MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT

COMPREHENSIVE DISTRICT FACILITIES PLAN

ESTRELLA MOUNTAIN COMMUNITY COLLEGE DISCOVERY & ANALYSIS

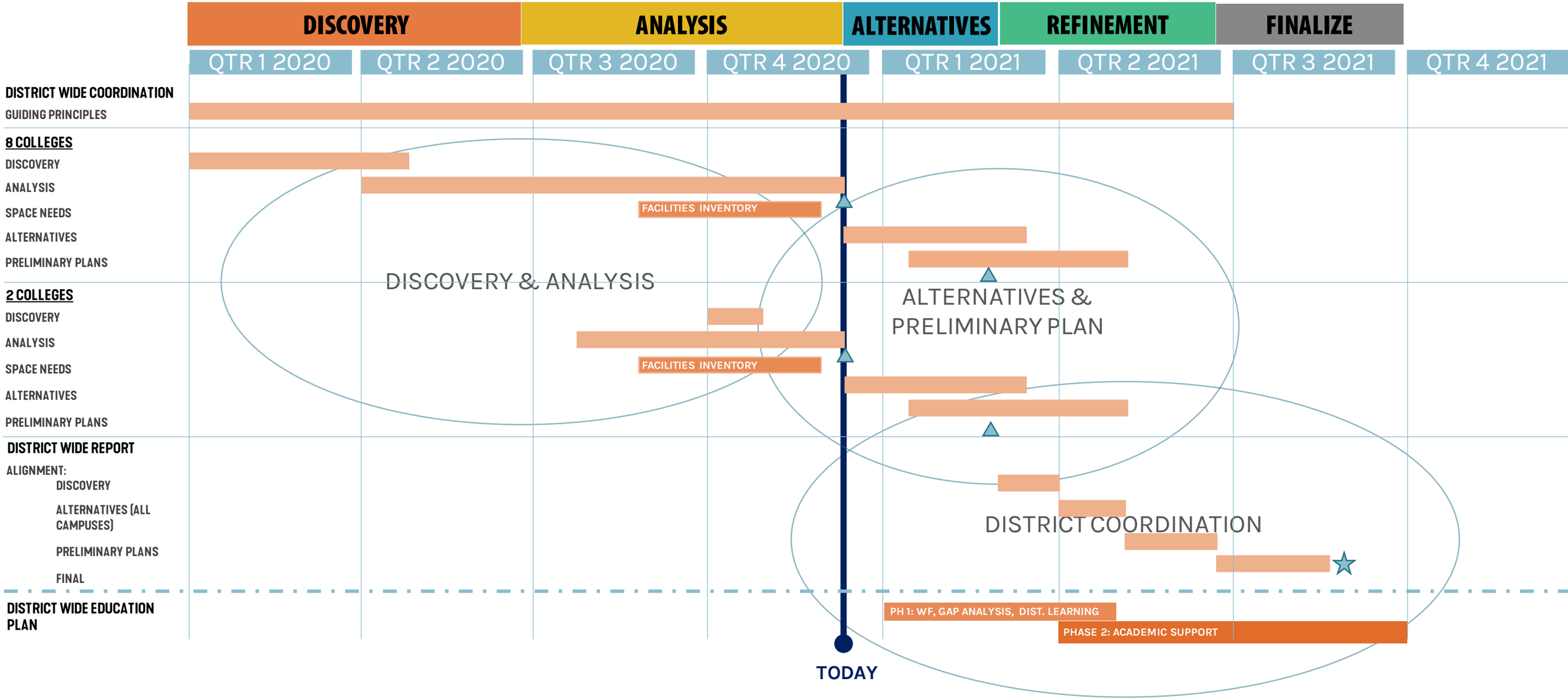
12.16.20

IT'S A GREAT TIME TO PLAN FOR THE FUTURE

TODAY'S AGENDA

1. PROCESS & VISION FEEDBACK
2. REGIONAL ANALYSIS
3. STUDENT DEMOGRAPHICS
4. SPACE INVENTORY & UTILIZATION
5. PHYSICAL ANALYSIS
6. NEXT STEPS

SCHEDULE



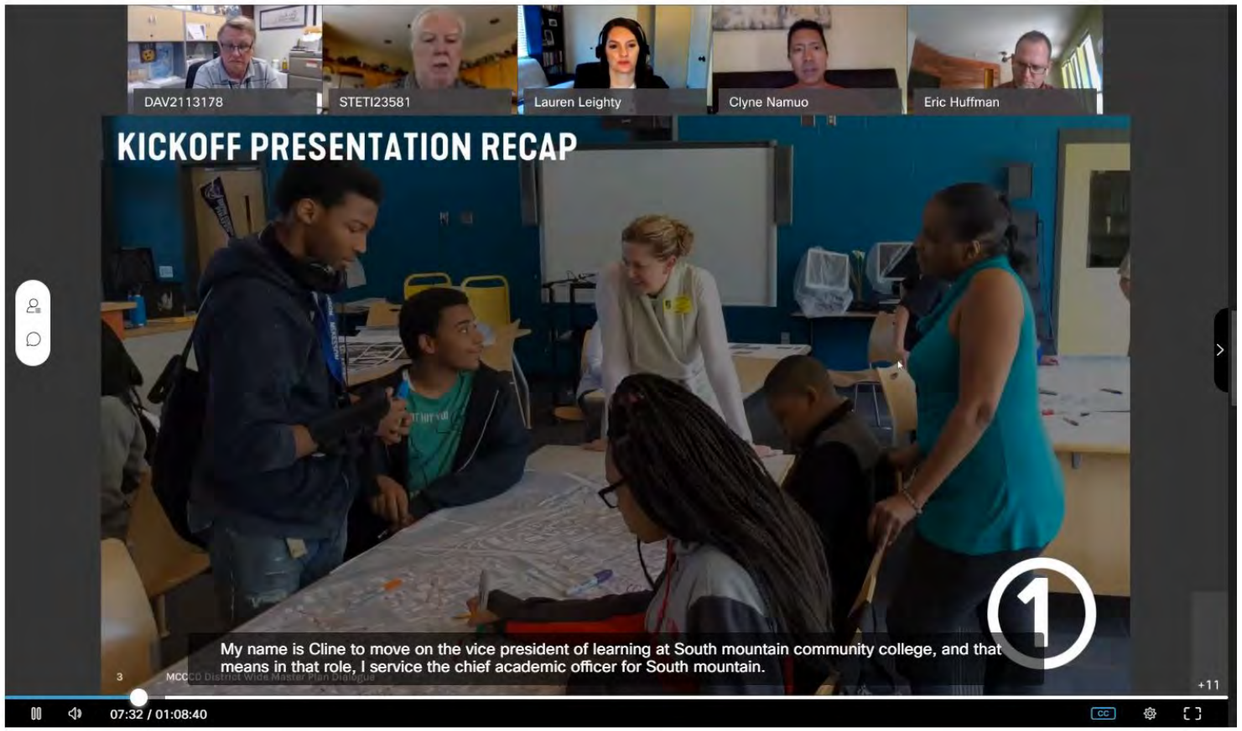
SMITHGROUP

PROCESS & VISION FEEDBACK

1

DISCOVERY: KICKOFF VISITS

MCCCD Steering Committee Vision Session (South Mountain CC)-2020050...

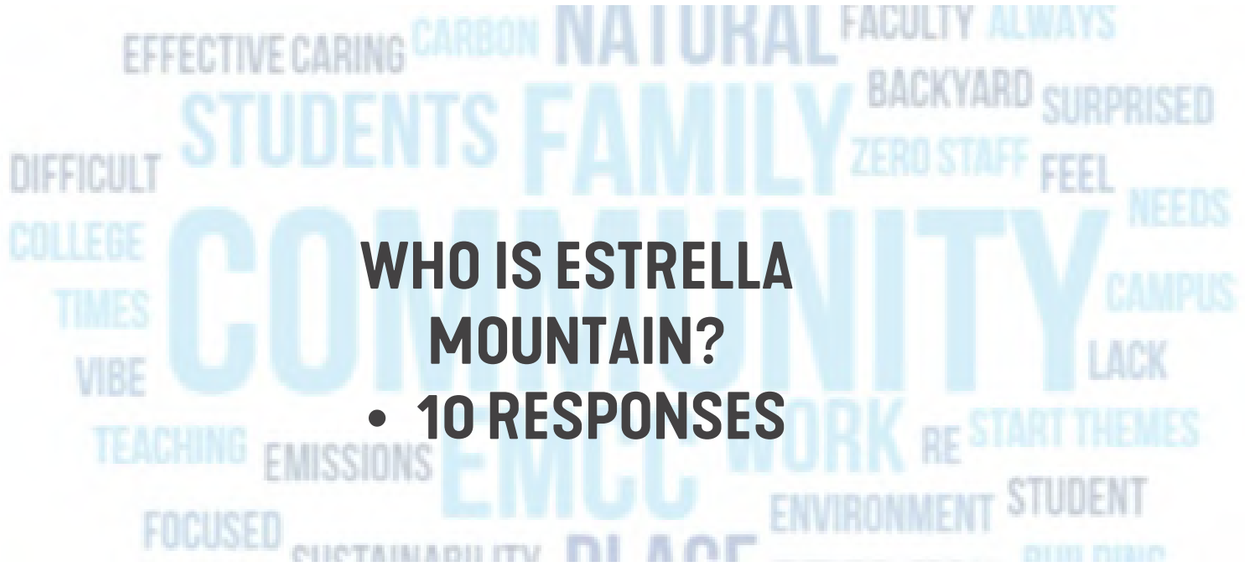


FROM IN-PERSON TO ONLINE

SMITHGROUP

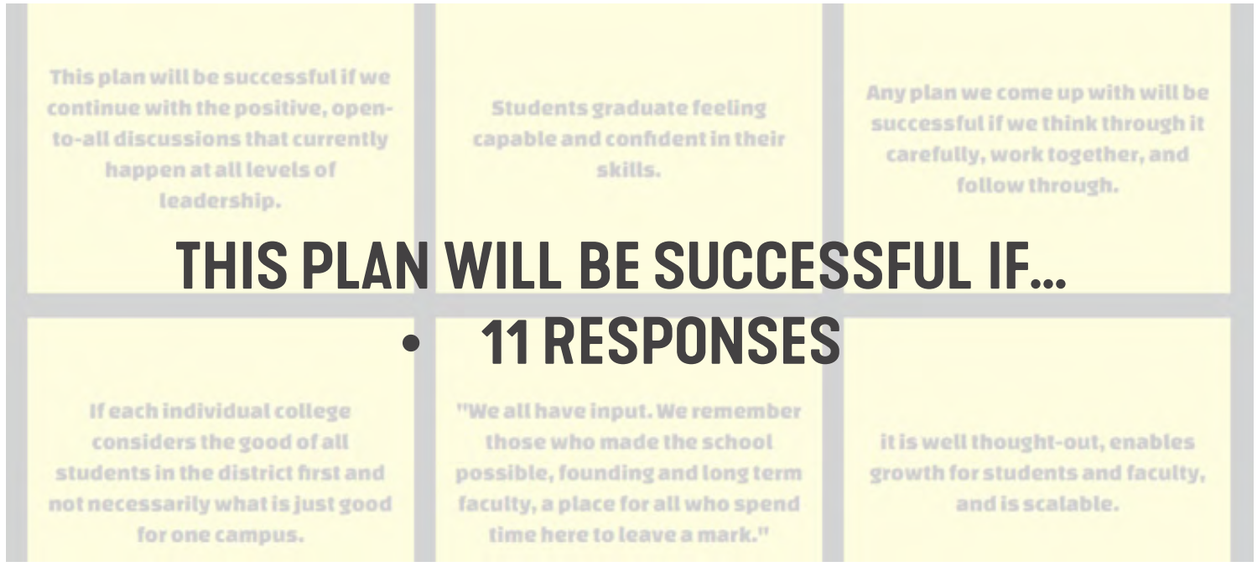
ESTRELLA MOUNTAIN CC

WHAT WE HEARD



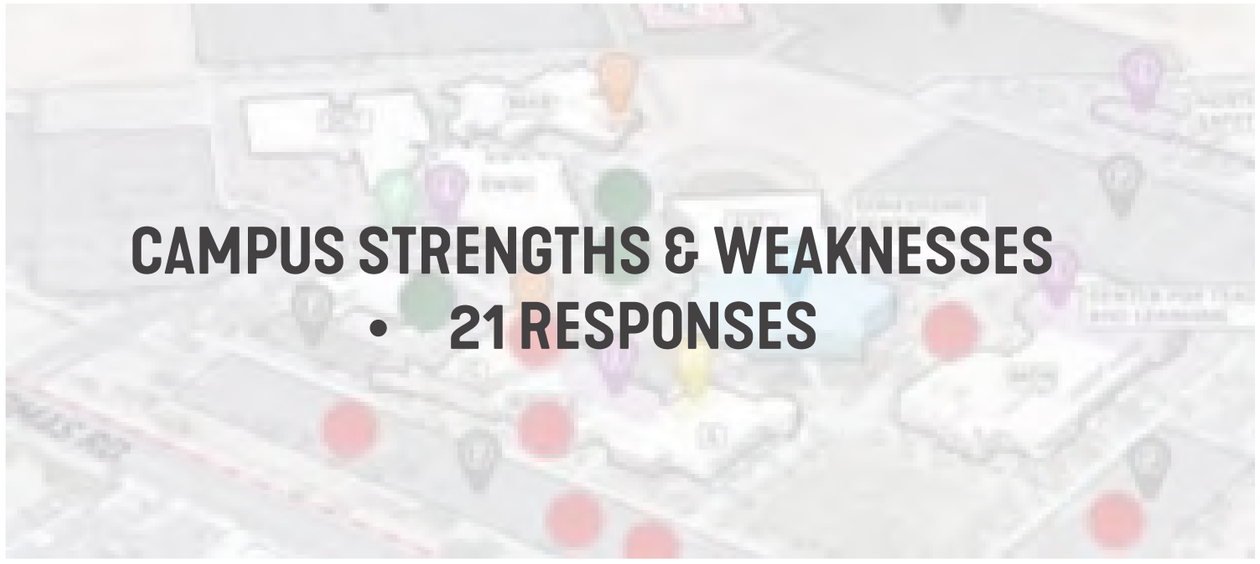
WHO IS ESTRELLA MOUNTAIN?

- 10 RESPONSES



THIS PLAN WILL BE SUCCESSFUL IF...

- 11 RESPONSES



CAMPUS STRENGTHS & WEAKNESSES

- 21 RESPONSES

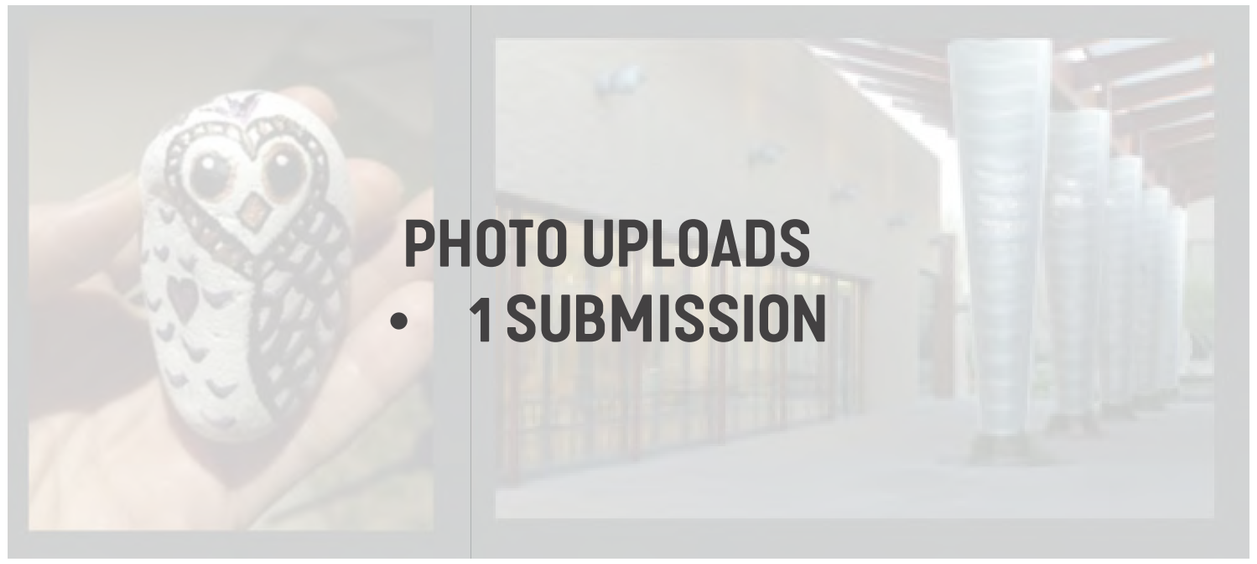
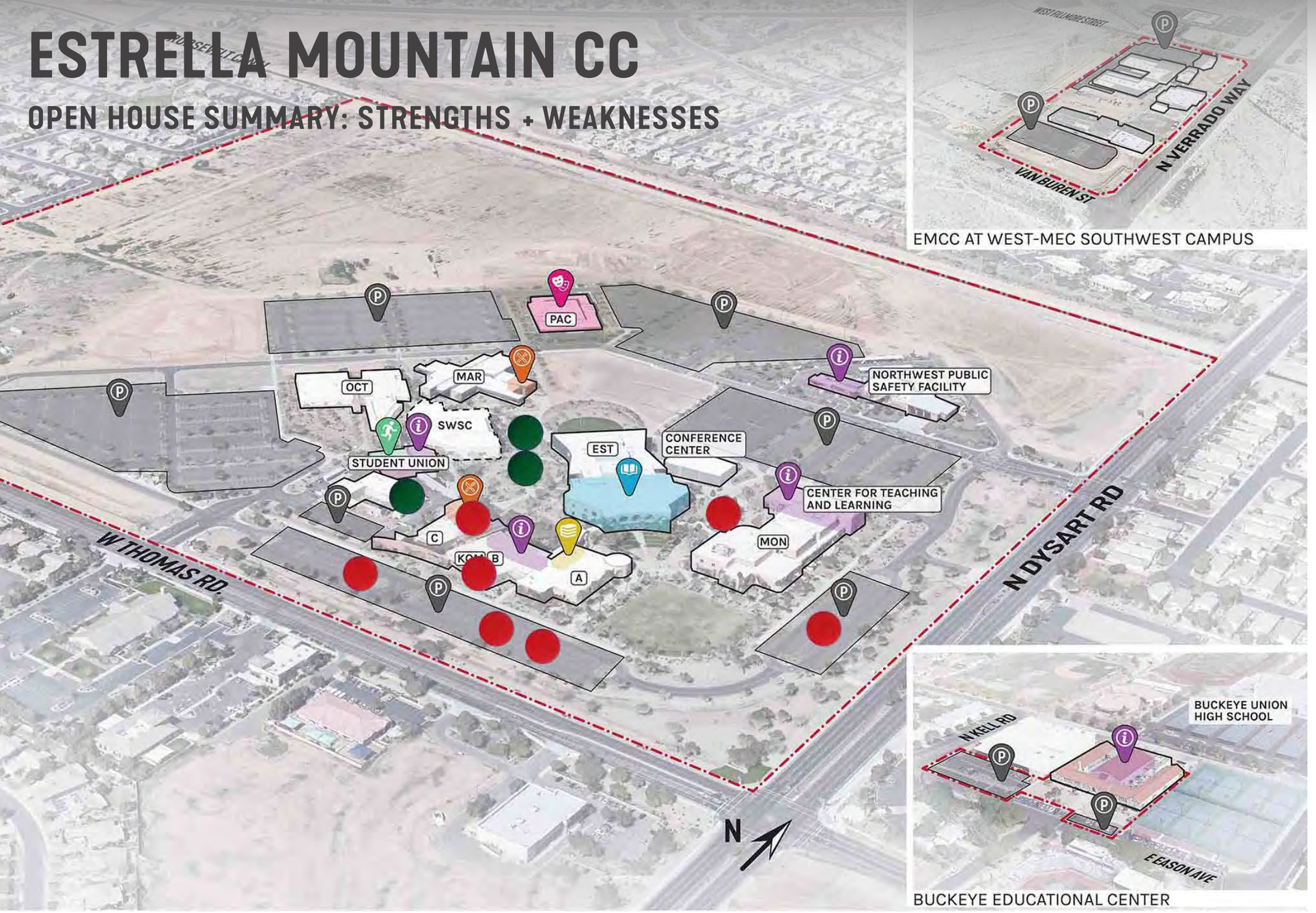


PHOTO UPLOADS

- 1 SUBMISSION

ESTRELLA MOUNTAIN CC

OPEN HOUSE SUMMARY: STRENGTHS + WEAKNESSES



EMCC AT WEST-MEC SOUTHWEST CAMPUS

BUCKEYE EDUCATIONAL CENTER

STRENGTHS

- Aesthetics
- Open Space
- Architecture
- EST – 1st floor
- Service Area

WEAKNESSES

- Parking – amount and shade
- Street Visibility for first time visitors
- Komatke hall – flow and space
- Building Wayfinding

ESTRELLA MOUNTAIN CC

EMERGING THEMES

CTE

- Expand West-MEC
- Focus on Nursing and expand other Allied Health disciplines
- Be flexible and respond to workforce demands with programs offered

STEM

- Continue to focus on advancing technology
- Expand partnerships and internships like Microsoft

CAMPUS + COMMUNITY

- Buckeye School District
- Focus on West Valley Communities
- Expand student services, dining, collaboration spaces

EMCC FEEDBACK & EMERGING THEMES

QUESTIONS

Do these emerging themes seem to capture our goals for the Facilities Plan?

Do the perceived strengths and weaknesses resonate?

How might we best leverage the student voice moving forward?

REGIONAL ANALYSIS

2

DISTRICT-WIDE ENVIRONMENTAL SCAN

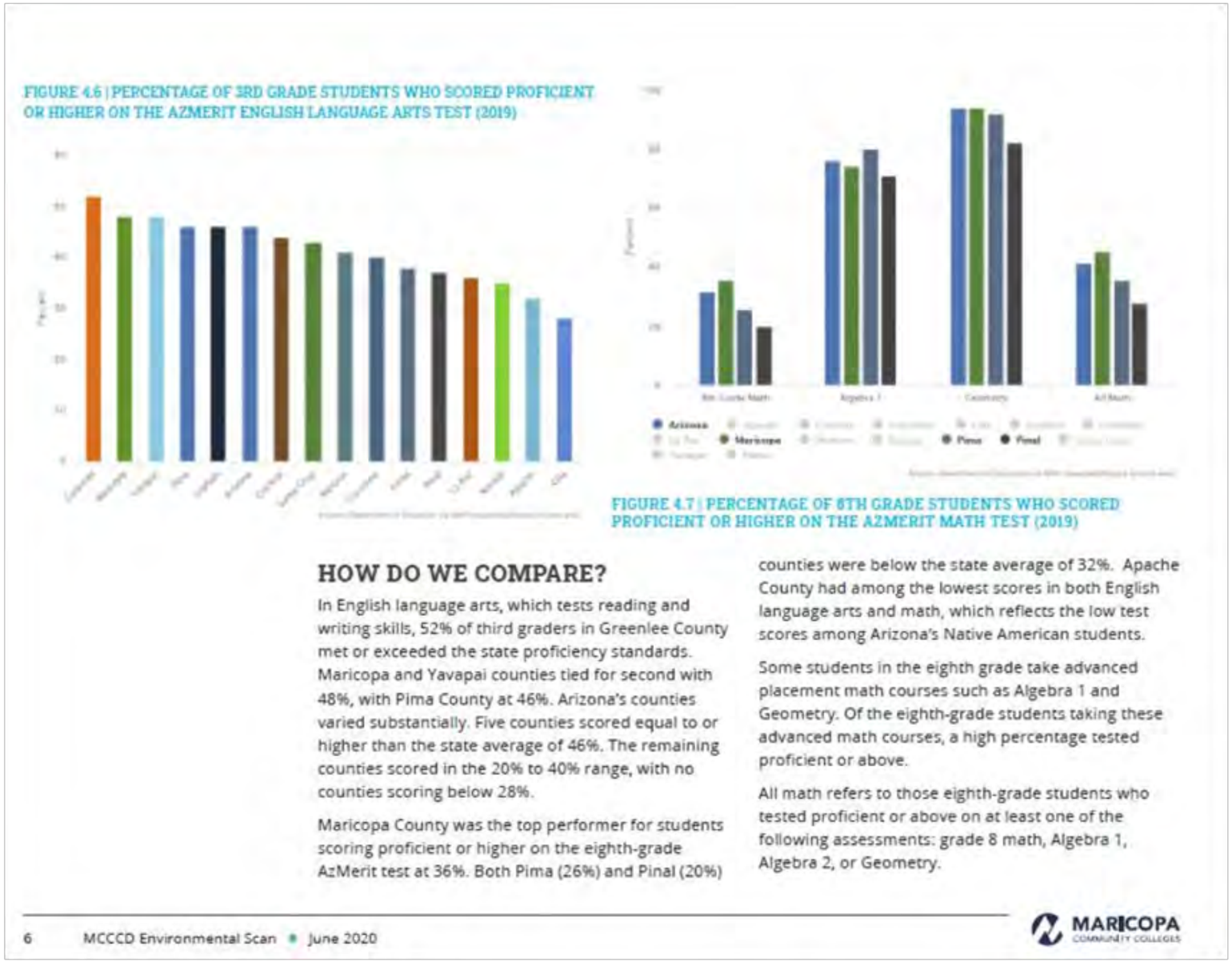


FIGURE 4.6 | PERCENTAGE OF 3RD GRADE STUDENTS WHO SCORED PROFICIENT OR HIGHER ON THE AZMERIT ENGLISH LANGUAGE ARTS TEST (2019)

FIGURE 4.7 | PERCENTAGE OF 8TH GRADE STUDENTS WHO SCORED PROFICIENT OR HIGHER ON THE AZMERIT MATH TEST (2019)

HOW DO WE COMPARE?

In English language arts, which tests reading and writing skills, 52% of third graders in Greenlee County met or exceeded the state proficiency standards. Maricopa and Yavapai counties tied for second with 48%, with Pima County at 46%. Arizona's counties varied substantially. Five counties scored equal to or higher than the state average of 46%. The remaining counties scored in the 20% to 40% range, with no counties scoring below 28%.

Maricopa County was the top performer for students scoring proficient or higher on the eighth-grade AzMerit test at 36%. Both Pima (26%) and Pinal (20%) counties were below the state average of 32%. Apache County had among the lowest scores in both English language arts and math, which reflects the low test scores among Arizona's Native American students.

Some students in the eighth grade take advanced placement math courses such as Algebra 1 and Geometry. Of the eighth-grade students taking these advanced math courses, a high percentage tested proficient or above.

All math refers to those eighth-grade students who tested proficient or above on at least one of the following assessments: grade 8 math, Algebra 1, Algebra 2, or Geometry.

6 MCCCD Environmental Scan • June 2020 MARICOPA COMMUNITY COLLEGES

Value of the Environmental Scan

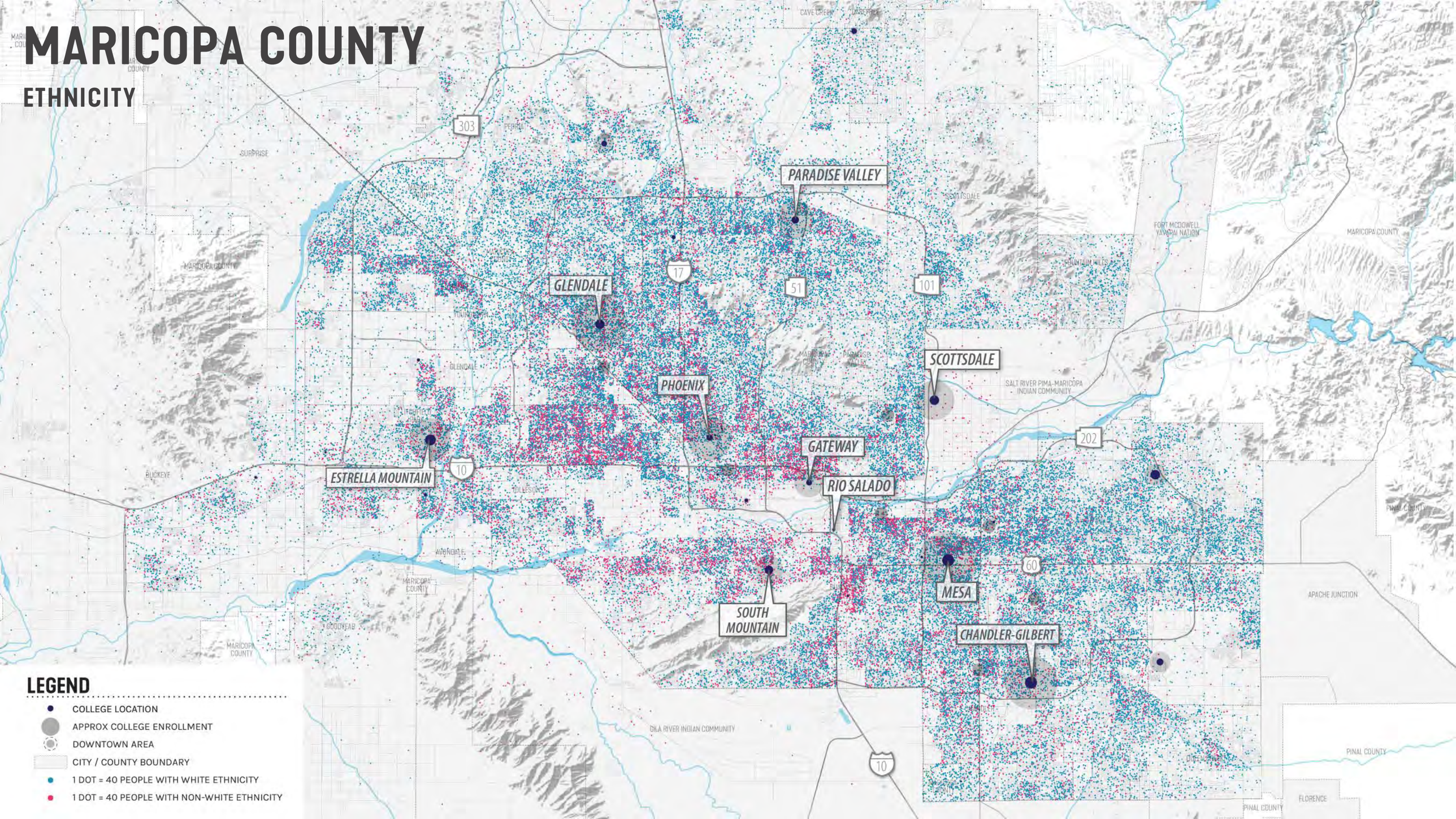
- Allows campus leadership to proactively respond to external impacts through a more informed facility planning process.

- Opportunity to engage stakeholders from across the district to address district-wide challenges.

CH 1: DEMOGRAPHIC TRENDS
CH 2: GIS DATA & MAPS
CH 3: COLLEGE READINESS
CH 4: BEST PRACTICES FOR HISPANIC SERVING & MINORITY INSTITUTIONS
CH 5: ECONOMIC TRENDS
CH 6: WORKFORCE TRENDS
CH 7: TECHNOLOGY TRENDS
CH 8: POLITICAL TRENDS
CH 9: ENROLLMENT & CAPTURE RATE ANALYSIS
CH 10: MCCCD & PEER INSTITUTION BENCHMARKING

MARICOPA COUNTY

ETHNICITY

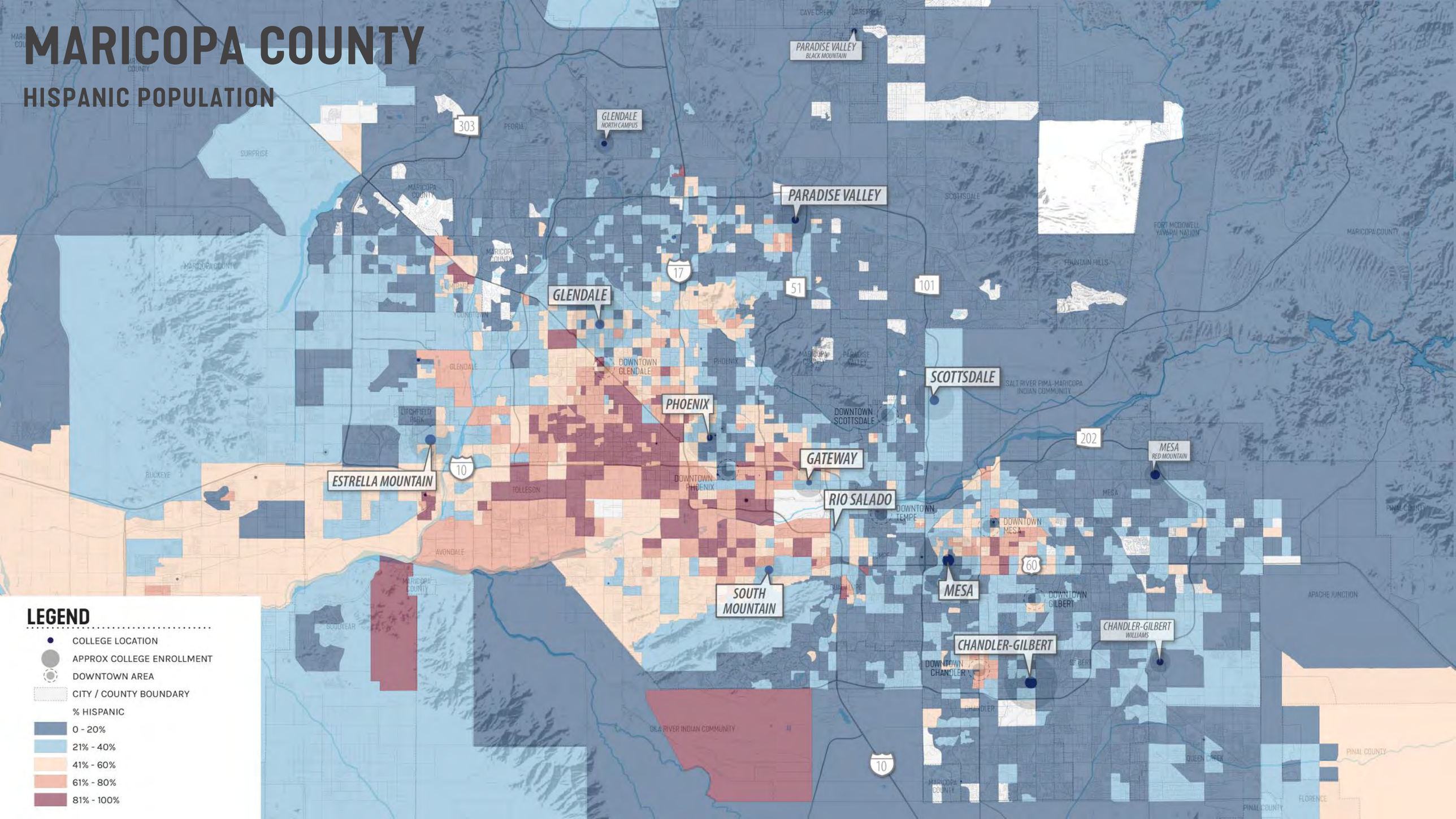


LEGEND

- COLLEGE LOCATION
- APPROX COLLEGE ENROLLMENT
- DOWNTOWN AREA
- CITY / COUNTY BOUNDARY
- 1 DOT = 40 PEOPLE WITH WHITE ETHNICITY
- 1 DOT = 40 PEOPLE WITH NON-WHITE ETHNICITY

MARICOPA COUNTY

HISPANIC POPULATION



LEGEND

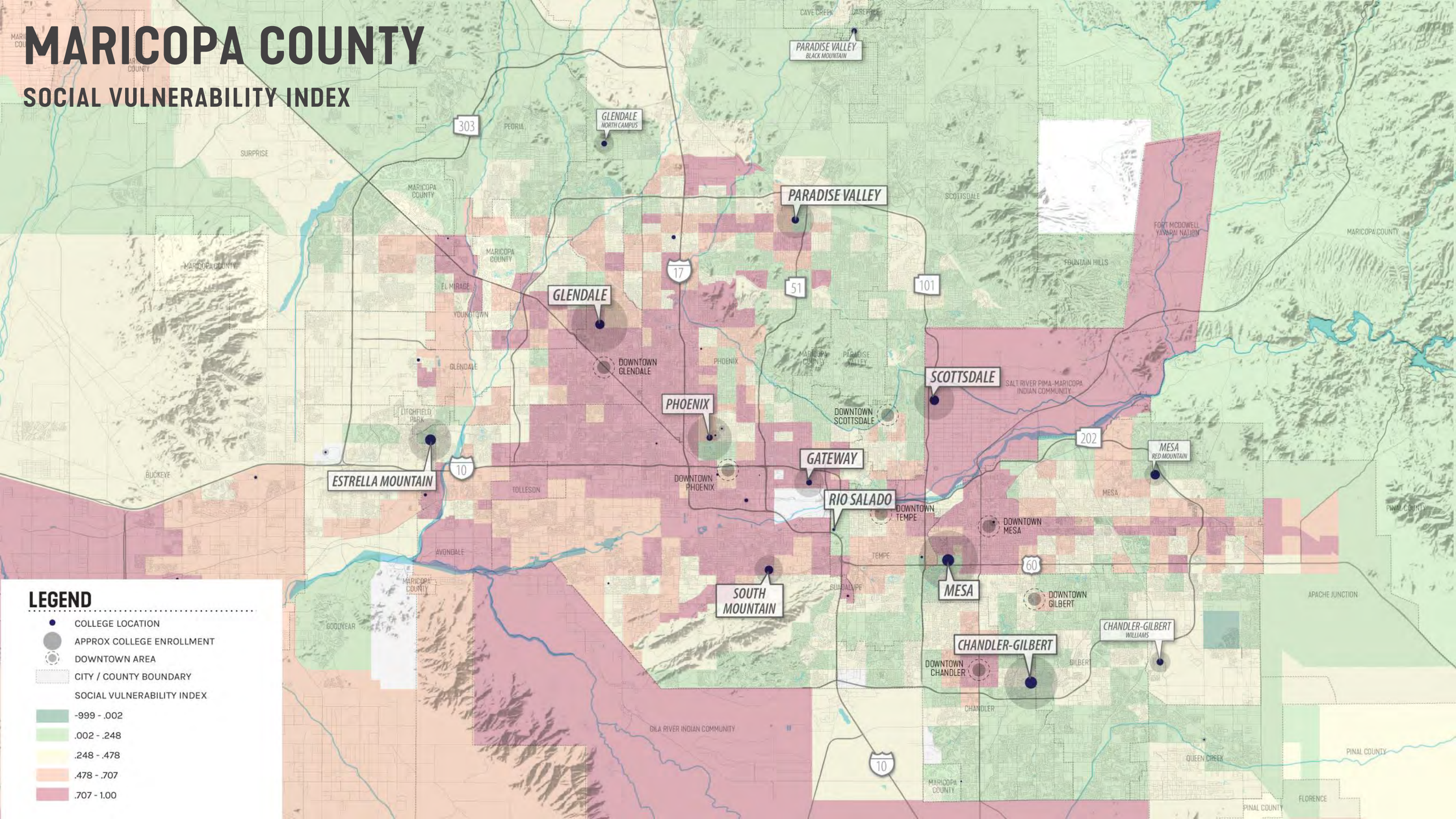
- COLLEGE LOCATION
- APPROX COLLEGE ENROLLMENT
- DOWNTOWN AREA
- CITY / COUNTY BOUNDARY

% HISPANIC

- 0 - 20%
- 21% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 100%

MARICOPA COUNTY

SOCIAL VULNERABILITY INDEX



LEGEND

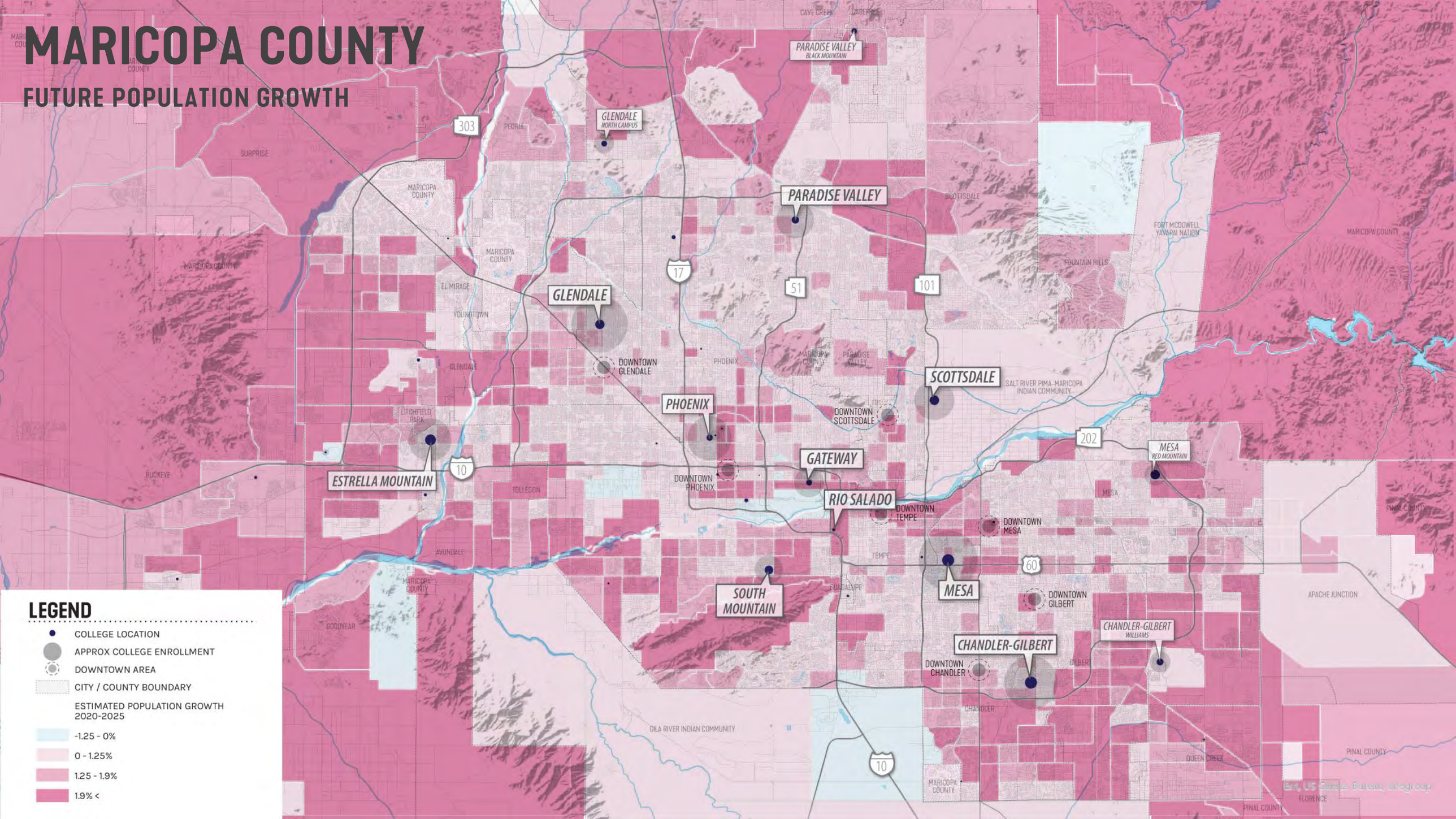
- COLLEGE LOCATION
- APPROX COLLEGE ENROLLMENT
- DOWNTOWN AREA
- CITY / COUNTY BOUNDARY

SOCIAL VULNERABILITY INDEX

- -999 - .002
- .002 - .248
- .248 - .478
- .478 - .707
- .707 - 1.00

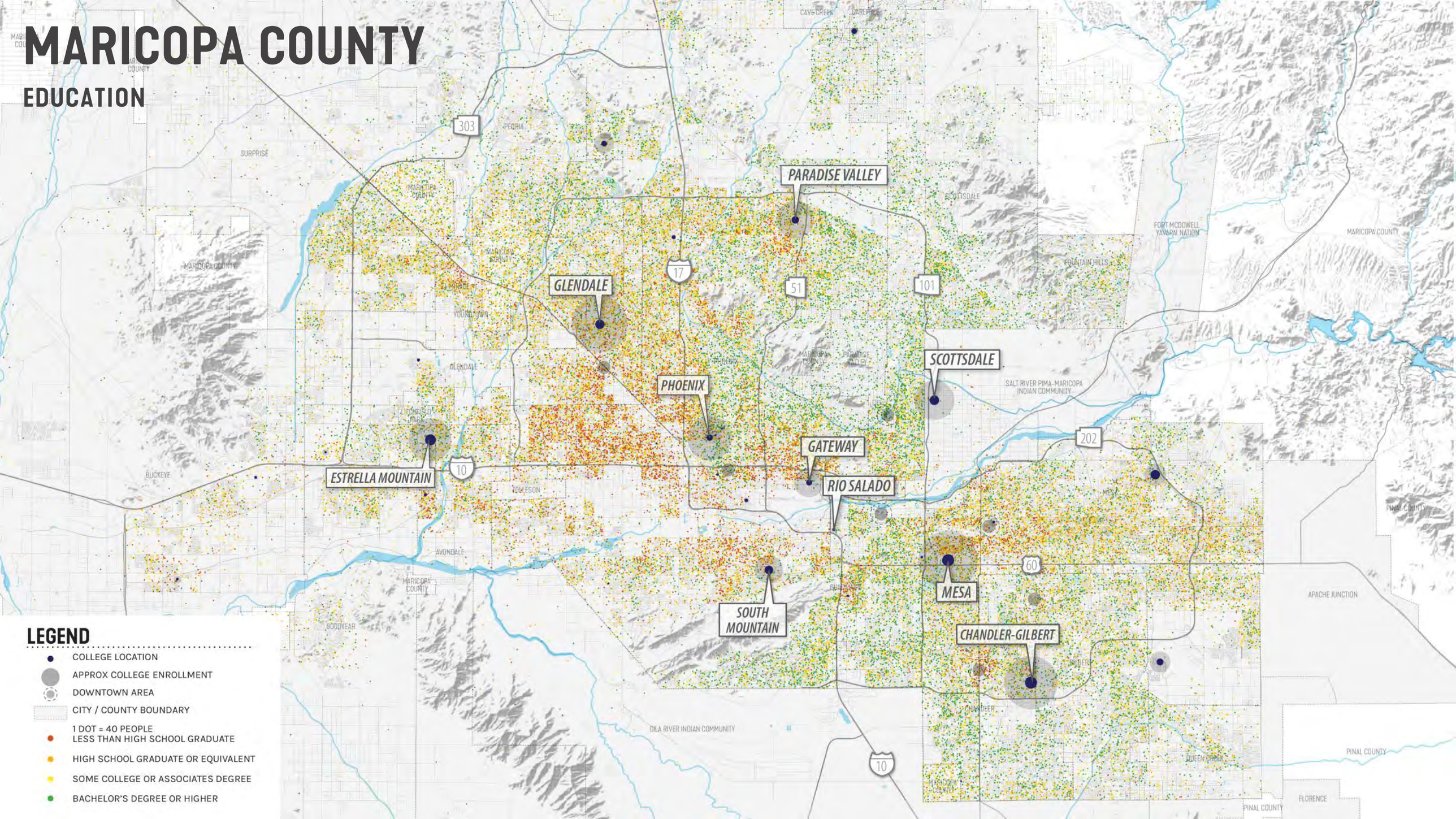
MARICOPA COUNTY

FUTURE POPULATION GROWTH



MARICOPA COUNTY

EDUCATION



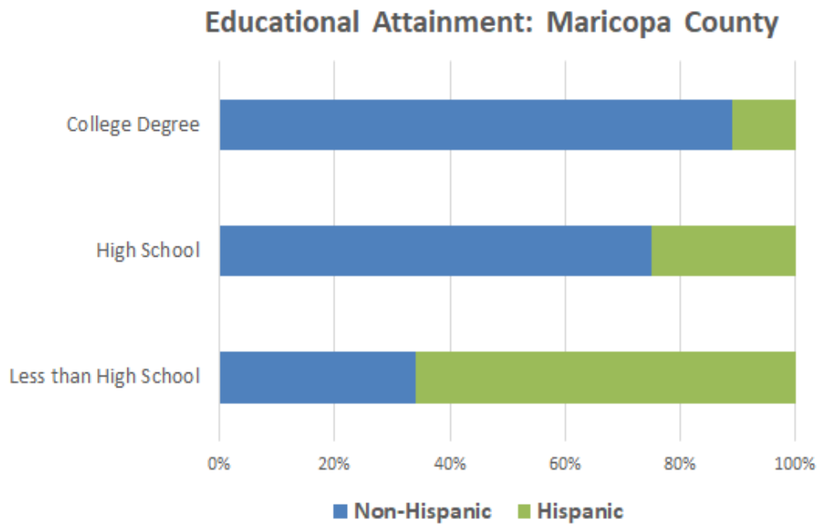
LEGEND

- COLLEGE LOCATION
- APPROX COLLEGE ENROLLMENT
- DOWNTOWN AREA
- CITY / COUNTY BOUNDARY
- 1 DOT = 40 PEOPLE
  - LESS THAN HIGH SCHOOL GRADUATE
  - HIGH SCHOOL GRADUATE OR EQUIVALENT
  - SOME COLLEGE OR ASSOCIATES DEGREE
  - BACHELOR'S DEGREE OR HIGHER

60/30 PLAN

REDUCING BARRIERS TO OPPORTUNITY

HOLISTIC STUDENT SUPPORT



SMITHGROUP

REGIONAL ANALYSIS

KEY TAKEAWAYS & QUESTIONS

- Are there key elements of the regional demographics not captured here that are critical for us to understand?

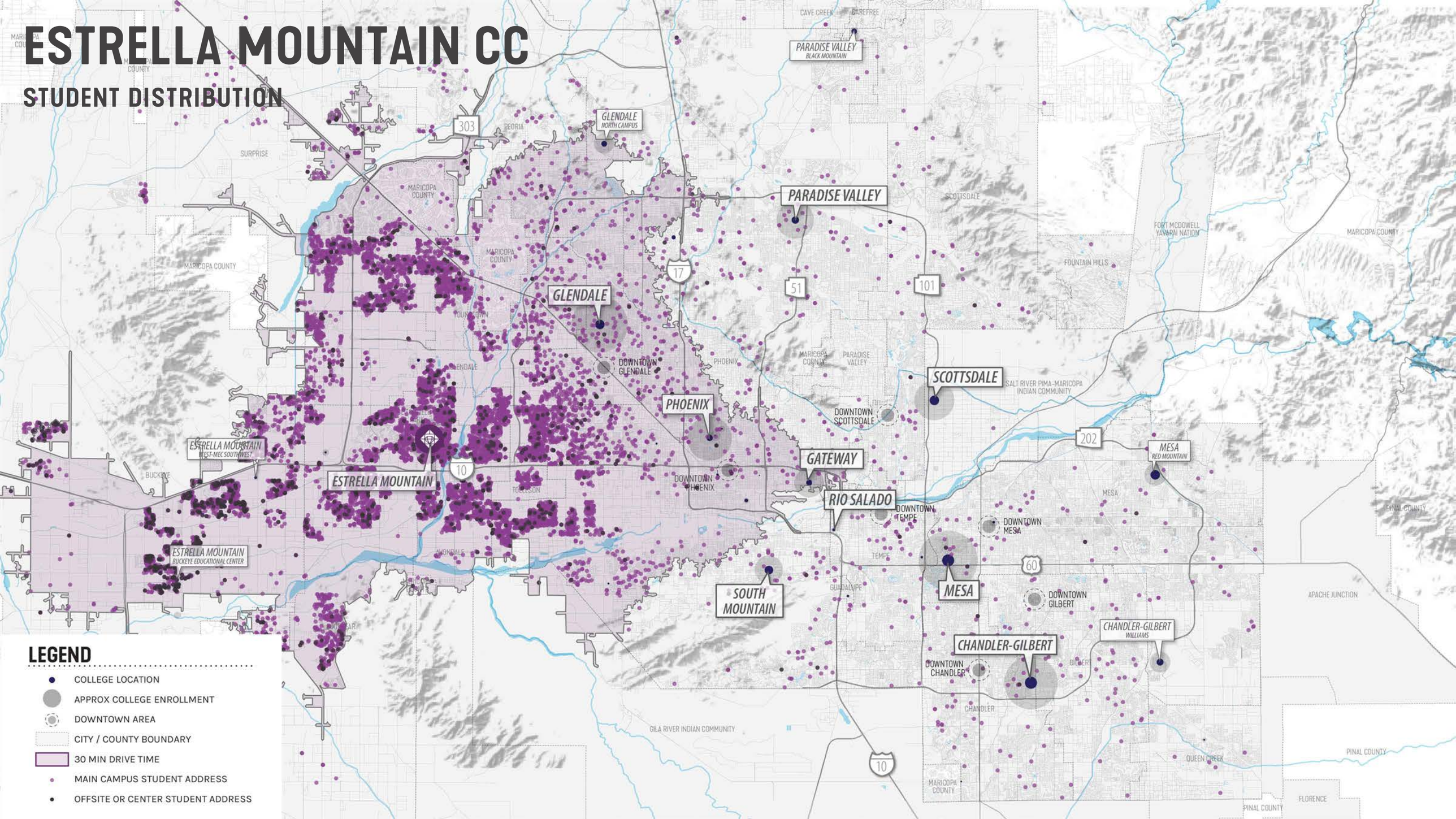
- How does this demographic information affect Estrella's mission and decision-making regarding curriculum offerings?

STUDENT DEMOGRAPHICS

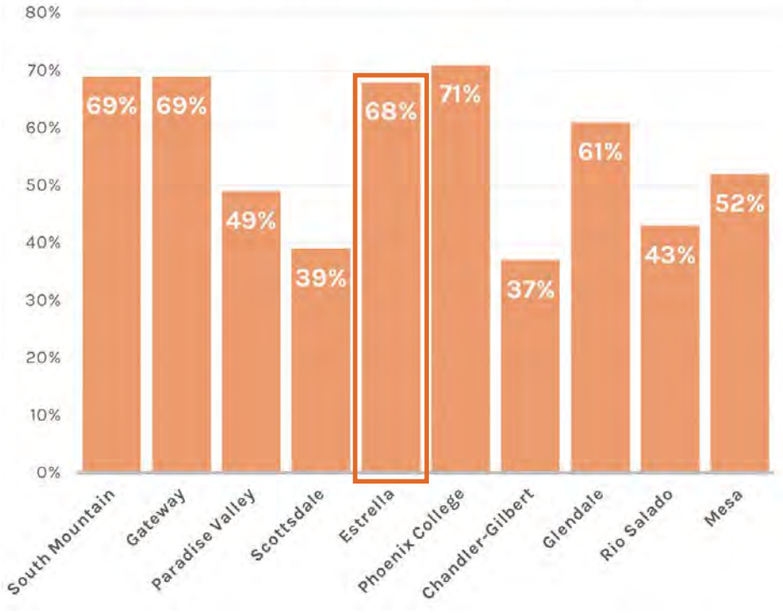
3

ESTRELLA MOUNTAIN CC

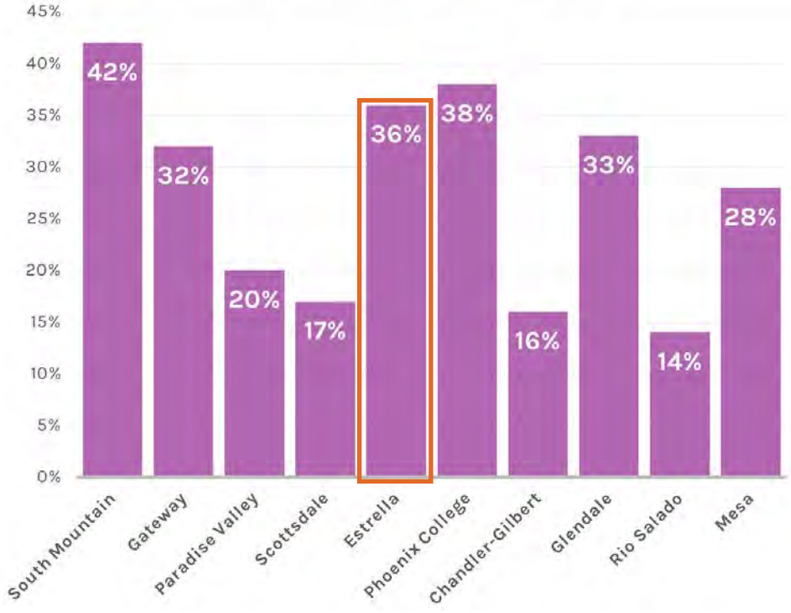
STUDENT DISTRIBUTION



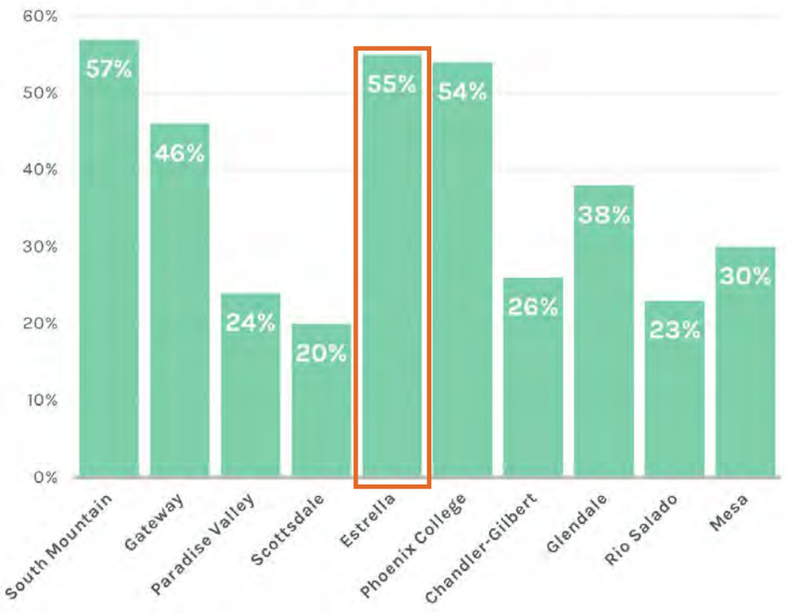
FIRST GENERATION STUDENTS



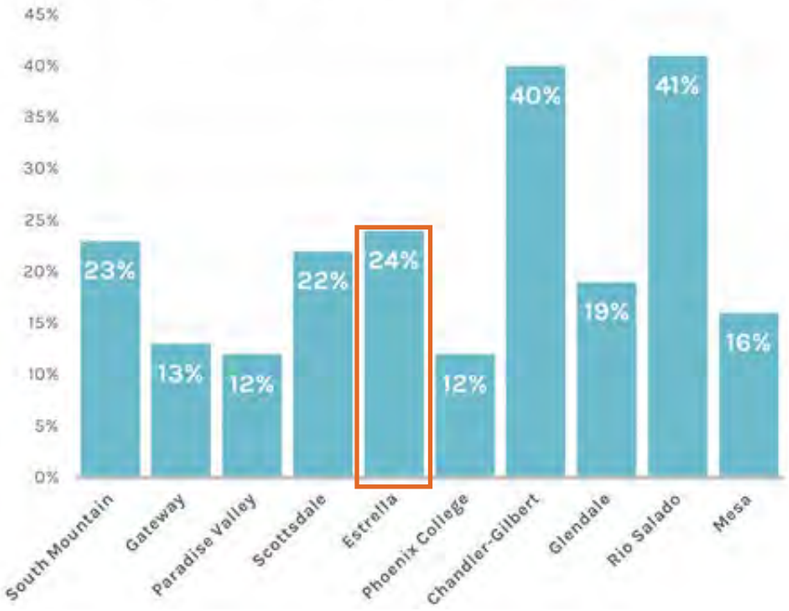
PELL GRANT STUDENTS



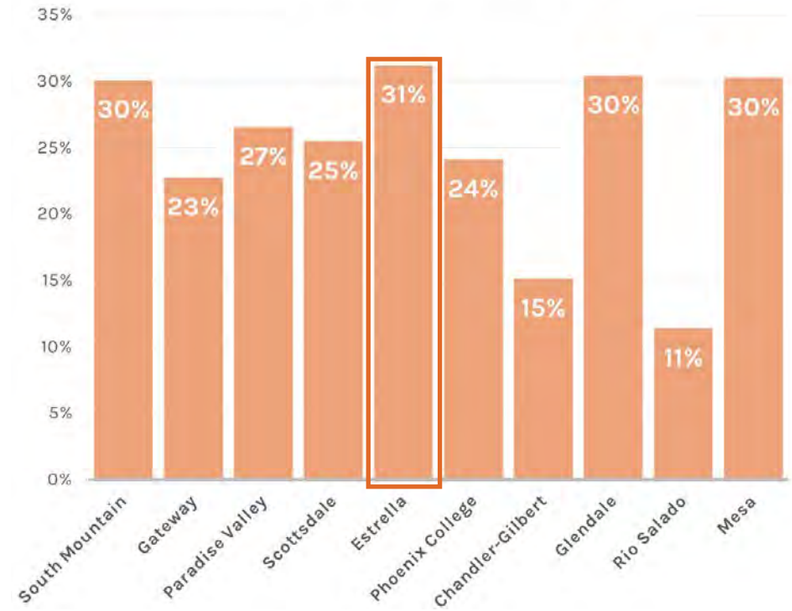
HISPANIC STUDENTS



HIGH SCHOOL STUDENTS



FULL TIME STUDENTS

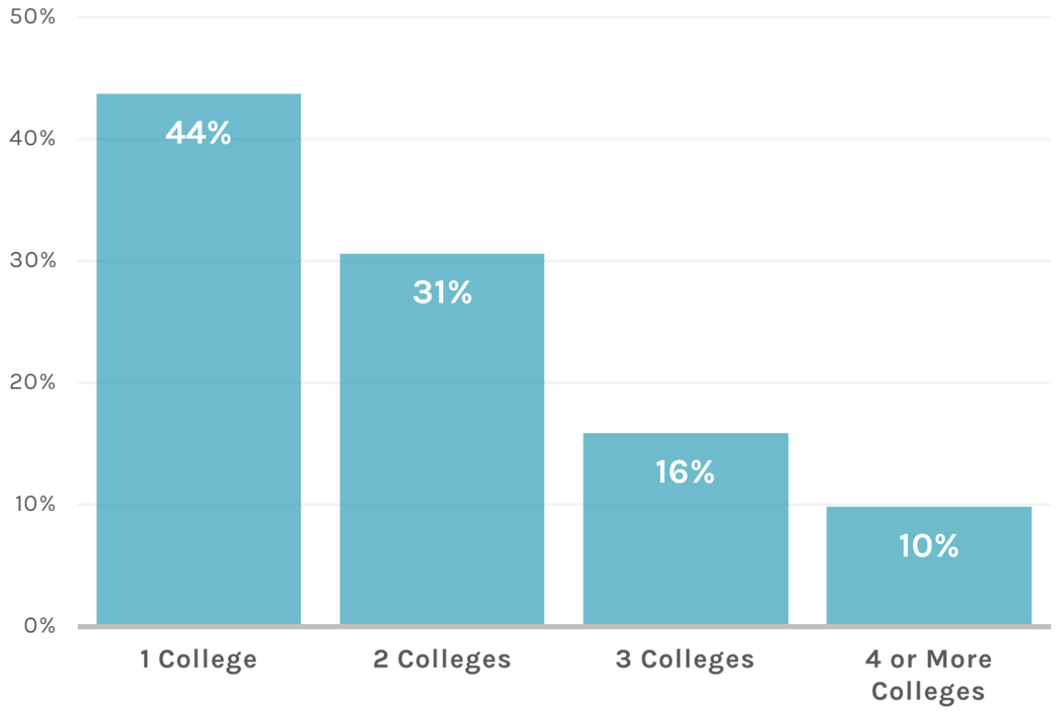


STUDENTS 25 AND OLDER

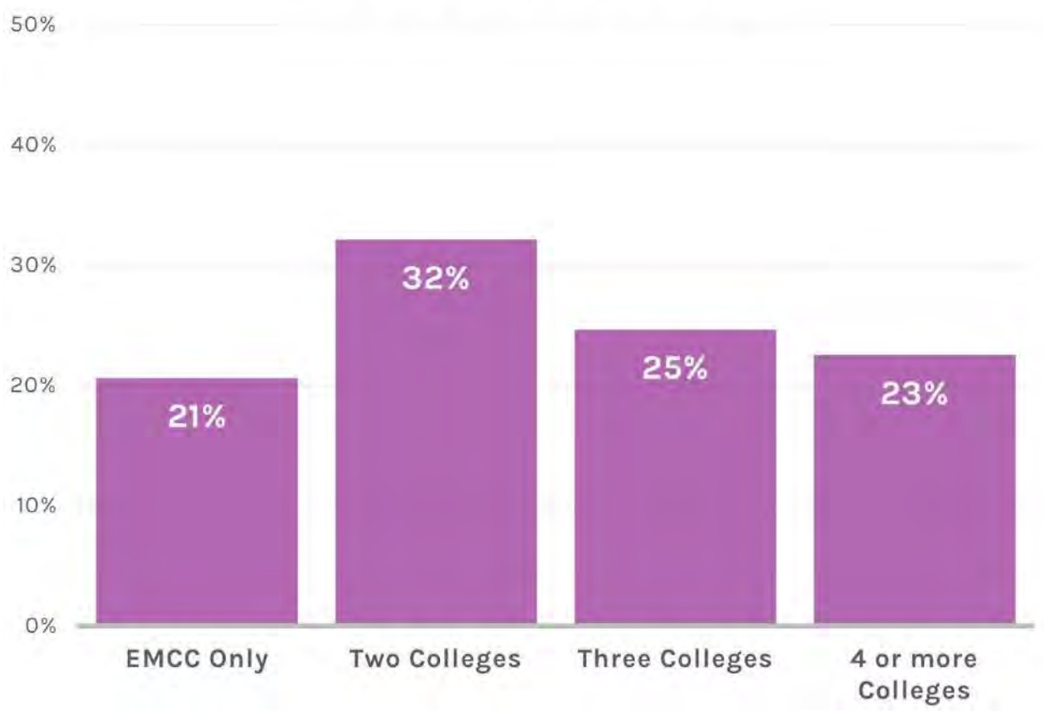
ESTRELLA MOUNTAIN CC

STUDENT SWIRL

DISTRICT STUDENT SWIRL



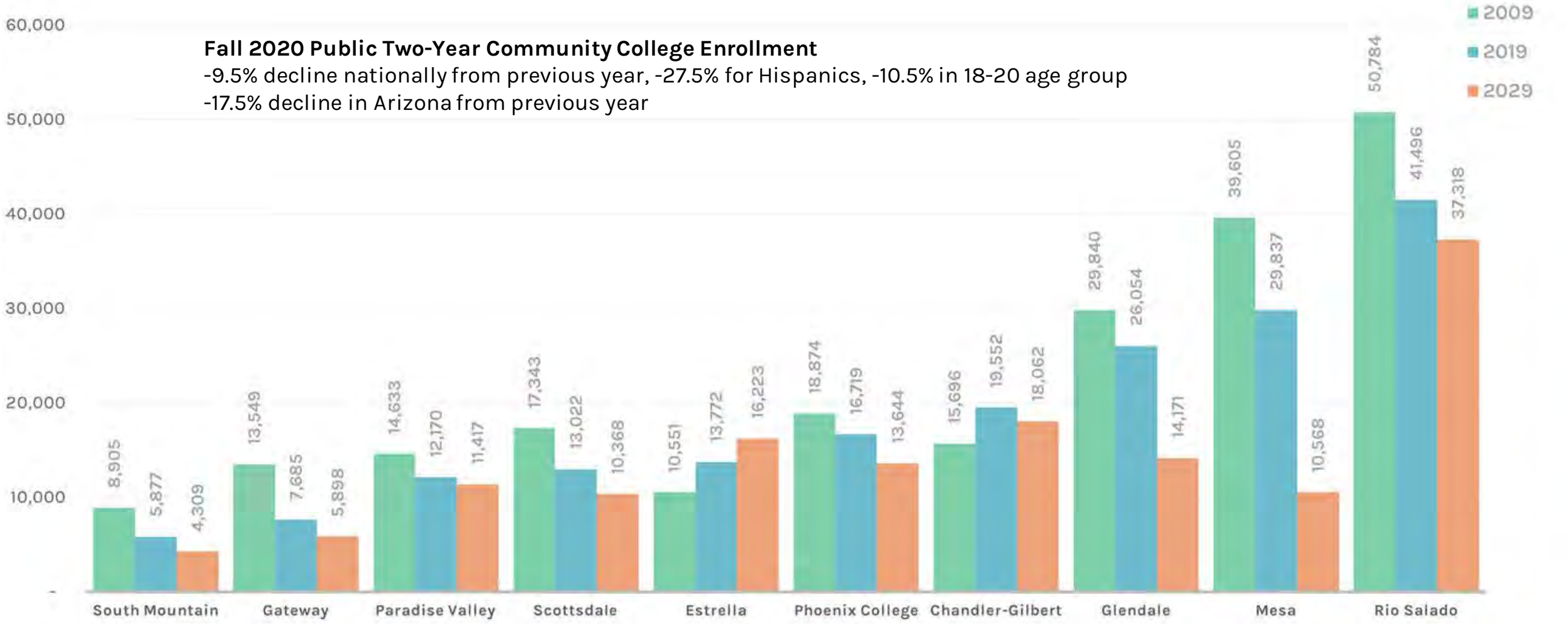
STUDENT SWIRL



ENROLLMENT

MCCCD ENROLLMENT PROJECTIONS

Fall 2020 Public Two-Year Community College Enrollment
-9.5% decline nationally from previous year, -27.5% for Hispanics, -10.5% in 18-20 age group
-17.5% decline in Arizona from previous year

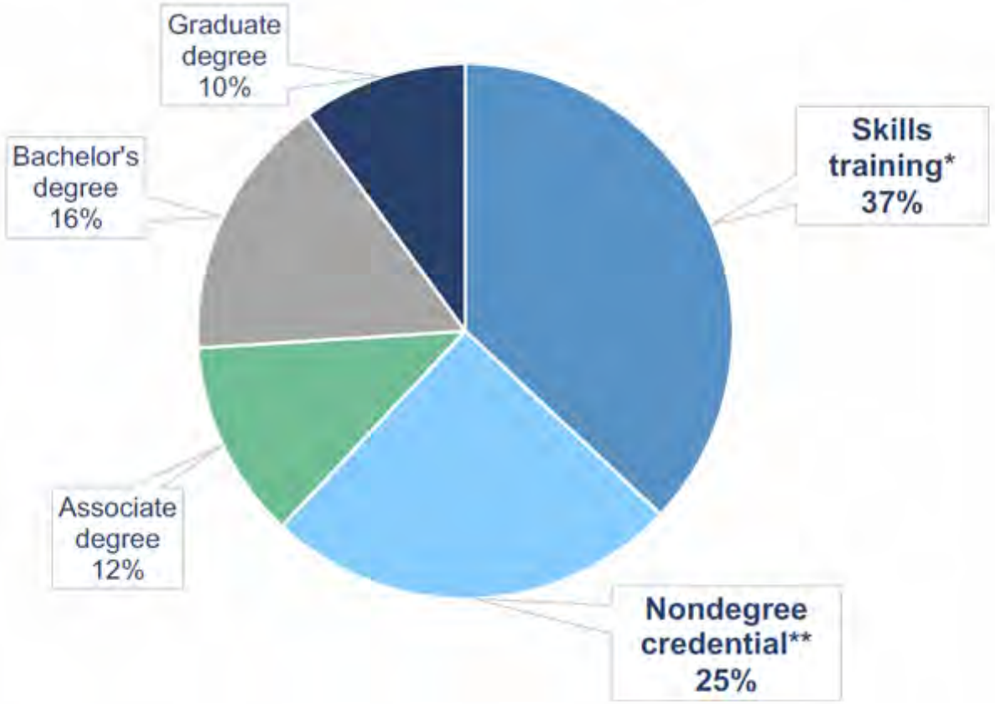


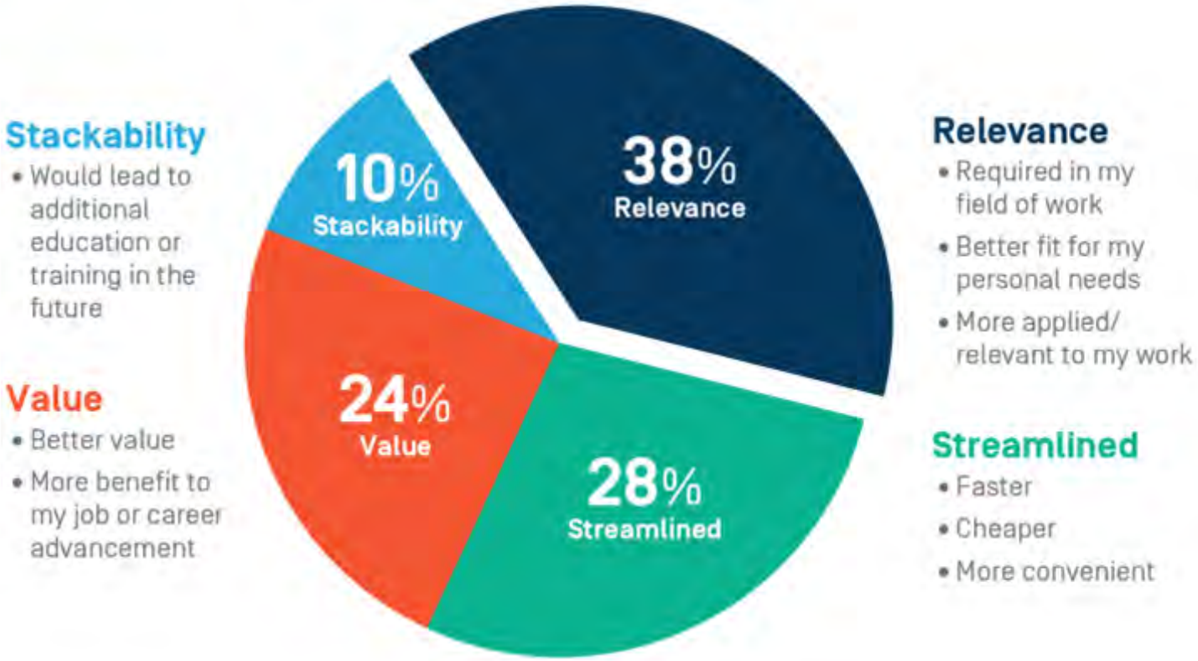
Source: MCCCD Summary Forecast -Faculty Staff Student FTE (November, 2020)

SMITHGROUP

SHIFTING EDUCATIONAL NEEDS

Student Preferred Options for College: August 2020





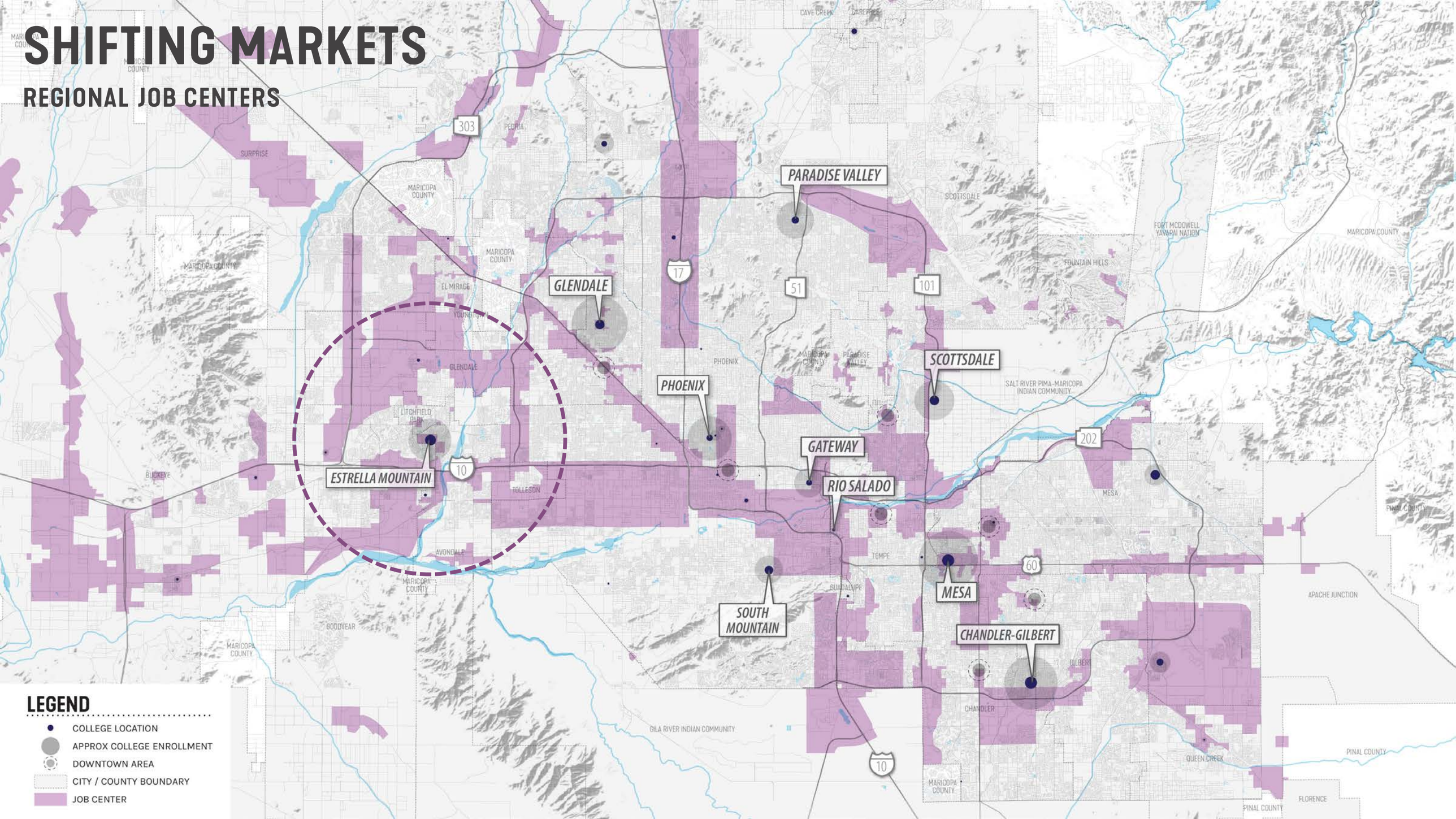
Strada CENTER FOR CONSUMER INSIGHTS

Since the onset of the pandemic, Americans have expressed a consistent preference for nondegree and skills training options

2 in 5 Americans (38%) say the most important factors in choosing an educational program are whether it is related to their work and suited to their personal needs

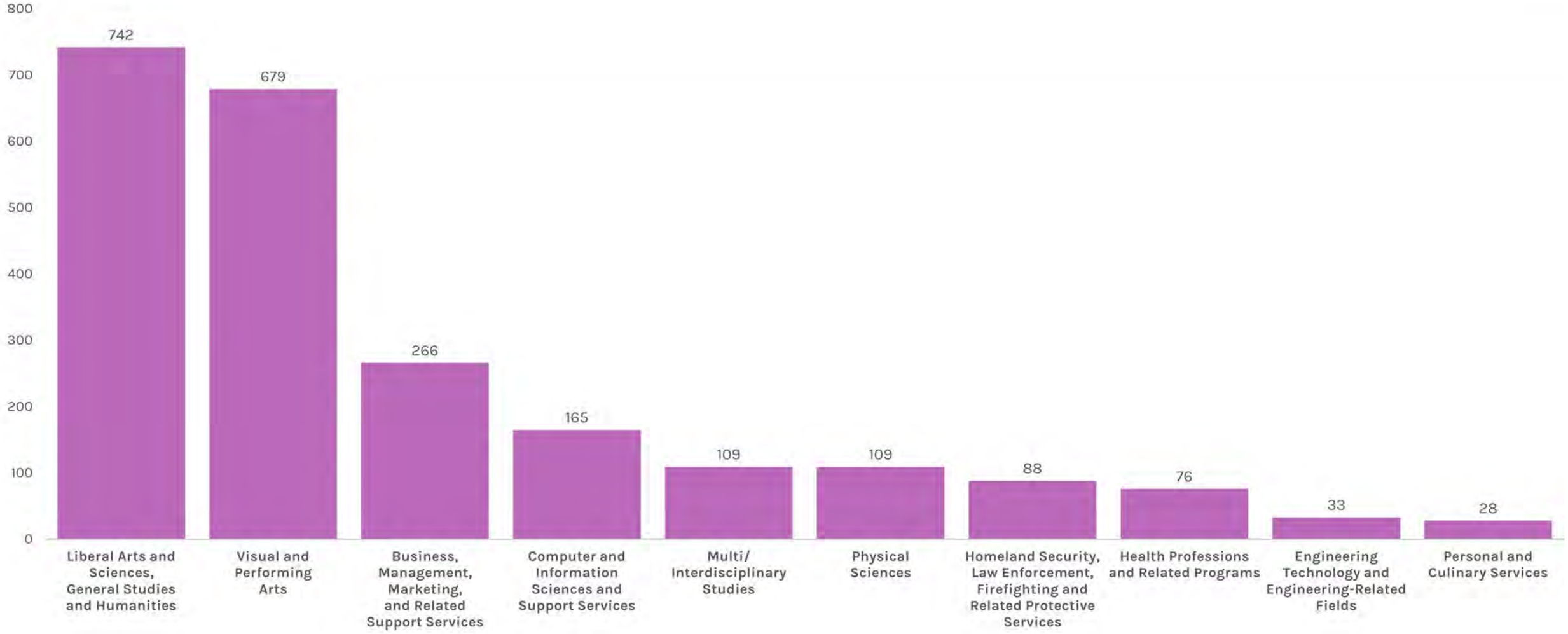
SHIFTING MARKETS

REGIONAL JOB CENTERS



ESTRELLA MOUNTAIN CC

TOP 10 PROGRAMS BY DEGREE/CERTIFICATE AWARDED



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THE TALENT NEEDS OF THE POST-COVID ECONOMY

What might it look like...

THE READINESS ECONOMY

COVID-19 has revealed how ill-prepared we all are. Being more prepared will boost demand in healthcare, infrastructure, cybersecurity, environmental technology, insurance, etc.

THE REMOTE ECONOMY

As more work gets performed remotely, there will be growing dependence on the data and software that are the key underpinnings of the remote economy.

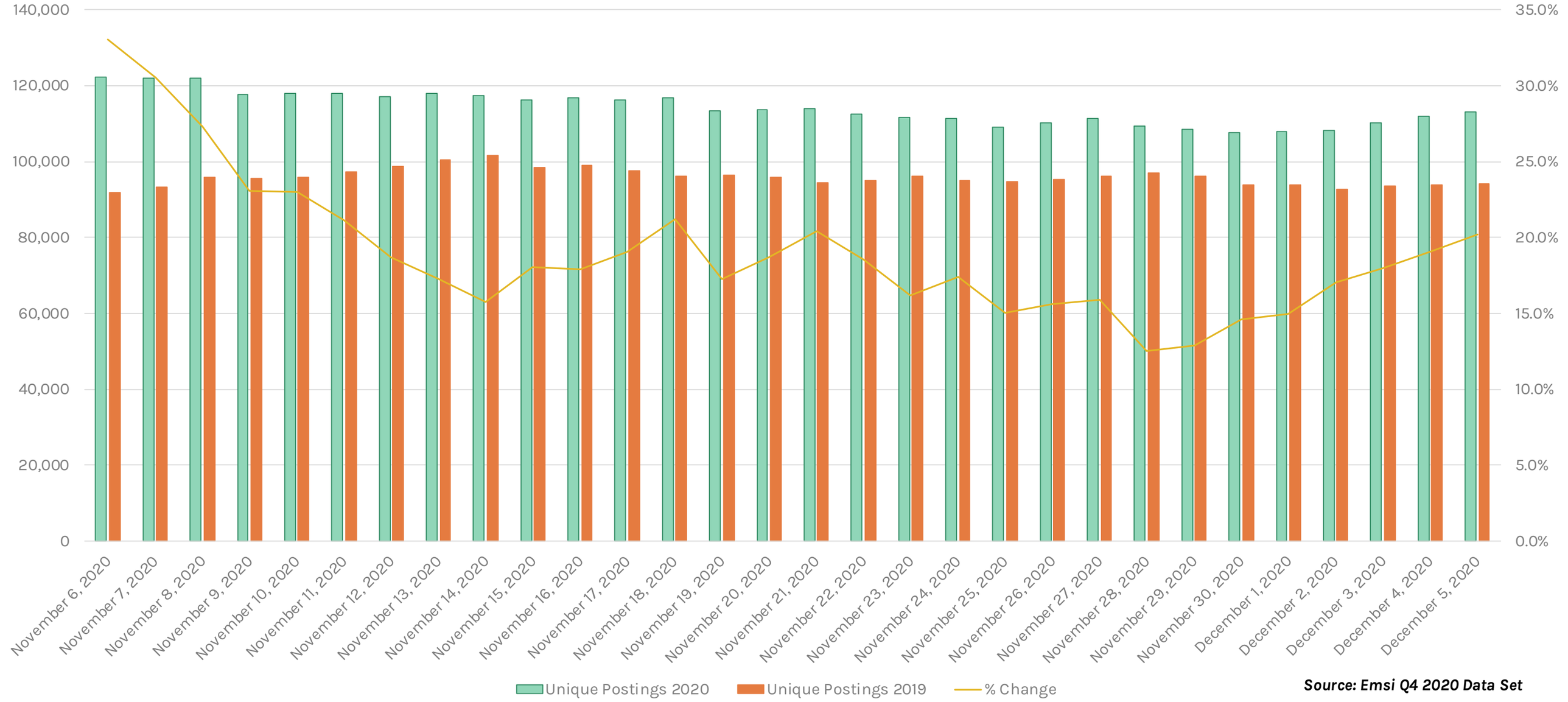
THE LOGISTICS ECONOMY

Manufacturers have come to appreciate the vulnerability of supply chains, etc. Reshoring some industries will put greater focus on advanced manufacturing. Similarly, there will be greater need for logistics expertise.

THE AUTOMATED ECONOMY

Employers will prioritize automation over hiring back low-value workers. Jobs driving automation will thrive.

MARICOPA COUNTY: JOB POSTINGS 2020 VS. 2019



Source: Emsi Q4 2020 Data Set

MARICOPA COUNTY JOB POSTINGS BY OCCUPATION*

SOC	Occupation	Unique Postings from Jun 2020 - Nov 2020	Avg. Unique (Jun 2020 - Nov 2020)	Avg. Posting Intensity (Jun 2020 - Nov 2020)	% Change (Jun 2020 - Nov 2020)	Number of Employers Competing from Jun 2020 - Nov 2020
11-3011	Administrative Services & Facilities Managers	15	8	13 : 1	50%	6
11-9021	Construction Managers	24	8	22 : 1	57%	15
17-3023	Electrical & Electronic Engineering Technicians	96	43	11 : 1	100%	51
29-2031	Cardiovascular Technicians	15	5	13 : 1	50%	8
29-2052	Pharmacy Technicians	464	162	17 : 1	131%	48
29-2055	Surgical Technologists	102	50	14 : 1	71%	34
31-1128	Home Health & Personal Care Aides	106	38	10 : 1	59%	42
49-3023	Automotive Service Technicians	178	78	10 : 1	74%	40
49-3031	Bus/Truck Mechanics & Diesel Engine Specialists	53	19	10 : 1	108%	17
49-9041	Industrial Machinery Mechanics	19	6	10 : 1	125%	13

Source: Emsi Q4 2020 Data Set

*Filtered by: Posting Intensity Greater Than 10:1 & % Change Greater Than 50%

WORKFORCE DEMAND GAP ANALYSIS IN MARICOPA COUNTY: 2020-2030

Occupation	2020 Jobs	2030 Jobs	Avg. Annual Openings	Regional Completions (2019)	Workforce Needs Gap	Typical Entry Level Education	Median Annual Earnings
Bookkeeping, Accounting & Auditing Clerks	19,472	21,551	2,614	502	(2,112)	Certificate	$42,618
Nursing Assistants	8,742	11,851	1,453	656	(797)	Certificate	$33,334
HVAC	7,648	9,796	1,064	274	(790)	Certificate	$46,207
Licensed Practical & Vocational Nurses	5,571	7,535	684	239	(445)	Certificate	$56,088
Dental Assistants	6,087	7,367	878	448	(430)	Certificate	$44,151
Telecommunications Equipment Installers	3,085	3,380	384	17	(367)	Certificate	$52,757
Paralegals & Legal Assistants	5,763	6,821	768	498	(270)	Associate's	$52,538
Physical Therapist Assistants	2,110	2,737	362	122	(240)	Associate's	$35,739
Aircraft Mechanics	3,749	4,074	353	140	(213)	Certificate	$68,325
Automotive Service Techs & Mechanics	9,870	11,250	1,160	1,102	(58)	Certificate	$42,802

Source: Emsi Q4 2020 Data Set (November 2020)

STUDENT DEMOGRAPHICS

QUESTIONS

- What future changes are anticipated in the college's student demographic? What impact will these changes have on space and facility needs?
- Enrollment changes are predicted between 2019 and 2029. If accurate, how will these changes impact the college moving forward?
- The pandemic is altering both economic and occupational labor demands. Is the college contemplating any new certifications, certificate or degree programs?

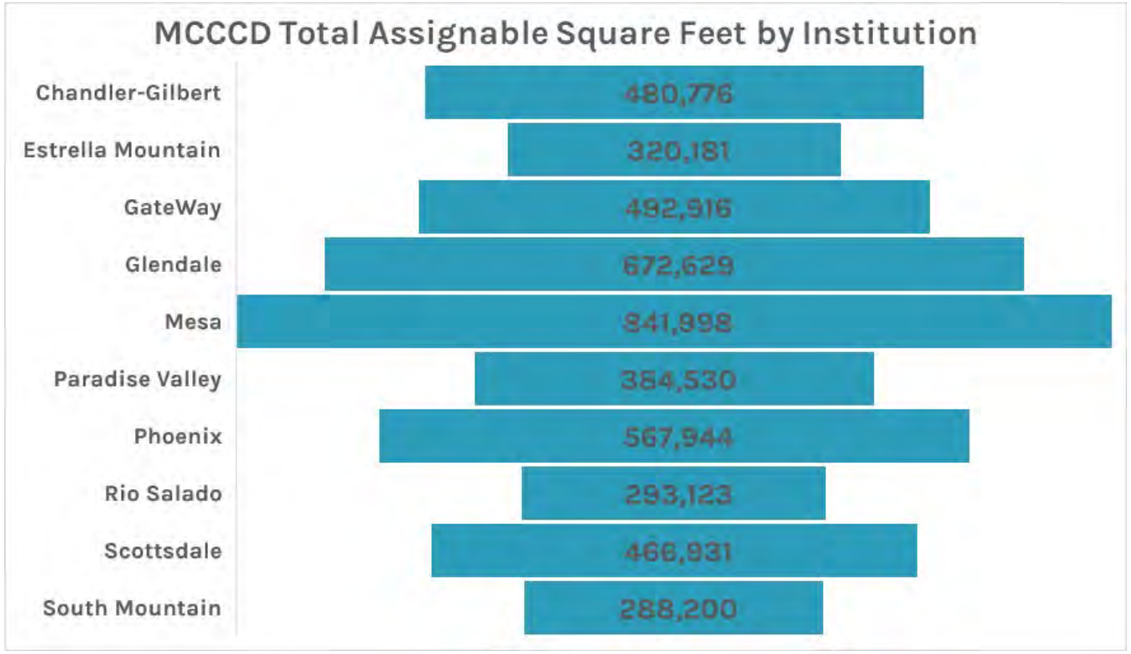
SPACE INVENTORY, UTILIZATION AND METRICS

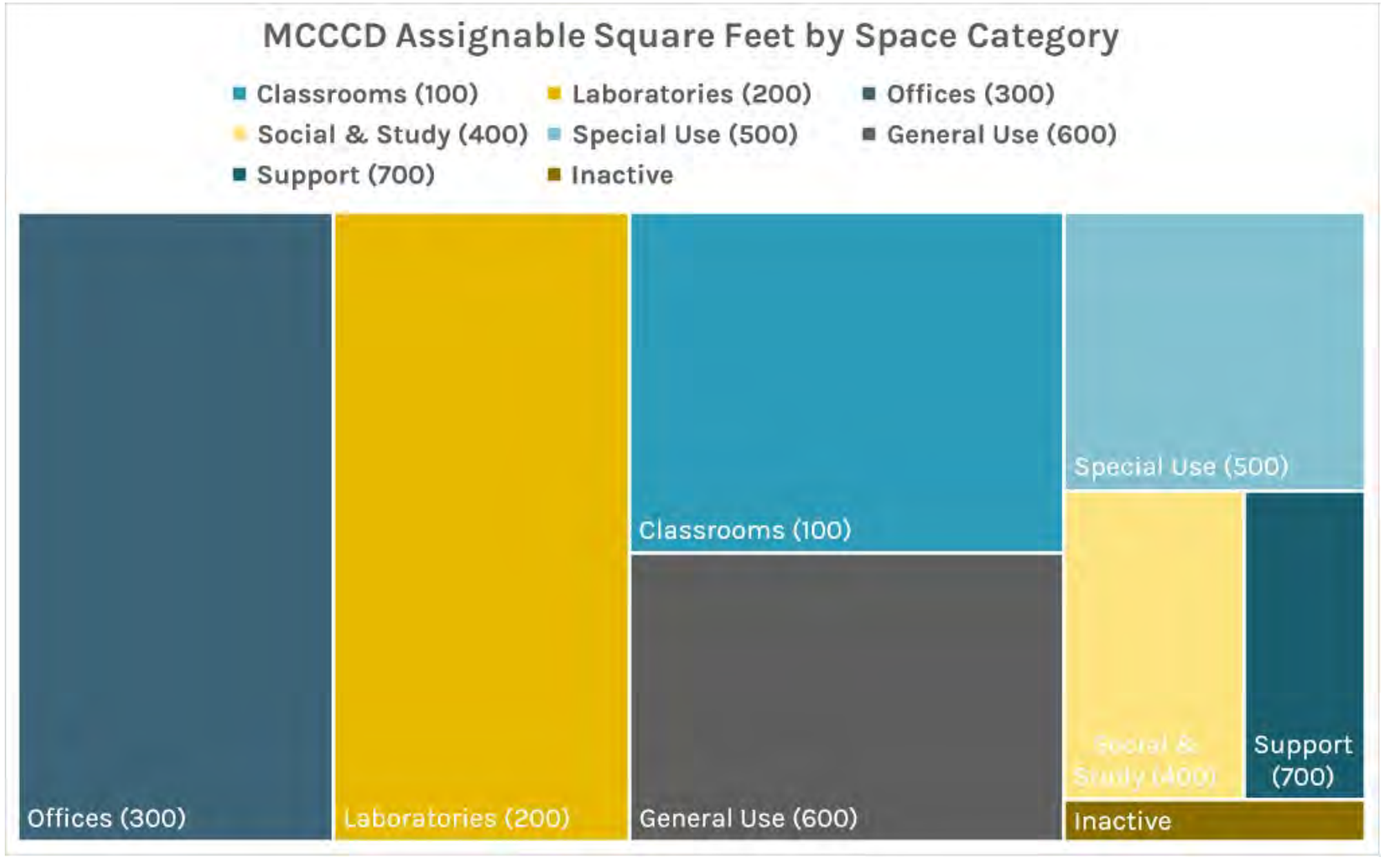
4

FACILITY INVENTORY

- Developed room-by-room inventory for 6.2 million sf
- Identified space use (i.e. classrooms, teaching labs, offices, etc.)
- Ensured consistent classification of space types across all colleges
- Serves as the basis for space needs analysis
- Developing dashboards for building inventories and instructional space utilization

SPACE METRICS BY INSTITUTION AND SPACE CATEGORY
DISTRICT OVERVIEW





- **Ten Campus total is 4,809,228 Assignable Square Feet**
- **Mesa Community College has the largest amount of space**

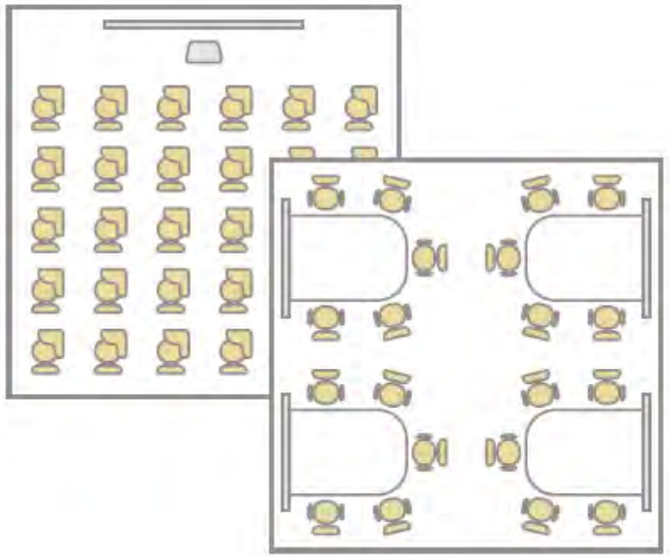
- **Offices are the largest space category at 1,126,084 ASF or 23.4% of total space**
- **Teaching and open laboratories comprise 1,056,925 ASF or 22% of total space**

SMITHGROUP

UTILIZATION METRICS

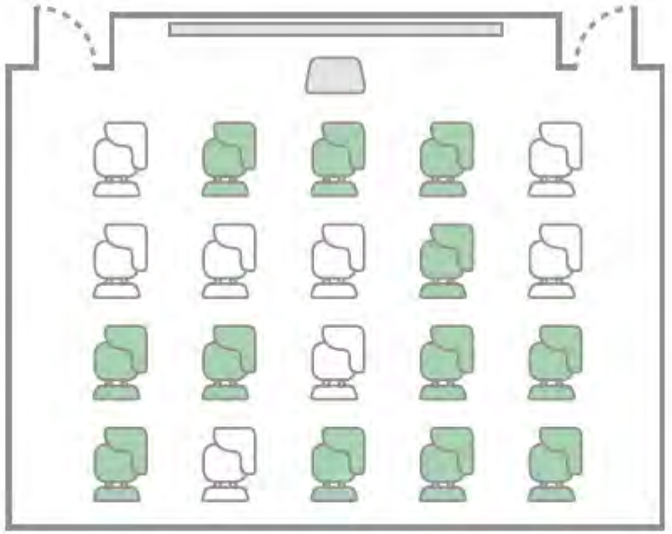
ASSIGNABLE SQUARE FEET (ASF) PER STATION

Space ASF divided by the number of student seats or stations



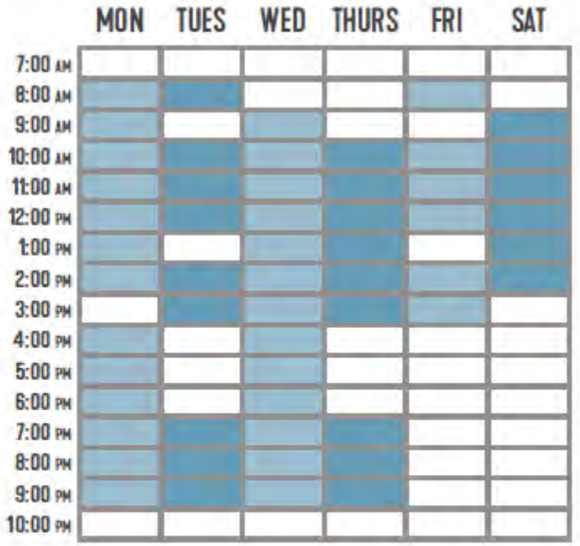
STUDENT STATION OCCUPANCY (SSO)

The percentage of seats filled when a course is scheduled as compared to the actual number of seats in a room

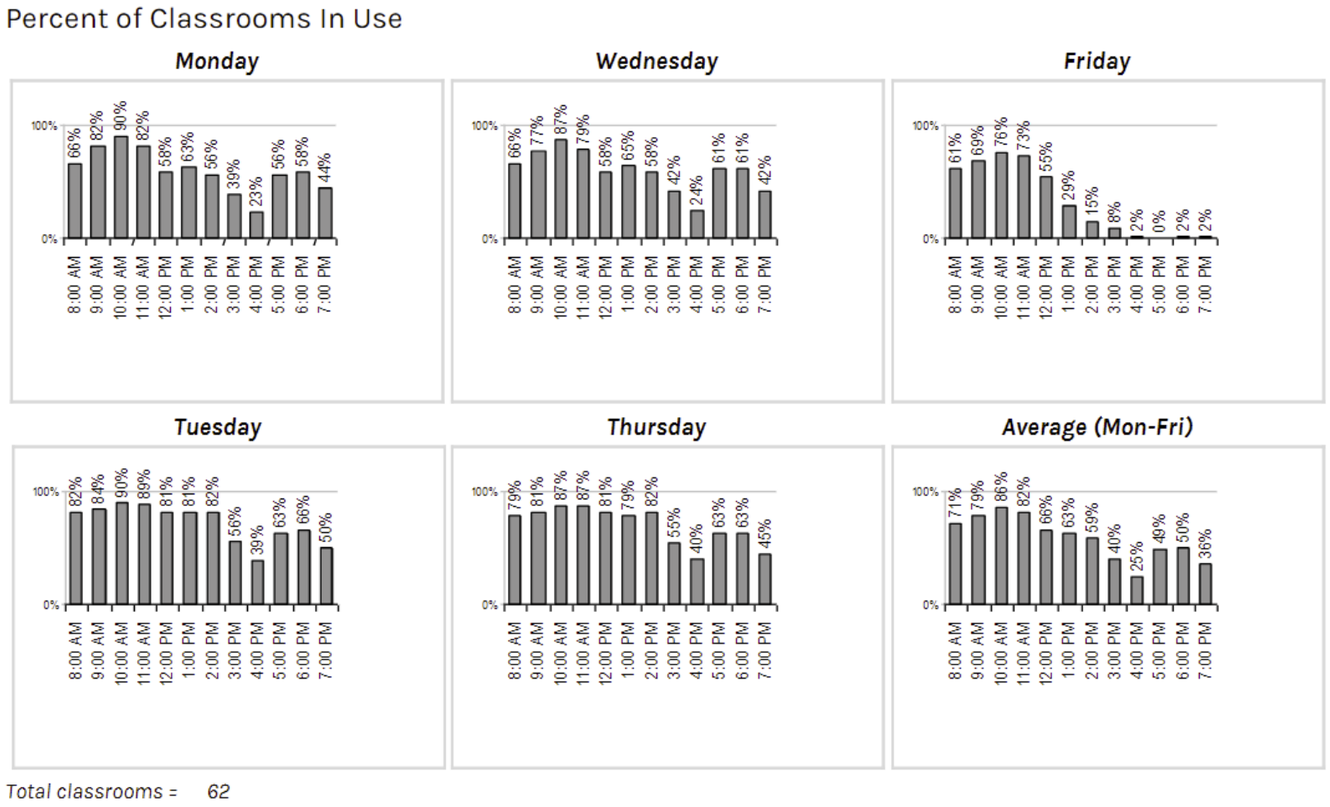


WEEKLY ROOM HOURS (WRH)

Number of hours per week a credit-bearing course is scheduled into a room

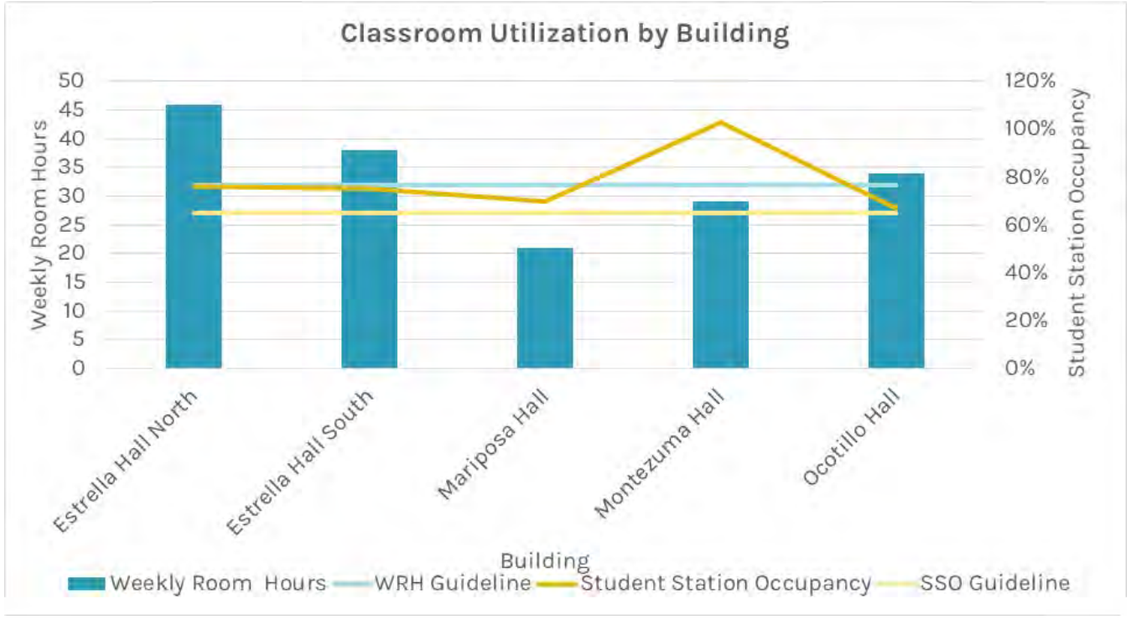


CLASSROOM UTILIZATION OUTCOMES: FALL 2019
ESTRELLA MOUNTAIN – AVONDALE



Total classrooms = 62

- Highest Use on Monday and Tuesday at 10:00 AM
- No more than 56 of the 62 classrooms in use at any one time
- Significant utilization on Friday



Actual Utilization:

- 34 Average Weekly Room Hours
- 72% Average Student Station Occupancy

Classroom Guideline:

- 32 Weekly Room Hours
- 65% Student Station Occupancy

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LABORATORY UTILIZATION GUIDELINES

Teaching Laboratory Utilization Summary by Campus

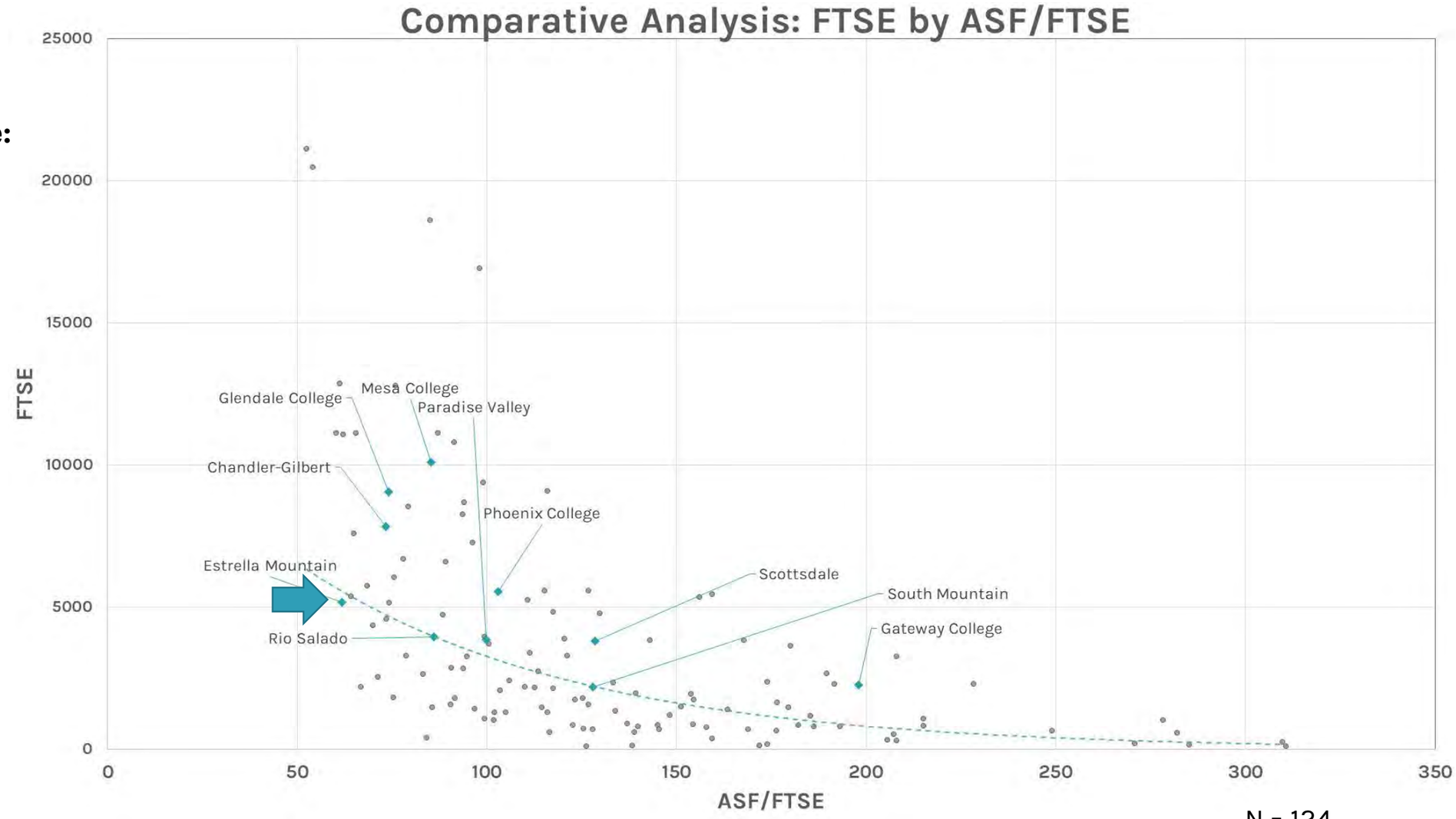
	Teaching Labs (210)			Computer Labs (211)			Technical Labs (212)		
Campus'	Average ASF per Station	Average Weekly Room Hours	Hours in Use Student Station Occupancy	Average ASF per Station	Average Weekly Room Hours	Hours in Use Student Station Occupancy	Average ASF per Station	Average Weekly Room Hours	Hours in Use Student Station Occupancy
Chandler-Gilbert Pecos Campus	49.7	37	67%	34.6	28	69%			
Chandler-Gilbert Williams Campus	51.2	24	74%	48.3	12	74%	53.5	18	45%
Estrella Mountain Avondale	51.2	17	71%	44.3	28	72%	50.7	11	69%
GateWay Washington Campus	42.3	19	67%	33.4	13	58%	103	12	24%
Glendale Main Campus	43.9	28	88%	36.2	29	60%	43.8	9	74%
Mesa Southern & Dobson Campus	46.8	25	70%	30.3	20	67%	69.9	31	70%
Paradise Valley Union Hills	43.3	20	50%	32.0	13	70%	40.1	6	64%
Phoenix College Main Campus	49.9	22	69%	41.8	20	65%	47	18	54%
Scottsdale	43	19	56%	31.2	26	69%	34.8	16	67%
South Mountain Main Campus	42.7	18	57%	36.1	26	59%	36.8	8	63%
Average	***46.4***	***23***	***67%***	***36.8***	***22***	***66%***	***53.3***	***14***	***59%***
Lab Utilization Guideline	**24 Weekly Room Hours @ 70% Occupancy**						**20 hours @ 68% Occupancy**		

COMPARATIVE ANALYSIS: TOTAL FTSE BY ASF/FTSE
DISTRICT OVERVIEW

Institutions Close to Trendline:
- Estrella Mountain
- Rio Salado
- Paradise Valley
- South Mountain

Slightly Above Trendline:
- Phoenix
- Scottsdale
- GateWay

Above the Trendline:
- Chandler-Gilbert
- Glendale
- Mesa



N = 124

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SPACE INVENTORY, UTILIZATION AND METRICS

QUESTIONS

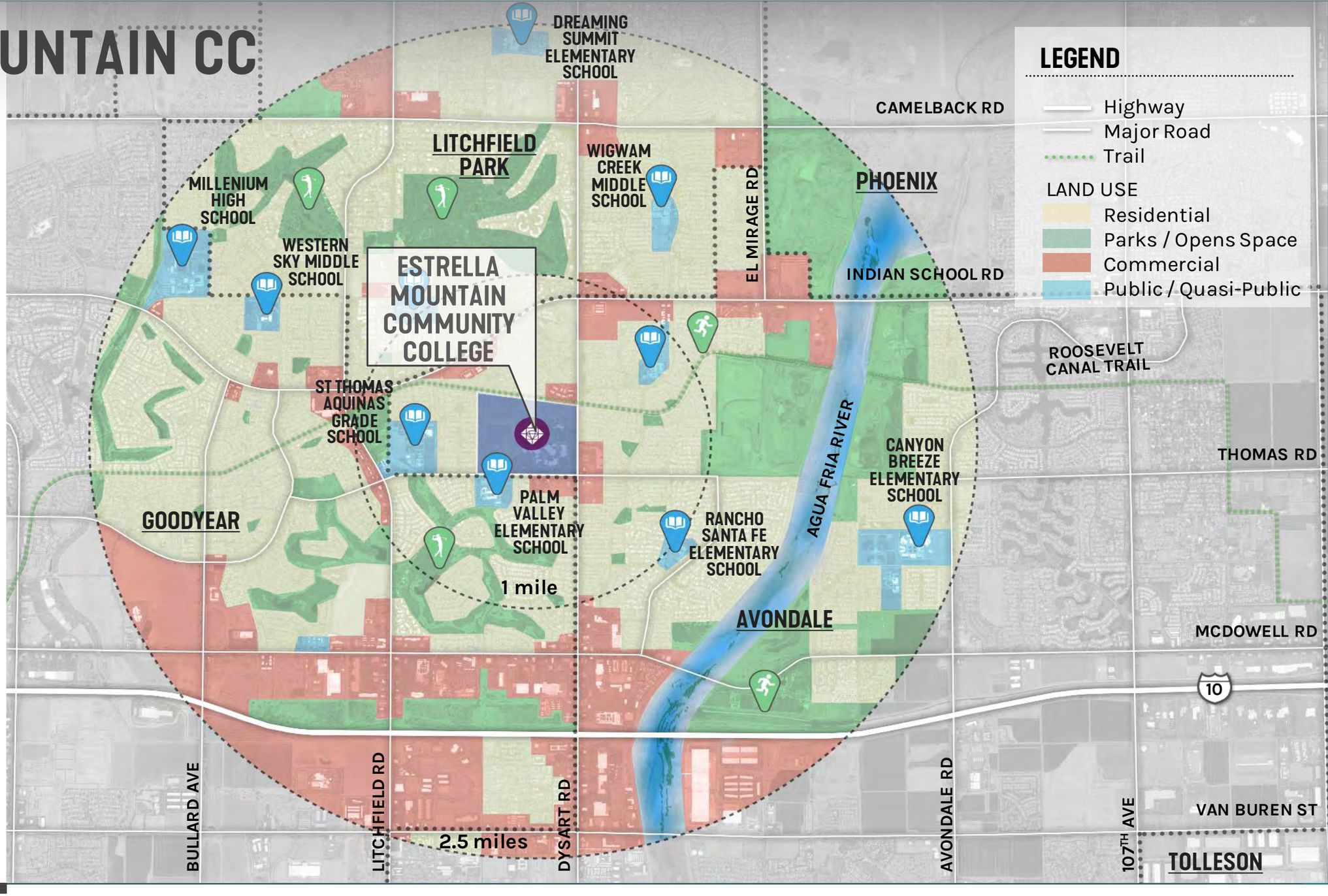
- Are there internal factors (i.e., technology, scheduling practices, size of rooms) impacting utilization of classrooms and labs?
- Are there strategic goals or strategies that will require new space or the renovation of existing space on your campuses
- Are there pending capital projects that would improve operational efficiency or student success?
- Do answers to responses above require new sites or the consolidation of existing sites?

PHYSICAL ANALYSIS

5

ESTRELLA MOUNTAIN CC

REGIONAL CONTEXT



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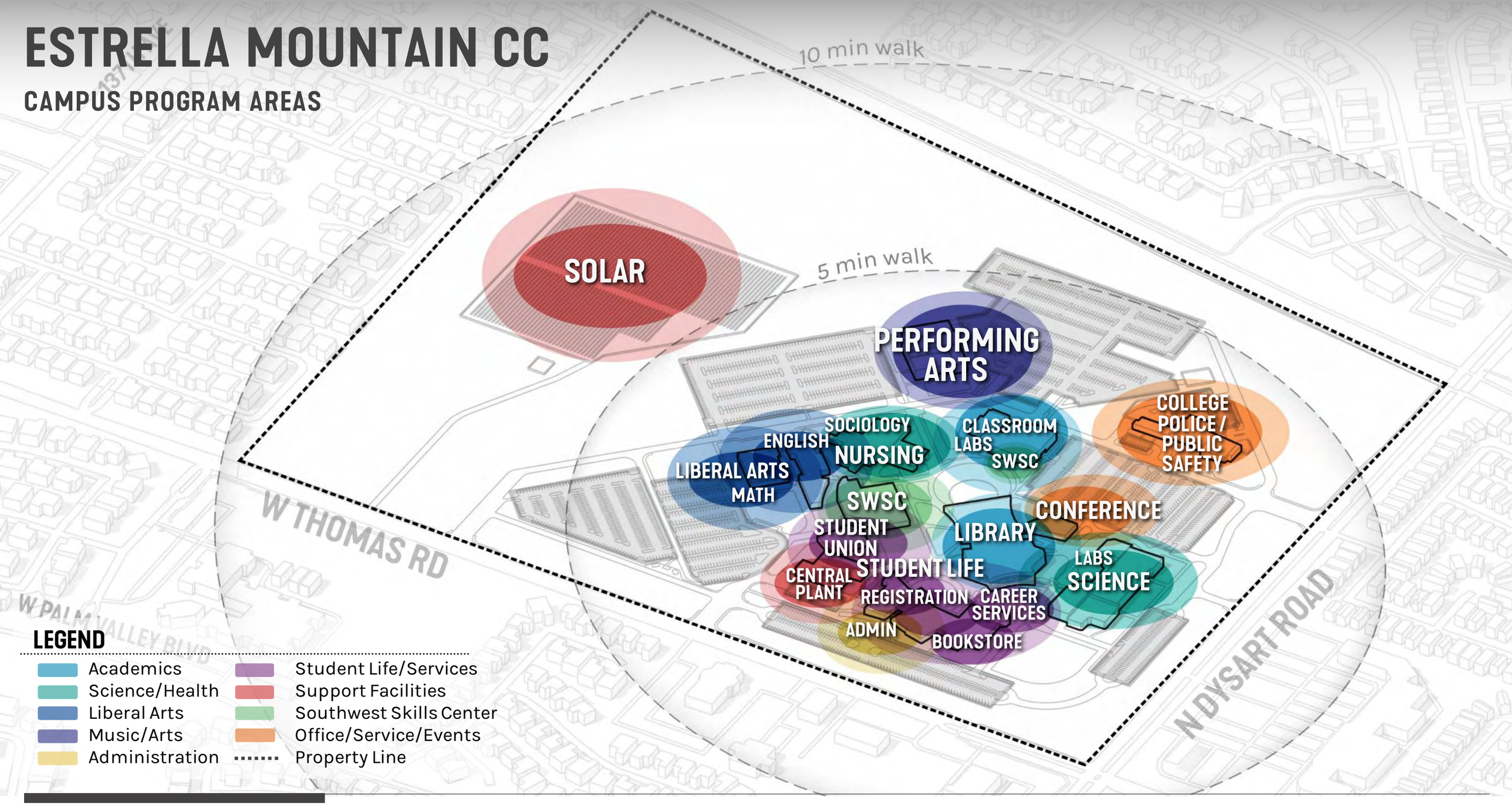
ESTRELLA MOUNTAIN CC

CAMPUS PROGRAM AREAS



LEGEND

- Academics
- Science/Health
- Liberal Arts
- Music/Arts
- Administration
- Student Life/Services
- Support Facilities
- Southwest Skills Center
- Office/Service/Events
- Property Line

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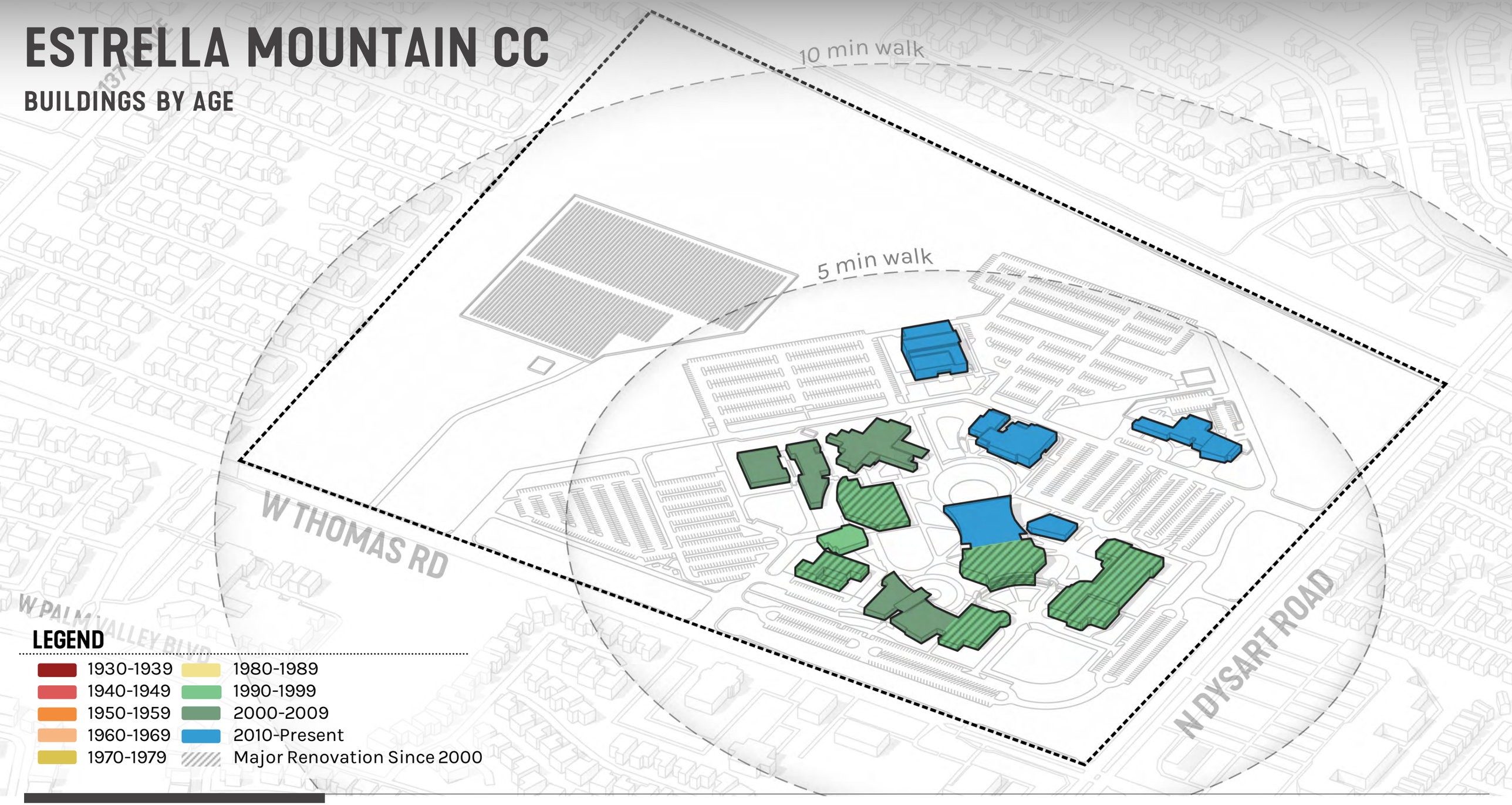
ESTRELLA MOUNTAIN CC

BUILDINGS BY AGE



LEGEND

- 1930-1939
- 1940-1949
- 1950-1959
- 1960-1969
- 1970-1979
- 1980-1989
- 1990-1999
- 2000-2009
- 2010-Present
- Major Renovation Since 2000

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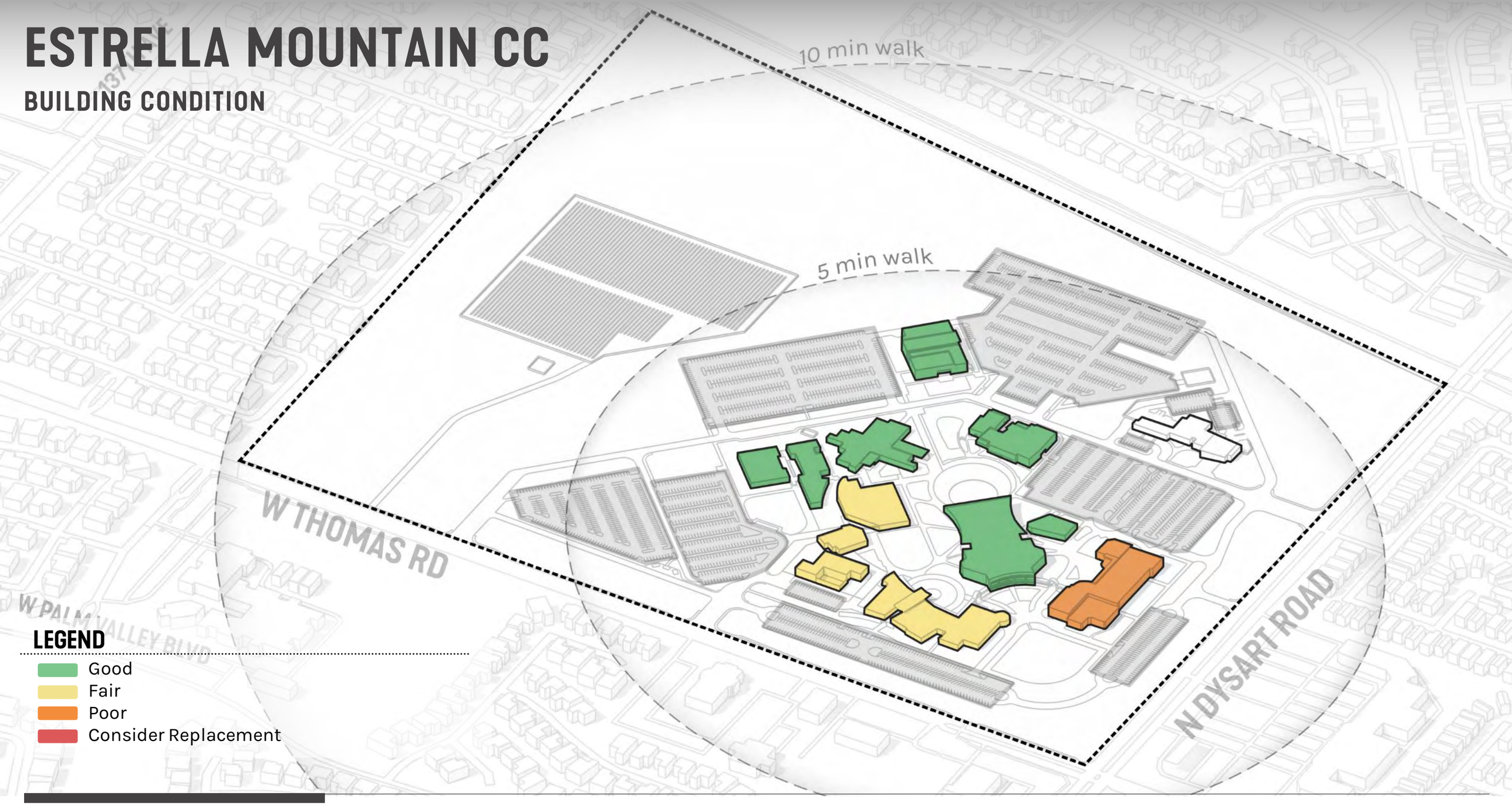
ESTRELLA MOUNTAIN CC

BUILDING CONDITION



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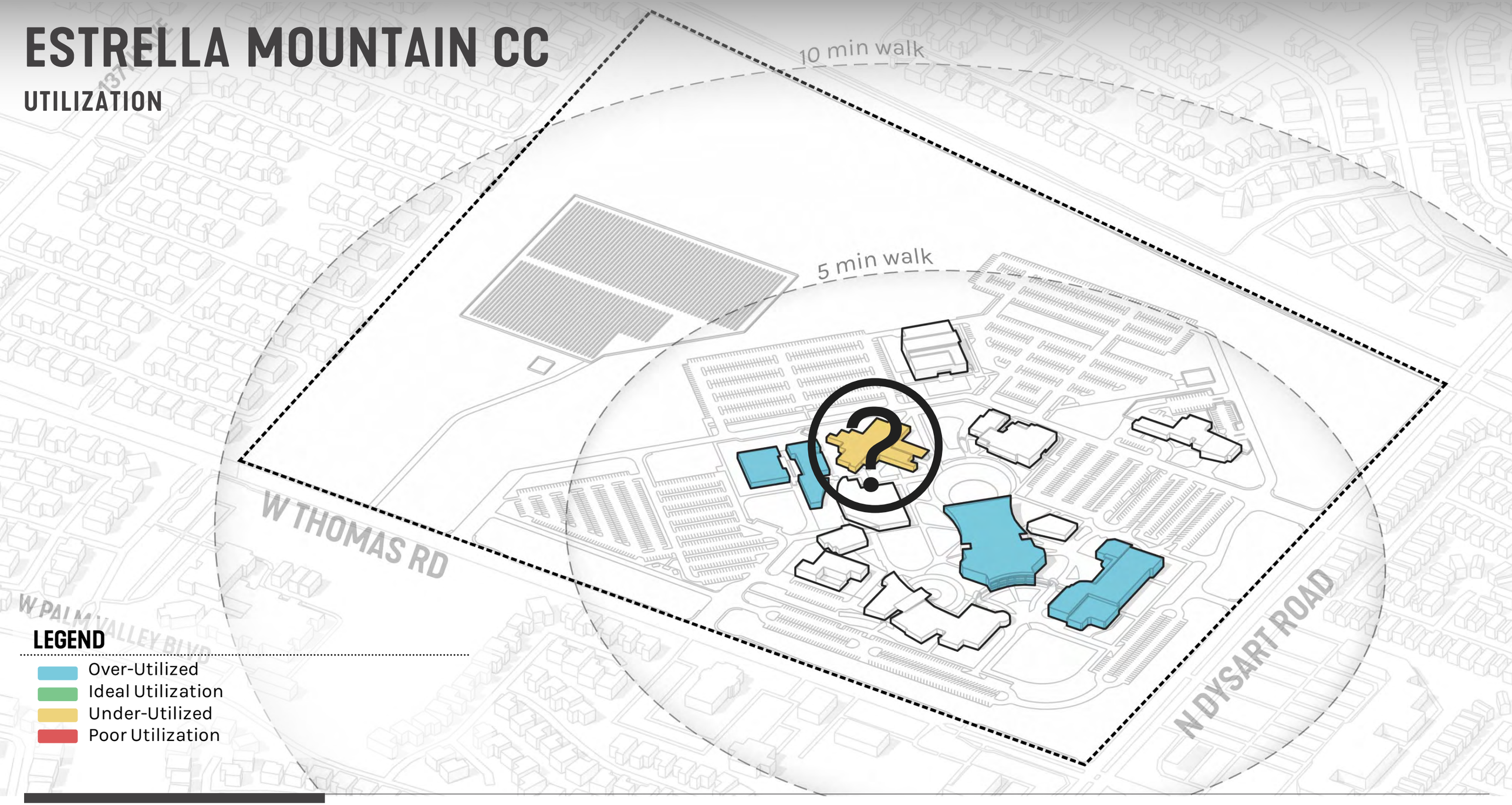
ESTRELLA MOUNTAIN CC

UTILIZATION



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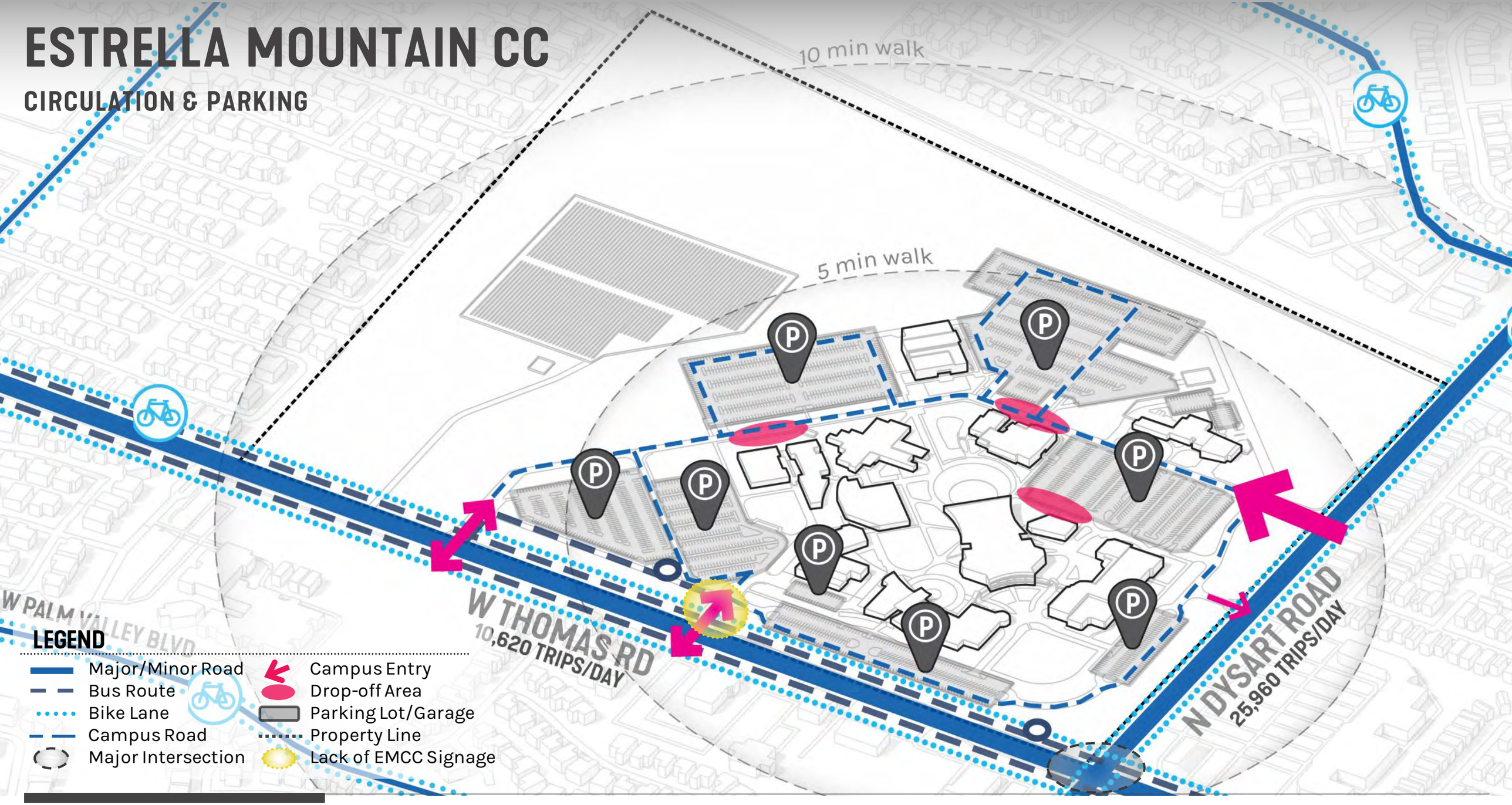
ESTRELLA MOUNTAIN CC

CIRCULATION & PARKING



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ESTRELLA MOUNTAIN CC

PARKING

2,646

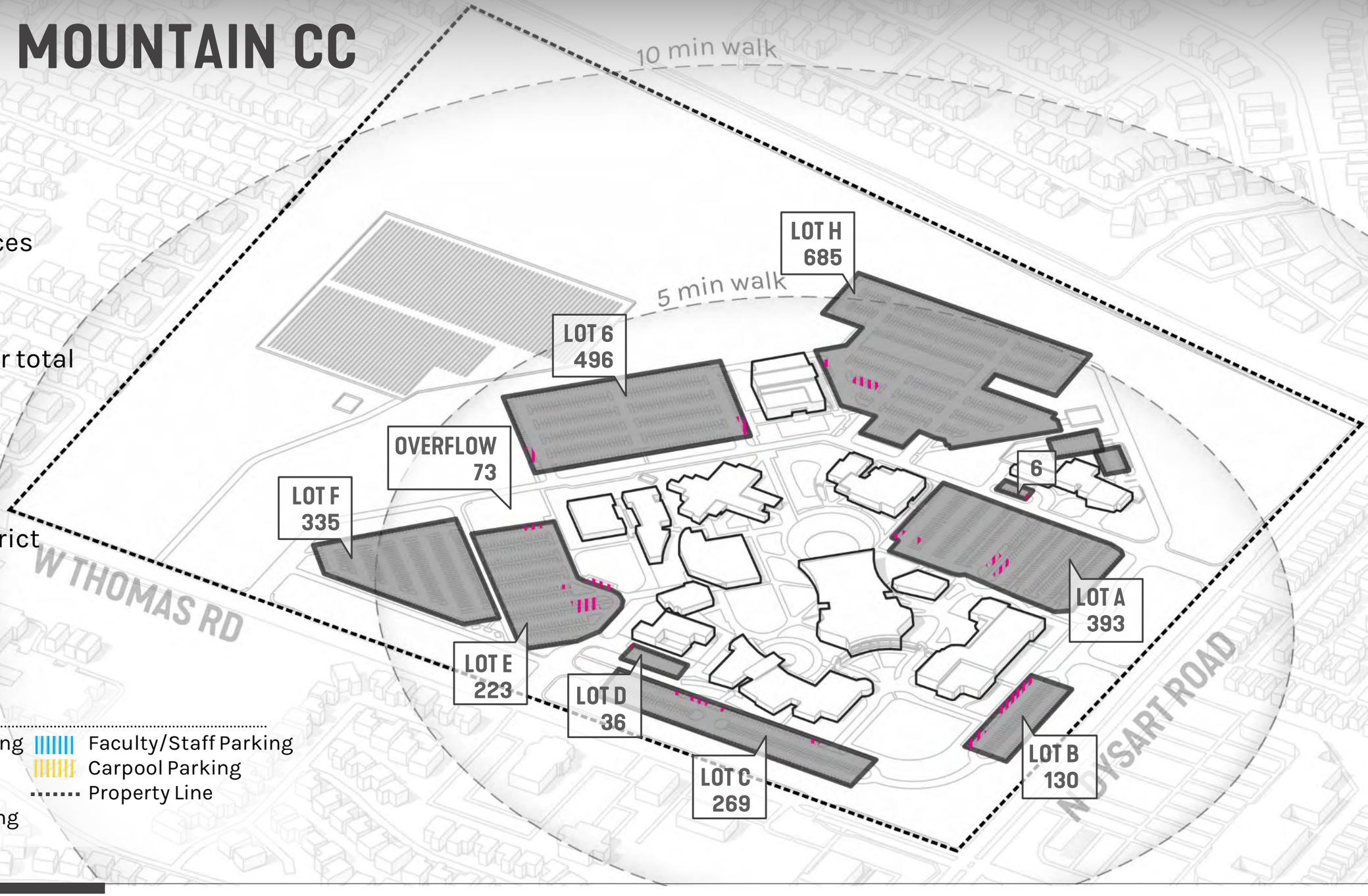
Total parking spaces

.25

Parking spaces per total headcount

-1%

Less than the district average



LEGEND

- Structured Parking
- Named Lot
- Unnamed Lot
- Accessible Parking
- Faculty/Staff Parking
- Carpool Parking
- Property Line

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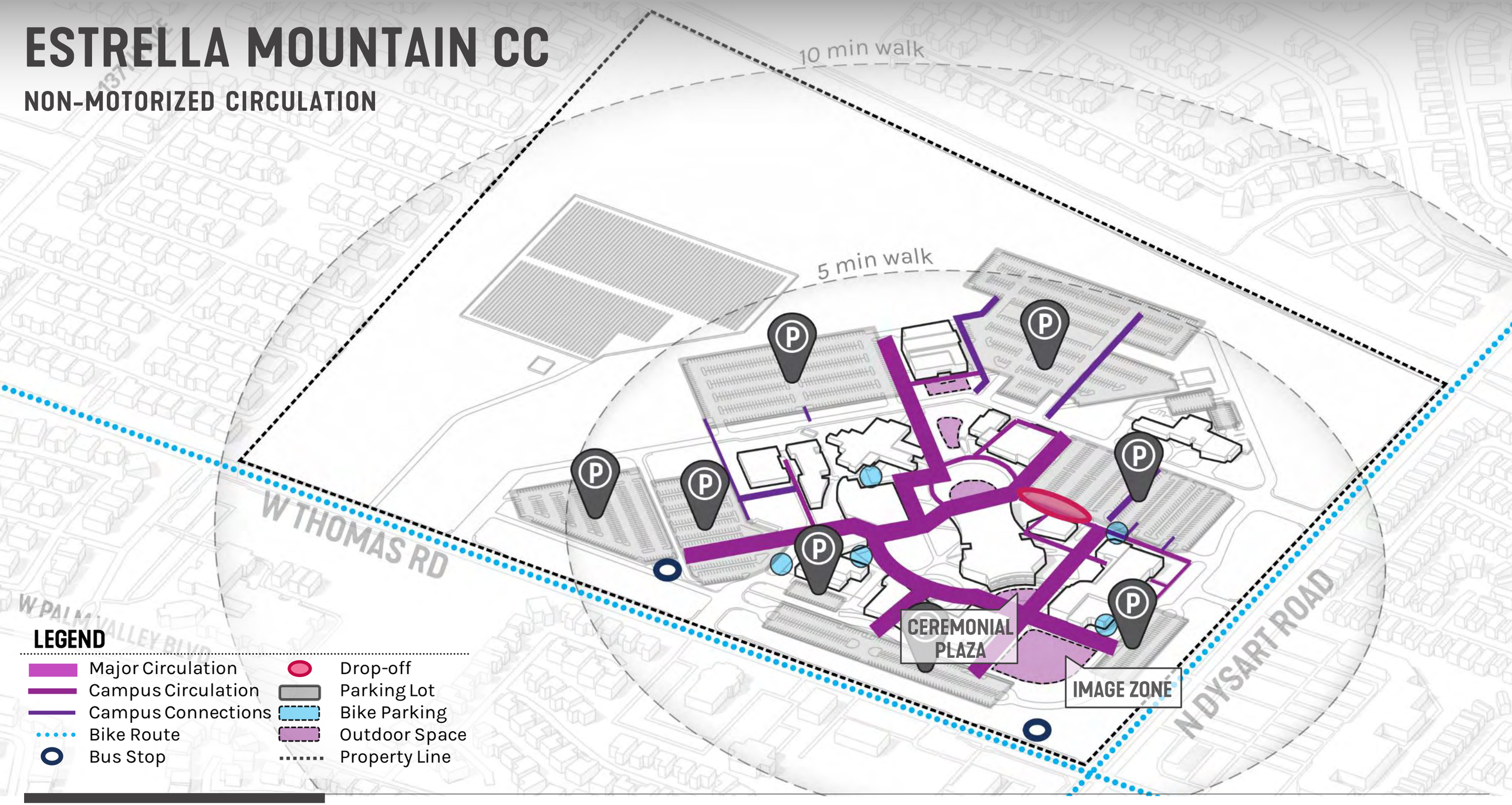
ESTRELLA MOUNTAIN CC

NON-MOTORIZED CIRCULATION



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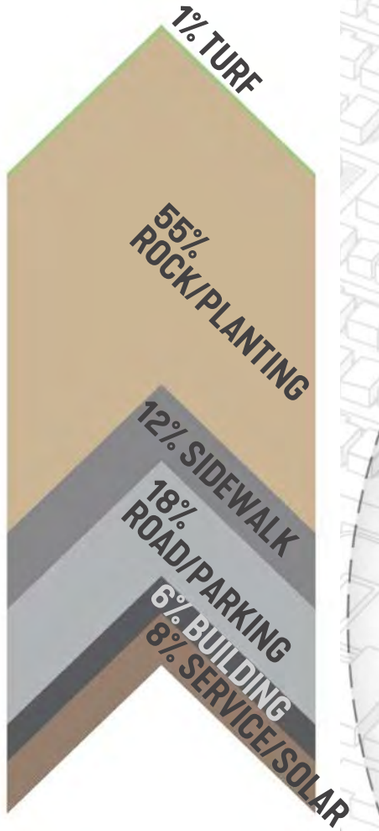
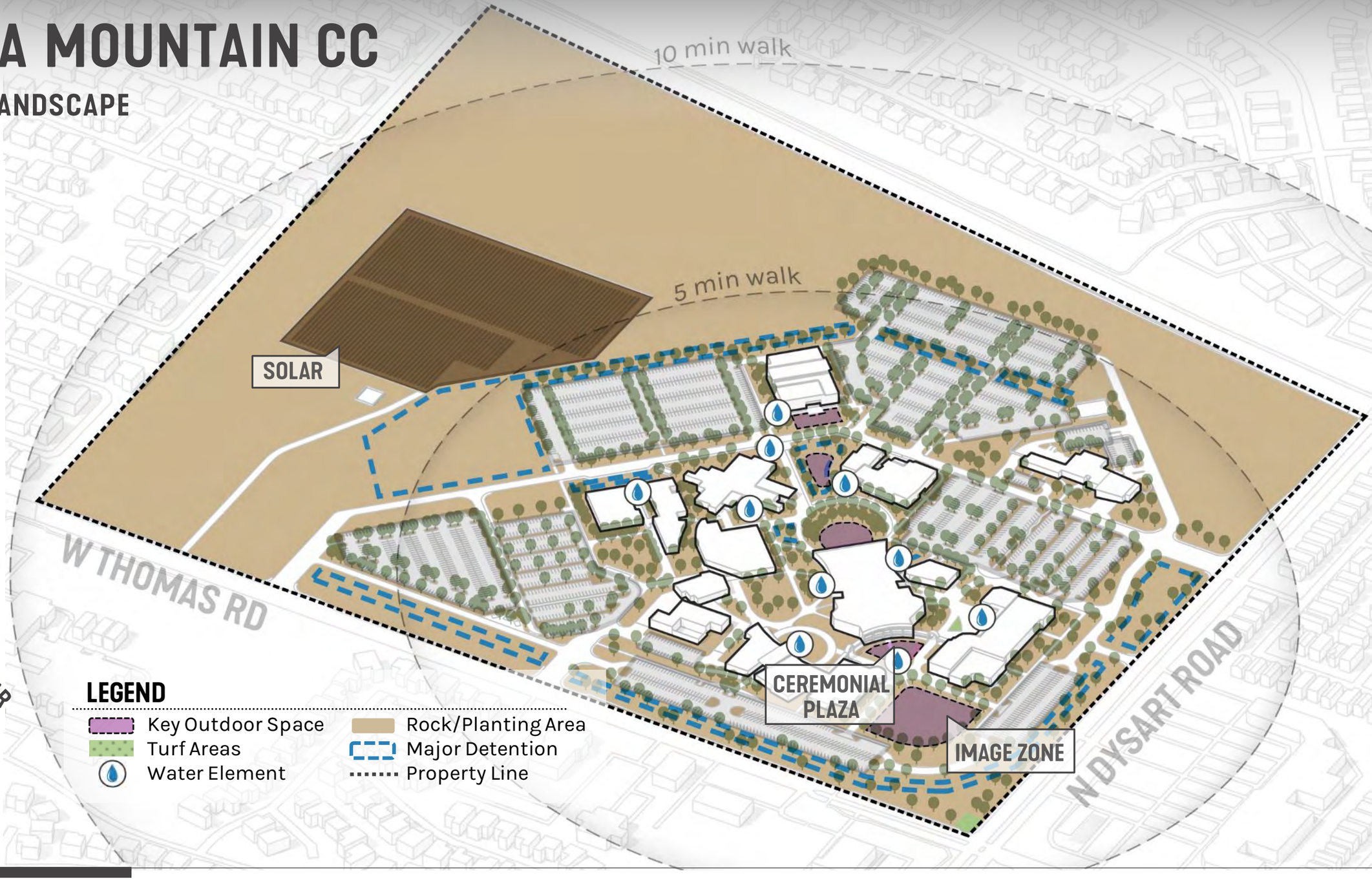
ESTRELLA MOUNTAIN CC

OPEN SPACE + LANDSCAPE





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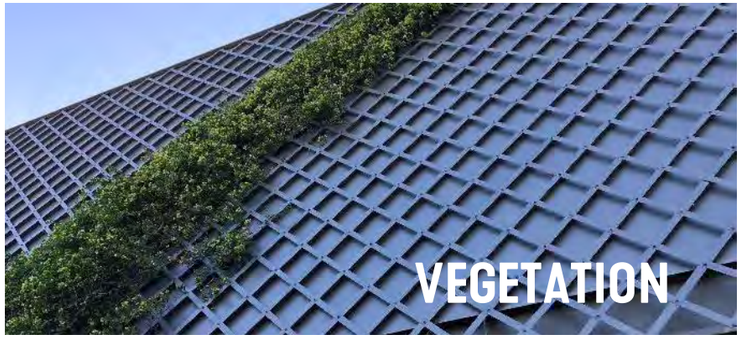
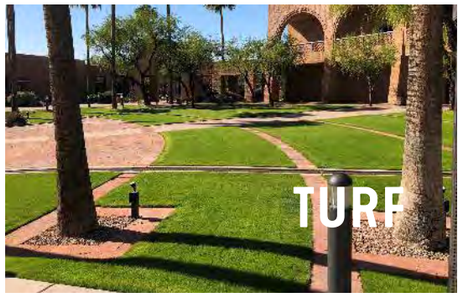
ESTRELLA MOUNTAIN CC

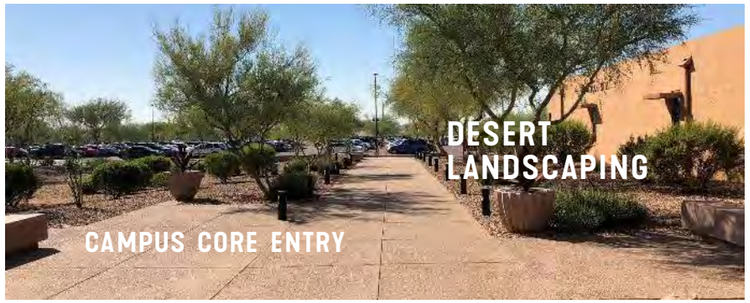
CHARACTER – IDENTITY



ESTRELLA MOUNTAIN CC

OPEN SPACE + LANDSCAPE





PHYSICAL ANALYSIS

KEY TAKEAWAYS & QUESTIONS

- The MAR building appears to be underutilized, while the MON building is considered in poor condition despite age and renovation. Are these assumptions accurate and has there been discussion about the future of these assets?

- Continue to build on a strong landscape framework to provide opportunities for outdoor learning.

- Are there site projects / considerations that we need to understand? Future uses for western part of campus?

- How do we use the Image Zone today? Future?

NEXT STEPS

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NEXT STEPS

January 2021:
Engage each college Steering Committee to present and discuss full analysis and receive feedback on future plans and vision

Q1-Q2 2021:
Alternative Scenario Development for each College and the District