




# SHAWNEE MISSION SOUTH HIGH SCHOOL **FACILITY EVALUATION**





# OVERALL SUMMARY

ACI Boland Architects along with RTM visited each of the schools over a several week process. Each school was evaluated and scored using the A4LE School

Facility Appraisal document included in this report. The school's principal and maintenance personnel were present at the building walk-throughs to offer insight into building positives and negatives.

**The overall Assessment scores are indicated as follows:**

- |                                     |                   |
|-------------------------------------|-------------------|
| • <b>East High School</b>           | <b>145 points</b> |
| • <b>South High School</b>          | <b>149 points</b> |
| • <b>Indian Hills Middle School</b> | <b>133 points</b> |
| • <b>Indian Woods Middle School</b> | <b>139 points</b> |
| • <b>Hocker Grove Middle School</b> | <b>142 points</b> |



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## SUMMARY

South High School was opened in 1966 on 107th street & Lamar Ave. in Overland Park, KS. The current enrollment is 1,509 students at its maximum enrollment levels in the 1970's it was home to over 2,200 students.

Traffic in and out of the site is primarily handled off of lightly traveled 107th street and has not been an issue. Currently student, parent and bus drop off and pickup is intermingled, but there is plans to divide the traffic and flow with an upgraded parking lot in the summer of 2019 or 2020. These improvements will allow cars and buses to be separated and a safe path for pedestrians from the parking lot to the building.

Recently the football stadium complex was refurbished and improved with new press box, concession stand, toilets with complete ADA accessibility. New turf field and track was also installed along with a new practice PE turf field.

The building is primarily constructed of load bearing masonry and brick veneer. The building is three stories tall and very linear with a major east west corridor connecting major programs. The building is good condition overall and has been well maintained.

The lower level locker rooms under the gyms are not ADA accessible and is



confusing in its layout with multiple corridors and blind corners. Locker rooms are in poor overall shape and need to be modernized to meet today's needs including a larger varsity girls locker room and a gender-neutral locker room are desired.

District varsity locker rooms at the football stadium are desired to free up the two locker rooms inside of the building for school use.

Some programs have left the high school such as PLTW and Automotive and those spaces in the basement could be utilized for new or relocated programs to potentially create commons / collaboration space on the main floor.

The counselor's office is not on the same floor nor adjacent to the administrative offices and they would like to be combined for better cooperation and ability for parents and students to access their services.

A new black box theater and lobby are being constructed this year to replace the small theater that was taken over by the 18-21 year old program under the library several years ago.

The media center was recently updated and is the buildings loan collaboartion space.

Circulation in the academic wing is not an issue as there is adequate corridor width and vertical circulation.

The Environmental Lab east of the school is a resource used by many in the district and there is a desire for a education building to be built to run educational programs.

Some toilets are partially ADA compatible, no gender fluid toliets or locker rooms.



APPRAISAL

**GUIDE FOR**

**SCHOOL FACILITY APPRAISAL**

**INSTRUMENT FOR**

**SM South High School**

**APPRAISAL**



## Directions for Appraising Facilities

### High School Appraisal

Prior to evaluating a building, the appraiser should become familiar with the educational program provided within the existing school facility. It is essential to determine other pertinent factors about the facility, which will provide background information sufficient to insure a thorough and accurate appraisal. Particularly helpful are the building's architectural plans, specifications and layout, if these are available. If possible, the school plant should be appraised at a time when school is in session, so that the actual use of the building is more apparent.

Although the Appraisal Guide is designed for individual appraiser use, ideally the school facility should be evaluated at the same time by three to five appraisers. The ratings of each of the appraisers should then be used to arrive at a consensus for each item. The final rating is the result of careful review of the individual scores.

The instrument uses an additive scoring method, with each item having a maximum number of allowable points. A total of 1,000 points is distributed among these six major categories:

<u>Section</u>	<u>Maximum Points</u>
1.0 The School Site	100
2.0 Structural and Mechanical Features	200
3.0 Plant Maintainability	100
4.0 School Building Safety and Security	200
5.0 Educational Adequacy	200
6.0 Environment for Education	200

### Prior to Appraisal

#### Step I

Review the educational program; identify the number of faculty members and students; and examine the floor and plot plans carefully.

### Overview of the Building and Grounds

#### Step II

Upon approach to the site, look for traffic patterns, school safety signs, neighborhood environment, etc. Begin the appraisal by taking a preliminary tour of the entire building noting both exterior and interior features. Information obtained prior to arrival at the campus recorded in the Building Data Record should be verified. The appraisal weights should not be determined during this initial walk through. The appraisal is better accomplished as separate individual steps in the process.

### Assignment of Scores

#### Step III

After the completion of the preliminary inspection, go through the entire instrument section by section. The appraisal will be more accurate if each item is carefully considered, while it is appropriately observed. **Do not try to evaluate from memory** - use actual observation when making the appraisal decision.

*Items that are needed/required, but are non-existent, should be given a 0 score. If an item is not needed and is non-existent, full credit should be allowed.*

Note the Table of Weights for assistance in determining the score to be given each item. Each item should first be considered in the following terms: Non-Existent, Very Inadequate, Poor, Borderline, Satisfactory and Excellent. The weight (score) should then be assigned for that item. Place score in space provided in the Points Allotted column, total the score for each Section and insert in the space provided. The Section totals should then be tabulated and indicated in the Points Assigned column of the Appraisal Summary. Use the space provided in the Justification for Allocation of Points to provide notes justifying the scores at the extreme ends of the scale (e.g., very inadequate or excellent).

## Building Data Record

**Name of Appriaser:** \_\_\_\_\_ **Date of Appraisal:** January 17, 2019

**Building Name:** Shawnee Mission South High School

**Street Address:** 5800 W. 107th

**City, State, Zip Code:** Overland Park, KS 66207

**Telephone Number(s):** 913 993-7500

**School District:** Shawnee Mission School District

**Setting:**    ☐ Urban                      ☒ Suburban                      ☐ Small City                      ☐ Rural

Site Acreage:                      76.1                      Building Square Footage                      344,860

Grades Housed:                      9th-12th                      Student Capacity                      x

# of Teaching Stations: x                      # of Floors                      3

Student Enrollment:                      1509                      As of:                      1/17/2019

Dates of Construction: Original building 1966 additions and renovations 1968, 1989, 1996, 1999, 2006, 2015

**Energy Source:**                      ☐ Fuel Oil                      ☒ Gas                      ☒ Electric                      ☐ Solar

**Air Conditioning:**                      ☒ Roof Top                      ☐ Window Units                      ☒ Central                      ☐ Room Units

**Heating:**                      ☐ Central                      ☒ Roof Top                      ☐ Individual Unit

☐ Forced Air                      ☐ Steam                      ☒ Hot Water

Types of Construction	Exterior Surfacing	Floor Construction
<input checked="" type="checkbox"/> Load Bearing Masonry	<input checked="" type="checkbox"/> Brick	<input type="checkbox"/> Wood Joists
<input type="checkbox"/> Steel Frame	<input type="checkbox"/> Stucco	<input checked="" type="checkbox"/> Steel Frame
<input checked="" type="checkbox"/> Concrete Frame	<input type="checkbox"/> Metal	<input type="checkbox"/> Slab on Grade
<input type="checkbox"/> Wood	<input type="checkbox"/> Wood	<input type="checkbox"/> Structural Slab
<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____



## APPRAISAL GUIDE FOR SCHOOL FACILITIES

Table of  
Weights  
and  
Categories

Maximum Points Allotted	Non- Existent	Very Inadequate 1 - 29%	Poor 30 - 49%	Borderline 50 - 69%	Satisfactory 70 - 89%	Excellent 90 - 100%
5	0	1	2	3	4	5
10	0	2	4	6	8	10
15	0	3	6	9	12	15
20	0	4	8	12	16	20
25	0	5	10	15	20	25

Appraisal  
Summary

## Section

Possible  
PointsTotal  
Earned

## Percent

Rating By  
Category

1.0 The School Site

100

83

83%

2.0 Structural and Mechanical

200

129

65%

3.0 Plant Maintainability

100

68

68%

4.0 School Building Safety &  
Security

200

159

80%

5.0 Educational Adequacy

200

153.0

77%

6.0 Environment for Education

200

149

75%

**TOTAL****1,000**

741

74%

## 1.0 The School Site

100 Points

1.1	<b>Site is large enough</b> to meet present and future educational needs as defined by state and local requirements.	25	15
1.2	<b>Site is easily accessible</b> and conveniently located for the present and future population.	20	20
1.3	<b>Location</b> is removed from undesirable business, industry, traffic and natural hazards.	10	10
1.4	Site is <b>well landscaped and developed</b> to meet educational needs.	10	8
1.5	Well equipped <b>athletic areas</b> are adequate with sufficient solid-surface parking.	10	10
1.6	<b>Topography</b> is varied enough to provide desirable appearance and without steep inclines.	5	4
1.7	Site has stable, well drained <b>soil free of erosion</b> .	5	4
1.8	Site is suitable for <b>special instructional needs</b> , e.g. outdoor learning.	5	3
1.9	<b>Pedestrian services</b> including adequate sidewalks with designated crosswalks, curb cuts and correct slopes.	5	4
1.10	Sufficient <b>on-site, solid surface parking</b> is provided for faculty, students, staff and community.	5	5
<b>Total - The School Site</b>		<b>100</b>	<b>83</b>

Table of  
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5	0	1	2	3	4	5
10	0	2	4	6	8	10
20	0	4	8	12	16	20
25	0	5	10	15	20	25



## 2.0 Structural and Mechanical Features

200 Points

### Structural

2.1	Structure meets all <b>barrier-free</b> requirements both externally and internally.	15	6
2.2	<b>Roofs</b> appear sound, have positive drainage, and are weather-tight.	15	12
2.3	<b>Foundations</b> are strong and stable with no observable cracks.	10	8
2.4	<b>Exterior and interior walls</b> have sufficient expansion joints and are free of deterioration.	10	6
2.5	<b>Entrances and exits</b> are located so as to permit efficient student traffic flow.	10	8
2.6	<b>Building "envelope"</b> generally provides for energy conservation (See criteria).	10	6
2.7	Structure is <b>free of friable asbestos</b> and <b>toxic materials</b> .	10	6
2.8	Interior walls permit sufficient <b>flexibility</b> for a variety of class sizes.	10	4

Table of  
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and  
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10	0	2	4	6	8	10
15	0	3	6	9	12	15

**Mechanical/Electrical**

<b>2.9</b>	<b>Adequate light sources</b> are well maintained, properly placed and are not subject to overheating.	<b>15</b>	<b>12</b>
<b>2.10</b>	<b>Internal water supply</b> is adequate with sufficient pressure to meet health and safety requirements.	<b>15</b>	<b>12</b>
<b>2.11</b>	Each teaching/learning area has adequate convenient <b>wall outlets</b> , phone and computer cabling for <b>technology applications</b> .	<b>15</b>	<b>6</b>
<b>2.12</b>	<b>Electrical controls</b> are safely protected with <b>disconnect switches</b> easily accessible.	<b>10</b>	<b>8</b>
<b>2.13</b>	<b>Drinking fountains</b> are adequate in number and placement, and are properly maintained including provisions for the disabled.	<b>10</b>	<b>4</b>
<b>2.14</b>	Number and size of <b>restrooms meet requirements</b> .	<b>10</b>	<b>4</b>
<b>2.15</b>	<b>Drainage systems</b> are properly maintained and meet requirements.	<b>10</b>	<b>8</b>
<b>2.16</b>	<b>Fire alarms, smoke detectors and sprinkler systems</b> are properly maintained and meet requirements.	<b>10</b>	<b>6</b>
<b>2.17</b>	<b>Intercommunication system</b> consists of a central unit that allows dependable <b>two-way communication</b> between the office and instructional areas.	<b>10</b>	<b>8</b>
<b>2.18</b>	<b>Exterior water supply</b> is sufficient and available for normal usage.	<b>5</b>	<b>5</b>
<b>Total - Structural and Mechanical Features</b>		<b>200</b>	<b>129</b>

Table of  
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5	0	1	2	3	4	5
10	0	2	4	6	8	10
15	0	3	6	9	12	15



### 3.0 Plant Maintainability

100 Points

3.1	<b>Exterior windows, doors and walls</b> are of material and finish requiring minimum maintenance.	15	12
3.2	<b>Floor surfaces</b> throughout the building require minimum care.	15	12
3.3	<b>Ceilings and walls</b> throughout the building, including service areas, are easily cleaned and resistant to stain.	10	6
3.4	<b>Built-in equipment</b> is designed and constructed for ease of maintenance.	10	8
3.5	<b>Finishes and hardware</b> , with a compatible keying system, are of durable quality.	10	6
3.6	<b>Restroom fixtures</b> are wall mounted and of quality finish.	10	4
3.7	Adequate <b>custodial storage space</b> with water and drain is accessible throughout the building.	10	8
3.8	Adequate <b>electrical outlets and power</b> , to permit routine cleaning, are available in every area.	10	8
3.9	<b>Outdoor light fixtures, electric outlets</b> , equipment, and other fixtures are accessible for repair and replacement.	10	4
<b>Total - Plant Maintainability</b>		<b>100</b>	<b>68</b>

Table of  
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10	0	2	4	6	8	10
15	0	3	6	9	12	15

## 4.0 Building Safety and Security

200 Points

### Site Safety

4.1	<b>Student loading areas</b> are segregated from other vehicular traffic and pedestrian walkways.	15	9
4.2	<b>Walkways</b> , both on and offsite, are available for safety of pedestrians.	10	8
4.3	<b>Access streets</b> have sufficient signals and signs to permit safe entrance to and exit from school area.	5	4
4.4	<b>Vehicular entrances and exits</b> permit safe traffic flow.	5	4
4.5	<b>Athletic field equipment</b> is properly located and is free from hazard.	5	4

### Building Safety

4.6	The <b>heating unit(s)</b> is located away from student occupied areas.	20	16
4.7	Multi-story buildings have at least <b>two stairways</b> for student egress.	15	12
4.8	<b>Exterior doors</b> open outward and are equipped with panic hardware.	10	10
4.9	<b>Emergency lighting</b> is provided throughout the building with exit signs on separate electrical circuits.	10	8
4.10	<b>Classroom doors</b> are recessed and open outward.	10	4
4.11	<b>Building security systems</b> are provided to assure uninterrupted operation of the educational program.	10	10

Table of  
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5	0	1	2	3	4	5
10	0	2	4	6	8	10
15	0	3	6	9	12	15
20	0	4	8	12	16	20



**Building Safety** (cont.)

<b>4.12</b>	<b>Flooring</b> (including ramps and stairways) is maintained in a nonslip condition.	<b>5</b>	<b>5</b>
<b>4.13</b>	<b>Stairs</b> (interior and exterior) meet standards (maximum 7" rise to 11" tread) and steps range in number from 3 - 16.	<b>5</b>	<b>5</b>
<b>4.14</b>	<b>Glass</b> is properly located and protected with wire or safety material to prevent accidental student injury.	<b>5</b>	<b>4</b>
<b>4.15</b>	<b>Fixed projections</b> in the traffic areas do not extend more than 8" from the corridor wall.	<b>5</b>	<b>4</b>
<b>4.16</b>	<b>Traffic areas</b> terminate at an exit or a stairway leading to an egress.	<b>5</b>	<b>4</b>

**Emergency Safety**

<b>4.17</b>	Adequate <b>fire safety equipment</b> is properly located.	<b>15</b>	<b>12</b>
<b>4.18</b>	There are at least <b>two independent exits</b> from any point in the building.	<b>15</b>	<b>12</b>
<b>4.19</b>	<b>Fire-resistant materials</b> are used throughout the structure.	<b>15</b>	<b>12</b>
<b>4.20</b>	Automatic and manual <b>emergency alarm system</b> with a distinctive sound and flashing light is provided.	<b>15</b>	<b>12</b>

**Total - Building Safety and Security**

<b>200</b>	<b>159</b>
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Table of  
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5	0	1	2	3	4	5
15	0	3	6	9	12	15

## 5.0 Educational Adequacy

200 Points

### Academic Learning Space

5.1	<b>Size of academic learning areas</b> meets desirable standards.	10	8.0
5.2	<b>Classroom space</b> permits arrangements for small group activity.	10	4.0
5.3	<b>Location of academic learning areas</b> is near related educational activities and away from disruptive noises.	10	10.0
5.4	<b>Personal space</b> in the classroom away from group instruction allows privacy time for individual students.	5	2.0
5.5	<b>Storage for student materials</b> is adequate.	5	3.0
5.6	<b>Storage for teacher materials</b> is adequate.	5	4.0

### Specialized Learning Space

5.7	<b>Size of specialized learning area(s)</b> meets standards.	15	12.0
5.8	<b>Design of specialized learning area(s)</b> is compatible with instructional need.	10	8.0
5.9	<b>Library/Resource/Media Center</b> provides appropriate and attractive space.	15	15.0
5.10	<b>Gymnasium and outdoor facilities</b> adequately serve physical education instruction.	15	12.0
5.11	<b>Science</b> program is provided sufficient space and equipment.	10	8.0
5.12	<b>Music Program</b> is provided adequate sound-treated space.	10	4.0

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5	0	1	2	3	4	5
10	0	2	4	6	8	10
15	0	3	6	9	12	15
25	0	5	10	15	20	25

**Specialized Learning Space** (cont.)

<b>5.13</b>	<b>Space for art</b> is appropriate for instruction, supplies and equipment.	<b>10</b>	<b>8.0</b>
<b>5.14</b>	<b>Space for technology education</b> permits use of state-of-the-art equipment.	<b>10</b>	<b>6.0</b>
<b>5.15</b>	Space for <b>small groups and remedial instruction</b> is provided adjacent to classrooms.	<b>5</b>	<b>4.0</b>
<b>5.16</b>	<b>Storage for student and teacher material</b> is adequate.	<b>5</b>	<b>2.0</b>

**Support Space**

<b>5.17</b>	<b>Teacher's lounge and work areas</b> support teachers as professionals.	<b>10</b>	<b>10.0</b>
<b>5.18</b>	<b>Cafeteria/Kitchen</b> is attractive with sufficient space for seating/dining, delivery, storage and food preparation.	<b>10</b>	<b>10.0</b>
<b>5.19</b>	<b>Administrative offices</b> are consistent in appearance and function with the maturity of the students served.	<b>10</b>	<b>8.0</b>
<b>5.20</b>	<b>Counselor's office</b> insures privacy and sufficient storage.	<b>5</b>	<b>4.0</b>
<b>5.21</b>	<b>Clinic</b> is near administrative offices and is equipped to meet requirements.	<b>5</b>	<b>3.0</b>
<b>5.22</b>	<b>Suitable reception space</b> is available for students, teachers and visitors.	<b>5</b>	<b>5.0</b>
<b>5.23</b>	<b>Administrative personnel</b> are provided sufficient work space and privacy.	<b>5</b>	<b>3.0</b>

**Total - Educational Adequacy**

<b>200</b>	<b>153.0</b>
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Table of  
Weights  
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<b>Maximum Points Allotted</b>	<b>Non- Existent</b>	<b>Very Inadequate 1 - 29%</b>	<b>Poor 30 - 49%</b>	<b>Borderline 50 - 69%</b>	<b>Satisfactory 70 - 89%</b>	<b>Excellent 90 - 100%</b>
5	0	1	2	3	4	5
10	0	2	4	6	8	10



## 6.0 Environment for Education

200 Points

### Exterior Environment

6.1	Overall <b>design is aesthetically pleasing</b> and appropriate for the age of students.	15	12
6.2	Site and buildings are well landscaped.	10	8
6.3	<b>Exterior noise and surrounding environment</b> do not disrupt learning.	10	10
6.4	<b>Entrances and walkways are sheltered</b> from sun and inclement weather.	10	8
6.5	<b>Building materials</b> provide attractive color and texture.	5	4

### Interior Environment

6.6	<b>Color schemes, building materials and decor</b> provide an impetus to learning.	20	12
6.7	<b>Year around comfortable temperature and humidity</b> are provided throughout the building.	15	12
6.8	<b>Ventilating system</b> provides adequate quiet circulation of clean air and meets 15cfm VBC requirement.	15	12
6.9	<b>Lighting system</b> provides proper intensity, diffusion and distribution of illumination.	15	9
6.10	<b>Sufficient drinking fountains and restroom facilities</b> are conveniently located.	15	12
6.11	<b>Communication among students</b> is enhanced by commons area.	10	4

Table of  
Weights  
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5	0	1	2	3	4	5
10	0	2	4	6	8	10
15	0	3	6	9	12	15
20	0	4	8	12	16	20

**Interior Environment** (cont.)

<b>6.12</b>	<b>Traffic flow</b> is aided by appropriate foyers and corridors.	<b>10</b>	<b>8</b>
<b>6.13</b>	<b>Areas for students to interact</b> are suitable to the age group.	<b>10</b>	<b>10</b>
<b>6.14</b>	<b>Large group areas</b> are designed for effective management of students.	<b>10</b>	<b>8</b>
<b>6.15</b>	<b>Acoustical treatment</b> of ceilings, walls and floors provides effective sound control.	<b>10</b>	<b>8</b>
<b>6.16</b>	<b>Window design</b> contributes to a pleasant environment.	<b>10</b>	<b>6</b>
<b>6.17</b>	<b>Furniture and equipment</b> provide a pleasing atmosphere.	<b>10</b>	<b>6</b>
<b>Total - Environment for Education</b>		<b>200</b>	<b>149</b>

Table of  
Weights  
and  
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10	0	2	4	6	8	10

## Justification for Allocation of Points

BUILDING NAME AND LEVEL:

Shawnee Mission South High School

Indicate the justification for the appraisal decision in the space provided.

BUILDING FEATURES THAT CLEARLY EXCEED CRITERIA:

1. Building appears well maintained, clean.

2. Close to athletic facilities, recent turf practice field.

3.

4.

5.

BUILDING FEATURES THAT ARE NON-EXISTENT OR VERY INADEQUATE:

1. Portions of the lower level have accessibility and student traffic flow issues.

2. Some room entrances have ADA clearance concerns.

3. Portions of the original building have tile floors and ceilings that may need replacement.

4. Wood shop dust collector is inside building - dust to be carted through corridors to dispose.

5. Lack of a true Commons space, need additional collaboration spaces.

6. Music Rooms have ceiling height and acoustic deficiencies.

7.



**Date of Appraisal:** January 17, 2019

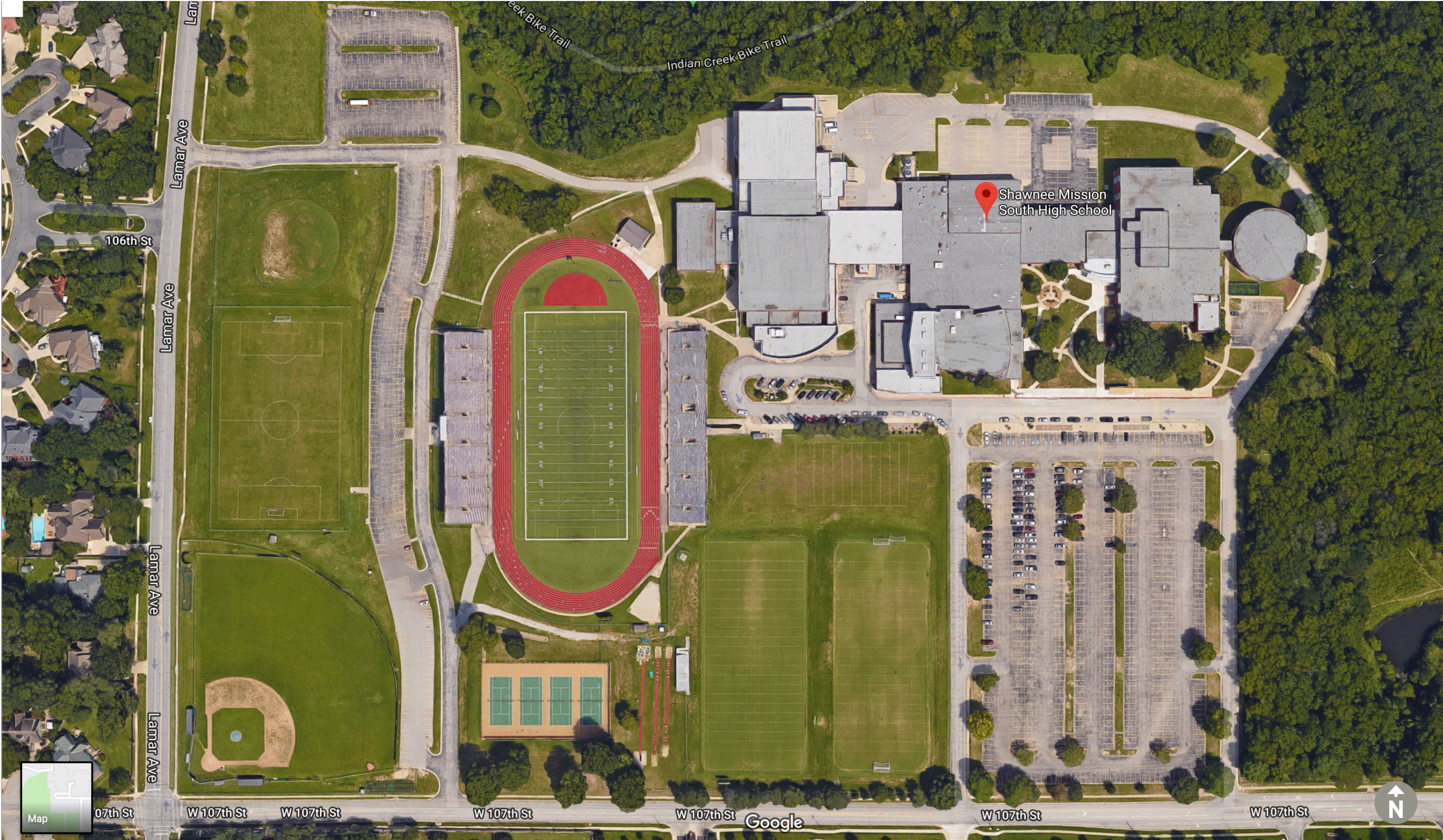
**Name of School:** Shawnee Mission South High School

**Name of Appraisers:** ACI Boland, Inc.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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SITE PLAN

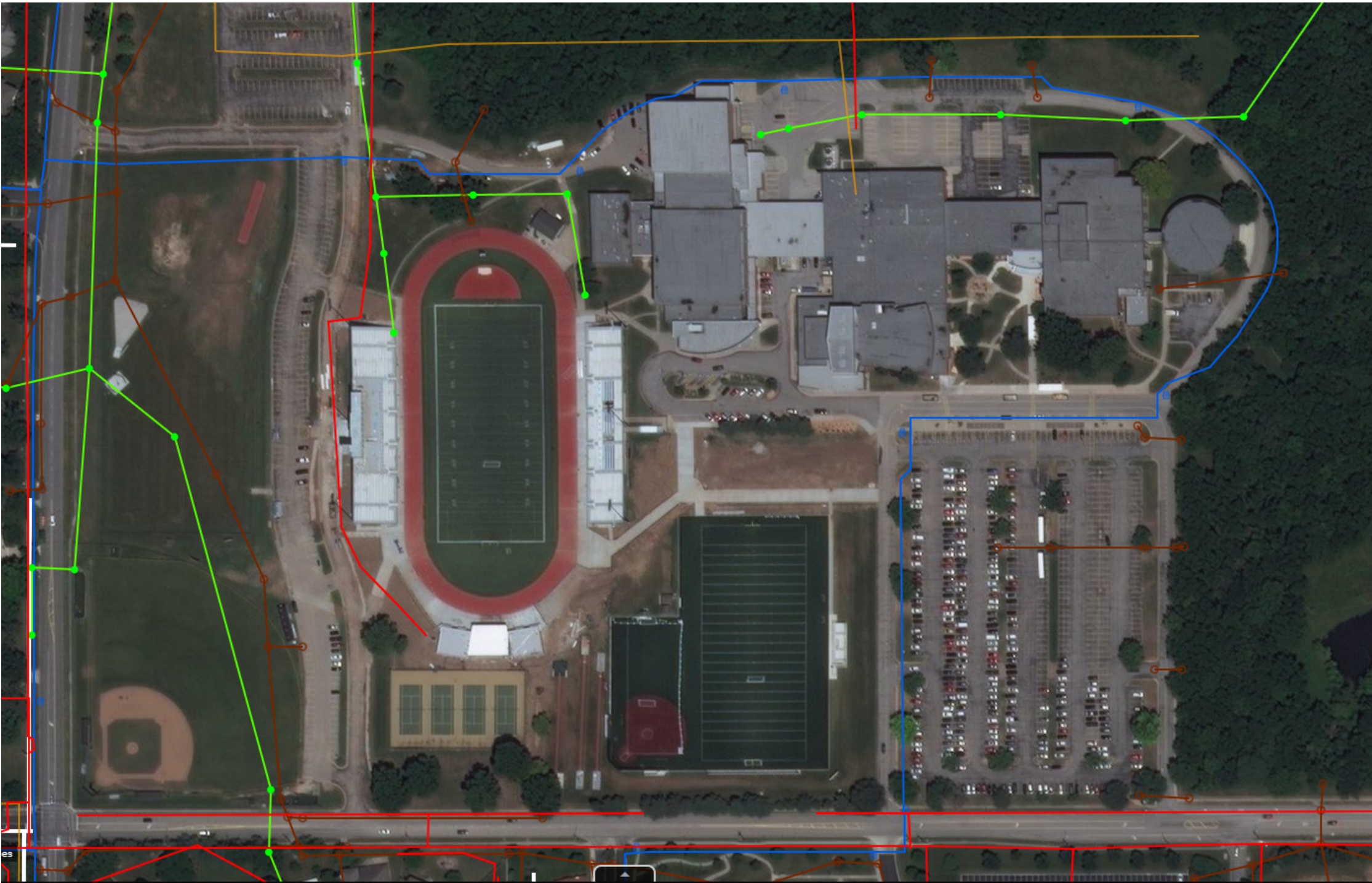








# SITE UTILITIES



Water Main

Abandoned Water Main

Sanitary Sewer Main

Sanitary Sewer Manhole

Storm Structure

Storm Sewer

Electric Line

Gas Main

Cable

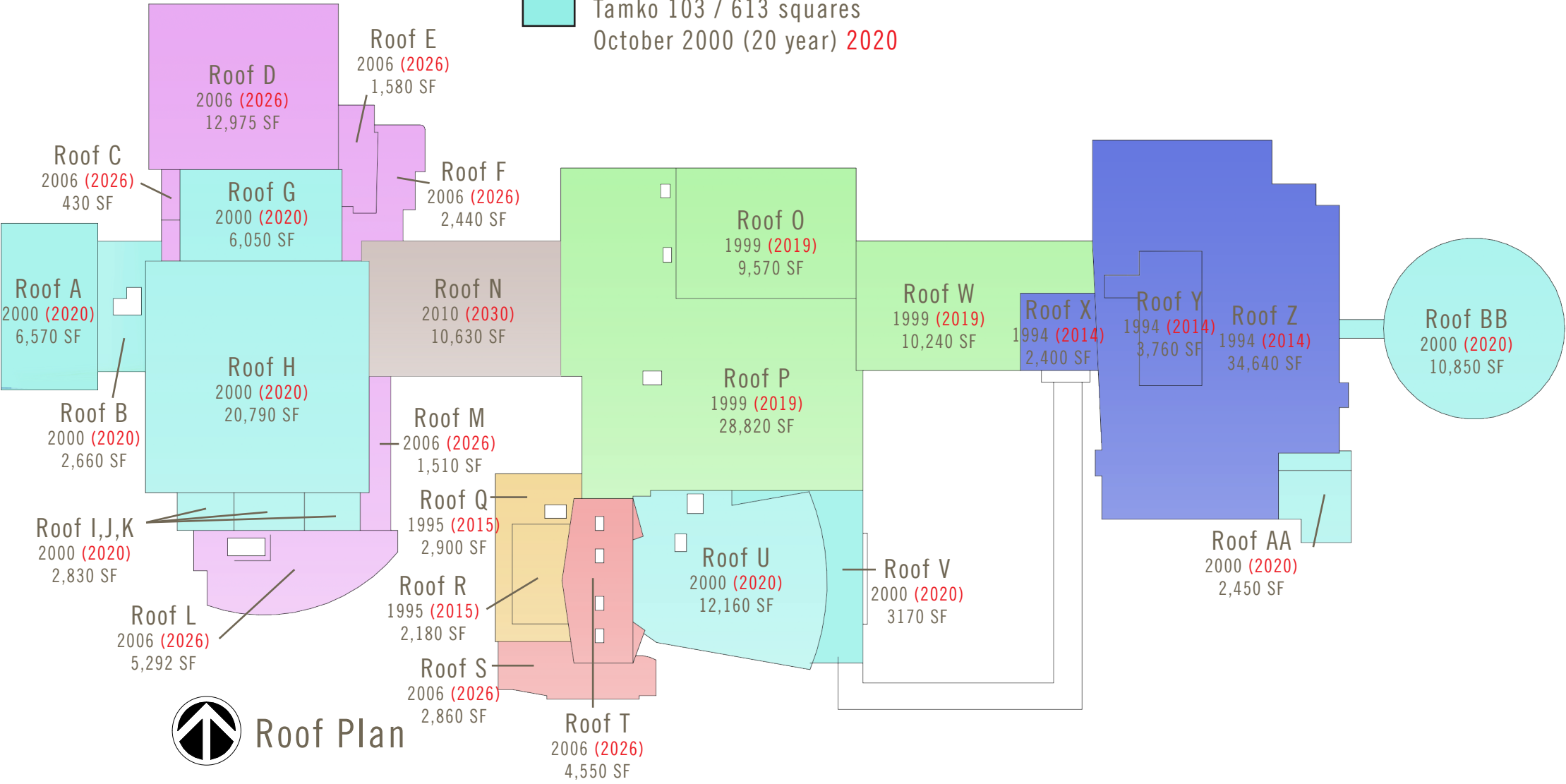
N



ROOF ASSESSMENT

Roof Areas

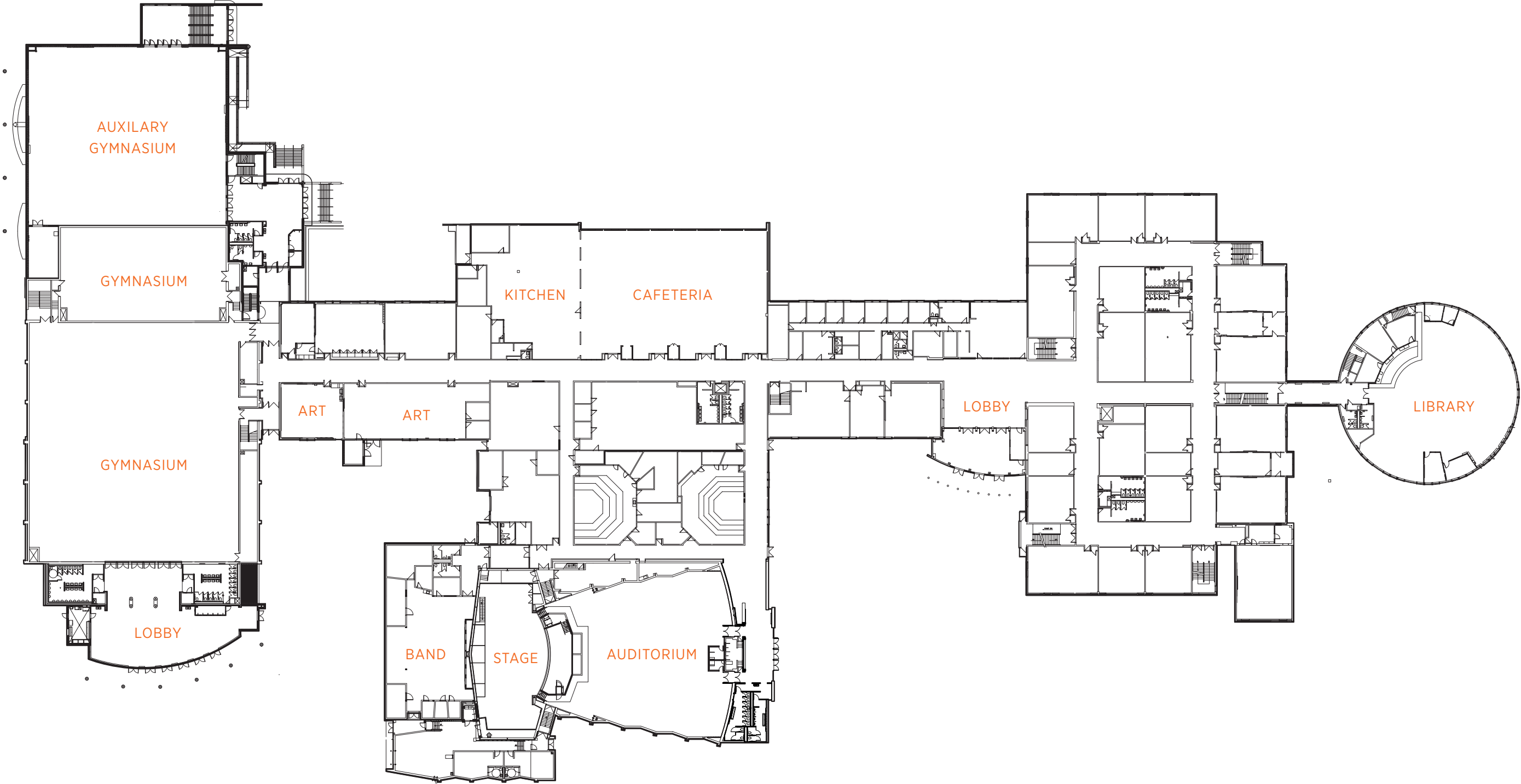
- Roofs X,Y,Z  
Tamko 103 / 408 squares  
August 1994 (20 year) 2014
- Roofs Q,R  
Tamko 109FR / 56 squares  
August 1995 (20 year) 2015
- Roofs O,P,W  
Tamko 103FM / 603 squares  
August 1999 (20 year) 2019
- Roofs A,B,G,H,I,J,K,U,V,AA,BB  
Tamko 103 / 613 squares  
October 2000 (20 year) 2020
- Roofs C,D,E,F,L,M  
Tamko 109FR /104FM / 334 sq.  
March 2006 (20 year) 2026
- Roofs S,T  
Tamko 109FR 104FM  
March 2006 (20 year) 2026
- Roofs N (Art Rm)  
Tamko 103FR / 100 sq.  
June 2010 (20 year) 2030







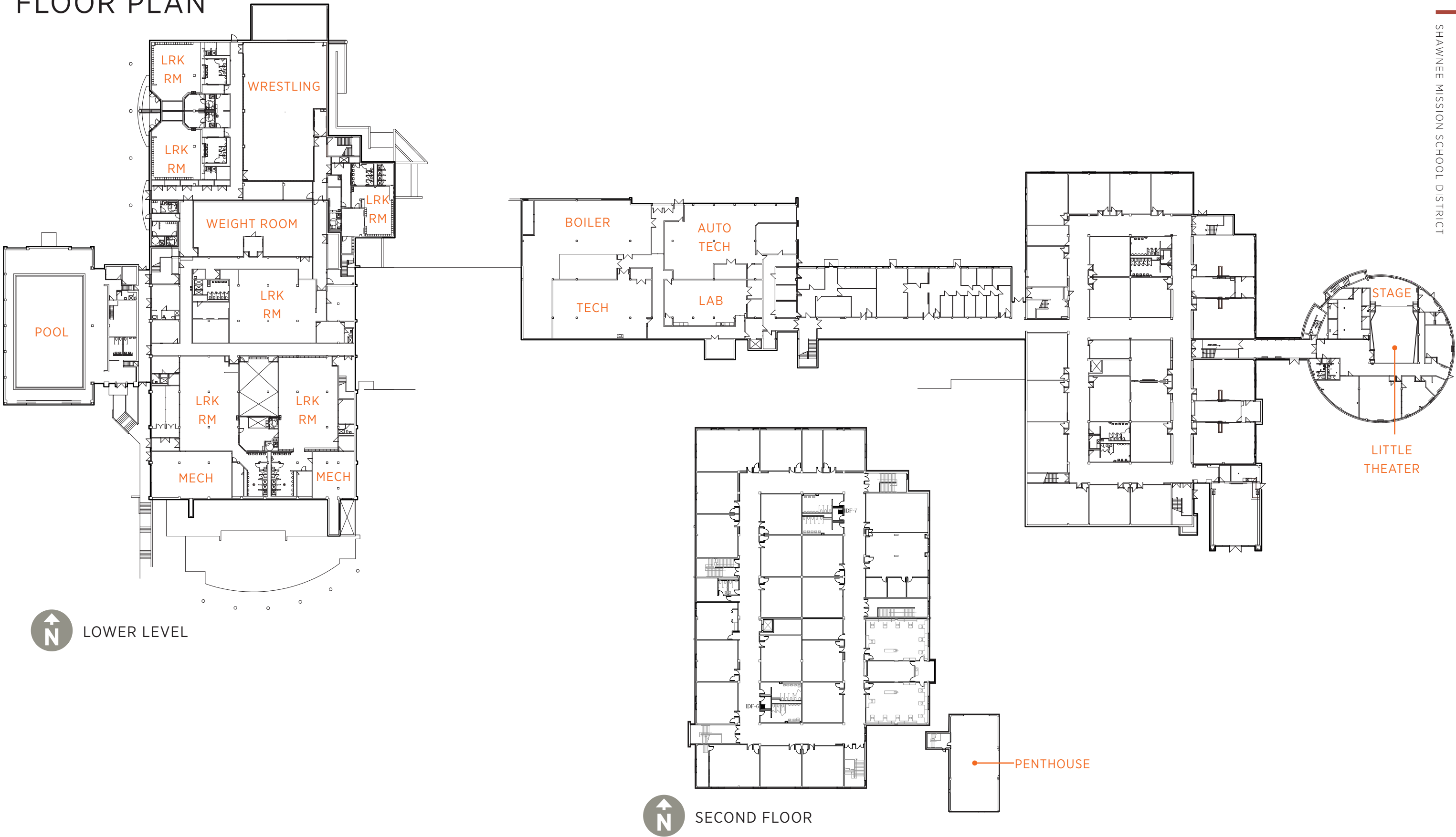
FLOOR PLAN



 FIRST FLOOR



FLOOR PLAN







# FACILITY OBSERVATIONS

## Architectural Observations



3rd floor typical conventional classroom layout.



Classroom access in the older parts of the building may not comply with current door clearance requirements (accessibility requirements).



Main entrance has been upgraded for security but there is not an adjacent common space.

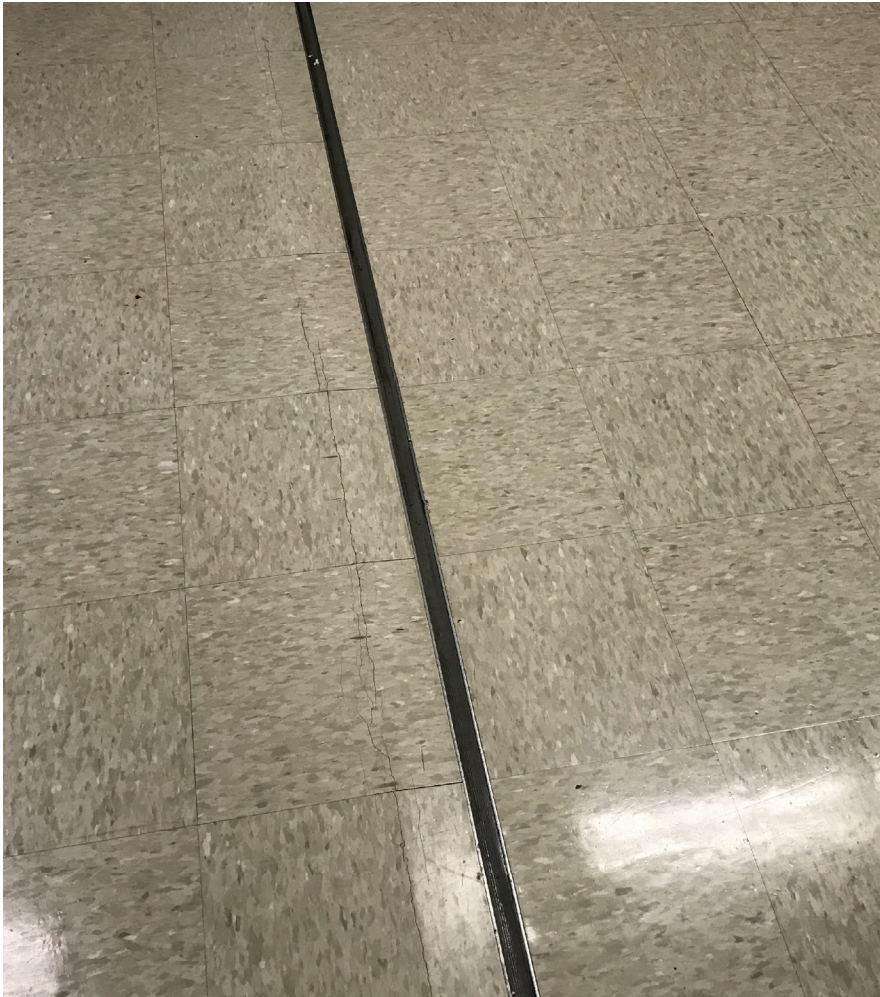


Refinish louvers and tuck point brick joints.





Floor tile is cracking at the original building portion.



Tile floor cracking at the floor expansion joint.





Staff room is small and needs storage.



Wood shop dust collection is internal within the building, requiring refuse to be carted out through the hallways.

## MEP Observations



Electrical equipment doesn't have code-required clearance in front



Exterior light fixture has low light levels





Mechanical return air grille for AHU



Plumbing fixtures not upgraded





Power strips



Water cooler not ADA and no bottle filler

# ARCHITECTURAL NARRATIVE

**Principal: Dr. Todd Dain | Mascot: Raiders | S. F. 344,860 s.f. | 76.1 acres | 3 story | 1966 original building  
Additions and Renovations in 1968, 1989, 1996, 2006, 2015**

## General

- The building was constructed in 1966
- In 2007 there was Bond work done, new science rooms, theatre flyloft extension, dressing rooms and scene shop.
- There are 1509 students in the 9-12 program and 55 students in the 18-21 program

## Building

- Building is sprawling and corridor heavy, with one long corridor that connects the building together.
- Building lacks collaboration space or commons.

## Classrooms

- Two or more classroom could have asbestos floor tile

## Fine and performing arts

- The music lockers need moved
- Science Rooms
- The Science rooms are in good shape, but could use more

## Gymnasium/Athletics

- The basketball goals inhibit the main gym from being used for volleyball
- The larger gym has 1,900 seats
- The gym bleachers are in poor shape and parts cannot be obtained
- The stage in the gym needs addressing
- There is no ADA access to the locker rooms in

basement.

- There is a fitness center has stall for gender neutral changing
- The Women's locker room is small
- The main Gym lobby is hot and the HVAC is too loud
- The main gym sound system is not performing well.
- There is condensation issues on the north wall of the pool space
- The pool could be converted to a flex space

## Cafeteria/Kitchen

- There are three lunches with 376 students each

## Counselor/Nurse/Admin

- Counseling needs to be on the same level as administration
- Safety, education and parent interaction needs to be in the administration area

## Special Classrooms/Media/Library

- The Media Center has the Green Bean coffee shop and was recently remodeled.
- The Wood Shop could move to the old Auto Shop
- The old Project Lead the Way space is under utilized
- Toilets
- Circulation/Lockers/Commons
- There is no common space
- There are lockers assigned but unused

## Site

- There is a baseball field on site

## Wishes & Wants

- Desire for more natural light through the building, in addition to the gymnasium
- The outdoor environmental lab would like a separate building that can be a part of the community and house visiting classes from district schools.
- There is a desire for four more tennis courts

# MEP NARRATIVE

## General Project Information

<b>Owner:</b>	Shawnee Mission School District
<b>School Name:</b>	South High School
<b>Project Address 1:</b>	5800 W 107th Street
<b>City:</b> Lenexa	<b>State:</b> KS
	<b>Floor Area:</b> 344,860 sf
<b>Building Stories:</b>	3
<b>Building Use Type:</b>	High School
<b>Code Occupancy Group:</b>	E Occupancy

## Team Contact Information

<b>Contact Name:</b>	Keith Hammerschmidt
<b>Contact Company:</b>	RTM Associates
<b>Contact Phone:</b>	913-322-1400
<b>Contact Fax:</b>	913-825-6697
<b>Contact Email:</b>	khammerschmidt@rtmassociates.com



## General

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- Mechanical system serving the building is a 4-pipe hydronic system with air handlers located in various mechanical rooms. Age of mechanical equipment ranges from 5 years to 15 years.
- Lighting throughout building appears to be sufficient. Majority of building has fluorescent light fixtures.
- Existing electrical service size appears to be sufficient and most areas of the building have available space for additional circuits.
- Majority of building has smoke detector coverage but not fire sprinkler protection. Newer addition of Auxiliary Gym is the only area with fire sprinkler protection.

## Mechanical

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- System Descriptions
  - 4-pipe hydronic system, air-handlers and fan powered boxes
    - Water cooled chillers around 25 years old. Typical life of a chiller is 20 – 25 years.
    - Cooling tower around 10 years old. Typical life of a cooling tower is 15 – 20 years.
    - Air-Handlers vary 10 – 15 years old. Typical life of air-handler is 20 – 25 years.
    - Pool unit is almost 15 years old. Typical life span is 15 – 20 years.
    - Locker room exhaust fan is more than 20 years old. Typical life span is 15 – 20 years.
  - Mechanical rooms are being used as storage rooms and is very difficult to mechanical equipment for general maintenance and filter replacement.
  - One of the mechanical rooms is also being used as an IDF room.
  - Auditorium lobby recently remodeled. Auditorium hasn't been remodeled and mechanical system is loud for an auditorium type space.
  - Corridors are used as a return air path.
  - Wood shop mechanical dust collection system located in the middle of the basement. Not great access for emptying dust collection system.
- 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.
  - Corridors / Path of egress shall not be used as a return air path.

- Additional Updates required to bring systems up to current SMSD Standards:
  - HVAC equipment efficiencies shall be increased.

### **Plumbing Systems**

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- 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 5 years old. One hot water heater is more than 15 years old. Typical life of a hot water heater is 10 – 15 years.
  - Water heaters are electric.
- Water Supply
  - Water pressure appeared to be sufficient.
  - Water service was provided with backflow preventer.
- Roof Drains
  - Internal roof drains are provided.
  - Majority of roof doesn't have overflow roof drains.
- The majority of the restroom groups appeared to have been floor mounted fixtures and weren't ADA compliant.
- None of the water coolers have bottle fillers
- Nurse office restrooms lacked required space and adequate plumbing fixtures.
- Additional Updates required to bring systems up to current codes:
  - Several water coolers and plumbing fixtures are not ADA compliant and need to be replaced.
  - All handwashing sinks will need to have thermostat mixing valves installed to limit maximum water hot water temperature to 110°F.
- 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.
  - Provide some water coolers with bottle filler stations.

### **Electrical Systems**

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- Lighting
  - Majority of building has fluorescent light fixtures. Very few areas have been upgraded to LED lights.

- 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.
  - Portions of exterior lighting was on during a cloudy day. Time clock needs to be rescheduled or photocell fixed.
  - Majority of corridors have surface mounted light fixtures.
  - Closets located in cafeteria have light fixtures in them that are controlled from the light switch serving the cafeteria.
- Power
    - Electrical service is underground. Newer service equipment is protected by ground fault protection which is in line with current codes.
    - Electrical service appeared to have surge protection and energy metering.
    - Extension cords and power supplies were common in classrooms due to insufficient quantities and locations of electrical receptacles.
    - Power systems appeared to have available space and spare for future improvements, depending on scope.
- Special Systems (Fire Alarm, Intercom, Data Systems)
    - Fire Alarm system had been updated would support a new mass notification system with minor modifications.
    - Intercom system appeared functional and sufficient.
    - Data systems appeared functional and sufficient.
      - Data rack was located in a mechanical room with no dedicated cooling for space.
    - Classrooms were provided with projector systems.
    - Cafeteria sound system is old and doesn't appear to be the most affective system.
- Additional Updates required to bring systems up to current codes:
    - Electrical
      - Additional Exterior lighting to ensure sufficient illumination.
    - 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. Some electrical equipment appears to have energy metering but not all.
    - 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.

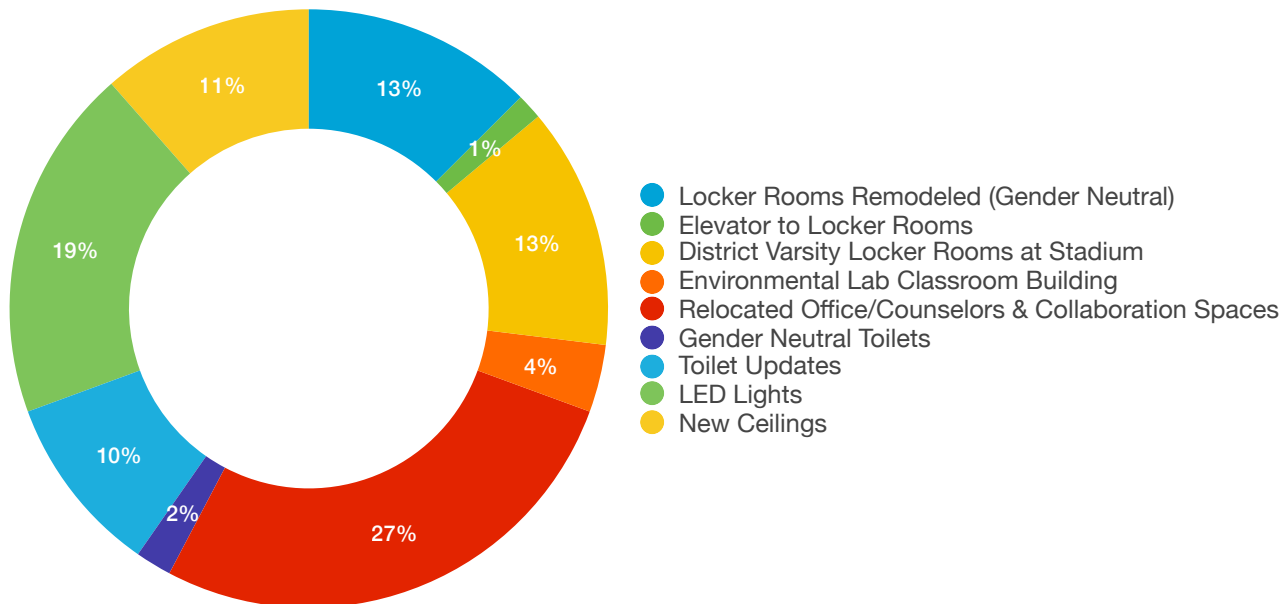


# CONCEPT ESTIMATE

## TOTAL CONSTRUCTION COSTS

Total Costs	\$17,976,563
Inflation 2019 to 2020 6%	\$1,078,594
<b>TOTAL COSTS YEAR 2020</b>	<b>\$19,055,156</b>

PROJECT NEEDS	SQUARE FOOT	COST/SF	HARD CONSTRUCTION COSTS	SOFT COSTS 25%	TOTAL PROJECT COSTS
Locker Rooms Remodeled (Gender Neutral)	6,000	\$300	\$1,800,000	\$450,000	\$2,250,000
Elevator to Locker Rooms			\$200,000	\$50,000	\$250,000
District Varsity Locker Rooms at Stadium	5,000	\$375	\$1,875,000	\$468,750	\$2,343,750
Environmental Lab Classroom Building	1,500	\$350	\$525,000	\$131,250	\$656,250
Relocated Office/Counselors & Collaboration Spaces	12,000	\$325	\$3,900,000	\$975,000	\$4,875,000
Gender Neutral Toilets	750	\$375	\$281,250	\$70,313	\$351,563
Toilet Updates	4,000	\$350	\$1,400,000	\$350,000	\$1,750,000
LED Lights	275,000	\$10	\$2,750,000	\$687,500	\$3,437,500
New Ceilings	275,000	\$6	\$1,650,000	\$412,500	\$2,062,500
<b>TOTAL EXPENSES</b>					<b>\$17,976,563</b>



\* Locker rooms would be remodeled to provide a larger women's varsity locker room , Updated PE locker rooms. Updated varsity locker rooms, Gender neutral locker room and better defined circulation.

\* District locker rooms to be built at the stadium, allowing teams to be separated and free up space in High school.

\* Environmental Lab Classroom building in the SMESL for outreach programs that is separate from the high school.

\* Relocated Central office with combined Counselors is desired as they are on separate floors presently. Un-utilized classrooms would be used behind the newly built security pinch point for the new office complex. Moving FACS classrooms to empty spaces in the basement would create a commons space for collaboration and project based learning in the core of the building where offices and FACS are currently housed. This would also break up the long corridor and open up the cafeteria.

PRICING

PRICING



