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Property Assessment Report

Shawnee Mission North High School

7401 Johnson Dr, Overland Park, KS 66202



Home of the Indians

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ENGINEERING SUCCESS

Evaluation - Shawnee Mission North HS

Dec. 27, 2018

Client

	Possible Points	Actual Points
1.00 SCHOOL SITE	150	124
2.00 STRUCTURE AND MECHANICAL FEATURES	200	126
3.00 PLANT MAINTAINABILITY	100	73
4.00 SCHOOL BUILDING SAFETY	200	130
5.00 ENVIRONMENT FOR EDUCATION	150	122
6.00 EDUCATIONAL ADEQUACY	200	91
7.00 FUTURE READY ENVIRONMENTS	100	57
Total	1100	723

Adapted from CEFPI Facility Evaluation

Score 66%

Evaluation - Shawnee Mission North HS

Dec. 27, 2018

Client

1.00 SCHOOL SITE**150 POINTS**

		Possible Points	Actual Points
LOCATION			
1.01	Site is central to and easily accessible to the present and/or future population.	20	20
1.02	Site is large enough to meet educational needs as determined by the state and local district (10 acres + 1 acre/100 students).	25	25
1.03	Site is removed from undesirable business, industry and traffic.	10	8
1.04	Site can accommodate future on-site expansion if needed.	10	2
1.05	Site has adequate drainage, both from designed topography and storm systems.	5	4
1.06	Site has stable, well-drained soil free of erosion and is well landscaped.	5	4
AMENITIES			
1.07	Sufficient on-site hard surface parking for faculty, staff and visitors is provided.	5	5
1.08	Athletic/Activity Fields are well located and removed from streets, drives and parking areas.	5	5
1.09	Site has opportunities for outdoor learning experiences with adequate seating, workspaces and coverage from the elements	5	2
1.10	Outdoor play areas are well equipped for all age levels.	5	5
SITE SAFETY			
1.11	Car and bus traffic is adequately separated.	10	5
1.12	On site traffic can flow smoothly, maintaining minimal impact on adjacent streets during drop off/pick up.	10	8
1.13	Number and location of fire hydrants are adequate for the building.	10	10
1.14	Access streets have sidewalks and sufficient signals and signs to permit safe access to and from school site.	5	5
1.15	Site lighting is adequate for safety and security at night.	5	3
1.16	On-site walks and steps are in good condition and protected by proper signs and signals.	5	3
1.17	Loading docks and large truck traffic are separated from cars and pedestrians.	5	5
1.18	Plantings are appropriately placed and groomed, ensuring there are no blind or hiding spots near entrances.	5	5
TOTAL - SCHOOL SITE		150	124

Evaluation - Shawnee Mission North HS

Dec. 27, 2018

Client

2.00 STRUCTURE AND MECHNICAL FEATURES

200 POINTS

BUILDING STRUCTURE		Possible Points	Actual Points
2.01	Foundations are sound and stable.	10	8
2.02	Exterior walls are free of deterioration, with proper expansion joints.	10	6
2.03	Roofs are structurally sound, have adequate drainage and are weathertight.	10	8
2.04	Building "envelope" meets energy use code requirements.	5	2
2.05	Entrances and exits are located so as to permit efficient student traffic flow.	10	7
2.06	Interior walls are free of deterioration.	10	9
2.07	Well-maintained ceilings create accoustically appropriate environments for learning	5	3
2.08	Wall construction permits sufficient flexibility options over time	10	5
2.09	Interior is free of friable asbestos and/or toxic materials.	10	5
MECHANICAL / ELECTRICAL			
2.10	Electrical service is underground.	5	5
2.11	Outside water supply is adequate for normal usage.	10	7
2.12	Heating units are separated from student-occupied areas in accordance with local building code.	10	7
2.13	Building electrical system is adequate for the educational program.	10	7
2.14	Learning areas have adequate access to grounded wall outlets.	5	3
2.15	Well-maintained light sources provide adequate and adjustable lighting levels.	5	3
2.16	Plumbing fixtures and piping are in good condition.	5	4
2.17	The number and location of useable drinking fountains are adequate including provisions for the disabled.	5	2
2.18	Number of toilet rooms and fixtures meet or exceed code requirements.	10	7
2.19	Individual toilets have been included to address gender neutrality or family access.	5	2
2.20	Internal building water supply is adequate with sufficient pressure to meet health and safety needs.	10	8
2.21	Automatic and manual fire alarm system with a distinctive sound and flashing light is provided.	10	6
2.22	Fire alarms, smoke detectors, sprinkler systems stand pipes and hose cabinets are properly maintained and meet or exceed code requirements.	10	6
2.23	Intercommunication system includes a central unit that allows dependable two-way communication between the office and each room.	5	3
2.24	Kitchen exhaust hood is of adequate size, properly maintained, and has approved fire suppression system.	5	4
2.25	Technology infrastructure meets current needs and can be adapted for the future	10	7
TOTAL - STRUCTURAL & MECHNICAL FEATURES		200	126

Evaluation - Shawnee Mission North HS

Dec. 27, 2018

Client

3.00 MAINTAINABILITY OF FACILITY

100 POINTS

MAINTENANCE		Possible Points	Actual Points
3.01	Windows, doors and walls are of material and finish requiring minimum maintenance.	10	10
3.02	Outdoor light fixtures, electric outlets, equipment and other fixtures are accessible for repair and replacement.	10	7
3.03	HVAC equipment is designed and constructed for ease of operation and maintenance.	10	6
3.04	Learning area floor finishes require minimum care.	10	10
3.05	Floors in restrooms, kitchens, cafeterias and corridors require minimum maintenance.	10	8
3.06	Service area walls and ceilings are durable and easily cleaned.	10	5
3.07	Restroom fixtures are wall-mounted and of quality construction.	10	4
3.08	Adequate custodial storage space with water and drain is accessible to all areas.	10	8
3.09	Adequate electric outlets and power are available in every area to permit routine cleaning.	10	7
3.10	Operating door hardware is coordinated and in good condition.	10	8
TOTAL - MAINTANABILITY OF FACILITY		<u>100</u>	<u>73</u>

Evaluation - Shawnee Mission North HS

Dec. 27, 2018

Client

4.00 SCHOOL BUILDING SAFETY

200 POINTS

		Possible Points	Actual Points
BUILDING SAFETY			
4.01	Classrooms have the appropriate number of exits and doors are recessed.	15	5
4.02	Exterior doors open outward and are equipped with panic hardware.	15	15
4.03	Glass is properly located and protected - safety glass utilized per code requirements.	10	5
4.04	Flooring (including ramps) is maintained in a nonslip condition.	5	5
4.05	Stair risers do not exceed 72" and range in number from 3 - 16 per flight.	5	2
4.06	Circulation areas are free from obstructions and are adequately sized for the student population	10	8
4.07	Multi-story buildings have at least two protected exit stairways.	15	8
4.08	Exits are marked with lighted exit signs on separate electrical circuits.	10	5
4.09	Traffic areas terminate at an exit or an exit stairway leading to an egress.	15	11
4.10	Interior stairways and ramps have handrails that meet code requirements.	10	6

EMERGENCY SAFETY

4.11	A secure entry point ensures visitors must check in to the office.	15	15
4.12	Building is zoned to ensure safety in the event of an intruder scenario.	15	7
4.13	Emergency lighting is provided throughout building.	10	7
4.14	There are at least two independent exits to safety from any point in the building.	15	8
4.15	Noncombustible and/or fire-resistant materials are used throughout the structure.	10	10
4.16	Adequate fire safety equipment is properly located.	10	5
4.17	Ample space is provided in traffic and protected areas for student safety in high wind (storm) events	15	8
TOTAL - SCHOOL BUILDING SAFETY		200	130

Evaluation - Shawnee Mission North HS

Dec. 27, 2018

Client

5.00 ENVIRONMENT FOR EDUCATION

150 POINTS

GENERAL LEARNING AREAS		Possible Points	Actual Points
5.01	Size of general learning areas meets minimum standards (PK/K: 900-1200 SF) (ES/MS/HS=700-900 SF)	10	5
5.02	Classrooms provide adequate space for district desired student/teacher ratio limits.	10	7
5.03	Classroom areas are conveniently located near related educational activities.	10	7
5.04	Academic areas have appropriate acoustic separation from noisy spaces.	10	8
5.05	Design of learning areas is compatible with instructional need.	5	4
5.06	Storage for student/teacher materials is adequate.	5	5
5.07	Flexible space for teachers is provided in classrooms while still maximizing learning space for students.	5	1
SPECIAL LEARNING AREAS		Possible Points	Actual Points
5.08	Special Education areas are appropriately sized and outfitted for unique student population needs.	10	8
5.09	Gymnasium or Multi-Purpose Room serves the school P.E. program and after school activities appropriately	5	5
5.10	Library/Resource/Media Center provides appropriate space that is flexible and inviting.	5	5
5.11	Music areas have adequate storage and sound treated instructional space.	5	4
5.12	Art rooms have adequate storage & lighting and access to water is included.	5	5
5.13	Appropriate space is provided for small groups and/or individual instruction and special programs.	5	2
5.14	Storage for student/teacher materials in special learning areas is adequate.	5	4
SUPPORT SPACE		Possible Points	Actual Points
5.15	Suitable reception area for students, teachers and visitors is available.	5	5
5.16	Adequate facilities are available for student programs and clubs.	5	5
5.17	Administrative offices provide staff with sufficient work space and the opportunity to collaborate when needed.	5	5
5.18	Ample and conveniently located storage includes secure place for permanent records.	5	5
5.19	Welcoming counseling space is provided to support the social/emotional wellbeing of students.	5	4
5.20	Health clinic area is near administrative offices and is equipped to meet requirements.	10	10
5.21	Teachers' lounge/work area provides teachers a place for rest and preparation.	5	5
5.22	Cafeteria/Commons is attractive with sufficient space for dining, service delivery, storage and food preparation, with good circulation patterns.	10	8
5.23	Indoor activity area available during inclement weather.	5	5
TOTAL - ENVIRONMENT FOR EDUCATION		150	122

Evaluation - Shawnee Mission North HS

Dec. 27, 2018

SMSD

6.00 EDUCATIONAL ADEQUACY**125 POINTS**

		Possible Points	Actual Points
EXTERIOR ENVIRONMENT			
6.01	Overall building appearance is attractive and welcoming.	10	9
6.02	Site and building are well landscaped.	10	7
6.03	Entrances are scaled appropriately for the age and number of students served.	5	5
6.04	Entrances and walkways are sheltered from sun and inclement weather.	10	7
6.05	Entrances are ADA accessible and door assist hardware is in working condition.	10	6

INTERIOR ENVIRONMENT			
6.06	Circulation and large group areas permit ease and control of traffic flow.	10	6
6.07	Areas for students to congregate are suitable to the age group.	5	4
6.08	Large group areas are designed for effective supervision and organization of students	5	4
6.09	A comfortable temperature can be maintained throughout the building in all seasons.	10	7
6.10	Ventilating system quietly provides adequate circulation of fresh air.	10	6
6.11	All classrooms utilized by students for the full day have daylight.	10	7
6.12	Acoustical treatment of ceilings, walls and floors provides effective sound control.	10	7
6.13	Exterior noise is not a distraction in the classrooms.	10	10
6.14	Color schemes, building materials and decor enhances learning experience.	5	3
6.15	Adequate areas are provided for student displays.	5	3
TOTAL - EDUCATIONAL ADEQUACY		125	91

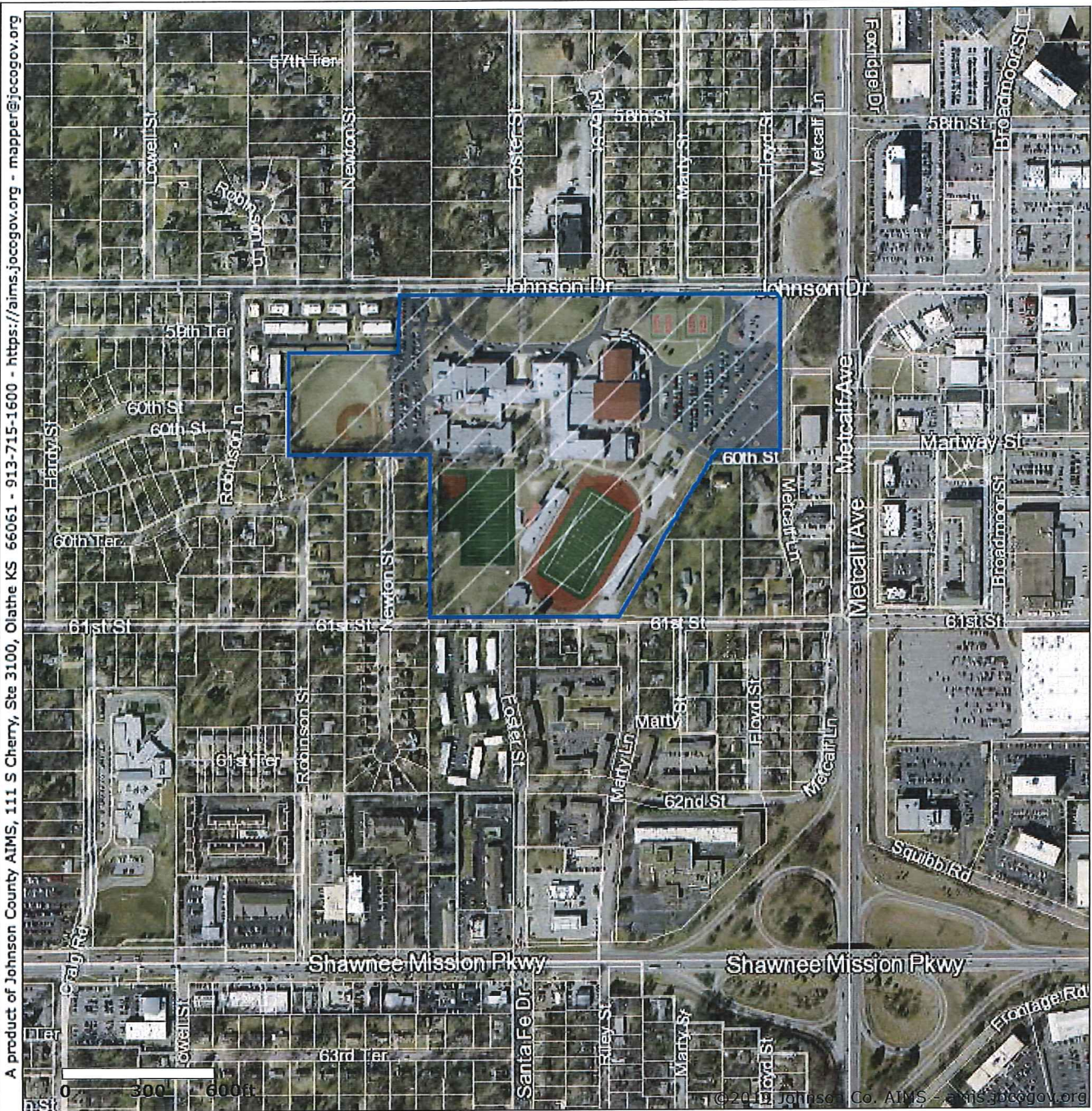
Evaluation - Shawnee Mission North HS

Dec. 27, 2018

Client

7.00 FUTURE READY ENVIRONMENTS 100 POINTS

Future Ready Environments		Possible Points	Actual Points
7.01	Student population is broken down into smaller neighborhoods for comfort and familiarity amongst students and staff.	10	8
7.02	Circulation areas have added learning value and are not just used for moving people.	10	2
7.03	Wayfinding is clear for staff, students and visitors.	5	4
7.04	Spaces are provided beyond the classrooms walls for flexible learning.	10	0
7.05	A variety of group sizes is accommodated to allow breakout learning or individual work environments.	5	3
7.06	Flexible learning spaces are easy to monitor by staff to allow student choice in learning settings.	10	8
7.07	A hands-on learning space is available to all students. (Maker space or Tinker Lab)	5	3
7.08	The building supports co-teaching opportunities.	5	5
7.09	Furniture is flexible, appropriately sized and easy to manipulate by staff and students.	10	7
7.10	Data access is plentiful and reliable.	10	8
7.11	A strong learning culture is supported through visual messaging and student display.	5	3
7.12	Learning is appropriately "on display" through transparency and display opportunities.	5	3
7.13	Green design has been incorporated into the building.	5	2
7.14	Green design has been leveraged in the building as a learning tool for students.	5	1
TOTAL - FUTURE READY ENVIRONMENTS		100	57



Johnson Co AIMS Map

LEGEND

- AIMS Imagery: Current Imagery (2018)
- Property



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JOHNSON COUNTY KANSAS
AIMS GIS & Mapping

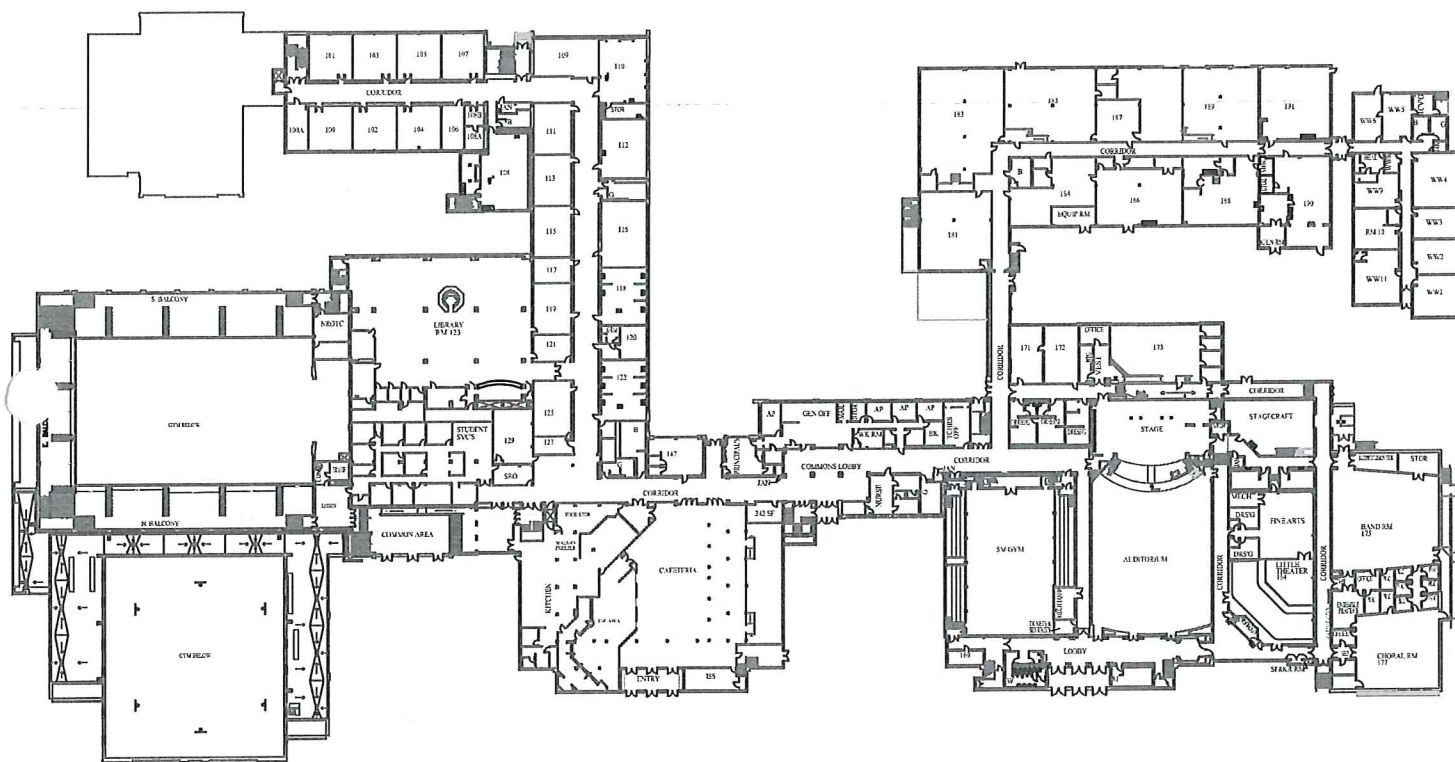
Property Information for NP78310000 0001

<i>Tax Property ID</i>	NP78310000 0001	<i>KS Uniform Parcel #</i>	0460630704017001000
<i>Situs Address</i>	7401 JOHNSON DR	<i>Acres</i>	39.34 (1,713,852.71 ft ²)
<i>Owner1 Name</i>	UNIFIED SCHOOL DIST #512	<i>Owner2 Name</i>	
<i>Owner Address</i>	8200 W 71ST ST, OVERLAND PARK, KS 66204	<i>Year Built</i>	1941
<i>Class</i>	E	<i>Neighborhood Code</i>	411.X
<i>LBCS</i>	6123	<i>Taxing Unit</i>	0660UW
<i>Zoning</i>	R-3,R-1		
<i>City</i>	Overland Park	<i>Zip Code</i>	66202
<i>AIMS Map No.</i>	F07 (T-R-S: 12-25-07)	<i>Quarter Section</i>	SE
<i>Fire Dist.</i>	Overland Park Fire	<i>Sheriff Dist.</i>	0
<i>Commissioner Dist.</i>	1 (Becky Fast)	<i>FEMA Flood Panel #</i>	20091C0023G
<i>School District</i>	Shawnee Mission	<i>High School</i>	SM North
<i>Middle School</i>	Hocker Grove	<i>Elementary School</i>	Crestview
<i>Plat Name</i>	SHAWNEE MISSION SCHOOL DISTRICT NORTH HIGH SCHOOL CAMPUS		
<i>Book/Page</i>	200604 / 4370	<i>Quarter Section</i>	SE
<i>Date Recorded</i>	4/14/2006	<i>Number of Units</i>	1
<i>Subdivision Name</i>	SHAWNEE MISSION NORTH HS CAMPUS		
<i>Legal Desc.</i> (abbreviated)	SHAWNEE MISSION SCHOOL DISTRICT NORTH HIGH SCHOOL CAMPUS LT 1 OPC 203 1 BTA0 4137 0		

Property Map for NP78310000 0001







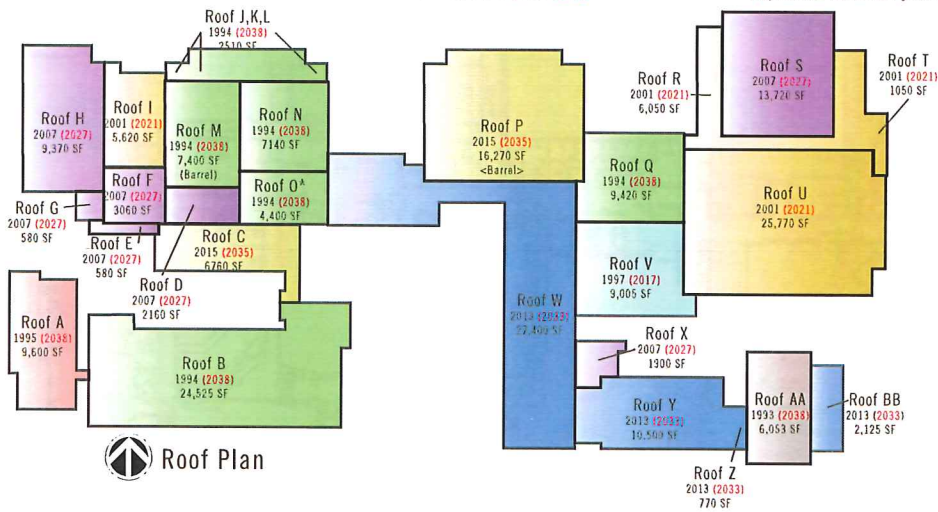
FIRST FLOOR

NORTH HIGH SCHOOL
7401 JOHNSON DRIVE
SCALE: NOT TO SCALE



Roof Areas

- | | |
|---|---|
| <p>Roofs AA
Derbigum / 420 squares
October 1993 (20 year) 2038</p> <p>Roofs Q
Tamko 103 / 90 squares (Library)
October 1997 (20 year) 2017</p> <p>Roofs B,J,K,L,M,N,O*,V
Derbigum / 628 squares
November 1994 (20 year) 2038</p> <p>Roofs A
Derbigum / 96 squares
March 1995 (15 year) 2038</p> | <p>Roofs I,R,T,U
Tamko 103 / 340 squares (Gym & L. Theater)
October 2001 (20 year) 2021</p> <p>Roofs D,E,F,G,H,S,X
Tamko 103
2007 (Missing) 2027</p> <p>Roofs W,Y,Z,BB
GAF Ruberoid/GAFGLAS Diamond / 397 squares
Pledge NDL
August 2013 (20 year) 2033</p> <p>Roofs C,P
Derbigum
September 2015 (20 year) 2035</p> |
|---|---|

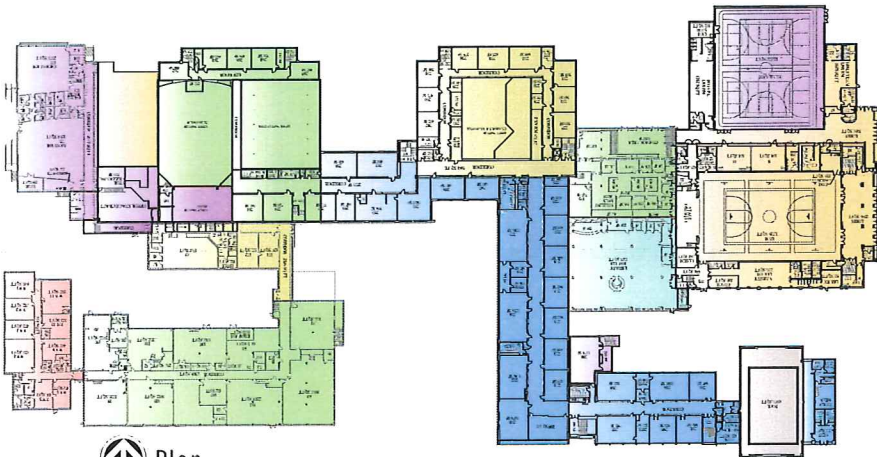


ROOF ASSESSMENT | A1

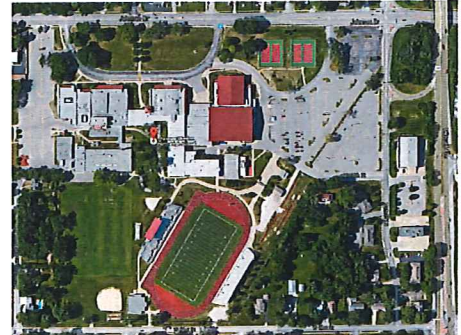


Roof Areas

<p>Roofs AA Derbigum / 420 squares October 1993 (20 year) 2038</p> <p>Roofs Q Tamko 103 / 90 squares (Library) October 1997 (20 year) 2017</p> <p>Roofs B,J,K,L,M,N,O*,V Derbigum / 628 squares November 1994 (20 year) 2038</p> <p>Roofs A Derbigum / 96 squares March 1995 (15 year) 2038</p>	<p>Roofs I,R,T,U Tamko 103 / 340 squares (Gym & L. Theater) October 2001 (20 year) 2021</p> <p>Roofs D,E,F,G,H,S,X Tamko 103 2007 (Missing) 2027</p> <p>Roofs W,Y,Z,BB GAF Ruberoid/GAFGLAS Diamond / 397 squares Pledge NDL August 2013 (20 year) 2033</p> <p>Roofs C,P Derbigum September 2015 (20 year) 2035</p>
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Plan



ROOF ASSESSMENT | A2

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SHAWNEE MISSION NORTH HIGH SCHOOL

Shawnee Mission School District



SHAWNEE MISSION SCHOOL DISTRICT SHAWNEE MISSION NORTH HIGH SCHOOL BUILDING SUMMARY IMAGES

December 2018

Architectural Exterior Images



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Architectural Interior Images



Typical classroom



Classroom Casework



Corridor



Corridor



Gymnasium



Performing Art Center



Media Center



Pool

MEP Images



Heater.



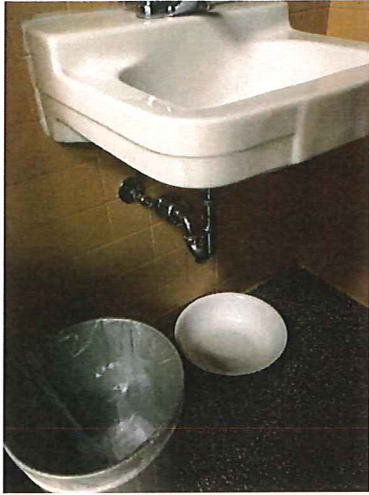
Gym Lighting.



Kitchen Hood



Plumbing Fixture



Leaking Sink

SHAWNEE MISSION SCHOOL DISTRICT SHAWNEE MISSION NORTH HIGH SCHOOL BUILDING SUMMARY REPORT

December 2018

Building Summary

Originally constructed in 1922, then "Rural High School" for the Johnson County School district, Major renovations in 1935, 1942, 1950, 1969 and 1977

Exterior Skin Summary

- Roof construction is low slope modified bitumen roofing and in good condition. A majority of the roof system was replaced in 2015-2018. Library Roof is in fair condition, yet the warranty expired in 2017 and should be scheduled for replacement.
- Exterior walls are face brick and is in fair condition. Several original steel lintels above doors and windows are in poor condition and are scheduled to be replaced in 2019.
- Exterior windows are aluminum framed and have insulated glass and appropriate hardware.
- Exterior doors have aluminum frames and insulated glass and appropriate hardware.

Interior Summary

- Classrooms have a combination of VCT and carpet square floors, 2'x4' ceiling tiles and recessed lighting, painted plaster and CMU walls.
- Wood doors with steel door frames and good hardware.
- Classroom doors open toward the corridor and encroach onto the corridor path of travel.
- Corridors have VCT floors, 2'x4' ceiling tiles and recess lighting and a glazed block wainscot and painted plaster walls
- Restrooms have resinous and terrazzo flooring, 2'x4' ceiling tiles and recess lighting, and glazed block walls.
- Gymnasium has wood flooring, CMU walls and the ceiling is open to structure
- Cafeteria has VCT flooring, plaster walls, 2'x4' ceiling tiles and recess lighting, all in good condition.
- Theater has plaster ceilings, exposed brick and wood paneling walls. Seating is in need to repair.
- Swimming pool has a sealed concrete floor, painted CMU walls and exposed structure ceilings. Steel lintels are rusting out around this area do to the corrosive nature of the pool chemicals and set for repair / replacement in 2019.
- Media Center was renovated in 2016 and in good condition.

Educational Summary

Page 1 of 9

Curriculum Delivery

- Classrooms are of small in size ranging from 524 SF to 850 SF for standard rooms.
- Most classrooms are located on perimeter of the building allowing access to natural daylight.
- Teacher and student storage in many classrooms is in need of updating to be in line with district standards.

Future Ready Skills & Lifelong Learning

- The building has adequate large spaces with plumbing, storage and amenities for STEM and PLTW classes.

Technology

- Technology infrastructure is in place for the 1 to 1 initiative set forth by the district, but there is a lack of electrical outlets for charging of devices.

Shawnee Mission North Requests

- Building additions –
 - #1 - across the rose garden, connecting the 2 parts of the building – house a new weight room, classrooms, collaborative spaces, lecture hall
 - #2 – connect auxiliary gym with cafeteria
- Cafeteria expansion – restrooms inside café
- Old gym renovation/re-purposing
- Classroom renovations – classrooms above café, FACS classrooms, classrooms above auditorium
- New classroom furniture – all classrooms throughout the building

Site Summary

Address: 7401 Johnson Drive, Overland Park, KS 66202

Zoning: R-1

Size: 39.3 Acres

Site Evaluation performed Thursday, December 27, 2018

The site evaluation began at the northwest parking lot and worked around the building in a counterclockwise direction. The evaluation took place after a substantial rainfall, which allowed observation of drainage patterns and function, as well as grading deficiencies in pavement and on the grounds.

Drainage:

- Pavement drainage appears good overall. There was little, if any, pooling of runoff on the pavement.
- A couple of curb islands in the northeast parking lot do not drain due to grade and hold water at the curb.
- Runoff ponding at pavement overlay transition in parking lot near easternmost entrance

from Johnson Drive.

- Several splash pans at the base of external downspouts are oriented backwards so runoff is blocked from draining away from the building. Several splash pans are also broken.
- Some external downspouts did not have splashpans.
- A lambs-tongue to the west of Entrance #1 that appears to carry frequent runoff does not have a splashpan or pavement directly below it.
- A lambs-tongue near Entrance #45 needs a splashpan and turf reinforcement below the outlet. Erosion is evident.
- Slope for drainage is marginal in U-shape area at back of school. Essential to maintain field grates free from leaves and debris.

Traffic and Circulation

- Unaware of any traffic or circulation problems.

ADA Facilities & Access

- There are 2 parallel ADA stalls marked on the left side of the circulation drive at the front of the building. There is a sidewalk ramp behind the ADA stalls leading to the front entrance #1.
- There are 3 additional parallel ADA stalls marked on the right side of the circulation drive at the front of the building. There is a sidewalk ramp behind the ADA stalls leading to entrance #48.
- There are 6 pull-in ADA stalls to the west of the building near the front with access to ADA ramps to the sidewalk (verify if sidewalk leading to front drive is 5% or less). Nearest entrance with ramps is Entrance #3 - twin ramps at this location are steeper than 8.33% (1:12) and not in ADA compliance.
- Entrance #1 is equipped with ADA accessible power operated door.
- Ramps at Entrance #42 (east side of building) appear to be ADA compliant.
- There are 7 pull-in ADA stalls in the front row of the east parking lot with access to Entrance #42. Two of these stalls do not have an access aisle, thus are not in compliance with current ADA standards.
- There are 5 additional pull-in stalls in the east parking lot directly accessible to the district stadium.

Pavement Condition

- NW Parking Lot
 - Moderate block cracking and minor raveling with some alligator cracking.
 - Suggest full depth patching of areas with alligator cracking or potholes, crack seal and sealcoat on remainder.
- North Circulation Drive
 - Raveling with moderate block cracking with alligator cracking along wheel path and edge.
 - Suggest full depth patching of areas with severe alligator cracking and 2" mill and overlay.

- East Circulation Drives
 - Raveling with moderate block cracking with alligator cracking along wheel path and edge.
 - Suggest full depth patching of areas with severe alligator cracking and 2" mill and overlay.
- East Parking Lot
 - Moderate block cracking and minor raveling with some alligator cracking.
 - Suggest full depth patching of areas with alligator cracking, crack seal and sealcoat on remainder.
 - North end of east lot has indication of more recent maintenance and only needs a sealcoat.
 - Several breaks in vertical curb.
 - Sawcut and repair breaks.
- Gated rear delivery area
 - Minor raveling with longitudinal cracking
Recommend full depth patching of longitudinal crack, crack seal and sealcoat

Sidewalks

- Sidewalks are in generally fair condition with some spalling and transverse cracking.
 - Replace cracked or spalled panels
- Severe cracking and settlement of sidewalk leading to Entrance #2.
 - Replace.
- Minor hairline cracks in newer sidewalk to Entrance #1.
 - Recommend joint sealant.
- Several sidewalk panels along circulation drive with minor spalling and contraction joints too shallow to function as intended.
 - Recommend replacement of sidewalk.
- Spalled joint at sidewalk/curb edge near Entrance #47
 - Replace.
- Apply joint seal to crack on approach drive to Entrance #47
- Several cracked panels near Larry Taylor Field sign on back building.
 - Replace broken panels.
- Steps between tiers in east parking lot have broken sidewalls where handrail attaches at top of run
 - Repair sidewall - dowel into existing walk and sidewall.
- Remove and replace asphalt utility trench repairs on sidewalk at two locations, (one in front and one in rear near industrial arts area).
- Replace cracked sidewalk panels in front of Entrance #26 at rear of main building.
- Longitudinal and transverse cracking in circular sidewalk in u-shaped area at rear of building
- Two large corner breaks exposing handrail embedment and spalling on ramp and landing to Entrance #19
 - Replace landing
- Fieldhouse Entrance (east end of building)

- Broken concrete corners on steps and ramps exposing the embedment where handrail posts are cored into concrete.
- Multiple locations of large spalled cracks and patches of previous cracks on the wide steps than span a large portion of the east façade.
 - Broken concrete is affecting the integrity of the handrail and patching of the magnitude required would result in an unappealing appearance - recommend that steps, ramps and handrails be replaced.

MEP SUMMARY

General

- Mechanical system serving parts of the building is a 4-pipe hydronic system with air handlers located in various mechanical rooms. Portions of the building are served by rooftop units / ground mounted rooftop units and a couple locations being served from split systems. Age of mechanical equipment ranges from 10 years to 30 years.
- Lighting throughout majority of building appears to be sufficient. Corridors, Gym, and pool all have low light levels. Majority of building has fluorescent light fixtures few areas have been replaced with LEDs. Gym and pool still have metal halides that take a while to turn on.
- Existing electrical service size appears to be adequate. Most areas of the building have available space for additional circuits. Some equipment appears to have energy metering and surge protection.
- Majority of building does not have fire sprinkler protection.

Mechanical Systems

- System Descriptions
 - 4-pipe hydronic system, air-handlers and fan powered boxes
 - Water cooled chillers around 1 year old. Typical life of a chiller is 20 – 25 years.
 - Cooling tower around 20 years old. Tower has been recently rebuilt in the last couple years. Typical life of a cooling tower is 15 – 20 years.
 - Boilers are around 2 years old. Typical life span is 20-25 years.

- Rooftops and ground mounted rooftops around 5 – 20 years old. Typical life of a rooftop is 15 – 20 years.
- Areas are served by split systems. Split systems don't have code required outsider air. Typical life of a split system is 10 – 15 years.
- Various rooms have portable space electric baseboard heaters and portable fans.
- Portions of the building that don't use hydronic heat are using electric heat.
- Kitchen mechanical equipment is old and needs to be replace.
- Pool mechanical equipment didn't appear to be functioning properly because doors were open to outside and to inside adjacent spaces. This space should be isolated from the rest of the building with doors closed and proper mechanical system that would help eliminate moisture and corrosion issue to adjacent rooms near the pool.
- Controls Systems
 - A full BMS control system is currently installed to serve all HVAC equipment.
 - Majority of classrooms appear to have individual control.
- Additional Updates required to bring systems up to current codes:
 - Demand control ventilation shall be provided for spaces larger than 500 square feet and with average occupant over 25 people per 1000 square feet.
 - Energy recovery at locations where exhaust cfm or outside supply cfm exceeds 5500 cfm or is a 100% make-up air / exhaust system. Lockers rooms would require energy recovery.
- Additional Updates required to bring systems up to current SMSD Standards:
 - HVAC equipment efficiencies shall be increased.

Plumbing Systems

- Hot Water
 - Hot water system appears to be sufficient. A couple spaces require running water for a short extended time before receiving hot water.
 - Majority of hot water heaters are around 10 years old. Typical life of a hot water heater is 10 – 15 years.
 - Majority of water heaters are electric.
- Water Supply
 - Water pressure appeared to be sufficient.
 - Water service was provided with backflow preventer.
- Roof Drains
 - Portions of building have gutter and downspout and other areas of internal roof drains.
 - Gutter downspout system ties into storm sewer.
 - Portions of building have internal overflow drains and other portions don't have any overflow drains.
- The majority of the restroom groups appeared to have not been updated to Shawnee Mission School District standard faucets, flush valves, china, etc.
- Majority of water coolers were not ADA compliant but there were a couple bottler filling stations added.
- Location where old lavatory is leaking and a bowl is located under sink to catch any water that drips.
- Additional Updates required to bring systems up to current codes:
 - All handwashing sinks will need to have thermostat mixing valves installed to limit maximum water hot water temperature to 110°F.
 - Kitchen hot water should be supplied to kitchen at 140° served from hot water system mixing valve.

- Additional Updates required to bring systems up to current SMSD Standards:
 - Replace all faucets and flush valves with Toto sensor devices.
 - Hot water recirculation line shall tie into hot water line with-in 3 feet of every hand washing sink.
 - Replace majority of water closets and urinals with new wall-mounted fixtures.

Electrical Systems

- Lighting
 - Majority of building has fluorescent light fixtures. Very few areas have been upgraded to LED lights.
 - Gym and pool area has metal halide, providing low light levels and long, time duration before lights warm up.
 - Occupancy sensors and vacancy sensors have not been installed in corridors, classrooms, offices, restrooms, etc.
 - Exterior lights appeared to be dim and provide low light levels. Majority of exterior light fixtures were not LED.
- Power
 - Electrical service is underground.
 - Electrical service appears to be sufficient and some equipment appears to have energy metering and surge protection.
 - Extension cords and power supplies were common in classrooms due to insufficient quantities and locations of electrical receptacles.
 - Various electrical panels throughout the building have some space others appear to be full.
 - Electrical panels located in band storage room.
- Special Systems (Fire Alarm, Intercom, Data Systems)
 - Entire fire alarm system not all upgraded. May take major modifications to support a new mass notification system.
 - Intercom system appeared functional and sufficient.
 - Data systems appeared functional and sufficient.
 - Classrooms were provided with projector systems.
 - Data rack was located in band storage room. No dedicated A/C was provided.
 - Data room was also being used as a janitor's closet.
- Additional Updates required to bring systems up to current codes:
 - Electrical
 - Additional Exterior lighting to ensure sufficient illumination.

- Provide code required surge protection.
 - Lighting
 - New lighting controls with occupancy sensors installed in entire building.
 - New lighting to meet watts per square foot based on energy code.
 - Fire Alarm – Addition of mass notification speakers.
 - Intercom system – None
 - Data systems – None
- Additional Updates required to bring systems up to current SMSD Standards:
 - Electrical
 - Energy Metering added to all electrical equipment.
 - Additional receptacles added throughout classrooms.
 - Lighting
 - New LED light fixtures installed in all areas, interior and exterior
 - Dimming Controls added in classrooms.
 - Fire Alarm – Addition of mass notification speakers.
 - Intercom system – New Valcom Intercom System
 - Data systems – Dedicated IT closets for Data Racks and data associated equipment.



SHAWNEE MISSION SCHOOL DISTRICT HIGH SCHOOL & MIDDLE SCHOOL ASSESSMENTS
2.15.2019

hollis architects
miller

SHAWNEE MISSION NORTH HIGH SCHOOL

Project Description	Square Feet	Cost/ SF	Hard Construction Cost	25% soft costs	Total Project Cost
NORTH HIGH SCHOOL - 201,000 SF					
Parking Lot & Sidewalk Improvements			\$285,000	\$71,250	\$356,250
Roof Improvements	41,875	\$19.00	\$795,625	\$198,906	\$994,531
Restroom Renovations	6,655	\$135.00	\$898,425	\$224,606	\$1,123,031
Corridor Floor Update to match SMNW and SMS	12,500	\$20.00	\$250,000	\$62,500	\$312,500
New Theater Seating	6,167	\$40.00	\$246,680	\$61,670	\$308,350
Classroom casework	40,000	\$10.00	\$400,000	\$100,000	\$500,000
Water Heater Replacement			\$55,000	\$13,750	\$68,750
Restroom Sinks and Toilet Fixtures			\$55,000	\$13,750	\$68,750
LED Lighting and Occupancy Sensors	150,000	\$2.50	\$375,000	\$93,750	\$468,750
Add outlets/devices/update circuiting	201,000	\$1.50	\$301,500	\$75,375	\$376,875
New Valcom Intercom System	201,000	\$0.35	\$70,350	\$17,588	\$87,938
Addition - house a new weight room, 8 classrooms, collaborative spaces, lecture hall	22,500	\$320.00	\$7,200,000	\$1,800,000	\$9,000,000
Addition - connect auxiliary gym with cafeteria	5,500	\$320.00	\$1,760,000	\$440,000	\$2,200,000
Cafeteria expansion - restrooms inside café	12,947	\$280.00	\$3,625,160	\$906,290	\$4,531,450
Original gym Renovation / Re-purposing	3,520	\$280.00	\$985,600	\$246,400	\$1,232,000
Classroom renovations - classrooms above café, FACS classrooms, classrooms above auditorium	5,000	\$195.00	\$975,000	\$243,750	\$1,218,750
New classroom furniture - all classrooms throughout the building			\$825,000	\$206,250	\$1,031,250
			\$18,278,340	\$4,569,585	\$22,847,925
INFLATION FROM 2019 TO 2020 = 6%					\$1,370,876
SMN TOTAL					\$24,218,801

