



## MEMORANDUM

**To:** DCSD Board of Education

**From:** Shannon Bingham, Western Demographics (WDI), SCBA Consultant

**Re:** Long Range Planning Committee and Boundary Consultant School Capacity and Boundary Analysis: ThunderRidge High School Feeder

**Date:** 2/8/22

### **Situation**

The Douglas County School District (DCSD) staff and Long Range Planning Committee (LRPC) have addressed school boundary challenges in the ThunderRidge Feeder (TRHS) area as part of the School Capacity and Boundary Analysis (SCBA) process. This memo is intended to provide data to inform the Board of Education regarding short, medium, and long-term school facility needs in that area in advance of a work session scheduled for February 8, 2022. During this work session, WDI and the LRPC will present detailed growth and boundary data and the LRPC will engage the Board in further discussion of school facility needs and strategies in this area. The intent is to discuss the LRPC's approach and solicit feedback and insights that the Board may have. No action by the Board is being requested. Recommendations from the LRPC will follow at a later date.

### **Potential Outcomes of the Worksession**

The work session has the following goals:

1. Understand general growth, market segmentation, and geographic realities
2. Understand growth underway in the Solstice / Sterling Ranch area
3. Establish an understanding of the ultimate or "build-out" school facilities once all possible homes are constructed in the TRHS feeder
4. Understand when school capacities will be reached and how school assignments might change
5. Give the Board an opportunity to discuss the issues and ask questions
6. Provide the LRPC with insights and strategies

## **Work Session Agenda**

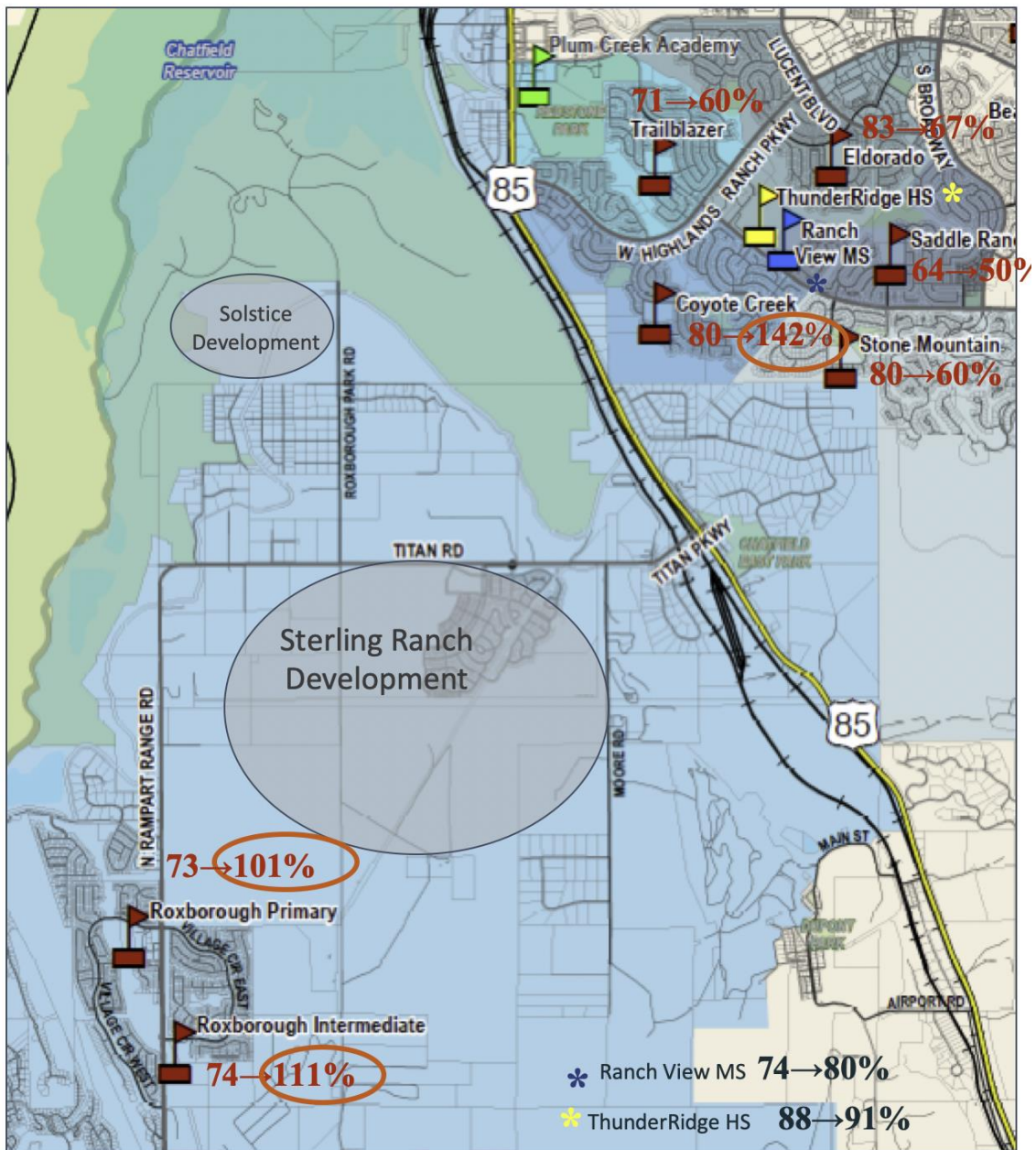
The worksession will address the following topics:

1. Introduction of the LRPC and the area
2. Historical means of managing growth
3. Data
4. Geography, growth, and market share
5. Capacity and seat availability over time
6. Schools needed at built-out in 2040
7. Introduction to the pending issues to be researched by the LRPC
8. Board questions and discussion

### **Introduction**

The ThunderRidge High School feeder encompasses a large portion of the Highlands Ranch community, a large developing area including the Roxborough area, two state parks (Chatfield and Roxborough), Waterton Canyon, and undeveloped forest areas to the southwest of Roxborough. The area also includes a large aerospace campus, Lockheed Martin that has an impact on growth in the immediate vicinity. The feeder area includes Roxborough Primary and Intermediate Schools, Coyote Creek Elementary, Trailblazer Elementary, Stone Mountain Elementary, Saddle Ranch Elementary, Eldorado Elementary, Ranch View Middle School, and ThunderRidge High School. Just to the north of the boundary area are two popular charter schools that serve some students from within the area, Ben Franklin Academy and STEM Highlands Ranch. The map on the following page displays the attendance area and the schools included.

## ThunderRidge Feeder Area and Current and Five-year School Utilization Percentages Show Effect of Assigning Growth to the East (Map 1)



### School Facility Strategy in the ThunderRidge High School Feeder

The LRPC and staff have monitored growth in the TRHS feeder area for years. After decades of growth and stability generated by the Roxborough neighborhood, the Sterling Ranch and Solstice subdivisions have generated significant amounts of new housing. School enrollments at both Roxborough Primary and Intermediate have grown as a result of the new subdivisions. During the initial School Capacity and Boundary Analysis (SCBA) process exploring this area, portions of the east side of both Sterling

Ranch and Solstice were assigned to Coyote Creek Elementary. As the pace in both subdivisions has accelerated, it has become apparent that significant growth during the next three to five years will fill the Roxborough schools and further action will become necessary.

The LRPC has developed ideal facility capacities for schools in line with programs throughout the district. This has been identified in the 2021-2022 Master Capital Plan (MCP) (page 32). Ideal capacities reflect the current classroom usage, preschool needs, special education, BASE needs, workspace for special education teams, counselors, Educational Assistants, and other staff. The ideal capacities do not include mobiles and are used as a metric to identify under or over-enrolled schools in the TRHS feeder and throughout the district.

Eventually, new schools must be constructed in the TRHS feeder where there is a shortage of school space and a large, growing geographic area to serve. Once funding is in place, a new elementary school typically takes one year to design and permit, and another year to construct. Since new schools in the TRHS feeder will take five years to design, construct, and open (pending funding), alternatives to new construction to accommodate new growth are needed. The MCP (page 34) identifies various strategies to address school crowding other than new construction. These include the following:

- Boundaries changes
- Calendar changes
- Grade configuration
- Overflow busing
- Program changes
- Additions
- Mobiles
- The purchase and tenant finish of existing facilities.

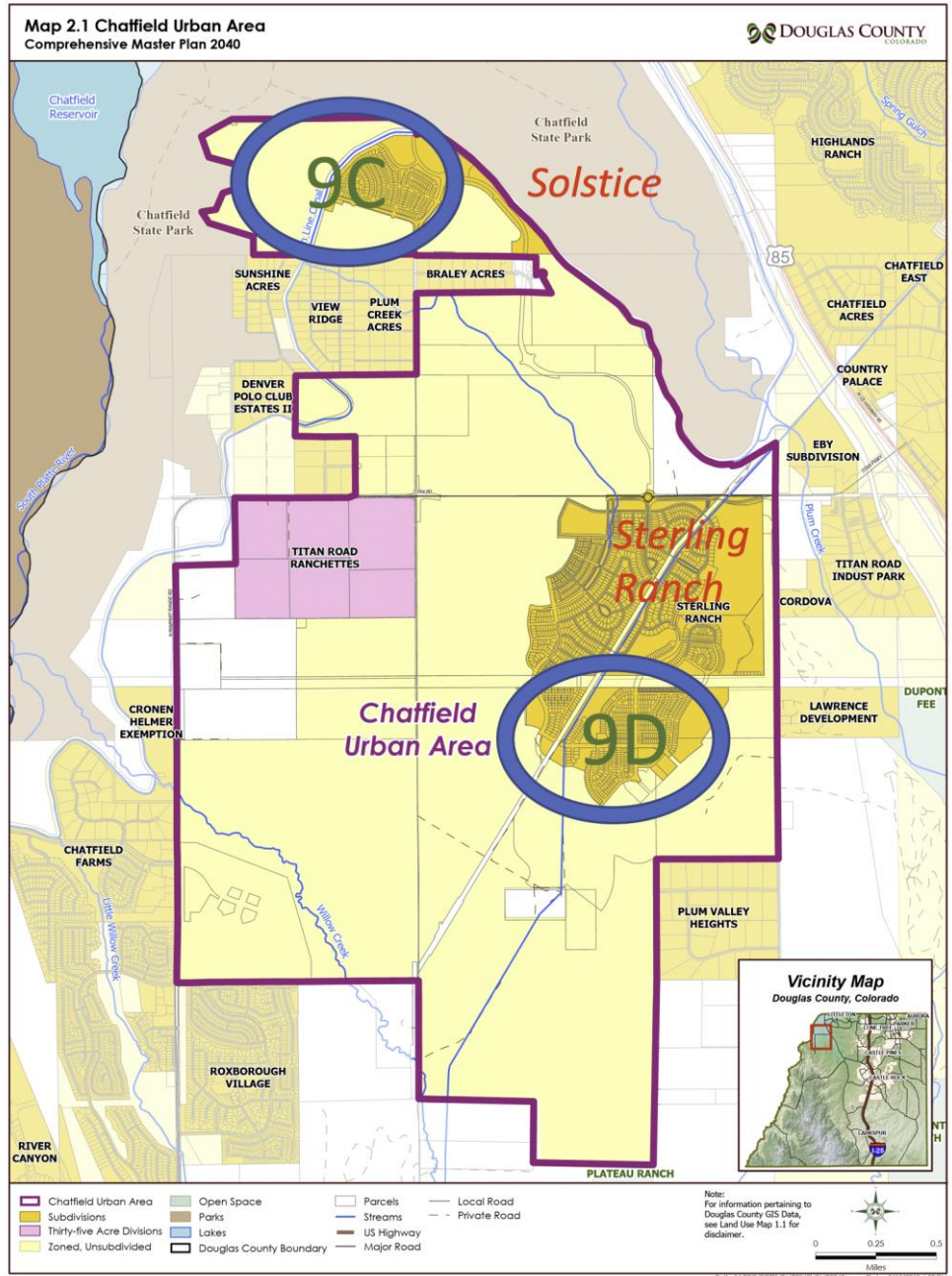
All of these strategies continue to be options to address facility needs in the TRHS feeder. Based on enrollment and capacity data, the LRPC has assigned the existing and developing portions of the west and northwest side of Sterling Ranch to Roxborough given their proximity and the long tenure of those areas as Roxborough school neighborhoods. The eastern portions of Solstice and Sterling Ranch were previously assigned to Coyote Creek Elementary (CCE) as overflow before these areas were developed and became occupied. Please see the map 4 (Sterling Ranch Current and Future Villages).

### **Overall Land Development Context of the ThunderRidge High School Feeder**

The developing portion of the TRHS feeder is described in the Douglas County Master Plan as the Chatfield Urban Area. This area will include additional developments other than Solstice and Sterling Ranch as additional vacant land develops. The following map illustrates the overall area and shows the existing Solstice and Sterling Ranch areas.

The LRPC is considering boundary changes to address the growth shown in the blue circles identified as 9C and 9D.

### Chatfield Urban Area (Map 2)



### Build-out Plan for the TRHS Feeder

According to the Douglas County Master Plan, there is additional land other than Solstice and Sterling Ranch in the Chatfield Urban Area that will ultimately result in enough students to justify a complete high school feeder system. Assuming the current

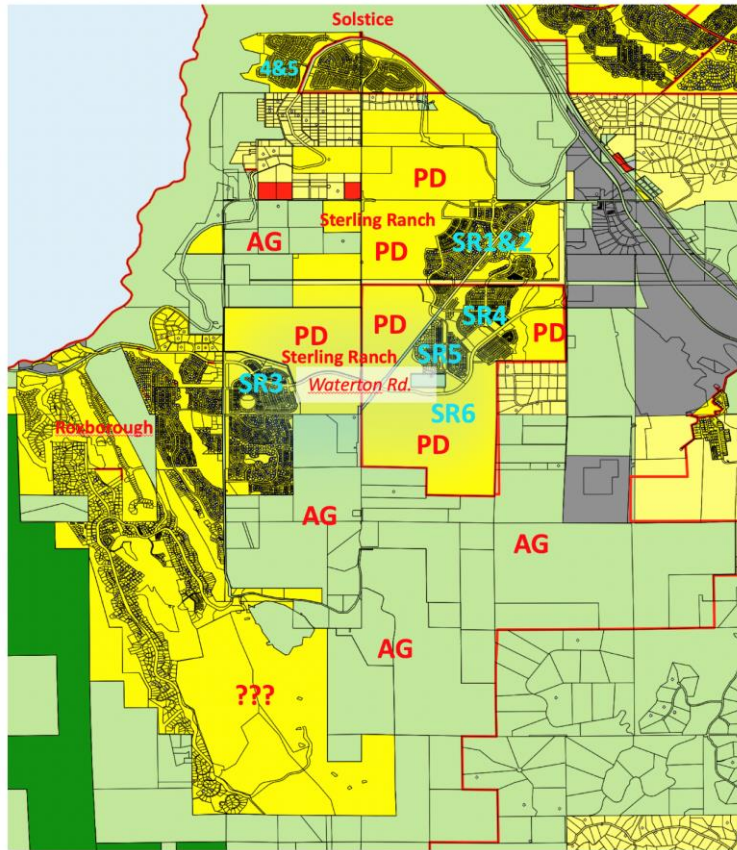


market share percentages, five (5) new elementary schools, one middle and one high school will be needed in the TRHS feeder through build-out as shown in the following table. Future development areas are shown on the map below. Solstice and Sterling Ranch filing numbers are indicated by blue labels. PD indicates a future planned development area.

### Build-out Analysis – Calculations (Figure 1)

<b>Remaining Land Development Potential - Northwest Feeder</b>		<b>Students</b>			
<b>Project Name</b>	<b>DU's</b>	<b>Elementary</b>	<b>Middle</b>	<b>High</b>	<b>Total</b>
Solstice Filing Nos. 1-3 (Remaining)	373	146	45	90	280
Solstice Filing Nos. 4-5 (Remaining)	339	132	41	81	254
Sterling Ranch Filings 1 - 7 (Remaining)	3414	1331	410	819	2561
Sterling Ranch - Additional Land Area	2943	1148	353	706	2207
Vacant, Unplatted, Unplanned Land - 4.2 sq. miles, 640 acres per sq. mile, 2 du per acre	5376	2097	645	1290	4032
<b>Total</b>	<b>12446</b>	<b>4854</b>	<b>1493</b>	<b>2987</b>	<b>9334</b>
Market Share		0.64	0.61	0.73	
<b>Adjusted Neighborhood School Enrollment</b>		<b>3106</b>	<b>911</b>	<b>2180</b>	<b>6198</b>
Typical Neighborhood School Size		650	900	2200	
<i>Additional Neighborhood Schools</i>		<b>4.8</b>	<b>1.0</b>	<b>1.0</b>	

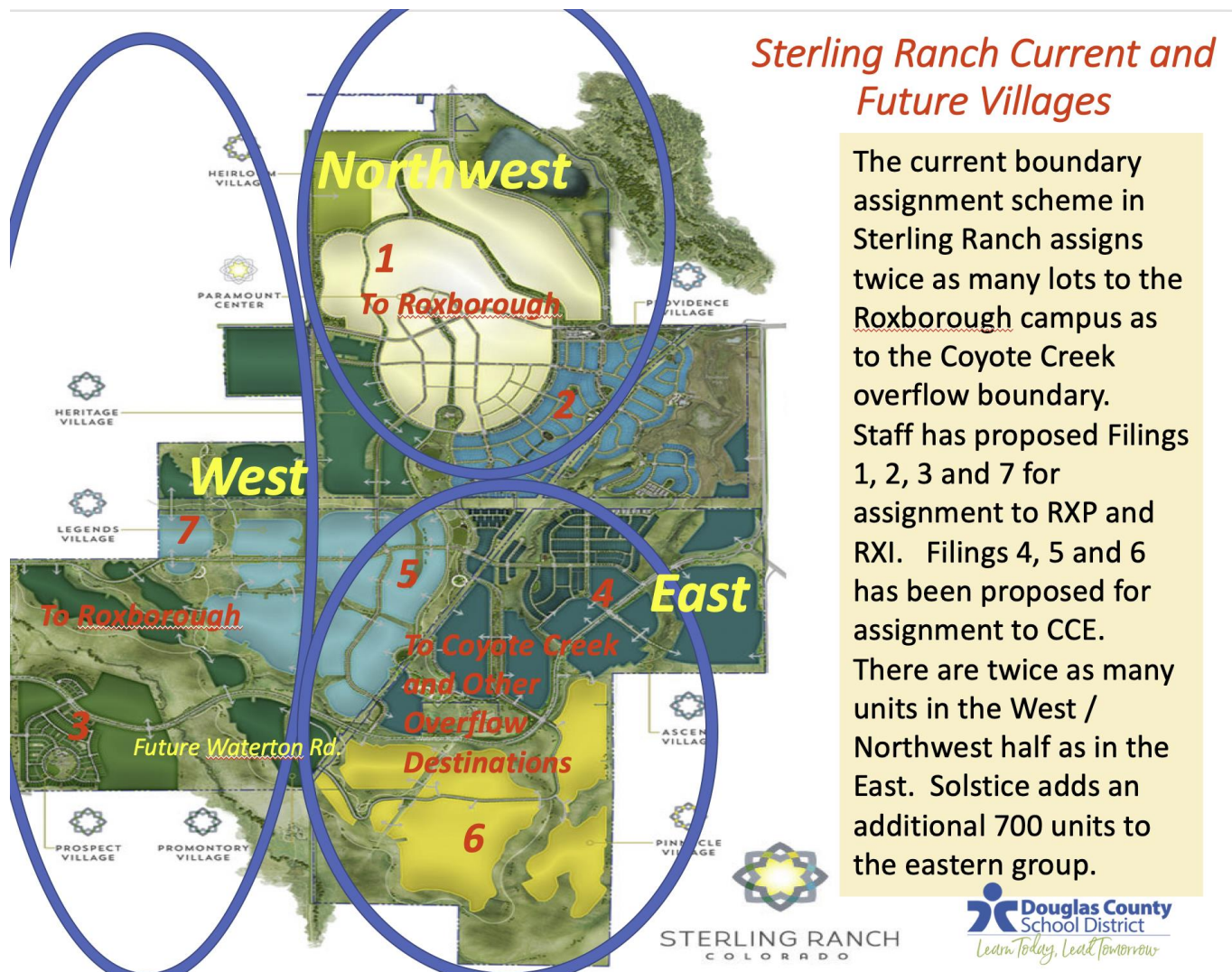
### Existing Douglas County Zoning - Planned Development = PD (Map 3)



## Sterling Ranch – East / West Side Strategy

The east/west side strategy was developed based on the development timing of Sterling Ranch. Within the development, homes have just begun to be constructed in Filing #3. This area has been assigned to Roxborough Primary and Intermediate Elementary schools based on proximity. Filings #1 and #2 remain assigned to Roxborough Primary and Intermediate Schools because they were previously assigned to these schools. Recently, Filing #7, also on the west side has emerged from the planning process, further reinforcing the strategy that growth in that area should be assigned to the Roxborough schools. The following Map (Map 4) illustrates the east/west strategy.

**Sterling Ranch Current and Future Villages (Map 4)**



## Boundary Integrity




Boundary integrity is defined as assignments that have five (5) years, or more, application, meaning these boundary assignments should not need to change for five (5) years or more. The current plan was intended to facilitate boundary stability for a minimum of five (5) years, with the west side of Sterling Ranch being assigned to the Roxborough schools. The east side of the development was assigned to Coyote Creek Elementary. The intent was to make a deliberate initial assignment that would leave seats available in the Roxborough schools for the west side of Sterling Ranch (Filings #1, #2, #3, and now Filing #7) and allow the Roxborough schools to fill to capacity over a five (5) year period, without another boundary change.

## Enrollment vs. Capacity

The proposed boundary scenarios affecting Solstice and Sterling Ranch assign significantly more dwelling units to the Roxborough schools than to Coyote Creek Elementary. The previous boundary assignments to the Roxborough schools and Coyote Creek Elementary are projected to exceed capacity within five (5) years, suggesting the need for portables and/or designation of additional overflow schools with capacity. The assignment of the four western Sterling Ranch filings would not need to change during this time. Coyote Creek Elementary will receive the majority of the forecasted enrollment over the five (5) year period as new neighborhoods are constructed and additional measures may need to be taken. The LRPC will research solutions for alternatives to address growth in the eastern portions of Sterling Ranch (Filings #4, #5, and #6)

## TRHS Feeder – Enrollment vs. Capacity (Figure 2)

### ThunderRidge Feeder

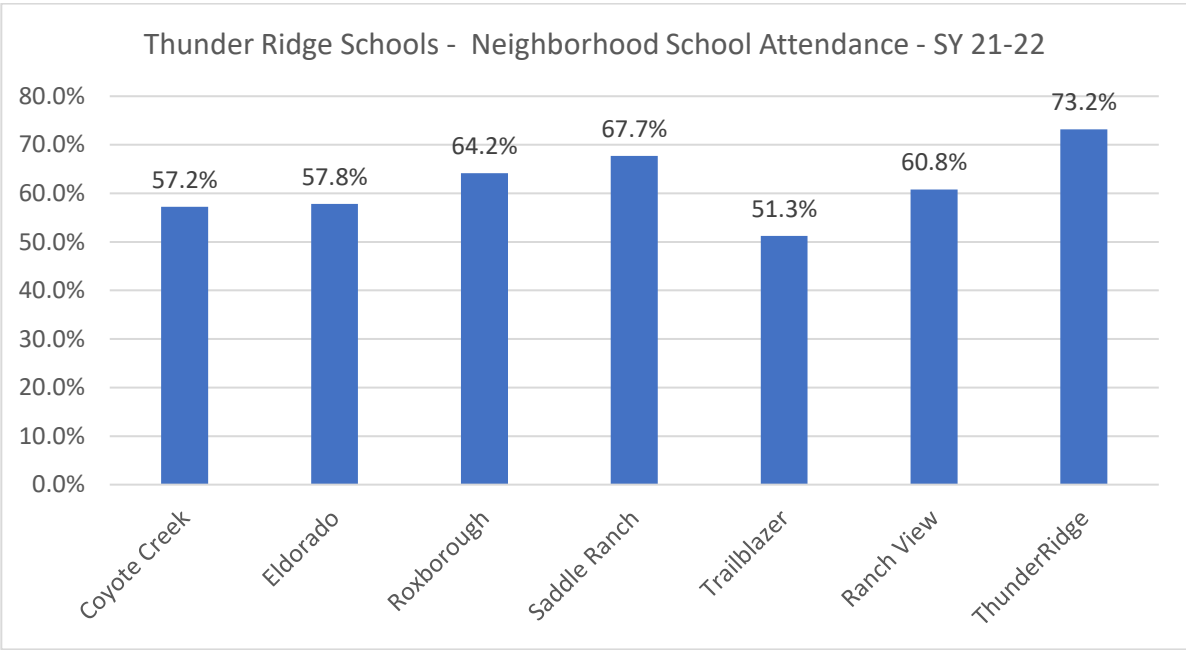
		<b>% of Ideal Capacity</b>										
	Less than 65%	<b>Ideal Building Capacity</b>	<b>2021-22 October Count Enrollment</b>	<b>% of Ideal Capacity</b>	<b>2026-27 Projected</b>	<b>% of Ideal Capacity</b>	<b>Mobile Pads on Site</b>	<b>Mobles on Site</b>	<b>Childcare Mobiles on Site</b>	<b>Enrollment Mobiles on Site</b>	<b>ECE Preschool Rooms 21-22</b>	<b>Special Programs</b>
	Between 65% and 95%											
	Greater than 95%											
Coyote Creek	506	403	80%	719	142%	4	1	0	1	A		
Eldorado	506	420	83%	339	67%	3	2	0	2	AB		
Roxborough Intermediate (3-6)	552	408	74%	612	111%	4	0	0	0		IB	
Roxborough Primary (K-2)	506	371	73%	512	101%	2	0	0	0	AB	IB	
Saddle Ranch	529	341	64%	262	50%	5	2	0	2	A		
Stone Mountain	713	571	80%	426	60%	2	0	0	0	A		
Trailblazer	437	310	71%	261	60%	4	1	1	0	A		
Ranch View MS (7-8)	1,111	820	74%	888	80%	4	0	0	0		IB	
ThunderRidge HS	2,141	1,881	88%	1,952	91%	6	3	0	1		IB	
<b>ThunderRidge subtotal</b>	<b>7,001</b>	<b>5,525</b>		<b>5,971</b>		<b>34</b>	<b>9</b>	<b>1</b>	<b>6</b>	<b>8</b>		



### Elementary Neighborhood School Attendance

The forecasting used in the capacity assessments accounts for the attendance of local students in both neighborhood and charter schools. 64% of RXI and P students live within the RXI and P attendance area. All neighborhoods in DCSD have students who attend both neighborhood and charter schools. 61% of students attending Ranch View Middle School live within the attendance boundary. 73% of students attending ThunderRidge High School live within the attendance boundary (as shown in the bar graph).

**TRHS Feeder – Neighborhood School Attendance (Figure 3)**



### Schools of Attendance of Students in the TRHS Feeder

Students in the TRHS feeder attend various schools throughout the region. The following table illustrates the attendance of students who reside in the TRHS feeder.

## Schools of Attendance of Students in the TRHS Feeder (Figure 4)

<b>Elementary School</b>	<b>Count</b>	<b>Percentage</b>
Ben Franklin Academy	104	10%
Coyote Creek Elementary	27	3%
Roxborough Elementary	354	33%
Roxborough Intermediate	392	37%
STEM School Highlands Ranch	53	5%
Other	142	13%
<b>Middle School</b>	<b>Count</b>	<b>Percentage</b>
Ben Franklin Academy	132	10%
Mountain Ridge Middle School	96	8%
Platte River Academy Charter	41	3%
Ranch View Middle School	769	61%
SkyView Academy	39	3%
STEM School Highlands Ranch	107	8%
Other	81	6%
<b>High School</b>	<b>Count</b>	<b>Percentage</b>
eDCSD - Online Education	56	3%
Mountain Vista High School	265	12%
STEM School Highlands Ranch	119	5%
ThunderRidge High School	1615	73%
Other	151	7%

### LRPC Pending Decisions

The LRPC tasks associated with the TRHS feeder this spring are described as follows:

Area 9C - Assignment of Solstice Filings #4 & #5 - During the 2019 - 2020 SCBA boundary changes, Solstice Filings #1, 2, and 3 were moved to Coyote Creek Elementary (from their prior assignment at the Roxborough schools). At that time, the newer Solstice Filings (#4 & 5) were not under construction. Prospective residents of Filings #4 & 5 have been referred to Coyote Creek Elementary by the developers. The LRPC will be researching the assignment to Coyote Creek Elementary.

Area 9D - Assignment of Sterling Ranch Filings #5 & #6 - Since the 2020 SCBA boundary changes, Filing #4 of Sterling Ranch was assigned to Coyote Creek. The primary east/west arterial street through the subdivision (Waterton Rd.) is nearing completion which makes transit to the Roxborough schools more convenient. Alternative overflow destinations or other strategies are being researched.

### Transportation Issues

Driving distances to Coyote Creek Elementary and the Roxborough schools from the areas being constructed are comparable. The driving distances and times are listed below. The new Waterton Rd. linkage will be complete in eighteen (18) months and will affect movement within the subdivision.

## Driving Distance and Time (Figure 5)

### Driving Distance and Time

Subdivision	School	Miles	Minutes
Solstice #4 & #5	CCE	6.8	12
	RXI	5.4	9
Sterling Ranch #5 & #6	CCE	5.7	11
	RXI	5.9	10

*Drive times are for private vehicles and do not reflect bus stop times.*

### School Board Participation

The LRPC requests that the Board discuss these issues during the work session and ask questions of the committee members and staff. The Board is invited to provide the LRPC with insights and strategies.