	80%	8.00%	10.0%	\$12,160	\$1,216	1	
	Utilities	40	40%	0.00%	0.0%	\$21,280	\$0	3	
Building Exterior	Foundations	60	60%	6.00%	10.0%	\$34,808	\$3,481	1	
	Structure	100	100%	14.00%	14.0%	\$119,928	\$16,790	1	
	Cladding	60	60%	4.20%	7.0%	\$96,216	\$6,735	2	
	Weather Barriers	60	60%	1.20%	2.0%	\$17,632	\$353	3	
	Doors	20	20%	0.40%	2.0%	\$16,264	\$325	3	
	Windows	20	20%	0.40%	2.0%	\$37,210	\$744	3	
	Roof	60	60%	1.80%	3.0%	\$31,008	\$930	3	
Building Interior	Floors	20	20%	0.40%	2.0%	\$26,752	\$535	3	
	Walls	20	20%	0.80%	4.0%	\$11,005	\$440	3	
	Ceilings	20	20%	0.40%	2.0%	\$30,704	\$614	3	
	Partitions (ADA)	80	80%	1.60%	2.0%	\$43,776	\$876	3	
	Doors	60	60%	1.80%	3.0%	\$31,768	\$953	1	
	Interior Relites	0	0%	0.00%	1.0%	\$7,296	\$73	3	
	Casework	20	20%	0.20%	1.0%	\$44,384	\$444	3	
	Daylighting	20	20%	0.00%	0.0%	\$0	\$0	3	
Mechanical	HVAC	20	20%	1.00%	5.0%	\$243,200	\$12,160	2	
	Plumbing	20	20%	0.60%	3.0%	\$79,040	\$2,371	3	
	Fire Sprinkler	20	20%	0.20%	1.0%	\$42,560	\$426	3	
	Controls	20	20%	0.20%	1.0%	\$48,640	\$486	3	
Electrical	Power	20	20%	0.40%	2.0%	\$69,920	\$1,398	3	
	Lighting	80	80%	2.40%	3.0%	\$79,040	\$2,371	2	
	Fire Alarm	100	100%	5.00%	5.0%	\$36,480	\$1,824	1	
	Security	80	80%	4.00%	5.0%	\$13,680	\$684	1	
	Communications	20	20%	0.00%	0.0%	\$0	\$0	3	
						65.0%	100.0%	\$57,636	

Facility Condition Index (FCI)

65.0%



04/29/2022 (rev. 12/25/2023)

To: Gavin Harrod, Project Manager, City of Duvall
Steven Leniszewski, Public Works Director, City of Duvall

From: Dan Podoll, ARC Architects
Lillian Wu, ARC Architects

RE: City of Duvall Visitor Center Assessment

Inspection Date: October 27, 2021



Executive Summary

This assessment follows a 2019 property inspection report that was part of a larger city-wide facilities assessment. For this current assessment, structural, mechanical, electrical, and building envelope conditions were observed and are outlined below. The building envelopment assessment and recommendations are included as a separate report.

Based on the observed site conditions, we developed a Quality Assessment Matrix (QAM) that scores building components on a scale from 1 to 5, with 1 indicating a low priority maintenance and replacement concern and 5 indicating a high priority concern. Building components are outlined at the site, exterior, interior, and building system level. The QAM, in turn, was used to produce a Capital Needs Assessment estimate and a Facility Condition Index (FCI) outlining building component needs and the financial impacts for maintaining this facility over the next five-year period, with ability to stretch maintenance over a 20 year period. That assessment is included in this memo.

The following are recommendations for the City to consider implementing at the Visitor Center.

- With proper maintenance, we expect the roof to last another 2-4 years. Trim back trees overhanging the north and south ends of the original building. Repair areas of the roof that have been damaged by tree branches. Install new shingles where necessary.
- Replace deteriorated flashing at (3) locations on the east side of the original building.
- Upgrade the furnace filter to a MERV 8 filter.
- Add domestic water recirculation if feasible. If the building undergoes a significant renovation, adding this system would help the City reduce water use and costs. However, if changes to the building are minimal, the cost of adding recirculation would be cost-prohibitive and we would recommend keeping the existing system in place.
- Add fire protection if feasible. If the building is significantly renovated, and especially if the City anticipates continuing to use the building for gatherings, adding sprinklers would be a benefit to the life safety of the building and occupants. Adding fire protection would likely require a second water service from the city water main in the street and would be cost prohibitive in the absence of a larger renovation project. The facility currently has several emergency exits so there is not a significant evacuation threat.
- Replace all existing light fixtures with LED.
- Provide emergency lighting units for egress.

Site Information

The Visitor Center at 15619 Main St. NE was constructed in 1935 with a 320 square foot wing added to the south in 1959 and a large two-story 2,720 square foot addition to the west in 1988. There are no drawings for the 1935 or 1959 construction but a complete set of drawings for the 1988 expansion was provided for our review. This building was used primarily as a library until KCLS completed construction of a new library in 2004. The basement of the building is now used as a break room for city maintenance staff.

Fire Protection

The Visitor Center does not have fire protection. Residential style smoke alarms are located throughout.

Building Structure

The original building roof construction consists of straight board sheathing supported by 2x rafters with diagonals to form pseudo gable trusses. The 1959 addition is of similar construction. The 1988 two-story addition has a roof system consisting of a combination of plated wood trusses and conventional wood joists and beams. Floor framing consists of a combination of TJs and dimensional lumber framing. The building lateral system consists of plywood shear walls. All foundations are continuous spread footings with concrete stem walls.

The 1988 expansion drawings indicate a well-engineered structure with a competent gravity and lateral force resisting system. No structural deficiencies were noted. There are no drawings for the original 1935 structure nor 1959 southern expansion. There are indications of localized water intrusion in the original building roof construction above the kitchen. The timber posts in the basement of the 1935 structure are not anchored to the beams or foundations. Floor joists constructed in the original two phases were concealed by GWB ceiling and could not be observed. The crawl space under the 1959 expansion was not accessible and there is one segment of foundation wall on the west side of that addition that appears of poor quality and should be replaced. Neither of these areas was upgraded as part of the 1988 addition. Due to the many unknowns about this portion of the building additional investigation is warranted.

Lighting

Light fixtures in the building are predominately a mix of surface-mounted fluorescent wraparounds and incandescent downlights. There are also some schoolhouse style pendants. Downlights are using LED replacement lamps. Fixtures are aging and in marginal condition. It is recommended to replace all existing fixtures with energy efficient LED. Lighting controls are basic on/off switches in each room. These do not meet Washington State Energy Code requirements. Occupancy sensors in most rooms and photosensors in some areas will be required by Energy Code. The building has exit signs but no emergency lighting units ("bugeyes"). Exit signs are in satisfactory condition with the exception of the one at the main entry which is not illuminated. Emergency lighting units (or other methods of battery backup) are needed to meet code requirements for egress lighting.

HVAC

There is a newer gas furnace with a programmable thermostat. Filters are the same bulk media used in the Police Station and City Hall. The building HVAC appeared to be in good condition overall.

Plumbing & Domestic Water Heating System

The Visitor Center has a new 50-gallon gas water heater.

Electrical Power Service & Distribution

The power service to the building is underground from a PSE transformer in a vault in the right of way. The service rises up the building to the weather head for the old overhead service. Service is 240/120V, 1 phase, 3 wire, 200 amps. Panel board is located near main entry and is a Square D load center with a 200-amp main breaker. The panel board is old and in marginal condition. Existing service can remain. Replacement of panel board should be considered.

Emergency Power

The building does not have a generator.

Data/Voice & Security

King County INet fiber and utility telephone lines route into basement of building. Services terminate at a small rack on the wall. Incoming services are underground. The wall rack also houses network equipment and patch panels for termination of data cables. The rack is in satisfactory condition.

The building has a small security system. The manufacturer is Moose. Motion detectors are at selected locations. A keypad for arming and disarming the system is near the reception counter.

SITE VISIT PHOTOS



Front entrance to the Visitor Center.



West foundation wall at the south wing



Lower level post is not anchored to the beam.

B

FACILITY CONDITION ASSESSMENT

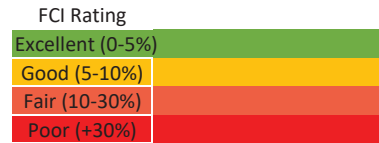
WWTP ENGINEERING BUILDING (PARCEL 132606-9132)



General Comments:

Built - 1987; interior renovated ?; Plated wood roof trusses (PWT) Floor framing consists of 2x12 @ 16" oc with 3/4" tongue-and-groove plywood sheathing. The typical exterior walls consist of full height 2x6 @ 16" oc. This was confirmed at one location at the storage mezzanine which also revealed the walls may have the same OSB sheathing as the roof. The drawings indicate the perimeter walls are supported by strip footings and 6" x 18" concrete stem wall.

Property Name: Engineering Building 3,675 SF :p # 1326069132
 Property Address 14525 Main Street NE
 Date of Assessment: 7/14/2021
 Assessment by: ARC Architects:



Category	Component	Deficiency Rating (0-100)	% Required Replacement or new (first time)	% of Existing to be Replaced	Assumed % of Replacement Cost	Cost from CNA	Cost in 2022	Priority (1-3)	
Site	Landscape	20	20%	0.60%	3.0%	\$20,213	\$606	3	
	Parking	60	60%	3.60%	6.0%	\$29,400	\$1,764	1	
	Access/Drives	80	80%	4.80%	6.0%	\$4,594	\$276	1	
	Accessibility	80	80%	4.80%	6.0%	\$14,700	\$882	1	
	Utilities	20	20%	1.00%	5.0%	\$25,725	\$1,286	1	
Building Exterior	Foundations	60	60%	6.00%	10.0%	\$42,079	\$4,208	1	
	Structure	80	80%	8.00%	10.0%	\$161,333	\$16,133	1	
	Cladding	80	80%	4.80%	6.0%	\$132,851	\$7,971	1	
	Weather Barriers	80	80%	6.40%	8.0%	\$21,315	\$1,705	1	
	Doors	20	20%	0.00%	0.0%	\$52,185	\$0	3	
	Windows	40	40%	2.40%	6.0%	\$27,195	\$1,632	1	
	Roof	40	40%	0.00%	0.0%	\$43,733	\$0	3	
Building Interior	Floors	80	80%	0.00%	0.0%	\$17,640	\$0	2	
	Walls	20	20%	0.00%	0.0%	\$13,304	\$0	3	
	Ceilings	40	40%	1.60%	4.0%	\$26,093	\$1,044	1	
	Partitions (ADA)	80	80%	3.20%	4.0%	\$42,079	\$1,683	1	
	Doors	20	20%	0.80%	4.0%	\$30,870	\$1,235	3	
	Interior Relites	100	100%	0.00%	0.0%	\$0	\$0	3	
	Casework	60	60%	0.00%	0.0%	\$26,093	\$0	2	
	Daylighting	60	60%	0.00%	0.0%	\$12,128	\$0	3	
Mechanical	HVAC	40	40%	0.00%	0.0%	\$294,000	\$0	2	
	Plumbing	40	40%	0.00%	0.0%	\$95,550	\$0	2	
	Fire Sprinkler	100	100%	6.00%	6.0%	\$51,450	\$3,087	1	
	Controls	20	20%	0.00%	0.0%	\$44,100	\$0	3	
Electrical	Power	20	20%	0.00%	0.0%	\$84,525	\$0	2	
	Lighting	60	60%	2.40%	4.0%	\$95,550	\$3,822	2	
	Fire Alarm	100	100%	4.00%	4.0%	\$44,100	\$1,764	1	
	Security	100	100%	4.00%	4.0%	\$20,213	\$809	3	
	Communications	40	40%	1.60%	4.0%	\$23,336	\$933	3	
						66.0%	100.0%	\$50,840	

Facility Condition Index (FCI)

66.0%



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04/29/2022 (rev. 12/25/2023)

To: Gavin Harrold, Project Manager, City of Duvall
Steven Leniszewski, Public Works Director, City of Duvall

From: Dan Podoll, ARC Architects
Lillian Wu, ARC Architects

RE: City of Duvall WWTP Engineering Building Assessment

Inspection Date: Wednesday, July 14, 2021, 1-2pm



Executive Summary

This assessment follows a 2019 property inspection report that was part of a larger city-wide facilities assessment. For this current assessment, architectural, structural, mechanical, electrical, and building envelope conditions were observed and are outlined below. Overall, the existing conditions are fair, but there are several deficiencies that would not allow the building to meet the City's growing needs over the next several decades, including space needs for additional staffing, accessibility, fire protection systems, mechanical, electrical, and plumbing (MEP) systems that meet current codes, and deteriorating structural and non-structural building materials on the exterior. Architectural fixtures and finishes are also in need of replacement.

Based on the observed site conditions, we developed a Quality Assessment Matrix (QAM) that scores building components on a scale from 1 to 5, with 1 indicating a low priority maintenance and replacement concern and 5 indicating a high priority concern. Building components are outlined at the site, exterior, interior, and building system level. The QAM, in turn, was used to produce a Capital Needs Assessment estimate and a Facility Condition Index (FCI) outlining building component needs and the financial impacts for maintaining this facility over the next five-year period, with ability to stretch maintenance over a 20 year period. That assessment is included in this memo.

Our recommendation for the is City to evaluate design options for renovating the existing facility. An expansion to the building would allow an increase in program space for the lobby, open work areas, private offices, a proper break room, and support spaces including storage and restrooms. The potential for expansion would require further structural and geotechnical investigation to understand allowable bearing capacity and would likely require seismic upgrades as well. MEP systems would need to be upgraded in order to meet current energy codes. Accessibility deficiencies would need to be addressed, including access to the second floor of the building.

General Building and Site Information

The Public Works Office Building at 14525 Main Street NE is a 3,675 sf, Type VB, non-sprinklered building originally built in 1987 as a maintenance garage. In the late 1990s, one unused bay was converted to offices and the building currently contains approximately 1,700 sf of office space and 1,975 sf of garage and unfinished storage space. The building is a simple rectangular shape measuring approximately 70 feet x 35 feet with two garage bays at the north end with an office, two restrooms, and a storage mezzanine. There are two levels of office space on the south end of the building.

The east elevation faces Main Street where a chain link fence and mechanical equipment separate the building from the public right-of-way. The west elevation of the building faces the City's Wastewater Treatment Plant. Vehicular access to the property is located to the north of the building with a paved roadway that leads to parking stalls south of the building. The site provides (14) parking spaces, including 1 ADA stall. The property zoned Public Facilities (PF).

Accessibility

Pedestrian, Main Entry: The main building entry is on the west elevation, facing the interior driveway/parking lot and Wastewater Treatment Plant rather than the public street. Visitors will primarily visit the property via vehicular travel; grading and fencing of the existing property does not allow for pedestrian access from Main Street. The main building entry is identified by a cantilevered roof over a single swing door at the southwest corner of the building. The method of attachment is unknown and it appears to be sagging.

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Pedestrian, Egress: The building's secondary means of egress also feeds out from the west elevation of the building via the garage to the site's driveway. One of the existing offices has a direct means of egress, also located on the west side of the building.

Fire Protection

The building does not have a fire alarm system. Some residential grade standalone smoke alarms were observed.

Building Structure

Framing, Roof: The roof structure consists of pre-manufactured plated wood trusses (PWT) at 24" on center (o.c.) free-spanning the short-width of the building from east to west. The roof sheathing is 7/16" OSB and is APA-rated with a panel index of 24/16. The truss top chords are extended to support the east- and west-facing eaves. The eaves at the west face are supported by 2x flat outriggers at 48" o.c. that support a 1x fascia edge member and conceal the sheathing panel edges. The fascia members are warped and the sheathing at the exterior eaves is exposed directly to moisture. The wood trusses and OSB sheathing inside the attic space appear to be in good condition with no indication of damage.

Framing, Floor: The floor framing consists of 2x12 at 16" o.c. with 3/4" tongue-and-groove plywood sheathing. The floor joists are supported at the south with a ledger beam. Original drawings note this was let in to the existing wall studs and attached with three 16d nails at each stud. The first interior bearing wall indicates conventional platform frame was utilized in the construction.

Framing, Exterior Wall: Typical exterior walls consist of full height 2x6 at 16" o.c. At the storage mezzanine, it appears that the walls may have the same OSB sheathing as the roof, but this is not indicated on the original drawings and should be confirmed. All plates in contact with concrete are shown as pressure-treated (PT). Dimensional or glue-laminated headers are indicated over each original garage door opening.

Foundation: The original drawings indicate the perimeter walls are supported by strip footings and a 6"x18" concrete stem wall. No reinforcing is indicated for the stem wall nor anchor bolts for the walls. Interior slabs-on-grade are indicated as 6" with 12" wide continuous thickened slab footings under the interior walls. Per the 1987 drawings, the thickened slab footings have two #4 continuous bottom reinforcing. No other slab-on-grade reinforcing is indicated. The concrete slabs-on-grade appear to be in good condition with no indication of settlement.

Roof

The roof is a simple gable configuration with a north-south running ridge, comprised of asphalt composition shingles, and was replaced by Accord Contracting in 2020. The roof was not accessed as part of this inspection due to the recent installation but was reviewed from the attic at the north access point and where visible from the ground. There are three dormers on the east elevation with windows, which are reportedly aesthetic rather than functional space (i.e. they are not open to the interior of the building).

Roof ventilation is a combination of gable end vents, soffit vents at bird blocks between roof trusses, and mushroom vents near the ridge of the roof. The roof has 2-foot over overhangs at all edges. The exposed OSB sheathing at the soffits of the overhangs is poorly finished and the paint is peeling. There was a section of newer OSB sheathing at the southeast corner of the building, apparently replaced as part of the 2020 re-roofing. Gutters and downspouts were not replaced as part of the re-roofing project and appear to be aged. Gutters on the dormers are open at the ends and drain onto the main roof. This is poor practice and can result in water leakage.

Building Cladding

Siding on the south elevation of the building is a cement-based product, such as manufactured Hardie, and measures at 8" in width with a 7.25" exposure. The weather barrier behind the siding appears to be Tyvek. At the base of the wall, the concrete foundation jogs up in places and the edge of the sheathing and weather barrier is exposed, allowing an open joint along the edge of the concrete foundation wall. The weather barrier and trim/flashing should have been applied so it overlaps and seals onto the concrete, properly sealing the joint.

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Siding on the other elevations is a beveled wood product, likely cedar, measuring 7" in width with a 6.75" exposure. The siding is only lapped 1/4" where measured on the east elevation, and, in certain places, it is no longer lapped and easily pulled off the wall. The wood siding is in poor condition as it is cupped, split, and the paint is peeling. The siding is face-nailed and some nails are backing out, typically near board ends. The weather barrier behind the wood siding appears to be 7-pound building paper, or similar, and easily tore when reviewed. Sheathing behind the siding is OSB and appears to be in satisfactory condition where exposed. There are vertical 1x6 trim boards installed at approximately 14-foot intervals along the east elevation, and the majority of the siding does not have joints, but is butted on either side of the vertical trim. The siding around the dormers is also in poor condition, particularly at the south elevation where it is cupped and split.

Windows

Windows at the south elevation are newer, vinyl windows. One first floor window on the east end has a deteriorated spacer between the glass and should be replaced. These windows appear to be nail-flanged, and it is suspected that the openings are not properly flashed. Wood trim is installed around the south windows that appears to be 1x6 or similar. There is sheet metal head flashing at the top trim, but not at the heads of the windows. Windows at the other elevations are aluminum with a date stamp of 1988 found in a few locations. The overall condition of the exterior glazing is in fair condition, with no signs of damage. Window treatments are horizontal (metal) blinds and are also in fair condition.

Doors

Exterior: Doors are a mix of aluminum storefront with glass, and hollow metal doors and frames for utility and egress needs. The overall condition of the doors is in good condition.

Interior: Doors are a mix of hollow metal, solid core flush wood, and operable partitions. The overall condition of the doors is in fair condition, with expected wear on the flush wood door surfaces. Reuse of doors is unlikely in any new tenant improvements.

Flooring

The existing office space is primarily carpet, of varying colors and patterns, with sheet vinyl in wet/work areas (restrooms and break room). The overall condition of the carpet is in poor condition and is in need of replacement. The sheet vinyl is in fair condition and but will likely need to be replaced if the rooms are reconfigured. The wall base is a mix of coved carpet and resilient rubber and is in need of replacement.

Ceiling

The existing ceilings are exclusively acoustical ceiling tiles (9'-0" ceiling height, typical), excluding restrooms with code compliant seismic bracing, which are framed drywall ceilings (8'-6" ceiling height, typical). The condition of the ceilings are in good condition.

Lighting

Exterior and interior light fixtures are aging and in marginal condition. Fixtures are mainly fluorescent and can be replaced with more energy efficient LED. Controls in each room are basic on/off switches. The current WA State Energy Code requires occupancy sensors in most rooms and photosensors in certain areas. The building does not have exit signs nor egress lighting in place.

HVAC

The HVAC system consists of condensing units mounted on the eastern side of the structure, with indoor fan coil units located within each office and the conference room. Wall-mounted electric heating units provide heating within each office space. A ceiling-mounted radiant heater provides heating in the garage space. There is no mechanical outside air ventilation system. Renovations to the HVAC system would include replacing these units with a high-efficiency split heat pump system and energy recovery unit(s) to provide combined heating, cooling, and ventilation of the space.

Plumbing & Restrooms

Plumbing within the space is limited to the two restrooms located on the northern side of the first floor. Neither restroom meets current accessibility requirements. The City noted that when the inflow piping for the adjacent wastewater treatment plant is flushed for cleaning, the toilets within the building cannot be used as flushing of the toilets results in pressurized sewage back-flowing through the toilet fixtures.

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Electrical Power Service & Distribution

Power service to the building is underground from a pad-mounted PSE transformer at the northeast corner of the site. The service rises vertically on the east wall of the building to weather heads, which were originally in place for an overhead service. Service moved to underground when utilities were relocated to underground along Main Street. The service is 208Y/120V, 3 phase, 4 wire, 300 amps. The PSA transformer is 150 KVA. The utility meter is located on the east wall of the building exterior. Existing service can remain.

Panel #1 is 208Y/120V, 3 phase, 4 wire with 200-amp main circuit breaker. It primarily serves heaters and motor loads. The panel is located inside the building on the first floor east wall. Given its age and marginal condition, it is recommended to be replaced. Panel#2 is 208Y/120V, 3 phase, 4 wire with 100-amp main circuit breaker. It primarily serves lighting and receptacles. The panel is located adjacent to Panel #1 and is about ten years old and in good condition.. Panel #2 can be reused but may need to be relocated.

Emergency Power

A generator serves the adjacent Wastewater Treatment Plant and was not meant to serve the Public Works Building. Since the initial installation, a feed was installed from the Plant to the Public Works Building. This feed is 480V and is routed via a transformer that sits outside the building near the meter. The transformer steps power down to 208Y/120V and feeds Panel #2. In a power outage, it appears all lighting and receptacles in the Public Works Building will be functional under generator power, but some heaters and some mechanical units will not be functional. The existing feed should be maintained or upgraded in order to continue supplying emergency power.

Data/Voice

King County INet fiber and utility telephone lines route into building. Services terminate on a telecom board at the east wall of building adjacent to the power panels. Overhead communications lines route between the Public Works Building and the building to the north but their use is not clear. A floor-mounted telecom cabinet sits in front of the telecom board, housing network equipment and patch panels for termination of data cables. The cabinet is in satisfactory condition but would be better located in a dedicated room along with the telecom board. An antenna is located on the roof, but its system type could not be determined at the time of inspection.

06/08/2022 (rev. 12/25/2023)

To: Gavin Harrold, Project Manager, City of Duvall
 Steven Leniszewski, Public Works Director, City of Duvall

From: Dan Podoll, ARC Architects
 Lillian Wu, ARC Architects

RE: City of Duvall Public Works Building - Structural Investigations

Assessment Date: April 2022

Background

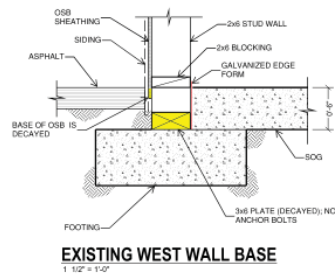
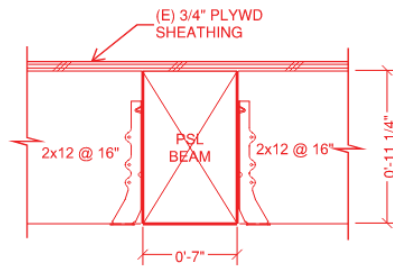
In February 2022, the City of Duvall tasked ARC Architects with producing plans for the remodel of the Public Works Building. Existing documentation of the original 1997 building is limited and what is available does not include the renovation / addition that occurred in 1999. As such, the scope of services include extensive as-builting of structural conditions to identify the design requirements for extending the second floor framing.

Structural Observations

In addition to a Tier 1 evaluation, a series of selective demolition was done to expose the structural system. Several key conditions were identified, which are outlined in this memo:

- There is no thickened footing at the existing bearing wall
- The exterior west wall is a bearing wall with decayed sole plates at the garage bay due to prolonged water and soil exposure. The base of the OSB sheathing is also decayed.
- The second floor framing consists of 2x12 pressure-treated joists with 3/4" plywood sheathing

Additional potholing was requested along the two-floor section of the west exterior wall. The City decided not to proceed with the additional demolition at this time.



SITE VISIT PHOTOS



The west elevation of the building features the main entrance and access to the two-bay garage. The building opens directly onto the driveway.



The main entrance with a cantilevered roof. The construction and attachment of the roof is unknown and shows indications that it may be failing. This is a hazard and should be removed and/or replaced.



The south elevation is clad with fiber cement siding.

B**FACILITY CONDITION ASSESSMENT****WWTP ENGINEERING BUILDING (PARCEL 132606-9132)**

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The east elevation faces the public right-of-way on Main Street and features wood siding and dormers.



The grading along the east elevation provides potential for an accessible public entrance to the building.



The roof structure consists of pre-manufactured plated wood trusses and are in good condition.



Paint is peeling and the OSB roof sheathing is exposed. Prolonged exposure can cause the sheathing to swell and deteriorate.



Detached siding at the east elevation

B

FACILITY CONDITION ASSESSMENT

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The garage bays are currently used for storage.



The mezzanine ceiling height is limited.



Windows throughout the building are un-insulated and may not be properly flashed.

B

FACILITY CONDITION ASSESSMENT

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Access to the second floor is by stair only. There are no elevators in the current facility.



Second floor break area with no existing plumbing.

B

FACILITY CONDITION ASSESSMENT

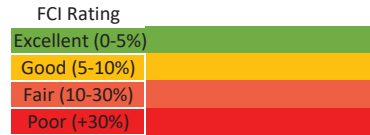
DOUGHERTY FARMSTEAD (PARCEL 122606-9049) 26526 NE CHERRY VALLEY RD, DUVALL, WA 98109

The Dougherty Farmstead and adjacent property is of historic significance. The City is committed to maintaining this asset in perpetuity. While critical needs assessments and maintenance costs were completed, FCI indexing is adjusted accordingly to match the City's commitment.



General Comments:
The Dougherty farmstead is comprised of four buildings including the main farmhouse (1888), bunk house, milk house (1918) and tool shed. The farmstead was designated an historic site by the King County Landmarks preservation board in 1983 and by the State of Washington in 2004. It is the city's desire for this to remain as such in perpetuity.

Property Name: Dougherty Farmhouse 1,320 SF
 Property Address: 26524 NE Cherry Valley Road
 Date of Assessment: 7/14/2021
 Assessment by: ARC Architects:



Category	Component	Deficiency Rating (0-100)	% Required Replacement or new (first time)	% of Existing to be Replaced	Assumed % of Replacement Cost	Cost from CNA	Cost in 2022	Priority (1-3)
Site	Landscape	20	20%	0.00%	0.0%	\$7,260	\$0	3
	Parking	20	20%	0.00%	0.0%	\$10,560	\$0	3
	Access/Drives	20	20%	0.00%	0.0%	\$1,650	\$0	3
	Accessibility	20	20%	1.00%	5.0%	\$5,280	\$264	1
	Utilities	20	20%	0.00%	0.0%	\$9,240	\$0	3
Building Exterior	Foundations	20	20%	2.00%	10.0%	\$15,114	\$1,511	3
	Structure	60	60%	9.00%	15.0%	\$52,074	\$7,811	1
	Cladding	60	60%	6.00%	10.0%	\$41,778	\$4,178	1
	Weather Barriers	60	60%	6.00%	10.0%	\$7,656	\$766	1
	Doors	20	20%	1.00%	5.0%	\$7,062	\$353	2
	Windows	20	20%	0.40%	2.0%	\$16,157	\$323	3
	Roof	20	20%	1.00%	5.0%	\$13,464	\$673	2
Building Interior	Floors	20	20%	0.80%	4.0%	\$11,616	\$465	3
	Walls	20	20%	0.80%	4.0%	\$4,778	\$191	3
	Ceilings	20	20%	0.40%	2.0%	\$13,332	\$267	3
	Partitions (ADA)	80	80%	1.60%	2.0%	\$19,008	\$380	2
	Doors	20	20%	0.20%	1.0%	\$13,794	\$138	3
	Interior Relites	0	0%	0.00%	0.0%	\$0	\$0	3
	Casework	20	20%	0.40%	2.0%	\$19,272	\$385	3
	Daylighting	0	0%	0.00%	0.0%	\$0	\$0	3
Mechanical	HVAC	0	0%	0.00%	3.0%	\$71,280	\$2,138	3
	Plumbing	20	20%	1.20%	6.0%	\$21,120	\$1,267	3
	Fire Sprinkler	0	0%	0.00%	0.0%	\$18,480	\$0	3
	Controls	0	0%	0.00%	0.0%	\$0	\$0	3
Electrical	Power	20	20%	1.20%	6.0%	\$30,360	\$1,822	3
	Lighting	20	20%	0.80%	4.0%	\$27,720	\$1,109	2
	Fire Alarm	60	60%	2.40%	4.0%	\$15,840	\$634	1
	Security	0	0%	0.00%	0.0%	\$0	\$0	3
	Communications	0	0%	0.00%	0.0%	\$0	\$0	3

36.2% 100.0% \$24,675

Facility Condition Index (FCI)

36.2%



DOUGHERTY FARMSTEAD (PARCEL 122606-9049) 26526 NE CHERRY VALLEY RD, DUVALL, WA 98109

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04/29/2022 (rev.12/25/2023)

To: Gavin Harrold, Project Manager, City of Duvall
Steven Leniszewski, Public Works Director, City of Duvall

From: Dan Podoll, ARC Architects
Lillian Wu, ARC Architects

RE: City of Duvall Historic Dougherty Farmstead Assessment

Inspection Date: October 27, 2021



Executive Summary

This assessment follows a 2019 property inspection report that was part of a larger city-wide facilities assessment. For this current assessment, structural, mechanical, electrical, and building envelope conditions were observed and are outlined below. The building envelopment assessment and recommendations are included as a separate report.

Based on the observed site conditions, we developed a Quality Assessment Matrix (QAM) that scores building components on a scale from 1 to 5, with 1 indicating a low priority maintenance and replacement concern and 5 indicating a high priority concern. Building components are outlined at the site, exterior, interior, and building system level. The QAM, in turn, was used to produce a Capital Needs Assessment estimate and a Facility Condition Index (FCI) outlining building component needs and the financial impacts for maintaining this facility over the next five-year period, with ability to stretch maintenance over a 20 year period. That assessment is included in this memo.

The following are recommendations for the City to consider implementing at the Dougherty Farmstead.

- Repair or replace damaged floor joists above the partial basement.
- Anchor the sole plates to the foundation walls. Anchor posts in the crawl space to the footings and wood beams they support.
- Reinforce the floor framing supports at the existing brick chimney with a direct connection to the concrete plinth below the chimney.
- Replace the deteriorated portion of the gutter at the NE corner of the kitchen roof.
- Test below grade drain lines to confirm if they are functioning.
- Repaint exterior siding and trim on the tool shed.
- Install code compliant railing at the south side porch.
- Consider installing below grade drain lines to carry water away from the structure. Additionally, consider installing new footing drains at the base of the basement walls.
- Upgrade the furnace filter to MERV 8 media.
- Replace the water heater.

Site Information

The Dougherty Farmstead at 26526 NE Cherry Valley Rd. is comprised of four buildings including the main farmhouse (1888), bunk house, milk house (1918) and tool shed. The Farmstead was designated an historic site by the King County Landmarks Preservation Board in 1983 and by the State of Washington in 2004. The buildings are not typically occupied but are open for tours during weekends.

Fire Protection

There is no fire protection in the house and it is not required due to the size, age and use of the building.

Building Structure - Farmhouse

The farmhouse was originally constructed on a property down by the river and moved to its current location in 1909. The main farmhouse is a two-story wood framed structure with a partial basement and crawl space. Since being designated a historic landmark the building has had many upgrades and projects performed, including the construction of a new concrete foundation. Similarly, the bunkhouse, tool and milk sheds are conventional wood framed construction and each has been renovated and a new concrete foundation provided for each. The milk barn has been demolished with only the original foundations remaining.

The farmhouse is in generally good condition. The following deficiencies were noted:

- There are several damaged floor joists located above the partial basement that need to be repaired or replaced.
- No anchorage of the wood structure to the foundation walls was noted in either the basement nor crawl space. The wood wall sill plates need to be anchored to the foundation walls and the posts in the crawl space need to be anchored to the footings and wood beams that they support.
- There are some very unusual support conditions for the floor framing around the existing brick chimney in the basement, which potentially could become unstable. We recommend reinforcing these support conditions with a direct connection to the concrete plinth below the chimney.



Top: Farmhouse floor framing around chimney and damaged joists.
Bottom: Farmhouse crawlspace posts without anchorage.



Bunkhouse - Unbraced chimney remnant.

Building Structure - Bunkhouse, Milk Shed, and Tool Shed

The bunkhouse is in generally good condition with one exception. There is a remnant of brick chimney that has not been removed from the bunkhouse and is a falling hazard in an earthquake because it is not adequately anchored to the structure (Photo 17). It is our recommendation that it be removed; if that is not permitted due to historical status it will have to be anchored at the top and bottom to the adjacent wood structure.

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The milk shed structure appeared to have been recently renovated and was in good condition and well maintained.

The tool shed appears to be in reasonably good structural condition but is in need of painting. Some of the fascia pieces at the roof appear badly weathered and may need to be replaced.

Lighting

Light fixtures are historical incandescent types from the era of the farmhouse. LED retrofit lamps can be used for energy efficiency. Pole lights are in place to illuminate the parking area. Lighting controls are basic on/off switches in each room. These do not meet Washington State Energy Code requirements but are not necessary to follow the Energy Code given the size of the building and its use as a historical display. The building does not have exit signs and emergency lighting units ("bugeyes"). They are not required due to the size of the building.

HVAC

The farmhouse has a recently installed gas furnace. The same bulk filter media used in the rest of the campus was installed here.

Plumbing & Domestic Water Heating System

The plumbing is limited to a bathroom sink, toilet, and tub, as well as a kitchen sink. There was a very old electric water heater under the kitchen sink. FSi suspects it is less than 10 gallons in storage and was not able to get hot water out of it.

Electrical Power Service & Distribution

The building is generally maintained as is for historical purposes but does have a relatively new electrical panel and operational electrical devices. There are a couple of outbuildings maintained for display purposes. Outbuildings generally do not have operational electrical devices.

Power service to the building is underground from a utility pole southwest of the building. Service is 240/120V, 1 phase, 3 wire, 200 amps. Main panel is located in the basement and is by Square D with a 200 amp main breaker. Existing service can remain, and panel is in good condition. Bunkhouse outbuilding was observed to have exposed knob and tube wiring. This wiring is not energized.

Emergency Power

There is no generator on site.

Data/Voice & Security

The building does not have data/voice services. The building has a few exterior CCTV cameras to view the entry area and site.



City of Duvall Historic Dougherty Farmstead Assessment Memo
Page 3 of 4

B

FACILITY CONDITION ASSESSMENT

DEPOT (PARCEL 132606-9118) 26227 NE STEPHENS ST, DUVALL, WA 98109

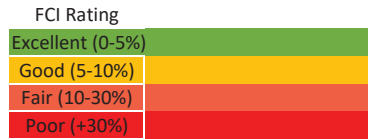
The Depot is of historic significance. The City is committed to maintaining this asset in perpetuity. While critical needs assessments and maintenance costs were completed, FCI indexing is adjusted accordingly to match the City's commitment.



General Comments:

The Chicago/Milwaukee train depot was originally constructed in 1911 at a nearby site adjacent to the river and railroad tracks. The 800 square foot one-story building was donated to the City of Duvall in 2001 and moved in 2002 to its current location at 26227 NE Stephens St. where it now serves as a community gathering space.

Property Name: The Depot 800 SF
 Property Address: 26219 NE Burhen Way
 Date of Assessment: 7/14/2021
 Assessment by: ARC Architects:



Category	Component	Deficiency Rating (0-100)	% Required Replacement or new (first time)	% of Existing to be Replaced	Assumed % of Replacement Cost	Cost from CNA	Cost in 2022	Priority (1-3)
Site	Landscape	20	20%	0.00%	0.0%	\$5,040	\$0	3
	Parking	20	20%	0.00%	0.0%	\$14,784	\$0	3
	Access/Drives	20	20%	0.00%	0.0%	\$1,000	\$0	3
	Accessibility	20	20%	1.00%	5.0%	\$4,968	\$248	1
	Utilities	20	20%	0.00%	0.0%	\$5,600	\$0	3
Building Exterior	Foundations	20	20%	1.00%	5.0%	\$15,840	\$792	3
	Structure	20	20%	1.80%	9.0%	\$43,280	\$3,895	3
	Cladding	80	80%	12.00%	15.0%	\$38,080	\$5,712	1
	Weather Barriers	0	0%	0.00%	10.0%	\$4,640	\$464	1
	Doors	20	20%	1.00%	5.0%	\$3,360	\$168	2
	Windows	20	20%	0.40%	2.0%	\$5,320	\$106	3
	Roof	40	40%	2.00%	5.0%	\$22,520	\$1,126	2
Building Interior	Floors	40	40%	1.60%	4.0%	\$2,400	\$96	3
	Walls	20	20%	0.80%	4.0%	\$2,800	\$112	3
	Ceilings	20	20%	0.40%	2.0%	\$2,400	\$48	3
	Partitions (ADA)	100	100%	8.00%	8.0%	\$6,000	\$480	1
	Doors	80	80%	0.80%	1.0%	\$3,200	\$32	3
	Interior Relites	0	0%	0.00%	0.0%	\$0	\$0	3
	Casework	20	20%	0.40%	2.0%	\$2,400	\$48	3
	Daylighting	0	0%	0.00%	0.0%	\$0	\$0	3
Mechanical	HVAC	0	0%	0.00%	3.0%	\$43,200	\$1,296	2
	Plumbing	20	20%	1.20%	6.0%	\$12,800	\$768	3
	Fire Sprinkler	0	0%	0.00%	0.0%	\$11,200	\$0	3
	Controls	0	0%	0.00%	0.0%	\$2,800	\$0	3
Electrical	Power	20	20%	1.20%	6.0%	\$18,400	\$1,104	3
	Lighting	40	40%	1.60%	4.0%	\$16,800	\$672	2
	Fire Alarm	100	100%	4.00%	4.0%	\$9,600	\$384	1
	Security	0	0%	0.00%	0.0%	\$4,400	\$0	3
	Communications	0	0%	0.00%	0.0%	\$3,280	\$0	3

39.2% 100.0% \$17,552

Facility Condition Index (FCI)

39.2%



DEPOT (PARCEL 132606-9118) 26227 NE STEPHENS ST, DUVALL, WA 98109

ARC ARCHITECTS

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04/29/2022 (rev. 12/25/2023)

To: Gavin Harrold, Project Manager, City of Duvall
Steven Leniszewski, Public Works Director, City of Duvall

From: Dan Podoll, ARC Architects
Lillian Wu, ARC Architects

RE: City of Duvall Historic Depot Building Assessment

Inspection Date: October 27, 2021



Executive Summary

This assessment follows a 2019 property inspection report that was part of a larger city-wide facilities assessment. For this current assessment, structural, mechanical, electrical, and building envelope conditions were observed and are outlined below. The building envelopment assessment and recommendations are included as a separate report.

Based on the observed site conditions, we developed a Quality Assessment Matrix (QAM) that scores building components on a scale from 1 to 5, with 1 indicating a low priority maintenance and replacement concern and 5 indicating a high priority concern. Building components are outlined at the site, exterior, interior, and building system level. The QAM, in turn, was used to produce a Capital Needs Assessment estimate and a Facility Condition Index (FCI) outlining building component needs and the financial impacts for maintaining this facility over the next five-year period, with ability to stretch maintenance over a 20 year period. That assessment is included in this memo.

The following are recommendations for the City to consider implementing at the Depot Building.

- Rebuild the chimney, including new roof flashing, tuck-pointing, and re-pointing the mortar joints, repairing any loose brick and replacing the mortar cap.
- Remove and replace the rotting siding and trim on the south elevation. Test the weather barrier for asbestos prior to removal.
- Monitor the curled wood shingles on the east elevation, north of the chimney. These may need to be replaced within 5 years.
- Install 10 mil polyethylene vapor barrier at the crawl space to help reduce moisture buildup.
- Consider replacing the electric heaters with a heat pump. The building currently has only small, point-of-use electric heaters. These heaters must be on 24/7 in the coldest part of winter to avoid freezing pipes. A new split heat pump with sophisticated thermostatic control to heat and cool the facility would be more efficient. This would allow programmed temperatures, prevent freezing and save significant energy during the night and periods of the week that the building is not being use. The old electric heat in the building could then be removed.
- Further investigate the hot water heater. The water heater appears to be old and we recommend draining it to determine if rust is forming in the water heater, which would indicate the interior of the water heater is starting to degrade. A small amount of rust is relatively normal. Extensive rust indicates the water heater should be replaced soon.
- For the current use of the building, a fire protection system is likely not necessary. If the City wants to use the building for gathering or entertaining occupancies, it would be appropriate to add fire protection. Adding fire protection would require a more detailed assessment, as the domestic water pipes are likely too small to connect a fire protection system to this building. In this case, a new water service would be needed.
- Existing electrical service can remain but replacement of the 200-amp Sylvania panelboard is recommended.
- Fully remove or at least safe off old abandoned wiring at the ceiling.
- Replace all existing fixtures (except the historic sconces) with LED. Historic fixtures can be maintained but fitted with LED retrofit lamps instead of incandescent. Replace exterior fixtures with LED with sharp cutoff optics.

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Site Information

The Chicago/Milwaukee train depot was originally constructed in 1911 at a nearby site adjacent to the river and railroad tracks. The 800 square foot one-story building was donated to the City of Duvall in 2001 and moved in 2002 to its current location at 26227 NE Stephens St. where it now serves as a community gathering space.



Fire Protection

There is no fire protection system in the Depot. There is no space to put a fire riser in this building and it would require a new closet for that purpose.

Building Structure

The building was renovated in 2008, which included providing a new foundation, replacing some existing rotted floor framing, introducing additional posts at the crawl space and anchoring the wood walls and post to the foundations. The crawl space conditions were reviewed and confirmed to be in conformance with the 2008 renovation drawings. The 2008 drawings indicate that the foundation design was based on a geotechnical report by GeoEngineers File No. 8258-019-00. The exterior deck (originally added in 2003 as an Eagle Scout project) has recently been replaced with a new concrete deck, stairs, railings and foundations; there were no drawings available for that work, but it appears competently constructed and in very good condition.

The original wood depot structure in general appears in good condition and is well maintained. There are some door openings that are out of plumb that should be trued and there is a portion of the original wood flooring that has some localized rot and grout patching that should be removed and replaced with new floorboards. There is no apparent need for additional structural modifications to the existing building.



Crawl space anchorage.



Existing flooring grout repair.

DEPOT (PARCEL 132606-9118) 26227 NE STEPHENS ST, DUVALL, WA 98109

Lighting

Light fixtures in the main rooms are fluorescent strips incorporated into an architectural ceiling feature. Fixtures are in fair condition. Fixtures are fluorescent and can be replaced with more energy efficient LED. Fixtures in bathrooms are incandescent and old but in fair condition. Three historic type wall sconces are in the main room and are old but in fair condition. It is recommended to replace all existing fixtures (except the historic sconces) with LED when the building is renovated. Historic fixtures can be maintained but using LED retrofit lamps instead of incandescent. Exterior fixtures are flood lights on the exterior walls. Exterior fixtures can be replaced with LED fixtures with sharp cutoff optics.

Lighting controls are basic on/off switches in each room. These do not meet Washington State Energy Code requirements. Occupancy sensors in most rooms and photo sensors in some areas will be required by Energy Code. The building has exit/emergency lighting combo units in place as required by code for egress lighting. The devices are in satisfactory condition.

HVAC

The HVAC system consists of condensing units mounted on the eastern side of the structure, with indoor fan coil units located within each office and the conference room. Wall-mounted electric heating units provide heating within each office space. A ceiling-mounted radiant heater provides heating in the garage space. There is no mechanical outside air ventilation system. Renovations to the HVAC system would include replacing these units with a high-efficiency split heat pump system and energy recovery unit(s) to provide combined heating, cooling, and ventilation of the space.

Plumbing & Restrooms

The building has two restrooms, a main room, and a closet housing the water heater. The water heater was working during the site visit. It is an older water heater but showed no signs of failing.

Electrical Power Service & Distribution

Power service to the building is underground from a pad mount PSE transformer. Service is 240/120V, 1 phase, 3 wire, 200 amps. The panel board is located near NE corner and is of Sylvania manufacture with a 200-amp main breaker. The panelboard is in marginal condition and Sylvania no longer makes these boards, so replacement breakers are likely difficult to find. A few unused light sockets were observed on the ceiling with old wiring cut off and abandoned. It is recommended to fully remove or at least safe off old, abandoned wiring.

FACILITY CONDITION MAINTENANCE RECOMMENDATIONS

Facilities operations and maintenance encompasses a broad spectrum of services, competencies, processes, and tools required to assure the built environment will perform the functions for which a facility was designed and constructed. Operations and maintenance typically include the day-to-day activities necessary for the building, its systems and equipment, and occupants/users to perform their intended function. Operations and maintenance are combined into the common term O&M because a facility cannot operate at peak efficiency without being maintained; therefore the two are discussed as one.

To maintain an asset properly, a significant task for all buildings is janitorial operations and cleaning. As the building is opened the keys are turned over to the janitorial, custodial, or housekeeping staff for interior “cleaning” and maintenance. Using environmentally friendly cleaning products and incorporating safer methods to clean buildings provides for better property asset management and a healthier workplace. Grounds maintenance and proper cleaning of exterior surfaces are also important to an effective overall facility maintenance and cleaning program. Janitorial/Cleaning, as well as Landscaping, Snowplowing, etc. are considered to be General Maintenance Activities.

If the City does not already have planning and operational guidance, we recommend The National Institute of Building Sciences who has developed the WBDG-Whole Building Design Guide to foster communication and knowledge to be shared among federal, industry and academic partners to advance numerous building typologies.

A link is provided at:

[Facilities Operations & Maintenance - An Overview | WBDG - Whole Building Design Guide](#)

And several other links provide for facility operational and maintenance to offer guidance in the following areas:

[Real Property Inventory \(RPI\) and Asset Management \(RPAM\) | WBDG - Whole Building Design Guide](#)

[Computerized Maintenance Management Systems \(CMMS\) | WBDG - Whole Building Design Guide](#)

[Computer-Aided Facilities Management \(CAFM\) | WBDG - Whole Building Design Guide](#)

[Comprehensive Facility Operation & Maintenance Manual | WBDG - Whole Building Design Guide](#)

[Operations and Maintenance for Historic Structures | WBDG - Whole Building Design Guide](#)

We recommend policy plan to be put into place in order to advance the city’s knowledge of asset maintenance.





OPERATIONAL PROGRAM PLANNING

PROCESS OVERVIEW



ARC/Beckwith Consulting conducted Zoom workshops with the City's management team to review the following:

- Previous work, if applicable
- New considerations: City of Duvall work protocols post COVID-19
- General program of staff including tasks, departmental relationships, and other particulars.



We gathered through Zoom interview and email communications the following information from other comparable cities and counties:

- Which positions and what percent of staff in which departments worked remotely.
- With what city supplied equipment or materials.
- How remotely working staff interacted with other employees.
- How remotely working staff interacted with customers.
- How space was rearranged or modified to reflect remote working conditions under COVID.
- Under what management controls or supervision.
- How city department directors rate the experience and what adjustments, if any, directors would make.



Based upon the City's experiences of remote work policies, it was decided that while remote workplace environment will be with us all in some form, it was determined we should not over emphasize the need. For future reference, we provide below some simple bullet point to consider for future potential programming exercises:

- In-building office and workstation arrangement including amount and type of space.
- Functional interactions with other staff in office or workstation, conference rooms, and other working meetings.
- In-person customer interactions over counters, conference rooms, and working meetings.
- Phone, e-mail, Teams/Zoom, or other virtual interactions with customers.
- Overall efficiency of operations with working entirely in-person and in-building arrangement.
- Remote working space arrangement in home or other location including amount, type of space, and possible distractions.
- Functional interactions with other remote working staff using Teams or Zoom or other virtual methods for conferences and other working meetings.
- In-office visits for conferences or working meetings with other staff, managers, directors, and customers.
- What impact the above will have on their individual and department efficiency of operations.



We collated the results of the departmental workshops for all and used this as a basis of design for programming efforts. Based on the results from previous steps, we generated the staff and space database worksheets for each department to reflect the following:



- Staff positions - full-time in - office by each department.
- Special area configurations – necessary to support the above including revisions or re-configurations to public lobbies and counters, conference and meeting rooms.
- Equipment and furnishings – necessary to support the above including lap and desktop computer allocations, smart telecommunication presentation monitors and boards in conference and meeting rooms, and open area individual and project team working areas.
- Parking quantities for staff, public, city owned vehicles.
- Hoteling - where staff schedule office or conference space on a reservation basis to coincide with their in-office schedules.



The results were tallied in the Functional Requirements documents which was presented via a virtual slideshow presentation to the selected departmental leaders.

For the purposes of this report, the functional requirements for City Hall, Police and Public Works Maintenance Crew were analyzed individually and then organized in three scenarios that you will find later on in the report.

Scenario one: (labelled) Option A and B combined City Hall and Police disciplines to be built as a single project on a single property and had two sub studies - Study A defined a real site - Study B created an amorphic site. While concept planning options separate the facility functions into two separate properties, space needs remain the same. The functional requirements allocate recommended building and site areas based on whether the future building is a one or two-level structures.

Scenario two: (labelled) Option C considered Police as its own standalone facility.

Scenario three: (labelled) Option D considered Public Works and Material storage need as its own standalone facility.

City staff were tasked with clarifying each department's full-time-employee (FTE) counts for the current need at the current City population (8,200 residents) and projecting the future FTE needs once the population of the City reaches (10,000 and 12,000) - approximately 10-30 year growth projection.

The results of the Functional Requirements confirmed that the current City Hall, Police and Public Works do not meet the space needs in the long- term (12,000 population) and that consolidating them onto a new Civic Campus parcel or singular new facilities would be the recommendation to meet the current and future need.

Detailed Functional Programing requirements for all departments and site needs inclusive of departmental responses are included in the Appendix of this report.

FUNCTIONAL REQUIREMENTS SUMMARY - CITY HALL / POLICE AND PUBLIC WORKS YARD

Full time equivalent (FTE) staff projections

21 March 2022

Departments	Full time equivalents (FTE)			FTE/1,000 population			FTE Growth
	8.2	10.0	12.0	8.2	10.0	12.0	8.2-12.0
City Administrator	2	2	2	0.24	0.20	0.17	70%
City Clerk	3	4	5	0.36	0.40	0.42	116%
Finance	4	5	5	0.49	0.50	0.42	86%
Community Development	7	7	7	0.85	0.70	0.58	68%
Public Works Engineering	8	9	9	0.98	0.90	0.75	77%
City Hall total	24	27	28	2.93	2.70	2.33	79%
Police	15	22	26	1.83	2.20	2.17	119%
Public Works Yard (incl. WWTP)	13	16	19	1.59	1.60	1.58	99%
All total	52	65	73	6.34	6.50	6.08	96%

Functional requirements - all departments

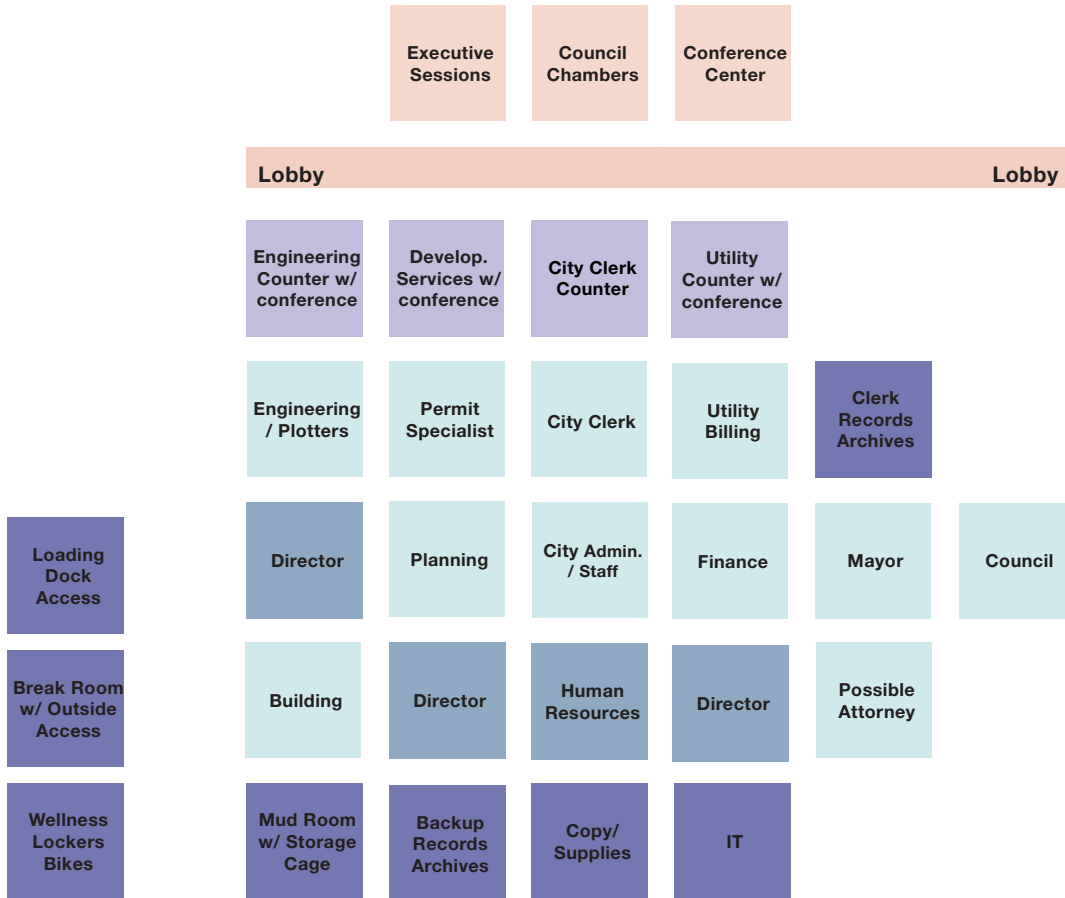
Building elements	Building reqmnt (nsf)			Net-gros multipli	Building footprint requirement			GBA Growth
	8.2	10.0	12.0		8.2	10.0	12.0	8.2.-12.0
Common/Support Areas-City Hall	5,617	5,974	6,286	1.15	6,460	6,870	7,229	112%
City Administrator	459	459	459	1.15	528	528	528	100%
City Clerk	513	621	729	1.15	590	714	838	142%
Finance	774	882	882	1.15	890	1014	1014	114%
Community Development	2,185	2,185	2,185	1.15	2,513	2,513	2,513	100%
Public Works Engineering	1,338	1,446	1,446	1.15	1,539	1,663	1,663	108%
City Hall total	10,886	11,567	11,987		12,520	13,302	13,785	110%
Police	6,588	7,922	8,359	1.15	7,576	9,110	9,613	127%
Public Works Yard (Pinnacle rev1)	13,620	16,864	27,466	1.15	15,663	19,394	31,586	202%
All total	31,094	46,353	47,812		35,759	41,806	54,984	154%

Parking requirements - City Hall

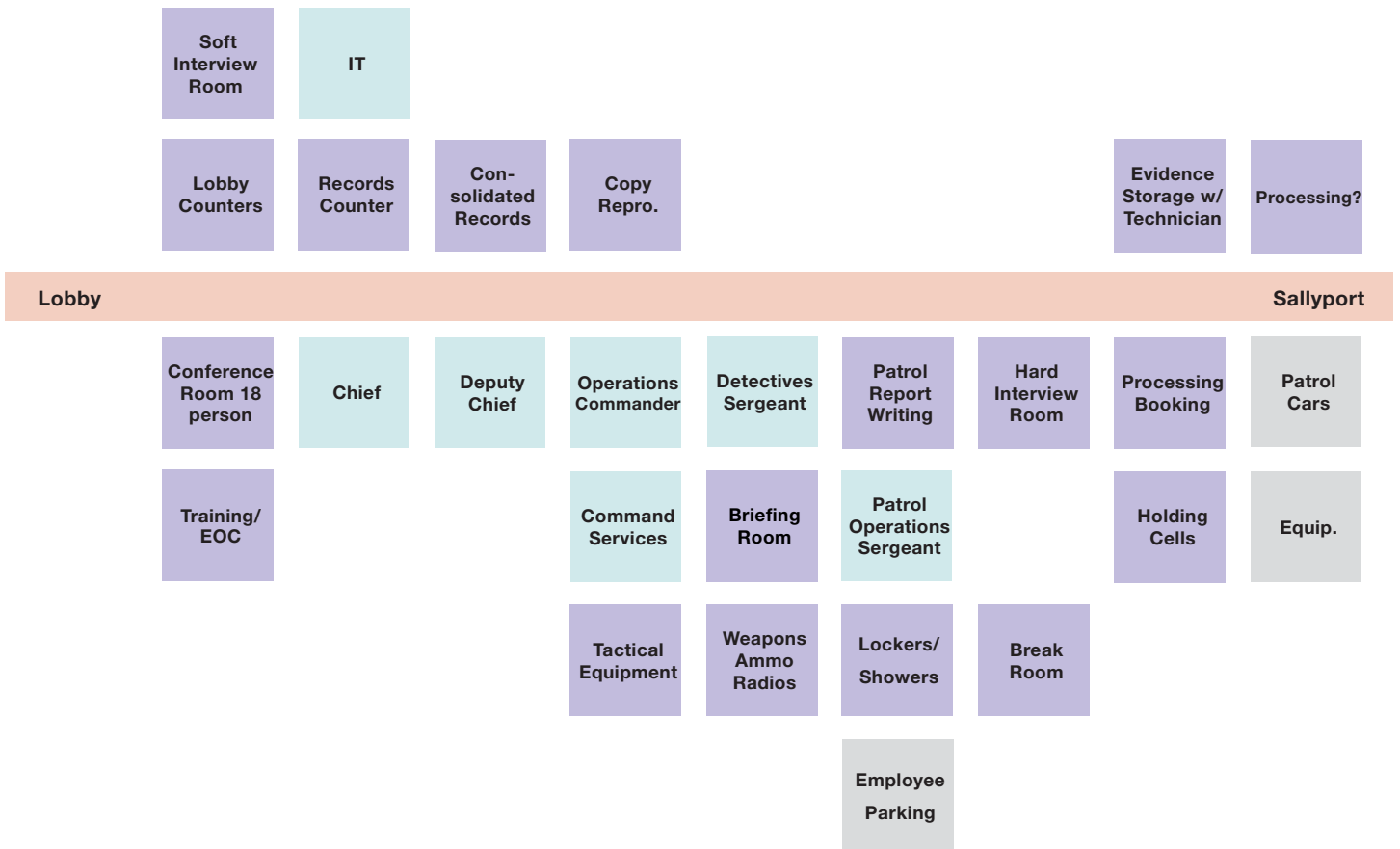
Parking employees	Parking requirement (each)			Site multipli	Site requirement (bldg+site)			GBA Growth	
	8.2	10.0	12.0		8.2	10.0	12.0	8.2-12.0	
City Administrator	2	2	2					100%	
City Clerk	2	2	2					100%	
Finance	4	4	4					100%	
Community Development	7	7	7						
Public Works Engineering	6	6	6						
City Hall total	21	21	21						
Police	15	18	20						
Public Works Yard	19	24	27						
All total	55	63	68					124%	
	75%	41	47	51	300	12,375	14,175	15,300	
City vehicles and visitors									
City vehicles	2	3	4	300	600	900	1,200		
Visitors - city hall day counters	4	6	8	300	1,200	1,800	2,400		
Visitors - city hall day meetings	8	10	12	300	2,400	3,000	3,600		
Subtotal parking	55	66	75		16,575	19,875	22,500	136%	
Subtotal building - 1 story footprint					35,759	41,806	54,984	154%	
Total site in square feet					52,370	61,681	77,484	148%	
Total site in acres - buildable or covered area					1.2	1.4	1.8	120%	
Subtotal parking	55	66	75		16,575	19,875	22,500	136%	
Subtotal building - 3 story footprint					11,920	13,935	18,328	154%	
Total site in square feet					28,495	33,810	40,828	143%	
Total site in acres - buildable or covered area					0.7	0.8	0.9	128%	

ADJACENCIES OVERVIEW

The prime purpose of an adjacency diagram is to explain how different functions or spaces should be positioned in relation to one another. As part of multiple meetings with the City, ideal adjacencies between the different departments and common spaces of City Hall, Police and Public Works were generated. Each function is represented as a generic 'Post-it note,' void of actual square footages identified in the Functional Requirements, to take an in-depth look into how each space relates to the other within the building. The purpose of the diagram is to organize and link and prioritize different activity areas together. These adjacency diagrams are intended to be utilized in Concept Planning Options.



Duvall City Hall Adjacency Diagram



Duvall Police Adjacency Diagram

For the Public Works Maintenance Yard, a similar comparison of existing conditions and projected growth needs is modeled to account for office space, repair shops, interior and exterior storage, material bins, asset parking, and fuel tanks.

Together, these programmatic parameters informed the cost options that were developed as part of this project.

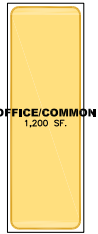
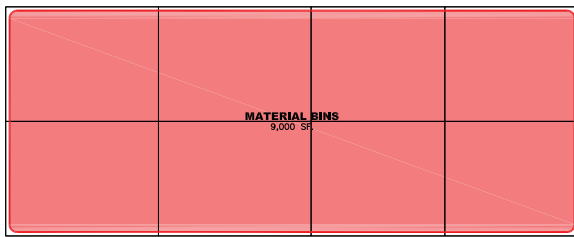
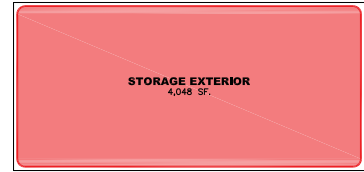
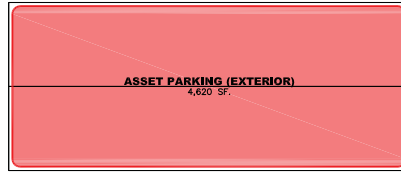
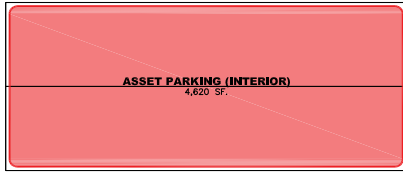
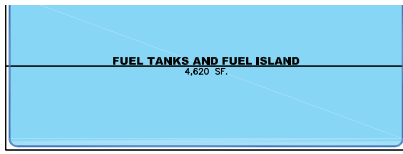
Area/ Department	Existing SF	Comment on S/ MH	(G1) % Growth for S/MH*	G1 Sub-Total	Growth Projection Description	(G2) % of Growth**	G2 Sub-Total	Total SF	Programmed Model SF	+/- SF			
1 Office/ Commons Area	1,015	Rest Room and Locker Space circulation inadequate	25%	1,269		0%	-	1,269	1,200	(69)			
2 Small Parts Repair	474	Work space vs Clear aisle circulation inadequate	25%	593	Increase Capacity per user	20%	119	711	800	89			
3 Lawn Mower Repair	647		0%	647	Increase Capacity per user	20%	129	776	800	24			
4 Storage Interior	668	Clear aisle circulation inadequate	25%	835	Increase Capacity per user	50%	418	1,253	1,200	(53)			
5 Material Bins	1,387	Clear aisle loader circulation inadequate	25%	1,734	Consolidation of all bin with increased capacity	400%	6,935	8,669	9,000	331			
6 Asset Parking Interior	2,955	Clear aisle access inadequate	25%	3,694	Increase Capacity per user	25%	923	4,617	4,620	3			
7 Asset Parking Exterior	2,994	Clear aisle access inadequate	25%	3,743	Increase Capacity per user	25%	936	4,678	4,620	(58)			
8 Storage Exterior	2,179	Clear aisle access inadequate	25%	2,724	Increase Capacity per user	50%	1,362	4,086	4,048	(38)			
9 Fuel Tanks	1,300	Clear aisle access inadequate	25%	1,625	Consolidation of all fuel tanks with increased capacity and vehicle aisle	200%	3,250	4,875	4,620	(255)			
SUB-TOTAL								13,619	SUB-TOTAL		30,933	30,908	(25)
21	Circulation = 0%		0	Circulation at Growth = 20%		6,187							
22	Contingency = 0%		0	Contingency = 10%		3,093							
TOTAL								13,619	TOTAL		40,213		

* % G1 Growth for S/MH = A percentage of growth applied to the area to alleviate Safety or Material handling Issues present
 ** % G2 Growth = A percentage of growth applied to the area for Expansion.

Duval Public Works Functional Program



Duval Public Works Existing Yard



Duval Public Works Space Area Needs (Graphic for Future Design Planning)

SUMMARY

With functional programming complete, operational planning revealed new potential avenues for the city in delivering its mission to the citizens of Duvall. To further develop that mission, several workshops were conducted with the City Council to plan citywide Capital Improvements. The improvements centered around which city assets could be revitalized or sold, with the understanding that the potential sale of assets would supplement funding of new capital projects.

To enable future capital decisions, land, asset, and facility condition assessment value has been presented in a form to simulate equal comparison between existing facilities, new (necessary) program for (population) expansion. The intent of comparisons is an “apples to apples” tool for cost making decisions.

CITY HALL

Retain/Renovate (not all Departments)		Build New (all Departments excluding PD & PW Crew)	
Renovate existing building (3,302 sf) **	\$1,790,415	Probable land value (to) purchase *	\$300,000
*includes CA, Clerk, Finance, breakroom/Lobby		Construct new building (11,233 sf) ***	\$7,660,906
Cost to build program deficit (24%) elsewhere (7,931 sf) ****	\$5,408,942	Less sale of existing city hall + land *	\$700,000
Total to retain/build deficit elsewhere	\$7,199,357	Total	\$7,260,906
			100%

Remaining useful life (19.965) w/ maintenance	20 years	Projected useful life	75 years
-----------------------------------------------	----------	-----------------------	----------

Pros	Pros
Renovation would extend useful life	City Departments all in one bldg.
Good presence on Main Street	Maintenance for first few years is minimal
Ability to be selective in choosing renovation components ie: more affordable short-term solutions	Sale of prime downtown frontage with private tax revenue returns
Cons	Cons
Total investment is at a loss if all renovations completed simultaneously.	Availability of land to purchase.

* Based on King County assessed values

** Existing facilities can't be expanded on current property.

*** Includes City Administrator (459 sf), Clerk (405 sf), Finance (774 sf), Community Development (2,192 sf), **Engineering (1,114 sf)**, and Common areas (including lobby, **Council chambers, conference rooms, records center and archives, loading dock, mud room, wellness**, and breakroom 6,286 sf) requirement for population of 12,000. (Red indicates not included in current city hall - 11,233 sf).

**** Cost to build the facility deficit based on \$682/sf cost of a new facility including land and development.



D CAPITAL FACILITY IMPROVEMENTS

POLICE

Retain/Renovate

Renovate existing building (5,500 sf) **	\$2,826,203
Cost to build facility program (57% deficit) elsewhere (4,113 sf) ****	\$2,599,416
Total to retain/build	\$5,425,619
Remaining useful life (17.20) w/maintenance	17 years

Build New (Police Only)

Probable land value purchase *	\$500,000
Construct new building (9,613 sf) ***	\$6,075,416
Less sale of existing police + land *	\$1,265,000
Total	\$5,310,416
Projected useful life	75 years

Pros

Renovation would extend useful life	
Building location does have prominent “park” location	
Ability to be selective in choosing renovation components ie: more affordable short-term solutions	

Pros

Police will have permanent facility in lieu of a temporary premanufactured “modular” system	
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Cons

Total investment is at a loss if all renovations completed simultaneously	
Building continues to depreciate	

Cons

Availability of land to purchase	
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* Based on King County assessed values

** Existing facilities can't be expanded on current property.

*** Includes Police requirement for population of 12,000.

**** Cost to build the facility deficit based on \$632/sf cost of a new facility including land and development.



PUBLIC WORKS BUILDING AND YARD

Retain/Renovate

Renovate existing buildings (13,619 sf) **	\$2,659,294
Cost to build facility program deficit of 26,594 SF (34%) elsewhere ****	\$2,047,520
Total to retain/renovate	\$4,706,814

Build New

Probable land value (to) purchase *	\$700,000*
Construct new buildings (40,213 sf)	\$3,492,068
Less sale of existing land/buildings*	\$974,050
Total	\$3,218,018

Remaining useful life (8.62)	9 years	Projected useful life	75 years
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Pros

If another site could be attained, this site has potential for City Hall/Police future expansion.
Pre-Engineered Metal Building Potential savings

Pros

A new facility would meet current and future demands of this growing city

Cons

Total investment is at a loss if all renovations completed simultaneously
The PMB superstructure does not fully meet current life safety seismic codes
Enclosed occupancy (office space) is not recommended within/under this shelter
*escalation of 15% from King County appraised value
While staff access is good, Public Works yard is better suited out of city center.

Cons

Availability of land to purchase

* Based on King County assessed values

** Existing buildings can't be expanded on current property

**** Cost to build the facility deficit based on \$80/sf cost of a new facility including land and development.



E



NE STELLA

MAIN S

FINANCIAL ANALYSIS

IRWIN
Real Estate Group

OVERVIEW - CAPITAL NEEDS ASSESSMENTS (Final versions of this document are for City use. Graphics represented here may have been edited since this publication)

Cost analysis for the facility assessments is provided for each facility within the CNA matrix. Our cost estimator assumed the initial expenditures, over a 5-year capitalization spending plan. The CNA matrix (excel workbook) was provided as a working document with intent of utilizing city finance informational data. The city is expected to manipulate the matrix accordingly for their cost prioritization. An estimate of cost per building square feet were provided for each building (systems) component using year 2022 dollars. Escalation is included for the five years. A separate worksheet can be provided by our cost consultant for years beyond five. Finalizing total capital construction expenditures for improvements at each facility is assumed an exercise to be internally coordinated within the City's finance and facilities departments.

CITY HALL

Building Components	Description	Typ'l Useful Life	Useful Remaining Life	Quality Assess. Index (0-5)	Quantity (SF)	Unit Cost	Cost in 2022 \$'s	2023	2024	2025	2026	2027
Site												
Landscape	Replacement / Maintenance	20	2	0	3300	\$6.30	\$20,790	\$0	\$0	\$0	\$0	\$0
Parking	Replacement / Maintenance	50	32	5	3300	\$18.48	\$60,984	\$60,984	\$0	\$0	\$0	\$0
Drives/Access	Replacement / Maintenance	50	32	5	3300	\$1.25	\$4,125	\$4,125	\$0	\$0	\$0	\$0
Walk Areas	Replacement / Maintenance	50	32	4	3300	\$6.21	\$20,493	\$0	\$20,493	\$0	\$0	\$0
Utilities	Replacement / Maintenance	50	32	1	3300	\$7.00	\$23,100	\$1,155	\$1,155	\$1,155	\$1,155	\$1,155
Exterior												
Foundations	Replacement / Maintenance	100	82	3	3300	\$28.70	\$94,710	\$0	\$0	\$15,000	\$0	\$0
Structure	Replacement / Maintenance	100	82	4	3300	\$83.30	\$274,890	\$0	\$132,000	\$0	\$0	\$0
Cladding	Replacement / Maintenance	30	12	4	3300	\$69.65	\$229,845	\$0	\$229,845	\$0	\$0	\$0
Weather Barriers	Replacement / Maintenance	30	12	4	3300	\$5.80	\$19,140	\$0	\$19,140	\$0	\$0	\$0
Doors	Replacement / Maintenance	30	12	1	3300	\$5.74	\$18,942	\$0	\$10,000	\$0	\$0	\$0
Windows	Replacement / Maintenance	30	12	1	3300	\$10.85	\$35,805	\$0	\$35,805	\$0	\$0	\$0
Roof	Replacement / Maintenance	20	20	1	3300	\$31.78	\$104,874	\$22,637	\$0	\$0	\$0	\$0
Interior												
Floor Finishes	Replacement / Maintenance	15	-3	2	3300	\$12.39	\$40,887	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Wall Finishes	Replacement / Maintenance	10	-8	2	3300	\$6.65	\$21,945	\$0	\$0	\$0	\$0	\$21,945
Ceilings	Replacement / Maintenance	20	2	4	3300	\$16.66	\$54,978	\$2,000	\$54,978	\$2,000	\$2,000	\$2,000
Partitions	Replacement / Maintenance	30	12	4	3300	\$15.50	\$51,150	\$0	\$51,150	\$0	\$0	\$0
Doors	Replacement / Maintenance	15	5	4	3300	\$9.66	\$31,878	\$0	\$31,878	\$0	\$0	\$0
Interior Relites	Replacement / Maintenance	15	-3	0	3300	\$2.35	\$7,762	\$0	\$0	\$0	\$0	\$0
Casework	Replacement / Maintenance	15	-3	4	3300	\$10.85	\$35,805	\$0	\$35,805	\$0	\$0	\$0
Daylighting	Replacement / Maintenance	15	-3	1	3300	\$4.90	\$16,170	\$809	\$809	\$809	\$809	\$809
Building Systems												
HVAC	Replacement / Maintenance	25	7	3	3300	\$80.00	\$264,000	\$7,500	\$264,000	\$7,500	\$7,500	\$7,500
Plumbing	Replacement / Maintenance	25	7	2	3300	\$26.00	\$85,800	\$3,500	\$3,500	\$3,500	\$3,500	\$85,800
Fire Suppression	Replacement / Maintenance	50	32	1	3300	\$14.00	\$46,200	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Controls	Replacement / Maintenance	50	32	1	3300	\$16.00	\$52,800	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Power	Replacement / Maintenance	50	32	1	3300	\$23.00	\$75,900	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Lighting	Replacement / Maintenance	20	2	4	3300	\$26.00	\$85,800	\$0	\$85,800	\$0	\$0	\$0
Fire Alarm	Replacement / Maintenance	50	32	1	3300	\$12.00	\$39,600	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Security	Replacement / Maintenance	50	32	5	3300	\$8.68	\$28,644	\$28,644	\$0	\$0	\$0	\$0
Communications	Replacement / Maintenance	50	32	0	3300	\$9.94	\$32,802	\$0	\$0	\$0	\$0	\$0
Soft Costs												
Utilities	2023-2024 Budget							\$5,793	\$5,793			
Repairs & Maint (Supplies)	2023-2024 Budget							\$1,500	\$1,500			
Repairs & Maint (Professional Services)	2023-2024 Budget							\$7,765	\$7,765			
								\$15,058	\$15,058			
	Sub totals each year					\$570		\$139,853	\$984,858	\$38,464	\$23,464	\$127,709
	Escalation (per year)							7.00%	5.00%	4.50%	4.50%	4.00%
	Escalation (compounded)							107.00%	112.35%	117.41%	122.69%	127.60%
	SubTotal with escalation							\$149,643	\$1,106,487	\$45,158	\$28,787	\$162,952
	WA State Sales Tax (8.9%)					8.90%		\$13,318	\$98,477	\$4,019	\$2,562	\$14,503
	Total							\$162,961	\$1,204,965	\$49,177	\$31,349	\$177,454

COMMUNITY (WRECK) CENTER

Building Components	Description	Typ'l Useful Life	Useful Remaining Life	Quality Assess. Index (0-5)	Quantity (SF)	Unit Cost	Cost in 2022 \$'s	2023	2024	2025	2026	2027
Site												
Landscape	Replacement / Maintenance	20	0	4	3080	\$6.30	\$19,404	\$0	\$10,000	\$0	\$0	\$0
Parking	Replacement / Maintenance	50	30	5	3080	\$18.48	\$56,918	\$56,918	\$0	\$0	\$0	\$0
Drives/Access	Replacement / Maintenance	50	30	5	3080	\$1.25	\$3,850	\$3,850	\$0	\$0	\$0	\$0
Walk Areas	Replacement / Maintenance	50	30	4	3080	\$6.21	\$19,127	\$0	\$19,127	\$0	\$0	\$0
Utilities	Replacement / Maintenance	50	30	2	3080	\$7.00	\$21,560	\$1,000	\$1,000	\$1,000	\$1,000	\$18,900
Exterior												
Foundations	Replacement / Maintenance	100	80	1	3080	\$28.70	\$88,396	\$0	\$0	\$0	\$0	\$5,000
Structure	Replacement / Maintenance	100	80	4	3080	\$72.65	\$223,762	\$0	\$123,200	\$0	\$0	\$0
Cladding	Replacement / Maintenance	30	10	4	3080	\$61.15	\$188,342	\$0	\$188,342	\$0	\$0	\$0
Weather Barriers	Replacement / Maintenance	30	10	0	3080	\$5.80	\$17,864	\$0	\$17,864	\$0	\$0	\$0
Doors	Replacement / Maintenance	30	10	2	3080	\$5.74	\$17,679	\$0	\$0	\$0	\$0	\$15,498
Windows	Replacement / Maintenance	30	10	1	3080	\$10.85	\$33,418	\$0	\$33,418	\$0	\$0	\$0
Roof	Replacement / Maintenance	20	20	2	3080	\$31.78	\$97,882	\$0	\$0	\$0	\$0	\$97,882
Interior												
Floor Finishes	Replacement / Maintenance	15	-5	1	3080	\$11.15	\$34,342	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Wall Finishes	Replacement / Maintenance	10	-10	1	3080	\$5.30	\$16,324	\$1,000	\$0	\$0	\$0	\$1,000
Ceilings	Replacement / Maintenance	20	0	1	3080	\$12.45	\$38,346	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Partitions	Replacement / Maintenance	30	10	4	3080	\$15.50	\$47,740	\$1,000	\$0	\$0	\$0	\$1,000
Doors	Replacement / Maintenance	15	15	5	3080	\$6.15	\$18,942	\$16,605	\$0	\$0	\$0	\$0
Interior Relites	Replacement / Maintenance	15	-5	0	3080	\$2.35	\$7,244	\$0	\$0	\$0	\$0	\$0
Casework	Replacement / Maintenance	15	-5	2	3080	\$7.10	\$21,868	\$0	\$0	\$0	\$0	\$21,868
Daylighting	Replacement / Maintenance	15	-5	1	3080	\$4.90	\$15,092	\$755	\$662	\$662	\$662	\$662
Building Systems												
HVAC	Replacement / Maintenance	25	5	1	3080	\$80.00	\$246,400	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
Plumbing	Replacement / Maintenance	25	5	1	3080	\$26.00	\$80,080	\$3,250	\$3,250	\$3,250	\$3,250	\$3,250
Fire Suppression	Replacement / Maintenance	50	30	0	3080	\$14.00	\$43,120	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250
Controls	Replacement / Maintenance	50	30	1	3080	\$16.00	\$49,280	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700
Power	Replacement / Maintenance	50	30	1	3080	\$23.00	\$70,840	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700
Lighting	Replacement / Maintenance	20	0	2	3080	\$26.00	\$80,080	\$0	\$0	\$0	\$0	\$80,080
Fire Alarm	Replacement / Maintenance	50	30	0	3080	\$12.00	\$36,960	\$0	\$0	\$0	\$0	\$0
Security	Replacement / Maintenance	50	30	4	3080	\$8.68	\$26,734	\$0	\$26,734	\$0	\$0	\$0
Communications	Replacement / Maintenance	50	30	0	3080	\$9.94	\$30,615	\$0	\$0	\$0	\$0	\$0
Soft Costs												
Utilities	2023-2024 Budget											
Repairs & Maint (Supplies)	2023-2024 Budget											
Repairs & Maint (Professional Services)	2023-2024 Budget											
								\$0	\$0			
	Sub totals each year					\$536		\$99,028	\$438,247	\$19,562	\$19,562	\$259,790
	Escalation (per year)							7.00%	5.00%	4.50%	4.50%	4.00%
	Escalation (compounded)							107.00%	112.35%	117.41%	122.69%	127.60%
	SubTotal with escalation							\$105,960	\$492,370	\$22,966	\$24,000	\$331,483
	WA State Sales Tax (8.9%)					8.90%		\$9,430	\$43,821	\$2,044	\$2,136	\$29,502
	Total							\$115,390	\$536,191	\$25,010	\$26,136	\$360,985

POLICE STATION

Building Components	Description	Typ'l Useful Life	Useful Remaining Life	Quality Assess. Index (0-5)	Quantity (SF)	Unit Cost	Cost in 2022 \$'s	2023	2024	2025	2026	2027
Site												
Landscape	Replacement / Maintenance	20	2	1	5762	\$6.30	\$36,301	\$0	\$10,000	\$0	\$0	\$0
Parking	Replacement / Maintenance	50	32	1	5762	\$18.48	\$106,482	\$106,482	\$0	\$0	\$0	\$0
Drives/Access	Replacement / Maintenance	50	32	1	5762	\$1.25	\$7,203	\$7,203	\$0	\$0	\$0	\$0
Walk Areas	Replacement / Maintenance	50	32	1	5762	\$6.21	\$35,782	\$0	\$35,782	\$0	\$0	\$0
Utilities	Replacement / Maintenance	50	32	2	5762	\$7.00	\$40,334	\$1,000	\$1,000	\$1,000	\$1,000	\$18,900
Exterior												
Foundations	Replacement / Maintenance	100	82	1	5762	\$26.20	\$150,964	\$0	\$0	\$0	\$0	\$5,000
Structure	Replacement / Maintenance	100	82	4	5762	\$65.78	\$379,024	\$0	\$230,480	\$0	\$0	\$0
Cladding	Replacement / Maintenance	30	12	3	5762	\$64.80	\$373,378	\$0	\$373,378	\$0	\$0	\$0
Weather Barriers	Replacement / Maintenance	30	12	3	5762	\$5.80	\$33,420	\$0	\$33,420	\$0	\$0	\$0
Doors	Replacement / Maintenance	30	12	4	5762	\$5.74	\$33,074	\$0	\$0	\$0	\$0	\$15,498
Windows	Replacement / Maintenance	30	12	2	5762	\$7.45	\$42,927	\$0	\$42,927	\$0	\$0	\$0
Roof	Replacement / Maintenance	20	20	1	5762	\$31.78	\$183,116	\$0	\$0	\$0	\$0	\$183,116
Interior												
Floor Finishes	Replacement / Maintenance	15	-3	4	5762	\$13.20	\$76,058	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Wall Finishes	Replacement / Maintenance	10	-8	1	5762	\$7.35	\$42,351	\$1,000	\$0	\$0	\$0	\$1,000
Ceilings	Replacement / Maintenance	20	2	1	5762	\$14.45	\$83,261	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Partitions	Replacement / Maintenance	30	12	4	5762	\$22.40	\$129,069	\$1,000	\$0	\$0	\$0	\$1,000
Doors	Replacement / Maintenance	15	15	5	5762	\$6.15	\$35,436	\$16,605	\$0	\$0	\$0	\$0
Interior Relites	Replacement / Maintenance	15	-3	1	5762	\$4.35	\$25,065	\$0	\$0	\$0	\$0	\$0
Casework	Replacement / Maintenance	15	-3	2	5762	\$8.80	\$50,706	\$0	\$0	\$0	\$0	\$50,706
Daylighting	Replacement / Maintenance	15	-3	4	5762	\$4.90	\$28,234	\$1,412	\$662	\$662	\$662	\$662
Building Systems												
HVAC	Replacement / Maintenance	25	7	5	5762	\$80.00	\$460,960	\$460,960	\$9,000	\$9,000	\$9,000	\$9,000
Plumbing	Replacement / Maintenance	25	7	2	5762	\$26.00	\$149,812	\$5,000	\$5,000	\$5,000	\$5,000	\$149,812
Fire Suppression	Replacement / Maintenance	50	32	5	5762	\$14.00	\$80,668	\$80,668	\$2,000	\$2,000	\$2,000	\$2,000
Controls	Replacement / Maintenance	50	32	1	5762	\$16.00	\$92,192	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Power	Replacement / Maintenance	50	32	1	5762	\$23.00	\$132,526	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Lighting	Replacement / Maintenance	20	2	2	5762	\$26.00	\$149,812	\$0	\$0	\$0	\$0	\$149,812
Fire Alarm	Replacement / Maintenance	50	32	1	5762	\$12.00	\$69,144	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Security	Replacement / Maintenance	50	32	4	5762	\$10.70	\$61,653	\$0	\$61,653	\$0	\$0	\$0
Communications	Replacement / Maintenance	50	32	1	5762	\$12.90	\$74,330	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Soft Costs												
Utilities	2023-2024 Budget							\$12,400	\$12,400			
Repairs & Maint (Supplies)	2023-2024 Budget							\$500	\$500			
Repairs & Maint (Professional Services)	2023-2024 Budget							\$9,700	\$9,700			
								\$22,600	\$22,600			
	Sub totals each year					\$549		\$691,329	\$815,301	\$27,662	\$27,662	\$596,505
	Escalation (per year)							7.00%	5.00%	4.50%	4.50%	4.00%
	Escalation (compounded)							107.00%	112.35%	117.41%	122.69%	127.60%
	SubTotal with escalation							\$739,722	\$915,991	\$32,476	\$33,938	\$761,121
	WA State Sales Tax (8.9%)					8.90%		\$65,835	\$81,523	\$2,890	\$3,020	\$67,740
	Total							\$805,557	\$997,514	\$35,367	\$36,958	\$828,860

VISITORS CENTER

Building Components	Description	Typical Useful	Current Remaining	Quantity Assess Index	Quantity (SF)	Unit Cost	Cost in 2023 \$/sq ft	2023	2024	2025	2026	2027
Site												
Landscape	Replacement / Maintenance	20	-14	1	3040	\$5.50	\$16,720	\$500	\$500	\$500	\$500	\$500
Parking	Replacement / Maintenance	50	16	5	3040	\$8.00	\$24,320	\$500	\$500	\$500	\$500	\$500
Drives/Access	Replacement / Maintenance	50	16	1	3040	\$1.25	\$3,800	\$125	\$125	\$125	\$125	\$125
Walk Areas	Replacement / Maintenance	50	16	1	3040	\$4.00	\$12,160	\$250	\$250	\$250	\$250	\$250
Utilities	Replacement / Maintenance	50	16	1	3040	\$7.00	\$21,280	\$300	\$300	\$300	\$300	\$300
Exterior												
Foundations	Replacement / Maintenance	100	66	3	3040	\$11.45	\$34,808	\$0	\$0	\$34,808	\$0	\$0
Structure	Replacement / Maintenance	100	66	5	3040	\$39.45	\$119,928	\$0	\$0	\$47,971	\$0	\$0
Cladding	Replacement / Maintenance	30	-4	3	3040	\$31.65	\$96,216	\$0	\$0	\$96,216	\$0	\$0
Weather Barriers	Replacement / Maintenance	30	-4	0	3040	\$5.80	\$17,632	\$0	\$0	\$0	\$0	\$0
Doors	Replacement / Maintenance	30	-4	1	3040	\$5.35	\$16,264	\$0	\$0	\$0	\$0	\$1,500
Windows	Replacement / Maintenance	30	-4	1	3040	\$12.24	\$37,210	\$0	\$0	\$37,210	\$0	\$0
Roof	Replacement / Maintenance	20	20	3	3040	\$10.20	\$31,008	\$0	\$0	\$31,008	\$0	\$0
Interior												
Floor Finishes	Replacement / Maintenance	15	-19	1	3040	\$8.80	\$26,752	\$400	\$0	\$0	\$0	\$400
Wall Finishes	Replacement / Maintenance	10	-24	1	3040	\$3.62	\$11,005	\$300	\$0	\$0	\$0	\$300
Ceilings	Replacement / Maintenance	20	-14	1	3040	\$10.10	\$30,704	\$400	\$0	\$0	\$0	\$400
Partitions	Replacement / Maintenance	30	-4	4	3040	\$14.40	\$43,776	\$0	\$43,776	\$0	\$0	\$0
Doors	Replacement / Maintenance	15	15	3	3040	\$10.45	\$31,768	\$0	\$0	\$31,768	\$0	\$300
Interior Relites	Replacement / Maintenance	15	-19	0	3040	\$2.40	\$7,296	\$0	\$0	\$0	\$0	\$0
Casework	Replacement / Maintenance	15	-19	1	3040	\$14.60	\$44,384	\$500	\$0	\$0	\$0	\$500
Daylighting	Replacement / Maintenance	15	-19	1	3040	\$0.00	\$0	\$300	\$0	\$0	\$0	\$300
Building Systems												
HVAC	Replacement / Maintenance	25	-9	1	3040	\$80.00	\$243,200	\$650	\$0	\$0	\$0	\$650
Plumbing	Replacement / Maintenance	25	-9	1	3040	\$26.00	\$79,040	\$350	\$0	\$0	\$0	\$350
Fire Suppression	Replacement / Maintenance	50	16	1	3040	\$14.00	\$42,560	\$300	\$0	\$0	\$0	\$300
Controls	Replacement / Maintenance	50	16	1	3040	\$16.00	\$48,640	\$250	\$0	\$0	\$0	\$250
Power	Replacement / Maintenance	50	16	1	3040	\$23.00	\$69,920	\$300	\$0	\$0	\$0	\$300
Lighting	Replacement / Maintenance	20	-14	2	3040	\$26.00	\$79,040	\$0	\$0	\$0	\$0	\$79,040
Fire Alarm	Replacement / Maintenance	50	16	0	3040	\$12.00	\$36,480	\$0	\$0	\$0	\$0	\$0
Security	Replacement / Maintenance	50	16	4	3040	\$4.50	\$13,680	\$0	\$13,680	\$0	\$0	\$350
Communications	Replacement / Maintenance	50	16	0	3040	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
Soft Costs												
Utilities	2023-2024 Budget							\$5,700	\$5,500			
Repairs & Maint (Supplies)	2023-2024 Budget							\$1,400	\$1,400			
Repairs & Maint (Professional Services)	2023-2024 Budget							\$4,710	\$4,710			
								\$11,810	\$11,610			
	Sub totals each year					\$408		\$5,425	\$59,131	\$280,656	\$1,675	\$86,615
	Escalation (per year)							7.00%	5.00%	4.50%	4.50%	4.00%
	Escalation (compounded)							107.00%	112.35%	117.41%	122.69%	127.60%
	SubTotal with escalation							\$5,805	\$66,434	\$329,506	\$2,055	\$110,518
	WA State Sales Tax (8.9%)					8.90%		\$517	\$5,913	\$29,326	\$183	\$9,836
	Total							\$6,321	\$72,346	\$358,832	\$2,238	\$120,354

WWTP ENGINEERING BUILDING

Building Components	Description	Typ'l Useful Life (Yr)	Useful Remaining Life (Yr)	Quality Assess. Index (0-5)	Quantity (SF)	Unit Cost	Cost in 2022 \$'s	2023	2024	2025	2026	2027
Site												
Landscape	Replacement / Maintenance	20	-5	1	3675	\$5.50	\$20,213	\$500	\$500	\$500	\$500	\$500
Parking	Replacement / Maintenance	50	25	3	3675	\$8.00	\$29,400	\$500	\$500	\$29,400	\$500	\$500
Drives/Access	Replacement / Maintenance	50	25	4	3675	\$1.25	\$4,594	\$125	\$4,594	\$125	\$125	\$125
Walk Areas	Replacement / Maintenance	50	25	4	3675	\$4.00	\$14,700	\$250	\$14,700	\$250	\$250	\$250
Utilities	Replacement / Maintenance	50	25	1	3675	\$7.00	\$25,725	\$300	\$300	\$300	\$300	\$300
Exterior												
Foundations	Replacement / Maintenance	100	75	1	3675	\$11.45	\$42,079	\$0	\$0	\$0	\$0	\$1,000
Structure	Replacement / Maintenance	100	75	2	3675	\$43.90	\$161,333	\$0	\$0	\$0	\$0	\$64,533
Cladding	Replacement / Maintenance	30	5	4	3675	\$36.15	\$132,851	\$0	\$132,851	\$0	\$0	\$0
Weather Barriers	Replacement / Maintenance	30	5	4	3675	\$5.80	\$21,315	\$0	\$21,315	\$0	\$0	\$0
Doors	Replacement / Maintenance	30	5	1	3675	\$14.20	\$52,185	\$0	\$0	\$0	\$0	\$1,500
Windows	Replacement / Maintenance	30	5	2	3675	\$7.40	\$27,195	\$0	\$0	\$0	\$0	\$27,195
Roof	Replacement / Maintenance	20	20	2	3675	\$11.90	\$43,733	\$0	\$0	\$0	\$0	\$43,733
Interior												
Floor Finishes	Replacement / Maintenance	15	-10	4	3675	\$4.80	\$17,640	\$400	\$17,640	\$0	\$0	\$0
Wall Finishes	Replacement / Maintenance	10	-15	1	3675	\$3.62	\$13,304	\$300	\$0	\$0	\$0	\$300
Ceilings	Replacement / Maintenance	20	-5	2	3675	\$7.10	\$26,093	\$400	\$0	\$0	\$0	\$26,093
Partitions	Replacement / Maintenance	30	5	4	3675	\$11.45	\$42,079	\$0	\$42,079	\$0	\$0	\$0
Doors	Replacement / Maintenance	15	15	1	3675	\$8.40	\$30,870	\$300	\$0	\$0	\$0	\$300
Interior Relites	Replacement / Maintenance	15	-10	0	3675	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
Casework	Replacement / Maintenance	15	-10	2	3675	\$7.10	\$26,093	\$0	\$0	\$0	\$0	\$26,093
Daylighting	Replacement / Maintenance	15	-10	1	3675	\$3.30	\$12,128	\$350	\$0	\$0	\$0	\$350
Building Systems												
HVAC	Replacement / Maintenance	25	0	4	3675	\$80.00	\$294,000	\$650	\$294,000	\$0	\$0	\$650
Plumbing	Replacement / Maintenance	25	0	4	3675	\$26.00	\$95,550	\$350	\$95,550	\$0	\$0	\$350
Fire Suppression	Replacement / Maintenance	50	25	5	3675	\$14.00	\$51,450	\$51,450	\$0	\$0	\$0	\$0
Controls	Replacement / Maintenance	50	25	1	3675	\$12.00	\$44,100	\$750	\$0	\$0	\$0	\$750
Power	Replacement / Maintenance	50	25	3	3675	\$23.00	\$84,525	\$0	\$0	\$84,525	\$0	\$0
Lighting	Replacement / Maintenance	20	-5	3	3675	\$26.00	\$95,550	\$0	\$0	\$95,550	\$0	\$0
Fire Alarm	Replacement / Maintenance	50	25	5	3675	\$12.00	\$44,100	\$44,100	\$0	\$0	\$0	\$0
Security	Replacement / Maintenance	50	25	1	3675	\$5.50	\$20,213	\$850	\$0	\$0	\$0	\$850
Communications	Replacement / Maintenance	50	25	2	3675	\$6.35	\$23,336	\$0	\$0	\$0	\$0	\$23,336
Soft Costs												
Utilities	2023-2024 Budget							\$3,400	\$3,800			
Repairs & Maint (Supplies)	2023-2024 Budget							\$1,000	\$1,000			
Repairs & Maint (Professional Services)	2023-2024 Budget							\$5,100	\$5,100			
								\$9,500	\$9,900			
	Sub totals each year					\$407		\$101,575	\$624,029	\$210,650	\$1,675	\$218,707
	Escalation (per year)							7.00%	5.00%	4.50%	4.50%	4.00%
	Escalation (compounded)							107.00%	112.35%	117.41%	122.69%	127.60%
	SubTotal with escalation							\$108,685	\$701,096	\$247,315	\$2,055	\$279,062
	WA State Sales Tax (8.9%)						8.90%	\$9,673	\$62,398	\$22,011	\$183	\$24,837
	Total							\$118,358	\$763,494	\$269,326	\$2,238	\$303,899

DOUGHERTY FARMSTEAD

Building Components	Description	Typ'l Useful Life	Useful Remaining Life	Quality Assess. Index (0-5)	Quantity (SF)	Unit Cost	Cost in 2022 \$'s	2023	2024	2025	2026	2027
Site												
Landscape	Replacement / Maintenance	20	-93	1	1320	\$5.50	\$7,260	\$500	\$500	\$500	\$500	\$500
Parking	Replacement / Maintenance	50	-63	1	1320	\$8.00	\$10,560	\$500	\$500	\$500	\$500	\$500
Drives/Access	Replacement / Maintenance	50	-63	1	1320	\$1.25	\$1,650	\$125	\$125	\$125	\$125	\$125
Walk Areas	Replacement / Maintenance	50	-63	1	1320	\$4.00	\$5,280	\$250	\$250	\$250	\$250	\$250
Utilities	Replacement / Maintenance	50	-63	1	1320	\$7.00	\$9,240	\$300	\$300	\$300	\$300	\$300
Exterior												
Foundations	Replacement / Maintenance	100	-13	1	1320	\$11.45	\$15,114	\$0	\$0	\$0	\$0	\$1,000
Structure	Replacement / Maintenance	100	-13	3	1320	\$39.45	\$52,074	\$0	\$0	\$52,074	\$0	\$0
Cladding	Replacement / Maintenance	30	-83	3	1320	\$31.65	\$41,778	\$0	\$41,778	\$0	\$0	\$0
Weather Barriers	Replacement / Maintenance	30	-83	4	1320	\$5.80	\$7,656	\$0	\$7,656	\$0	\$0	\$0
Doors	Replacement / Maintenance	30	-83	1	1320	\$5.35	\$7,062	\$0	\$0	\$0	\$0	\$1,500
Windows	Replacement / Maintenance	30	-83	3	1320	\$12.24	\$16,157	\$0	\$0	\$16,157	\$0	\$0
Roof	Replacement / Maintenance	20	20	1	1320	\$10.20	\$13,464	\$0	\$0	\$0	\$0	\$1,500
Interior												
Floor Finishes	Replacement / Maintenance	15	-98	1	1320	\$8.80	\$11,616	\$400	\$0	\$0	\$0	\$400
Wall Finishes	Replacement / Maintenance	10	-103	1	1320	\$3.62	\$4,778	\$300	\$0	\$0	\$0	\$300
Ceilings	Replacement / Maintenance	20	-93	1	1320	\$10.10	\$13,332	\$400	\$0	\$0	\$0	\$400
Partitions	Replacement / Maintenance	30	-83	4	1320	\$14.40	\$19,008	\$0	\$19,008	\$0	\$0	\$0
Doors	Replacement / Maintenance	15	15	1	1320	\$10.45	\$13,794	\$300	\$0	\$0	\$0	\$300
Interior Relites	Replacement / Maintenance	15	-98	1	1320	\$0.00	\$0	\$300	\$0	\$0	\$0	\$300
Casework	Replacement / Maintenance	15	-98	1	1320	\$14.60	\$19,272	\$500	\$0	\$0	\$0	\$500
Daylighting	Replacement / Maintenance	15	-98	0	1320	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
Building Systems												
HVAC	Replacement / Maintenance	25	-88	1	1320	\$54.00	\$71,280	\$650	\$0	\$0	\$0	\$650
Plumbing	Replacement / Maintenance	25	-88	1	1320	\$16.00	\$21,120	\$350	\$0	\$0	\$0	\$350
Fire Suppression	Replacement / Maintenance	50	-63	0	1320	\$14.00	\$18,480	\$0	\$0	\$0	\$0	\$0
Controls	Replacement / Maintenance	50	-63	0	1320	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
Power	Replacement / Maintenance	50	-63	1	1320	\$23.00	\$30,360	\$300	\$0	\$0	\$0	\$300
Lighting	Replacement / Maintenance	20	-93	1	1320	\$21.00	\$27,720	\$350	\$0	\$0	\$0	\$350
Fire Alarm	Replacement / Maintenance	50	-63	0	1320	\$12.00	\$15,840	\$0	\$0	\$0	\$0	\$0
Security	Replacement / Maintenance	50	-63	0	1320	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
Communications	Replacement / Maintenance	50	-63	0	1320	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
Soft Costs												
Utilities	2023-2024 Budget							\$3,200	\$3,225			
Repairs & Maint (Supplies)	2023-2024 Budget							\$1,000	\$1,000			
Repairs & Maint (Professional Services)	2023-2024 Budget							\$6,000	\$6,000			
								\$10,200	\$10,225			
	Sub totals each year					\$344		\$5,525	\$70,117	\$69,906	\$1,675	\$9,525
	Escalation (per year)							7.00%	5.00%	4.50%	4.50%	4.00%
	Escalation (compounded)							107.00%	112.35%	117.41%	122.69%	127.60%
	SubTotal with escalation							\$5,912	\$78,776	\$82,073	\$2,055	\$12,154
	WA State Sales Tax (8.9%)					8.90%		\$526	\$7,011	\$7,305	\$183	\$1,082
	Total							\$6,438	\$85,788	\$89,378	\$2,238	\$13,235

DEPOT BUILDING

Building Components	Description	Typ'l Useful Life	Useful Remaining Life	Quality Assess. Index (0-5)	Quantity	Unit Cost	Cost in 2022 \$'s	2023	2024	2025	2026	2027
Site												
Landscape	Replacement / Maintenance	20	0	1	800	\$6.30	\$5,040	\$500	\$500	\$500	\$500	\$500
Parking	Replacement / Maintenance	50	30	1	800	\$18.48	\$14,784	\$800	\$800	\$800	\$800	\$800
Drives/Access	Replacement / Maintenance	50	30	1	800	\$1.25	\$1,000	\$400	\$400	\$400	\$400	\$400
Walk Areas	Replacement / Maintenance	50	30	1	800	\$6.21	\$4,968	\$600	\$600	\$600	\$600	\$600
Utilities	Replacement / Maintenance	50	30	1	800	\$7.00	\$5,600	\$800	\$800	\$800	\$800	\$800
Exterior												
Foundations	Replacement / Maintenance	100	80	1	800	\$19.80	\$15,840	\$0	\$0	\$0	\$0	\$1,250
Structure	Replacement / Maintenance	100	80	1	800	\$54.10	\$43,280	\$0	\$0	\$0	\$0	\$2,800
Cladding	Replacement / Maintenance	30	10	4	800	\$47.60	\$38,080	\$0	\$38,080	\$0	\$0	\$0
Weather Barriers	Replacement / Maintenance	30	10	0	800	\$5.80	\$4,640	\$0	\$0	\$0	\$0	\$0
Doors	Replacement / Maintenance	30	10	1	800	\$4.20	\$3,360	\$0	\$0	\$0	\$0	\$1,200
Windows	Replacement / Maintenance	30	10	1	800	\$6.65	\$5,320	\$0	\$5,320	\$0	\$0	\$0
Roof	Replacement / Maintenance	20	20	2	800	\$28.15	\$22,520	\$0	\$0	\$0	\$0	\$22,520
Interior												
Floor Finishes	Replacement / Maintenance	15	-5	2	800	\$3.00	\$2,400	\$0	\$0	\$0	\$0	\$2,400
Wall Finishes	Replacement / Maintenance	10	-10	1	800	\$3.50	\$2,800	\$0	\$0	\$0	\$0	\$1,000
Ceilings	Replacement / Maintenance	20	0	1	800	\$3.00	\$2,400	\$0	\$0	\$0	\$0	\$1,000
Partitions	Replacement / Maintenance	30	10	5	800	\$7.50	\$6,000	\$6,000	\$0	\$0	\$0	\$0
Doors	Replacement / Maintenance	15	15	4	800	\$4.00	\$3,200	\$0	\$3,200	\$0	\$0	\$0
Interior Relites	Replacement / Maintenance	15	-5	0	800	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
Casework	Replacement / Maintenance	15	-5	1	800	\$3.00	\$2,400	\$0	\$0	\$0	\$0	\$2,400
Daylighting	Replacement / Maintenance	15	-5	1	800	\$0.00	\$0	\$0	\$662	\$662	\$662	\$662
Building Systems												
HVAC	Replacement / Maintenance	25	5	1	800	\$54.00	\$43,200	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Plumbing	Replacement / Maintenance	25	5	1	800	\$16.00	\$12,800	\$500	\$500	\$500	\$500	\$500
Fire Suppression	Replacement / Maintenance	50	30	0	800	\$14.00	\$11,200	\$0	\$0	\$0	\$0	\$0
Controls	Replacement / Maintenance	50	30	0	800	\$3.50	\$2,800	\$0	\$0	\$0	\$0	\$0
Power	Replacement / Maintenance	50	30	1	800	\$23.00	\$18,400	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Lighting	Replacement / Maintenance	20	0	2	800	\$21.00	\$16,800	\$0	\$0	\$0	\$0	\$16,800
Fire Alarm	Replacement / Maintenance	50	30	0	800	\$12.00	\$9,600	\$0	\$0	\$0	\$0	\$0
Security	Replacement / Maintenance	50	30	0	800	\$5.50	\$4,400	\$0	\$0	\$0	\$0	\$0
Communications	Replacement / Maintenance	50	30	0	800	\$4.10	\$3,280	\$0	\$0	\$0	\$0	\$0
Soft Costs												
Utilities	2023-2024 Budget							\$3,600	\$3,200			
Repairs & Maint (Supplies)	2023-2024 Budget							\$200	\$250			
Repairs & Maint (Professional Services)	2023-2024 Budget							\$1,800	\$1,800			
								\$5,600	\$5,250			
	Sub totals each year					\$383		\$12,100	\$53,362	\$6,762	\$6,762	\$58,132
	Escalation (per year)							7.00%	5.00%	4.50%	4.50%	4.00%
	Escalation (compounded)							107.00%	112.35%	117.41%	122.69%	127.60%
	SubTotal with escalation							\$12,947	\$59,952	\$7,938	\$8,296	\$74,174
	WA State Sales Tax (8.9%)					8.90%		\$1,152	\$5,336	\$707	\$738	\$6,601
	Total							\$14,099	\$65,287	\$8,645	\$9,034	\$80,775

Replacement Reserve Balance Beg. Of Year								\$50,000	\$37,401	(\$26,765)	(\$35,410)	(\$44,443)
Interest Earned on Reserve Balance							3.00%	\$1,500	\$1,122	\$0	\$0	\$0
Additions to Replacement Reserves	(\$350/unit/yr increased 3.0% annually)							\$0	\$0	\$0	\$0	\$0
Expenditures from Replacement Reserve								(\$14,099)	(\$65,287)	(\$8,645)	(\$9,034)	(\$80,775)
Replacement Reserve Balance End of Year								\$37,401	(\$26,765)	(\$35,410)	(\$44,443)	(\$125,219)

RECOMMENDATIONS / CLARIFICATIONS AND ASSUMPTIONS OF COST

As finalization of total capital construction and expenditures for improvements at each facility is assumed to be on-going - internally coordinated within the City's finance and facilities departments, we **strongly recommend** a structure be adopted that allows sufficient tracking and budgeting of expenditures on an annual basis. A city policy should be created to allow for this type of expenditure. While this scope has provided "free" tools in the form of Excel worksheets as part of a final deliverable, software is readily available for purchase and use.

For the purposes of the construction cost assumptions presented in this report, items that are included and excluded are listed:

Included in Construction Costs

- General Contractor General Conditions / General Requirements
- General Contractor Overhead and Profit, Bonds and Insurance

Excluded from Construction Cost:

- Design fees
- Owners administration costs
- Building and land acquisition fees
- Legal and accounting fees
- Removal of unforeseen underground obstructions
- Owner's furniture, furnishings and equipment
- Owners supplied materials
- Moving owners equipment and furniture
- Compression of schedule, premium or shift work
- Assessments, finance, legal and development charges
- Builder's risk, project wrap-up and other owner provided insurance program
- Washington State Sales Tax
- AV Equipment
- Builders Risk Insurance

Included in Soft Costs: 40.00%

- Washington State Sales Tax
- Permits
- Professional Services (Not Incl. Pre-Design)
- Construction Phase Services
- Builders Risk Insurance
- Miscellaneous Owner Project Costs / PM
- FF&E
- Management Reserve / Project Contingency

Assumption used in establishing the estimate:

- The projects will be delivered utilizing the design, bid, build delivery method
- Estimates are included for 2023 and 2024 Construction Costs Only

EXPLANATION OF SOFT, HARD, AND PROJECT COSTS

Costs are Construction Costs in Today's Dollars. Soft costs (design, permits, fees, FF&E, sales tax, construction contingency) are excluded from this report and will need to be calculated separately. Construction is based upon one continuous operation under one general contract. The estimate assumes working in a single phase manner. The estimate is based upon prices as of December 2022, with four to five responsible and responsive bids under a competitive bid environment for a fixed price. Annual escalation costs are included in the full Cost Analysis (see Appendix).

Soft costs can be incurred anywhere along the life cycle of a project: concept, pre-construction, construction, and post construction. They include everything from architectural and engineering fees to legal fees, pre- and post-construction expenses, permits and taxes, SCL costs, mechanical equipment costs for electrification, generator costs and upgrades, security vendors, utility hookups, insurance, etc. In short, soft costs are all project costs that are not the pre-sales tax construction costs (hard costs) negotiated with your general contractor to build the project.

Soft costs can typically account for roughly 35 to 75 percent of a total construction budget. Varying project specifications and changing economic factors can make estimating soft costs more difficult. Common soft costs are often broken out into different categories of costs. Below is a quick look at some of the major costs in these different categories:

Professional Architectural and Engineering Service Fees (between 7-15% of the soft cost total)

These fees include feasibility studies such traffic studies, geotechnical studies, testing consultants, professional architectural and engineering services, and special inspection and commissioning services. Construction value, project difficulty and quantity, and involvement of additional (specialty) consultants impact overall Service Fees.

Sales Tax (8.5% of the soft cost total)

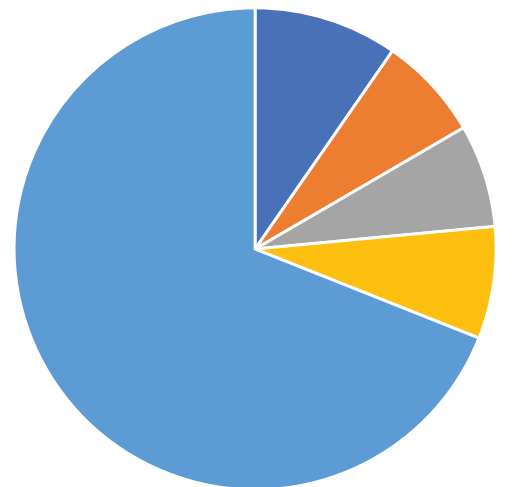
Construction (hard) costs are bid excluding sales tax, and sales tax for construction costs are considered a soft cost.

Owner Construction Contingency (8-10% of the soft cost total)

A construction contingency is an amount of money set aside to cover any unexpected costs that can arise throughout a construction project. This money is on reserve and is not allocated to any specific area of work. Essentially, the contingency acts as insurance against other, unforeseen costs. ARC advocates for a minimum 10% of the construction (hard) costs for risk management.

Other Soft Costs

- Land and real estate costs associated with the legal process, appraisal fees, land acquisition, assessments, land survey fees, and costs for inspections and permit fees paid to local governments related to applications, cost to file, occupancy permits, etc.
- Fixed Furniture, Fittings and Equipment
- Loans, Accounting, Finance and Insurance fees
- Project Management, Taxes - These fees include compensation for the staff required to handle construction related documentation and drawings, security and safety staff, temporary staffing, runners, and of course, all taxes on the project assessed by local and state agencies.
- Moving costs and temporary office space lease agreements during construction.



● Construction Costs (CC)	Hard Costs
● A&E Service Fees	7-15% of CC
● Sales Tax	8.5% of CC
● Owner Contingency	8-10% of CC
● Other Soft Costs	10+% of CC
● Total Project Cost	All costs



F



PLANNING OPTIONS

OVERVIEW

To further illustrate the future planning and likely needs for maintaining the City's facilities, ARC Architects developed four scoping options based on the building assessments and the City's projected growth over the next several decades. The existing City Hall, Police Station, and Public Works Maintenance Yard are currently deficient in size, structural integrity, and/or building system and programmatic functionality and were identified as facilities that would require a new or larger space to effectively operate and serve a growing population.

The four scoping options explored are outlined below, along with their assumptions and supporting documentation. The supporting documentation illustrates projected space needs for city hall, police, public works yard, and the parking to support these facilities

Option A

New City Hall and Police

- Assume the City Hall and Police Station facility is located at the existing Visitor Center and Public Works Yard
- At the Visitor Center, assume foundation work, MEP upgrades, new fire sprinklers, new roof, recladding minimal sitework/landscaping.
- At the Public Works Yard, assume complete demolition.
- Assume the new City Hall addition to the Visitor Center will be a single story, stacked above the new Police Station, which will be sited at the current PW Yard location and will also be a single story.
- Assume structured parking (garage) below Police (for police fleet) and public parking for City Hall (or public parking for the City - revenue generating?)
- Assume the existing drive between the Visitor Center and Public Works Yard is maintained (i.e. the City Hall bridges across the two sites).

Option B

New City Hall and Police

- Assume the same program as Option A but on an undetermined site
- Assume new utility lines and parking

Option C

New Police Station

- Assume an amorphic/undetermined site
- Assume new utility lines and parking

Option D

New Public Works Yard

- Assume an amorphic/undetermined site
- Assume new utility lines and parking

For the scenarios tested, cost assumptions include a construction start date of January 2025 with varying percentages of escalation included (Year 1 at 7.00%, Year 2 at 5.50%, Year 3 at 4.50%). Exclusions from construction cost include were listed prior but repeated here:

Design fees, owner administration costs, building and land acquisition fees, legal and accounting fees, removal of unforeseen underground obstructions, owner's furniture, furnishings, and equipment, owner supplied materials, compression of schedule, premium or shift work, assessments, finance, legal, and development charges, builder's risk, project wrap-up and other owner-provided insurance programs, sales tax, deep foundations and ground stabilization, and AV equipment.

The unit rates presented in this report are based on prevailing wages with open and competitive bidding among all portions of the work. Modifications to the scope of work, special phasing requirements, restrictive technical specifications, bids delayed beyond the project schedule, and any non-competitive bid situations may affect the cost estimate.

OPTION A: NEW CITY HALL & POLICE



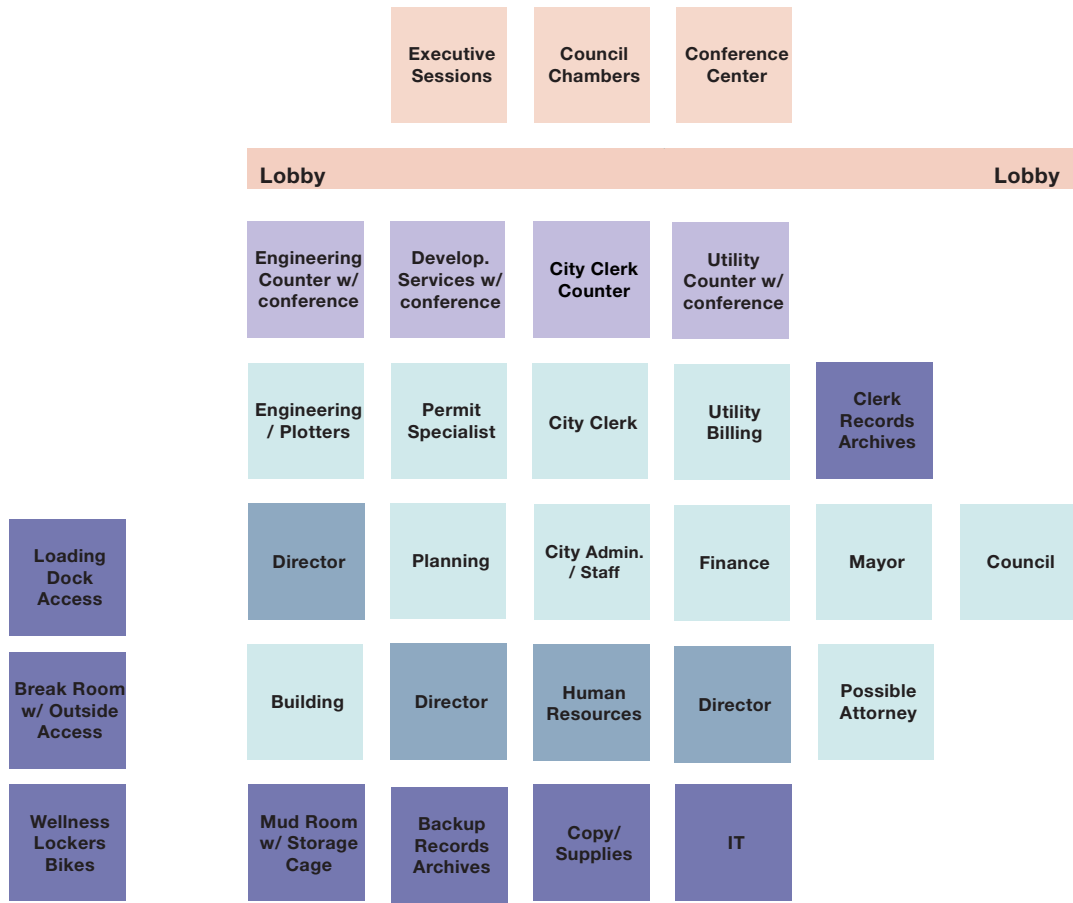
Level 1
1" = 20'-0"

Option A explores the concept of demolishing the existing Public Works Maintenance Facility and constructing a new Police Station in its place. The existing Visitor Center would be remodeled with an addition built out to accommodate a new City Hall. Both facilities would be connected to each other and provide a strong presence in downtown Duvall.

During concept planning, ARC Architects and Beckwith Consulting Group met virtually as a group with the directors of each department to understand priorities and spatial relationships between and within departments. The adjacency diagram on the following page outlines the result of this exercise and was used to inform the programmatic layout presented in Option A.

This Option assumes several design parameters at the existing Visitor Center: foundation work, MEP upgrades, new fire sprinklers, new roof, re-cladding, minimal site work/landscaping. Other assumptions include complete demolition at the Public Works Yard, single story, overlapped construction, structured parking below the Police Station, and continuing to maintain the drive access that bridges across the two sites. With these parameters included, the projected construction estimate for Option A totals approximately \$25.2 million for a total project cost of under \$36.5 million.

F PLANNING LEVEL OPTIONS

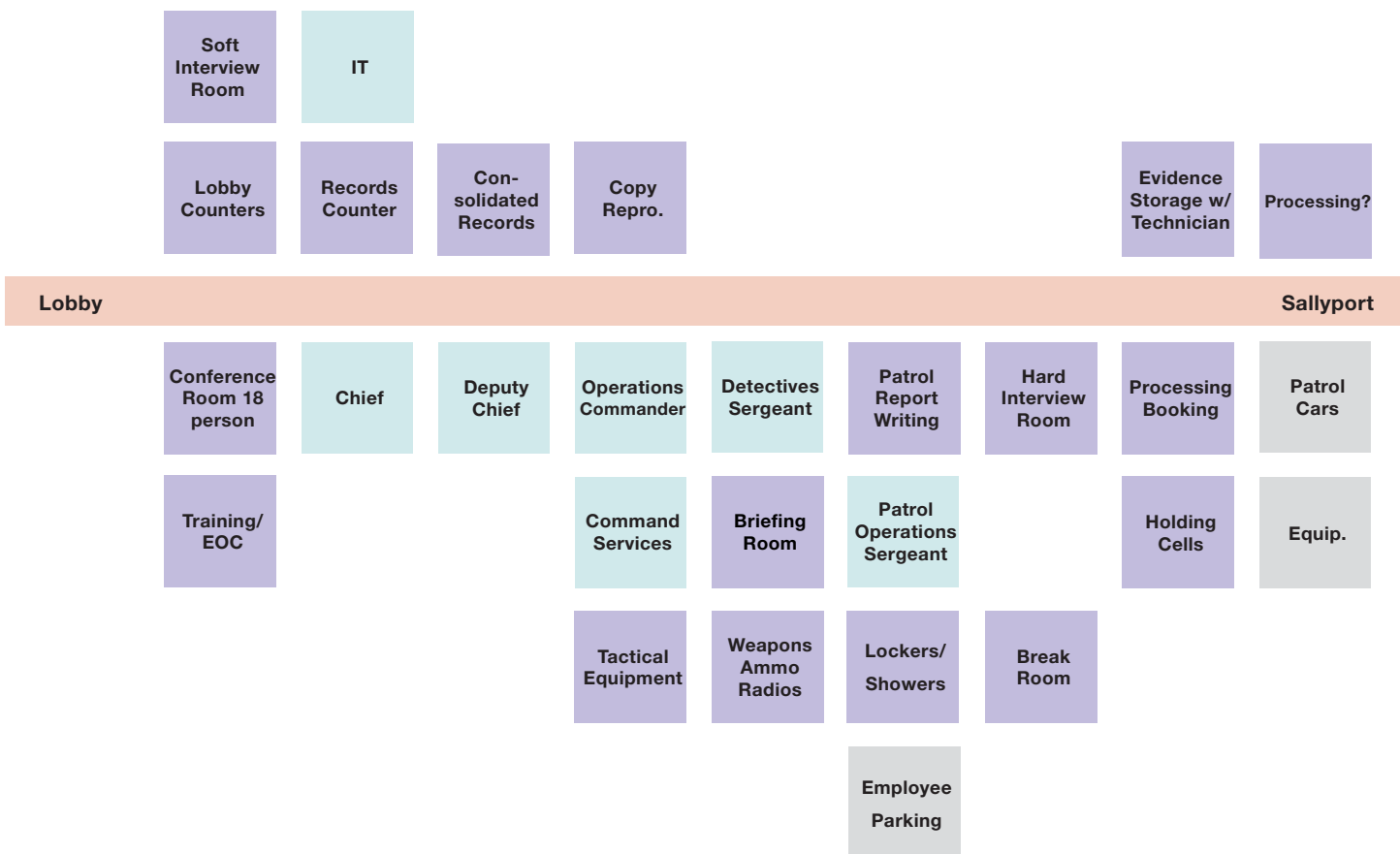


	Construction Cost (\$)	Soft Cost (\$) (40%)	Project Cost (\$)
<u>NEW CITY HALL AND POLICE AT EXISTING VISITOR CENTER AND PUBLIC WORKS YARD - OPTION A</u>			
SITWORK	1,066,587	426,635	1,493,221
PUBLIC WORKS YARD RELOCATION	4,489,638	1,795,855	6,285,493
VISITOR CENTER UPGRADES	751,871	300,749	1,052,620
PARKING	4,935,552	1,974,221	6,909,773
CITY HALL	8,619,370	3,447,748	12,067,118
POLICE	5,325,520	2,130,208	7,455,728
TOTAL COST	25,188,538	10,075,415	36,474,466

OPTION B: NEW CITY HALL & POLICE

Option B explores the same concept of combining City Hall and Police into one facility but does not define an existing site to accommodate the facility. Estimated costs of an amorphous site do not include building and acquisition. The projected construction cost for Option B is \$15.9 million for a total project cost of \$22.3 million.

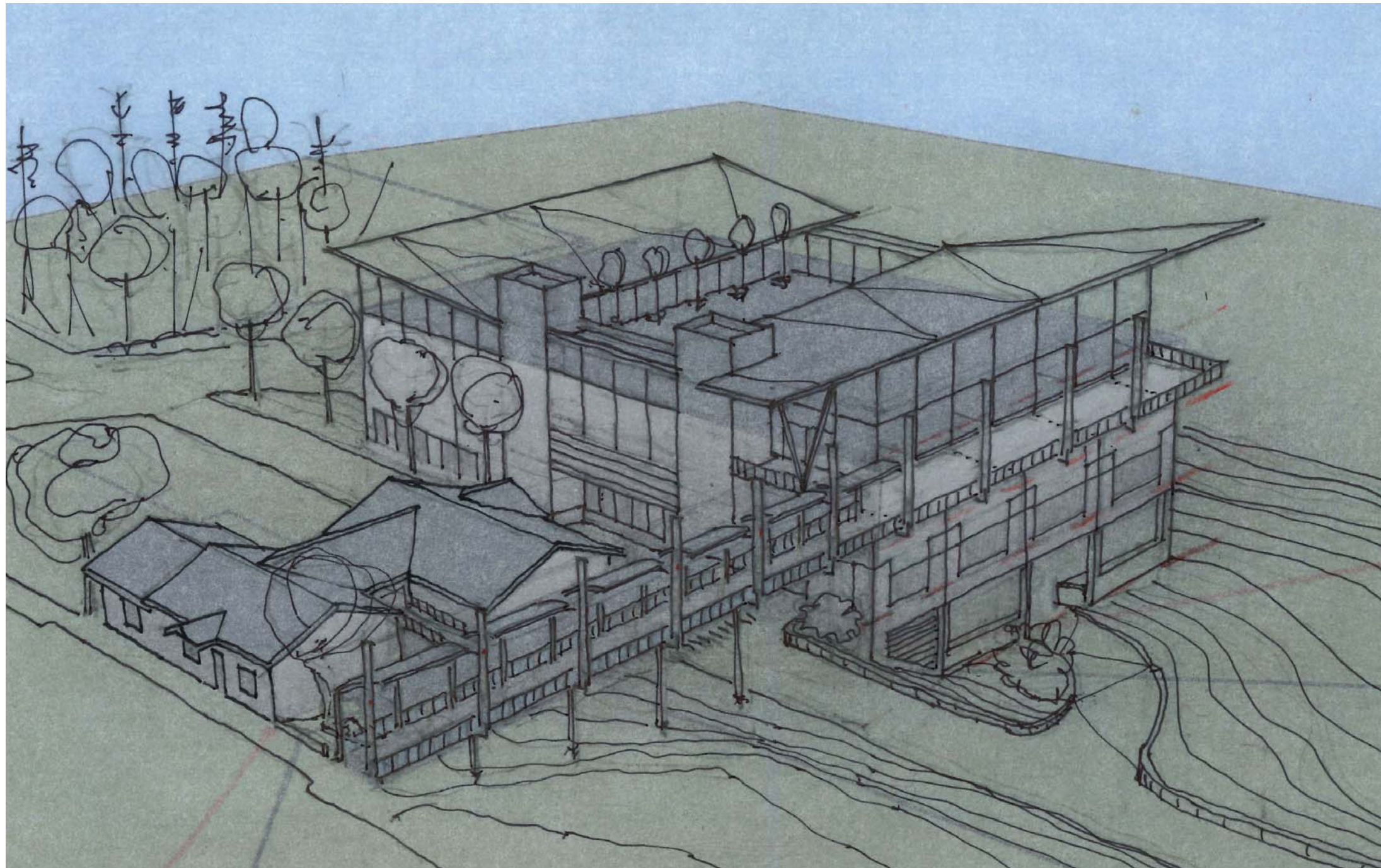
	Construction Cost (\$)	Soft Cost (\$) (40%)	Project Cost (\$)
NEW CITY HALL AND POLICE ON AN AMORPHIC SITE - OPTION B			
SITWORK	1,355,090	542,036	1,897,126
CITY HALL	8,762,935	3,505,174	12,268,109
POLICE	5,823,039	2,329,216	8,152,255
TOTAL COST	15,941,064	6,376,426	22,317,489



Similar to the adjacency diagram for the City Hall departments, the diagram above illustrates the spatial relationships between the program spaces within the Police Department. This exercise was conducted with input from the Duvall Police Chief and informs the design layout for Option C.

INSPIRATION A: NEW CITY HALL + POLICE (PARKING GARAGE)

Using OPTION A as a basis of design for conceptual development, this inspiration revitalizes the existing Visitors Center with the intent of keeping the historic character as a reminder to the history of the City of Duvall. Buildings that remain important to this history are considered to be the “string of pearls” that harken to era of the city’s historical past. We propose that the historical society remain a tenant of the revitalized visitor center. This NEW visitors center will be the gateway to the new city hall. In this inspiration, the site for the new city hall and police displaces the existing derelict Public Works (Barn) and creates a combined campus. This option takes natural advantage of the grade as it slopes from Main Street to Riverside Ave to the Snoqualmie River. A pedestrian bridge is constructed (using newly created artist supplied wooden banners to mark the new entrance) to the main facility. Because the building is set back a full block from the historical visitor’s center, it suggests the city gratefully respects the historical past with an eye on the future. The at grade Main Street pedestrian bridge also connects to the main level of the Visitors Center allowing better accessibility to that building. With views to the Snoqualmie River - a public and staff accessible roof deck is suggested to support program space of a new council chambers, department of community development, finance, city clerk and administration as well as public works engineering staff. Elevator and stairs connect to the police department with their own entrance on grade at Riverside Ave. Police fleet and city staff parking is considered to make up the majority of the parking garage with public parking completing the remainder. By planning for Police and City Hall on individual floors, security for both can be separated. This is perceived to be an EOC facility.



OPTION C: NEW POLICE STATION

Option C explores planning and costs associated with a new police station facility on an undetermined site. The image below illustrates the design layout located on a City-owned parcel at Big Rock, but like Option B, the project costs assume the facility is built on an undetermined site and they do not include building and acquisition. As such, construction costs for a new police station total close to \$7.2 million for a total project cost of just over \$10 million.



	Construction Cost (\$)	Soft Cost (\$) (40%)	Project Cost (\$)
NEW POLICE STATION ON AN AMORPHIC SITE - OPTION C			
SITWORK	1,355,090	542,036	1,897,126
POLICE	5,823,039	2,329,216	8,152,255
TOTAL COST	7,178,129	2,871,252	10,049,381

OPTION D: NEW PUBLIC WORKS YARD

A new public works yard would provide more storage and space to meet the City’s existing and growing needs. Based on the projected space needs presented earlier in this report, the facility would grow from approximately 13,000 square feet to 40,000 square feet. FOR **PURPOSES OF REFERENCE ONLY** the option shown here, on a site adjacent to the historic Dougherty Farmstead, of which represents approximately 2 acres. This graphic is represented for visual scale only - the cost analysis assumes an **undetermined** site and excludes building and acquisition. Construction costs are just under \$4.5 million for a total project cost of \$6.3 million.



	Construction Cost (\$)	Soft Cost (\$) (40%)	Project Cost (\$)
NEW PUBLIC WORKS YARD ON AN AMORPHIC SITE - OPTION D			
PUBLIC WORKS YARD RELOCATION	4,489,638	1,795,855	6,285,493
	4,489,638	1,795,855	6,285,493



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APPENDIX- 01 - LIMITED EXTERIOR WALL AND ROOF EVALUATIONS
APPENDIX- 02 - FIVE YEAR CNA MATRICES
APPENDIX- 03 - MASTER PLAN COST ESTIMATES
APPENDIX- 04 - CITY PROGRAMMING RESPONSES
APPENDIX - 05 - PUBLIC WORKS MATERIAL HANDLING QUESTIONNAIRE
APPENDIX - 06 - FUTURE FACILITIES STAFF FEEDBACK SURVEY



APPENDICES