Facility Evaluation Criteria

May 12, 2014

1. Property Marketability

Operating and Maintenance Costs

The operating costs of a building are significantly affected by the energy expenses incurred to heat, cool and illuminate the building. These expenses typically correlate to the thermal efficiency of the building envelope and efficiency of its lighting and HVAC systems.

The costs to maintain a building includes preventive and routine maintenance, corrective repairs, deferred maintenance, trouble calls, and replacement of equipment, fixtures, and furnishings as they wear out or become obsolete.

Facilities that cost more to operate and maintain are less valuable than those that are more efficient. In general, operating and maintenance costs rise with the age of the building. This necessitates reinvestment in the structure until those reinvestments are no longer cost effective.

Property Value

Property value is the sum of both the structure (building) and the property value. Value of the structure is affected by the original quality of construction, level of on-going maintenance, and its current condition. Value of the property is also affected by its size, shape, location, visibility, and road access, as well as the utilities and any infrastructure that serves it.

Consideration of property value becomes relevant if and when consideration arises to surplus a given property. If the resale value of a property is high, the decision to replace instead of remodel is often the more cost-effective approach.

2. Property Attributes

Work Process Efficiency

Consideration is given to the physical design and layout of the building floor plan and how the site is configured. How accommodating the property is in facilitating the nature of the work performed has been evaluated, as well the magnitude of improvements required to improve the overall efficiency. Consideration is given to work process efficiency since efficient delivery of service equates to lower costs in providing it.

Facility Quality

Consideration is given to the level of construction quality utilized when the facility was initially built. Higher quality materials almost always have higher durability and last longer, which means routine maintenance costs are less and replacement of worn out materials are less frequent.

Location

Each facility location has been judged on several levels:

1) The efficiency of delivering services from this location for the city departments housed there,

2) The convenience of the location to the public who interacts with the city departments housed there,

3) The compatibility of the city departments located there with the neighboring occupancies that surround it, and

4) The proximity to other city departments identified as valuable adjacencies.

3. Public & Staff Experience

Public Image

As a public facility, does the building convey a civic image commensurate with civic governance for the particular departments that are housed there? Does the building convey pride, purpose, and professionalism? Is the building consistent with the aspirational goals included in the City of Tukwila's community-led strategic plan?

Customer Service

Does the facility encourage public engagement by virtue of its design? Is it convenient for citizens to find and to access their local government? Does the building give a feeling of safety, and does it reflect the values of the community it serves?

Quality of Work Life

Is the building and its work environment conducive to getting the work of government done? Does it give staff a feeling of safety, health, comfort, and well-being? Is it a pleasant place to conduct business for both the staff member and the public they interact with?

4. Facility Specifics

Seismic Deficiencies

An extensive seismic analysis of all of the City's facilities was conducted by Reid Middleton in 2008. That report examined the ability of the City's assets to resist a major earthquake, the likely damage that could occur, and the potential effects on the City's ability to provide uninterrupted government services. Reid Middleton's report was used as the basis for this particular evaluation aspect.

Operational Flexibility

Does the building's structure and design lend itself to rearranging work groups and departments without extensive improvements or remodeling?

Expansion Potential
Does the building's design and site configuration lend itself to increasing the building size either upward or outward? Does the size and shape of the property, its topography, and access facilitate such an expansion? Are the building and land-use codes favorable for such an expansion and, if so, by how much?

ADA Deficiencies
Is the building and site access compliant with current accessibility regulations? If not, to what extent and at what difficultly could they be improved upon? It is important to note is that full compliance with current building codes, including accessibility requirements for individuals with disabilities, can be expected when significant alterations, remodeling, structural repairs or additions are made to any existing building.

Acoustics
The level of acoustic privacy required between individual staff members varies from department to department, and from individual functional spaces within each department. A lack of acoustic privacy can, in some instances, be distractive in getting work done. It can also compromise confidential information. This would be of significant concern regarding conversations of a legal, personnel, or medical (HIPPA) nature. This evaluation aspect considers the level of acoustic privacy that would be expected within a particular department as compared to the actual level of acoustic privacy that currently exists.

Facility Assessments

City Hall
6200 Southcenter Blvd.
Tukwila, Washington

Year Built:	1977
Number of Stories:	2
Floor Area (upper):	13,825 SF
Floor Area (lower):	11,250 SF
Floor Area (Total):	25,075 SF

The City Hall is a two-story, concrete- and wood-framed structure located in the central area of Tukwila. The building is approximately 195 feet by 128 feet in plan, 37 feet tall, and has an 'L' shaped footprint with a distinctive saw-tooth form on the southeastern elevation of the structure. The main roof is stepped in 24-foot- wide sections that align with the saw-tooth wall lines and slope monolithically from northwest to southeast. The upper story is wood-framed construction with structural-panel walls and long-span timber roof trusses. The lower story construction consists of concrete walls and columns, steel posts, and wood-framed walls supporting the floor above. The building is located on a site that slopes downhill from north to south. The first story is below grade on the north side and portions of the east and west sides. The first story includes a small wood-framed employee lounge area with an outdoor deck at the southeast corner of the building. A partial basement level is located below the first story in the southwest corner.

The City Hall building currently accommodates the Municipal Court (which doubles as City Council Chambers), Mayor, Finance, City Clerk, City Council Administration, City Administrator (including Economic Development and Tourism & Marketing), City Council, and Police (booking, holding, interview, officer lockers and workstations, administration, training, evidence intake and storage).

There have been no additions or major renovations of the building since its original construction. There have been various minor interior reconfigurations of interior partitions.

Architecturally the plan for the building is developed at a 45 degree angle off orthogonal. While visually interesting, it inherently makes space planning for rooms and open office workstations difficult. Although building code analysis indicates the structure could be expanded, the architectural style and site constraints limit possibilities for any significant expansion.

The proposed seismic upgrades include the enlargement and addition of columns at the lower level police department space, cramping an already overcrowded situation. Seismic upgrades on the upper level will reduce the amount of glazing, but overall are of modest impact architecturally. Perhaps the

most significant impact to the staff and public will be the need to vacate the building for 9 to 12 months during construction. This would require creation of temporary quarters at a location convenient to the public as well as office moves by staff both to and from the temporary city hall.

Even if the seismic improvements are undertaken and the cost/inconvenience of temporary facilities is tolerated, the operational and functional issues identified will remain. The police will remain split between two locations with the resultant operational inefficiencies. Secure parking for officers, staff, and police vehicles will remain lacking.

Application of Evaluation Criteria

Operating and Maintenance Costs *Score: -2*
Deficiencies include insufficient cooling in areas with clerestory windows. The wall/ceiling/glazing insulating values are all well below current energy code standards, which contributes to an HVAC system that is heavily taxed. In addition to the HVAC system being dated and undersized, the general facility lighting is energy inefficient. The building's infrastructure and general condition exhibit the wear and tear, and condition expected for a building that is 37 years old. No major renovation work has occurred over that time. Consequently, many of the systems and finishes are nearing the end of their useful life. In 2008 The City of Tukwila identified $ 4,125,000 worth of facility improvements needed for the City Hall building, not including seismic improvements.

Property Value *Score 2*
The value of the City Hall property is high given its central location within the City, adjacency to the retail core, and the relative high quality of other buildings and properties surrounding it. It is zoned as Office use.

Work Process Efficiency Score -1
Contributing to an inefficient workplace is the lack of privacy for confidential discussions, inadequate security measures at the open public counters, and inflexibility of rearranging staff and desks, which has been exacerbated by the increase in staff positions for the departments housed in City Hall.

While sharing space amongst the Municipal Court and Council Chambers is efficient in space utilization, it carries drawbacks in functional efficiency given the differences in operational layout, furnishings, and security. Scheduling conflicts will undoubtedly become more common than today as Municipal Court demands increase and public use of the Council Chambers becomes more desired.

General Issues including Mayor's Office, Finance, Clerk, and Administration:

The building, with the exception of the courtroom/city council chambers, has received few improvements since it was opened over 30 years ago. Spaces have been sub-divided and partitions added which negatively impacts the function of the mechanical

system and common spaces have been taken over to accommodate staff growth. The systems furniture is building original and is still in place with portions reconfigured to accommodate staff growth over the years.

Deficiencies are insufficient cooling in areas with clerestory windows, lack of privacy for confidential discussions, original floor-mounted "tombstone" power receptacles limit flexibility, no security at the Clerk's area open public counters, no access to replace/upgrade mechanical equipment, and lack of space for any further growth in staff. Storage space for records and in the vault is inadequate.

City Council and Municipal Court: The City Council shares council chambers with the Tukwila Municipal Court. A recent renovation of the shared space has improved functionality. A preferred arrangement is for each function to have separate space to fully address the disparate activities, i.e. court operations/security/public observation vs. city council public presentations/public participation. There is no dedicated space for members of City Council other than lockable cabinets within the courtroom.

Police:

Police staff count is beyond the capacity of the buildings' ability to provide support. Currently department staff is split between City Hall and the 6300 Building – not an optimal condition for efficient operation. As department needs grow this split will continue to be a detriment to operations. In addition, the plan forces the police operation into a linear double loaded corridor configuration which stretches staff travel to the maximum extent, compounding inefficiency even more.

Another plan-derived shortcoming is in the process of evidence processing and storage. There is currently no ability to laboratory process evidence as it is dropped, logged in and prior to being placed in secure evidence storage. Current procedure calls for transporting the evidence off site for analysis then returning it to the facility for secure evidence storage. While the department is making do in this regard it creates difficulty in maintaining a chain of custody for evidence. This has the resultant effect of acquiring and maintaining accreditation difficult for the department.

One deficiency that cannot be resolved due to site constraints is vehicle evidence analysis space and secured storage. Ideally vehicle breakdown space would be in a secure drive-in bay next to the evidence laboratory area. Once processed it would then be removed to a secure and monitored impound area immediately adjacent to the facility.

The south elevation of the building is composed of large expanses of non-ballistic rated glass. This runs counter to appropriate security design for contemporary Police station design and it places the staff in a vulnerable position.

The Police have made adjustments and compromises over time as they continue to populate the building, and as more space is consumed to seat staff, the support space required, i.e. training, restroom, and conferencing, becomes further over-taxed.

There is no secure parking for police cruisers and officers, including a SWAT vehicle.

Facility Quality *Score 2*
In general, City Hall was built at a high level of quality in 1977. This is reflected in the cost of the building at that time, quality of the materials used, and the craftsmanship in the assembly. Given the relatively little remodeling and maintenance performed on the building to date, the building has held up well for the 37 years it has been in operation.

Location *Score 2*
The location has served the public well as Tukwila's seat of municipal government. It is convenient for community members to find and access, and there is an established familiarity with its current location. It blends in well with the surrounding uses. And, its close proximity to other city departments located in the 6300 Building brings convenience and efficiency in a consolidated campus-type setting.

Public Image & Reputation *Score 2*
The building has a unique architectural character and form that makes it readily recognizable as a civic building in the community. It has a welcoming character. The large number of windows facing the parking lot and the open reception work counters promote an accessible and transparent government.

Customer Service *Score 1*
There are a couple of indicators that the customer experience at City Hall could be better: the multitude of signage in the lobby directing where to go, and the uncertainty of which counter to approach once the customer weaves down the hallway past the Men's Restroom.

Quality of Work Life *Score -1*
Over the course of the 37 years since City Hall was constructed, the delivery of government services for the City of Tukwila has grown and changed. The openness of the original plan, while appropriate in 1977, no longer provides the right balance of private verses public workspaces, and issues of acoustic privacy abound.

Seismic Deficiencies *Score 1*
The 2008 Reid Middleton report identified multiple seismic deficiencies and noted the building as susceptible to unacceptable levels of damage and poor performance during a design-level earthquake. With that said, the structural condition of the building is generally satisfactory and reasonable measures to improve the building's seismic performance were proposed in their report.

Operational flexibility *Score -1*
The uniqueness of the floor plans do not provide large unencumbered spaces that facilitate reconfiguration of open office landscaping systems in response to changing staffing needs.

Expansion potential *Score -1*
The site and current zoning allow for expansion both laterally and vertically. The nature of the plan and locations of recommended seismic upgrade elements make the addition of space onto the building challenging but workable, depending on the type of space and direction of expansion anticipated.

ADA Deficiencies *Score -1*
Past reports have defined a need to remodel bathrooms to current ADA standards to facilitate both public and staff needs.

Acoustics *Score -2*
The acoustical quality within the building is poor. There are a high percentage of "hard" surfaces, combined with an open plan (and acoustically inefficient open office landscaping) that yields a relatively "live", noisy environment.

Code Summary / Expansion Opportunity

All references to the International Building Code (IBC), unless noted otherwise.

A. Construction Type (Chapter 6, Table 601): V-A, Combustible, not rated.

B. Fire Suppression: Fully sprinkled.

C. Height – Actual (502.1): Two story plus mechanical mezzanine. Forty feet, conservative worst case.

D. Area – Actual:

Lower Level:	11,250 SF
Upper Level	13,820 SF
Total	25,075 SF

E. Use Groups (Chapter 3)
Assembly: A-3: Courtroom
Business: B: Offices and Police Station. I-3 does not apply as police has less than five holding rooms (308.4).
Storage: S-1 Moderate Hazard Storage

F. Mixed Use Group Strategy (508.3.2): Non-separated. Most stringent case, A-3, applied to entire structure.

G. Height/Area Limitations (Table 503)

A-3: One story, 40 feet height, 6,000 SF.
B: Two story, 40 feet height, 9,000 SF.
S-1: One story, 40 feet height, 8,000 SF.

H. Sprinkler exception (504.2): One additional story, 60 feet height.

I. Frontage Increase (506.2): 85% open – 25% required = 60% increase.

J. Height/Area Increases (506)
100% base area + 200% sprinkled + 60% frontage = 360%.
6,000 SF x 3.6 = 21,600 SF each floor if frontage ratio is maintained.
6,000 SF x 3.0 = 18,000 SF each floor with sprinkler increase only.

K. Potential Expansion from Code Height/Area Limitations:
Height: Expansion could house Business use on a third floor within 60 foot height limit, subject to zoning restrictions. No Assembly or S-1 use is permitted above the second floor.

L. Taking the conservative approach of not including frontage increase, a two story building could be expanded to 36, 000 SF, an increase of 9,300 SF, a 35% increase. A three story expansion could be a total of 54,000 SF, an increase of 27,300 SF, a 102% increase.

6300 Building
6300 Southcenter Blvd.
Tukwila, Washington

Year Built:	1978
Number of Stories:	3
Floor Area (1st Floor):	16,150 SF
Floor Area (2nd Floor):	16,800 SF
Total Office Area:	32,950 SF

The 6300 building is a three-story concrete- and wood-framed structure located in the Central area of Tukwila, adjacent to City Hall. The rectangular building is 80 feet by 210 feet in plan and 43 feet tall. The first and second stories are primarily wood-framed construction with structural-panel walls and diaphragms. The building has a parking level below the first story. Construction of the parking level consists of concrete walls and columns supporting the levels above. The building is located on a site that slopes downhill from north to south. The north end of the parking level is below grade. Concrete walls in the northern half of the building also act as retaining walls.

There have been no additions or major renovations of the building since its original construction. There have been various minor interior reconfigurations of interior partitions.

The following city functions are housed at this facility:

- Administrative Services including Personnel, Human Services, and Volunteer Program.
- Public Works Department: Engineering and Project Management.
- Community Development: Building, Planning, and Permit Center.
- Emergency Management
- Community Development: Planning and Building, plan review and permitting.
- Police: Major crime unit, detectives, traffic, anti-crime, and administration.
- Parking: Parking for police motorcycles, SWAT vehicle, and detective vehicles underneath building.
- Information Technology (IT) Department: Project management, technical and administrative staff. Delivery, set up and testing of new PC's, File Servers, Primary and Back-up for City computer network.

The building requires significant replacement of building systems in order to extend the building lifespan. Lifecycle costs should be prepared and compared with building replacement costs. Building code review indicates the structure could be expanded, however site limitations and the condition/quality of the existing building render expansion a poor choice, unless the rest of the building is renovated to have an equal lifespan as a new addition.

The building requires emergency power to keep key city functions such IT file servers, police, and engineering operational during a power outage event. City network file servers and back-up services may not be available following an emergency event.

Proposed seismic upgrades will have minimal architectural impacts, but like the City Hall, the most significant impact to the staff and public will be the need to vacate the building for 9 to 12 months during construction. This requires both the acquisition and creation of temporary offices at a location convenient to the public as well as office moves by staff to and from the temporary facility. Similar to City Hall, even if the seismic improvements are undertaken and the cost/inconvenience of temporary facilities is tolerated, the operational and functional issues identified will remain. The police will remain split between two locations with the resultant operational inefficiencies. Secure parking for officers, staff, and police vehicles will remain lacking.

Application of Evaluation Criteria

Operating/maintenance cost *Score -2*
The building envelope (walls, roof, and windows) are well below current energy code standards, as determined by empirical observation and general experience with structures from this era. It has been identified that HVAC systems are dated and undersized, and the general facility lighting is energy inefficient. The building and its systems exhibit the wear and condition expected in a building that is 36 years old and has not had major renovation work during that time. In 2008, the City of Tukwila identified $ 2,505,000 worth of facility improvements needed for the 6300 Building, not including seismic improvements.

Property Value *Score 2*
The resale value of the property is marked as high, given the central location within the City, adjacency to the retail core, and the relative high quality of the surrounding buildings and grounds. Like the adjacent City Hall, this site is zoned as Office use.

Work Process Efficiency *Score -1*
Work process efficiency is low, given that city departments spread between both the City Hall and 6300 Buildings.

Facility quality *Score -2*
The building was built to a low level of quality, both in the expense and quality of the materials used and the craftsmanship in the assembly. The basic structure of the building has suffered over the course of 36 years in operation. Foundation drainage is poor and floor topping slabs are cracked and in need of repairs. HVAC delivery is poor due to multiple space configurations over the course of the building's life.

The building quality is typical of a 30 year old office building. The building systems and construction materials are not that of a 50+ year lifespan institutional building. Examples are:

Floor topping slabs are cracked and require replacement along with subfloor repairs and mechanical equipment has exceeded its expected lifespan and is due to be replaced. Exterior closure (roof and windows) are due for replacement. Lighting is original and inefficient. Heating, cooling, and ventilation air is poor due to multiple space re-configurations over the years.

Location *Score 2*
The location has served the public well as the seat of municipal government and is well situated for vehicular access.

Public image and reputation *Score -1*
The building has an undistinguished architectural character and is not comparable to the City Hall in terms of quality or presentation of the City's aspirations.

Customer service *Score -2*
Way-finding in the building is difficult, and the double loaded corridor configuration makes it unfriendly and not engaging for public interaction.

Quality of work life *Score -2*
Because of the closed character of the plan and the resulting spatial separation, the work flow is interrupted and there is a lack of "connectivity" between departments.

Information Technology: Main and Back-up file servers for the City's network are located in the same building with no fire rated or seismic separation, therefore may not be operational following an emergency event. There is no emergency power for the file servers and the UPS is limited to 15 minutes to allow shutdown only. There is no loading dock/lift for delivery of IT equipment.

Police: Operational inefficiencies exist due to department being split into two locations with City Hall. The layout of the building provides minimal security for the police departments in the 6300 building. For example, pubic enter directly into administrative area with no checkpoint. There is no secure parking for police vehicles or staff, including motorcycles and a SWAT vehicle.

There is no emergency power for police, IT, or Engineering to maintain operations during a power outage.

Seismic deficiencies *Score -2*
The 2008 Reid Middleton report identified seismic deficiencies that would render it heavily damaged in a design- level earthquake. The ability to remain functional would be severely limited and the risk to inhabitants would be high.

Operational flexibility *Score 0*
The current plan configuration would allow for some degree of flexibility in reconfiguration, given a substantial remodel. The building is regular in plan, with a simple repetitive structure yielding some ease in modifying its current use.

Expansion potential *Score -2*
Site limitations restrict the lateral expansion of the building. Coupled with low quality of the original construction, expansion is an undesirable course of action. The building does include approximately 1,800 square feet of leased/vacant space that could be used for future growth.

ADA deficiencies *Score -1*
The restroom facilities are not ADA compliant and deficiencies in signage and railings have been noted in past reports.

Acoustics *Score -1*
The acoustical quality within the building is average to poor. While there is not an inordinate amount of "hard" surfaces, the second floor construction is not efficient in mitigating floor to floor noise. In addition, the low quality HVAC rooftop-mounted package systems and associated ducting transmit noise to the inhabited spaces below.

Code Summary / Expansion Opportunity

All references to the International Building Code (IBC), unless noted otherwise.

A. Construction Type (Chapter 6, Table 601): V-A, Combustible, not rated.

B. Fire Suppression: Fully sprinkled

C. Height - Actual (502.1): Two stories over parking for three stories total. Thirty-nine feet, conservative worst case.

D. Area – Actual:

Parking Level:	16,225 SF
First Floor:	16,150 SF
Second Floor:	16,800 SF
Total	49,175 SF

E. Use Groups (Chapter 3 and 406)
Business: B: Office
Storage: S-2 Low Hazard Storage – Enclosed Parking Garage (406.3.3/406.4)

F. Mixed Use Group Strategy (308.3.3): Separated, One-hour per Table 308.3.3.
Height/Area Limitations (503)

B: Two story, 40 feet height, 9,000 SF
S-2: One Story, 40 feet height, 9,000 SF

G. Sprinkler exception (504.2): One additional story, 60 feet height.

H. Frontage Increase (506.2): 60% open – 25% required = 35% increase.

I. Height/Area Increases (506)
100% base area + 200% sprinkled + 75% frontage = 375% increase.
6,000 SF x 3.75 = 22,500 SF each floor if frontage ratio is maintained.
6,000 SF x 3.0 = 18,000 SF each floor with sprinkler increase only.

J. Potential Expansion from Code Height/Area Limitations:
Taking the conservative approach of not including frontage increase, a three story building could be expanded to 54,000 SF, an increase of 4,870 SF, a 10% increase. An expansion that maintains the open frontage ration could be at total of 67,500 SF, F, an increase of 18,370 SF, a 37% increase.

Community Center
12424 42nd Avenue South
Tukwila, Washington

Year Built:	1995
Number of Stories:	1
Floor Area:	55,000 SF

The Tukwila Community Center is a one-story building located in the northern end of Tukwila along the Green River. The building consists of two low-rise, rectangular wing sections and a 38-foot-tall circular high-roof rotunda between the wings. The east wing also includes a 38-foot-tall high-roof gymnasium. The rotunda construction consists of a wood- and steel-framed roof with a wood structural-panel diaphragm supported by steel, masonry-clad columns. The east and west wings are generally wood- and steel-framed roofs with wood structural-panel diaphragms supported by wood and light-gage steel stud walls with a masonry façade. The gymnasium is constructed of steel roof trusses and metal roof deck supported by CMU perimeter walls.

Application of Evaluation Criteria

Operating/maintenance cost *Score 0*
In 2008, the City of Tukwila identified $893,000 worth of facility improvements needed for the Community Center, not including seismic improvements. The facility is modern in terms of insulation levels and building systems and materials, however it is in need of exterior maintenance and repairs.

Property Value *Score 0*
The resale value of the property is marked as average, given the more remote distance location within the City and floodplain concerns. The highest and best use for this site is noted by the King County Department of Assessments as its current Park/Recreation use. The site is zoned Low Density Residential, with Public Recreation Overlay.

Work Process Efficiency *Score 2*
No issues relating to work process efficiency have been identified.

Facility quality *Score 2*
The building was built to a good-quality, commercial standard in 1995 and the interior is in good condition. However, time, weather, and poor flashing detailing have taken their toll on the exterior. We noted the following:

There are numerous signs of weathered paint and finishes as well as rotten trim and siding on all sides of the building. A lack of sheet metal window and trim flashings and failing caulking has also contributed to these conditions.

Repainting and re-staining is required throughout the exterior of the building.

Water intrusion is noted at the interior of the windows where swelling of the mullions and interior trims is apparent.

Flashings and gutters incorrectly channel water behind eave trims and soffits, resulting in deterioration and damage to both.

To preserve the building and prevent further deterioration, the Community Center should be evaluated by a weatherization consultant to determine appropriate fixes for the flashing issues. Priority should be given to these maintenance issues in order to prevent serious and expensive damage to the interior. An appropriately funded periodic maintenance program will allow this building to meet or exceed its expected lifespan.

Location *Score 1*
The primary concern is the facilities adjacency to the river put in to question its' availability in a major flood event.

Public image and reputation *Score 2*
The Community Center is a functional and attractive facility. However, as a 19 year-old facility, it is showing signs of age and deterioration.

Customer service *Score 2*
As previously noted, the Community Center is one of the City's newer facilities and no adverse issues have been identified.

Quality of work life *Score 1*
The Community Center is relatively new and generally functions and operates well, with the following issues noted:

Recreational equipment storage to support multiple programs is lacking.

Gym mechanical system is reported to be lacking, and the gym could be re-configured to allow two full size courts.

Emergency Shelter: The center is one of seven potential community shelters in the City. Due to the proximity to the river, primary site access via a bridge over the Green River, and seismic

limitations, the center may not be available as a shelter depending on the nature of the emergency event. The facility does not have an emergency power generator, limiting the facility's usefulness as an emergency shelter. Adding an emergency generator will allow the building to function effectively as a shelter during a power outage event.

Seismic deficiencies *Score -2*
The Community Center was not originally designed as an essential facility in terms of its usage as a potential emergency shelter. It therefor performs poorly when measured against the Immediate Occupancy seismic criteria. The site is also noted as susceptible to soils liquefaction and lateral spreading, contributing to its poor seismic capabilities.

The cost of seismic upgrades to this building to improve its ability to remain in continuous operation after a seismic event is disproportional to the value of the building. It is recommended that the City accept that it is one of multiple designated shelters and may not be available depending on the type of emergency event.

Operational flexibility *Score 0*
In terms of staff and administrative uses of the Community Center, all offices are collocated between the lobby rotunda and the gymnasium. As such, there is little opportunity to easily expand the staff area within the existing shell of the building without impacting the customer recreation areas within the facility.

Expansion potential *Score 0*
The Community Center's 12.8 acre riverfront site is well suited to its recreational use. However, the building is bounded on the west and south by the Duwamish Waterway and by an adjacent baseball field to the east. Parking is to the north of the parcel. While expansion of the existing building is possible, it would likely need to be of limited size in order to avoid an adverse impact on the recreational and parking uses of the site.

ADA deficiencies *Score 1*
Designed in 1995, the Community Center is generally ADA compliant.

Acoustics *Score 0*
No acoustical issues have been identified at this facility.

Parks & Golf Maintenance
13900 Interurban Avenue South
Tukwila, Washington

Year Built:	1998
Number of Stories:	1
Floor Area:	8,890 SF

The Parks and Golf Maintenance building is a one-story concrete block- and wood-framed structure located between the George Long Shops and the Foster Golf Course. In addition to the maintenance building, there are two wood-framed covered storage buildings, materials storage bins, a fueling station, a vehicle washing pad, and parking for service fleet vehicles and staff. There have been no additions or major renovations of the building since its original construction. Adjacent the Maintenance Building is a Maintenance Shed (2,184 sf) and an Equipment Building (910 sf).

The Parks and Golf Maintenance facility is generally in good condition and fulfills the role of supporting the city's maintenance crews. At 15 years of age, the building is showing signs of needing some exterior maintenance, but otherwise it is in reasonable condition.

Application of Evaluation Criteria

Operating/maintenance cost: *Score 1*
Built in 1998, the Parks and Golf facility is reasonably modern in terms of mechanical systems and building construction. Building shell walls are insulated to R-19 with batt insulation and the roof is approximately R-30 rigid insulation.

Mechanical System: An electric heat pump HVAC system serves the office/crew portion of the building. Gas-fired unit heaters serve the storage bays and shops portions of the facility. The systems appeared to be in good working order and no issues were observed or noted. The two open, covered storage buildings are unconditioned.

Property Value: *Score -1*
The resale value of this property is relatively low as it is relatively small and tightly situated between the George Long Shops, the golf course, and the police department impound yard. The building itself is of average quality and construction and, given its dedicated function, not readily conducive to conversion to the retail or commercial uses of the type typically encountered along Interurban Avenue. Should the Parks and Golf Maintenance facility be located elsewhere, the property is most valuable when considered as an expansion to either the shops or the golf course. It is zoned as Low Density Residential with Public Recreation Overlay.

Work Process Efficiency: *Score 1*
Staff parking is reported by staff as being tight, though with the neighboring George Long Shops parking available, this has not been a problem. City fleet vehicle parking is also reported as being tight both in terms of quantity and stall size to accommodate larger vehicles. Neither is noted as serious problems and the site is fully secured with chain link fencing and barbed wire.

Facility quality: *Score 1*
The Parks and Golf Maintenance Facility is in average to good condition for a building of its age. In addition to the Crew Building, there are two covered storage buildings, an above-ground fueling station, a vehicle wash pad, and several concrete materials bins for sand, gravel, mulch, and the like. Parking is provided for both employees and the City's fleet vehicles. Offices are provided for both the Parks Department and the Golf Course Maintenance Department.

Exterior Condition: The exterior of the facility is composed of fiber-cement panel siding with a concrete masonry veneer wainscot. Plywood soffits and cedar eave and rake boards are used at the roof. It is generally in good condition although the siding color has faded and the transparent-finished eaves and rakes are weathering poorly. New paint is recommended for all fiber-cement and wood surfaces. The asphalt composition roofing shingles are starting to show signs of wear and replacement of the roof is recommended within the next 5 to 7 years.

Interior Condition: The interior of the building is also in generally good condition for a building of its age and use. No major deficiencies beyond general wear and tear were observed.

Life Safety Systems: The facility has a fire alarm system present in the maintenance facility, though no fire sprinkler system is installed at any of the buildings.

Location: *Score 1*
The Parks and Golf Maintenance facility is well situated adjacent to the George Long Shops and the Foster Golf Links golf course, which the building serves.

Public image and reputation: *Score 1*
The Parks and Golf Maintenance facility is appropriately designed for its use and purpose. The building itself is not highly visible as it is behind the police vehicle impound yard, with the storage buildings hidden by the George Long Shops. The sides of the buildings facing the golf course have few windows and no other openings.

Customer service: *Score 0*
The Parks and Golf Maintenance building does not typically serve the general public directly from this building, although they do receive vendors and other city staff visiting the site.

Quality of work life: *Score 1*
The crew portion of the building contains two offices, locker area, restrooms with showers, a large break room with kitchenette, and a room for storing and drying clothing. No quality of work life issues were noted in discussions with staff.

Seismic deficiencies: *Score 1*
Per Reid Middleton's 2014 report, the Parks and Golf Maintenance facility is generally in acceptable condition from a seismic, life-safety point of view. Due to its proximity to the Duwamish Waterway, soil liquefaction during a seismic event is a potential hazard. However, given the light loads from the structure and the slab-on-grade foundation system, the risk is low that the foundations will spread laterally and cause additional damage or structural instability.

Operational flexibility: *Score 0*
As a maintenance facility, the Parks and Golf Maintenance facility works well for its mission. While staff noted that storage has become somewhat tight over the years, some of this is attributable to other city departments storing items at the building.

Expansion potential: *Score -1*
The Parks and Golf Maintenance Facility is located between the George Long Shops, the golf course, and the river. As currently configured, there is no opportunity to expand the facility or grounds without additional lands being acquired from either the golf course of the adjacent shops parcel.

ADA deficiencies: *Score 1*
Both men's and women's restrooms have toilet grab bars and appropriate clearances. No significant ADA deficiencies were observed.

Acoustics: *Score -1*
In general, there does not appear to be any significant acoustical issues at the facility. Staff did note that the large crew room also serves as a meeting room and that there are some echo-related acoustical issues due to the hard floor, wall, and ceiling surfaces that make the room somewhat noisy when heavily occupied.

Minkler Shops
600 Minkler
Tukwila, Washington

The Minkler Shops is a small campus consisting of three buildings:

1) The 4,700 square-foot Work Room and Storage Bin building,
2) The 7,200 square-foot Office and Garage Building, and
3) The 8,850 square-foot covered parking structure.

All of the structures are one story and were constructed in 1972. There have been no major renovations or additions although portions of the buildings have had pre-engineered or stick-built mezzanines added over the years for parts storage, office, and electronic equipment. Portions of original vehicle bays have been converted into crew or office space to accommodate increased staff.

The following city functions are housed at the Minkler Shops:

- Capital Facility Maintenance shop: Maintenance and Custodial.
- Public Works Infrastructure Maintenance Shop: Right-of way improvements, water, sanitary, and storm systems.
- Traffic Operations Center: The Southcenter Mall area is hardwired to this location for remote operation of traffic lights. The system is planned to be expanded for remote operation of traffic control throughout the City during emergency events.
- Water and Sewer Remote Telemetry for monitoring of water and sewer systems throughout the City.
- Provides minimal water/sewer system repair parts inventory.
- Chemical and hazardous material storage for maintenance operations.
- Transfer facility for sorting and treating storm sewer vactor truck waste.
- Infrastructure system parts and material storage.
- Sign Shop and Storage.
- Traffic Signal Shop and Storage.

- Offices, Crew areas, lockers and restrooms for Sewer, Water, Streets department crews and managers.
- Vehicle washing bay.

The facility is lacking key functions needed to support and restore essential city services following an emergency event. The absence of an emergency power severely limits this facility to meet its mission of restoring city services during a power outage event.

Material storage is very limited, thus impacting the availability of parts and materials for emergency event response. The upcoming loss of the remote site due to the Strander Boulevard/27th Street Corridor Improvements Project for material storage and vactor truck waste sorting/transfer will further exasperate the storage issue in addition to creating new operational challenges to dispose of vactor truck waste.

Traffic Operations Center may not be operational following an emergency event. If this equipment remains at the Minkler Shop, it is recommend that all equipment and support space for this function be separated with fire rated walls from the remainder of the facility.

Water/Sewer Telemetry System may not be operational following an emergency event. If this equipment remains at the Minkler Shop, it is recommend that all equipment and support space for this function be separated with fire rated walls from the remainder of the facility.

Seismic improvements would have minor architectural impacts to the spaces, but significant operational issues would remain, rendering replacement a better option. Should seismic improvements be elected, they can likely be performed without vacating the facility.

Work Room and Storage Bin Building

Year Built:	1972
Number of Stories:	1
Floor Area:	3,961 SF

The Work Room and Storage Bin Building is a single-story, wood and concrete structure located in the southern commercial and industrial area of Tukwila. The 20-foot-tall building has an angular J-shape, with maximum plan dimensions of 90 feet by 130 feet and a cross-sectional width of 20 to 25 feet. Building construction consists of wood-framed and precast concrete roof structures supported by concrete shear walls.

Covered Parking

Year Built:	1972
Number of Stories:	1
Floor Area:	8,996 SF

The Covered Parking is a partially open, single-story concrete structure located in the southern commercial and industrial area of Tukwila. The C-shaped structure has maximum plan dimensions of 140 feet by 300 feet and a cross-sectional width of 20 feet. Building construction consists of precast concrete roof planks supported by precast concrete walls and concrete beams on steel posts.

Office and Repair Garage

Year Built:	1972
Number of Stories:	1
Floor Area:	7,480 SF

The Office and Repair Garage is a single-story, wood and precast concrete structure located in the southern commercial and industrial area of Tukwila. The building is roughly L-shaped, with maximum plan dimensions of 75 feet by 176 feet and a cross-sectional width of 30 to 40 feet. The building has two distinct roof elevations, with a low roof over the office area and a high roof over the repair garage. Building construction consists of a wood-framed roof supported by precast concrete perimeter walls and partially supported by steel posts in the repair garage portion of the structure.

Application of Evaluation Criteria

Operating/maintenance cost *Score -2*
In 2008 The City of Tukwila identified $ 1,563,000 worth of facility improvements needed for the Minkler Shops, not including seismic improvements. Insulation values in the building envelope, including wall, roof and glazing insulating values are well below current energy code standards. Many portions of the shop areas are completely uninsulated.

Property Value *Score 1*
The 11.13 acre site is zoned as Tukwila Urban Center with Public Recreation Overlay. While the overall acreage is of good size, the usable portion of the site upon which the campus sits is only approximately 2.5 acres. The remainder of the parcel is a pond and wetlands related to the river. The Minkler site also has seismic liquefaction and lateral spreading issues due to proximity to the river. Resale value is expected to be average or low, depending on any wetland or water-related setbacks.

Work Process Efficiency *Score -2*
The facility lacks the both interior space and general yard area needed to support and restore City service in emergency events. Minkler Shops is home to a crew of approximately 40 personnel on a daily basis, with an additional 10 seasonal crew members added in the summer months.

Material Storage: The yard area at the Minkler shops includes minimal storage areas for bulk material storage for these departments to maintain city infrastructure. The department has resorted to placing material stocks of pipe, wood chips, and remediated soil at three other locations around the city, requiring additional travel time.

Waste Transfer and Vactor truck dumping: Additional material storage and a vactor truck and street sweeper waste sorting/transfer station and soil remediation areas are required. Currently, crews must travel to an approved dumping site in King County to empty the vactors, taking crew out of service for 1.5 to 3 hours.

Emergency Operations: Material storage is extremely limited, so the department uses “Just-in-Time” material delivery. Materials may not be available on demand to maintain city operations and restore essential city services following an emergency event.

Traffic Operations Center is not seismically or fire separated, therefore it may not be operational following an emergency event. The electronic equipment is located on a small wood mezzanine within the Work Room and Storage Bin Building. The control center is located on an office mezzanine in the same building.

Water/Sewer Telemetry System, located in the Office and Garage Building, is not seismically or fire separated, therefore it may not be operational following an emergency event.

Storage: As departments have taken over portions of the garage and storage areas for office uses, some of the storage uses have ended up on the site where they in turn displace parking for city fleet vehicles. Currently there are 3 conex boxes on-site to serve storage needs that cannot be accommodated within the facilities.

Vehicle Parking: As noted above, storage has displaced and crowded parking and site circulation for the city's maintenance fleet vehicles such as dump trucks and backhoe trailers. No capacity is apparent for additional vehicles.

Police Use: One garage bay is being used by the police department for secured vehicle evidence. This use should be collocated with police department functions.

Facility quality *Score -2*
The building was built to a moderate level of quality, both in the expense and quality of the materials used and the craftsmanship in the assembly. The basic structure of the building has degraded due to the industrial use. Numerous issues have been noted, including:

> Cracks are evident in the concrete wall panels at the storage bin portion of the Work Room and Storage Bin Building.
>
> Holes and cracks have been identified in the oil/water separator vault, requiring repair or replacement to prevent potential soils contamination at the site.
>
> The building electrical panels are antiquated and replacement parts are difficult to obtain. The electrical system also requires code upgrades before an emergency power system can be added.

Location *Score -1*
The location is not desirable for continued City use, both for the adjacency to the river but also the inadequate expansion area for a new Public Works facility and poor soils conditions.

Public image and reputation *Score -2*
While the building does not directly serve the public, the poor quality and make-shift accommodations are not conducive to good employee morale.

Customer service *Score 0*
The Minkler Shops campus does not typically serve the general public directly from this building, although they do receive vendors and other city staff visiting the site.

Quality of work life *Score -2*
The following issues were noted:

Crew office and break spaces are converted vehicle bays and undersized for current staffing of 40 to 50 personnel.

Restroom and locker space is undersized for current staffing to the point that the efficiency of the crews to begin field work each day is negatively impacted by waiting in line to use the one small restroom. The crews are predominately male and the men's restroom provided includes only a single shower, two urinals, and 3 toilets.

There is no carpentry shop for maintenance work.

The sewer department offices are cramped and contain offices for the manager and 3 foremen as well as desk space for 10 crew members. This area is a converted vehicle garage and the single ~6' high exit is too short to be considered a legal exit per the building code. The stairway to the added second floor office does not meet code due to insufficient landings and handrails. No ventilation is provided at the main floor and only a baseboard heater is provided at the second floor. Given the open office configuration, private conversations by the manager are not possible.

Similarly, the water department offices are extremely cramped when the 7 members of the crew are present. No ventilation is present and heat is provided only by a baseboard heater.

The sign shop is uninsulated and minimally heated to prevent freezing of plumbing. Lighting quality is poor.

Seismic deficiencies *Score -2*
The 2008 Reid Middleton report identified seismic deficiencies that would render it susceptible to unacceptable levels of damage during a design level earthquake. In addition, the site is susceptible to soil liquefaction due to adjacency to the Green River.

Operational flexibility *Score -2*
The configuration of the floor plans are awkward in proportion and do not provide any significant degree of flexibility.

Expansion potential *Score -2*
The usable portion of the site is approximately 2.5 acres and is limited by existing buildings to the west and the river to the north and east. The southern portion of the site is a pond and related park space. No further expansion on the site is likely possible without obtaining adjacent parcels to the west.

ADA deficiencies *Score -2*
The facility currently has no ADA compliant restroom facilities and several offices are located on inaccessible second floors. None of the mezzanines, which include office and traffic control spaces, are handicapped accessible.

Acoustics *Score 0*
No acoustic issues have been identified.

George Long Shop
14000 Interurban Avenue South
Tukwila, Washington

Year Built:	1965
Number of Stories:	2
Floor Area:	18,168 SF

The two-story, 18,500-square-foot George Long Shop building is located along the western edge of Tukwila, adjacent to the Green River and Foster Golf Links. The structural system of the pre-manufactured metal building consists of steel moment frames with a steel deck diaphragm. There appears to have been a number of additions to the facility since its original construction.

The facility is lacking key functions needed to maintain city fleet operations that are required to restore essential city services following an emergency event. The building also lacks adequate facilities to maintain and repair larger vehicles severely limit the ability of this shop to perform its mission. No emergency power generator is present, making it impossible for this facility to meet its operational performance requirements during a power outage event.

Seismic improvements would have minor architectural impacts to the spaces, but due to the costs of seismic retrofits, this building is recommended to be replaced. Should seismic improvements be elected, they can likely be performed without vacating the facility. However, even if all noted repairs, renovation, and seismic upgrades were performed, basic operational issues for large vehicle repairs would remain.

The following city functions are housed at the George Long Shops:

- Capital facility drawing and record storage.
- Public Works Administrative support offices.
- Vehicle fleet maintenance for all City vehicles, including roadways, water, sewer, police, and fire.
- Parts storage for vehicle maintenance.
- Surplus furnishings and equipment storage.
- Storage yard for evidence vehicles from crime scenes.
- Locksmith Shop.

Application of Evaluation Criteria

Operating/maintenance cost *Score -2*
In 2008 The City of Tukwila identified $ 2,328,000 worth of facility improvements needed for the George Long Shop, not including seismic improvements.

The building systems at the Shop are extremely antiquated and contribute to unnecessarily high operating costs, occupant comfort issues, and inefficiencies:

Single-pane windows with no thermal breaks.

Minimal insulation levels with no thermal breaks at the metal building envelope. Torn, damaged, or missing vapor barriers at numerous wall and roof insulation locations.

Uninsulated fiberglass overhead doors with holes due to age and UV deterioration.

Old, energy-inefficient T-12 light bulbs.

A general lack of weather-stripping that allows water and wind intrusion into the shop interior.

Property Value *Score -1*
The resale value of the 2.52 acre property is marked as poor, given its Commercial/Light Industrial with Public Recreation Overlay zoning designation. However, maps indicate the northwest portion of the site is encroached by a flood plain which would likely preclude any substantial sales value.

Work Process Efficiency *Score -2*
As noted below and in the Facility Quality and the Quality of Work Life sections, there are numerous issues directly related to the size constraints and physical condition of the George Long Shops that directly create inefficiencies in workflow.

Inefficiencies: At 18, 168 sf, the George Long shop is undersized for its mission to service the City's 350-400 vehicles. This in turn promotes inefficiencies in the following aspects:

Split public works locations: with crews and equipment split between George Long and Minkler locations, travel time for personal is increased and consolidation of equipment and storage spaces is not possible. The public works operations manager, responsible for both shops, must split his or her time between both locations.

Storage: Vehicle parts, facilities stock, tire storage and other materials are stored at several locations within and outside of the building, resulting in inefficient storage spaces and inefficient use of staff time. Tires, for instance, are stored in rooms, the shop floor, hallways, and conex boxes outside the shop.

Operational Performance: The department has an operational performance requirement of vehicle repair turn-around in 24 hours maximum to maintain city operations and restore essential city services. This requires the ability to efficiently repair and maintain vehicles at all times and under all weather conditions. The shop floor is packed with tools, vehicles, and equipment. In order to work on the City's largest vehicles, staff must move equipment and vehicles around to accommodate vactors and fire engines, resulting in further loss of productivity.

The existing pivot crane and lifts are difficult to utilize given the low clearance of gas lines, lights, and other ceiling hung equipment. A forklift is often needed to help move items lifted by the crane into position.

The site is insufficient for the storage of vehicles under service as well as the processing of new and replacement vehicles received by the city each year. As vehicles are added to the site, maneuvering the city's largest vehicles becomes difficult and inefficient.

Facility quality *Score -2*
The George Long Shops are in extremely poor condition. Many of the issues are related simply to the age of the facility as noted above.

Floor sump in maintenance bay is not operational and cannot be repaired; there is no means to control drainage of fluids on shop floor.

There is no emergency power to allow repair of city vehicles during a power outage event. There is space to plug in a portable generator system at the building, though the generator is not powerful enough to enable use of the shop compressor and a portable compressor must be utilized.

The shop floor slab has offsets of over one-inch, creating tripping hazards.

Fire Service/Large Vehicle Maintenance: There are no lifts in building for either the ladder truck or larger vehicles and there is inadequate clearance to fully open the cab of the ladder truck for engine maintenance. Additionally, the existing ladder truck is too long to fit in maintenance bay – the department must service the front half, then turn around and back-in to service the rear, with part of the vehicle extended through an open door – inconvenient at best and problematic during inclement weather.

Vehicle Evidence Storage: Secure storage for crime evidence vehicles has minimal chain link fence enclosure and no cover. Lack of secure storage and weather protection compromises evidence. Evidence can be removed or tampered by unauthorized persons, or deteriorate due to exposure to weather. A long-term solution for the evidence yard is needed.

Site issues: Vehicle parking and materials storage is largely unpaved and potentially allows soils contamination from vehicle fluids or other materials. This is a concern given proximity to the river. Additionally, sewer line maintenance and replacement is required to prevent further contamination issues.

Other issues:

Electrical service inadequate for welding needs.

Surplus city equipment storage area is lacking.

Inadequate space exists for surplus furnishings and equipment storage, which minimizes re-use of these items.

IT server and computer workshop and associated storage area is small and cramped.

Location *Score -1*
The location is not desirable for continued City use due to poor soils and flood plain intrusion. Additionally, the site is likely too small to accommodate any expansion scenario that would combine the George Long and Minkler shops.

Public image and reputation *Score -1*
The George Long shop looks old, tired, and deteriorated from the street. Gravel parking lots and the police department's impound yard adjacent to Interurban Avenue give the area a blighted feeling not in keeping with the aspirations of the City.

Customer service *Score 0*
The George Long Shop building does not typically serve the general public directly from this building, although they do receive vendors and other city staff visiting the site.

Quality of work life *Score -2*
There are numerous issues that affect the health and well-being of the staff serving at the building:

The second floor, used by crew for lounge and restroom use, lacks lights (except for the restrooms) and heating.

The shop and storage areas lack general exhaust fan systems, which required the overhead bay doors to be open for ventilation purposes. This is energy-inefficient due to heated air being lost to the exterior.

Even with doors open, interior air quality is extremely poor: odors from welding, chemical parts cleaning, and other mechanic and maintenance activities infiltrate the

entire facility. The welding hood is largely ineffective and the vehicle exhaust point source capture systems are ineffective and worn.

Shop lighting is poor and inefficient. Numerous broken or unusable fixtures were noted.

Offices within the shop space are cramped and lack any ventilation or heating systems.

Seismic deficiencies *Score -2*
The 2008 Reid Middle report recommends demolition of the structure due to the expense of a seismic retrofit. The site is also subject to soils liquefaction issues given its proximity to the river.

Operational flexibility *Score -2*
As an existing 1960's-era metal building structure, the George Long Shop is not readily expandable or easily modified.

Expansion potential *Score -2*
The site is constrained by the police evidence yard to the west, the Duwamish River to the east and the Parks and Golf Maintenance facility to the north. An existing commercial building borders the site to the south. Given the requirements for vehicle access, materials storage, and vehicle parking, the building cannot feasibly be expanded on this site without additional property.

ADA deficiencies *Score -2*
The second floor is not accessible, and no ADA restrooms are present.

Acoustics *Score 0*
No acoustic issues were noted.

Fire Station 51
444 Andover Park East
Tukwila, Washington

Year Built:	1973
Number of Stories:	2
Floor Area:	16,115 SF

Station 51 serves as the Department's administrative headquarters. Also housed in the station is the Fire Marshal's office and supporting staff. Station 51 serves as a response station for the downtown area and houses the following apparatus: engine, reserve ladder truck, heavy rescue truck, rescue boat, hazardous material response vehicles, structural collapse/trench rescue trailers, and an Explorer Post emergency response van.

Fire Station 51 is a two-story, 17,700-square-foot concrete- and wood-framed structure located in the commercial and industrial area near Tukwila's southern border and the Green River. The building's floors and roofs are typically of wood construction and are supported by precast concrete walls. Fire Station 51 was originally constructed in 1973, with additional offices and a conference room constructed in 1990.

Station 51 should be replaced for two reasons: 1) in general the station is undersized for its current uses as well as the potential increases in staffing and, 2) the station is in a poor response location to serve the southern portion of the city. Given the construction limitations of the existing facility, it is recommended that the existing facility be replaced at another site within the station's new response area.

Seismic improvements are difficult due to the nature of the station's original structural system. Seismic improvements will also reduce clearances and tighten an already tight space, particularly in the apparatus bays that currently do not meet WAC requirements for fire stations.

Any seismic improvements will require vacating the station during the construction period and necessitate locating and constructing a temporary station. There may be room on the parcel for temporary facilities, but temporary operations are costly and inconvenient at best.

Application of Evaluation Criteria

Operating/maintenance cost *Score -1*
At 41 years of age, Fire Station 51 has not received substantial upgrades to its mechanical, electrical, or building envelope systems, with the sole exception of the 1990 Fire Marshal's Office addition. The station has also had a history of mold and electrical system corrosion. A

maintenance backlog of $1,824,000 was identified by the City in 2008 and included items such as HVAC replacement, roof replacement, interior re-painting, and flooring replacement. The 2008 Reid Middleton seismic report recommends demolition of the structure due to the expense of a seismic retrofit.

Property Value *Score 2*
The resale value of the 1.86 acre property is marked as high, given location in a desirable commercial zone. It is zoned as Tukwila Urban Center and the property is generally flat and rectangular in shape.

Work Process Efficiency *Score -2*
As noted below in Quality of Work Life, Station 51 has numerous issues related to its physical size and layout that in turn affect the efficiency with which firefighters are able to respond to emergency situations as well as conduct routine tasks such as decontamination of gear.

Facility quality *Score -1*
Station 51 is of average to below-average quality, given the age of the facility. Deterioration of the electrical system has been observed. Water intrusion from cracks in the concrete structure have been noted and repaired.

Location *Score -2*
Station Response Location: The station is in a poor response location to serve the southern portion of Tukwila. The station's site is subject to soils liquefaction, given its proximity to the river.

Public image and reputation *Score 0*
Station 51 has aged poorly and its harsh, concrete form does not adequately portray the Department's pride, purpose, and professionalism.

Customer service *Score 0*
Station 51 receives only occasional visitors. Sufficient parking is available for visitors requesting blood pressure checks or who are meeting with the fire marshal's office or other department staff.

Quality of work life *Score -2*
Lack of protected areas for Equipment: There are 8 pieces of equipment and trailers currently unable to be accommodated inside the station. Having equipment outside the facility exposes them to weather related wear and tear and potential vandalism which in turn limits their

operational readiness. It is recommended that all equipment be in a fully enclosed garage and the site be provided with a security fence to prevent vandalism.

Storage limitations: in general, the station lacks storage area with the result being crowding of other program areas. This is particularly evident in the storage room south of the apparatus bay in which the generator, electrical equipment, telephone equipment, shop area, station laundry, and operational storage areas are all combined in one crowded room. Additional supplies are stored in stairways.

Living quarters: The Station currently sleeps 10 personnel with no room for expansion of firefighter staffing with a Battalion Chief on the main floor. The nine firefighters are housed in a single room partitioned with curtains and wardrobe lockers. Individual rooms are desirable due to better privacy, alleviation of gender-issues, better sleeping environment due to noise control, and less disruption as individuals enter and leave on calls. Additionally, shower facilities are minimal with only 3 showers are provided in the men's bathroom and 1 for women. For a station of this size, 5 complete unisex bathrooms should be provided along with a separate bathroom and shower for the Battalion Chief.

Kitchen Facilities: The kitchen and dining facilities are undersized to meet the needs of the firefighters and day shift usage.

Weight room size is insufficient to safely contain equipment currently housed and to provide adequate clearances around equipment.

Training Room: the station's training room is too small for department meetings and lacks presentation options. The room's small storage space has been given over to the Explorer program as an office. While often used for public meetings, restroom facilities are substandard with only a single men's restroom near the training room.

Apparatus clearances: To meet WAC 296-305-06509, stations must allow 3 feet of clearance around all apparatus. Given the size, housed apparatus, and layout of Station 51, this is not possible in portions of the current station.

Disinfection and sanitation: Existing decontamination facilities consist of a laundry sink and a clothes washer and dryer located in a crowded storage room adjacent the apparatus bay. The sink is too small to allow sufficient cleaning of equipment and backboards. The washer and dryer also double as the station laundry, which is not advisable due to cross contamination concerns. No bunker gear cleaning options are available at the station and there is no space available to allow placement of a bunker gear extractor.

The existing emergency generator is antiquated and the automatic transfer switch is noted as unreliable.

Seismic deficiencies *Score -2*
Per Reid Middleton's 2008 seismic evaluation, Station 51 is recommended for replacement, rather than seismic upgrade due to the building age, condition, and extensive level of upgrade and associated expense required to bring the facility up to Immediate Occupancy standards. Soil liquefaction is also a concern given the proximity of the Green River to the east of the site. It is expected that compaction grouting would be required at the foundation perimeter to prevent liquefaction-related building damage.

Operational flexibility *Score -2*
Station 51 is a concrete building with the living quarters built over the apparatus bay. As such is not readily or easily modified.

Expansion potential *Score -2*
As noted above, Station 51 is not readily expandable. The site is also not easily expandable given the existing buildings to the north and south. As a drive-through configured apparatus bay, adding additional space to the east is not feasible as that would limit access to returning vehicles.

ADA deficiencies *Score -1*
As a two-story facility with no elevator, Station 51 is not ADA compliant. Main floor restrooms are accessible however. Additionally, the City has identified other ADA improvements needed at the station.

Acoustics *Score 0*
No acoustical issues have been identified.

Fire Station 52
14475 59th Avenue S.
Tukwila, Washington

Year Built:	1971
Number of Stories:	1
Floor Area:	3,360 SF

Fire Station 52 is a one-story, precast concrete and wood-framed structure located near the center of Tukwila. The rectangular building is approximately 51 feet by 61 feet in plan and has a maximum roof height of 18 feet. Building construction consists of a wood-framed roof with structural-panel diaphragms supported by precast concrete and wood structural-panel walls. The building includes a wood-framed hose tower at the north end standing 37 feet tall.

Built in 1971, Station 52 is approximately 3,350 sf. Minor remodeling has been performed in subsequent years to adjust to staffing changes. This station is currently staffed with 3 firefighters, with the potential that a fourth may be added in the future. Station 52 is a response station with one primary response engine and one reserve engine. Station 52 serves as primary back-up to the City's other engines and ladder truck. No ALS or BLS units are stationed at this site.

Given the construction limitations of the existing facility, it is recommended that the existing facility be replaced, either upon the existing site or another site within the station's response area. Station 52 is simply too small to contain all of the uses required of a modern fire station in a manner that is efficient for station operations. It's concrete and truss structure is not conducive to efficient expansion and the lack of vertical clearance in the apparatus bays indicate that the station will be minimally useful to maintain into the future.

The following comments apply, should seismic improvements be elected: Seismic improvements will require vacating the station for a period of time. A location for temporary facilities will need to be identified. Temporary operations are costly and inconvenient at best. Seismic improvements would have minor architectural impacts to the space.

Application of Evaluation Criteria

Operating/maintenance cost *Score -1*
In 2008, the City of Tukwila identified $ 348,000 worth of facility improvements needed for Station 52, not including seismic improvements.

Station 52 has numerous antiquated systems that contribute to poor occupant comfort and higher than necessary operating costs: single-pane windows, uninsulated concrete walls, poor and failing roof insulation, and window-mounted air conditioners.

Property Value *Score -2*
Station 52's 1.16 acre site is of average value and located in a predominately residential neighborhood. The site is shared with the Tukwila Heritage & Cultural Center, located behind the station. The site is zoned as Medium Density Residential with a Public Recreation Overlay. Given the presence of the Cultural Center and the combined access and parking, the fire station portion of the site cannot be sold separately.

Work Process Efficiency *Score -1*
Station 52 has no dedicated spaces for operational equipment and tool storage, fitness room, or laundry room for personnel laundry. Additionally, the kitchen is undersized, resulting in the placement of 2 refrigerators in the apparatus bay. As a result, these functions are forced into the apparatus bay where they are poorly accommodated and juxtaposed in a makeshift fashion.

Facility quality *Score 0*
Station 52 is in average condition relative to the facility's age. While the station has been recently repainted, the diagonal wood siding is showing signs of wear and rot is evident at wood trims and eave fascia boards, particularly at the hose tower. Additionally, water intrusion has been noted due to roof leaks, resulting in wet insulation and damaged ceiling tiles.

Location *Score 1*
Station 52's location should be evaluated from an emergency call response perspective prior to any decisions to replace or substantially improve the facility to ensure that it is in an optimal location for service deployment.

Public image and reputation *Score -1*
Station 52 has aged poorly and its harsh concrete and wood siding form fits poorly with the surrounding residential neighborhood and does not adequately portray the Department's pride, purpose, and professionalism.

Customer service *Score 0*
Station 52 is easily visible from the street and has acceptable parking for visitors to the station. As a response station with no administrative functions, the facility receives relatively few visitors.

Quality of work life *Score -2*
The facility is 43 years old, and has not had substantial upgrades over the years. Functionally it is not up to current fire facility standards in terms of operational clearances, decontamination facilities, and firefighter residential accommodations.

Crew housing limitations: The station's dorm area was reconfigured subsequent to construction to provide additional firefighter work space due to the inadequate watch office. Currently, two single dorm rooms are provided with a third serving as a Lieutenant's Office/Dorm. There is currently no expansion space in the event that staffing levels are increased.

The remodel removed one restroom to provide storage space and as a result, the station has only one shower for the crew's use.

Crew space is at such a premium that two shift refrigerators have been placed for use in the apparatus bay. It is not ideal to store crew foodstuffs in a potentially "dirty" area such as the apparatus bay.

The apparatus bay doors and interior structure of the apparatus bays limit apparatus height to 12 feet. Current standards and modern apparatus sizes necessitate 14 foot high doors and structural clearances.

Station 52 has no fire sprinklers in the living areas as would currently be required by WAC 296-305-06503. Apparatus access clearances are marginal around the vehicles.

The station has an emergency power generator.

The station site is unfenced and has no secured parking for staff vehicles.

Seismic deficiencies *Score -1*
The 2008 Reid Middleton report identified seismic deficiencies that would render it susceptible to unacceptable levels of damage during a design level earthquake.

Operational flexibility *Score -2*
Station 52 is too small to contain all of the uses demanded of it, and will not afford reasonable expansion to provide the needed additional functionality. The structure is pre-cast concrete and wood trusses, and is difficult to modify.

Expansion potential *Score -2*
Given the existing Cultural Center to the north, expansion is not possible. Building expansion potential is further limited by the structural system used. The 2008 Reid Middleton report suggested replacement of the facility, either in the same location or within the response area it serves.

ADA deficiencies *Score -1*
An accessible bathroom is located in the facility.

Acoustics *Score -1*
The station utilizes residential-grade, window-mounted air conditioners at the sleep rooms and day room. As such, they allow road noise from the street side of the building to transmit easily into the crew sleeping portions of the building.

Fire Station 53
4202 South 115th Street
Tukwila, Washington

Year Built:	1995
Number of Stories:	1
Floor Area:	7,392 SF

Fire Station 53 is a one-story wood-framed structure located near the northern end of Tukwila, along the Green River. The building is approximately 130 feet by 60 feet in plan and has a maximum roof height of 18 feet. Building construction consists of a wood-framed structural-panel roof and walls. The building includes a high-bay area with a steel moment frame around roll-up garage doors in the south wall. A 37-foot-tall hose tower located at the east end of the building is constructed of concrete masonry units (CMUs). The foundation system for the building is concrete grade beams on concrete auger-cast piles.

Application of Evaluation Criteria

Operating/maintenance cost *Score 1*
Station 53 is generally in good repair: the 19 year old station is in need of re-painting and minor rot is noted in some wood trim. Woodpecker attacks have also damaged the wood siding in several locations.

Property Value *Score -1*
Station 53's trapezoidal-shaped, 2.55 acre site is zoned as Low Density Residential. A high resale value is not anticipated.

Work Process Efficiency *Score 1*
Station 53 is a modern fire station in terms of design, program and site layout. No significant issues affecting staff efficiency were noted.

Facility quality *Score 1*
Station 53 is built to a durable, commercial quality and is in good condition relative to its age.

Location *Score 1*
Station 53's site is across the street from the Green River and as such its soils are prone to both liquefaction and lateral spreading hazards.

Public image and reputation *Score 1*
Station 53 is an attractive facility that fits well within its residential neighborhood context.

Customer service *Score 0*
Station 53 is easily visible from the street and has acceptable parking for visitors to the station. As a response station with no administrative functions, the facility receives relatively few visitors.

Quality of work life *Score 1*
Minor quality of work life issues were noted by staff:

> Training: As the station that houses the department's rescue team, training opportunities (such as rated anchor points) located within the apparatus bay would allow crews to perform training exercises without having to relocate to the training area at Station 54 or other location off-site.
>
> Vehicle Exhaust: the rescue truck's exhaust stack is not compatible with the existing Nederman vehicle exhaust system.

Seismic deficiencies *Score 1*
Reid Middleton performed a Tier 2 Seismic Assessment in 2008 and determined that additional evaluation and seismic retrofit were not required. As noted above, the site is located adjacent to the Green River and is susceptible to soils liquefaction and lateral spreading. While the station is on pilings which will help mitigate damage to the structure, any subsidence that affects the site paving or adjacent roadways may limit access to and from the station in the event of an emergency.

Operational flexibility *Score 0*
Station 53 is a two-bay station, with drive-through style bay design. It currently houses the Department's rescue vehicle and air trailer, in addition to an engine. The station generally meets the needs of the crews housed there, though storage space is at a premium and some of the sleep rooms have been converted to storage and other project space.

Expansion potential *Score 0*
Minor expansions are likely possible, though the station is located close to its south and west property lines and requires driving access on both the north and south sides of the station to accommodate the station's drive-through bay design.

ADA deficiencies *Score 1*
Given the 1995 construction, significant ADA issues and deficiencies are not anticipated.

Acoustics *Score 0*
No acoustic issues or problems have been identified.

Fire Station 54
4237 South 144th Street
Tukwila, Washington

Year Built:	1961
Number of Stories:	1
Floor Area:	5,398 SF

Fire Station 54 is a one-story masonry- and wood-framed structure located near the western edge of Tukwila, near Tukwila International Boulevard. The original 1961 building was remodeled and expanded on the east side in 1990. The rectangular building is approximately 60 feet by 88 feet in plan and 15 feet tall. Building construction consists of a wood-framed roof with timber trusses and structural-panel diaphragms supported by concrete masonry and wood structural-panel walls. A 37 foot-tall hose tower constructed of CMUs is located at the center of the building.

Station 54's key failure is a lack of apparatus bay size to accommodate the apparatus needed at its location. This problem is compounded by a concrete masonry structure that is not easily expanded. Additionally, there is limited height in the apparatus bay as evidenced by the make-shift revisions to the ladder truck bay in which a portion of the façade was removed to afford a taller overhead vehicle door.

Overall the station lacks operational support spaces, the result of which is further impact to the apparatus bay as portions of the bay perimeter are used for storage of equipment, medical supplies, bunker gear, work benches, and decontamination areas. This usage of space exacerbates the narrow apparatus bays and reduces further the required clearances around the apparatus. Given the construction limitations of the existing facility, it is recommended that the existing facility be replaced, either upon the existing site or another site within the station's response area.

Seismic improvements would have minor architectural impacts to the space, other than loss of the hose drying tower, which appears to be used primarily for storage. Seismic improvements will require vacating the station for a period of time. A location for temporary facilities will need to be identified. Temporary operations are costly and inconvenient at best and training functions, both indoor and outdoor, could not be held at this location during the construction work.

Application of Evaluation Criteria

Operating/maintenance cost *Score -1*
In 2008 the City of Tukwila identified $528,000 worth of facility improvements needed for Station 54, not including seismic improvements.

Property Value *Score -1*
Station 54's 0.89 acre site is located in a residential neighborhood, across the street from Foster High School. The site is zoned for High Density Residential uses. A high resale value is not anticipated.

Work Process Efficiency *Score -2*
The following site and building-related items contribute to poor work efficiency:

Site limitations: The south portion of the site contains training props and serves as the department's confined spaces and roof training area. To support the props outside, a training classroom is needed. This function is currently accommodated in the kitchen, dining, and dayroom areas of the station. This requires all furniture to be removed from the dayroom and placed in the kitchen and tables to be set up. This greatly limits the functionality of all the spaces and uses. The outdoor training area is directly backed up to single family residences.

Apparatus clearances: To meet WAC 296-305-06509, stations must allow 3 feet of clearance around all apparatus. Given the size, housed apparatus, and layout of Station 54, this is not possible in the current station. There is encroachment by structural walls that makes it infeasible to widen the facility.

Disinfection and sanitation: Existing decontamination facilities consist of a laundry sink and a clothes washer and dryer located in the apparatus bay. The sink is too small to allow sufficient cleaning of equipment and backboards. The washer and dryer also double as the station laundry, which is not advisable due to cross contamination concerns. No bunker gear cleaning options are available at the station and there is no space available to allow placement of a bunker gear extractor.

No watch office: Due to the need for a Captain's office, the watch office has been taken over by the station officer. The station work areas are in the dining/day room which negatively impacts those already crowded spaces. The station's copier is in a hallway.

Facility quality *Score 0*
Station 54 was built to an average level of quality and is generally in good repair. An emergency generator has been installed to maintain operations in the event of a power outage.

Apparatus Bay Floor: Damage to the apparatus bay floors due to snow chains was noted. While the damage does not affect the structural integrity of the floor slab, it will allow ponding water (a potential slipping hazard) and contributes to increased floor deterioration.

Location *Score 1*
Station 54 is located across from Foster High School. Station response times and optimal service location suitability should be confirmed as part of the evaluation to replace or renovate this facility.

Public image and reputation *Score -1*
Station 54 is in average condition for a building of its age. Its 1960s-era form does not fit comfortably in the predominately residential neighborhood and does not adequately portray the Department's pride, purpose, and professionalism.

Customer service *Score 0*
Station 54 is easily visible from the street and has acceptable parking for visitors to the station. As a response station with no administrative functions, the facility receives relatively few visitors.

Quality of work life *Score -2*
The following items contribute to a poor quality work experience for staff:

Storage limitations: Due to lack of storage space for equipment, gear has been shelved in the apparatus bay, reducing required clearances around vehicles. Equipment has also been stored in the hose tower, limiting its usefulness for its intended hose drying function.

Sleep Rooms: Sleep areas are partitioned, rather than individual rooms. Individual rooms are desirable due to better privacy, alleviation of gender-issues, better sleeping environment due to noise control, and less disruption as individuals enter and leave on calls.

Weight room size is insufficient to safely contain equipment currently housed and to provide adequate clearances around equipment.

Apparatus Bay Clearances: In addition to the vehicle clearance issues previously noted, the existing overhead doors are 12' x 12' (slightly taller in the ladder truck bay), smaller than the recommended size of 14' x 14'. This makes backing the vehicles into the station much more difficult with accidents more likely to damage the facility or vehicles.

Seismic deficiencies *Score -1*
Currently, Station 54 does not meet Immediate Occupancy performance objectives. During a design-level earthquake, extensive damage and potential failure of lateral force resisting

elements may occur, posing a risk to building occupants. Because of the deficiencies identified in the 2008 Reid Middleton study, it is recommended that the building be seismically retrofitted or replaced.

Operational flexibility *Score -2*
Given the concrete masonry construction present at the station, cost effective expansion of the facility is difficult.

Expansion potential *Score -2*
Expansion potential is limited by the structural system used. The 2008 Reid Middleton report suggested replacement of the facility, either in the same location or within the response area it serves.

Additionally, at 0.89 acre, the building site is small and tightly constrained on the east, west, and south sides by existing residential sites. The site also contains a number of the Department's training props, and any expansion of the facility would likely impact the available training space behind the station.

ADA deficiencies *Score -1*
Station 54 has one accessible restroom, though the crew restrooms and showers do not appear compliant.

Acoustics *Score 0*
No acoustical issues have been identified.

Tukwila Facility Needs Assessment and Feasibility Study

Facility Evaluation Matrix

May 12, 2014

Evaluation Criteria	Property Marketability		Property Attributes			Public & Staff Experience			Facility Specifics					Evaluation Totals
	Operating/Maint. Cost	Property Value	Work Process Efficiency	Facility Quality	Location	Public Image & Reputation	Customer Service	Quality of Work Life	Seismic Deficiencies	Operational flexibility	Expansion Potential	ADA Deficiencies	Acoustics	
City Hall (1977)	-2	2	-1	2	2	2	1	-1	1	-1	-1	-1	-2	1
6300 Building (1978)	-2	2	-1	-2	2	-1	-2	-2	-2	0	-2	-1	-1	-12
Community Center (1995)	0	0	2	2	1	2	2	1	-2	0	0	1	0	9
Parks & Golf Maintenance	1	-1	1	1	1	1	0	1	1	0	-1	1	-1	5
Minkler Building (1972)	-2	1	-2	-2	-1	-2	0	-2	-2	-2	-2	-2	0	-18
George Long Shops Building (1965)	-2	-1	-2	-2	-1	-1	0	-2	-2	-2	-2	-2	0	-19
Fire Station 51 (1973)	-1	2	-2	-1	-2	0	0	-2	-2	-2	-2	-1	0	-13
Fire Station 52 (1971)	-1	-2	-1	0	1	-1	0	-2	-1	-2	-2	-1	-1	-13
Fire Station 53 (1995)	1	-1	1	1	1	1	0	1	1	0	0	1	0	7
Fire Station 54 (1961)	-1	-1	-2	0	1	-1	0	-2	-1	-2	-2	-1	0	-12

Purpose

As part of the needs assessment, we have assessed the suitability and condition of these City facilities. This assessment will help determine the City's plan for each of the facilities such as remodeling, selling, repurposing, or redeveloping.

Key

2 — Suitable Condition

1

0

-1

-2 — Unsuitable Condition