Soderstrom Architects

Facilities Assessment Report
Parkrose School District
Multnomah County, Oregon

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September 22, 2021 (DRAFT)

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Introduction - Team Members

Soderstrom Architects was hired in 2021 to provide the Parkrose School District (District) with a Facilities Assessment Report (FAR), after being awarded a Technical Assistance Program (TAP) grant from the Oregon Department of Education (ODE). The following is a list of people and consultants contributing to the assessment process who have provided their time and effort to help everyone understand District needs and concerns.

District Administration:
Michael Lopes-Serrao, Superintendent
Sharie Lewis, Director of Finance
Robyn Stolin, Facilities Manager
Jon Sanders, HVAC Specialist
Sarah Lamp-Christensen, Director of Teaching and Learning
Christine Blouke, Technology Director
Andrew McLaughlin, IT Systems Support
Ryan Gallagher, Athletic Director
Debra Garza, Nutrition Services
Julie Sams, Student Services
Teresa Hooper, Transportation
Michele Straub, Aquatics
Kirstie Opel, Facilities Coordinator

Site-Based Administration:
Nichole Watson, Principal, Prescott Elementary
Samantha Ragaisis, Principal Russell Academy
Megan Filiault, Prinicipal, Sacramento Elementary
Nathan Mount, Prinicipal, Shaver Elementary
Annette Sweeney, Prinicipal, Parkrose Middle School
Molly Ouche, Principal, Parkrose High School

Architectural:
Marlene Gillis, President, Soderstrom Architects
Carson Shields, Project Manager, Soderstrom Architects
Priya Kandharkar, Designer, Soderstrom Architects

Mechanical, Electrical and Plumbing:
Jianpeng Yang, Project Engineer, Ameresco

Structural:
Kristofer Tonning, Associate, ZCS Engineering

#	School Name	Grades Served	Attendance (2020-21)	School ID	ODE Building ID	Address
Elementary Schools (K - 5)						
01	Prescott Elementary School	K-5	331	925	21810100	10410 NE Prescott St., Portland, OR 97220
02	Russell Academy	K-5	371	926	21810200	2700 NE 127th Ave., Portland, OR 97230
03	Sacramento Elementary School	K-5	305	927	21810300	11400 NE Sacramento St., Portland, OR 97220
04	Shaver Elementary School	K-5	275	928	21810400	3701 NE 131st Pl., Portland, OR 97230
Middle Schools (6-8)						
05	Parkrose Middle School	6-8	778	930	21810500	11800 NE Shaver St., Portland, OR 97220
High Schools (9-12)						
06A	Parkrose High School	9-12	976	931	21810600	12003 NE Shaver St., Portland, OR 97220
06B	Parkrose High School - Fine Arts Building				21810601	
06C	Parkrose High School - Stadium				21810602	
District Rental / Leased Properties						
07	Sumner Elementary / Helensview School	9-12	MESD	2181	21810005	8678 NE Sumner St., Portland, OR 97220
08	Thompson Elementary / Wheatley School	6-8	MESD	2181	21810004	14030 NE Sacramento St., Portland, OR 97230
09	Knott Elementary / Knott Creek School	K-5	MESD	2181	21810003	11456 NE Knott St., Portland, OR 97220
District Administration and Support						
10A	District Office	N/A	N/A	2181	21810000	10636 NE Prescott St., Portland, OR, 97220
10B	Maintenance Offices + Shop				21810001	
10C	Bus Barn + Shop				21810002	
	Total Enrollment:		**3,036**			

EXECUTIVE SUMMARY

Introduction - Parkrose and Multnomah County, Oregon

Parkrose is a neighborhood in the Northeast section of Portland, Oregon and includes Maywood Park. The Parkrose plat was filed October 5, 1911. A branch post office of Portland was established there in 1921.

Parkrose had been a small farming and residential suburb of Portland until the 1920s. The Oregon Journal noted on May 23, 1925, "Parkrose is a primary commuting center. . . It is one of the most progressive and promising commuting districts on the eastern border of the city." A significant community identifier is the Rossi Farms property adjacent to the middle and high school, off NE 122nd north of Shaver Street. Planned development of these farms in the near future by the City of Portland will have significant impacts on future growth and enrollment for the District.

Parkrose was annexed by Portland, and the community was enumerated as a "Census-designated place" in 1980, when the community recorded a population of 21,108.

Introduction - Parkrose School District

The Parkrose School District (District) is a small urban district in the northeast section of Portland with four (4) elementary schools, one (1) middle school and one (1) high school serving the community. The District began in 1885 as a schoolhouse on Sandy and 122nd. District records begin in the summer of 1913 with 131 students enrolled, ranging in age from four to 19.

That same year, the district bonded for $10,000 to construct and furnish a four-room building, Parkrose Elementary at 106th and Wygant. The upper floor became the first Parkrose high school a few years later. In the mid-1920s, a $31,000 bond measure passed, 72-9, and a new brick high school, Prescott High School, was built at 10629 NE Prescott.

The growth of the 1950s and 1960s created a building boom, with Prescott Elementary completed in 1947, the new Parkrose High School in 1950, Knott Street Elementary in 1951, Sumner Elementary in 1954, Thompson Elementary in 1957, Parkrose Heights Junior High in 1957, Sacramento Elementary in 1960, Parkrose Middle School (Formerly Fremont) in 1961, Shaver Elementary in 1963 and Russell Elementary in 1963.

District enrollment peaked during the 1969-70 school year at 5,656, with just over 1,400 of those high school students. Enrollment reduced and then leveled off in the 1980s and has stayed fairly stable between 3,300 and 3,500 since. Three schools (Knott, Thompson, and Heights) are rented to other education providers. Parkrose High School was built in 1950 and received a significant replacement in the late 1990s, replacing all but the "Fine Arts Building," which is still in use today. In the spring of 2011, by a margin of 6 votes, the

Parkrose voters approved a $63 million bond measure. This bond allowed the district to completely replace Parkrose Middle School and renew all four elementary schools.

EXECUTIVE SUMMARY

Purpose

This report is an evaluation of the existing District buildings, all built at different times using a variety construction methods. Using the Oregon Department of Education's School Facilities Assessment Template, this report identifies the cost of deferred maintenance for each of the school buildings relative to complete replacement versus 'As New' condition.

The purpose of this report is to provide the District with a thorough evaluation of existing buildings and site conditions, including recommended remediation steps for all buildings evaluated. The assessment is a multi-disciplinary on-site inspection of the existing buildings that focuses specifically on architectural, structural, mechanical, electrical and plumbing systems.

Items evaluated include the following:
- Exterior: Walls, foundations, doors, windows, soffits.
- Interior: Partitions, floors, ceilings, doors, casework.
- Roof: Membrane, drains, downspouts, flashing.
- Structural: Rapid assessment of seismic resistance.
- MEP: HVAC, plumbing fixtures, electrical equipment.

This assessment is the first step in the long-range facility planning process and is a rapid visual assessment of buildings that provides costs and facility condition numbers that can then be carried forward into the master planning phase, used as a baseline with which to evaluate all future planning decisions.

Demographics

As part of the Long-Range Facilities Planning (LRFP) efforts, the District will develop a 10-year enrollment projection report. In general the area has not seen significant growth in the last 10 years or so, with several key communities economically depressed and experiencing net job losses overall. This information will be used in conjunction with the capacity calculations done as part of this FAR to determine if there needs to be additional classrooms and / or support spaces planned for in the near future.

Sources of Funds

There are currently three readily available sources of funds to upgrade and / or replace of aging school facilities, the primary one being a bond election. Most districts find that maintaining the existing tax rate is much more palatable to the voters than increasing the tax rate and will attempt to 'capture' funds from an expiring bond, if possible.

The second income source is through the Oregon School Capital Improvement Matching grant program (OSCIM), which provides up to $4 million in matching grant funds, and can be used to upgrade, improve, add onto existing buildings, or to build new.

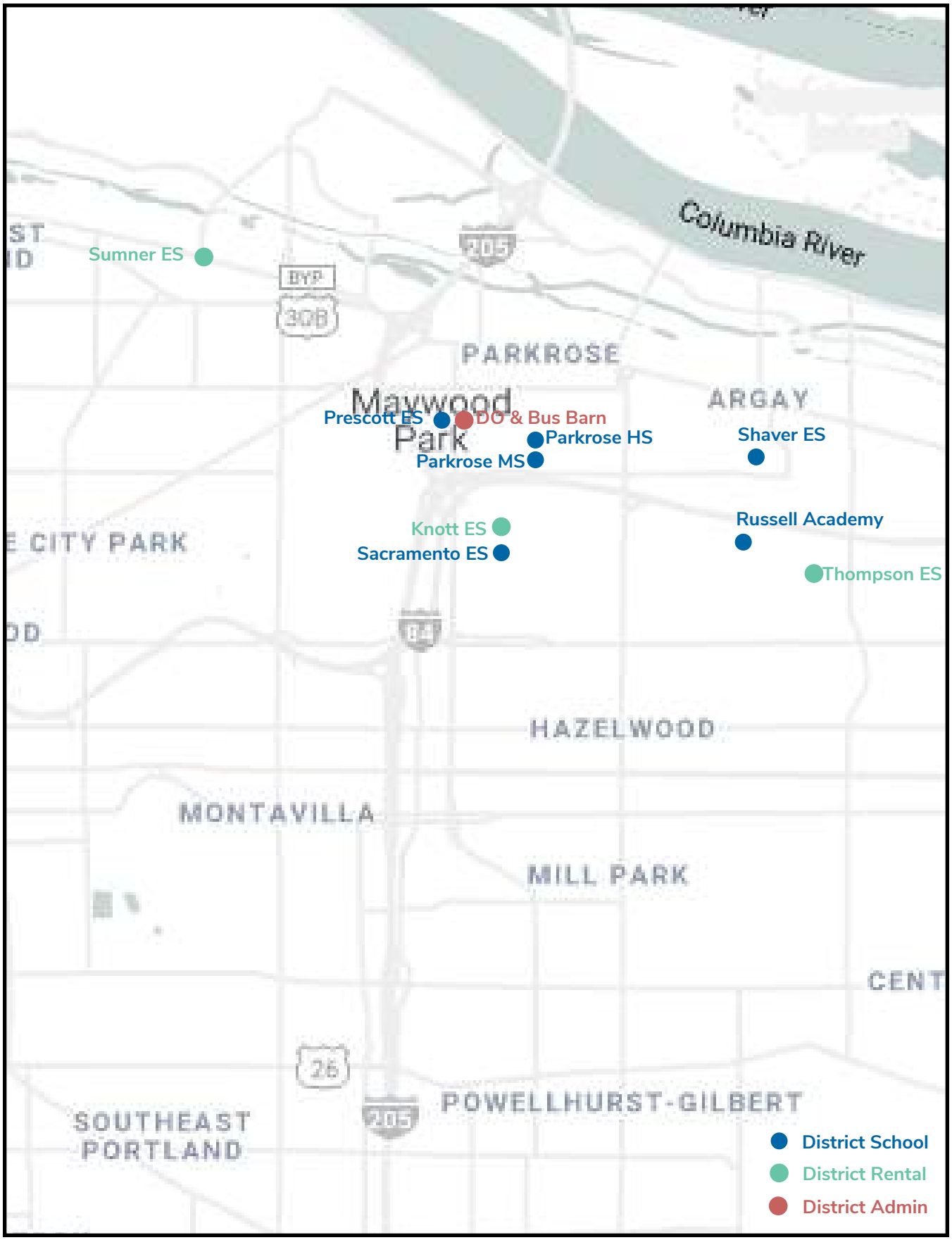
The third option is the Seismic Rehabilitation Grant Program (SRGP), which provides up to $2.5 million per building to seismically upgrading existing building(s). These funds can't be used for additions or new buildings, but only for making existing unsafe buildings more structurally sound.


Parkrose MS Media Center


Russell Academy Playground

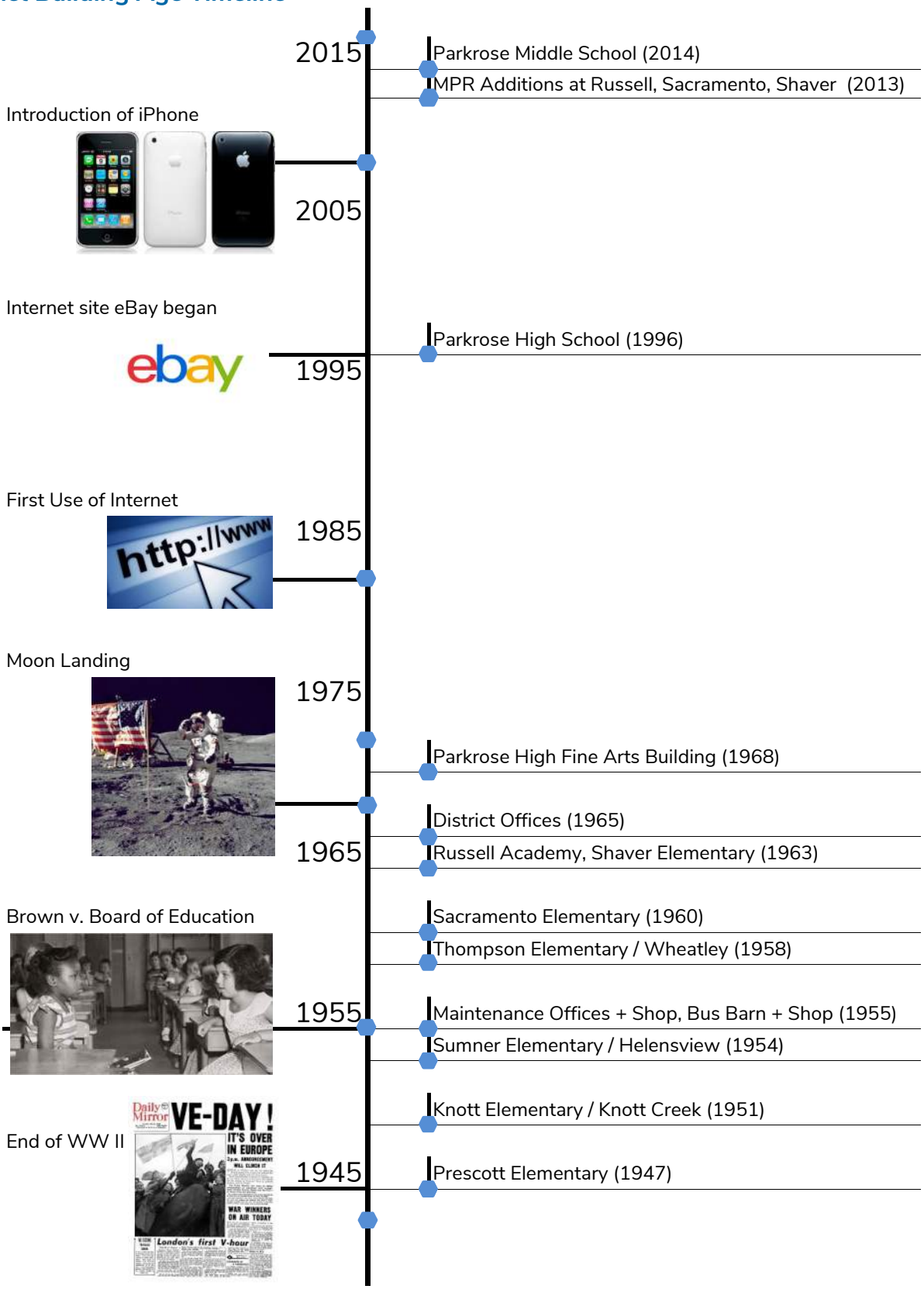
EXECUTIVE SUMMARY

Parkrose School District



EXECUTIVE SUMMARY

District Building Age Timeline



EXECUTIVE SUMMARY

Summary - Building Data

This report represents an evaluation of all district buildings, with the goal to identify those at highest need of work overall, creating a detailed list of concerns to be prioritized during the Long-Range Planning process. Some entire buildings are simply very old and beyond their practical lifespan, while some are struggling with accessibility or other more specific concerns. Each school has a complete evaluation further in this report that provides a detailed breakdown of all identified issues and estimated costs for repairs.

The District has four (4) elementary schools:
- Prescott Elementary School
- Russell Academy
- Sacramento Elementary School
- Shaver Elementary School

The District has one (1) middle school:
- Parkrose Middle School

The District has one (1) comprehensive high school:
- Parkrose High School

The District has three (3) former elementary schools rented out to the Multnomah County ESD:
- Sumner Elementary School (Helensview HS)
- Thompson Elementary School (Wheatley MS)
- Knott Elementary School (Knott Creek ES)

The District has three (3) District Buildings:
- Main Administration Office Building
- Facilities Office and Workshop Building
- Transportation Maintenance and Storage Building

#	School Name	Building Area	Site Area	Repair Budget	Replacement Costs	FCI Index
Elementary Schools (K - 5)						
01	Prescott Elementary School	48,544 SF	6 Acres	$2,422,350	$24,820,062	9.4%
02	Russell Academy	40,036 SF	10 Acres	$3,899,749	$20,470,006	18.3%
03	Sacramento Elementary School	41,107 SF	12 Acres	$2,135,800	$21,017,598	9.8%
04	Shaver Elementary School	43,916 SF	9 Acres	$3,961,863	$22,453,812	17.0%
Middle Schools (6-8)						
05	Parkrose Middle School	155,453 SF	17 Acres	$777,894	$83,149,944	0.9%
High Schools (9-12)						
06A	Parkrose High School	260,497 SF	41 Acres	$13,928,573	$153,680,205	8.7%
06B	Parkrose High School - Fine Arts Building	3,700 SF				
06C	Parkrose High School - Stadium	2,500 SF				
District Rental / Leased Properties						
07	Sumner Elementary / Helensview School	42,900 SF	9 Acres	$8,843,719	$21,934,341	38.8%
08	Thompson Elementary / Wheatley School	50,400 SF	TBD	$8,133,795	$25,769,016	30.4%
09	Knott Elementary / Knott Creek School	32,592 SF	5 Acres	$6,721,749	$16,663,964	38.8%
District Administration and Support						
10A	District Office	4,000 SF	2 Acres	$1,905,945	$10,420,877	17.6%
10B	Maintenance Offices + Shop	4,700 SF				
10C	Bus Barn + Shop	12,000 SF				
	Totals:	**742,345 SF**	**110 Acres**	**$52,731,438**	**$400,379,825**	

EXISTING FACILITY OVERVIEW

Critical Needs Summary

00 - District Wide

- Evaluate air conditioning needs at elementary schools (currently only Prescott Annex and a few Admin offices)
- Improved ventilation and air circulation overall.
- Accessibility upgrades to restrooms, access.
- Secure entry and site access, site safety.
- Lighting and controls retrofit and upgrade.
- Upgrade interior finishes and exterior envelope.
- Additional cameras and / or exterior lighting desired.

01 - Prescott Elementary School

- Create accessible main entry, path inside building.
- Create a Nurse / “Sick Room” (none existing).
- Create on-site parking (none currently existing).
- Better site support (trash enclosure and access).
- Significant storage needed (many support programs).
- Replace failing windows that were replaced.
- Repair and / or replace exterior siding.
- Covered play structure (west) too low for ball play.
- Cafeteria undersized and needs expansion.
- Water intrusion at boiler room exterior stair wall.
- Evaluate Annex classroom unit ventilator replacement.
- Add controls to mechanical system and commission.
- Entire building is listed as ‘Very High’ seismic risk.

02 - Russell Academy

- Replace individual unit ventilators in each classroom.
- Classroom casework does not function as needed.
- Classroom restrooms not accessible typically.
- Remove folding walls between classrooms.
- Front entry needs secure vestibule / controlled access.
- Evaluate existing Kitchen equipment and walk-ins.
- More storage needed (Music Room, etc.).
- Upgrade existing signage for accessibility, consistency.
- Provide additional electrical outlets throughout school.
- Evaluate adding fire sprinklers for added safety.
- Original building is listed as ‘Very High’ seismic risk.

03 - Sacramento Elementary School

- Evaluate expanding Cafeteria for capacity.
- Review Servery expansion - undersized, not accessible.
- Evaluate covered play structures (both) for needs:
  Roof replacement needed for (1)
  Roof repair and coating needed for (1) urgently
- Desire to add a walking track to the site.
- Evaluate repair of rolling site fence / gate.
- Evaluate safety of large, older trees on site.
- Original building is listed as ‘Very High’ seismic risk.

04 - Shaver Elementary School

- Sewer line elevation issue under parking lot (4” drop).
- Connect buildings with interior hallway.
- Fix water intrusion under covered canopy.
- Additional general building storage requested.
- Deter roof access via trash enclosure canopy.
- Refurbish mechanical units.
- Replace older electrical panels and hot water heater.
- Evaluate adding fire sprinklers for added safety.
- Original building is listed as ‘Very High’ seismic risk.

Shaver ES Exterior Canopy

Sacramento ES Multi-Purpose Room (MPR)

EXISTING FACILITY OVERVIEW

Critical Needs Summary (cont.)

05 - Parkrose Middle School

- Elevator access, custodial closet at lower floor desired.
- Replace carpet in high traffic areas (showing wear).
- Add sun control in gym for projection (high windows).
- Repair warped /door frames at Commons CMU wall.
- Repair / replace easily damaged grille covers (custom).
- Mitigate cracking in polished concrete flooring.
- Grounds garage needs improved access.

06 - Parkrose High School

OVERALL:
- Professionally repair and repaint exterior stucco.
- Overall short on classroom space, renovation needed.
- Science Labs too small to be effective.
- Evaluate removal of folding partition walls.
- Evaluate use of courtyard, added CTE building.
- Create direct entry / access to Rossi Field House (gym).
- Renovate Library for better use / function.
- Add more cameras throughout for security.
- Upgrade and improve exterior building lighting.
- Fix security alarm zoning to be more efficient, clear.
- Replace all bleachers inside gym fully.
- Replace locker room lockers (rusted out at base).
- Interior lighting inaccessible, inefficient (replace).
- Replace Auditorium house lights (inaccessible).
- Evaluate flooring replacement at Auditorium.
- Upgrade existing boiler, condensing unit / chiller.
- Replace hot water heaters, fixtures and piping.

EXTERIOR / SITE:
- Repair building canopies and columns.
- Fix drainage issues at sloped building corner.
- Evaluate converting to turf football field.
- Stadium / Grandstand needs upgrades.
- Add paving between running track and building.
- Improve track amenities to host meets / events.
- Close off pool covered entry area for safety.
- Clean, repair tennis courts, add spectator support area.
- Exterior light poles sway in wind, replace.
- Provide additional Grounds storage.
- Clean, rebuild and re-stripe track.
- Irrigation system is beyond practical lifespan, leaking.

FINE ARTS BUILDING (FAB):
- Improve ventilation throughout.
- Upgrade finishes, windows and casework throughout.
- Improve interior circulation for wayfinding, safety.
- Renovate to improve program inefficiencies.

POOL BUILDING:
- Improve ventilation at pool.

SEISMIC / STRUCTURAL:
- All but FAB is listed as ‘High’ seismic risk.

Sumner ES Exterior Windows

Thompson ES Exterior Glass Block Windows

EXISTING FACILITY OVERVIEW

Critical Needs Summary (cont.)

07 - Sumner Elementary School (Helensview)*

- Fully replace roofing, including gutters, fascia, etc.
- Replace all existing windows.
- Remove extensive glass block windows existing.
- Remove / brace existing brick chimney.
- Replace existing boiler and mechanical units.
- Upgrade mechanical controls to digital, commission.
- Replace old electrical panels.
- Replace hot water heaters, fixtures and piping.
- Evaluate flower beds at entry for security risk.
- Original building is listed as 'Very High' seismic risk.

08 - Thompson Elementary School (Wheatley)*

- Replace all existing windows.
- Remove extensive glass block windows existing.
- Repair exterior concrete canopy at entry.
- Consider removing textured ceiling finish (ACM).
- Add paved pedestrian access from sidewalk / street.
- Clean, re-point and re-seal brick at enry, planter.
- Repair downspouts at Covered Play Structure (CPS).
- Remove rust, replace roof panels at CPS.
- Replace existing boiler and mechanical units.
- Upgrade mechanical controls to digital, commission.
- Replace old electrical panels.
- Replace hot water heaters, fixtures and piping.
- Recommend additional fire sprinklers be added.
- Original building is listed as 'Very High' seismic risk.

09 - Knott Elementary School (Knott Creek)*

- Fully replace roofing, including gutters, fascia, etc.
- Upgrade inadequate existing ventilation (tunnels).
- Replace all existing windows.
- Remove extensive glass block windows existing.
- Replace existing boiler and mechanical units.
- Upgrade mechanical controls to digital, commission.
- Replace old electrical panels.
- Replace hot water heaters, fixtures and piping.
- Recommend additional fire sprinklers be added.
- Original building is listed as 'Very High' seismic risk.

* For Sumner, Thommpson and Knott: As District rental properties, scope of work will be focused on building systems and infrastructure. Any items requiring repair and / or replacement due to use or age otherwise will be the responsibility of the building tenants.

Knott ES Exterior Entry Wall


Sumner Campus Exterior Windows

EXISTING FACILITY OVERVIEW

Critical Needs Summary (cont.)

10 - District Office / Maintenance Building

DISTRICT OFFICE:
- Enclose courtyard for better use / functionality.
- Regular exterior painting required for maintenance.
- Renovate Work Room, Student Services.
- Add upgraded, electric monument entry sign.
- Upgrade IT closet / rack to larger space.
- Add cameras at building side.
- Replace perimeter fencing.
- Fix problematic roof drains (waterfalls in heavy rain).
- Minor roofing maintenance recommended.
- Replace individual AC units with central system.
- Replace hot water heaters, fixtures and piping.
- Recommend additional fire sprinklers be added.
- Original building is listed as 'High' seismic risk.

MAINTENANCE BUILDING:
- Exterior painting needed (summer 2021 or later).
- Full restore of metal roof needed.
- Relocate Nutrition staff to Warehouse.
- Renovate / clean out Shop area for functionality.
- Remove underground gas tanks and pumps.
- Original building is listed as 'Very High' seismic risk.

WAREHOUSE / BUS BARN:
- Exterior alarms needed, to deter activity.
- Additional Grounds storage needed overall.
- Repair overhead doors to be functional (hardware).
- Evaluate 'notch' missing in several (structural).
- Repair ceiling where debris falling down regularly.
- Replace both vehicle lifts (original, not efficient).
- Repair heater (too loud, can't hear when running).
- Provide added power to separate light + computers.
- Replace hot water heater platform.
- Restore metal roofing, replace built-up roofing.
- Original building is listed as 'Very High' seismic risk.


District Office Courtyard

Vehicle Repair Bays

EXISTING FACILITY OVERVIEW

Facilities Condition Index (FCI)

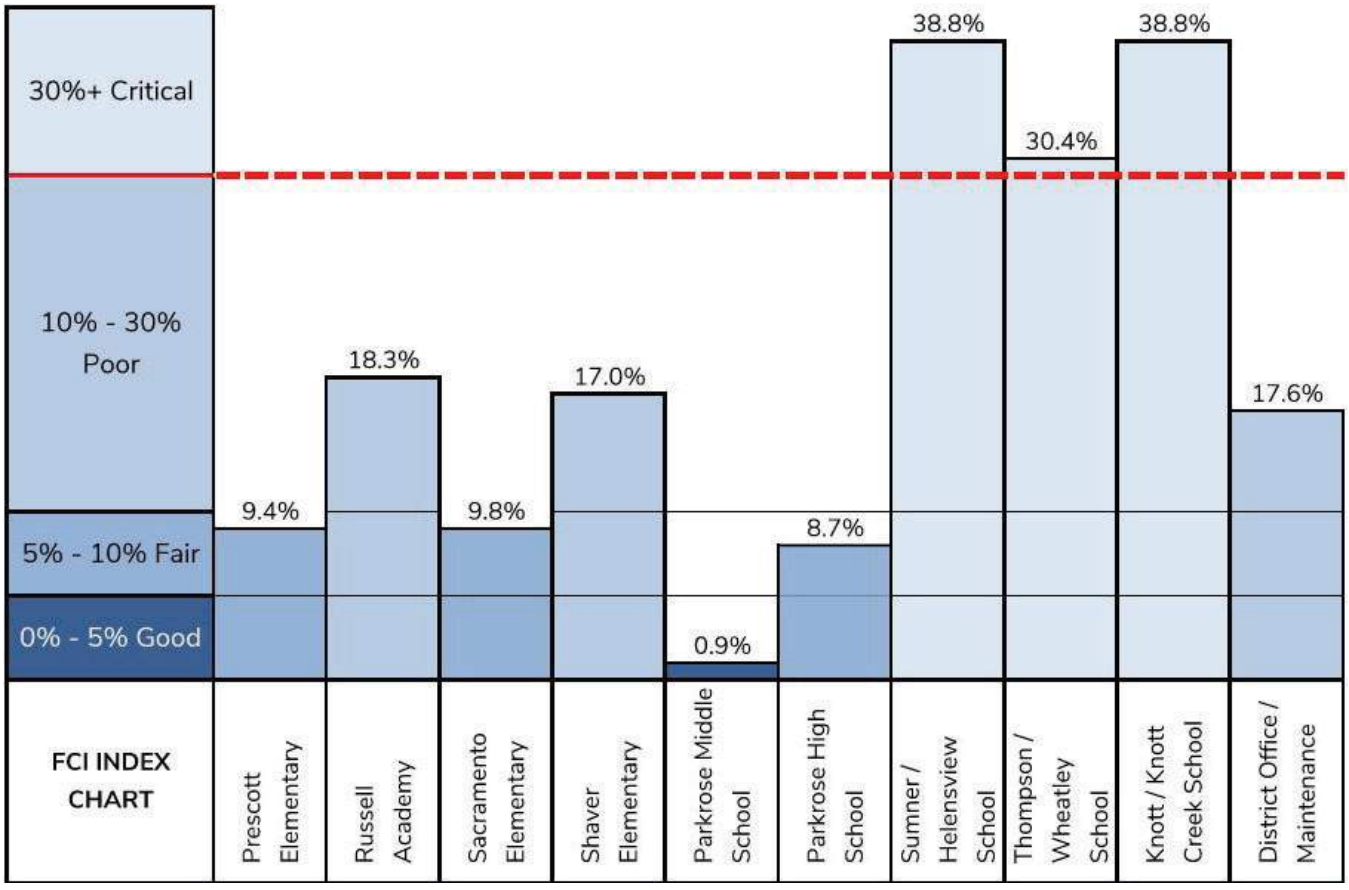
Within the Facilities Assessment Report (FAR) is the Facilities Condition Index (FCI), calculated from the deficiencies found in each building and the corresponding costs to address them. Specifically, the FCI outcome is the ratio of the estimated cost of renovations compared to complete building replacement, assuming the same square footage and program as the existing. The closer the renovation costs get to the full replacement cost of the building, the higher the FCI percentage.

The FCI is one tool used to determine if it's more cost-effective to replace or renovate a building, rather than try to address each individual deficiency. An FCI of 30% or higher indicates that replacement is recommended, since the cost to repair is a significant portion of the entire building's value. The FCI is a benchmark indicator of the building's condition used to compare its relative condition to other similar buildings.

This FCI number is only used to measure the relative costs of repair versus replacement, and doesn't take into account the following factors:
- Structural Resiliency
- Suitability to Program
- Accessibility Requirements
- Hazardous Materials Abatement
- Educational Adequacy

As part of this evaluation, we will review all these aspects, as well as the ODE requirements for physical facilities.

The chart below graphically shows the rankings of each District school building relative to the 'tipping point' of the 30% cut-off for replacement. This shows quite clearly that the three rental elementary schools are the highest need buildings, with Russell, Shaver and the District Office the next highest need group of buildings.



EXECUTIVE SUMMARY

Average Overall Condition

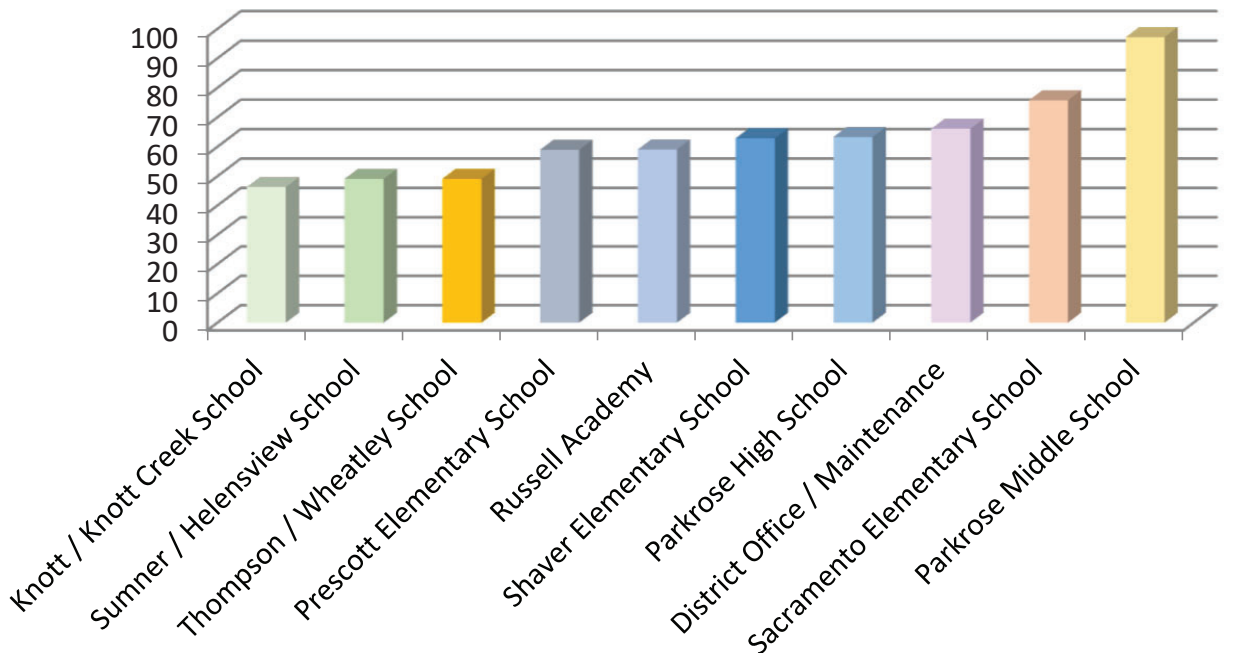
While all of the district's buildings are well-maintained, many have identified a long list of needs, particularly the older buildings and the high school. With an average building age of over 50 years, there are several buildings with their practical lifespan already extended beyond what is practical.

The following pages provide summary analysis on the specific aspects of each building's overall condition. Refer to the school specific pages further in the report for more detailed site-specific information. On the charts below, zero is the lowest performing score, while a score of 100 means the building is performing 'Perfectly', or exactly as needed.

Note: Sumner, Thompson and Knott were not evaluated for educational adequacy or program support, as these are currently rented out and not used directly by Parkrose SD students.

Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30

Summary - All Buildings: Average



EXECUTIVE SUMMARY

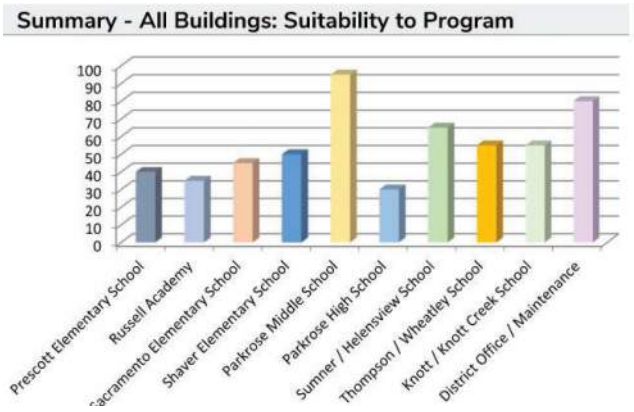
General Condition + Summary Building Grades by Category

Program Suitability

The high school likely has the worst performance relative to program, due to both the small, inefficient size of the classrooms and the overall low classroom count.

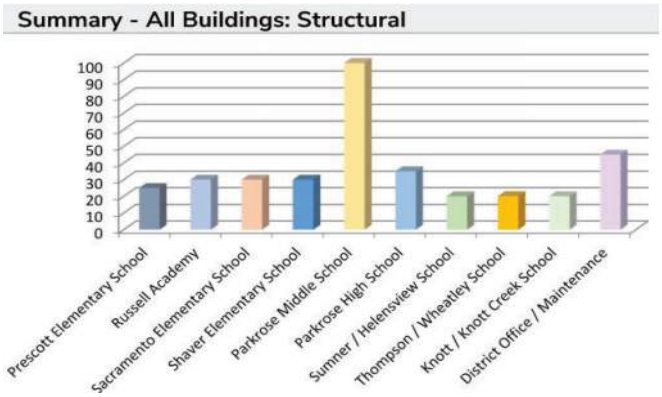
Russell Academy is another candidate that has classrooms with exterior doors and casework that doesn't function for what a modern classroom requires. All four elementaries lack adequate Cafeteria space and gymnasium spaces. The Multi-Purpose Room (MPR) additions in 2014 at all but Prescott helped mitigate this.

There are other minor issues relative to supervision, adjacency and changes in pedagogy that are impacted.



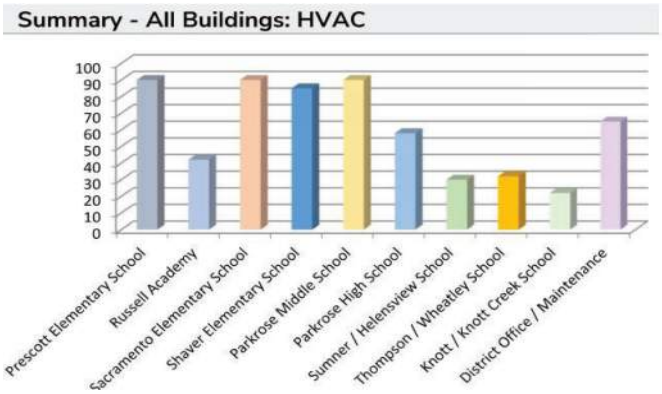
Structural

Every campus except the middle and high school has buildings listed as "Very High" risk categories for seismic, while the high school is listed as "High Risk." Only the newly constructed all-new middle school performs well overall.



HVAC / Mechanical

Ameresco performed walkthroughs at each of the District's buildings and their full report is included as an appendix to this document. In general the high school and rental buildings need to have their boilers and piping replaced, along with their control systems and balancing, along with mechanical units replaced or repaired as well. Testing and commissioning was also recommended.



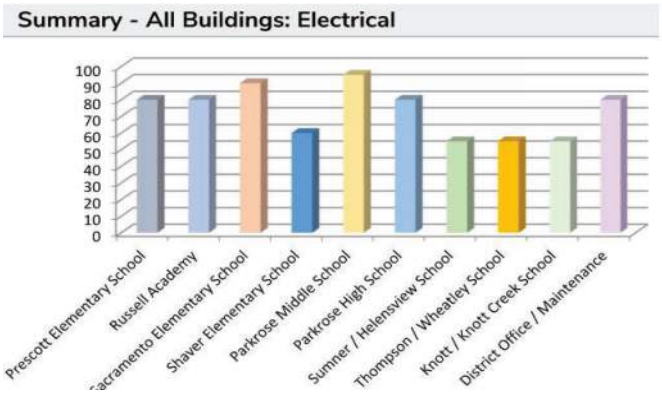
Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30

EXECUTIVE SUMMARY

General Condition + Summary Building Grades by Category

Electrical

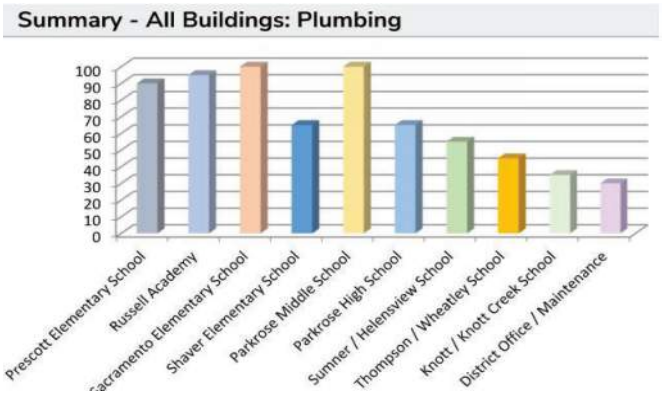
The electrical issues focused on two primary issues, lighting and replacement of older electrical panels. Many of the rental properties had issues with low voltage systems, such as intercoms, bells / clocks and cameras.



Plumbing

The three rental elementaries all list as a priority full replacement of plumbing fixtures and piping, while a handful of other schools are only 'recommended' for replacement. More than half the schools are recommended to have existing domestic hot water heaters replaced.

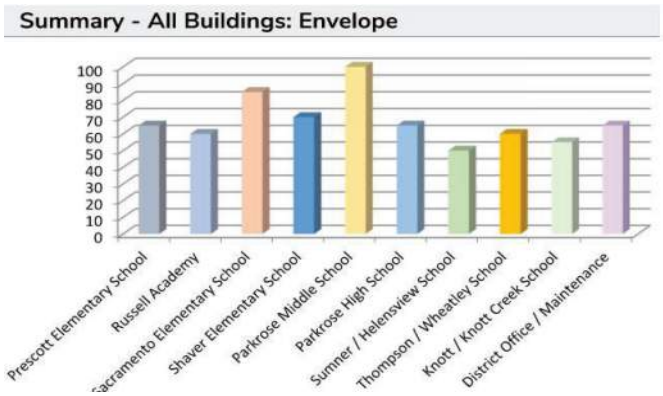
Several call for either the extension of or complete installation of fire sprinkler systems as well.



Exterior Envelope

Many of the district properties require roofing maintenance, and additionally the three rentals all require complete window replacement. There are minor issues with brick veneer at a handful of schools, and several painted buildings required maintenance.

The high school needs a complete restoration and cleaning of the stucco system, including repair from woodpecker damage.



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30

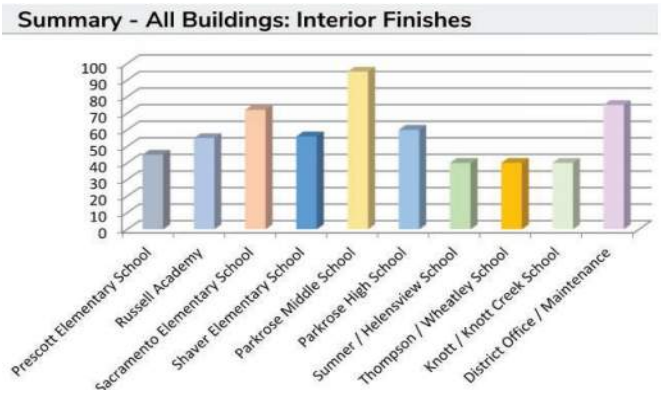
EXECUTIVE SUMMARY

General Condition + Summary Building Grades by Category

Interior Finishes

Many schools received finish upgrades with the last bond, but not the rental properties as that would be the responsibility of the tenant. Prescott and Shaver have finishes remaining that are approaching end of life, including flooring and damaged ceiling systems.

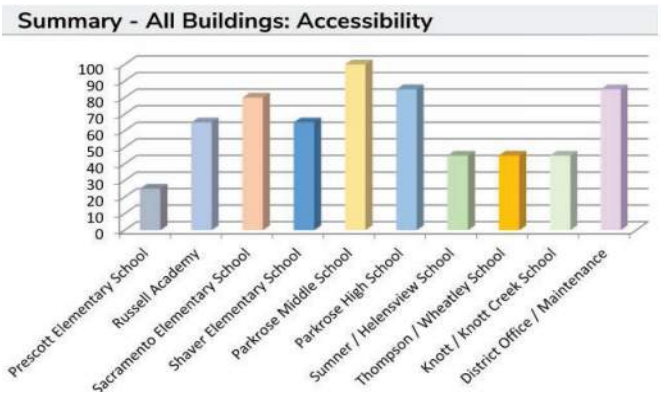
Parkrose High also has several interior finish elements that require either maintenance or replacement, as they've reached the end of their practical lifespan.



Accessibility

Prescott is the highest need school building, as it's lacking an accessible main entry and elevator. Generally speaking otherwise, the school sites are flat and level, allowing for adequate pathways into and circulating through each campus.

The three rental elementary schools have non-accessible restrooms inside the classrooms that need to be upgraded. The playgrounds should be evaluated for universal access as well.



Hazardous Materials

Many of the schools have received significant abatement over the years, and all perform generally well. There is very little visible, accessible hazardous materials in each school, with the possible exception of the three rental elementaries. These still have asbestos flooring and 'popcorn' texture ceiling with trace amounts of hazardous materials.

Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30

EXISTING FACILITY OVERVIEW

Summary - Mechanical / Electrical

The table below is an excerpt from the full structural report, prepared by ZCS, that identifies that there are several buildings at the highest risk of collapse in a seismic event. As you would expect, the older buildings generally score lower, with the exception of the relatively new high school, which is still listed as 'High Risk.'

The last bond scope provided seismic upgrades of the elementary schools in use by the District, but not the ones rented / leased out. Refer to the full evaluation, included at the back of this report, for complete details.

Risk	Score	Probability
LOW	>2.0	Less than 1 in 100 chance of collapse
MODERATE (MOD)	>1 AND < or = 2.00	Between 1 in 10 & 1 in 100 chance of collapse
HIGH	>0,0 AND < or =1.0	Between 100% & 1 in 10 chance of collapse
VERY HIGH	0.0 OR LESS	100% chance of collapse

In alignment with this ranking system, FEMA, has determined that all buildings with a score 2.0 should be considered to have inadequate performance during a design level seismic event.

Facility Name	Risk
Prescott Elementary School	
Original Classroom Building	**-1.0 – VERY HIGH**
1959 Addition (Annex)	**-0.4 – VERY HIGH**
Russell Elementary School	
Original School Building	**-1.1 – VERY HIGH**
2014 Addition	**5.1 – LOW**
Sacramento Elementary School	
Original School Building	**-1.8 – VERY HIGH**
2014 Additions	**5.1 – LOW**
Shaver Elementary School	
Original School Building	**-1.8 – VERY HIGH**
2014 Addition	**5.1 - LOW**
Parkrose Middle School	
Original School Building	**3.8 – LOW**
Parkrose High School	
Classroom Wings	**1.0 – HIGH**
Student Center/Library	**1.0 – HIGH**
Auditorium, Gym and Pool	**0.7 – HIGH**
Band/Music	**1.0 – HIGH**
Fine Arts Building	**1.3 – MODERATE**
Sumner Elementary School	
Original School Building	**-1.8 – VERY HIGH**
Thompson Elementary School	
Original School Building	**-1.8 – VERY HIGH**
Knott Elementary School	
Original School Building	**-1.8 – VERY HIGH**
1965 Addition	**0.2 – HIGH**
District Office/Maintenance	
District Office Building	**0.6 – HIGH**
Maintenance Facility	**-0.6 – VERY HIGH**
Garage and Storage	**-1.6 – VERY HIGH**

EXISTING FACILITY OVERVIEW

Summary - Mechanical / Electrical

The table below is an excerpt from the full mechanical, electrical and plumbing report, prepared by Ameresco. This identifies the specific scope items on each campus with the highest needs and anticipated approximate costs to repair or replace items indicated. In general, all sites are recommended for testing and retro commissioning, as well as lighting upgrades.

Many are recommended for complete mechanical unit replacement. In general, the three 'rental' elementary schools show the highest system needs overall, with significant mechanical, electrical and plumbing work indicated at all three sites. The four elementary schools were upgraded in the most recent bond, so they show a lower need based on their age. The middle school is also showing few needs since it was most recently built new.

Refer to the full evaluation, included at the back of this report, for complete details.

Facilities Summary	HVAC						ELECTRICAL		PLUMBING			Total
	Replace existing old boiler system	Replace condensing unit / chiller	Refurbish AHUs	AHU/ HV/ RTU/ UV/ UH/ FF replacement	Test and retro commissioning	Control upgrade	Replace old electrical panels	Lighting and lighting control retrofit to LED	Replace water fixtures and water piping for the school	Replace existing old DHW heater	Add fire sprinkler system	
Prescott Elementary					$ 22,000	$ 75,000		$ 110,000	$ 55,000	$ 60,000		$ 322,000
Russell Elementary				$ 530,000	$ 18,000			$ 90,000			$ 40,000	$ 678,000
Sacramento Elementary					$ 21,000			$ 95,000				$ 116,000
Shaver Elementary			$ 80,000		$ 30,000		$ 65,000	$ 100,000		$ 30,000	$ 40,000	$ 345,000
Parkrose Middle School					$ 64,000			$ 215,000				$ 279,000
Parkrose High School	$ 75,000	$ 50,000		$3,200,000	$ 85,000	$ 105,000		$ 500,000	$ 35,000	$ 120,000		$ 4,170,000
Sumner /Helensview	$ 800,000			$ 550,000	$ 22,000	$ 300,000	$ 100,000	$ 90,000	$ 240,000	$ 30,000		$ 2,132,000
Thompson / Wheatley	$ 800,000			$ 550,000	$ 22,000	$ 300,000	$ 140,000	$ 90,000	$ 270,000		$ 250,000	$ 2,422,000
Knott / Knott Creek	$ 680,000			$ 450,000	$ 18,000	$ 240,000	$ 110,000	$ 75,000	$ 200,000	$ 30,000	$ 210,000	$ 2,013,000
District Office / Maintenance				$ 55,000	$ 12,000	$ 115,000		$ 43,000	$ 135,000	$ 17,000	$ 130,000	$ 507,000

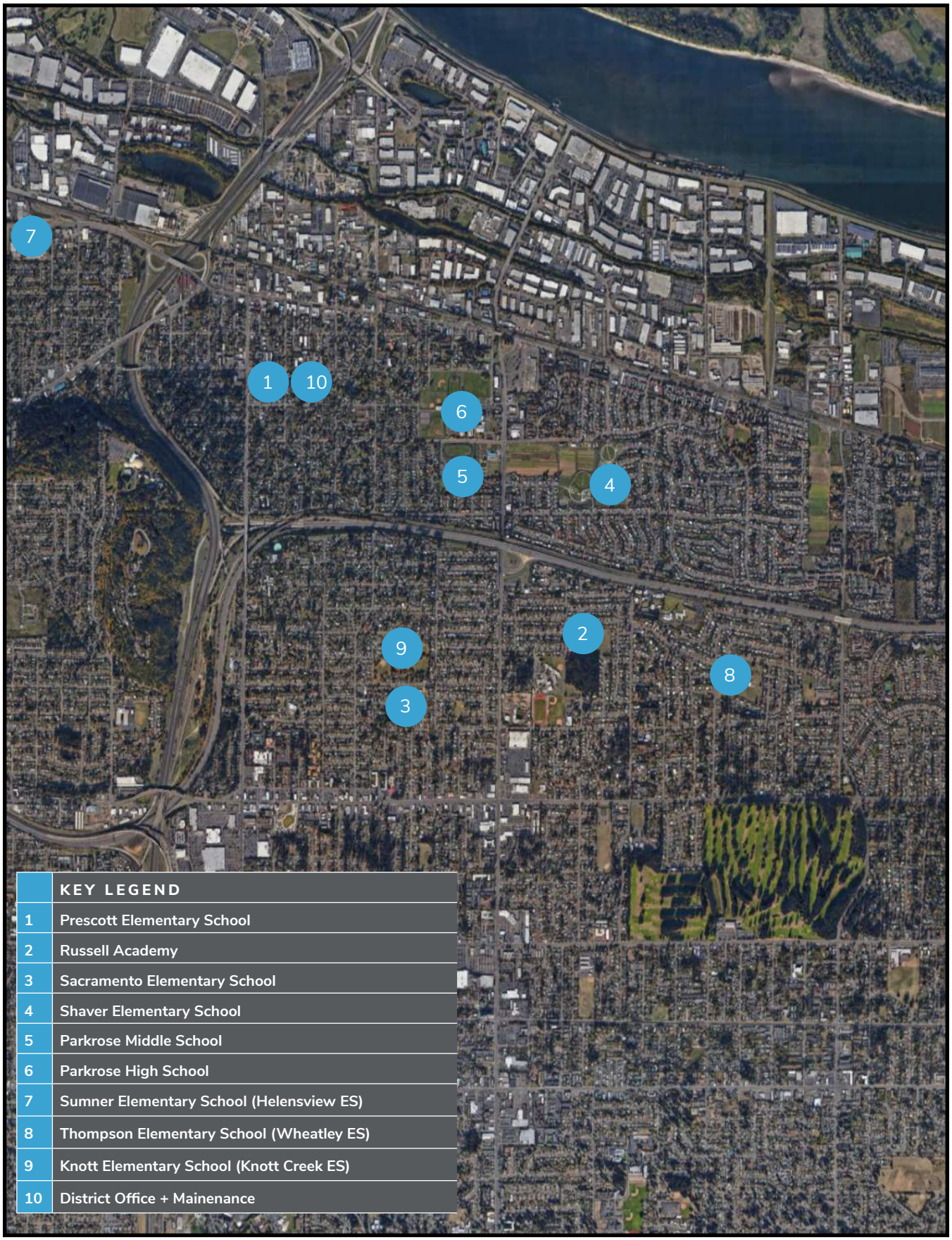
Priority
Recommended

AHU	Air Handling Unit
HV	Heating Ventilating Unit
RTU	Rooftop Unit
UV	Unit Ventilator
DHW	Unit Heater
FF	Forced Air Furnace
	Domestic Hot Water

FACILITY ASSESSMENTS BY BUILDING

00 - PARKROSE SCHOOL DISTRICT

SITE PLAN



	KEY LEGEND
1	Prescott Elementary School
2	Russell Academy
3	Sacramento Elementary School
4	Shaver Elementary School
5	Parkrose Middle School
6	Parkrose High School
7	Sumner Elementary School (Helensview ES)
8	Thompson Elementary School (Wheatley ES)
9	Knott Elementary School (Knott Creek ES)
10	District Office + Mainenance

01 - PRESCOTT ELEMENTARY SCHOOL

SITE PLAN

01 - PRESCOTT ELEMENTARY SCHOOL

FLOOR PLAN

01 - PRESCOTT ELEMENTARY SCHOOL

Facility Summary

Prescott Elementary is one of the highest needs schools in the District, due to it's age, it's tight sight that doesn't easily provide for parking and it's two-story configuration that creates accessibility challenges.

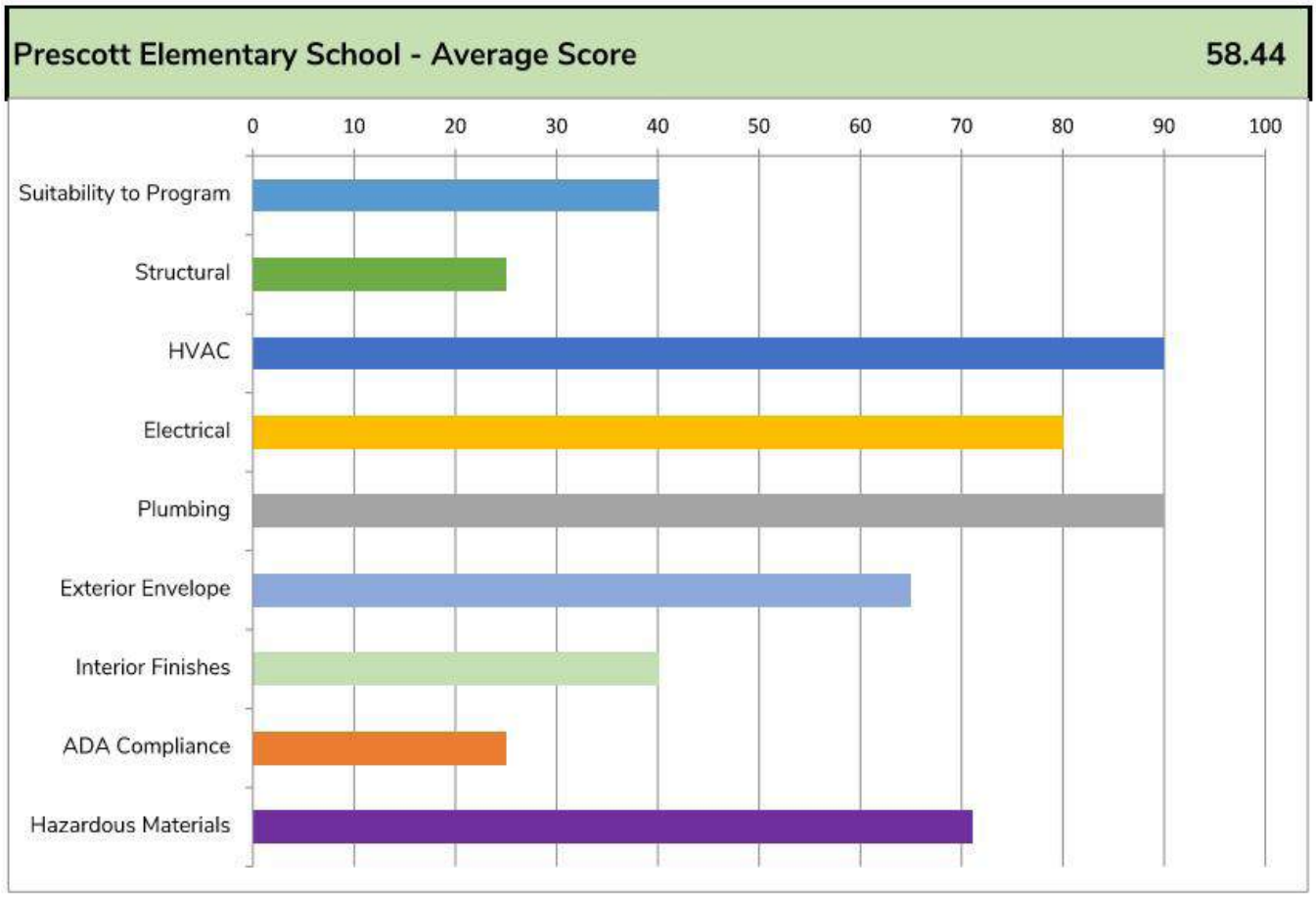
Starting at the building entry, there is no accessible path from the sidewalk to the main office, with the side curving ramp very narrow and steep and the lower ramp into the Cafeteria not appropriate to leave open for security. Prescott's lack of parking onsite is an issue for both parents and staff, as well as neighbors who deal with significant site circulation issues twice daily.

Prescott was the only elementary in the District that didn't receive a 'Multi-Purpose Room' (MPR) addition in the previous bond, since it did have a separate gymnasium and cafeteria, unlike the other schools.

In addition to overall system issues with mechanical, electrical and plumbing, there is a very high seismic risk, increased by the fact that the cafeteria is underneath the gymnasium. Further evaluation is recommended.

Site Name:	Prescott Elementary
Building Name:	Main Building + Annex
ODE Building ID:	21810100
Building Type:	Elementary School
Students:	331
Building Address:	10410 NE Prescott St, Portland, OR 97220
County:	Multnomah
Gross Square Footage:	48,544
Site Acreage:	5.75
Year Built:	1947
Additions/Renovations:	1959, 1996, 2014
Number of Floors:	Two (2)
Primary Structure:	Wood Framing
Roof Type:	Built-Up (SBS), Membrane
Replacement Budget:	$24,820,062

01 - PRESCOTT ELEMENTARY SCHOOL



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30


Covered Play Area (West)


Gym

01 - PRESCOTT ELEMENTARY SCHOOL

Architectural

- Cafeteria is undersized for current capacity.
- Previous window replacement resulted in non-functioning units that now require replacement.
- Window coverings require replacement.
- Repair / replace damaged and failing siding, both vinyl and cememtitious.
- Minor kitchen equipment upgrades needed.
- Repair leak at exterior brick wall near building boiler room corner.
- Upgrade / replace interior finishes, including flooring, ceilings and door hardware.
- Built-in cabinets and moveable furniture require repair and replacement.
- Dedicated Health / Sick Room needed at Main Office.
- Additional storage needed due to multiple community and District groups' use of the building.
- Covered Play canopy at West side of site is too low for ball play, consider revising play equipment to more age-appropriate configuration.

Site Safety and Security Analysis

- Main Entry doesn't have good line-of-site to people entering.
- Secure vestibule strongly recommended to be added.
- Repair site asphalt paving where cracked, uneven.
- Students travel from main building to Annex, which requires exterior doors to remain unlocked and creates a security risk.
- Multiple, smaller windows in Annex requires lengthy time to shut blinds in a lockdown situation, creating higher risk to staff.

Accessibility

- Add elevator and / or repair lift at stairs.
- Upgrade restroom washbasins that aren't accessible, provide required clearance.
- Steep site creates challenges accessing playground, Annex building for some.
- Evaluate need for power-operated door openers at key locations.

Hazardous Materials and Indoor Air Quality

- There is some surface-applied ceiling and wall tiles that may have asbestos-containing mastic / glue.
- Most flooring has been replaced throughout and asbestos-containing material was abated at that time.
- Due to the age of the building, it is assumed there would be lead paint encapsulated below newer paint.
- Radon mitigation was completed prior to / near Summer 2021. Re-testing is planned for Fall 2021.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.

Accessible Ramp to Building

Classroom

01 - PRESCOTT ELEMENTARY SCHOOL

Building Systems

Fire Protection:
- The entire building and Annex have a fire sprinkler system currently installed that is routinely tested and inspected.

Plumbing:
- Replace plumbing fixtures and supply piping to the building.
- Replacement of existing domestic hot water heaters is recommended, due to age, capacity and overall condition.

Mechanical:
- Main Office does not currently have air conditioning, evaluate adding.
- Repair Kitchen mechanical piping that has been chronically freezing up and condensing.
- Evaluate adding digital controls for remote monitoring and access of mechanical system.
- Testing and retro-commissioning existing system is recommended to increase performance and efficiency overall.
- Provide full mechanical controls upgrade.

Electrical:
- The school's main distribution panel was replaced in 1987 and appears to be performing adequately for current needs.
- Most building subpanels were replaced in 2013 and appear to have adequate capacity overall.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- The existing fire alarm system appears to be functioning adequately and work is not recommended at this time.

Communication and Security:
- There is an older PA (Public Address) system for operational communications.
- There seems to be no functional two-way intercom system in the school, or between the schol and Annex building.
- Wireless internet appears to be adequate throughout the school.

Refer to full report from Ameresco for more detail.

Structural

- The original classroom building is rated as a 'Very High' seismic risk.
- The Annex addition is also considered to be a 'Very High' seismic risk, although not quite as high as the original building.

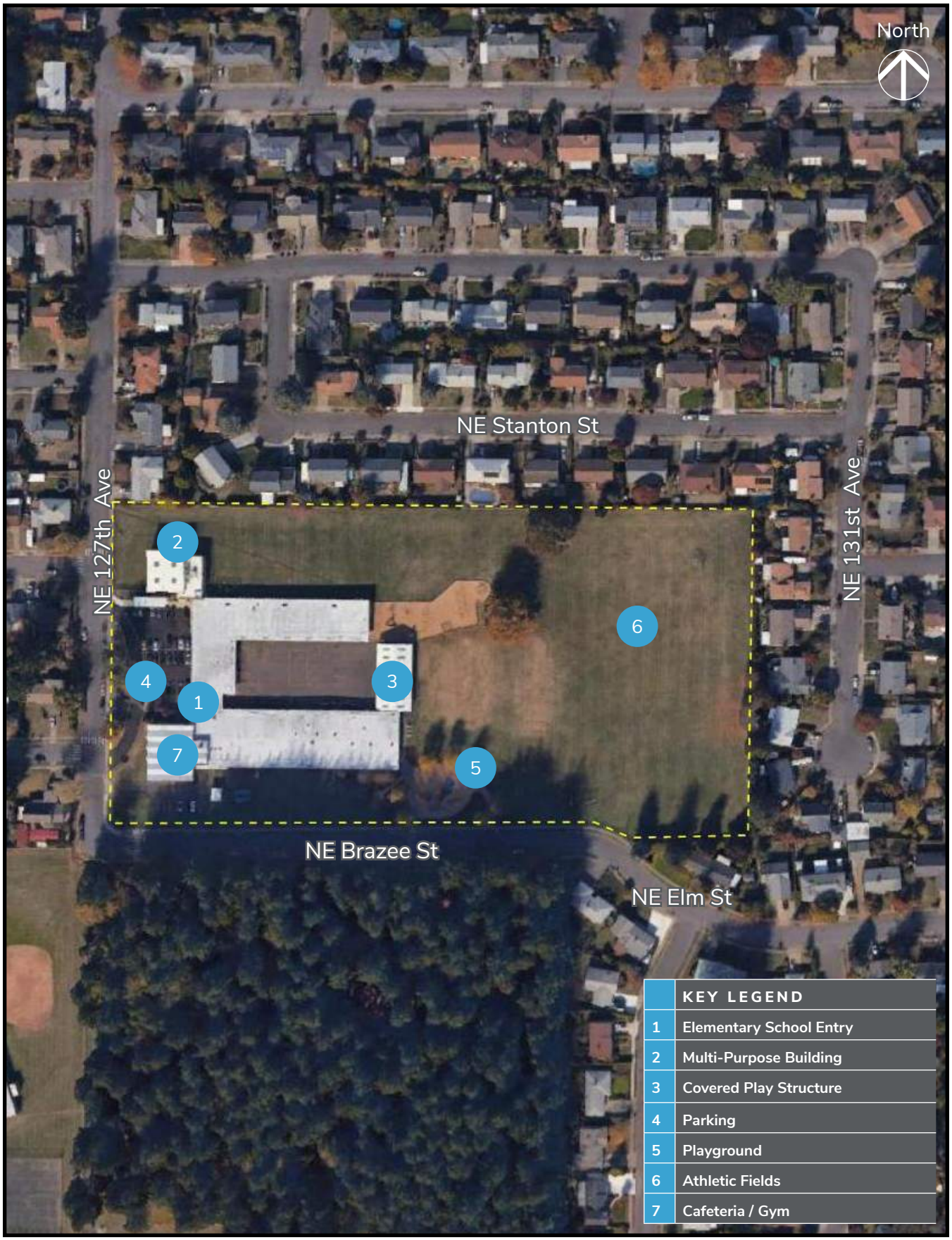
Refer to full report from ZCS Engineering and Architecture for more detail.


Kitchen


Boiler Room

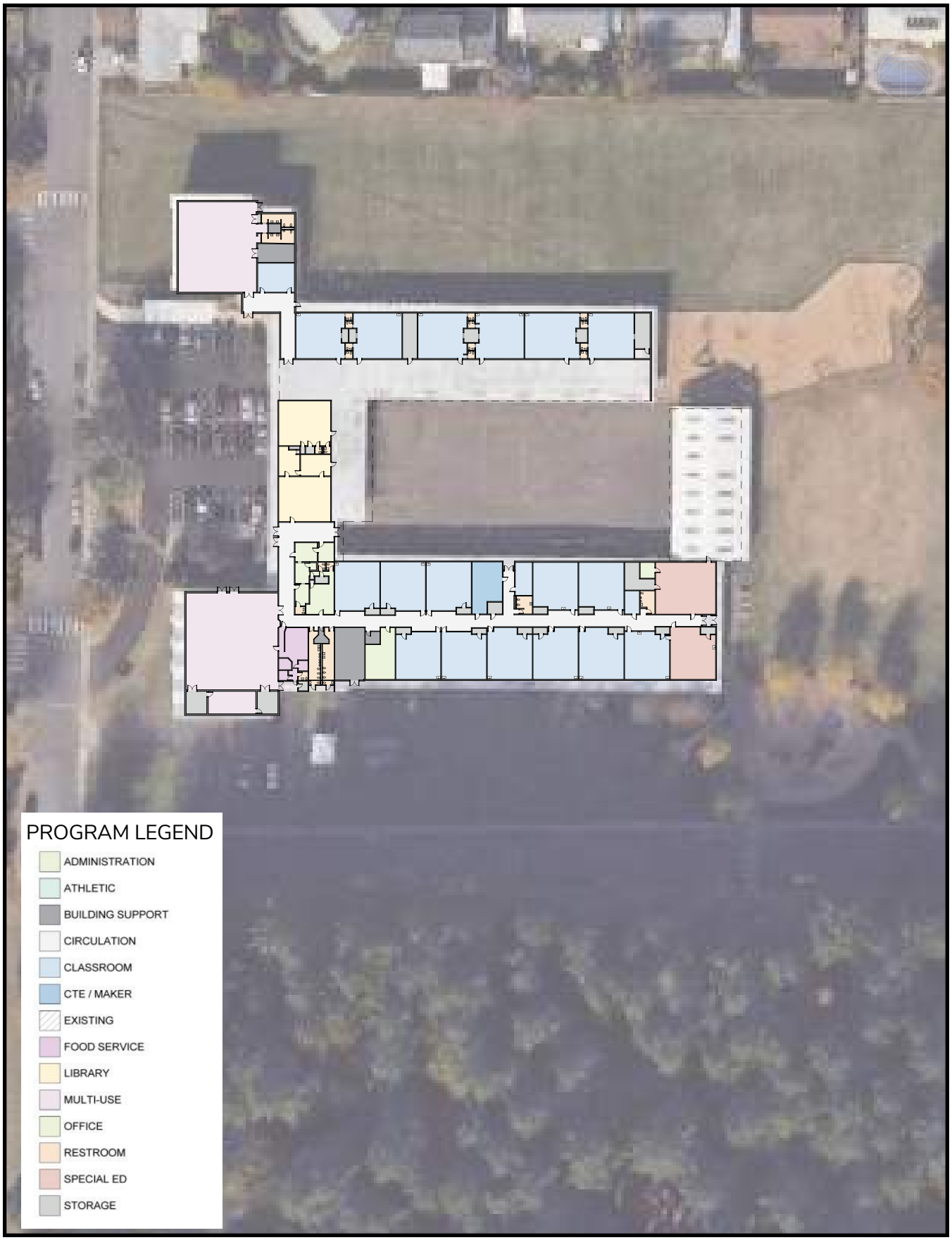
02 - RUSSELL ACADEMY

SITE PLAN



02 - RUSSELL ACADEMY

FLOOR PLAN



02 - RUSSELL ACADEMY

Facility Summary

Russell Academy's physical configuration, with exterior classroom entries, creates significant security risks that should be considered. The front office is across the corridor from the entry doors, creating a significant security risk, which could be mitigated by adding a vestibule.

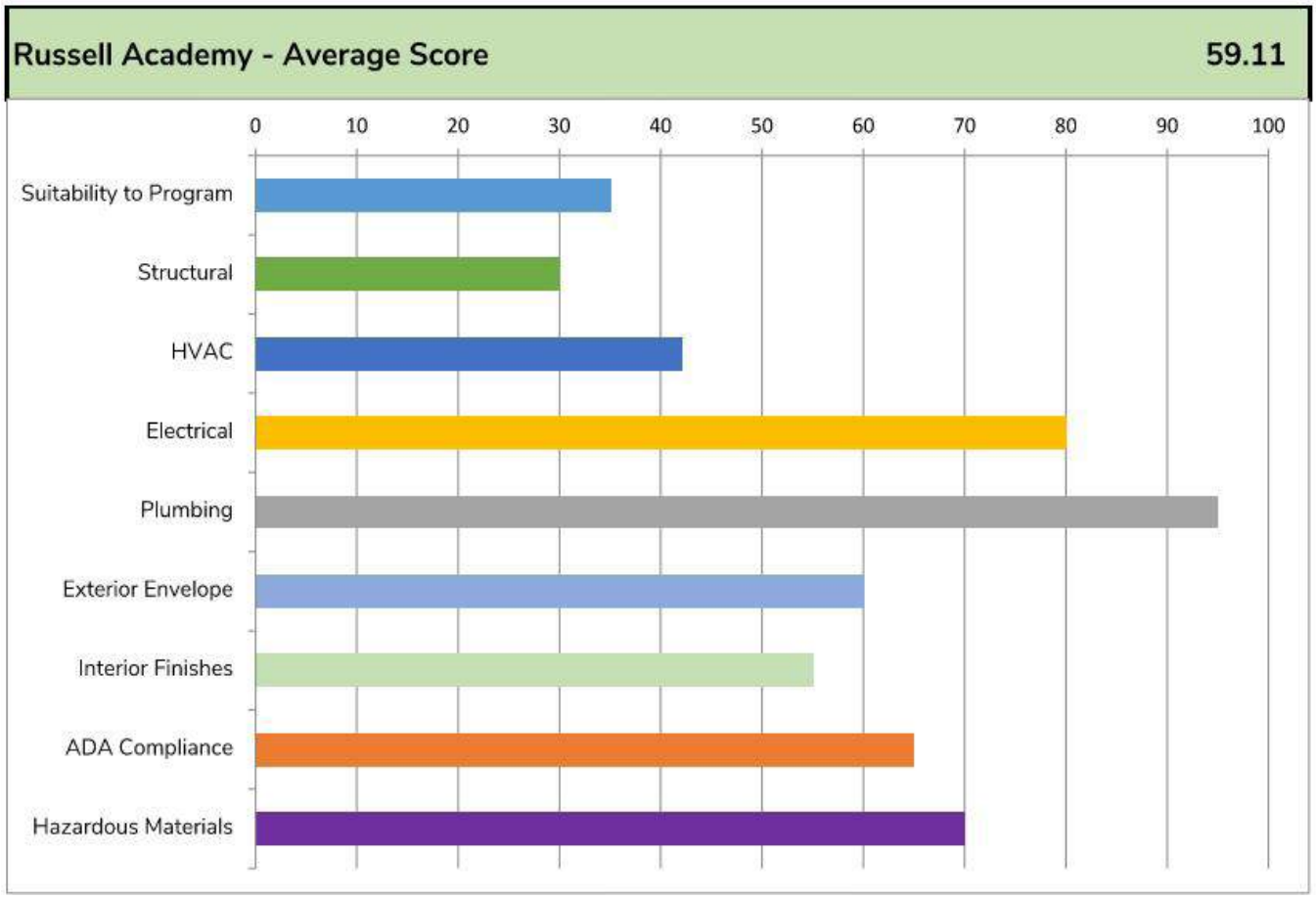
This building in particular has significant mechanical issues, as each classroom has an independent unit ventilator that is beyond it's practical lifespan and requires replacement. In addition to this, there is inadequate electrical outlets throughout the school.

The classrooms themselves have antiquated, outdated casework and folding walls that aren't well utilized in modern teaching environments. The restrooms inside these classrooms are very small and not accessible to differently-abled students.

There are several smaller issues with the building, including inconsistent signage, inadequate storage, and upgraded kitchen equipment.

Site Name:	Russell Academy
Building Name:	Russell Main
ODE Building ID:	21810200
Building Type:	Elementary School
Students:	371
Building Address:	2700 NE 127th Ave., Portland, OR 97230
County:	Multnomah
Gross Square Footage:	40,036
Site Acreage:	9.83
Year Built:	1963
Additions/Renovations:	1996, 2013
Number of Floors:	One (1)
Primary Structure:	Wood Framing
Roof Type:	Built-Up (SBS)
Replacement Budget:	$20,470,006

02 - RUSSELL ACADEMY



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30


Classroom


Commons/Cafeteria

02 - RUSSELL ACADEMY

Architectural

- Classrooms have outdated, antiquated casework and folding walls that should be considered for replacement.
- The gate access from the parking lot is problematic and should be replaced.
- The Kitchen is outdated, with some original equipment, including the walk-in freezer and cooler, still in use. We recommend an allowance to upgrade this equipment.
- Hallway flooring is very difficult to get clean and recommended for replacement, unless it can be stripped and re-finished effectively.
- Additional storage is requested, particulalry for the Music Room.
- Signage building-wide is inconsistent, illegible and should be replaced with a consistent version.
- Re-roof of small area recommended within next 5-7 years.

Site Safety and Security Analysis

- Main entry doesn't connect directly to the Main Office, limiting ability to screen and control visitor access.
- Secure vestibule should be added to assist in controlling access and screening visitors.
- Exterior classroom door entries a significant security risk, consider options to enclose.
- Additional cameras have been requested, both interior and exterior.
- Additional exterior lighting has been requested by the building users, as the existing is minimal.

Accessibility

- The restrooms within the classrooms are very small and don't meet guidelines for accessibility. These are recommended for reconfiguration to accommodate differently-abled students.
- Evaluate need for power-operated door openers at key locations.
- Provide accessible route to stage area.

Hazardous Materials and Indoor Air Quality

- Radon mitigation was completed prior to / near Summer 2021. Re-testing is planned for Fall 2021.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.


Covered walkway

Library

02 - RUSSELL ACADEMY

Building Systems

Fire Protection:
- While not required, it is recommended to extend the existing fire sprinkler system, which is minimal.
- The new Multi-Purpose Room (MPR) does not have a fire sprinkler system installed.

Plumbing:
- No issues identified.

Mechanical:
- Replace the existing independent unit ventilators in each classroom that are well beyond their practical lifespan.
- Testing and retro-commissioning existing system is recommended to increase performance and efficiency overall.

Electrical:
- The majority of the school's main distribution panel was replaced in 2013 and appears to be performing adequately for current needs.
- Most building subpanels were replaced in either 1996 or 2013 and appear to have adequate capacity overall.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- The existing fire alarm system, while not required, could increase safety by upgrading the existing system to add visual strobes and to modernize the current system.

Communication and Security:
- There is an older PA (Public Address) system for operational communications.
- Wireless internet appears to be adequate throughout the school.

Refer to full report from Ameresco for more detail.

Structural

- The original classroom building is rated as a 'Very High' seismic risk.
- The most recent 2014 addition is considered to be a 'Low' seismic risk and should meet or nearly meet current structural code guidelines.

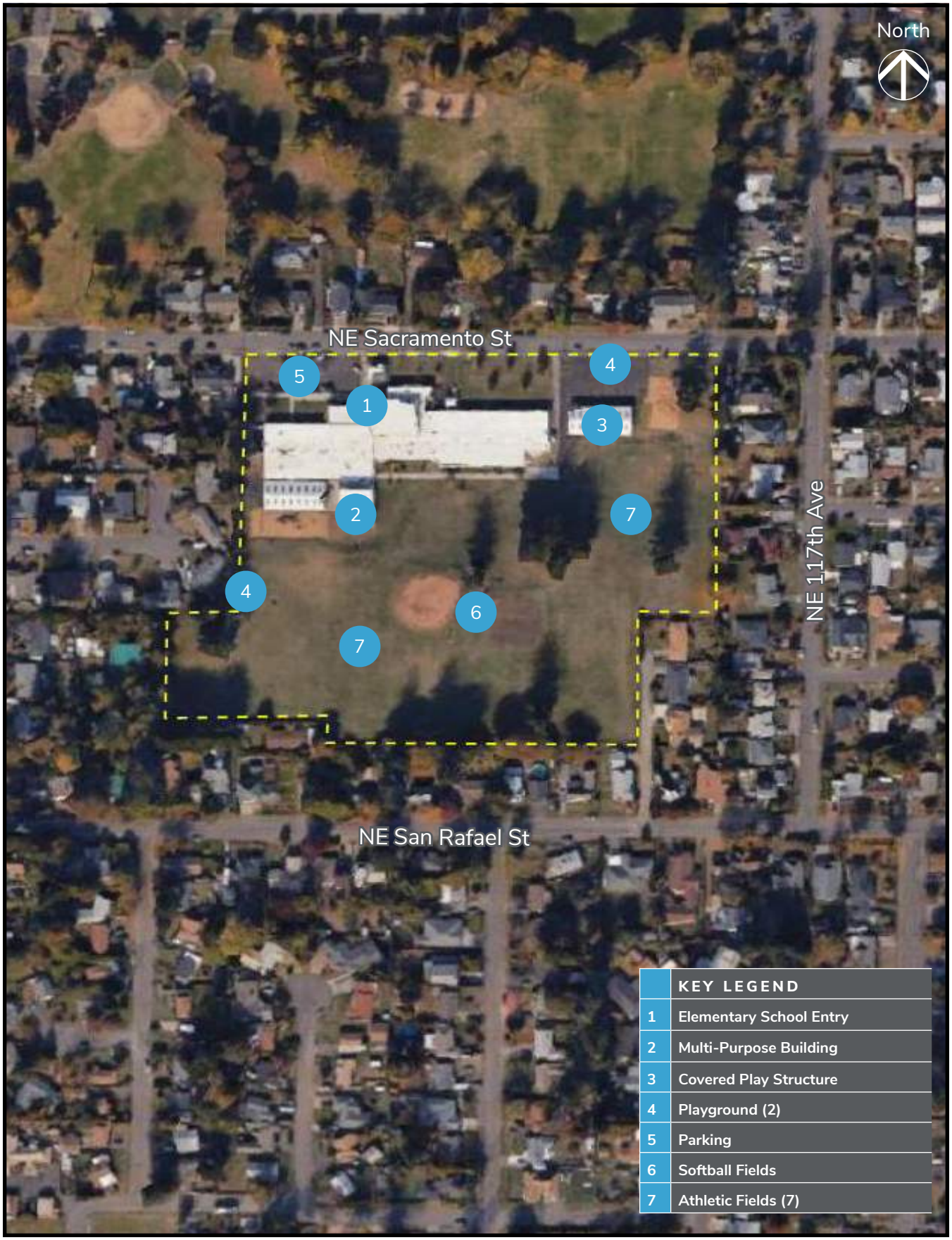
Refer to full report from ZCS Engineering and Architecture for more detail.


Main Entry and Office


Covered Play Structure and Curb

03 - SACRAMENTO ELEMENTARY SCHOOL

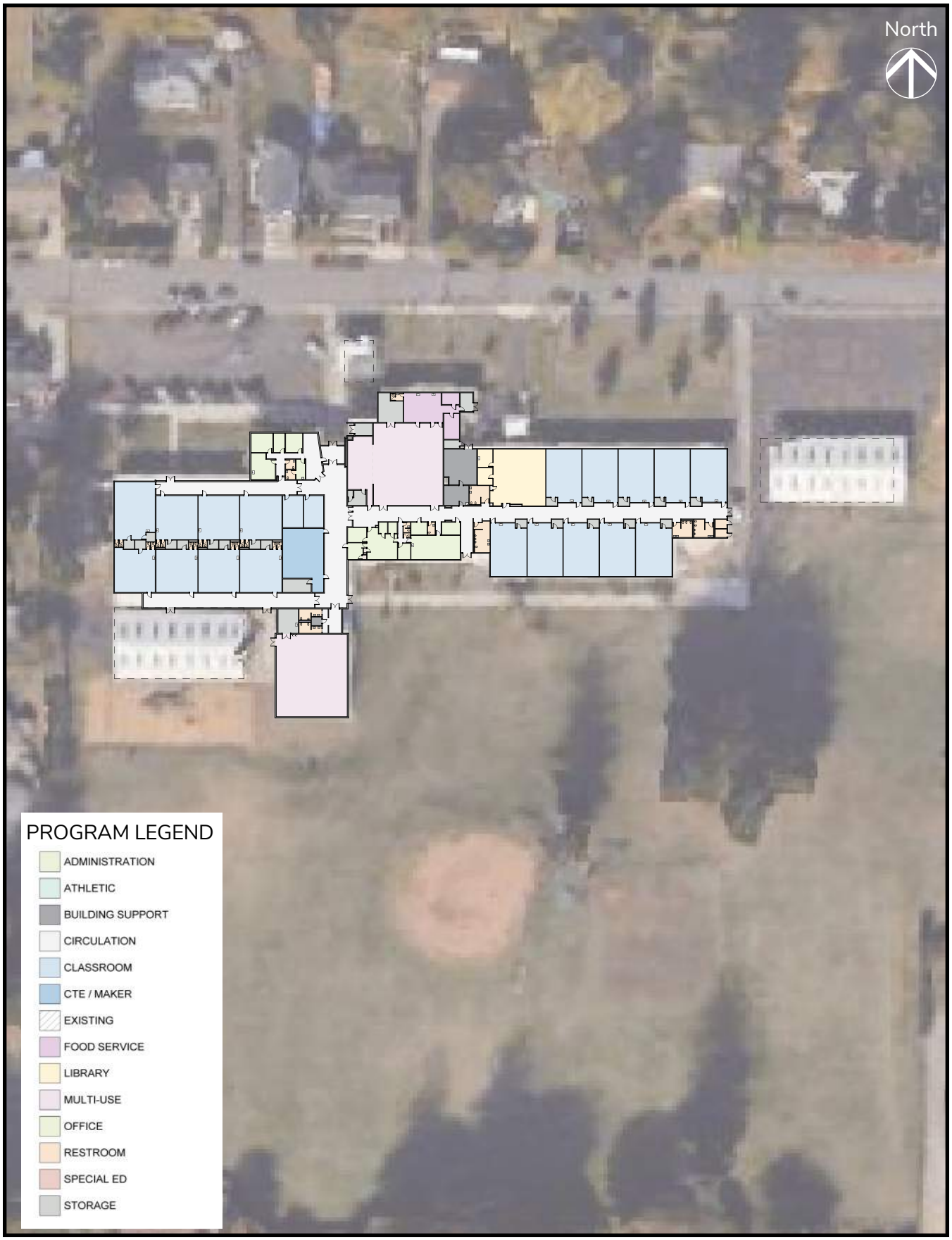
SITE PLAN



	KEY LEGEND
1	Elementary School Entry
2	Multi-Purpose Building
3	Covered Play Structure
4	Playground (2)
5	Parking
6	Softball Fields
7	Athletic Fields (7)

03 - SACRAMENTO ELEMENTARY SCHOOL

FLOOR PLAN



03 - SACRAMENTO ELEMENTARY SCHOOL

Facility Summary

Sacramento Elementary is one of the best elementary schools in the District relative to it's overall physical condition. The last bond provided significant mechanical, electrical and plumbing upgrades, and it also received a Multi-Purpose Room (MPR) addition.

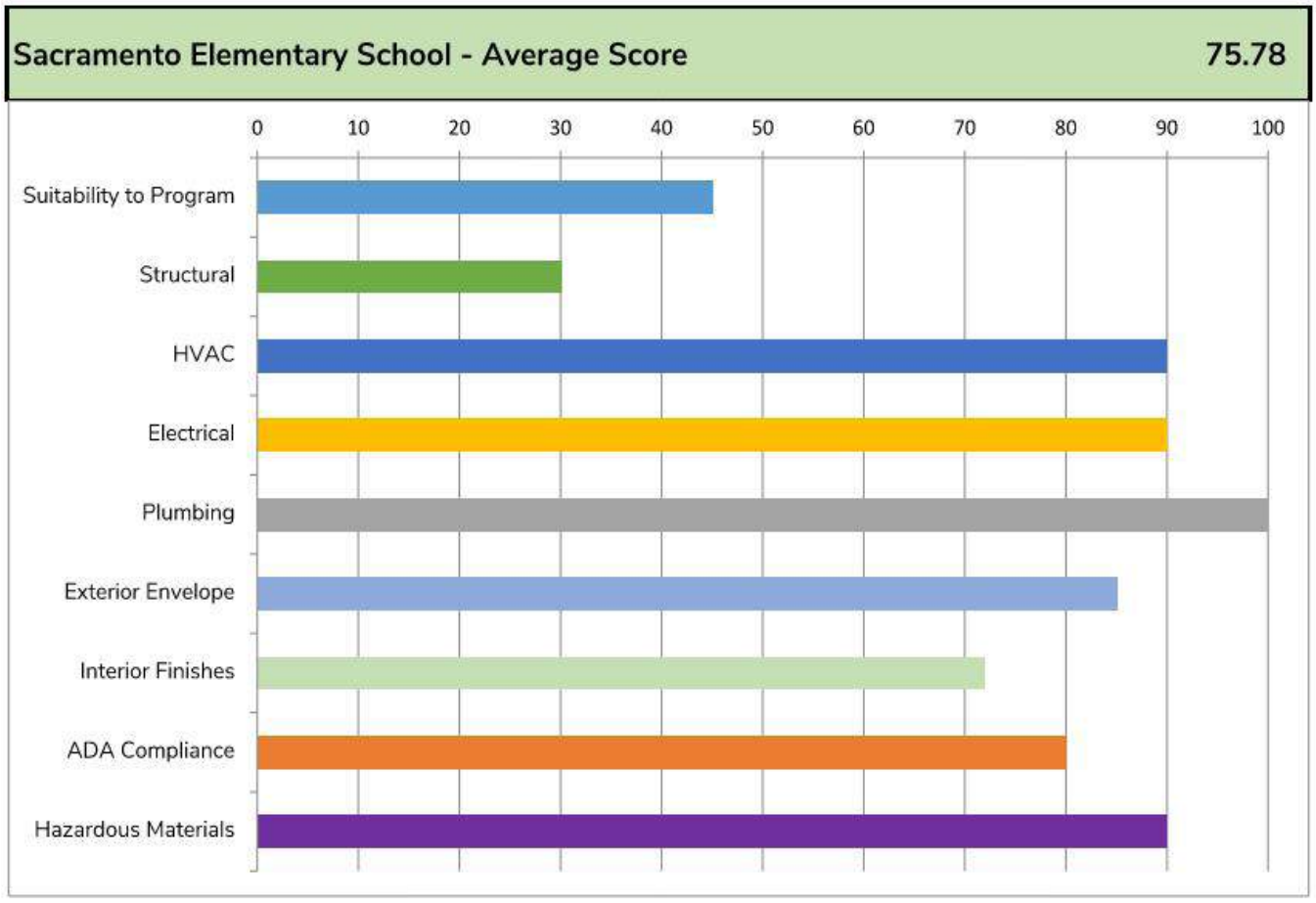
The largest current need is around the Cafeteria and Servery, which are both under capacity. In addition, the Servery does not provide accessible clearance for access.

Both Covered Play Structures show signs of wear and it's recommended to repaint the main structural frame and replace the roofing panels. The basketball hoops are beyond their practical lifespan and mounting heights are not ideal for elementary students. Interest has been expressed in developing a walking track on the site.

Seismically, similar to all other elementary schools, the original building is listed as a 'Very High' seismic risk. The new MPR addition is very safe and built to current

Site Name:	Sacramento Elementary
Building Name:	Main School
ODE Building ID:	21810300
Building Type:	Elementary School
Students:	305
Building Address:	11400 NE Sacramento St., Portland, OR 97220
County:	Multnomah
Gross Square Footage:	41,107
Site Acreage:	11.59
Year Built:	1960
Additions/Renovations:	1960, 1980, 1996, 2013
Number of Floors:	One (1)
Primary Structure:	Wood Framing
Roof Type:	Single-Ply Membrane (PVC)
Replacement Budget:	$21,017,598

03 - SACRAMENTO ELEMENTARY SCHOOL



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30


Cafeteria / Gym


Library

03 - SACRAMENTO ELEMENTARY SCHOOL

Architectural

- Evaluate Cafeteria / Commons capacity.
- Evaluate Servery configuration and clearances to confirm adequacy.
- Evaluate Covered Play Structures for overall safety and longevity of performance, including basketball goals.
- Consider adding a walking track to the site.

Site Safety and Security Analysis

- Replace broken rolling gate at West end of site (chronic issues).

Accessibility

- Evaluate original restrooms in corridor for accessiblity.
- Consider renovation of restrooms inside classrooms to make them fully accessible.
- Provide accessible route to stage area.

Hazardous Materials and Indoor Air Quality

- The most recent bond scope abated most visible hazardous materials in the building.
- The hazardous materials remaining are typically concealed behing wall finishes.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.


Multi-Purpose Room (MPR)


Classroom

03 - SACRAMENTO ELEMENTARY SCHOOL

Building Systems

Fire Protection:
- No issues identified.

Plumbing:
- No issues identified.

Mechanical:
- Testing and retro-commissioning existing system is recommended to increase performance and efficiency overall.

Electrical:
- No issues identified.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- No issues identified.

Communication and Security:
- No issues identified.

Structural

- The original classroom building is rated as a 'Very High' seismic risk.
- The most recent 2014 additions are considered to be a 'Low' seismic risk and should meet or nearly meet current structural code guidelines.

Refer to full report from ZCS Engineering and Architecture for more detail.


Covered Play Structure

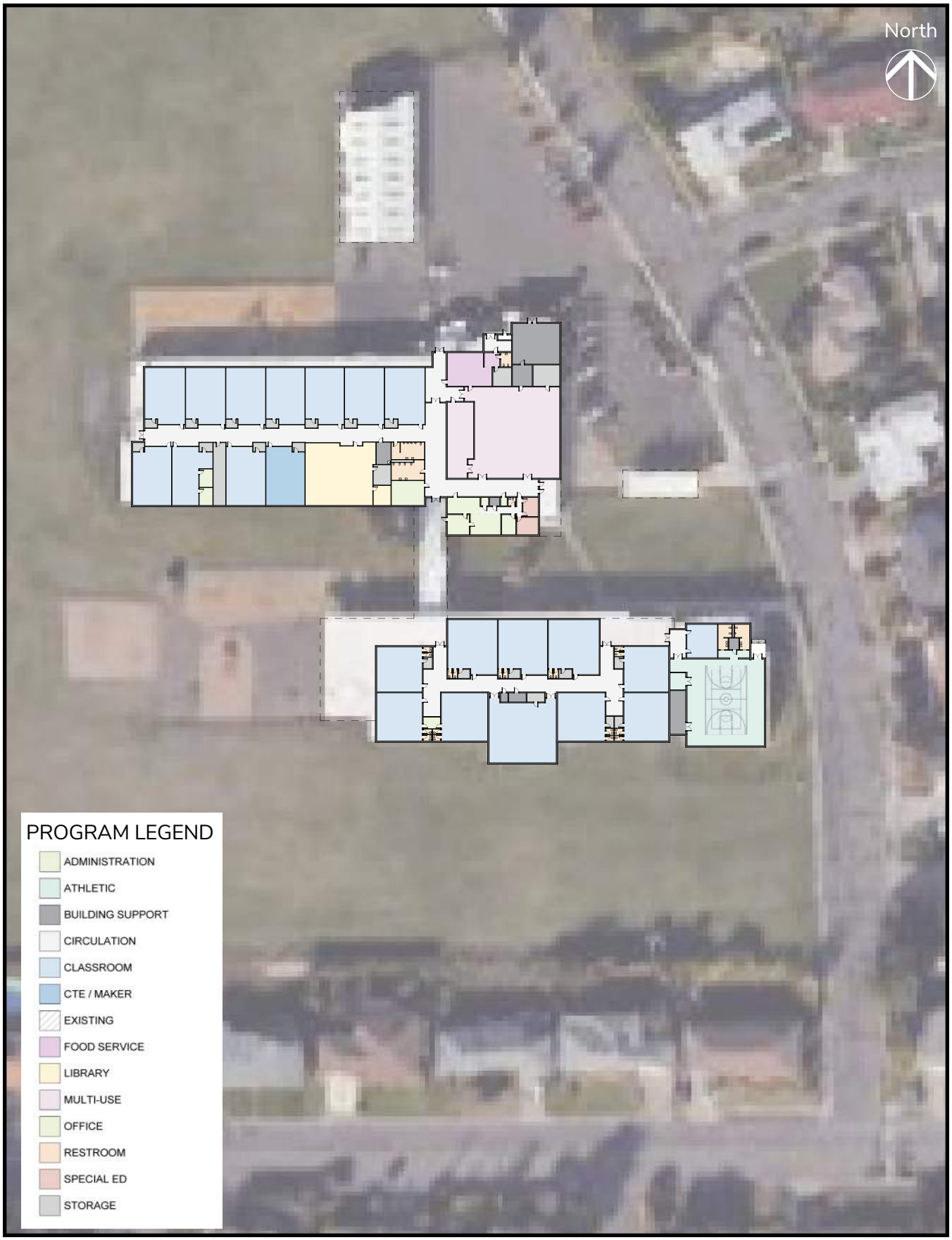

Boiler Room

04 - SHAVER ELEMENTARY SCHOOL

SITE PLAN

04 - SHAVER ELEMENTARY SCHOOL

FLOOR PLAN



04 - SHAVER ELEMENTARY SCHOOL

Facility Summary

Shaver Elementary is a very old but well-maintained school building that has seen several significant upgrades over the years. There are still needs identified but overall the building has solid value and can serve the District well for many years to come.

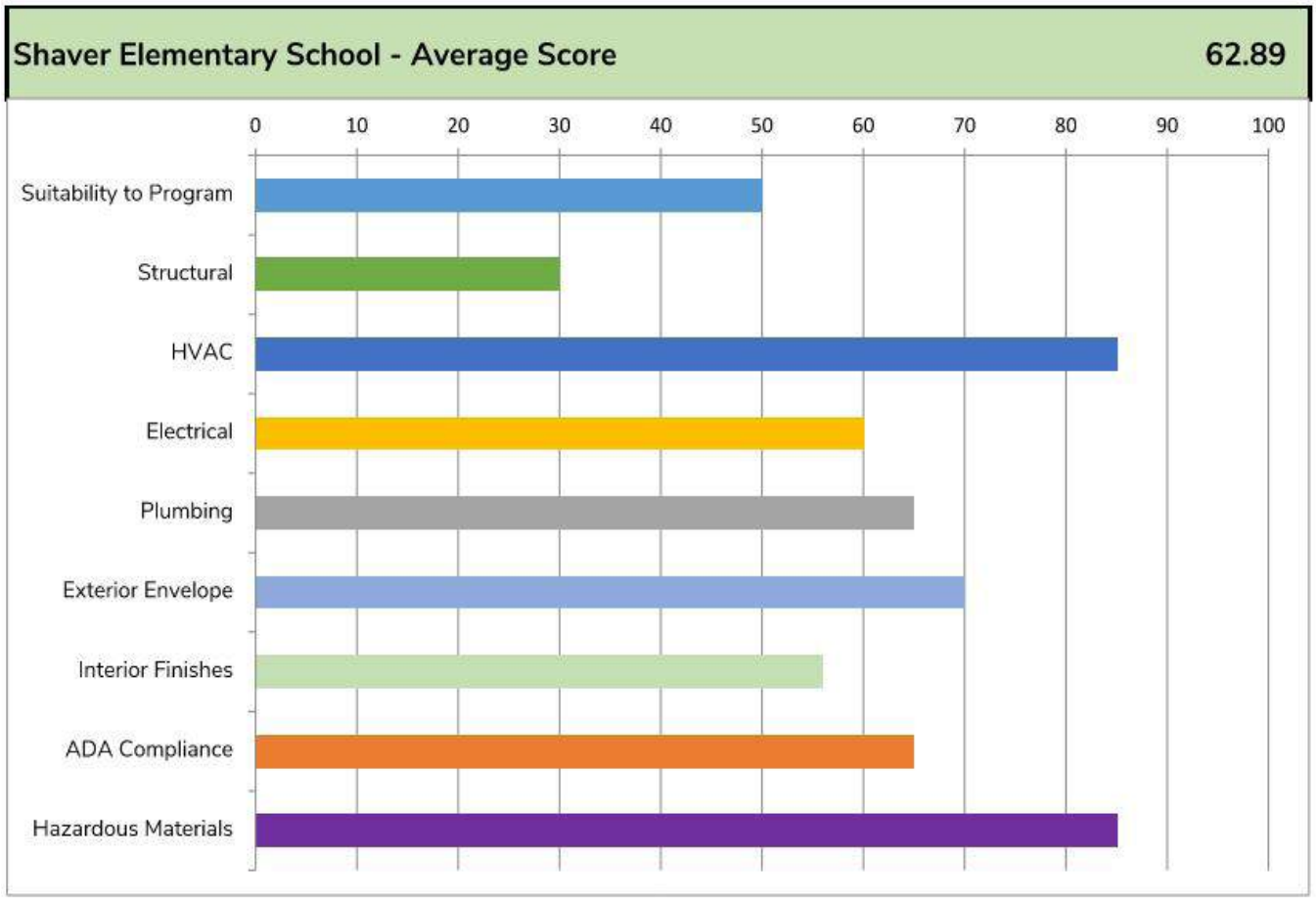
The largest issue this school is dealing with is connection and internal circulation of their students between the three building areas on the site, with the original building, the 1996 addition and the newest Multi-Purpose Room (MPR) building all having exterior entry doors and paths.

There are infrastructure needs identified, including replacement of mechanical units, electrical panels and hot water heaters. Overall building storage is also needed.

Seismically, similar to many other elementary schools, the original building is listed as a 'Very High' seismic risk. The new MPR addition is very safe and built to current code requirements.

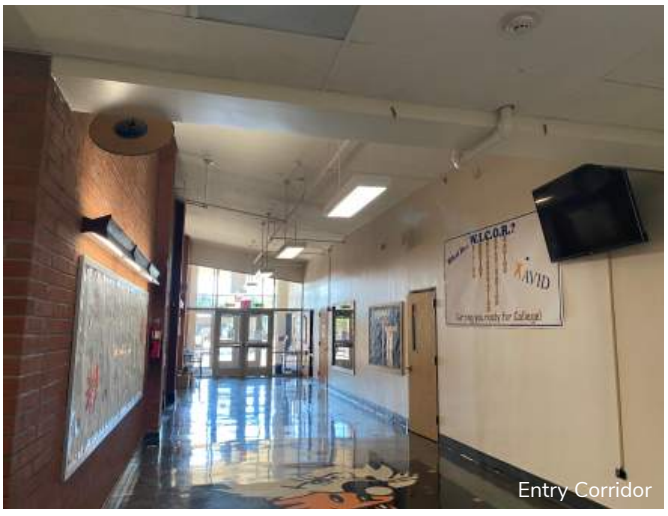
Site Name:	Shaver Elementary School
Building Name:	Main Building
ODE Building ID:	21810400
Building Type:	Elementary School
Students:	275
Building Address:	3701 NE 131st Pl., Portland, OR 97230
County:	Multnomah
Gross Square Footage:	43,916
Site Acreage:	8.73
Year Built:	1963
Additions/Renovations:	1996, 2013
Number of Floors:	One (1)
Primary Structure:	Wood Framing
Roof Type:	Single-Ply Membrane
Replacement Budget:	$22,453,812

04 - SHAVER ELEMENTARY SCHOOL



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30


Cafeteria / Gym


Entry Corridor

04 - SHAVER ELEMENTARY SCHOOL

Architectural

- Consider strategies to enclose corridor connection between original classroom building and older addition.
- Evaluate Cafeteria / Commons capacity.
- Evaluate Covered Play Structures for overall safety and longevity of performance, including basketball goals.
- Review exterior envelope for water intrusion issues, particularly at South elevation of older building addition, below windows.
- Provide solution for water intrusion at south covered canopy at older classroom addition.
- Look to determine how storage could be added.
- Trash enclosure roof access needs to be deterred.

Site Safety and Security Analysis

- No issues identified.

Accessibility

- Upgrades to older restrooms should be considred, although many upgrades have occurred already.
- Provide accessible route to stage area.

Hazardous Materials and Indoor Air Quality

- The most recent bond scope abated most visible hazardous materials in the building.
- The hazardous materials remaining are typically concealed behing wall finishes.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.

Library

Exterior Cladding Failure

04 - SHAVER ELEMENTARY SCHOOL

Building Systems

Fire Protection:
- While not required by code, it is recommended to add fire sprinklers to the MPR, in order to increase the overall safety of the building.

Plumbing:
- Replacement of existing domestic hot water heaters is recommended, due to age, capacity and overall condition.

Mechanical:
- Refurbish old air handling units (AHUs) that are close to their natural lifespan.
- Testing and retro-commissioning existing system is recommended to increase performance and efficiency overall.

Electrical:
- This building requires replacement of the existing electrical panels and upgrades / replacement of the older light fixtures, with new controls.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- No scope identified.

Communication and Security:
- There is an older PA (Public Address) system for operational communications.
- There seems to be no functional two-way intercom system in the school, or between the schol and Annex building.
- Wireless internet appears to be adequate throughout the school.

Structural

- The original classroom building is rated as a 'Very High' seismic risk.
- The most recent 2014 additions are considered to be a 'Low' seismic risk and should meet or nearly meet current structural code guidelines.

Refer to full report from ZCS Engineering and Architecture for more detail.


Covered Canopy

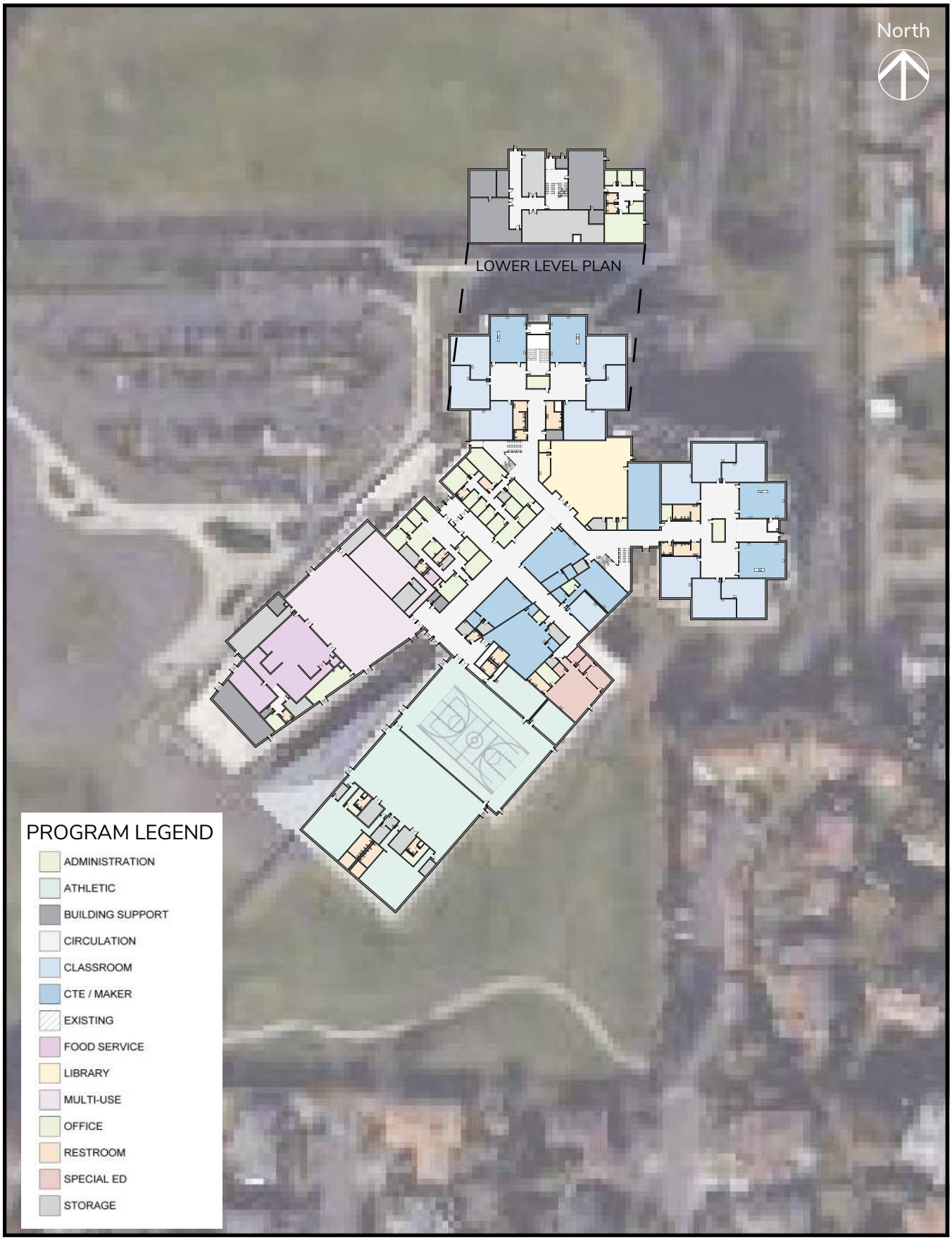

Multi-Purpose Room (MPR)

05 - PARKROSE MIDDLE SCHOOL

SITE PLAN

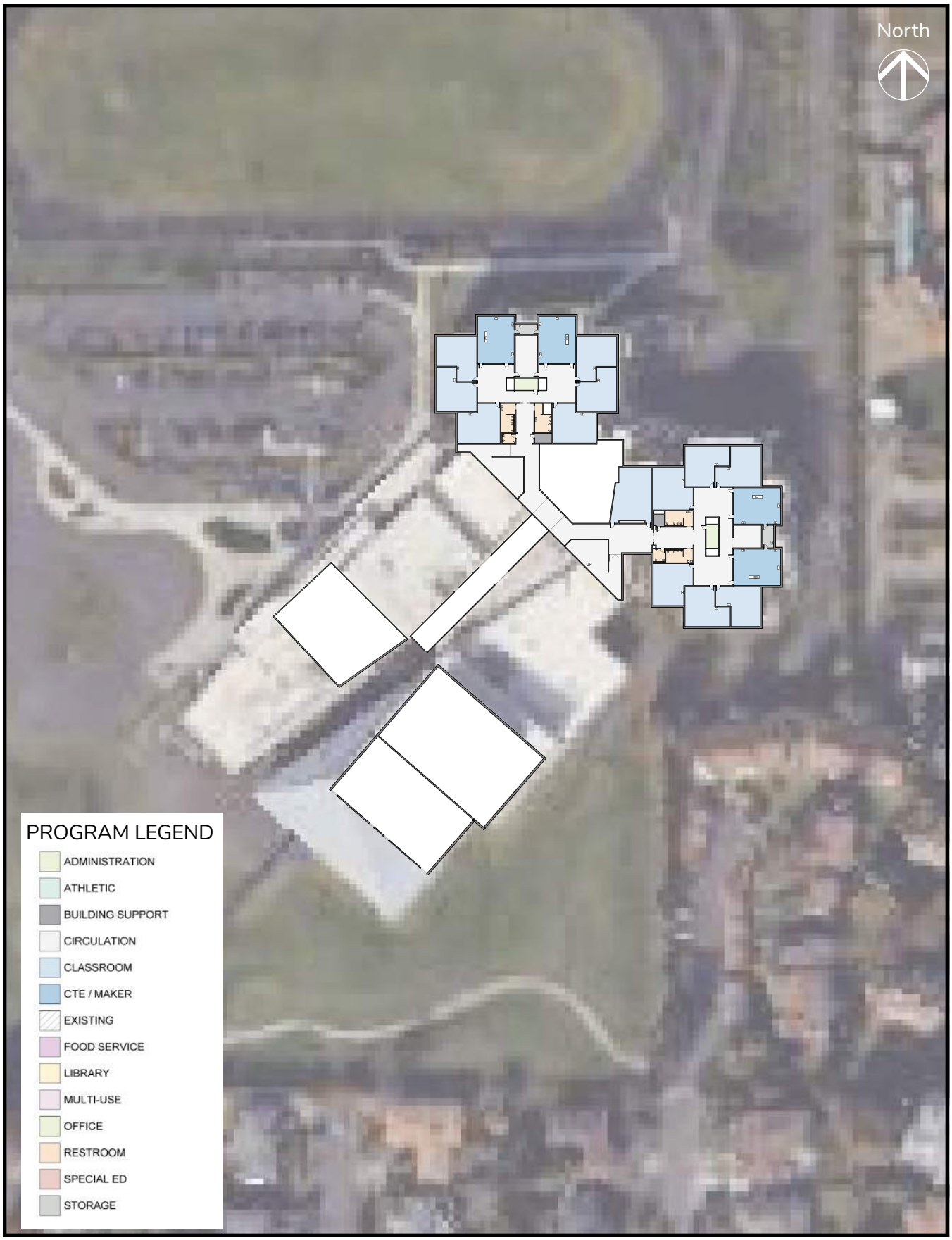
05 - PARKROSE MIDDLE SCHOOL

FLOOR PLAN



05 - PARKROSE MIDDLE SCHOOL

FLOOR PLAN



05 - PARKROSE MIDDLE SCHOOL

Facility Summary

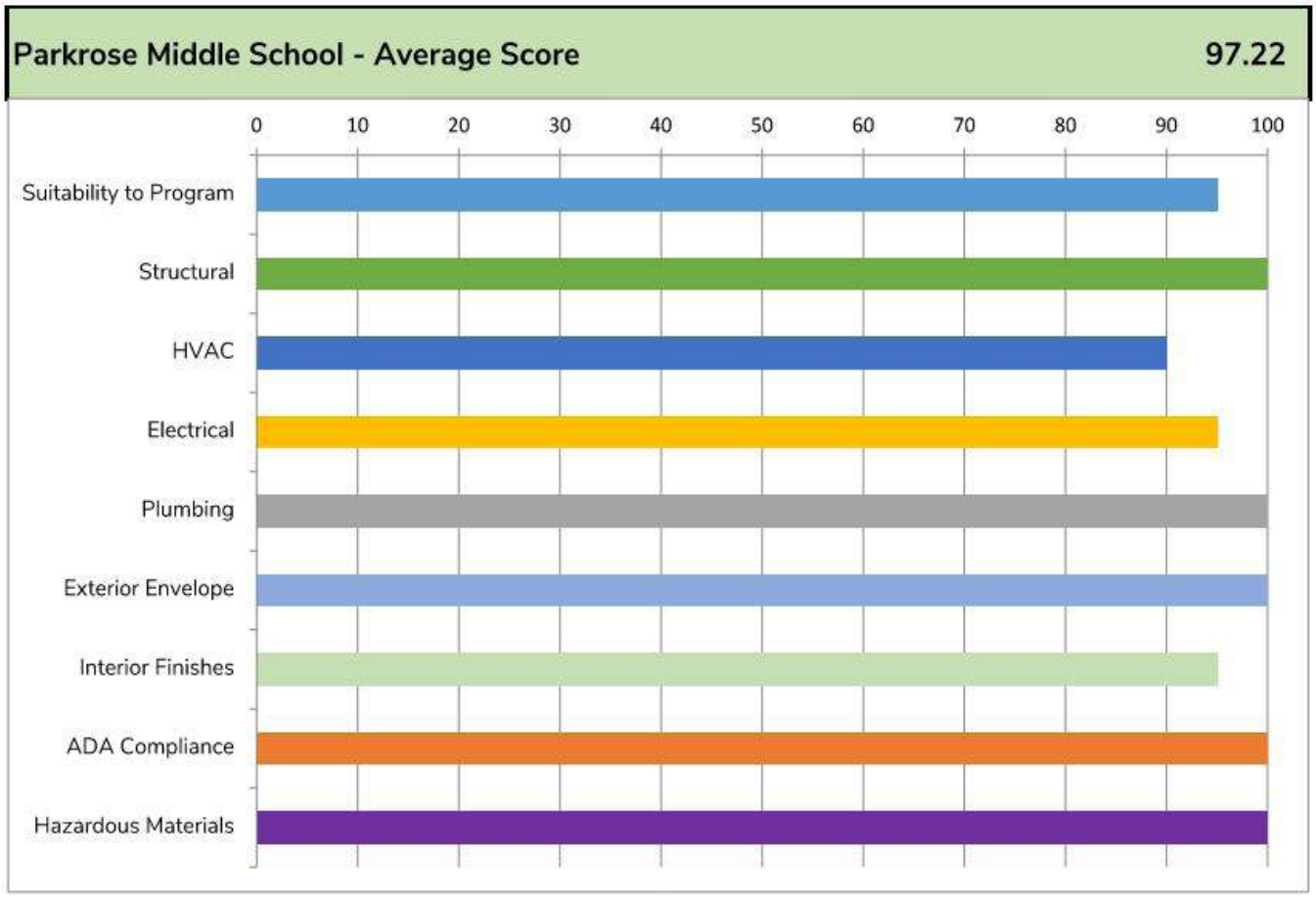
The newest building in the school, Parkrose Middle School was completely replaced in the last bond, and as expected it has the shortest list of needs due to it's age.

There is a strong desire expressed to provide elevator access to the lower level of the building, where the District IT space is located along with much of the custodial and facilities support and storage areas are. The Grounds Garage has a problematic path in and out of the garage itself that makes it very difficult to maneuver.

There are some minor finish replacment needs, including carpet in high-traffic areas. The polished concrete shows a lot of cracking that should be attempted to be mitigated.

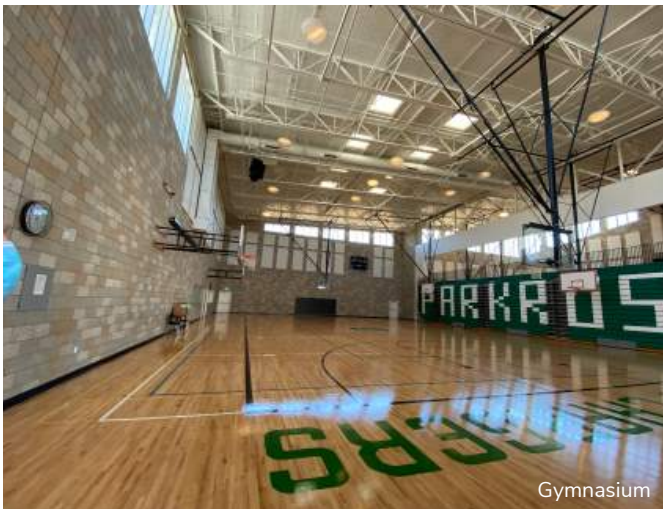
Site Name:	Parkrose Middle School
Building Name:	Main Building
ODE Building ID:	21810500
Building Type:	Middle School
Students:	778
Building Address:	11800 NE Shaver St., Portland, OR 97220
County:	Multnomah
Gross Square Footage:	155,453
Site Acreage:	16.65
Year Built:	2013
Additions/Renovations:	N/A
Number of Floors:	Two (2)
Primary Structure:	CMU bearing
Roof Type:	Single-Ply Membrane, Metal
Replacement Budget:	$83,149,944

05 - PARKROSE MIDDLE SCHOOL



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30


Media Center


Gymnasium

05 - PARKROSE MIDDLE SCHOOL

Architectural

- Replace carpet in high-traffic areas.
- Come up with better solution for mechanical wall grilles that are easily damaged and a custom product that is very expensive to replace.
- Provide sun control at Gym high exterior windows (powered blinds or similar, as done for the Commons).
- Repair damaged door frames at Commons in CMU wall that are warped.
- Evaluate polished concrete flooring to mitigate cracking that is currently visible.
- Revise cracks in corridor wall that travels upward along upper window at two story area.
- Renovate Media Center patio for better utilization.
- Running track will be due for cleaning and re-striping.
- Evaluate adding irrigation controls for remote access and higher efficiency.

Site Safety and Security Analysis

- Evaluate adding exterior lighting at track for increased safety, extension of hours of use.
- A request has been made to enclose the upper playground area, to provide additional recess options for the students. This would remove community access during school hours, which requires evaluation by the District.

Accessibility

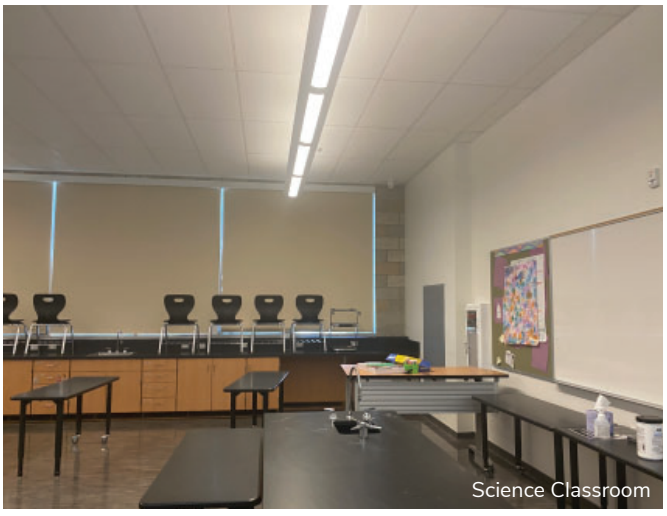
- Provide elevator access to the lower level of the building that houses the District Information Technology (IT) workshop and office spaces, as well as District meeting rooms.

Hazardous Materials and Indoor Air Quality

- Due to the building age, there is no evidence or hazardous materials present anywhere in the building.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.

Main Entry Corridor



Science Classroom

05 - PARKROSE MIDDLE SCHOOL

Building Systems

Fire Protection:
- No issues identified.

Plumbing:
- No issues identified.

Mechanical:
- Testing and retro-commissioning existing system is recommended to increase performance and efficiency overall.

Electrical:
- No issues identified.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- No issues identified.

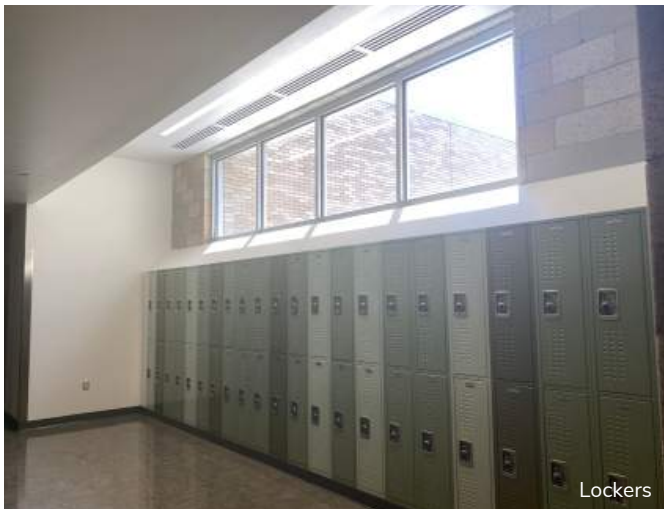
Communication and Security:
- No issues identified.

Refer to full report from Ameresco for more detail.

Structural

- As a completely new building less than 10 years old, it's assumed to meet all current structural code requirements.

Refer to full report from ZCS Engineering and Architecture for more detail.


Lockers


Media Center Patio and Technology Entry

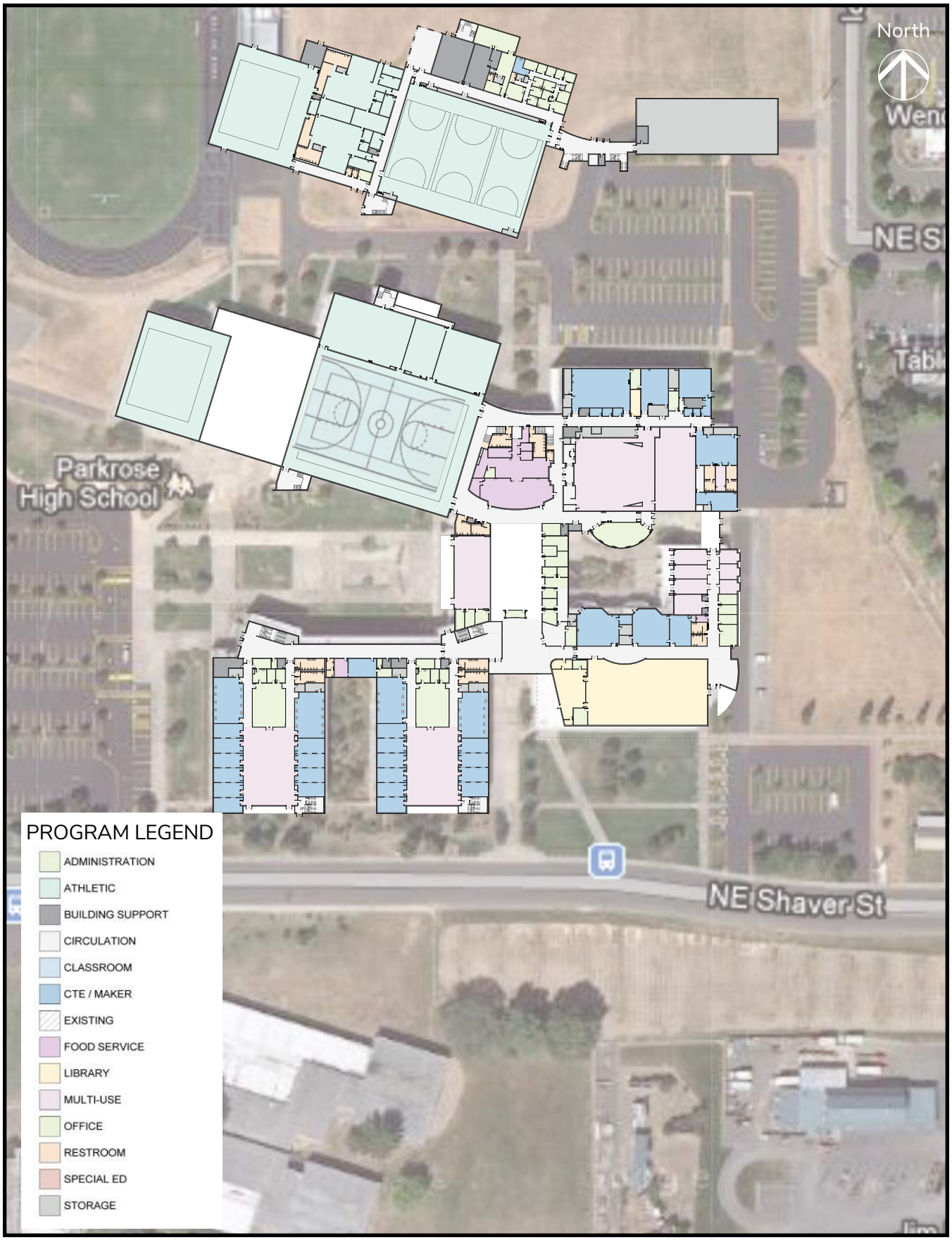
06 - PARKROSE HIGH SCHOOL

SITE PLAN

	KEY LEGEND
1	High School Entry
2	Parking
3	Tennis Courts
4	Track & Field
5	Softball Fields
6	Baseball Fields
7	Soccer Fields
8	Fine Arts Building (FAB)
9	Stadium/ Grand Stand
10	Community Pool
11	Student Entry
12	Event Entry

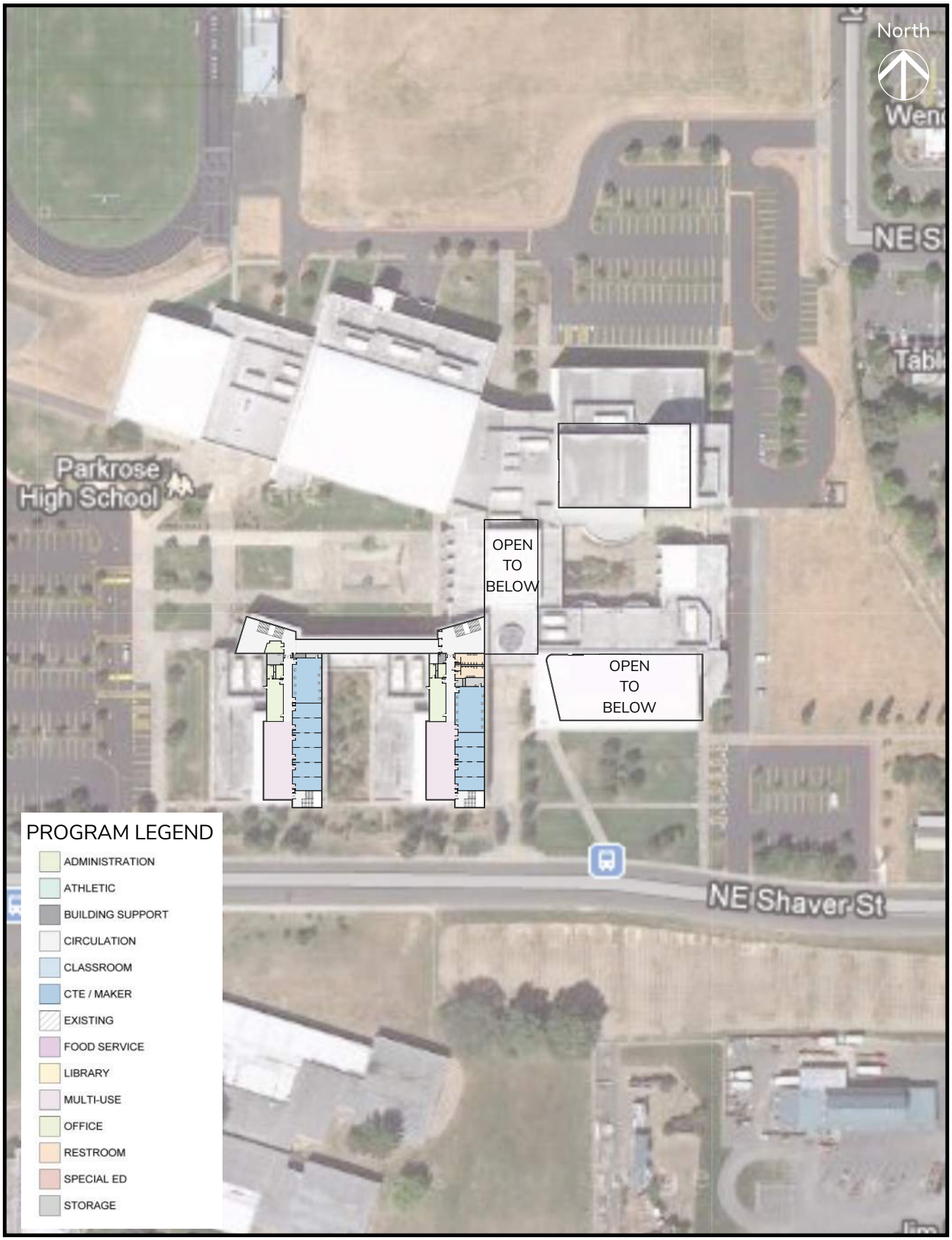
06 - PARKROSE HIGH SCHOOL

MAIN LEVEL FLOOR PLAN



06 - PARKROSE HIGH SCHOOL

UPPER LEVEL FLOOR PLAN



06 - PARKROSE HIGH SCHOOL

Facility Summary

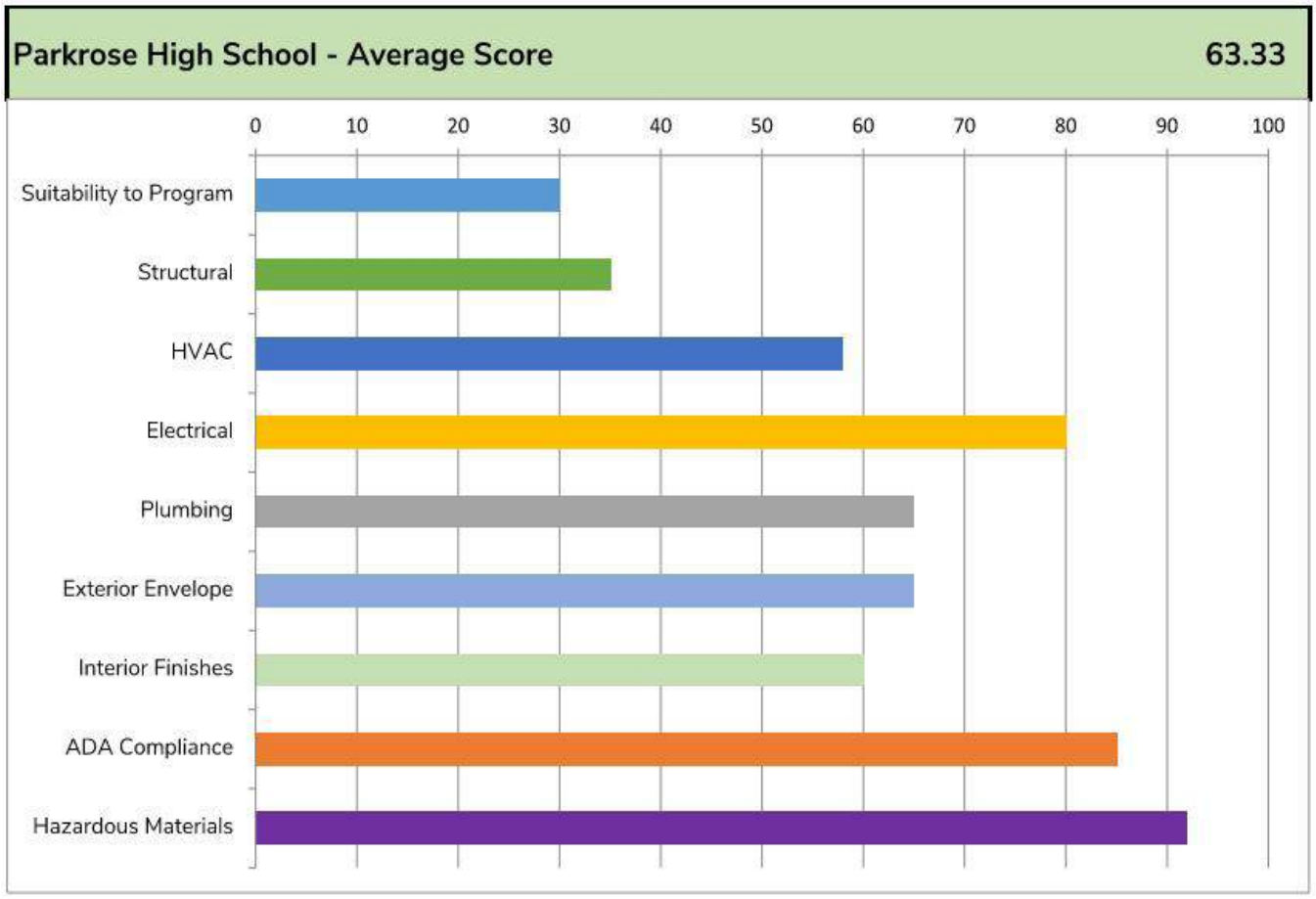
Parkrose High School is a relatively newer building that is in overall good condition for it's age, but has some fundamental misalignments with the original design and how the District wants to use the building today and into the future. Fundamentally, there are too few classrooms, the classrooms are too small, and there is too much unused circulation space. The Media Center is oversized and underutilized, and the exterior courtyard and main student entry are areas that should be studied for better utilization.

As a comprehensive high school, the site has significant needs relative to athletic fields, utilities and support. The Stadium / Grandstand has not seen upgrades in many years, other than the press box, which was recently upgraded. The track facilities need significant upgrades to be able to host meets.

The only building remaining from the previous high school, the Fine Arts Building (FAB) has significant needs, both in the physical condition and educational adequacy.

Site Name:	Parkrose High School
Building Name:	Main Building
ODE Building ID:	21810600
Building Type:	High School
Students:	976
Building Address:	12003 NE Shaver St., Portland, OR 97220
County:	Multnomah
Gross Square Footage:	260,497
Site Acreage:	40.82
Year Built:	1996
Additions/Renovations:	N/A
Number of Floors:	Two (2)
Primary Structure:	Steel Frame
Roof Type:	Built-Up (SBS)
Replacement Budget:	$153,680,205

06 - PARKROSE HIGH SCHOOL



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30


Entry and Commons


Gymnasium

06 - PARKROSE HIGH SCHOOL

Architectural

- Exterior stucco needs professional cleaning and complete repaint.
- Lack of classrooms overall and other classrooms undersized, folding walls under utilized.
- Science Labs outdated and too small to be truly effective.
- Library is oversized and larger than needed for use.
- Opportunities for future development include a Vocational / CTE (Career Technical Education) building, on SE corner of site, at Shaver.
- Evaluate better utilization / development of student entry and theater courtyard, including direct gym entry from exterior entry courtyard.
- Roof actively leaking in some areas and should be evaluated.
- Irrigation requires evaluation and repair.
- Revise alarm zones at Pool area for better clarity, particularly after hours, consider adding key pads.
- Site has drainage issues, especially at back of site by gym, where slope meets the building edge.
- Building canopies and columns require repair - peeling, failing in several areas.
- Lockers inside locker room has rusted out bases that need repair / replacement.
- The Pool building ventilation is inadequate and could be improved.
- Interior lighitng is problematic, numerous inaccessible recessed fluorescent lights that frequently fail.
- Reroofing recommended for approximately half of the building, restoration recommended for other half.

FINE ARTS BUILDING (FAB)

- Poor ventilation overall, antiquated systems throughout.
- Restrooms require accessibility upgrade due to age.
- Entire building requires finishes repair and / or replacement.
- Windows are original aluminum, recommend replacement.

ATHLETICS AND FIELDS

- There is a strong desire to convert football field from grass to turf.
- Older softball field has outdated equipment, drainage issues at the concrete paving.
- Stadium has not had significant upgrade for many years, except recent Press Box rebuild.
- Stadium lighting requires upgrade overall.
- Consider developing opposite slope from Stadium for visitor area.
- Tennis courts are cracked, don't have a spectator area or support that is accessible. Goal is to support meets.
- Track perimeter fence is not tall enough to control site traffic.
- Paving needed between end of track and building, where it's currently gravel / unpaved.
- Adequate tracksupport missing for events such as javelin, discus, shot put, hammer throw, etc. Goal is to be able to host meets.
- Track is recommended for resurfacing and restriping.
- Gym bleachers are recommended for complete replacement.
- Replace galvanized irrigation piping (40+ years old), add controls for remote access and higher efficiency.


Media Center

Science Classroom

06 - PARKROSE HIGH SCHOOL

Site Safety and Security Analysis

- Exterior building lighting requires upgrade, as its mounted too low to be effective. Convert to LED.
- Main building entry doesn't have direct access to secure vestibule. Evaluate adding.

Accessibility

- Stadium restrooms are not accessible and require significant upgrade.

Hazardous Materials and Indoor Air Quality

- The main building is new enough that no hazardous materials are expected.
- The Fine ARts Building (FAB) is original to the campus and built at a time when hazardous materials are likely present, including asbestos, lead paint and possibly radon.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.

FAB Exterior Windows

Stadium CMU Exterior Wall

06 - PARKROSE HIGH SCHOOL

Building Systems

Fire Protection:
- Other than the FAB, the entire building has a fully functional fire sprinkler system.

Plumbing:
- Replace plumbing fixtures and supply piping to the building.
- Replacement of existing domestic hot water heaters is recommended, due to age, capacity and overall condition.

Mechanical:
- Replace existing boiler system that is beyond it's natural lifespan.
- Replace condensing unit / chiller.
- Replace the mechanical units that are well beyond their practical lifespan.
- Testing and retro-commissioning existing system is recommended to increase performance and efficiency overall.
- Provide full mechanical controls upgrade.

Electrical:
- No scope identified.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- No scope identified.

Communication and Security:
- No scope identified.

Refer to full report from Ameresco for more detail.

Structural

- All but the Fine Arts Building is rated as 'High' seismic risk, but has undergone a recent seismic retrofit that will have it brought it up to current code.
- The FAB is listed as 'Moderate' risk seismically.

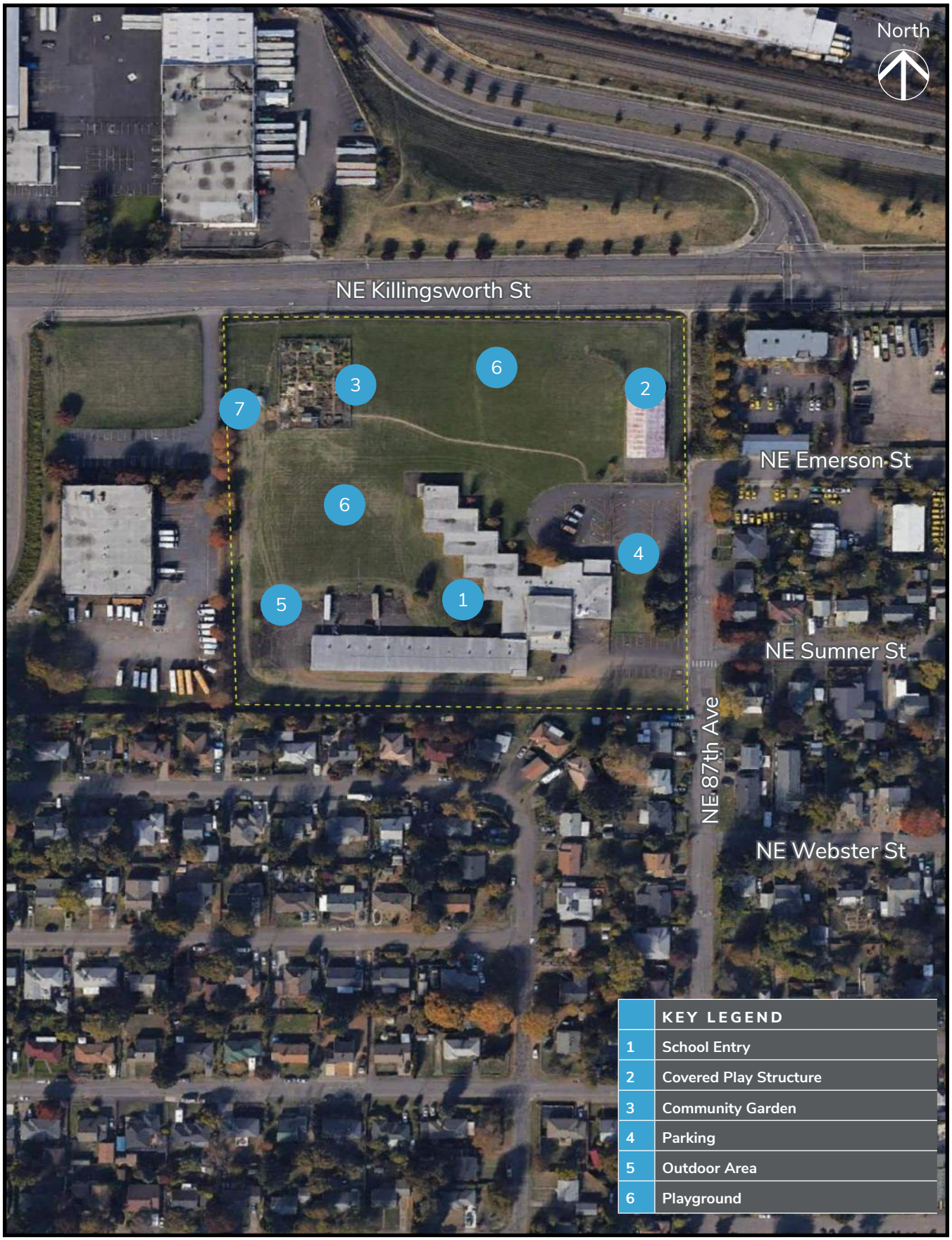
Refer to full report from ZCS Engineering and Architecture for more detail.


Shop


Classroom

07 - SUMNER ELEMENTARY SCHOOL(HELENSVIEW)

SITE PLAN



	KEY LEGEND
1	School Entry
2	Covered Play Structure
3	Community Garden
4	Parking
5	Outdoor Area
6	Playground

07 - SUMNER ELEMENTARY SCHOOL(HELENSVIEW)

SITE PLAN

07 - SUMNER ELEMENTARY SCHOOL (HELENSVIEW)

Facility Summary

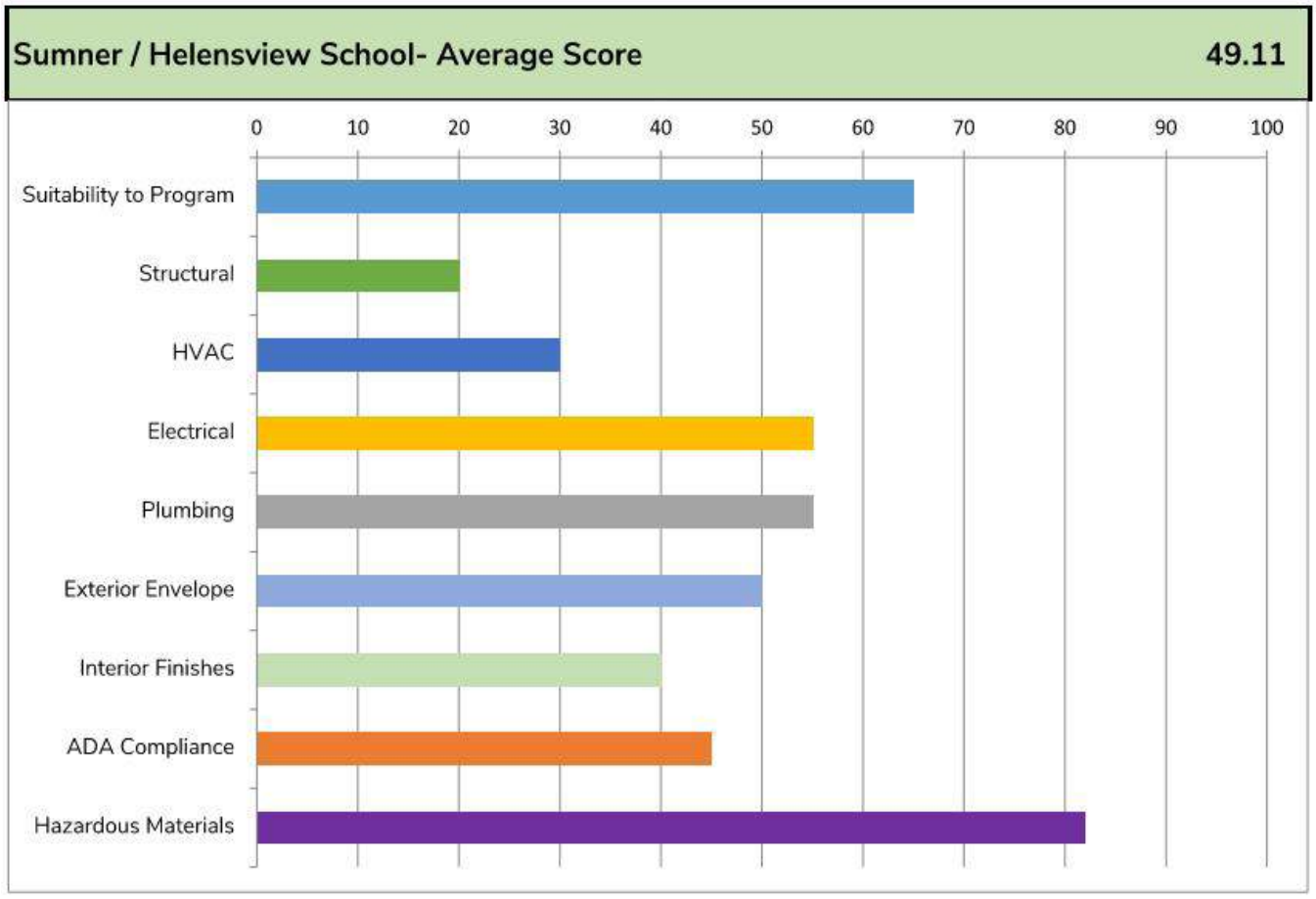
The original Sumner Elementary School has been operated by the Multnomah County Educational Services District (MESD) as Helensview School alternative high school for several years. As such, the building's educational adequacy was not fully evaluated and this assessment focuses primarily on the physical infrastructure of the building and it's supporting systems.

The building has significant needs as much of the repair and renovation scope has been deferred for several years. The school has not seen major projects as part of the last two bond cycles. Instead, the District has provided smaller-scale, more targeted projects that could be performed 'in-house' or the District could directly hire vendors to complete the work.

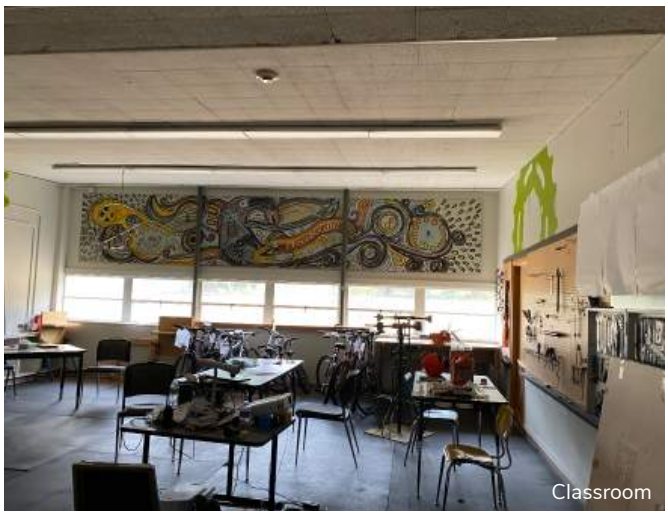
Major work identified includes roofing, window replacement (including seismically dangerous glass block), mechanical system replacement, boiler replacement, electrical panel replacement, and replacement of hot water heaters, plumbing fixtures and piping. Similar to all other elementary schools, this building is also listed as a 'Very High' seismic risk, and has a masonry chimney that should be considered.

Site Name:	Sumner Elementary
Building Name:	Helensview School
ODE Building ID:	21810005
Building Type:	High School
Students:	MESD
Building Address:	8678 NE Sumner St., Portland, OR 97220
County:	Multnomah
Gross Square Footage:	2,900
Site Acreage:	8.9
Year Built:	1954
Additions/Renovations:	1968, 1996, 1998
Number of Floors:	One (1)
Primary Structure:	Wood Framing
Roof Type:	Built-Up (SBS)
Replacement Budget:	$21,934,341

07 - SUMNER ELEMENTARY SCHOOL (HELENSVIEW)



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30


Classroom


Commons / Gym

07 - SUMNER ELEMENTARY SCHOOL (HELENSVIEW)

Architectural

- Complete roofing replacement, including gutters, fascia and trim.
- Replace all exterior windows, including glass block.
- Remove or reduce masonry chimney that represents a seismic risk.
- Evaluate modifying planter at entry that allows easier access to the roof.

Site Safety and Security Analysis

- Consider adding a secure vestibule in future (not required at this time).
- The immediate neighborhood has a very busy street to the North with Killingsworth and represents a safety risk due to traffic.
- The surrounding neighborhood has an increased incident of crime and is not very conducive to outreach.

Accessibility

- Restrooms are original in many situations and not designed to current accessibility standards.
- Rear entry has stairs up to access building but no ramp.
- Several interior corridor ramps exist that are too steep to meet accessibility requirements.
- Provide accessible route to stage area.

Hazardous Materials and Indoor Air Quality

- Existing 9x9 asbestos floor tile remains in several classrooms and corridor areas that still requires abatement (sheet vinyl preferred material for replacement).
- Surface-mounted acoustic ceiling tile could potentially have asbestos in the mastic (glue) and should be evaluated if modified.
- Air quality has not been sampled for this report, but a health risk due to indoor air quality in this facility is unlikely due to the forced air heating and cooling system.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.


Interior Corridor


Kitchen

07 - SUMNER ELEMENTARY SCHOOL (HELENSVIEW)

Building Systems

Fire Protection:
- No issues identified.

Plumbing:
- Replace plumbing fixtures and supply piping to the building.
- Replacement of existing domestic hot water heaters is recommended, due to age, capacity and overall condition.

Mechanical:
- Replace existing boiler system that is beyond it's natural lifespan.
- Replace the mechanical units that are well beyond their practical lifespan.
- Testing and retro-commissioning existing system is recommended to increase performance and efficiency overall.
- Provide full mechanical controls upgrade.

Electrical:
- This building requires replacement of the existing electrical panels and upgrades / replacement of the older light fixtures, with new controls.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- No issues identified.

Communication and Security:
- No issues identified.

Refer to full report from Ameresco for more detail.

Structural

- The original classroom building is rated as a 'Very High' seismic risk.

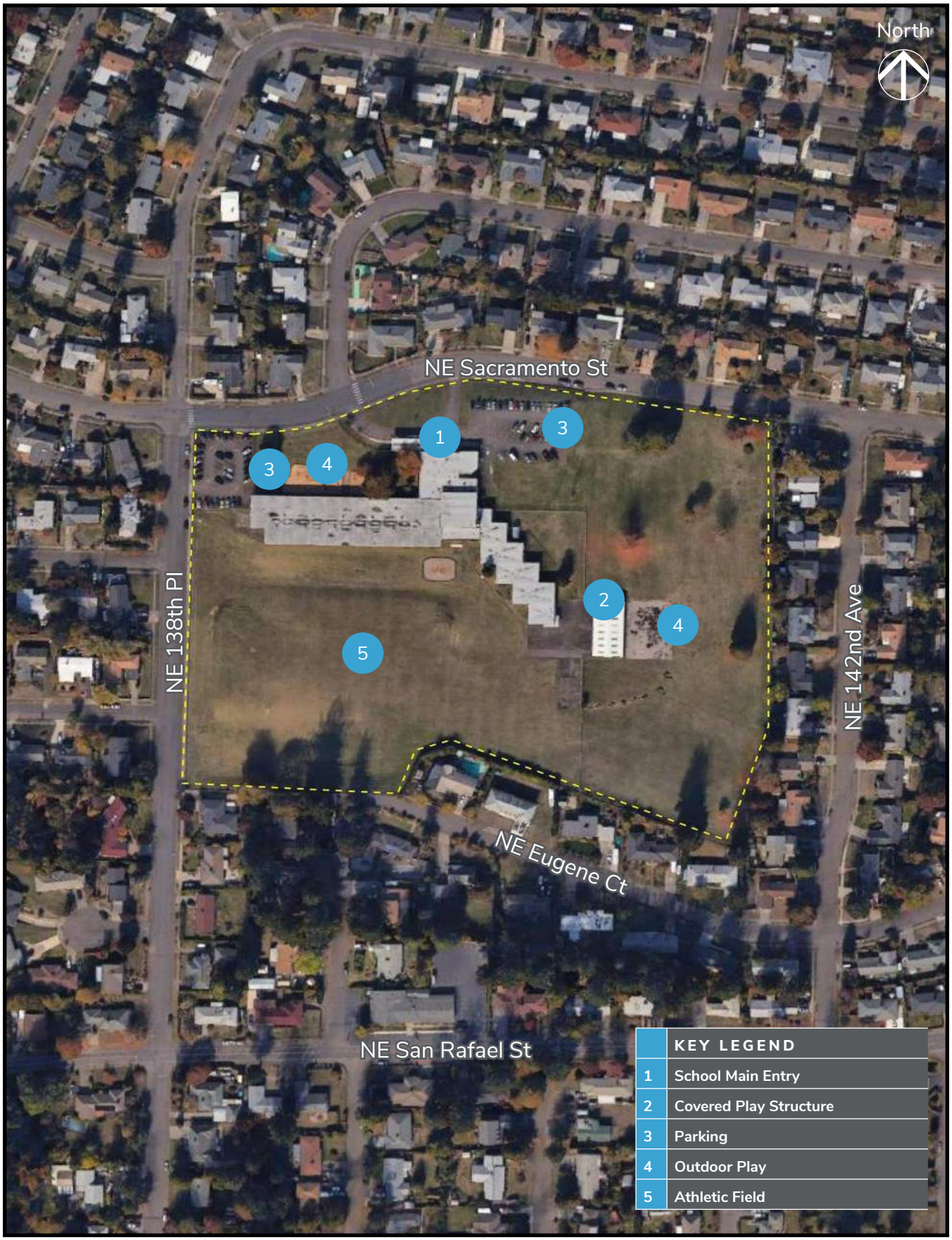
Refer to full report from ZCS Engineering and Architecture for more detail.


Outdoor Canopy


Boiler Room

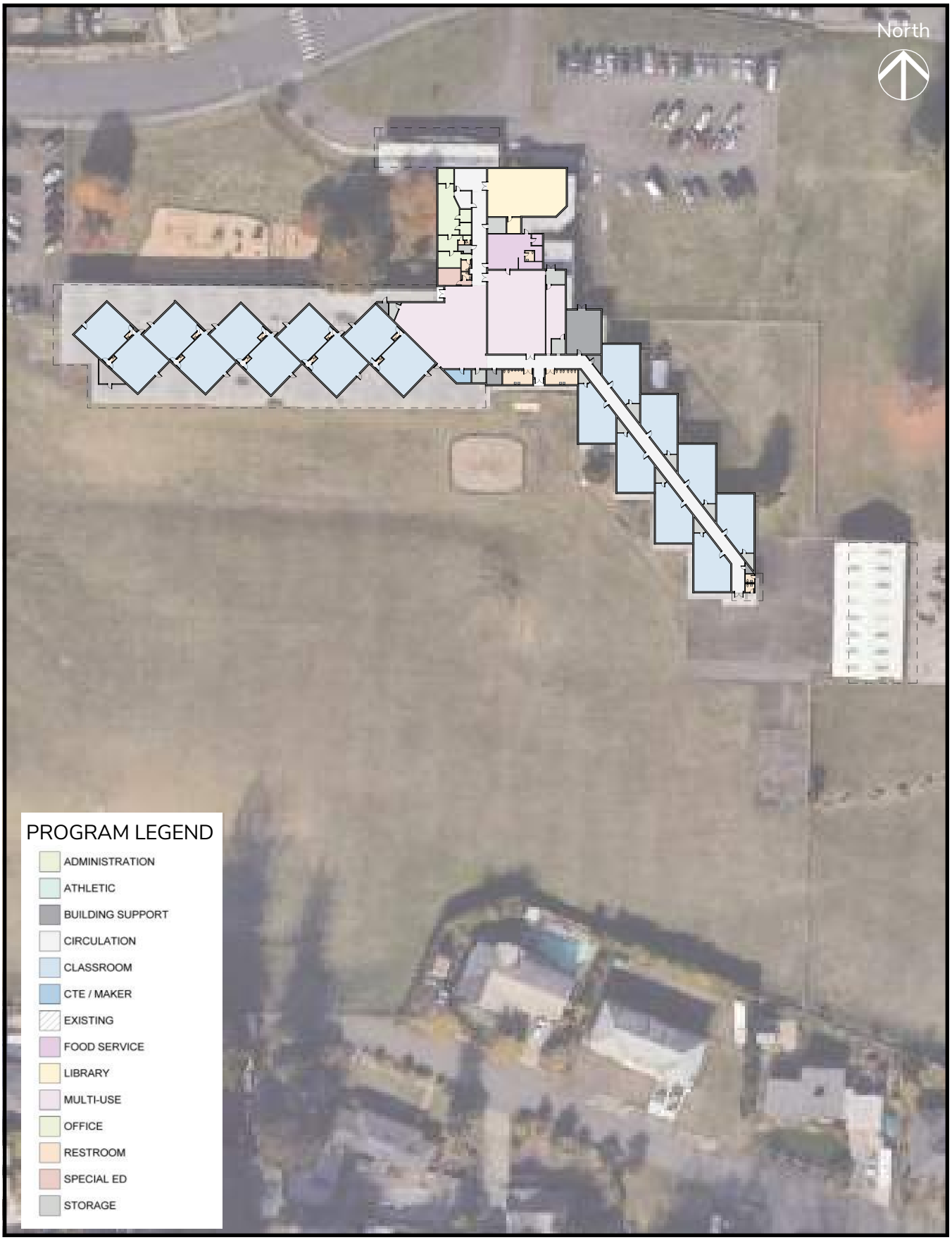
08 - THOMPSON ELEMENTARY SCHOOL (WHEATLEY)

SITE PLAN



08 - THOMPSON ELEMENTARY SCHOOL (WHEATLEY)

FLOOR PLAN



08 - THOMPSON ELEMENTARY SCHOOL (WHEATLEY)

Facility Summary

The original Thompson Elementary School has been operated by the Multnomah County Educational Services District (MESD) as Wheatley Middle School for several years. As such, the building's educational adequacy was not fully evaluated and this assessment focuses primarily on the physical infrastructure of the building and it's supporting systems.

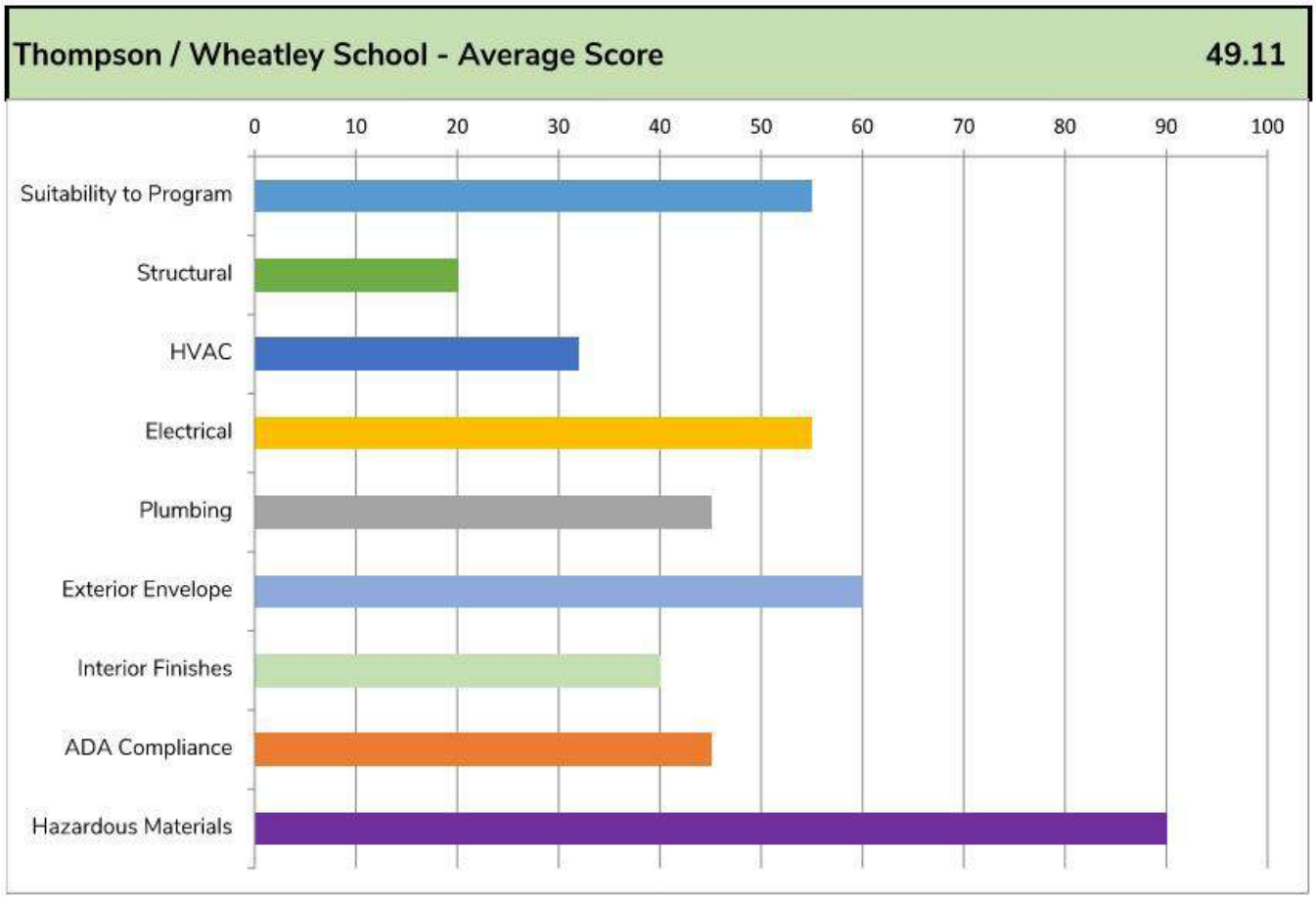
Like Helensview, no major bond projects have been completed recently and there are significant needs throughout.

Major needs identified include window replacement (including seismically dangerous glass block), mechanical system replacement, boiler replacement, electrical panel replacement, and replacement of plumbing fixtures and piping. It's a site that has been recommended to add fire sprinklers for added safety. The concrete entry canopy needs repair as well.

Similar to all other elementary schools, this building is also listed as a 'Very High' seismic risk.

Site Name:	Thompson Elementary
Building Name:	Wheatley School
ODE Building ID:	21810004
Building Type:	Middle School
Students:	MESD
Building Address:	14030 NE Sacramento St., Portland, OR 97230
County:	Multnomah
Gross Square Footage:	50,400
Site Acreage:	TBD
Year Built:	1958
Additions/Renovations:	TBD
Number of Floors:	One(1)
Primary Structure:	Wood Framing
Roof Type:	Built-Up (SBS
Replacement Budget:	$25,769,016

08 - THOMPSON ELEMENTARY SCHOOL (WHEATLEY)



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30


Concrete Exterior Canopy


Classroom

08 - THOMPSON ELEMENTARY SCHOOL (WHEATLEY)

Architectural

- Replace all exterior windows, including glass block.
- Repair exterior concrete entry canopy showing water damage.
- Re-point, clean and re-seal brick masonry veneer exterior.
- Interior finishes, ceilings and casework are all beyond their natural life and are recommended for replacement.
- Repair downspouts at Covered Play Structure, where they have been cut short and daylight / dump out onto the site.
- Remove rust and repair / replace panels at Covered Play Structure as needed.
- Re-roofing is recommended for the entire school.

Site Safety and Security Analysis

- Add pedestrian pathway (sidewalk) from the public right-of-way along the entry drive.
- Repair site paving at playrground, parking area and roadway.

Accessibility

- Restrooms are original in many situations and not designed to current accessibility standards.
- Provide accessible route to stage area.

Hazardous Materials and Indoor Air Quality

- There is significant 9x9 resilient floor tile, typically an indication of asbestos-containing material.
- The age of the building would indicate a typically high level of hazardous materials otherwise, including lead paint and radon.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.

Exterior Windows

Cafeteria / Gym

08 - THOMPSON ELEMENTARY SCHOOL (WHEATLEY)

Building Systems

Fire Protection:
- While not required by code, it is recommended to add fire sprinklers to the building, in order to increase the overall safety of the site.

Plumbing:
- Replace plumbing fixtures and supply piping to the building.

Mechanical:
- Replace existing boiler system that is beyond it's natural lifespan.
- Replace the mechanical units that are well beyond their practical lifespan.
- Testing and retro-commissioning existing system is recommended to increase performance and efficiency overall.
- Provide full mechanical controls upgrade.

Electrical:
- This building requires replacement of the existing electrical panels and upgrades / replacement of the older light fixtures, with new controls.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- No issues identified.

Communication and Security:
- No issues identified.

Refer to full report from Ameresco for more detail.

Structural

- The original classroom building is rated as a 'Very High' seismic risk.

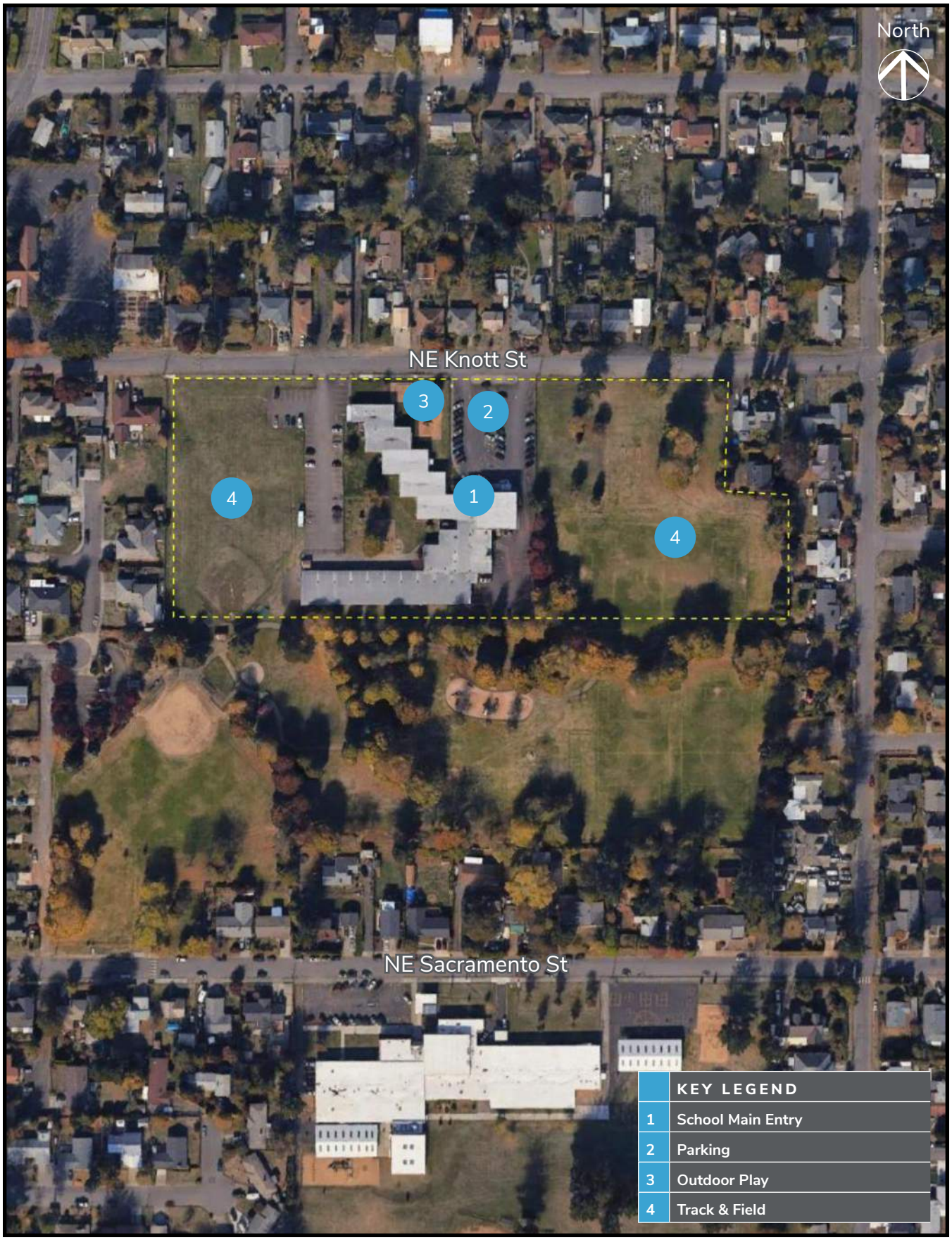
Refer to full report from ZCS Engineering and Architecture for more detail.


Playground Paving and Play Structure


Restroom Facilities

09 - KNOTT ELEMENTARY SCHOOL(KNOTT CREEK)

SITE PLAN



09 - KNOTT ELEMENTARY SCHOOL(KNOTT CREEK)

FLOOR PLAN

09 - KNOTT ELEMENTARY SCHOOL(KNOTT CREEK)

Facility Summary

The original Knott Elementary School has been operated by the Multnomah County Educational Services District (MESD) as Knott Creek Elementary for several years. As such, the building's educational adequacy was not fully evaluated and this assessment focuses primarily on the physical infrastructure of the building and it's supporting systems.

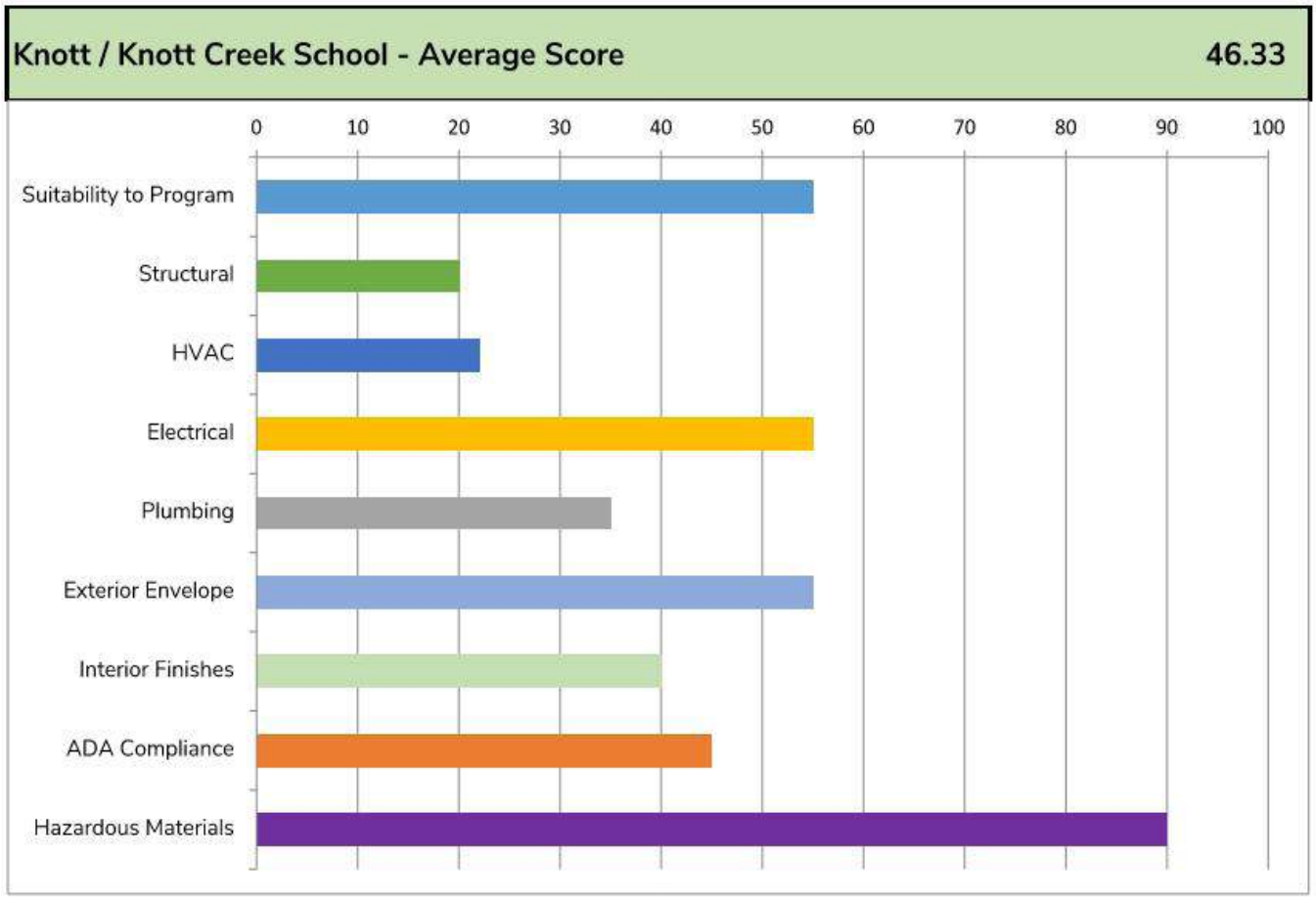
Similar to Helensview and Wheatley, there has been years of deferred maintenance.

Major work identified includes roofing, window replacement (including seismically dangerous glass block), mechanical equipment replacement, electrical panel replacement, and replacement of hot water heaters, plumbing fixtures and piping. Similar to all other elementary schools, this building is also listed as a 'Very High' seismic risk, and has a masonry chimney that should be considered.

The original classroom building is also listed as a 'Very High' seismic risk.

Site Name:	Knott Elementary School
Building Name:	Knott Creek Elementary
ODE Building ID:	21810003
Building Type:	Elementary School
Students:	MESD
Building Address:	11456 NE Knott St., Portland, OR 97220
County:	Multnomah
Gross Square Footage:	32,592
Site Acreage:	5.29
Year Built:	1951
Additions/Renovations:	N/A
Number of Floors:	One (1)
Primary Structure:	Wood Framing
Roof Type:	Built-Up (SBS)
Replacement Budget:	$16,663,964

09 - KNOTT ELEMENTARY SCHOOL(KNOTT CREEK)



Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30

Corridor


Commons / Gym

09 - KNOTT ELEMENTARY SCHOOL(KNOTT CREEK)

Architectural

- Complete exterior window replacement is recommended, both aluminum and glass block.
- Exterior painting is recommended.
- Interior finishes, including flooring, ceilings, paint and casework, are worn and beyond their practical lifespan. Most are recommended for replacement.

Site Safety and Security Analysis

- The school doesn't currently have a secure vestibule and it's recommended to add it if the District were to take over use of the building again.
- Card key access is also recommended for future.
- With an entire wing that has an exterior corridor, there is a higher level of risk associated with them. The site is fully fenced to mitigate some of this risk.

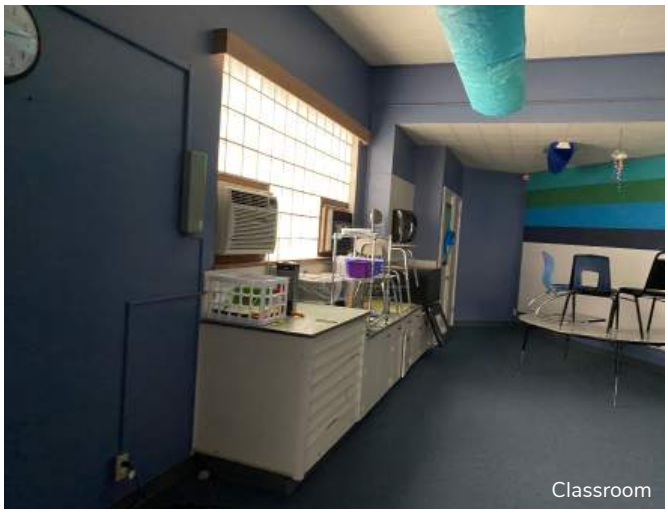
Accessibility

- Several restrooms are not fully accessible and are recommended for replacement.
- Accessible path is needed to the stage area.
- Most plumbing fixtures are not installed to meet accessible guidelines, including sinks, toilets and drinking fountains.
- Steep ramps across the corridors are not to code and represent a potential risk.

Hazardous Materials and Indoor Air Quality

- There is significant 9x9 resilient floor tile, typically an indication of asbestos-containing material.
- The age of the building would indicate a typically high level of hazardous materials otherwise, including lead paint and radon.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.


Classroom


Classroom

09 - KNOTT ELEMENTARY SCHOOL(KNOTT CREEK)

Building Systems

Fire Protection:
- While not required by code, it is recommended to add fire sprinklers to the building, in order to increase the overall safety of the site.

Plumbing:
- Replace plumbing fixtures and supply piping to the building.
- Replacement of existing domestic hot water heaters is recommended, due to age, capacity and overall condition.

Mechanical:
- Replace existing boiler system that is beyond it's natural lifespan.
- Replace the mechanical units that are well beyond their practical lifespan.
- Testing and retro-commissioning existing system is recommended to increase performance and efficiency overall.
- Provide full mechanical controls upgrade.

Electrical:
- This building requires replacement of the existing electrical panels and upgrades / replacement of the older light fixtures, with new controls.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- No issues identified.

Communication and Security:
- No issues identified.

Refer to full report from Ameresco for more detail.

Structural

- The original classroom building is rated as a 'Very High' seismic risk.

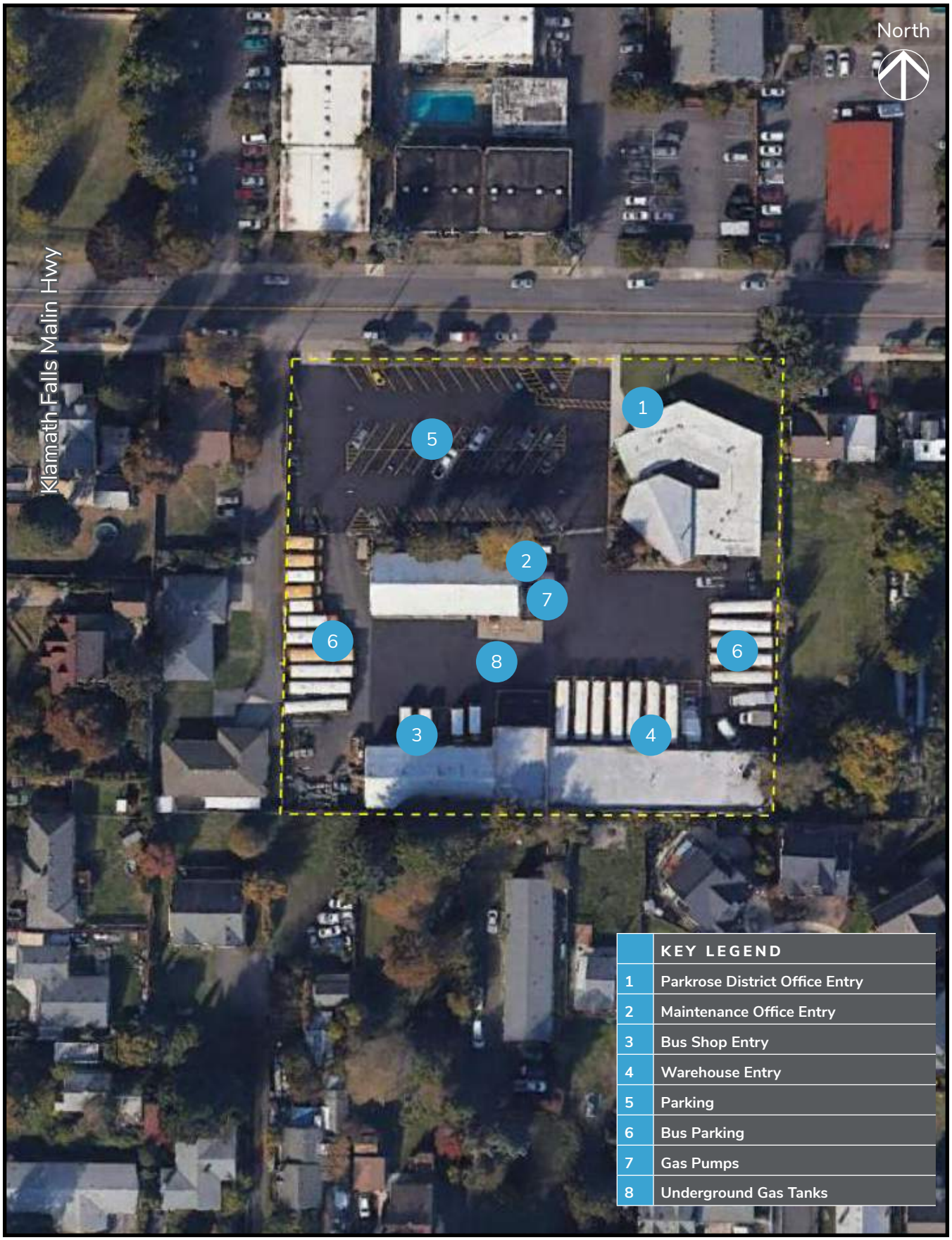
Refer to full report from ZCS Engineering and Architecture for more detail.


Classroom Canopy


Corridor Ramp

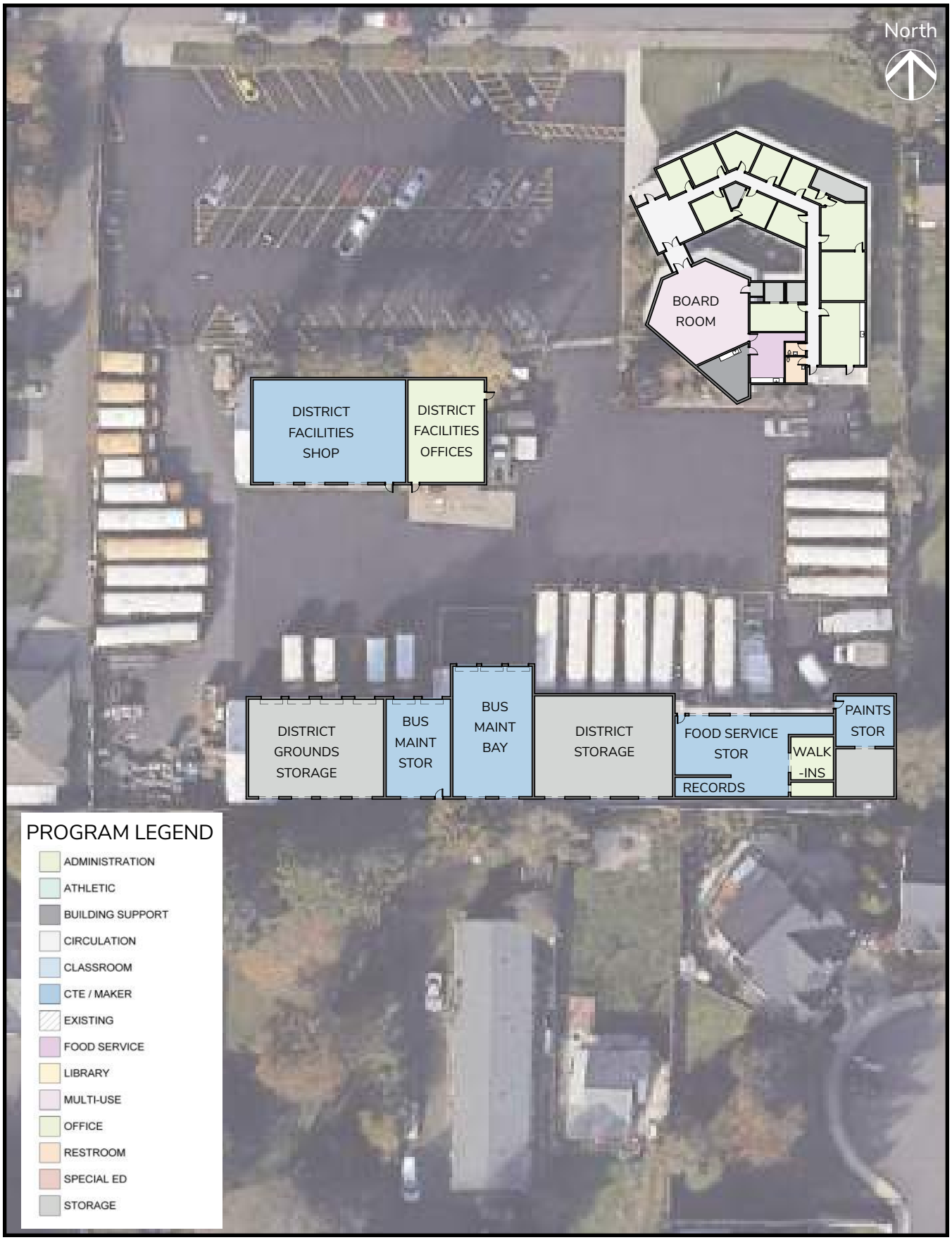
10 - DISTRICT OFFICE AND MAINTENANCE

SITE PLAN



10 - DISTRICT OFFICE AND MAINTENANCE

FLOOR PLAN



10 - DISTRICT OFFICE AND MAINTENANCE

Facility Summary

The District Office campus consists of three main buildings - the District Administration office, the Facilities Office and workshop, and the Bus Maintenance and Warehouse building. All are a similar age and have a significant needs at various levels. The District Office has seen the most recent upgrades, including window replacement, roofing and a secure vestibule added.

There are some renovations desired, including possibly infilling the Admin office courtyard and modifying the work room to modernize the space. The District has discussed also shifting the Nutrition Services staff to the Warehouse.

The Facilities and Maintenance buildings are both older industrial buildings that have had minimal maintenance but are still generally functional.

Many of these buildings represent a 'High' risk seismically and should be evaluated for long-term future use.

Site Name:	District Administration
Building Name:	Office, Facilities and Transportation / Warehouse
ODE Building ID:	21810000
Building Type:	Administration / Facilities
Students:	N/A
Building Address:	10636 NE Prescott St., Portland, OR 97220
County:	Multnomah
Gross Square Footage:	4,000
Site Acreage:	2.13
Year Built:	1965
Additions/Renovations:	N/A
Number of Floors:	One (1)
Primary Structure:	Wood Framing / CMU
Roof Type:	Built-Up (SBS), Metal
Replacement Budget:	$10,420,877

10 - DISTRICT OFFICE AND MAINTENANCE

Excellent	90 - 100
Satisfactory	70 - 90
Minor Modernization Needed	50 - 70
Modernization Needed	30 - 50
Major Modernization Needed	0 - 30


Grounds Storage


Facilities Warehouse

10 - DISTRICT OFFICE AND MAINTENANCE

Architectural

ADMINISTRATION OFFICE

- Evaluate infiling the exterior courtyard for better utilization.
- Work Room minor renovation desired to better utilize the space.
- Modify Student Services for better efficiency.
- Minor wall reconfiguration to allow copier to be located in central alcove.
- Consider adding electronic monument sign for District identity.
- Roof requires evaluation, as gutters overflow regularly in strong rain.
- Reroofing recommended prior to 2035.

FACILITIES BUILDING

- Restore metal roofing throughout.
- Entire exterior planned for repainting soon.

WAREHOUSE / BUS + GROUNDS GARAGE

- Grounds storage isn't adequate and needs to be expanded.
- Replace hardware at all overhead doors, look to add power-operated doors throughout.
- Debris falls from ceiling in bus garage shop.
- Replace both vehicle lifts (original to the building).
- Restore metal roofing and replace built-up roofing.

Site Safety and Security Analysis

ADMINISTRATION OFFICE

- Add cameras at east side of building where multiple break ins have occurred in the past.
- Replace the older, worn sections of site fencing.

WAREHOUSE + BUS BARN

- Consider adding exterior alarms to deter thieves that get in past the fence / gate.

Accessibility

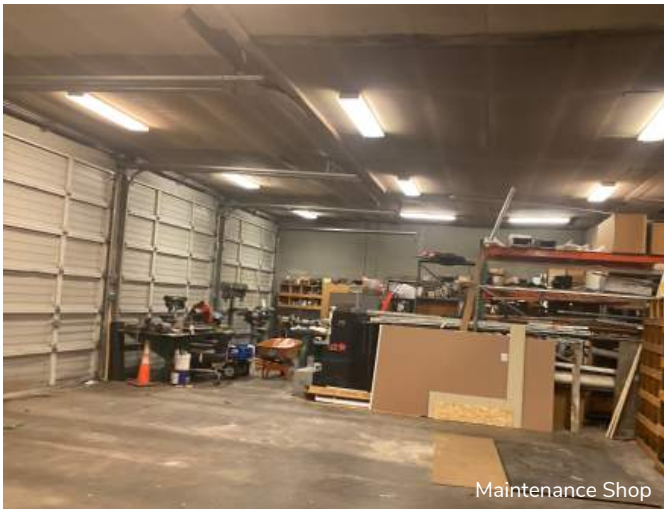
- For all buildings, the restrooms are not fully accessible and could be renovated to accommodate differently abled persons.

Hazardous Materials and Indoor Air Quality

- Due to the age of all three buidings, it's likely to assume there are hazardous materials within the building.
- The more recent renovations of the Administration Buidling has likely removed some or most of the hazardous materials.

No hazardous materials testing has been performed as part of this evaluation. All information on the presence and performance of these materials has been provided by the District.

Maintenance Office



Maintenance Shop

10 - DISTRICT OFFICE AND MAINTENANCE

Building Systems

Fire Protection:
- While not required by code, it is recommended to add fire sprinklers to the building, in order to increase the overall safety of the site.

Plumbing:
WAREHOUSE / BUS + GROUNDS GARAGE
- Replace hot water heater platform (relatively new seismic strapping exists).
- Evaluate removing underground gas tanks and pumps.

Mechanical:
ADMINISTRATION OFFICE
- The building has four separate air conditioning units, which are inefficient and should be replaced with a centralized system, particularly considering the size of the building.

WAREHOUSE / BUS + GROUNDS GARAGE
- Space heater is too loud in bus garage shop and should be evaluated.

Electrical:
ADMINISTRATION OFFICE
- Modernize and upgrade the existing IT server room.

WAREHOUSE / BUS + GROUNDS GARAGE
- Electrical was upgraded but tied to computer, so turning off lights also turns off the computer and should be rectified.

Lighting:
- While some lighting replacement has occurred by the District already, we recommend full replacement of all non-LED fixtures with new.
- With new lighting, adding controls will increase efficiency and assist with ease of operations.

Fire Alarm:
- No issues identified.

Communication and Security:
- No issues identified.

Refer to full report from Ameresco for more detail.

Structural

- The original office building is rated as a 'High' seismic risk.
- Both the Facilities and Warehouse buildings are listed as 'Very High' seismic risk.
- At the overhead doors in the Bus Barn / Grounds Garage, the header has a huge notch removed from it, and likely compromised the structural intergrity.

Refer to full report from ZCS Engineering and Architecture for more detail.


District Office Work Room


District Office Courtyard

APPENDIX A

FACILITY CONDITION ASSESSMENT

STRUCTURAL

ZCS ENGINEERING ARCHITECTURE

September 3, 2021

Marlene Gillis
Soderstrom Architects
1200 NW Naito Pkwy #410
Portland, Oregon 97209

Reference: Parkrose School District

Subject: Facilities Assessment Report

At your request, Soderstrom Architects has retained the services of ZCS Engineering and Architecture to review the existing facilities conditions for Parkrose School District (District). Per your request, ZCS representatives visited the facilities on a tour to observe the existing construction and identify and document any damaged structural elements. A review of as-built drawings provided by the District was also performed.

We have provided a comprehensive assessment of all the observable structural deficiencies for the school facilities throughout the District, Prescott Elementary School, Russell Academy, Sacramento Elementary School, Shaver Elementary School, Parkrose Middle School, Parkrose High School, Sumner Elementary School (Helensview), Thompson Elementary School (Wheatley), Knott Elementary School (Knott Creek), and the District Office and Maintenance. The deficiencies noted in this assessment should be addressed with any future repairs, retrofits, or remodels as budget allows. Unless otherwise noted in this report very little distress to structural components were observed. Destructive investigation, testing, or any other formal analysis were not performed during this investigation.

The following outlines each of the facility evaluations referenced above.

Prescott Elementary School

Prescott Elementary School is located at 10410 NE Prescott St. in Portland, Oregon and was constructed in 1947 with an approximate footprint of 33,300 square feet. The building is a single-story structure consisting of wood framed bearing walls with brick veneer on exterior walls. A partial basement consisting of cast-in-place concrete exterior walls is located at the eastern portion of the building. The basement floor consists of a concrete slab on grade and the second floor framing consists of wood beams and joists supported by bearing walls and steel columns in the basement. The classroom wing floor consist of wood framed joists over

crawlspace. The roof structure is framed with trusses in the multipurpose room and conventional 2x wood framing in the remaining areas. Portions of the building has glass block, which lacks structural integrity and is considered a seismic falling hazard. The north side of the classroom wing consists of fiber cement siding, which has a large amount of damage. Although this damage is primarily cosmetic, it is possible that the compromised siding can cause structural damage in the form of rotting framing members, mold and rodent damage if left unmitigated.

Figure 1: Damage to siding and downspout

A separate annex building is located to the south of the original school building. This 12,100 square foot building was constructed in 1959 and consists of cast-in-place concrete exterior walls. The floor consists of concrete slab on grade, and the roof structure is 1x diagonal sheathing over wood joists supported by bearing walls and steel beams.

Between the main school building and the annex is a covered play area, with a structure consisting of knee-braced steel columns, glulam beams and purlins, and corrugated plastic roof. On the west end of the original school building is another covered play with a structure consisting of steel columns and a wood frame roof. These structures are excluded from this evaluation.

In 1996, a number of seismic upgrades were implemented as part of larger fire and life safety upgrades. The upgrades include installation of plywood shear walls, installation of hardware for in-plane force transfer from roof to walls, installation of plywood roof diaphragms, and attachment of walls to the foundations. These upgrades do not constitute a comprehensive seismic retrofit, and further efforts to evaluate the current seismic hazards of this school is recommended.

No other structural deficiencies were noted during the site walk. The buildings appeared to be in relatively good condition given its age.

Russell Academy

Russell Academy is located at 2700 NE 127th Ave. in Portland, Oregon and was constructed in 1963 with an approximate footprint of 47,000 square feet. The building is a single-story structure consisting of wood framed interior and exterior walls. The floor consists of concrete slab on grade, and the roof structure is framed with glulam beams and straight decking. Moisture damage to the exterior glulam beams and decking was observed at the exterior covered areas. Further investigation into the condition of these members and suggested treatment is recommended.

Figure 2: Damage at covered walkway areas

In 1966, the original classroom wing was expanded with an additional 4 classrooms and a covered play area. This structure was constructed using similar methods to that of the original building.

In 1996, a number of seismic upgrades were implemented as part of larger fire and life safety upgrades. The upgrades include installation of plywood shear walls, installation of hardware for in-plane force transfer from roof to walls, installation of plywood roof diaphragms, and attachment of walls to the foundations. These upgrades do not constitute a comprehensive seismic retrofit, and further efforts to evaluate the current seismic hazards of this school is recommended.

In 2014, a new 5,200 square foot multipurpose room addition was constructed in the northwest corner of the campus. This is a post-benchmark building constructed to current code and therefore have no seismic or structural deficiencies.

Damage and cracking is also apparent in brick veneer pilasters, which was reconstructed as part of the 1996 seismic upgrades. It is our recommendation to remove and reinstall the veneer at these locations.

Figure 3: Damaged brick veneer

Adjacent to the classroom wing is a covered play area, with a structure consisting of pre-engineered metal building with metal roof. This structure is excluded from this evaluation.

No other structural deficiencies were noted during the site walk. The buildings appeared to be in relatively good condition given its age.

Sacramento Elementary School

Sacramento Elementary School is located at 11400 NE Sacramento St. in Portland, Oregon and was originally constructed in 1960 with an approximate footprint of 43,500 square feet. The school structure consists of a single-story classroom building with a centrally located multipurpose room. The entire school is constructed using cast-in-place concrete foundations

and wall elements. The interior bearing walls consist of wood framed stud walls. The floor consists of concrete slab on grade. The roof framing consists of diagonal 1x sheathing supported by 2x wood framing.

In 1996, a number of seismic upgrades were implemented as part of larger fire and life safety upgrades. The upgrades include installation of plywood shear walls, installation of hardware for in-plane force transfer from roof to walls, and attachment of walls to the foundations. These upgrades do not constitute a comprehensive seismic retrofit, and further efforts to evaluate the current seismic hazards of this school is recommended.

A new gymnasium building was added on the south side of the existing school building in 2014. This 4,400 square foot structure consists of wood framed exterior bearing walls with brick veneer. The floor is slab on grade and the roof framing consists of wood open web joists and plywood sheathing. At the same time, new administration offices were added to the north side of the existing building. This 2,100 square foot portion of the building is also constructed using wood framed bearing walls with brick veneer. The floor is slab on grade and roof framing consists of wood I-joists and plywood sheathing. These additions are considered post-benchmark buildings and therefore have no seismic or structural deficiencies.

On the campus there are two covered play areas, with structures consisting of pre-engineered metal buildings with metal roof. These structures are excluded from this evaluation.

No structural deficiencies were noted during the site walk. The buildings appeared to be in relatively good condition given their age.

Shaver Elementary School

Shaver Elementary School is located at 3701 NE 131st Pl. in Portland, Oregon and was constructed in 1963 with an approximate footprint of 50,400 square feet. The building is a single-story structure consisting of cast-in-place concrete exterior walls. The floor consists of concrete slab on grade, and the roof structure is framed with 1x diagonal sheathing and wood joists supported by bearing walls and steel beams. The gymnasium roof structure consists of 1x diagonal sheathing and wood joists supported by glulam beams.

In 1965, a 6-classroom expansion of the existing classroom wing was constructed. The structural system is similar to that of the original construction.

In 1996, a number of seismic upgrades were implemented as part of larger fire and life safety upgrades. The upgrades include installation of plywood shear walls, installation of hardware for in-plane force transfer from roof to walls, and attachment of walls to the foundations. These upgrades do not constitute a comprehensive seismic retrofit, and further efforts to evaluate the current seismic hazards of this school is recommended.

In 2014, a new 5,200 square foot multipurpose room addition was constructed in the southeast corner of the campus. This is a post-benchmark building constructed to current code and therefore have no seismic or structural deficiencies.

On the campus there is also a covered play area, with a structure consisting of a pre-engineered metal building with metal roof. This structure is excluded from this evaluation.

No structural deficiencies were noted during the site walk. The buildings appeared to be in relatively good condition given its age.

Parkrose Middle School

Parkrose Middle School is located at 11800 NE Shaver St. in Portland, Oregon and was constructed in 2013 with an approximate footprint of 145,000 square feet. The building is a two-story structure consisting of reinforced masonry exterior walls. The floor consists of concrete slab on grade, the second floor consists of concrete slab on metal deck, and the roof structure is framed with steel beams and metal decking.

This is a post-benchmark building constructed to current code and therefore have no seismic or structural deficiencies.

Parkrose High School

Parkrose High School is located at 12003 NE Shaver St. in Portland, Oregon and was constructed in 1996 with an approximate footprint of 190,500 square feet. The campus consists of multiple building parts with different structural systems. The classroom wings are two-story buildings supported by steel framing, braced frames, and a concrete slab on grade for the main level and concrete slab on metal deck for the elevated second floor. The library and student center is a single-story structure similarly constructed using steel framing and braced frames. The auditorium, gymnasium and pool buildings are all constructed using reinforced concrete masonry unit (CMU) bearing walls with steel framed roof systems. The band and music spaces are constructed as a two-story building attached to the north side of the auditorium building. This portion of the building is also steel framed, with a concrete slab on metal deck for the second floor.

A separate fine arts building is located to the west of the high school building and is the only remaining portion of the original 1968 high school facility on this campus. This structure is a 16,400 square foot building also consisting of cast-in-place concrete exterior walls. The floor consists of concrete slab on grade, and the roof structure is wood framed joists and 1x diagonal sheathing supported on steel beams.

A grandstand structure built in 1962 is also included on the campus. This building is constructed using CMU walls below the grandstands and a roof structure consisting of metal decking over

steel purlins supported by steel beams and columns. It appears that the press box superstructure installed on the roof of the grandstands is of newer construction, but we would recommend investigating the adequacy of the existing structure to accommodate this newer addition. Other buildings associated with the athletic fields have been excluded from this evaluation.

No other structural deficiencies were noted during the site walk. The buildings appeared to be in relatively good condition given its age.

Sumner Elementary School (Helensview)

Sumner Elementary School is located at 8678 NE Sumner St. in Portland, Oregon. The original school building was constructed in 1954 with an approximate footprint of 42,900 square feet. The building is a single-story structure consisting of cast-in-place concrete exterior walls. The interior bearing walls consist of wood framed stud walls. The floor consists of concrete slab on grade, the roof framing consists of diagonal 1x sheathing supported by 2x wood framing. The multipurpose room has glulam roof beams supporting 2x rafters and 1x diagonal sheathing. Portions of the building has glass block, which lacks structural integrity and is considered a seismic falling hazard. The multipurpose roof has a large crack in the exterior concrete wall, which appears to have been repaired multiple times. The cause of this crack is not clear, but does not appear to pose significant risk to the building.

Figure 4: Crack in exterior concrete wall

On the campus there is also a covered play area, with a structure consisting of a pre-engineered metal building with metal roof. This structure is excluded from this evaluation.

No other structural deficiencies were noted during the site walk. The buildings appeared to be in relatively good condition given its age.

Thompson Elementary School (Wheatley)

Thompson Elementary School is located at 14030 NE Sacramento St. in Portland, Oregon. The original school building was constructed in 1958 with an approximate footprint of 50,400 square feet. The building is a single-story structure consisting of cast-in-place concrete exterior walls. The interior bearing walls consist of wood framed stud walls. The floor consists of concrete slab on grade, the roof framing consists of concrete frames supporting concrete channel slab. The multipurpose room has concrete roof beams supporting concrete channel slab. Portions of the building has glass block, which lacks structural integrity and is considered a seismic falling hazard.

The front entry canopy shows significant decay of the concrete, with corroded rebar exposed. We would recommend repairing or replacing this canopy to avoid further deterioration resulting in falling debris or collapse.

On the campus there is also a covered play area, with a structure consisting of a pre-engineered metal building with metal roof. This structure is excluded from this evaluation.

Figure 5: Deteriorated concrete at front entry canopy

No other structural deficiencies were noted during the site walk. The buildings appeared to be in relatively good condition given its age.

Knott Elementary School (Knott Creek)

Knott Elementary School is located at 11456 NE Knott St. in Portland, Oregon and was constructed in 1951 with an approximate footprint of 36,600 square feet. The building is a single-story structure consisting of cast-in-place concrete exterior walls. The interior bearing walls consist of wood framed stud walls. The floor consists of concrete slab on grade, the roof framing consists of diagonal 1x sheathing supported by 2x wood framing. The multipurpose room has glulam roof beams supporting 2x rafters and 1x diagonal sheathing. Portions of the building has glass block, which lacks structural integrity and is considered a seismic falling hazard.

In 1958, a 2-classroom addition was constructed on the west end of the existing classroom wing. This was built using a similar structural system to the original structure.

A 3,000 square foot addition was constructed in 1965. This building addition is a single-story structure consisting of cast-in-place concrete exterior walls. The interior bearing walls consist of wood framed stud walls. The floor consists of concrete slab on grade, the roof framing consists of diagonal 1x sheathing supported by 2x wood framing.

On the campus there is also a covered play area, with a structure consisting of a pre-engineered metal building with metal roof. This structure is excluded from this evaluation.

No structural deficiencies were noted during the site walk. The buildings appeared to be in relatively good condition given its age.

District Office/Maintenance

The district office and maintenance facilities are located at 10636 NE Prescott St. in Portland, Oregon. The district office is a 7,200 square foot wood framed structure constructed in 1965. The roof structure consists of wood rafters supporting 1x diagonal sheathing. The board room roof structure consists of steel beams supporting wood rafters and 1x decking. Portions of the exterior walls have brick veneer.

The 7,600 square foot maintenance facility buildings were constructed in 1955 and consist of cast-in-place concrete walls with wood raftered trusses and straight decking. Several garage door openings are located on the north side of the building, with sections of the concrete headers removed. It appears that existing rebar in the headers was cut to accommodate these notches in the headers. It is not clear that these headers are adequate to support the roof structure in their current state. Further investigation of these headers and possible strengthening is recommended.

Figure 6: Damage to concrete headers

The bus garage and storage buildings were constructed in 1965 and consists of concrete exterior walls and moment frames. Some interior walls are CMU and the roof framing consists of 1x diagonal sheathing supported by 2x joists and glulam beams.

No other obvious structural damage or deficiencies were noted during the site walk. The buildings appeared to be in relatively good condition given their age.

Preliminary Seismic Assessment

To assist the District, understand the seismic vulnerabilities of their facilities ZCS has performed Rapid Visual Assessments (RVS) of the seismic resisting systems utilizing the procedures outlined in Federal Emergency Management Act (FEMA) document P-154, "Rapid Visual Screening of Buildings for Potential Seismic Hazards: A Handbook, 3rd Edition, January 2015. As part of these assessments a score is provided to rank the buildings regarding their potential for collapse during a design level seismic event. The following table outlines the rankings system for the four different categories.

Risk	Score	Probability
LOW	>2.0	Less than 1 in 100 chance of collapse
MODERATE (MOD)	>1 AND < or = 2.00	Between 1 in 10 & 1 in 100 chance of collapse
HIGH	>0,0 AND < or =1.0	Between 100% & 1 in 10 chance of collapse
VERY HIGH	0.0 OR LESS	100% chance of collapse

In alignment with this ranking system, FEMA, has determined that all buildings with a score 2.0 should be considered to have inadequate performance during a design level seismic event.

For conformance, FEMA P-154 has set a score of 2.0 as the cut-off, at which, any score below would require additional structural evaluation. It is recommended that the District utilize the Seismic evaluation reporting as part of the Technical Assistance Program through ODE to perform the additional seismic evaluations.

The following is the risk evaluation determined by the RVS evaluations attached in Appendix A. Given the varying types of construction and ages of those construction found throughout the schools we have tried our best to identify the differences in risk associated with each construction types when they could be determined.

Facility Name	Risk
Prescott Elementary School	
Original Classroom Building	**-1.0 – VERY HIGH**
1959 Addition (Annex)	**-0.4 – VERY HIGH**
Russell Elementary School	
Original School Building	**-1.1 – VERY HIGH**
2014 Addition	**5.1 – LOW**
Sacramento Elementary School	
Original School Building	**-1.8 – VERY HIGH**
2014 Additions	**5.1 – LOW**
Shaver Elementary School	
Original School Building	**-1.8 – VERY HIGH**
2014 Addition	**5.1 - LOW**
Parkrose Middle School	
Original School Building	**3.8 – LOW**
Parkrose High School	
Classroom Wings	**1.0 – HIGH**
Student Center/Library	**1.0 – HIGH**
Auditorium, Gym and Pool	**0.7 – HIGH**
Band/Music	**1.0 – HIGH**
Fine Arts Building	**1.3 – MODERATE**
Sumner Elementary School	
Original School Building	**-1.8 – VERY HIGH**
Thompson Elementary School	
Original School Building	**-1.8 – VERY HIGH**
Knott Elementary School	
Original School Building	**-1.8 – VERY HIGH**
1965 Addition	**0.2 – HIGH**
District Office/Maintenance	
District Office Building	**0.6 – HIGH**
Maintenance Facility	**-0.6 – VERY HIGH**
Garage and Storage	**-1.6 – VERY HIGH**

Conclusion

The findings described in this report have been limited to visual observations and a general assessment of the structural systems. Based on our visual observations, we find the structures to be in good condition and generally safe for occupancy.

No significant damage to the existing structural systems was discovered.

Given the current condition of the structures, the current code section on existing buildings does not mandate that upgrades are required unless the building is scheduled for repairs, alterations, additions, or change in occupancy.

We have attempted to identify all areas where structural damage was evident. It should be known that many areas of the structures were covered with interior or exterior finishes and could not be observed.

Limitations & Exclusions

This inspection was performed for the purpose of providing information regarding major and obvious structural deficiencies specifically identified by the Client as referenced in the above scope and excludes the following:

- General exterior: including exterior envelopes (paint, siding and weather proofing, etc.), drainage systems, grading, roofing, gutters, downspouts, retaining structures, and chimneys.
- General interior: including insulation, ventilation, windows, ceilings, wall coverings, and floor coverings.
- All mechanical systems: including plumbing, fixtures and piping, hot water heater, heating, ventilation, and air-conditioning.
- All electrical systems: including all panels, low voltage, and high voltage circuitry and fixtures.
- Pests and other wood destroying organisms.
- Wells, swimming pools, septic systems, fire sprinkler and detection systems, and lawn sprinkler systems.

Maintenance and other items not specifically identified in the scope of our assignment may have been discussed, but they are not part of this inspection and report.

The inspection is not a code compliance inspection or certification based on past or present municipal codes of any kind.

This report is for the sole, confidential and exclusive use of the Client and the District.

This inspection took place within the readily accessible areas of the building and is limited to visual observations of evident conditions existing at the time of the inspection only. No structural analysis was performed to substantiate the structure's performance during prescribed code loading events.

Concealed and latent defects and deficiencies are excluded from this inspection.

Systems were not dismantled to provide inspection access.

Destructive investigation and testing was not performed.

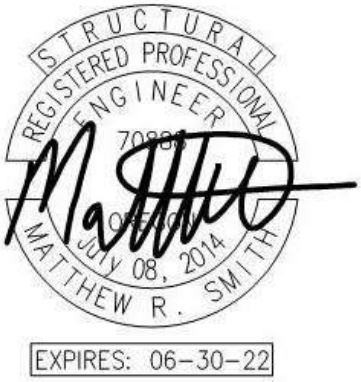
It is understood that ZCS Engineering, Inc. is not an insurer and that this inspection and report are not intended or to be construed as an express or implied guarantee or warranty of adequacy, performance, or condition of the structure at the inspected property address. No guarantee or warranty of the structure's performance outside the loading observed at the time of inspection can be made.

We hope this information is helpful in identifying the next steps for the District with respect to this facility. In the event additional investigation or design is desired, please contact us. We would be happy to help the district achieve any goals for these facilities.

Please review this information and contact our office with any questions. Should you have any concerns, please call our office at (503) 659-2205.

Thank you,

Matthew R. Smith, PE, SE



Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

A HIGH Seismicity

SKETCH

Address: 10410 NE Prescott St.

Portland, OR **Zip:** 97220

Other Identifiers:

Building Name: Prescott Elementary School - Main

Use:

Latitude: 45.5550437 **Longitude:** -122.5560473

Ss: 0.628 **S1:** 0.270

Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 1 **Year Built:** 1947 ☐ EST

Total Floor Area (sq. ft.): 33,300 **Code Year:** Unknown

Additions: ☐ None ■ Yes, Year(s) Built: 1959

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter ☐ Industrial ☐ Office ■ School ☐ Government ☐ Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ■ Vertical (type/severity) Sloping site/moderate ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE W2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.0

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} -1.0 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — A **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Prescott Elementary School - Main	**Final Level 1 Score:**	S_{L1} = 1.0	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -1.0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 2.0	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	(-0.3)	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.3
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -0.7
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	(-1.0)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -1.0 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		Brick veneer
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:	x		Glass block
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:	x		Glass block

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

B HIGH Seismicity

SKETCH

Address: 10410 NE Prescott St.

Portland, OR **Zip:** 97220

Other Identifiers:

Building Name: Prescott Elementary School - 1959 Addition (Annex)

Use:

Latitude: 45.5550437 **Longitude:** -122.5560473

Ss: 0.628 **S1:** 0.270

Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1959 ☐ EST

Total Floor Area (sq. ft.): 12,100 **Code Year:** Unknown

Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter ☐ Industrial ☐ Office ■ School ☐ Government ☐ Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} -0.4 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — **B HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Prescott Elementary School - 1959 Addition (Annex)	**Final Level 1 Score:**	S_{L1} = 0.5	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -0.8
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.3	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -0.7
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = 0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -0.4 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.		x	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended

■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required

☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

A **HIGH Seismicity**

SKETCH

Address: 2700 NE 127th Ave.
Portland, OR **Zip:** 97230
Other Identifiers:
Building Name: Russell Elementary School - Main
Use:
Latitude: 45.541369499999 **Longitude:** -122.5313001
Ss: 0.630 **S1:** 0.270
Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1963 ☐ EST
Total Floor Area (sq. ft.): 47,000 **Code Year:** Unknown
Additions: ☐ None ■ Yes, Year(s) Built: 1966, 2014

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter ☐ Industrial ☐ Office ■ School ☐ Government ☐ Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ■ Plan (type) Re-entrant corners

Exterior Falling Hazards: ☐ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE W2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.0

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} -1.1 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — A **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Russell Elementary School - Main	**Final Level 1 Score:**	S_{L1} = 1.0	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -1.0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 2.0	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		(-0.4)	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -1.1
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	(-1.0)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -1.1 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		Brick Veneer
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.	x		
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

B **HIGH Seismicity**

SKETCH

Address: 2700 NE 127th Ave.

Portland, OR **Zip:** 97230

Other Identifiers:

Building Name: Russell Elementary School - 2014 Addition

Use:

Latitude: 45.54136949999 **Longitude:** -122.5313001

S_S: 0.630 **S_1:** 0.270

Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 2014 ☐ EST

Total Floor Area (sq. ft.): 5,200 **Code Year:** 2010 OSSC

Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE W2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 5.1

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 5.1 ☐ No
Nonstructural hazards? ☐ Yes ■ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — B **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Russell Elementary School - 2014 Addition	**Final Level 1 Score:**	S_{L1} = 5.1	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = 0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 5.1	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = 0
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = 0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 5.1 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		Brick veneer
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ☐ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ■ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

A HIGH Seismicity

SKETCH

Address: 11400 NE Sacramento St.

Portland, OR **Zip:** 97220

Other Identifiers:

Building Name: Sacramento Elementary School - Original Building

Use:

Latitude: 45.539014 **Longitude:** -122.545169

Ss: 0.633 **S1:** 0.272

Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1960 ☐ EST

Total Floor Area (sq. ft.): 43,500 **Code Year:** Unknown

Additions: ☐ None ■ Yes, Year(s) Built: 2014

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ■ Plan (type) Reentrant Corners

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 1.8 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

■ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — A **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Sacramento Elementary School	**Final Level 1 Score:**	S_{L1} = 0.5	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -0.8
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.3	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		(-0.4)	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -1.1
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	(-1.0)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -1.8 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.		x	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:	x		

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

B HIGH Seismicity

SKETCH

Address: 11400 NE Sacramento St.

Portland, OR **Zip:** 97220

Other Identifiers:

Building Name: Sacramento Elementary School - 2014 additions

Use:

Latitude: 45.539014 **Longitude:** -122.545169

Ss: 0.633 **S1:** 0.272

Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 2014 ☐ EST

Total Floor Area (sq. ft.): 6,500 **Code Year:** 2010

Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE W2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 5.1

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 5.1 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
■ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — B **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Sacramento Elementary School	**Final Level 1 Score:**	S_{L1} = 5.1	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} =	*Plan Irregularity,* P_{L1} =
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 5.1	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = 0
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = 0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 5.1 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ☐ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ■ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

A

Level 1
HIGH Seismicity

SKETCH

Address: 3701 NE 131st Pl
Portland, OR **Zip:** 97230
Other Identifiers:
Building Name: Slaver Elementary School - Main
Use:
Latitude: 45.549440999 **Longitude:** -122.5287883
Ss: 0.628 **S1:** 0.269
Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1963/65 ☐ EST
Total Floor Area (sq. ft.): 50,400 **Code Year:** Unknown
Additions: ☐ None ■ Yes, Year(s) Built: 2014

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
☐ Industrial ☐ Office ■ School ☐ Government
☐ Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ■ Plan (type) Re-entrant corners

Exterior Falling Hazards: ☐ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} -1.8 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — A — **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Shaver Elementary School - Main	**Final Level 1 Score:**	S_{L1} = 0.5	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -0.8
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.3	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		(-0.4)	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -1.1
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	(-1.0)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -1.8 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		Brick veneer
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

B

Level 1
HIGH Seismicity

SKETCH

Address: 3701 NE 131st Pl
Portland, OR **Zip:** 97230
Other Identifiers:
Building Name: Staver Elementary School - 2014 Addition (MPR)
Use:
Latitude: 45.54944099999 **Longitude:** -122.5287883
Ss: 0.628 **S1:** 0.269
Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 2014 ☐ EST
Total Floor Area (sq. ft.): 5,200 **Code Year:** 2010 OSSC
Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C2 (DoNot Know)	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score	**3.6**	**3.2**	**2.9**	**2.1**	**2.0**	**2.6**	**2.0**	**1.7**	**1.5**	**2.0**	**1.2**	**1.6**	**1.4**	**1.7**	**1.7**	**1.0**	**1.5**
Severe Vertical Irregularity, V_{L1}	-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}	-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code	-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark	1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B	0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)	0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)	-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}	*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 5.1

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 5.1 ☐ No
Nonstructural hazards? ☐ Yes ■ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
■ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — B — **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Shaver Elementary School - 2014 Addition (MPR)	**Final Level 1 Score:**	S_{L1} = 5.1	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = 0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 5.1	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = 0
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = 0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 5.1 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		Brick veneer
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ☐ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ■ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
HIGH Seismicity

SKETCH

Address: 11800 NE Shaver St.
Portland, OR **Zip:** 97220
Other Identifiers:
Building Name: Parkrose Middle School
Use:
Latitude: 45.5509324 **Longitude:** -122.5406015
Ss: 0.629 **S1:** 0.270
Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 2 Below Grade: 0 **Year Built:** 2013 ☐ EST
Total Floor Area (sq. ft.): 145,054 **Code Year:** 2010 OSSC
Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE RM1 (DoNot Know)	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score	**3.6**	**3.2**	**2.9**	**2.1**	**2.0**	**2.6**	**2.0**	**1.7**	**1.5**	**2.0**	**1.2**	**1.6**	**1.4**	**1.7**	**1.7**	**1.0**	**1.5**
Severe Vertical Irregularity, V_{L1}	-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}	-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code	-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark	1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B	0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)	0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)	-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}	*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 3.8

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 3.8 ☐ No
Nonstructural hazards? ☐ Yes ■ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
■ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Parkrose Middle School	**Final Level 1 Score:**	S_{L1} = 3.8	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = 0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 3.8	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = 0
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = 0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 3.8 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		Brick veneer
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

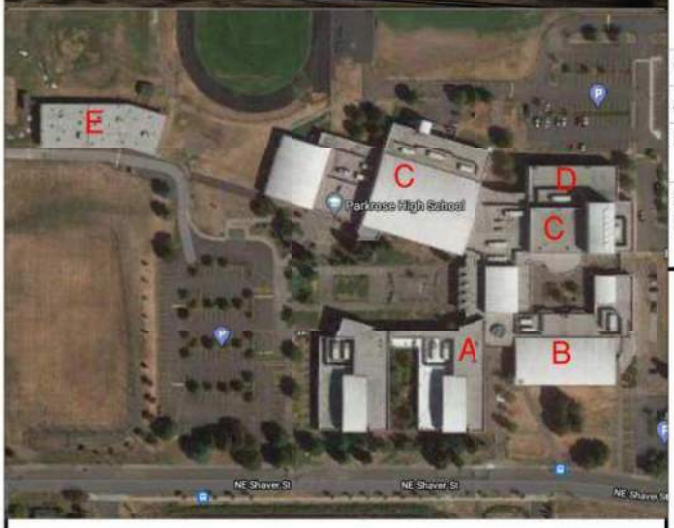
- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ☐ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ■ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1
A HIGH Seismicity



SKETCH

Address: 12003 NE Shaver St.
Portland, OR **Zip:** 97220
Other Identifiers:
Building Name: Parkrose High School - Classroom Wings
Use:
Latitude: 45.553130499999 **Longitude:** -122.5401505
Ss: 0.628 **S1:** 0.269
Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 2 Below Grade: 0 **Year Built:** 1999 ☐ EST
Total Floor Area (sq. ft.): 62,860 **Code Year:** 1994 UBC
Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE S2 (DoNot Know)	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score	**3.6**	**3.2**	**2.9**	**2.1**	**2.0**	**2.6**	**2.0**	**1.7**	**1.5**	**2.0**	**1.2**	**1.6**	**1.4**	**1.7**	**1.7**	**1.0**	**1.5**
Severe Vertical Irregularity, V_{L1}	-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}	-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code	-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark	1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B	0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)	0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)	-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}	*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 2.0

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 1.0 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — **A HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Parkrose High School - Classroom Wings	**Final Level 1 Score:**	S_{L1} = 2.0	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = 0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 2.0	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*			Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.		-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.		-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.		-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).		-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.		-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.		-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.		-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.		-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.		-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.		-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.		-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.		-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.		-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.		-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.		-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*			-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.			-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.			-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.			-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.			-0.4	P_{L2} = 0
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.			-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.			+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	*(Cap total pounding modifiers at -1.2)*	(-1.0)	
		One building is 2 or more stories taller than the other.		-1.0	
		The building is at the end of the block.		-0.5	
S2 Building	"K" bracing geometry is visible.			-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.			-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*			+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).			+0.3	
URM	Gable walls are present.			-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.			+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.			+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 1.0 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		Brick veneer
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

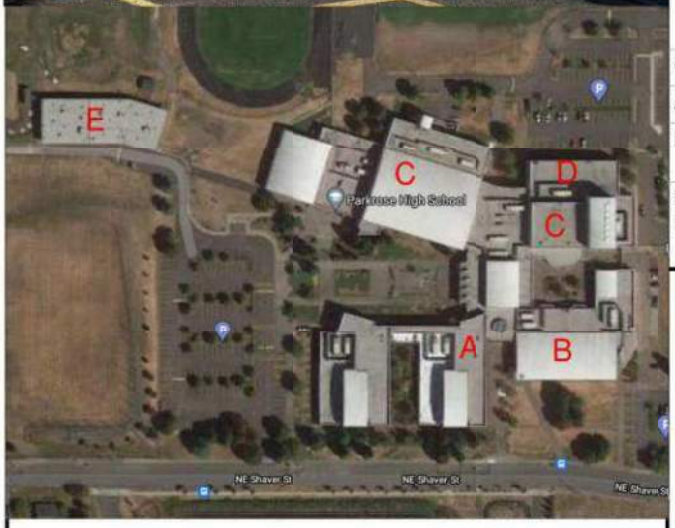
Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

B HIGH Seismicity



SKETCH

Address: 12003 NE Shaver St.

Portland, OR **Zip:** 97220

Other Identifiers:

Building Name: Parkrose High School - Student Center/Library

Use:

Latitude: 45.553130499999 **Longitude:** -122.5401505

Ss: 0.628 **S1:** 0.269

Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1999 ☐ EST

Total Floor Area (sq. ft.): 54,048 **Code Year:** 1994 UBC

Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE S2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 2.0

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 1.0 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — **B HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Parkrose High School - Student Center/Library	**Final Level 1 Score:**	S_{L1} = 2.0	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = 0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 2.0	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = 0
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 1.0 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		Brick veneer
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

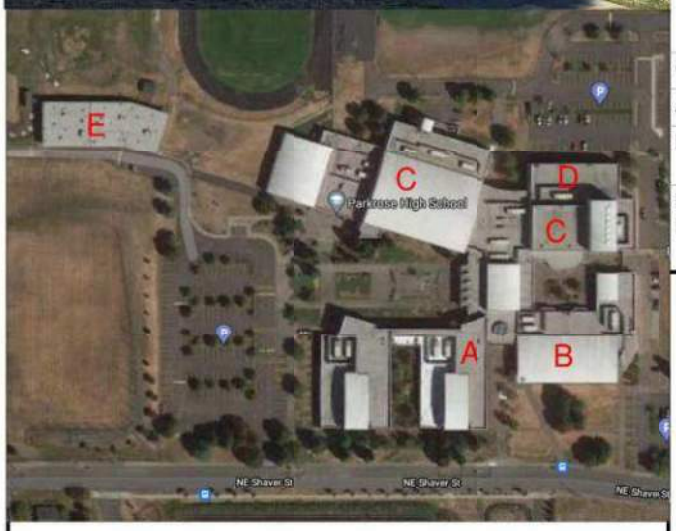
Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
C HIGH Seismicity



SKETCH

Address: 12003 NE Shaver St.
Portland, OR Zip: 97220
Other Identifiers:
Building Name: Parkrose High School - Auditorium, Gym, Pool
Use:
Latitude: 45.553130499999 Longitude: -122.5401505
S_S: 0.628 S_1: 0.269
Screener(s): KNT Date/Time: 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 1 Year Built: 1999 ☐ EST
Total Floor Area (sq. ft.): 56,415 Code Year: 1994 UBC
Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
☐ Industrial ☐ Office ■ School ☐ Government
☐ Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE RM1	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		**3.6**	**3.2**	**2.9**	**2.1**	**2.0**	**2.6**	**2.0**	**1.7**	**1.5**	**2.0**	**1.2**	**1.6**	**1.4**	**1.7**	**1.7**	**1.0**	**1.5**
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.7

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 0.7 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — **C HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Parkrose High School - Auditorium, Gym, Pool	**Final Level 1 Score:**	S_{L1} = 1.7	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = 0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.7	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = 0
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0 (circled)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 0.7 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.		x	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

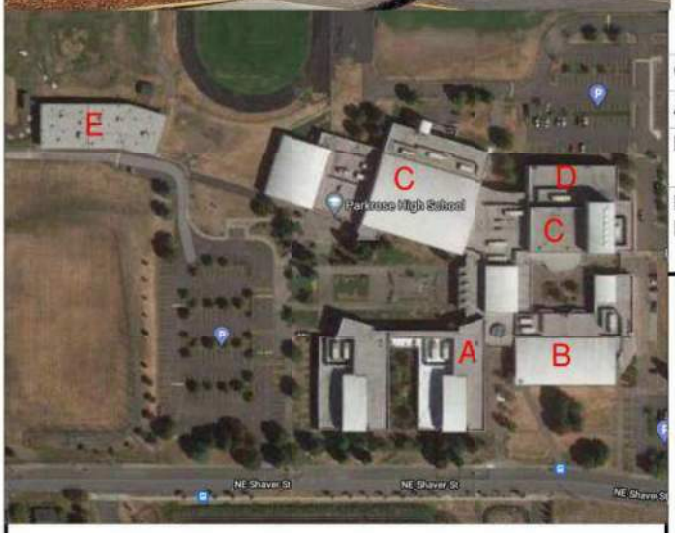
- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1
D HIGH Seismicity



SKETCH

Address: 12003 NE Shaver St.
Portland, OR Zip: 97220
Other Identifiers:
Building Name: Parkrose High School - Band/Music
Use:
Latitude: 45.553130499999 Longitude: -122.5401505
Ss: 0.628 S1: 0.269
Screener(s): KNT Date/Time: 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 Year Built: 1999 ☐ EST
Total Floor Area (sq. ft.): 17,320 Code Year: 1994 UBC
Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE S2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 2.0

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 1.0 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — D **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Parkrose High School - Band/Music	**Final Level 1 Score:**	S_{L1} = 2.0	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = 0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 2.0	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*			Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.		-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.		-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.		-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).		-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.		-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.		-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.		-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.		-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.		-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.		-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.		-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.		-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.		-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.		-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.		-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*			-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.			-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.			-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.			-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.			-0.4	P_{L2} = 0
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.			-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.			+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	*(Cap total pounding modifiers at -1.2)*	(-1.0)	
		One building is 2 or more stories taller than the other.		-1.0	
		The building is at the end of the block.		-0.5	
S2 Building	"K" bracing geometry is visible.			-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.			-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*			+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).			+0.3	
URM	Gable walls are present.			-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.			+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.			+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 1.0 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.		x	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

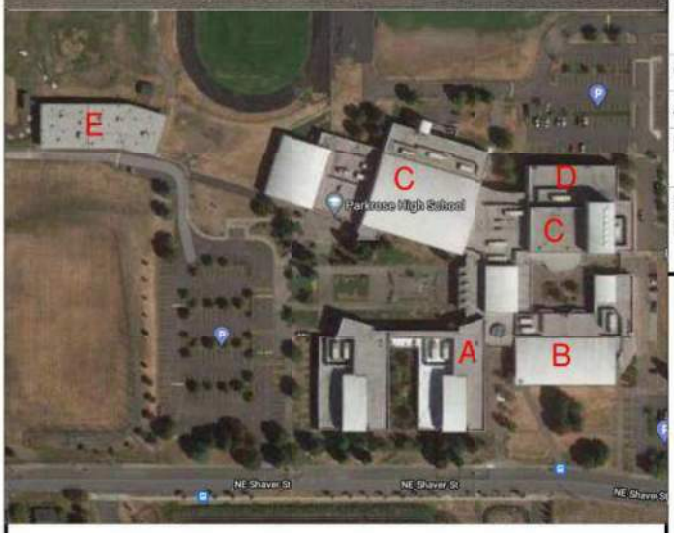
Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
E HIGH Seismicity



SKETCH

Address: 12003 NE Shaver St.
Portland, OR Zip: 97220
Other Identifiers:
Building Name: Parkrose High School - Fine Arts
Use:
Latitude: 45.553130499999 Longitude: -122.5401505
S_S: 0.628 S_1: 0.269
Screener(s): KNT Date/Time: 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 Year Built: 1950 ☐ EST
Total Floor Area (sq. ft.): 16,400 Code Year: Unknown
Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.3

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 1.3 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — E **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Parkrose High School - Fine Arts	**Final Level 1 Score:**	S_{L1} = 1.3	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = 0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.3	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = 0
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = 0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 1.3 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.		x	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1
HIGH Seismicity

SKETCH

Address: 8678 NE Sumner St.
Portland, OR **Zip:** 97220
Other Identifiers:
Building Name: Sumner Elementary School (Helensview)
Use:
Latitude: 45.561928599999 **Longitude:** -122.5749032
Ss: 0.626 **S1:** 0.270
Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1954 ☐ EST
Total Floor Area (sq. ft.): 42,900 **Code Year:** Unknown
Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
☐ Industrial ☐ Office ■ School ☐ Government
☐ Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ■ Plan (type) Re-entrant corners

Exterior Falling Hazards: ■ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other: Glass block

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C2 (Do Not Know)	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score	**3.6**	**3.2**	**2.9**	**2.1**	**2.0**	**2.6**	**2.0**	**1.7**	**1.5**	**2.0**	**1.2**	**1.6**	**1.4**	**1.7**	**1.7**	**1.0**	**1.5**
Severe Vertical Irregularity, V_{L1}	-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}	-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code	-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark	1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B	0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)	0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)	-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}	*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} -1.8 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Sumner Elementary School	**Final Level 1 Score:**	S_{L1} = 0.5	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -0.8
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.3	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		(-0.4)	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -1.1
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	(-1.0)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -1.8 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.	x		URM Chimney
	There is heavy cladding or heavy veneer.	x		
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.	x		
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:	x		Glass block
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:	x		Glass block

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

A **HIGH Seismicity**

SKETCH

Address: 14030 NE Sacramento St.
Portland, OR **Zip:** 97230
Other Identifiers:
Building Name: Thompson Elementary School (Wheatley)
Use:
Latitude: 45.539998 **Longitude:** -122.5187248
Ss: 0.629 **S1:** 0.269
Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1958 ☐ EST
Total Floor Area (sq. ft.): 50,400 **Code Year:** Unknown
Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ■ School ☐ Government
Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ■ Plan (type) Re-entrant corner

Exterior Falling Hazards: ■ Unbraced Chimneys ■ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ■ Other: Glass block

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C2 — Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score	3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}	-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}	-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code	-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark	1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B	0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)	0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)	-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}	*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} -1.8 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — A **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Thompson Elementary School (Wheatley)	**Final Level 1 Score:**	S_{L1} = 0.5	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -0.8
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.3	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		(-0.4)	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -1.1
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	(-1.0)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -1.8 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.	x		URM Chimney
	There is heavy cladding or heavy veneer.	x		
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.	x		
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:	x		Glass block
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:	x		Glass block

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1
A HIGH Seismicity

SKETCH

Address: 11456 NE Knott St.
Portland, OR **Zip:** 97220
Other Identifiers:
Building Name: Knott Elementary School (Knott Creek) - Main
Use:
Latitude: 45.541443167/1666 **Longitude:** -122.54490024755934
Ss: 0.632 **S1:** 0.271
Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1951 ☐ EST
Total Floor Area (sq. ft.): 36,600 **Code Year:** Unknown
Additions: ☐ None ■ Yes, Year(s) Built: 1958, 1965

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
☐ Industrial ☐ Office ■ School ☐ Government
☐ Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ■ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ■ Plan (type) Re-entrant corners

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ■ Other: Glass blocks

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C2 (DoNot Know)	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score	**3.6**	**3.2**	**2.9**	**2.1**	**2.0**	**2.6**	**2.0**	**1.7**	**1.5**	**2.0**	**1.2**	**1.6**	**1.4**	**1.7**	**1.7**	**1.0**	**1.5**
Severe Vertical Irregularity, V_{L1}	-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}	-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code	-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark	1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B	0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)	0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)	-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}	*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} -1.8 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — A **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Knott Elementary School (Knott Creek)	**Final Level 1 Score:**	S_{L1} = 0.5	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -0.8
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.3	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		(-0.4)	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -1.1
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	(-1.0)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -1.8 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.		x	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:	x		Glass block
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:	x		Glass block

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1
B HIGH Seismicity

SKETCH

Address: 11456 NE Knott St.
Portland, OR **Zip:** 97220
Other Identifiers:
Building Name: Knott Elementary School (Knott Creek) - 1965 Addition
Use:
Latitude: 45.541443167/1666 **Longitude:** -122.54490024755934
S_S: 0.632 **S_1:** 0.271
Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1965 ☐ EST
Total Floor Area (sq. ft.): 3,000 **Code Year:** Unknown
Additions: ■ None ☐ Yes, Year(s) Built:

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
☐ Industrial ☐ Office ■ School ☐ Government
☐ Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ■ Plan (type) Re-entrant corners

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} 0.2 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — **B HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Knott Elementary School (Knott Creek)	**Final Level 1 Score:**	S_{L1} = 0.5	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -0.8
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.3	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		(-0.4)	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -1.1
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = 0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 0.2 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.		x	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

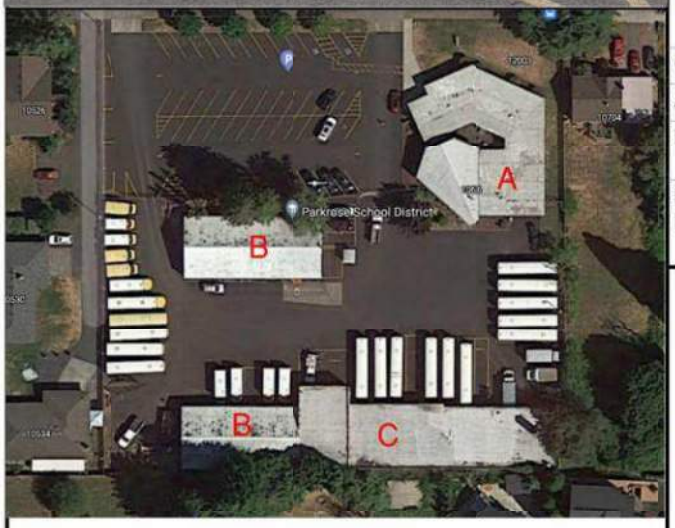
Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

A HIGH Seismicity



SKETCH

Address: 10636 NE Prescott St.

Portland, OR Zip: 97220

Other Identifiers:

Building Name: Parkrose District Office

Use:

Latitude: 45.5550043 Longitude: -122.5529517

S_S: 0.628 S_1: 0.270

Screener(s): KNT Date/Time: 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 Year Built: 1964 ☐ EST

Total Floor Area (sq. ft.): 7,200 Code Year: Unknown

Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter ☐ Industrial ☒ Office ☐ School ☐ Government ☐ Utility ☐ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ☒ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☒ Plan (type) Non-parallel systems

Exterior Falling Hazards: ☐ Unbraced Chimneys ☒ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE W2	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.0

EXTENT OF REVIEW

Exterior: ☐ Partial ☒ All Sides ☐ Aerial

Interior: ☐ None ☐ Visible ☒ Entered

Drawings Reviewed: ☒ Yes ☐ No

Soil Type Source: Assumed

Geologic Hazards Source: DOGAMI

Contact Person:

LEVEL 2 SCREENING PERFORMED?

☒ Yes, Final Level 2 Score, S_{L2} 0.6 ☐ No

Nonstructural hazards? ☒ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)

☐ Falling hazards from taller adjacent building

☐ Geologic hazards or Soil Type F

☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building

☐ Yes, score less than cut-off

☐ Yes, other hazards present

☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated

☒ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary

☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — A **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Parkrose District Office	**Final Level 1 Score:**	S_{L1} = 1.0	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -1.0
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 2.0	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	-1.0	V_{L2} = 0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		-0.7	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		(-0.4)	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -0.4
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	(-1.0)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: 0.6 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.	x		Brick veneer
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

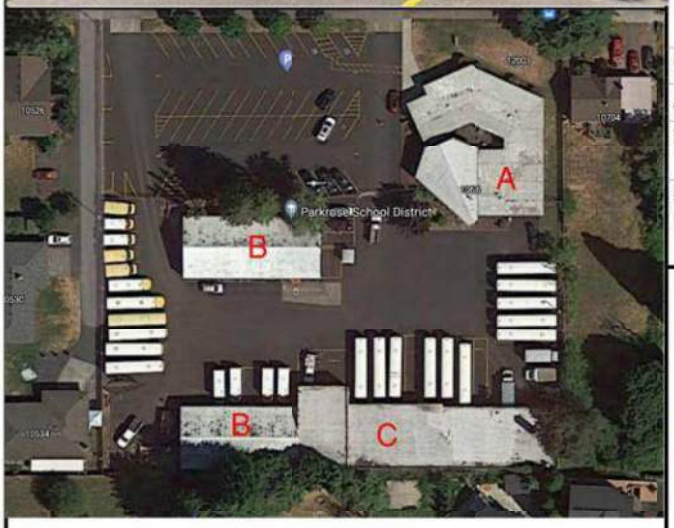
Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

B HIGH Seismicity



SKETCH

Address: 10636 NE Prescott St.

Portland, OR **Zip:** 97220

Other Identifiers:

Building Name: Parkrose Maintenance Facility

Use:

Latitude: 45.5550043 **Longitude:** -122.5529517

Ss: 0.628 **S1:** 0.270

Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1955 ☐ EST

Total Floor Area (sq. ft.): 7,600 **Code Year:** Unknown

Additions: ☐ None ☑ Yes, Year(s) Built: 1965

Occupancy: Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter
Industrial ☐ Office ☐ School ☐ Government
Utility ☐ ■ Warehouse ☐ Residential, # Units: ☐

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ■ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C1	DoNot Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5

EXTENT OF REVIEW

Exterior: ☐ Partial ■ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ■ Entered
Drawings Reviewed: ■ Yes ☐ No
Soil Type Source: Assumed
Geologic Hazards Source: DOGAMI
Contact Person:

LEVEL 2 SCREENING PERFORMED?

■ Yes, Final Level 2 Score, S_{L2} -0.6 ☐ No
Nonstructural hazards? ■ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
■ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
■ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — **B HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Parkrose Maintenance Facility	**Final Level 1 Score:**	S_{L1} = 0.5	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -0.6
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.1	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.0 *(Cap at -1.2)*
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -0.7
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	-1.0	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = 0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -0.6 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.		x	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

- ☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended
- ■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required
- ☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

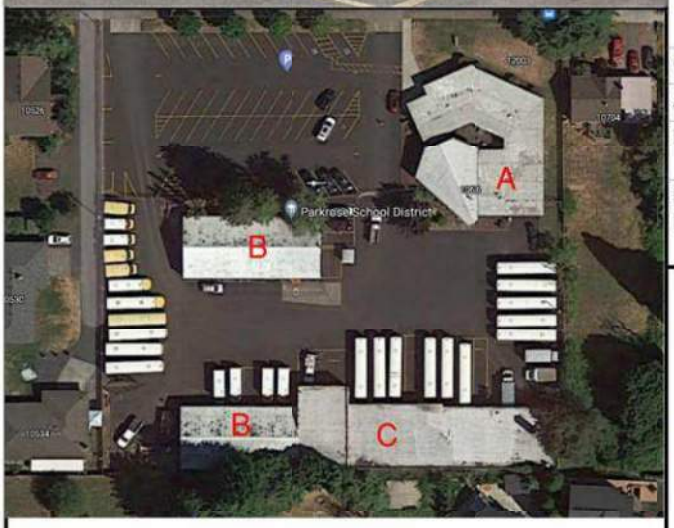
Comments:

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA P-154 Data Collection Form

Level 1

C HIGH Seismicity



SKETCH

Address: 10636 NE Prescott St.

Portland, OR **Zip:** 97220

Other Identifiers:

Building Name: Parkrose Maintenance Facility - Garage and Storage

Use:

Latitude: 45.5550043 **Longitude:** -122.5529517

Ss: 0.628 **S1:** 0.270

Screener(s): KNT **Date/Time:** 8/16/2021

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1965 ☐ EST

Total Floor Area (sq. ft.): 7,700 **Code Year:** Unknown

Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: ☐ Assembly ☐ Commercial ☐ Emer. Services ☐ Historic ☐ Shelter ☐ Industrial ☐ Office ☐ School ☐ Government ☐ Utility ☒ Warehouse ☐ Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☐ C Dense Soil ☒ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE C1 (DoNot Know)	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score	**3.6**	**3.2**	**2.9**	**2.1**	**2.0**	**2.6**	**2.0**	**1.7**	**1.5**	**2.0**	**1.2**	**1.6**	**1.4**	**1.7**	**1.7**	**1.0**	**1.5**
Severe Vertical Irregularity, V_{L1}	-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}	-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code	-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark	1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B	0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)	0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)	-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}	*1.1*	*0.9*	*0.7*	*0.5*	*0.5*	*0.6*	*0.5*	*0.5*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	*1.0*

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5

EXTENT OF REVIEW

Exterior: ☐ Partial ☒ All Sides ☐ Aerial

Interior: ☐ None ☐ Visible ☒ Entered

Drawings Reviewed: ☒ Yes ☐ No

Soil Type Source: Assumed

Geologic Hazards Source: DOGAMI

Contact Person:

LEVEL 2 SCREENING PERFORMED?

☒ Yes, Final Level 2 Score, S_{L2} -1.6 ☐ No

Nonstructural hazards? ☒ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)

☐ Falling hazards from taller adjacent building

☐ Geologic hazards or Soil Type F

☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building

☐ Yes, score less than cut-off

☐ Yes, other hazards present

☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated

☒ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary

☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame; BR = Braced frame; RC = Reinforced concrete; SW = Shear wall; URM INF = Unreinforced masonry infill; TU = Tilt up; MH = Manufactured Housing; LM = Light metal; FD = Flexible diaphragm; RD = Rigid diaphragm

Rapid Visual Screening of Buildings for Potential Seismic Hazards — **Level 2 (Optional)**

FEMA P-154 Data Collection Form — C **HIGH Seismicity**

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Parkrose Maintenance Facility - Garage and Storage	**Final Level 1 Score:**	S_{L1} = 0.5	*(do not consider S_{MIN})*
Screener: KNT	**Level 1 Irregularity Modifiers:**	*Vertical Irregularity,* V_{L1} = 0	*Plan Irregularity,* P_{L1} = -0.6
Date/Time: 8/16/2021	**ADJUSTED BASELINE SCORE:**	$S' = (S_{L1} - V_{L1} - P_{L1})$ = 1.1	

STRUCTURAL MODIFIERS TO ADD TO ADJUSTED BASELINE SCORE

Topic	Statement *(If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)*		Yes	Subtotals
Vertical Irregularity, V_{L2}	Sloping Site	W1 building: There is at least a full story grade change from one side of the building to the other.	-1.2	
		Non-W1 building: There is at least a full story grade change from one side of the building to the other.	-0.3	
	Weak and/or Soft Story *(circle one maximum)*	W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.	-0.6	
		W1 house over garage: Underneath an occupied story, there is a garage opening without a steel moment frame, and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).	-1.2	
		W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.	-1.2	
		Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any story is more than 2.0 times the height of the story above.	-0.9	
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height of any story is between 1.3 and 2.0 times the height of the story above.	-0.5	
	Setback	Vertical elements of the lateral system at an upper story are outboard of those at the story below causing the diaphragm to cantilever at the offset.	-1.0	
		Vertical elements of the lateral system at upper stories are inboard of those at lower stories.	-0.5	
		There is an in-plane offset of the lateral elements that is greater than the length of the elements.	-0.3	
	Short Column/ Pier	C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have height/depth ratios less than 50% of the nominal height/depth ratio at that level.	-0.5	
		C1,C2,C3,PC1,PC2,RM1,RM2: The column depth (or pier width) is less than one half of the depth of the spandrel, or there are infill walls or adjacent floors that shorten the column.	-0.5	
	Split Level	There is a split level at one of the floor levels or at the roof.	-0.5	
	Other Irregularity	There is another observable severe vertical irregularity that obviously affects the building's seismic performance.	(-1.0)	V_{L2} = -1.0
		There is another observable moderate vertical irregularity that may affect the building's seismic performance.	-0.5	*(Cap at -1.2)*
Plan Irregularity, P_{L2}	Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. *(Do not include the W1A open front irregularity listed above.)*		(-0.7)	
	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.		-0.4	
	Reentrant corner: Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.		-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.		-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.		-0.4	P_{L2} = -0.7
	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.		-0.7	*(Cap at -1.1)*
Redundancy	The building has at least two bays of lateral elements on each side of the building in each direction.		+0.3	
Pounding	Building is separated from an adjacent structure by less than 1% of the height of the shorter of the building and adjacent structure and:	The floors do not align vertically within 2 feet.	(-1.0)	
		One building is 2 or more stories taller than the other.	-1.0	
		The building is at the end of the block.	-0.5	
		(Cap total pounding modifiers at -1.2)		
S2 Building	"K" bracing geometry is visible.		-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.		-0.4	
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. *(Do not combine with post-benchmark or retrofit modifier.)*		+0.3	
PC1/RM1 Bldg	The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).		+0.3	
URM	Gable walls are present.		-0.4	
MH	There is a supplemental seismic bracing system provided between the carriage and the ground.		+1.2	
Retrofit	Comprehensive seismic retrofit is visible or known from drawings.		+1.4	M = -1.0

FINAL LEVEL 2 SCORE, $S_{L2} = (S' + V_{L2} + P_{L2} + M) \geq S_{MIN}$: -1.6 *(Transfer to Level 1 form)*

There is observable damage or deterioration or another condition that negatively affects the building's seismic performance: ☐ Yes ■ No

If yes, describe the condition in the comment box below and indicate on the Level 1 form that detailed evaluation is required independent of the building's score.

OBSERVABLE NONSTRUCTURAL HAZARDS

Location	Statement *(Check "Yes" or "No")*	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		x	
	There is heavy cladding or heavy veneer.		x	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		x	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		x	
	There is a sign posted on the building that indicates hazardous materials are present.		x	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		x	
	Other observed exterior nonstructural falling hazard:		x	
Interior	There are hollow clay tile or brick partitions at any stair or exit corridor.		x	
	Other observed interior nonstructural falling hazard:		x	

Estimated Nonstructural Seismic Performance *(Check appropriate box and transfer to Level 1 form conclusions)*

☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural Evaluation recommended

■ Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nonstructural Evaluation required

☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation required

Comments:

APPENDIX B

FACILITY CONDITION ASSESSMENT

MECHANICAL ELECTRICAL PLUMBING

Parkrose School District Facility MEP Assessment Report

Prepared for

Parkrose SD &
Soderstrom Architects

Presented by

Ameresco, Inc.

September 3, 2021

Contents

General

The Parkrose School District began in 1885 and it's been serving the neighborhood in the northeast section of Portland for more than 135 years. The district currently has nine (9) schools and a district admin/maintenance building complex, which gives a total building area of approximately 707,400 sq.ft. The nine (9) schools include four (4) elementary schools (K-5), one (1) middle school (6-8), one (1) high school (9-12) and three (3) that used to be elementary schools that are now leased buildings.

Ameresco, along with Soderstrom Architects and ZCS Engineering & Architecture, conducted a walk-through of ten (10) facilities in July 2021 to assess facility conditions. This assessment report is limited to documents, readily visible portions of facility MEP systems, and notes based on interviews with District/facility staff during site walk-throughs. This resulting report identifies noted deficiencies and recommended upgrades. All schools were not in session at the time of the visit due to summer break.

#	School Name	Grades Served	Year Built	Additions	Building Area	Address
01	Prescott Elementary School	K-5	1947	1959, 1996, 2014	48,544 SF	10410 NE Prescott St., Portland, OR 97220
02	Russell Elementary School	K-5	1963	1996, 2013	40,036 SF	2700 NE 127th Ave., Portland, OR 97230
03	Sacramento Elementary School	K-5	1960	1960, 1980, 1996, 2013	41,107 SF	11400 NE Sacramento St., Portland, OR 97220
04	Shaver Elementary School	K-5	1963	1996, 2013	43,916 SF	3701 NE 131st Pl., Portland, OR 97230
05	Parkrose Middle School	6-8	2013	N/A	140,000 SF	11800 NE Shaver St., Portland, OR 97220
06	Parkrose High School	9-12	1996	1968 (FAB)	260,497 SF	12003 NE Shaver St., Portland, OR 97220
07	Sumner Elementary / Helensview School*	N/A	1954	1968, 1996, 1998	40,000 SF	8678 NE Sumner St., Portland, OR 97220
08	Thompson Elementary / Wheatley School*	N/A	1958	Data Not Available	40,000 SF	14030 NE Sacramento St., Portland, OR 97230
09	Knott Elementary / Knott Creek School*	N/A	1951	N/A	32,592 SF	11456 NE Knott St., Portland, OR 97220
10	District Admin /Maintenance	N/A	1955	1955, 1963	20,700 SF	10636 NE Prescott St., Portland, OR, 97220

* District leased building

The following table shows a summary of items and priority for each school.

School Name	HVAC						Electrical			Plumbing	
	Replace existing old boiler system	Repair Condensing Unit/Chiller	Refurbish AHUs	AHU/HV/RTU/UV/ UH/FF Replacement	Test and retro-commissioning	Control upgrade	Replace old electrical panels	Lighting and lighting control retrofit	Replace water fixtures and water piping for the school	Replace existing old DHW heater	Add fire sprinkler system
Prescott Elementary School											
Russell Elementary School											
Sacramento Elementary School											
Shaver Elementary School											
Parkrose Middle School											
Parkrose High School											
Sumner Elementary / Helensview School*											
Thompson Elementary / Wheatley School*											
Knott Elementary / Knott Creek School*											
District Admin /Maintenance											

Priority
Recommended

AHU --- Air Handling Unit
HV --- Heating Ventilating Unit
RTU --- Rooftop Unit
UV --- Unit Ventilator
UH --- Unit Heater
FF --- Forced-air Furnace
DHW --- Domestic Hot Water

Facility MEP Assessment

The following assessment is limited to readily visible portions of facility MEP systems based on a walk through and interview with district/facility staff. At the end of each school's section, deficiencies and recommendations are identified along with estimated construction costs for improvements.

#1 --- Prescott Elementary School

Prescott elementary school is located at 10410 NE Prescott St., Portland, OR 97220. The school was built in 1947 and it's had several renovations and additions since then. The current main school building is a partial two-story building and there is a separated stand-alone classroom building to the south side of the main building. The total area is approximately 48,544 sq.ft. The school includes classrooms, offices, library, computer room, gym, kitchen, multi-purpose room/cafeteria, restrooms, storage, and mechanical/electrical rooms.

Plumbing

The school uses the city water and sewer system. The plumbing and water fixtures inside the buildings were upgraded in 2013, but the water piping system between the two buildings is still original.

There are two gas-fired tank type domestic hot water heaters to provide domestic hot water for the whole school. One is located in the main building boiler room, and it's a 100-gallon A.O. Smith gas-fired tank heater with 199,000 Btu/hr. of heating capacity that was installed in 2004; the other unit is a 60-gallon A.O. Smith gas-fired tank heater with 125,000 Btu/hr. of heating capacity that was installed in 2002.

HVAC

The whole HVAC system was upgraded in a 2013 renovation project. The main building currently has one central heating system that consists of three Aerco gas-fired condensing hot water boilers with and input heating capacity of 750,000 Btu/hr each.


There are two air handling units with heat recovery connected to a central heating loop to provide heating and ventilation for the gym and multi-purpose room. There are three heat recovery ventilators located in the attic to provide fresh air to the hallway, classrooms and offices. One gas-fired make-up air unit on the roof provides heat and ventilation for the kitchen space. The majority of the main building has a heating water radiator system connected to the central heating loop.






The main building has no central mechanical cooling system, but there are two mini-split units on the roof to provide cooling for the computer lab and IT room.


The stand-alone classroom building is served by 10 packaged rooftop units (RTUs) that use gas-fired furnaces and DX cooling to provide space heating, cooling and ventilation. All units were installed in 2013 as part of the renovation project.



The HVAC control system was upgraded as part of the 2013 project. The main building has a Delta DDC control system that is tied into the district-wide BAS to control all the major HVAC equipment. The separate classroom building has stand-alone programmable thermostats that control the 10 RTUs.



Fire Protection

The main elementary school building has a sprinkler system that receives routine testing and inspection.

Electrical

Electrical Service & Distribution

The school's main distribution panel is in the boiler room and was upgraded in 1987. It's a 1200 A 120/208 V three-phase 4-wire Siemens I-T-E switchboard that provides electrical service for the whole school. Most of the subpanels were upgraded as part of 2013 project and those observed in the walk through have enough space for current conditions.



Lighting

The school's interior lighting is primarily 4' T8 fluorescent lamp fixtures with standard electric ballasts. The majority of the spaces use manual wall switches to control the lights, but some occupancy sensors were noticed during the visit in the gym, cafeteria, computer lab and office spaces. There are also incandescent, CFLs and LEDs in certain places.

The exterior lighting is very minimal–there are fixtures over exterior doors and some wall mounts. They are a mixture of CFL and high-intensity discharge (HID) lamps. The current exterior lights are controlled by photocell sensors.

The interior and exterior lighting retrofit is recommended to make school lighting systems consistent/durable, increase student productivity, and reduce energy consumption.

Communication & Security

The elementary school has an old PA speaker system for operational communications. There was no two-way intercom noticed during the visit. The main office and classrooms have a Polycom IP phone system. The school is served by an extensive Sonitrol security system that includes sensors, card access, and cameras covering exterior and interior locations. The fire alarm system is a Honeywell system and covers the whole school building. Wi-Fi coverage appears to be complete throughout the building.

Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

- Interior and exterior lighting and lighting control retrofit to LED $110,000
- Test and retro commissioning the existing HVAC system $22,000

Recommended and Estimated Construction Costs

- Control upgrade for classroom building $75,000
- Replace old DHWs $60,000
- Replace plumbing pipe between buildings $55,000

#2 --- Russell Elementary School

Russell elementary school is located at 2700 NE 127th Ave., Portland, OR 97230. The school was built in 1963 and it's been through several renovations and additions since then. The latest major addition was to add a multi-purpose room in 2013. The current main school building is a single story building and the total area is approximately 40,036 sq.ft. The school includes classrooms, offices, library, computer room, kitchen, gym/cafeteria, multi-purpose room, restrooms, storage, and mechanical/electrical rooms.

Plumbing

The school uses the city water and sewer system. The plumbing and water fixtures were upgraded in 2013 as part of a previous project.

There are a total of five (5) domestic hot water heaters to provide domestic hot water for the whole school. The major one is a 100-gallon Bradford gas-fired tank type heater with 199,999 Btu/hr. of heating capacity. It was installed in 2013 and is located in the kitchen area to serve the majority of the school's hot water. The other four (4) are tank type electric hot water heaters installed in 2013 to serve specific areas.

HVAC

There is one central heating system that consists of two Advanced Thermal Hydronics gas-fired condensing hot water boilers with an input heating capacity of 1.6 MMBTU each that were installed in 2013. New heating water pipe for whole school was installed at the same time.



The majority of the school uses hot water unit ventilators (UVs) to provide classroom/office heating and ventilation. There are two heating ventilating units (HVs) in the gym attic space to provide the gym and kitchen heating and ventilation. The exterior entrances, corridor and restrooms use heating water radiators to maintain space temperature. All UVs, HVs and radiators are original to the building and replacement is recommended. There is only one ceiling mount hot water fan coil unit that serves the office at the northeast corner of the school. As part of the 2013 project, a multi-purpose room and office space were added. A Mitsubishi split heat pump on the roof provides cooling and heating to the office space. Two 3.3 ton each Aermec reversible air/water heat pumps on the roof provide chilled/heating water to floor radiant panels for cooling and heating in the multi-purpose room. There is one air-to-air heat recovery unit on the roof to provide ventilation to the office and multi-purpose room.

The school has no central cooling system, but two mini split units were noticed on the roof to provide cooling for the computer lab and IT room.

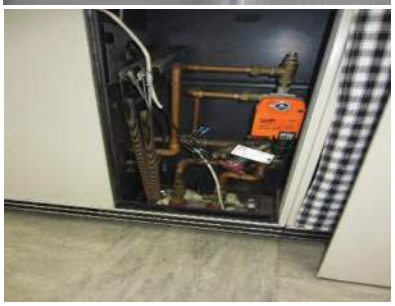







The HVAC control system was upgraded as part of the 2013 project. The school has a Delta DDC control system that is tied into the district-wide BAS to control all the major HVAC equipment.





Fire Protection

The majority of the elementary school has a sprinkler system that is under routine testing and inspection. The 2013 multi-purpose area does not have a sprinkler system.

Electrical

Electrical Service & Distribution

The majority of the electrical system was upgraded in 2013 and the new main distribution panel is in the boiler room. It is an 800 A 120/208 V three-phase 4-wire Siemens switchboard that provide electrical service for the whole school building. Most of the subpanels were upgraded as a part of projects in 1996 and 2013 and the panels observed in the building have enough space for current conditions.



Lighting

The elementary school interior lighting is primarily 4' T8 fluorescent lamp fixtures with standard electric ballasts. There are also incandescent, CFLs and LEDs in certain places. A majority of the school spaces use manual wall switches to control the lights but some occupancy sensors were noticed during the visit in the gym, cafeteria, offices and multi-purpose room. There is one Leviton lighting control system currently used to control hallway lights.

The exterior lighting is a mixture of CFL and high-intensity discharge (HID) lamps. Half of the exterior lights are controlled by photocell sensors. The other half are controlled by the same Leviton system that controls the hallway lights. The lighting for the parking lot could be improved by the addition of more light fixtures.

The interior and exterior lighting retrofit is recommended to make the school lighting systems consistent/durable, increase student productivity, and reduce energy consumption.

Communication & Security

The elementary school has an old PA speaker system for operational communications. There was no two-way intercom noticed during the visit. The main office and classrooms have a Polycom IP phone system. The school is served by an extensive Sonitrol security system that includes sensors, card access, and cameras covering exterior and interior locations. The fire alarm system is a Honeywell system and covers the whole school building. Wi-Fi coverage appears to be complete throughout the building.



Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

- Replace original UVs and HVs $530,000
- Interior and exterior lighting and lighting control retrofit to LED $90,000
- Test and retro commissioning the existing HVAC system $18,000

Recommended and Estimated Construction Costs

- Add fire sprinkler system for multi-purpose room $40,000

#3 --- Sacramento Elementary School

Sacramento Elementary School is located at 11400 NE Sacramento St., Portland, OR 97220. The school was built in 1960 and it's had several additions/renovations. The latest major mechanical, plumbing and control system renovation was in 2013 as part of a bond project. A new multi-purpose room was added as part of that project as well. The current school building is a single floor building, and its area is approximately 41,107 sq.ft. The school includes classrooms, offices, gym/cafeteria, library, multi-purpose room, restrooms, storage and mechanical/electrical rooms.

Plumbing

The school uses the city water and sewer system. The plumbing and water fixtures were upgraded in 2013 and the system is in good condition.

There are two gas-fired tank type domestic hot water heaters located in the boiler room to provide building hot water. One unit is a 100-gallon American Standard gas-fired tank heater with 199,000 Btu/hr. of heating capacity that was installed in 2009. The other unit is a 100-gallon Bradford gas-fired tank heater with 199,999 Btu/hr. of heating capacity that was installed in 2013.

HVAC

The school HVAC system was upgraded in 2013 as part of the bond project. There is one central heating system that contains two condensing gas-fired hot water boilers that were installed in 2013. Each boiler has 3 MMBTU of

input heating capacity that provides heating water to the majority of the building by using two heating water pumps with variable speed drive.



Most spaces are ventilated by fans distributing outside air via tunnels below the corridors to the rooms. Outside air is taken in via the roof and pre-heated with a hot water coil connected to the central heating loop. There is no make-up air unit for the kitchen area.

There are four types of systems to provide space heating. The first is heating water radiators for the corridor and some office spaces. The second is a ducted booster heating water unit in the tunnel that serves classrooms. The third is a heating water fan coil unit that serves the cafeteria and classrooms. The fourth is two packaged heat pump rooftop units that provide heating, cooling and ventilation for the main office (8 tons) and the multi-purpose room (13 tons with heat recovery).

In addition to the packaged heat pump units, there are two mini-split units on the roof to provide cooling for the IT/computer room. There is no central cooling system for the building.






As part of the 2013 project, the control system was upgraded to a centralized Delta DDC system that controls all the major HVAC equipment.



Fire Protection

The elementary school building has a sprinkler system that receives routine testing and inspection.

Electrical

Electrical Service & Distribution

The school electrical system was upgraded in 2013. There is one 800 A 120/208 V three-phase 4-wire main panelboard (Square D) in the boiler room that serves the whole school. Panels observed in the building have enough space for current conditions. Future expansion needs to be re-evaluated if the district wants to add cooling.

Lighting

The interior lighting is primarily 4' T8 fluorescent lamp fixtures with standard electric ballasts. There are also CFLs and incandescent lights in certain places. There are a few occupancy sensors in common areas (cafeteria, multi-purpose room and storage room, etc.) to control the lights, but the majority of the lights are controlled manually.

The exterior lighting is a mixture of CFL, metal halide and high-pressure sodium fixtures, and is controlled by photocell sensors.

An interior and exterior lighting retrofit is recommended to make the school lighting system consistent/durable, increase student productivity, and reduce energy consumption.

Communication & Security

The elementary school has an old PA speaker system for operational communications. There was no two-way intercom noticed during the visit. The main office and classrooms have a Polycom IP phone system. One old Lathem LTR6-384 time clock system was noticed during the visit. The school is served by an extensive Sonitrol security system that includes sensors, card access, and cameras covering exterior and interior locations. The fire alarm system was upgraded to a Honeywell Silent Knight system within the last few years. Wi-Fi coverage appears to be complete throughout the building.



Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

- Interior and exterior lighting and lighting control retrofit to LED $95,000
- Test and retro commissioning the existing HVAC system $21,000

Recommended and Estimated Construction Costs

NA

#4 --- Shaver Elementary School

Shaver elementary school is located at 3701 NE 131st PI., Portland, OR 97230. The school was built in 1963 and has had several renovations and additions. Similar to Russell elementary school, the latest major addition for Shaver elementary school was to add a multi-purpose room in 2013. The main school building is a single story building (north wing and south wing) and its total area is approximately 43,916 sq.ft. The school includes classrooms, offices, library, computer room, kitchen, gym/cafeteria, multi-purpose room, restrooms, storage, and mechanical/electrical rooms.

Plumbing

The school uses the city water and sewer system. The plumbing and water fixtures were upgraded in 2013 as part of a previous project. There was a water leak between the main water supply and boiler room at the parking lot to the northeast of the main building that was fixed a few years ago.

There are three domestic hot water heaters to provide domestic hot water for the school. The major one is a 100-gallon A.O. Smith gas-fired tank type heater with 199,000 Btu/hr. of heating capacity installed in 2003. It is located in the boiler room and provides hot water for the kitchen and north wing of the school. One 80-gallon A.O. Smith electric tank type heater with 3 kW of heating capacity was installed in 2013 and is located in a custodial room. It provides hot water for the south wing. One 30-gallon Bradford electric tank type heater with 4.5 kW of heating capacity was installed in 2013. It provides hot water for the new multi-purpose room.

HVAC

There is one central heating system that consists of two Aerco gas-fired condensing hot water boilers with an input heating capacity of 1.5 MMBTU each that were installed in 2013. They provide heating for the majority of the school.


There is one dual duct (DD) air handling unit (AHU) located in the boiler room to distribute air via tunnels below corridors to dual duct terminal units serving the majority of the school. The AHU pulls in outside air through a sidewall louver and return air is routed below ground in tunnels back to the AHU. Relief air is provided via relief hoods at each classroom. There are two tunnel systems per wing.

The main office area uses two heat pump furnaces installed in 2014 to provide space heating, cooling and ventilation. An electric cadet heater provides heat for the main entrance area. It was also installed in 2014.

A Mitsubishi split heat pump on the roof provides cooling and heating to the multi-purpose office space. There are two 3.3 ton Aermec reversible air/water heat pumps on the roof to provide chilled/heating water to radiant panels in the floor of the multi-purpose room for space cooling and heating. An air-to-air heat recovery unit on the roof provides ventilation to the office and multi-purpose room.

The school has no central cooling system, but a mini-split unit provides cooling for an IT closet.








The majority of the HVAC control system was upgraded as part of the 2013 project. The school has a Delta DDC control system that is tied into the district-wide BAS to control all the major HVAC equipment. The two heat pump furnaces are controlled by stand-alone programmable thermostats with the BAS only monitoring space temperature.




Fire Protection

The majority of the school has a sprinkler system that is under routine testing and inspection. The 2013 multi-purpose area does not have a sprinkler system.

Electrical

Electrical Service & Distribution

The majority of the electrical system was upgraded in 2013/2014 and the new main distribution panel is in the boiler room. It is a 600 A 120/208 V three-phase 4-wire Eaton panelboard that provides electrical service for the whole school building. Most of the subpanels were upgraded as part of projects in 1996 and 2013/2014. The panels observed in the building have enough space for current conditions.

A solar PV system was installed on the multi-purpose room roof in 2013 to provide renewable energy.

Lighting

The interior lighting is primarily 4' and 8' T8 fluorescent lamp fixtures with standard electric ballasts. There are also incandescent, CFLs and LEDs in certain places. A majority of the school spaces use manual wall switches to control the lights but there are some occupancy sensors in the gym/cafeteria, offices and multi-purpose room.

The exterior lighting is a mixture of CFL and high-intensity discharge (HID) lamps. The exterior lighting is controlled by photocell sensors. The lighting for the parking lot could be improved by the addition of more light fixtures.

The interior and exterior lighting retrofit is recommended to make school lighting systems consistent/durable, increase student productivity, and reduce energy consumption.

Communication & Security

The elementary school has an old PA speaker system for operational communications. There was no two-way intercom noticed during the visit. The main office and classrooms have a Polycom IP phone system. The school is served by an extensive Sonitrol security system that includes sensors, card access, and cameras covering exterior and interior locations. The fire alarm system is a Honeywell system that covers the whole school building. Wi-Fi coverage appears to be complete throughout the building.

Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

- Refurbish existing AHU $80,000
- Test and retro commissioning the HVAC system $30,000
- Replace old electrical panels $65,000
- Interior and exterior lighting and lighting control retrofit to LED $100,000

Recommended and Estimated Construction Costs

- Replace old NG DHW $30,000
- Add fire sprinkler system for multi-purpose room $40,000

#5 --- Parkrose Middle School

Parkrose Middle School is located at 11800 NE Shaver St., Portland, OR 97220. The school was built in 2014 to replace the original middle school that was built in 1962. The new middle school is a two-story building except at the northeast corner, which is just one-story and houses the IT department office and boiler/main electrical room. The school's total area is approximately 140,000 sq.ft. It includes classrooms, offices, library, computer room, kitchen, gyms, cafeteria, district IT department, restrooms, storage, and mechanical/electrical rooms.

Plumbing

The school uses the city water and sewer system. Overall, the plumbing system in good condition.

The school has four gas-fired hot water heaters to provide domestic hot water for the whole building. The heaters are located in two different mechanical rooms and each location has two units. Two heaters are in the boiler room and are 100-gallon A.O. Smith gas-fired tank type heaters with 150,000 Btu/hr. of heating capacity each. They were installed in 2014 and provide hot water for classrooms. The other two heaters are located in a mechanical room in the kitchen area and are 100-gallon A.O. Smith gas-fired tank type heaters with 199,900 Btu/hr. of heating capacity each. They were installed in 2014and provide hot water for the kitchen and gym.

HVAC

The middle school has one central heating system that consists of three HydroTherm gas-fired condensing hot water boilers with a heating input capacity of 1,999,999 BTU each that were installed in 2013 to provide heating for rooftop units (RTUs), air handling units (AHUs), radiators and terminal VAV box reheat coils.



The building has eight RTUs and three AHUs to provide heating, cooling and ventilation. Four RTUs, which have air-cooled DXs for cooling and hot water coils for heating, serve classroom sector A, classroom sector B, the arts/band area, and offices. Two RTUs, which have air source heat pumps and hot water coils, serve the media center/computer lab and the main gym. The last two RTUs serve the cafeteria and kitchen and have air source heat pumps for cooling and heating. Most of the units run as variable flow system and have terminal VAV boxes with hot water reheat coil. AHU#1 has a heating water coil and DX cooling connected to a 10-ton air-cooled condensing unit on the roof. It has terminal VAV boxes with HW reheat coils to serve the ground floor IT department. AHU#2 has a heating water coil and air-to-air heat exchanger serving the small gym area. AHU#3 has a heating water coil only to provide the locker rooms with heating and ventilation.

Heating water radiators are used to provide supplemental heat for corridors and perimeter room spaces.

The school does not have a central cooling system, but there are a few mini split units to serve IT rooms.








The middle school has a Delta DDC control system installed in 2013 that is tied into the district-wide BAS to control all the major HVAC equipment.




Fire Protection

The school building has a sprinkler system that receives routine testing and inspection.

Electrical

Electrical Service & Distribution

The main electrical distribution panel is in the main electrical room right beside the boiler room. It is a 1,600 A 480/277 V three-phase 4-wire Square D panelboard that provide electrical service to transformers and subpanels for the whole school building. Overall, the existing electrical infrastructure is in good condition.

A solar PV system and a small wind turbine system were installed as part of the new middle school building project.





There is one Cummins 85 kW natural gas-fired generator beside the main electrical room to provide the school with emergency power.


Lighting

The interior lighting is primarily 4' T8 fluorescent lamp fixtures with standard electric ballasts. There are also CFLs and LEDs noticed in certain places. There is a lighting control system in place to control interior and exterior lights. Most of the classrooms, offices and common areas have occupancy sensors as part of the lighting control.

The exterior lighting is a mixture of CFL and high-intensity discharge (HID) lamps. The lighting control system, in addition to photocell sensors, control the exterior lights.

An interior and exterior lighting retrofit is recommended to make school lighting systems consistent/durable, increase student productivity, and reduce energy consumption.

Communication & Security

The new middle school building has a Telecor all-in-one communication system that provides school intercom and clock services. The school is served by an extensive Sonitrol security system that includes sensors, card access, and cameras covering exterior and interior locations. The fire alarm system is a Honeywell system serving the whole school building. Wi-Fi coverage appears to be complete throughout the building.

Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

- Interior and exterior lighting and lighting control retrofit to LED $215,000
- Test and retro commissioning the existing HVAC system $64,000

Recommended and Estimated Construction Costs

NA

#6 --- Parkrose High School

Parkrose High School is located at 12003 NE Shaver St., Portland, OR 97220. The school was built in 1996 to replace the original high school building. There is one old stand-alone fine arts building, which was built in 1968, to the northwest of the main building. The main high school is a two-story building and the fine arts is a one-story building. The school's total area is approximately 260,497 sq.ft. The school includes classrooms, offices, library, computer room, kitchen, gym, cafeteria, indoor swimming pool, restrooms, storage, and mechanical/electrical rooms.

Plumbing

The school uses the city water and sewer system. The existing irrigation system has leak issues, but the plumbing system is in fair condition overall.

The main school building has two gas-fired hot water heaters to provide domestic hot water. The heaters are located in the main building boiler room with one 400-gallon and one 600-gallon storage tanks. The smaller heater is an A.O. Smith gas-fired heater with 720,000 Btu/hr. of heating capacity installed in 1996. The other heater is an A.O. Smith gas-fired heater with 1,480,000 Btu/hr. of heating capacity installed in 1996. Both units are in fair condition, but they are beyond their expectancy life.

The stand-alone fine arts building has one 80-gallon tank type electric heater with 3.38 kW of heating capacity installed in 1998. It is recommended that unit be replaced.

There is an indoor swimming pool that uses one HydroTherm gas-fired condenisng boiler to heat pool water with an input heating capacity of 1.0 MMBTU. It was installed in the early 2010s. The school is looking at replacing this boiler with a new one due to corrosion of the heat exchanger.



HVAC

The main school building has one central heating system that consists of two Bryan gas-fired hot water boilers with input heating capacities of 7 MMBTU and 4.5 MMBTU. They were installed in 1996 to provide heating for coils in fan systems, radiators and terminal VAV box reheat coils.



The main building has 18 rooftop units (RTUs) installed between 1996 and 1997, but the unit that serves the indoor pool was replaced 12 years ago. They provide space heating, cooling and ventilation. Eight RTUs have gas-fired furnaces as heating source. Seven RTUs are constant volume units and the other 11 RTUs are variable volume that use inlet guide vanes to modulate air flow based on space load. Those 11 VAV RTUs have terminal VAV boxes with hot water reheat coils connected to the central heating system. The district is working with a contractor to replace the existing inlet guide vanes with VFDs to provide better flow control and save energy. Only 14 out of the 18 units have cooling capacity. The RTUs that serve the student center, kitchen and weight lost cooling capacity due to compressor issues. The remote air-cooled condensing unit to cool and dehumidify supply air currently is not working.

The kitchen has two make-up air units with gas-furnaces to provide the kitchen area with ventilation and heat.

The school does not have a central cooling system, but there are a few mini-split units to serve IT rooms.

The fine arts building has five packaged rooftop units with gas-fired furnaces and DX cooling that were installed in 2009 to provide building heating, cooling and ventilation.

The main HS building uses an Alerton electric control system to control all major HVAC equipment. The school district is working with a controls contractor to upgrade the controls to a Delta DDC system and the new DDC system will be tied into the district-wide BAS.

The fine arts building uses five stand-alone programmable thermostats to control the existing RTUs.

It is recommended to replace the RTUs with high efficiency models as they are beyond their useful life, but the district could refurbish them and repair the failed cooling sections as a more economical option.

Fire Protection

The main school building has a sprinkler system that receives routine testing and inspection. No sprinkler system was noticed for the fine arts building.

Electrical

Electrical Service & Distribution

The main electrical distribution panel is in the main electrical room beside the boiler room and it is a 4,000 A 480/277 V three-phase 4-wire Siemens switchboard that provides electrical service to transformers and subpanels for the whole school building. Overall, the existing electrical infrastructure is in good condition.



There is one Kohler 50 kW diesel fired generator outside the mian electrical room to provide the school emergency power.


Lighting

The interior lighting is primarily 4' T8 fluorescent lamp fixtures with standard electric ballasts. There are also CFLs and LEDs noticed in certain places. There is a lighting control system in place to control interior and exterior lights.

The exterior lighting is a mixture of CFL and high-intensity discharge (HID) lamps. The lighting control system, in addition to photocell sensors, controls the exterior lights.

An interior and exterior lighting retrofit is recommended to make the school lighting systems consistent/durable, increase student productivity, and reduce energy consumption.



Communication & Security

The school uses a Peavey PZS 80 with Simplex as the PA and clock system for the whole school. There was no intercom system noticed during the site visit. The school is served by an extensive Sonitrol security system that includes sensors, card access, and cameras covering exterior and interior locations. The fire alarm system is a Honeywell system for the whole school building. Wi-Fi coverage appears to be complete throughout the building.

Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

- Replace indoor pool boiler $75,000
- Repair condensing unit for pool unit $50,000
- Old RTU replacement for main building $3,200,000
- Interior and exterior lighting and lighting control retrofit to LED $500,000
- Test and retro commissioning the HVAC system $85,000

Recommended and Estimated Construction Costs

- Replace old DHWs $120,000
- Repair irrigation piping $35,000
- Control upgrade for fine arts building $105,000

#7 --- Sumner Elementary School

Sumner/Helensview Elementary school is located at 8678 NE Sumner St., Portland, OR 97220. The school was built in 1954 and has had several renovations and additions since then. The building is a single floor and the total area is approximately 40,000 sq.ft. This school is currently used as a leased facility. The building includes classrooms, offices, library, computer lab, kitchen/cafeteria, restrooms, storage, and mechanical/electrical rooms.

Plumbing

The school uses the city water and sewer system. Most of the plumbing fixtures are original with high water usage. Overall, the plumbing system is old and replacement is recommended.

There is one gas-fired State Industries 100-gallon tank type domestic hot water heater located in the boiler room that was installed in 1994 with a heating capacity of 199,990 Btu/hr. This unit is beyond its useful life expectancy and is recommended to be replaced with a new unit.

HVAC

There is one central heating system for the majority of the building that consists of one original gas-fired low pressure steam boiler located in the boiler room. Steam is used directly in fan systems and fin tube radiators. In addition, there is a steam-to-hot water converter in the boiler room to provide heating hot water to floor radiant

panels, but the district maintenance team reports there were some leaking issues in the system so it was shut off. Therefore, some of the spaces do not have floor heating to maintain space heating setpoint during peak winter season. The main office area is served by steam radiators. A heating system replacement is recommended.

Most spaces are ventilated by a fan distributing outside air via tunnels below corridors to rooms. Outside air is taken in via a roof head and pre-heated with a steam coil. Most of the classrooms have ducted booster coils to reheat outside air before it goes into each space. The multi-purpose room is heated and ventilated by a fan coil unit with a steam coil. The school upgraded the kitchen system within the last few years with a new RTU as the make-up air unit.

There is no central cooling system for the building, but some portable ACs were noticed during the visit.

The majority of the existing control system is the original pneumatic system, and it appears minimal Honeywell electronic controls were installed in the 1996 upgrade to provide scheduling control. Some local thermostats are in disrepair. Overall, the control system is in poor condition and a new DDC control system upgrade is recommended in addition to the mechanical system replacement.

Fire Protection

The elementary school building has a sprinkler system that receives routine testing and inspection

Electrical

Electrical Service & Distribution

The main electrical panelboard is located in the boiler room and was replaced in the 1996 renovation project. The current distribution panel is 800 A 208/120 V three-phase 4-wire panelboard (Square D). There are some old electrical panels that were noticed during the visit, but overall the power infrastructure is sufficient to support the current building condition.

Lighting

The interior lighting is primarily 4' T8 fluorescent lamp fixtures with standard electric ballasts and they are controlled by switches. There are also CFLs and incandescent lights in certain places.

The exterior lighting is a mixture of fluorescent, CFL and metal halide fixtures. Most of the exterior lights are controlled by photocell sensors. The lighting for the parking lot could be improved by the addition of more light fixtures.

An interior and exterior lighting retrofit is recommended to make the school lighting system consistent/durable, increase student productivity, and reduce energy consumption.

Communication & Security

No intercom/clock system was observed during the walk through. Only one old PA system was noticed and it is not clear whether the system is functional; building tenants use two-way radios to communicate. The building is served by an extensive Sonitrol security system that includes sensors and cameras covering interior and exterior locations. The building uses a Notifier fire system that was upgraded within the last few years. Wi-Fi coverage appears to be complete throughout the building.



Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

- Upgrade boiler and heating system $800,000
- Replace old HVs and coil heaters $550,000
- Upgrade existing control system $300,000
- Test and retro commissioning the HVAC system $22,000
- Replace old electrical panels $100,000
- Interior and exterior lighting and lighting control retrofit to LED $90,000
- Replace water fixtures and water piping $240,000

Recommended and Estimated Construction Costs

- Replace existing DHW $30,000

#8 --- Wheatley Elementary School

Wheatley/Thompson Elementary school is located at 14030 NE Sacramento St., Portland, OR 97230. The school was built in 1958 as a single floor building and the total area is approximately 40,000 sq.ft. This school is currently used as a leased facility and Multnomah Education Service District uses this building to provide a learning community that fosters academic and vocational growth for students ages K-21. The building includes classrooms, offices, library, computer lab, kitchen, multi-propose room, restrooms, storage, and mechanical/electrical rooms.

Plumbing

The school uses the city water and sewer system. Most of the plumbing fixtures are original with high water usage. The water from the tap flows dusty yellow, which indicates that the existing plumbing piping system is corroded. A plumbing system replacement is recommended.

There is one gas-fired Reliance 100-gallon tank type domestic hot water heater located in the boiler room that was installed in 2019 with a heating capacity of 199,000 Btu/hr.

HVAC

There is one central heating system for the majority of the building that consists of one original Birchfield gas-fired low pressure steam boiler located in the boiler room. Steam is used directly for coils in fan systems and fin tube radiators. The steam is also converted to heating water in the boiler room with a heat converter and pumped to floor radiant panels. Per the district maintenance team, there were some leaking issues in the floor radiant panels so those heating water loops were shut off for certain locations. Therefore, some of the spaces do not have floor heating to help maintain space heating setpoints during peak winter season. A heating system replacement is recommended.



Most spaces are ventilated by a fan distributing outside air via tunnels below corridors to rooms. Outside air is taken in via a sidewall louver and is pre-heated with a steam coil. Most of the classrooms have ducted booster coils to reheat outside air before it goes into each space. The gym area is heated and ventilated by a fan coil unit with a steam coil. Kitchen hood make-up air is transferred from the multi-purpose room.

There is no central cooling system for the building, but window ACs were noticed during the visit for most of the classrooms and offices.





The majority of the existing control system is the original pneumatic system and minimal electronic controls were installed for scheduling major equipment operation. All of the window ACs are controlled manually. Overall, the control system is in poor condition and a new DDC control system upgrade is recommended in addition to the mechanical system replacement.






Fire Protection

The school building has no sprinkler system.

Electrical

Electrical Service & Distribution

The main electrical panelboard is located in the boiler room and is the original one. The current distribution panel (Square D) is 600 A 120/208 V three-phase 4 wire panelboard to provide electrical service for the whole building. There are some old electrical panels noticed during the visit. Overall, the power infrastructure is sufficient for current conditions but replacement of some of the old panels is recommended.

Lighting

The interior lighting is primarily 4' T8 fluorescent lamp fixtures with standard electronic ballasts. There are also CFLs and incandescent lights in certain places. It appears interior lights are controlled by manual switches.

The exterior lighting is a mixture of CFL and metal halide fixtures. Most of the exterior lights are controlled by photocell sensors. The lighting for the parking lot could be improved by the addition of more light fixtures.

An interior and exterior lighting retrofit is recommended to make the school lighting system consistent/durable, increase student productivity, and reduce energy consumption.

Communication & Security

There is one old time control system in place and it is not clear whether the system is functional. The main office and building tenants appear to use an intercom feature from the existing Polycom IP phone system. The building is served by an extensive Sonitrol security system that includes sensors, card access, and cameras covering interior and exterior locations. The building uses a Honeywell fire system. Wi-Fi coverage appears to be complete throughout the building.

Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

- Upgrade boiler and heating system $800,000
- Replace old HVs and coil heaters $550,000
- Upgrade existing control system $300,000

- Test and retro commissioning the HVAC system $22,000
- Replace old electrical panels $140,000
- Interior and exterior lighting and lighting control retrofit to LED $90,000
- Replace water fixtures and water piping $270,000

Recommended and Estimated Construction Costs

- Add fire sprinkler system $250,000

#9 --- Knott Elementary School

Knott Elementary school is located at 11456 NE Knott St., Portland, OR 97220. The school was built in 1951 and has had a few minor renovations. The building is a single floor and the total area is approximately 32,592 sq.ft. This school is currently used as a leased facility with Multnomah Education Service District using the building to provide educational programs for students aged K-21 on IEPs who have had persistent behavior challenges in school. The building includes classrooms, offices, library, computer lab, kitchen, restrooms, storage, and mechanical/electrical rooms.

Plumbing

The school uses the city water and sewer system. Most of the plumbing fixtures are original with high water usage. Overall, the plumbing system is old and replacement is recommended.

There is one gas-fired State Industries 100-gallon tank type domestic hot water heater located in the boiler room that was installed in 1991 with a heating capacity of 199,990 Btu/hr. This unit is beyond its useful life expectancy and it is recommended to replace it with a new unit.

HVAC

There is one central heating system for the majority of the building that consists of one original West Coast gas-fired low pressure steam boiler located in the boiler room. Steam is used directly for coils in fan systems and fin

tube radiators. The steam is also converted to heating water in the boiler room with a heat converter and pumped to floor radiant panels. Per the district maintenance team, there were some leaking issues for floor radiant panels serving the south section of the school so the heating water loops were shut off to that section. Therefore, some of the spaces do not have floor heating to maintain space heating setpoints during peak winter season. A heating system replacement is recommended.

Most spaces are ventilated by a fan distributing outside air via tunnels below corridors to rooms. Outside air is taken in via a roof head and pre-heated with a steam coil. Most of the classrooms have ducted booster coils to reheat outside air before it goes into each space. The gym is heated and ventilated by a fan coil unit with a steam coil. Kitchen ventilation and hood make-up air were not observed during the visit.

There are two packaged units (gas-fired furnace and DX cooling) that were installed in 2018 to provide heating, cooling and ventilation for a couple classrooms at the northwest corner of the facility. They each have a cooling capacity of 3 tons and a heating capacity of 60,000 btu/hr.

There is no central cooling system for the building, but window ACs were noticed during the visit for some classrooms and offices.

The majority of the existing controls are an old electronic system that was upgraded in the 1990s, but most of the rooms use programmable thermostats to control their heating. All the window ACs are controlled manually. Overall, the control system is in poor condition and a new DDC control system upgrade is recommended in addition to the mechanical system replacement.



Fire Protection

The school building has no sprinkler system.

Electrical

Electrical Service & Distribution

The main electrical panelboard is located in the boiler room and is the original one. The current distribution panel is a 400 A 480 V three-phase panelboard working with local transformers to provide electrical service for the whole building. Some old electrical panels were noticed during the visit. Overall, the power infrastructure is sufficient for current conditions but replacement of the old panels is recommended.



Lighting

The interior lighting is primarily 4' T8 & T12 fluorescent lamp fixtures with standard ballasts. There are also CFLs and incandescent lights in certain places. Only a few locations have occupancy sensors to control the lights; most of them are controlled by switches.

The exterior lighting is a mixture of CFL, HID and high pressure sodium fixtures. Most of the exterior lights are controlled by photocell sensors. The lighting for the parking lot could be improved by the addition of more light fixtures.

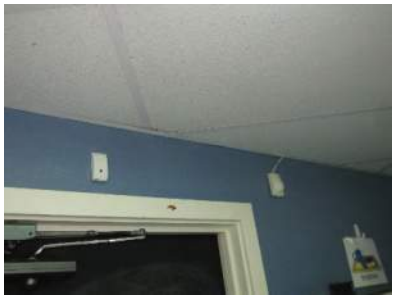
An interior and exterior lighting retrofit is recommended to make the school lighting system consistent/durable, increase student productivity, and reduce energy consumption.

Communication & Security

There is one old intercom system but it is not clear whether the system is functional. The main office and building tenants appear to use the intercom feature from the existing Polycom IP phone system. The building is served by an extensive Sonitrol security system that includes sensors, card access, and cameras covering interior and exterior

locations. The building uses a Honeywell fire system that was upgraded within the last few years. Wi-Fi coverage appears to be complete throughout the building.



Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

• Upgrade boiler and heating system	$680,000
• Replace old HVs and coil heaters	$450,000
• Upgrade existing control system	$240,000
• Test and retro commissioning the HVAC system	$18,000
• Replace old electrical panels	$110,000
• Interior and exterior lighting and lighting control retrofit to LED	$75,000
• Replace water fixtures and water piping	$200,000

Recommended and Estimated Construction Costs

• Replace existing DHW	$30,000
• Add fire sprinkler system	$210,000

#10 --- District Admin/Maintenance

The Parkrose School District admin/maintenance office is located at 10636 NE Prescott St., Portland, OR 97220. The campus includes the district office, maintenance office, bus garage, bus shop, key shop and food warehouse buildings. They are all one floor buildings and were built between 1955 and 1963. The total building area is approximately 20,700 sq.ft.

Plumbing

The buildings use the city water and sewer system. Most plumbing fixtures/system are original with high water consumption.

There is one gas-fired American Water Heater Company 40-gallon tank type domestic hot water heater located in the main administration building's mechanical room. It was installed in 1997 with a heating capacity of 34,000 Btu/hr. This unit is beyond its useful life expectancy and it is recommended to replace it with a new unit.

There is one gas-fired Rheem 40-gallon tank type domestic hot water heater located in the maintenance office work area that was installed in 2013 with a heating capacity of 38,000 Btu/hr.

The bus shop building has one tank type electric hot water heater and it appears the unit is beyond its useful life expectancy, so it is recommended to replace it with a new unit.

HVAC

There are four residential forced-air gas-fired furnaces equipped with split DX coils and condensing units. They are in the mechanical room and provide heating, cooling and ventilation for the district office building. They were installed in 2015. All four forced-air units are controlled by stand-alone programmable thermostats.

There is also one residential forced-air gas-fired furnace equipped with a split DX coil and condensing unit to provide heating, cooling and ventilation for maintenance office spaces. This unit is controlled by a stand-alone programmable thermostat. The maintenance shop area has one gas-fired unit heater that was installed in 1995 and is controlled by a stand-alone thermostat.

The bus shop, food warehouse and key shop use three old gas-fired unit heaters to maintain space temperature and they are all controlled by stand-alone thermostats.

Fire Protection

The buildings have no sprinkler systems.

Electrical

Electrical Service & Distribution

The master distribution panel is located in the main office building mechanical room and was upgraded in 2014. It is a 400 A 240/120 V three-phase four wire Emerson panel to provide electrical service for the whole campus. Some old electrical panels were noticed during the visit for the maintenance building, bus shop, food warehouse

and key shop. Overall, the power infrastructure is sufficient for current conditions but replacement of the old panels is recommended.



Lighting

The majority of interior lighting for the campus is a mixture of 4' T8 fluorescent lamp fixtures with standard electronic ballasts and 4' T12 fluorescent lamp fixtures with standard magnetic ballasts. There are some CFLs and incandescent bulbs still in place. Some occupancy sensors are used in the district office building to control interior lights. The rest of the interior lights are controlled by manual switches.

The parking lot pole lights have been converted to LED and the majority of exterior lights attached to the buildings are either CFLs or high intensity discharge lights. Most of the exterior lights are controlled by photocell sensors.

Communication & Security

The campus uses a Sonitrol security system that includes sensors, card access, and cameras covering the majority of exterior locations. No fire system was noticed during the visit. Wi-Fi coverage appears to be complete throughout the campus.

Recommendation and Estimated Construction Costs

Priority and Estimated Construction Costs

- Test and retro commissioning the HVAC system $12,000
- Interior and exterior lighting and lighting control retrofit to LED $43,000

Recommended and Estimated Construction Costs

- Replace water fixtures and water piping $135,000
- Replace existing DHW $17,000
- Replace old furnace, split DX and gas unit heaters $55,000
- Upgrade existing control system $115,000
- Add fire sprinkler system $130,000

The following table shows the summary of estimated budget costs for each school improvements.

Prescott Elementary School	HVAC						Electrical		Plumbing			Total
	Replace existing old boiler system	Repair Condensing Unit/Chiller	Refurbish AHUs	AHU/HV/RTU/UV/ UH/FF Replacement	Test and retro-commissioning	Control upgrade	Replace old electrical panels	Lighting and lighting control retrofit	Replace water fixtures and water piping for the school	Replace existing old DHW heater	Add fire sprinkler system	
Prescott Elementary School					$ 22,000	$ 75,000		$ 110,000	$ 55,000	$ 60,000		$ 322,000
Russell Elementary School				$ 530,000	$ 18,000			$ 90,000			$ 40,000	$ 678,000
Sacramento Elementary School					$ 21,000			$ 95,000				$ 116,000
Shaver Elementary School			$ 80,000		$ 30,000		$ 65,000	$ 100,000		$ 30,000	$ 40,000	$ 345,000
Parkrose Middle School					$ 64,000			$ 215,000				$ 279,000
Parkrose High School	$ 75,000	$ 50,000		$ 3,200,000	$ 85,000	$ 105,000		$ 500,000	$ 35,000	$ 120,000		$4,170,000
Sumner Elementary / Helensview School*	$ 800,000			$ 550,000	$ 22,000	$ 300,000	$ 100,000	$ 90,000	$ 240,000	$ 30,000		$2,132,000
Thompson Elementary / Wheatley School*	$ 800,000			$ 550,000	$ 22,000	$ 300,000	$ 140,000	$ 90,000	$ 270,000		$ 250,000	$2,422,000
Knott Elementary / Knott Creek School*	$ 680,000			$ 450,000	$ 18,000	$ 240,000	$ 110,000	$ 75,000	$ 200,000	$ 30,000	$ 210,000	$2,013,000
District Admin /Maintenance				$ 55,000	$ 12,000	$ 115,000		$ 43,000	$ 135,000	$ 17,000	$ 130,000	$ 507,000

Priority
Recommended

AHU	---	Air Handling Unit
HV	---	Heating Ventilating Unit
RTU	---	Rooftop Unit
UV	---	Unit Ventilator
UH	---	Unit Heater
FF	---	Forced-air Furnace
DHW	---	Domestic Hot Water

APPENDIX C

AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE)

EQUIPMENT LIFE EXPECTANCY CHART

APPENDIX C
ASHRAE EQUIPMENT LIFE EXPECTANCY CHART

Equipment Item	Median Years
Air conditioners	
Window unit	10
Residential single or Split	
Package	15
Commercial through-the wall	15
Water-cooled package	15
Heat Pumps	
Residential air-to-air	15
Commercial air-to-air	15
Commercial water-to-air	19
Roof-top air conditioners	
Single-zone	15
Multi-zone	15
Boilers, hot water (steam)	
Steel water-tube	24 (30)
Steel fire-tube	25 (25)
Cast iron	35 (30)
Electric	15
Burners	21
Furnaces	
Gas- or oil-fired	18
Unit heaters	
Gas or electric	13
Hot water or steam	20
Radiant Heaters	
Electric	10
Hot water or steam	25

Equipment Item	Median Years
Air terminals	
Diffusers, grilles, and registers	27
Induction and fan coil units	20
VAV and double-duct boxes	20
Air washers	17
Ductwork	30
Dampers	20
Fans	
Centrifugal	25
Axial	20
Propeller	15
Ventilating roof-mounted	20
Coils	
DX, water, or steam	20
Electric	15
Heat Exchangers	
Shell-and-tube	24
Reciprocating compressors	20
Packaged chillers	
Reciprocating	20
Centrifugal	23
Absorption	23
Cooling towers	
Galvanized metal	20
Wood	20
Ceramic	34

Equipment Item	Median Years
Air-cooled condensers	20
Evaporative condensers	20
Insulation	
Molded	20
Blanket	24
Pumps	
Base-mounted	20
Pipe-mounted	10
Sump and well	10
Condensate 15	
Reciprocating engines	20
Steam turbines	30
Electric motors	18
Motor starters	17
Electric transformers	30
Controls	
Pneumatic	20
Electric	16
Electronic	15
Valve actuators	
Hydraulic	15
Pneumatic	20
Self-contained	10

APPENDIX D

OREGON DEPARTMENT OF EDUCATION (ODE)

FACILITIES CONDITION ASSESSMENT REPORTS

District Name: Parkrose SD 3
Site Name: Prescott Elementary School
Building Name: Main
Building ID: 21810100

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A SUBSTRUCTURE												
	A10 Foundations											
		A1010 Standard Foundations		35%	X None	Minor	Moderate	Major	Replace		$0	
		A1020 Special Foundations			None	Minor	Moderate	Major	Replace		$0	
		A1030 Slab on Grade		65%	X None	Minor	Moderate	Major	Replace		$0	
	A20 Basement Construction											
		A2010 Basement Excavation	NOT USED		None	Minor	Moderate	Major	Replace			
		A2020 Basement Walls		100%	X None	Minor	Moderate	Major	Replace		$0	
B SHELL												
	B10 Superstructure											
		B1010 Floor Construction	Wood	100%	X None	Minor	Moderate	Major	Replace		$0	
			Steel		None	Minor	Moderate	Major	Replace		$0	
			Concrete		None	Minor	Moderate	Major	Replace		$0	
		B1020 Roof Construction	Wood	100%	X None	Minor	Moderate	Major	Replace		$0	
			Steel		None	Minor	Moderate	Major	Replace		$0	
			Concrete		None	Minor	Moderate	Major	Replace		$0	
	B20 Exterior Enclosure											
		B2010 Exterior Walls	Concrete Formed / Tilt		None	Minor	Moderate	Major	Replace		$0	
			Masonry		None	Minor	Moderate	Major	Replace		$0	
			Framed w/ Wood Siding	40%	None	Minor	Moderate	Major	X Replace	50%	$319,050	
			Framed w/Metal Panel		None	Minor	Moderate	Major	Replace		$0	
			Framed w/Stucco		None	Minor	Moderate	Major	Replace		$0	
			Framed w/Masonry Veneer	60%	None	Minor	X Moderate	Major	Replace	50%	$46,150	
		B2020 Exterior Windows	Wood		None	Minor	Moderate	Major	Replace		$0	
			Aluminum/Steel		None	Minor	Moderate	Major	Replace		$0	
			Clad	100%	None	Minor	Moderate	Major	X Replace	80%	$475,261	
			Curtain Wall		None	Minor	Moderate	Major	Replace		$0	
		B2030 Exterior Doors	Wood		None	Minor	Moderate	Major	Replace		$0	
			Hollow Metal	15	None	Minor	Moderate	X Major	Replace	100%	$25,120	Upgrade hardware + repaint
			Storefront		None	Minor	Moderate	Major	Replace		$0	
	B30 Roofing											
		B3010 Roof Coverings	Asphalt Shingle		None	Minor	Moderate	Major	Replace		$0	
			Built-Up	100%	None	Minor	Moderate	Major	Replace		$0	Missing data on roofing report
			Single Ply		None	Minor	Moderate	Major	Replace		$0	
			Metal		None	Minor	Moderate	Major	Replace		$0	
			Concrete Tile		None	Minor	Moderate	Major	Replace		$0	
		B3020 Roof Openings	Skylights		None	Minor	Moderate	Major	Replace		$0	By Building GSF
			Access Hatch		None	Minor	Moderate	Major	Replace		$0	Per hatch

District Name: Parkrose SD 3
Site Name: Prescott Elementary School
Building Name: Main
Building ID: 21810100

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C INTERIORS												
	C10 Interior Construction											
		C1010 Partitions	Framed	95%	X None	Minor	Moderate	Major	Replace		$0	
			Masonry	5%	X None	Minor	Moderate	Major	Replace		$0	
		C1020 Interior Doors	Wood	62	None	Minor	X Moderate	Major	Replace	50%	$31,947	Upgrade hardware
			Hollow Metal	5	None	Minor	X Moderate	Major	Replace	100%	$5,153	Upgrade hardware + repaint
		C1030 Fittings	NOT USED		None	Minor	Moderate	Major	Replace			
	C20 Stairs											
		C2010 Stair Construction	Wood	3	X None	Minor	Moderate	Major	Replace		$0	Cost/Flight
			Metal		None	Minor	Moderate	Major	Replace		$0	Cost/Flight
			Concrete	2	X None	Minor	Moderate	Major	Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill		None	Minor	Moderate	Major	Replace		$0	Cost/Flight
			Resilient	100	None	Minor	Moderate	Major	X Replace	10%	$32,205	Cost/Flight
	C30 Interior Finishes											
		C3010 Wall Finishes	Paint on Masonry	5%	X None	Minor	Moderate	Major	Replace		$0	
			Wallboard	75%	None	Minor	X Moderate	Major	Replace	10%	$11,538	
			Wainscot	15%	X None	Minor	Moderate	Major	Replace		$0	
			Ceramic Tile	5%	X None	Minor	Moderate	Major	Replace		$0	
		C3020 Floor Finishes	Carpet / Soft Surface	5%	X None	Minor	Moderate	Major	Replace		$0	
			Resilient Tile	75%	None	X Minor	Moderate	Major	Replace	15%	$7,105	
			Resilient Sheet	5%	X None	Minor	Moderate	Major	Replace		$0	
			Polished Concrete		None	Minor	Moderate	Major	Replace		$0	
			Ceramic Tile	5%	X None	Minor	Moderate	Major	Replace		$0	
			Liquid Applied	5%	X None	Minor	Moderate	Major	Replace		$0	
			Wood Sports Floor	5%	None	Minor	Moderate	Major	Replace		$0	
		C3030 Ceiling Finishes	Wallboard	10%	X None	Minor	Moderate	Major	Replace		$0	
			Lay-In Ceiling Tile	45%	X None	Minor	Moderate	Major	Replace		$0	
			Glued-Up Ceiling Tile	40%	X None	Minor	Moderate	Major	Replace		$0	
			Painted Structure	5%	X None	Minor	Moderate	Major	Replace		$0	

District Name: Parkrose SD 3
Site Name: Prescott Elementary School
Building Name: Main
Building ID: 21810100

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D SERVICES																	
	D10 Conveying																
		D1010 Elevators & Lifts		2		None		Minor		Moderate		Major	X	Replace	100%	$132,448	Broken platform lift at Stage
		D1020 Escalators & Moving Walks				None		Minor		Moderate		Major		Replace		$0	
		D1090 Other Conveying Systems				None		Minor		Moderate		Major		Replace		$0	
	D20 Plumbing																
		D2010 Plumbing Fixtures		100%	N	None		Minor		Moderate		Major		Replace	0%	$55,000	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	15%	$60,000	Estimate to replace old DHWs and water pipe between buildings
		D2030 Sanitary Waste		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2040 Rain Water Drainage		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D30 HVAC																
		D3010 Energy Supply		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	NG on site for heating and kitchen
		D3020 Heat Generating Systems	Boiler	65%	N	None		Minor		Moderate		Major		Replace	0%	$0	3 condensing boilers installed in 2013
			Air Handler	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	Package RTUs for CR building (2013); Main building has (2) HVs with heat recovery section for gym and cafeteria, (3) heat recovery ventilators to provide OA and (1) make-up air unit for kitchen
			Furnace	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Heat Exchanger	65%	N	None		Minor		Moderate		Major		Replace	0%	$0	Main building has 2 HVs with heat recovery section for gym and cafeteria and 3 heat recovery ventilators to provide OA
		D3030 Cooling Generating Systems	Component of air handler	35%	N	None		Minor		Moderate		Major		Replace	0%	$0	Package RTUs for stand-alone classroom building installed in 2013
			Stand alone chiller	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3040 Distribution Systems	Ductwork	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Hot water return & supply	65%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3050 Terminal & Package Units	Above ceiling VAV unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room ventilator unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room radiant unit	40%	N	None		Minor		Moderate		Major		Replace	0%	$0	HW radiator for main building CRs + offices
		D3060 Controls & Instrumentation		100%	Y	None		Minor		Moderate		Major	X	Replace	35%	$75,000	Control upgrae for classroom building
		D3070 Systems Testing & Balancing		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$22,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	D40 Fire Protection																
		D4010 Sprinklers		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4020 Standpipes		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D50 Electrical																
		D5010 Electrical Service & Distribution		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5020 Lighting and Branch Wiring		100%	Y	None		Minor		Moderate	X	Major		Replace	100%	$110,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Clock / Intercom System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Closed Circuit Surveillance	100%	N	None		Minor		Moderate		Major	x	Replace	0%	$0	
			Access Control System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Intrusion Alarm System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Fire Alarm / Detection	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Lighting Control System	35%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED			None		Minor		Moderate		Major		Replace			

District Name: Parkrose SD 3
Site Name: Prescott Elementary School
Building Name: Main
Building ID: 21810100

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E EQUIPMENT & FURNISHINGS												
	E10 Equipment											
		E1010 Commercial Equipment	Food Service	100%	None	X Minor	Moderate	Major	Replace	15%	$4,221	
			Vocational		None	Minor	Moderate	Major	Replace		$0	
		E1020 Institutional Equipment	Science		None	Minor	Moderate	Major	Replace		$0	
			Art		None	Minor	Moderate	Major	Replace		$0	
			Stage Performance		None	Minor	Moderate	Major	Replace		$0	
			Restroom Accessories/Stalls	100%	None	X Minor	Moderate	Major	Replace	20%	$2,752	
		E1030 Vehicular Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
		E1090 Other Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
	E20 Furnishings											
		E2010 Fixed Furnishings		100% X	None	Minor	Moderate	Major	Replace		$0	
		E2020 Movable Furnishings		100% X	None	Minor	Moderate	Major	Replace		$0	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED												
G BUILDING SITE WORK												
	G10 Site Preparation		NOT USED									
	G20 Site Improvements											
		G2010 Roadways		7833	None	Minor	Moderate	X Major	Replace	100%	$65,588	Cost/SF of surface area
		G2020 Parking Lots		44000 X	None	Minor	Moderate	Major	Replace		$0	Cost/SF of surface area
		G2030 Pedestrian Paving		12031 X	None	Minor	Moderate	Major	Replace		$0	Cost/SF of surface area
		G2040 Site Development		1430 X	None	Minor	Moderate	Major	Replace		$0	Cost/LF of fencing
		G2050 Landscaping		153066 X	None	Minor	Moderate	Major	Replace		$0	Cost/SF of irrigated area
	G30 Site Mechanical Utilities											
		G3010 Water Supply	Domestic		None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E143
			Fire		None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E144
		G3020 Sanitary Sewer			None	Minor	Moderate	Major	Replace		$0	Enter LF of sewer lines in cell E145
		G3030 Storm Sewer			None	Minor	Moderate	Major	Replace		$0	Enter SF of area to be drained
		G3040 Heating Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of heating ducts in cell E147
		G3050 Cooling Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of duct work in cell E148
		G3060 Fuel Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of natural gas lines in cell E149
		G3090 Other Site Mechanical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
	G40 Site Electrical Utilities											
		G4010 Electrical Distribution	Service	100% X	None	Minor	Moderate	Major	Replace		$0	
			Generator		None	Minor	Moderate	Major	Replace		$0	
		G4020 Site Lighting		100% X	None	Minor	Moderate	Major	Replace		$0	
		G4030 Site Communications & Security			None	Minor	Moderate	Major	Replace		$0	
		G4090 Other Site Electrical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
	G90 Other Site Construction		NOT USED									

OTHER

	Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
					$0	
					$0	
					$0	
					$0	

Physical Condition Budget Sub-Total	**$1,480,538**
Budgeted Development Costs	**$562,605**
Physical Condition Budget TOTAL	**$2,043,143**
Cost with Escalation to June 2021	$2,329,183
Cost with Escalation to June 2022	**$2,422,350**
Cost with Escalation to June 2023	$2,519,244
Replacement Budget	**$24,820,062**
Facility Condition Index (FCI)	**9.4%**

District Name: Parkrose SD 3
Site Name: Russell Academy
Building Name: Main
Building ID: 21810200

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A SUBSTRUCTURE																	
	A10 Foundations																
		A1010 Standard Foundations				None		Minor		Moderate		Major		Replace		$0	
		A1020 Special Foundations				None		Minor		Moderate		Major		Replace		$0	
		A1030 Slab on Grade		100%	X	None		Minor		Moderate		Major		Replace		$0	
	A20 Basement Construction																
		A2010 Basement Excavation	NOT USED			None		Minor		Moderate		Major		Replace			
		A2020 Basement Walls				None		Minor		Moderate		Major		Replace		$0	
B SHELL																	
	B10 Superstructure																
		B1010 Floor Construction	Wood	100%	X	None		Minor		Moderate		Major		Replace		$0	
			Steel			None		Minor		Moderate		Major		Replace		$0	
			Concrete			None		Minor		Moderate		Major		Replace		$0	
		B1020 Roof Construction	Wood	90%	X	None		Minor		Moderate		Major		Replace		$0	
			Steel	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Concrete			None		Minor		Moderate		Major		Replace		$0	
	B20 Exterior Enclosure																
		B2010 Exterior Walls	Concrete Formed / Tilt			None		Minor		Moderate		Major		Replace		$0	
			Masonry			None		Minor		Moderate		Major		Replace		$0	
			Framed w/ Wood Siding	10%		None		Minor		Moderate	X	Major		Replace	100%	$30,016	
			Framed w/Metal Panel			None		Minor		Moderate		Major		Replace		$0	
			Framed w/Stucco			None		Minor		Moderate		Major		Replace		$0	
			Framed w/Masonry Veneer	90%		None		Minor		Moderate	X	Major		Replace	60%	$124,769	
		B2020 Exterior Windows	Wood			None		Minor		Moderate		Major		Replace		$0	
			Aluminum/Steel			None		Minor		Moderate		Major		Replace		$0	
			Clad	100%	X	None		Minor		Moderate		Major		Replace		$0	
			Curtain Wall			None		Minor		Moderate		Major		Replace		$0	
		B2030 Exterior Doors	Wood			None		Minor		Moderate		Major		Replace		$0	
			Hollow Metal	28		None		Minor	X	Moderate		Major		Replace	100%	$36,070	Upgrade hardware and paint
			Storefront	10	X	None		Minor		Moderate		Major		Replace		$0	
	B30 Roofing																
		B3010 Roof Coverings	Asphalt Shingle			None		Minor		Moderate		Major		Replace		$0	
			Built-Up	100%		None		Minor		Moderate		Major	X	Replace	20%	$268,187	Scheduled 2027
			Single Ply			None		Minor		Moderate		Major		Replace		$0	
			Metal			None		Minor		Moderate		Major		Replace		$0	
			Concrete Tile			None		Minor		Moderate		Major		Replace		$0	
		B3020 Roof Openings	Skylights			None		Minor		Moderate		Major		Replace		$0	By Building GSF
			Access Hatch			None		Minor		Moderate		Major		Replace		$0	Per hatch

District Name: Parkrose SD 3
Site Name: Russell Academy
Building Name: Main
Building ID: 21810200

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C INTERIORS																	
	C10 Interior Construction																
		C1010 Partitions	Framed	80%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry	20%	X	None		Minor		Moderate		Major		Replace		$0	
		C1020 Interior Doors	Wood	80		None		Minor	X	Moderate		Major		Replace	100%	$82,445	Door hardware
			Hollow Metal	22		None		Minor		Moderate	X	Major		Replace	100%	$31,174	Door hardware, paint
		C1030 Fittings	NOT USED			None		Minor		Moderate		Major		Replace			
	C20 Stairs																
		C2010 Stair Construction	Wood			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Metal			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Concrete			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Resilient			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
	C30 Interior Finishes																
		C3010 Wall Finishes	Paint on Masonry	20%	X	None		Minor		Moderate		Major		Replace		$0	Clear sealer (not paint)
			Wallboard	75%		None		Minor	X	Moderate		Major		Replace	50%	$47,577	
			Wainscot			None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile	5%		None		Minor		Moderate		Major	X	Replace	100%	$6,266	
		C3020 Floor Finishes	Carpet / Soft Surface	5%		None		Minor		Moderate		Major		Replace		$0	
			Resilient Tile	70%		None		Minor		Moderate	X	Major		Replace	100%	$171,846	
			Resilient Sheet	10%		None		Minor		Moderate		Major	X	Replace	50%	$30,945	
			Polished Concrete	10%		None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile	5%		None		Minor		Moderate		Major		Replace		$0	
			Liquid Applied			None		Minor		Moderate		Major		Replace		$0	
			Wood Sports Floor			None		Minor		Moderate		Major		Replace		$0	
		C3030 Ceiling Finishes	Wallboard	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Lay-In Ceiling Tile	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Glued-Up Ceiling Tile	80%		None		Minor		Moderate		Major	X	Replace	25%	$48,893	Cafeteria Tectum panels, minor CR replacement
			Painted Structure	10%	X	None		Minor		Moderate		Major		Replace		$0	Stained exposed GLBs throughout

District Name: Parkrose SD 3
Site Name: Russell Academy
Building Name: Main
Building ID: 21810200

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D SERVICES												
	D10 Conveying											
		D1010 Elevators & Lifts			None	Minor	Moderate	Major	Replace	0%	$0	
		D1020 Escalators & Moving Walks			None	Minor	Moderate	Major	Replace	0%	$0	
		D1090 Other Conveying Systems			None	Minor	Moderate	Major	Replace	0%	$0	
	D20 Plumbing											
		D2010 Plumbing Fixtures		100%	None	Minor	Moderate	Major	Replace	0%	$0	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	None	Minor	Moderate	Major	Replace	0%	$0	System upgraded in 2013 project and DHWs replaced in 2013
		D2030 Sanitary Waste		100%	None	Minor	Moderate	Major	Replace	0%	$0	
		D2040 Rain Water Drainage		100%	None	Minor	Moderate	Major	Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED		None	Minor	Moderate	Major	Replace			
	D30 HVAC											
		D3010 Energy Supply		100%	None	Minor	Moderate	Major	Replace	0%	$0	NG on site
		D3020 Heat Generating Systems	Boiler	85%	None	Minor	Moderate	Major	Replace	0%	$0	Boiler installed in 2013 to provide HW to majority of the building except new multi-purpose room
			Air Handler	35%	None	Minor	Moderate	Major	X Replace	50%	$53,000	HVs and DOAS for gym, kitchen and multi-purpose room. Estimate included in UV system replacement for gym and kitchen units
			Furnace	0%	None	Minor	Moderate	Major	Replace	0%	$0	
			Heat Exchanger	15%	None	Minor	Moderate	Major	Replace	0%	$0	DOAS unit with heat recover for new MPR (2013)
		D3030 Cooling Generating Systems	Component of air handler	0%	None	Minor	Moderate	Major	Replace	0%	$0	
			Stand alone chiller	15%	None	Minor	Moderate	Major	Replace	0%	$0	(2) Aermec reversible air/water heat pumps on roof provide chilled water + heating water to MPR floor radiant panel (2014)
		D3040 Distribution Systems	Ductwork	35%	None	Minor	Moderate	Major	Replace	0%	$0	
			Hot water return & supply	85%	None	Minor	Moderate	Major	Replace	0%	$0	
		D3050 Terminal & Package Units	Above ceiling VAV unit	0%	None	Minor	Moderate	Major	Replace	0%	$0	
			In-room ventilator unit	65%	None	Minor	Moderate	Major	X Replace	100%	$530,000	Uvs and HVs replacement
			In-room radiant unit	0%	None	Minor	Moderate	Major	Replace	0%	$0	
		D3060 Controls & Instrumentation		100%	None	Minor	Moderate	Major	Replace	0%	$0	
		D3070 Systems Testing & Balancing		100%	None	Minor	Moderate	Major	X Replace	100%	$18,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
	D40 Fire Protection											
		D4010 Sprinklers		85%	None	Minor	Moderate	Major	X Replace	100%	$40,000	Add fire sprinkler system for MPR
		D4020 Standpipes		0%	None	Minor	Moderate	Major	Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	None	Minor	Moderate	Major	Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED		None	Minor	Moderate	Major	Replace			
	D50 Electrical											
		D5010 Electrical Service & Distribution		100%	None	Minor	Moderate	Major	Replace	0%	$0	
		D5020 Lighting and Branch Wiring		100%	None	Minor	Moderate	X Major	Replace	100%	$90,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	None	Minor	Moderate	Major	Replace	0%	$0	
			Clock / Intercom System	100%	None	Minor	Moderate	Major	Replace	0%	$0	
			Closed Circuit Surveillance	100%	None	Minor	Moderate	Major	Replace	0%	$0	
			Access Control System	100%	None	Minor	Moderate	Major	Replace	0%	$0	
			Intrusion Alarm System	100%	None	Minor	Moderate	Major	Replace	0%	$0	
			Fire Alarm / Detection	100%	None	Minor	Moderate	Major	Replace	0%	$0	
			Lighting Control System	35%	None	Minor	Moderate	Major	Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED		None	Minor	Moderate	Major	Replace			

District Name: Parkrose SD 3
Site Name: Russell Academy
Building Name: Main
Building ID: 21810200

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						None		Minor		Moderate		Major		Replace as part of Renovation			
E EQUIPMENT & FURNISHINGS																	
	E10 Equipment																
		E1010 Commercial Equipment	Food Service	20%		None	X	Minor		Moderate		Major		Replace	100%	$4,642	Kitchen Equipment
			Vocational			None		Minor		Moderate		Major		Replace		$0	
		E1020 Institutional Equipment	Science			None		Minor		Moderate		Major		Replace		$0	
			Art			None		Minor		Moderate		Major		Replace		$0	
			Stage Performance			None		Minor		Moderate		Major		Replace		$0	
			Restroom Accessories/Stalls	100%		None	X	Minor		Moderate		Major		Replace	50%	$5,673	
		E1030 Vehicular Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
		E1090 Other Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	E20 Furnishings																
		E2010 Fixed Furnishings		100%		None		Minor		Moderate		Major	X	Replace	80%	$384,539	
		E2020 Movable Furnishings		100%		None		Minor		Moderate		Major	X	Replace	20%	$247,557	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED																	
G BUILDING SITE WORK																	
	G10 Site Preparation		NOT USED														
	G20 Site Improvements																
		G2010 Roadways		5940		None		Minor		Moderate	X	Major		Replace	50%	$24,869	Cost/SF of surface area
		G2020 Parking Lots		16139		None		Minor		Moderate	X	Major		Replace	50%	$67,568	Cost/SF of surface area
		G2030 Pedestrian Paving		6812		None		Minor		Moderate	X	Major		Replace	50%	$39,488	Cost/SF of surface area
		G2040 Site Development		2300	X	None		Minor		Moderate		Major		Replace		$0	Cost/LF of fencing
		G2050 Landscaping		341000	X	None		Minor		Moderate		Major		Replace		$0	Cost/SF of irrigated area
	G30 Site Mechanical Utilities																
		G3010 Water Supply	Domestic	100	X	None		Minor		Moderate		Major		Replace		$0	Enter LF of pipe in cell E143
			Fire			None		Minor		Moderate		Major		Replace		$0	Enter LF of pipe in cell E144
		G3020 Sanitary Sewer		100	X	None		Minor		Moderate		Major		Replace		$0	Enter LF of sewer lines in cell E145
		G3030 Storm Sewer				None		Minor		Moderate		Major		Replace		$0	Enter SF of area to be drained
		G3040 Heating Distribution				None		Minor		Moderate		Major		Replace		$0	Enter LF of heating ducts in cell E147
		G3050 Cooling Distribution				None		Minor		Moderate		Major		Replace		$0	Enter LF of duct work in cell E148
		G3060 Fuel Distribution				None		Minor		Moderate		Major		Replace		$0	Enter LF of natural gas lines in cell E149
		G3090 Other Site Mechanical Utilities	NOT USED			None		Minor		Moderate		Major		Replace			
	G40 Site Electrical Utilities																
		G4010 Electrical Distribution	Service	100%	X	None		Minor		Moderate		Major		Replace		$0	
			Generator			None		Minor		Moderate		Major		Replace		$0	
		G4020 Site Lighting		100%	X	None		Minor		Moderate		Major		Replace		$0	
		G4030 Site Communications & Security				None		Minor		Moderate		Major		Replace		$0	
		G4090 Other Site Electrical Utilities	NOT USED			None		Minor		Moderate		Major		Replace			
	G90 Other Site Construction		NOT USED														

OTHER

	Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
					$0	
					$0	
					$0	
					$0	

Physical Condition Budget Sub-Total	**$2,383,523**
Budgeted Development Costs	**$905,739**
Physical Condition Budget TOTAL	**$3,289,262**
Cost with Escalation to June 2021	$3,749,759
Cost with Escalation to June 2022	**$3,899,749**
Cost with Escalation to June 2023	$4,055,739
Replacement Budget	**$20,470,006**
Facility Condition Index (FCI)	**18.3%**

District Name: Parkrose SD 3
Site Name: Sacramento Elementary School
Building Name: Main
Building ID: 21810300

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A SUBSTRUCTURE																	
	A10 Foundations																
		A1010 Standard Foundations				None		Minor		Moderate		Major		Replace		$0	
		A1020 Special Foundations				None		Minor		Moderate		Major		Replace		$0	
		A1030 Slab on Grade		100%	X	None		Minor		Moderate		Major		Replace		$0	
	A20 Basement Construction																
		A2010 Basement Excavation	NOT USED			None		Minor		Moderate		Major		Replace			
		A2020 Basement Walls				None		Minor		Moderate		Major		Replace		$0	
B SHELL																	
	B10 Superstructure																
		B1010 Floor Construction	Wood			None		Minor		Moderate		Major		Replace		$0	
			Steel			None		Minor		Moderate		Major		Replace		$0	
			Concrete	100%	X	None		Minor		Moderate		Major		Replace		$0	
		B1020 Roof Construction	Wood			None		Minor		Moderate		Major		Replace		$0	
			Steel			None		Minor		Moderate		Major		Replace		$0	
			Concrete			None		Minor		Moderate		Major		Replace		$0	
	B20 Exterior Enclosure																
		B2010 Exterior Walls	Concrete Formed / Tilt	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry			None		Minor		Moderate		Major		Replace		$0	
			Framed w/ Wood Siding			None		Minor		Moderate		Major		Replace		$0	
			Framed w/Metal Panel	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Framed w/Stucco			None		Minor		Moderate		Major		Replace		$0	
			Framed w/Masonry Veneer	80%	X	None		Minor		Moderate		Major		Replace		$0	
		B2020 Exterior Windows	Wood			None		Minor		Moderate		Major		Replace		$0	
			Aluminum/Steel			None		Minor		Moderate		Major		Replace		$0	
			Clad	100%	X	None		Minor		Moderate		Major		Replace		$0	
			Curtain Wall			None		Minor		Moderate		Major		Replace		$0	
		B2030 Exterior Doors	Wood			None		Minor		Moderate		Major		Replace		$0	
			Hollow Metal	15		None		Minor	X	Moderate		Major		Replace	50%	$9,662	Minor hardware upgrade, paint
			Storefront	8	X	None		Minor		Moderate		Major		Replace		$0	
	B30 Roofing																
		B3010 Roof Coverings	Asphalt Shingle			None		Minor		Moderate		Major		Replace		$0	
			Built-Up			None		Minor		Moderate		Major		Replace		$0	
			Single Ply	100%		None		Minor		Moderate	X	Major		Replace	100%	$598,910	
			Metal			None		Minor		Moderate		Major		Replace		$0	
			Concrete Tile			None		Minor		Moderate		Major		Replace		$0	
		B3020 Roof Openings	Skylights			None		Minor		Moderate		Major		Replace		$0	By Building GSF
			Access Hatch			None		Minor		Moderate		Major		Replace		$0	Per hatch

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C INTERIORS																	
	C10 Interior Construction																
		C1010 Partitions	Framed	90%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry	10%	X	None		Minor		Moderate		Major		Replace		$0	
		C1020 Interior Doors	Wood	112		None		Minor	X	Moderate		Major		Replace	65%	$75,025	Hardware
			Hollow Metal	12		None		Minor	X	Moderate		Major		Replace	100%	$12,367	Upgrade hardware + repaint
		C1030 Fittings	NOT USED			None		Minor		Moderate		Major		Replace			
	C20 Stairs																
		C2010 Stair Construction	Wood			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Metal			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Concrete			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Resilient			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
	C30 Interior Finishes																
		C3010 Wall Finishes	Paint on Masonry	10%		None	X	Minor		Moderate		Major		Replace	100%	$11,862	
			Wallboard	75%		None	X	Minor		Moderate		Major		Replace	25%	$20,056	
			Wainscot	10%		None		Minor		Moderate		Major	X	Replace	100%	$7,096	Tectum panels at Gym / Cafeteria
			Ceramic Tile	5%	X	None		Minor		Moderate		Major		Replace		$0	
		C3020 Floor Finishes	Carpet / Soft Surface	7%		None		Minor		Moderate		Major	X	Replace	25%	$6,190	
			Resilient Tile	75%		None		Minor		Moderate	X	Major		Replace	20%	$37,809	
			Resilient Sheet	8%		None		Minor		Moderate		Major	X	Replace	50%	$25,418	
			Polished Concrete	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Liquid Applied			None		Minor		Moderate		Major		Replace		$0	
			Wood Sports Floor			None		Minor		Moderate		Major		Replace		$0	
		C3030 Ceiling Finishes	Wallboard	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Lay-In Ceiling Tile	50%	X	None		Minor		Moderate		Major		Replace		$0	
			Glued-Up Ceiling Tile	25%	X	None		Minor		Moderate		Major		Replace		$0	
			Painted Structure	15%	X	None		Minor		Moderate		Major		Replace		$0	

District Name: Parkrose SD 3
Site Name: Sacramento Elementary School
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D SERVICES																	
	D10 Conveying																
		D1010 Elevators & Lifts		0	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D1020 Escalators & Moving Walks		0	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D1090 Other Conveying Systems		0	N	None		Minor		Moderate		Major		Replace	0%	$0	
	D20 Plumbing																
		D2010 Plumbing Fixtures		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	2009 and 2013 gas-fired DHWs
		D2030 Sanitary Waste		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2040 Rain Water Drainage		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D30 HVAC																
		D3010 Energy Supply		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	Gas to boiler and kitchen area
		D3020 Heat Generating Systems	Boiler	80%	N	None		Minor		Moderate		Major		Replace	0%	$0	Gas-fired condensing HW boilers installed in 2013
			Air Handler	40%	N	None		Minor		Moderate		Major		Replace	0%	$0	Package HP RTU for main office + MPR; FCUs for cafeteria and CRs (2013)
			Furnace	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Heat Exchanger	12%	N	None		Minor		Moderate		Major		Replace	0%	$0	Heat recovery unit for MPR (2013)
		D3030 Cooling Generating Systems	Component of air handler	15%	N	None		Minor		Moderate		Major		Replace	0%	$0	Package HP RTU for main office + MPR (2013)
			Stand alone chiller	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3040 Distribution Systems	Ductwork	40%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Hot water return & supply	85%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3050 Terminal & Package Units	Above ceiling VAV unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room ventilator unit	30%	N	None		Minor		Moderate		Major		Replace	0%	$0	ducted booster HW heater and HW FCU
			In-room radiant unit	60%	N	None		Minor		Moderate		Major		Replace	0%	$0	HW radiator
		D3060 Controls & Instrumentation		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3070 Systems Testing & Balancing		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$21,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	D40 Fire Protection																
		D4010 Sprinklers		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4020 Standpipes		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D50 Electrical																
		D5010 Electrical Service & Distribution		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5020 Lighting and Branch Wiring		100%	Y	None		Minor		Moderate	X	Major		Replace	100%	$95,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Clock / Intercom System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Closed Circuit Surveillance	100%	N	None		Minor		Moderate		Major	x	Replace	0%	$0	
			Access Control System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Intrusion Alarm System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Fire Alarm / Detection	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Lighting Control System	35%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED			None		Minor		Moderate		Major		Replace			

District Name: Parkrose SD 3
Site Name: Sacramento Elementary School
Building Name: Main
Building ID: 21810300

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Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number	LEVEL OF ACTION	% of System or Finish	Automated Budget Estimate	Notes
E EQUIPMENT & FURNISHINGS								
	E10 Equipment							
		E1010 Commercial Equipment	Food Service	100%	Replace	25%	$31,110	Walk-ins are orgininal, need replacement
			Vocational		Moderate		$0	
		E1020 Institutional Equipment	Science		Minor		$0	
			Art		Minor		$0	
			Stage Performance		Minor		$0	
			Restroom Accessories/Stalls	100%	Minor	50%	$5,825	Minor ADA upgrades
		E1030 Vehicular Equipment	NOT USED					
		E1090 Other Equipment	NOT USED					
	E20 Furnishings							
		E2010 Fixed Furnishings		100%	Replace	40%	$197,413	
		E2020 Movable Furnishings		100%	Replace	5%	$63,545	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED								
G BUILDING SITE WORK								
	G10 Site Preparation		NOT USED					
	G20 Site Improvements							
		G2010 Roadways		2623	Major	100%	$21,963	Cost/SF of surface area
		G2020 Parking Lots		15561	Major	50%	$65,148	Cost/SF of surface area
		G2030 Pedestrian Paving		13014	Moderate		$0	Cost/SF of surface area
		G2040 Site Development		121346	Moderate		$0	Cost/LF of fencing
		G2050 Landscaping		388467	Major		$0	Cost/SF of irrigated area
	G30 Site Mechanical Utilities							
		G3010 Water Supply	Domestic	100	Moderate		$0	Enter LF of pipe in cell E143
			Fire		Major		$0	Enter LF of pipe in cell E144
		G3020 Sanitary Sewer		100	Moderate		$0	Enter LF of sewer lines in cell E145
		G3030 Storm Sewer			Moderate		$0	Enter SF of area to be drained
		G3040 Heating Distribution			Moderate		$0	Enter LF of heating ducts in cell E147
		G3050 Cooling Distribution			Moderate		$0	Enter LF of duct work in cell E148
		G3060 Fuel Distribution			Moderate		$0	Enter LF of natural gas lines in cell E149
		G3090 Other Site Mechanical Utilities	NOT USED					
	G40 Site Electrical Utilities							
		G4010 Electrical Distribution	Service	100%	Minor		$0	
			Generator		Moderate		$0	
		G4020 Site Lighting		100%	Minor		$0	
		G4030 Site Communications & Security			Minor		$0	
		G4090 Other Site Electrical Utilities	NOT USED					
	G90 Other Site Construction		NOT USED					

OTHER

Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
				$0	
				$0	
				$0	
				$0	

Physical Condition Budget Sub-Total	**$1,305,399**
Budgeted Development Costs	**$496,052**
Physical Condition Budget TOTAL	**$1,801,451**
Cost with Escalation to June 2021	$2,053,654
Cost with Escalation to June 2022	**$2,135,800**
Cost with Escalation to June 2023	$2,221,232
Replacement Budget	**$21,017,598**
Facility Condition Index (FCI)	**9.8%**

District Name: Parkrose SD 3
Site Name: Shaver Elementary School
Building Name: Main
Building ID: 21810400

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A SUBSTRUCTURE																	
	A10 Foundations																
		A1010 Standard Foundations		15%	X	None		Minor		Moderate		Major		Replace		$0	
		A1020 Special Foundations				None		Minor		Moderate		Major		Replace		$0	
		A1030 Slab on Grade		85%	X	None		Minor		Moderate		Major		Replace		$0	
	A20 Basement Construction																
		A2010 Basement Excavation	NOT USED			None		Minor		Moderate		Major		Replace			
		A2020 Basement Walls				None		Minor		Moderate		Major		Replace		$0	
B SHELL																	
	B10 Superstructure																
		B1010 Floor Construction	Wood	100%	X	None		Minor		Moderate		Major		Replace		$0	
			Steel			None		Minor		Moderate		Major		Replace		$0	
			Concrete			None		Minor		Moderate		Major		Replace		$0	
		B1020 Roof Construction	Wood	90%	X	None		Minor		Moderate		Major		Replace		$0	
			Steel	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Concrete			None		Minor		Moderate		Major		Replace		$0	
	B20 Exterior Enclosure																
		B2010 Exterior Walls	Concrete Formed / Tilt			None		Minor		Moderate		Major		Replace		$0	
			Masonry			None		Minor		Moderate		Major		Replace		$0	
			Framed w/ Wood Siding	10%		None		Minor	X	Moderate		Major		Replace	25%	$4,342	
			Framed w/Metal Panel	15%	X	None		Minor		Moderate		Major		Replace		$0	
			Framed w/Stucco	30%		None		Minor		Moderate	X	Major		Replace	50%	$49,388	
			Framed w/Masonry Veneer	45%		None		Minor	X	Moderate		Major		Replace	20%	$12,525	
		B2020 Exterior Windows	Wood			None		Minor		Moderate		Major		Replace		$0	
			Aluminum/Steel			None		Minor		Moderate		Major		Replace		$0	
			Clad	100%	X	None		Minor		Moderate		Major		Replace		$0	
			Curtain Wall			None		Minor		Moderate		Major		Replace		$0	
		B2030 Exterior Doors	Wood			None		Minor		Moderate		Major		Replace		$0	
			Hollow Metal	10		None		Minor	X	Moderate		Major		Replace	100%	$12,882	Upgrade hardware + repaint
			Storefront	10	X	None		Minor		Moderate		Major		Replace		$0	
	B30 Roofing																
		B3010 Roof Coverings	Asphalt Shingle			None		Minor		Moderate		Major		Replace		$0	
			Built-Up			None		Minor		Moderate		Major		Replace		$0	
			Single Ply	100%		None		Minor		Moderate		Major	X	Replace	100%	$1,357,742	
			Metal			None		Minor		Moderate		Major		Replace		$0	
			Concrete Tile			None		Minor		Moderate		Major		Replace		$0	
		B3020 Roof Openings	Skylights			None		Minor		Moderate		Major		Replace		$0	By Building GSF
			Access Hatch			None		Minor		Moderate		Major		Replace		$0	Per hatch

District Name: Parkrose SD 3
Site Name: Shaver Elementary School
Building Name: Main
Building ID: 21810400

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					LEVEL OF ACTION										
Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number		None		Minor		Moderate		Major		Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
C INTERIORS																	
	C10 Interior Construction																
		C1010 Partitions	Framed	85%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry	15%	X	None		Minor		Moderate		Major		Replace		$0	
		C1020 Interior Doors	Wood	100		None		Minor	X	Moderate		Major		Replace	50%	$51,528	Upgrade hardware
			Hollow Metal	17		None		Minor	X	Moderate		Major		Replace	100%	$17,520	Upgrade hardware + repaint
		C1030 Fittings	NOT USED			None		Minor		Moderate		Major		Replace			
	C20 Stairs																
		C2010 Stair Construction	Wood			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Metal			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Concrete	1	X	None		Minor		Moderate		Major		Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill	1	X	None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Resilient			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
	C30 Interior Finishes																
		C3010 Wall Finishes	Paint on Masonry	10%		None	X	Minor		Moderate		Major		Replace	25%	$3,168	Clear sealer on masonry
			Wallboard	90%		None		Minor	X	Moderate		Major		Replace	30%	$37,576	
			Wainscot			None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile			None		Minor		Moderate		Major		Replace		$0	
		C3020 Floor Finishes	Carpet / Soft Surface	5%		None		Minor		Moderate		Major	X	Replace	50%	$9,448	
			Resilient Tile	70%		None		Minor		Moderate		Major	X	Replace	10%	$26,929	
			Resilient Sheet	15%		None		Minor		Moderate		Major	X	Replace	20%	$20,366	
			Polished Concrete	5%	X	None		Minor		Moderate		Major		Replace		$0	Sealed concrete
			Ceramic Tile			None		Minor		Moderate		Major		Replace		$0	
			Liquid Applied	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Wood Sports Floor			None		Minor		Moderate		Major		Replace		$0	
		C3030 Ceiling Finishes	Wallboard	20%	X	None		Minor		Moderate		Major		Replace		$0	
			Lay-In Ceiling Tile	30%		None	X	Minor		Moderate		Major		Replace	25%	$4,243	
			Glued-Up Ceiling Tile	40%		None	X	Minor		Moderate		Major		Replace	20%	$2,942	
			Painted Structure	10%	X	None		Minor		Moderate		Major		Replace		$0	

District Name: Parkrose SD 3
Site Name: Shaver Elementary School
Building Name: Main
Building ID: 21810400

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D SERVICES																	
	D10 Conveying																
		D1010 Elevators & Lifts		0	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D1020 Escalators & Moving Walks		0	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D1090 Other Conveying Systems		0	N	None		Minor		Moderate		Major		Replace	0%	$0	
	D20 Plumbing																
		D2010 Plumbing Fixtures		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$30,000	Replace existing old NG DHW
		D2030 Sanitary Waste		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2040 Rain Water Drainage		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D30 HVAC																
		D3010 Energy Supply		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	NG on site
		D3020 Heat Generating Systems	Boiler	75%	N	None		Minor		Moderate		Major		Replace	0%	$0	Boiler installed 2013, serves majority of the building except new MPR + main office
			Air Handler	100%	Y	None		Minor		Moderate	X	Major		Replace	75%	$80,000	DD unit for most areas, HP furnaces for main office, DOAS for MPR. Refurbish DD unit
			Furnace	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Heat Exchanger	15%	N	None		Minor		Moderate		Major		Replace	0%	$0	DOAS unit with heat recover for new MPR installed in 2013
		D3030 Cooling Generating Systems	Component of air handler	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Stand alone chiller	25%	N	None		Minor		Moderate		Major		Replace	0%	$0	(2) Aermec reversible air/water heat pumps on roof provides chilled water + heating water to MPR floor radiant panel installed in 2014. (2) split HPs to furnaces serving main office area (2014)
		D3040 Distribution Systems	Ductwork	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Hot water return & supply	75%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3050 Terminal & Package Units	Above ceiling VAV unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room ventilator unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room radiant unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3060 Controls & Instrumentation		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3070 Systems Testing & Balancing		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$30,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	D40 Fire Protection																
		D4010 Sprinklers		85%	Y	None		Minor		Moderate		Major	X	Replace	100%	$40,000	Add fire sprinkler system for multi-purpose room
		D4020 Standpipes		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D50 Electrical																
		D5010 Electrical Service & Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	15%	$65,000	Replace old electrical panels
		D5020 Lighting and Branch Wiring		100%	Y	None		Minor		Moderate	X	Major		Replace	100%	$100,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Clock / Intercom System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Closed Circuit Surveillance	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Access Control System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Intrusion Alarm System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Fire Alarm / Detection	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Lighting Control System	35%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED			None		Minor		Moderate		Major		Replace			

District Name: Parkrose SD 3
Site Name: Shaver Elementary School
Building Name: Main
Building ID: 21810400

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E EQUIPMENT & FURNISHINGS												
	E10 Equipment											
		E1010 Commercial Equipment	Food Service	100%							$0	
			Vocational				Moderate				$0	
		E1020 Institutional Equipment	Science			Minor					$0	
			Art			Minor					$0	
			Stage Performance			Minor					$0	
			Restroom Accessories/Stalls	100%							$0	
		E1030 Vehicular Equipment	NOT USED									
		E1090 Other Equipment	NOT USED									
	E20 Furnishings											
		E2010 Fixed Furnishings		100%			Moderate			50%	$66,473	
		E2020 Movable Furnishings		100%					Replace	10%	$135,774	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED												
G BUILDING SITE WORK												
	G10 Site Preparation		NOT USED									
	G20 Site Improvements											
		G2010 Roadways		6200			Moderate	Major		100%	$51,914	Cost/SF of surface area
		G2020 Parking Lots		33016			Moderate	Major		50%	$138,226	Cost/SF of surface area
		G2030 Pedestrian Paving		13359		Minor	Moderate	Major		25%	$38,720	Cost/SF of surface area
		G2040 Site Development		1037		Minor	Moderate				$0	Cost/LF of fencing
		G2050 Landscaping		302529		Minor	Moderate				$0	Cost/SF of irrigated area
	G30 Site Mechanical Utilities											
		G3010 Water Supply	Domestic	100		Minor	Moderate				$0	Enter LF of pipe in cell E143
			Fire			Minor	Moderate				$0	Enter LF of pipe in cell E144
		G3020 Sanitary Sewer		1200		Minor	Moderate	Major	Replace	50%	$34,781	Sewer break in parking lot
		G3030 Storm Sewer									$0	Enter SF of area to be drained
		G3040 Heating Distribution				Minor	Moderate	Major			$0	Enter LF of heating ducts in cell E147
		G3050 Cooling Distribution				Minor	Moderate	Major			$0	Enter LF of duct work in cell E148
		G3060 Fuel Distribution				Minor	Moderate	Major			$0	Enter LF of natural gas lines in cell E149
		G3090 Other Site Mechanical Utilities	NOT USED									
	G40 Site Electrical Utilities											
		G4010 Electrical Distribution	Service	100%			Moderate				$0	
			Generator								$0	
		G4020 Site Lighting		100%		Minor		Major			$0	
		G4030 Site Communications & Security				Minor	Moderate	Major			$0	
		G4090 Other Site Electrical Utilities	NOT USED									
	G90 Other Site Construction		NOT USED									

OTHER

Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
				$0	
				$0	
				$0	
				$0	

Physical Condition Budget Sub-Total	**$2,421,487**
Budgeted Development Costs	**$920,165**
Physical Condition Budget TOTAL	**$3,341,652**
Cost with Escalation to June 2021	$3,809,483
Cost with Escalation to June 2022	**$3,961,863**
Cost with Escalation to June 2023	$4,120,337
Replacement Budget	**$22,453,812**
Facility Condition Index (FCI)	**17.0%**

District Name: Parkrose SD 3
Site Name: Parkrose Middle School
Building Name: Main
Building ID: 21810500

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A SUBSTRUCTURE													
	A10 Foundations												
		A1010 Standard Foundations		20%	X	None	Minor	Moderate	Major	Replace		$0	
		A1020 Special Foundations				None	Minor	Moderate	Major	Replace		$0	
		A1030 Slab on Grade		80%	X	None	Minor	Moderate	Major	Replace		$0	
	A20 Basement Construction												
		A2010 Basement Excavation	NOT USED			None	Minor	Moderate	Major	Replace			
		A2020 Basement Walls		100%	X	None	Minor	Moderate	Major	Replace		$0	
B SHELL													
	B10 Superstructure												
		B1010 Floor Construction	Wood			None	Minor	Moderate	Major	Replace		$0	
			Steel	100%	X	None	Minor	Moderate	Major	Replace		$0	
			Concrete			None	Minor	Moderate	Major	Replace		$0	
		B1020 Roof Construction	Wood			None	Minor	Moderate	Major	Replace		$0	
			Steel	100%	X	None	Minor	Moderate	Major	Replace		$0	
			Concrete			None	Minor	Moderate	Major	Replace		$0	
	B20 Exterior Enclosure												
		B2010 Exterior Walls	Concrete Formed / Tilt			None	Minor	Moderate	Major	Replace		$0	
			Masonry	15%	X	None	Minor	Moderate	Major	Replace		$0	
			Framed w/ Wood Siding			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Metal Panel	15%	X	None	Minor	Moderate	Major	Replace		$0	
			Framed w/Stucco			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Masonry Veneer	70%	X	None	Minor	Moderate	Major	Replace		$0	
		B2020 Exterior Windows	Wood			None	Minor	Moderate	Major	Replace		$0	
			Aluminum/Steel	100%	X	None	Minor	Moderate	Major	Replace		$0	
			Clad			None	Minor	Moderate	Major	Replace		$0	
			Curtain Wall			None	Minor	Moderate	Major	Replace		$0	
		B2030 Exterior Doors	Wood			None	Minor	Moderate	Major	Replace		$0	
			Hollow Metal	18		None	Minor	X Moderate	Major	Replace	50%	$11,594	Hardware
			Storefront	26		None	Minor	X Moderate	Major	Replace	50%	$20,096	Hardware
	B30 Roofing												
		B3010 Roof Coverings	Asphalt Shingle			None	Minor	Moderate	Major	Replace		$0	
			Built-Up	85%	X	None	Minor	Moderate	Major	Replace		$0	
			Single Ply			None	Minor	Moderate	Major	Replace		$0	
			Metal	15%	X	None	Minor	Moderate	Major	Replace		$0	
			Concrete Tile			None	Minor	Moderate	Major	Replace		$0	
		B3020 Roof Openings	Skylights	10%	X	None	Minor	Moderate	Major	Replace		$0	By Building GSF
			Access Hatch	4	X	None	Minor	Moderate	Major	Replace		$0	Per hatch

District Name: Parkrose SD 3
Site Name: Parkrose Middle School
Building Name: Main
Building ID: 21810500

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					LEVEL OF ACTION											
Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number		None		Minor		Moderate		Major		Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
C INTERIORS																	
	C10 Interior Construction																
		C1010 Partitions	Framed	90%		None		Minor		Moderate		Major	X	Replace	1%	$28,260	Cracking at corridor walls
			Masonry	10%	X	None		Minor		Moderate		Major		Replace		$0	
		C1020 Interior Doors	Wood	294		None		Minor	X	Moderate		Major		Replace	25%	$75,746	Hardware
			Hollow Metal	28		None		Minor	X	Moderate		Major		Replace	50%	$14,428	Hardware
		C1030 Fittings	NOT USED			None		Minor		Moderate		Major		Replace			
	C20 Stairs																
		C2010 Stair Construction	Wood			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Metal	4		None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Concrete	4		None		Minor		Moderate		Major		Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill	4	X	None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Resilient	4		None		Minor		Moderate		Major	X	Replace	100%	$12,882	Cost/Flight
	C30 Interior Finishes																
		C3010 Wall Finishes	Paint on Masonry	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Wallboard	65%	X	None		Minor		Moderate		Major		Replace		$0	
			Wainscot	15%	X	None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile	5%	X	None		Minor		Moderate		Major		Replace		$0	
		C3020 Floor Finishes	Carpet / Soft Surface	5%		None		Minor		Moderate		Major	X	Replace	50%	$33,443	High traffic areas / areas with light color
			Resilient Tile	15%	X	None		Minor		Moderate		Major		Replace		$0	
			Resilient Sheet	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Polished Concrete	55%	X	None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Liquid Applied	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Wood Sports Floor	5%	X	None		Minor		Moderate		Major		Replace		$0	
		C3030 Ceiling Finishes	Wallboard	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Lay-In Ceiling Tile	65%	X	None		Minor		Moderate		Major		Replace		$0	
			Glued-Up Ceiling Tile	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Painted Structure	15%	X	None		Minor		Moderate		Major		Replace		$0	

District Name: Parkrose SD 3
Site Name: Parkrose Middle School
Building Name: Main
Building ID: 21810500

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						LEVEL OF ACTION										
Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number		None		Minor		Moderate		Major		Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
D	**SERVICES**																
	D10 Conveying																
		D1010 Elevators & Lifts		2	X	None		Minor		Moderate		Major		Replace		$0	
		D1020 Escalators & Moving Walks				None		Minor		Moderate		Major		Replace		$0	
		D1090 Other Conveying Systems				None		Minor		Moderate		Major		Replace		$0	
	D20 Plumbing																
		D2010 Plumbing Fixtures		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	New building & new system
		D2030 Sanitary Waste		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2040 Rain Water Drainage		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D30 HVAC																
		D3010 Energy Supply		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	NG on site
		D3020 Heat Generating Systems	Boiler	90%	N	None		Minor		Moderate		Major		Replace	0%	$0	Boilers were installed in 2013
			Air Handler	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	8 RTUs and 3 AHUs for whole building
			Furnace	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Heat Exchanger	5%	N	None		Minor		Moderate		Major		Replace	0%	$0	AHU with HX serves small gym
		D3030 Cooling Generating Systems	Component of air handler	75%	N	None		Minor		Moderate		Major		Replace	0%	$0	8 RTUs have DX cooling for majority of the school
			Stand alone chiller	15%	N	None		Minor		Moderate		Major		Replace	0%	$0	condensing unit for one AHU serves groud floor IT department
		D3040 Distribution Systems	Ductwork	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Hot water return & supply	90%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3050 Terminal & Package Units	Above ceiling VAV unit	90%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room ventilator unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room radiant unit	30%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3060 Controls & Instrumentation		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3070 Systems Testing & Balancing		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$64,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	D40 Fire Protection																
		D4010 Sprinklers		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4020 Standpipes		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D50 Electrical																
		D5010 Electrical Service & Distribution		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5020 Lighting and Branch Wiring		100%	Y	None		Minor		Moderate	X	Major		Replace	100%	$215,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Clock / Intercom System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Closed Circuit Surveillance	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Access Control System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Intrusion Alarm System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Fire Alarm / Detection	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Lighting Control System	70%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED			None		Minor		Moderate		Major		Replace			

District Name:	Parkrose SD 3
Site Name:	Parkrose Middle School
Building Name:	Main
Building ID:	21810500

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Level 1 / Level 2 / Level 3	Type (as applicable)	% of Building or Number	LEVEL OF ACTION: None	Minor	Moderate	Major	Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
E EQUIPMENT & FURNISHINGS										
E10 Equipment										
E1010 Commercial Equipment	Food Service	100%	X None	Minor	Moderate	Major	Replace		$0	
	Vocational	100%	X None	Minor	Moderate	Major	Replace		$0	
E1020 Institutional Equipment	Science	100	X None	Minor	Moderate	Major	Replace		$0	
	Art	100	X None	Minor	Moderate	Major	Replace		$0	
	Stage Performance	100	X None	Minor	Moderate	Major	Replace		$0	
	Restroom Accessories/Stalls	100%	X None	Minor	Moderate	Major	Replace		$0	
E1030 Vehicular Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
E1090 Other Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
E20 Furnishings										
E2010 Fixed Furnishings		100%	X None	Minor	Moderate	Major	Replace		$0	
E2020 Movable Furnishings		100%	X None	Minor	Moderate	Major	Replace		$0	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED										
G BUILDING SITE WORK										
G10 Site Preparation	NOT USED									
G20 Site Improvements										
G2010 Roadways		81308	X None	Minor	Moderate	Major	Replace		$0	Cost/SF of surface area
G2020 Parking Lots		13161	X None	Minor	Moderate	Major	Replace		$0	Cost/SF of surface area
G2030 Pedestrian Paving		47607	X None	Minor	Moderate	Major	Replace		$0	Cost/SF of surface area
G2040 Site Development		2051	X None	Minor	Moderate	Major	Replace		$0	Cost/LF of fencing
G2050 Landscaping		241032	X None	Minor	Moderate	Major	Replace		$0	Cost/SF of irrigated area
G30 Site Mechanical Utilities										
G3010 Water Supply	Domestic	100	X None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E143
	Fire	100	X None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E144
G3020 Sanitary Sewer		100	X None	Minor	Moderate	Major	Replace		$0	Enter LF of sewer lines in cell E145
G3030 Storm Sewer			None	Minor	Moderate	Major	Replace		$0	Enter SF of area to be drained
G3040 Heating Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of heating ducts in cell E147
G3050 Cooling Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of duct work in cell E148
G3060 Fuel Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of natural gas lines in cell E149
G3090 Other Site Mechanical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
G40 Site Electrical Utilities										
G4010 Electrical Distribution	Service	100%	X None	Minor	Moderate	Major	Replace		$0	
	Generator		None	Minor	Moderate	Major	Replace		$0	
G4020 Site Lighting		100%	X None	Minor	Moderate	Major	Replace		$0	
G4030 Site Communications & Security			None	Minor	Moderate	Major	Replace		$0	
G4090 Other Site Electrical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
G90 Other Site Construction	NOT USED									

OTHER

Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
				$0	
				$0	
				$0	
				$0	

Physical Condition Budget Sub-Total	**$475,448**
Budgeted Development Costs	**$180,670**
Physical Condition Budget TOTAL	**$656,118**
Cost with Escalation to June 2021	$747,975
Cost with Escalation to June 2022	**$777,894**
Cost with Escalation to June 2023	$809,010
Replacement Budget	**$83,149,944**
Facility Condition Index (FCI)	**0.9%**

District Name: Parkrose SD 3
Site Name: Parkrose High School
Building Name: Main
Building ID: 21810600

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A SUBSTRUCTURE																	
	A10 Foundations																
		A1010 Standard Foundations				None		Minor		Moderate		Major		Replace		$0	
		A1020 Special Foundations				None		Minor		Moderate		Major		Replace		$0	
		A1030 Slab on Grade		100%	X	None		Minor		Moderate		Major		Replace		$0	
	A20 Basement Construction																
		A2010 Basement Excavation	NOT USED			None		Minor		Moderate		Major		Replace			
		A2020 Basement Walls		100%	X	None		Minor		Moderate		Major		Replace		$0	
B SHELL																	
	B10 Superstructure																
		B1010 Floor Construction	Wood	65%	X	None		Minor		Moderate		Major		Replace		$0	
			Steel	35%	X	None		Minor		Moderate		Major		Replace		$0	
			Concrete			None		Minor		Moderate		Major		Replace		$0	
		B1020 Roof Construction	Wood	25%	X	None		Minor		Moderate		Major		Replace		$0	
			Steel	75%	X	None		Minor		Moderate		Major		Replace		$0	
			Concrete			None		Minor		Moderate		Major		Replace		$0	
	B20 Exterior Enclosure																
		B2010 Exterior Walls	Concrete Formed / Tilt	8%		None		Minor	X	Moderate		Major		Replace	50%	$43,624	Repair / repaint exterior of FAB
			Masonry			None		Minor		Moderate		Major		Replace		$0	
			Framed w/ Wood Siding			None		Minor		Moderate		Major		Replace		$0	
			Framed w/Metal Panel	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Framed w/Stucco	50%		None		Minor		Moderate	X	Major		Replace	100%	$976,515	
			Framed w/Masonry Veneer	32%		None		Minor	X	Moderate		Major		Replace	20%	$52,832	
		B2020 Exterior Windows	Wood			None		Minor		Moderate		Major		Replace		$0	
			Aluminum/Steel	90%	X	None		Minor		Moderate		Major		Replace		$0	
			Clad			None		Minor		Moderate		Major		Replace		$0	
			Curtain Wall	10%	X	None		Minor		Moderate		Major		Replace		$0	
		B2030 Exterior Doors	Wood			None		Minor		Moderate		Major		Replace		$0	
			Hollow Metal	63		None		Minor	X	Moderate		Major		Replace	50%	$40,578	Upgrade hardware
			Storefront			None		Minor		Moderate		Major		Replace		$0	
	B30 Roofing																
		B3010 Roof Coverings	Asphalt Shingle			None		Minor		Moderate		Major		Replace		$0	
			Built-Up	30%		None		Minor	X	Moderate		Major		Replace	100%	$400,673	
			Single Ply	40%		None		Minor		Moderate	X	Major		Replace	100%	$1,518,129	
			Metal	10%		None		Minor		Moderate		Major	X	Replace	10%	$107,383	Underside of entry canopies
			Concrete Tile			None		Minor		Moderate		Major		Replace		$0	
		B3020 Roof Openings	Skylights			None		Minor		Moderate		Major		Replace		$0	By Building GSF
			Access Hatch			None		Minor		Moderate		Major		Replace		$0	Per hatch

District Name: Parkrose SD 3
Site Name: Parkrose High School
Building Name: Main
Building ID: 21810600

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Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number		None		Minor		Moderate		Major		Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
C INTERIORS																	
	C10 Interior Construction																
		C1010 Partitions	Framed	90%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry	10%	X	None		Minor		Moderate		Major		Replace		$0	
		C1020 Interior Doors	Wood	390		None		Minor	X	Moderate		Major		Replace	35%	$140,671	Upgrade hardware
			Hollow Metal	42		None		Minor	X	Moderate		Major		Replace	100%	$43,284	Upgrade hardware, paint
		C1030 Fittings	NOT USED			None		Minor		Moderate		Major		Replace			
	C20 Stairs																
		C2010 Stair Construction	Wood			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Metal	8	X	None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Concrete			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill	4		None	X	Minor		Moderate		Major		Replace		$0	Cost/Flight
			Resilient	4		None		Minor		Moderate		Major	X	Replace	50%	$6,441	Cost/Flight
	C30 Interior Finishes																
		C3010 Wall Finishes	Paint on Masonry	10%		None	X	Minor		Moderate		Major		Replace	30%	$22,550	
			Wallboard	60%	X	None		Minor		Moderate		Major		Replace		$0	
			Wainscot	20%		None		Minor		Moderate		Major	X	Replace	25%	$22,483	
			Ceramic Tile	10%	X	None		Minor		Moderate		Major		Replace		$0	
		C3020 Floor Finishes	Carpet / Soft Surface	15%		None		Minor		Moderate		Major	X	Replace	75%	$252,183	
			Resilient Tile	53%		None		Minor		Moderate	X	Major		Replace	10%	$84,658	
			Resilient Sheet	7%	X	None		Minor		Moderate		Major		Replace		$0	
			Polished Concrete	8%		None		Minor		Moderate		Major	X	Replace	10%	$24,161	FAB Concrete floors in classrooms
			Ceramic Tile	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Liquid Applied			None		Minor		Moderate		Major		Replace		$0	
			Wood Sports Floor	7%	X	None		Minor		Moderate		Major		Replace		$0	
		C3030 Ceiling Finishes	Wallboard	20%	X	None		Minor		Moderate		Major		Replace		$0	
			Lay-In Ceiling Tile	58%		None	X	Minor		Moderate		Major		Replace	15%	$29,195	
			Glued-Up Ceiling Tile	10%	X	None		Minor		Moderate		Major		Replace		$0	
			Painted Structure	12%		None		Minor		Moderate		Major	X	Replace	20%	$25,852	Exterior canopies at entry peeling

District Name: Parkrose SD 3
Site Name: Parkrose High School
Building Name: Main
Building ID: 21810600

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D SERVICES																	
	D10 Conveying																
		D1010 Elevators & Lifts		3	X	None		Minor		Moderate		Major		Replace		$0	
		D1020 Escalators & Moving Walks				None		Minor		Moderate		Major		Replace		$0	
		D1090 Other Conveying Systems				None		Minor		Moderate		Major		Replace		$0	
	D20 Plumbing																
		D2010 Plumbing Fixtures		100%	N	None		Minor		Moderate		Major		Replace	0%	$35,000	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	0%	$120,000	Replace old DHWs
		D2030 Sanitary Waste		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2040 Rain Water Drainage		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D30 HVAC																
		D3010 Energy Supply		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	NG on site
		D3020 Heat Generating Systems	Boiler	80%	N	None		Minor		Moderate		Major		Replace	0%	$0	Two boilers were installed in 1996 for main building. Fair condition
			Air Handler	100%	Y	None		Minor		Moderate		Major	X	Replace	80%	$3,200,000	Replace old existing RTUs for main building
			Furnace	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Heat Exchanger	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3030 Cooling Generating Systems	Component of air handler	80%	Y	None		Minor		Moderate	X	Major		Replace	80%	$0	Included in RTU replacement
			Stand alone chiller	10%	Y	None		Minor		Moderate		Major	X	Replace	100%	$50,000	Repair condenising unit for indoor pool unit
		D3040 Distribution Systems	Ductwork	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Hot water return & supply	80%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3050 Terminal & Package Units	Above ceiling VAV unit	80%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room ventilator unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room radiant unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3060 Controls & Instrumentation		100%	Y	None		Minor		Moderate		Major	x	Replace	20%	$105,000	Upgrade fine arts building control
		D3070 Systems Testing & Balancing		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$85,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	D40 Fire Protection																
		D4010 Sprinklers		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4020 Standpipes		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D50 Electrical																
		D5010 Electrical Service & Distribution		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5020 Lighting and Branch Wiring		100%	Y	None		Minor		Moderate	X	Major		Replace	100%	$500,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Clock / Intercom System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Closed Circuit Surveillance	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Access Control System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Intrusion Alarm System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Fire Alarm / Detection	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Lighting Control System	70%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED			None		Minor		Moderate		Major		Replace			

District Name: Parkrose SD 3
Site Name: Parkrose High School
Building Name: Main
Building ID: 21810600

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E EQUIPMENT & FURNISHINGS												
	E10 Equipment											
		E1010 Commercial Equipment	Food Service	100%	X						$0	
			Vocational	100%							$0	
		E1020 Institutional Equipment	Science	4500							$0	
			Art	2800							$0	
			Stage Performance	6400							$0	
			Restroom Accessories/Stalls	100%		X				25%	$18,456	
		E1030 Vehicular Equipment	NOT USED									
		E1090 Other Equipment	NOT USED									
	E20 Furnishings											
		E2010 Fixed Furnishings		100%		X				20%	$93,289	Countertops
		E2020 Movable Furnishings		100%	X						$0	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED												
G BUILDING SITE WORK												
	G10 Site Preparation		NOT USED									
	G20 Site Improvements											
		G2010 Roadways		120740		X				30%	$73,258	Cost/SF of surface area
		G2020 Parking Lots		59750		X				50%	$60,421	Cost/SF of surface area
		G2030 Pedestrian Paving		63325				X		25%	$183,544	Cost/SF of surface area
		G2040 Site Development		3800	X						$0	Cost/LF of fencing
		G2050 Landscaping		614650				X		10%	$197,948	Cost/SF of irrigated area
	G30 Site Mechanical Utilities											
		G3010 Water Supply	Domestic	100	X						$0	Enter LF of pipe in cell E143
			Fire	100	X						$0	Enter LF of pipe in cell E144
		G3020 Sanitary Sewer		100	X						$0	Enter LF of sewer lines in cell E145
		G3030 Storm Sewer									$0	Enter SF of area to be drained
		G3040 Heating Distribution									$0	Enter LF of heating ducts in cell E147
		G3050 Cooling Distribution									$0	Enter LF of duct work in cell E148
		G3060 Fuel Distribution									$0	Enter LF of natural gas lines in cell E149
		G3090 Other Site Mechanical Utilities	NOT USED									
	G40 Site Electrical Utilities											
		G4010 Electrical Distribution	Service	100%	X						$0	
			Generator								$0	
		G4020 Site Lighting		100%	X						$0	
		G4030 Site Communications & Security									$0	
		G4090 Other Site Electrical Utilities	NOT USED									
	G90 Other Site Construction		NOT USED									

OTHER

Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
				$0	
				$0	
				$0	
				$0	

Physical Condition Budget Sub-Total	**$8,513,132**
Budgeted Development Costs	**$3,234,990**
Physical Condition Budget TOTAL	**$11,748,122**
Cost with Escalation to June 2021	$13,392,859
Cost with Escalation to June 2022	**$13,928,573**
Cost with Escalation to June 2023	$14,485,716
Replacement Budget	**$153,680,205**
Facility Condition Index (FCI)	**8.7%**

District Name: Parkrose SD 3
Site Name: Sumner Elementary School
Building Name: Main
Building ID: 21810005

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A SUBSTRUCTURE													
	A10 Foundations												
		A1010 Standard Foundations				None	Minor	Moderate	Major	Replace		$0	
		A1020 Special Foundations				None	Minor	Moderate	Major	Replace		$0	
		A1030 Slab on Grade		100%	X	None	Minor			Replace		$0	
	A20 Basement Construction												
		A2010 Basement Excavation	NOT USED			None	Minor	Moderate	Major	Replace			
		A2020 Basement Walls				None	Minor	Moderate	Major	Replace		$0	
B SHELL													
	B10 Superstructure												
		B1010 Floor Construction	Wood	100%	X	None	Minor	Moderate	Major	Replace		$0	
			Steel			None	Minor	Moderate	Major	Replace		$0	
			Concrete			None	Minor	Moderate	Major	Replace		$0	
		B1020 Roof Construction	Wood	70%	X	None	Minor	Moderate	Major	Replace		$0	
			Steel			None	Minor	Moderate	Major	Replace		$0	
			Concrete	30%	X	None	Minor	Moderate	Major	Replace		$0	
	B20 Exterior Enclosure												
		B2010 Exterior Walls	Concrete Formed / Tilt	100%		None	Minor	X Moderate	Major	Replace	25%	$44,902	Exterior cracks visible, repaint
			Masonry			None	Minor	Moderate	Major	Replace		$0	
			Framed w/ Wood Siding			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Metal Panel			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Stucco			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Masonry Veneer			None	Minor	X Moderate	Major	Replace		$0	
		B2020 Exterior Windows	Wood	10%		None	Minor	Moderate	Major	X Replace	100%	$51,395	
			Aluminum/Steel	90%		None	Minor	Moderate	Major	X Replace	100%	$497,374	Glass block replacement
			Clad			None	Minor	Moderate	Major	Replace		$0	
			Curtain Wall			None	Minor	Moderate	Major	Replace		$0	
		B2030 Exterior Doors	Wood			None	Minor	Moderate	Major	Replace		$0	
			Hollow Metal	26		None	Minor	X Moderate	Major	Replace	100%	$33,493	Upgrade / replace hardware, paint
			Storefront			None	Minor	Moderate	Major	Replace		$0	
	B30 Roofing												
		B3010 Roof Coverings	Asphalt Shingle			None	Minor	Moderate	Major	Replace		$0	
			Built-Up	100%		None	Minor	Moderate	Major	X Replace	100%	$1,436,858	Complete replacement within next 10 years
			Single Ply			None	Minor	Moderate	Major	Replace		$0	
			Metal			None	Minor	Moderate	Major	Replace		$0	
			Concrete Tile			None	Minor	Moderate	Major	Replace		$0	
		B3020 Roof Openings	Skylights			None	Minor	Moderate	Major	Replace		$0	By Building GSF
			Access Hatch			None	Minor	Moderate	Major	Replace		$0	Per hatch

District Name: Parkrose SD 3
Site Name: Sumner Elementary School
Building Name: Main
Building ID: 21810005

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					LEVEL OF ACTION										
Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number		None		Minor		Moderate		Major		Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
C INTERIORS																	
	C10 Interior Construction																
		C1010 Partitions	Framed	70%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry	30%	X	None		Minor		Moderate		Major		Replace		$0	
		C1020 Interior Doors	Wood	73		None		Minor	X	Moderate		Major		Replace	100%	$75,231	Upgrade / replace hardware
			Hollow Metal	22		None		Minor	X	Moderate		Major		Replace	100%	$22,672	Upgrade / replace hardware, paint
		C1030 Fittings	NOT USED			None		Minor		Moderate		Major		Replace			
	C20 Stairs																
		C2010 Stair Construction	Wood			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Metal			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Concrete			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Resilient			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
	C30 Interior Finishes																
		C3010 Wall Finishes	Paint on Masonry	50%		None	X	Minor		Moderate		Major		Replace	15%	$9,284	
			Wallboard	45%		None	X	Minor		Moderate		Major		Replace	25%	$12,559	
			Wainscot	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile			None		Minor		Moderate		Major		Replace		$0	
		C3020 Floor Finishes	Carpet / Soft Surface	35%		None		Minor		Moderate		Major	X	Replace	100%	$129,207	
			Resilient Tile	40%		None		Minor		Moderate		Major	X	Replace	100%	$150,317	
			Resilient Sheet	10%		None		Minor		Moderate		Major	X	Replace	100%	$66,317	
			Polished Concrete	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile	10%		None		Minor		Moderate		Major	X	Replace	100%	$138,933	
			Liquid Applied			None		Minor		Moderate		Major		Replace		$0	
			Wood Sports Floor			None		Minor		Moderate		Major		Replace		$0	
		C3030 Ceiling Finishes	Wallboard	15%		None	X	Minor		Moderate		Major		Replace		$0	
			Lay-In Ceiling Tile	15%		None	X	Minor		Moderate		Major		Replace		$0	
			Glued-Up Ceiling Tile	60%		None		Minor		Moderate		Major	X	Replace	25%	$39,293	
			Painted Structure	10%		None		Minor		Moderate		Major	X	Replace	50%	$8,870	Repaint

District Name: Parkrose SD 3
Site Name: Sumner Elementary School
Building Name: Main
Building ID: 21810005

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D SERVICES																	
	D10 Conveying																
		D1010 Elevators & Lifts				None		Minor		Moderate		Major		Replace		$0	
		D1020 Escalators & Moving Walks				None		Minor		Moderate		Major		Replace		$0	
		D1090 Other Conveying Systems				None		Minor		Moderate		Major		Replace		$0	
	D20 Plumbing																
		D2010 Plumbing Fixtures		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$240,000	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$30,000	Replace existing old DHW
		D2030 Sanitary Waste		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2040 Rain Water Drainage		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D30 HVAC																
		D3010 Energy Supply		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	NG on site
		D3020 Heat Generating Systems	Boiler	90%	Y	None		Minor		Moderate		Major	X	Replace	100%	$800,000	Upgrade boiler and heating water piping
			Air Handler	90%	Y	None		Minor		Moderate		Major	X	Replace	100%	$550,000	Replace existing HVs and coil heaters
			Furnace	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Heat Exchanger	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3030 Cooling Generating Systems	Component of air handler	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Stand alone chiller	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3040 Distribution Systems	Ductwork	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Hot water return & supply	90%	Y	None		Minor		Moderate		Major	X	Replace	100%	$0	Included in boiler replacement item
		D3050 Terminal & Package Units	Above ceiling VAV unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room ventilator unit	60%	Y	None		Minor		Moderate		Major	X	Replace	100%	$0	coil booster heaters included in AHU item
			In-room radiant unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3060 Controls & Instrumentation		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$300,000	upgrade to district BAS
		D3070 Systems Testing & Balancing		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$22,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	D40 Fire Protection																
		D4010 Sprinklers		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4020 Standpipes		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D50 Electrical																
		D5010 Electrical Service & Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	35%	$100,000	Replace old electrical panels
		D5020 Lighting and Branch Wiring		100%	Y	None		Minor		Moderate	X	Major		Replace	100%	$90,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Clock / Intercom System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Closed Circuit Surveillance	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Access Control System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Intrusion Alarm System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Fire Alarm / Detection	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Lighting Control System	5%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED			None		Minor		Moderate		Major		Replace			

District Name: Parkrose SD 3
Site Name: Sumner Elementary School
Building Name: Main
Building ID: 21810005

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E EQUIPMENT & FURNISHINGS												
	E10 Equipment											
		E1010 Commercial Equipment	Food Service	10%	None	Minor	Moderate	X Major	Replace	100%	$4,974	
			Vocational		None	Minor	Moderate	Major	Replace		$0	
		E1020 Institutional Equipment	Science		None	Minor	Moderate	Major	Replace		$0	
			Art		None	Minor	Moderate	Major	Replace		$0	
			Stage Performance		None	Minor	Moderate	Major	Replace		$0	
			Restroom Accessories/Stalls	100%	None	Minor	Moderate	Major	X Replace	100%	$109,422	
		E1030 Vehicular Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
		E1090 Other Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
	E20 Furnishings											
		E2010 Fixed Furnishings		50%	None	Minor	Moderate	X Major	Replace	50%	$51,672	
		E2020 Movable Furnishings		50%	None	Minor	Moderate	Major	X Replace	25%	$165,791	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED												
G BUILDING SITE WORK												
	G10 Site Preparation		NOT USED									
	G20 Site Improvements											
		G2010 Roadways		11507	None	Minor	Moderate	X Major	Replace	100%	$96,352	Cost/SF of surface area
		G2020 Parking Lots		19494	None	Minor	Moderate	X Major	Replace	75%	$122,422	Cost/SF of surface area
		G2030 Pedestrian Paving		1024	None	Minor	Moderate	X Major	Replace	50%	$5,936	Cost/SF of surface area
		G2040 Site Development		1261 X	None	Minor	Moderate	Major	Replace		$0	Cost/LF of fencing
		G2050 Landscaping		260459 X	None	Minor	Moderate	Major	Replace		$0	Cost/SF of irrigated area
	G30 Site Mechanical Utilities											
		G3010 Water Supply	Domestic	100 X	None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E143
			Fire		None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E144
		G3020 Sanitary Sewer		100 X	None	Minor	Moderate	Major	Replace		$0	Enter LF of sewer lines in cell E145
		G3030 Storm Sewer			None	Minor	Moderate	Major	Replace		$0	Enter SF of area to be drained
		G3040 Heating Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of heating ducts in cell E147
		G3050 Cooling Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of duct work in cell E148
		G3060 Fuel Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of natural gas lines in cell E149
		G3090 Other Site Mechanical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
	G40 Site Electrical Utilities											
		G4010 Electrical Distribution	Service	100% X	None	Minor	Moderate	Major	Replace		$0	
			Generator		None	Minor	Moderate	Major	Replace		$0	
		G4020 Site Lighting		100% X	None	Minor	Moderate	Major	Replace		$0	
		G4030 Site Communications & Security			None	Minor	Moderate	Major	Replace		$0	
		G4090 Other Site Electrical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
	G90 Other Site Construction		NOT USED									

OTHER

Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
				$0	
				$0	
				$0	
				$0	

Physical Condition Budget Sub-Total	**$5,405,274**
Budgeted Development Costs	**$2,054,004**
Physical Condition Budget TOTAL	**$7,459,277**
Cost with Escalation to June 2021	$8,503,576
Cost with Escalation to June 2022	**$8,843,719**
Cost with Escalation to June 2023	$9,197,468
Replacement Budget	**$21,934,341**
Facility Condition Index (FCI)	**38.8%**

District Name: Parkrose SD 3
Site Name: Thompson Elementary School
Building Name: Main
Building ID: 21810004

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A SUBSTRUCTURE																	
	A10 Foundations																
		A1010 Standard Foundations				None		Minor		Moderate		Major		Replace		$0	
		A1020 Special Foundations				None		Minor		Moderate		Major		Replace		$0	
		A1030 Slab on Grade		100%	X	None		Minor		Moderate		Major		Replace		$0	
	A20 Basement Construction																
		A2010 Basement Excavation	NOT USED			None		Minor		Moderate		Major		Replace			
		A2020 Basement Walls				None		Minor		Moderate		Major		Replace		$0	
B SHELL																	
	B10 Superstructure																
		B1010 Floor Construction	Wood	100%	X	None		Minor		Moderate		Major		Replace		$0	
			Steel			None		Minor		Moderate		Major		Replace		$0	
			Concrete			None		Minor		Moderate		Major		Replace		$0	
		B1020 Roof Construction	Wood	70%	X	None		Minor		Moderate		Major		Replace		$0	
			Steel			None		Minor		Moderate		Major		Replace		$0	
			Concrete	30%		None		Minor		Moderate	X	Major		Replace	15%	$45,811	Concrete canopy at entry needs repair
	B20 Exterior Enclosure																
		B2010 Exterior Walls	Concrete Formed / Tilt	80%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry			None		Minor		Moderate		Major		Replace		$0	
			Framed w/ Wood Siding			None		Minor		Moderate		Major		Replace		$0	
			Framed w/Metal Panel			None		Minor		Moderate		Major		Replace		$0	
			Framed w/Stucco			None		Minor		Moderate		Major		Replace		$0	
			Framed w/Masonry Veneer	20%		None		Minor	X	Moderate		Major		Replace	100%	$31,943	Clean / repoint / reseal brick
		B2020 Exterior Windows	Wood	10%		None		Minor		Moderate		Major	X	Replace	100%	$60,381	
			Aluminum/Steel	90%		None		Minor		Moderate		Major	X	Replace	100%	$584,328	Glass block replacement
			Clad			None		Minor		Moderate		Major		Replace		$0	
			Curtain Wall			None		Minor		Moderate		Major		Replace		$0	
		B2030 Exterior Doors	Wood			None		Minor		Moderate		Major		Replace		$0	
			Hollow Metal	30		None		Minor	X	Moderate		Major		Replace	100%	$38,646	Upgrade / replace hardware, paint
			Storefront			None		Minor		Moderate		Major		Replace		$0	
	B30 Roofing																
		B3010 Roof Coverings	Asphalt Shingle			None		Minor		Moderate		Major		Replace		$0	
			Built-Up	100%		None		Minor		Moderate	X	Major		Replace	50%	$381,761	
			Single Ply			None		Minor		Moderate		Major		Replace		$0	
			Metal			None		Minor		Moderate		Major		Replace		$0	
			Concrete Tile			None		Minor		Moderate		Major		Replace		$0	
		B3020 Roof Openings	Skylights	20%		None		Minor		Moderate		Major	X	Replace	100%	$25,970	Most roofed over, need framing work
			Access Hatch			None		Minor		Moderate		Major		Replace		$0	Per hatch

District Name: Parkrose SD 3
Site Name: Thompson Elementary School
Building Name: Main
Building ID: 21810004

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Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number		None		Minor		Moderate		Major		Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
C INTERIORS																	
	C10 Interior Construction																
		C1010 Partitions	Framed	70%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry	30%	X	None		Minor		Moderate		Major		Replace		$0	
		C1020 Interior Doors	Wood	72		None		Minor	X	Moderate		Major		Replace	100%	$74,200	Upgrade / replace hardware
			Hollow Metal	14		None		Minor	X	Moderate		Major		Replace	100%	$14,428	Upgrade / replace hardware, paint
		C1030 Fittings	NOT USED			None		Minor		Moderate		Major		Replace			
	C20 Stairs																
		C2010 Stair Construction	Wood			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Metal			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Concrete			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Resilient			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
	C30 Interior Finishes																
		C3010 Wall Finishes	Paint on Masonry	50%		None	X	Minor		Moderate		Major		Replace	100%	$72,716	Repaint
			Wallboard	45%		None	X	Minor		Moderate		Major		Replace	100%	$59,017	Repaint
			Wainscot	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile			None		Minor		Moderate		Major		Replace		$0	
		C3020 Floor Finishes	Carpet / Soft Surface	10%		None		Minor		Moderate		Major	X	Replace	100%	$43,370	
			Resilient Tile	65%		None		Minor		Moderate		Major	X	Replace	100%	$286,970	ACM
			Resilient Sheet	10%		None		Minor		Moderate		Major	X	Replace	50%	$38,955	
			Polished Concrete	5%	X	None		Minor		Moderate		Major		Replace		$0	Sealed concrete
			Ceramic Tile	10%		None		Minor		Moderate		Major	X	Replace	100%	$163,222	
			Liquid Applied			None		Minor		Moderate		Major		Replace		$0	
			Wood Sports Floor			None		Minor		Moderate		Major		Replace		$0	
		C3030 Ceiling Finishes	Wallboard	70%		None	X	Minor		Moderate		Major		Replace	25%	$35,676	
			Lay-In Ceiling Tile	10%		None		Minor	X	Moderate		Major		Replace	15%	$1,354	
			Glued-Up Ceiling Tile	10%		None		Minor		Moderate		Major	X	Replace	50%	$15,387	
			Painted Structure	10%		None		Minor		Moderate		Major	X	Replace	50%	$10,421	Repaint

District Name: Parkrose SD 3
Site Name: Thompson Elementary School
Building Name: Main
Building ID: 21810004

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D SERVICES																	
	D10 Conveying																
		D1010 Elevators & Lifts				None		Minor		Moderate		Major		Replace		$0	
		D1020 Escalators & Moving Walks				None		Minor		Moderate		Major		Replace		$0	
		D1090 Other Conveying Systems				None		Minor		Moderate		Major		Replace		$0	
	D20 Plumbing																
		D2010 Plumbing Fixtures		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$270,000	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	New DHW installed in 2019
		D2030 Sanitary Waste		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2040 Rain Water Drainage		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D30 HVAC																
		D3010 Energy Supply		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	NG on site
		D3020 Heat Generating Systems	Boiler	100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$800,000	Upgrade boiler and heating water piping
			Air Handler	100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$550,000	Replace existing HVs and coil heaters
			Furnace	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Heat Exchanger	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3030 Cooling Generating Systems	Component of air handler	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Stand alone chiller	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3040 Distribution Systems	Ductwork	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Hot water return & supply	100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$0	Included in boiler replacement item
		D3050 Terminal & Package Units	Above ceiling VAV unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room ventilator unit	60%	Y	None		Minor		Moderate		Major	X	Replace	100%	$0	Coil booster heaters included in AHU item
			In-room radiant unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3060 Controls & Instrumentation		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$300,000	Upgrade to district BAS
		D3070 Systems Testing & Balancing		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$22,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	D40 Fire Protection																
		D4010 Sprinklers		0%	Y	None		Minor		Moderate		Major	X	Replace	100%	$250,000	Add fire sprinkler system
		D4020 Standpipes		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D50 Electrical																
		D5010 Electrical Service & Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	45%	$140,000	Replace old electrical panels
		D5020 Lighting and Branch Wiring		100%	Y	None		Minor		Moderate	X	Major		Replace	100%	$90,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Clock / Intercom System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Closed Circuit Surveillance	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Access Control System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Intrusion Alarm System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Fire Alarm / Detection	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Lighting Control System	5%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED			None		Minor		Moderate		Major		Replace			

District Name:	Parkrose SD 3
Site Name:	Thompson Elementary School
Building Name:	Main
Building ID:	21810004

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Level 1 / Level 2 / Level 3	Type (as applicable)	% of Building or Number	LEVEL OF ACTION: None	Minor	Moderate	Major	Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
E EQUIPMENT & FURNISHINGS										
E10 Equipment										
E1010 Commercial Equipment	Food Service	10%				X		100%	$5,843	
	Vocational								$0	
E1020 Institutional Equipment	Science								$0	
	Art								$0	
	Stage Performance								$0	
	Restroom Accessories/Stalls	100%					X	100%	$128,552	
E1030 Vehicular Equipment	NOT USED									
E1090 Other Equipment	NOT USED									
E20 Furnishings										
E2010 Fixed Furnishings		50%				X		50%	$60,705	
E2020 Movable Furnishings		50%					X	25%	$194,776	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED										
G BUILDING SITE WORK										
G10 Site Preparation	NOT USED									
G20 Site Improvements										
G2010 Roadways		10300				X		45%	$38,810	Significant paving cracks
G2020 Parking Lots		29500				X		50%	$123,506	Significant paving cracks
G2030 Pedestrian Paving		3110				X		35%	$12,620	Significant paving cracks at play area
G2040 Site Development		2900	X						$0	Cost/LF of fencing
G2050 Landscaping		556246	X						$0	Cost/SF of irrigated area
G30 Site Mechanical Utilities										
G3010 Water Supply	Domestic	100	X						$0	Enter LF of pipe in cell E143
	Fire								$0	Enter LF of pipe in cell E144
G3020 Sanitary Sewer		100	X						$0	Enter LF of sewer lines in cell E145
G3030 Storm Sewer									$0	Enter SF of area to be drained
G3040 Heating Distribution									$0	Enter LF of heating ducts in cell E147
G3050 Cooling Distribution									$0	Enter LF of duct work in cell E148
G3060 Fuel Distribution									$0	Enter LF of natural gas lines in cell E149
G3090 Other Site Mechanical Utilities	NOT USED									
G40 Site Electrical Utilities										
G4010 Electrical Distribution	Service	100%	X						$0	
	Generator								$0	
G4020 Site Lighting		100%	X						$0	
G4030 Site Communications & Security									$0	
G4090 Other Site Electrical Utilities	NOT USED									
G90 Other Site Construction	NOT USED									

OTHER

Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
				$0	
				$0	
				$0	
				$0	

Physical Condition Budget Sub-Total	**$4,971,369**
Budgeted Development Costs	**$1,889,120**
Physical Condition Budget TOTAL	**$6,860,489**
Cost with Escalation to June 2021	$7,820,957
Cost with Escalation to June 2022	**$8,133,795**
Cost with Escalation to June 2023	$8,459,147
Replacement Budget	**$25,769,016**
Facility Condition Index (FCI)	**30.4%**

Page 4

District Name: Parkrose SD 3
Site Name: Knott Elementary School
Building Name: Main
Building ID: 21810003

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A SUBSTRUCTURE													
	A10 Foundations												
		A1010 Standard Foundations				None	Minor	Moderate	Major	Replace		$0	
		A1020 Special Foundations				None	Minor	Moderate	Major	Replace		$0	
		A1030 Slab on Grade		100%	X	None	Minor	Moderate	Major	Replace		$0	
	A20 Basement Construction												
		A2010 Basement Excavation	NOT USED			None	Minor	Moderate	Major	Replace			
		A2020 Basement Walls				None	Minor	Moderate	Major	Replace		$0	
B SHELL													
	B10 Superstructure												
		B1010 Floor Construction	Wood	100%	X	None	Minor	Moderate	Major	Replace		$0	
			Steel			None	Minor	Moderate	Major	Replace		$0	
			Concrete			None	Minor	Moderate	Major	Replace		$0	
		B1020 Roof Construction	Wood	100%	X	None	Minor	Moderate	Major	Replace		$0	
			Steel			None	Minor	Moderate	Major	Replace		$0	
			Concrete			None	Minor	Moderate	Major	Replace		$0	
	B20 Exterior Enclosure												
		B2010 Exterior Walls	Concrete Formed / Tilt	100%	X	None	Minor	Moderate	Major	Replace		$0	
			Masonry			None	Minor	Moderate	Major	Replace		$0	
			Framed w/ Wood Siding			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Metal Panel			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Stucco			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Masonry Veneer			None	Minor	Moderate	Major	Replace		$0	
		B2020 Exterior Windows	Wood	10%		None	Minor	Moderate	Major	X Replace	100%	$39,046	
			Aluminum/Steel	90%		None	Minor	Moderate	Major	X Replace	100%	$377,865	Glass block replacement
			Clad			None	Minor	Moderate	Major	Replace		$0	
			Curtain Wall			None	Minor	Moderate	Major	Replace		$0	
		B2030 Exterior Doors	Wood			None	Minor	Moderate	Major	Replace		$0	
			Hollow Metal	33		None	Minor	X Moderate	Major	Replace	100%	$42,511	Upgrade / replace hardware, paint
			Storefront			None	Minor	Moderate	Major	Replace		$0	
	B30 Roofing												
		B3010 Roof Coverings	Asphalt Shingle			None	Minor	Moderate	Major	Replace		$0	
			Built-Up	100%		None	Minor	Moderate	Major	X Replace	60%	$654,966	Re-coat / re-seal by 2024
			Single Ply			None	Minor	Moderate	Major	Replace		$0	
			Metal			None	Minor	Moderate	Major	Replace		$0	
			Concrete Tile			None	Minor	Moderate	Major	Replace		$0	
		B3020 Roof Openings	Skylights			None	Minor	Moderate	Major	Replace		$0	By Building GSF
			Access Hatch			None	Minor	Moderate	Major	Replace		$0	Per hatch

District Name: Parkrose SD 3
Site Name: Knott Elementary School
Building Name: Main
Building ID: 21810003

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					LEVEL OF ACTION											
Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number		None		Minor		Moderate		Major		Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
C	**INTERIORS**																
	C10 Interior Construction																
		C1010 Partitions	Framed	85%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry	15%	X	None		Minor		Moderate		Major		Replace		$0	
		C1020 Interior Doors	Wood	50		None		Minor	X	Moderate		Major		Replace	100%	$51,528	Upgrade / replace hardware
			Hollow Metal	19		None		Minor	X	Moderate		Major		Replace	100%	$19,581	Upgrade / replace hardware
		C1030 Fittings	NOT USED			None		Minor		Moderate		Major		Replace			
	C20 Stairs																
		C2010 Stair Construction	Wood			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Metal			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Concrete			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Resilient			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
	C30 Interior Finishes																
		C3010 Wall Finishes	Paint on Masonry	10%		None		Minor		Moderate		Major		Replace		$0	
			Wallboard			None		Minor		Moderate		Major		Replace		$0	
			Wainscot	5%		None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile			None		Minor		Moderate		Major		Replace		$0	
		C3020 Floor Finishes	Carpet / Soft Surface	7%		None		Minor		Moderate		Major	X	Replace	100%	$19,632	
			Resilient Tile	78%		None		Minor		Moderate		Major	X	Replace	100%	$222,689	ACM
			Resilient Sheet	5%		None		Minor		Moderate		Major	X	Replace	100%	$25,191	
			Polished Concrete	5%	X	None		Minor		Moderate		Major		Replace		$0	Sealed concrete
			Ceramic Tile	5%		None		Minor		Moderate		Major	X	Replace	100%	$52,775	
			Liquid Applied			None		Minor		Moderate		Major		Replace		$0	
			Wood Sports Floor			None		Minor		Moderate		Major		Replace		$0	
		C3030 Ceiling Finishes	Wallboard	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Lay-In Ceiling Tile	10%		None	X	Minor		Moderate		Major		Replace	25%	$1,050	
			Glued-Up Ceiling Tile	80%		None		Minor		Moderate		Major	X	Replace	50%	$79,604	
			Painted Structure	5%	X	None		Minor		Moderate		Major		Replace		$0	

District Name: Parkrose SD 3
Site Name: Knott Elementary School
Building Name: Main
Building ID: 21810003

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D SERVICES																	
	D10 Conveying																
		D1010 Elevators & Lifts				None		Minor		Moderate		Major		Replace		$0	
		D1020 Escalators & Moving Walks				None		Minor		Moderate		Major		Replace		$0	
		D1090 Other Conveying Systems				None		Minor		Moderate		Major		Replace		$0	
	D20 Plumbing																
		D2010 Plumbing Fixtures		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$200,000	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$30,000	Replace old NG DHW
		D2030 Sanitary Waste		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2040 Rain Water Drainage		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D30 HVAC																
		D3010 Energy Supply		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	NG on site
		D3020 Heat Generating Systems	Boiler	90%	Y	None		Minor		Moderate		Major	X	Replace	100%	$680,000	Upgrade boiler and heating water piping
			Air Handler	90%	Y	None		Minor		Moderate		Major	X	Replace	90%	$450,000	Replace existing HVs and coil heaters
			Furnace	10%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Heat Exchanger	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3030 Cooling Generating Systems	Component of air handler	10%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Stand alone chiller	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3040 Distribution Systems	Ductwork	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Hot water return & supply	90%	Y	None		Minor		Moderate		Major	X	Replace	100%	$0	Included in boiler replacement item
		D3050 Terminal & Package Units	Above ceiling VAV unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room ventilator unit	60%	Y	None		Minor		Moderate		Major	X	Replace	100%	$0	coil booster heaters included in AHU item
			In-room radiant unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3060 Controls & Instrumentation		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$240,000	upgrade to district BAS
		D3070 Systems Testing & Balancing		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$18,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	D40 Fire Protection																
		D4010 Sprinklers		0%	Y	None		Minor		Moderate		Major	X	Replace	100%	$210,000	add sprinkler system
		D4020 Standpipes		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D50 Electrical																
		D5010 Electrical Service & Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	40%	$110,000	Replace old electrical panels
		D5020 Lighting and Branch Wiring		100%	Y	None		Minor		Moderate	X	Major		Replace	100%	$75,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Clock / Intercom System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Closed Circuit Surveillance	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Access Control System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Intrusion Alarm System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Fire Alarm / Detection	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Lighting Control System	10%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED			None		Minor		Moderate		Major		Replace			

District Name: Parkrose SD 3
Site Name: Knott Elementary School
Building Name: Main
Building ID: 21810003

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E EQUIPMENT & FURNISHINGS												
	E10 Equipment											
		E1010 Commercial Equipment	Food Service	10%	None	Minor	Moderate	X Major	Replace	100%	$3,779	
			Vocational		None	Minor	Moderate	Major	Replace		$0	
		E1020 Institutional Equipment	Science		None	Minor	Moderate	Major	Replace		$0	
			Art		None	Minor	Moderate	Major	Replace		$0	
			Stage Performance		None	Minor	Moderate	Major	Replace		$0	
			Restroom Accessories/Stalls	100%	None	Minor	Moderate	Major	X Replace	100%	$83,130	
		E1030 Vehicular Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
		E1090 Other Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
	E20 Furnishings											
		E2010 Fixed Furnishings		50%	None	Minor	Moderate	X Major	Replace	50%	$39,256	
		E2020 Movable Furnishings		50%	None	Minor	Moderate	Major	X Replace	25%	$125,955	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED												
G BUILDING SITE WORK												
	G10 Site Preparation		NOT USED									
	G20 Site Improvements											
		G2010 Roadways		20000	None	Minor	Moderate	X Major	Replace	75%	$125,600	Cost/SF of surface area
		G2020 Parking Lots		26000	None	Minor	Moderate	X Major	Replace	50%	$108,853	Cost/SF of surface area
		G2030 Pedestrian Paving		7700	None	Minor	Moderate	X Major	Replace	25%	$22,318	Cost/SF of surface area
		G2040 Site Development		1500 X	None	Minor	Moderate	Major	Replace		$0	Cost/LF of fencing
		G2050 Landscaping		247300 X	None	Minor	Moderate	Major	Replace		$0	Cost/SF of irrigated area
	G30 Site Mechanical Utilities											
		G3010 Water Supply	Domestic	100 X	None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E143
			Fire		None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E144
		G3020 Sanitary Sewer		100 X	None	Minor	Moderate	Major	Replace		$0	Enter LF of sewer lines in cell E145
		G3030 Storm Sewer			None	Minor	Moderate	Major	Replace		$0	Enter SF of area to be drained
		G3040 Heating Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of heating ducts in cell E147
		G3050 Cooling Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of duct work in cell E148
		G3060 Fuel Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of natural gas lines in cell E149
		G3090 Other Site Mechanical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
	G40 Site Electrical Utilities											
		G4010 Electrical Distribution	Service	100% X	None	Minor	Moderate	Major	Replace		$0	
			Generator		None	Minor	Moderate	Major	Replace		$0	
		G4020 Site Lighting		100% X	None	Minor	Moderate	Major	Replace		$0	
		G4030 Site Communications & Security			None	Minor	Moderate	Major	Replace		$0	
		G4090 Other Site Electrical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
	G90 Other Site Construction		NOT USED									

OTHER

Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
				$0	
				$0	
				$0	
				$0	

Physical Condition Budget Sub-Total	**$4,108,327**
Budgeted Development Costs	**$1,561,164**
Physical Condition Budget TOTAL	**$5,669,492**
Cost with Escalation to June 2021	$6,463,220
Cost with Escalation to June 2022	**$6,721,749**
Cost with Escalation to June 2023	$6,990,619
Replacement Budget	**$16,663,964**
Facility Condition Index (FCI)	**38.8%**

District Name: Parkrose SD 3
Site Name: District Office
Building Name: Main
Building ID: 0

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Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number		LEVEL OF ACTION: None	Minor	Moderate	Major	Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
A SUBSTRUCTURE													
	A10 Foundations												
		A1010 Standard Foundations				None	Minor	Moderate	Major	Replace		$0	
		A1020 Special Foundations				None	Minor	Moderate	Major	Replace		$0	
		A1030 Slab on Grade		100%	X	None	Minor	Moderate	Major	Replace		$0	
	A20 Basement Construction												
		A2010 Basement Excavation	NOT USED			None	Minor	Moderate	Major	Replace			
		A2020 Basement Walls				None	Minor	Moderate	Major	Replace		$0	
B SHELL													
	B10 Superstructure												
		B1010 Floor Construction	Wood			None	Minor	Moderate	Major	Replace		$0	
			Steel			None	Minor	Moderate	Major	Replace		$0	
			Concrete			None	Minor	Moderate	Major	Replace		$0	
		B1020 Roof Construction	Wood	100%	X	None	Minor	Moderate	Major	Replace		$0	
			Steel			None	Minor	Moderate	Major	Replace		$0	
			Concrete			None	Minor	Moderate	Major	Replace		$0	
	B20 Exterior Enclosure												
		B2010 Exterior Walls	Concrete Formed / Tilt	50%		None	Minor	X Moderate	Major	Replace	25%	$10,833	Header repair at maintenance building
			Masonry			None	Minor	Moderate	Major	Replace		$0	
			Framed w/ Wood Siding	25%		None	Minor	X Moderate	Major	Replace	100%	$20,466	
			Framed w/Metal Panel			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Stucco			None	Minor	Moderate	Major	Replace		$0	
			Framed w/Masonry Veneer	25%	X	None	Minor	Moderate	Major	Replace		$0	
		B2020 Exterior Windows	Wood			None	Minor	Moderate	Major	Replace		$0	
			Aluminum/Steel	100%	X	None	Minor	Moderate	Major	Replace		$0	
			Clad			None	Minor	Moderate	Major	Replace		$0	
			Curtain Wall			None	Minor	Moderate	Major	Replace		$0	
		B2030 Exterior Doors	Wood			None	Minor	Moderate	Major	Replace		$0	
			Hollow Metal	6		None	Minor	Moderate	X Major	Replace	100%	$10,048	Upgrade / replace hardware
			Storefront	4		None	Minor	X Moderate	Major	Replace	50%	$3,092	Hardware repair / replacement
	B30 Roofing												
		B3010 Roof Coverings	Asphalt Shingle			None	Minor	Moderate	Major	Replace		$0	
			Built-Up	65%		None	Minor	Moderate	Major	X Replace	50%	$225,326	Restore DO, Replace Maintenance + Bus
			Single Ply			None	Minor	Moderate	Major	Replace		$0	
			Metal	35%		None	Minor	X Moderate	Major	Replace	100%	$50,212	Restore
			Concrete Tile			None	Minor	Moderate	Major	Replace		$0	
		B3020 Roof Openings	Skylights			None	Minor	Moderate	Major	Replace		$0	By Building GSF
			Access Hatch			None	Minor	Moderate	Major	Replace		$0	Per hatch

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					LEVEL OF ACTION										
Level 1	Level 2	Level 3	Type (as applicable)	% of Building or Number		None		Minor		Moderate		Major		Replace as part of Renovation	% of System or Finish	Automated Budget Estimate	Notes
C INTERIORS																	
	C10 Interior Construction																
		C1010 Partitions	Framed	75%	X	None		Minor		Moderate		Major		Replace		$0	
			Masonry	25%	X	None		Minor		Moderate		Major		Replace		$0	
		C1020 Interior Doors	Wood	12		None		Minor	X	Moderate		Major		Replace	100%	$12,367	Upgrade / replace hardware
			Hollow Metal	13		None		Minor		Moderate	X	Major		Replace	100%	$18,421	Upgrade / replace hardware, paint
		C1030 Fittings	NOT USED			None		Minor		Moderate		Major		Replace			
	C20 Stairs																
		C2010 Stair Construction	Wood			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Metal			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Concrete			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
		C2020 Stair Finishes	Concrete Fill			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
			Resilient			None		Minor		Moderate		Major		Replace		$0	Cost/Flight
	C30 Interior Finishes																
		C3010 Wall Finishes	Paint on Masonry	30%		None	X	Minor		Moderate		Major		Replace	50%	$8,960	
			Wallboard	60%		None	X	Minor		Moderate		Major		Replace	50%	$16,159	
			Wainscot	5%	X	None		Minor		Moderate		Major		Replace		$0	
			Ceramic Tile	5%	X	None		Minor		Moderate		Major		Replace		$0	
		C3020 Floor Finishes	Carpet / Soft Surface	40%		None		Minor		Moderate		Major	X	Replace	50%	$35,625	
			Resilient Tile	10%		None		Minor		Moderate	X	Major		Replace	50%	$6,346	
			Resilient Sheet	5%		None		Minor		Moderate		Major	X	Replace	100%	$15,999	
			Polished Concrete	50%	X	None		Minor		Moderate		Major		Replace		$0	Sealed concrete
			Ceramic Tile			None		Minor		Moderate		Major		Replace		$0	
			Liquid Applied			None		Minor		Moderate		Major		Replace		$0	
			Wood Sports Floor			None		Minor		Moderate		Major		Replace		$0	
		C3030 Ceiling Finishes	Wallboard	5%		None	X	Minor		Moderate		Major		Replace	25%	$1,047	
			Lay-In Ceiling Tile	40%		None	X	Minor		Moderate		Major		Replace	25%	$2,667	
			Glued-Up Ceiling Tile			None		Minor		Moderate		Major		Replace		$0	
			Painted Structure	55%		None		Minor		Moderate		Major	X	Replace	20%	$9,416	

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D SERVICES																	
	D10 Conveying																
		D1010 Elevators & Lifts				None		Minor		Moderate		Major		Replace		$0	
		D1020 Escalators & Moving Walks				None		Minor		Moderate		Major		Replace		$0	
		D1090 Other Conveying Systems				None		Minor		Moderate		Major		Replace		$0	
	D20 Plumbing																
		D2010 Plumbing Fixtures		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$135,000	All (N) fixtures req'd to meet ADA by code.
		D2020 Domestic Water Distribution		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$17,000	Replace old DHWs
		D2030 Sanitary Waste		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2040 Rain Water Drainage		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D2090 Other Plumbing Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D30 HVAC																
		D3010 Energy Supply		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	NG on site
		D3020 Heat Generating Systems	Boiler	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Air Handler	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Furnace	100%	Y	None		Minor		Moderate		Major	X	Replace	50%	$55,000	Replace old furnace and gas unit heaters
			Heat Exchanger	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3030 Cooling Generating Systems	Component of air handler	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Stand alone chiller	50%	Y	None		Minor		Moderate		Major	X	Replace	20%	$0	Included in furnace replacement for one split DX
		D3040 Distribution Systems	Ductwork	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Hot water return & supply	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3050 Terminal & Package Units	Above ceiling VAV unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room ventilator unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			In-room radiant unit	0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D3060 Controls & Instrumentation		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$115,000	Upgrade to district BAS
		D3070 Systems Testing & Balancing		100%	Y	None		Minor		Moderate		Major	X	Replace	100%	$12,000	Estimated for RCx
		D3090 Other HVAC Systems & Equipment	NOT USED			None		Minor		Moderate		Major		Replace			
	D40 Fire Protection																
		D4010 Sprinklers		0%	Y	None		Minor		Moderate		Major	X	Replace	100%	$130,000	add sprinkler system
		D4020 Standpipes		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4030 Fire Protection Specialties		0%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D4090 Other Fire Protection Systems	NOT USED			None		Minor		Moderate		Major		Replace			
	D50 Electrical																
		D5010 Electrical Service & Distribution		100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5020 Lighting and Branch Wiring		100%	Y	None		Minor		Moderate	X	Major		Replace	100%	$43,000	Lighting and lighting control retrofit
		D5030 Communications & Security	Voice / Data System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Clock / Intercom System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Closed Circuit Surveillance	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Access Control System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Intrusion Alarm System	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Fire Alarm / Detection	100%	N	None		Minor		Moderate		Major		Replace	0%	$0	
			Lighting Control System	5%	N	None		Minor		Moderate		Major		Replace	0%	$0	
		D5090 Other Electrical Systems	NOT USED			None		Minor		Moderate		Major		Replace			

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E EQUIPMENT & FURNISHINGS												
	E10 Equipment											
		E1010 Commercial Equipment	Food Service		None	Minor	Moderate	Major	Replace		$0	
			Vocational		None	Minor	Moderate	Major	Replace		$0	
		E1020 Institutional Equipment	Science		None	Minor	Moderate	Major	Replace		$0	
			Art		None	Minor	Moderate	Major	Replace		$0	
			Stage Performance		None	Minor	Moderate	Major	Replace		$0	
			Restroom Accessories/Stalls	100%	None	Minor	Moderate	Major	X Replace	50%	$26,399	
		E1030 Vehicular Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
		E1090 Other Equipment	NOT USED		None	Minor	Moderate	Major	Replace			
	E20 Furnishings											
		E2010 Fixed Furnishings		50%	None	Minor	Moderate	X Major	Replace	50%	$24,932	
		E2020 Movable Furnishings		50%	None	Minor	Moderate	Major	X Replace	15%	$47,998	
F SPECIAL CONSTRUCTION & DEMOLITION - NOT USED												
G BUILDING SITE WORK												
	G10 Site Preparation		NOT USED									
	G20 Site Improvements											
		G2010 Roadways		13949	None	X Minor	Moderate	Major	Replace	100%	$28,211	Cost/SF of surface area
		G2020 Parking Lots		40088	None	X Minor	Moderate	Major	Replace	100%	$81,077	Cost/SF of surface area
		G2030 Pedestrian Paving		2901	X None	Minor	Moderate	Major	Replace		$0	Cost/SF of surface area
		G2040 Site Development		927	X None	Minor	Moderate	Major	Replace		$0	Cost/LF of fencing
		G2050 Landscaping		7175	None	Minor	Moderate	Major	X Replace	10%	$2,311	Side by DO east side
	G30 Site Mechanical Utilities											
		G3010 Water Supply	Domestic	100	X None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E143
			Fire		None	Minor	Moderate	Major	Replace		$0	Enter LF of pipe in cell E144
		G3020 Sanitary Sewer		100	X None	Minor	Moderate	Major	Replace		$0	Enter LF of sewer lines in cell E145
		G3030 Storm Sewer			None	Minor	Moderate	Major	Replace		$0	Enter SF of area to be drained
		G3040 Heating Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of heating ducts in cell E147
		G3050 Cooling Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of duct work in cell E148
		G3060 Fuel Distribution			None	Minor	Moderate	Major	Replace		$0	Enter LF of natural gas lines in cell E149
		G3090 Other Site Mechanical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
	G40 Site Electrical Utilities											
		G4010 Electrical Distribution	Service	100%	X None	Minor	Moderate	Major	Replace		$0	
			Generator		None	Minor	Moderate	Major	Replace		$0	
		G4020 Site Lighting		100%	X None	Minor	Moderate	Major	Replace		$0	
		G4030 Site Communications & Security			None	Minor	Moderate	Major	Replace		$0	
		G4090 Other Site Electrical Utilities	NOT USED		None	Minor	Moderate	Major	Replace			
	G90 Other Site Construction		NOT USED									

OTHER

Description of System	Unit of Measure	Quantity	Unit Budget	Extended	Notes
				$0	
				$0	
				$0	
				$0	

Physical Condition Budget Sub-Total	**$1,164,912**
Budgeted Development Costs	**$442,667**
Physical Condition Budget TOTAL	**$1,607,579**
Cost with Escalation to June 2021	$1,832,640
Cost with Escalation to June 2022	**$1,905,945**
Cost with Escalation to June 2023	$1,982,183
Replacement Budget	**$10,420,877**
Facility Condition Index (FCI)	**17.6%**

APPENDIX E

ROOFING REPORT

GARLAND since 1895

Site Map

Parkrose School District

Parkrose HS

Total Sq. Per Roof Section

1H	10000
2H	13000
3H	23000
4H	11000
5H	12000
6H	10000
7H	7000
8H	3500
9H	3500
10H	3000
11H	1800
12H	4600
13H	7500
14H	11000
15H	1600
16H	1500
17H	13200
18H	20000
19H	3500
20H	9000
21H	3500
22H	8000
Total sq. ft.	181,200

Color	Existing	Scope
	Bur/Coating 4h,7h, 18h, 20h, 22h	n/a
	PVC 1h,3h,8h,12h, 15h,17h, 19h, 21h	Restore
	BUR 2h,5h,6h,9h,10h,11h,13h,14h	Restore
	BUR 16h	Replace

THE GARLAND COMPANY INC.
3800 E 91ST ST. | CLEVELAND, OH 44105-2197
PHONE (216)641-7500 | FAX (216)641-0633

Parkrose SD

February 2021

Travis Cox
tcox@garlandind.com
503-522-7626

Not to scale – contractor responsible for field measurements

since 1895

Roof Budgets

Parkrose School District

Parkrose HS

Color	Existing	Scope	Action Years	Estimated Cost	Expected Life
	Bur/Coating 4h,7h, 18h, 20h, 22h	n/a	2032	n/a	n/a
	PVC 1h,3h,8h,12h, 15h,17h, 19h, 21h	Restore	2023-2025	$475000	15
	BUR 2h,5h,6h,9h,10h,11h,13h,14h	Restore	2021-2024	$475,000	15
	BUR 16h	Replace	2022	$30,000	30

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Site Map

Parkrose School District

Parkrose HS

Total Sq. Per Roof Section

1H	10000
2H	13000
3H	23000
4H	11000
5H	12000
6H	10000
7H	7000
8H	3500
9H	3500
10H	3000
11H	1800
12H	4600
13H	7500
14H	11000
15H	1600
16H	1500
17H	13200
18H	20000
19H	3500
20H	9000
21H	3500
22H	8000
Total sq. ft.	181,200

Color	Existing	Scope
	Bur/Coating 4h,7h, 18h, 20h, 22h	n/a
	PVC 1h,3h,8h,12h, 15h,17h, 19h, 21h	Restore
	BUR 2h,5h,6h,9h,10h,11h,13h,14h	Restore
	BUR 16h	Replace

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Site Map

Parkrose School District

District Office

Color	Existing
	Bur 1 DO 2 DO
	Metal 3 DO, 4 DO

Total Sq. Per Roof Section

• 1 DO	7,000
• 2 DO	7,000
• 3 DO	3,200
• 4 DO	4,000
• Total sq. ft.	21,200

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Roof Budgets

Parkrose School District

District Office

Color	Existing	Scope	Action Years	Estimated Cost	Expected Life
	Bur 1 DO 2 DO	Maintenance Replace	2021-2035 2023	$5000 $140,000	15 30
	Metal 3 DO, 4 DO	Restore	2023	$60,000	10-15

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2021

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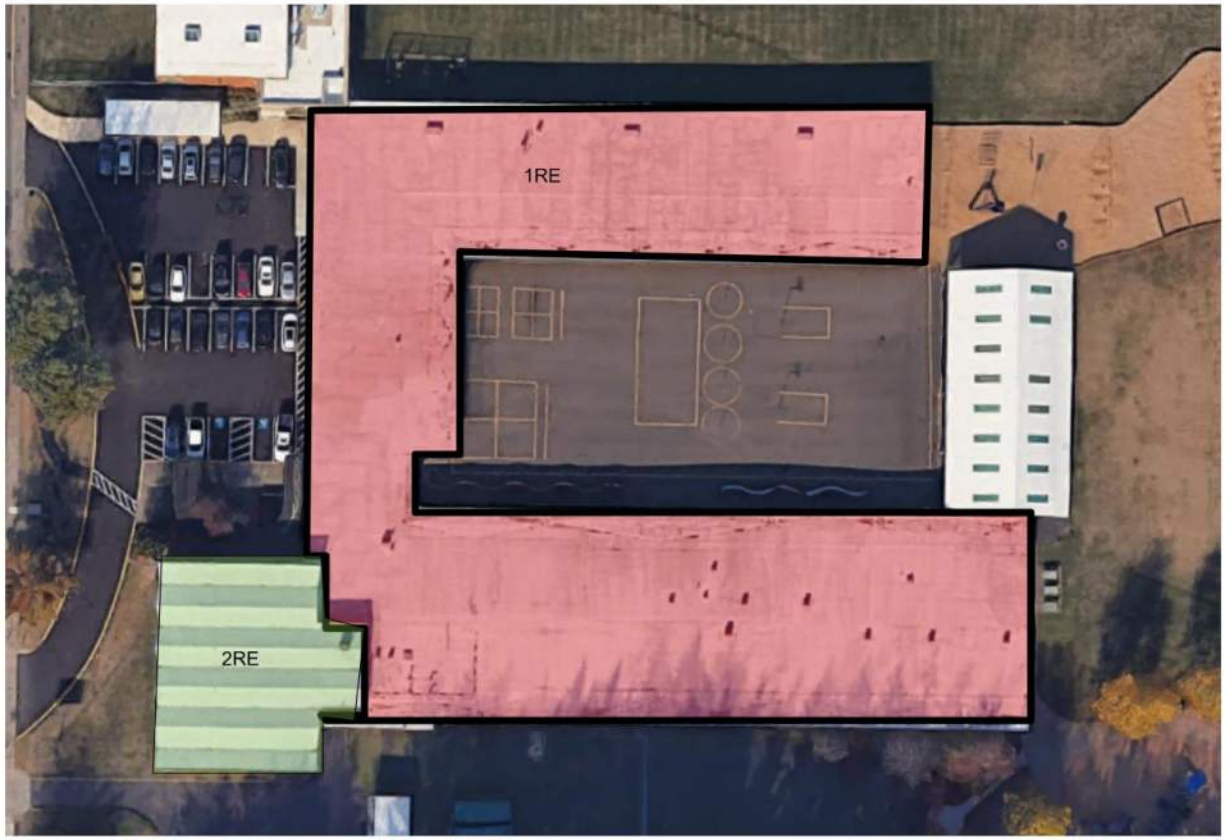
GARLAND since 1895

Site Map

Parkrose School District

Russel Elementary



Total Sq. Per Roof Section

Color	Existing
	Bur 1RE
	BUR/Coating 2RE

1 RE	46,000
2 RE	7,000
Total sq. ft.	53,000

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Parkrose SD

February 2021

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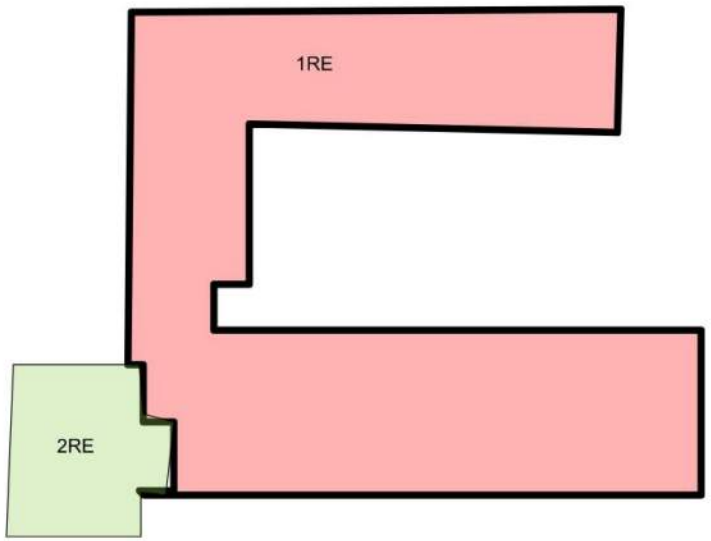
Roof Budgets

Parkrose School District

Russel Elementary

Color	Existing	Scope	Action Years	Estimated Cost	Expected Life
	Bur 1RE	New Roof	N/a		25
	BUR/Coating 2RE	Replace/retrofit	2027	$145,000	30



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Parkrose SD

2021
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Not to scale – contractor responsible for field measurements

GARLAND since 1895

Site Map

Parkrose School District

Wheatley

Total Sq. Per Roof Section

Color	Existing
	2-ply Mod. Bit 1 WE
	BUR 2 WE
	BUR 3WE

1 WE	28,000
2 WE	2,300
3 WE	25,000
Total sq. ft.	55,500

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GARLAND

Parkrose SD

February 2021

Travis Cox
tcox@garlandind.com
503-522-7626

Not to scale – contractor responsible for field measurements

GARLAND since 1895

Roof Budgets

Parkrose School District

Wheatley

Color	Existing	Scope	Action Years	Estimated Cost	Expected Life
	2-ply Mod. Bit 1 WE	Replaced 2021		n/a	30
	BUR 2 WE	Replace	2022	$50,000	30
	BUR 3WE	Resurface	2028	$175,000	10

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Site Map

Parkrose School District

Shaver

Total Sq. Per Roof Section

Color	Existing	Scope
	Single Ply	Restore
	1SE, 2SE, 3SE, 4SE, 5SE	

1SE	2000
2SE	20000
3SE	21000
4SE	500
5SE	11500
Total sq. ft.	55000

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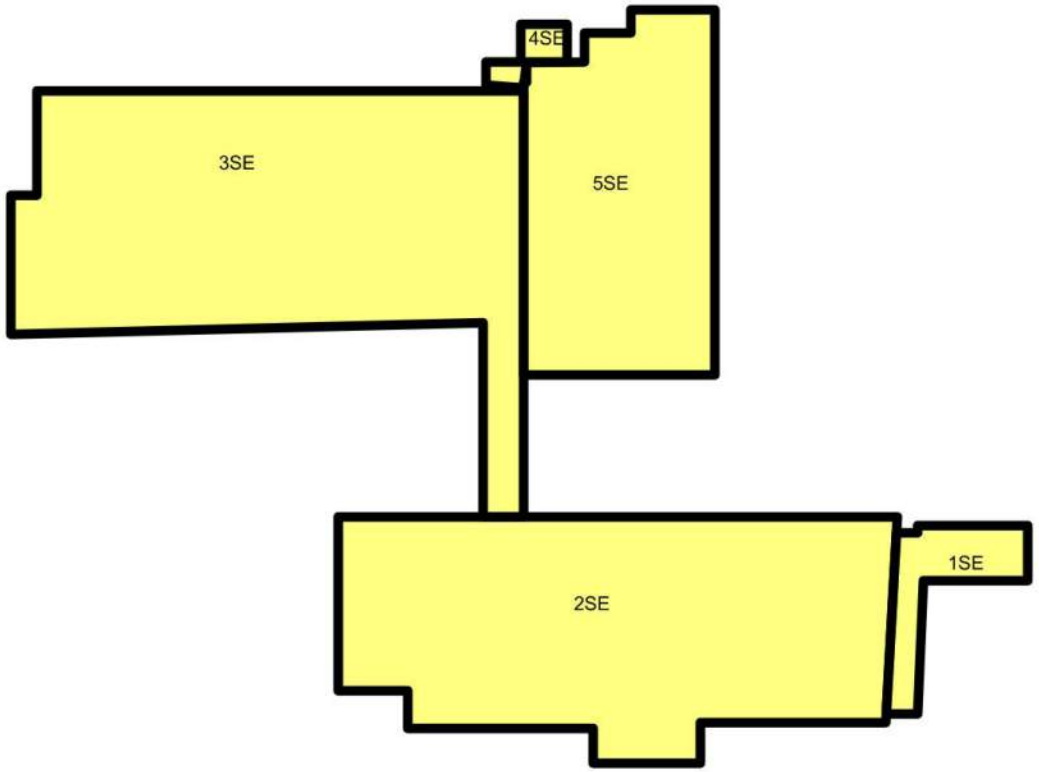
Roof Budgets

Parkrose School District

Sacramento Elementary

Color	Existing	Scope	Action Years	Estimated Cost	Expected Life
	Single Ply	Restore	2023-2025	$650,000	20
	1SE, 2SE, 3SE, 4SE, 5SE				
		Replace/retrofit	2026-2027	$1,100,000	30



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Site Map

Parkrose School District

Sacramento Elementary

Total Sq. Per Roof Section

Color	Existing
	Sika PVC 1S,2S,3S,4S,5S

1S	1000
2S	16500
3S	2500
4S	4500
5S	23000
Total sq. ft.	47500

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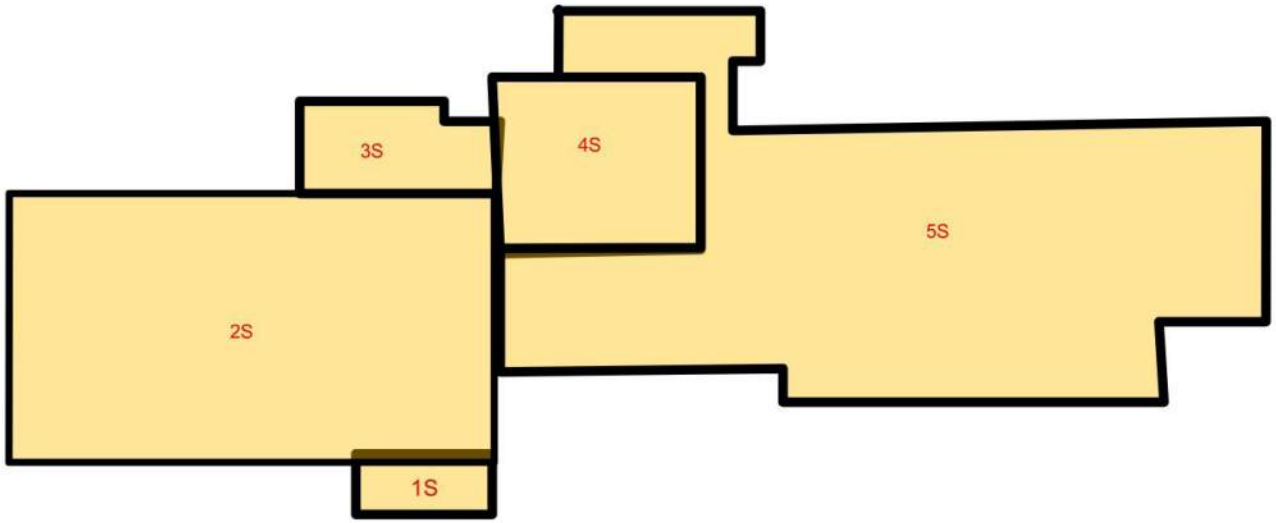
Parkrose School District

Sacramento Elementary

Color	Existing	Scope	Action Years	Estimated Cost	Expected Life
	Sika PVC 1S,2S,3S,4S,5S	Restore	2022-2024	$550,000	20



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Site Map

Parkrose School District

Helenvsivew

Total Sq. Per Roof Section

Color	Existing
	Bur 3HV, 4HV
	BUR 1HV,2HV,5HV

• 1HV	23000
• 2HV	1200
• 3HV	3800
• 4HV	15500
• 5HV	1500
Total sq. ft.	45,000

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Roof Budgets

Parkrose School District

Helenview

Color	Existing	Scope	Action Years	Estimated Cost	Expected Life
	Bur	Retrofit	2022	$325,000	30
	3HV, 4HV	Replace	2022	$410,000	30
	BUR	Restore	2022	$200,000	15
	1HV,2HV,5HV	Retrofit	2024	$470,000	30

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Site Map

Parkrose School District

Knott Creek

Total Sq. Per Roof Section

Color	Existing
	Bur/Coating 1k, 3k, 4k, 5k
	BUR 2k

1K	5000
2K	9000
3K	4500
4K	4100
5K	17800
Total sq. ft.	40,400

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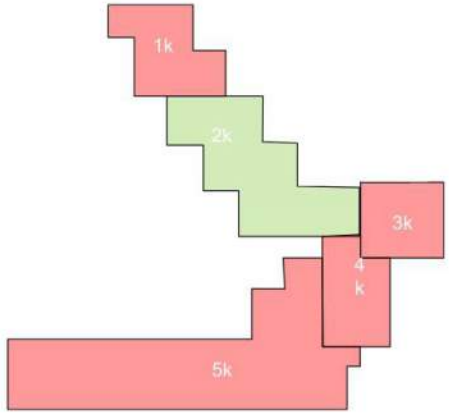
Roof Budgets

Parkrose School District

Knott Creek



Color	Existing	Scope	Action Years	Estimated Cost	Expected Life
	Bur/Coating 1k, 3k, 4k, 5k	Replace	2022-2024	$625,000	n/a
	BUR 2k	n/a	n/a	n/a	20

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