MGT
OF AMERICA, INC.

LYON COUNTY SCHOOL DISTRICT

Master Facilities Plan

Final Report

APRIL 19, 2016

LYON COUNTY SCHOOL DISTRICT

MASTER FACILITIES PLANNING

APRIL 19, 2016

FINAL REPORT

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EXECUTIVE SUMMARY

In June 2015, the Lyon County Board of School Trustees contracted with MGT of America to develop a ten-year *Facilities Master Plan* to address the long-term facility needs of the district. The Board requested a master plan to examine the areas of need and determine a course of action to remedy any identified deficiencies. The primary tasks for the completion of the master plan as outlined in the RFP were:

- Educational facility condition assessments
- Site condition and suitability
- Education suitability evaluation to meet district wide programmatic priorities
- Technology capability and readiness
- Demographic and enrollment projections
- Community wide stakeholder participation including community engagement meetings, interviews, focus groups and electronic surveys
- Analysis and impact of county planning initiatives
- Budget and cost estimate alternatives
- Preparation and presentation of the comprehensive long-range ten year facilities master plan

The detailed information regarding each of the above elements is included in the final report chapters. A summary is provided here.

EDUCATIONAL PROGRAM

Project activities related to the educational program were focused on ensuring that MGT understood the district's current and planned instructional programs, especially those with facility implications. For example, when a district focuses on performing arts and ensuring that all students have opportunities to graduate ready for college and career, the facility implications are significant.

The knowledge of current and planned programs resulted in the development of the *Educational Suitability and Technology Readiness Reference Guide* (see ***Appendix B***) that defines the facility standards for each instructional space and insures consistency in the data collection***.*** These standards are based on the district's current educational specifications and design practices. This document defines the standards in order to assess the following four components for each type of instructional space:

- **Learning environment** – Does the space provide an appropriate physical configuration, HVAC, lighting, acoustical treatment, etc. to support student learning?
- **Size** – Does the space meet the defined size standard for square footage?
- **Location** – Does the space exist in the right location?
- **Storage/Fixed Equipment** – Does the space have what teachers and students need to be successful, including safety equipment, permanent cabinetry, and technology?

The *Guide* also defines standards for non-instructional areas like cafeteria, administration, and health rooms, deals with safety issues like security vestibules, fencing, and bus/parent traffic patterns, and defines the technology infrastructure necessary to support the instructional program.

COMMUNITY ENGAGEMENT

In order to gather community input and feedback, MGT used a variety of tools throughout the process of development of this Master Facilities Plan. The goal for community engagement was to ensure that all interested members of the community had multiple opportunities for both input and feedback.

- **Input** processes asked the community - what is important, what needs attention, what is working well, and what needs to be different?
- **Feedback** processes asked the community – given these preliminary data, what should be the priorities, how should issues be weighted, what is **most** important to do?

Lyon County has an involved and interested populace. They actively participated in the community sessions. From these data, it is clear that the LCSD community wants the district to focus their efforts on the following issues over the next 10-year plan:

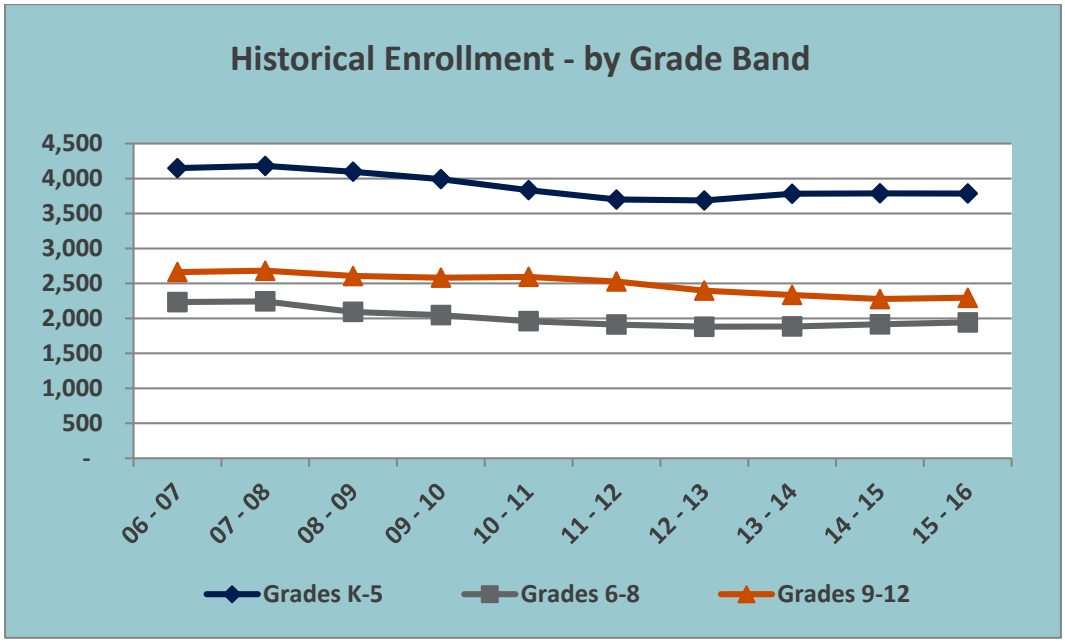
- Fixing identified building deficiencies – especially HVAC.
- Providing adequate program spaces – especially performing arts and STEM.
- Size of schools – focusing on maintaining a size that will support the current sense of community in schools between teachers and students.
- Equitable Access to CTE programs – determining the whether to have programs centrally located or distributed across the school district.

DEMOGRAPHICS / ENROLLMENT PROJECTIONS

Historical demographic trends from a variety of perspectives are included in the detail report. These perspectives include population trends, birth rates, school enrollment history, and housing trends. The core body of data used to develop an enrollment projection is historical enrollment. Total enrollment in Lyon County School District stood at 9,044 students in 2006-07. Since then, enrollment has decreased to 8,024 in 2015-16

An examination of historical enrollment from 2006-2015 reveals that a decrease in overall enrollment over the last ten years has been experienced at almost all grade level. The exhibit on the following page illustrates the historical enrollment for each grade band.

LYON COUNTY SCHOOL DISTRICT
HISTORICAL ENROLLMENT
(BY GRADE BAND)

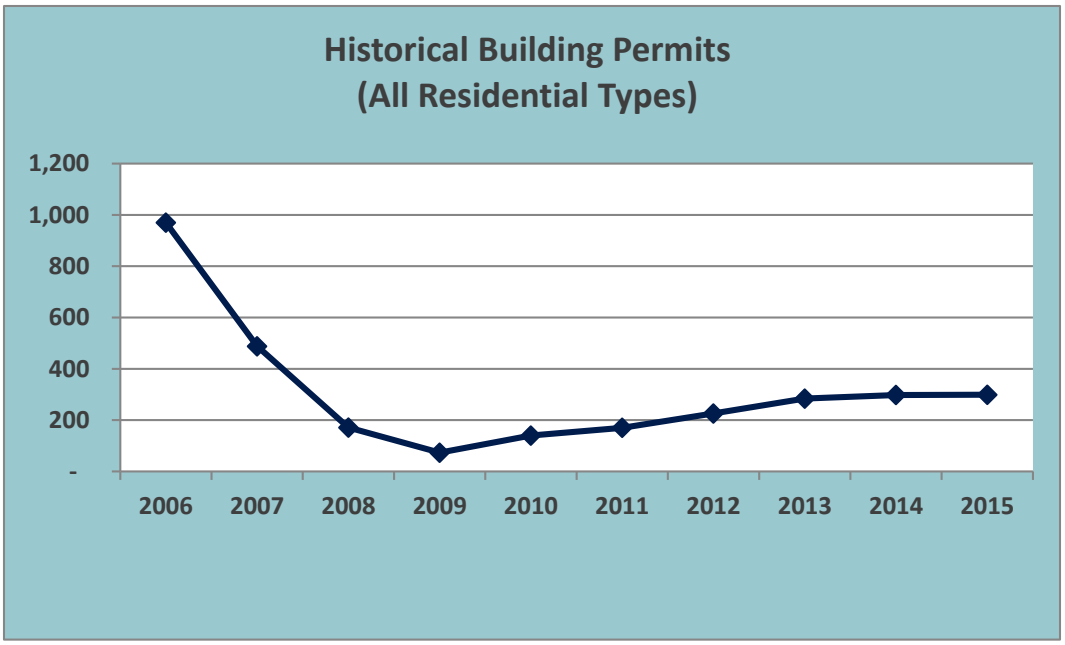


Source: Lyon County School District, 2015.

Another factor used to develop enrollment projections is an analysis of the trends in housing units in the county. The U.S. Census Bureau recorded 14,279 housing units in Lyon County in the 2000 Census and 22,547 housing units in 2010. The census data provides a starting point for this analysis, but building permit data provides additional information upon which to base an assumed number of housing units following the 2000 and 2010 Census.

Building permit data was collected from City and County planning departments. Between 2006 and 2009, the number of housing permits issued in Lyon County decreased greatly. As the economy began to rebound, the housing market soon followed with a slow but fairly steady increase in housing permits issued between 2009 and 2015. The exhibit below illustrates the number of housing permits issued since 2006 in Lyon County, which includes mobile homes, single- and multi-family building permits. Given the overall declining trend in building permits, housing unit projections were made based on knowledge of current projects and future potential development based on available building sites. The information pertaining to housing start projections was gathered through conversations and meetings with city and county planners as well as the information contained in the Northern Nevada Regional Growth Study 2015 -2019.

LYON COUNTY, NV
HISTORICAL RESIDENTIAL BUILDING PERMITS



Source: Lyon County School District, 2015.

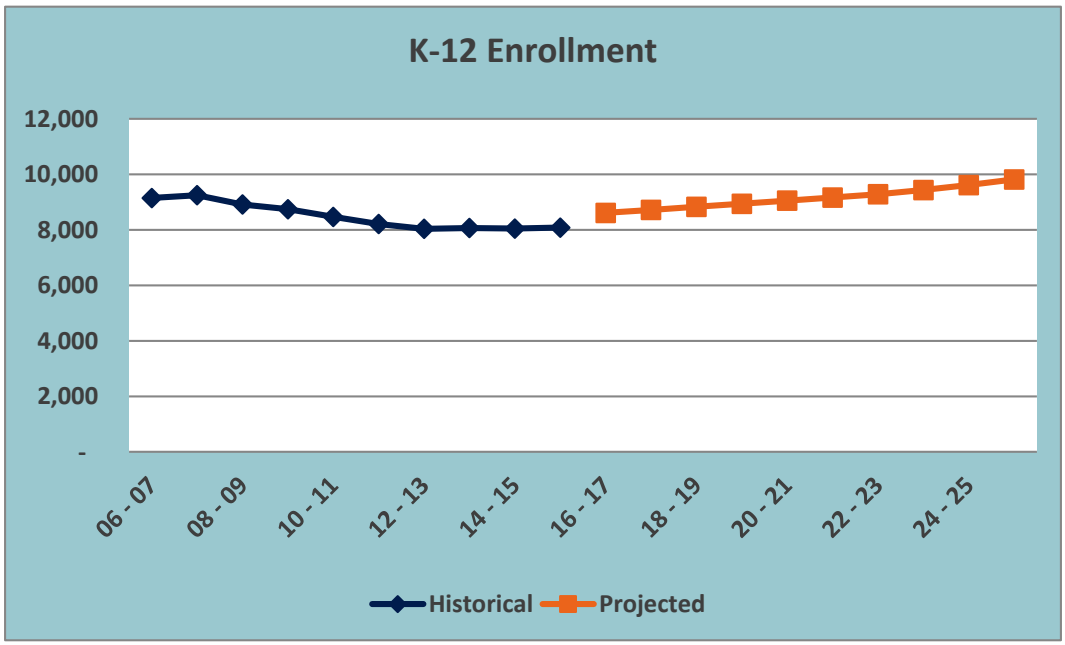
The conclusions reached include:

1. Census Bureau population counts show an increase in population from 2000 to 2010.
2. The population is getting older, which has led to fewer students being born in the district.
3. Housing units will continue to increase but the rate of increase is speculative and dependent on the economy and the growth policies of the county.

Enrollment projections are an *estimate* of future populations based on the historical data and information provided. As demonstrated by the district calculations over the past ten years, there can be constant variations in growth. These numbers can be highly accurate, but it must be remembered that the numbers are still a projection or estimate. During the implementation of any of the recommendations provided in this master plan, it is critical that the district reassess these numbers on a regular basis and adjust plans accordingly.

To identify trends and prepare for adequate spaces, teaching staff, and materials and supplies, educational leaders use several methods of projecting enrollment. Among the most commonly used models are *Average Percentage Annual Increase, Cohort Survival, Linear Regression*, and *Student-per-Housing Unit* models. For the purpose of this study all of the methodologies were examined but only the students-per-housing model was selected. This decision was made in consultation with the district facility planning committee, due to the fact that the *Average Percentage Annual Increase, Cohort Survival, and Linear Regression* models all show a significant decline in enrollment for the 10-year planning period. It was determined that these models do not accurately reflect the future growth outlook of the district. Therefore, MGT determined that a students per household model of projecting enrollments would be utilized. This model utilizes the estimated number of housing units as its base data. By taking the 2010 enrollment by grade level and dividing it by the 2010 Census housing units, a *student generation factor* (SGF) was calculated for each grade level. This factor indicates the number of students within each grade level that will be generated by each new housing unit. The exhibit below shows the result of using the student per household model in terms of projected enrollment over the next 10 year period.

LYON COUNTY SCHOOL DISTRICT
HISTORICAL AND PROJECTED ENROLLMENT – K-12



Source: MGT of America, Inc. 2016.

As the above exhibit shows, enrollment across the district is expected to fluctuate slightly in the next few years, but shows a modest increase by the end of the ten year planning period. While this projection somewhat contradicts birth and age data, it is a reasonable conclusion given the historical enrollments and the current and projected level of development:

- Live births are projected to decrease which will counteract growth in housing.
- While there is a strong correlation between the live birth rate and the kindergarten enrollment, the kindergarten capture rate has historically been less than 100 percent indicating some level of exodus of students out the district.
- The census data from 2000 to 2010 has shown a decrease in elementary age children.

- While the slowing economy has negatively affected the rate of construction of homes, there is a general consensus among stakeholders that the rates of building and migration into the county will increase as the economy improves leading to an overall increase in student population.

CAPACITY AND UTILIZATION

Capacity of all schools was calculated using a functional capacity model. This model counts the number of the various types of instructional rooms and multiplies that number by the maximum students-per-room or the *loading* factor to identify the gross capacity for the school. The gross capacity is then multiplied by a scheduling factor, which takes into account the realities of how the space is used. Typically, not all classrooms are scheduled for every period at a middle school or high school. For example, high school students move from room to room and enroll in a variety of courses. As a result, some rooms will sit empty or will be less than fully occupied at any given time. Teacher preparation periods will also contribute to rooms not being used for instruction at a particular time. Therefore, MGT uses a 75% scheduling factor at high schools to reduce the gross capacity of the building to reflect the unused rooms. Middle schools are assigned an 85% scheduling factor. An elementary school has a much more static and consistent daily use so MGT uses a 95% scheduling factor for elementary schools.

Utilization rates for each school were calculated by dividing the projected enrollment by the functional capacity. The exhibit below provide the functional capacity and both the current and projected utilization rates for each school.

LYON COUNTY SCHOOL DISTRICT
CURRENT AND PROJECTED UTILIZATION RATES

UTILIZATION	DESCRIPTION
> 110	Inadequate
100-109.9	Approaching Inadequate
85 - 99.9	Adequate
70 - 84.99	Approaching Inefficient
< 70	Inefficient

SCHOOLS	GRADE CONFIG	2015 ENROLLMENT PK-12	2025 PROJECTED K-12	2015 CAPACITY K-12	2015 UTILIZATION	2025 UTILIZATION
Elementary Schools						
Cottonwood ES	PK-4	597	606	568	105%	107%
Dayton ES	PK-6	463	544	541	86%	101%
East Valley ES	PK-4	462	544	474	97%	115%
Fernley ES	PK-4	467	516	566	82%	91%
Fernley IS	5-6	549	652	680	81%	96%
Riverview ES	PK-6	424	450	463	92%	97%
Sutro ES	PK-6	426	474	458	93%	104%
Yerington ES	PK-4	502	570	588	85%	97%
ELEMENTARY TOTAL		**3,889**	**4,356**	**4,338**	**90%**	**100%**

LYON COUNTY SCHOOL DISTRICT (CONTINUED)
CURRENT AND PROJECTED UTILIZATION RATES

SCHOOLS	GRADE CONFIG	2015 ENROLLMENT PK-12	2025 PROJECTED K-12	2015 CAPACITY K-12	2015 UTILIZATION	2025 UTILIZATION
Middle Schools						
Dayton IS	7-8	365	446	712	51%	63%
Silverland Middle	7-8	551	654	759	73%	86%
Silver Stage PreK-8	PK-8	688	733	911	75%	80%
Yerington IS	5-8	377	435	625	60%	70%
MIDDLE SCHOOL TOTAL		**1,981**	**2,268**	**3,007**	**66%**	**75%**
High Schools						
Dayton HS	9-12	688	879	932	74%	94%
Fernley HS	9-12	965	1,104	1,046	92%	106%
Silver Stage HS	9-12	237	326	515	46%	63%
Yerington HS	9-12	371	547	703	53%	78%
Smith Valley Schools	K-12	207	232	533	39%	43%
HIGH SCHOOL TOTAL		**2,468**	**3,087**	**3,728**	**66%**	**83%**
DISTRICT TOTAL		**8,338**	**9,711**	**11,073**	**75%**	**88%**

Source: MGT of America, Inc., 2016.

Conclusions reached regarding capacity and utilization include:

ELEMENTARY SCHOOLS

The functional capacity for the elementary schools varies from a low of 458 to a high of 680. The district's elementary schools are being utilized at an "adequate" rate on a district-wide basis of 90%. The projected district-wide utilization for 2024-25 will grow to 100% with four schools over 100% utilization.

The district should examine the specific situation for the schools that are projected to have "inadequate" or "approaching inadequate" utilization rates to determine if action is required, and whether the approach will require capital improvements or redistricting.

MIDDLE SCHOOLS

The functional capacity the middle schools varies from a low of 625 to a high of 911. The district's middle schools are presently being utilized at an "inefficient" rate of 66% overall, however the overall utilization will increase to 75% by 2024-25.

The district does have excess capacity at the middle school level, and could examine repurposing some of this space.

HIGH SCHOOLS

The functional capacity for the high schools varies from a low of 515 to a high of 1,046. The district's high schools are currently being utilized at an "Inefficient" rate of 66%, however, this rate will increase to 83% overall by 2024-25, which would be very close to an "Adequate" rate.

FACILITIES ASSESSMENTS

The following four types of assessments were completed for all schools:

- Building condition
- Educational suitability
- Grounds condition
- Technology readiness

The building condition score measures the amount of deferred maintenance in the building's major systems, the educational suitability assessment evaluates how well the facility supports the educational program that it houses, the grounds condition score is a measure of the amount of capital needs or deferred maintenance at the site, and the technology readiness score measures the capability of the existing infrastructure to support information technology and associated equipment. All scores are based on a 100 point scale with 100 being the highest score possible.

These four scores are combined into one score for each school to assist in the task of prioritizing projects. Since the building condition score is a measure of the maintenance needs (e.g. leaky roofs, etc.) and the educational suitability score is a measure of how well the building design and configuration supports the educational program, it is possible to have a high score for one assessment and a low score for another assessment. It is the combined score that attempts to give a comprehensive picture of the conditions that exist at each school and how each school compares relative to the other schools in the district. To create the combined score, the four scores are weighted, based on which deficiencies the district wants to emphasize and the relative impact on capital costs. For Lyon County Schools, the building condition score was weighted 30 percent, the educational suitability score was weighted 30 percent, the grounds condition score was weighted 10 percent, and the technology readiness score was weighted 30 percent.

The exhibit below and on the following page provides the four individual scores along with the combined score for each school.

LYON COUNTY SCHOOL DISTRICT
COMBINED SCORES – BY SITE

SCORES	DESCRIPTION
> 90	Excellent/Like New
80 - 89.99	Good
70 - 79.99	Fair
60 - 69.99	Poor
< 59.99	Unsatisfactory

LYON COUNTY SCHOOL DISTRICT (CONTINUED)
COMBINED SCORES – BY SITE

SITE NAME	WEIGHTED BUILDING CONDITION SCORE	SUITABILITY SCORE	TECH READINESS SCORE	GROUNDS CONDITION SCORE	COMBINED SCORE 30/30/30/10
Elementary Schools					
Cottonwood ES	79.25	71.10	82.50	76.74	77.53
Dayton ES	79.44	72.83	81.75	78.69	78.08
East Valley ES	86.01	78.33	92.50	88.08	85.86
Fernley ES	69.60	64.08	68.30	44.82	65.07
Fernley IS	79.45	67.41	85.00	55.95	75.15
Riverview ES	87.38	80.29	71.70	85.01	80.31
Sutro ES	72.38	76.06	63.45	76.04	71.17
Yerington ES	78.32	73.58	60.05	69.97	70.58
ELEMENTARY SCHOOL AVERAGE	**78.98**	**72.96**	**75.66**	**71.91**	**75.47**
Middle Schools					
Dayton IS	81.66	85.09	82.50	69.02	81.68
Silverland Middle	86.49	95.56	100.00	85.00	93.11
Silver Stage ES (PK-8)	73.68	66.69	85.00	70.19	74.63
Yerington IS	74.59	75.86	50.15	83.91	68.57
MIDDLE SCHOOL AVERAGE	**79.10**	**80.80**	**79.41**	**77.03**	**79.50**
High Schools					
Dayton HS	76.56	69.85	60.10	68.44	68.80
Fernley HS	81.67	73.32	87.50	77.05	80.45
Silver Stage HS	85.67	86.47	92.50	70.85	86.48
Yerington HS	82.42	73.85	70.10	74.26	75.34
Smith Valley Schools	82.19	70.82	55.10	51.35	67.57
HIGH SCHOOL AVERAGE	**81.70**	**74.86**	**73.06**	**68.39**	**75.73**
Ancillary Sites					
Adult Ed - Fernley HS	82.04	N/A	N/A	47.63	N/A
Bus Yard - Dayton	87.38	N/A	N/A	55.93	N/A
Bus Yard - Fernley	77.12	N/A	N/A	54.17	N/A
Bus Yard - Silver Springs	75.40	N/A	N/A	37.02	N/A
District Office Complex	78.67	N/A	N/A	53.30	N/A
GED_PDC Silver Stage	85.45	N/A	N/A	28.89	N/A
ANCILLARY SITES AVERAGE	**81.01**	**N/A**	**N/A**	**46.16**	**N/A**
DISTRICT AVERAGE	**80.12**	**75.36**	**75.78**	**65.32**	**76.49**

Source: MGT of America, Inc., 2015.

The summary of findings associated with each of the scores is:

Building Condition - Overall, LCSD's facilities are consistently in fair to good condition, which indicates a very balanced approach to the maintenance of the facilities.

Educational Suitability – Only four schools scored in the good to excellent range for suitability. In most cases, this would indicate that the schools were not originally designed to meet the needs of today's educational programs.

Grounds – There are a significant number of facilities with low Grounds scores and this is largely attributable to the frequency of unpaved parking areas and weather damaged walks and play courts.

Technology Readiness – There is a wide variation in the technology readiness scores for all the schools. This can indicate that the district may need to take a more "targeted" approach to information technology improvements.

Combined Score – If the district's newest facility, Silverland Middle School, is excluded from the calculation, the average Combined Score for all grade levels is 75-76. These score results, averaging in the Fair range, indicate there are significant needs that need to be addressed across the district.

FINDINGS & RECOMMENDATIONS

The detail report provides the process for determining priorities, the options for facility improvements considered, and the recommended course of action. Based on the Facility Committee discussion along with an analysis of the probable funding available, it is recommended that the Board adopt the facility Master Plan based on option 4 as shown in the two exhibits on the following pages. The key components of this option include:

- Change to a K-6 elementary and 7-8 middle school model in Fernley
- Meeting all first and second priority needs over the 10-year master plan period
- Phasing based on expected funding availability over the 10-year master plan period
- Most efficient use of current and new facilities
- Since option 4 provides for two alternatives at Silver Stage the plan is shown in two versions. Option A calls for converting Silver Stage Elementary / Middle School to a K-6 facility and Silver Stage High Stage High School to 7-12. Option B leaves the grade level alignment as it currently exists.

10-YEAR FACILITY MASTER PLAN RECOMMENDATIONS – OPTION A

PHASE 1 – YEARS 1 – 3	BUDGET ESTIMATE
Smith Valley renovation	$4,919,300
Dayton High School renovation (Phase 1)	$4,500,000
Silver Stage Middle to K-6	$1,905,000
Fernley High School renovation & addition (Phase 1)	$2,750,000
Safety & security upgrades (DES/DIS/Sutro/SSHS/YHS/Riverview/Cottonwood/East Valley)*	$2,050,000
Technology upgrades	$363,200
Phase 1 Total	**$14,012,500**
PHASE 2 – YEARS 4-6	
Re-purpose Fernley Intermediate School	$2,354,000
New elementary @ Silverland site	$25,527,900
Phase 2 Total	**$27,881,900**
PHASE 3 – YEARS 7-10	
Yerington Elementary & Intermediate replacement	$32,832,000
East Valley addition	$4,946,500
Dayton High School renovation (Phase 2)	$4,500,000
Fernley High School renovation & addition (Phase 2)	$2,750,000
Site upgrades	$3,870,500
Phase 3 Total	**$49,898,000**
TOTAL 10 YEAR BUDGET	**$91,792,400**

*Budgeted at $300,000 for score of poor; $250,000 for score of fair; $150,000 for score of good.
Source: MGT of America, Inc., 2016.

10-YEAR FACILITY MASTER PLAN RECOMMENDATIONS – OPTION B

PHASE 1 – YEARS 1 – 3	BUDGET ESTIMATE
Smith Valley renovation	$4,919,300
Dayton High School renovation (Phase 1)	$4,500,000
Silver Stage PK-8 - suitability renovation only	$4,419,300
Fernley High School renovation & addition (Phase 1)	$2,750,000
Safety & security upgrades (DES/DIS/Sutro/SSHS/YHS/Riverview/Cottonwood/East Valley)*	$2,050,000
Technology upgrades	$363,200
Phase 1 Total	**$19,001,800**
PHASE 2 – YEARS 4-6	
Re-purpose Fernley Intermediate School	$2,354,000
New elementary @ Silverland site	$25,527,900
Phase 2 Total	**$27,881,900**
PHASE 3 – YEARS 7-10	
Yerington Elementary & Intermediate replacement	$32,832,000
East Valley addition	$4,946,500
Dayton High School renovation (Phase 2)	$4,500,000
Fernley High School renovation & addition (Phase 2)	$2,750,000
Site upgrades	$3,870,500
Phase 3 Total	**$49,898,000**
TOTAL 10 YEAR BUDGET	**$96,781,700**

*Budgeted at $300,000 for score of poor; $250,000 for score of fair; $150,000 for score of good.
Source: MGT of America, Inc., 2016.

SUPPORTING RECOMMENDATIONS

In addition to the master plan recommendation the report includes supporting recommendations that are intended to provide guidance with the implementation of the ten-year master plan. The supporting recommendations include:

- Regularly review attendance boundaries
- Continue to update long-term enrollment projections on a regular basis
- Improve and adapt district facility spaces at silver stage
- Consider earlier implementation of safety / security upgrades at schools planned for phase 2 and 3 Improvements

1.0 METHODOLOGY AND APPROACH

In June 2015, the Lyon County Board of School Trustees contracted with MGT of America to develop a ten-year *Facilities Master Plan* to address the long-term facility needs of the district. The Board requested a master plan to examine the areas of need and determine a course of action to remedy any identified deficiencies. The primary tasks for the completion of the master plan as outlined in the RFP were:

- Educational facility condition assessments
- Site condition and suitability
- Education suitability evaluation to meet district wide programmatic priorities
- Technology capability and readiness
- Demographic and enrollment projections
- Community wide stakeholder participation including community engagement meetings, interviews, focus groups and electronic surveys
- Analysis and impact of county planning initiatives
- Budget and cost estimate alternatives
- Preparation and presentation of the comprehensive long-range ten year facilities master plan

MGT's approach to developing educational facility master plans is based on the philosophy that facility needs should be based on the school district's educational mission, goals, and objectives. Consequently, we begin by developing an understanding of the facility implications of the educational programs and the program delivery methods which the district is providing across all the schools and in each individual school. The educational mission, goals, and objectives combined with the strategic structure of the district, the grade groupings, feeder patterns, school sizes, and educational specifications, define the architecture of the school facilities.

In addition to a thorough understanding of the educational programs, MGT collects an array of data to drive the decision making process for the prioritization of needs. Data collection activities include facility assessments for site and building condition, educational suitability, and technology readiness. These assessments measure and document various aspects of the existing facilities against the school district's standards for 21st Century schools.

Demographic data is collected and used to project long-term enrollments, which in turn are used to project future facility capacity needs. Historical data for birth rates, enrollments, census data, housing developments, and economic trends are combined with planning and zoning information for the school district's geographic area to develop enrollment projections for each school by each grade level. This data is analyzed using multiple projection methodologies and GIS mapping.

The capacity of each school is determined using an instructional space model. This type of capacity model counts the number of instructional spaces in a particular school, assigns class sizes according to district standards, and applies a utilization factor. The calculated capacities are then divided by the current and projected enrollments to determine the rate of utilization and identify where the district needs additional space or has a surplus of space currently and in the future. This determination helps guide decisions regarding new schools, additions to existing schools, and redistricting.

Another key step in formulating an effective facility master plan is developing an understanding and appreciation for the perceptions and priorities of the community which the school district serves. MGT utilizes several processes for community engagement including interviews, focus groups, public charrettes, and on-line surveys. These efforts recognize multi-cultural differences and bi-lingual communities. Our experienced consultants are adept at collaboration and working transparently with all sectors of the school district's community.

The planning process culminates with the development of multiple scenarios or strategies which outline how the school district can meet the current and future facility needs. The development of several approaches to the final master plan is helpful in ensuring all options are examined and compared. The final master plan scheme is developed with prioritized projects and strategies scheduled and budgeted over the ten year planning period of the master plan.

Lyon County Public Schools has successfully implemented the 2007 Facilities Master Plan by using it as a guide for an objective and structured capital improvements program. This 2016 plan will build on this process and be an effective tool in helping the district achieve its educational mission, goals and objectives.

In order to meet the goals of the project and follow the philosophical approach as outlined above the work plan as shown was developed to guide all project activities and ensure deliverables that would meet the needs of the district.

EXHIBIT 1-1
PROJECT WORKPLAN TASKS

Project Initiation
TASK 1.0 Educational Framework
TASK 2.0 Facility Assessments
TASK 3.0 Demographic Analysis and Reports
TASK 4.0 Scenarios and Reports
TASK 5.0 Meeting and Community Engagements
TASK 6.0 Final Report and Recommendations

Source: MGT of America, Inc., 2015.

2.0 COMMUNITY ENGAGEMENT

An important component of a viable master plan is data gathered from various community sources to ensure that critical perspectives have been heard and considered in the development of the final plan.

To ensure broad-based input, MGT conducted a series of open community forums with an online survey aligned to the discussions at the community meetings, and invited internal and external input from identified individuals. The internal input included interviews with the superintendent, school board, and senior staff, as well as the curriculum staff**.** The external input included interviews with the county executive and county planning staff. The goal of each of these sessions was to identify overall strengths and challenges for the district and explore any specific issues unique to that person's role or function. The discussions with county planning staff were intended to provide information about planned developments across the county that could affect the schools – both number of students and location of students. Information from the internal and external interviews were used to shape the open community engagement activities.

The community engagement activities included two types of community engagement activities in support of the district's goal to create a long-range facility master plan. The activities were focused initially on gathering **input** – what was working well, what needed attention or focus during the study and for the long-range plan – and then gathering **feedback –** what had we heard, what data had been gathered and what did the community think about that information. Both types of activities included face-to-face opportunities available in both English and Spanish.

COMMUNITY INPUT ACTIVITIES

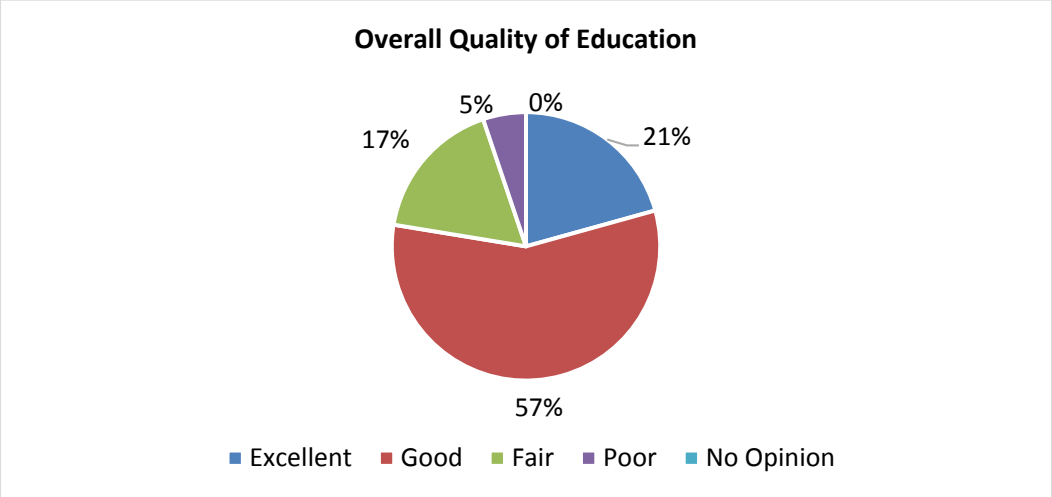
In order to gather community input regarding the long range facility plans for the district, MGT conducted five large group sessions open to the public.

- Input Sessions
  - Dayton Elementary School on November 2, 2015
  - Fernley Elementary School on November 3, 2015
  - Silver Stage Elementary School on November 4, 2015
  - Smith Valley School on November 5, 2015
  - Yerington Intermediate and Smith Valley School on November 5, 2015

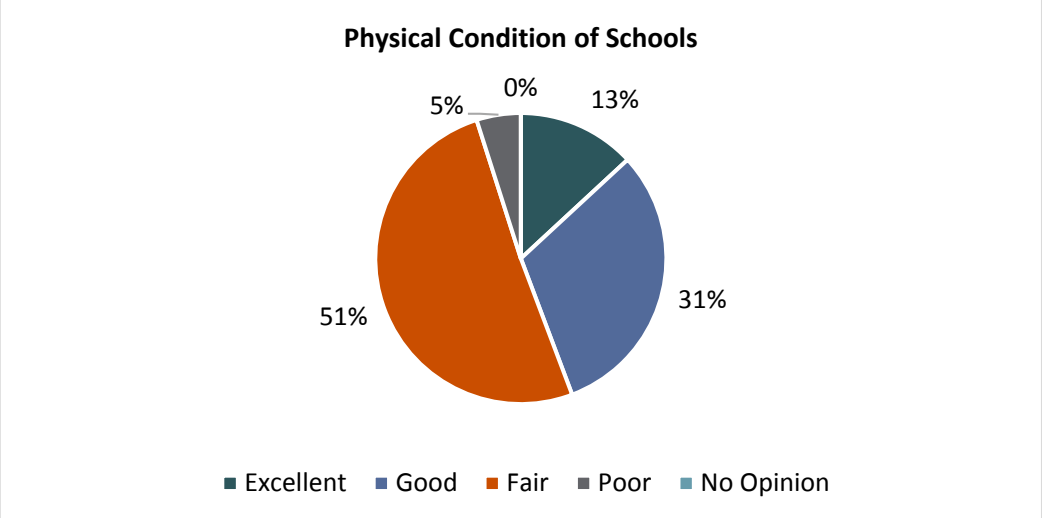
FINDINGS

For the purpose of this report, we have combined the data gathered from the five community input sessions and reported the findings below.

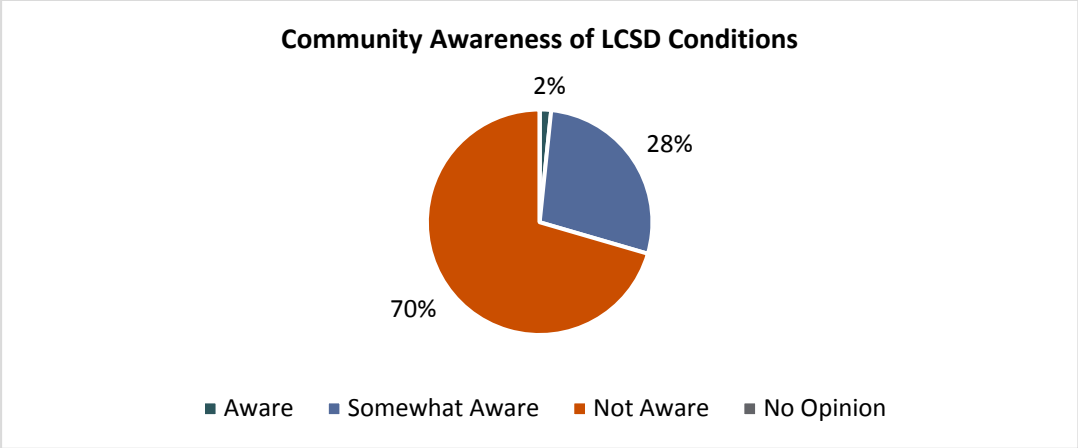
- 67 individuals participated in charrettes (N = 67).
- Seventy-eight percent (78%) of respondents rated the quality of education in Lyon County School District as *Excellent* or *Good.* Respondents cited the opportunities for students to take advanced coursework (including completing an A.A. degree while in high school), and the quality of teachers as major contributors to the quality of education.



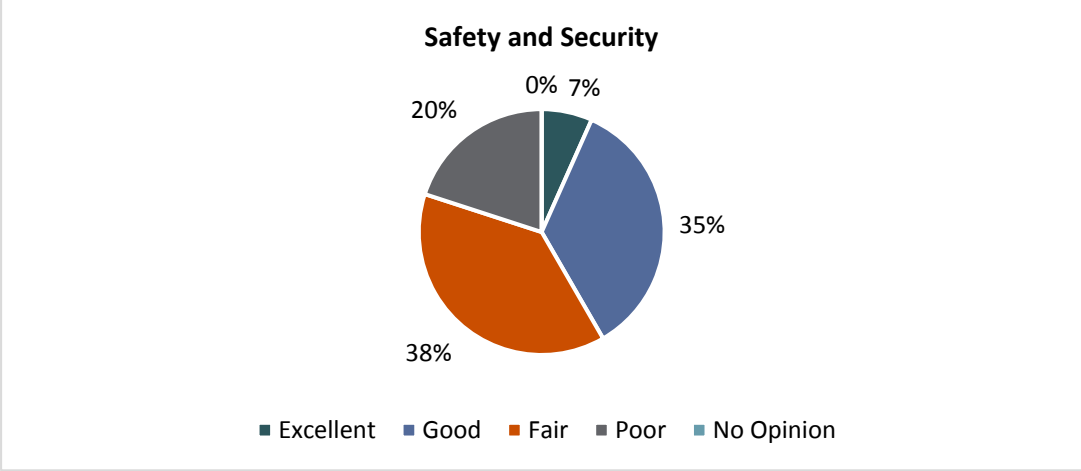
- Conversely, 56% of respondents felt the physical condition of schools is *Fair* or *Poor*. Many respondents cited poorly performing HVAC systems, and poor conditions of parking lots as examples.



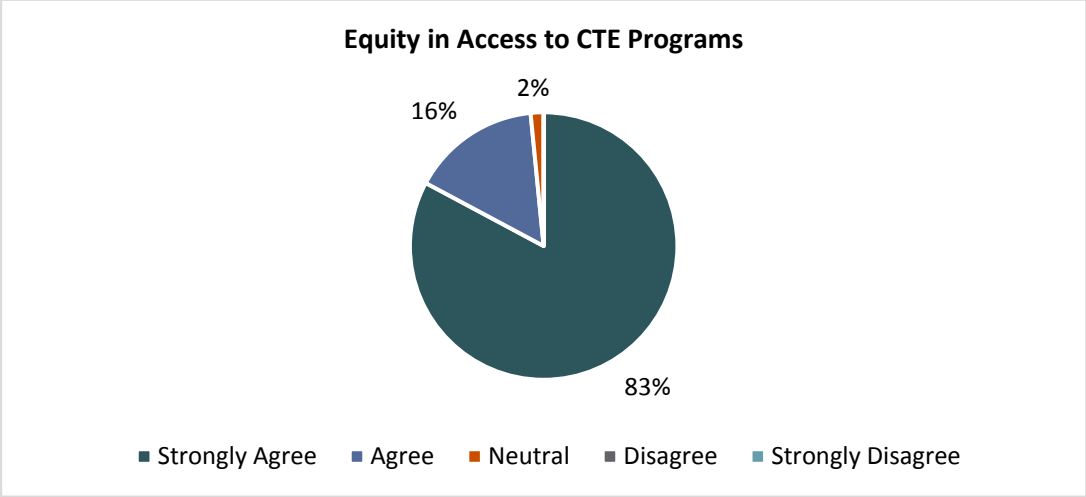
- Seventy percent (70%) of respondents felt the community is *Not Aware* of the physical condition of school buildings in Lyon County School District. Many felt that the business community has little knowledge of the needs and conditions of schools unless made aware by the school community. Some schools have very limited business and industry in their communities and thus even less involvement in schools.



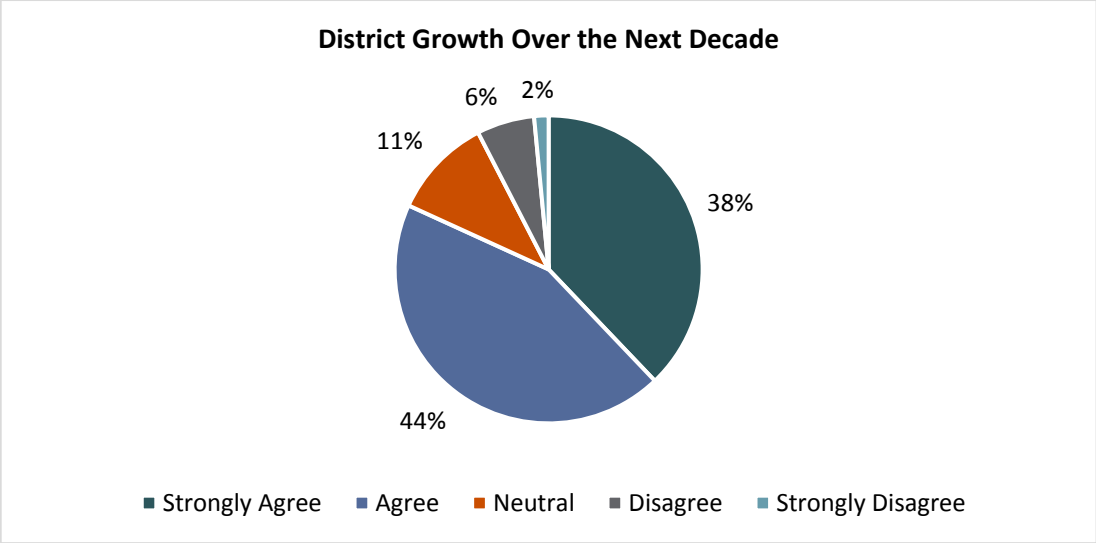
- Fifty-eight percent (58%) of respondents rated the level of safety and security in schools as *Fair* or *Poor*. They cited multiple entry points to the school coupled with the lack of fencing or other barriers to access to the schools, insufficient number of cameras on campus to capture activity, and close proximity of some schools to active roadways, as factors that threaten school security.



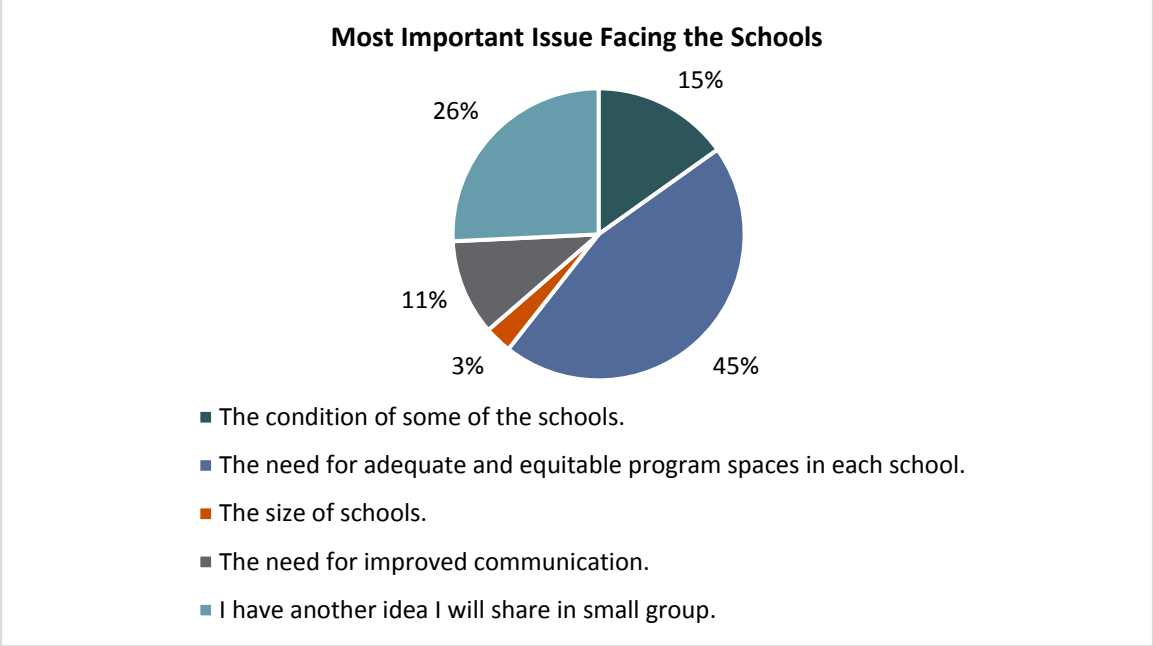
- Eighty-three percent (83%) of respondents *Strongly Agreed or Agreed* that students should have equal access to CTE programs across the school district. Advantages cited for CTE programs included the fact that they provide real world application of academics, and are highly valued by students seeking a means to go directly into the workforce after graduation. Respondents also felt it is important to regularly communicate with industry to ensure the courses being taught are relevant to the accompanying careers.



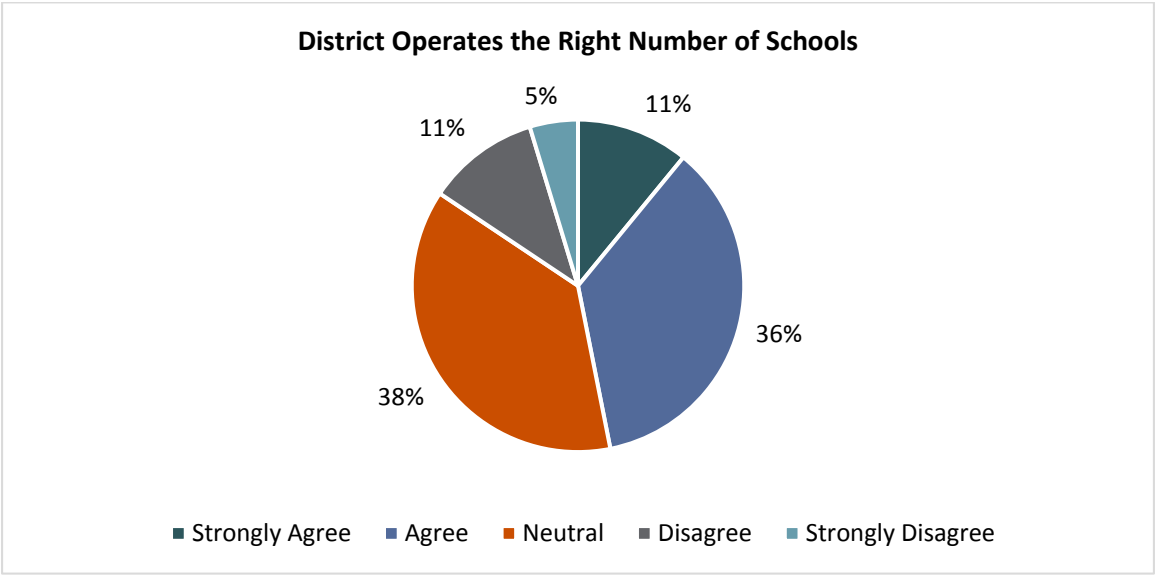
- Eighty-two percent (82%) of respondents *Strongly Agreed* or *Agreed* that the district will grow due to industry such as Tesla or construction of the parkway. The parkway was seen as having the highest potential for growth since it will cut the drive time to Reno in half, and Lyon County would be a desirable bedroom community.



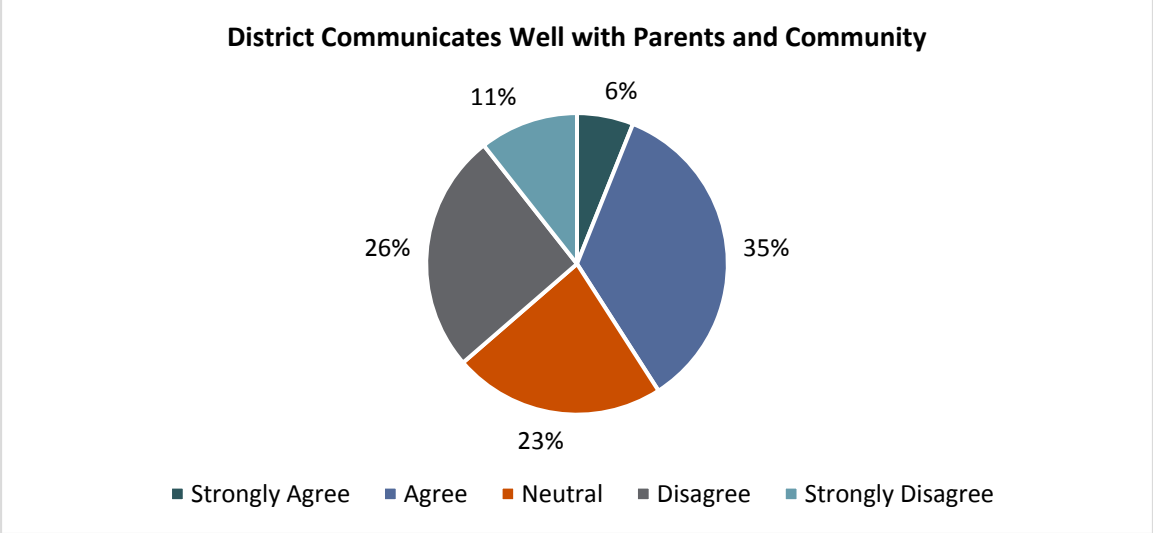
- Respondents identified the highest priority needs as the condition of school facilities and having adequate learning spaces, including the following:
  - Fine and Performing Arts
  - STEM



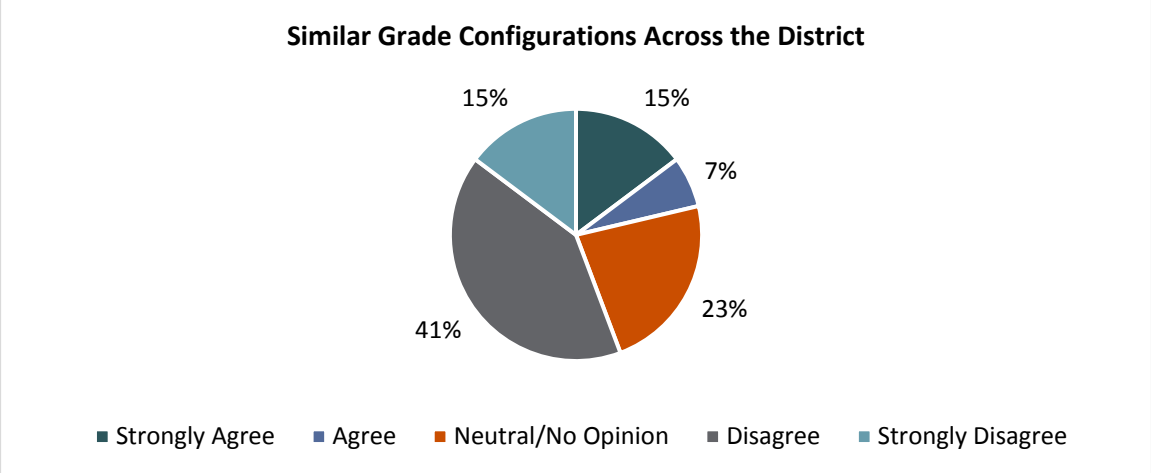
- There was no consensus of opinion on the "right number of schools," with 47% of respondents rating *Strongly Agree* or *Agree*, and 38% neutral on the subject. Few additional ideas were offered, and most respondents felt the current number of schools was right, but with growth, a new school will probably be needed.



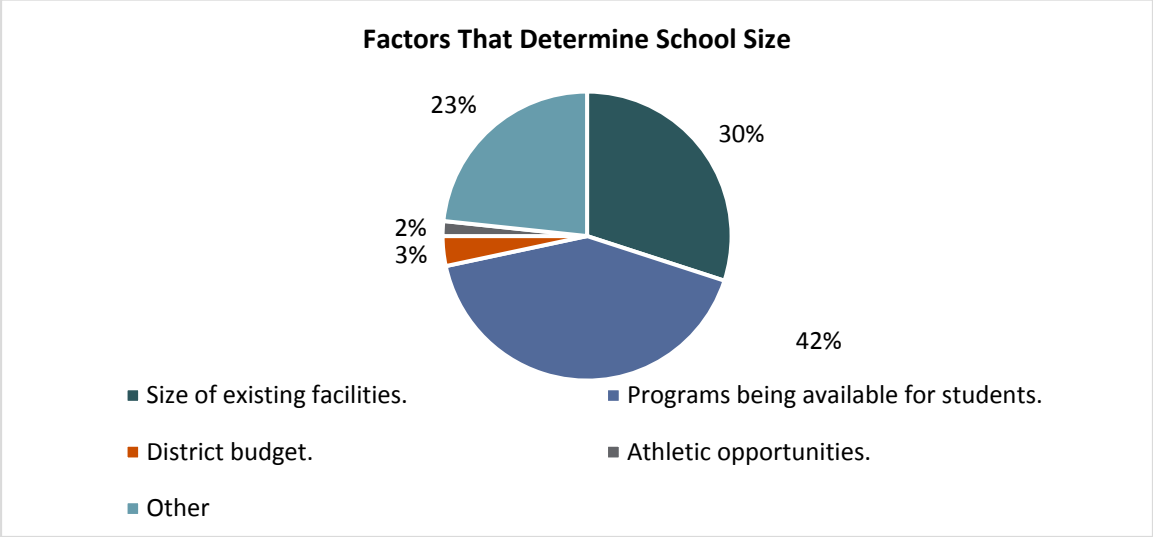
- There was also little agreement around the quality of communication between the school district and parents and the community. Forty-one percent (41%) of respondents rated *Strongly Agree* or *Agree*, 23% *Neutral*, and 37% *Disagree* or *Strongly Disagree* on the subject. Many felt that the district needs to make better use of technology to communicate.



- Fifty-six percent (56%) of respondents *Strongly Disagreed or Disagreed* that grade configurations should be similar across the school district. Respondents like the fact that each community can decide what is best for the children in their schools, and what works in one community may not work for another. Respondents felt having choice is best.



- When asked to identify factors that should determine the size of a school, 72% of respondents identified the size of existing facilities and the current programs available for students at the top determinants. There was great concern that larger schools would take away the sense of community that currently exists in schools, as they highly value the fact that teachers and administrators know every student due to the relatively small school size. Several respondents also said that class size was more important than school size, because it more directly affected teachers' ability to know their students well.



These perceptual data regarding school size were helpful as part of MGT's review of school size issues. These community perspectives are very important in developing any final recommendations for the master plan.

CONCLUSIONS

In order to gather community input and feedback, MGT used a variety of tools throughout the process of development of this Master Facilities Plan. The goal for community engagement was to ensure that all interested members of the community had multiple opportunities for both input and feedback.

- **Input** processes asked the community - what is important, what needs attention, what is working well, and what needs to be different?
- **Feedback** processes asked the community – given these preliminary data, what should be the priorities, how should issues be weighted, what is **most** important to do?

Lyon County has an involved and interested populace. They actively participated in the community sessions. From these data, it is clear that the LCSD community wants the district to focus their efforts on the following issues over the next 10-year plan:

- Fixing identified building deficiencies – especially HVAC.
- Providing adequate program spaces – especially performing arts and STEM.
- Size of schools – focusing on maintaining a size that will support the current sense of community in schools between teachers and students.
- Equitable Access to CTE programs – determining the whether to have programs centrally located or distributed across the school district.

3.0 EDUCATIONAL PROGRAM

Activities related to the educational program were focused on ensuring that MGT understood the district's current and planned instructional programs, especially those with facility implications. For example, when the district focuses on college and career readiness, the facility implications are significant.

The space requirements for programs are significant and the facility implications of instructional decisions are very important to ensure that all students are provided opportunities to learn in adequate and equitable spaces, regardless of where they go to school. Ensuring a safe learning environment is also critical. Improving facilities is a huge challenge to districts. Many schools in the district were not built/designed to support all of the needs for special education, English Language or Title I programs, each of which requires space to do that work. Buildings designed before the mid 1970's had classrooms only. There were no spaces for itinerant PT/OT staff, psychologists to do testing, or ELL/special education/Title I staff to do pull-out groups or instruction. Schools that lack these instructional resource spaces may have to put counselors in closets, speech therapists on the stage, and English tutors out in the hallway. Schools that lack these spaces use whatever is available, but they may not be adequate to fully support the instructional program.

This master plan is intended to identify the places where program needs are not met by the existing facilities and develop strategies and priorities to address those needs.

MGT's work in Lyon County includes not only understanding the educational programs in the district, but also defining the facility implications for those programs. In order to complete this work, MGT conducted a thorough analysis of programs, both in place and planned, and then developed the educational suitability assessment that would capture data from each school. Each component is described in the following sections.

EDUCATIONAL PROGRAM DEVELOPMENT

Lyon County School District provides a comprehensive curriculum designed to meet the needs of all students, but increasingly focused on ensuring access to after high school opportunities, including college and various careers. This chapter provides a brief description of the educational program offered across the district. It also describes the methodology used to gather information about the facility implications of the planned educational program and define standards for each type of space. Finally, the chapter describes how the facilities in the district were assessed based those standards in order to quantify any deficiencies and be able to compare schools and develop priorities.

EDUCATIONAL PROGRAM

Lyon County has adopted a comprehensive K-12 curriculum and implemented similar courses in all schools. The K-12 standards for math and literacy are based on the Common Core, as adopted by the state of Nevada. The district provides text resources and professional development to teachers in each grade level and content area and supports the implementation of this "guaranteed and viable curriculum" at all schools.

In elementary schools, the focus is on developing solid fundamental skills in mathematics and English language arts. In addition to the basic instruction, qualified students in need of additional support can participate in Title I, English language learner, or special educational programs. Elementary students have art and music classes with their classroom teacher and access to physical education and performing arts spaces.

Starting in middle school, students have opportunities to explore some additional areas, including specialized music and art classes. Middle school students are typically arranged in teams, providing an opportunity for teachers to get to know students and families better and to work together to support student learning.

High school programs include additional course opportunities, including Career and Technical Education (CTE). CTE courses are offered at every high school, but not all courses are in place at each school. Programming is based on student interest, available space, and teacher certification. Many of the high school courses have "articulation agreements" allowing students to smoothly transition course competencies with the community college. The district is working to enhance the current CTE offerings and more closely match current Nevada employer needs to the CTE program offerings. In addition to the courses available at district schools, students are eligible to attend the Western Nevada Community College or to take community college courses taught by university staff at their home high school. This is an important and impressive opportunity for students in Lyon County to jump start their college careers while still in their home high schools.

METHODOLOGY TO DEVELOP SPACE STANDARDS

MGT conducted a series of focused interviews and discussions with district staff in fall 2015. These interviews included administrative and curricular staff representing each content area (e.g., science, performing arts, technology, media, etc.). For each area, MGT asked questions regarding both current and planned program changes. Some specialized programs require specialized spaces. For example:

- Career Programs provide an opportunity for interested students to pursue specialized course work and require specialized space. Spaces for all Career and Technical Education programs were evaluated during the site assessments, based on the planned location(s) for each program.

MGT provided a template to guide the discussion with LCSD staff. The template included all subject areas (e.g., art, PE, performing arts, etc.) and outlined the areas used for facility reviews. The template also included safety and security issues and non-instructional areas such as traffic patterns, cafeteria, and administration.

The discussions always begin with a review of existing and planned programs, including the planned timeline for new program implementation. Additional discussions addressed equity – did/should the programs exist in all schools or were they only in certain schools? Lyon County staff provided information about both what currently existed and what was planned for future implementation.

From these discussions, MGT developed the **Educational Suitability and Technology Readiness Reference Guide** (see ***Appendix B***) to define the facility standards**.** These standard are based on the district's current educational specifications and design practices. This document was reviewed and approved by the district and used as the basis for the educational suitability assessments.

The standards define four components for each type of instructional space:

- Learning environment – Does the space provide an appropriate physical configuration, HVAC, lighting, acoustical treatment, etc. to support student learning?
- Size – Does the space meet the defined size standard for square footage?
- Location – Does the space exist in the right location?
- Storage/Fixed Equipment – Does the space have what teachers and students need to be successful, including safety equipment, permanent cabinetry, and staff technology?

In addition to curricular areas, MGT discussed the district's current and planned technology structures in support of instruction. IT staff from LCSD reviewed standards and assisted in the development of the

tool used to assess Technology Readiness, e.g., electrical service to support charging of devices, wireless access, video streaming capacity, telephone/PA, and the IT environment in IDF/MDF areas and computer labs, etc. The technology readiness assessment reviews how well the infrastructure in the schools supports technology. It does not include an evaluation of the IT software or equipment.

All MGT staff who conducted assessments were trained in the use of this document as the standard for assessing each school.

EDUCATIONAL SUITABILITY ASSESSMENT

As described, MGT developed the **Educational Suitability and Technology Readiness Reference Guide** for Lyon County**.** The guide was used to calibrate MGT's assessment software, BASYS (Building Assessment System). The BASYS tool has four assessments: Building Condition, Site Condition, Educational Suitability, and Technology Readiness, each of which creates a score on a 100-point scale with 90-100 being "Excellent" and scores under 50 being "Unsatisfactory." This scoring system is easily understood by the public that is accustomed to educational grading systems on the 100-point scale. The BASYS was used in Lyon County in 2006-07 when the last district-wide facility assessment was conducted. (Note: BASYS has been revised since 2006-07 to provide greater emphasis on the learning environment and instructional flexibility.) The reference guide was also used to train the assessors who visited each school and documented the suitability of each space. (See **Section 5.0** for the Educational Suitability Assessment data.)

MGT staff assessed each school based on the standards defined in the **Guide**. Each evaluator met with the school principal to review the program(s) at each site and then walk the school to observe the spaces available to support the planned programs. Site visits were scheduled by MGT through the district to ensure that knowledgeable staff were available at each site during the visit. Assessment data were entered into the BASYS software as each evaluation was completed and uploaded to the MGT database. MGT conducted a quality control review to ensure the accuracy and completeness of all data and then submitted the database for a final review by the district.

4.0 DEMOGRAPHICS AND ENROLLMENT PROJECTIONS

This section presents the demographic analysis and enrollment projections for the master planning period. The demographic analysis and enrollment projections were completed by MGT staff for the ten-year planning period. Over the next ten years, enrollment is expected to increase modestly across the district. The specific impact of future student enrollment on school building capacities is outlined in the **Section 6.0** on Capacity and Utilization.

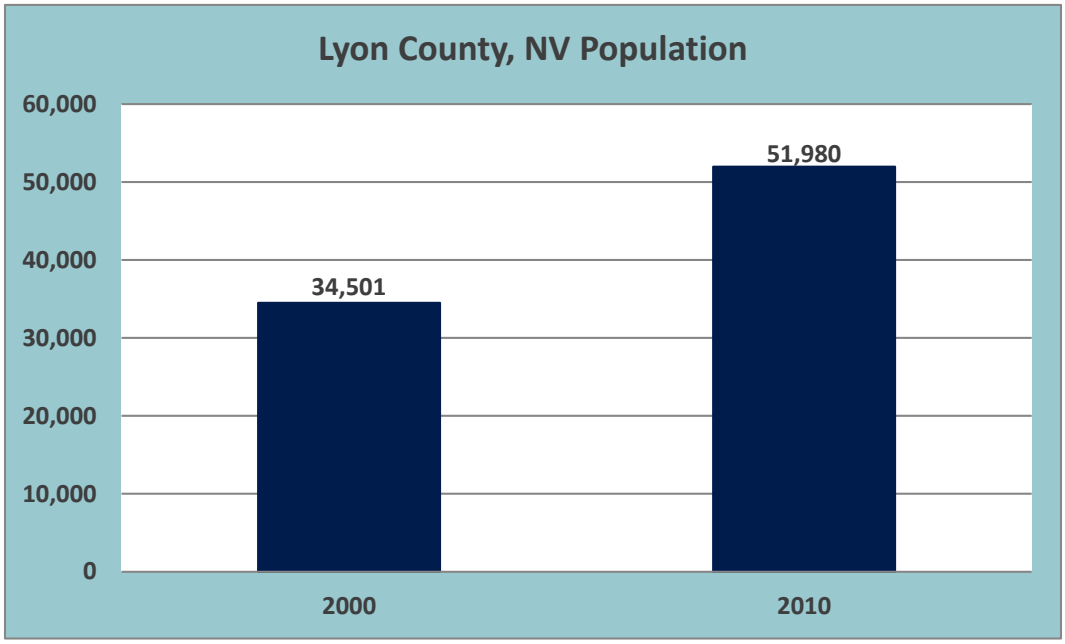
HISTORICAL DATA

An analysis of both quantitative and qualitative data forms the basis for the enrollment projections. Quantitative data comes from the district, the county, and the U.S. Census Bureau ("Census"). Quantitative data provides the basic understanding of trends "by the numbers." Qualitative data is gathered from conversations with district officials familiar with enrollment trends (and county planners), and provides the "why" behind the numbers. Both forms of data are critical to the preparation of enrollment projections for the district's ten-year facility master plan.

LYON COUNTY POPULATION TRENDS

It is important to understand the context in which enrollment trends occur within the district. Lyon County, NV had a population of 34,501 in 2000; Census data indicates that number has increased to 51,980 in 2010. **Exhibit 4-1** shows the increase in total population from 2000 to 2010.

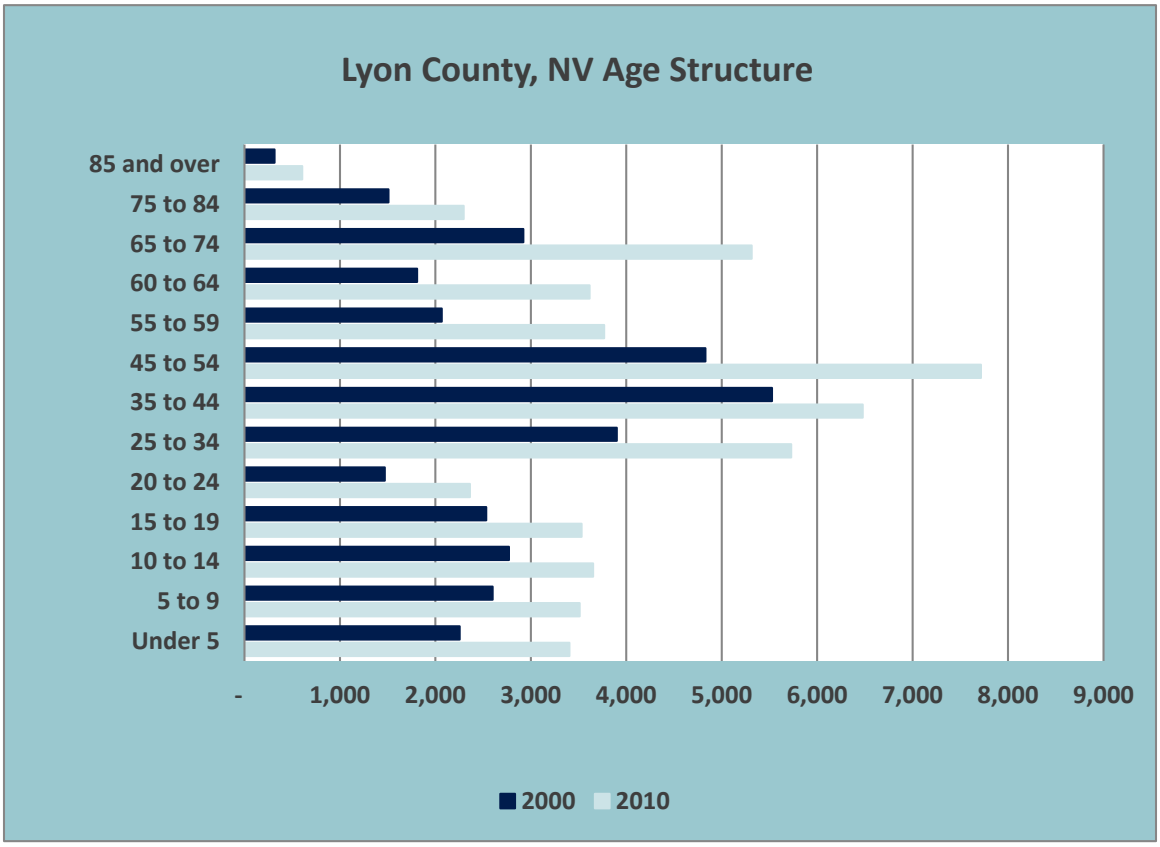
EXHIBIT 4-1
LYON COUNTY, NV
TOTAL POPULATION
2000 TO 2010



Source: U.S. Census Bureau.

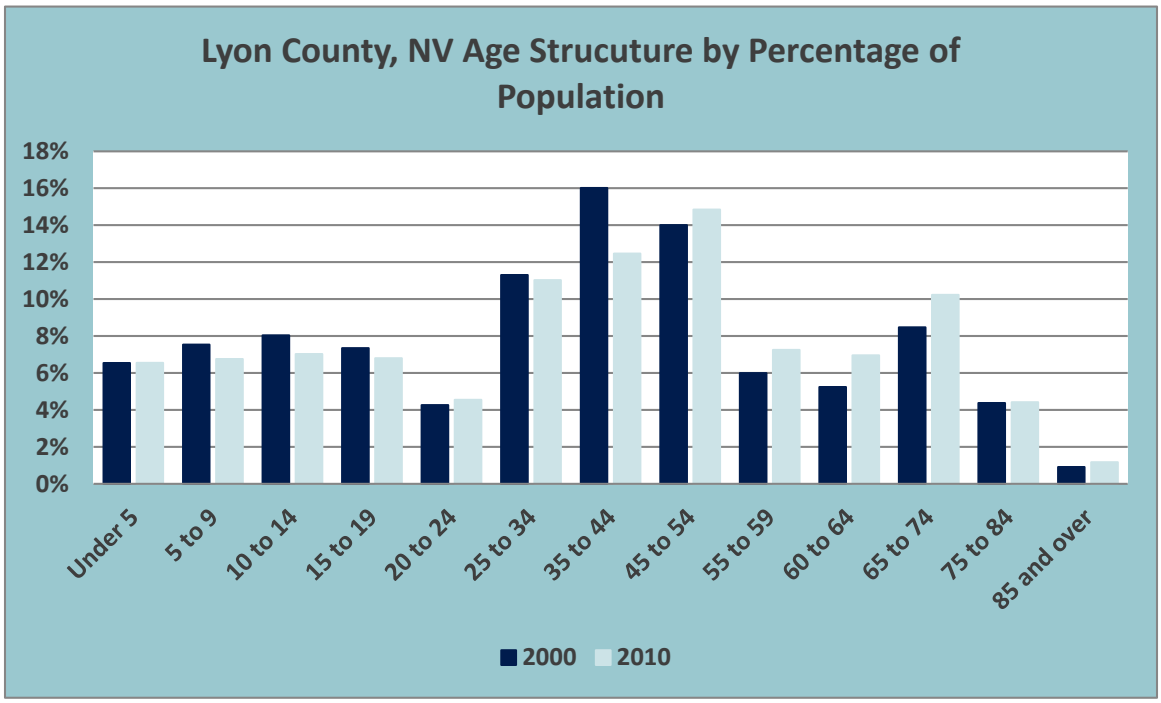
An examination of the age structure of Lyon reveals that the largest segment of the population is between 25 and 54 years of age. **Exhibits 4-2** and **4-3** illustrate the age structure of Lyon County population in 2000 and in 2010.

EXHIBIT 4-2
LYON COUNTY, NV
POPULATION AGE STRUCTURE
(TOTAL BY AGE GROUP)
2000 TO 2010



Source: U.S. Census Bureau.

EXHIBIT 4-3
LYON COUNTY, NV
POPULATION AGE STRUCTURE
(BY PERCENTAGE OF POPULATION)
2000 TO 2010

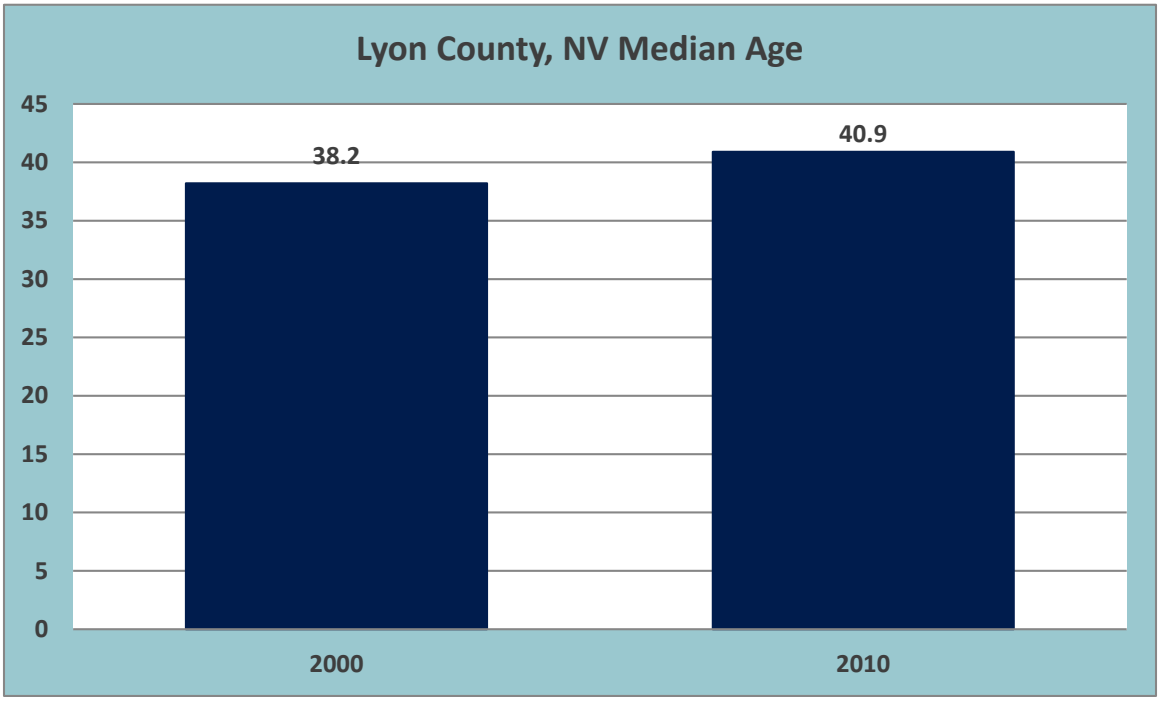


Source: U.S. Census Bureau.

Analysis of the age structure does not necessarily lead to any specific conclusions, but it does offer some interesting observations. Note that the population from *Under 5* held steady between 2000 and 2010 but the *5 to 9* segment, *10 to 14* segments, and *15 to 19* segments all show a decline over the time period, which indicates a decline in the school age population as a percentage of the whole population. The *25 to 34* segment and *35 to 44* segment decreased, and as these are typically considered the portion of the population age known as 'child bearing', this further indicates the likelihood of less school age children in the future. Also note that the segments from *45 to 54* through *65 to 74* show an increase from 2000 to 2010. This indicates that the older poupulation is growing while the younger population is declining.

Of additional interest is the change from 2000 to 2010 in the age segments for *20 to 24* and *25 to 34*. In 2000, the total number and percent of population increased from one group to the next. In 2010, the trend continued but at a much slower rate. This indicates that the largest segments of the population are getting older, a fact that is also evidenced by the increase in the median age of the Lyon County population. **Exhibit 4-4** shows the increase in median age from 2000 to 2010.

EXHIBIT 4-4
LYON COUNTY, NV
MEDIAN AGE OF POPULATION
2000 TO 2010



Source: U.S. Census Bureau.

The percent change in population at each age segment further reveals that the population in Lyon County is getting older. **Exhibit 4-5** shows the percent change in population for each age segment. The *Under 5* population increased approximately 0.2% from 2000 to 2010. The *5 to 9* and *10 to 14* age segments decreased 10.4% and 12.5%, respectively, over that same time period. This data possibly suggests that children who are born in Lyon move out of the area *before* those children start attending school. The exhibit also emphasizes the overall decrease in the childbearing aged populations.

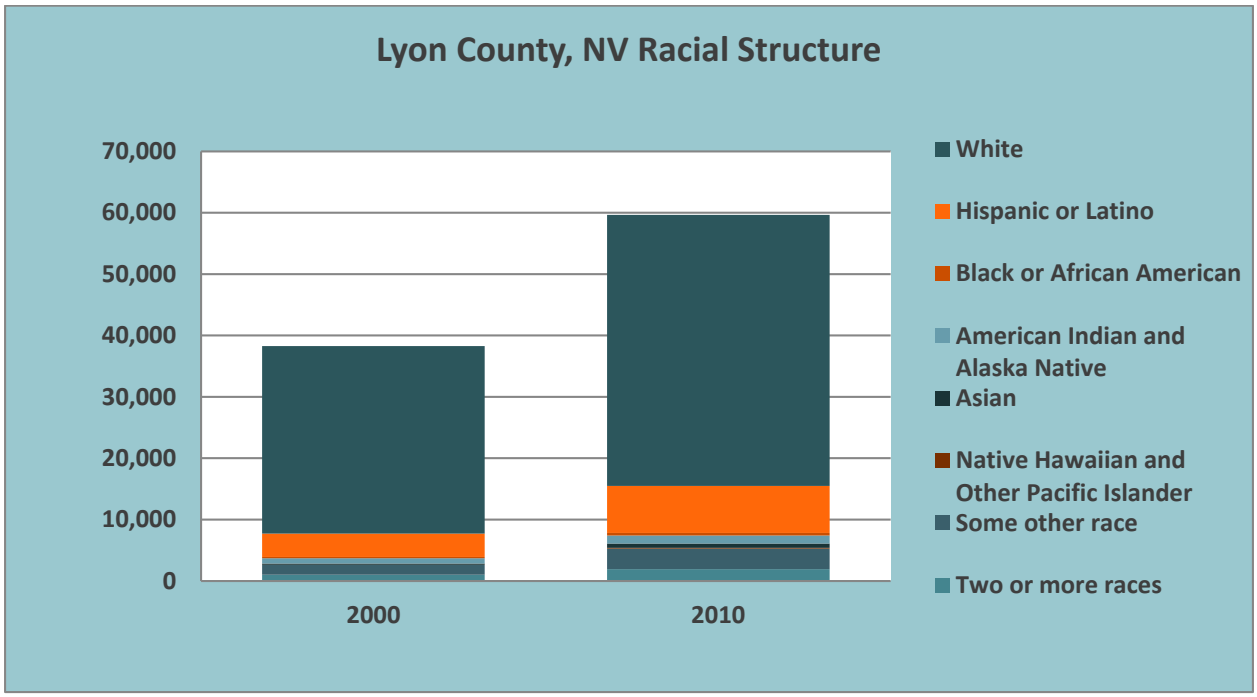
EXHIBIT 4-5
LYON COUNTY, NV
CHANGE IN PERCENT OF POPULATION
2000 TO 2010
(BY AGE SEGMENT)

AGE SEGMENT	% OF 2000 POPULATION	% OF 2010 POPULATION	CHANGE IN % OF POPULATION
Under 5	6.5%	6.5%	0.2%
5 to 9	7.5%	6.8%	-10.4%
10 to 14	8.0%	7.0%	-12.5%
15 to 19	7.3%	6.8%	-7.4%
20 to 24	4.3%	4.5%	6.7%
25 to 34	11.3%	11.0%	-2.5%
35 to 44	16.0%	12.5%	-22.2%
45 to 54	14.0%	14.8%	6.0%
55 to 59	6.0%	7.2%	21.0%
60 to 64	5.2%	7.0%	32.7%
65 to 74	8.5%	10.2%	20.7%
75 to 84	4.4%	4.4%	1.1%
85 and over	0.9%	1.2%	27.9%

Source: U.S. Census Bureau.

The racial structure of Lyon County in 2010 consisted of 74% white, 13% Hispanic or Latino and other races accounted for the remaining 13% of the population. The white population increased from 30,576 in 2000 to 44,164 in 2010. However, the white population decreased as a percentage of total population (-5.8%). The Hispanic or Latino population increasing from 10% of the population in 2000 to 13% of the population in 2010. Other races accounted for the remaining 10% and 13% of the Lyon County population in 2000 and 2010 respectively. **Exhibit 4-6** illustrates the racial structure in Lyon County for 2000 and 2010.

EXHIBIT 4-6
LYON COUNTY, NV
RACIAL STRUCTURE
(TOTAL POPULATION BY RACE)
2000 TO 2010



Source: U.S. Census Bureau.

The data presented thus far builds the context for the following discussion regarding future LCSD enrollment.

HISTORICAL ENROLLMENT

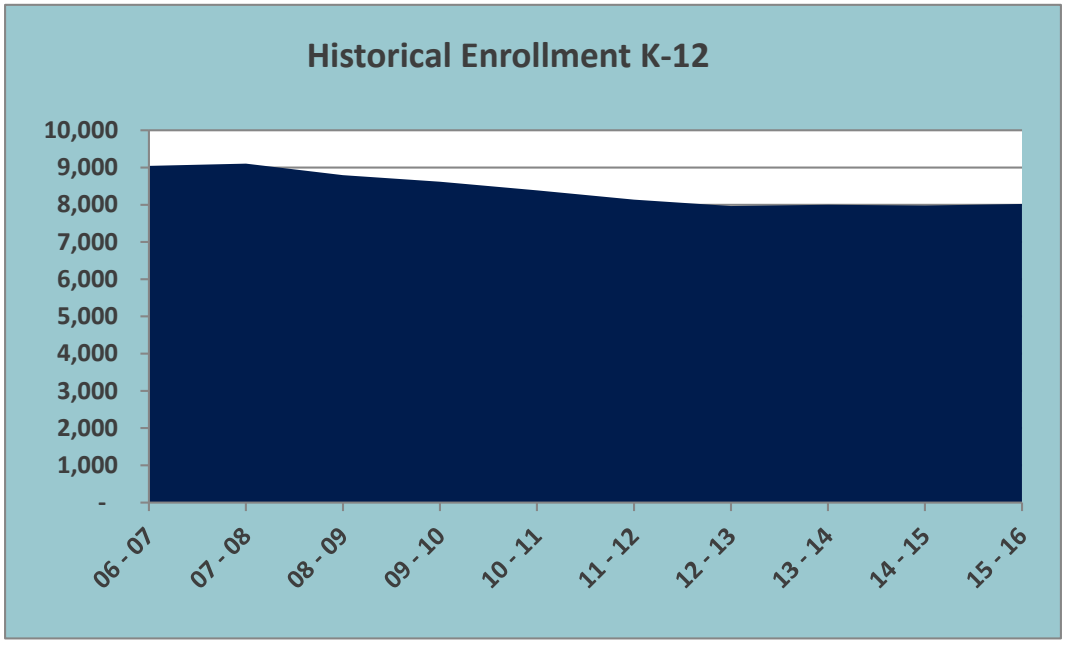
The core body of data used to develop an enrollment projection is historical enrollment. Total enrollment in Lyon County School District stood at 9,044 students in 2006-07. Since then, enrollment has decreased to 8,024 in 2015-16. **Exhibit 4-7** details the enrollment history of K-12 students. **Exhibit 4-8** charts the history.

EXHIBIT 4-7
LYON COUNTY SCHOOL DISTRICT
K-12 ENROLLMENT HISTORY
2006-2015

Grade	06 - 07	07 - 08	08 - 09	09 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16
K	665	672	662	635	606	579	639	651	604	575
1	719	691	648	695	659	605	600	658	652	618
2	691	718	672	642	662	652	600	613	665	646
3	671	710	714	661	621	621	628	604	613	684
4	675	702	699	679	649	596	611	636	614	634
5	728	688	702	680	637	647	608	620	640	629
6	722	748	680	679	665	620	643	635	631	651
7	747	728	735	682	655	644	630	642	657	627
8	764	768	678	686	640	648	608	608	628	665
9	831	865	834	678	683	619	617	621	594	633
10	747	687	700	717	637	646	589	594	602	565
11	608	624	563	638	674	619	626	560	557	584
12	476	506	509	549	600	643	565	560	524	513
Grades K-5	4,149	4,181	4,097	3,992	3,834	3,700	3,686	3,782	3,788	3,786
Grades 6-8	2,233	2,244	2,093	2,047	1,960	1,912	1,881	1,885	1,916	1,943
Grades 9-12	2,662	2,682	2,606	2,582	2,594	2,527	2,397	2,335	2,277	2,295
District Total	**9,044**	**9,107**	**8,796**	**8,621**	**8,388**	**8,139**	**7,964**	**8,002**	**7,981**	**8,024**

Source: Lyon County School District, 2015.

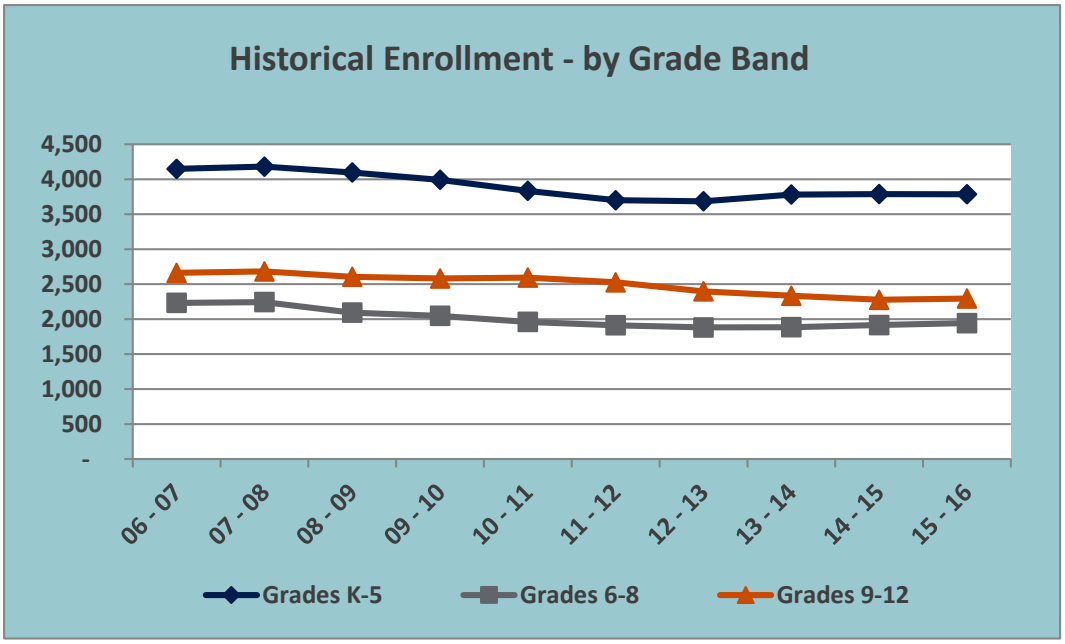
EXHIBIT 4-8
LYON COUNTY SCHOOL DISTRICT
HISTORICAL ENROLLMENT
2006-2015



Source: Lyon County School District, 2015.

An examination of historical enrollment from 2006-2015 reveals that a decrease in overall enrollment over the last ten years has been experienced at almost all grade level. The resulting 11.3% decrease across the district is shown in **Exhibits 4-7** and **4-8**. The K-5 grade band decreased by 8.8%, the 6-8 grade band decreased in enrollment by 13%, and the 9-12 grade band decreased by 13.8% in enrollment. **Exhibit 4-9** on the following page illustrates the historical enrollment for each grade band.

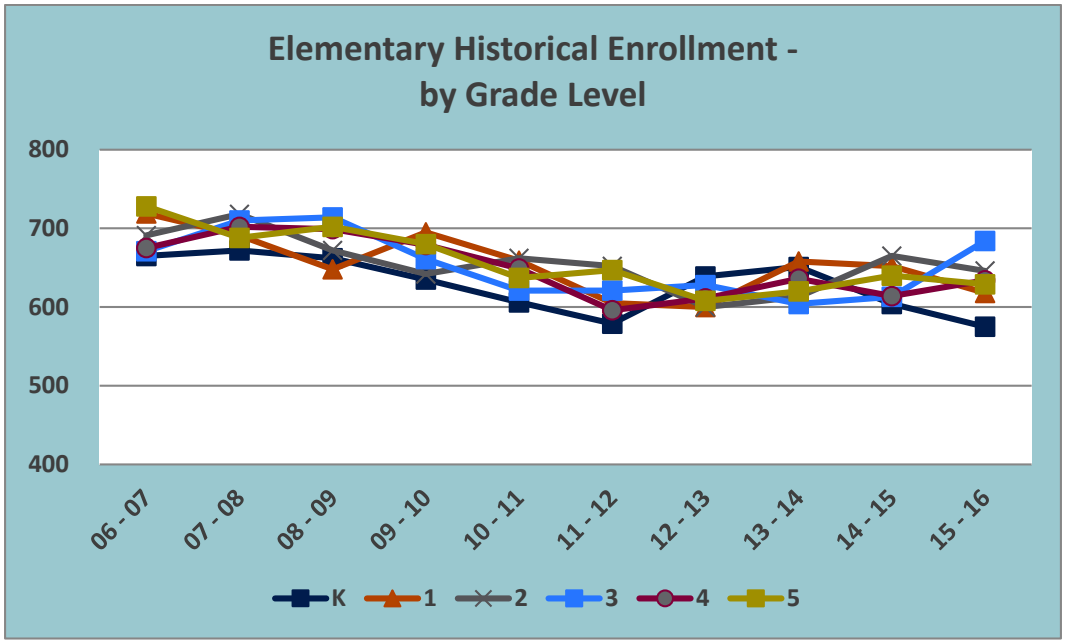
EXHIBIT 4-9
LYON COUNTY SCHOOL DISTRICT
HISTORICAL ENROLLMENT
(BY GRADE BAND)



Source: Lyon County School District, 2015.

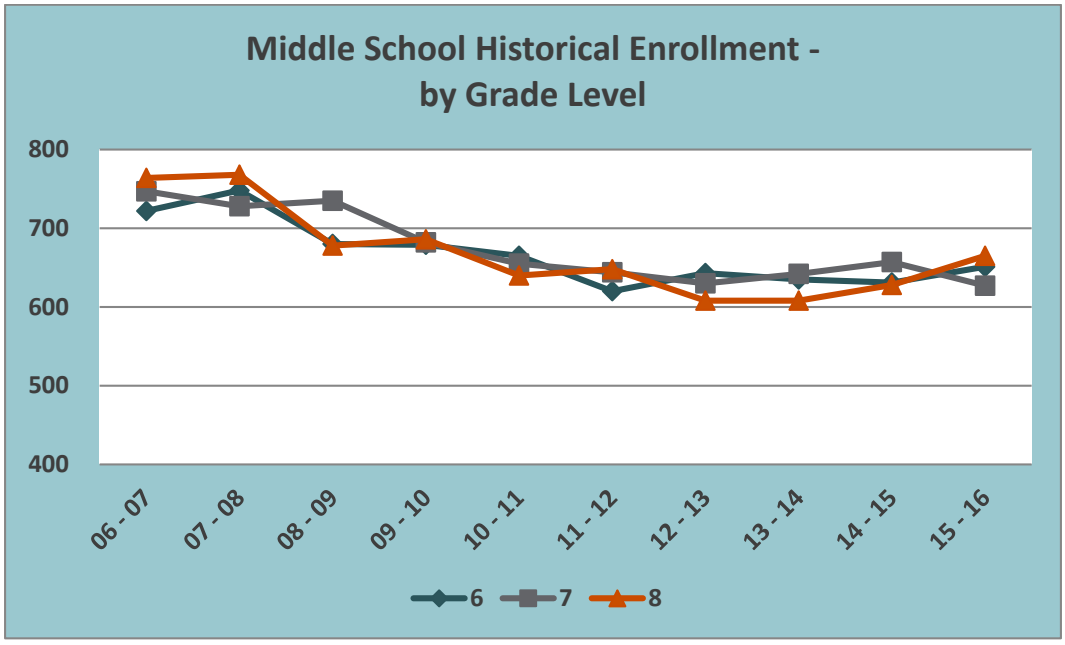
A closer look at historical enrollment suggest that the decrease in enrollment began as the recession of 2007 took hold. A further examination of the data in the following housing starts section of this chapter shows a clear trend in the overall reduction of housing starts beginning in 2007 which corresponds with the decline in district enrollment. Additionally as some of the major employment centers reduced jobs or closed entirely there are indicators the overall impact had a direct correlation to the student population of the district. Although there are potentially other factors that could have contributed to this reduction none are as significant as the decline in housing starts and the reduction in job opportunities to the labor force. Elementary grade-level enrollment data have all historically trended downward with no individual grade having an evidently stronger influence than another grade. Likewise, the middle and high school grade-level enrollment data do not indicate any particular grade influencing the overall trend in historical enrollment. The following **Exhibits 4-10**, **4-11**, and **4-12** illustrate the historical enrollment for each grade level.

EXHIBIT 4-10
LYON COUNTY SCHOOL DISTRICT
HISTORICAL ELEMENTARY SCHOOL ENROLLMENT
(BY GRADE LEVEL)



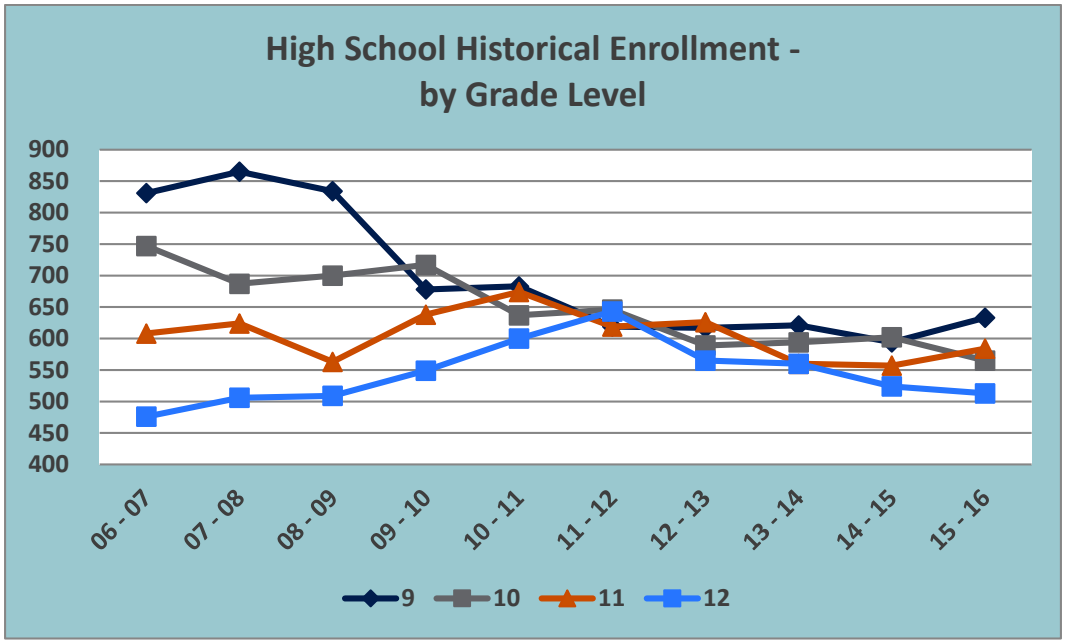
Source: Lyon County School District, 2015.

EXHIBIT 4-11
LYON COUNTY SCHOOL DISTRICT
HISTORICAL MIDDLE SCHOOL ENROLLMENT
(BY GRADE LEVEL)



Source: Lyon County School District, 2015.

EXHIBIT 4-12
LYON COUNTY SCHOOL DISTRICT
HISTORICAL HIGH SCHOOL ENROLLMENT
(BY GRADE LEVEL)



Source: Lyon County School District, 2015.

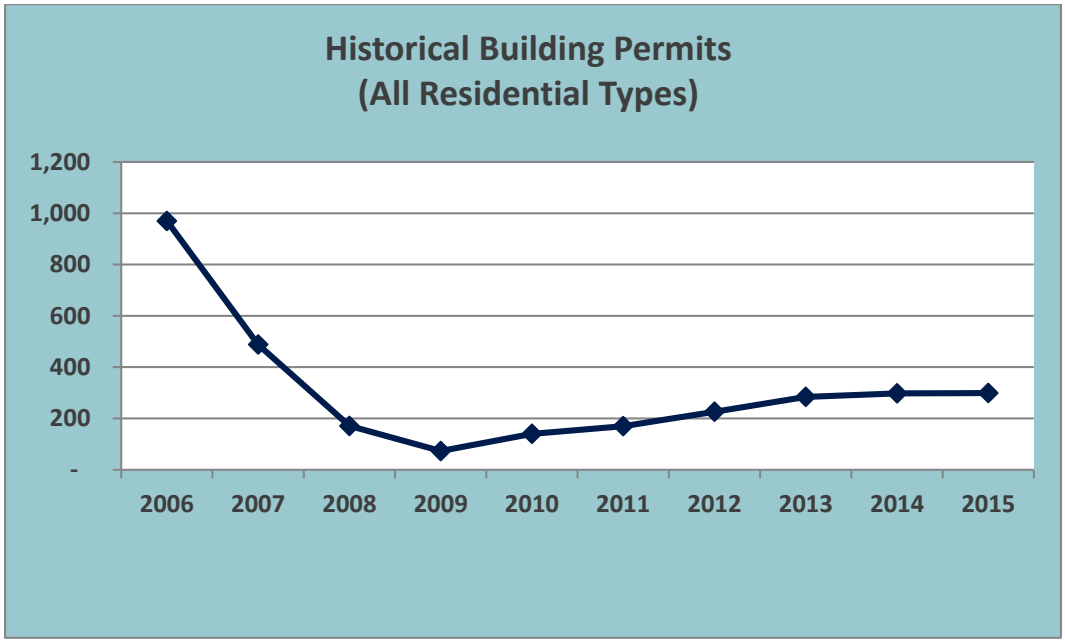
The trends observed in the historical enrollment data will form a key component of the enrollment projections prepared as a part of this master plan.

HOUSING UNITS

Another factor used to develop enrollment projections is an analysis of the trends in housing units in the county. The U.S. Census Bureau recorded 14,279 housing units in Lyon County in the 2000 Census and 22,547 housing units in 2010. The census data provides a starting point for this analysis, but building permit data provides additional information upon which to base an assumed number of housing units following the 2000 and 2010 Census.

Building permit data was collected from City and County planning departments. Between 2006 and 2009, the number of housing permits issued in Lyon County decreased greatly. As the economy began to rebound, the housing market soon followed with a slow but fairly steady increase in housing permits issued between 2009 and 2015. **Exhibit 4-13** on the following page illustrates the number of housing permits issued since 2006 in Lyon County, which includes mobile homes, single- and multi-family building permits. Given the overall declining trend in building permits, housing unit projections were made based on knowledge of current projects and future potential development based on available building sites. The information pertaining to housing start projections was gathered through conversations and meetings with city and county planners as well as the information contained in the Northern Nevada Regional Growth Study 2015 -2019.

EXHIBIT 4-13
LYON COUNTY, NV
HISTORICAL RESIDENTIAL BUILDING PERMITS



Source: Lyon County, 2015.

CONCLUSIONS AND OBSERVATIONS ABOUT HISTORICAL DATA

Based on the analysis of data presented in this section, we have concluded the following regarding the demographics of Lyon County:

4. Census Bureau population counts show an increase in population from 2000 to 2010.

5. The population is getting older, which has led to fewer students being born in the district.

6. Housing units will continue to increase but the rate of increase is speculative and dependent on the economy and the growth policies of the county.

ENROLLMENT PROJECTION METHODOLOGY

Enrollment projections are an *estimate* of future populations based on the historical data and information provided. As demonstrated by the district calculations over the past ten years, there can be constant variations in growth. These numbers can be highly accurate, but it must be remembered that the numbers are still a projection or estimate. During the implementation of any of the recommendations provided in this master plan, it is critical that the district reassess these numbers on a regular basis and adjust plans accordingly.

To identify trends and prepare for adequate spaces, teaching staff, and materials and supplies, educational leaders use several methods of projecting enrollment. Among the most commonly used models are *Average Percentage Annual Increase, Cohort Survival, Linear Regression*, and *Student-per-Housing Unit* models. For the purpose of this study all of the methodologies were examined but only the students-per-housing model was selected. This decision was made in consultation with the district facility planning committee, due to the fact that the *Average Percentage Annual Increase, Cohort Survival, and Linear Regression* models all show a significant decline in enrollment for the 10-year planning period. It was determined that these models do not accurately reflect the future growth outlook of the district.

STUDENTS-PER-HOUSEHOLD MODEL

This model utilizes the estimated number of housing units as its base data. By taking the 2010 enrollment by grade level and dividing it by the 2010 Census housing units, a *student generation factor* (SGF) was calculated for each grade level. This factor indicates the number of students within each grade level that will be generated by each new housing unit. **Exhibit 4-15** presents the SGF's used for the current projections.

EXHIBIT 4-15
LYON COUNTY SCHOOL DISTRICT
STUDENT GENERATION FACTORS BY HIGH SCHOOL ATTENDANCE ZONE

ATTENDANCE ZONE	K-5 AVERAGE YIELD	6-8 AVERAGE YIELD	9-12 YIELD
Dayton HS	0.00784	0.00850	0.00833
Fernley HS	0.01260	0.01234	0.01046
Silver Stage HS	0.00298	0.00330	0.00308
Smith Valley HS	0.00065	0.00068	0.00071
Yerington HS	0.00427	0.00415	0.00518
District Average	**0.02834**	**0.02898**	**0.02876**

Source: MGT of America, Inc. 2016.

ENROLLMENT PROJECTIONS

MGT staff has utilized the methodology described above to forecast enrollment for the district over the next ten years, which are shown in **Exhibit 4-16. Exhibit 4-17** on the following page illustrates the historical and projected enrollment for the entire district.

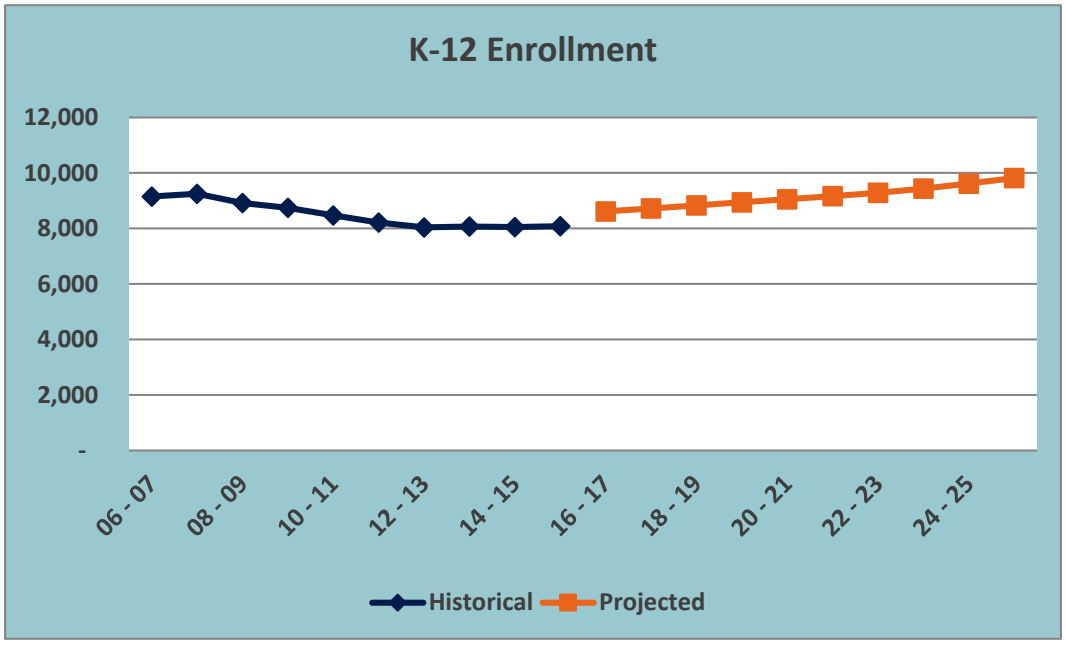
EXHIBIT 4-16
LYON COUNTY SCHOOL DISTRICT
PROJECTED ENROLLMENT

PROJECTED ENROLLMENT										
Grade	**16 - 17**	**17 - 18**	**18 - 19**	**19 - 20**	**20 - 21**	**21 - 22**	**22 - 23**	**23 - 24**	**24 - 25**	**25 - 26**
K	622	630	638	646	654	662	671	682	695	709
1	677	685	694	703	711	720	730	741	756	771
2	680	688	697	706	715	723	733	745	759	775
3	638	646	654	662	670	679	688	699	712	727
4	667	675	683	692	701	709	719	730	744	760
5	654	662	671	679	688	696	705	717	730	746
6	683	691	700	709	718	727	736	748	763	778
7	673	681	690	698	707	716	725	737	751	767
8	657	665	674	682	691	699	709	720	734	749
9	701	710	719	728	737	746	756	768	783	799
10	654	662	671	679	688	696	705	717	730	746
11	692	701	710	719	728	737	746	758	773	789
12	616	624	632	640	648	656	664	675	688	702
K-5	3,938	3,986	4,037	4,087	4,138	4,190	4,245	4,313	4,396	4,487
6-8	2,013	2,038	2,064	2,090	2,116	2,142	2,170	2,205	2,247	2,294
9-12	2,664	2,697	2,731	2,765	2,800	2,835	2,872	2,918	2,974	3,036
K-12	8,615	8,720	8,831	8,942	9,054	9,166	9,286	9,437	9,618	9,818

Source: Lyon county School District, 2015.

Note: The difference in total projected enrollment for the district (*Exhibit 4-16)* and the total of the individual schools (*Exhibit 6-4)* is due to the mathematics of the model and the historical enrollment of a particular school. For example, a school may show significant growth from year to year, which would result in a high average annual growth modeling factor and a high overall projection for that particular school. However, the abundance of growth at a particular school will be balanced by the other schools in the district-wide model, which leads to a lower average annual growth modeling factor and a less significant increase in future enrollment. The same is true for grade band projections as compared to the sum of the individual schools within a particular grade band. In the end, the district-wide and grade band totals provide good macro views of potential future trends. The individual school projections provide micro views of the potential future of a particular school, which makes the individual school projections appropriate for planning for that particular building's future.

EXHIBIT 4-17
LYON COUNTY SCHOOL DISTRICT
HISTORICAL AND PROJECTED ENROLLMENT – K-12



Source: MGT of America, Inc. 2016.

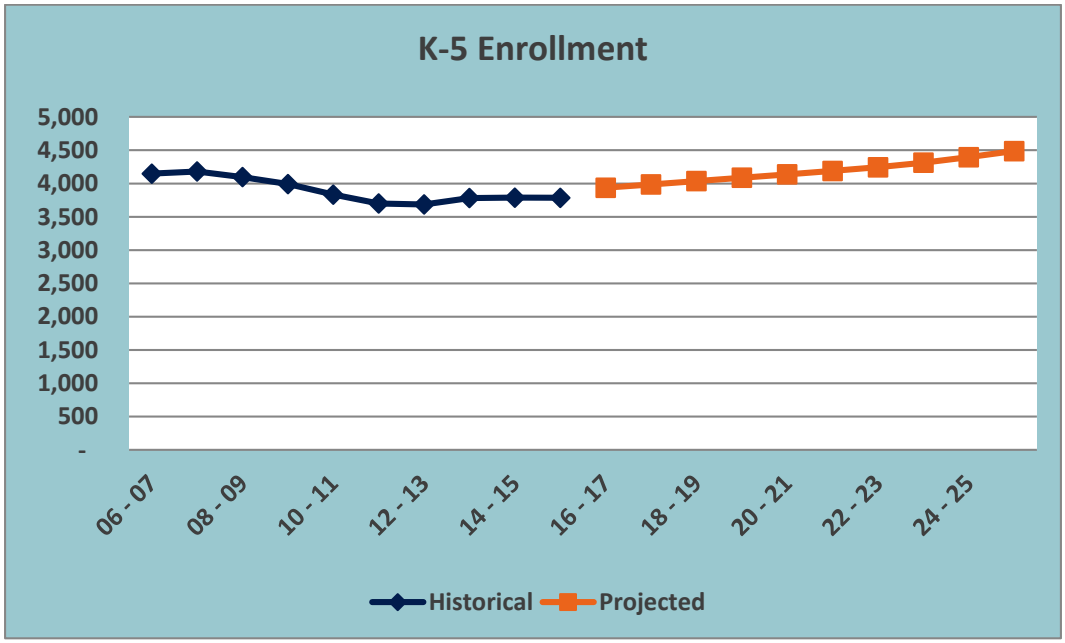
FINDINGS

As the foregoing **Exhibit 4-17** shows, enrollment across the district is expected to fluctuate slightly in the next few years, but shows a modest increase by the end of the ten year planning period. While this projection somewhat contradicts birth and age data, it is a reasonable conclusion given the historical enrollments and the current and projected level of development:

- Live births are projected to decrease which will counteract growth in housing.
- While there is a strong correlation between the live birth rate and the kindergarten enrollment, the kindergarten capture rate has historically been less than 100 percent indicating some level of exodus of students out the district.
- The census data from 2000 to 2010 has shown a decrease in elementary age children.
- While the slowing economy has negatively affected the rate of construction of homes, there is a general consensus among stakeholders that the rates of building and migration into the county will increase as the economy improves leading to an overall increase in student population.

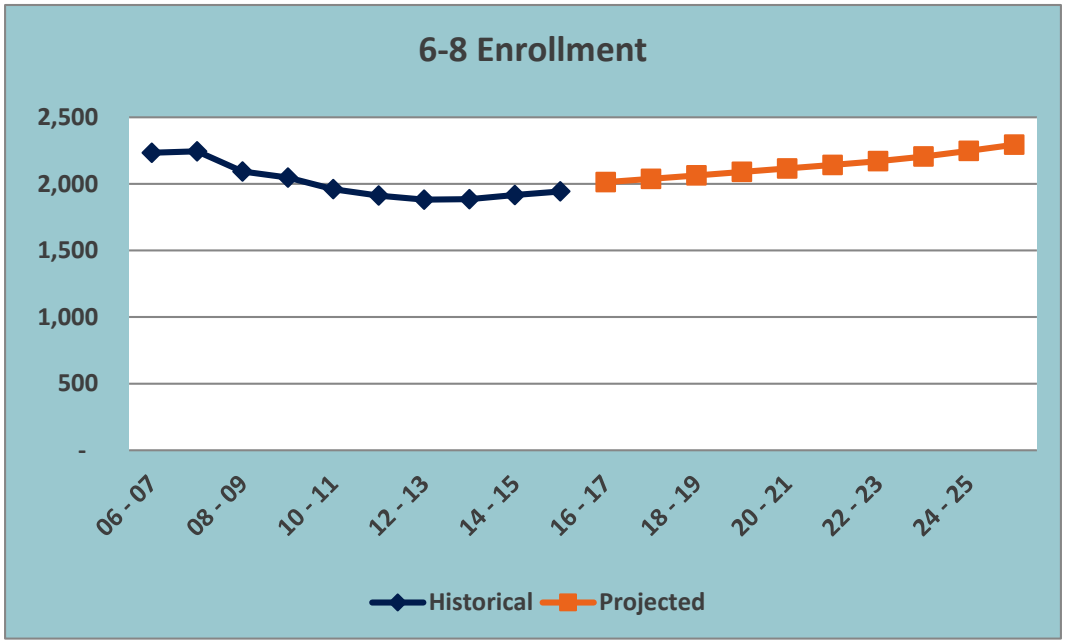
The District is strongly encouraged to continue revisiting these projections on an annual basis and update them to reflect current trends and data. The following **Exhibits 4-18** through **4-20** illustrate the historical and projected enrollment at each grade band.

EXHIBIT 4-18
LYON COUNTY SCHOOL DISTRICT
HISTORICAL AND PROJECTED ENROLLMENT – K-5



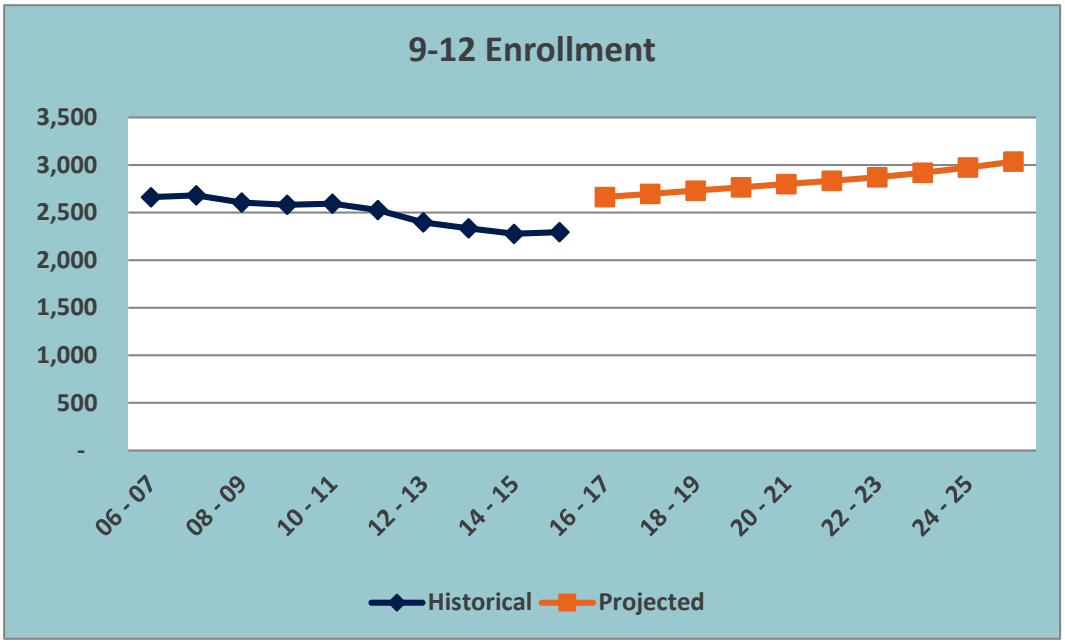
Source: MGT of America, Inc. 2016.

EXHIBIT 4-19
LYON COUNTY SCHOOL DISTRICT
HISTORICAL AND PROJECTED ENROLLMENT – 6-8



Source: MGT of America, Inc. 2016.

EXHIBIT 4-20
LYON COUNTY SCHOOL DISTRICT
HISTORICAL AND PROJECTED ENROLLMENT – 9-12



Source: MGT of America, Inc. 2016.

In **Section 5.0** on Capacity and Utilization, we will utilize these enrollment projections to measure the future utilization rates in Lyon schools and determine whether there will be excess space or a need for additional space.

5.0 CAPACITY & UTILIZATION

This section examines and compares the capacity and utilization rates of Lyon County School District facilities as calculated over the ten year master plan.

The *functional capacity* of an educational facility is defined as the number of students the facility can accommodate. More specifically, a school's capacity is the number of students which can be accommodated given the specific educational programs, the class schedules, the student-teacher ratios, and the size of the rooms. The *utilization rate* of a facility is calculated by dividing the current or projected enrollment of the educational facility by the capacity. The utilization rate is used to determine if the facility has excess space or if it is lacking sufficient space for the given enrollment.

FUNCTIONAL CAPACITY

The *functional capacity* used by MGT is calculated using the *Instructional Use Model*. This model counts the number of the various types of instructional rooms and multiplies that number by the maximum students-per-room or the *loading* factor to identify the gross capacity for the school. The gross capacity is then multiplied by a scheduling factor, which takes into account the realities of how the space is used. Typically, not all classrooms are scheduled for every period at a middle school or high school. For example, high school students move from room to room and enroll in a variety of courses. As a result, some rooms will sit empty or will be less than fully occupied at any given time. Teacher preparation periods will also contribute to rooms not being used for instruction at a particular time. Therefore, MGT uses a 75% scheduling factor to reduce the gross capacity of the building to reflect the unused rooms. Middle schools are assigned an 85% scheduling factor. An elementary school has a much more static and consistent daily use so MGT uses a 95% scheduling factor for elementary schools.

Exhibit 5-1 lists the loading factors and scheduling/grouping factors used to calculate the functional capacities.

EXHIBIT 5-1
LYON COUNTY SCHOOL DISTRICT
FUNCTIONAL CAPACITY LOADING FACTORS

INSTRUCTIONAL SPACE MODEL GUIDELINES	
Room Type	**Students/ Room**
Pre-Kindergarten, Pre-School Capacity	20
K Capacity (full day)	25
1 Capacity	25
2-3 Capacity	25
4-6 Capacity	25
7-12 Capacity	30
Art (Secondary)	30
Music (Secondary)	40
Science	30
Voc./Industrial Tech, Foods, Etc.	30

EXHIBIT 5-1 (CONTINUED)
LYON COUNTY SCHOOL DISTRICT
FUNCTIONAL CAPACITY LOADING FACTORS

INSTRUCTIONAL SPACE MODEL GUIDELINES	
Room Type	**Students/ Room**
PE (Secondary)	35
Computer Lab (Secondary)	30
ESOL	0
Spec. Ed. - Special Ed self-contained	16
Spec. Ed. - Resource Special Ed - pull out part of the day	16
Portable	0
Alternative School Capacity	18
Scheduling Factors	
Elementary Schools	95.0%
Middle Schools	85.0%
High Schools	75.0%

The following **Exhibit 5-2** shows how the model is used to calculate the capacity of a theoretical school.

EXHIBIT 5-2
LYON COUNTY SCHOOL DISTRICT
EXAMPLE OF CAPACITY CALCULATION

ROOM TYPE	NUMBER OF CLASSROOMS X	STUDENTS/CLASS ROOM	=CAPACITY
Secondary Classroom (7-12)	47	30	1,410
Science Lab Classes (Secondary)	9	30	270
Computer Lab (Secondary)	2	30	60
Art (Secondary)	3	30	60
Music (Secondary)	4	40	120
Voc./Industrial Tech, Foods, Etc.	5	30	150
PE (Secondary)	5	35	175
Special Ed - Self Contained	2	16	32
Special Ed - Resource	0	16	0
Portable Room Count	5	0	0
		Total Capacity (w/o scheduling factor) =	2,277
		x High School scheduling factor of	75%
		High School Capacity =	**1,708**

Exhibit 5-3 lists the capacities for the Lyon County schools as calculated using the Instructional Space Model. As the exhibit shows, the elementary schools have a total, district-wide capacity of 4,338 with an average per school capacity of 542. The middle schools have a total, district wide capacity of 3,007 with an average per school capacity of 752, and the high schools have a total, district-wide capacity of 3,728 with an average per school capacity of 746.

EXHIBIT 5-3
LYON COUNTY SCHOOL DISTRICT
FUNCTIONAL CAPACITIES

SCHOOLS	CAPACITY
Elementary Schools	
Cottonwood ES	568
Dayton ES	541
East Valley ES	474
Fernley ES	566
Fernley IS	680
Riverview ES	463
Sutro ES	458
Yerington ES	588
ELEMENTARY TOTAL	**4,338**
Middle Schools	
Dayton IS	712
Silverland Middle	759
Silver Stage PreK-8	911
Yerington IS	625
MIDDLE SCHOOL TOTAL	**3,007**
High Schools	
Dayton HS	932
Fernley HS	1,046
Silver Stage HS	515
Yerington HS	703
Smith Valley Schools	533
HIGH SCHOOL TOTAL	**3,728**
DISTRICT TOTAL	**11,073**

SOURCE: MGT OF AMERICA, INC., 2015.

UTILIZATION RATES

The effective management of school facilities requires a school's capacity and enrollment to be aligned. When capacity exceeds enrollment (underutilization), operational costs are higher than necessary and facilities may need to be repurposed or the facilities may need to be removed from inventory. When enrollment exceeds capacity (overutilization), the school may be overcrowded and may require capital expenditures or redistricting (adjustment to attendance boundaries) to alleviate the crowding.

Exhibit 5-4 shows the corresponding utilization rates calculated using the *functional capacities* and the current and projected enrollment at each school.

EXHIBIT 5-4
LYON COUNTY SCHOOL DISTRICT
CURRENT AND PROJECTED UTILIZATION RATES

UTILIZATION	DESCRIPTION
> 110	Inadequate
100-109.9	Approaching Inadequate
85 - 99.9	Adequate
70 - 84.99	Approaching Inefficient
< 70	Inefficient

SCHOOLS	GRADE CONFIG	2015 ENROLLMENT PK-12	2025 PROJECTED K-12	2015 CAPACITY K-12	2015 UTILIZATION	2025 UTILIZATION
Elementary Schools						
Cottonwood ES	PK-4	597	606	568	105%	107%
Dayton ES	PK-6	463	544	541	86%	101%
East Valley ES	PK-4	462	544	474	97%	115%
Fernley ES	PK-4	467	516	566	82%	91%
Fernley IS	5-6	549	652	680	81%	96%
Riverview ES	PK-6	424	450	463	92%	97%
Sutro ES	PK-6	426	474	458	93%	104%
Yerington ES	PK-4	502	570	588	85%	97%
ELEMENTARY TOTAL		**3,889**	**4,356**	**4,338**	**90%**	**100%**

EXHIBIT 5-4 (CONTINUED)
LYON COUNTY SCHOOL DISTRICT
CURRENT AND PROJECTED UTILIZATION RATES

SCHOOLS	GRADE CONFIG	2015 ENROLLMENT PK-12	2025 PROJECTED K-12	2015 CAPACITY K-12	2015 UTILIZATION	2025 UTILIZATION
Middle Schools						
Dayton IS	7-8	365	446	712	51%	63%
Silverland Middle	7-8	551	654	759	73%	86%
Silver Stage PreK-8	PK-8	688	733	911	75%	80%
Yerington IS	5-8	377	435	625	60%	70%
MIDDLE SCHOOL TOTAL		**1,981**	**2,268**	**3,007**	**66%**	**75%**
High Schools						
Dayton HS	9-12	688	879	932	74%	94%
Fernley HS	9-12	965	1,104	1,046	92%	106%
Silver Stage HS	9-12	237	326	515	46%	63%
Yerington HS	9-12	371	547	703	53%	78%
Smith Valley Schools	K-12	207	232	533	39%	43%
HIGH SCHOOL TOTAL		**2,468**	**3,087**	**3,728**	**66%**	**83%**
DISTRICT TOTAL		**8,338**	**9,711**	**11,073**	**75%**	**88%**

SOURCE: MGT OF AMERICA, INC., 2015.

CAPACITY AND UTILIZATION CONCLUSIONS

ELEMENTARY SCHOOLS

The functional capacity for the elementary schools varies from a low of 458 to a high of 680. The district's elementary schools are being utilized at an "adequate" rate on a district-wide basis of 90%. The projected district-wide utilization for 2024-25 will grow to 100% with four schools over 100% utilization.

The district should examine the specific situation for the schools that are projected to have "inadequate" or "approaching inadequate" utilization rates to determine if action is required, and whether the approach will require capital improvements or redistricting. Specific recommendations will be presented in **Section 7.0**.

MIDDLE SCHOOLS

The functional capacity the middle schools varies from a low of 625 to a high of 911. The district's middle schools are presently being utilized at an "inefficient" rate of 66% overall, however the overall utilization will increase to 75% by 2024-25.

The district does have excess capacity at the middle school level, and could examine repurposing some of this space.

HIGH SCHOOLS

The functional capacity for the high schools varies from a low of 515 to a high of 1,046. The district's high schools are currently being utilized at an "Inefficient" rate of 66%, however, this rate will increase to 83% overall by 2024-25, which would be very close to an "Adequate" rate.

6.0 FACILITIES ASSESSMENTS

This section presents the results of the facilities assessments that were conducted by MGT and staff from Lyon County School District. The assessments were conducted using BASYS®, MGT's facility assessment software program. There are four types of assessments, including:

- Building condition
- Educational suitability
- Grounds condition
- Technology readiness

Each school's BASYS Report for each assessment type is included in ***Appendix C***.

BUILDING CONDITION ASSESSMENT

The BASYS® building condition score measures the amount of deferred maintenance in the building's major systems. The weighted condition score of a school is the average condition score (weighted by building square footage) of all the buildings at a school (excluding portables). The scores are interpreted as follows:

90+	**New or Like New:** The building and/or a majority of its systems are in good condition, less than three years old, and only require preventive maintenance.
80-89	**Good:** The building and/or a majority of its systems are in good condition and only require routine maintenance.
70-79	**Fair:** The building and/or some of its systems are in fair condition and require minor to moderate repair.
60-69	**Poor:** The building and/or a significant number of its systems are in poor condition and require major repair, renovation, or replacement.
BELOW 60	**Unsatisfactory:** The building and/or a majority of its systems should be replaced.

The condition assessment rates each system in a building as "new", "good", "fair", "poor", or "unsatisfactory" based on a detailed description of each rating for the particular system. The possible score for each system is based on that system's contribution to the overall cost of building construction. Therefore, the condition score is a measure of that portion of the value of the building which is in good condition. The capital needs score (100 minus the condition score) is a measure of the capital needs or deferred maintenance. This score, when presented as a percent, is also referred to as the facility condition index or FCI. For example, a building which has a condition score of 80, has a capital needs score of 20 (100 – 80 = 20). A capital needs score of 20 indicates that 20 percent of the value of the building can be reinvested in the building in order to attain a score of 100 and put the building in a "like new" condition. The condition score and resulting calculations do not include the costs of additions, site improvements, improvements for educational suitability, or technology readiness improvements.

Exhibit 6-1 presents the range of the weighted average condition scores (weighted by GSF) by type of facility for LCSD. As the exhibit shows, there is a range of condition scores, from 69 to 87, with the average condition scores in the "Good" to "Fair" range.

EXHIBIT 6-1
LYON COUNTY SCHOOL DISTRICT
WEIGHTED AVERAGE BUILDING CONDITION SCORE RANGES

SITE TYPE	BUILDING CONDITION SCORE RANGE		AVERAGE CONDITION SCORE
	LOW	HIGH	
*Elementary Schools	69.60	87.38	78.98
**Middle Schools	73.68	86.49	79.10
***High Schools & K-12	76.56	85.67	81.70
Ancillary Sites	75.40	87.38	81.01

*Includes Fernley IS (5-6)
**Includes Silver Stage ES (PK-8)
*** Includes Smith Valley K-12
Source: MGT of America, Inc., 2015.

Exhibit 6-2 presents the weighted average condition score for each school that was assessed. As the exhibit shows, condition scores are, for the most part, in the "Fair" to "Good" categories which indicates that the facilities range in need from minor maintenance to preventive maintenance.

EXHIBIT 6-2
LYON COUNTY SCHOOL DISTRICT
CONDITION SCORES – BY SITE

SITE NAME	GSF*	WEIGHTED AVERAGE CONDITION SCORE
Elementary Schools		
Cottonwood ES	53,098	79.25
Dayton ES	48,912	79.44
East Valley ES	53,165	86.01
Fernley ES	59,218	69.60
Fernley IS	88,804	79.45
Riverview ES	50,592	87.38
Sutro ES	46,665	72.38
Yerington ES	60,021	78.32
ELEMENTARY SCHOOL TOTAL/AVERAGE	**460,475**	**78.98**
Middle Schools		
Dayton IS	82,689	81.66
Silverland Middle	97,572	86.49
Silver Stage ES (PK-8)	115,031	73.68
Yerington IS	57,852	74.59
MIDDLE SCHOOL TOTAL/AVERAGE	**393,144**	**79.10**
High Schools		
Dayton HS	103,914	76.56
Fernley HS	111,780	81.67
Silver Stage HS	90,302	85.67
Yerington HS	117,969	82.42
Smith Valley Schools	66,344	82.19
HIGH SCHOOL TOTAL/AVERAGE	**490,309**	**81.70**
Ancillary Sites		
Adult Ed - Fernley HS	4,800	82.04
Bus Yard - Dayton	4,350	87.38
Bus Yard - Fernley	6,240	77.12
Bus Yard - Silver Springs	720	75.40
District Office Complex	24,840	78.67
GED_PDC Silver Stage	3,930	85.45
ANCILLARY SITES TOTAL/AVERAGE	**44,880**	**81.01**
DISTRICT TOTAL/AVERAGE	**1,388,808**	**80.12**

Source: MGT of America, Inc., 2015.

EDUCATIONAL SUITABILITY ASSESSMENT

The educational suitability assessment evaluates how well the facility supports the educational program that it houses. Each school receives one suitability score which applies to all the buildings at the facility. The educational suitability of each school was assessed with BASYS® using the following categories:

ENVIRONMENT	The overall environment of the schools with respect to creating a safe and positive learning environment.
CIRCULATION	Pedestrian/vehicular circulation and the appropriateness of site facilities and signage.
SUPPORT SPACE	The existence of facilities and spaces to support the educational program being offered. These include general classrooms, special learning spaces (e.g. music rooms, libraries, science labs), and support spaces (e.g. administrative offices, counseling offices, reception areas, kitchens, health clinics).
SIZE	The adequacy of the size of the program spaces.
LOCATION	The appropriateness of adjacencies (e.g., physical education space separated from quiet spaces).
STORAGE & FIXED EQUIPMENT	The appropriateness of utilities, fixed equipment, storage, and room surfaces (e.g. flooring, ceiling materials, and wall coverings).

Suitability scores are interpreted as follows:

90+	**Excellent:** The facility is designed to provide for and support the educational program offered. It may have a minor suitability issues but overall it meets the needs of the educational program.
80-89	**Good:** The facility is designed to provide for and support a majority of the educational program offered. It may have minor suitability issues but generally meets the needs of the educational program.
70-79	**Fair:** The facility has some problems meeting the needs of the educational program and will require remodeling/renovation.
60-69	**Poor:** The facility has numerous problems meeting the needs of the educational program and needs significant remodeling, additions, or replacement.
BELOW 60	**Unsatisfactory:** The facility is unsuitable in support of the educational program.

Exhibit 6-3 presents the range and average of suitability scores by facility type. The suitability scores range from 64 to 95. The average scores fall within the "Good" to "Fair" range:

EXHIBIT 6-3
LYON COUNTY SCHOOL DISTRICT
SUITABILITY SCORE RANGES

SITE TYPE	SUITABILITY SCORE RANGE		AVERAGE SUITABILITY SCORE
	LOW	HIGH	
*Elementary Schools	64.08	80.29	72.96
**Middle Schools	66.69	95.56	80.80
***High Schools & K-12	69.85	86.47	74.86

*Includes Fernley IS (5-6)
**Includes Silver Stage ES (PK-8)
*** Includes Smith Valley K-12
Source: MGT of America, Inc., 2015.

Exhibit 6-4 presents the educational suitability score for each school. As the scores indicate, a few schools have significant suitability deficiencies.

EXHIBIT 6-4
LYON COUNTY SCHOOL DISTRICT
SUITABILITY SCORES – BY SITE

SITE NAME	SUITABILITY SCORES
Elementary Schools	
Cottonwood ES	71.10
Dayton ES	72.83
East Valley ES	78.33
Fernley ES	64.08
Fernley IS	67.41
Riverview ES	80.29
Sutro ES	76.06
Yerington ES	73.58
ELEMENTARY SCHOOL AVERAGE	**72.96**
Middle Schools	
Dayton IS	85.09
Silverland Middle	95.56
Silver Stage ES (PK-8)	66.69
Yerington IS	75.86
MIDDLE SCHOOL AVERAGE	**80.80**

EXHIBIT 6-4 (CONTINUED)
LYON COUNTY SCHOOL DISTRICT
SUITABILITY SCORES – BY SITE

SITE NAME	SUITABILITY SCORES
High Schools	
Dayton HS	69.85
Fernley HS	73.32
Silver Stage HS	86.47
Yerington HS	73.85
Smith Valley Schools	70.82
HIGH SCHOOL AVERAGE	**74.86**
DISTRICT AVERAGE	**75.36**

Source: MGT of America, Inc., 2015.

GROUNDS CONDITION ASSESSMENT

The grounds condition assessment score is a measure of the amount of capital needs or deferred maintenance at the site, which includes the driveways and walkways, the parking lots, the playfields, the utilities, and fencing, etc. The scores are interpreted as follows:

90+	**New or Like New:** The site and/or a majority of its systems are in good condition, less than three years old, and only require preventive maintenance.
80-89	**Good:** The site and/or a majority of its systems are in good condition and only require routine maintenance.
70-79	**Fair:** The site and/or some of its systems are in fair condition and require minor to moderate repair.
60-69	**Poor:** The site and/or a significant number of its systems are in poor condition and will require major repair or renovation.
BELOW 60	**Unsatisfactory:** The site and/or a majority of its systems should be renovated.

The grounds assessment scores were calculated in the same manner as the building condition scores. **Exhibit 6-5** presents the range of grounds assessment scores and the average grounds assessment scores by facility type. The grounds assessment scores averaged in the "Unsatisfactory" to "Fair" range. The majority of low scoring facilities are support facilities like the bus yards.

EXHIBIT 6-5
LYON COUNTY SCHOOL DISTRICT
GROUNDS ASSESSMENT SCORE RANGES

SITE TYPE	GROUNDS ASSESSMENT SCORE RANGE		AVERAGE GROUNDS SCORE
	LOW	HIGH	
*Elementary Schools	44.82	88.08	71.91
**Middle Schools	69.02	85.00	77.03
***High Schools & K-12	51.35	77.05	68.39
Ancillary Sites	28.89	55.93	46.16

*Includes Fernley IS (5-6)
**Includes Silver Stage ES (PK-8)
*** Includes Smith Valley K-12
Source: MGT of America, Inc., 2015.

Exhibit 6-6 presents the grounds assessment score by each school site. Each school site receives a single grounds assessment score.

EXHIBIT 6-6
LYON COUNTY SCHOOL DISTRICT
GROUNDS SCORES – BY SITE

SITE NAME	GROUNDS SCORE
Elementary Schools	
Cottonwood ES	76.74
Dayton ES	78.69
East Valley ES	88.08
Fernley ES	44.82
Fernley IS	55.95
Riverview ES	85.01
Sutro ES	76.04
Yerington ES	69.97
ELEMENTARY SCHOOL AVERAGE	**71.91**
Middle Schools	
Dayton IS	69.02
Silverland Middle	85.00
Silver Stage ES (PK-8)	70.19
Yerington IS	83.91
MIDDLE SCHOOL AVERAGE	**77.03**
High Schools	
Dayton HS	68.44
Fernley HS	77.05
Silver Stage HS	70.85
Yerington HS	74.26
Smith Valley Schools	51.35
HIGH SCHOOL AVERAGE	**68.39**
Ancillary Sites	
Adult Ed - Fernley HS	47.63
Bus Yard - Dayton	55.93
Bus Yard - Fernley	54.17
Bus Yard - Silver Springs	37.02
District Office Complex	53.30
GED_PDC Silver Stage	28.89
ANCILLARY SITES AVERAGE	**46.16**
DISTRICT AVERAGE	**65.32**

Source: MGT of America, Inc., 2015.

TECHNOLOGY READINESS

The BASYS® technology readiness score measures the capability of the existing infrastructure to support information technology and associated equipment. The score can be interpreted as follows:

90+	**Excellent:** The facility has excellent infrastructure to support information technology.
80-89	**Good:** The facility has the infrastructure to support information technology.
70-79	**Fair:** The facility is lacking in some infrastructure to support information technology.
60-69	**Poor:** The facility is lacking significant infrastructure to support information technology.
BELOW 60	**Unsatisfactory:** The facility has little or no infrastructure to support information technology.

Exhibit 6-7 presents the range of technology scores and the average technology scores by facility type. Technology readiness scores vary from 55 to 100, with the averages in the "Fair" range.

EXHIBIT 6-7
LYON COUNTY SCHOOL DISTRICT
TECHNOLOGY SCORE RANGES

SITE TYPE	TECHNOLOGY READINESS SCORE RANGE		AVERAGE TECHNOLOGY SCORE
	Low	High	
*Elementary Schools	60.05	92.50	75.66
**Middle Schools	50.15	100.00	79.41
***High Schools & K-12	55.10	92.50	73.06

*Includes Fernley IS (5-6)
**Includes Silver Stage ES (PK-8)
*** Includes Smith Valley K-12
Source: MGT of America, Inc., 2015.

Exhibit 6-8 presents the technology readiness score for each school site.

EXHIBIT 6-8
LYON COUNTY SCHOOL DISTRICT
TECHNOLOGY SCORES – BY SITE

SITE NAME	TECHNOLOGY SCORE
Elementary Schools	
Cottonwood ES	82.50
Dayton ES	81.75
East Valley ES	92.50
Fernley ES	68.30
Fernley IS	85.00
Riverview ES	71.70
Sutro ES	63.45
Yerington ES	60.05
ELEMENTARY SCHOOL AVERAGE	**75.66**
Middle Schools	
Dayton IS	82.50
Silverland Middle	100.00
Silver Stage ES (PK-8)	85.00
Yerington IS	50.15
MIDDLE SCHOOL AVERAGE	**79.41**
High Schools	
Dayton HS	60.10
Fernley HS	87.50
Silver Stage HS	92.50
Yerington HS	70.10
Smith Valley Schools	55.10
HIGH SCHOOL AVERAGE	**73.06**
DISTRICT AVERAGE	**75.78**

Source: MGT of America, Inc., 2015.

COMBINED SCORES

The building condition, educational suitability, grounds condition, and technology readiness scores are combined into one score for each school to assist in the task of prioritizing projects. Since the building condition score is a measure of the maintenance needs (e.g. leaky roofs, etc.) and the educational suitability score is a measure of how well the building design and configuration supports the educational program, it is possible to have a high score for one assessment and a low score for another assessment. It is the combined score that attempts to give a comprehensive picture of the conditions that exist at each school and how each school compares relative to the other schools in the district.

To create the combined score, the four scores are weighted, based on which deficiencies the district wants to emphasize and the relative impact on capital costs. For Lyon County School District, the building condition score was weighted 30 percent, the educational suitability score was weighted 30 percent, the grounds condition score was weighted 10 percent, and the technology readiness score was weighted 30 percent. **Exhibit 6-9** presents the range of the combined scores and the average combined scores by facility type. The combined scores vary from 65 to 93, with the averages in the "Fair" range.

Exhibit 6-10 presents all the scores for each facility and the resulting combined score using this weighting formula. Note that support facilities are not assigned a Combined Score since they are not assessed for Educational Suitability or Technology Readiness.

EXHIBIT 6-9
LYON COUNTY SCHOOL DISTRICT
COMBINED SCORE RANGES

SITE TYPE	COMBINED SCORES RANGE		AVERAGE COMBINED SCORES
	Min	Max	
*Elementary Schools	65.07	85.86	75.47
**Middle Schools	68.57	93.11	79.50
***High Schools & K-12	67.57	86.48	75.73

*Includes Fernley IS (5-6)
**Includes Silver Stage ES (PK-8)
*** Includes Smith Valley K-12
Source: MGT of America, Inc., 2015.

EXHIBIT 6-10
LYON COUNTY SCHOOL DISTRICT
COMBINED SCORES – BY SITE

SCORES	DESCRIPTION
> 90	Excellent/Like New
80 - 89.99	Good
70 - 79.99	Fair
60 - 69.99	Poor
< 59.99	Unsatisfactory

EXHIBIT 6-10 (CONTINUED)
LYON COUNTY SCHOOL DISTRICT
COMBINED SCORES – BY SITE

SITE NAME	WEIGHTED BUILDING CONDITION SCORE	SUITABILITY SCORE	TECH READINESS SCORE	GROUNDS CONDITION SCORE	COMBINED SCORE 30/30/30/10
Elementary Schools					
Cottonwood ES	79.25	71.10	82.50	76.74	77.53
Dayton ES	79.44	72.83	81.75	78.69	78.08
East Valley ES	86.01	78.33	92.50	88.08	85.86
Fernley ES	69.60	64.08	68.30	44.82	65.07
Fernley IS	79.45	67.41	85.00	55.95	75.15
Riverview ES	87.38	80.29	71.70	85.01	80.31
Sutro ES	72.38	76.06	63.45	76.04	71.17
Yerington ES	78.32	73.58	60.05	69.97	70.58
ELEMENTARY SCHOOL AVERAGE	**78.98**	**72.96**	**75.66**	**71.91**	**75.47**
Middle Schools					
Dayton IS	81.66	85.09	82.50	69.02	81.68
Silverland Middle	86.49	95.56	100.00	85.00	93.11
Silver Stage ES (PK-8)	73.68	66.69	85.00	70.19	74.63
Yerington IS	74.59	75.86	50.15	83.91	68.57
MIDDLE SCHOOL AVERAGE	**79.10**	**80.80**	**79.41**	**77.03**	**79.50**
High Schools					
Dayton HS	76.56	69.85	60.10	68.44	68.80
Fernley HS	81.67	73.32	87.50	77.05	80.45
Silver Stage HS	85.67	86.47	92.50	70.85	86.48
Yerington HS	82.42	73.85	70.10	74.26	75.34
Smith Valley Schools	82.19	70.82	55.10	51.35	67.57
HIGH SCHOOL AVERAGE	**81.70**	**74.86**	**73.06**	**68.39**	**75.73**
Ancillary Sites					
Adult Ed - Fernley HS	82.04	N/A	N/A	47.63	N/A
Bus Yard - Dayton	87.38	N/A	N/A	55.93	N/A
Bus Yard - Fernley	77.12	N/A	N/A	54.17	N/A
Bus Yard - Silver Springs	75.40	N/A	N/A	37.02	N/A
District Office Complex	78.67	N/A	N/A	53.30	N/A
GED_PDC Silver Stage	85.45	N/A	N/A	28.89	N/A
ANCILLARY SITES AVERAGE	**81.01**	**N/A**	**N/A**	**46.16**	**N/A**
DISTRICT AVERAGE	**80.12**	**75.36**	**75.78**	**65.32**	**76.49**

Source: MGT of America, Inc., 2015.

FINDINGS

Building Condition - Overall, LCSD's facilities are consistently in fair to good condition, which indicates a very balanced approach to the maintenance of the facilities.

Educational Suitability – Only four schools scored in the good to excellent range for suitability. In most cases, this would indicate that the schools were not originally designed to meet the needs of today's educational programs.

Grounds – There are a significant number of facilities with low Grounds scores and this is largely attributable to the frequency of unpaved parking areas and weather damaged walks and play courts.

Technology Readiness – There is a wide variation in the technology readiness scores for all the schools. This can indicate that the district may need to take a more "targeted" approach to information technology improvements.

Combined Score – If the district's newest facility, Silverland Middle School, is excluded from the calculation, the average Combined Score for all grade levels is 75-76. These score results, averaging in the Fair range, indicate there are significant needs that need to be addressed across the district.

The facility assessments provide the data to prioritize projects based on the overall facility needs of the district. This data combined with the capacity and utilization analysis, the educational goals and programs, capital improvement budgets, and the district's school size goals, will be used to make specific recommendations in **Section 7.0**.

7.0 FINDINGS AND RECOMMENDATIONS

This section presents the recommendations and conclusions based on the data presented in previous chapters of this master plan report. This chapter is divided into the following three sections:

- The process of developing the master plan, the options considered, a summary of total needs and associated budget estimates, and the prioritization process.
- The ten-year master plan recommendations for school facility improvements, additions, and new construction.
- Supporting recommendations that are important as the district implements the ten-year plan.

Additional information to support the findings and recommendations are found in ***Appendix D***, which are individual school score cards showing scores, recommended budgets to bring the scores to 90%, and projected enrollment and utilization for each school MGT assessed.

PROCESS AND PRIORITIZATION

The process of prioritization involved the development of a needs summary based on the data obtained, development of optional scenarios for meeting the needs, budget estimates and assigned "cut points" for determining priority levels.

The first step in determining priorities is to develop a "combined score" based on the facility assessment scores provided earlier in this report. Based on facility committee discussion and MGT recommendations the following weighting was assigned to each of the individual scores in order to calculate the combined score:

- Facility Condition, Suitability, and Technology Readiness scores all weighted at 30%
- Site score weighted at 10%

Exhibits 7-1 through **7-4** on the following pages provide the facility score matrix with the combined score included based on the weighting above.

EXHIBIT 7-1
LYON COUNTY SCHOOL DISTRICT
ELEMENTARY SCHOOL MATRIX

SCHOOL NAME	ACREAGE	CONDITION SCORE	EDUCATIONAL SUITABILITY SCORE	TECH READINESS SCORE	SITE SCORE	COMBINED SCORE	ENROLLMENT		CAPACITY	UTILIZATION	
							CURRENT (2015)	PROJECTED (2025)		CURRENT (2015)	PROJECTED (2025)
Cottonwood ES	10	79.25	71.10	82.50	76.74	77.53	597	606	568	105%	107%
East Valley ES	16	86.01	78.33	92.50	88.08	85.86	462	544	474	97%	115%
Fernley ES	6	69.60	64.08	68.30	44.82	65.07	467	516	566	82%	91%
Fernley IS	15	79.45	67.41	85.00	55.95	75.15	549	652	680	81%	96%
Fernley Area	**47**	**78.57**	**70.23**	**82.08**	**66.40**	**75.90**	**2,075**	**2,319**	**2,288**	**91%**	**101%**
Dayton ES	6	79.44	72.83	81.75	78.69	78.08	463	544	541	86%	101%
Riverview ES	15	87.38	80.29	71.70	85.01	80.31	424	450	463	92%	97%
Sutro ES	10	72.38	76.06	63.45	76.04	71.17	426	474	458	93%	104%
Dayton Area	**31**	**79.73**	**76.40**	**72.30**	**79.91**	**76.52**	**1,313**	**1,468**	**1,461**	**90%**	**100%**
Yerington ES	6	78.32	73.58	60.05	69.97	70.58	502	570	588	85%	97%
Total/Average	**84**	**78.98**	**72.96**	**75.66**	**71.91**	**75.47**	**3,889**	**4,356**	**4,338**	**90%**	**100%**

Source: MGT of America, Inc., 2015.

EXHIBIT 7-2
LYON COUNTY SCHOOL DISTRICT
MIDDLE SCHOOL MATRIX

SCHOOL NAME	ACREAGE	CONDITION SCORE	EDUCATIONAL SUITABILITY SCORE	TECH READINESS SCORE	SITE SCORE	COMBINED SCORE	ENROLLMENT		CAPACITY	UTILIZATION	
							CURRENT (2015)	PROJECTED (2025)		CURRENT (2015)	PROJECTED (2025)
Dayton IS	20	81.66	85.09	82.50	69.02	81.68	365	446	712	51%	63%
Silverland Middle	31	86.49	95.56	100.00	85.00	93.11	551	654	759	73%	86%
Silver Stage ES (PK-8)	33	73.68	66.69	85.00	70.19	74.63	688	733	911	75%	80%
Yerington IS	5	74.59	75.86	50.15	83.91	68.57	377	435	625	60%	70%
Total/Average	**89**	**79.10**	**80.80**	**79.41**	**77.03**	**79.50**	**1,981**	**2,268**	**3,007**	**66%**	**75%**

Source: MGT of America, Inc., 2015.

EXHIBIT 7-3
LYON COUNTY SCHOOL DISTRICT
HIGH SCHOOL MATRIX

SCHOOL NAME	ACREAGE	CONDITION SCORE	EDUCATIONAL SUITABILITY SCORE	TECH READINESS SCORE	SITE SCORE	COMBINED SCORE	ENROLLMENT		CAPACITY	UTILIZATION	
							CURRENT (2015)	PROJECTED (2025)		CURRENT (2015)	PROJECTED (2025)
Dayton HS	55	76.56	69.85	60.10	68.44	68.80	688	879	932	74%	94%
Fernley HS	20	81.67	73.32	87.50	77.05	80.45	965	1,104	1,046	92%	106%
Silver Stage HS	60	85.67	86.47	92.50	70.85	86.48	237	326	515	46%	63%
Yerington HS	15	82.42	73.85	70.10	74.26	75.34	371	547	703	53%	78%
Smith Valley Schools	20	82.19	70.82	55.10	51.35	67.57	207	232	533	39%	43%
Total/Average	**170**	**81.70**	**74.86**	**73.06**	**68.39**	**75.73**	**2,468**	**3,087**	**3,728**	**66%**	**83%**

Source: MGT of America, Inc., 2015.

EXHIBIT 7-4
LYON COUNTY SCHOOL DISTRICT
OTHER SCHOOLS MATRIX

SCHOOL NAME	ACREAGE	CONDITION SCORE	SITE SCORE
Adult Ed - Fernley HS	1	82.04	47.63
Bus Yard - Dayton	2	87.38	55.93
Bus Yard - Fernley	2	77.12	54.17
Bus Yard - Silver Springs	1	75.40	37.02
District Office Complex	8	78.67	53.30
GED_PDC Silver Stage	0	85.45	28.89
Total/Average	**14**	**81.01**	**46.16**

Source: MGT of America, Inc., 2015.

The next step in developing priorities is to determine appropriate "cut points". Again, after committee discussion the following cut points were developed for determining phase 1 and phase 2 priorities in terms of both combined score and projected utilization. **Exhibit 7-5** provides these cut points:

EXHIBIT 7-5
CONDITION AND UTILIZATION PRIORITIZATION CUT POINTS

	COMBINED SCORE	PROJECTED UTILIZATION
PRIORITY 1	<70	>110%
PRIORITY 2	<75	>100%

Based on the cut points shown above, **Exhibits 7-6** through **7-9** on the following pages show the matrices with the priorities color coded.

EXHIBIT 7-6
LYON COUNTY SCHOOL DISTRICT
ELEMENTARY SCHOOL MATRIX WITH PRIORITIES

SCHOOL NAME	ACREAGE	CONDITION SCORE	EDUCATIONAL SUITABILITY SCORE	TECH READINESS SCORE	SITE SCORE	COMBINED SCORE	ENROLLMENT		CAPACITY	UTILIZATION	
							CURRENT (2015)	PROJECTED (2025)		CURRENT (2015)	PROJECTED (2025)
Cottonwood ES	10	79.25	71.10	82.50	76.74	77.53	597	606	568	105%	107%
East Valley ES	16	86.01	78.33	92.50	88.08	85.86	462	544	474	97%	115%
Fernley ES	6	69.60	64.08	68.30	44.82	65.07	467	516	566	82%	91%
Fernley IS	15	79.45	67.41	85.00	55.95	75.15	549	652	680	81%	96%
Fernley Area	**47**	**78.57**	**70.23**	**82.08**	**66.40**	**75.90**	**2,075**	**2,319**	**2,288**	**91%**	**101%**
Dayton ES	6	79.44	72.83	81.75	78.69	78.08	463	544	541	86%	101%
Riverview ES	15	87.38	80.29	71.70	85.01	80.31	424	450	463	92%	97%
Sutro ES	10	72.38	76.06	63.45	76.04	71.17	426	474	458	93%	104%
Dayton Area	**31**	**79.73**	**76.40**	**72.30**	**79.91**	**76.52**	**1,313**	**1,468**	**1,461**	**90%**	**100%**
Yerington ES	6	78.32	73.58	60.05	69.97	70.58	502	570	588	85%	97%
Total/Average	**84**	**78.98**	**72.96**	**75.66**	**71.91**	**75.47**	**3,889**	**4,356**	**4,338**	**90%**	**100%**

Source: MGT of America, Inc., 2015.

EXHIBIT 7-7
LYON COUNTY SCHOOL DISTRICT
MIDDLE SCHOOL MATRIX WITH PRIORITIES

SCHOOL NAME	ACREAGE	CONDITION SCORE	EDUCATIONAL SUITABILITY SCORE	TECH READINESS SCORE	SITE SCORE	COMBINED SCORE	ENROLLMENT		CAPACITY	UTILIZATION	
							CURRENT (2015)	PROJECTED (2025)		CURRENT (2015)	PROJECTED (2025)
Dayton IS	20	81.66	85.09	82.50	69.02	81.68	365	446	712	51%	63%
Silverland Middle	31	86.49	95.56	100.00	85.00	93.11	551	654	759	73%	86%
Silver Stage ES (PK-8)	33	73.68	66.69	85.00	70.19	74.63	688	733	911	75%	80%
Yerington IS	5	74.59	75.86	50.15	83.91	68.57	377	435	625	60%	70%
Total/Average	**89**	**79.10**	**80.80**	**79.41**	**77.03**	**79.50**	**1,981**	**2,268**	**3,007**	**66%**	**75%**

Source: MGT of America, Inc., 2015.

EXHIBIT 7-8
LYON COUNTY SCHOOL DISTRICT
HIGH SCHOOL MATRIX WITH PRIORITIES

SCHOOL NAME	ACREAGE	CONDITION SCORE	EDUCATIONAL SUITABILITY SCORE	TECH READINESS SCORE	SITE SCORE	COMBINED SCORE	ENROLLMENT		CAPACITY	UTILIZATION	
							CURRENT (2015)	PROJECTED (2025)		CURRENT (2015)	PROJECTED (2025)
Dayton HS	55	76.56	69.85	60.10	68.44	68.80	688	879	932	74%	94%
Fernley HS	20	81.67	73.32	87.50	77.05	80.45	965	1,104	1,046	92%	106%
Silver Stage HS	60	85.67	86.47	92.50	70.85	86.48	237	326	515	46%	63%
Yerington HS	15	82.42	73.85	70.10	74.26	75.34	371	547	703	53%	78%
Smith Valley Schools	20	82.19	70.82	55.10	51.35	67.57	207	232	533	39%	43%
Total/Average	**170**	**81.70**	**74.86**	**73.06**	**68.39**	**75.73**	**2,468**	**3,087**	**3,728**	**66%**	**83%**

Source: MGT of America, Inc., 2015.

EXHIBIT 7-9
LYON COUNTY SCHOOL DISTRICT
OTHER SCHOOLS MATRIX WITH PRIORITIES

SCHOOL NAME	ACREAGE	CONDITION SCORE	SITE SCORE
Adult Ed - Fernley HS	1	82.04	47.63
Bus Yard - Dayton	2	87.38	55.93
Bus Yard - Fernley	2	77.12	54.17
Bus Yard - Silver Springs	1	75.40	37.02
District Office Complex	8	78.67	53.30
GED_PDC Silver Stage	0	85.45	28.89
Total/Average	**14**	**81.01**	**46.16**

Source: MGT of America, Inc., 2015.

As can be concluded from the above exhibits, the highest priority needs are:

- Condition at Fernley Elementary, Yerington Intermediate, Dayton High School and Smith Valley
- Projected utilization at East Valley Elementary
- Site condition at numerous district facilities

OPTIONS CONSIDERED

The third step in the prioritization process was to hold committee discussion regarding different options for meeting the needs over the 10-year period and the associated budget implications. **Exhibits 7-10** through **7-13** provide a summary of four different options discussed.

EXHIBIT 7-10
LYON COUNTY SCHOOL DISTRICT
OPTION 1

SPECIFIC SCHOOL IMPROVEMENTS	BUDGET ESTIMATE
Fernley	
Replace Fernley ES @ 550 student capacity	$21,600,500
Addition at East Valley ES, increase capacity to 550	$2,982,800
Addition at Fernley HS, increase capacity by 50, add core space	$5,486,800
Dayton	
Dayton High School renovation	$9,044,800
Yerington	
Replace Yerington ES @ 600 student capacity	$17,908,800
Replace Yerington IS @ 500 student capacity	$14,924,000
Silver Stage	
Silver Stage PK-8 - suitability renovation only	$4,419,300
Silver Stage PK-6 - suitability renovation to MS portion only	$1,905,000
Smith Valley	
Smith Valley Schools - Renovate	$4,919,300
Phase 1 Total	**$78,772,000**
DISTRICT-WIDE IMPROVEMENTS	
Technology upgrades	$389,400
Site upgrades	$5,253,500
Safety and security upgrades	$2,050,000
Phase 2 Total	**$7,692,900**
GRAND TOTAL	**$86,464,900**

Source: MGT of America, Inc., 2015.

EXHIBIT 7-11
LYON COUNTY SCHOOL DISTRICT
OPTION 2

SPECIFIC SCHOOL IMPROVEMENTS	BUDGET ESTIMATE
Fernley	
Replace Fernley ES @ 600 student capacity	$23,564,200
Replace Fernley IS @ 600 student capacity*	$23,564,200
Addition at East Valley ES, increase capacity to 550	$2,982,800
Addition at Fernley HS, increase capacity by 50, add core space	$5,486,800
Dayton	
Dayton High School renovation	$9,044,800
Yerington	
Replace Yerington ES @ 600 student capacity	$17,908,800
Replace Yerington IS @ 500 student capacity	$14,924,000
Silver Stage	
Silver Stage PK-8 - suitability renovation only	$4,419,300
Silver Stage PK-6 - suitability renovation to MS portion only	$1,905,000
Smith Valley	
Smith Valley Schools - renovate	$4,919,300
Phase 1 Total	**$99,380,600**
DISTRICT-WIDE IMPROVEMENTS	
Technology upgrades	$363,200
Site upgrades	$3,870,500
Safety and security upgrades	$2,050,000
Phase 2 Total	**$6,283,700**
GRAND TOTAL	**$105,664,300**

Source: MGT of America, Inc., 2015.

EXHIBIT 7-12
LYON COUNTY SCHOOL DISTRICT
OPTION 3

SPECIFIC SCHOOL IMPROVEMENTS	BUDGET ESTIMATE
Fernley	
Replace Fernley ES @ 600 student capacity	$23,564,200
New Middle School @ 650 student capacity 5th - 8th	$33,239,500
Change grade configuration at Silverland MS to 5th - 8th	$0
Repurpose Fernley IS	$0
Addition at East Valley ES, increase capacity to 550	$2,982,800
Addition at Fernley HS, increase capacity by 50, add core space	$5,486,800
Dayton	
Dayton High School Renovation	$9,044,800
Yerington	
Replace Yerington ES @ 600 student capacity, share core spaces with IS	$17,908,800
Replace Yerington IS @ 500 student capacity, share core spaces with ES	$14,924,000
Silver Stage	
Silver Stage PK-8 - suitability renovation only	$4,419,300
Silver Stage PK-6 - suitability renovation to MS portion only	$1,905,000
Smith Valley	
Smith Valley Schools - renovate	$4,919,300
Phase 1 Total	**$113,975,200**
DISTRICT-WIDE IMPROVEMENTS	
Technology upgrades	$363,200
Site upgrades	$3,870,500
Safety and security upgrades	$2,050,000
Phase 2 Total	**$6,283,700**
GRAND TOTAL	**$120,258,900**

Source: MGT of America, Inc., 2015.

EXHIBIT 7-13
LYON COUNTY SCHOOL DISTRICT
OPTION 4

SPECIFIC SCHOOL IMPROVEMENTS	BUDGET ESTIMATE
Fernley	
Repurpose Fernley IS @ 600 student capacity K - 6th	$2,354,600
New Elementary at Silverland Site @ 650 student capacity K - 6th	$25,527,900
Addition at East Valley ES, increase capacity to 600	$4,946,500
Addition at Fernley HS, increase capacity by 50, add core space	$5,486,800
Dayton	
Dayton High School renovation	$9,044,800
Yerington	
Replace Yerington ES @ 600 student capacity, share core spaces with IS	$17,908,800
Replace Yerington IS @ 500 student capacity, share core spaces with ES	$14,924,000
Silver Stage	
Silver Stage PK-8 - suitability renovation only	$4,419,300
Silver Stage PK-6 - suitability renovation to MS portion only	$1,905,000
Smith Valley	
Smith Valley Schools - renovate	$4,919,300
Phase 1 Total	**$87,017,700**
DISTRICT-WIDE IMPROVEMENTS	
Technology upgrades	$363,200
Site upgrades	$3,870,500
Safety and security upgrades	$2,050,000
Phase 2 Total	**$6,283,700**
GRAND TOTAL	**$93,301,400**

Source: MGT of America, Inc., 2015.

TEN YEAR FACILITY MASTER PLAN

Based on the Facility Committee discussion along with an analysis of the probable funding available, it is recommended that the Board adopt facility Option 4 along with the timeline as shown in **Exhibits 7-14** and **7-15** below. The key components of this option include:

- Change to a K-6 elementary and 7-8 middle school model in Fernley

- Meeting all first and second priority needs over the 10-year master plan period
- Phasing based on expected funding availability over the 10-year master plan period
- Most efficient use of current and new facilities
- Since option 4 provides for two alternatives at Silver Stage the plan is shown in two versions. Option A calls for converting Silver Stage Elementary / Middle School to a K-6 facility and Silver Stage High Stage High School to 7-12. Option B leaves the grade level alignment as it currently exists. Because the capacity analysis provided in **Section 5.0** shows only the current grade configuration, further explanation is provided in **Exhibits 7-16** and **7-17**.

EXHIBIT 7-14
10-YEAR FACILITY MASTER PLAN RECOMMENDATIONS – OPTION A

PHASE 1 – YEARS 1 – 3	BUDGET ESTIMATE
Smith Valley renovation	$4,919,300
Dayton High School renovation (Phase 1)	$4,500,000
Silver Stage Middle to K-6	$1,905,000
Fernley High School renovation & addition (Phase 1)	$2,750,000
Safety & security upgrades (DES/DIS/Sutro/SSHS/YHS/Riverview/Cottonwood/East Valley)*	$2,050,000
Technology upgrades	$363,200
Phase 1 Total	**$14,012,500**
PHASE 2 – YEARS 4-6	
Re-purpose Fernley Intermediate School	$2,354,000
New elementary @ Silverland site	$25,527,900
Phase 2 Total	**$27,881,900**
PHASE 3 – YEARS 7-10	
Yerington Elementary & Intermediate replacement	$32,832,000
East Valley addition	$4,946,500
Dayton High School renovation (Phase 2)	$4,500,000
Fernley High School renovation & addition (Phase 2)	$2,750,000
Site upgrades	$3,870,500
Phase 3 Total	**$49,898,000**
TOTAL 10 YEAR BUDGET	**$91,792,400**

*Budgeted at $300,000 for score of poor; $250,000 for score of fair; $150,000 for score of good.
Source: MGT of America, Inc., 2016.

EXHIBIT 7-15
10-YEAR FACILITY MASTER PLAN RECOMMENDATIONS – OPTION B

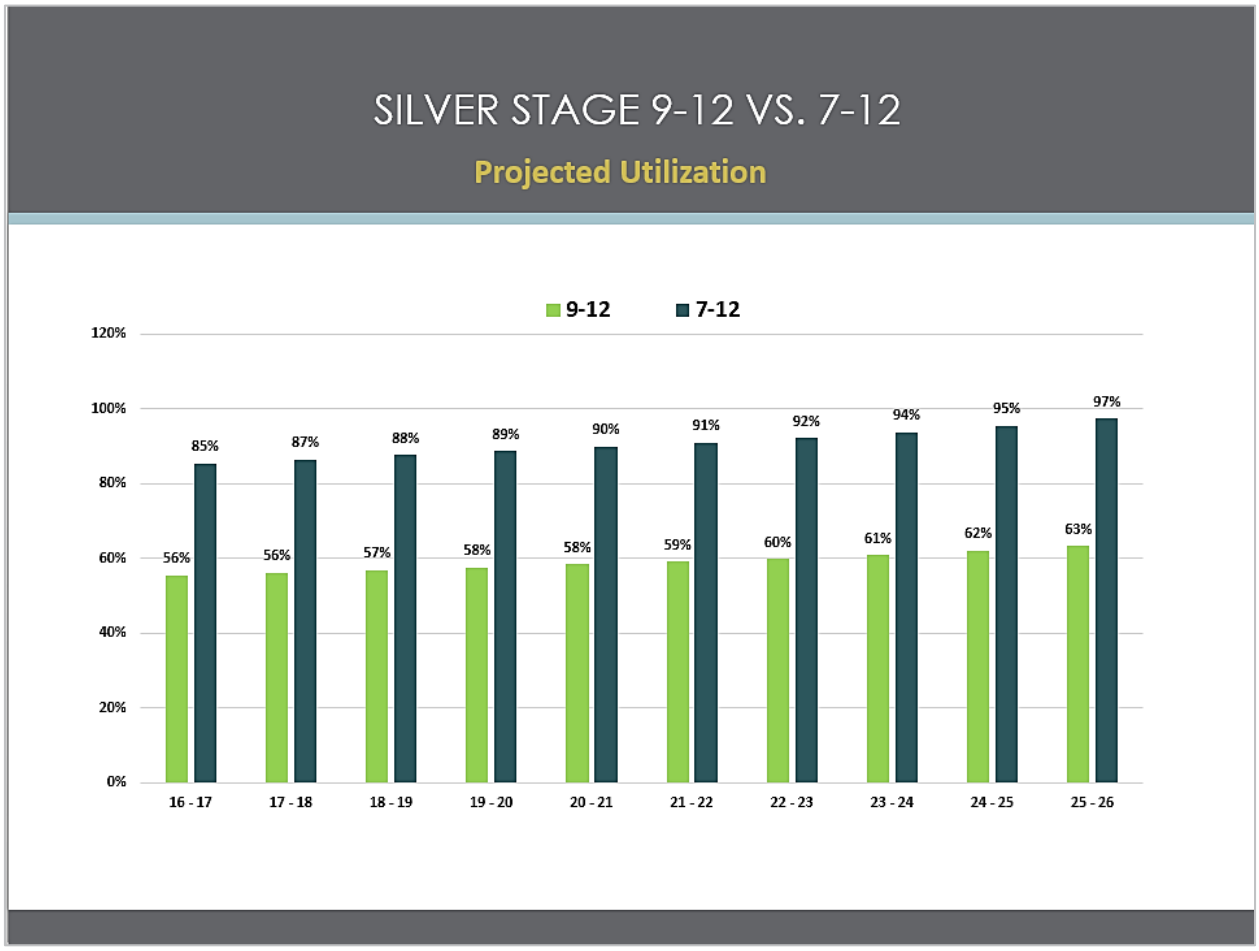
PHASE 1 – YEARS 1 – 3	BUDGET ESTIMATE
Smith Valley renovation	$4,919,300
Dayton High School renovation (Phase 1)	$4,500,000
Silver Stage PK-8 - suitability renovation only	$4,419,300
Fernley High School renovation & addition (Phase 1)	$2,750,000
Safety & security upgrades (DES/DIS/Sutro/SSHS/YHS/Riverview/Cottonwood/East Valley)*	$2,050,000
Technology upgrades	$363,200
Phase 1 Total	**$19,001,800**
PHASE 2 – YEARS 4-6	
Re-purpose Fernley Intermediate School	$2,354,000
New elementary @ Silverland site	$25,527,900
Phase 2 Total	**$27,881,900**
PHASE 3 – YEARS 7-10	
Yerington Elementary & Intermediate replacement	$32,832,000
East Valley addition	$4,946,500
Dayton High School renovation (Phase 2)	$4,500,000
Fernley High School renovation & addition (Phase 2)	$2,750,000
Site upgrades	$3,870,500
Phase 3 Total	**$49,898,000**
TOTAL 10 YEAR BUDGET	**$96,781,700**

*Budgeted at $300,000 for score of poor; $250,000 for score of fair; $150,000 for score of good.
Source: MGT of America, Inc., 2016.

SILVER STAGE OPTON ANALYSIS

Exhibit 7-16 shows the year by year difference in projected utilization of Silver Stage High School as either a 7-12 grade configuration or the current 9-12 grade configuration.

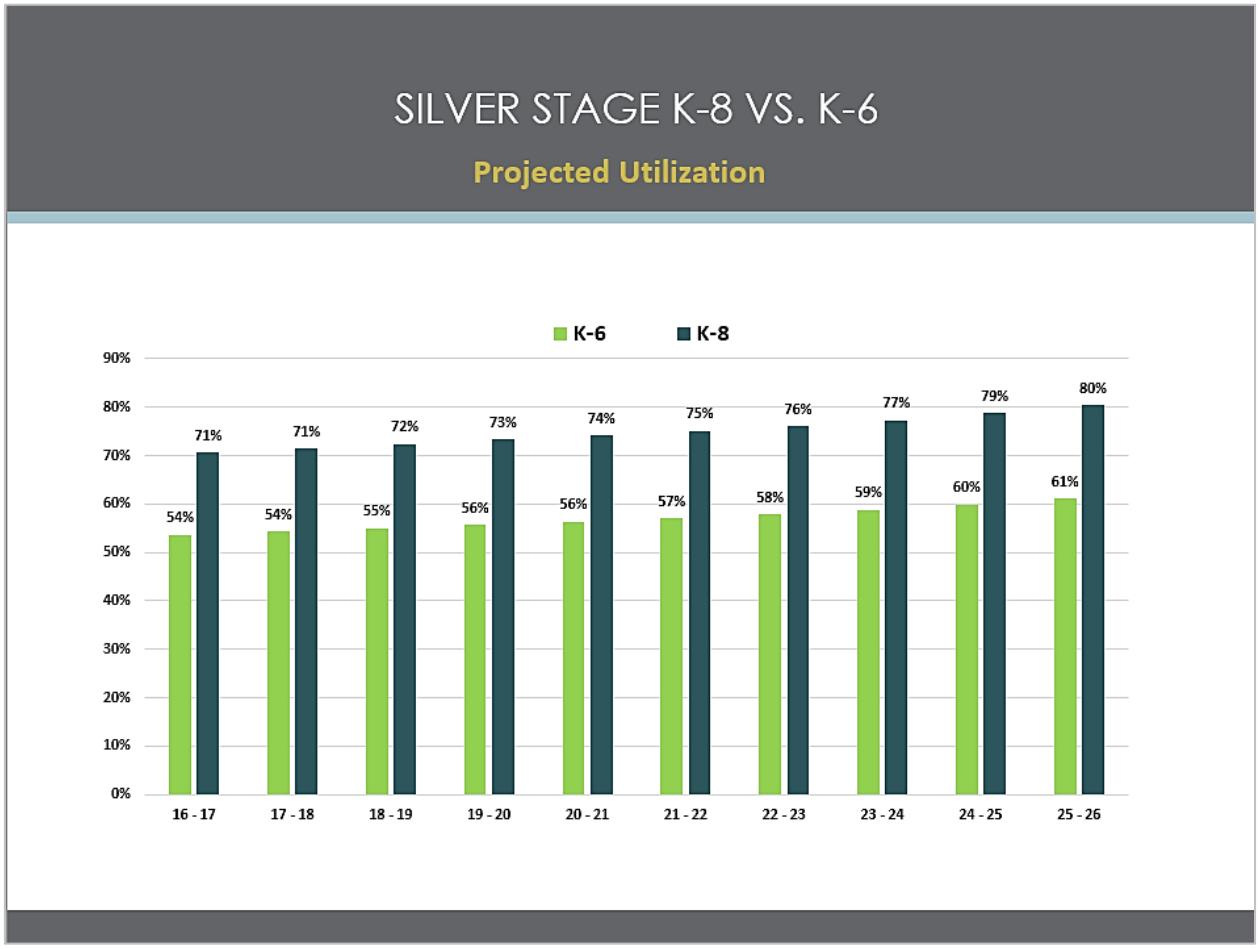
EXHIBIT 7-16
SILVER STAGE HIGH SCHOOL
9-12 VS. 7-12 GRADE CONFIGURATION



Source: MGT of America, Inc., 2016.

Exhibit 7-17 shows the year by year difference in projected utilization of Silver Stage Elementary Middle School as either a K-6 grade configuration or the current K-8 grade configuration.

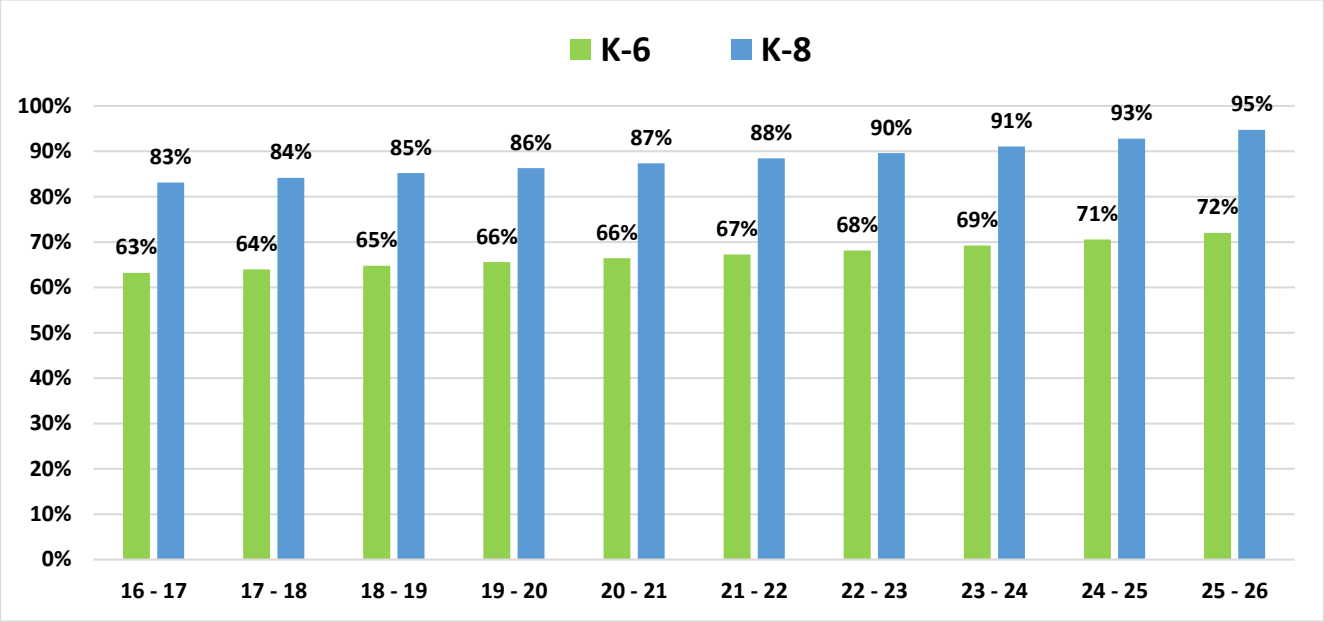
EXHIBIT 7-17
SILVER STAGE ELEMENTARY MIDDLE SCHOOL
K-8 VS. K-6 GRADE CONFIGURATOIN



Source: MGT of America, Inc., 2016.

Because the recommendations include the possible conversion of space in Building C at Silver Stage Elementary to district use **Exhibit 7-18** shows the year by year difference in projected utilization of Silver Stage Elementary Middle School as either a K-6 grade configuration or the current K-8 grade configuration without Building C.

EXHIBIT 7-18
SILVER STAGE ELEMENTARY MIDDLE SCHOOL
PROJECTED UTILIZATION EXCLUDING BUILDING "C"



Source: MGT of America, Inc., 2016.

SUPPORTING RECOMMENDATIONS

The following recommendations are intended to provide guidance with the implementation of the ten-year master plan.

RECOMMENDATION 1:
REGULARLY REVIEW ATTENDANCE BOUNDARIES

A key component of the ten-year facilities master plan is the efficient use of existing facilities. One important element in accomplishing this objective is the need to review attendance boundaries on a regular basis. Care needs to be taken in order to balance the need to utilize facilities more efficiently with meeting the needs of students, but policies can be developed to address both concerns. These policies often include allowing students to remain at a particular school once enrolled, not requiring a change when safety concerns exist, etc. If the recommended change to a K-6 configuration in Fernley is adopted the District will have the opportunity to regularly review the enrollment at three schools both in Fernley and Dayton and make adjustments as warranted

RECOMMENDATION 2:

CONTINUE TO UPDATE LONG-TERM ENROLLMENT PROJECTIONS ON A REGULAR BASIS

Long-term enrollment projections should continue to be updated as the master plan is implemented. In addition to the current level of growth that is occurring in Lyon County, improvements to facility conditions, new facilities, and program changes will likely lead to increased demographic changes. A sound projection basis has been provided in this report. The updates should be relatively simple and, therefore, require much less effort than was undertaken for this study. MGT recommends continuing to update the data no less than once every three years.

RECOMMENDATION 3:

IMPROVE AND ADAPT DISTRICT FACILITY SPACES AT SILVER STAGE

If it is decided to implement the grade re-alignment at Silver Stage the opportunity will be present to convert existing spaces at Silver Stage Elementary to district resource facilities. The central location and the continuing need for district resource space makes this the ideal location to plan for appropriate space. In addition, providing permanent space at Silver Stage will allow for disposal of current spaces that are located in portable facilities with significant site deficiencies. If it is determined not to implement the grade level re-alignment the amount of space available will decrease but not to the point that some district services couldn't be planned for this site.

RECOMMENDATION 4:

CONSIDER EARLIER IMPLEMENTATION OF SAFETY / SECURITY UPGRADES AT SCHOOLS PLANNED FOR PHASE 2 AND 3 IMPROVEMENTS

The phasing of the master plan calls for safety and security upgrades at all school facilities. Those facilities not planned for more extensive improvements are scheduled for the safety / security upgrades in phase 1. All other safety and security upgrades are included in the estimated budget for the overall project. The District may want to consider implementing these upgrades sooner. The estimated budget dedicated for safety and security upgrades at each of the schools scheduled for phase 2 or 3 improvements (excepting the new Fernley area Elementary) are:

SITE NAME	SAFETY AND SECURITY BUDGET*
Fernley IS	$ 470,200
Yerington ES	$ 300,000
Yerington IS	$ 300,000
Dayton HS	$ 301,400
Fernley HS	$ 300,000
Total	$ 1,671,600

*The above amounts are based on the formula used in **Exhibits 7-14** and **7-15** or the amount calculated through the BASYS system, whichever is larger.