

Honorable Mayor Pete Schave

Ward 1
Melvin Taylor
Kacey Morrison

Ward 2
David Gakin
John Maki

Ward 3
Liz Ellis
Kati Kachman

Ward 4
Stanley Sidor
Deborah Ross

Ward 5
Joshua Francy
Debi Pieraccini

Ward 6
David Lawrence
Dee Anne Shaw



ABERDEEN CITY COUNCIL WORKSHOP AGENDA

200 E. Market Street, Aberdeen, WA 98520
Aberdeen City Hall - City Council Chambers – 3rd Floor
Wednesday, February 15, 2023
6:00 p.m.

1. CALL TO ORDER
2. ROLL CALL
3. WELCOME AND INTRODUCTION
 - a. Board of Museum and History Introductions
4. PRESENTATION
 - a. David Bielski, Museum Board Member
5. MAYOR and CITY COUNCIL QUESTIONS & COMMENTS
6. NEXT STEPS
7. ADJOURNMENT

The City of Aberdeen does not discriminate against or exclude anyone from participation in public meetings. Requests for assistance should be made by contacting the Human Resources Department at 360-537-3207, 24 hours in advance of the meeting.
Thank you.

City of Aberdeen
Board of Museum and History
Presentation to the Aberdeen City Council
February 15, 2023 Workshop

1. **Why should the City support a Museum?** Constituents have donated artifacts (valued over \$1 million) in trust to the City for use in a public museum. We need to honor that trust.

2. **Why do we need a museum?**
 - a. It can Revitalize our downtown.
 - b. Gives tourists a reason to stop.
 - c. It will promote our history, art, and music.
 - d. Crucial for our children’s education and heritage.
 - e. It provides a place for individuals to donate items to preserve our history
 - f. Reestablish trust

3. **How can this museum be different?**
 - a. It will be more visible due to the location
 - b. A stronger emphasis on education and youth involvement
 - c. We can then interpret our history through a more modern lens and be interactive
 - d. Reconnect with our heritage through music, arts, indigenous peoples, science, industry, and local culture

4. **Strategic Plan with goals for City Council:**
 - a. Within 45 Days the City Council and Mayor decide if they want a museum
 - b. If the City Council supports a museum:
 - i. Building needs to be move in ready
 - A. Roof repaired
 - B. 3rd floor windows repaired
 - C. Hazardous Material Abatement
 - D. Security System installed
 - E. Fire Detection system installed or upgraded
 - F. Elevator certified and operable
 - ii. Then move artifacts to the new building
 - iii. The Museum Board recommends the City find an operator for the museum

KD&S Environmental
SUMMARY ENVIRONMENTAL REPORT
-Moraya Wilson

Areas that are asbestos materials:

Ground floor back area tile and mastic

2nd floor restroom at back of building-popcorn ceiling.

Areas that are above the EPA threshold of 5,000 parts per million, therefore making these paint colors a lead project :

2nd floor:

Mustard yellow

yellow

Baby blue

Creamy brown

Coral

3rd Floor:

Dark blue

Mint green

Pink

Yellow

The majority of the building is white paint, so that is good news . The areas with the above listed paint colors can be painted over in order to not disturb it, thus leaving it intact, and not requiring lead action level protocols.

I do not know the full scale of the renovation plans, but if the plans are to do select demolition in the interior of the building, I can do what's called a T-Clp lead analysis, which may make the total demolition areas a non-lead disposal. The sample would consist of the areas only that would be demolished .



Seattle	1011 Western Avenue, Suite 810 Seattle, WA 98104 206.292.5076
Tacoma	1250 Pacific Avenue, Suite 701 Tacoma, WA 98402 253.383.2797
Portland	101 SW Main Street, Suite 280 Portland, OR 97204 503.232.3746

www.pcs-structural.com

December 13, 2022

City of Aberdeen
200 E. Market Street
Aberdeen, WA 98520

ATTN: Stacie Barnum

RE: 118 West Wishkah Street
Aberdeen, WA 98520
Structural Evaluation

Dear Stacie:

As requested we have performed a structural evaluation of the existing building at 118 West Wishkah Street in Aberdeen. The evaluation is requested due to the recent purchase of the building.

BUILDING DESCRIPTION

The building is a three-story structure, and it is our understanding that it was originally used as a Sears Roebuck and Co. retail store. According to the Grays Harbor Assessor's office the building was constructed in 1928 and the building areas include 9789 square feet at the first floor, 8296 square feet at the second floor and 9880 square feet at the third floor.

The building construction includes a concrete main floor slab that is presumably pile supported. Exterior walls are cast-in-place concrete and they extend from the foundation up to the underside of the roof framing. The upper-floor and roof framing consists of sawn wood rafters, joists and beams. Floor joists appear to be 2x12 at 16" o.c. with tight grain. Interior columns are sawn wood, generally 12" x 12" timbers.

The lateral force resisting system for the building consists of wood sheathed diaphragms that transfer lateral forces to the exterior concrete walls, which in turn transfer lateral forces to the foundation. At the roof the diaphragm consists of straight wood sheathing applied over the sawn wood rafters. At the upper floors the diaphragm consists of diagonal sheathing applied over the sawn wood joists.

EVALUTION

Our evaluation of the building consisted of walk-through visual observations of existing conditions looking for signs of deterioration, settlement, and structural distress. We also assessed the building using ASCE 41-17 "*Seismic Evaluation and Retrofit of Existing Buildings*", using a Tier I methodology with a Life/Safety Performance Objective. The Tier I methodology is a widely used and accepted methodology for evaluating existing buildings that were constructed under older code provisions. It uses checklists that identify common seismic concerns for different building types. Each checklist item is answered "compliant", "non-compliant", "not applicable", or "unknown", and those items that are non-compliant require mitigation or additional evaluation if they are part of a seismic upgrade.

City of Aberdeen
Stacie Barnum
118 West Wishkah Street
Aberdeen, WA 98520
Structural Evaluation

Based on our evaluation the building appears to be in satisfactory condition. Except where noted below we did not observe any signs of structural distress or deterioration, or signs of settlement.

The ASCE Tier I evaluation identified the following non-compliant checklist items:

1. **Load Path.** The building does not contain a complete, well-defined load path for the lateral force resisting system. The general load path for lateral forces includes transfer of diaphragm shear forces into the shear walls, and it appears that the connections within this load path are inadequate. Lack of adequate anchorage can cause excessive deformation and possible collapse in an earthquake.
2. **Transfer to Shear Walls.** As noted above the transfer of diaphragm shear forces into the shear walls is non-compliant.
3. **Wall Anchorage.** The exterior concrete walls are not adequately anchored to resist out-of-plane forces from the wall and they are not adequately anchored into the floor and roof diaphragms. Bearing walls that are not adequately anchored to the diaphragms may separate from the structure causing partial collapse of floors or roof.
4. **Adjacent Building.** There is an adjacent one-story building to the southwest and it does not appear that there is an adequate joint between the two buildings. The buildings may impact each other, or pound, in an earthquake which could impart inertial forces on the building. There is also a third-floor bridge leading from the alley-side of the building and attached to another building. Relative building movements may damage or collapse the bridge or transfer inertial forces.
5. **Torsion.** The center of building rigidity and the center of mass are offset significantly which can cause additional seismic demands and lateral drifts in the building. The torsion is caused by a lack of stiffness on the street-side of the building. Buildings with severe torsion are less likely to perform well in an earthquake.
6. **Liquefaction.** The soils in many parts of Aberdeen are susceptible to liquefaction. Soils that are susceptible to liquefaction may lose all vertical-load bearing capacity during an earthquake which can cause large differential building settlement. The building may bear on piles, based on similar construction in Aberdeen, which could mitigate some of the issues associated with liquefaction.
7. **Complete Frames.** The vertical-load-carrying system for the building does not include secondary frames that support all vertical loads. Some of the floor and roof framing is supported directly by shear walls which could be damaged in an earthquake leading to partial collapse of floors and roof.
8. **Redundancy.** There is only one of line of shear wall in the southwest-northeast direction, along the alley-wall. For compliance there should be two lines of shear walls in each principal direction.
9. **Deflection Compatibility.** The secondary structural elements, specifically the concrete columns at the street-side of the building are not expected to have adequate shear capacity to develop their flexural strength. The columns could be expected to perform poorly in an earthquake leading to partial collapse of roof or floors.

City of Aberdeen
Stacie Barnum
118 West Wishkah Street
Aberdeen, WA 98520
Structural Evaluation

10. Cross Ties. Continuous cross ties between diaphragm chords are not present. Missing cross ties prevent out-of-plane wall forces from being resisted by the diaphragms.
11. Diaphragm Spans. Wood diaphragms are sheathed with straight sheathing at the roof and diagonal sheathing at the floors, and the diaphragms span more than 24-ft. Long-span diaphragms of these types can have excessive deflections in an earthquake causing collapse or damage.

RECOMMENDATIONS AND CONCLUSIONS

We were requested to comment on the live load that could be safely applied to the floor framing at the second and third floors. The floor framing at the second and third floors consists of 2x12s at 16" o.c. spanning to sawn timber beams spaced at about 20 ft. on center. The framing appears to be consistent with construction methods from the 1920's, though it is unknown whether the building was constructed in accordance with any specific building code. The oldest Uniform Building Code was published in 1927, and in that code the recommended live load for a Stores – Retail (Light Merchandise) is listed as 75 pounds per square foot. We recommend limiting live load on the upper floors to 75 pounds per square foot.

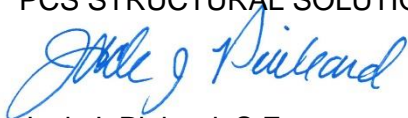
The Tier I issues that were noted as non-compliant are common for buildings of this age and construction type. As a general summary, in its current condition we would not expect the building to perform well in an earthquake, with significant damage and or collapse potentially occurring. Some of the non-compliant issues noted are more significant than others, and some issues are more readily addressed than others. Consultation with a structural engineer to determine specific steps to seismically retrofit the building is recommended.

Seismic upgrades are typically required by the building code when there are significant improvements to the building that extends the building life and when there is a change of occupancy to a higher risk use. Otherwise seismic upgrades are generally completed on a voluntary basis in consultation with the building department.

Thank you for the opportunity to be of service. Please contact us if you have any questions.

Very truly yours,

PCS STRUCTURAL SOLUTIONS



Jack J. Pinkard, S.E.
Senior Principal

JJPmap
23-128

Enclosures



ASCE 41-17 Tier 1 Checklists

FIRM:	PCS Structural Solutions
PROJECT NAME:	118 West Wishkah Street
PROJECT NUMBER:	23-128
SEISMICITY LEVEL:	High
COMPLETED BY:	JJP
DATE COMPLETED	2022-12-07
REVIEWED BY:	
REVIEWED DATE:	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

17.1 BASIC CHECKLISTS

Table 17-1. Very Low Seismicity Checklist

Status	Evaluation Statement	Comments
Structural Components		
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	LOAD PATH: The structure contains a complete, well-defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (Commentary: Sec. A.2.1.1. Tier 2: Sec. 5.4.1.1)	Connections from diaphragms to walls do not appear adequate for load transfer.
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	WALL ANCHORAGE: Exterior concrete or masonry walls that are dependent on the diaphragm for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections have adequate strength to resist the connection force calculated in the Quick Check procedure of Section 4.4.3.7. (Commentary: Sec. A.5.1.1. Tier 2: Sec. 5.7.1.1)	Steel anchors/straps were not observed.

Table 17-2. Collapse Prevention Basic Configuration Checklist

Status	Evaluation Statement	Comments
Low Seismicity		
Building System—General		
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	LOAD PATH: The structure contains a complete, well-defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (Commentary: Sec. A.2.1.1. Tier 2: Sec. 5.4.1.1)	Connections from diaphragms to walls do not appear adequate for load transfer
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	ADJACENT BUILDINGS: The clear distance between the building being evaluated and any adjacent building is greater than 0.25% of the height of the shorter building in low seismicity, 0.5% in moderate seismicity, and 1.5% in high seismicity. (Commentary: Sec. A.2.1.2. Tier 2: Sec. 5.4.1.2)	There is an adjoining building to the southwest. There is a third-floor bridge connecting the building to another building across the back alley.
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	MEZZANINES: Interior mezzanine levels are braced independently from the main structure or are anchored to the seismic-force-resisting elements of the main structure. (Commentary: Sec. A.2.1.3. Tier 2: Sec. 5.4.1.3)	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

ASCE 41-17 TIER 1 CHECKLISTS

Project Name 118 West Wishkah Street

Project # 23-128

Status	Evaluation Statement	Comments
Building System—Building Configuration		
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	WEAK STORY: The sum of the shear strengths of the seismic-force-resisting system in any story in each direction is not less than 80% of the strength in the adjacent story above. (Commentary: Sec. A.2.2.2. Tier 2: Sec. 5.4.2.1)	
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	SOFT STORY: The stiffness of the seismic-force-resisting system in any story is not less than 70% of the seismic-force-resisting system stiffness in an adjacent story above or less than 80% of the average seismic-force-resisting system stiffness of the three stories above. (Commentary: Sec. A.2.2.3. Tier 2: Sec. 5.4.2.2)	
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	VERTICAL IRREGULARITIES: All vertical elements in the seismic-force-resisting system are continuous to the foundation. (Commentary: Sec. A.2.2.4. Tier 2: Sec. 5.4.2.3)	
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	GEOMETRY: There are no changes in the net horizontal dimension of the seismic-force-resisting system of more than 30% in a story relative to adjacent stories, excluding one-story penthouses and mezzanines. (Commentary: Sec. A.2.2.5. Tier 2: Sec. 5.4.2.4)	
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	MASS: There is no change in effective mass of more than 50% from one story to the next. Light roofs, penthouses, and mezzanines need not be considered. (Commentary: Sec. A.2.2.6. Tier 2: Sec. 5.4.2.5)	
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	TORSION: The estimated distance between the story center of mass and the story center of rigidity is less than 20% of the building width in either plan dimension. (Commentary: Sec. A.2.2.7. Tier 2: Sec. 5.4.2.6)	
Moderate Seismicity (Complete the Following Items in Addition to the Items for Low Seismicity)		
Geologic Site Hazards		
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	LIQUEFACTION: Liquefaction-susceptible, saturated, loose granular soils that could jeopardize the building's seismic performance do not exist in the foundation soils at depths within 50 ft (15.2 m) under the building. (Commentary: Sec. A.6.1.1. Tier 2: Sec. 5.4.3.1)	Based on similar projects in Aberdeen the soils potentially liquefaction susceptible

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

ASCE 41-17 TIER 1 CHECKLISTS

Project Name 118 West Wishkah Street

Project # 23-128

Status	Evaluation Statement	Comments
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	SLOPE FAILURE: The building site is located away from potential earthquake-induced slope failures or rockfalls so that it is unaffected by such failures or is capable of accommodating any predicted movements without failure. (Commentary: Sec. A.6.1.2. Tier 2: Sec. 5.4.3.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	SURFACE FAULT RUPTURE: Surface fault rupture and surface displacement at the building site are not anticipated. (Commentary: Sec. A.6.1.3. Tier 2: Sec. 5.4.3.1)	
High Seismicity (Complete the Following Items in Addition to the Items for Moderate Seismicity)		
Foundation Configuration		
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	OVERTURNING: The ratio of the least horizontal dimension of the seismic-force-resisting system at the foundation level to the building height (base/height) is greater than $0.6S_a$. (Commentary: Sec. A.6.2.1. Tier 2: Sec. 5.4.3.3)	
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	TIES BETWEEN FOUNDATION ELEMENTS: The foundation has ties adequate to resist seismic forces where footings, piles, and piers are not restrained by beams, slabs, or soils classified as Site Class A, B, or C. (Commentary: Sec. A.6.2.2. Tier 2: Sec. 5.4.3.4)	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

Table 17-3. Immediate Occupancy Basic Configuration Checklist

Status	Evaluation Statement	Comments
Very Low Seismicity		
Building System—General		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	LOAD PATH: The structure contains a complete, well-defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (Commentary: Sec. A. 2.1.1. Tier 2: Sec. 5.4.1.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	ADJACENT BUILDINGS: The clear distance between the building being evaluated and any adjacent building is greater than 0.5% of the height of the shorter building in low seismicity, 1.0% in moderate seismicity, and 3.0% in high seismicity. (Commentary: Sec. A.2.1.2. Tier 2: Sec. 5.4.1.2)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	MEZZANINES: Interior mezzanine levels are braced independently from the main structure or are anchored to the seismic-force-resisting elements of the main structure. (Commentary: Sec. A.2.1.3. Tier 2: Sec. 5.4.1.3)	
Building System—Building Configuration		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	WEAK STORY: The sum of the shear strengths of the seismic-force-resisting system in any story in each direction is not less than 80% of the strength in the adjacent story above. (Commentary: Sec. A.2.2.2. Tier 2: Sec. 5.4.2.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	SOFT STORY: The stiffness of the seismic-force-resisting system in any story is not less than 70% of the seismic-force-resisting system stiffness in an adjacent story above or less than 80% of the average seismic-force-resisting system stiffness of the three stories above. (Commentary: Sec. A.2.2.3. Tier 2: Sec. 5.4.2.2)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	VERTICAL IRREGULARITIES: All vertical elements in the seismic-force-resisting system are continuous to the foundation. (Commentary: Sec. A.2.2.4. Tier 2: Sec. 5.4.2.3)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	GEOMETRY: There are no changes in the net horizontal dimension of the seismic-force-resisting system of more than 30% in a story relative to adjacent stories, excluding one-story penthouses and mezzanines. (Commentary: Sec. A.2.2.5. Tier 2: Sec. 5.4.2.4)	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

ASCE 41-17 TIER 1 CHECKLISTS

Project Name 118 West Wishkah Street

Project # 23-128

Status	Evaluation Statement	Comments
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	MASS: There is no change in effective mass of more than 50% from one story to the next. Light roofs, penthouses, and mezzanines need not be considered. (Commentary: Sec. A.2.2.6. Tier 2: Sec. 5.4.2.5)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	TORSION: The estimated distance between the story center of mass and the story center of rigidity is less than 20% of the building width in either plan dimension. (Commentary: Sec. A.2.2.7. Tier 2: Sec. 5.4.2.6)	
Low Seismicity (Complete the Following Items in Addition to the Items for Very Low Seismicity)		
Geologic Site Hazards		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	LIQUEFACTION: Liquefaction-susceptible, saturated, loose granular soils that could jeopardize the building's seismic performance do not exist in the foundation soils at depths within 50 ft (15.2 m) under the building. (Commentary: Sec. A.6.1.1. Tier 2: Sec. 5.4.3.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	SLOPE FAILURE: The building site is located away from potential earthquake-induced slope failures or rockfalls so that it is unaffected by such failures or is capable of accommodating any predicted movements without failure. (Commentary: Sec. A.6.1.2. Tier 2: Sec. 5.4.3.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	SURFACE FAULT RUPTURE: Surface fault rupture and surface displacement at the building site are not anticipated. (Commentary: Sec. A.6.1.3. Tier 2: Sec. 5.4.3.1)	
Moderate and High Seismicity (Complete the Following Items in Addition to the Items for Low Seismicity)		
Foundation Configuration		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	OVERTURNING: The ratio of the least horizontal dimension of the seismic-force-resisting system at the foundation level to the building height (base/height) is greater than $0.6S_a$. (Commentary: Sec. A.6.2.1. Tier 2: Sec. 5.4.3.3)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	TIES BETWEEN FOUNDATION ELEMENTS: The foundation has ties adequate to resist seismic forces where footings, piles, and piers are not restrained by beams, slabs, or soils classified as Site Class A, B, or C. (Commentary: Sec. A.6.2.2. Tier 2: Sec. 5.4.3.4)	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

ASCE 41-17 Tier 1 Checklists

FIRM:	PCS Structural Solutions
PROJECT NAME:	118 West Wishkah Street
PROJECT NUMBER:	23128
SEISMICITY LEVEL:	High
COMPLETED BY:	JJP
DATE COMPLETED	2022-12-07
REVIEWED BY:	
REVIEWED DATE:	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

17.12 STRUCTURAL CHECKLISTS FOR BUILDING TYPES C2: CONCRETE SHEAR WALLS WITH STIFF DIAPHRAGMS AND C2A: CONCRETE SHEAR WALLS WITH FLEXIBLE DIAPHRAGMS

Table 17-24. Collapse Prevention Structural Checklist for Building Types C2 and C2a

Status	Evaluation Statement	Comments
Low and Moderate Seismicity		
Seismic-Force-Resisting System		
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	COMPLETE FRAMES: Steel or concrete frames classified as secondary components form a complete vertical-load-carrying system. (Commentary: Sec. A.3.1.6.1. Tier 2: Sec. 5.5.2.5.1)	
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2. (Commentary: Sec. A.3.2.1.1. Tier 2: Sec. 5.5.1.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	SHEAR STRESS CHECK: The shear stress in the concrete shear walls, calculated using the Quick Check procedure of Section 4.4.3.3, is less than the greater of 100 lb/in. ² (0.69 MPa) or $2\sqrt{f'_c}$. (Commentary: Sec. A.3.2.2.1. Tier 2: Sec. 5.5.3.1.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	REINFORCING STEEL: The ratio of reinforcing steel area to gross concrete area is not less than 0.0012 in the vertical direction and 0.0020 in the horizontal direction. (Commentary: Sec. A.3.2.2.2. Tier 2: Sec. 5.5.3.1.3)	
Connections		
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	WALL ANCHORAGE AT FLEXIBLE DIAPHRAGMS: Exterior concrete or masonry walls that are dependent on flexible diaphragms for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections have strength to resist the connection force calculated in the Quick Check procedure of Section 4.4.3.7. (Commentary: Sec. A.5.1.1. Tier 2: Sec. 5.7.1.1)	
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	TRANSFER TO SHEAR WALLS: Diaphragms are connected for transfer of seismic forces to the shear walls. (Commentary: Sec. A.5.2.1. Tier 2: Sec. 5.7.2)	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

ASCE 41-17 TIER 1 CHECKLISTS

Project Name 118 West Wishkah Street

Project # 23128

Status	Evaluation Statement	Comments
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	FOUNDATION DOWELS: Wall reinforcement is doweled into the foundation with vertical bars equal in size and spacing to the vertical wall reinforcing directly above the foundation. (Commentary: Sec. A.5.3.5. Tier 2: Sec. 5.7.3.4)	
High Seismicity (Complete the Following Items in Addition to the Items for Low and Moderate Seismicity)		
Seismic-Force-Resisting System		
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DEFLECTION COMPATIBILITY: Secondary components have the shear capacity to develop the flexural strength of the components. (Commentary: Sec. A.3.1.6.2. Tier 2: Sec. 5.5.2.5.2)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	FLAT SLABS: Flat slabs or plates not part of the seismic-force-resisting system have continuous bottom steel through the column joints. (Commentary: Sec. A.3.1.6.3. Tier 2: Sec. 5.5.2.5.3)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	COUPLING BEAMS: The ends of both walls to which the coupling beam is attached are supported at each end to resist vertical loads caused by overturning. (Commentary: Sec. A.3.2.2.3. Tier 2: Sec. 5.5.3.2.1)	
Diaphragms (Stiff or Flexible)		
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DIAPHRAGM CONTINUITY: The diaphragms are not composed of split-level floors and do not have expansion joints. (Commentary: Sec. A.4.1.1. Tier 2: Sec. 5.6.1.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 25% of the wall length. (Commentary: Sec. A.4.1.4. Tier 2: Sec. 5.6.1.3)	
Flexible Diaphragms		
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	CROSS TIES: There are continuous cross ties between diaphragm chords. (Commentary: Sec. A.4.1.2. Tier 2: Sec. 5.6.1.2)	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

ASCE 41-17 TIER 1 CHECKLISTS

Project Name 118 West Wishkah Street

Project # 23128

Status	Evaluation Statement	Comments
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	STRAIGHT SHEATHING: All straight-sheathed diaphragms have aspect ratios less than 2-to-1 in the direction being considered. (Commentary: Sec. A.4.2.1. Tier 2: Sec. 5.6.2)	
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	SPANS: All wood diaphragms with spans greater than 24 ft (7.3 m) consist of wood structural panels or diagonal sheathing. (Commentary: Sec. A.4.2.2. Tier 2: Sec. 5.6.2)	
C NC N/A U <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 40 ft (12.2 m) and aspect ratios less than or equal to 4-to-1. (Commentary: Sec. A.4.2.3. Tier 2: Sec. 5.6.2)	
C NC N/A U <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	OTHER DIAPHRAGMS: Diaphragms do not consist of a system other than wood, metal deck, concrete, or horizontal bracing. (Commentary: Sec. A.4.7.1. Tier 2: Sec. 5.6.5)	
Connections		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	UPLIFT AT PILE CAPS: Pile caps have top reinforcement, and piles are anchored to the pile caps. (Commentary: Sec. A.5.3.8. Tier 2: Sec. 5.7.3.5)	

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Table 17-25. Immediate Occupancy Structural Checklist for Building Types C2 and C2a

Status	Evaluation Statement	Comments
Very Low Seismicity		
Seismic-Force-Resisting System		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	COMPLETE FRAMES: Steel or concrete frames classified as secondary components form a complete vertical-load-carrying system. (Commentary: Sec. A.3.1.6.1. Tier 2: Sec. 5.5.2.5.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2. (Commentary: Sec. A.3.2.1.1. Tier 2: Sec. 5.5.1.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	SHEAR STRESS CHECK: The shear stress in the concrete shear walls, calculated using the Quick Check procedure of Section 4.4.3.3, is less than the greater of 100 lb/in. ² (0.69 MPa) or $2\sqrt{f'_c}$. (Commentary: Sec. A.3.2.2.1. Tier 2: Sec. 5.5.3.1.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	REINFORCING STEEL: The ratio of reinforcing steel area to gross concrete area is not less than 0.0012 in the vertical direction and 0.0020 in the horizontal direction. The spacing of reinforcing steel is equal to or less than 18 in. (457 mm). (Commentary: Sec. A.3.2.2.2. Tier 2: Sec. 5.5.3.1.3)	
Connections		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	WALL ANCHORAGE AT FLEXIBLE DIAPHRAGMS: Exterior concrete or masonry walls that are dependent on flexible diaphragms for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections have strength to resist the connection force calculated in the Quick Check procedure of Section 4.4.3.7. (Commentary: Sec. A.5.1.1. Tier 2: Sec. 5.7.1.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	TRANSFER TO SHEAR WALLS: Diaphragms are connected for transfer of loads to the shear walls, and the connections are able to develop the lesser of the shear strength of the walls or diaphragms. (Commentary: Sec. A.5.2.1. Tier 2: Sec. 5.7.2)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	FOUNDATION DOWELS: Wall reinforcement is doweled into the foundation, and the dowels are able to develop the lesser of the strength of the walls or the uplift capacity of the foundation. (Commentary: Sec. A.5.3.5. Tier 2: Sec. 5.7.3.4)	

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ASCE 41-17 TIER 1 CHECKLISTS

Project Name 118 West Wishkah Street

Project # 23128

Status	Evaluation Statement	Comments
Foundation System		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DEEP FOUNDATIONS: Piles and piers are capable of transferring the lateral forces between the structure and the soil. (Commentary: Sec. A.6.2.3)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	SLOPING SITES: The difference in foundation embedment depth from one side of the building to another does not exceed one story. (Commentary: Sec. A.6.2.4)	
Low, Moderate, and High Seismicity (Complete the Following Items in Addition to the Items for Very Low Seismicity)		
Seismic-Force-Resisting System		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DEFLECTION COMPATIBILITY: Secondary components have the shear capacity to develop the flexural strength of the components and are compliant with the following items in Table 17-23: COLUMN-BAR SPLICES, BEAM-BAR SPLICES, COLUMN-TIE SPACING, STIRRUP SPACING, and STIRRUP AND TIE HOOKS. (Commentary: Sec. A.3.1.6.2. Tier 2: Sec. 5.5.2.5.2)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	FLAT SLABS: Flat slabs or plates not part of seismic-force-resisting system have continuous bottom steel through the column joints. (Commentary: Sec. A.3.1.6.3. Tier 2: Sec. 5.5.2.5.3)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	COUPLING BEAMS: The ends of both walls to which the coupling beam is attached are supported at each end to resist vertical loads caused by overturning. Coupling beams have the capacity in shear to develop the uplift capacity of the adjacent wall. (Commentary: Sec. A.3.2.2.3. Tier 2: Sec. 5.5.3.2.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	OVERTURNING: All shear walls have aspect ratios less than 4-to-1. Wall piers need not be considered. (Commentary: Sec. A.3.2.2.4. Tier 2: Sec. 5.5.3.1.4)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	CONFINEMENT REINFORCING: For shear walls with aspect ratios greater than 2-to-1, the boundary elements are confined with spirals or ties with spacing less than $8d_b$. (Commentary: Sec. A.3.2.2.5. Tier 2: Sec. 5.5.3.2.2)	

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ASCE 41-17 TIER 1 CHECKLISTS

Project Name 118 West Wishkah Street

Project # 23128

Status	Evaluation Statement	Comments
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	WALL REINFORCING AT OPENINGS: There is added trim reinforcement around all wall openings with a dimension greater than three times the thickness of the wall. (Commentary: Sec. A.3.2.2.6. Tier 2: Sec. 5.5.3.1.5)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	WALL THICKNESS: Thicknesses of bearing walls are not less than 1/25 the unsupported height or length, whichever is shorter, nor less than 4 in. (101 mm). (Commentary: Sec. A.3.2.2.7. Tier 2: Sec. 5.5.3.1.2)	
Diaphragms (Stiff or Flexible)		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DIAPHRAGM CONTINUITY: The diaphragms are not composed of split-level floors and do not have expansion joints. (Commentary: Sec. A.4.1.1. Tier 2: Sec. 5.6.1.1)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 15% of the wall length. (Commentary: Sec. A.4.1.4. Tier 2: Sec. 5.6.1.3)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	PLAN IRREGULARITIES: There is tensile capacity to develop the strength of the diaphragm at reentrant corners or other locations of plan irregularities. (Commentary: Sec. A.4.1.7. Tier 2: Sec. 5.6.1.4)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DIAPHRAGM REINFORCEMENT AT OPENINGS: There is reinforcing around all diaphragm openings larger than 50% of the building width in either major plan dimension. (Commentary: Sec. A.4.1.8. Tier 2: Sec. 5.6.1.5)	
Flexible Diaphragms		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	CROSS TIES: There are continuous cross ties between diaphragm chords. (Commentary: Sec. A.4.1.2. Tier 2: Sec. 5.6.1.2)	

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ASCE 41-17 TIER 1 CHECKLISTS

Project Name 118 West Wishkah Street

Project # 23128

Status	Evaluation Statement	Comments
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	STRAIGHT SHEATHING: All straight-sheathed diaphragms have aspect ratios less than 1-to-1 in the direction being considered. (Commentary: Sec. A.4.2.1. Tier 2: Sec. 5.6.2)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	SPANS: All wood diaphragms with spans greater than 12 ft (3.6 m) consist of wood structural panels or diagonal sheathing. (Commentary: Sec. A.4.2.2. Tier 2: Sec. 5.6.2)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 30 ft (9.2 m) and aspect ratios less than or equal to 3-to-1. (Commentary: Sec. A.4.2.3. Tier 2: Sec. 5.6.2)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	NONCONCRETE FILLED DIAPHRAGMS: Untopped metal deck diaphragms or metal deck diaphragms with fill other than concrete consist of horizontal spans of less than 40 ft (12.2 m) and have aspect ratios less than 4-to-1. (Commentary: Sec. A.4.3.1. Tier 2: Sec. 5.6.3)	
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	OTHER DIAPHRAGMS: Diaphragms do not consist of a system other than wood, metal deck, concrete, or horizontal bracing. (Commentary: Sec. A.4.7.1. Tier 2: Sec. 5.6.5)	
Connections		
C NC N/A U <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	UPLIFT AT PILE CAPS: Pile caps have top reinforcement, and piles are anchored to the pile caps; the pile cap reinforcement and pile anchorage are able to develop the tensile capacity of the piles. (Commentary: Sec. A.5.3.8. Tier 2: Sec. 5.7.3.5)	

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Ward 1
Melvin Taylor
Kacey Morrison

Ward 2
David Gakin
John Maki

Ward 3
Liz Ellis
Kati Kachman

Ward 4
Stanley Sidor
Deborah Ross

Ward 5
Joshua Francy
Debi Pieraccini

Ward 6
David Lawrence
Dee Anne Shaw



ABERDEEN CITY COUNCIL REGULAR MEETING AGENDA

200 E. Market Street, Aberdeen, WA 98520
Aberdeen City Hall - City Council Chambers – 3rd Floor
Wednesday, February 15, 2023
Following 6:00 p.m. Workshop

1. CALL TO ORDER
2. ROLL CALL
3. REQUESTS FOR COUNCIL ACTION
 - a. Committee Reports
 - i. **Finance**
 1. Request for Council Action from the City Administrator to engage in discussion regarding the Gateway Center and potentially authorize the City Administrator to recover grant monies previously allocated for the Gateway Center, reimbursing the City for expenses already spent.
 - b. Ordinances/Resolutions
 - i. **Public Safety**
 1. A joint Resolution of the City of Aberdeen, the City of Cosmopolis, and the City of Hoquiam, providing for the submission to qualified electors of Aberdeen, Cosmopolis, and Hoquiam, at the special election to be held on April 25, 2023, of a proposition that, pursuant to Chapter 52.26 of the Revised Code of Washington, approves a plan to form a regional fire protection service authority within the boundaries of Aberdeen, Cosmopolis, and Hoquiam, effective January 1, 2024, and providing for other matters properly related thereto.
4. ADJOURNMENT

The City of Aberdeen does not discriminate against or exclude anyone from participation in public meetings. Requests for assistance should be made by contacting the Human Resources Department at 360-537-3207, 24 hours in advance of the meeting.
Thank you.