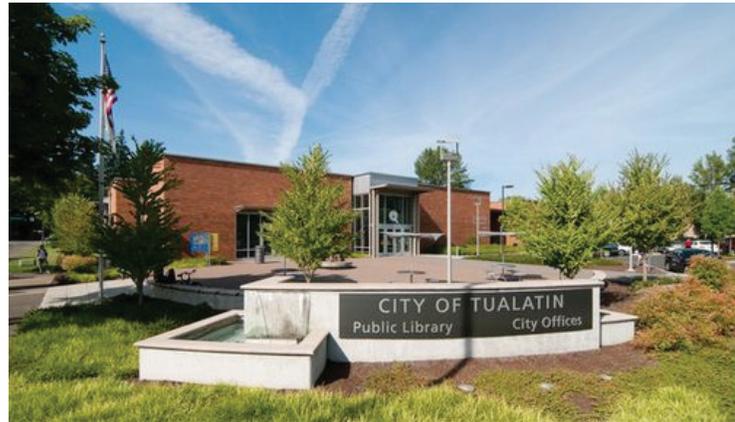




City of Tualatin

CITY FACILITIES STUDY

SPACE REQUIREMENTS report



FEBRUARY 4, 2015

YOST GRUBE HALL
ARCHITECTURE

Executive Summary: Space Requirements Study

The City of Tualatin retained Yost Grube Hall Architecture (YGH) to develop a City Facilities Study. The main components of the study included an existing city facilities assessment, a space requirements study for existing city staff (excluding the Police, Operations and IT Server and support staff), workshops and community outreach presentations and a final summary planning document with costs and recommendations for City Council.

The following pages contain the Space Requirements Study portion of the project. YGH developed interview questionnaires relating specifically to the City of Tualatin and their space requirements. Following a review by the City, these questionnaires were distributed at the December 3, 2014 meeting of the City's Internal Design and Evaluation Advisors (IDEA) committee. The IDEA Committee is comprised of internal stakeholders from various departments within the City. Between January 4th and January 12th, 2015, YGH conducted one-on-one interview sessions with each stakeholder and representatives from their departments. Their completed questionnaires were reviewed and additional information provided. The document was given to each stakeholder at the IDEA committee meeting on January 28, 2015 for final review.

YGH presented the document to the City's Facilities Task Force Committee at their February 4th Task Force meeting. Following is the approved document with comments and corrections added.

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Administration

DIVISION: City Managers Office

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
City Manager	1	1	1	1	Office	216	216	216	216	216	1		2.
Deputy City Manager	1	1	1	1	Office	120	120	120	120	120	2		
Office Assistant	1	1	1	1	Workstation	64	64	64	64	64	3	G	3.
Deputy City Recorder	1	1	1	1	Workstation	64	64	64	64	64	4	5 & 6	4., 5.
Temporary File Clerk	1	0	0	0	Workstation	48	48	0	0	0	5	4 & 6	4.
Records Coordinator	0	0	1	1	Workstation	64	0	0	64	64	6	4 & 5	4.
Communications Coordinator	0	1	1	1	Workstation	64	0	64	64	64	7		
Policy Analyst	0	0	0	1	Workstation	64	0	0	0	64	8		
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	5	5	6	7	SUBTOTAL NET AREA		512	528	592	656			

NOTES:

1. The City Manager stated that she didn't like the idea of being separate. It is like a message without a face. The department needs to feel welcomingly transparent and friendly.
2. Part of the Administration group. Desired adjacency to City Attorney, Community Development and Economic Development.
3. This position is the receptionist for the department.
4. These 3 positions are all part of Records Management.
5. Access to a secure vault is required for this position. The vault can be shared but needs to be reasonably adjacent.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Reception/ Waiting Area	1	1	1	1	Open	120	120	120	120	120	A		1.
Work Room	1	1	1	1	Enclosed	180	180	180	180	180	B		2.
Mail Area	1	1	1	1	Enclosed	100	100	100	100	100	C		7.
Small Conference Room	1	1	1	1	Enclosed	120	120	120	120	120	D		3.
Medium Conference Room	1	1	1	1	Enclosed	216	216	216	216	216	E		4.
Files & Storage	1	1	2	2	Open	40	40	40	80	80	F		5.
Records Management Workspace	1	1	1	1	Workstation	48	48	48	48	48	G	3	6.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	H		8.
							0	0	0	0			
					SUBTOTAL NET AREA		872	872	912	912			

NOTES:

1. Reception/ Waiting Area need not be large if part of a larger building containing the balance of the City departments.
2. Could be shared with other City departments. Contains copier, printers, supply storage, counter space for assembly of packets for City Council.
3. Small office sized conference room for use by Mayor and City Council members as a "touch-down" area. When not utilized for this purpose it would function as a general purpose small 4-6 person conference room.
4. Medium Conference Room sized for 10 - 12 people. Can be shared but should be adjacent to department. All conference rooms should have white boards, tack boards, projections screens and current technology for presentations and conferencing calls.
5. Additional area to accommodate personal or shared file cabinets and shelving throughout the department.
6. Open work area adjacent to the Office Assistant for scanning and processing.
7. Mail area to be included in the work room- minimum area required. Should be located to allow for easy delivery of mail.
8. Shared workstation for volunteers and temporary staff.

						2015	2017	2020	2025
					SUBTOTAL NET AREA	1,384	1,400	1,504	1,568
	2015	2017	2020	2025	EFFICIENCY FACTOR (30%)	415	420	451	470
TOTAL STAFF	5	5	6	7	TOTAL USABLE AREA	1,799	1,820	1,955	2,038

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Administration

DIVISION: Human Resources

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Human Resources Manager	1	1	1	1	Office	120	120	120	120	120	1	2 & 3	
Human Resources Analyst	1	2	2	2	Workstation	64	64	128	128	128	2	1 & 3	2.
Human Resources Specialist	1	2	2	2	Workstation	64	64	128	128	128	3	1 & 2	2.
Volunteer Specialist	0	0	1	1	Workstation	64	0	0	64	64	4		3.
Growth	0	0	0	1	Workstation	64	0	0	0	64	5		3.
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	3	5	6	7	SUBTOTAL NET AREA		248	376	440	504			

NOTES:

- Human Resources ideal adjacency would be with Finance (Payroll) and Legal. They should be easily accessible to all City staff but not "on view" or a major circulation route. It would benefit Human Resources functionally to have the City staff consolidated into one location.
- These positions require direct adjacency to a small 2-4 person conference room for interviews and confidential employee conversations.
- There is currently a Volunteer Specialist located with the Library staff and a part-time Volunteer Specialist located with Operations. They should stay in those locations and their space requirements counted as part of those departments. A single position is counted here for growth.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
File Room	1	1	1	1	Enclosed	100	100	100	100	100	A	1,2 & 3	1.
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	B		2.
ID Photo Area	1	1	1	1	Open	64	64	64	64	64	C		3.
Small Conference Room	1	1	1	1	Enclosed	100	100	100	100	100	D		4.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	E		5.
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
					SUBTOTAL NET AREA		432	432	432	432			

NOTES:

- File Room needs to be secure and fire resistant. High density filing would work. The space can be combined with Finance and Legal into a single larger room however each would need to have separate locking files.
- Work Room with built-in storage and counter space for assembly of packets and interview booklets. Can be shared with other department and be part of a larger shares Work Room. Copier and other required office support equipment would be located in this space.
- Area set-up with necessary lighting and equipment for taking ID Photos. This could be shared with the Passports section in Finance.
- Small Conference Room for 2-4 people for interviews and confidential employee conversations.
- Shared workstation for volunteers and temporary staff.

						2015	2017	2020	2025
				SUBTOTAL NET AREA		680	808	872	936
	2015	2017	2020	2025	EFFICIENCY FACTOR (30%)	204	242	262	281
TOTAL STAFF	3	5	6	7	TOTAL USABLE AREA	884	1,050	1,134	1,217

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Finance

DIVISION: _____

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Finance Director	1	1	1	1	Office	180	180	180	180	180	1		
Program Coordinator	1	1	1	1	Workstation	64	64	64	64	64	2		
Reception/Passports	1	1	1	1	Workstation	64	64	64	64	64	3		2.
Utility Clerk	1	1	1	1	Workstation	64	64	64	64	64	4		2.
Accounting Supervisor	1	1	1	1	Office	120	120	120	120	120	5		
Payroll	1	1	1	1	Workstation	64	64	64	64	64	6		
Receivables/Purchasing	1	1	1	1	Workstation	64	64	64	64	64	7		
Payables	1	1	1	1	Workstation	64	64	64	64	64	8		
Accountant	1	1	2	2	Workstation	64	64	64	128	128	9		
Accounting Technician	0	0	0	1	Workstation	64	0	0	0	64	10	3&4	2.
Accounting Technician	0	1	1	1	Workstation	64	0	64	64	64			
							0	0	0	0			
SUBTOTAL STAFF	9	10	11	12	SUBTOTAL NET AREA		748	812	876	940			

NOTES:

- Ideally the department should all be located together. The Reception/Passport and Utility Clerk positions should have direct public access with the balance of the staff. accessible to provide support but screened from the public. There does not need to be a direct visual connection but a close adjacency.
- These workstations are behind a counter where they service the public. The counter should either be increased or separated into 2 sections with labels for "Passports" and "Utility Billings". There should be locking drawers in the counter for cash. There should be a security button/buzzer to the police department at the counter. Also locked doors into the staff side/general work area from public side. This Accounting Technician position is a growth workstation at the counter.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
File Room	1	1	1	1	Enclosed	100	100	100	100	100	A		1.
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	B		2.
Files and Storage	1	1	1	2	Open	60	60	60	60	120	C		4.
Small Conference Room	1	1	1	1	Enclosed	100	100	100	100	100	D		5.
Public Counter/ Waiting Area	1	1	1	1	Open	750	750	750	750	750	E		6.
Passport Photo Area	1	1	1	1	Open	64	64	64	64	64	F		3.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	G		7.
							0	0	0	0			
					SUBTOTAL NET AREA		1,242	1,242	1,242	1,302			

NOTES:

- File Room needs to be secure and fire resistant. High density filing would work. The space can be combined with HR and Legal into a single larger room however each would need to have separate locking files.
- Can be shared with other department and be part of a larger shared Work Room. Copier and other required office support equipment would be located in this space.
- Area set-up with necessary lighting and equipment for taking Passport Photos. This could shared with the HR for ID photos. Should be located adjacent to Passport area.
- Additional area to accommodate personal or shared file cabinets and shelving throughout the department.
- Small Conference Room for 2-4 people adjacent to the department.
- Counter and public waiting area for Passports and Utility Billing. There should be a small stand-up counter separate from the main counter for passport applicants to complete forms. On average 10 passports are processed per day. There can be as many as 10 people waiting during the passport process. This includes not only applicant but additional family members.
- Shared workstation for volunteers and temporary staff.

						2015	2017	2020	2025
					SUBTOTAL NET AREA	1,990	2,054	2,118	2,242
					EFFICIENCY FACTOR (30%)	597	616	635	673
TOTAL STAFF	9	10	11	12	TOTAL USABLE AREA	2,587	2,670	2,753	2,915

CITY of TUALATIN

SPACE REQUIREMENTS STUDY

DEPARTMENT: Finance

DIVISION: Municipal Court

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Court Administrator	1	1	1	1	Office	120	120	120	120	120	1		
Court Clerk	3	4	5	5	Workstation	64	192	256	320	320	2		
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	4	5	6	6	SUBTOTAL NET AREA		312	376	440	440			

NOTES:

1. Court is in session 1 day per week. There are on average 30 people present waiting to be checked-in and 100 in the actual court room.
2. There is a preference for an open work environment with visual access to the front counter while maintaining privacy to the work space from the public.
3. The staff prefers to stand at the front counter at the same level as the public.
4. There is a staff concern about security in the Court Room. They would prefer a Court Room that is not used as the Council Chamber due to the amount of time spent by staff converting the room into what is needed for court.
5. This is a stand alone group that does not require back-up or interaction with other City staff.
6. Wherever The Municipal Court Room is located there needs to be additional parking available on the day court is held for the approximately 50 to 100 people.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Public Counter/ Waiting Area	1	1	1	1	Open	750	750	750	750	750	A	1&2	1.
File Area	1	1	1	1	Open	100	100	100	100	100	B		2.
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	C		
Small Interview Room	1	1	1	1	Enclosed	100	100	100	100	100	D	A	3.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	E		4.
Judge's Chamber	1	1	1	1	Enclosed	120	120	120	120	120	F	H&G	
Jury Room/ Executive Session Room	1	1	1	1	Enclosed	216	0	0	0	0	G	F&H	5.
Court Room/ Council Chamber	1	1	1	1	Enclosed	2,000	0	0	0	0	H	A,F&G	5.
							0	0	0	0			
							0	0	0	0			
					SUBTOTAL NET AREA		1,238	1,238	1,238	1,238			

NOTES:

1. This area needs to be physically and acoustically separate from the other City public counters- Passports, Utility Billings, Community Development. The counter is at standing height with two large windows to service the public. Each window should have a level of privacy for the public. There needs to be enough space for individuals to line up at each of the windows.
2. Files do not need to be in a room as long as they are lockable. High density files would work well.
3. Small 2-4 person Conference Room located off the Public Waiting Area for private conversations with the public.
4. Shared workstation for volunteers and temporary staff.
5. These spaces are listed here to establish adjacency requirements. The actual area required is listed on the program sheet labeled Common Area because they serve a dual purpose.

						2015	2017	2020	2025
					SUBTOTAL NET AREA	1,550	1,614	1,678	1,678
	2015	2017	2020	2025	EFFICIENCY FACTOR (30%)	465	484	503	503
TOTAL STAFF	4	5	6	6	TOTAL USABLE AREA	2,015	2,098	2,181	2,181

CITY of TUALATIN

SPACE REQUIREMENTS PROGRAM

DEPARTMENT: Legal

DIVISION: _____

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Attorney	1	1	1	1	Office	180	180	180	180	180	1		2.
Paralegal	1	1	1	1	Workstation	64	64	64	64	64	2		
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	2	2	2	2	SUBTOTAL NET AREA		244	244	244	244			

NOTES:

1. There is no required adjacency to a specific department. Most work is done with Administration, Planning and HR. Close proximity to these would be advantages.
2. Office is sized for a small conference table to accommodate most conferencing needs. Sound attenuation to be provided in office for confidentiality.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
File Room	1	1	1	1	Enclosed	100	100	100	100	100	A		1.
Files and Storage	1	1	1	1	Open	60	60	60	60	60	B		2.
Equipment	1	1	1	1	Workstation	48	48	48	48	48	C		3.
Work Room	1	1	1	1	Enclosed		0	0	0	0	D		4.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	E		5.
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
					SUBTOTAL NET AREA		256	256	256	256			

NOTES:

1. File Room needs to be secure and fire resistant. High density filing would work. The space can be combined with Finance and HR into a single larger room however each would need to have separate locking files.
2. Additional area to accommodate personal or shared file cabinets and shelving throughout the department.
3. Small workstation for additional shared equipment: scanner, printer, fax.
4. Can be shared with other department and be part of a larger shared Work Room. Copier and other required office support equipment would be located in this space.
5. Shared workstation for volunteers and temporary staff.

						2015	2017	2020	2025
				SUBTOTAL NET AREA		500	500	500	500
	2015	2017	2020	2025	EFFICIENCY FACTOR (30%)	150	150	150	150
TOTAL STAFF	2	2	2	2	TOTAL USABLE AREA	650	650	650	650

CITY of TUALATIN

SPACE REQUIREMENTS STUDY

DEPARTMENT: Information Services

DIVISION: _____

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
IS Manager	1	1	1	1	Office	120	120	120	120	120	1		2.
GIS Coordinator	1	1	1	1	Workstation	64	64	64	64	64	2		
GIS Technician	1	2	2	2	Workstation	64	64	128	128	128	3		3.
Network Administrator	1	1	1	1	Workstation		0	0	0	0	4		4.
IS Technician	1	1	1	1	Workstation		0	0	0	0	5		4.
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	3	4	4	4	SUBTOTAL NET AREA		248	312	312	312			

NOTES:

1. This information refers to the GIS staff that will be located with the Community Development department. The balance of the staff will remain at the Operations site with the server room. This information does not refer to the Operations site requirements.
2. The IS Manager would have an office with the balance of the City staff and not at the Operations location.
3. The growth projected for 2017 is a 1/2 time staff but is listed as full-time in this document as a workstation is required.
4. These positions are listed for reference only. They will remain at the Operations site and are not counted in this study.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	A		1.
Storage Room	1	1	1	1	Enclosed	120	120	120	120	120	B		2.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	C		3.
Reference Table	1	1	1	1	Open	64	64	64	64	64	D		4.
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
					SUBTOTAL NET AREA		352	352	352	352			

NOTES:

1. Work room for large plotter, paper and supplies. Must be adjacent to GIS work group.
2. Small lockable room for storage of equipment and work area for equipment repairs.
3. Shared workstation for volunteers and temporary staff. Can also be used as a "touch-down work space for staff from Operations.
4. Work space to contain large- 8' x 3'- stand-up reference table for reviewing maps and other large documents. Recommendation would be to place storage below for rolled and flat maps. Wall space is also necessary for hanging and displaying the maps.

						2015	2017	2020	2025
					SUBTOTAL NET AREA	600	664	664	664
	2015	2017	2020	2025	EFFICIENCY FACTOR (30%)	180	199	199	199
TOTAL STAFF	3	4	4	4	TOTAL USABLE AREA	780	863	863	863

CITY of TUALATIN

SPACE REQUIREMENTS STUDY

DEPARTMENT: Community Development

DIVISION: _____

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Assistant City Manager	1	1	1	1	Office	216	216	216	216	216	1	2,3&6	
Management Analyst	1	1	1	1	Workstation	64	64	64	64	64	2	1,3&24	
Office Coordinator	1	1	1	1	Workstation	64	64	64	64	64	3	1,2&16	
Office Assistant	0	0	0	1	Workstation	64	0	0	0	64	4	1,2,3&5	
Receptionist	0	0	0	1	Workstation	64	0	0	0	64	5	1,2,3&4	
Economic Development Manager	1	1	1	1	Office	120	120	120	120	120	6	1&7	
Economic Development Coordinator	0	0	1	1	Workstation	64	0	0	64	64	7	6	
Intern	0	0	0	0	Workstation	64	0	0	0	0	8	7	2.
Planning Manager	1	1	1	1	Office	120	120	120	120	120	9	9-15	
Senior Planner	1	1	1	2	Workstation	64	64	64	64	128	10	9-15	
Associate Planner	1	1	1	1	Workstation	64	64	64	64	64	11	9-15	
Assistant Planner	1	1	1	1	Workstation	64	64	64	64	64	12	9-15	
Transportation Planner	0	0	0	1	Workstation	64	0	0	0	64	13	9-15	
Office Coordinator	1	1	1	1	Workstation	64	64	64	64	64	14	9-15	
Intern	0	0	0	0	Workstation	64	0	0	0	0	15	9-15	2.
Building Official	1	1	1	1	Office	120	120	120	120	120	16	3&16-23	
Deputy Building Official	0	1	1	1	Office	120	0	120	120	120	17	3&16-23	
Inspector II	4	2	3	3	Workstation	64	256	128	192	192	18	3&16-23	
Inspector I	0	1	1	2	Workstation	64	0	64	64	128	19	3&16-23	
Permit Coordinator	1	1	1	1	Workstation	64	64	64	64	64	20	3&16-23	
Permit Technician	0	1	1	2	Workstation	64	0	64	64	128	21	3&16-23	
Office Assistant	1	1	1	1	Workstation	64	64	64	64	64	22	3&16	
Intern	0	0	0	0	Workstation	64	0	0	0	0	23	16	2.
City Engineer	1	1	1	1	Office	120	120	120	120	120	24	24-30	
Project Engineer	1	1	1	2	Workstation	64	64	64	64	128	25	24-30	
Engineering Associate	2	2	2	2	Workstation	64	128	128	128	128	26	24-30	
Engineering Tech II	2	2	2	2	Workstation	64	128	128	128	128	27	24-30	
Program Coordinator	1	1	1	1	Workstation	64	64	64	64	64	28	24-30	
Office Assistant	0	0	0	1	Workstation	64	0	0	0	64	29	24-30	
Intern	0	0	0	0	Workstation	64	0	0	0	0	30	24-30	2.
							0	0	0	0			
SUBTOTAL STAFF	23	24	26	34	SUBTOTAL NET AREA		1,848	1,968	2,096	2,608			

NOTES:

1. There is general concern over security: the doors between the public side at the counters and conference rooms should be keyed or have a card entry system preventing the public from walking back into the general staff area unescorted.
2. Intern workstations are listed here for adjacency reference only. The actual workstation area is counted in the Ancillary & Support Spaces section.
3. Community Development anticipates future growth for the 10 years beyond 2025 to be around 15 staff.

CITY of TUALATIN

SPACE REQUIREMENTS STUDY

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Public Counter/ Waiting Area	1	1	1	1	Open	750	750	750	750	750	A		1.
Small Conference Room	1	1	1	1	Enclosed	120	120	120	120	120	B		2.
Medium Conference Room	1	1	1	1	Enclosed	216	216	216	216	216	C		3.
File/ Storage/ Work Room	1	1	1	1	Enclosed	360	360	360	360	360	D		4.
Files and Storage	1	1	1	2	Open	60	60	60	60	120	E		5.
Volunteer/ Intern	3	3	3	3	Workstation	64	192	192	192	192	F		6.
Reference/ Team Work Area	3	3	3	3	Open	150	450	450	450	450	G		7.
							0	0	0	0			
SUBTOTAL NET AREA							2,148	2,148	2,148	2,208			

NOTES:

- Public waiting and counter space is needed by all 3 divisions in this department. Estimate a 30' counter will be required for minimum of 3 staff, drawings and customers at counter at one time. Included in the waiting area should be a separate counter space or kiosk with computer for public to complete and submit applications and permit forms. There is a average of 15-20 customers per day with the majority coming for Buildings. Ideally there would be at least one place at the counter to sit down with the customers.
- Small Conference Room for 4-6 people adjacent to the counter area for meetings and reviews with the public.
- Medium Conference Room for 12-16 people adjacent to the public counter for meetings and reviews with the public.
- Shared and centrally located to all disciplines in the department to access. Contains copiers, printers, plotters and other required equipment and storage.
- Additional area to accommodate personal or shared file cabinets and shelving throughout the department.
- Shared workstation for volunteers and temporary staff.
- Work space to contain large- 8' x 3'- stand-up reference table for reviewing and working on large documents. There would be a space for each of the 3 disciplines. Recommendation would be to place storage below for rolled and flat maps, appropriate wiring for computer and locate them in a secluded area within the department due to potential noise generation if a team is reviewing documents together. Any includes space for reference material/ library shelving.

					2015	2017	2020	2025	
				SUBTOTAL NET AREA	3,996	4,116	4,244	4,816	
				EFFICIENCY FACTOR (30%)	1,199	1,235	1,273	1,445	
TOTAL STAFF	23	24	26	34	TOTAL USABLE AREA	5,195	5,351	5,517	6,261

CITY of TUALATIN

SPACE REQUIREMENTS STUDY

DEPARTMENT: Community Services

DIVISION: Parks and Recreation

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ .to ID	
Community Services Director	1	1	1	1	Office	216	216	216	216	216	1		1.
Management Analyst	1	1	1	1	Workstation	64	64	64	64	64	2	1&3	1.
Parks & Recreation Manager	1	1	1	1	Office	120	120	120	120	120	3		1.
Recreation Supervisor	1	1	1	1	Workstation	64	64	64	64	64	4	5	2.
Recreation Program Specialist	1	1	2	3	Workstation	64	64	64	128	192	5	4	2.
Juanita Pohl Center Supervisor	1	1	1	1	Workstation	64	64	64	64	64	6		3.
Recreation Program Specialist	1	1	1	1	Workstation	64	64	64	64	64	7		
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	7	7	8	9	SUBTOTAL NET AREA		656	656	720	784			

NOTES:

1. There was discussion about these 3 positions located with the balance of the City staff. The Parks & Recreation Manager thought it was important for his position to be located in one of the City parks and preferred to stay in the current Community Services location.
2. These 2 positions work together and need a larger work space to prepare for events. They need not be located in the current Community Services location.
3. Juanita Pohl Center Supervisor will stay in the Pohl Center.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ .to ID	
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	A		
Conference Room	1	1	1	1	Enclosed	216	216	216	216	216	B		
Storage	1	1	1	1	Enclosed	400	400	400	400	400	C		1.
Storage	1	1	1	1	Enclosed	200	200	200	200	200	D		2.
Volunteer/ Intern	1	1	1	1	Workstation	64	64	64	64	64	E		3.
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
					SUBTOTAL NET AREA		1,000	1,000	1,000	1,000			

NOTES:

1. This is for the Pohl Center.
2. Estimate of additional storage required in current location.
3. Shared workstation for volunteers and temporary staff.

						2015	2017	2020	2025
				SUBTOTAL NET AREA		1,656	1,656	1,720	1,784
	2015	2017	2020	2025	EFFICIENCY FACTOR (30%)	497	497	516	535
TOTAL STAFF	7	7	8	9	TOTAL USABLE AREA	2,153	2,153	2,236	2,319

CITY of TUALATIN

SPACE REQUIREMENTS STUDY

DEPARTMENT: Community Services

DIVISION: Library

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Library Manager	1	1	1	1	Office	120	120	120	120	120	1		
Access Services Supervisor	1	1	1	1	Office	120	120	120	120	120	2		
Public Services Supervisor	1	1	1	1	Office	120	120	120	120	120	3		2.
Librarian (Public Services)	3	5	6	6	Workstation	64	192	320	384	384	4		2.
Librarian (Access Services)	1	1	1	1	Workstation	64	64	64	64	64	5		
Program Specialist	1	1	1	1	Workstation	64	64	64	64	64	6		
Office Coordinator	1	1	1	1	Workstation	64	64	64	64	64	7		3.
Volunteer Specialist	1	1	1	1	Workstation	64	64	64	64	64	8		
Public Services Assistant	2	3	3	3	Workstation	64	128	192	192	192	9		
Library Assistant (Circulation)	4	5	6	6	Workstation	64	256	320	384	384	10		5.
Library Assistant (Technical Services)	2	2	2	2	Workstation	64	128	128	128	128	11		2., 5.
Library/ Public Services Assistant	1	1	1	1	Workstation	48	48	48	48	48	12		1.
Library Assistant	1	1	1	1	Workstation	48	48	48	48	48	13		1., 2.
Pages	2	2	2	2	Workstation	48	96	96	96	96	14		1.
Volunteers	5	5	5	5	Workstation	48	240	240	240	240	15		1.
							0	0	0	0			
SUBTOTAL STAFF	27	31	33	33	SUBTOTAL NET AREA		1,752	2,008	2,136	2,136			

NOTES:

1. Volunteer staff positions.
2. These positions could be located in a separate area away from the main part of the Library. They should be in close proximity to the delivery area.
3. The Office Coordinator should be located near the copier and safe.
4. If space is available, there would be additional programs offered at the Library for the community.
5. These workstations require carts behind and beside their worksurface. A minimum size of 7' worksurface length and 8' depth is required.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Staff Work Area	1	1	1	1	Enclosed	350	350	350	350	350	A		1.
Circulation- Storage & carts	1	1	1	1	Open	200	200	200	200	200	B		2.
Technical Services- Storage & carts	1	1	1	1	Open	150	150	150	150	150	C		2.
Public Services- Storage & carts	1	1	1	1	Open	100	100	100	100	100	D		2.
Entry Lobby & Front Desk(s)	1	1	1	1	Open	1,000	1,000	1,000	1,000	1,000	E		
Adult Stacks & Reference	1	1	1	1	Open	5,700	5,700	5,700	5,700	5,700	F		
Public Computers	1	1	1	1	Open	850	850	850	850	850	G		
Adult Seating Area	1	1	1	1	Open	2,500	2,500	2,500	2,500	2,500	H		
Children Stacks & Reference	1	1	1	1	Open	1,350	1,350	1,350	1,350	1,350	I		
Program Area- Children	2	2	2	2	Open	700	1,400	1,400	1,400	1,400	J		3.
Program Storage Area- Children	1	1	1	1	Enclosed	250	250	250	250	250	K		
Teen Program Room	1	1	1	1	Enclosed	1,400	1,400	1,400	1,400	1,400	L		
Kitchenette & Storage	1	1	1	1	Enclosed	200	200	200	200	200	M		
Technology & Computer Training	1	1	1	1	Enclosed	650	650	650	650	650	N		4.
Program/ Project Rooms	2	2	2	2	Enclosed	350	700	700	700	700	O		
Small Focus Room	4	4	4	4	Enclosed	64	256	256	256	256	P		10.
Small Group Room	2	2	2	2	Enclosed	100	200	200	200	200	Q		5.
Medium Conference Room	1	1	1	1	Enclosed	200	200	200	200	200	R		6.
Large Conference Room	1	1	1	1	Enclosed	500	500	500	500	500	S		7.
Community/Multi-Purpose Room	1	1	1	1	Enclosed	1,500	1,500	1,500	1,500	1,500	T		8.
Storage Room	2	2	2	2	Enclosed	400	800	800	800	800	U		9.
Friends of the Library- Work Room	1	1	1	1	Enclosed	250	250	250	250	250	V	W	
Friends of the Library- Storage Room	1	1	1	1	Enclosed	150	150	150	150	150	W	V	11.
Additional Circulation- 10%	1	1	1	1	Open	2,000	2,000	2,000	2,000	2,000			
					SUBTOTAL NET AREA		22,656	22,656	22,656	22,656			

CITY of TUALATIN

SPACE REQUIREMENTS STUDY

NOTES:

1. Equipment including copier/printer/fax, paper storage, printers, laminator, book repair materials and equipment, mailboxes and staff lockers.
2. Additional area for numerous carts and book storage in return bins, taskets and shelving. Includes additional circulation.
3. Separate spaces for the young and elementary children
4. Classes and programs would be added for computer training, technology, media etc. if space were available.
5. Group or Conference space for 2-4 people.
6. Sized for 8-10 people. Can be used as a public meeting room depending on the location.
7. Sized for 20-24 people. Can be used as a public meeting room depending on the location.
8. Can be used as a public meeting room depending on the location. Should be dividable into 2 smaller meeting rooms.
9. One room is for storage of equipment and furniture from the Community/Multi-purpose room and the other is for materials storage and workspace..
10. Small Focus Rooms sized for 1-2 people.
11. Storage Room should be located adjacent to or within the Friends of the Library Work Room.

					2015	2017	2020	2025	
					SUBTOTAL NET AREA	24,408	24,664	24,792	24,792
					EFFICIENCY FACTOR (30%)	7,322	7,399	7,438	7,438
TOTAL STAFF	27	31	33	33	TOTAL USABLE AREA	31,730	32,063	32,230	32,230

CITY of TUALATIN

SPACE REQUIREMENTS STUDY

DEPARTMENT: Common Area

DIVISION: _____

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Break Room	1	1	1	1	Enclosed	500	500	500	500	500	1		1.
Coffee Alcove	3	3	3	3	Open	48	144	144	144	144	2		2.
Small Focus Room	1	1	1	1	Enclosed	64	64	64	64	64	4	1	7.
Medium Conference Room	1	1	1	1	Enclosed	216	216	216	216	216	5		3.
Large Conference Room	2	2	2	2	Enclosed	500	1,000	1,000	1,000	1,000	6		4.
Jury Room/ Executive Session Room	1	1	1	1	Enclosed	216	216	216	216	216	7	8	5.
Court Room/ Council Chamber	1	1	1	1	Enclosed	2,000	2,000	2,000	2,000	2,000	8	7	
Kitchenette	1	1	1	1	Enclosed	200	200	200	200	200	9	7&8	
TV/CTV Studio & Equipment	1	1	1	1	Enclosed	240	240	240	240	240	10	8	
Storage	1	1	1	1	Enclosed	300	300	300	300	300	11	8	6.
Shower & Locker Rooms	2	2	2	2	Enclosed	200	400	400	400	400	12		
Lactation Room	1	1	1	1	Enclosed	120	120	120	120	120	13		8.
							0	0	0	0			
							0	0	0	0			
SUBTOTAL NET AREA							5,400	5,400	5,400	5,400			

NOTES:

1. Staff Break Room with kitchen and multiple tables- seating for minimum of 24 staff.
2. Small coffee kitchens scattered strategically through-out the facility with sink and coffee service.
3. Shared Medium Conference Room sized for 10 - 12 people. All conference rooms should have white boards, tack boards, projection screens and current technology.
4. Shared Large Conference Room(s) sized for 20-24 people. Should be adjacent with movable common wall to form combined larger room. These should be located on the ground floor adjacent to the Council Chambers with access from the public lobby.
5. Equivalent to a Medium Conference Room sized for 10-12 people.
6. Storage adjacent to the Court Room/ Council Chamber for furniture, equipment and presentation materials to facilitate changing functions.
7. Small rooms for private phone calls and conversations located adjacent to Break Room.
8. Contains a sink and small refrigerator. Door to be lockable for privacy.
9. Approximate dimensions of space required is: 24' x 10' with a 10'-12' ceiling. Space for one(1) main equipment rack- 3' wide by 8-9' tall and custom console for two(2) technicians.

	2015	2017	2020	2025
SUBTOTAL NET AREA	5,400	5,400	5,400	5,400
EFFICIENCY FACTOR (30%)	1,620	1,620	1,620	1,620
TOTAL USABLE AREA	7,020	7,020	7,020	7,020

GENERAL NOTES and STAFF COMMENTS:

1. Most staff felt it was important to have all of their department staff co-located and all City staff located in a single building. The exceptions to this were: some Parks & Recreation staff, Operations, Library and the IT/Server Room.
2. There was a discussion about words that describe the "image" of what City Hall should be: creative; productive; dignified; cool collaborative work space.
3. It should be noted that it currently takes 5 man hours to set-up and take-down the furniture and equipment for the council meetings that are currently occurring in the Juanita Pohl Center.
4. All large Conference Rooms and the Council Chamber/ Municipal Court Room should be equipped with the latest technology for presentations and meetings. This is including but not limited to: verbal and visual recording; projectors and screens; speaker systems and microphones; tack boards; white marker boards; video conferencing capabilities; monitors and computer connections; TVCTV studio space and equipment required connections; adequate storage space for equipment and furniture when not in use; control panel and work space for staff and separate staff and public presentation areas. The Council Chamber should have some form of electronic voting system.
5. A quiet work environment is important to be able to focus on work.
6. A Training Room for 60 people with table and chairs for computer training as well as other types would allow for more in-house training of staff.
7. Amenities including a Wellness Room, Lactation Room, small Exercise Room with Shower and Locker Rooms, adequate sized staff Break Room and lockable bicycle storage.
8. Safe, adequate and adjacent parking. It should be accessible without crossing a busy street.
9. Sit-to-stand adjustable height worksurfaces for offices and workstations.
10. Newer improved HVAC systems with better temperature controls.
11. Better lighting that is adjustable and dimmable. Use current LED technology instead of fluorescent lighting.
12. If the space is open plan with fewer offices, small focus rooms would be needed for the times when privacy and quiet is required to complete a task.
13. In public waiting areas where public is serviced at a counter, there should be separate public toilet rooms and staff toilet rooms. The staff toilet rooms should be located on the staff side of the public counter.
14. The staff Break Room should contain the following: two(2) large refrigerators, two(2) microwaves, sink, dishwasher and seating capacity for 24 minimum with some of the seating in a more private and quiet area. It should have windows to an outside view and access to an outdoor seating area that is not accessible to the public. Staff toilet rooms should not be accessible through the Break Room.
15. Space to display City owned art and photos currently in off-site storage.
16. Some open workstations should have higher panels and be more enclosed to allow for more privacy due to the work being done.
17. Library would provide additional services and programs to the public if space was available.
18. Could the Conference Rooms in the Library and those adjacent to the Council Chamber be "rented" to the public?

CITY of TUALATIN

SPACE REQUIREMENTS PROGRAM

AREA SUMMARY- Including Library

DEPARTMENT/ FUNCTION	STAFF QUANTITY				AREA				NOTES
	2015	2017	2020	2025	2015	2017	2020	2025	
Administration- City Managers Office	5	5	6	7	1,799	1,820	1,955	2,038	
Administration- Human Resources	3	5	6	7	884	1,050	1,134	1,217	
Finance	9	10	11	12	2,587	2,670	2,753	2,915	
Finance- Municipal Courts	4	5	6	6	2,015	2,098	2,181	2,181	
Legal	2	2	2	2	650	650	650	650	
Information Services	3	4	4	4	780	863	863	863	
Community Development	23	24	26	34	5,195	5,351	5,517	6,261	
Community Services- Parks & Recreation	7	7	8	9	2,153	2,153	2,236	2,319	
Community Services- Library	27	31	33	33	31,730	32,063	32,230	32,230	
Common Areas	0	0	0	0	7,020	7,020	7,020	7,020	
SUBTOTAL STAFF	83	93	102	114	54,813	55,739	56,540	57,694	SUBTOTAL USABLE AREA

	2015	2017	2020	2025	2015	2017	2020	2025	
TOTAL STAFF	83	93	102	114	54,813	55,739	56,540	57,694	TOTAL USABLE AREA
					60,295	61,313	62,194	63,463	TOTAL GROSS BUILDING AREA (+10%)

AREA SUMMARY- Excluding Library

DEPARTMENT/ FUNCTION	STAFF QUANTITY				AREA				NOTES
	2015	2017	2020	2025	2015	2017	2020	2025	
Administration- City Managers Office	5	5	6	7	1,799	1,820	1,955	2,038	
Administration- Human Resources	3	5	6	7	884	1,050	1,134	1,217	
Finance	9	10	11	12	2,587	2,670	2,753	2,915	
Finance- Municipal Courts	4	5	6	6	2,015	2,098	2,181	2,181	
Legal	2	2	2	2	650	650	650	650	
Information Services	3	4	4	4	780	863	863	863	
Community Development	23	24	26	34	5,195	5,351	5,517	6,261	
Community Services- Parks & Recreation	7	7	8	9	2,153	2,153	2,236	2,319	
Common Areas	0	0	0	0	7,020	7,020	7,020	7,020	
SUBTOTAL STAFF	56	62	69	81	23,083	23,676	24,310	25,464	SUBTOTAL USABLE AREA

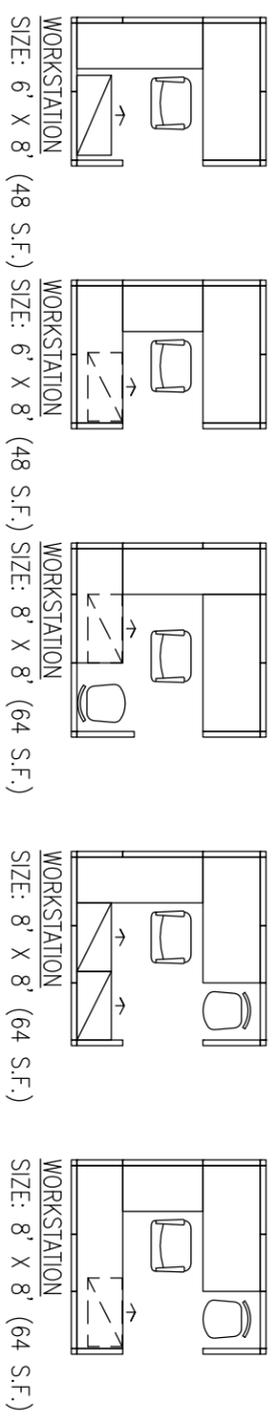
	2015	2017	2020	2025	2015	2017	2020	2025	
TOTAL STAFF	56	62	69	81	23,083	23,676	24,310	25,464	TOTAL USABLE AREA
					25,391	26,043	26,741	28,011	TOTAL GROSS BUILDING AREA (+10%)

69 70 72 76 Parking Count Required
13 13 13 14 Bike Parking Count Required

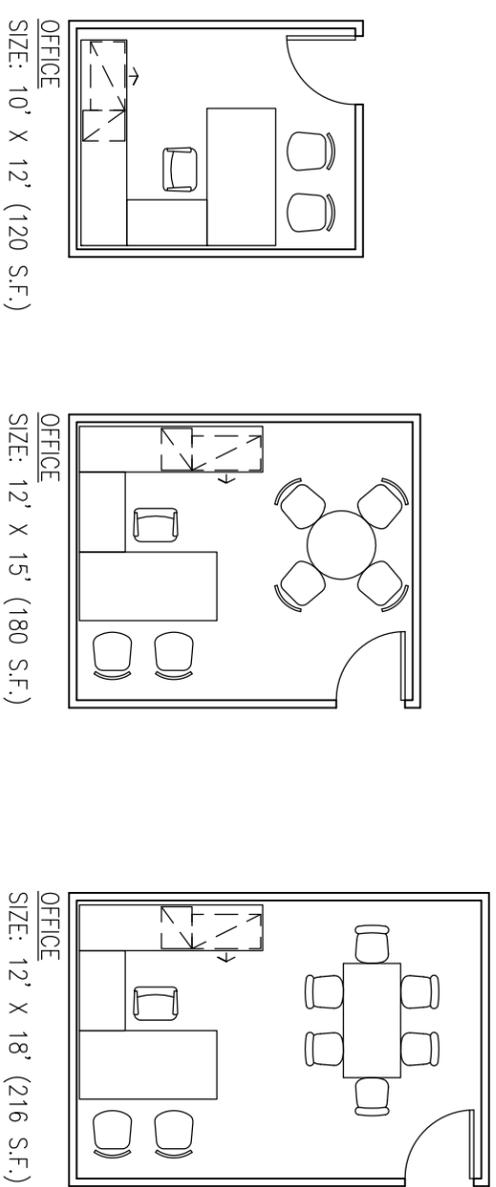
	2015	2017	2020	2025	2015	2017	2020	2025	
LIBRARY TOTAL STAFF	27	31	33	33	31,730	32,063	32,230	32,230	TOTAL USABLE AREA
					34,903	35,270	35,453	35,453	TOTAL GROSS BUILDING AREA (+10%)

87 88 89 89 Parking Count Required
52 53 53 53 Bike Parking Count Required

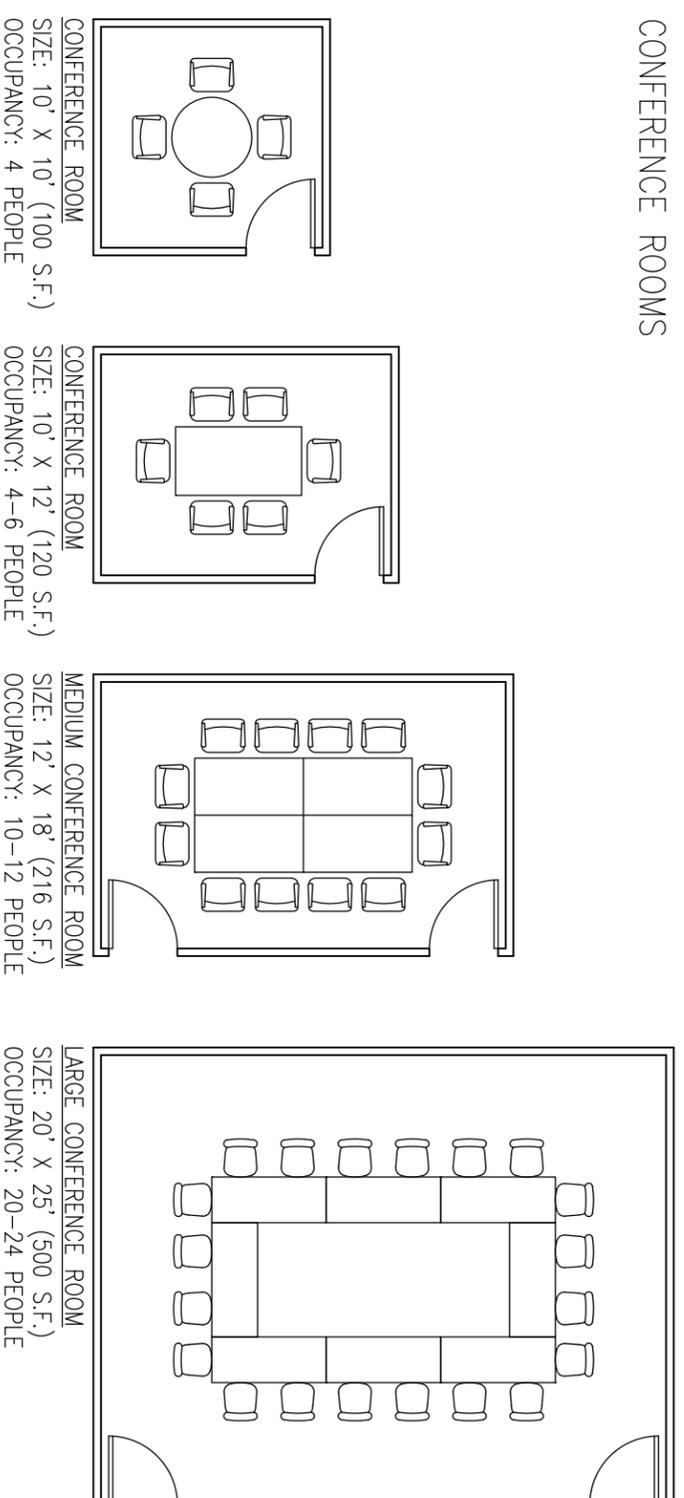
WORKSTATIONS



PRIVATE OFFICES



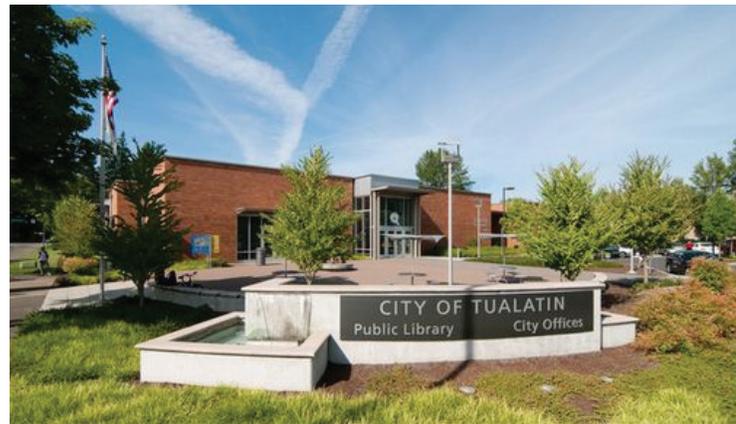
CONFERENCE ROOMS





CITY FACILITIES STUDY

FACILITIES ASSESSMENTS *report*



FEBRUARY 4, 2015

YOST GRUBE HALL
ARCHITECTURE

Executive Summary: Facilities Assessment

The City of Tualatin retained Yost Grube Hall Architecture (YGH) to develop a City Facilities Study. The main components of the study included an existing city facilities assessment, a space requirements study for existing city staff (excluding the Police, Operations and IT Server and support staff), workshops and community outreach presentations and a final summary planning document with costs and recommendations for City Council.

The following pages contain the Facilities Assessment portion of the project. YGH performed an assessment review of the following city facilities: Library/City Office building, Seneca Building (leased), Lafky house, Community Services house, the portion of the Juanita Pohl Senior Center used for City Council meetings, Municipal Court facilities located in the Police facility and Information Services facilities located in at the Operations facility. The condition of the facilities were noted and photographed for reference. Following a review by the City, these documents were distributed to and reviewed by the City's Internal Design and Evaluation Advisors (IDEA) committee.

YGH presented the document to the City's Facilities Task Force Committee at their February 4th Task Force meeting. Following is the approved document with comments and corrections added.

Community Services Building

8515 Southwest Tualatin Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Front and Side Elevations (west and south, resp.)



Rear Elevation (east)



Side Elevation of Garage (north)

Date of Field Visit: 6 January 2015 Time of Day: 11:30 am
Weather: Partly sunny with fog, 47°F Site conditions: Inland, suburban, low-rise
Site Contacts: Sara Singer, City of Tualatin
Clayton Reynolds, City of Tualatin

General Building Description:

The facility is a single-story structure, formerly single-family residence. The facility's property is bound by a private access drive to the south, a City of Tualatin park to the north, with skateboarding park immediately adjacent, Southwest Tualatin Road to the west, and a parking lot for the City park to the east. The building appears to have been constructed in the 1940's or 1950's and converted to its current use in the 1990's or 2000's.

The building is a 1-story wood frame building on concrete foundation, over a basement. The façade is a wood-framed wall clad in wood shakes. Orientation is to the west but entry is from the east; 1 floor; no elevator; no fire suppression, adjacent street is Southwest Tualatin Road, adjacency is to other City of Tualatin properties (no adjacent buildings). General condition is good and well maintained; except roofing appeared to be near end of life cycle.

The City's GIS department and others use this building, utilizing previous living room, dining room and bedrooms as offices. Restrooms have been renovated to commercial standards but do not meet ADA requirements; accessible entry is available from the rear. The garage is used for storage of files and parking for a City vehicle.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> • CIP concrete foundation walls appeared to be in good shape • Some minor cracking was observed above grade at the south and west sides; refer to Figure A10.1; there was no apparent water intrusion observed in the basement at these same locations
Recommendations		
A10.1.1 Monitor basement walls for additional cracking, water intrusion, or other signs of settlement		

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> • Basement was dry, clean, and in good condition • A dehumidifier is in the space and the HVAC system provides some heating via a single register in-line with a duct to the floor above
Recommendations		
A20.1.1 The basement walls are not insulated, as would be required by Code for new or renovation construction		

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> • As-built documents were not available
B10.2	Visible Gravity System	<ul style="list-style-type: none"> • It is assumed that the building is wood-framed
B10.3	Visible Lateral System	<ul style="list-style-type: none"> • It is assumed that shear forces are managed by diagonal wood-framing and/ or sheathing and by the roof diaphragm. • It was not observed that the building has adequate connection to the foundations; likely does not meet Code due to change of occupancy/ use

B10.4	Building Exterior	<ul style="list-style-type: none"> • There was no evidence of rot or movement of exterior framed walls; exterior wood shake cladding is painted and has been maintained well. • Attic vents were observed to be clean and insect free.
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> • Original function was as single-family residence; current function is as office space. • It was observed that at several locations, storage and shelving may be imposing loads that could be in excess of design loads; the crawlspace was not accessed in order to confirm locations of structure.

Recommendations

B10.1	None
B10.2	None
B10.3.1	It should be confirmed whether Code required anchorage of wall framing and sill plates was required for the change of occupancy/ use from single-family residential to commercial office; this could be added.
B10.3.2	It should be confirmed whether during previous re-roofings additional plywood sheathing was added to improve diaphragm strength; this could be provided in upcoming re-roofing (refer to B30.1).
B10.4	None
B10.5.1	It should be confirmed that locations currently bearing large furniture or file storage loads are adequately supported on structure below.
B10.5.2	It is recommended that loads be minimized and distributed where they are in the middle of rooms or not adjacent to major structural support below the floor.

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)

Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> • Exterior wood shake cladding is painted and has been maintained well.
B20.2	Type and condition of window system	<ul style="list-style-type: none"> • Double-hung wood windows appear to be original, single-glazed residential quality • No evidence of rot or moisture intrusion was observed at the main building • Window sills at the Garage building are dirty and may retain moisture, leading to rot
B20.3	Other issues	<ul style="list-style-type: none"> • Overhangs are deep and appropriate for local climate. • Gutters and downspouts appear to be clean and removing water appropriately, however downspout outlets adjacent to the foundation walls do not function to carry water away from the structure, potentially leading to basement moisture problems.

		<ul style="list-style-type: none"> • The building’s original foundation drainage system, if it ever existed, is likely non-functional now • Leaves have collected within basement window wells; refer to Figure B20.3
Recommendations		
B20.1	None	
B20.2.1	Maintain proper cleaning and painting regimen to ensure wood windows remain operational and rot-free	
B20.3.1	It is recommended to add extensions to the ends of downspouts to transport stormwater away from the foundations.	
B20.3.2	Leaves and debris should be removed from basement window wells and adequate drainage confirmed	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> • Roofing is three-tab asphalt shingles, which may be near the end of its life-span (10-15 years) • It was observed that moss has grown on the east side. Refer to Figure B30.1
B30.2	Other issues	<ul style="list-style-type: none"> • Flashings, vents, etc. all appear in acceptable condition • Access to the roof was not available; observations were made from the ground level • The roof at the Garage north of the building appeared to have been recently damaged, possibly by the early December windstorm or from actions by users of the skateboard park adjacent; Staff reported that the damage had been repaired (skateboard park users have sometimes accessed the roof by climbing on the power meter stanchions adjacent to the garage); several old skateboard decks had been thrown onto the roof of the garage; refer to Figure B30.2
Recommendations		
B30.1.1	Confirm age and life-span remaining for existing roofing; replace if necessary, possibly adding a layer of plywood sheathing if required to improve the structure’s lateral force resistance (refer to B10.3). Replacement roofing with metal roofing system has been proposed in the City’s Capital Improvement Plan.	
B30.2.1	Monitor conditions of flashings, vents, gutters, downspouts, etc.; recommend investigation for replacement as necessary at next reroofing. Staff indicated that following the inspection, the observed damage at the Garage roof had been repaired.	

Consider means to avoid access to the Garage roof, and inspect roof regularly for recurring damage.

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> N/A
C10.3	Atrium	<ul style="list-style-type: none"> N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Building is accessible at main entry (east); rear entry at Kitchen is not accessible. Refer to Figure C10.4A. The single restroom has been converted from residential to commercial use by the addition of a urinal; the restroom is not accessible. Refer to Figures C10.4B & C. Kitchen sink is not accessible Turning radius restrictions at several locations (60-inch diameter circle required)
C10.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	
C10.4.1	Consider improvements to the restroom and kitchen to provide accessibility. Consider means to provide a minimum of one or two workstations that are accessible.	
C10.5	None	

C20 –EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	<ul style="list-style-type: none"> N/A
C20.2	Exit stair continuity and integrity	<ul style="list-style-type: none"> N/A
C20.3	Exit corridor continuity and integrity	<ul style="list-style-type: none"> Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation	<ul style="list-style-type: none"> N/A
C20.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> • Wall finishes are painted GWB or possibly plaster on lathe • Floor finishes are carpet, except at kitchen and restrooms flooring is sheet vinyl; all flooring is in good condition • Ceiling finishes are painted GWB or possibly plaster on lathe • Cabinetry in kitchens is plastic laminate, possibly installed at time of renovation to commercial use
C30.2	Locations and cause of water intrusion/ leaks	<ul style="list-style-type: none"> • None were observed
C30.3	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C30.1	None	
C30.2	None	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	<ul style="list-style-type: none"> • N/A
D10.2	Status of inspections, who maintains the elevator	<ul style="list-style-type: none"> • N/A
D10.3	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> • Municipal water service • Provision of bottled water was not observed
D20.2	Distribution piping material	<ul style="list-style-type: none"> • It appeared from observation in Basement that original piping has been replaced with PEX tubing throughout
D20.3	Drain and vent system	<ul style="list-style-type: none"> • It appeared from observation in Basement that original piping has been replaced with PVC and ABS tubing throughout
D20.4	Fixture condition	<ul style="list-style-type: none"> • Single restroom appears to have original porcelain sink and toilet and appear to be in

		<p>good condition; urinal added at conversion to commercial use is porcelain and appears to be in good condition</p> <ul style="list-style-type: none"> • Low-flow fixtures are not provided
D20.5	Water pressure	<ul style="list-style-type: none"> • Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> • Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> • Located in Basement • Electric • Staff noted that the water heater was installed in 1996; nearly 19 years old
D20.8	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D20.1	None	
D20.2	None	
D20.3	None	
D20.4.1	Consider replacement of sink faucet and toilet and urinal flush valves with low-flow devices compatible with the original fixtures.	
D20.5	None	
D20.6	None	
D20.7.1	Due to storage of furniture and equipment in Basement, monitor existing 19 year-old water heater for leaks on a regular basis. Alternately, consider replacement with new smaller or on-demand unit that will be sufficient for office hot water needs while reducing overhead and removing danger of a leak damaging other property, or a leak detection system could be added, though this may be cost-prohibitive.	

D30 - HVAC		
Item	Comments/Findings	
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> • None
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> • None
D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> • N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> • Located in Basement • Carrier air handler model FK4CNF002; staff noted that the unit was installed in 1998; nearly 17 years old
D30.5	Air filtration	<ul style="list-style-type: none"> • Filtration is at return air duct in Basement; was not observed
D30.6	Equipment accessibility	<ul style="list-style-type: none"> • Good, though storage at Basement impedes somewhat on area adjacent to unit; refer to Figure D30.6
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> • Condensate is pumped away; disposal location not observed • With pumped systems, there is risk of pump failure and leak of condensate into garage area, threatening storage of furniture and equipment

D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Refer to D30.7
D30.9	Mold issues	<ul style="list-style-type: none"> Not observed
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> Supply is ducted through Basement; single register also provides minimal heat (for drying) to Basement Return is ducted through floor register
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> N/A
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> No mechanical outside air provision is made Windows are operable
D30.13	Restroom ventilation	<ul style="list-style-type: none"> Not observed; operable window; staff indicated that restroom has ventilator fan
D30.14	Custodial ventilation	<ul style="list-style-type: none"> N/A
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> None except operable windows
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Not provided
D30.17	Duct materials	<ul style="list-style-type: none"> Rectangular and round sheet metal duct is uninsulated in partially climatized Basement
D30.18	HVAC controls	<ul style="list-style-type: none"> Single thermostat is located in office space (former living room)
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> N/A
D30.20	Cooling system	<ul style="list-style-type: none"> AHU provides cooling with electric heat pump system Heat pump outdoor unit is located at east side of building Refrigerant lines are insulated and routed through Basement in joist space
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> None
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> Not observed; refer also to D30.13, 14 & 15
D30.24	Heating System	<ul style="list-style-type: none"> AHU provides heating with electric heat pump system; refer to D30.20 Supply registers were providing conditioned air at 75 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> N/A
D30.26	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D30.1	None	
D30.2	None	
D30.3	None	
D30.4	None	
D30.5.1	Ensure continued regular maintenance	
D30.6.1	Consider application of painted lines on the floor indicating clearances required for maintenance and adequate ventilation	

D30.7.1	Regularly monitor condensate pump and routing to help mitigate risk from pump failure and potential for water damage.
D30.8.1	Refer to D30.7
D30.9	None
D30.10	None
D30.11	None
D30.12	None
D30.13	None
D30.14	None
D30.15	None
D30.16	None
D30.17	None
D30.18.1	Consider installing a programmable thermostat to take advantage of ability to provide automatic, time- and day-of-week-based control of the HVAC system.
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23	None
D30.24.1	For future replacements, it is recommended to review the procedures for procurement to include life cycle cost- and performance-based criteria alongside unit cost-based criteria.
D30.25	None
D30.26	None

D40 – FIRE PROTECTION		
Item		Comments/Findings
D40.1	Fire suppression system	• None
D40.2	Water service, backflow prevention	• N/A
D40.3	System pressure	• N/A
D40.4	Standpipes	• N/A
D40.5	Fire pump	• N/A
D40.6	Fire sprinkler pipe condition	• N/A
D40.7	FDC	• N/A
D40.8	Fire sprinkler zoning	• N/A
D40.9	Flow monitoring and alarm	• N/A
D40.10	On-site water source	• N/A
D40.11	Test records	• N/A
D40.12	Condition of fire hose or fire extinguishers	• Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguisher was not observed
D40.13	Other issues	• None
Recommendations		
D40.1	None	
D40.2	None	

D40.3	None
D40.4	None
D40.5	None
D40.6	None
D40.7	None
D40.8	None
D40.9	None
D40.10	None
D40.11	None
D40.12.1	Confirm fire extinguisher is provided
D40.13	None

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> • Not observed
D50.2	Equipment grounding	<ul style="list-style-type: none"> • Not observed
D50.3	Lightning protection	<ul style="list-style-type: none"> • None
D50.4	Overcurrent protection	<ul style="list-style-type: none"> • None
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> • Not observed; staff indicated that GFCI outlets are provided
D50.6	Rating of Panels	<ul style="list-style-type: none"> • Panel rating not known; panel was not opened
D50.7	Peak load	<ul style="list-style-type: none"> • Not known
D50.8	Overloading/overheating	<ul style="list-style-type: none"> • None observed; panel face temperature was similar to room temperature (62 degree F)
D50.9	Conductor insulation	<ul style="list-style-type: none"> • Variety of wiring was observed at the Basement, including canvas/ cloth jacketed and plastic jacketed, as well as enclosed conduit (conductor unknown)
D50.10	Conductor material	<ul style="list-style-type: none"> • Not known; due to age of building, some conductor may be aluminum
D50.11	Main distribution equipment	<ul style="list-style-type: none"> • None except residential-grade panel
D50.12	Equipment clearance	<ul style="list-style-type: none"> • Good, though storage at Basement could impede on area adjacent to unit
D50.13	Disconnects	<ul style="list-style-type: none"> • None except at residential-grade panel
D50.14	Transformers	<ul style="list-style-type: none"> • None
D50.15	Data Center/UPS	<ul style="list-style-type: none"> • None
D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> • None
D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> • Receptacles were observed to have been upgraded to grounded devices • It was not confirmed that grounded receptacles are actually connected to earth

D50.18	Lighting	<ul style="list-style-type: none"> Original incandescent bulb ceiling fixtures have been replaced with 4-foot fluorescent tube fixtures
D50.19	Lighting Controls	<ul style="list-style-type: none"> Switched at walls; standard on-off switches
D50.20	Back-up power	<ul style="list-style-type: none"> None
D50.21	Generator	<ul style="list-style-type: none"> None
D50.22	Battery packs	<ul style="list-style-type: none"> None
D50.23	Inverter	<ul style="list-style-type: none"> None
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> None
D50.25	Emergency power system loads	<ul style="list-style-type: none"> None
D50.26	Egress path lighting	<ul style="list-style-type: none"> None
D50.27	Exit signage	<ul style="list-style-type: none"> None
D50.28	Other issues	<ul style="list-style-type: none"> None

Recommendations

- D50.1.1 Consider testing for grounding leakage.
- D50.2.1 Review requirements for necessary equipment to ensure proper grounding (e.g. photocopier)
- D50.3 None
- D50.4 None
- D50.5.1 Confirm presence of GFCI receptacles in restrooms and kitchen.
- D50.6 None
- D50.7.1 Assess peak load requirements and confirm panel meets needs. Confirm individual circuits, and consider providing a dedicated circuit for the photocopier.
- D50.8 None.
- D50.9.1 Conductor material and insulation should be reviewed; wiring with indications of deterioration, wear, overheating or pest damage should be replaced.
- D50.10.1 Refer to D50.9.
- D50.11.1 Refer to D50.6.
- D50.12.1 Consider application of painted lines on the floor indicating clearances required for maintenance.
- D50.13.1 Refer to D50.6.
- D50.14 None
- D50.15 None
- D50.16 None
- D50.17.1 Confirm grounded receptacles are indeed connected to earth; Review potential to route new wiring where required if ground is not provided.
- D50.18 None
- D50.19.1 Consider replacement of on-off switches with occupancy switches to save energy.
- D50.20 None
- D50.21 None
- D50.22 None
- D50.23 None
- D50.24 None
- D50.25 None

D50.26.1	Consider addition of battery pack-powered emergency lighting fixtures, e.g. “bug-eye”-type at appropriate locations to adequately illuminate the egress path
D50.27.1	Consider addition of battery pack-powered emergency egress fixtures at appropriate locations to direct to exits
D50.28	None

D60 – FIRE DETECTION AND ALARM

Item	Comments/Findings	
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> None
D60.2	Smoke detectors	<ul style="list-style-type: none"> Local, battery-operated residential type
D60.3	Pull stations	<ul style="list-style-type: none"> None
D60.4	Annunciation	<ul style="list-style-type: none"> None except by residential-type smoke detectors
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> No
D60.6	System monitoring	<ul style="list-style-type: none"> No
D60.7	Elevator recall	<ul style="list-style-type: none"> N/A
D60.8	Other issues	<ul style="list-style-type: none"> None

Recommendations

D60.1.1	If City intends long term ownership and use as offices, it is suggested that a small building-scale monitoring and notification system be installed
D60.2.1	Ensure regular testing and maintenance of residential-type smoke detectors. New system would include hard-wired, monitored detection devices (refer to D60.1)
D60.3	None, though new system could provide hard-wired, monitored pull-type notification devices (refer to D60.1)
D60.4	None, though new system could provide annunciation devices (refer to D60.1)
D60.5	None
D60.6	None, though new system could provide fire department notification (refer to D60.1)
D60.7	None
D60.8	None

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT

Item	Comments/Findings	
E10.1	Equipment anchorage	<ul style="list-style-type: none"> Water heater is restrained for seismic forces
E10.2	Other issues	<ul style="list-style-type: none"> None

Recommendations

E10.1	None
E10.2	None

G SITEWORK

G20 – SITE IMPROVEMENTS

Item	Comments/Findings
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G20.1	Building location prone to flooding	<ul style="list-style-type: none"> • Yes • Most recent high water event was 1996; marker at entry door indicates high water mark was above floor level by several inches
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> • Site is accessible, with parking located near rear ramp to east-side entry door
G20.3	Site Security	<ul style="list-style-type: none"> • None
G20.4	Hurricane resistance	<ul style="list-style-type: none"> • N/A
G20.5	Access control	<ul style="list-style-type: none"> • None except standard door hardware • Building has security system
G20.6	Adjacent property risks	<ul style="list-style-type: none"> • None
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> • Distance is adequate for Code-required separation • Note issues due to adjacent skateboard park at B30.2
G20.8	Drainage issues	<ul style="list-style-type: none"> • None observed
G20.9	Other issues	<ul style="list-style-type: none"> • None

Recommendations

G20.1	None beyond removal of important records and materials from this site due to flood risk.
G20.2	None
G20.3	None
G20.4	None
G20.5	None
G20.6	None
G20.7	None
G20.8	None
G20.9	None

G30 – LIQUID AND GAS SITE UTILITIES

Item	Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition

Recommendations

G30.1	None
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G40 – ELECTRICAL SITE IMPROVEMENTS

Item	Comments/Findings
G40.1	Site electrical services

Recommendations

G40.1	None
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INDEX TO FIGURES

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Figure B10.5D	Office functions impose loads differently than residential use
Figure B20.3	Window wells at Basement have collected leaves and debris at rear (east)
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Figure C10.4B	Restroom conversion from residential to commercial is not accessible
Figure C10.4C	Restroom conversion from residential to commercial is not accessible
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Figure D30.6	Air handler configuration and access at Basement
Figure D50.6	Electrical panel at Basement
Figure D60.2	Local, battery-operated residential type smoke detectors
Figure E10.1	Water heater is restrained for seismic forces; clearances could be compromised



Figure A10.1 Minor cracking observed at basement walls (this location at south side)



Figure B30.2 Damage at eave edge of Garage roof; Staff indicated that following the inspection, the observed damage at the Garage roof had been repaired; roof access may be possible by adjacent electrical equipment; abandoned skateboard decks on Garage roof



Figure B10.5A Office functions impose loads differently than residential use



Figure B10.5B Office functions impose loads differently than residential use



Figure B10.5C Office functions impose loads differently than residential use



Figure B10.5D Office functions impose loads differently than residential use



Figure B20.3 Window wells at Basement have collected leaves and debris at rear (east)



Figure B30.1 Moss at east side of roof

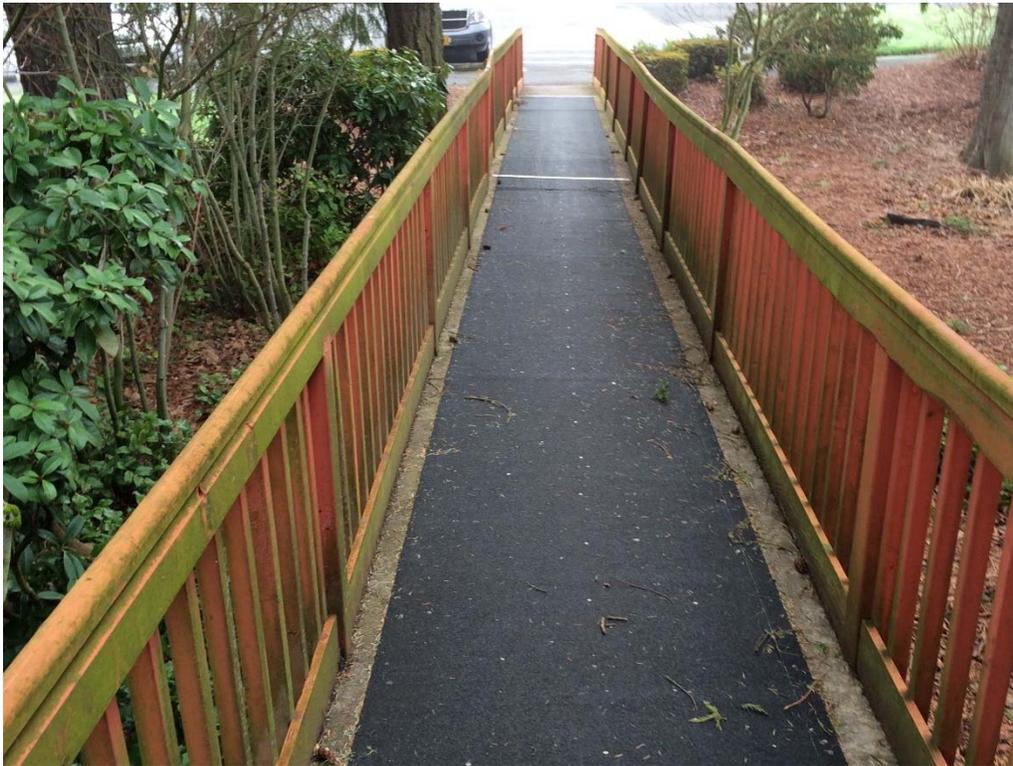


Figure C10.4A Main entry is accessible via ramp from parking area (south)

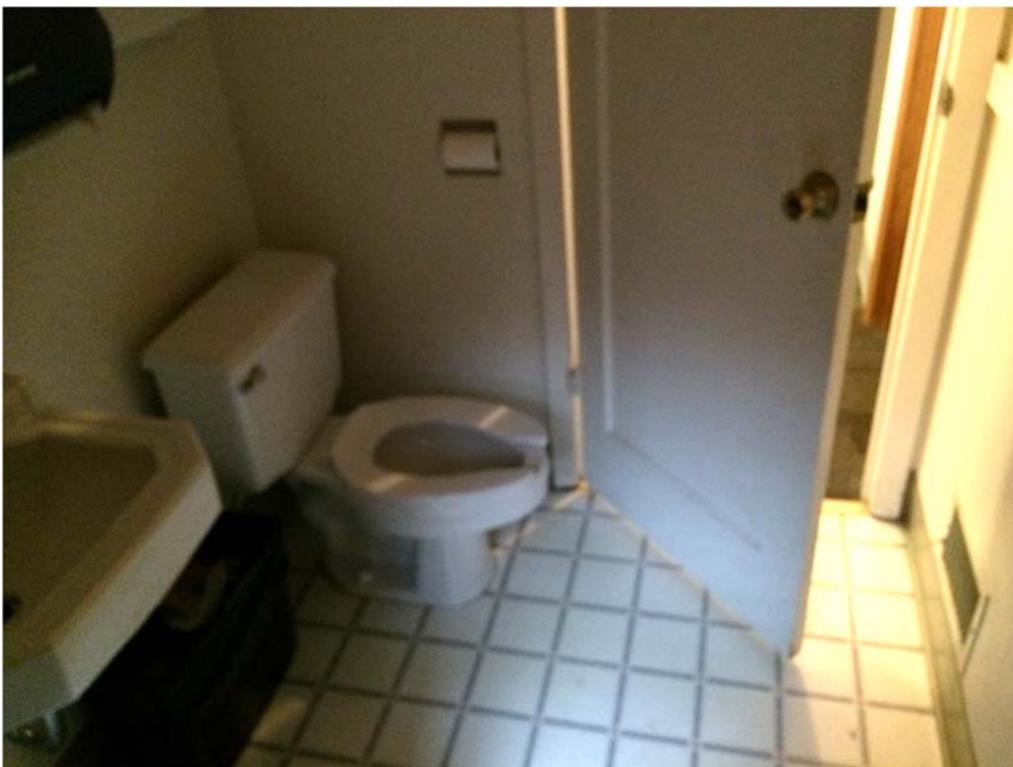


Figure C10.4B Restroom conversion from residential to commercial is not accessible

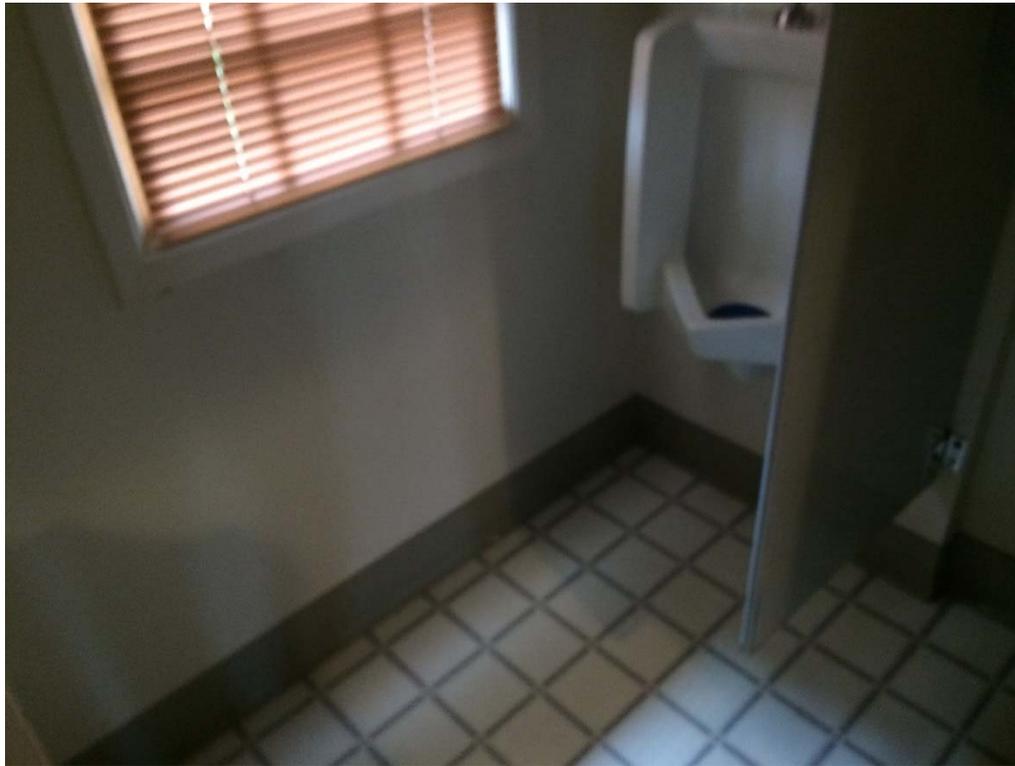


Figure C10.4C Restroom conversion from residential to commercial is not accessible

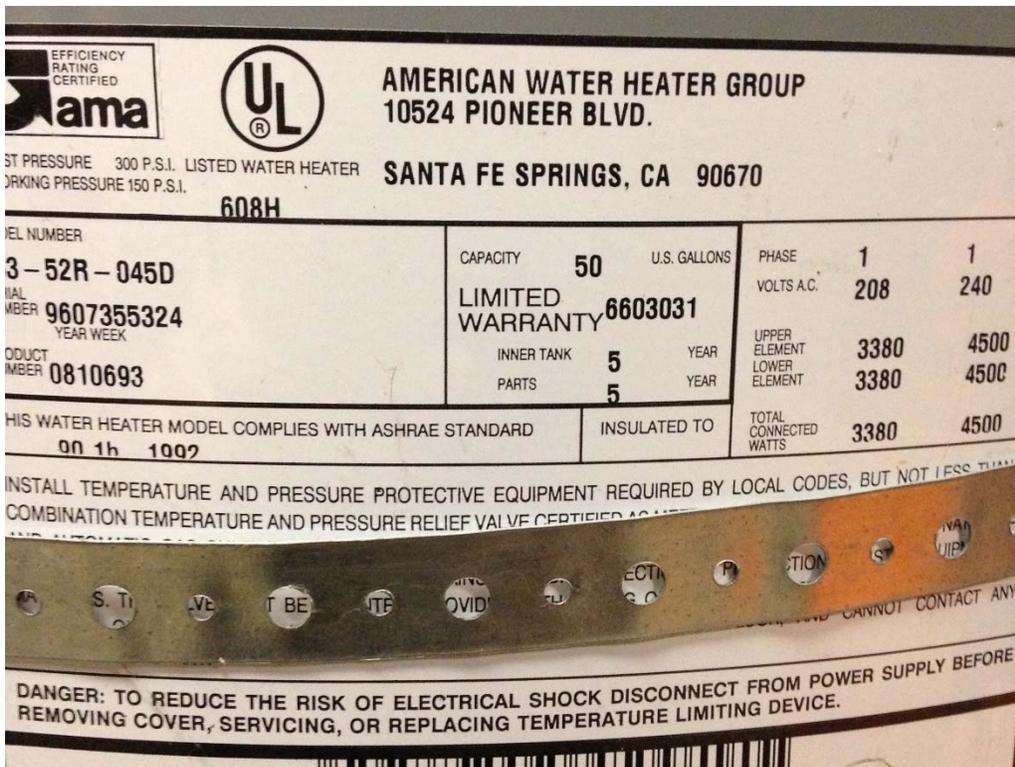


Figure D20.7 Water heater label

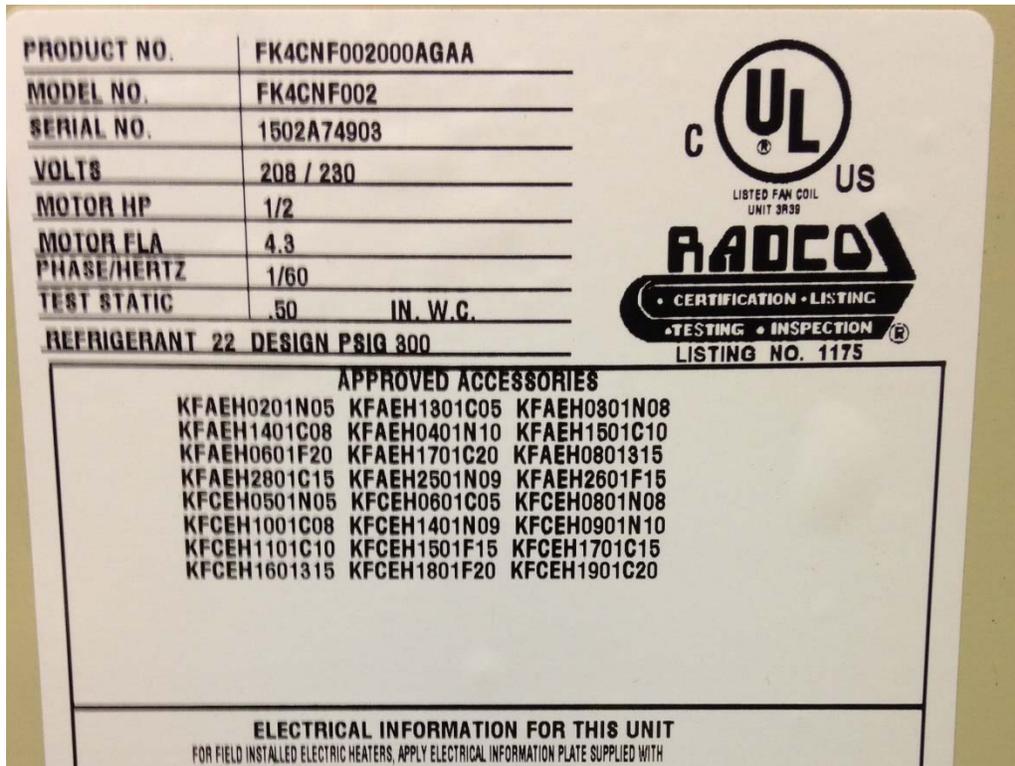


Figure D30.4 Air handler unit label





Figure D30.6 Air handler configuration and access at Basement



Figure D50.6 Electrical panel at Basement



Figure D60.2 - Local, battery-operated residential type smoke detectors



Figure E10.1 Water heater is restrained for seismic forces; clearances could be compromised

END OF REPORT

Information Services Department at Public Works Facility

10699 SW Herman Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



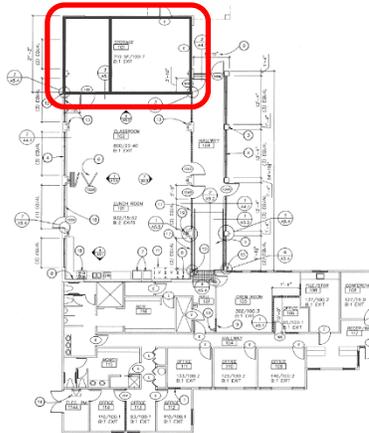
Side Elevation (south)



Rear and Side Elevations (west and south resp.)



Rear and Side Elevations (west and north resp.)



Floor plan; location of Information Services area

Date of Field Visit: 6 January 2015 Time of Day: 11:30 am
Weather: Partly sunny with fog, 47°F Site conditions: Inland, suburban, low-rise
Site Contacts: Sara Singer, City of Tualatin
 Clayton Reynolds, City of Tualatin

General Building Description:

The facility is a single-story structure originally built originally built in 1980 as a maintenance/ service garage. The facility was converted to Lunch Room, Classroom and Storage for Public Works use in 2004, and the Information Services Department was moved into the building in renovated former Storage space in 2011. The facility is located in the southwest corner of a large property shared with other Public Works buildings, vehicle parking and storage lots. The overall Public Works property is bound by SW Herman Road to the south, a commercial, temporary storage facility to the north, SW 108th Avenue to the west, and a commercial warehouse facility to the east. This assessment is focused on only that area of the building currently hosting Information Services Department in the northern-most bay of the building.

The building is a 1-story building of concrete masonry unit walls at building corners and between the original maintenance bay entrances on concrete foundation and slab-on-grade. Infill walls are wood- or metal-framed with T1-11 pattern exterior plywood. A steel structural frame appears to have been added in a previous renovation (observed from within the Server area). Main entry orientation is to the south from parking lot; 1 floor; no elevator; fire suppression not provided, adjacent streets are Southwest Herman Road and Southwest 108th Avenue, adjacent buildings are other City of Tualatin Public Works facilities and commercial buildings. General condition is good and well maintained. Location of the Information Services space is the north end of the building, occupying the northern-most bay of the former maintenance garage.

The City has located the Information Services space to this building, with restrooms outside of the area used for Information Services. The building generally meets ADA (refer to comments); the main entry is accessible.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)	
Item	Comments/Findings
A10.1	General condition <ul style="list-style-type: none"> • CIP concrete foundation appeared to be in good shape
Recommendations	
A10.1.1 Monitor concrete foundations for cracking or other signs of settlement	

A20 – SUBGRADE ENCLOSURES (basements, etc)	
Item	Comments/Findings
A20.1	General condition <ul style="list-style-type: none"> • No basement or crawlspace
Recommendations	
A20.1 - None	

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)	
Item	Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code <ul style="list-style-type: none"> • Drawings indicate added steel structural frame, CMU pier upgrade/ enlargements, bracing at existing roof framing, and partial-height CMU infill in bay openings of west wall • Drawings indicate that structure designed to the following: <ul style="list-style-type: none"> ○ UBC 1997 with Oregon amendments; seismic zone III ○ Roof load: 25 PSF snow load per OSSC ○ Allowable soil bearing pressure: 1500 PSF ○ Wind: 80 MPH, Exposure B
B10.2	Visible Gravity System <ul style="list-style-type: none"> • CMU corners and piers support glue-laminated timber beams and wood joists • A steel structural frame and steel and glue-laminated wood roof framing were added in 2004 renovation
B10.3	Visible Lateral System <ul style="list-style-type: none"> • CMU corners and piers with partial CMU infill between piers at the rear (West) side provide lateral resistance. • It is not known whether the CMU corners and piers are adequately connected, reinforced, or grouted to meet Code requirements for lateral resistance

B10.4	Building Exterior	<ul style="list-style-type: none"> • Exterior walls are exposed CMU structure and infill at the original building, split-faced CMU piers and infill at the 2004 addition; original, exposed T1-11 exterior plywood is used for infill areas between CMU piers; all original building surfaces have painted finish; split-faced CMU (2004) may have a sealer applied • There was no evidence of rot or movement of exterior walls • Roof drainage system was not observed; appears to be internal as no exterior gutters, scuppers or leaders are visible • Adjacent to the north side of the building there is an original wood-framed canopy over a refueling island, supported on CMU piers; this canopy slopes toward and is guttered at the side away from the building
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> • Original function was as maintenance garage; current function of offices is allowable due to the single-story, small footprint of the facility, and presence of multiple egresses

Recommendations

B10.1	None
B10.2	None
B10.3	None
B10.4.1	Confirm roof drainage system at the main building and ensure routine cleaning and review plan is in-place for on-going maintenance.
B10.5	None

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)

Item	Comments/Findings	
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> • Exterior CMU has been maintained well • Exterior plywood siding is painted has been maintained relatively well • Exterior metal flashings appear to be in good condition
B20.2	Type and condition of window system	<ul style="list-style-type: none"> • Exterior windows at rear (west) facade are aluminum double-glazed windows installed in 2004 renovation; at the Information Services space these have been covered-over on the exterior side with rigid, foil-faced, extruded polystyrene insulation/ sheathing held in place with wire

		<ul style="list-style-type: none"> Exterior windows at 2004 addition are commercial aluminum storefront systems with double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> Roof drainage appears to be internal; it appears that storm water is being removed from the roof top appropriately (no external signs of overflow were observed)

Recommendations

B20.1.1	Observe and maintain field-painted finish at exterior surfaces; review condition of exterior plywood siding on regular basis for rot, delamination, etc.
B20.2	None
B20.3.1	Refer to B10.4

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)

Item	Comments/Findings	
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roof access was not available; City staff reported flat roof deck with new gypsum sheathing and single-ply PVC membrane, installed in 2004 Exterior metal roof edge, fascia and flashings appear to be in good condition
B30.2	Other issues	<ul style="list-style-type: none"> None

Recommendations

B30.1.1	Continue observation and maintenance.
B30.2	None

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY

Item	Comments/Findings	
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> Wall between Information Services and remainder of building was originally added in 2004 renovation to separate Storage area from Classroom and Lunch Room; indicated as 6-inch metal stud-framed/ GWB-sheathed 'Demising Wall' on Drawings While this wall meets code requirements, it may not provide the level of fire separation desired by the Owner for the sensitive equipment and operations handled by the facility
C10.3	Atrium	<ul style="list-style-type: none"> N/A

C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> • Renovation in 2004 provided accessibility at front entry entry/ egress location • Ramp added in 2004 provides accessible transition to adjacent building where restrooms and other functions are located • Automatic door operator is not provided • Restroom accessibility was not observed; Drawings indicate renovations were made for accessibility; stall appears to be 'ambulatory accessible' (standard width, with grab rails) rather than '(wheelchair) accessible' (60-inch width with grab rails) • Kitchenette was not observed; Drawings indicate renovations were made for accessibility at sink and dishwasher
C10.5	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C10.1	None	
C10.2.1	Consider renovations to improve the fire resistance of the separation wall, by the addition of layer(s) of gypsum wallboard and insulation, fire caulk, and head closure insulation and sheathing	
C10.3	None	
C10.4	None	
C10.5	None	

C20 –EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	<ul style="list-style-type: none"> • N/A
C20.2	Exit stair continuity and integrity	<ul style="list-style-type: none"> • N/A
C20.3	Exit corridor continuity and integrity	<ul style="list-style-type: none"> • Continuity adequate; integrity N/A • Exit distances adequate
C20.4	(High Rise) Stairway door operation	<ul style="list-style-type: none"> • N/A
C20.5	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> • Wall finishes in Information Services office space are painted gypsum wallboard; wall finishes in the Information Services Server

		<p>space are painted gypsum wallboard and exposed CMU without apparent sealer</p> <ul style="list-style-type: none"> • Floor finishes in Information Services office space are carpet tile; flooring in the Information Services Server space appears to be electro-static dissipative-type (ESD) vinyl tile; flooring in the Lobby is vinyl tile; all flooring appears to be in good condition • Ceiling finishes are acoustic ceiling tile, with exposed areas of roof deck in Server space
C30.2	Locations and cause of water intrusion/ leaks	<ul style="list-style-type: none"> • There was no observed evidence of leakage • An exterior louver at the north side does not appear to be used any longer; staff noted that it was capped on the inside
C30.3	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C30.1	None	
C30.2.1	Confirm adequate closure of louver from the interior, to avoid damage from moisture in a rain storm or high wind event. It is recommended to remove the disused louver and close the opening from the exterior to avoid the introduction of moisture into the wall cavity or the interior space.	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	<ul style="list-style-type: none"> • N/A
D10.2	Status of inspections, who maintains the elevator	<ul style="list-style-type: none"> • N/A
D10.3	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> • Water service is not provided within the Information Services spaces; water service is provided for other areas accessory to Information Services area; service at other locations was not observed
D20.2	Distribution piping material	<ul style="list-style-type: none"> • Not known
D20.3	Drain and vent system	<ul style="list-style-type: none"> • Not known

D20.4	Fixture condition	<ul style="list-style-type: none"> Fixtures are not provided within the Information Services spaces Restrooms in the building are accessory to Information Services areas (not located in the spaces)
D20.5	Water pressure	<ul style="list-style-type: none"> Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> Not observed; Drawings indicate roof drainage to scuppers and downspouts to grade
D20.7	Water heater system	<ul style="list-style-type: none"> Accessory to Information Services areas (not located in the space) New water heater unit indicated to be added in 2004 renovation Drawings was not observed
D20.8	Other issues	<ul style="list-style-type: none"> None

Recommendations

D20.1	None as assumed to meet Code at original construction (1980)
D20.2	Refer to D20.1
D20.3	Refer to D20.1
D20.4	None
D20.5	None
D20.6	None
D20.7.1	Review condition of 2004-installed water heater (10 years old)

D30 - HVAC

Item		Comments/Findings
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> None
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> None
D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> Unit serving the Information Services office area was not observed; Drawings indicate RTU-3 added in 2004 renovation, rooftop-mounted on manufacturer's metal-framed curbs; additional unit above Information Services office area serves the entry Hallway area Unit serving the Information Services Server area is split system with variable speed compressor unit within the Server room; condenser unit is presumed to be rooftop-mounted
D30.5	Air filtration	<ul style="list-style-type: none"> Not observed for the roof top unit serving the Information Services office area

		<ul style="list-style-type: none"> Filtration is at the compressor unit within the Server room, but was not reviewed for cleanliness
D30.6	Equipment accessibility	<ul style="list-style-type: none"> Unit serving the Information Services office area was not observed; Drawings indicate access via external ladders Split system compressor unit serving the Information Services Server area is accessible with ladder; the rooftop condenser unit was not observed
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> Unit serving the Information Services office area was not observed Split system unit serving the Information Services Server area has a collection reservoir and pump which sends condensate into the ceiling cavity; disposal location was not observed; refer to Figure D30.7
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Refer to D30.7
D30.9	Mold issues	<ul style="list-style-type: none"> No evidence seen
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> At the Information Services office area, supply is ducted through plenum; Return is open plenum At the Information Services Server area a split system compressor unit serves the room directly
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> Not observed
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> It was not observed that the unit serving the Information Services office area provides fresh air/ outside air Fresh air/ outside air is not provided by the Server room split system; on day of observation, door to Server area was held open though it was not clear that this was done regularly
D30.13	Restroom ventilation	<ul style="list-style-type: none"> Accessory to Information Services areas (not located in the space) Fans and controls were not observed
D30.14	Custodial ventilation	<ul style="list-style-type: none"> N/A
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> Accessory to Information Services areas (not located in the space) Drawings indicate residential-type range exhaust hood ducted to roof vent Fans and controls were not observed
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Not observed

D30.17	Duct materials	<ul style="list-style-type: none"> • Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> • At the Information Services office area, a programmable thermostat (non-zoned) is provided • At the Information Services Server area, a programmable thermostat (non-zoned) is provided
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> • Engine-generator set is accessory to Information Services areas and shared with other Public Works buildings on the property • It is not located near the building housing Information Services
D30.20	Cooling system	<ul style="list-style-type: none"> • Refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> • N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> • Not known
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> • Staff reported that there are exhaust fans in the restrooms that continuously operate and that there is a working range hood in the kitchen area
D30.24	Heating System	<ul style="list-style-type: none"> • Refer to D30.4 • At the Information Services Office area, supply registers were providing conditioned air at 73-74 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> • At the Information Services Server area, the split system was providing conditioned air at 63 degrees F. • Drawings indicate existing unit heater remained in the space following 2004 renovation (northwest corner of Server room); it is not clear what heat source is (gas or electric); the unit was not observed • For other issues, refer to articles in this section for Information Services Server area
D30.26	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D30.1	None	
D30.2	None	
D30.3	None	
D30.4	None	
D30.5.1	Confirm condition and regular maintenance of filtration at all units	
D30.6	None	
D30.7.1	Consider review of potential for gravity-fed condensate drainage to avoid damage due to failure of condensate pump and overflow of reservoir	
D30.8	None	

D30.9	None
D30.10	None
D30.11	None
D30.12.1	Review HVAC system serving Information Services Office area for outside air delivery
D30.13	None
D30.14	None
D30.15	None
D30.16	None
D30.17	None
D30.18	None
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23	None
D30.24	None
D30.25.1	It is suggested that a secondary/ back-up cooling system be considered for the Server room
D30.26	None

D40 – FIRE PROTECTION		
Item		Comments/Findings
D40.1	Fire suppression system	<ul style="list-style-type: none"> • Not provided
D40.2	Water service, backflow prevention	<ul style="list-style-type: none"> • N/A
D40.3	System pressure	<ul style="list-style-type: none"> • N/A
D40.4	Standpipes	<ul style="list-style-type: none"> • N/A
D40.5	Fire pump	<ul style="list-style-type: none"> • N/A
D40.6	Fire sprinkler pipe condition	<ul style="list-style-type: none"> • N/A
D40.7	FDC	<ul style="list-style-type: none"> • N/A
D40.8	Fire sprinkler zoning	<ul style="list-style-type: none"> • N/A
D40.9	Flow monitoring and alarm	<ul style="list-style-type: none"> • N/A
D40.10	On-site water source	<ul style="list-style-type: none"> • N/A
D40.11	Test records	<ul style="list-style-type: none"> • N/A
D40.12	Condition of fire hose or fire extinguishers	<ul style="list-style-type: none"> • Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguisher provided in space appears to be a Water Mist-type extinguisher, appropriate for type A (ordinary combustibles) and type C (energized electrical) fires; extinguisher was observed to have up-to-date inspection
D40.13	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D40.1	None	
D40.2	None	

D40.3	None
D40.4	None
D40.5	None
D40.6	None
D40.7	None
D40.8	None
D40.9	None
D40.10	None
D40.11	None
D40.12.1	Confirm extinguisher type is appropriate for Server room equipment and the City's data/information protection protocol
D40.13	None

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> • Not observed
D50.2	Equipment grounding	<ul style="list-style-type: none"> • Not observed
D50.3	Lightning protection	<ul style="list-style-type: none"> • Not provided
D50.4	Overcurrent protection	<ul style="list-style-type: none"> • Not observed
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> • Not observed at Restrooms; accessory to Information Services areas (not located in the space)
D50.6	Rating of Panels	<ul style="list-style-type: none"> • Drawings indicate electrical information • Panels F and FA are indicated in 2004 renovation plans to serve the other spaces in this former maintenance garage (Classroom and Dining Room with kitchen); refer to Figure D50.6 <ul style="list-style-type: none"> ○ It is not known whether circuits or panels were added and/or revised when the Information Services spaces were added in 2011 ○ It appears that conduit was simply pulled from the bottom of panels F and FA to provide power to the server racks via wall outlets ○ It is presumed that power and circuits are adequate for the new loads ○ It is unclear that electrical fluctuations or other effects of machines or equipment in other spaces served by these panels could adversely affect the quality of power also provided to the server racks by these panels
D50.7	Peak load	<ul style="list-style-type: none"> • Refer to D50.6 for power from panels F and FA

D50.8	Overloading/overheating	<ul style="list-style-type: none"> • Not observed • Temperature readings from faces and doors of panels did not show heat; panels were not opened for temperature readings of circuit breakers
D50.9	Conductor insulation	<ul style="list-style-type: none"> • Not observed, but assumed that 2004 and 2011 installations met current Codes • All wiring is conduited where exposed within the Server space
D50.10	Conductor material	<ul style="list-style-type: none"> • Not observed, but assumed that 2011 installation meets current Code
D50.11	Main distribution equipment	<ul style="list-style-type: none"> • Not observed
D50.12	Equipment clearance	<ul style="list-style-type: none"> • Server rack-mounted equipment was observed to have good clearances for air flow and maintenance
D50.13	Disconnects	<ul style="list-style-type: none"> • Panels serving the Information Services area are located within the Server room; main building disconnects were not observed
D50.14	Transformers	<ul style="list-style-type: none"> • Not observed
D50.15	Data Center/UPS	<ul style="list-style-type: none"> • On-site engine-generator set provides on-demand back-up power • Internally rack-mounted UPS systems serve racks during power transfer events
D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> • Electrical and other wiring was not observed above acoustic ceiling • All electrical wiring is conduited where exposed within the Server space • Data wiring within the Server space was observed to plenum-rated
D50.17	Receptacles/sockets	<ul style="list-style-type: none"> • Receptacles were observed be grounded devices • It was not confirmed that grounded receptacles are actually connected to earth • It was observed that 'zip-ties' were used to restrain power cords from server racks to wall outlets in the Server room, indicating potential for past occurrences of tripping or other unintentional removal of power cord from receptacles; refer to Figure D50.17
D50.18	Lighting	<ul style="list-style-type: none"> • ACT recessed 2x4 fluorescent fixtures • Lighting levels where adequate
D50.19	Lighting Controls	<ul style="list-style-type: none"> • Switched at walls
D50.20	Back-up power	<ul style="list-style-type: none"> • Refer to D50.15 and D50.21

D50.21	Generator	<ul style="list-style-type: none"> Exterior trailer-mounted engine-generator set is provided; seamless continuity of service at times of power-loss was attested-to by IT staff on-site day of observation Semi-permanent installation and connection at separate Public Works building on-site (northwest of reviewed building), from which other buildings are served; refer to Figure D50.21
D50.22	Battery packs	<ul style="list-style-type: none"> Rack-mounted UPS; refer to D50.15
D50.23	Inverter	<ul style="list-style-type: none"> Rack-mounted UPS; refer to D50.15
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> Not observed; assumed to have been provided with 2011 renovation
D50.25	Emergency power system loads	<ul style="list-style-type: none"> Not known
D50.26	Egress path lighting	<ul style="list-style-type: none"> Not observed; assumed to have been provided with 2011 renovation
D50.27	Exit signage	<ul style="list-style-type: none"> Provided and appropriately located
D50.28	Other issues	<ul style="list-style-type: none"> None

Recommendations

- D50.1.1 Consider testing for grounding leakage.
- D50.2.1 Review requirements for necessary equipment to ensure proper grounding
- D50.3 None
- D50.4 None
- D50.5 None
- D50.6.1 The following should be reviewed for panels F and FA: Power draw for server racks and other connected devices is within limits; Quality of power provided to the server racks is not compromised by other connected devices
- D50.7.1 Review peak load requirements and confirm panels meet power needs.
- D50.8 None
- D50.9 None anticipated.
- D50.10 Refer to D50.9.
- D50.11 None
- D50.12 None
- D50.13 None
- D50.14 None
- D50.15 None
- D50.16 None
- D50.17.1 Confirm receptacles are connected to ground.
- D50.17.2 Consider other options to avoid tripping hazards, and if still necessary, to restrain power cords at wall outlets
- D50.18 None
- D50.19.1 Consider replacement of on-off switches with occupancy switches to save energy.
- D50.20 None
- D50.21 None
- D50.22 None

D50.23	None
D50.24	Confirm provision of separate emergency circuits in 2011 renovation
D50.25	None
D50.26	Confirm provision of egress path lighting in 2011 renovation
D50.27	None
D50.28	None

D60 –FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> • Provided; accessory to Information Services areas (not located in the space)
D60.2	Smoke detectors	<ul style="list-style-type: none"> • Smoke and heat detection provided
D60.3	Pull stations	<ul style="list-style-type: none"> • Provided appropriately
D60.4	Annunciation	<ul style="list-style-type: none"> • Provided
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> • Yes
D60.6	System monitoring	<ul style="list-style-type: none"> • Presumed to be monitored via control panel; control panel not observed
D60.7	Elevator recall	<ul style="list-style-type: none"> • N/A
D60.8	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D60.1	None	
D60.2	None	
D60.3	None	
D60.4	None	
D60.5	None	
D60.6.1	Confirm system monitoring	
D60.7	None	
D60.8	None	

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item		Comments/Findings
E10.1	Equipment anchorage	<ul style="list-style-type: none"> • Technology equipment is rack-mounted and appears to be properly secured • Water heater added in 2004 renovation was not observed; it is indicated to be restrained in Drawings
E10.2	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
E10.1	None	
E10.2	None	

G SITEWORK

G20 – SITE IMPROVEMENTS		
Item		Comments/Findings
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> Staff indicated site is not prone to flooding
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> Site is accessible, though accessible parking is not provided adjacent to the entry to the building near the Information Services area; users requiring accessible parking need to pass through the building after parking in the visitor lot Accessible parking is provided at the visitor lot; delineated, direct path to entry is provided without traversing traffic lanes; dedicated van parking is provided Drawings indicate concrete pad at building accessible entry (southeast corner, from visitor lot) may be too small for turning radius needs
G20.3	Site Security	<ul style="list-style-type: none"> Site has perimeter fence at all sides, gates to two main roads
G20.4	Hurricane resistance	<ul style="list-style-type: none"> N/A
G20.5	Access control	<ul style="list-style-type: none"> Punch key-coded alarm system within Information Services Office space; refer to Figure G20.5
G20.6	Adjacent property risks	<ul style="list-style-type: none"> Adjacent properties do appear to provide risks Information Services is directly adjacent to on-site fuel dispensing pumps and tanks present fire or explosion risk; building exterior finish at this location is not fire resistant (T1-11 plywood sheathing) Shared occupancy with other Public Works may provide opportunity for incidents or attack
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> Distance is adequate for Code-required separation
G20.8	Drainage issues	<ul style="list-style-type: none"> No issues were observed
G20.9	Other issues	<ul style="list-style-type: none"> None
Recommendations		
G20.1	None	
G20.2.1	Consider re-stripping pavement in the workers' parking lot near rear building entry (adjacent to Information Services) to provide an accessible parking space.	
G20.2.2	Consider enlarging existing small concrete entry stoop to accommodate 60-inch turning radius.	

G20.3	None
G20.4	None
G20.5	None
G20.6.1	In lieu of relocating the fuel dispensing island, consider removal of plywood siding and replacement with non-combustible finish material, e.g. metal siding
G20.7	None
G20.8	None.
G20.9	None

G30 – LIQUID AND GAS SITE UTILITIES		
Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> • Irrigation system not observed; accessory to Information Services areas • Underground fuel storage is present on the site for dispensing at pumps adjacent to the Information Services building; City staff noted the following: <ul style="list-style-type: none"> ○ Two 10,000 gallon unleaded tanks and one 2000 gallon diesel were installed in 1980 ○ The tanks were dug out, inspected and relined 4 years ago (~2010) ○ The tanks have cathodic protection and a leak detection monitoring system • Diesel fuel storage for engine-generator set is trailer-mounted base tank; no underground tank was observed
Recommendations		
G30.1 None		

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> • Operation of site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1 Review site lighting functionality when illuminated		

INDEX TO FIGURES

Figure B30.1A	CMU corners and between former maintenance bays; T1-11 exterior plywood infill at front of building; split-faced CMU and aluminum storefront windows added for lobby
Figure B30.1B	CMU corners and between former maintenance bays; T1-11 exterior plywood and CMU infill at rear of building; insulation added over west-facing windows (from Server room)
Figure B30.1C	Louver at north is disused, staff noted that capped at interior
Figure C30.1	Interior finishes at IT space
Figure D30.7	Split system HVAC at Server room; condensate pumped to disposal thru plenum
Figure D40.12	Water mist extinguisher
Figure D50.6	Panels F and FA for power to server racks and potentially devices/ loads in other spaces
Figure D50.17	Potential trip hazard at power cords from server racks to wall outlets
Figure D50.21	Trailer-mounted engine-generator set with base tank
Figure G20.5	Punch key-coded alarm system within Information Services Office space



Figure B30.1A CMU corners and between former maintenance bays; T1-11 exterior plywood infill at front of building; split-faced CMU and aluminum storefront windows added for lobby



Figure B30.1B CMU corners and between former maintenance bays; T1-11 exterior plywood and CMU infill at rear of building; insulation added over west-facing windows (from Server room)



Figure B30.1C Louver at north is disused, staff noted that capped at interior



Figure C30.1 Interior finishes at IT space



Figure D30.7 Split system HVAC at Server room; condensate pumped to disposal thru plenum



Figure D40.12 Water mist extinguisher



Figure D50.6 Panels F and FA for power to server racks and potentially devices/ loads in other spaces

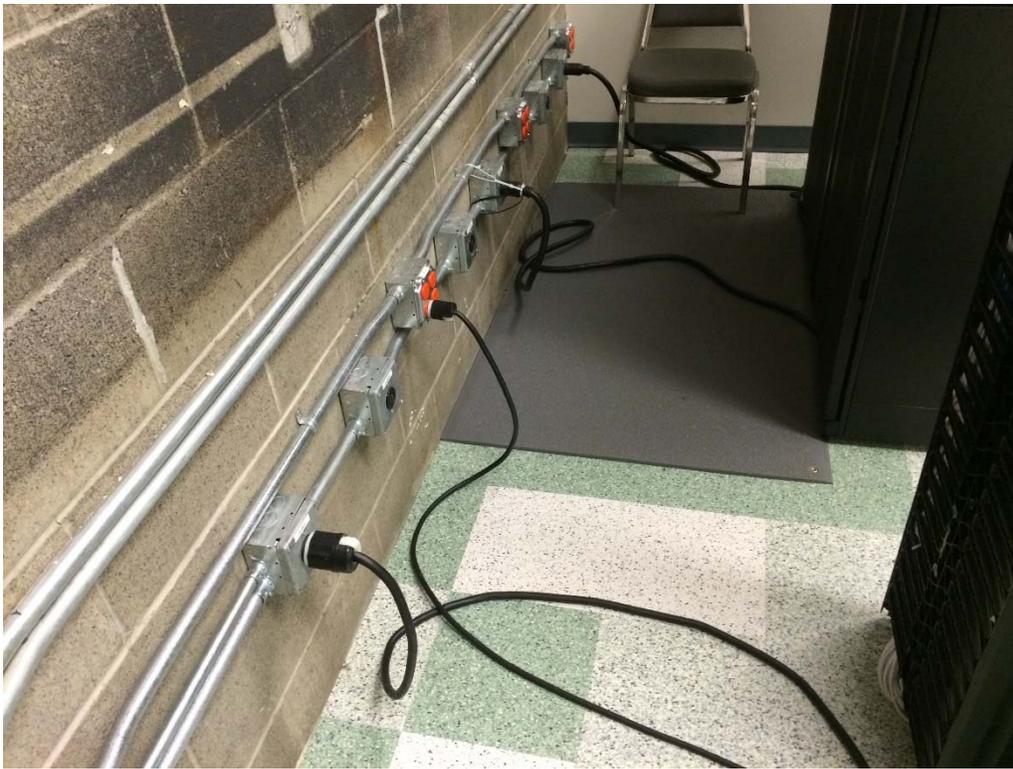


Figure D50.17 Potential trip hazard at power cords from server racks to wall outlets



Figure D50.21 Trailer-mounted engine-generator set with base tank



Figure G20.5 Punch key-coded alarm system within Information Services Office space

END OF REPORT

Lafky House

8511 Southwest Tualatin Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Front Entry (south)



Rear Elevation (north)



Side Elevation (east)



Side Elevation (west)

Date of Field Visit:	6 January 2015	Time of Day:	10:00 am and 3:30 pm
Weather:	Partly sunny with fog, 47°F	Site conditions:	Inland, suburban, low-rise
Site Contacts:	Sara Singer, City of Tualatin Clayton Reynolds, City of Tualatin		

General Building Description:

The facility is a single-story structure, formerly single-family residence. The facility's property is bound by a private access drive to the south, the Tualatin River to the north, another City building (former residence) to the west, and another City building, the Tualatin Senior Center to the east. The building appears to have been constructed in the 1960's or 1970's and renovated in the 2000's.

The building is a 1-story wood frame building on concrete foundation, over a crawl space. The façade is a wood-framed wall clad in wood shakes. Orientation is to the south; 1 floor; no elevator; no fire suppression, adjacent street is Southwest Tualatin Road, adjacent buildings are other City of Tualatin facilities. General condition is good and well maintained; except roofing appeared to be near end of life cycle.

Due to the demolition of the former City offices, the City relocated the finances department to this full building, utilizing previous bedrooms as offices. Staff is also located in the former living room and kitchen/ dining areas. Restrooms have not been renovated to meet ADA; accessible entry is available from the rear. The garage is used for storage of furniture and equipment for City Council meetings held in the adjacent Tualatin Senior Center/ Pohl Building

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> CIP concrete foundation kneewalls appeared to be in good shape
Recommendations		
A10.1.1 Monitor kneewalls for cracking or other signs of settlement		

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> No basement; interior of crawlspace was not observed
Recommendations		
A20.1.1 Confirm crawlspace has been insulated to meet Code		

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> As-built documents were not available
B10.2	Visible Gravity System	<ul style="list-style-type: none"> It is assumed that the building is wood-framed
B10.3	Visible Lateral System	<ul style="list-style-type: none"> It is assumed that shear forces are managed by diagonal wood-framing and/ or sheathing and by the roof diaphragm. It was not observed that the building has adequate connection to the foundations; likely does not meet Code due to change of occupancy/ use
B10.4	Building Exterior	<ul style="list-style-type: none"> There was no evidence of rot or movement of exterior framed walls; exterior wood shake cladding is painted and has been maintained well. Attic vents were observed to be clean and insect free.
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Original function was as single-family residence; current function is as office space. It was observed that at several locations, storage and shelving may be imposing loads

		that could be in excess of design loads; the crawlspace was not accessed in order to confirm locations of structure.
Recommendations		
B10.1	None	
B10.2	None	
B10.3.1	It should be confirmed whether during previous re-roofings additional plywood sheathing was added to improve diaphragm strength; this could be provided in upcoming re-roofing (refer to B10.4).	
B10.3.2	It should be confirmed whether Code required anchorage of wall framing and sill plates was required for the change of occupancy/ use from single-family residential to commercial office; this could be added.	
B10.4	None	
B10.5.1	It should be confirmed that locations currently bearing large furniture or file storage loads are adequately supported on structure below. It is recommended that loads be minimized and distributed where they are in the middle of rooms or not adjacent to major structural support below the floor.	

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior wood shake cladding is painted and has been maintained well.
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Horizontal sliding windows appear to be original aluminum-framed, single-glazed residential quality. No evidence of rot or moisture intrusion was observed.
B20.3	Other issues	<ul style="list-style-type: none"> Overhangs are deep and appropriate for local climate. Gutters and downspouts appear to be clean and removing water appropriately, however splash blocks adjacent to the foundation walls do not function to carry water away from the structure, potentially leading to crawlspace moisture problems. The building’s original foundation drainage system, if it exists, is likely non-functional now (segmented concrete drain tiles common in 1960’s and 1970’s are prone to soil intrusion and clogging, breakage during back-filling, and damage due to plant and tree roots).
Recommendations		
B20.1	None	
B20.2	None	
B20.3.1	It is recommended to add extensions to the ends of downspouts to transport stormwater away from the foundations.	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roofing is three-tab asphalt shingles, which may be near the end of its life-span (10-15 years). It was observed that moss has grown on the north side. Refer to Figure B30.1.
B30.2	Other issues	<ul style="list-style-type: none"> Flashings, vents, etc. all appear in acceptable condition. Access to the roof was not available; observations were made from the ground level.
Recommendations		
B30.1.1	Confirm age and life-span remaining for existing roofing; replace if necessary, possibly adding a layer of plywood sheathing if required to improve the structure's lateral force resistance (refer to B10.3). Replacement roofing with metal roofing system has been proposed in the City's Capital Improvement Plan.	
B30.2.1	Monitor conditions of flashings, vents, gutters, downspouts, etc.; recommend investigation for replacement as necessary at next reroofing.	

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> N/A
C10.3	Atrium	<ul style="list-style-type: none"> N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Not accessible at front entry; rear entry is accessible, however storage of water bottles impedes clearance required for wheelchair access to door. Refer to Figure C10.4A. One restroom has been made accessible. Refer to Figure C10.4B. Turning radius restrictions at end of hallway to offices (former bedrooms)
C10.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	
C10.4	Find alternate location for storage of water bottles to improve accessibility.	
C10.5	None	

C20 –EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	• N/A
C20.2	Exit stair continuity and integrity	• N/A
C20.3	Exit corridor continuity and integrity	• Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation	• N/A
C20.5	Other issues	• None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> • Wall finishes are painted GWB, except some locations are wood veneer paneling • Floor finishes are original oak wood T&G strip flooring with clear finish, except at kitchen and restrooms, flooring is sheet vinyl; all flooring is in good condition • Ceiling finishes are painted GWB • Cabinetry in kitchens and restrooms is original veneer plywood with clear finish
C30.2	Locations and cause of water intrusion/ leaks	• None were observed
C30.3	Other issues	• None
Recommendations		
C30.1	None	
C30.2	None	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	• N/A
D10.2	Status of inspections, who maintains the elevator	• N/A
D10.3	Other issues	• None
Recommendations		
D10.1	None	
D10.2	None	

D10.3 None

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> It is likely that original galvanized steel piping is releasing lead into tap water Provision of bottled water was observed
D20.2	Distribution piping material	<ul style="list-style-type: none"> Original galvanized steel
D20.3	Drain and vent system	<ul style="list-style-type: none"> Original galvanized steel and cast iron
D20.4	Fixture condition	<ul style="list-style-type: none"> One restroom has original porcelain; good condition Other restroom has newer fixtures to provide accessibility
D20.5	Water pressure	<ul style="list-style-type: none"> Adequate
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> Located in garage Electric Rheem-brand water heater appears to have been manufactured in September of 1983 (month 09, year 83; refer to Figure D20.7); over 31 years old
D20.8	Other issues	<ul style="list-style-type: none"> None

Recommendations		
D20.1.1	Consider replacement of original galvanized steel piping with copper or PEX plumbing lines	
D20.2.1	Refer to D20.1	
D20.3	None	
D20.4	None	
D20.5	None	
D20.6	None	
D20.7.1	Due to storage of furniture and equipment in garage, monitor existing 31 year-old water heater for leaks on a regular basis. Alternately, consider replacement with new smaller or on-demand unit that will be sufficient for office hot water needs while reducing overhead and removing danger of a leak damaging other property. Alternately, a leak detection system could be added, though this may be cost-prohibitive.	

D30 - HVAC		
Item		Comments/Findings
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> None
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> None
D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> Located in garage

		<ul style="list-style-type: none"> Carrier-brand cooling coil component mounted above AHU is indicated to have been manufactured in February of 2011 (refer to Figure D30.4), suggesting similar age for the system; 4 years old
D30.5	Air filtration	<ul style="list-style-type: none"> Filtration is at return air grill in ceiling; appears to be clean suggesting regular maintenance
D30.6	Equipment accessibility	<ul style="list-style-type: none"> Good, though storage at garage could impede on area adjacent to unit
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> Condensate is pumped away; disposal location not observed With pumped systems, there is risk of pump failure and leak of condensate into garage area, threatening storage of furniture and equipment
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Refer to D30.7
D30.9	Mold issues	<ul style="list-style-type: none"> Not observed
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> Supply is ducted through attic; likely this is an uninsulated space Return is ducted through attic; likely this is an uninsulated space
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> N/A
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> No mechanical outside air provision is made Windows are operable
D30.13	Restroom ventilation	<ul style="list-style-type: none"> Electric recessed ceiling-mounted fans Controlled by users with wall switches
D30.14	Custodial ventilation	<ul style="list-style-type: none"> N/A
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> None except operable windows
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Foil-facing
D30.17	Duct materials	<ul style="list-style-type: none"> Observed ducts within garage are foil-faced fiberglass round flexible duct; similar assumed for attic ductwork (not observed)
D30.18	HVAC controls	<ul style="list-style-type: none"> Single thermostat is located at end of hall near open office space (former living room) Thermostat appears to be a Honeywell 4-mode/ 7-day model, but appears to be used in single-mode function
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> N/A
D30.20	Cooling system	<ul style="list-style-type: none"> AHU provides cooling by top-mounted coil in up-flow arrangement, for attic-routed supply ducts

		<ul style="list-style-type: none"> Heat pump outdoor unit is located at west end of building Coolant lines appear to be routed through crawl space for approximately 50-60 feet
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> None; refrigerant is R-410A (contains only fluorine; does not contribute to ozone depletion)
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> None except at restrooms
D30.24	Heating System	<ul style="list-style-type: none"> Heating is provided by gas fired burners internal to the AHU Carrier model gas furnace 58STX110 is a low efficiency unit (80% AFUE) compared to others available at the time of purchase (90% to 97% AFUE). Unit is installed in up-flow arrangement, for attic-routed supply ducts Original electric resistance baseboard heaters remain in place but are not used; locally thermostat-controlled Supply registers were providing conditioned air at between 70 and 74 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> N/A
D30.26	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D30.1	None	
D30.2	None	
D30.3	None	
D30.4	None	
D30.5.1	Ensure continued regular maintenance	
D30.6.1	Consider application of painted lines on the floor indicating clearances required for maintenance and adequate ventilation	
D30.7.1	Consider removing condensate pump and routing condensate drainage line through crawl space to gravity-drain to the exterior. This can avoid risk of pump failure and potential for water damage.	
D30.8.1	Refer to D30.7	
D30.9	None	
D30.10.1	Consider investigating insulation condition at attic and potential to increase insulation. Also consider draping new insulation over supply and return ductwork to maintain interior temperature conditions within ductwork to improve efficiency and avoid cold blast (winter) or hot blast (summer) at fan start-up.	
D30.11	None	
D30.12	None	
D30.13	None	
D30.14	None	

D30.15	None
D30.16	None
D30.17	None
D30.18.1	Consider setting-up the programmable thermostat to take advantage of ability to provide automatic, time- and day-of-week-based control of the HVAC system.
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23	None
D30.24.1	For future replacements, it is recommended to review the procedures for procurement to include life cycle cost- and performance-based criteria alongside unit cost-based criteria.
D30.25	None
D30.26	None

D40 – FIRE PROTECTION		
Item		Comments/Findings
D40.1	Fire suppression system	<ul style="list-style-type: none"> • None
D40.2	Water service, backflow prevention	<ul style="list-style-type: none"> • N/A
D40.3	System pressure	<ul style="list-style-type: none"> • N/A
D40.4	Standpipes	<ul style="list-style-type: none"> • N/A
D40.5	Fire pump	<ul style="list-style-type: none"> • N/A
D40.6	Fire sprinkler pipe condition	<ul style="list-style-type: none"> • N/A
D40.7	FDC	<ul style="list-style-type: none"> • N/A
D40.8	Fire sprinkler zoning	<ul style="list-style-type: none"> • N/A
D40.9	Flow monitoring and alarm	<ul style="list-style-type: none"> • N/A
D40.10	On-site water source	<ul style="list-style-type: none"> • N/A
D40.11	Test records	<ul style="list-style-type: none"> • N/A
D40.12	Condition of fire hose or fire extinguishers	<ul style="list-style-type: none"> • Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguisher is located in kitchen adjacent to rear entry/ egress; observed to have up-to-date inspection
D40.13	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D40.1	None	
D40.2	None	
D40.3	None	
D40.4	None	
D40.5	None	
D40.6	None	
D40.7	None	
D40.8	None	
D40.9	None	

D40.10 None		
D40.11 None		
D40.12 None		
D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> • Not observed
D50.2	Equipment grounding	<ul style="list-style-type: none"> • Not observed
D50.3	Lightning protection	<ul style="list-style-type: none"> • None
D50.4	Overcurrent protection	<ul style="list-style-type: none"> • None
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> • Not observed
D50.6	Rating of Panels	<ul style="list-style-type: none"> • Panel rating not known • Pushmatic Load Center model panel is original 1960's or 1970's era push-button type • 20 circuits, though 14 have been combined for seven 220 volt circuits; four of these 220 volt circuits are assumed to be unused as originally provided for baseboard heat • Note that on this model of panel, the upper bus may remain energized even when the circuit breaker labeled "Main" is turned-off for circuits below
D50.7	Peak load	<ul style="list-style-type: none"> • Not known; it is likely that the original panel which was intended to manage multiple baseboard heat circuits is sufficient for current loads
D50.8	Overloading/overheating	<ul style="list-style-type: none"> • None observed; panel face temperature was similar to room temperature (65 degree F)
D50.9	Conductor insulation	<ul style="list-style-type: none"> • No access to attic, thus not observed
D50.10	Conductor material	<ul style="list-style-type: none"> • No access to attic, thus not observed
D50.11	Main distribution equipment	<ul style="list-style-type: none"> • None except residential-grade panel; refer to D50.6
D50.12	Equipment clearance	<ul style="list-style-type: none"> • Good, though storage at garage could impede on area adjacent to unit
D50.13	Disconnects	<ul style="list-style-type: none"> • None except at residential-grade panel; refer to D50.6 • Refer to D50.6 for note about caution for this type of panel
D50.14	Transformers	<ul style="list-style-type: none"> • None
D50.15	Data Center/UPS	<ul style="list-style-type: none"> • None
D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> • None

D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> • Receptacles were observed to have been upgraded to grounded devices • It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	<ul style="list-style-type: none"> • Original incandescent bulb ceiling fixtures have been replaced with 4-foot fluorescent tube fixtures
D50.19	Lighting Controls	<ul style="list-style-type: none"> • Switched at walls; standard on-off switches
D50.20	Back-up power	<ul style="list-style-type: none"> • None
D50.21	Generator	<ul style="list-style-type: none"> • None
D50.22	Battery packs	<ul style="list-style-type: none"> • None
D50.23	Inverter	<ul style="list-style-type: none"> • None
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> • None
D50.25	Emergency power system loads	<ul style="list-style-type: none"> • None
D50.26	Egress path lighting	<ul style="list-style-type: none"> • None
D50.27	Exit signage	<ul style="list-style-type: none"> • None
D50.28	Other issues	<ul style="list-style-type: none"> • None

Recommendations

- D50.1.1 Consider testing for grounding leakage.
- D50.2.1 Review requirements for necessary equipment to ensure proper grounding (e.g. photocopier)
- D50.3 None
- D50.4 None
- D50.5.1 Confirm presence of GFCI receptacles in restrooms and kitchen.
- D50.6.1 It is suggested to replace older, push button-type, residential-grade with up-to-date panel; disconnect disused circuits (e.g. baseboard heaters, kitchen range).
- D50.7.1 Assess peak load requirements and confirm panel meets needs. Confirm individual circuits, and consider providing a dedicated circuit for the photocopier.
- D50.8 None.
- D50.9.1 Conductor material and insulation should be reviewed; wiring with indications of deterioration, wear, overheating or pest damage should be replaced.
- D50.10.1 Refer to D50.9.
- D50.11.1 Refer to D50.6.
- D50.12.1 Consider application of painted lines on the floor indicating clearances required for maintenance.
- D50.13 Refer to D50.6.
- D50.14 None
- D50.15 None
- D50.16 None
- D50.17.1 Confirm grounded receptacles are indeed connected to earth; Review potential to route new wiring where required if ground is not provided.
- D50.18 None
- D50.19.1 Consider replacement of on-off switches with occupancy switches to save energy.
- D50.20 None

D50.21	None
D50.22	None
D50.23	None
D50.24	None
D50.25	None
D50.26.1	Consider addition of battery pack-powered emergency lighting fixtures, e.g. “bug-eye”-type at appropriate locations to adequately illuminate the egress path
D50.27.1	Consider addition of battery pack-powered emergency egress fixtures at appropriate locations to direct to exits
D50.28	None

D60 –FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> • None
D60.2	Smoke detectors	<ul style="list-style-type: none"> • Local, battery-operated residential type
D60.3	Pull stations	<ul style="list-style-type: none"> • None
D60.4	Annunciation	<ul style="list-style-type: none"> • None except by residential-type smoke detectors
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> • No
D60.6	System monitoring	<ul style="list-style-type: none"> • No
D60.7	Elevator recall	<ul style="list-style-type: none"> • N/A
D60.8	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D60.1.1	If City intends long term ownership and use as offices, it is suggested that a small building-scale monitoring and notification system be installed, possibly combined with an intrusion/ security system	
D60.2.1	Ensure regular testing and maintenance of residential-type smoke detectors. New system would replace new hard-wired, monitored detection devices (refer to D60.1)	
D60.3	None, though new system could provide hard-wired, monitored pull-type notification devices (refer to D60.1)	
D60.4	None, though new system could provide annunciation devices (refer to D60.1)	
D60.5	None	
D60.6	None, though new system could provide fire department notification (refer to D60.1)	
D60.7	None	
D60.8	None	

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item		Comments/Findings
E10.1	Equipment anchorage	<ul style="list-style-type: none"> • Water heater is not restrained for seismic forces as currently required by Code.
E10.2	Other issues	<ul style="list-style-type: none"> • Baseboard heating units remain in place, along with thermostats, and potentially remain live.

Recommendations	
E10.1.1	Provide Code-required seismic restraint for water heater.
E10.2.1	Consider disconnection of baseboard heating circuits and labeling at the panel and removal of baseboard heating units and thermostats, or at a minimum disconnection of baseboard heating circuits and labeling at the panel and at the thermostat junction boxes.

G SITEWORK

G20 – SITE IMPROVEMENTS		
Item		Comments/Findings
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> • Yes • Most recent high water event was 1996
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> • Site is accessible, with parking located near rear door (accessible entry to building)
G20.3	Site Security	<ul style="list-style-type: none"> • None
G20.4	Hurricane resistance	<ul style="list-style-type: none"> • N/A
G20.5	Access control	<ul style="list-style-type: none"> • None except standard door hardware • Building has security system
G20.6	Adjacent property risks	<ul style="list-style-type: none"> • None
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> • Distance is adequate for Code-required separation
G20.8	Drainage issues	<ul style="list-style-type: none"> • It was observed that work to provide at-grade entry at the rear (north) side has resulted in soil and topping to be close or in contact with wood shake siding, which may be a route for moisture migration and rot. Refer to Figure B20.1.
G20.9	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
G20.1	None beyond removal of important records and materials from this site due to flood risk.	
G20.2	None	
G20.3	None	
G20.4	None	
G20.5	None	
G20.6	None	
G20.7	None	
G20.8.1	Soil and toppings should be cleared away from the edge of the buildings foundation walls to maintain a minimum 4 inch gap between the top-of-grade and the bottom of exterior wood sidings.	
G20.9	None	

G30 – LIQUID AND GAS SITE UTILITIES		
Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> None
Recommendations		
G30.1 None		

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> None
Recommendations		
G40.1 None		

INDEX TO FIGURES

Figure B10.5A	Office functions impose loads differently than residential use
Figure B10.5B	Office functions impose loads differently than residential use
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Figure B30.1	Moss at north roof
Figure C10.4A	Storage of water bottles adjacent to accessible rear entry
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Figure D30.6	Air handler configuration; access compromised by storage
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Figure G20.8	Soil and topping in contact with siding at rear (north)



Figure B10.5A Office functions impose loads differently than residential use



Figure B10.5B Office functions impose loads differently than residential use



Figure B10.5C Office functions impose loads differently than residential use



Figure B10.5D Office functions impose loads differently than residential use



Figure B30.1 Moss at north roof

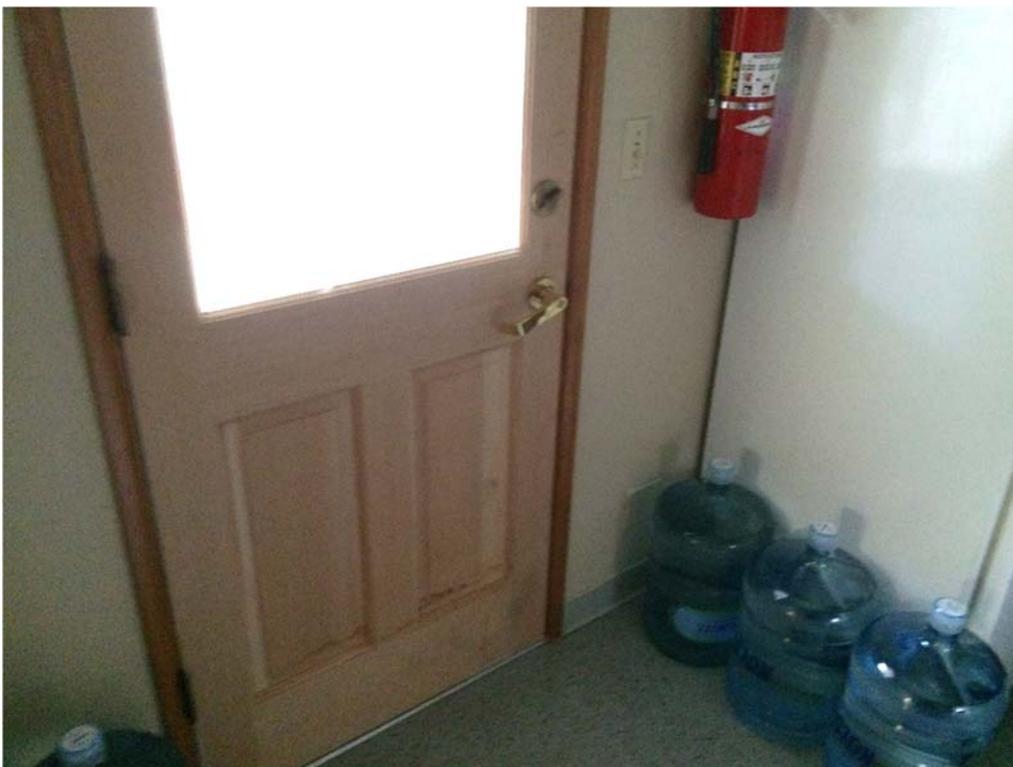


Figure C10.4A Storage of water bottles adjacent to accessible rear entry



Figure C10.4B Accessible restroom conversion from residential

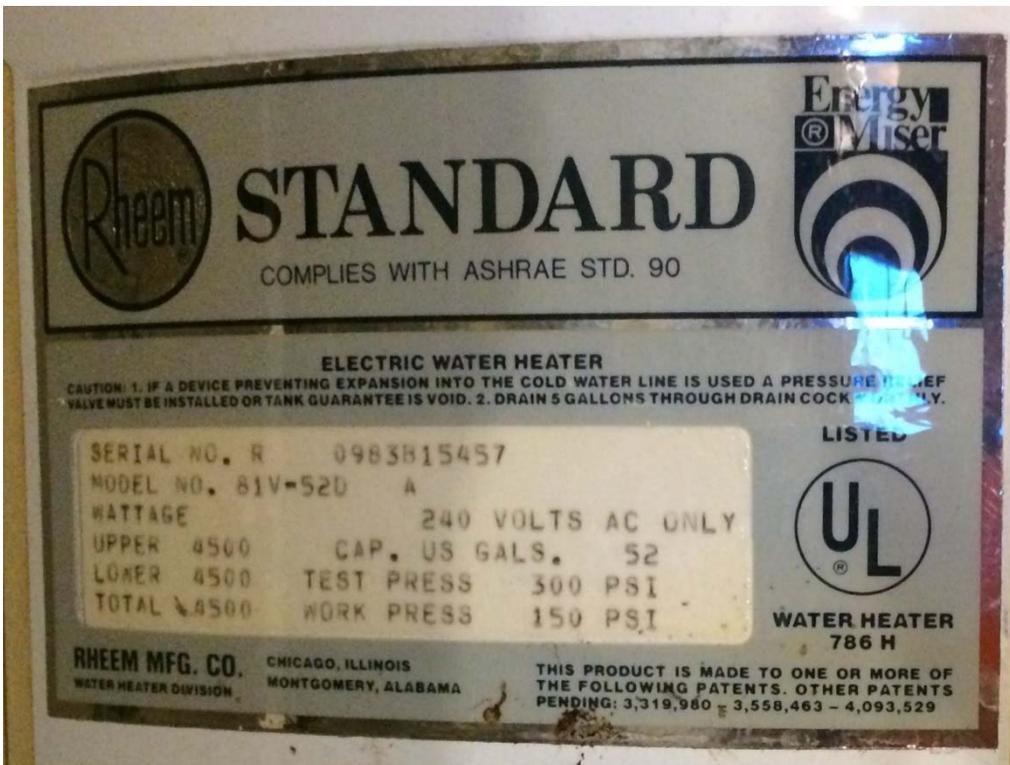


Figure D20.7 Water heater label

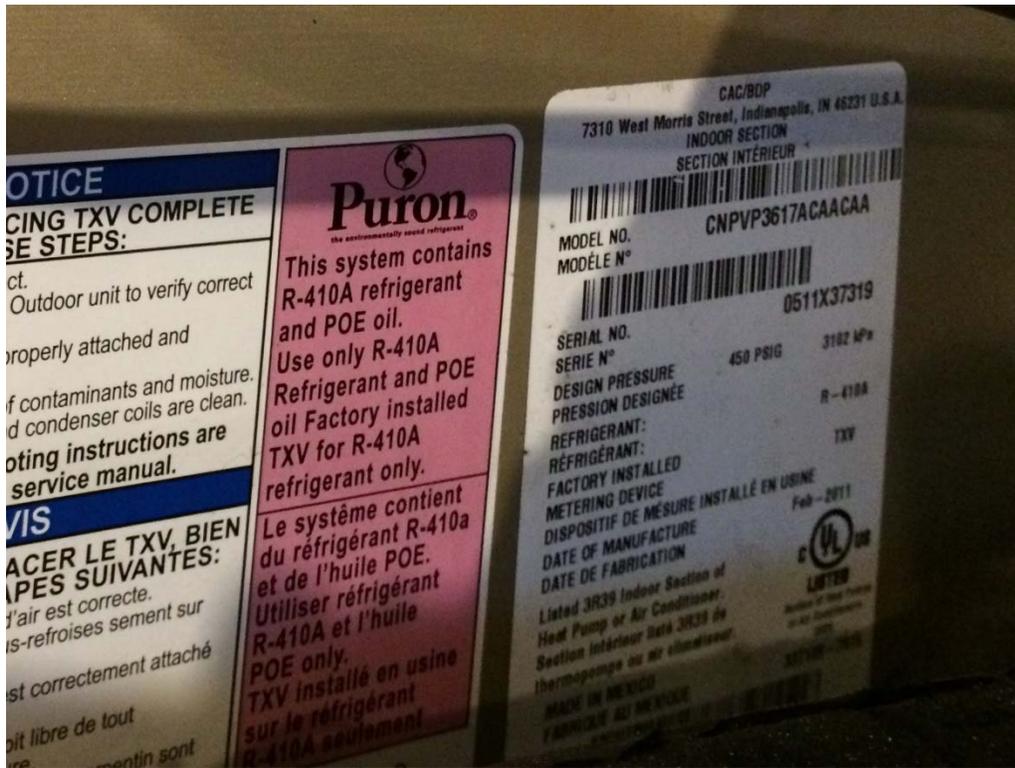


Figure D30.4 Air handler unit label



Figure D30.6 Air handler configuration; access compromised by storage



Figure D50.6 Original electrical panel with push button-type circuit breakers



Figure D60.2 - Local, battery-operated residential type smoke detectors



Figure E10.1 Water heater is not restrained for seismic forces



Figure G20.8 Soil and topping in contact with siding at rear (north)

END OF REPORT

City Offices Building and Tualatin Public Library

18878 Southwest Martinazzi Avenue, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Front Elevation (south) and entry to City Offices



Side Elevation (west)



Side Elevation (northwest)

Date of Field Visit:	6 January 2015	Time of Day:	9:00 am and 2:30 pm
Weather:	Partly sunny with fog, 47°F	Site conditions:	Inland, suburban, low-rise
Site Contacts:	Sara Singer, City of Tualatin Clayton Reynolds, City of Tualatin		

General Building Description:

The facility is comprised of one-story structure, housing the Tualatin Public Library and City offices for Legal, Information Services and Community Development. The facility's property is bound by SW Boones Ferry Road to the north, SW Martinazzi Avenue to the west, an newly added inter-block public/commercial circulation route to the south (the front of the building), and an inter-block public/commercial circulation route to the east (the rear of the building). The City offices portion of the building was constructed in 1985 and the Library was added in 2008. The addition of the Library required the demolition of the previous library structure in the same location. While no part of the original library remained in the new construction, significant portions of the City offices portion of the original building were retained and incorporated into the new facility, with renovations to most of those spaces.

The building is a one-story steel frame building. The façade is metal stud-framed wall clad in brick veneer and prefinished metal panel. Orientation is to the south for the entries of both the Library and City offices; no elevator is provided; fire suppression is provided. The building is well maintained and on good condition. This review was done for the entire building.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)	
Item	Comments/Findings
A10.1	General condition <ul style="list-style-type: none"> • CIP concrete foundation appeared to be in good shape
Recommendations	
A10.1.1	Monitor concrete foundations for cracking or other signs of settlement

A20 – SUBGRADE ENCLOSURES (basements, etc)	
Item	Comments/Findings
A20.1	General condition <ul style="list-style-type: none"> • No basement or crawlspace
Recommendations	
A20.1	None

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)	
Item	Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code <ul style="list-style-type: none"> • City Offices (1985): As-built documents indicate that the structural system is brick masonry exterior bearing walls and wood framing on concrete foundation and slab-on-grade; some grouted, large-format cellular brick and steel frame elements are indicated. Roof structure is wood glue-laminated beam and wood joists with plywood roof deck. Canopies are structural steel-framed • Library (2008): As-built documents indicate that the structural system is structural steel frame on concrete foundation and slab-on-grade. Roof structure is metal joists and metal roof deck. Canopies are structural steel-framed
B10.2	Visible Gravity System <ul style="list-style-type: none"> • Confirms systems indicated in drawings
B10.3	Visible Lateral System <ul style="list-style-type: none"> • City Offices (1985): As-built documents indicate that lateral system is combination of brick masonry walls, large-format cellular brick walls, and steel frame; while good connection details are indicated, they may not meet Code for current seismic category; efforts may have been made during the

		2008 renovation to improve seismic performance <ul style="list-style-type: none"> Library (2008): As-built documents indicate that lateral system is structural steel frame; good connection details are indicated that probably meet Code for current seismic category due to recent design
B10.4	Building Exterior	<ul style="list-style-type: none"> There was no evidence of rot or movement of exterior walls No evidence of overflow or ponding
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Functions have not changed from design
Recommendations		
B10.1	None	
B10.2	None	
B10.3.1	Review 2008 renovation details for the existing City Offices portion of the building to determine extent of upgrades to improve seismic performance	
B10.4	None	
B10.5	None	

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior finishes are brick veneer and metal panels It appears from the as-built drawings that with the 2008 renovation the original exterior insulation finish system (EIFS, aka Dryvit) has been replaced at the City Offices portion of the building with new brick veneer matching the new Library Exterior brick veneer cladding is has been maintained well Exterior metal canopies are painted; paint is showing evidence of aging; may require refinishing in near future
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Exterior windows throughout are commercial aluminum storefront systems with double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
B20.1.1	Observe and maintain field-painted finishes at steel canopies; other exterior finishes are long-term life cycle products (brick veneer, metal panel, aluminum storefront,	

	standing seam metal roofing) but this field-painted metal finish may require refinishing as often as once every 5-7 years.
B20.2	None
B20.3	None

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> • Roof was observed to be by single-ply PVC membrane with internal roof drainage; roof was well maintained, clean and debris free; walk surfaces are provided to minimize traffic • Exterior metal roof edge, fascia and flashings appeared to be in good condition, • Refer to Figure B30.1
B30.2	Other issues	<ul style="list-style-type: none"> • Roof drainage is internal; appear to be removing water appropriately (no external signs of overflow were observed) • Rooftop drains were observed to be clean and free of debris; refer to Figure B30.2
Recommendations		
B30.1.1	Continue observation and maintenance of roof system.	
B30.2	None	

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> • N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> • As-built documents indicate that a 1-hour occupancy separation wall was provided during the Library addition in 2008
C10.3	Atrium	<ul style="list-style-type: none"> • N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> • Accessible at front entry and other entry/ egress locations • Automatic door operators are provided at entry doors • Restrooms are accessible • It was observed that piping below sinks have been provided with protective covers
C10.5	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	

C10.4	None
C10.5	None

C20 –EGRESS	
Item	Comments/Findings
C20.1	Travel distance to exit stair • N/A
C20.2	Exit stair continuity and integrity • N/A
C20.3	Exit corridor continuity and integrity • Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation • N/A
C20.5	Other issues • None
Recommendations	
C20.1	None
C20.2	None
C20.3	None
C20.4	None
C20.5	None

C30 – INTERIOR FINISHES	
Item	Comments/Findings
C30.1	General type and condition of finishes <ul style="list-style-type: none"> • Wall finishes throughout both portions of the building are painted gypsum wallboard; some locations in the City Offices have original exposed brick veneer • Floor finishes throughout both portions of the building are a combination of broadloom carpet and carpet tile; flooring at kitchenettes and a portion of the Teen Room is linoleum; flooring in the Lobby is random pattern ceramic tile; all flooring appears to be in good condition • Ceiling finishes are acoustic ceiling tile, with soffits of painted gypsum wallboard • Other interior finishes provided: <ul style="list-style-type: none"> ○ Plastic laminate cabinetry at the kitchenette, with plastic laminate countertops ○ Tackable panel-and-white board presentation surfaces ○ Wood trim throughout ○ Interior wood veneer doors • Refer to Figures C30.1A thru G
C30.2	Locations and cause of water intrusion/ leaks <ul style="list-style-type: none"> • Only observed evidence of leakage is stained ceiling tile in former Vending Room ceiling (now a cart storage area); Staff noted that

		the leak had been fixed; refer to Figure C30.2
C30.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C30.1	None	
C30.2	None	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	<ul style="list-style-type: none"> N/A
D10.2	Status of inspections, who maintains the elevator	<ul style="list-style-type: none"> N/A
D10.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> It is not indicated in the drawings what material plumbing piping is installed Copper water supply line and PVC drain line were observed at one exposed location for water fountain; refer to Figure D20.1/8
D20.2	Distribution piping material	<ul style="list-style-type: none"> Not observed; staff reported primarily copper, with some PVC extensions
D20.3	Drain and vent system	<ul style="list-style-type: none"> Not observed; staff reported PVC Staff noted that the coffee service area had not been in operation because there was not a fat/oils/grease trap (FOG) in-place to meet Code requirements
D20.4	Fixture condition	<ul style="list-style-type: none"> Kitchenette has stainless steel sink, coffee service, residential dishwasher Restroom fixtures were replaced in 2008 renovation; accessible where required Coffee Bar has stainless steel sink, coffee service, commercial dishwasher, other food service equipment and fixtures; current this area is not used for food service due to Code requirements for grease trap, which is not provided; refer to Figure D20.4

D20.5	Water pressure	<ul style="list-style-type: none"> • Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> • Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> • Water heater is located on wooden 'loft' platform in Janitor room; appears to be restrained; maintenance clearances are compromised by storage of materials around the fixture; limited access for maintenance; refer to Figure D20.7 • Drawings indicate water heater is electric and provided with 2008 renovation
D20.8	Other issues	<ul style="list-style-type: none"> • It was observed that straps of some kind were hung from exposed water supply line within the Book Drop room, at backside of location for water fountain; refer to Figure D20.1/8

Recommendations

D20.1	None as assumed to meet Code at recent construction (2011)
D20.2	Refer to D20.1
D20.3.1	Consider installation of FOG trap system to meet Code requirements for food service; Installation of FOG trap system is included in the Capital Improvements Plan provided by staff
D20.4	None
D20.5	None
D20.6	None
D20.7	None
D20.8.1	Notify Library or housekeeping staff not to attach any devices to plumbing lines; consider placement of signage to this effect

D30 - HVAC

Item	Comments/Findings
D30.1	Fire smoke dampers <ul style="list-style-type: none"> • None
D30.2	Duct smoke detectors <ul style="list-style-type: none"> • None
D30.3	Smoke control (high-rise/atrium) <ul style="list-style-type: none"> • N/A
D30.4	Air Handler Unit <ul style="list-style-type: none"> • Main units are located at rooftop, relatively above the spaces served; all are gas-fired • Gas lines to units are unpainted and shows signs of corrosion; refer to Figure D30.4A • Drawings indicate and staff confirmed that all units were provided new for 2008 renovation and expansion, except one unit (RTU-202) was relocated, as it had been recently replaced on the original building • Additional space conditioning is provided by remote split systems at south-facing offices in the original City Offices portion of

		the building; installed prior to 2008 renovation/ expansion; refer to Figure D30.4B
D30.5	Air filtration	<ul style="list-style-type: none"> • Not observed
D30.6	Equipment accessibility	<ul style="list-style-type: none"> • At rooftop via internal ladder from IT Room • Equipment clearances appeared to be adequate
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> • Drain pans were not observed • Condensate drains to rooftop through PVC pipe
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> • Not observed
D30.9	Mold issues	<ul style="list-style-type: none"> • No evidence seen
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> • Supply is ducted through plenum • Return is open plenum at acoustic ceiling areas; ducted return at GWB ceilings • Staff noted that air supply/ quality at Community Room is sometimes not adequate when the room is used by large groups or for meetings
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> • Not observed
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> • OSA/ EXA separation is adequate; outside air provided at rooftop unit • Windows are operable in the Library via building controls system • Windows are not operable in the City Offices
D30.13	Restroom ventilation	<ul style="list-style-type: none"> • Two rooftop-mounted electric exhaust fans • Controls not observed; assumed always on
D30.14	Custodial ventilation	<ul style="list-style-type: none"> • Rooftop-mounted electric exhaust fans (same unit as for City Offices Restrooms) • Controls not observed; assumed always on
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> • Kitchenette within Library Work Room does not have ventilation • Kitchenette within Library between Children’s Room and Community Room does not have ventilation • Coffee Bar in Lobby of Library is ventilated by rooftop-mounted electric exhaust fan • Kitchenette within City Offices does not have ventilation
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> • Not observed
D30.17	Duct materials	<ul style="list-style-type: none"> • Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> • Not observed
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> • N/A

D30.20	Cooling system	<ul style="list-style-type: none"> • Rooftop unit provides cooling as well; refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> • N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> • Staff reported that refrigerant monitoring is not provided
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> • Rooftop exhaust fan units provided for Restrooms and Janitor room • Not provided at kitchenettes
D30.24	Heating System	<ul style="list-style-type: none"> • Rooftop unit provides heating; refer to D30.4 • Supply registers were providing conditioned air at between 71 and 74 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> • No separate unit provided • Supply registers were providing conditioned air at 56 degrees F.
D30.26	Other issues	<ul style="list-style-type: none"> • Staff noted a hot/cool balancing issue between south and north open spaces

Recommendations

D30.1	None
D30.2	None
D30.3	None
D30.4.1	Consider cleaning gas pipe well, removing corrosion and painting piping with appropriate exterior coating.
D30.5.1	Confirm condition and regular maintenance
D30.6	None
D30.7	None
D30.8	None
D30.9	None
D30.10	None
D30.11	None
D30.12	None
D30.13.1	Review for controls; if always on, consider occupancy sensor with time delay for energy savings
D30.14.1	Refer to D30.13
D30.15.1	Review conditions with user group/ staff for adverse odors; consider additional exhaust options if odors are an issue
D30.16	None
D30.17	None
D30.18	None
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23.1	Determine with staff/ users whether there are ventilation/ odor issues due to the kitchenette, and consider addition of local exhaust fan if determined to be needed

D30.24	None
D30.25	None
D30.26.1	Inquire further regarding hot/cool balancing issues and adjust system controls or dampers/ louvers as necessary

D40 – FIRE PROTECTION

Item		Comments/Findings
D40.1	Fire suppression system	<ul style="list-style-type: none"> • Provided
D40.2	Water service, backflow prevention	<ul style="list-style-type: none"> • Provided
D40.3	System pressure	<ul style="list-style-type: none"> • ~75 psi
D40.4	Standpipes	<ul style="list-style-type: none"> • N/A
D40.5	Fire pump	<ul style="list-style-type: none"> • Not provided; relying on water pressure or FDC
D40.6	Fire sprinkler pipe condition	<ul style="list-style-type: none"> • Not observed above acoustic ceiling • Where observed at ceiling-less areas, appeared to be in good condition
D40.7	FDC	<ul style="list-style-type: none"> • At southwest side of building, near Riser room
D40.8	Fire sprinkler zoning	<ul style="list-style-type: none"> • Single zone
D40.9	Flow monitoring and alarm	<ul style="list-style-type: none"> • Provided; electric fire alarm bell
D40.10	On-site water source	<ul style="list-style-type: none"> • Not provided
D40.11	Test records	<ul style="list-style-type: none"> • Not observed; Staff noted that fire suppression system and backflow valve are tested annually and records are available
D40.12	Condition of fire hose or fire extinguishers	<ul style="list-style-type: none"> • Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguishers provided; locations appeared to be appropriate; observed to have up-to-date inspection
D40.13	Other issues	<ul style="list-style-type: none"> • None

Recommendations

D40.1	None
D40.2	None
D40.3	None
D40.4	None
D40.5	None
D40.6	None
D40.7	None
D40.8	None
D40.9	None
D40.10	None
D40.11	None
D40.12	None
D40.13	None

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> • Not observed • Drawings indicate electrical requirements
D50.2	Equipment grounding	<ul style="list-style-type: none"> • Building grounding in Electrical/ IDF rooms • Drawings indicate electrical requirements
D50.3	Lightning protection	<ul style="list-style-type: none"> • Not provided
D50.4	Overcurrent protection	<ul style="list-style-type: none"> • Not observed • Drawings indicate electrical requirements
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> • Provided at Kitchenettes • Provided at Restrooms; accessory to Training Room and Municipal Court shared work space areas (not located in the space)
D50.6	Rating of Panels	<ul style="list-style-type: none"> • Panel ratings not observed • Drawings indicate electrical information
D50.7	Peak load	<ul style="list-style-type: none"> • Drawings indicate electrical information
D50.8	Overloading/overheating	<ul style="list-style-type: none"> • Not apparent from temperature readings at main electrical gear and various power and lighting control panels observed
D50.9	Conductor insulation	<ul style="list-style-type: none"> • Not observed, but assumed that 2008 installation meets current Code • At 1981
D50.10	Conductor material	<ul style="list-style-type: none"> • Not observed, but assumed that 2008 installation meets current Code
D50.11	Main distribution equipment	<ul style="list-style-type: none"> • Main distribution equipment serves both portions of the facility from Electrical room; refer to Figure D50.11 • Main electrical equipment did not show signs of overheating based on temperature readings at faces of equipment and switches • Drawings indicate electrical equipment information
D50.12	Equipment clearance	<ul style="list-style-type: none"> • Clearances appeared to be appropriate
D50.13	Disconnects	<ul style="list-style-type: none"> • Electrical panels did not show signs of overheating based on temperature readings at faces of panels; panels were not opened
D50.14	Transformers	<ul style="list-style-type: none"> • Located outside building
D50.15	Data Center/UPS	<ul style="list-style-type: none"> • Server racks are located in IDF room • Equipment appeared to be connected properly • Server rack electrical components did not show signs of overheating based on temperature readings

D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> Not observed above acoustic ceiling
D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> Receptacles were observed be grounded devices It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	<ul style="list-style-type: none"> Suspended up/down, 4-foot fluorescent tube fixtures; joined in 8-foot lengths at ACT ceiling at Training Room and Municipal Court shared work space areas ACT recessed 2x4 fluorescent fixtures at Records room Wall-mounted up/down, 4-foot fluorescent tube fixtures; joined in 8-foot lengths at GWB skylight well in Lobby Recessed can fixtures with compact fluorescent lamps throughout
D50.19	Lighting Controls	<ul style="list-style-type: none"> Controlled by building automation system from lighting control panels at Hall between Children’s Room and Community Room in Library; refer to Figure D50.19 Occupancy sensor switching is indicated in the Drawings for many areas
D50.20	Back-up power	<ul style="list-style-type: none"> There are batteries, inverter and a transfer switch at the Electrical/ IDF room Drawings indicated that this back-up power is wired to one of the lighting control panels, to “Stack Lighting” and to egress signage
D50.21	Generator	<ul style="list-style-type: none"> N/A
D50.22	Battery packs	<ul style="list-style-type: none"> Refer to D50.20
D50.23	Inverter	<ul style="list-style-type: none"> Refer to D50.20
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> Emergency lighting provided Drawings indicate emergency circuits Note back-up power at Stacks per D50.20
D50.25	Emergency power system loads	<ul style="list-style-type: none"> Drawings indicate electrical information
D50.26	Egress path lighting	<ul style="list-style-type: none"> Indicated in plans; appears to be appropriately placed for Code-required coverage
D50.27	Exit signage	<ul style="list-style-type: none"> Provided and appropriately located; refer to Figure D50.27 for typical Refer to D50.20 for info about back-up power to egress lighting
D50.28	Other issues	<ul style="list-style-type: none"> None

Recommendations	
D50.1.1	Consider testing for grounding leakage.
D50.2.1	Review requirements for necessary equipment to ensure proper grounding
D50.3	None
D50.4	None
D50.5	None
D50.6	None
D50.7.1	Review peak load requirements and confirm panels meet needs.
D50.8	None
D50.9	None anticipated.
D50.10	Refer to D50.9.
D50.11	None
D50.12	None
D50.13	None
D50.14	None
D50.15	None
D50.16	None
D50.17.1	Confirm receptacles are connected to ground.
D50.18	None
D50.19	None
D50.20.1	Ensure regular testing and maintenance regimen for batteries and inverter
D50.21	None
D50.22	Refer to D50.20
D50.23	Refer to D50.20
D50.24	Refer to D50.20
D50.25	None
D50.26	None
D50.27	Refer to D50.20
D50.28	None

D60 –FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> • Main control panel is located in the IDF room; refer to Figure D60.1 • A remote annunciator is provided at the Library Lobby
D60.2	Smoke detectors	<ul style="list-style-type: none"> • Smoke and heat detection provided throughout the building • Duct detection is provided at rooftop units
D60.3	Pull stations	<ul style="list-style-type: none"> • Provided appropriately; refer to Figure D60.3
D60.4	Annunciation	<ul style="list-style-type: none"> • Provided
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> • Yes
D60.6	System monitoring	<ul style="list-style-type: none"> • Not apparent on observation; presumed to be monitored via main control panel at IDF room; remote annunciator panel is located at Library Lobby

D60.7	Elevator recall	<ul style="list-style-type: none"> N/A
D60.8	Other issues	<ul style="list-style-type: none"> None

Recommendations	
D60.1	None
D60.2	None
D60.3	None
D60.4	None
D60.5	None
D60.6.1	Confirm remote system monitoring
D60.7	None
D60.8	None

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT	
Item	Comments/Findings
E10.1	Equipment anchorage <ul style="list-style-type: none"> Audio visual, server, and data/ telecomm equipment is rack-mounted and appears to be properly secured
E10.2	Other issues <ul style="list-style-type: none"> None
Recommendations	
E10.1	None
E10.2	None

G SITEWORK

G20 – SITE IMPROVEMENTS	
Item	Comments/Findings
G20.1	Building location prone to flooding <ul style="list-style-type: none"> Yes Most recent high water event was 1996 Staff noted that flood panels are located in storage at the building and can be installed at building door openings during flood events Storage of zoning and building permit historical materials in Vault room within City Offices building may be prone to damage (room is not actually a vault; appears to be a room with 1-hour wall construction and 60-minute door; it was not confirmed that walls went to underside of structure, above acoustic ceiling)
G20.2	Building accessibility (ADA) <ul style="list-style-type: none"> Site is accessible

		<ul style="list-style-type: none"> At rear (north) of building: Accessible parking is well delineated; direct path to entry is provided without traversing traffic lanes; dedicated van parking is provided At front (south) of building: It is assumed similar accessibility will be provided in new parking lot currently under construction (this was provided in the previous (2008) parking lot)
G20.3	Site Security	<ul style="list-style-type: none"> None for site perimeter Security alarm is provided at both Library and City Offices; refer to Figures G20.3A and G20.3B
G20.4	Hurricane resistance	<ul style="list-style-type: none"> N/A
G20.5	Access control	<ul style="list-style-type: none"> Keyed lock access at exterior doors After-hours access is controlled key pad entry control system Security system is provided; refer to G20.3
G20.6	Adjacent property risks	<ul style="list-style-type: none"> None
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> Distance is adequate for Code-required separation 1-hour rated Occupancy Separation wall between Library and City Offices is appropriate
G20.8	Drainage issues	<ul style="list-style-type: none"> No issues were observed
G20.9	Other issues	<ul style="list-style-type: none"> Library windows have experienced BB gun damage in past, requiring replacement
Recommendations		
G20.1.1	None beyond removal of important materials from this site or elevation at appropriate height above floor/ flood level due to flood risk. Ensure building staff are aware of flood control panels, storage location, condition of this equipment, protocol/ plan for implementation, and procedures for proper installation.	
G20.2	None	
G20.3	None	
G20.4	None	
G20.5	None	
G20.6	None	
G20.7	None	
G20.8	None	
G20.9	None	

G30 – LIQUID AND GAS SITE UTILITIES

Item	Comments/Findings
------	-------------------

G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> Irrigation system is provided; control is located in Riser Room
Recommendations		
G30.1 None		

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> Operation of site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1 Review site lighting functionality when illuminated		

INDEX TO FIGURES

Figure B30.1	Roof top conditions observed
Figure B30.2	Typical roof drain and overflow drain conditions
Figure C30.1A	Interior finishes at Library entry lobby
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Figure C30.1C	Interior finishes at main reading room within Library
Figure C30.1D	Interior finishes at children's room within Library
Figure C30.1E	Interior finishes teen room within Library
Figure C30.1F	Interior finishes in back-of-house space within Library
Figure C30.1G	Interior finishes at kitchenette within Library
Figure C30.2	Evidence of leak visible in acoustic ceiling tile in Library
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Figure G20.3A	Security alarm remote keypad at Library Lobby adjacent to Electrical Room door
Figure G20.3B	Security alarm remote keypad at City offices Lobby adjacent to door from City Offices Lobby to Library Work Room



Figure B30.1 Rooftop conditions observed



Figure B30.2 Typical roof drain and overflow drain conditions



Figure C30.1A Interior finishes at Library entry lobby



Figure C30.1B Interior finishes 'fire pit' in reading room within Library



Figure C30.1C Interior finishes at main reading room within Library



Figure C30.1D Interior finishes at children's room within Library



Figure C30.1E Interior finishes teen room within Library



Figure C30.1F Interior finishes in back-of-house space within Library



Figure C30.1G Interior finishes at kitchenette within Library



Figure C30.2 Evidence of leak visible in acoustic ceiling tile in Library



Figure D20.1/8 Copper water supply and PVC sanitary lines; note straps hung from plumbing

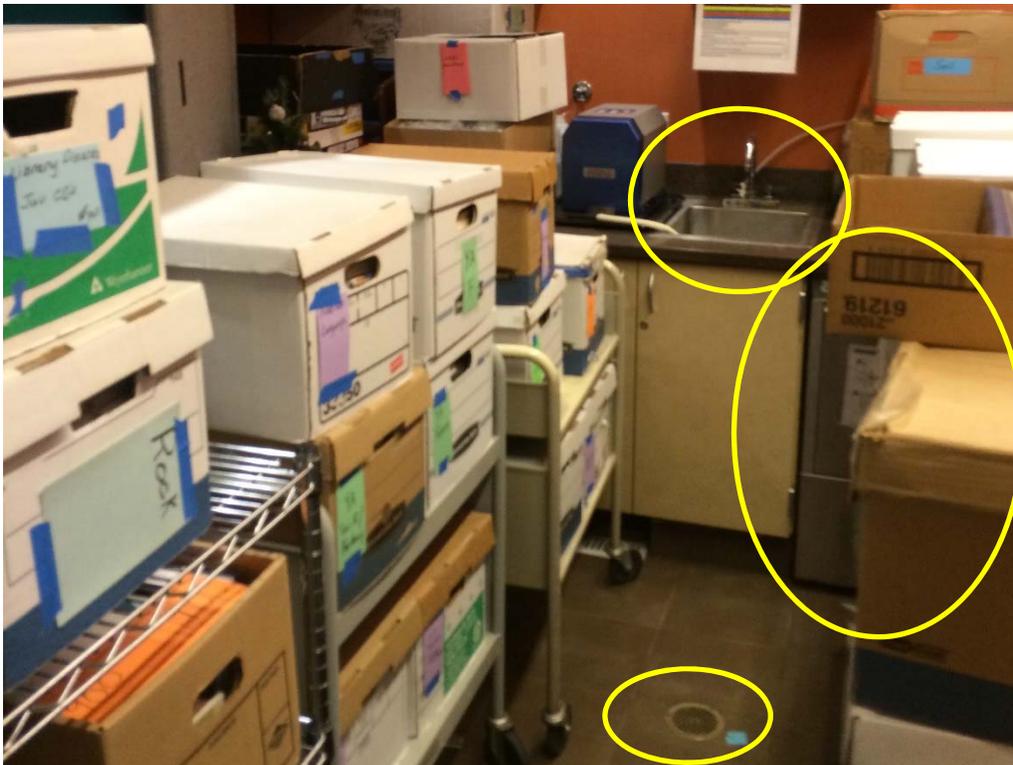


Figure D20.4 Disused sink, commercial dishwasher, other food service equipment at Coffee Bar



Figure D20.7 Water heater on wooden platform in Janitor room; appears to be seismically restrained; maintenance compromised by storage and limited access



Figure D30.4A Rooftop mechanical units are gas-fired; typical gas line is unpainted pipe, corroded



Figure D30.4B Remote split systems provided at south-facing offices in original portion of building



Figure D30.8 HVAC controls at Library

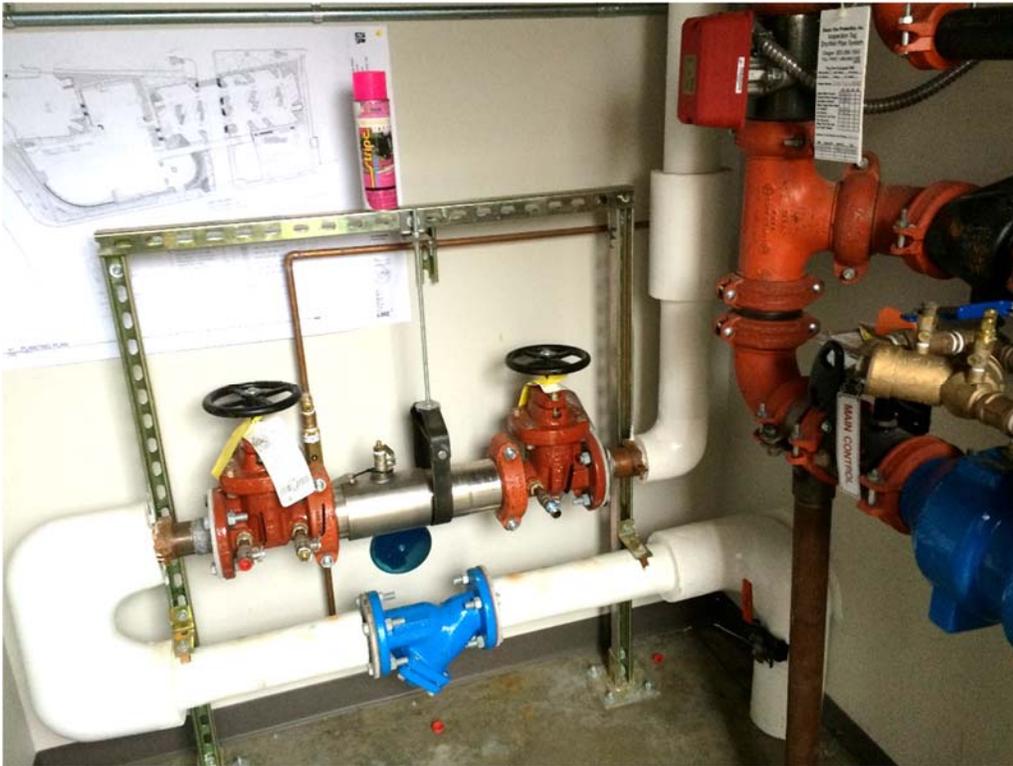


Figure D40.1 Fire suppression system at Riser Room



Figure D40.12 Fire alarm remote annunciator at Lobby



Figure D50.11 Main distribution equipment serves both portions of the facility from Electrical room

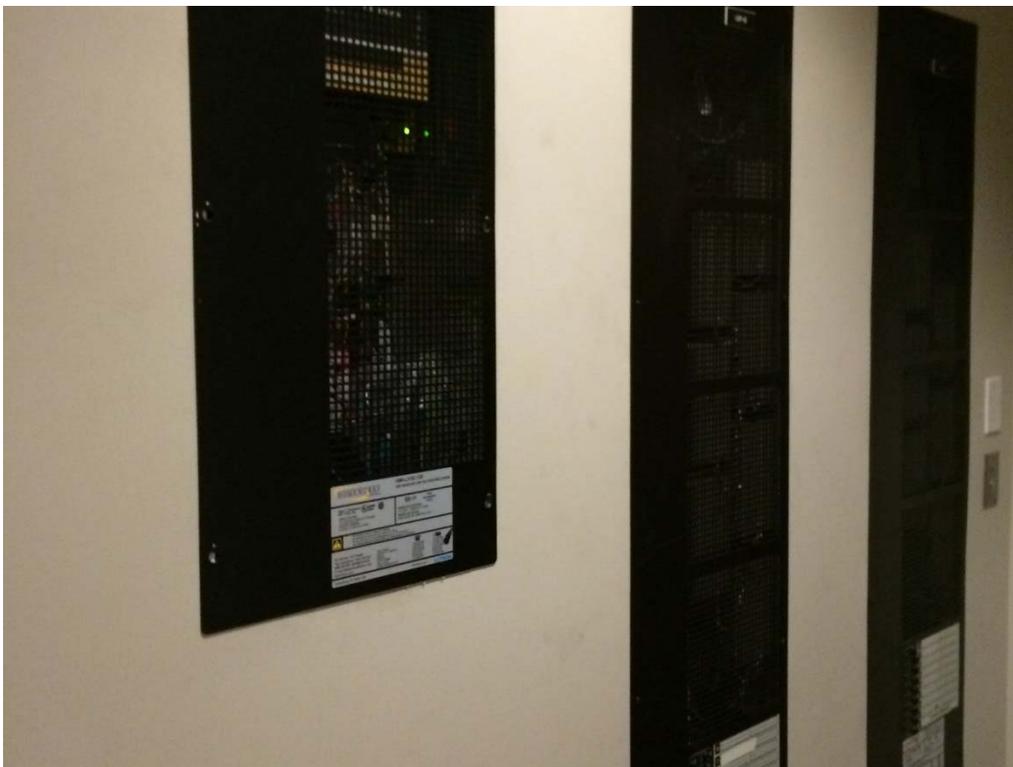


Figure D50.19 Lighting control panels at Hall in Library



Figure D50.27 Typical exit signage is appropriately placed



Figure D60.1 Main fire alarm panel in IDF room adjacent to Library Lobby



Figure D60.3 Typical fire alarm pull at building entrance/ egress doors



Figure G20.3A Security alarm remote keypad at Library Lobby adjacent to Electrical Room door



Figure G20.3B Security alarm remote keypad at City offices Lobby adjacent to door from City Offices Lobby to Library Work Room

END OF REPORT

Council Meeting Space at the Juanita Pohl Senior Center

8513 Southwest Tualatin Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Front Entry (west)



Side Elevation (north)



Rear Elevation (east)



Side Elevation (south)

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)	
Item	Comments/Findings
A10.1	General condition <ul style="list-style-type: none"> CIP concrete foundation appeared to be in good shape
Recommendations	
A10.1.1 Monitor concrete foundations for cracking or other signs of settlement	

A20 – SUBGRADE ENCLOSURES (basements, etc)	
Item	Comments/Findings
A20.1	General condition <ul style="list-style-type: none"> No basement or crawlspace
Recommendations	
A20.1	None

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)	
Item	Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code <ul style="list-style-type: none"> As-built documents indicate that the structural system is wood framing over cast-in-place concrete footings and slab-on-grade
B10.2	Visible Gravity System <ul style="list-style-type: none"> Confirms wood-framing indicated in drawings
B10.3	Visible Lateral System <ul style="list-style-type: none"> Drawings indicate that lateral system is wood posts and wall framing with Simpson connectors and sheathing. Drawings indicate what appear to be adequate details of connections to the foundations; however may not meet current Code
B10.4	Building Exterior <ul style="list-style-type: none"> There was no evidence of rot or movement of exterior framed walls Collector boxes and downspouts appear to be in good shape and well maintained
B10.5	If building has been remodeled, note the current use as compared to design loads. <ul style="list-style-type: none"> Original function was as senior center with activity and meeting spaces; current function as City Council meeting space aligns with original occupancy Building had an addition in 1990 which included the Activity Room used for City Council meeting space Building had another addition in 2011 which included renovation and expansion of the

		Activity Room used for City Council meeting space
Recommendations		
B10.1	None	
B10.2	None	
B10.3	None	
B10.4	None	
B10.5	None	

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item	Comments/Findings	
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior wood board cladding is painted and has been maintained well Same exterior cladding is present at the additions from 1990 and 2011 as the original building
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Additions from 1990 and 2011 have commercial aluminum storefront systems with double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> The building lacks roof overhangs, which for this climate would be more appropriate when using wood siding Scuppers, collector boxes and downspouts appear to be clean and removing water appropriately; downspouts are connected to stormwater leaders with cleanouts
Recommendations		
B20.1	None	
B20.2	None	
B20.3	None	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item	Comments/Findings	
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roof access was not available, but in photo by staff, roofing appears to be built-up bituminous system with granular cap sheet In photo by staff, roofing appears to be clean and in good condition; Refer to Figure B30.1 Staff note: Hot-mopped system; two layers; scheduled for replacement in 4 years
B30.2	Other issues	<ul style="list-style-type: none"> None
Recommendations		
B30.1.1	Confirm age and life-span remaining for existing roofing. Replacement roofing with similar system has been proposed in the City’s Capital Improvement Plan.	

B30.2 None

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> • N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> • N/A
C10.3	Atrium	<ul style="list-style-type: none"> • N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> • Accessible at front entry and rear egress locations • Automatic door operators are provided at front entry vestibule doors • Men’s Restroom observed; Refer to Figure C10.4: <ul style="list-style-type: none"> ○ Toilet is accessible ○ Urinal is floor recess-type and not accessible due to roll-in hazard ○ Sinks appear to be accessible except that leg protection is not provided at supply and drain lines below counter
C10.5	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	
C10.4.1	Provide scald protection shielding at restroom sink drains.	
C10.4.2	Replace existing urinals with accessible versions.	
C10.5	None	

C20 –EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	<ul style="list-style-type: none"> • N/A
C20.2	Exit stair continuity and integrity	<ul style="list-style-type: none"> • N/A
C20.3	Exit corridor continuity and integrity	<ul style="list-style-type: none"> • Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation	<ul style="list-style-type: none"> • N/A
C20.5	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> • Wall finishes in Activity Room space are painted gypsum wallboard; movable wall panels with fabric-faced finish are used for sound control and to enclose the space for meeting activities • Floor finishes in Activity Room space are oak wood parquet flooring with clear finish; all flooring appears to be in good condition • Ceiling finishes are acoustic ceiling tile, with soffits of painted gypsum wallboard • Plastic laminate cabinetry and interior wood veneer doors are provided in the space
C30.2	Locations and cause of water intrusion/ leaks	<ul style="list-style-type: none"> • None were observed
C30.3	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C30.1	None	
C30.2	None	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	<ul style="list-style-type: none"> • N/A
D10.2	Status of inspections, who maintains the elevator	<ul style="list-style-type: none"> • N/A
D10.3	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> • It is not indicated in the drawings what material plumbing piping is
D20.2	Distribution piping material	<ul style="list-style-type: none"> • Not known
D20.3	Drain and vent system	<ul style="list-style-type: none"> • Not known
D20.4	Fixture condition	<ul style="list-style-type: none"> • Accessory to Activity Room (not located in the space) • Restrooms have original porcelain fixtures; good condition • Refer to C10.4 for accessibility

D20.5	Water pressure	<ul style="list-style-type: none"> • Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> • Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> • Accessory to Activity Room (not located in the space) • Not observed
D20.8	Other issues	<ul style="list-style-type: none"> • None

Recommendations

D20.1.1	Consider replacement of original if PVC or galvanized steel piping with copper or PEX plumbing lines
D20.2.1	Refer to D20.1
D20.3	None
D20.4	None
D20.5	None
D20.6	None
D20.7	None

D30 - HVAC

Item	Comments/Findings
D30.1	Fire smoke dampers <ul style="list-style-type: none"> • None
D30.2	Duct smoke detectors <ul style="list-style-type: none"> • None
D30.3	Smoke control (high-rise/atrium) <ul style="list-style-type: none"> • N/A
D30.4	Air Handler Unit <ul style="list-style-type: none"> • Unit serving the Activity Room space is located at rooftop above the space • Carrier-brand gas-fired 7.5 ton rooftop unit installed in 2011 (refer to Figure D30.4)
D30.5	Air filtration <ul style="list-style-type: none"> • Not observed
D30.6	Equipment accessibility <ul style="list-style-type: none"> • At rooftop; good clearances
D30.7	Drain pans and condensate traps <ul style="list-style-type: none"> • Condensate drains to rooftop adjacent
D30.8	Fan coil drain pans <ul style="list-style-type: none"> • Not observed; presumed to be same as at D30.7
D30.9	Mold issues <ul style="list-style-type: none"> • Not observed
D30.10	Air distribution / ventilation <ul style="list-style-type: none"> • Supply is ducted through plenum • Return is open plenum
D30.11	Plenum return (rated materials) <ul style="list-style-type: none"> • None visible
D30.12	OSA/ EXA separation <ul style="list-style-type: none"> • Outside air provision is made at the rooftop unit • Windows are not operable
D30.13	Restroom ventilation <ul style="list-style-type: none"> • Accessory to Activity Room (not located in the space) • Electric recessed ceiling-mounted fans • Controls not observed
D30.14	Custodial ventilation <ul style="list-style-type: none"> • N/A
D30.15	Kitchen ventilation <ul style="list-style-type: none"> • Not observed; accessory to Activity Room (not located in the space)
D30.16	Duct Insulation (vapor barrier) <ul style="list-style-type: none"> • Not observed

D30.17	Duct materials	<ul style="list-style-type: none"> • Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> • Programmable thermostat is located in the space; Honeywell 4-mode/ 7-day model
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> • N/A
D30.20	Cooling system	<ul style="list-style-type: none"> • Rooftop unit provides cooling as well; refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> • N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> • Not known
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> • At restrooms; presumed to be at kitchen; accessory to Activity Room (not located in the space)
D30.24	Heating System	<ul style="list-style-type: none"> • Rooftop unit provides heating; refer to D30.4 • Supply registers were providing conditioned air at between 69 and 72 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> • N/A
D30.26	Other issues	<ul style="list-style-type: none"> • None

Recommendations

D30.1	None
D30.2	None
D30.3	None
D30.4	None
D30.5.1	Confirm condition and regular maintenance
D30.6	None
D30.7	None
D30.8	None
D30.9	None
D30.10	None
D30.11	None
D30.12	None
D30.13	None
D30.14	None
D30.15	None
D30.16	None
D30.17	None
D30.18.1	Confirm set-up of the programmable thermostat to take advantage of ability to provide automatic, time- and day-of-week-based control of the HVAC system
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23	None
D30.24	None
D30.25	None

D30.26	None
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D40 – FIRE PROTECTION		
Item		Comments/Findings
D40.1	Fire suppression system	<ul style="list-style-type: none"> • None
D40.2	Water service, backflow prevention	<ul style="list-style-type: none"> • N/A
D40.3	System pressure	<ul style="list-style-type: none"> • N/A
D40.4	Standpipes	<ul style="list-style-type: none"> • N/A
D40.5	Fire pump	<ul style="list-style-type: none"> • N/A
D40.6	Fire sprinkler pipe condition	<ul style="list-style-type: none"> • N/A
D40.7	FDC	<ul style="list-style-type: none"> • N/A
D40.8	Fire sprinkler zoning	<ul style="list-style-type: none"> • N/A
D40.9	Flow monitoring and alarm	<ul style="list-style-type: none"> • N/A
D40.10	On-site water source	<ul style="list-style-type: none"> • N/A
D40.11	Test records	<ul style="list-style-type: none"> • N/A
D40.12	Condition of fire hose or fire extinguishers	<ul style="list-style-type: none"> • Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguishers is located in space, adjacent to rear egress; observed to have up-to-date inspection
D40.13	Other issues	<ul style="list-style-type: none"> • None

Recommendations		
D40.1	None	
D40.2	None	
D40.3	None	
D40.4	None	
D40.5	None	
D40.6	None	
D40.7	None	
D40.8	None	
D40.9	None	
D40.10	None	
D40.11	None	
D40.12	None	

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> • Not observed
D50.2	Equipment grounding	<ul style="list-style-type: none"> • Not observed
D50.3	Lightning protection	<ul style="list-style-type: none"> • None
D50.4	Overcurrent protection	<ul style="list-style-type: none"> • None
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> • Not observed; would be accessory to Activity Room (not located in the space)
D50.6	Rating of Panels	<ul style="list-style-type: none"> • Panel not observed; would be accessory to Activity Room (not located in the space)

D50.7	Peak load	<ul style="list-style-type: none"> • Not known
D50.8	Overloading/overheating	<ul style="list-style-type: none"> • Not observed
D50.9	Conductor insulation	<ul style="list-style-type: none"> • Not observed, but assumed that 1990 installation meets current Code
D50.10	Conductor material	<ul style="list-style-type: none"> • Not observed, but assumed that 1990 installation meets current Code
D50.11	Main distribution equipment	<ul style="list-style-type: none"> • Not observed
D50.12	Equipment clearance	<ul style="list-style-type: none"> • Good at audio-visual equipment in storage room; other equipment not observed
D50.13	Disconnects	<ul style="list-style-type: none"> • Not observed
D50.14	Transformers	<ul style="list-style-type: none"> • Not observed
D50.15	Data Center/UPS	<ul style="list-style-type: none"> • None
D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> • None
D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> • Receptacles were observed be grounded devices • It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	<ul style="list-style-type: none"> • Original 2 x 4-foot fluorescent tube fixtures at ACT ceiling
D50.19	Lighting Controls	<ul style="list-style-type: none"> • Switched at walls
D50.20	Back-up power	<ul style="list-style-type: none"> • None
D50.21	Generator	<ul style="list-style-type: none"> • None
D50.22	Battery packs	<ul style="list-style-type: none"> • None
D50.23	Inverter	<ul style="list-style-type: none"> • None
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> • None
D50.25	Emergency power system loads	<ul style="list-style-type: none"> • None
D50.26	Egress path lighting	<ul style="list-style-type: none"> • Indicated in plans; appears to be appropriately placed for Code-required coverage
D50.27	Exit signage	<ul style="list-style-type: none"> • Provided and appropriately located
D50.28	Other issues	<ul style="list-style-type: none"> • None

Recommendations

- D50.1.1 Consider testing for grounding leakage.
- D50.2.1 Review requirements for necessary equipment to ensure proper grounding
- D50.3 None
- D50.4 None
- D50.5 None
- D50.6 None
- D50.7.1 Assess peak load requirements and confirm panel meets needs.
- D50.8 None
- D50.9 None anticipated.
- D50.10 Refer to D50.9.
- D50.11 None
- D50.12 None

D50.13	None
D50.14	None
D50.15	None
D50.16	None
D50.17.1	Confirm receptacles are grounded.
D50.18	None
D50.19.1	Consider replacement of on-off switches with occupancy switches to save energy.
D50.20	None
D50.21	None
D50.22	None
D50.23	None
D50.24	None
D50.25	None
D50.26	None
D50.27	None
D50.28	None

D60 –FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> • Provided; accessory to Activity Room (not located in the space)
D60.2	Smoke detectors	<ul style="list-style-type: none"> • Smoke and heat detection provided
D60.3	Pull stations	<ul style="list-style-type: none"> • Provided appropriately
D60.4	Annunciation	<ul style="list-style-type: none"> • Provided
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> • Yes
D60.6	System monitoring	<ul style="list-style-type: none"> • Presumed to be monitored via control panel
D60.7	Elevator recall	<ul style="list-style-type: none"> • N/A
D60.8	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D60.1	None	
D60.2	None	
D60.3	None	
D60.4	None	
D60.5	None	
D60.6	None	
D60.7	None	
D60.8	None	

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item		Comments/Findings
E10.1	Equipment anchorage	<ul style="list-style-type: none"> • Audio visual equipment is rack-mounted and appears to be properly secured
E10.2	Other issues	<ul style="list-style-type: none"> • None
Recommendations		

E10.1	None
E10.2	None

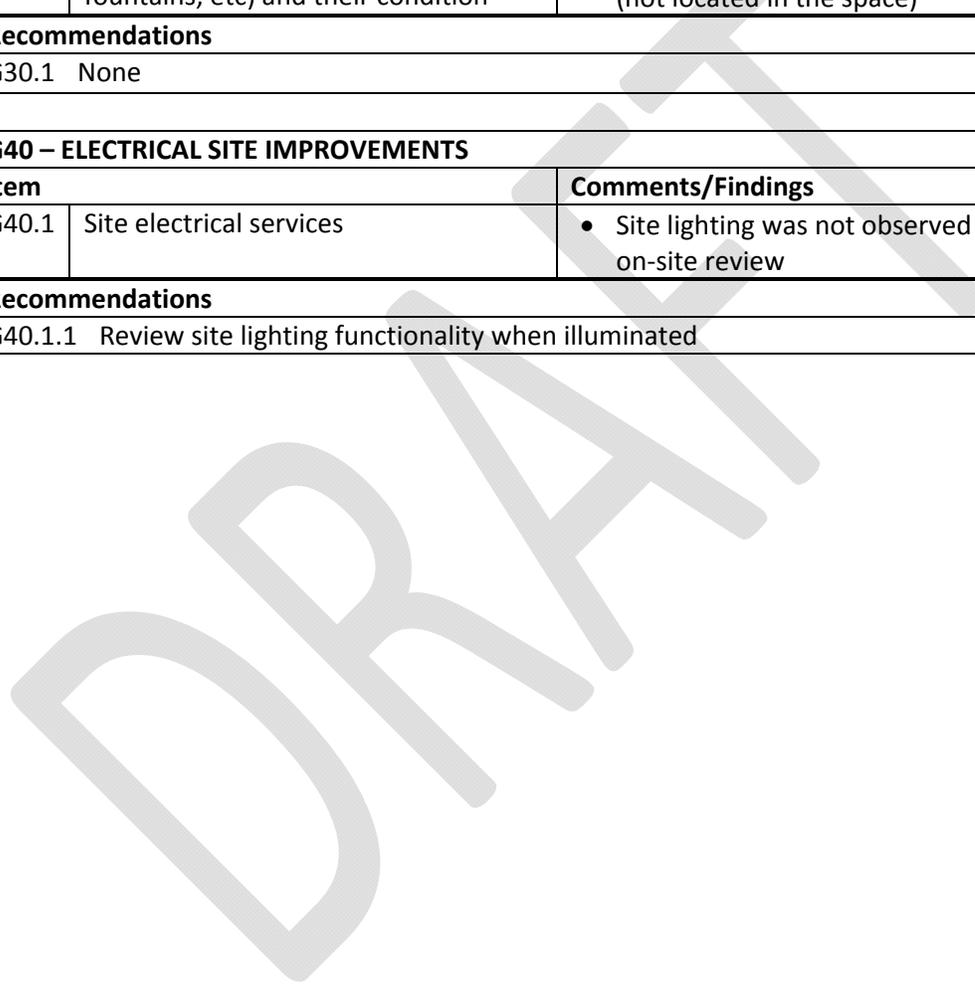
G SITEWORK

G20 – SITE IMPROVEMENTS		
Item		Comments/Findings
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> • Yes • Most recent high water event was 1996
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> • Site is accessible • Accessible parking does not appear to be well delineated; path to entry is not marked on pavement; dedicated van parking is not provided • Drop-off porte cochere adjacent to entry is provided
G20.3	Site Security	<ul style="list-style-type: none"> • None
G20.4	Hurricane resistance	<ul style="list-style-type: none"> • N/A
G20.5	Access control	<ul style="list-style-type: none"> • None except standard door hardware • Building appears to have after-hours security system
G20.6	Adjacent property risks	<ul style="list-style-type: none"> • Staff noted that the empty lot to east was raised as a concern by the local police department due to City Council meetings being held in the Activity Room. Due to this concern, window tinting film was added to minimize visibility during the evening meeting times and portable chain-link fencing is deployed around the exterior of the space during City Council meetings
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> • Distance is adequate for Code-required separation
G20.8	Drainage issues	<ul style="list-style-type: none"> • It was observed that landscape grading at the rear (east) and side (north) has resulted in soil and topping to be close or in contact with wood board siding, which may be a route for moisture migration and rot. Refer to Figure B20.1.
G20.9	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
G20.1.1	None beyond removal of important materials from this site due to flood risk.	
G20.2	None	
G20.3	None	
G20.4	None	
G20.5	None	
G20.6	None	

G20.7	None
G20.8.1	Soil and toppings should be cleared away from the edge of the building's foundation walls to maintain a minimum 4 inch gap between the top-of-grade and the bottom of exterior wood sidings.
G20.9	None

G30 – LIQUID AND GAS SITE UTILITIES		
Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> Grease trap at kitchen requires regular maintenance; accessory to Activity Room (not located in the space)
Recommendations		
G30.1 None		

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> Site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1 Review site lighting functionality when illuminated		



INDEX TO FIGURES

- Figure C10.4 Sink and urinal are not accessible (Men's Room observed)
- Figure C30.1A Interior finishes at Activity Room space
- Figure C30.1B Interior finishes at Activity Room space, including movable wall system (at right)
- Figure B30.1 Staff photo of roof condition above Activity Room space
- Figure D30.6 Staff photo of air handler configuration and access above Activity Room space
- Figure D40.12 Fire extinguisher and fire alarm pull station adjacent to egress door
- Figure G20.8 Soil and topping in contact with siding at rear (northeast corner)

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Figure C10.4 Sink and urinal are not accessible (Men's Room observed)



Figure C30.1A Interior finishes Activity Room space



Figure C30.1B Interior finishes Activity Room space, including movable wall system (at right)



Figure B30.1 Staff photo of roof condition above Activity Room space



Figure D30.6 Staff photo of air handler configuration and access above Activity Room space



Figure D40.12 Fire extinguisher and fire alarm pull station adjacent to egress door



Figure G20.8 Soil and topping in contact with siding at rear (northeast corner)

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END OF REPORT

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City of Tualatin Municipal Court at the Tualatin Police Department

8650 SW Tualatin Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Front Elevation (north)

Date of Field Visit: 6 January 2015
Weather: Partly sunny with fog, 47°F
Site Contacts: Sara Singer, City of Tualatin
Clayton Reynolds, City of Tualatin

Time of Day: 11:00 am and 4:00 pm
Site conditions: Inland, suburban, low-rise

General Building Description:

The facility is a single-story structure, purpose-built police department. The facility's property is bound by a wetland to the south, the Southwest Tualatin Road to the north, Southwest Sweek Drive to the west, and a private, single-family residence to the east. The building was constructed in 2000.

This assessment is focused on only that areas of the building currently hosting Municipal Court in the Training Room (room number 101 in the Record Drawings provided) and the Municipal Court shared work space areas in Records (112), Prevention (117), Files (114), and Copy-Supply (113).

The building is a 1-story building of exterior concrete masonry unit walls with brick veneer on concrete foundation and slab-on-grade. Upper attic walls are metal-framed with portland cement plaster finish. Structural frame is steel with metal joists and roof deck. Main entry orientation is to the south from parking lot; 1 floor; no elevator; fire suppression provided, adjacent street is Southwest Tualatin Road, adjacent buildings are another City of Tualatin facility and a private residence. General condition is good and well maintained. Location of the Training Room space is the west end of the building, on opposite side of entry lobby from Reception and Police Station. The Municipal Court shared work space areas are in the northern end of the middle portion of the Police Building.

The City has located the Municipal Court meeting space to this building, utilizing the Training Area on a regular basis and utilizing additional office area for the Municipal Court shared work space areas. Restrooms are outside of the area used for the Municipal Court meetings, and meet ADA; the main entry is accessible as are other entry/ egresses located throughout the building.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)	
Item	Comments/Findings
A10.1	General condition <ul style="list-style-type: none"> • CIP concrete foundation appeared to be in good shape
Recommendations	
A10.1.1 Monitor concrete foundations for cracking or other signs of settlement	

A20 – SUBGRADE ENCLOSURES (basements, etc)	
Item	Comments/Findings
A20.1	General condition <ul style="list-style-type: none"> • No basement or crawlspace
Recommendations	
A20.1 - None	

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)	
Item	Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code <ul style="list-style-type: none"> • As-built documents indicate that the structural system is concrete masonry unit exterior bearing walls on concrete foundation and slab-on-grade. Upper attic walls are light gauge metal-framed. Internal structural frame is steel members. Roof structure is metal joists and metal roof deck. Canopies are structural steel-framed
B10.2	Visible Gravity System <ul style="list-style-type: none"> • Confirms systems indicated in drawings
B10.3	Visible Lateral System <ul style="list-style-type: none"> • Drawings indicate that lateral system is CMU exterior walls. • Drawings indicate what appear to be adequate details of connections to the footings
B10.4	Building Exterior <ul style="list-style-type: none"> • There was no evidence of rot or movement of exterior walls • Collector boxes and downspouts appear to be in good shape and well maintained
B10.5	If building has been remodeled, note the current use as compared to design loads. <ul style="list-style-type: none"> • Original function was as Police Station with meeting spaces; current function of Training Room for Municipal Court meeting space is consistent with the originally permitted occupancy

Recommendations	
B10.1	None
B10.2	None
B10.3	None
B10.4	None
B10.5	None

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior brick veneer cladding is has been maintained well Exterior cement plaster finish has been maintained well Exterior metal lintels are painted; paint is showing evidence of chalking and deterioration; may require refinishing in near future
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Exterior windows throughout are commercial aluminum storefront systems with double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> Roof drainage is internal per drawings; appear to be removing water appropriately (no external signs of overflow were observed)
Recommendations		
B20.1.1	Observe and maintain field-painted finish at steel lintels; other exterior finishes are long-term life cycle products (brick veneer, cement plaster, aluminum storefront, standing seam metal roofing) but this field-painted metal finish may require refinishing as often as once every 5-7 years.	
B20.2	None	
B20.3	None	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roof access is available with escort via ladder in Janitor Closet, though the roof was not observed; drawings indicate built-up bituminous system at flat, lower roofs; sloped roofs are pre-finished standing seam metal Exterior metal roof edge, fascia and flashings appear to be in good condition; recent windstorms had torn-off a portion of fascia

		at another location on the building (not near the Meeting Room/ west end); staff reported that precautionary strapping had been added to avoid further damage and to better secure the fascia
B30.2	Other issues	<ul style="list-style-type: none"> None
Recommendations		
B30.1.1	Confirm life-span remaining for existing built-up roofing and continue observation and maintenance. Staff noted that a solution has been implemented for metal fascia wind damage problem. Replacement roofing with similar system has been proposed in the City's Capital Improvement Plan.	
B30.2	None	

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item	Comments/Findings	
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> N/A
C10.3	Atrium	<ul style="list-style-type: none"> N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Accessible at front entry and other entry/ egress locations Automatic door operators do not appear to be provided at entry doors Per drawings restrooms are accessible It was observed that piping below kitchenette sink within Training Room space was provided with protective covers Municipal Court shared work space areas are accessible
C10.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	
C10.4	None	
C10.5	None	

C20 –EGRESS		
Item	Comments/Findings	
C20.1	Travel distance to exit stair	<ul style="list-style-type: none"> N/A
C20.2	Exit stair continuity and integrity	<ul style="list-style-type: none"> N/A
C20.3	Exit corridor continuity and integrity	<ul style="list-style-type: none"> Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation	<ul style="list-style-type: none"> N/A

C20.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> Wall finishes in Training Room space and the Municipal Court shared work space areas are painted gypsum wallboard, except some locations in Training Room and Lobby are exposed brick veneer as at exterior Floor finishes in Training Room space and Municipal Court shared work space areas are broadloom carpet; flooring in the Lobby is random pattern stone with sealed finish; all flooring appears to be in good condition Ceiling finishes are acoustic ceiling tile, with soffits of painted gypsum wallboard Other interior finishes provided: <ul style="list-style-type: none"> Plastic laminate cabinetry at the kitchenette, with solid surface countertops Fabric-wrapped panel-and-white board presentation surfaces Wood trim throughout Interior wood veneer doors Plastic vertical blinds
C30.2	Locations and cause of water intrusion/ leaks	<ul style="list-style-type: none"> Only observed evidence of leakage is stained ceiling tile near middle of the Training Room ceiling; refer to Figure C30.2
C30.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C30.1	None	
C30.2.1	Staff confirmed that leak causing stained ceiling tile has been repaired; suggest to replace ceiling tile.	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	<ul style="list-style-type: none"> N/A
D10.2	Status of inspections, who maintains the elevator	<ul style="list-style-type: none"> N/A
D10.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> It is not indicated in the drawings what material plumbing piping is installed
D20.2	Distribution piping material	<ul style="list-style-type: none"> Not known
D20.3	Drain and vent system	<ul style="list-style-type: none"> Not known
D20.4	Fixture condition	<ul style="list-style-type: none"> Kitchenette has stainless steel sink, coffee service adjacent Restrooms in Lobby are accessory to Training Room and Municipal Court shared work space areas (not located in the spaces)
D20.5	Water pressure	<ul style="list-style-type: none"> Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> Accessory to Training Room and Municipal Court shared work space areas (not located in the space) Not observed
D20.8	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D20.1	None as assumed to meet Code at recent construction (2011)	
D20.2	Refer to D20.1	
D20.3	None	
D20.4	None	
D20.5	None	
D20.6	None	
D20.7	None	

D30 - HVAC		
Item		Comments/Findings
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> None
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> None

D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> • N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> • Units serving the Training Room space and Municipal Court shared work space areas are located at rooftop above the spaces • Gas-fired 7.5 ton rooftop unit installed at construction in 2011
D30.5	Air filtration	<ul style="list-style-type: none"> • Not observed
D30.6	Equipment accessibility	<ul style="list-style-type: none"> • At rooftop; not observed
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> • Not observed
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> • Not observed
D30.9	Mold issues	<ul style="list-style-type: none"> • No evidence seen
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> • Supply is ducted through plenum • Return is open plenum
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> • None visible
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> • Not observed • Windows are not operable
D30.13	Restroom ventilation	<ul style="list-style-type: none"> • Accessory to Training Room and Municipal Court shared work space areas (not located in the space) • Electric recessed ceiling-mounted fans • Controls not observed
D30.14	Custodial ventilation	<ul style="list-style-type: none"> • N/A
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> • Kitchenette within Training Room does not have ventilation; staff noted that kitchenette typically isn't used for food preparation; although a microwave has been installed, ventilation has not been an issue
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> • Not observed
D30.17	Duct materials	<ul style="list-style-type: none"> • Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> • Not observed
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> • Not observed; accessory to Training Room and Municipal Court shared work space areas (not located near the west end of the building)
D30.20	Cooling system	<ul style="list-style-type: none"> • Rooftop unit provides cooling as well; refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> • N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> • Staff reported that there is not refrigerant monitoring in place
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> • Provided at restrooms; accessory to Training Room and Municipal Court shared work space areas (not located in the space)

		<ul style="list-style-type: none"> • Not provided at kitchenette within Training Room
D30.24	Heating System	<ul style="list-style-type: none"> • Rooftop unit provides heating; refer to D30.4 • Supply registers were providing conditioned air at 71 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> • Data room was not observed; staff suggested that addition of cooling units for Data room may be a good idea
D30.26	Other issues	<ul style="list-style-type: none"> • None

Recommendations

D30.1	None
D30.2	None
D30.3	None
D30.4.1	City's Capital Improvements Plan includes line items for replacement of 3 HVAC units over 3-year period FY2017/18 thru FY 2019/20; 1 unit included in costs for Municipal Courts area
D30.5.1	Confirm condition and regular maintenance
D30.6	None
D30.7	None
D30.8	None
D30.9	None
D30.10	None
D30.11	None
D30.12	None
D30.13	None
D30.14	None
D30.15.1	Confirm ventilation of food odors and humidity is not an issue in the space
D30.16	None
D30.17	None
D30.18.1	Confirm HVAC systems are controlled on an as-needed basis to minimize energy use when the space is not occupied
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23.1	Determine with staff/ users whether there are ventilation/ odor issues due to the kitchenette, and consider addition of local exhaust fan if determined to be needed
D30.24	None
D30.25.1	Review conditions and consider addition of cooling units for Data room
D30.26	None

D40 – FIRE PROTECTION		
Item		Comments/Findings
D40.1	Fire suppression system	<ul style="list-style-type: none"> • Provided
D40.2	Water service, backflow prevention	<ul style="list-style-type: none"> • Municipal water service; staff reported that backflow prevention is provided
D40.3	System pressure	<ul style="list-style-type: none"> • Not known
D40.4	Standpipes	<ul style="list-style-type: none"> • Not observed
D40.5	Fire pump	<ul style="list-style-type: none"> • Not provided, relying on water pressure or FDC
D40.6	Fire sprinkler pipe condition	<ul style="list-style-type: none"> • Not observed above acoustic ceiling
D40.7	FDC	<ul style="list-style-type: none"> • At west end of parking lot across drive from structure
D40.8	Fire sprinkler zoning	<ul style="list-style-type: none"> • Not observed; staff reported that fire suppression zoning is provided
D40.9	Flow monitoring and alarm	<ul style="list-style-type: none"> • Not observed; staff reported that flow monitoring and alarm is provided
D40.10	On-site water source	<ul style="list-style-type: none"> • Not provided
D40.11	Test records	<ul style="list-style-type: none"> • Staff reported that fire suppression system and backflow valve are tested annually and copies of records are available
D40.12	Condition of fire hose or fire extinguishers	<ul style="list-style-type: none"> • Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguishers is located in space; observed to have up-to-date inspection
D40.13	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D40.1	None	
D40.2	None	
D40.3	None	
D40.4	None	
D40.5	None	
D40.6	None	
D40.7	None	
D40.8	None	
D40.9	None	
D40.10	None	
D40.11.1	Confirm routine testing and status	
D40.12	None	
D40.13	None	

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> Not observed
D50.2	Equipment grounding	<ul style="list-style-type: none"> Not observed Drawings indicate electrical requirements
D50.3	Lightning protection	<ul style="list-style-type: none"> Not provided
D50.4	Overcurrent protection	<ul style="list-style-type: none"> Not observed Drawings indicate Transient Voltage Surge Suppressor (TVSS) at Main Distribution Panel Drawings indicate integral Transient Voltage Surge Suppressors (TVSS) at Panels 2R1 and 2R2
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> Provided at Kitchenette within Training Room Provided at Restrooms; accessory to Training Room and Municipal Court shared work space areas (not located in the space)
D50.6	Rating of Panels	<ul style="list-style-type: none"> Panel not observed; accessory to Training Room and Municipal Court shared work space areas (not located in the space) Drawings indicate panel ratings
D50.7	Peak load	<ul style="list-style-type: none"> Drawings indicate electrical information
D50.8	Overloading/overheating	<ul style="list-style-type: none"> Not observed Staff reported that a panel rating test was run 5 years ago when there was a lighting problem
D50.9	Conductor insulation	<ul style="list-style-type: none"> Not observed, but assumed that 2011 installation meets current Code
D50.10	Conductor material	<ul style="list-style-type: none"> Not observed, but assumed that 2011 installation meets current Code
D50.11	Main distribution equipment	<ul style="list-style-type: none"> Not observed Drawings indicate electrical equipment information
D50.12	Equipment clearance	<ul style="list-style-type: none"> Audio-visual equipment was observed to be obstructed by furniture and other equipment at storage areas Other equipment not observed
D50.13	Disconnects	<ul style="list-style-type: none"> Not observed
D50.14	Transformers	<ul style="list-style-type: none"> Not observed
D50.15	Data Center/UPS	<ul style="list-style-type: none"> The Data room located adjacent to Municipal Court shared work space areas was not observed; voice and data service for the Municipal Court shared work space areas and the Training Room originate in

		the Data room; Data room has a battery backup to cover period of generator startup
D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> • Not observed above acoustic ceiling
D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> • Receptacles were observed be grounded devices • Staff reported that commissioning at the time of occupancy verified grounding for receptacles • It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	<ul style="list-style-type: none"> • Suspended up/down, 4-foot fluorescent tube fixtures; joined in 8-foot lengths at ACT ceiling at Training Room and Municipal Court shared work space areas • ACT recessed 2x4 fluorescent fixtures at Records room • Wall-mounted up/down, 4-foot fluorescent tube fixtures; joined in 8-foot lengths at GWB skylight well in Lobby • Recessed can fixtures with compact fluorescent lamps throughout
D50.19	Lighting Controls	<ul style="list-style-type: none"> • Switched at walls and via occupancy sensors • Staff reported occupancy sensors were in almost all spaces at time of construction; some areas changed to manual switching due to room configuration and inconsistency of lighting; in two cases the lights were going on and off and lighting ballasts couldn't manage the loads
D50.20	Back-up power	<ul style="list-style-type: none"> • Not observed; accessory to Training Room and Municipal Court shared work space areas • Drawings indicated separate Life-Safety and Standby automatic transfer switches from engine-generator set
D50.21	Generator	<ul style="list-style-type: none"> • Exterior pad-mounted engine-generator set • Drawings indicate 250 kW
D50.22	Battery packs	<ul style="list-style-type: none"> • Not observed
D50.23	Inverter	<ul style="list-style-type: none"> • Not observed
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> • Emergency lighting provided by several standard fixtures in the Training Room space

		<ul style="list-style-type: none"> • Not observed in Municipal Court shared work space areas • Drawings indicate emergency circuits throughout the building
D50.25	Emergency power system loads	<ul style="list-style-type: none"> • Drawings indicate electrical information
D50.26	Egress path lighting	<ul style="list-style-type: none"> • Indicated in plans; appears to be appropriately placed for Code-required coverage
D50.27	Exit signage	<ul style="list-style-type: none"> • Provided and appropriately located; refer to Figure D50.27 for typical
D50.28	Other issues	<ul style="list-style-type: none"> • None

Recommendations

- D50.1.1 Consider testing for grounding leakage.
- D50.2.1 Review requirements for necessary equipment to ensure proper grounding
- D50.3 None
- D50.4 None
- D50.5 None
- D50.6 None
- D50.7.1 Review peak load requirements and confirm panels meet needs.
- D50.8 None
- D50.9 None anticipated.
- D50.10 Refer to D50.9.
- D50.11 None
- D50.12 None
- D50.13 None
- D50.14 None
- D50.15 None
- D50.16 None
- D50.17.1 Confirm receptacles are connected to ground.
- D50.18 None
- D50.19.1 Consider replacement of on-off switches with occupancy switches to save energy.
- D50.20 None
- D50.21 None
- D50.22 None
- D50.23 None
- D50.24 None
- D50.25 None
- D50.26 None
- D50.27 None
- D50.28 None

D60 –FIRE DETECTION AND ALARM

Item		Comments/Findings
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> • Provided; accessory to Training Room and Municipal Court shared work space areas (not located in the spaces)

		<ul style="list-style-type: none"> • A remote annunciator is provided adjacent to the egress doors at the Lobby
D60.2	Smoke detectors	<ul style="list-style-type: none"> • Smoke and heat detection provided
D60.3	Pull stations	<ul style="list-style-type: none"> • Provided appropriately
D60.4	Annunciation	<ul style="list-style-type: none"> • Provided
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> • Yes
D60.6	System monitoring	<ul style="list-style-type: none"> • Presumed to be monitored via control panel
D60.7	Elevator recall	<ul style="list-style-type: none"> • N/A
D60.8	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D60.1	None	
D60.2	None	
D60.3	None	
D60.4	None	
D60.5	None	
D60.6	None	
D60.7	None	
D60.8	None	

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item		Comments/Findings
E10.1	Equipment anchorage	<ul style="list-style-type: none"> • Audio visual equipment is rack-mounted and appears to be properly secured
E10.2	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
E10.1	None	
E10.2	None	

G SITEWORK

G20 – SITE IMPROVEMENTS		
Item		Comments/Findings
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> • Yes • Most recent high water event was 1996
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> • Site is accessible • Accessible parking is well delineated; direct path to entry is provided without traversing traffic lanes; dedicated van parking is provided
G20.3	Site Security	<ul style="list-style-type: none"> • None
G20.4	Hurricane resistance	<ul style="list-style-type: none"> • N/A

G20.5	Access control	<ul style="list-style-type: none"> • Appears to be controlled by proximity card detection and electrified door hardware
G20.6	Adjacent property risks	<ul style="list-style-type: none"> • Shared occupancy with Police Station may provide both deterrence and provocation for incidents or attack • There is no security screening system in-place at the Lobby adjacent to the Training Room • Access to the Municipal Court shared work space areas is controlled via a reception window managed by Police and/or Court staff • Wet land along south edge of property presents flooding potential; well-designed site drainage installed during construction may mitigate this concern
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> • Distance is adequate for Code-required separation
G20.8	Drainage issues	<ul style="list-style-type: none"> • No issues were observed
G20.9	Other issues	<ul style="list-style-type: none"> • None

Recommendations

- G20.1 None beyond removal of important materials from this site due to flood risk.
 G20.2 None
 G20.3 None
 G20.4 None
 G20.5 None
 G20.6 None
 G20.7 None
 G20.8 None.
 G20.9 None

G30 – LIQUID AND GAS SITE UTILITIES

Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> • Irrigation system is provided • Fuel storage for engine-generator set is by 500-gallon skid base tank; no underground tank provided

Recommendations

- G30.1 None

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none">• Operation of site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1	Review site lighting functionality when illuminated	

INDEX TO FIGURES

- Figure B30.1 Clamp used to maintain connection of metal fascia panel following high wind event in early-December (northeast corner of Training room wing)
- Figure C30.1A Interior finishes at Training Room space
- Figure C30.1B Interior finishes at Training Room space, including movable wall system (at right)
- Figure C30.1C Interior finishes at kitchenette within Training Room space
- Figure C30.1D Interior finishes in Lobby outside Training Room space
- Figure C30.1E Interior finishes Municipal Court shared work space areas (Records room; Prevention room similar)
- Figure C30.2 Evidence of past leak visible in acoustic ceiling tile; Staff noted that leak was repaired
- Figure D40.12 Fire extinguisher and fire alarm pull station adjacent to entry door
- Figure D50.27 Typical exit signage; also typical fire detection and fire suppression



Figure C30.1A Interior finishes Training Room space



Figure C30.1B Interior finishes Training Room space



Figure C30.1C Interior finishes at kitchenette within Training Room space



Figure C30.1D Interior finishes in Lobby outside Training Room space



Figure C30.1E Interior finishes Municipal Court shared work space areas (Records room; Prevention room similar)



Figure C30.2 Evidence of past leak visible in acoustic ceiling tile; Staff noted that leak was repaired

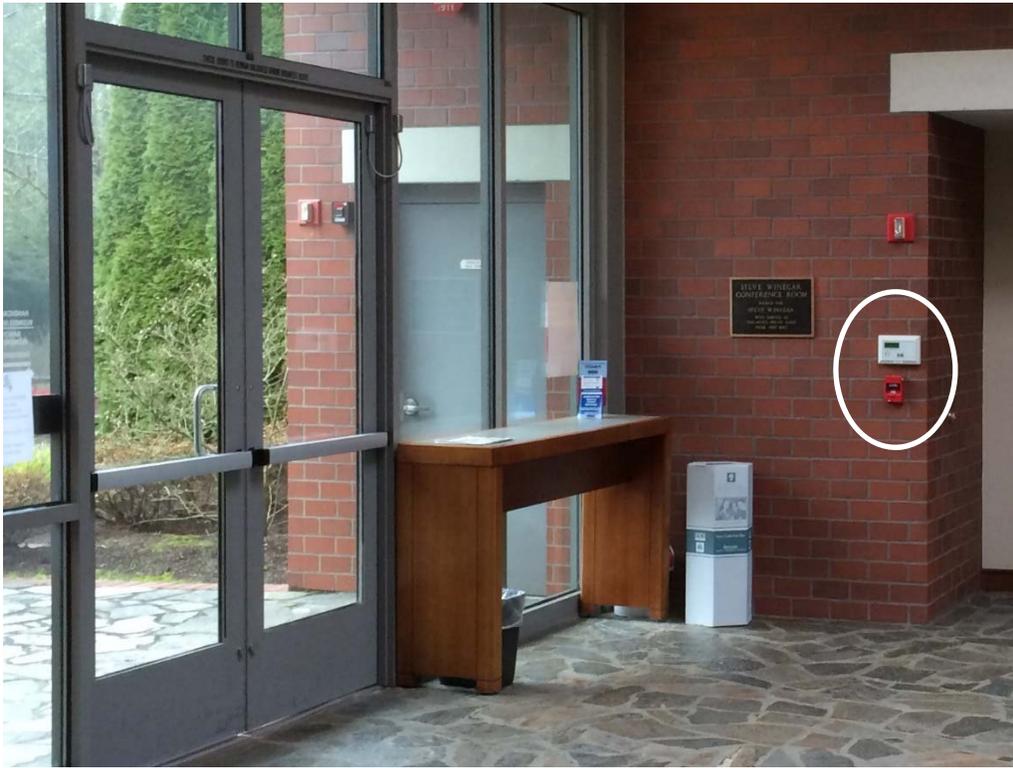


Figure D40.12 Fire alarm pull station and system panel adjacent to entry door



Figure D50.27 Typical exit signage; also typical fire detection and fire suppression

END OF REPORT

City of Tualatin Offices at the Seneca Building

18861 SW Martinazzi Ave, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Building Entry (east)



Front of Building (east)



Side of Building (south)



Rear Elevation Detail (west)

Date of Field Visit: 6 January 2015 Time of Day: 9:00 am and 1:30 pm
Weather: Partly sunny with fog, 47°F Site conditions: Inland, suburban, low-rise
Site Contacts: Sara Singer, City of Tualatin
 Clayton Reynolds, City of Tualatin

General Building Description:

The facility is a two-story structure, lease-space office building. The facility's property is bound by SW Seneca Street to the south, a parking lot and additional lease office building to the north, parking lots to the west, and SW Martinazzi Ave to the east. The building appears to have been constructed in the 1980's and renovated in 2008 when it appears that the City moved into this office in the building. This assessment is focused on only that area of the building currently leased by the City at the second floor, south end and public areas of the building.

The building is a 2-story building of wood- or metal-framed construction with exterior cement plaster or EIFS and exterior brick masonry veneer on concrete foundation and slab-on-grade. Structural frame is not known, but assumed to be steel with wood or metal joists and plywood roof deck. Main entry orientation is to the east from SW Martinazzi Ave near the intersection with Seneca Street; City offices on only the second of two floors; hydraulic, accessible elevator; fire suppression is not provided, adjacent streets are SW Martinazzi Avenue and Seneca Street, adjacent buildings are other leasable office buildings of one and two floors. General condition is good and well maintained. Location of the City office space is the south end of the building at the second floor, on one side of second floor elevator lobby. Restrooms are outside of the area leased by the City and are common to the building, with keyed entry, they meet ADA; the main entry is accessible with an elevator; other entry/ egresses from the second floor are stairs only.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> CIP concrete foundation appeared to be in good shape
Recommendations		
A10.1.1 Monitor concrete foundations for cracking or other signs of settlement		

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> No basement or crawlspace
Recommendations		
A20.1 - None		

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> Drawings of the building were not available A lease-space drawing did not indicate building construction nor systems
B10.2	Visible Gravity System	<ul style="list-style-type: none"> Not observed; assumed to be wood- or light gauge metal-framed, possible with steel framing
B10.3	Visible Lateral System	<ul style="list-style-type: none"> Not observed
B10.4	Building Exterior	<ul style="list-style-type: none"> There was no evidence of rot or movement of exterior walls Collector boxes and downspouts appear to be in good shape and well maintained Roof drainpipes are routed back into building after leaving roof, providing the opportunity for unobserved failure and water damage
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Original function was as leasable commercial office space; current function of City office space is consistent with the originally permitted occupancy
Recommendations		
B10.1 None		
B10.2 None		
B10.3 None		
B10.4 None		
B10.5 None		

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior brick veneer cladding is has been maintained well Exterior cement plaster finish has been maintained well
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Exterior windows throughout are commercial aluminum windows; appear to use double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> Roof drainage is a combination of external and internal; appear to be removing water appropriately (no external signs of overflow were observed)

Recommendations	
B20.1	None
B20.2	None
B20.3	None

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Not observed as roof access was not available Where viewed from the ground, exterior metal roof edge, fascia and flashings appear to be in good condition; refer to Figure B30.1
B30.2	Other issues	<ul style="list-style-type: none"> None
Recommendations		
B30.1.1	Confirm life-span remaining for existing roofing and continue coordination with owner for regular maintenance.	
B30.2	None	

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> Appropriate for building height and same occupancy type at each floor
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> N/A
C10.3	Atrium	<ul style="list-style-type: none"> N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Accessible at front entry via elevator; not accessible at rear entry due to stairs

		<ul style="list-style-type: none"> • Automatic door operators are not provided • Restrooms are accessible, however placement of garbage can adjacent to entry as requested by occupants obstructs required door edge clearance for exiting
C10.5	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	
C10.4.1	Consider provision of smaller garbage can that will fit under the counter near the door to restore adequate clearance	
C10.5	None	

C20 –EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	<ul style="list-style-type: none"> • Exit distance from the second floor lobby at the entrance to the City offices suite to the rear stair door at first floor was not measured on-site; for this un-sprinklered building the distance may be too long
C20.2	Exit stair continuity and integrity	<ul style="list-style-type: none"> • It was not confirmed though it is likely that the walls at the open stair are required 1-hour rated construction • It was noted by staff that the stairs at both front entry and rear access seem steep; it was confirmed that the risers at both stairs exceed the code maximum 7-inch height; refer to Figure C20.2
C20.3	Exit corridor continuity and integrity	<ul style="list-style-type: none"> • It was not confirmed though it is likely that the walls at the lobby and along the egress corridor are required 1-hour rated construction; door to City offices suite is a 1-hour rated door; doors on other office suites were not observed
C20.4	(High Rise) Stairway door operation	<ul style="list-style-type: none"> • N/A
C20.5	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
C20.1.1	Measure egress distance from the entrance to the City offices suite to the rear stair door at first floor; maximum allowable distance is 75 feet, including the distance down the exit stair. The only solutions if this distance proves to be too long is to add a rated door at the top of the stair or elsewhere along the exit path to break-up the egress distances, add an automatic fire sprinkler system to the building (to increase allowable distance to 100 feet), or vacating the building for another site.	
C20.2.1	There is no recommendation for the stair riser height issue.	
C20.3.1	Review ratings of other office suites to confirm	

C20.4	None
C20.5	None

C30 – INTERIOR FINISHES

Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> • Wall finishes in City offices area are painted gypsum wallboard • Floor finishes in City offices area are broadloom carpet; all flooring appears to be in good condition • Ceiling finishes are acoustic ceiling tile, with soffits of painted gypsum wallboard • Other interior finishes provided: <ul style="list-style-type: none"> ○ Plastic laminate cabinetry and countertops at the kitchenette ○ Fabric-wrapped panel-and-white board presentation surfaces ○ Wood trim throughout ○ Interior wood veneer doors
C30.2	Locations and cause of water intrusion/ leaks	<ul style="list-style-type: none"> • A few indications of leakage were observed in the City offices area ceilings; staff noted that these locations had been repaired by the building owner already
C30.3	Other issues	<ul style="list-style-type: none"> • None

Recommendations	
C30.1	None
C30.2.1	Replace ceiling tiles at leak locations from past
C30.2.2	Maintain observation for new leaks causing stained ceiling tile, and repair.
C30.3	None

D SERVICES

D10 – CONVEYING

Item		Comments/Findings
D10.1	Overall condition of elevator	<ul style="list-style-type: none"> • Hydraulic, 2-stop, 2-sided commercial elevator; good condition
D10.2	Status of inspections, who maintains the elevator	<ul style="list-style-type: none"> • On file with building owner
D10.3	Other issues	<ul style="list-style-type: none"> • None

Recommendations	
D10.1	None
D10.2	None
D10.3	None

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> • Municipal water • Bottled water is made available as well
D20.2	Distribution piping material	<ul style="list-style-type: none"> • Not known
D20.3	Drain and vent system	<ul style="list-style-type: none"> • Not known
D20.4	Fixture condition	<ul style="list-style-type: none"> • Kitchenette has stainless steel sink, coffee service adjacent • Restrooms in second floor Lobby are accessory to City offices area (not located in the spaces)
D20.5	Water pressure	<ul style="list-style-type: none"> • Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> • Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> • Accessory to City offices area (not located in the space) • Not observed
D20.8	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D20.1.1	None as assumed to meet Code at construction (1980's)	
D20.2.1	Refer to D20.1	
D20.3	None	
D20.4	None	
D20.5	None	
D20.6	None	
D20.7	None	

D30 - HVAC		
Item		Comments/Findings
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> • Not observed
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> • Not observed
D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> • N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> • Units serving the City offices area are located at rooftop above the spaces • Not observed
D30.5	Air filtration	<ul style="list-style-type: none"> • Not observed
D30.6	Equipment accessibility	<ul style="list-style-type: none"> • At rooftop; not observed
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> • Not observed
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> • Not observed
D30.9	Mold issues	<ul style="list-style-type: none"> • No evidence seen
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> • Supply appears to be ducted through plenum • Return appears to be open plenum
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> • Not observed
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> • Not observed for HVAC units • Windows are not operable

D30.13	Restroom ventilation	<ul style="list-style-type: none"> • Accessory to City offices area (not located in the space) • Electric recessed ceiling-mounted fans • Controls not observed
D30.14	Custodial ventilation	<ul style="list-style-type: none"> • Accessory to City offices area (not located in the space); not observed
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> • Kitchenette does not have ventilation except return air grille
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> • Not observed
D30.17	Duct materials	<ul style="list-style-type: none"> • Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> • Two thermostats within the space, appear to be for east and west zones
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> • N/A
D30.20	Cooling system	<ul style="list-style-type: none"> • Rooftop unit provides cooling as well; refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> • N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> • Not known
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> • Provided at restrooms; accessory to City offices area (not located in the space) • Not provided at kitchenette within City offices area
D30.24	Heating System	<ul style="list-style-type: none"> • Rooftop unit provides heating; refer to D30.4 • Supply registers were providing conditioned air at 73 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> • N/A
D30.26	Other issues	<ul style="list-style-type: none"> • None

Recommendations

- D30.1 None
- D30.2 None
- D30.3 None
- D30.4 None
- D30.5.1 Confirm condition and regular maintenance
- D30.6 None
- D30.7 None
- D30.8 None
- D30.9 None
- D30.10 None
- D30.11 None
- D30.12 None
- D30.13 None
- D30.14 None
- D30.15 None
- D30.16 None
- D30.17 None

D30.18.1	Confirm HVAC systems are controlled on an as-needed basis to minimize energy use when the space is not occupied
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23.1	Determine with staff/ users whether there are ventilation/ odor issues due to the kitchenette, and consider addition of local exhaust fan if determined to be needed
D30.24	None
D30.25	None
D30.26	None

D40 – FIRE PROTECTION

Item	Comments/Findings
D40.1	Fire suppression system • Not provided
D40.2	Water service, backflow prevention • N/A
D40.3	System pressure • N/A
D40.4	Standpipes • N/A
D40.5	Fire pump • N/A
D40.6	Fire sprinkler pipe condition • N/A
D40.7	FDC • N/A
D40.8	Fire sprinkler zoning • N/A
D40.9	Flow monitoring and alarm • N/A
D40.10	On-site water source • N/A
D40.11	Test records • N/A
D40.12	Condition of fire hose or fire extinguishers • Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguishers is located in space; observed to have up-to-date inspection
D40.13	Other issues • None

Recommendations

D40.1	None
D40.2	None
D40.3	None
D40.4	None
D40.5	None
D40.6	None
D40.7	None
D40.8	None
D40.9	None
D40.10	None
D40.11	None
D40.12	None
D40.13	None

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> Not observed
D50.2	Equipment grounding	<ul style="list-style-type: none"> Not observed
D50.3	Lightning protection	<ul style="list-style-type: none"> Not provided
D50.4	Overcurrent protection	<ul style="list-style-type: none"> Not observed
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> Provided at Kitchenette within City offices area Provided at Restrooms; accessory to City offices area (not located in the space)
D50.6	Rating of Panels	<ul style="list-style-type: none"> Panel not observed; accessory to City offices area (not located in the space)
D50.7	Peak load	<ul style="list-style-type: none"> Not known
D50.8	Overloading/overheating	<ul style="list-style-type: none"> Not observed
D50.9	Conductor insulation	<ul style="list-style-type: none"> Not observed, but assumed that 1980's installation meets current Code
D50.10	Conductor material	<ul style="list-style-type: none"> Not observed, but assumed that 1980's installation meets current Code
D50.11	Main distribution equipment	<ul style="list-style-type: none"> Not observed
D50.12	Equipment clearance	<ul style="list-style-type: none"> No issues observed
D50.13	Disconnects	<ul style="list-style-type: none"> Not observed
D50.14	Transformers	<ul style="list-style-type: none"> Not observed
D50.15	Data Center/UPS	<ul style="list-style-type: none"> Data room not provided
D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> Not observed above acoustic ceiling
D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> Receptacles were observed be grounded devices It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	<ul style="list-style-type: none"> ACT recessed 2x4 fluorescent fixtures
D50.19	Lighting Controls	<ul style="list-style-type: none"> Switched at walls
D50.20	Back-up power	<ul style="list-style-type: none"> Not observed; would be accessory to City offices area
D50.21	Generator	<ul style="list-style-type: none"> Not provided
D50.22	Battery packs	<ul style="list-style-type: none"> Not observed
D50.23	Inverter	<ul style="list-style-type: none"> Not observed
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> Emergency lighting provided by several standard fixtures in the City offices area
D50.25	Emergency power system loads	<ul style="list-style-type: none"> Not known
D50.26	Egress path lighting	<ul style="list-style-type: none"> Emergency lighting was observed at several standard fixtures in the common area and egress corridor
D50.27	Exit signage	<ul style="list-style-type: none"> Provided and appropriately located; refer to Figure D50.27 for typical
D50.28	Other issues	<ul style="list-style-type: none"> None

Recommendations	
D50.1.1	Consider testing for grounding leakage.
D50.2.1	Review requirements for necessary equipment to ensure proper grounding
D50.3	None
D50.4	None
D50.5	None
D50.6	None
D50.7.1	Review peak load requirements and confirm panels meet needs.
D50.8	None
D50.9.1	None anticipated.
D50.10.1	Refer to D50.9.
D50.11	None
D50.12	None
D50.13	None
D50.14	None
D50.15	None
D50.16	None
D50.17.1	Confirm receptacles are connected to ground.
D50.18	None
D50.19.1	Consider replacement of on-off switches with occupancy switches to save energy.
D50.20	None
D50.21	None
D50.22	None
D50.23	None
D50.24	None
D50.25	None
D50.26	None
D50.27	None
D50.28	None

D60 –FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> • Provided; accessory to City offices area (not located in the spaces)
D60.2	Smoke detectors	<ul style="list-style-type: none"> • Smoke detection provided
D60.3	Pull stations	<ul style="list-style-type: none"> • Provided appropriately
D60.4	Annunciation	<ul style="list-style-type: none"> • Provided
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> • Not known
D60.6	System monitoring	<ul style="list-style-type: none"> • Presumed to be monitored via control panel
D60.7	Elevator recall	<ul style="list-style-type: none"> • Not known
D60.8	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D60.1	None	
D60.2	None	
D60.3	None	
D60.4	None	

D60.5	None
D60.6	None
D60.7.1	Confirm elevator recall
D60.8	None

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT	
Item	Comments/Findings
E10.1	Equipment anchorage <ul style="list-style-type: none"> • Not observed
E10.2	Other issues <ul style="list-style-type: none"> • None
Recommendations	
E10.1	Confirm water heater is anchored per Code requirements
E10.2	None

G SITEWORK

G20 – SITE IMPROVEMENTS	
Item	Comments/Findings
G20.1	Building location prone to flooding <ul style="list-style-type: none"> • Yes • Most recent high water event was 1996
G20.2	Building accessibility (ADA) <ul style="list-style-type: none"> • Site is accessible • Accessible parking is well delineated; direct path to entry is provided without traversing traffic lanes; dedicated van parking is provided
G20.3	Site Security <ul style="list-style-type: none"> • Surveillance cameras were observed
G20.4	Hurricane resistance <ul style="list-style-type: none"> • N/A
G20.5	Access control <ul style="list-style-type: none"> • After-hours key coded building entry
G20.6	Adjacent property risks <ul style="list-style-type: none"> • None of note
G20.7	Separation / opening protection to adjacent property <ul style="list-style-type: none"> • Distance appears to be adequate for Code-required separation • Directly adjacent office building to north may not have adequately rated separation wall
G20.8	Drainage issues <ul style="list-style-type: none"> • No issues were observed
G20.9	Other issues <ul style="list-style-type: none"> • None
Recommendations	
G20.1.1	None, as City offices at second floor appear to be above flood levels.
G20.2	None
G20.3	None
G20.4	None
G20.5	None
G20.6	None
G20.7.1	Confirm rating of separation wall at adjacent building to north

G20.8	None.
G20.9	None

G30 – LIQUID AND GAS SITE UTILITIES		
Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> • Not observed
Recommendations		
G30.1 None		

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> • Operation of site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1 Review site lighting functionality when illuminated		

INDEX TO FIGURES

Figure B30.1 Metal roof edge, flashings and gutters appear to be in good condition

Figure C20.2 Stairs are steeper than code required, exceeding 7 inches at risers

Figure D50.27 Typical exit signage at common area corridor



Figure B30.1 Metal roof edge, flashings and gutters appear to be in good condition

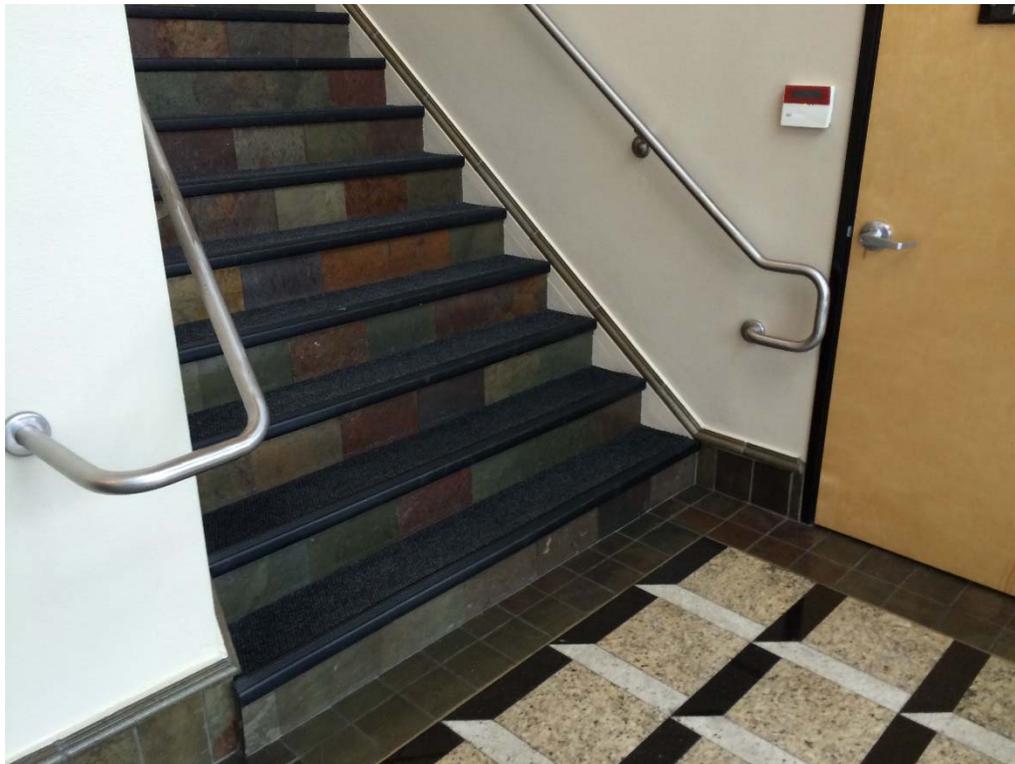


Figure C20.2 Stairs are steeper than code required, exceeding 7 inches at risers



Figure D50.27 Typical exit signage at common area corridor

END OF REPORT

Office spaces for City of Tualatin

Summary

1	Community Services Building	\$	47,300	20.1%
2	Information Services Department	\$	12,600	5.4%
3	Lafky House	\$	49,900	21.2%
4	City Offices Building and Public Library	\$	40,000	17.0%
5	Council Meeting Space for City of Tualatin	\$	30,000	12.8%
6	Municipal Court	\$	51,500	21.9%
7	Seneca Building	\$	3,800	1.6%
TOTAL		\$	235,100	

Facility: **Community Services Building**
Office space for City of Tualatin

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (<i>foundations, slab-on-grade, etc.</i>)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (<i>basements, etc</i>)		
A20.1.1 Insulate basement foundation walls	\$ 5,246	R-19 batt; vapor barrier at walls
	\$ 5,246	
B SHELL		
B10 - SUPERSTRUCTURE (<i>building frame, floors & roofs</i>)		
B10.3.1 Provide diaphragm at roof	\$ 2,003	Add'l layer 1/2-inch plywood at time of re-roofing
B10.3.2 Provide anchorage of sill plates to foundation walls	\$ 1,727	Bolting at 48 inches o.c. at perimeter
B10.5.1 Provide add'l support below heavy loads above	\$ 768	Add'l floor framing, posts and bases; 6 locations
B20 - EXTERIOR VERTICAL ENCLOSURES (<i>walls, windows, exterior doors, etc</i>)		
B20.3.1 Provide downspout extensions	\$ 80	6 locations
B20.3.2 Remove debris from window wells	\$ 68	
B30 - EXTERIOR HORIZONTAL ENCLOSURES (<i>roofing, horizontal openings, etc.</i>)		
B30.1.1 Provide re-roofing	\$ 6,764	3 tab asphalt shingle; 20 year warranty; incl'g tear-off
	\$ 16,340	Utilize metal roofing per Capital Improvement Plan
	\$ 20,984	

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
C10.4.1 Renovate restroom for accessibility	\$ 2,035	Replace toilet and sink; remove urinal; add grab rails; reverse door swing
C10.4.2 Renovate kitchenette for accessibility	\$ 560	Reconfigure casework below sink to allow roll-in
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
None	\$ -	None
	\$ 2,595	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
D20.4.1 Replace faucets with low-flow devices	\$ 140	Kitchenette only; restroom fixtures replaced due to C10.4
D20.7.1 Replace water heater	\$ 720	On-demand unit
D30 - HVAC		
D30.6.1 Mark stand-off distance	\$ 23	Painted lines
D30.18.1 Provide programmable thermostat	\$ 240	

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.12.1 Mark stand-off distance	\$ 23	Painted lines
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 390	Switches with occ'y sensors
D50.26.1 Addition of emergency lighting	\$ 2,000	Battery pack-powered emergency lighting fixtures
D50.27.1 Addition of emergency egress signage	\$ 800	Battery pack-powered emergency egress fixtures
D60 - FIRE DETECTION AND ALARM		
D60.1.1 Provide centralized fire detection and alarm	\$ 3,200	Small building-scale monitoring and notification system
	\$ 7,535	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
None	\$ -	None
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ -	
OTHER		
	\$ -	

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ 5,246	
B SHELL	\$ 20,984	
C INTERIORS	\$ 2,595	
D SERVICES	\$ 7,535	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ -	
OTHER	\$ -	
SUBTOTAL	\$ 36,400	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 47,300	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Facility: **Information Services Department**
at the Public Works Facility

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (<i>foundations, slab-on-grade, etc.</i>)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (<i>basements, etc</i>)		
None	\$ -	None
	\$ -	
B SHELL		
B10 - SUPERSTRUCTURE (<i>building frame, floors & roofs</i>)		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES (<i>walls, windows, exterior doors, etc</i>)		
None	\$ -	None
B30 - EXTERIOR HORIZONTAL ENCLOSURES (<i>roofing, horizontal openings, etc.</i>)		
None	\$ -	None
	\$ -	

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
C10.2.1 Improve the fire resistance of the separation wall	\$ 2,660	Add insulation, layer of GWB, fire caulk, and head closure
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
C30.2.1 Remove disused louver; close opening from the exterior	\$ 240	Remove louver; plywood closure; caulk; paint
	\$ 2,900	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
None	\$ -	None
D30 - HVAC		
D30.7.1 Reroute condensate drain to use gravity instead of pump	\$ 200	
D30.18.1 Program thermostat	\$ 45	

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 130	Switches with occ'y sensors
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 375	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
G20.2.1 Re-stripe pavement for accessible employee parking	\$ 135	Paint
G20.6.1 Replace T1-11 siding at north facade with non-combustible siding	\$ 6,300	Fabricated metal siding, prefinished
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ 6,435	
OTHER		
	\$ -	

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ -	
C INTERIORS	\$ 2,900	
D SERVICES	\$ 375	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ 6,435	
OTHER	\$ -	
SUBTOTAL	\$ 9,700	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 12,600	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Facility: **Lafky House**
Office space for City of Tualatin

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (<i>foundations, slab-on-grade, etc.</i>)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (<i>basements, etc</i>)		
A20.1.1 Insulate crawlspace foundation walls	\$ 3,705	R-19 batt; vapor barrier at kneewalls and on-grade
	\$ 3,705	
B SHELL		
B10 - SUPERSTRUCTURE (<i>building frame, floors & roofs</i>)		
B10.3.1 Provide diaphragm at roof	\$ 2,957	Add'l layer 1/2-inch plywood at time of re-roofing
B10.3.2 Provide anchorage of sill plates to foundation walls	\$ 2,656	Bolting at 48 inches o.c. at perimeter
B10.5.1 Provide add'l support below heavy loads above	\$ 464	Add'l floor framing, posts and bases; 4 locations
B20 - EXTERIOR VERTICAL ENCLOSURES (<i>walls, windows, exterior doors, etc</i>)		
B20.3.1 Provide downspout extensions	\$ 106	8 locations
B30 - EXTERIOR HORIZONTAL ENCLOSURES (<i>roofing, horizontal openings, etc.</i>)		
B30.1.1 Provide re-roofing	\$ 6,052	3 tab asphalt shingle; 20-year warranty; incl'g tear-off
	\$ 14,620	Utilize metal roofing per Capital Improvement Plan
	\$ 20,803	

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
None	\$ -	None
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
None	\$ -	None
	\$ -	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
D20.1.1 Replace galvanized steel water supply piping	\$ 1,950	Replace with PEX
D20.7.1 Replace water heater	\$ 720	On-demand unit
D30 - HVAC		
D30.6.1 Mark stand-off distance	\$ 23	Painted lines
D30.7.1 Remove condensate pump; reroute condensate line for gravity drain	\$ 105	
D30.10.1 Increase insulation at attic	\$ 2,380	R-19 batt added
D30.18.1 Program thermostat	\$ 45	

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.6.1 Replace existing panel	\$ 1,260	New panel adjacent
D50.12.1 Mark stand-off distance	\$ 23	Painted lines
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 390	Switches with occ'y sensors
D50.26.1 Addition of emergency lighting	\$ 2,500	Battery pack-powered emergency lighting fixtures
D50.27.1 Addition of emergency egress signage	\$ 800	Battery pack-powered emergency egress fixtures
D60 - FIRE DETECTION AND ALARM		
D60.1.1 Provide centralized fire detection and alarm	\$ 3,200	Small building-scale monitoring and notification system
	\$ 13,395	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
E10.1.1 Provide seismic restraint for water heater	\$ 63	
E10.2.1 Disconnect baseboard heat and label circuits	\$ 260	
	\$ 323	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
G20.8.1 Site grading at building	\$ 160	Soil and toppings cleared away
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ 160	
OTHER		
	\$ -	

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ 3,705	
B SHELL	\$ 20,803	
C INTERIORS	\$ -	
D SERVICES	\$ 13,395	
E EQUIPMENT AND FURNISHINGS	\$ 323	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ 160	
OTHER	\$ -	
SUBTOTAL	\$ 38,400	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 49,900	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Facility: **City Offices Building and Public Library**

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (<i>foundations, slab-on-grade, etc.</i>)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (<i>basements, etc.</i>)		
None	\$ -	None
		\$ -
B SHELL		
B10 - SUPERSTRUCTURE (<i>building frame, floors & roofs</i>)		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES (<i>walls, windows, exterior doors, etc.</i>)		
B20.1.1 Maintain field-painted finish at steel lintels	\$ 3,456	Maintain field-painted finish at steel lintels
B30 - EXTERIOR HORIZONTAL ENCLOSURES (<i>roofing, horizontal openings, etc.</i>)		
None	\$ -	None
		\$ 3,456

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
None	\$ -	None
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
None	\$ -	None
	\$ -	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
D20.3.1 Install fats/pils/grease trap system	\$ 26,000	Per Capital Improvements Plan

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
D30 - HVAC		
D30.4.1 Maintain field-painted finish at rooftop gas lines to HVAC	\$ 280	Maintain field-painted finish at rooftop gas lines to HVAC
D30.13.1 Replacement of exhaust fan controls at restroom with occ'y sensing	\$ 440	Switches with occ'y sensors
D30.14.1 Replacement of exhaust fan controls at custodial with occ'y sensing	\$ 110	Switches with occ'y sensors
D30.15.1 Addition of local exhaust fan at kitchenette	\$ 490	Exhaust fan thru roof; 150 cfm with occ'y sensor
D30.23.1 Refer to D30.15		
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
None	\$ -	None
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 27,320	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	

Items	Projected Cost	Cost Description
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
None	\$ -	None
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ -	
OTHER		
	\$ -	

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ 3,456	
C INTERIORS	\$ -	
D SERVICES	\$ 27,320	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ -	
OTHER	\$ -	
SUBTOTAL	\$ 30,800	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 40,000	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Facility: **Council Meeting Space for City of Tualatin**
at Juanita Pohl Senior Center

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (<i>foundations, slab-on-grade, etc.</i>)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (<i>basements, etc</i>)		
None	\$ -	None
	\$ -	
B SHELL		
B10 - SUPERSTRUCTURE (<i>building frame, floors & roofs</i>)		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES (<i>walls, windows, exterior doors, etc</i>)		
None	\$ -	None
B30 - EXTERIOR HORIZONTAL ENCLOSURES (<i>roofing, horizontal openings, etc.</i>)		
B30.1.1 Provide re-roofing identified in Capital Improvement Plan	\$ 21,400	20% of reroofing per Capital Improvement Plan
D30.18.1 Program thermostat	\$ 45	
	\$ 21,445	

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
C10.4.1 Provide scald protection shielding at restroom sink drains	\$ 230	4 sinks
C10.4.2 Replace existing urinals with accessible versions	\$ 1,050	1 urinal; remove, in-fill and retile floor and wall, add new
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
None	\$ -	None
	\$ 1,280	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
None	\$ -	None
D30 - HVAC		
None	\$ -	None

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 260	Switches with occ'y sensors
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 260	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
G20.8.1 Site grading at building	\$ 160	Soil and toppings cleared away
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ 160	
OTHER		
	\$ -	

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ 21,445	
C INTERIORS	\$ 1,280	
D SERVICES	\$ 260	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ 160	
OTHER	\$ -	
SUBTOTAL	\$ 23,100	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 30,000	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Facility: **Municipal Court**
at Police Department

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (<i>foundations, slab-on-grade, etc.</i>)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (<i>basements, etc.</i>)		
None	\$ -	None
	\$ -	
B SHELL		
B10 - SUPERSTRUCTURE (<i>building frame, floors & roofs</i>)		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES (<i>walls, windows, exterior doors, etc.</i>)		
B20.1.1 Maintain field-painted finish at steel lintels	\$ 1,800	Maintain field-painted finish at steel lintels
B30 - EXTERIOR HORIZONTAL ENCLOSURES (<i>roofing, horizontal openings, etc.</i>)		
B30.1.1 Provide re-roofing identified in Capital Improvement Plan	\$ 7,750	25% of reroofing flat roofs per Capital Improvement Plan
	\$ 9,550	

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
None	\$ -	None
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
C30.2.1 Replace ceiling tiles at leak locations from past	\$ 48	ACT tiles
	\$ 48	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
None	\$ -	None
D30 - HVAC		
D30.4.1 Provide replacement unit identified in Capital Improvement Plan	\$ 29,000	1 unit per Capital Improvement Plan
D30.23.1 Addition of local exhaust fan at kitchenette	\$ 490	Exhaust fan thru roof; 150 cfm with occ'y sensor

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 520	Switches with occ'y sensors
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 30,010	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
None	\$ -	None
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ -	
OTHER		
	\$ -	

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ 9,550	
C INTERIORS	\$ 48	
D SERVICES	\$ 30,010	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ -	
OTHER	\$ -	
SUBTOTAL	\$ 39,600	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 51,500	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Facility: **Seneca Building**
Leased office space for City of Tualatin

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (<i>foundations, slab-on-grade, etc.</i>)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (<i>basements, etc.</i>)		
None	\$ -	None
\$ -		
B SHELL		
B10 - SUPERSTRUCTURE (<i>building frame, floors & roofs</i>)		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES (<i>walls, windows, exterior doors, etc.</i>)		
None	\$ -	None
B30 - EXTERIOR HORIZONTAL ENCLOSURES (<i>roofing, horizontal openings, etc.</i>)		
None	\$ -	None
\$ -		

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
None	\$ -	None
C20 - EGRESS		
C10.1.1 Provide rated partition to reduce travel distance	\$ 1,900	1-hr rated partition; rated door and hardware
C30 - INTERIOR FINISHES		
C30.2.1 Replace ceiling tiles at leak locations from past	\$ 120	ACT tiles
	\$ 2,020	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
None	\$ -	None
D30 - HVAC		
D30.23.1 Addition of local exhaust fan at kitchenette	\$ 490	Exhaust fan thru roof; 150 cfm with occ'y sensor

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 390	Switches with occ'y sensors
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 880	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

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Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
None	\$ -	None
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ -	
OTHER		
	\$ -	

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ -	
C INTERIORS	\$ 2,020	
D SERVICES	\$ 880	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ -	
OTHER	\$ -	
SUBTOTAL	\$ 2,900	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 3,800	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year