
UNM / CNM / Sunport Transit Project



Workshop
January 10, 2013



Project Area

- Encompasses corridor from the Sunport to the far end of the UNM North Campus
- Generally follows the area from west of University to east of Girard
- Daytime population of > 74,000 students, faculty, and staff
- Considerably higher population when hospital patients, visitors, and Sunport activity are considered



Project Objectives

- Three primary study objectives
 - Transit strategy to include a new north-south route that connects the major destinations within the corridor and better connections to existing east-west transit routes
 - Land use strategy that integrates existing and new development with the transit system
 - Parking strategy and demand management policies



Potential BRT Opportunity



Vehicles

- Unique vehicle design
- Branding

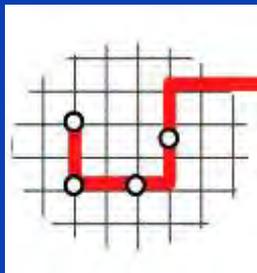


Running Ways

Stations & Stops



ITS & Fare Payment



Service Plan



Potential BRT Opportunity



Integrated transit, bicycle, and pedestrian infrastructure



Stakeholder Outreach Summary

- Public Meetings
- UNM (Lobo Development, Athletics, PATS, ASUNM, Others)
- CNM
- UNMH
- Focus Groups
- Surveys
- Newsletter
- Social Media
- Businesses
- Neighborhoods



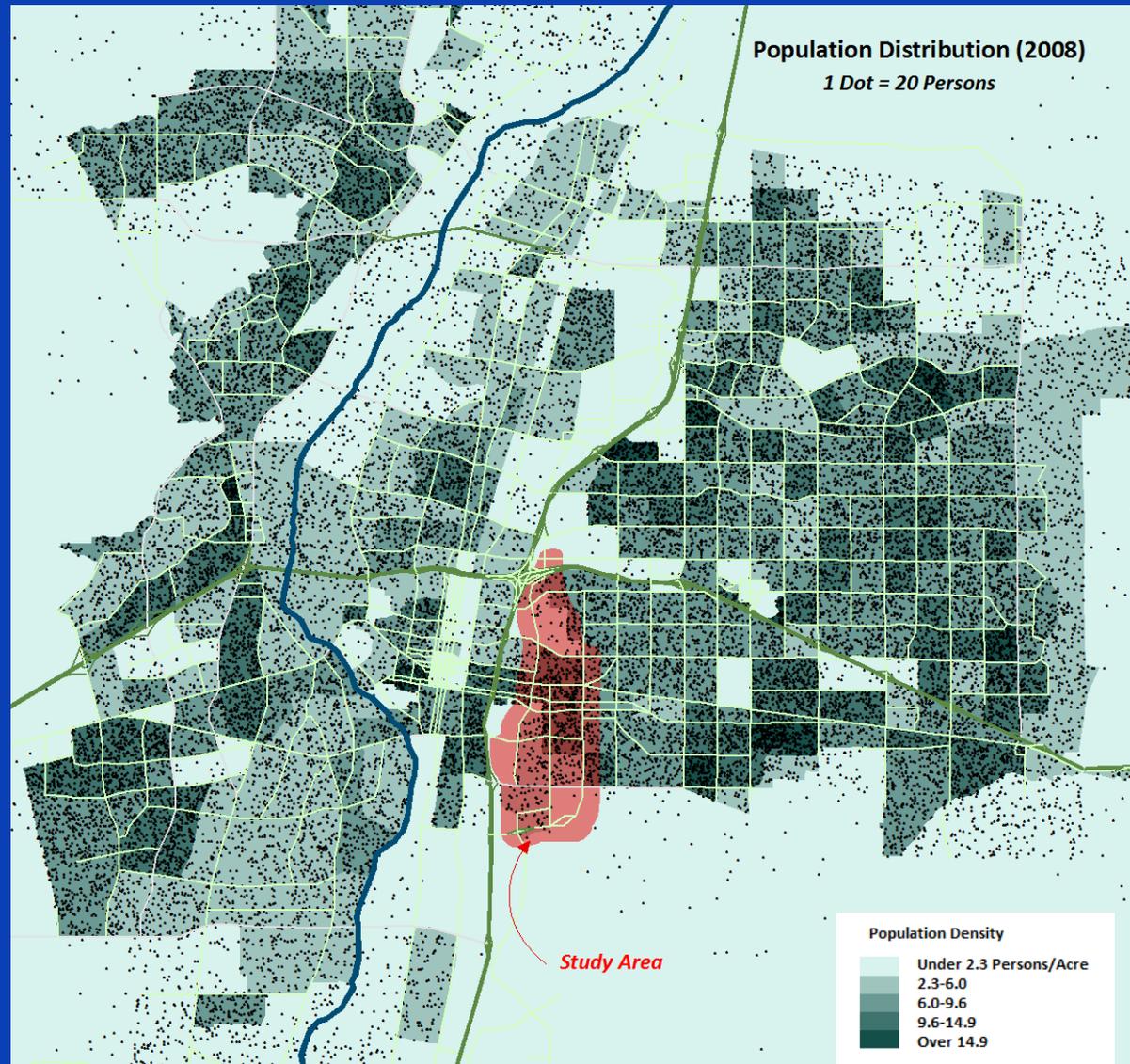
Outreach Comment Summary

- Quality Access (Transportation & Services)
- Traffic Intrusions
- Pedestrian/Bike Conflicts
- Transit Hours of Service, Headways & Availability
- Lack of Service Destinations
- Quality & Availability of Bike and Pedestrian Facilities
- Patient & Visitor Access and Circulation
- Parking (Availability, Cost, Revenue and Land Consumption)
- Safety



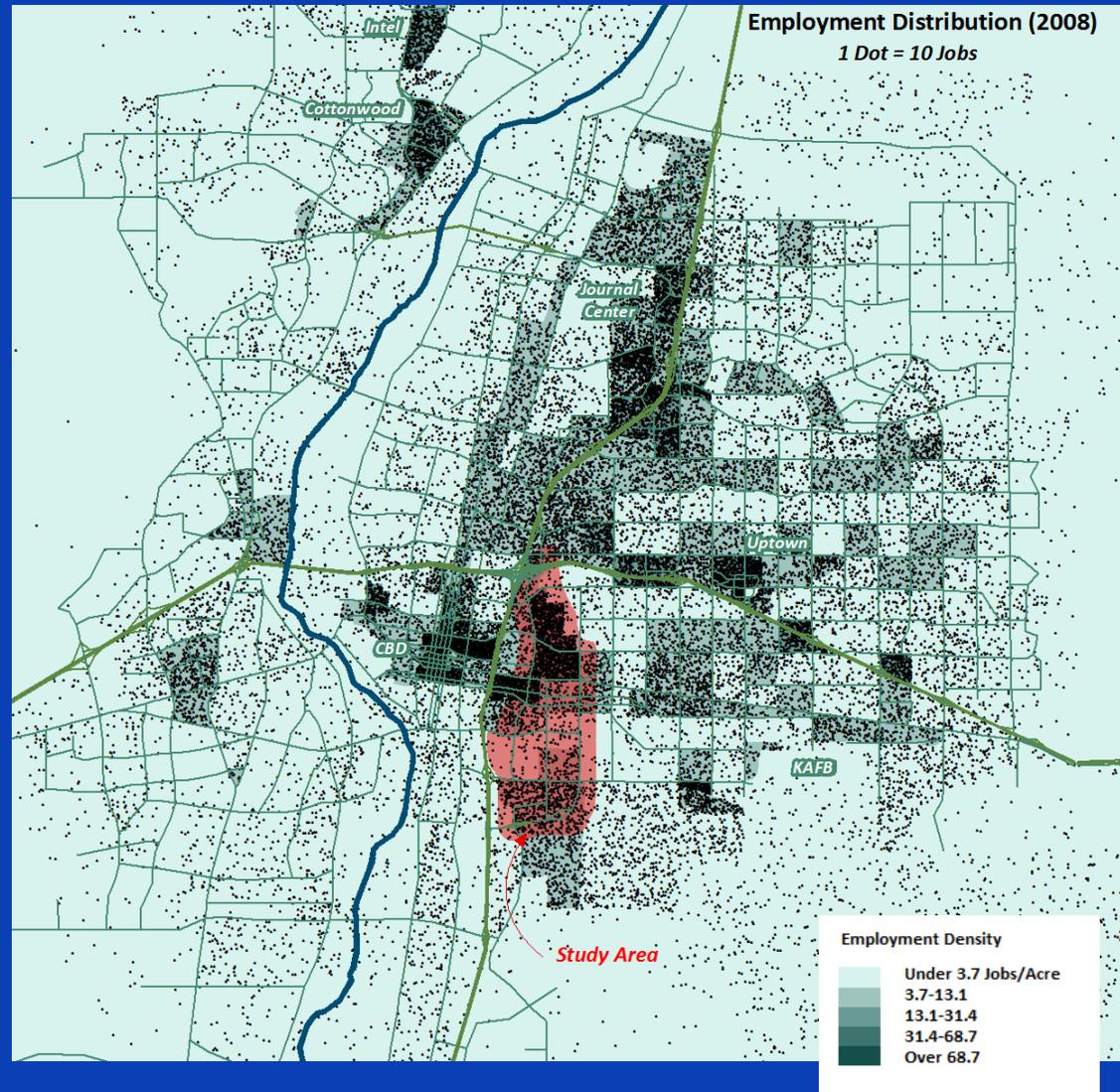
Study Area Demographics: 2008 Population

- Data from MRCOG socioeconomic data set (2008 base year)
- Dots represent population
 - 1 Dot = 20 persons
- Shades represent population DENSITY (persons/acre)
- Except for areas zoned completely for commercial uses (employment only), the region is more-or-less developed at uniform densities



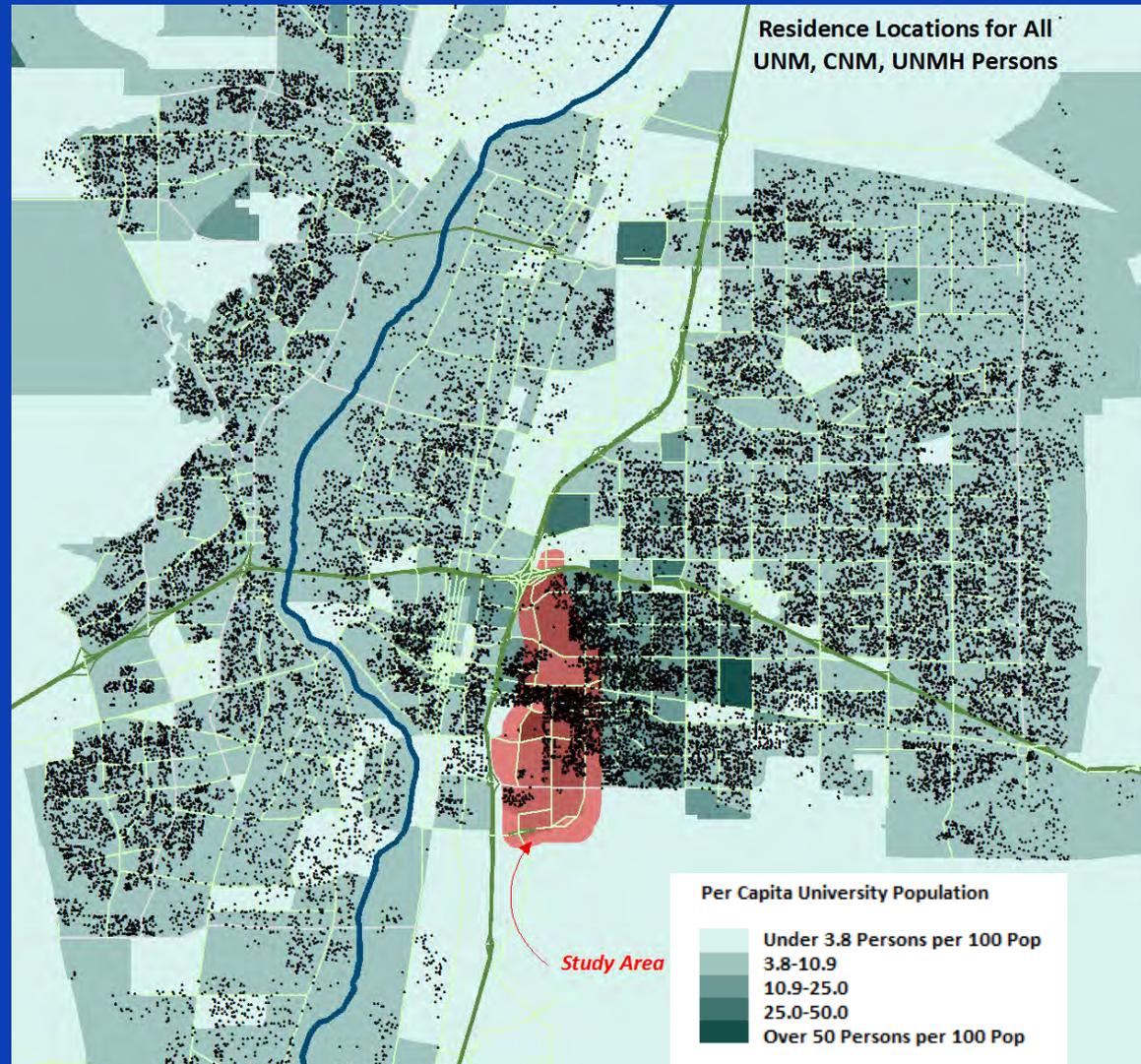
Study Area Demographics: Employment

- Data from MRCOG socioeconomic data set (2008 base year)
- Dots represent employment
 - 1 Dot = 10 jobs
- Shades represent employment DENSITY (jobs/acre)
- There are a number of prominent job centers
- Study area (CNM/UNM/UNMH) is one of them
- Others include Intel, Cottonwood, CBD, Uptown, KAFB



Study Area Demographics: 2010 Campus Populations

- Data comes from Phase 1
- Complete rosters for UNM and CNM students, faculty, and staff; Also UNMH
 - Address matched for residence location
- Shown are actual residence locations
- Shades represent campus populations on a per capita basis

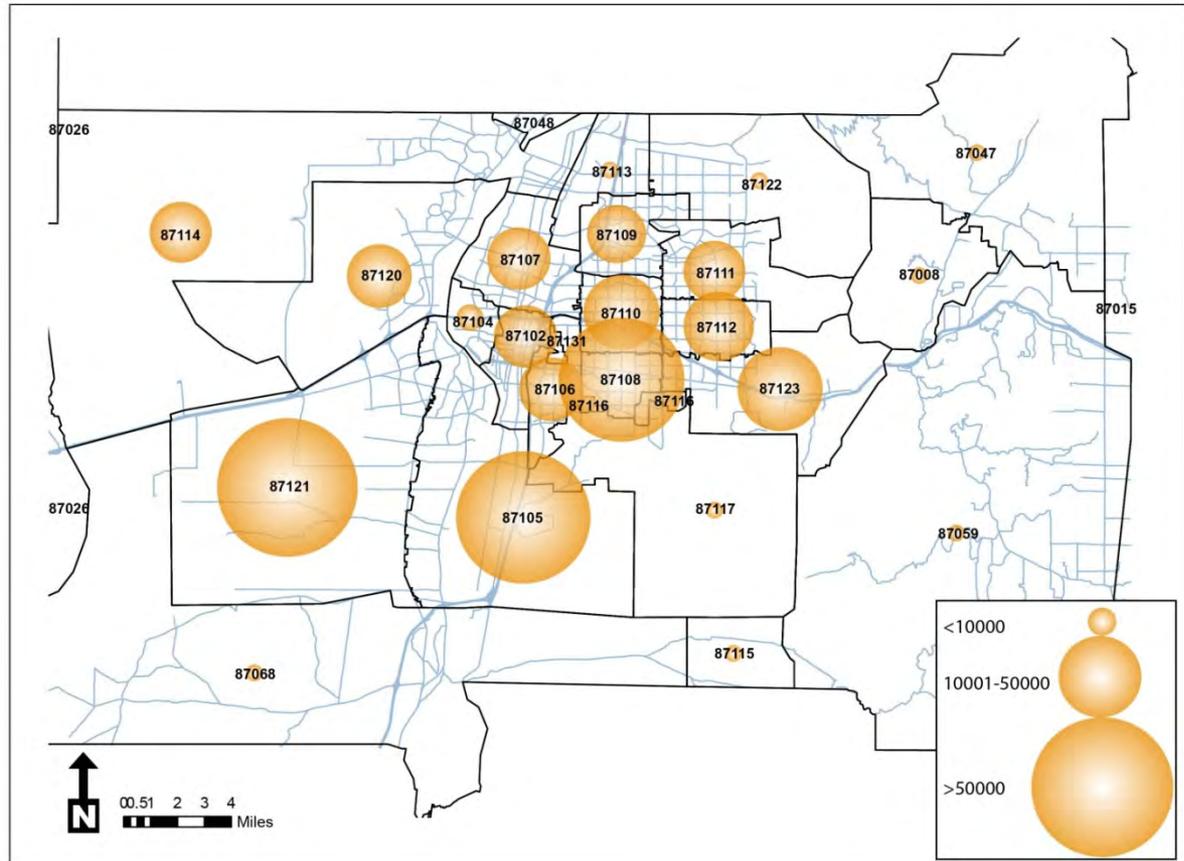


Study Area Demographics: UNMH Patients (2008)

About 664,000
Patient Visits A Year

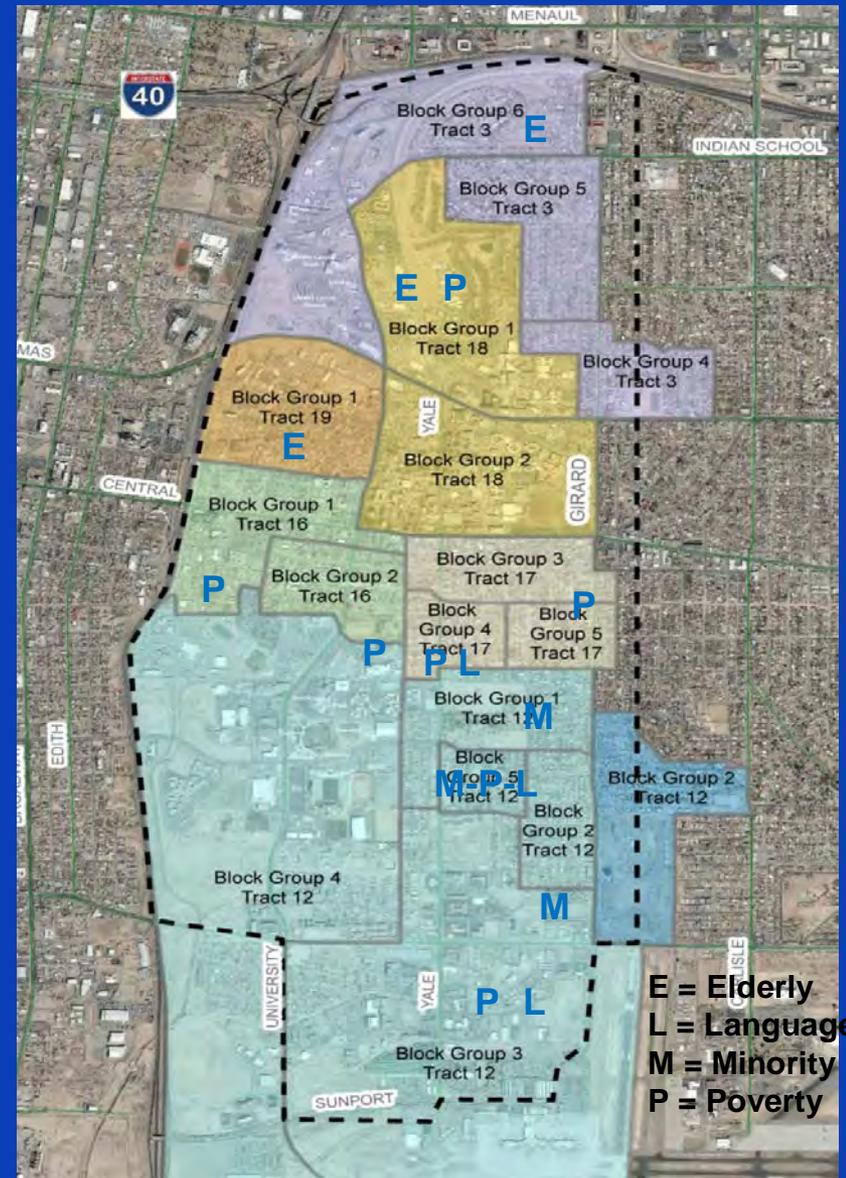
Also Have to
Consider
Visitors

May Translate into
6000+ Total "Visits"
Per Day



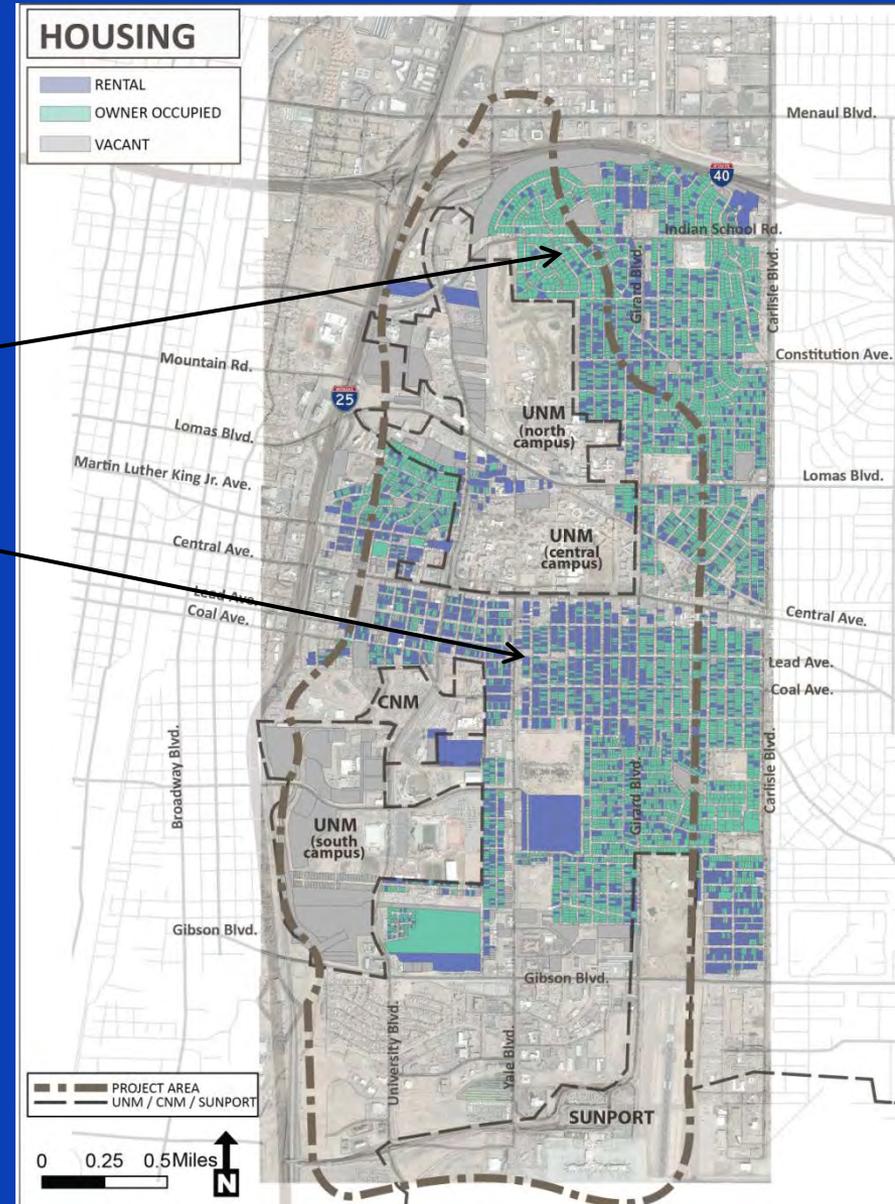
Study Area Demographic Profile

- Comparison of Study Area with County Statistics...
 - Overall, lower percentage of minorities, although one tract (12) with higher % minorities
 - Generally younger population except for parts of Tract 3 and Tracts 18 and Tract 19
 - Higher percentage of incomes below poverty level (Tracts 12, 16, 17, and 18)
 - Three areas with higher % of households with no or some English speaking abilities (Tracts 12 and 17)
 - More than 50% of Tracts with very high percentages of walk and bike modes
 - 76.7% of area population 25 or older have attained some college education or have a college degree compared with 61.9% of the County.



Owner Occupied / Rental Patterns

- Large comparative percentage of renters/investment properties (43%):
 - Northeast area
 - Lead/Coal corridor
- Potential areas of change

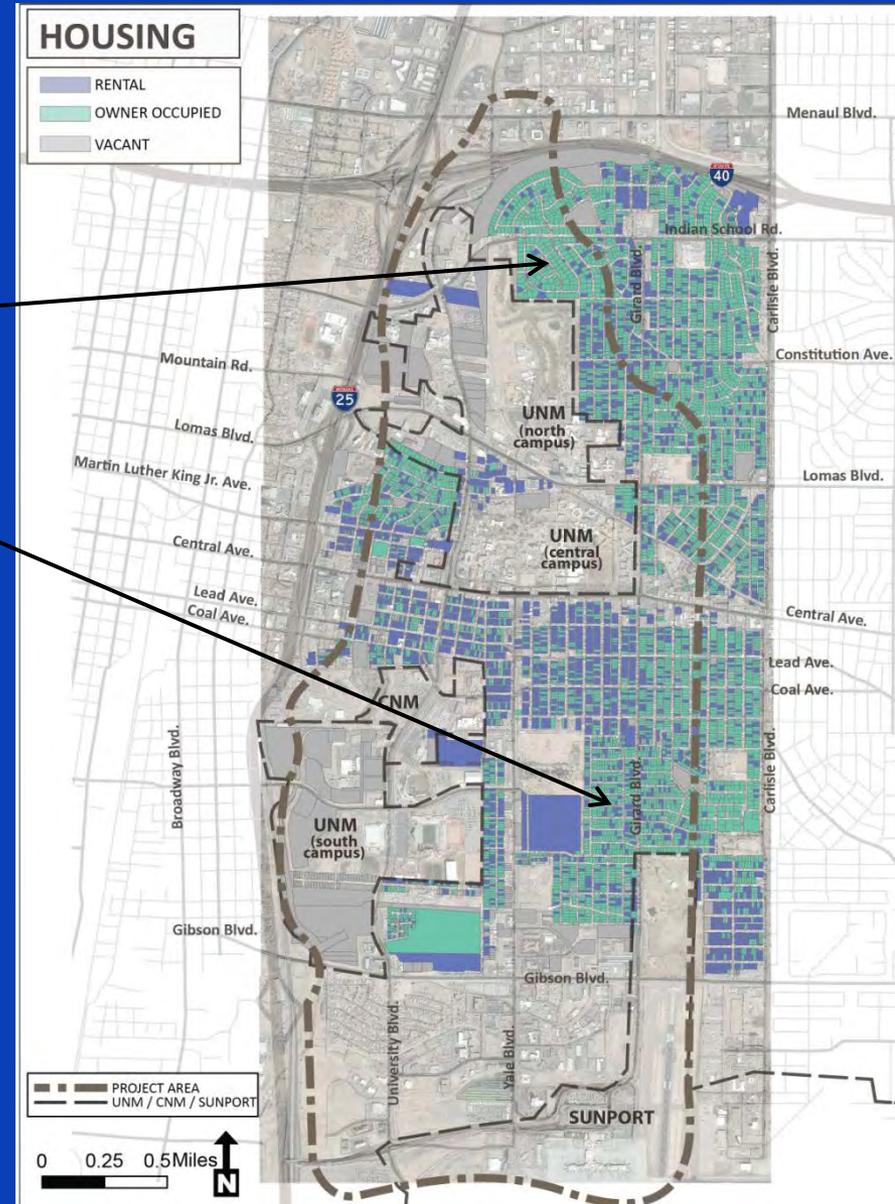


Use Type	Owner Occupied	Rented	Total	Percent Rental	Percent Owner
Commercial	178	525	703	74.7%	25.3%
Residential	4,073	2,498	6,571	38.0%	62.0%
Vacant	115	241	356	67.7%	32.3%
Total	4,366	3,264	7,630	42.8%	57.2%



Owner Occupied / Rental Patterns

- Mixed area of owner occupied properties (57%):
 - Northeast area
 - East stadium area
- Potential areas of stability
- More stable further east of campuses

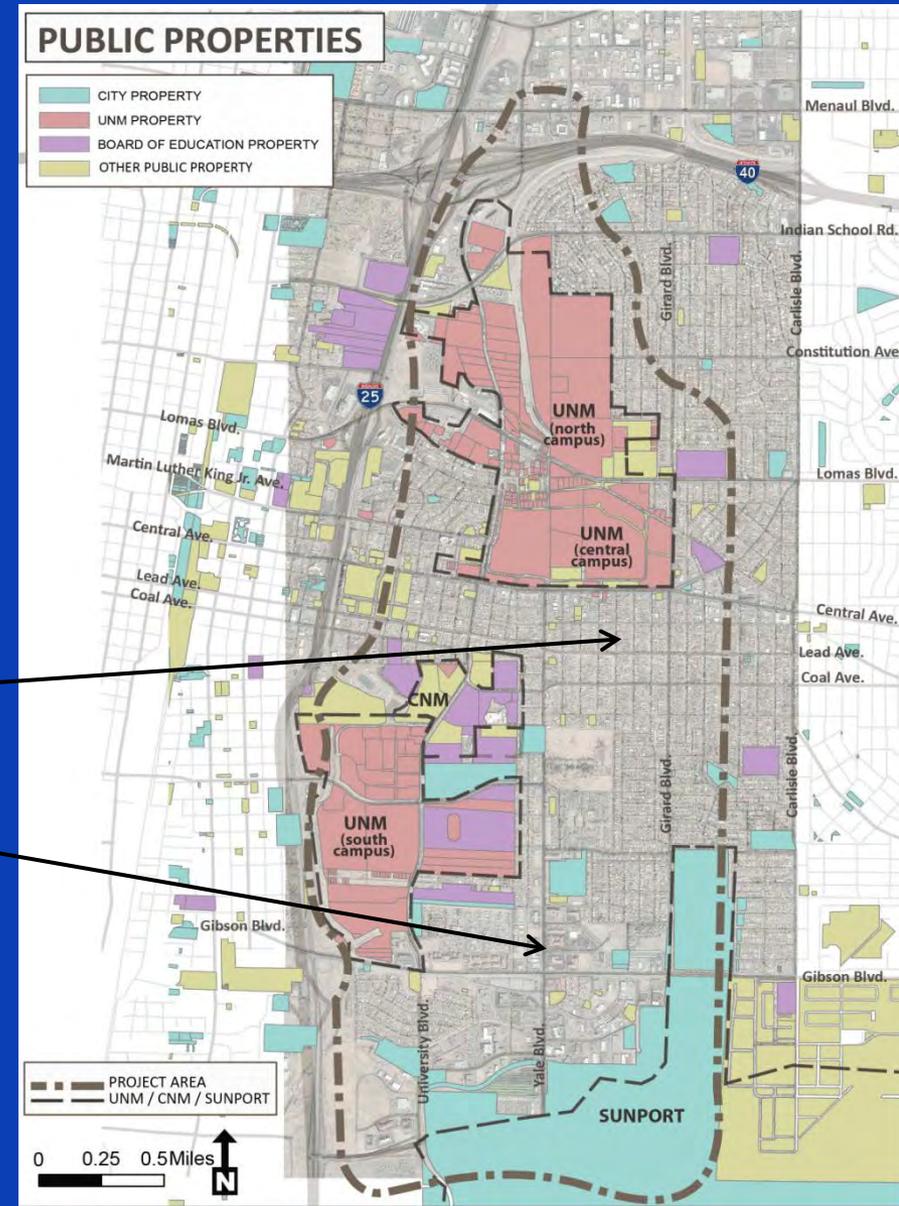


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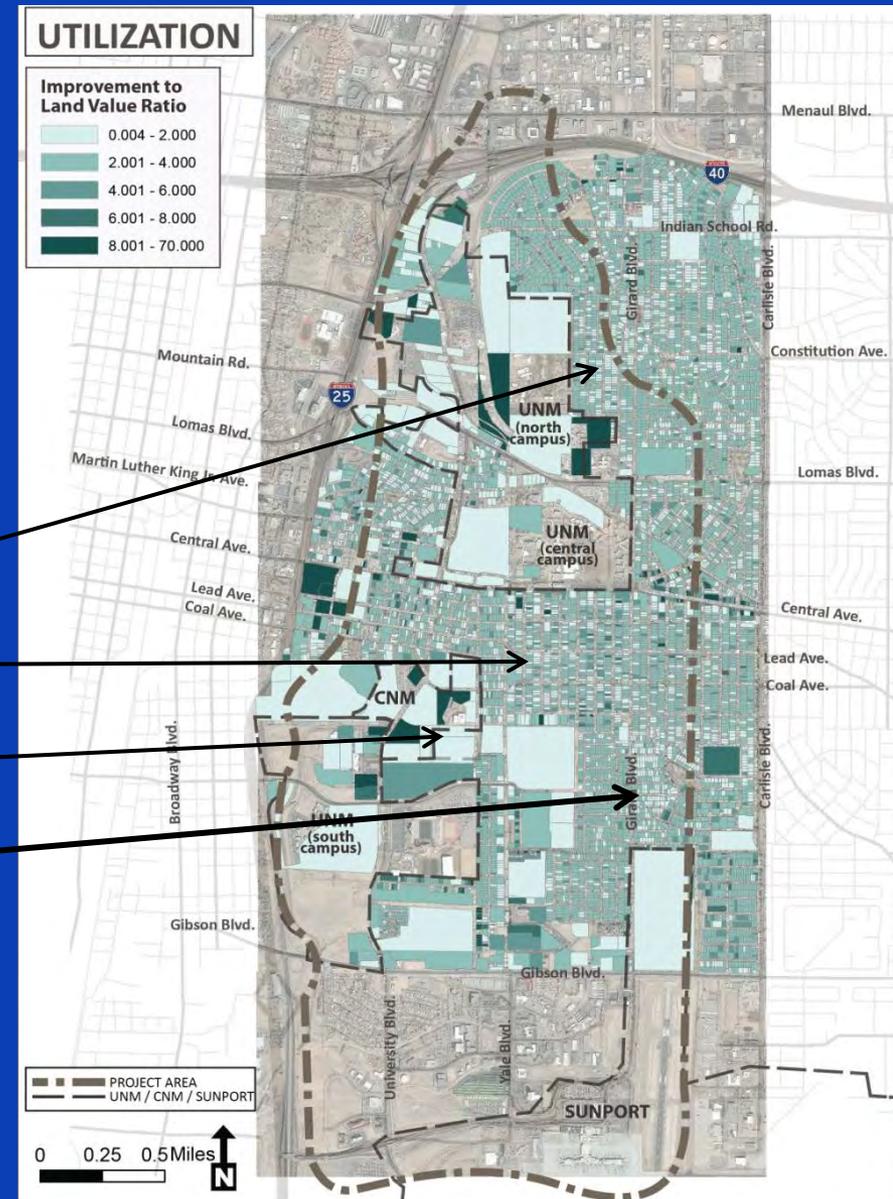
Ownership Patterns

- High percentage of non-privately controlled land:
 - Educational
 - University
 - Airport
- Most private lands:
 - Lead/Coal corridor
 - Southeast area



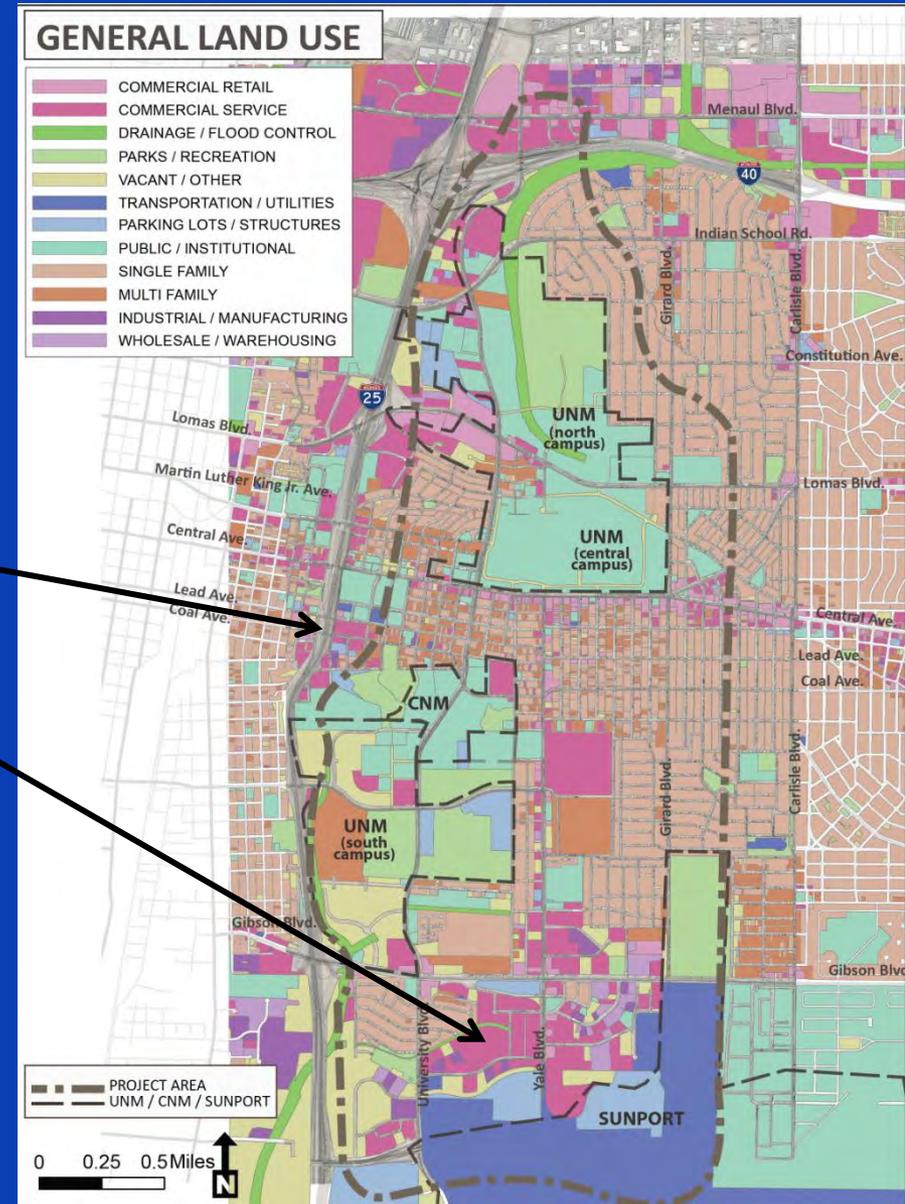
Land Utilization Patterns

- Utilization measured as ratio of improvements/land value.
- Low utilization of commercial and investment lands encourages redevelopment:
 - Northeast area (rental)
 - Lead/Coal corridor (rental)
 - Public/educational lands
 - East Girard & MLK (stable)



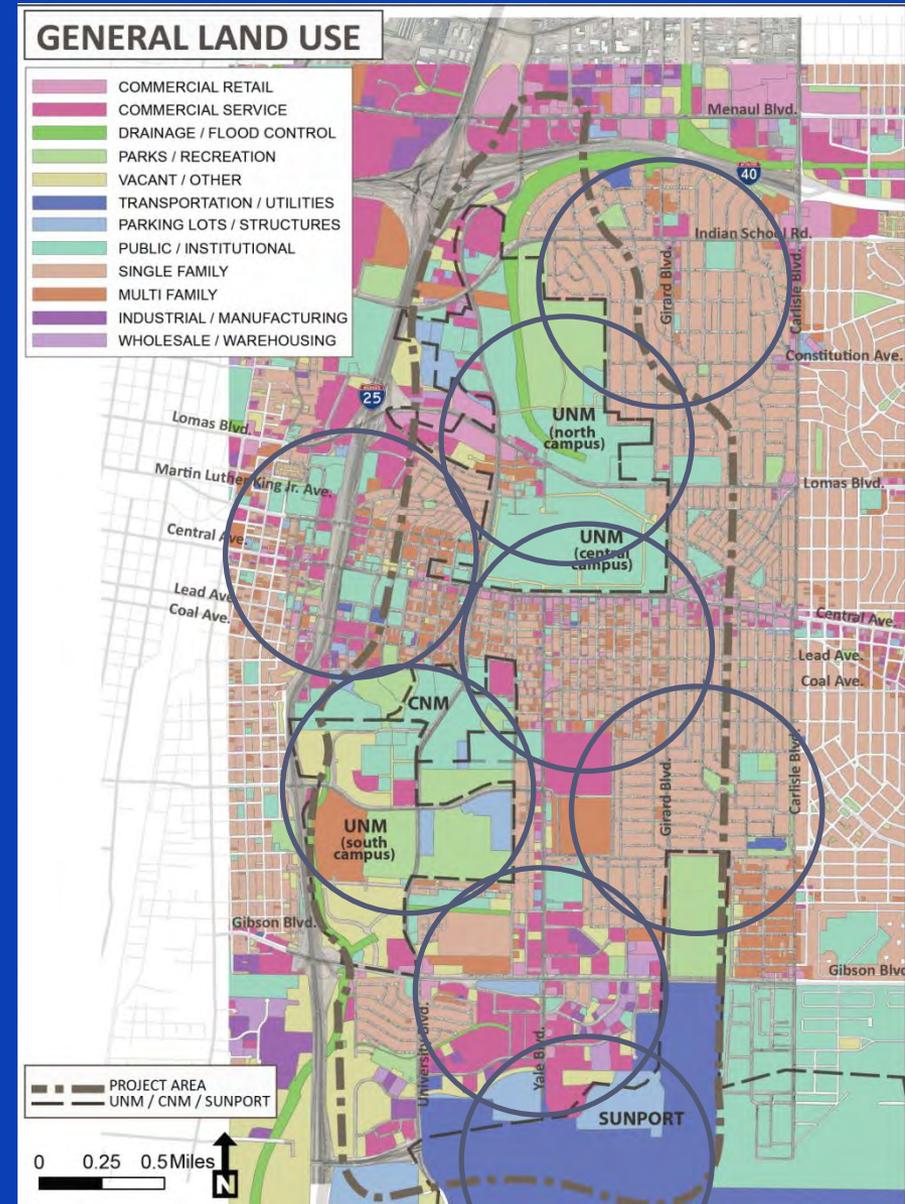
Land Use Patterns

- Residential
 - surrounding university / educational uses
- Commercial:
 - Along I-25 areas
 - North of Sunport

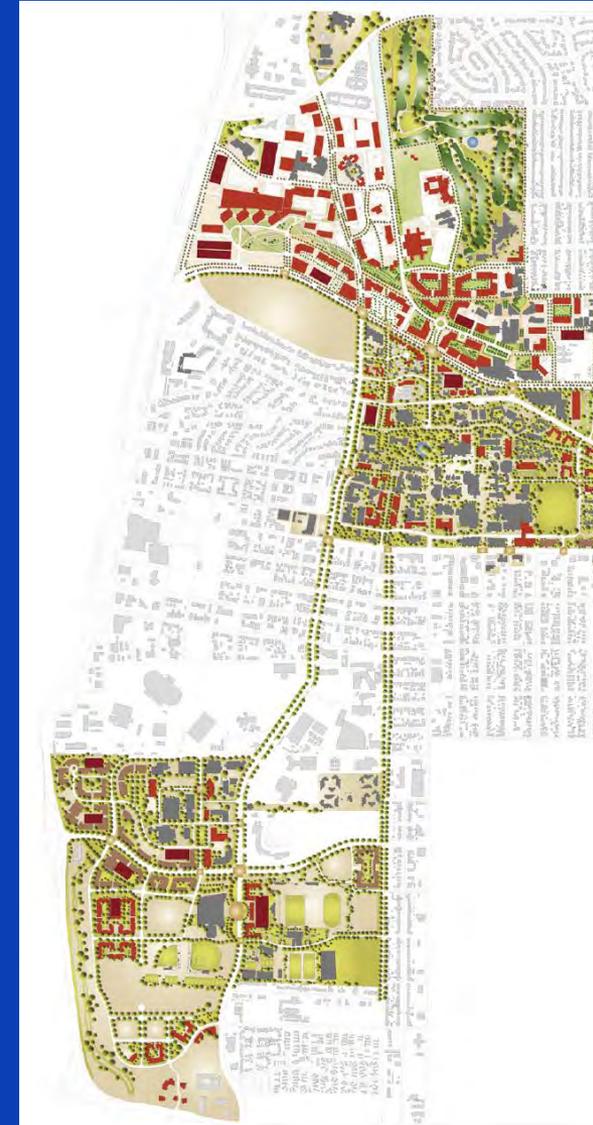


Overall Opportunities

- Create connected places
- Educational Lands:
 - Mixed-use
 - Transit-dependant
 - PPP
- Private lands:
 - Underutilized investment land.
 - R&D/Business uses north of Sunport .



Land Use, development and Zoning: UNM Master Plan



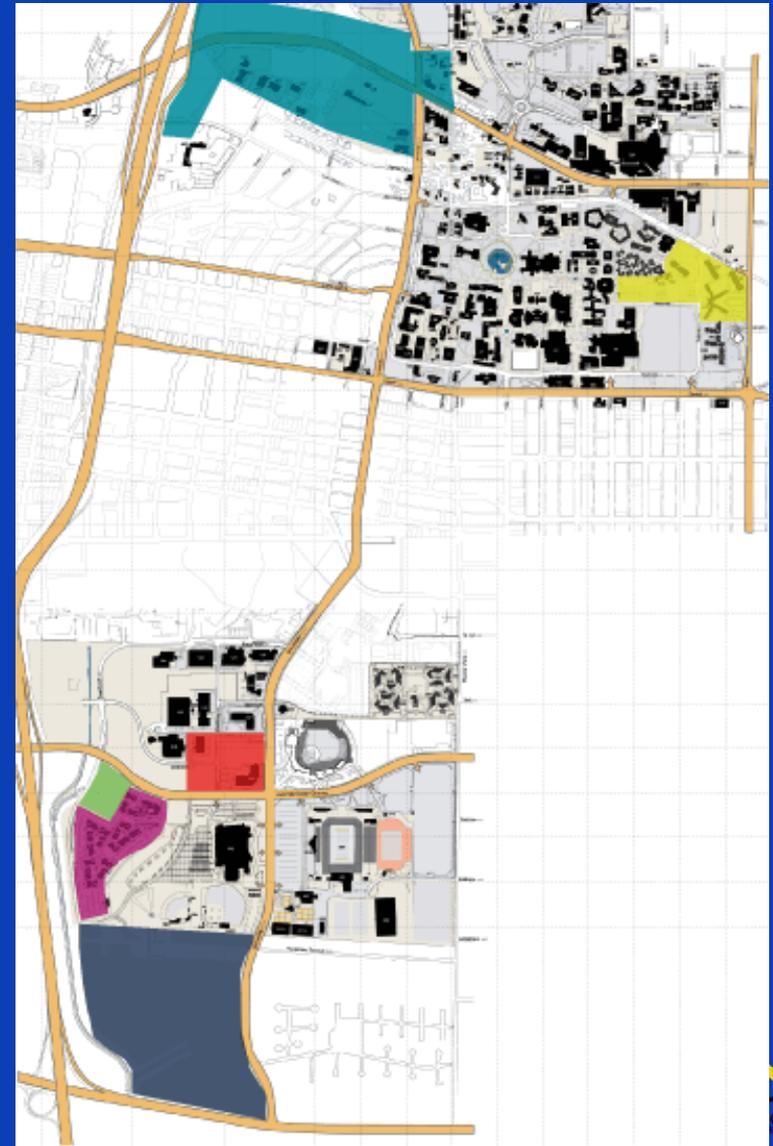
Land Use, Development & Zoning: Lobo Development

Working on a number of small and large scale developments as noted on the map

Lobo Development, Case Del Rio initial phases complete

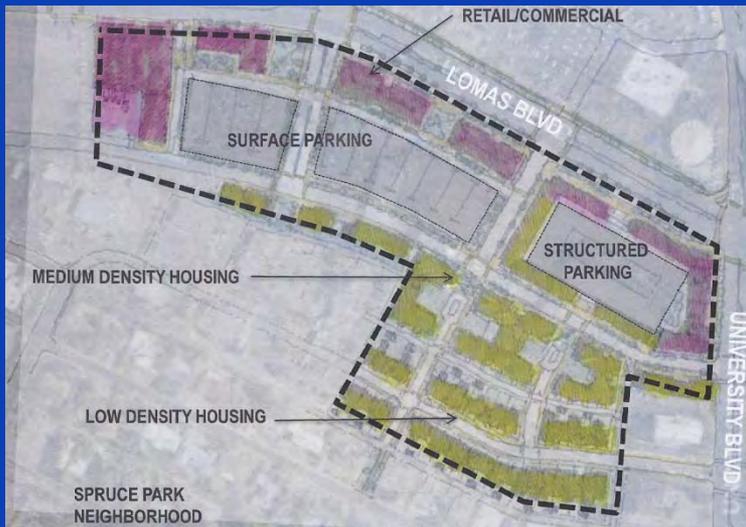
Lomas Corridor & South Campus development possibilities significant

Also potential for development at Central and Girard



Land Use, Development & Zoning: Lobo Development

Lomas Corridor



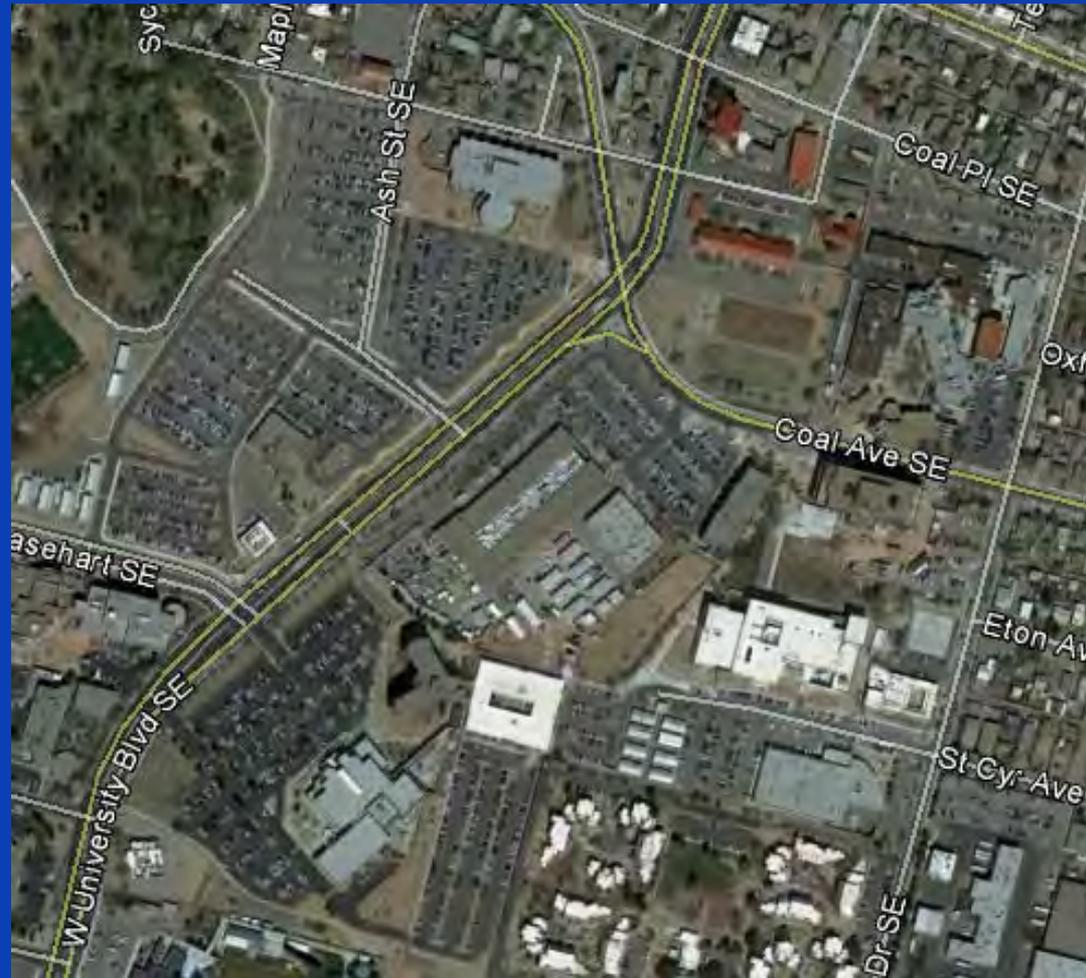
Land Use , Development and Zoning: CNM

No long range master plan
but expansions will occur.

Parking will be an issue
over long term.

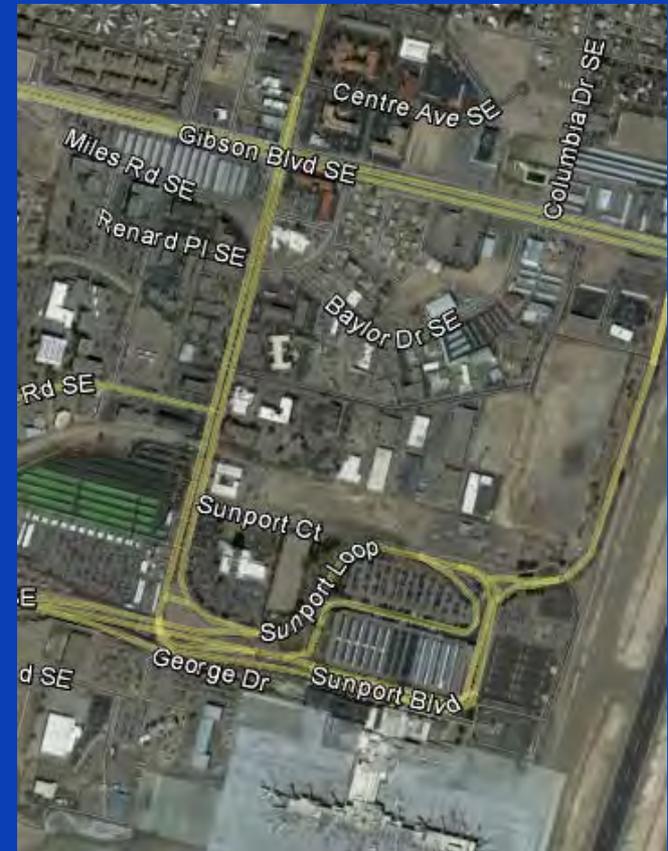
Mandate for H.S. dual
credits

Lack of near campus
services (Quarters?)



Land Use , Development and Zoning: Sunport

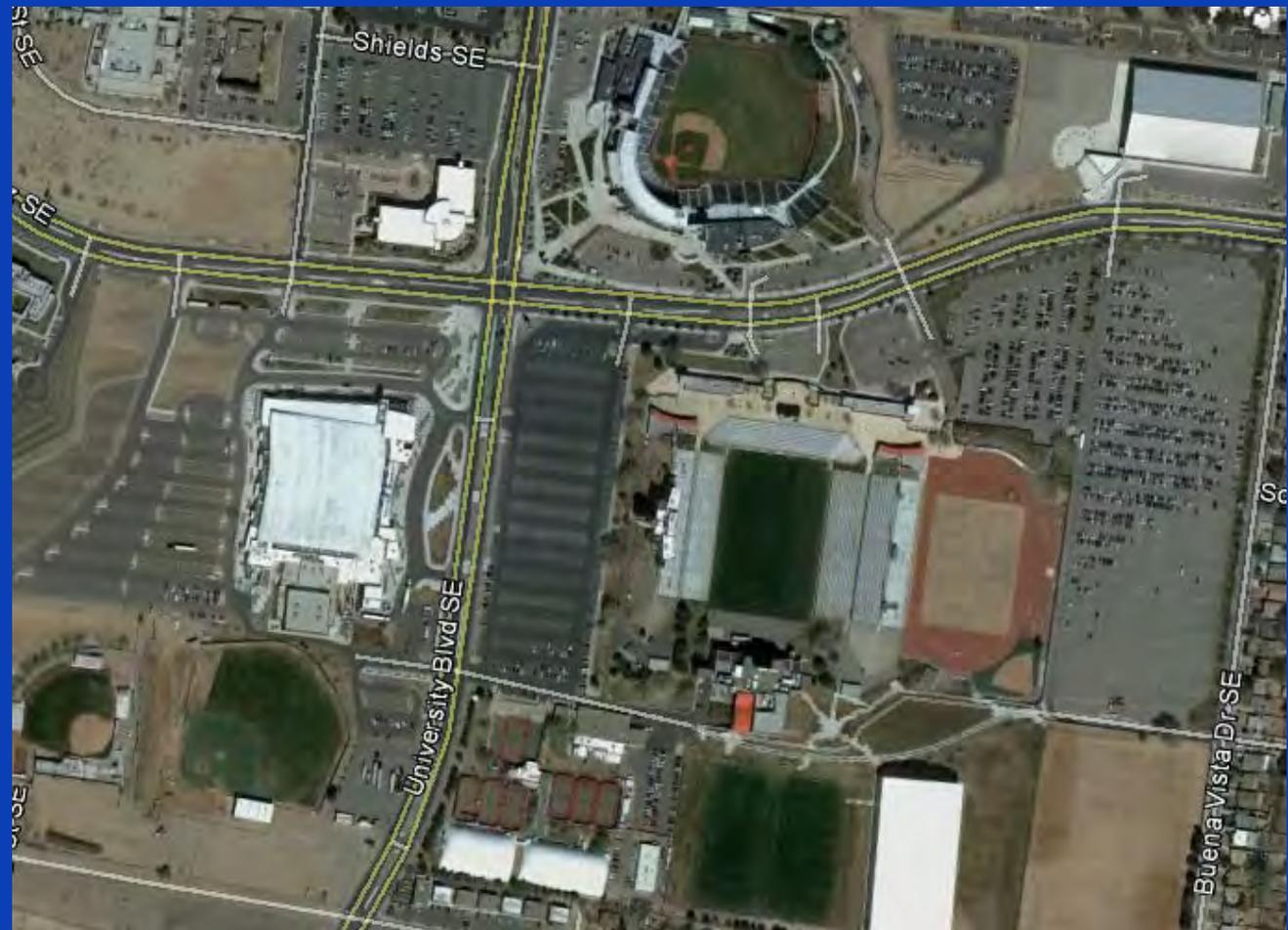
- Sunport is an important regional destination and growing employment base.
- 3000 Employees
- Odd Shifts (Vendors ,TSA, Airlines)
- Today 2.8 Million enplanements 87% O&D
- All-Time Peak of 3.4 Million in 2008
- 3.2 Million expected by 2020
- Limited Transit Ridership for Passengers
- Limited Direct Transit Connections to Most of the City.



Land Use , Development and Zoning: Athletic Complex

Lack of Local
Services

Transit Access
to Sporting
Events

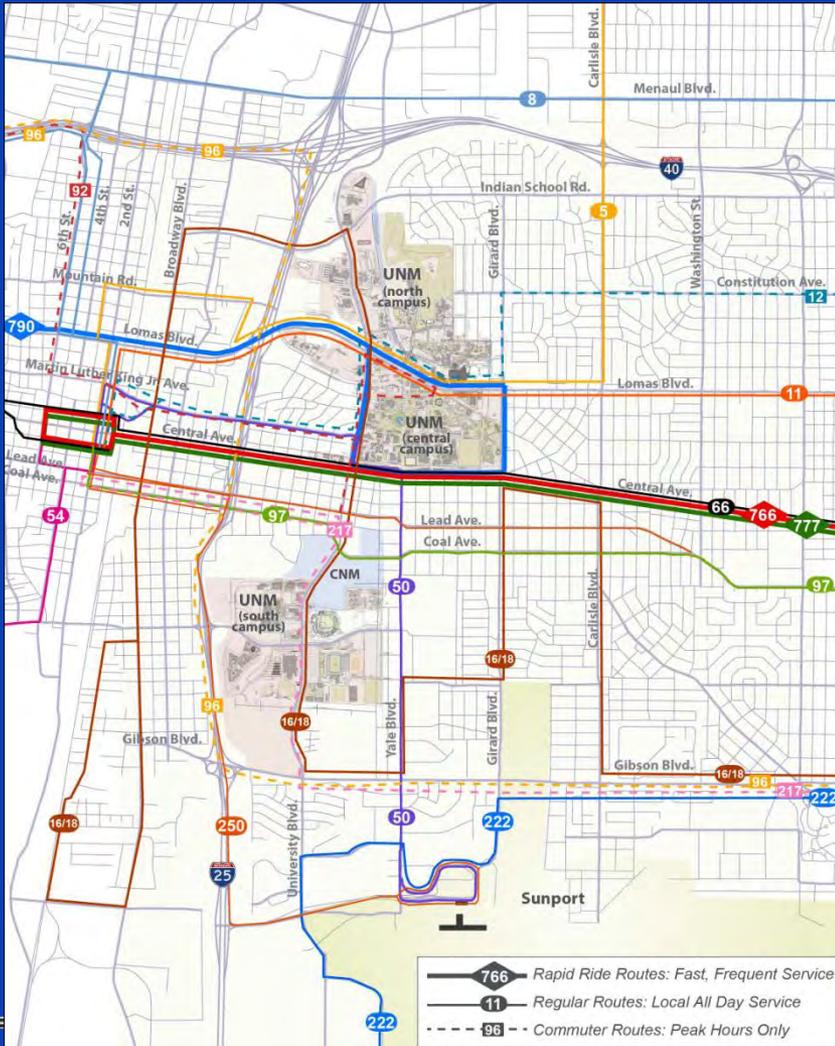


Land Use , Development and Zoning: Other Plans

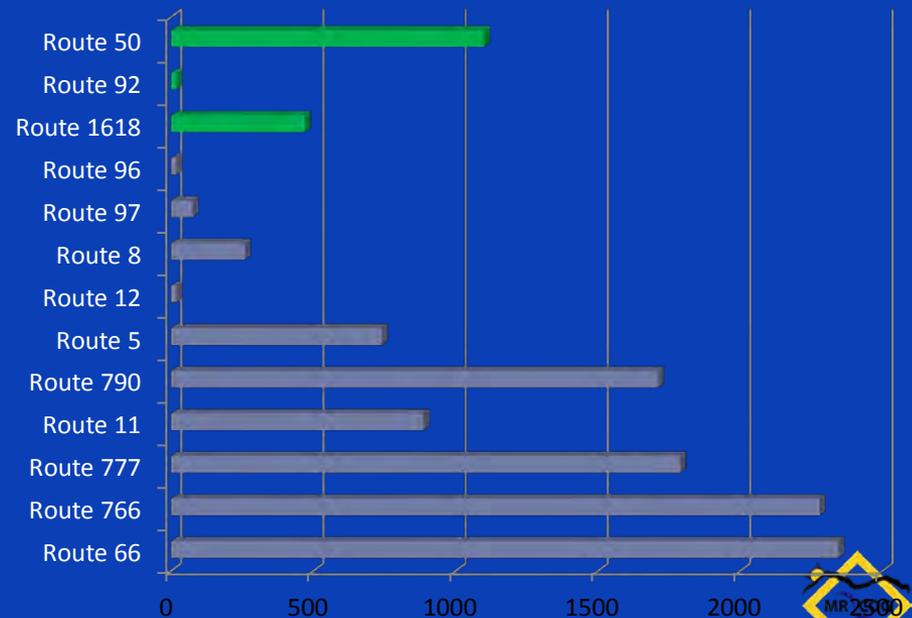
- South Yale
- Central BRT Project
- Girard Blvd. Complete Streets Master Plan
- Central Avenue Streetscape



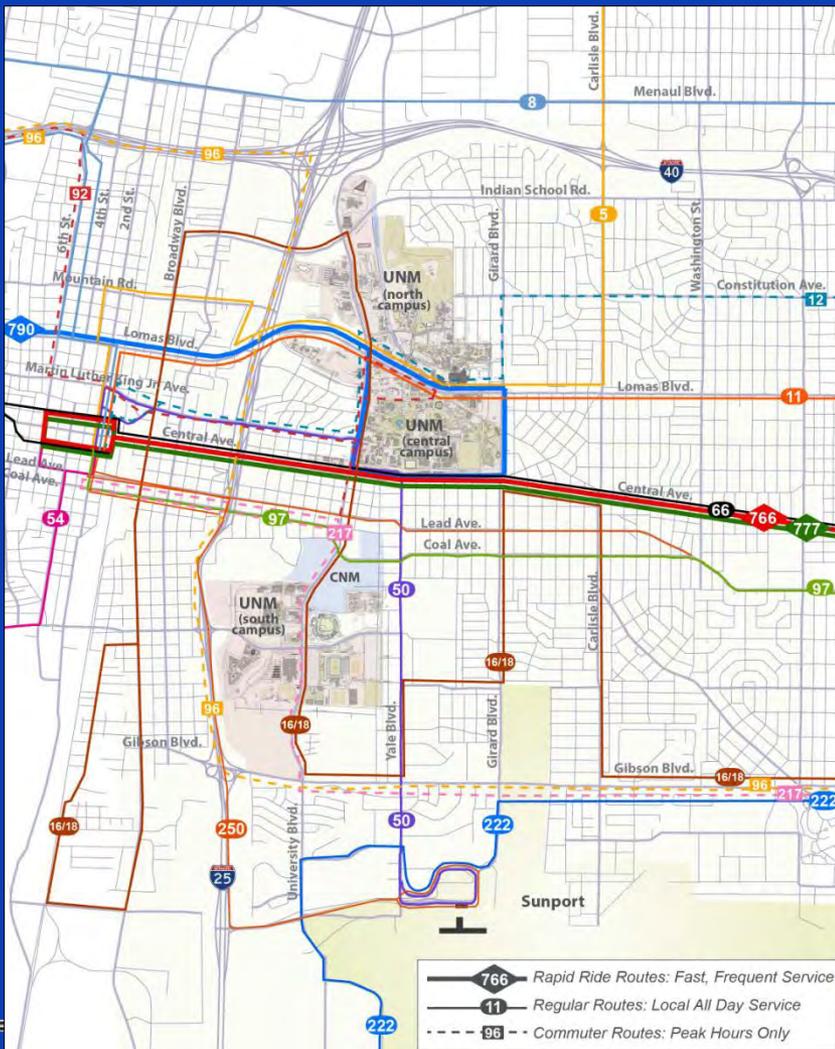
Study Area Transportation: ABQRide



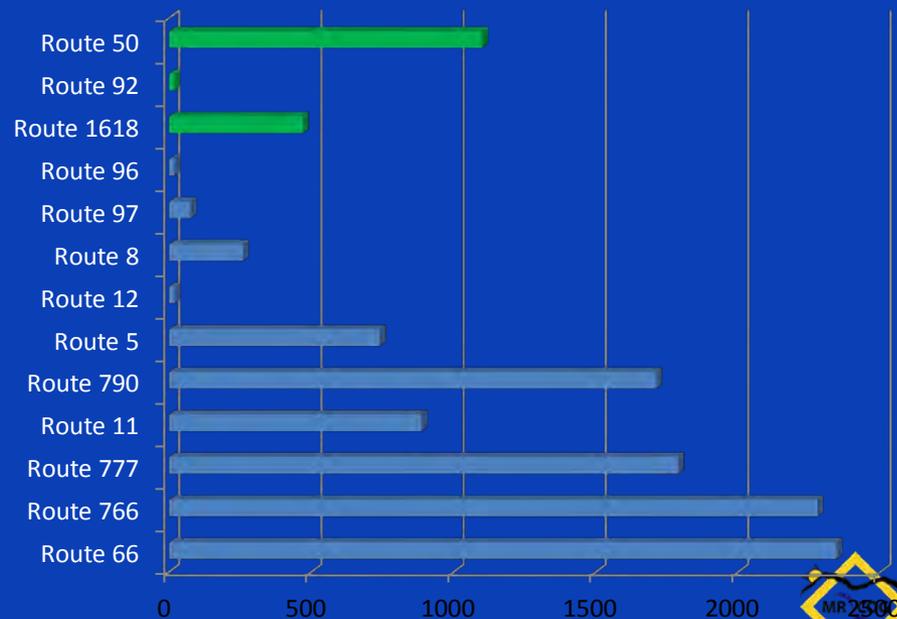
- 16 routes that serve at least some portion of the study area
 - 5 routes commuter only
 - 4 routes on far south edge of study area
 - 13 east-west service (within Study Area)
 - 3 north-south service (within Study area)



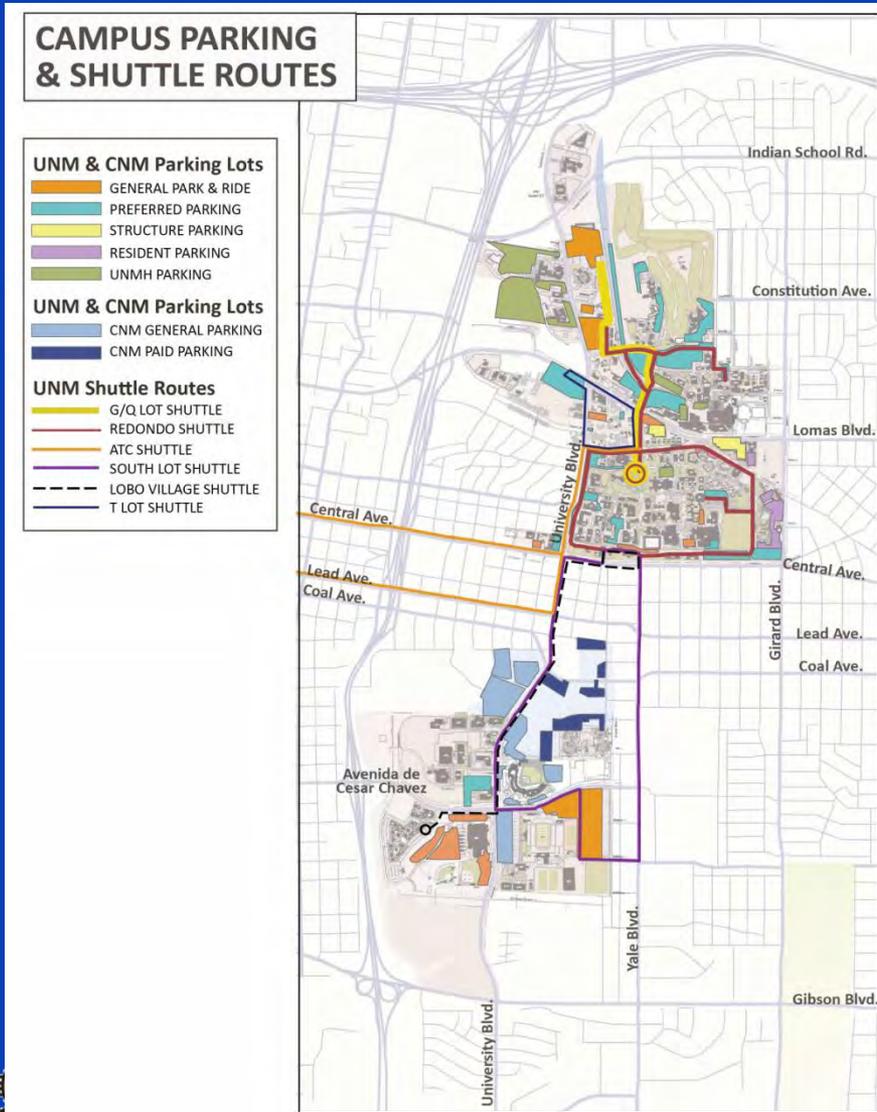
Study Area Transportation: ABQRide



- 1,593 riders on north-south routes
- 10,136 riders on east-west routes



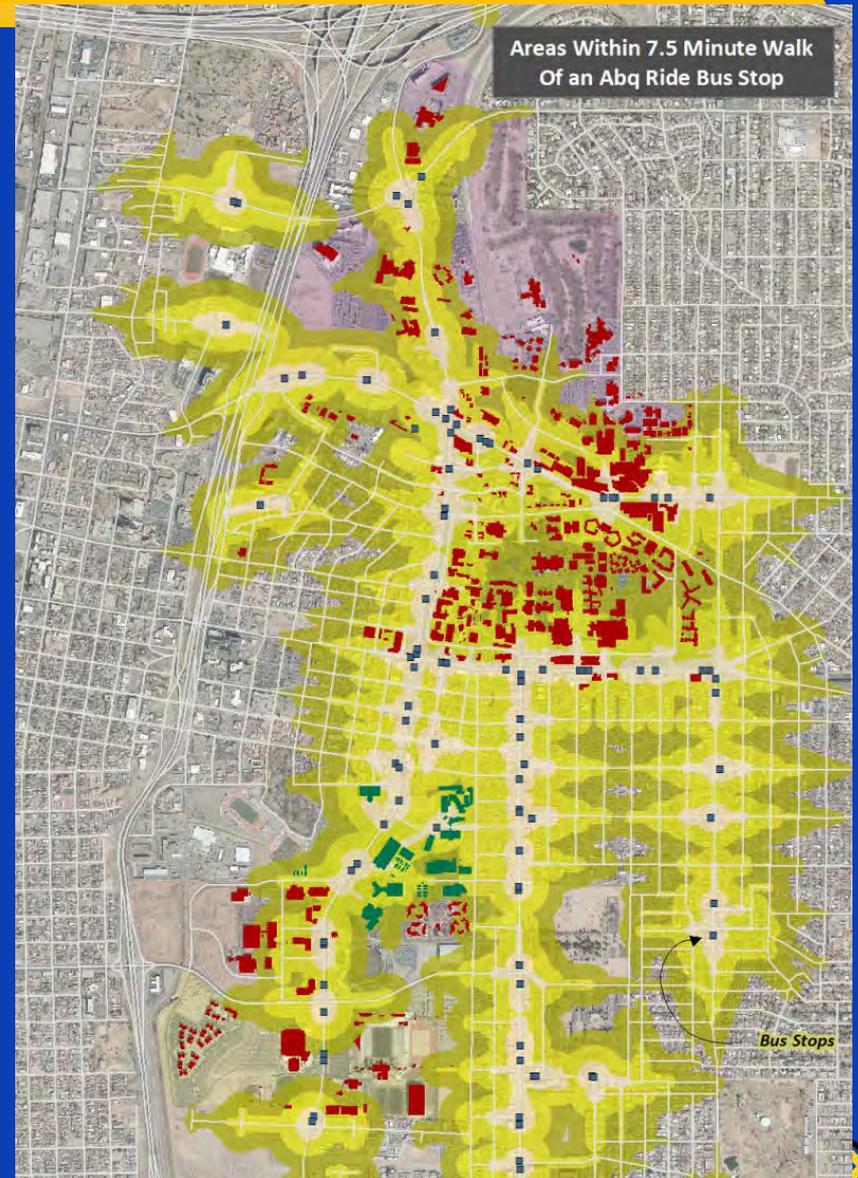
Study Area Transportation: UNM Shuttle System



- 6 shuttles operated plus 1 operating during summer and other breaks
 - G/Q Lot – 1,431 riders/day
 - South lot – 7,366 riders/day
 - T-lot – 1,003 riders/day
 - Lobo Village – 1000+ (estimate)
 - Redondo Shuttle – 449 riders/day
 - ATC Shuttle – 32 riders/day
- Daily totals > 11,000

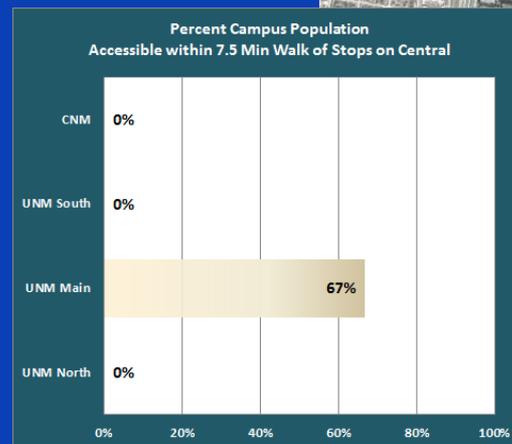
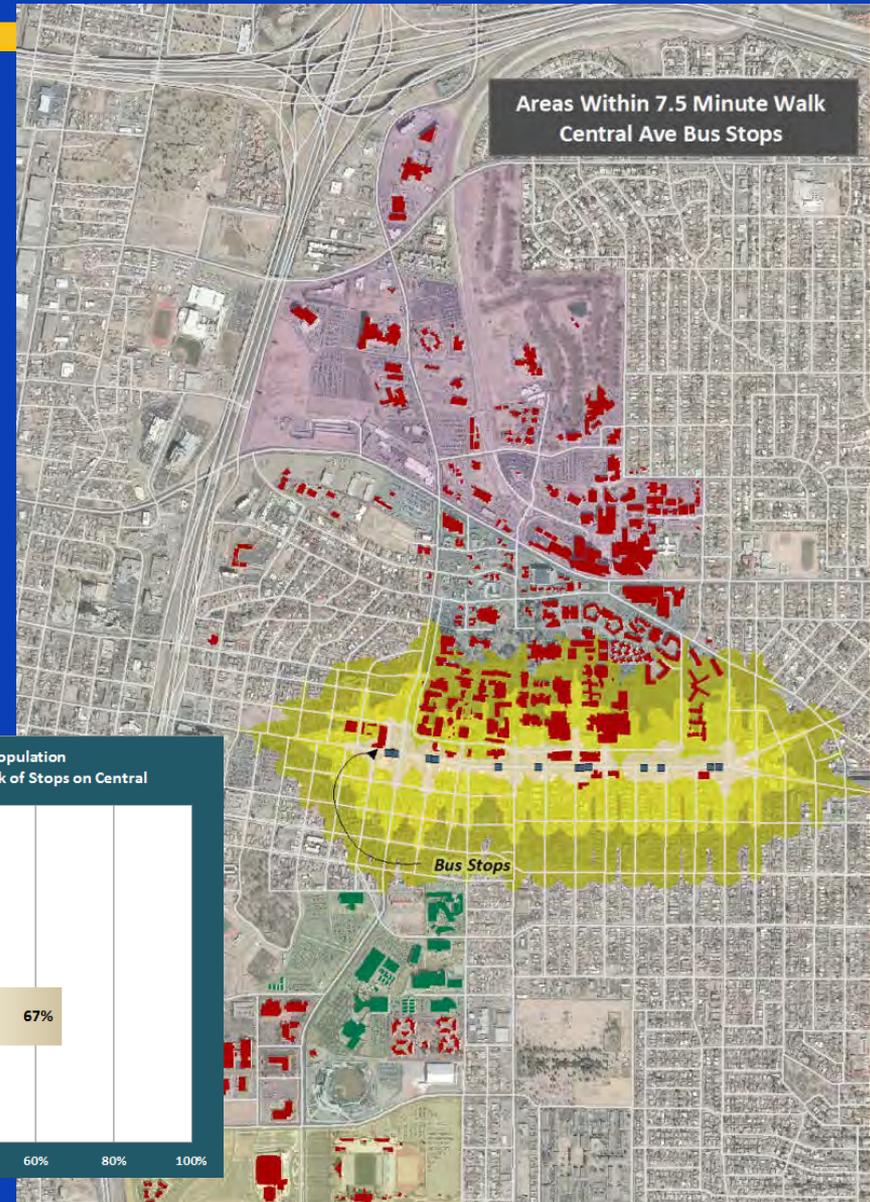
Base Year Transportation Analysis Transit Access

- We evaluated the percent of campus population that is within walking distance of Abq Ride bus stops
 - Not “as the bird flies”, but actually following walkways...
- Here, “walking distance” is taken to be 3/8 of a mile (7.5 minutes) @ 3mph walking speed
 - College students probably go farther?
 - Or, do they?
- Campus “population” is taken to be total staff, faculty, and students in campus buildings
- Contours here are 2.5 min walking intervals
 - But focus on the overall extent
- As you can see, almost all UNM and CNM buildings are reachable from some bus stop



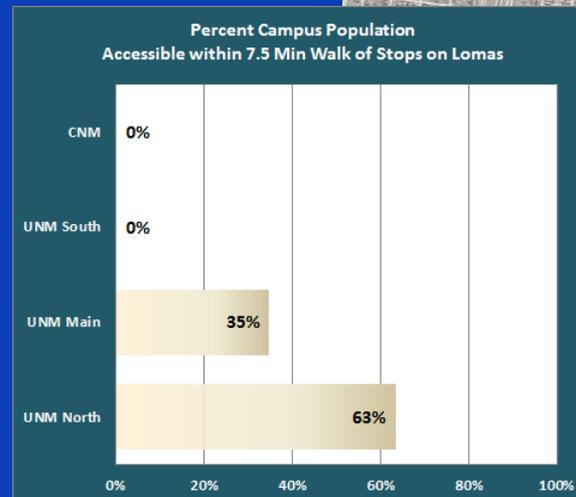
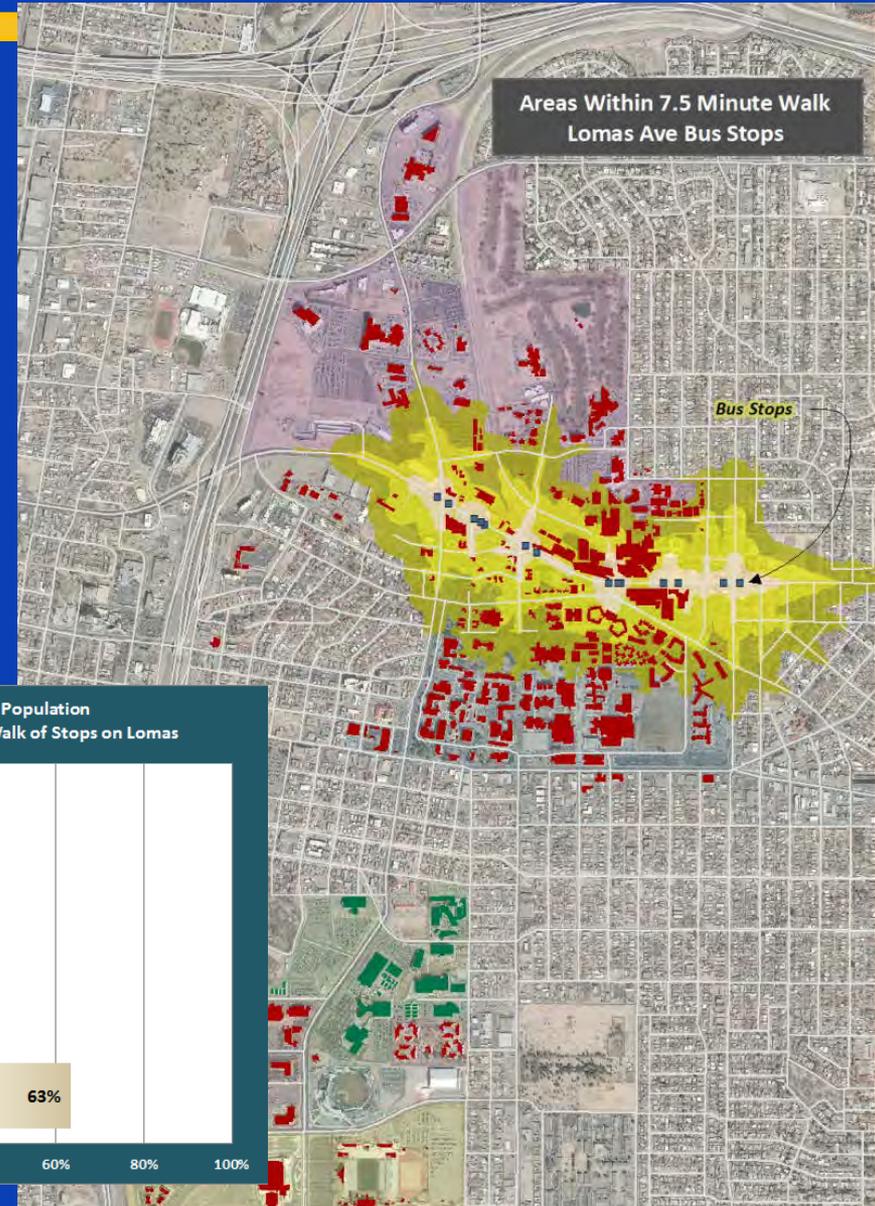
Base Year Transportation Analysis: Transit Access

- But here is the kicker: the “backbone” of Abq Ride service is really focused on Central
 - 5 min headways on local & Rapid Ride routes
 - Accounts 40% of all system ridership
- Lomas route (11) is a nice route, but level of service is nowhere near that found on Central
- But, North Campus, South Campus and CNM are BOTH unreachable from Central



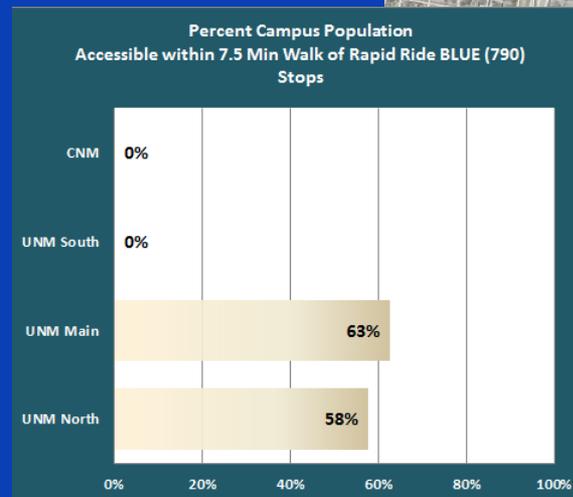
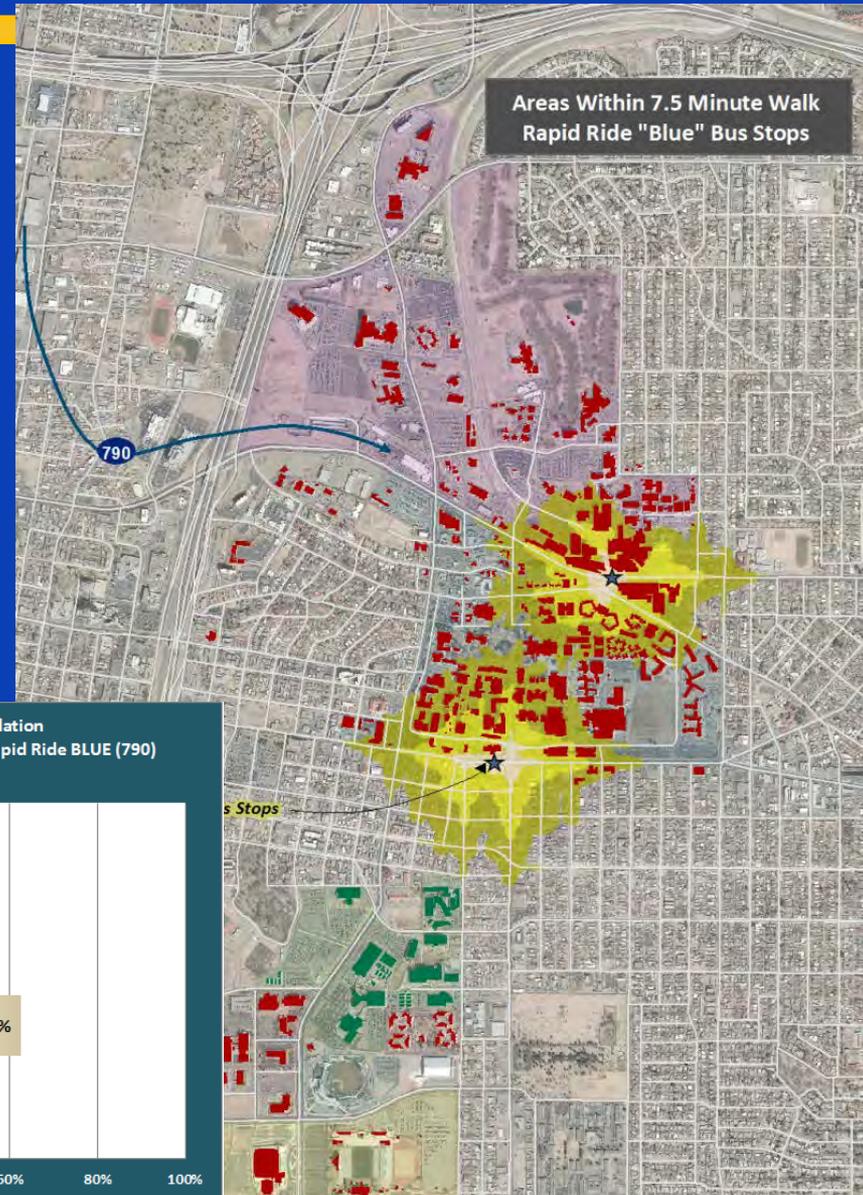
Base Year Transportation Analysis: Transit Access

- If you are headed to North Campus, you need to use a Lomas route
 - Can get to about 2/3 of the buildings on North Campus
 - Also useful for north side of Main campus (1/3)
- But you do not enjoy the same frequency and availability of service that you would if you come in on Central



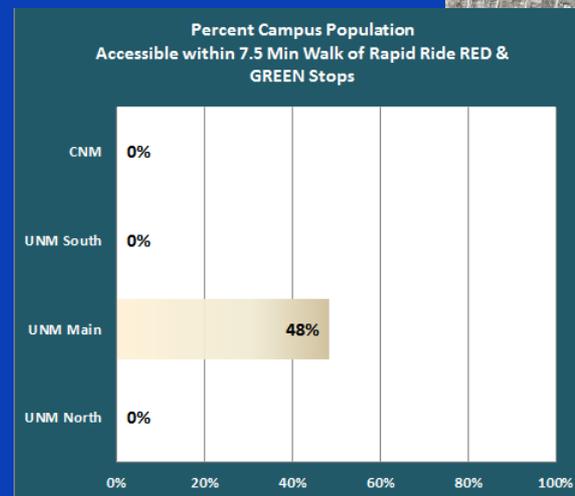
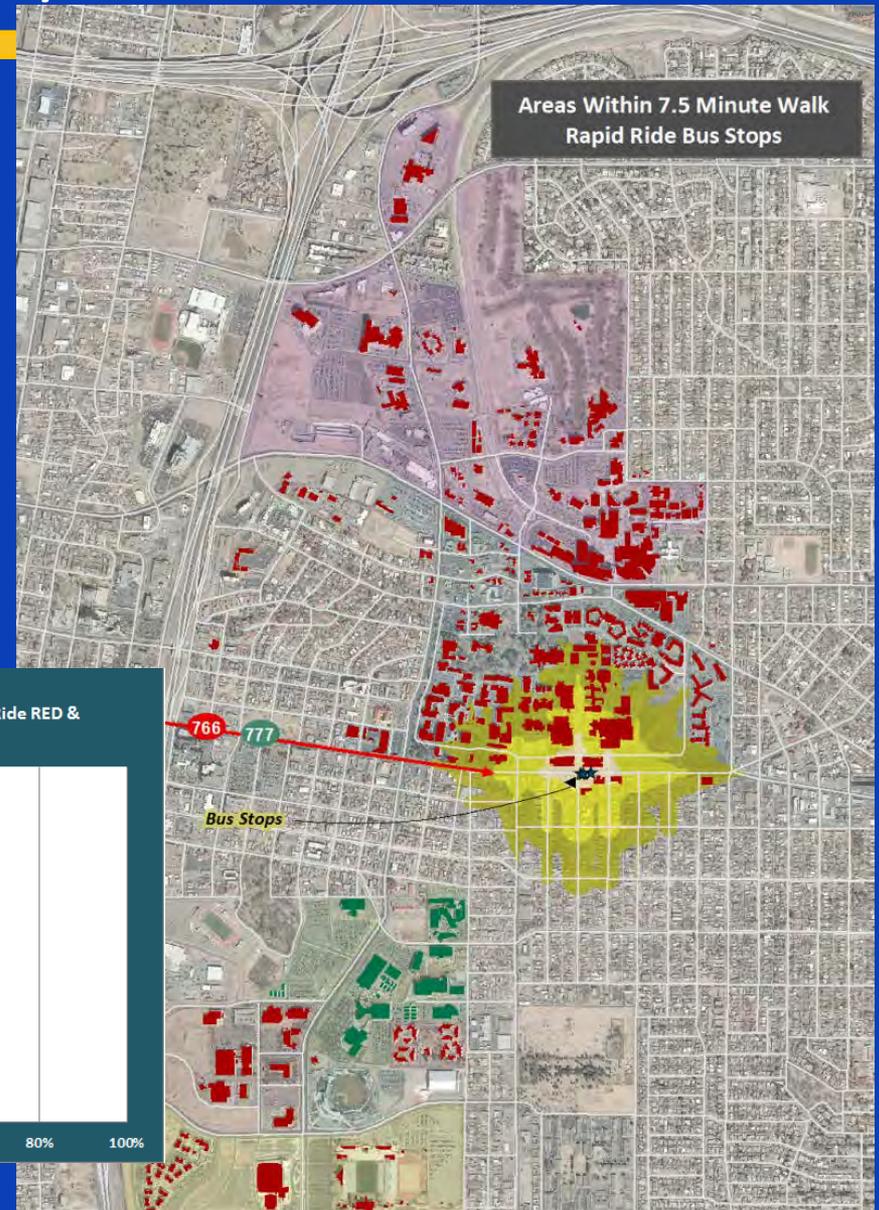
Base Year Transportation Analysis: Transit Access

- Rapid Ride BLUE (790) from the West Side is very successful
 - 2 stops: UNMH and Central/Yale
 - 42 minutes from NWTC to UNMH
 - 10-15 min frequency (Peak)
 - 20-30 min frequency (Midday)
- Covers about 2/3 of the daytime population on North & Main campuses
- But not CNM at all



Base Year Transportation Analysis: Transit Access

- Rapid Ride RED (766) & GREEN (777) routes are also enormously successful
- About ½ of daytime population is reachable from these routes – if you happen to live near them
 - But North Campus and CNM – not at all

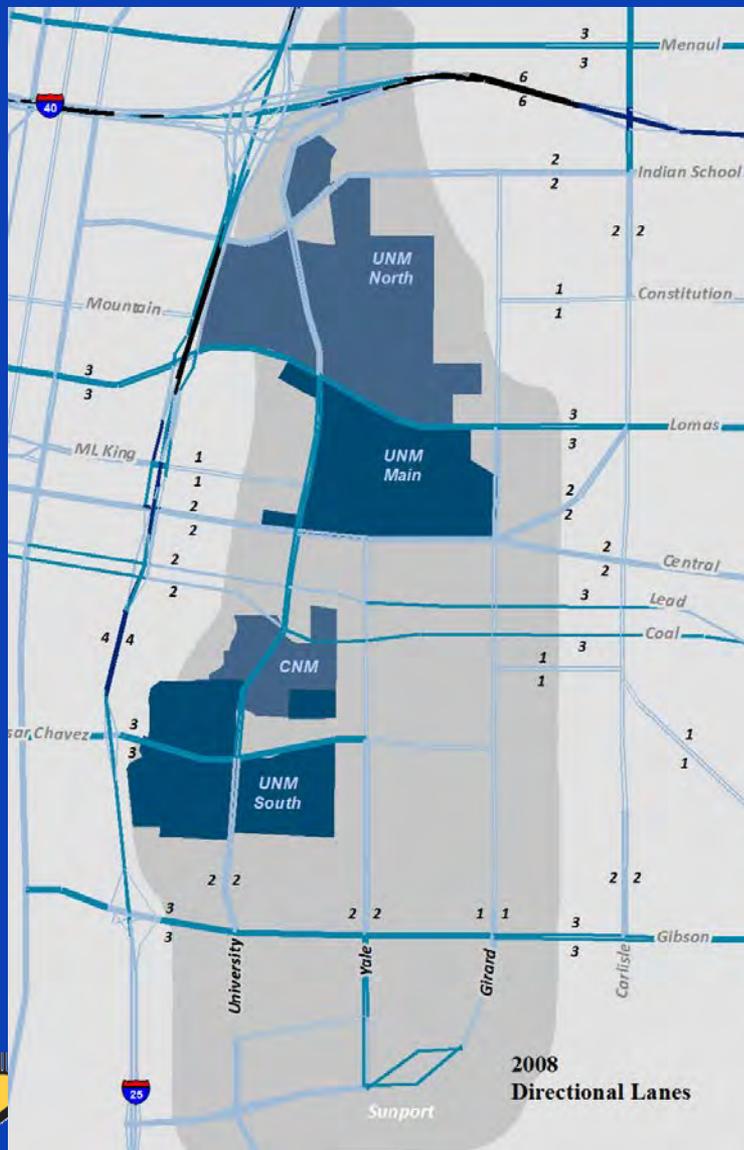


Base Year Transportation Analysis: Transit Access

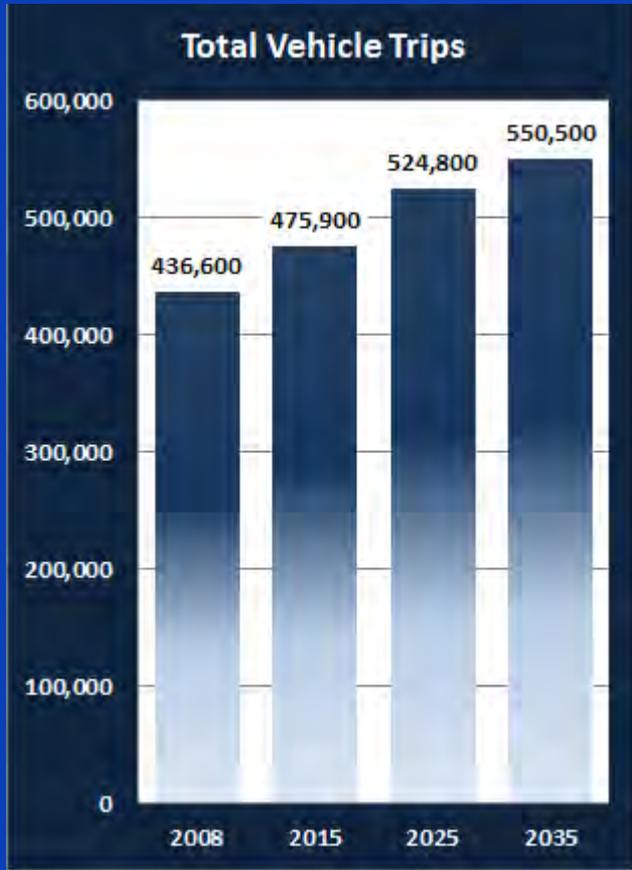
- 2 Factors play into whether transit is useful for you:
 - Origin: Where do you live? What routes are near your home?
 - Destination: Where on campus are you going?
 - Depending on your origin/destination combination, you may have a strong transit option, or no transit option at all
- And this, more than anything else, captures the goal of this study
 - Suggests that there are large, untapped, markets of potential riders that could be attracted to transit if we could better serve parts of the campuses
 - Especially, UNM North Campus and CNM
 - But, how do you do it?
 - Replicate all the services you have on Central with similar Rapid Ride services on Lomas?
 - \$\$\$
 - Or, provide fast, efficient, frequent connector services throughout the campuses that ties directly to regional routes
 - Thereby making the entire study area accessible from these regional routes



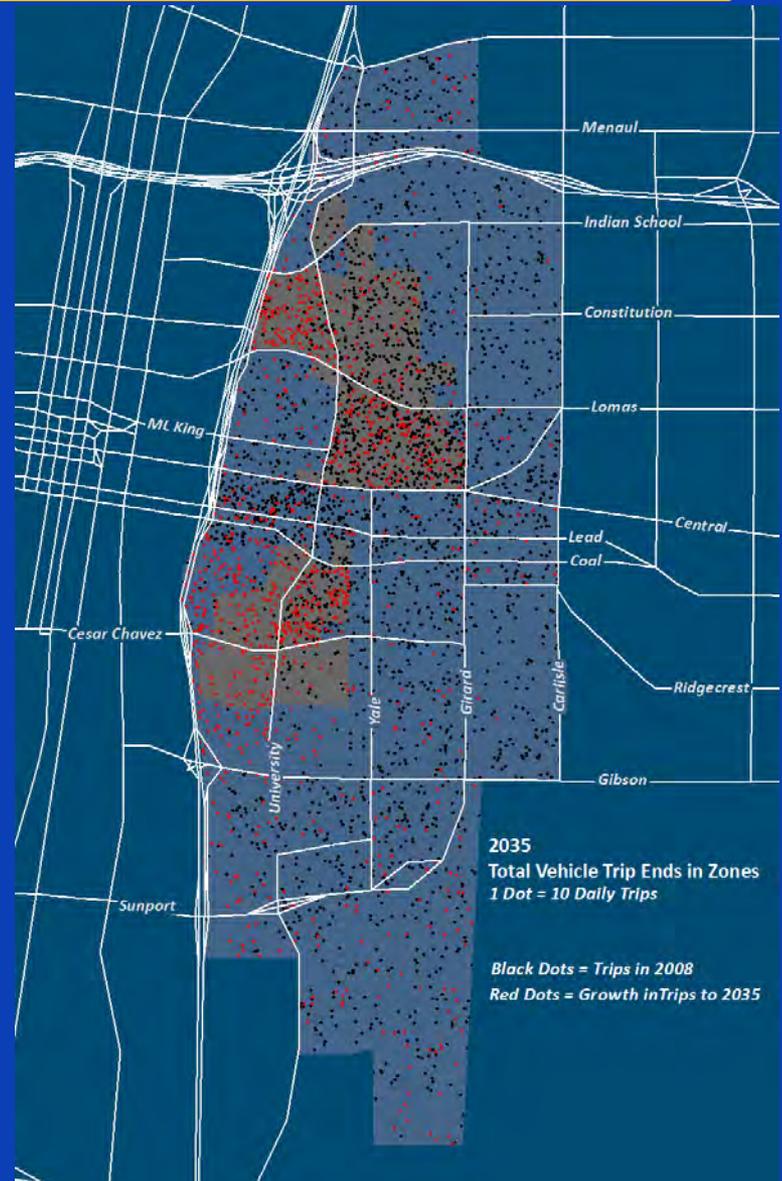
Study Area Transportation: Roadway Network Current & Future



Study Area Transportation: Growth in Trips 2008-2035



27% Increase In Trips

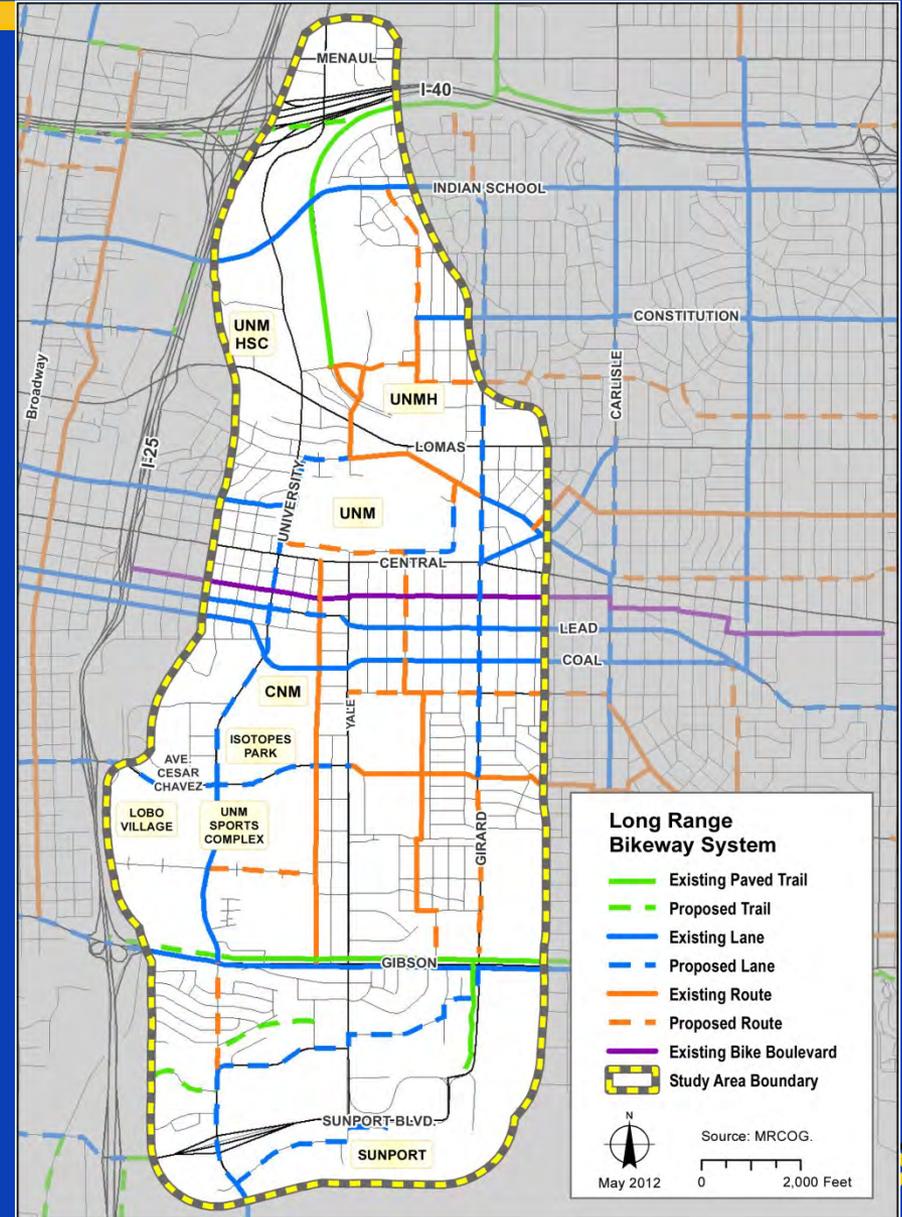


Study Area Transportation: Change In VC Ratios 2008-2035

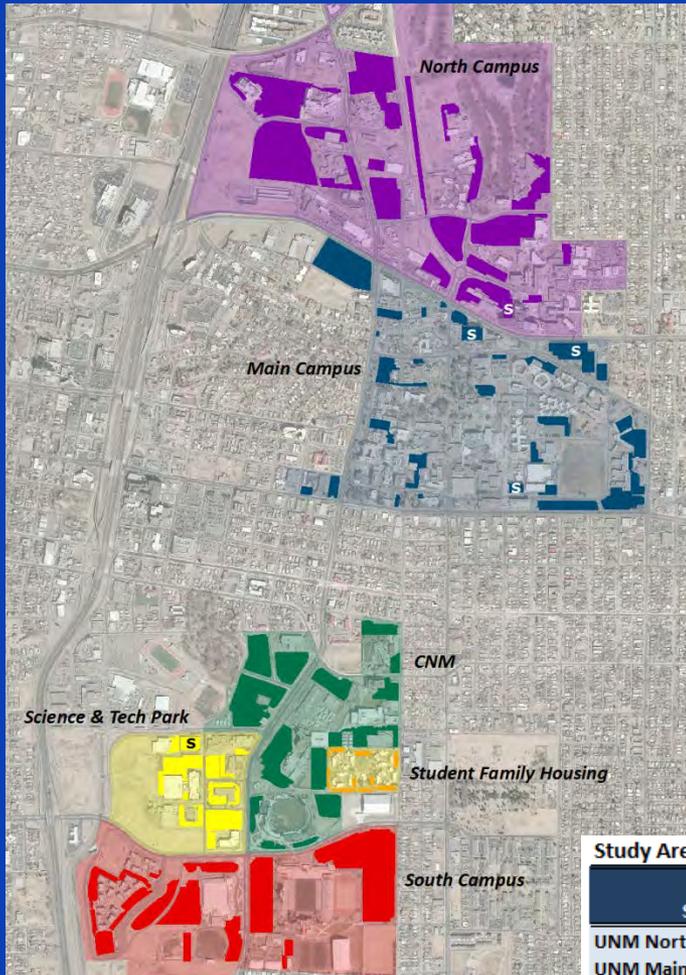


Study Area Transportation: Bikeway System Map

- Not much change in existing areas
- Portions of Redondo bike/transit only
- On Campus circulation an issue
- Lack of continuous north/south facilities
- Direct east/west connections marginal for both UNM Main and CNM



Study Area Transportation: Parking Inventory

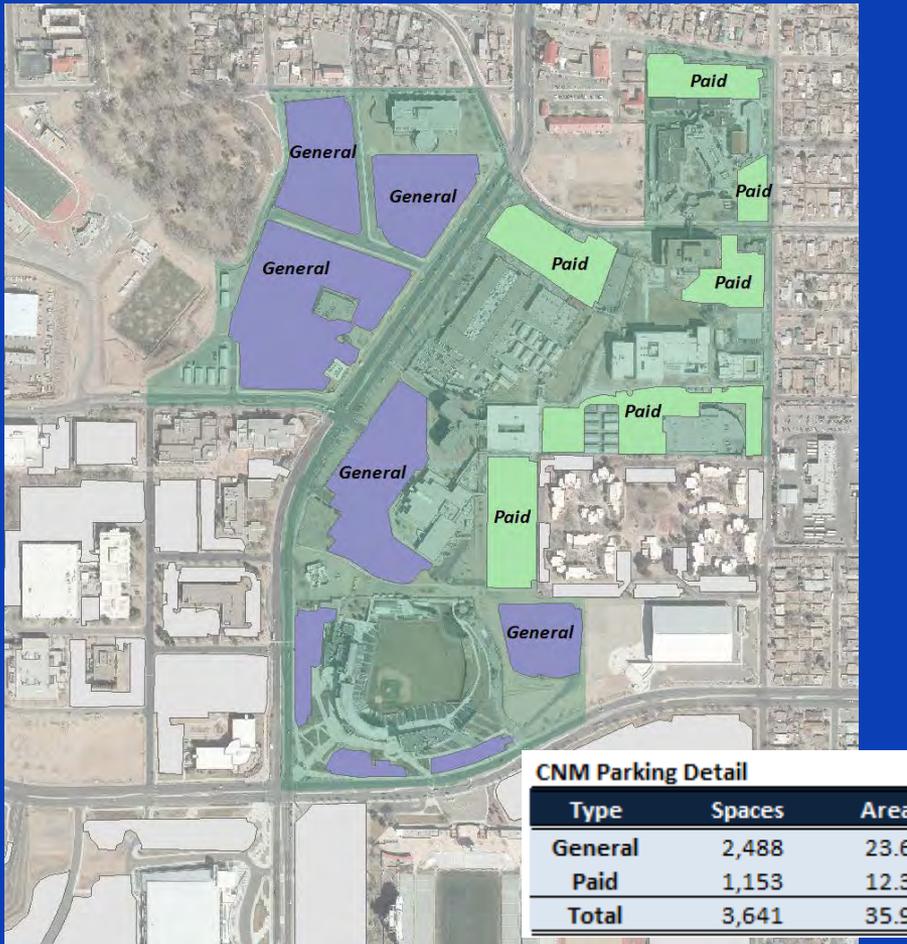


- Built a GIS inventory of campus parking within the study area, shown here
- Our inventory included counts from aerial photography and estimates from land areas in some cases
- Recap:
 - 86 surface lots
 - 5 parking structures
 - 25,600 parking spaces, total
 - Count includes “event” parking around stadium and site parking around the hospitals
 - In total, 210 acres dedicated to parking: 21% of land area

Campus Subareas	Surface Parking		Structure Parking		Total Capacity	Total Acres	Pct Area
	Lots	Capacity	Structures	Capacity			
UNM North	23	7,852	1	372	8,224	81.3	21.3%
UNM Main	24	3,352	3	2,971	6,323	34.1	14.4%
UNM South	13	5,069			5,069	43.8	28.7%
Science & Tech Park	10	1,495	1	498	1,993	13.1	16.8%
Student Family Housing	7	342			342	2.5	18.8%
CNM	14	3,641			3,641	36.0	33.0%
Total	91	21,751	5	3,841	25,592	210.8	21.7%



Study Area Transportation: CNM Parking

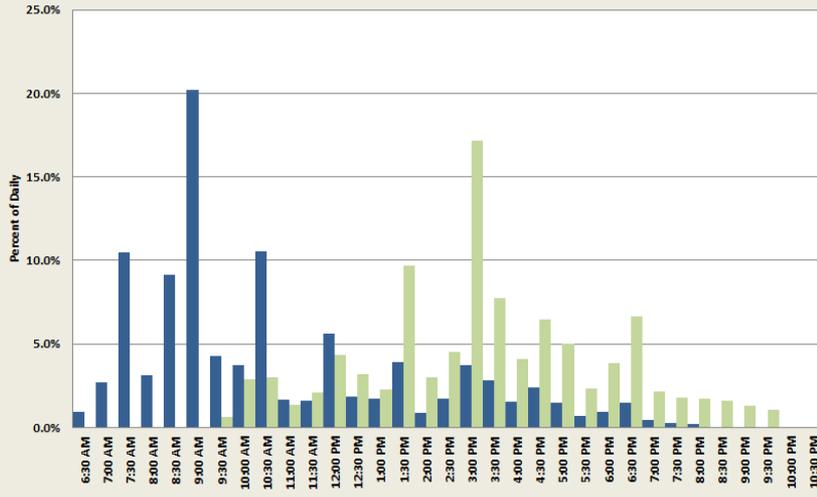


- Parking at CNM is all via surface lots
- Covers 36 acres, as shown here
- 46% paid parking
- We do not have occupancy counts for these lots, but observation suggests that they are mostly full

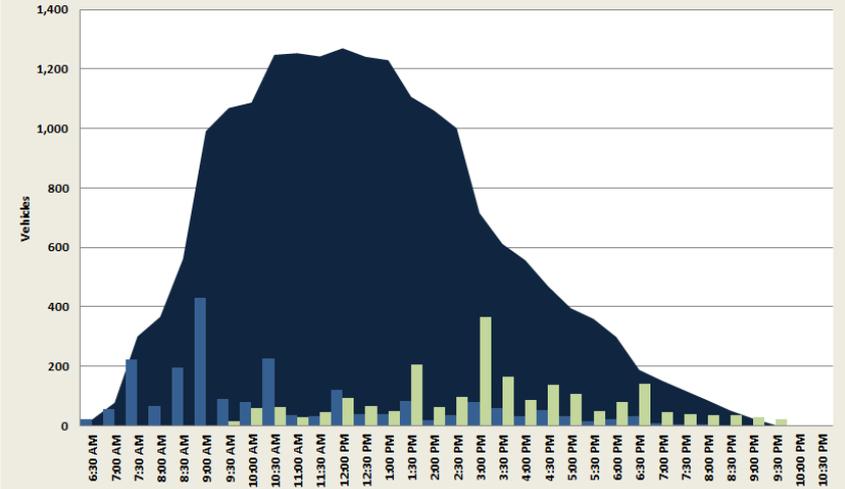


Study Area Transportation: Student Parking Lot Utilization

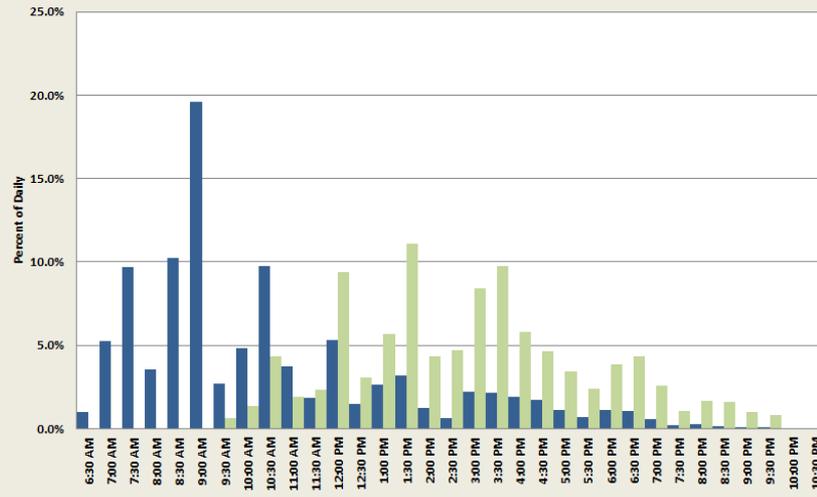
Entering and Exiting Traffic (G/Q Lots)



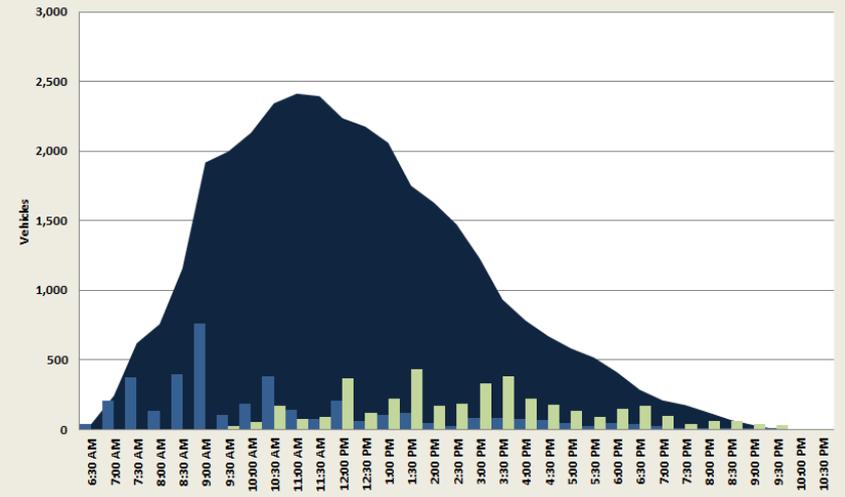
Parking Lot Accumulation (G/Q Lots)



Entering and Exiting Traffic (South Lot)

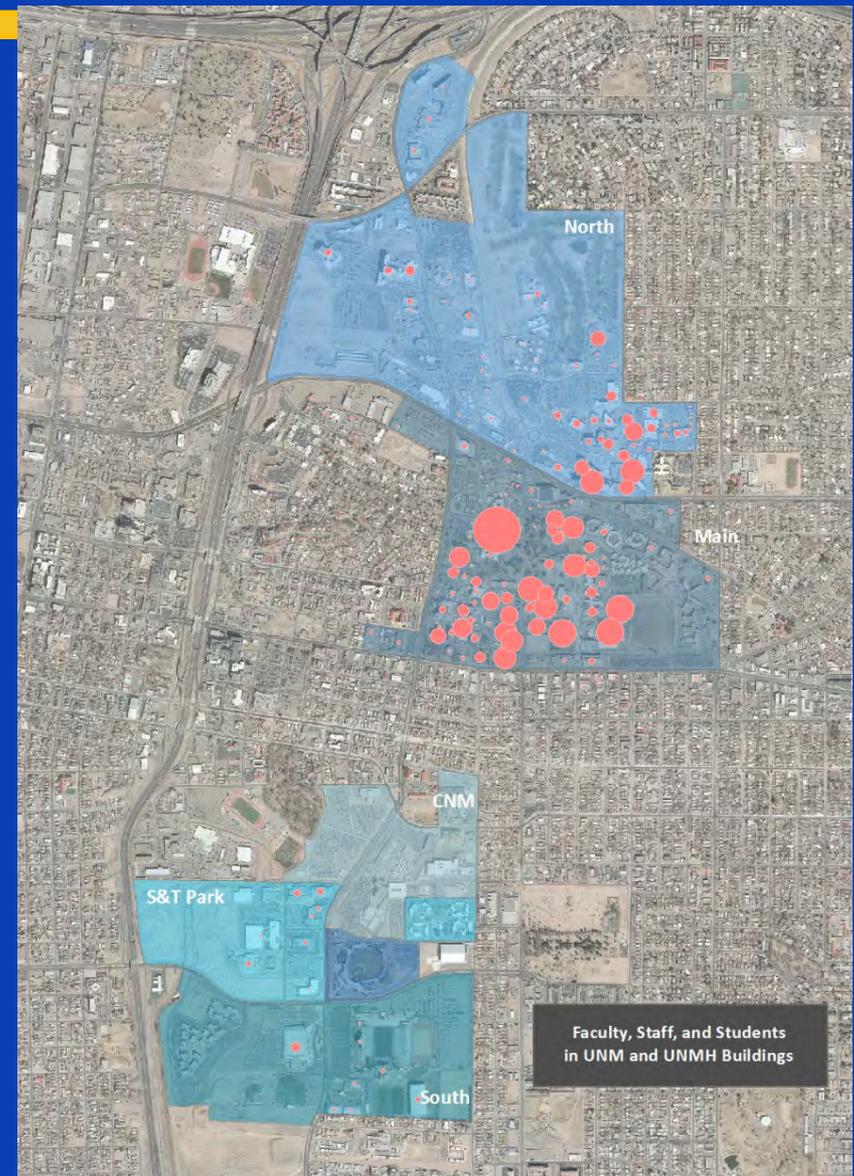


Parking Lot Accumulation (South Lot)



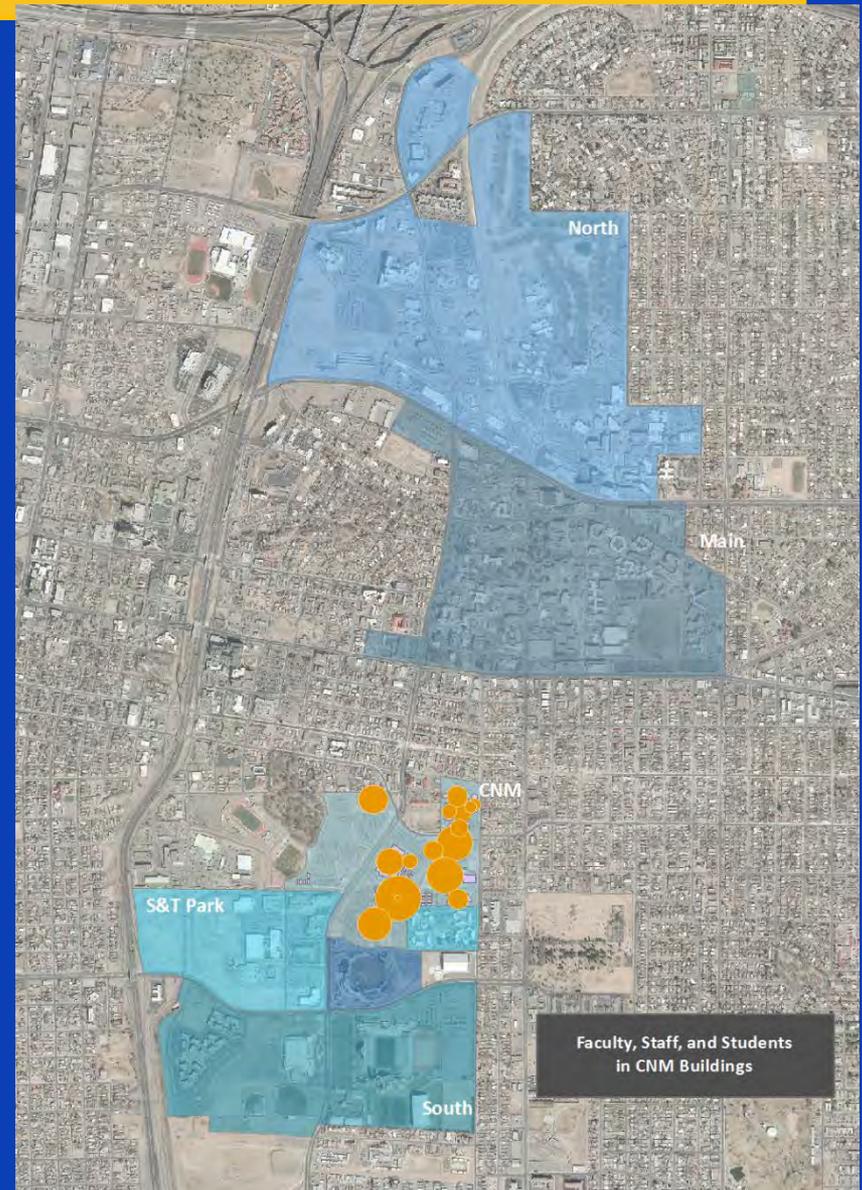
Base Year Transportation Analysis: UNM Populations

- Staff, faculty, and students associated with UNM and UNMH buildings
- Student distributions assigned to buildings on the basis of classroom enrollments, normalized to match overall student population total
- Faculty distributions assigned to buildings proportionally with students
- Staff distributions assigned to buildings based on GSF

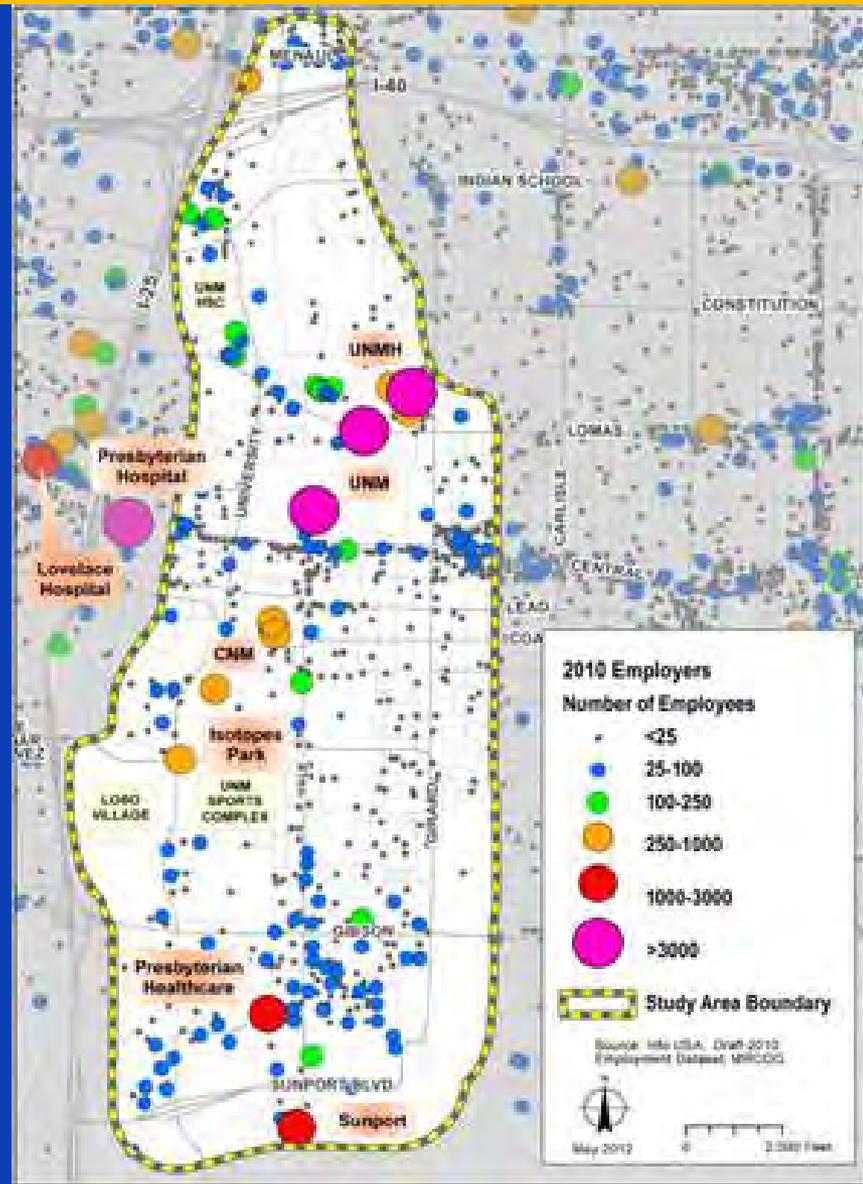


Base Year Transportation Analysis: CNM Populations

- Staff, faculty, and students associated with CNM buildings
- CNM population assigned to a subset of CNM buildings based on GSF
 - Excludes minor and maintenance buildings

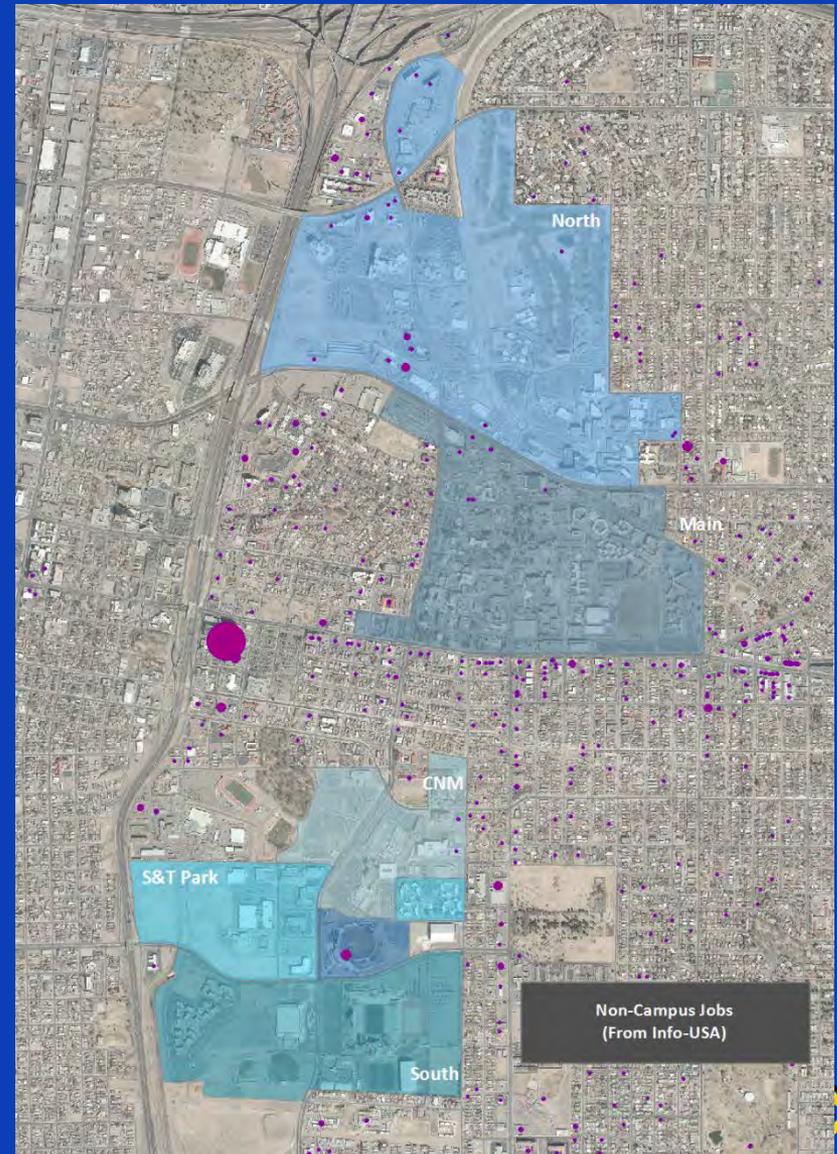
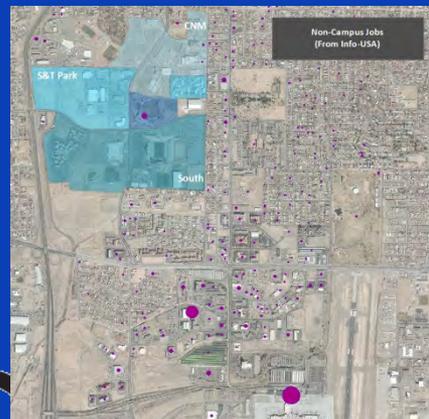


Base Year Transportation Analysis: Employment



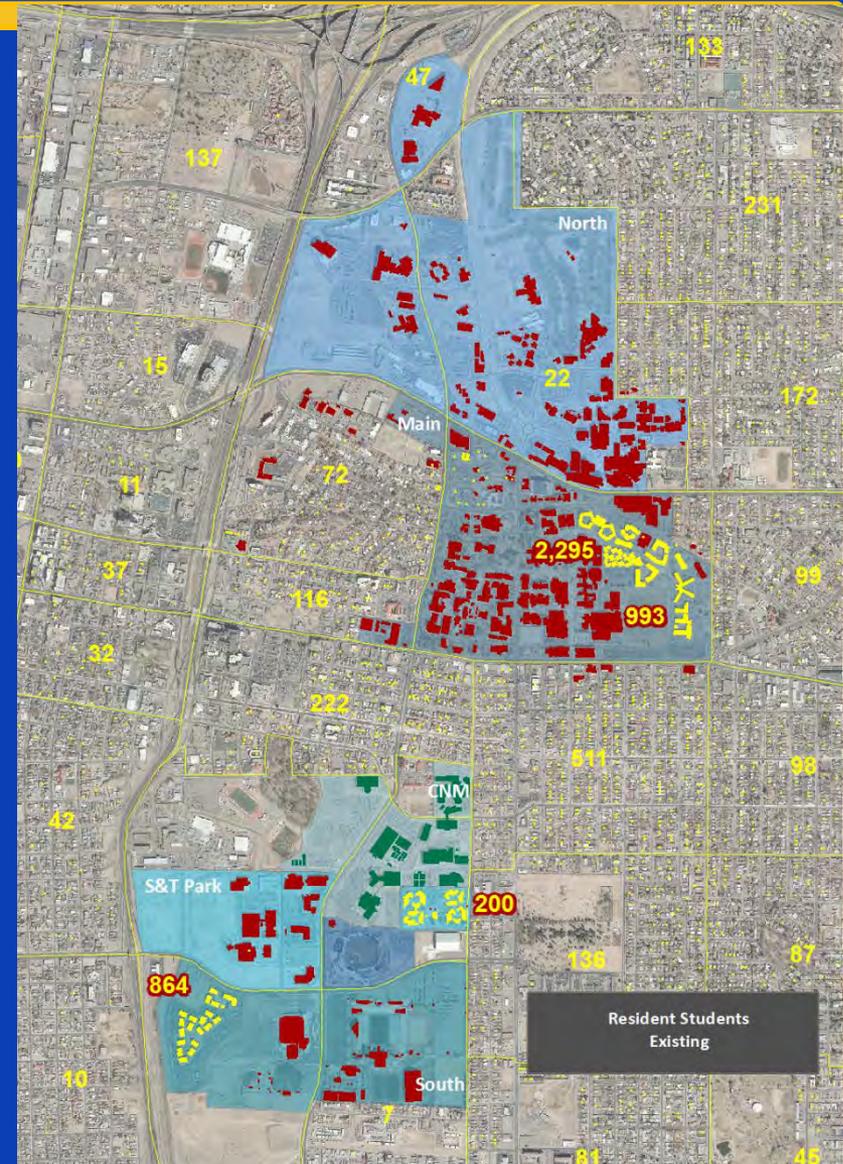
Base Year Transportation Analysis: Off Campus Employment

- Jobs from Info-USA business inventory
 - Address-matched to parcels
 - Manual assignment to locate geocoding “misses” for all businesses > 20 jobs
 - Normalized to same scale



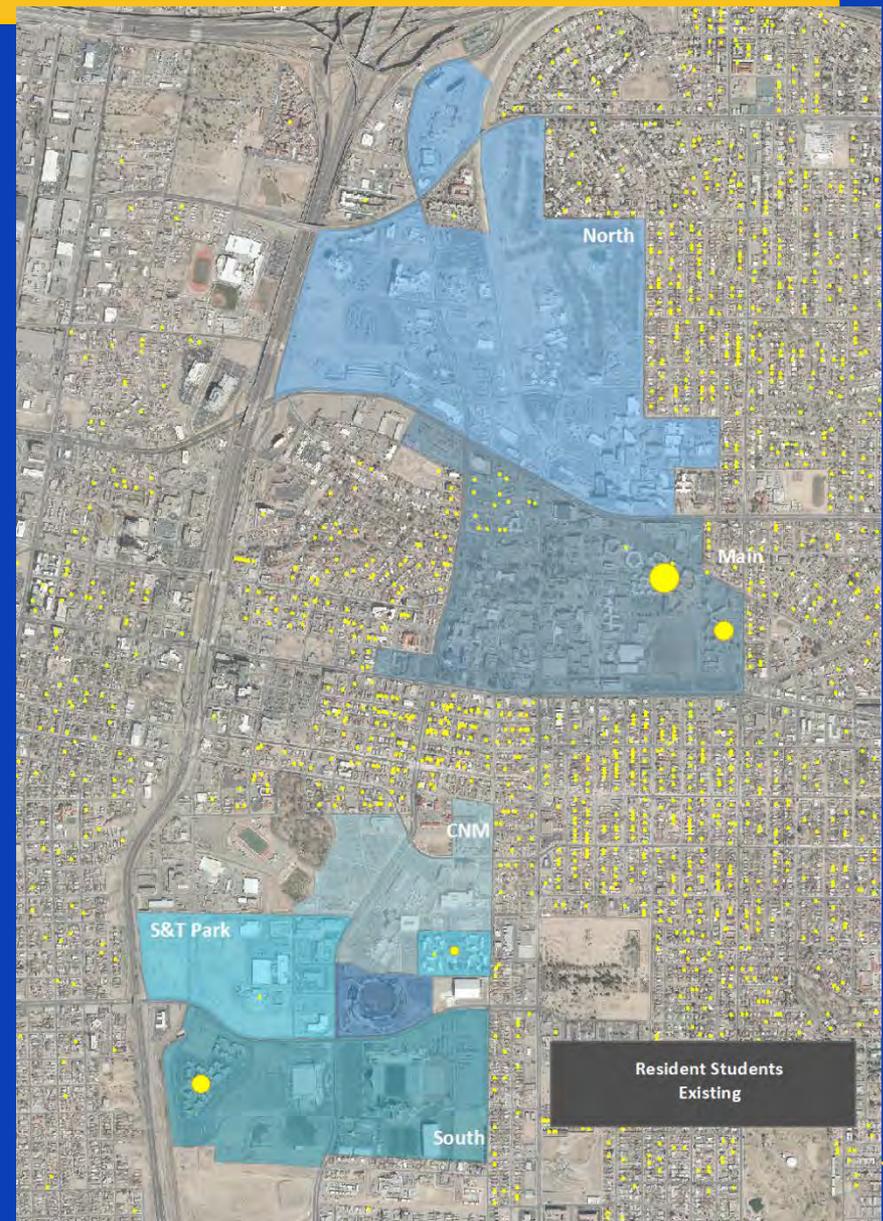
Base Year Transportation Analysis: Resident Students

- Based on University Housing Capacity
- Also: student roster place of residence for non-university housing



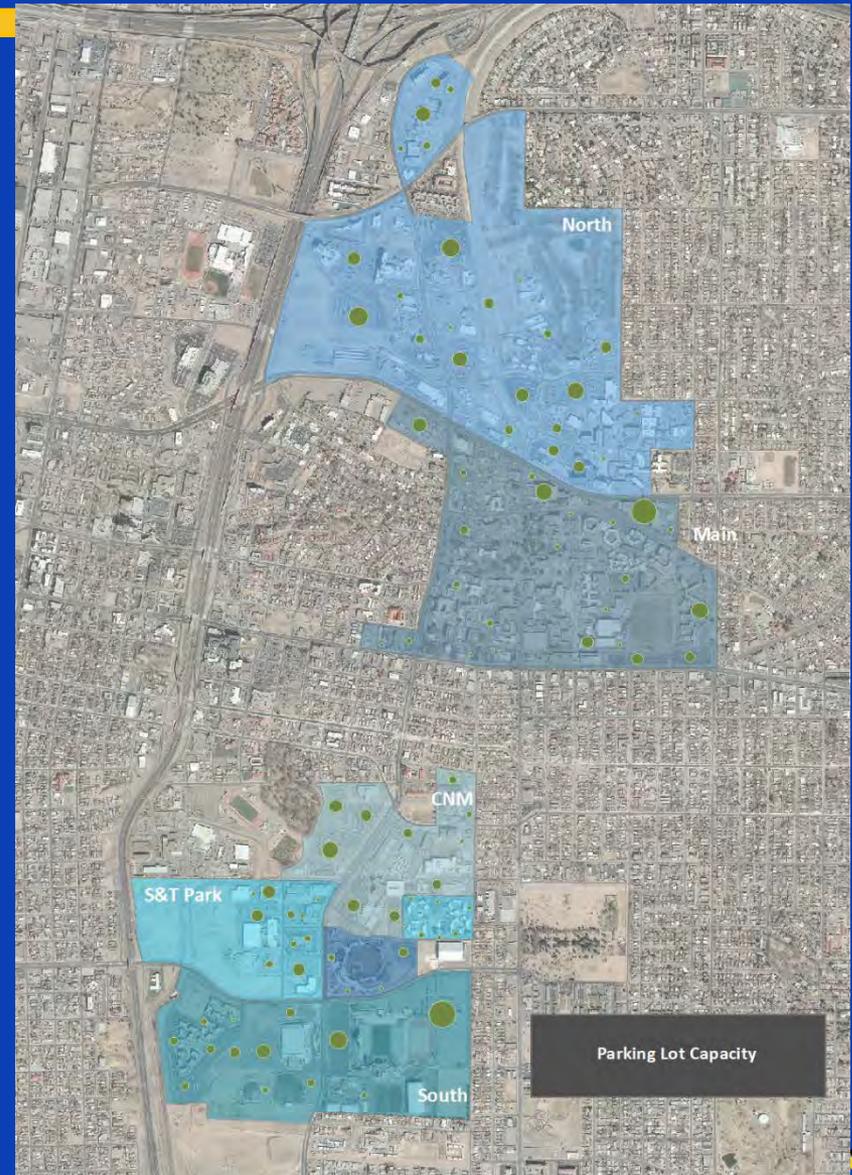
Base Year Transportation Analysis: Resident Students

- Normalized to same scale



Base Year Transportation Analysis: Parking Capacity

- Based on Our Parking Inventory
- Campus Sites Only (Does not include private lots)



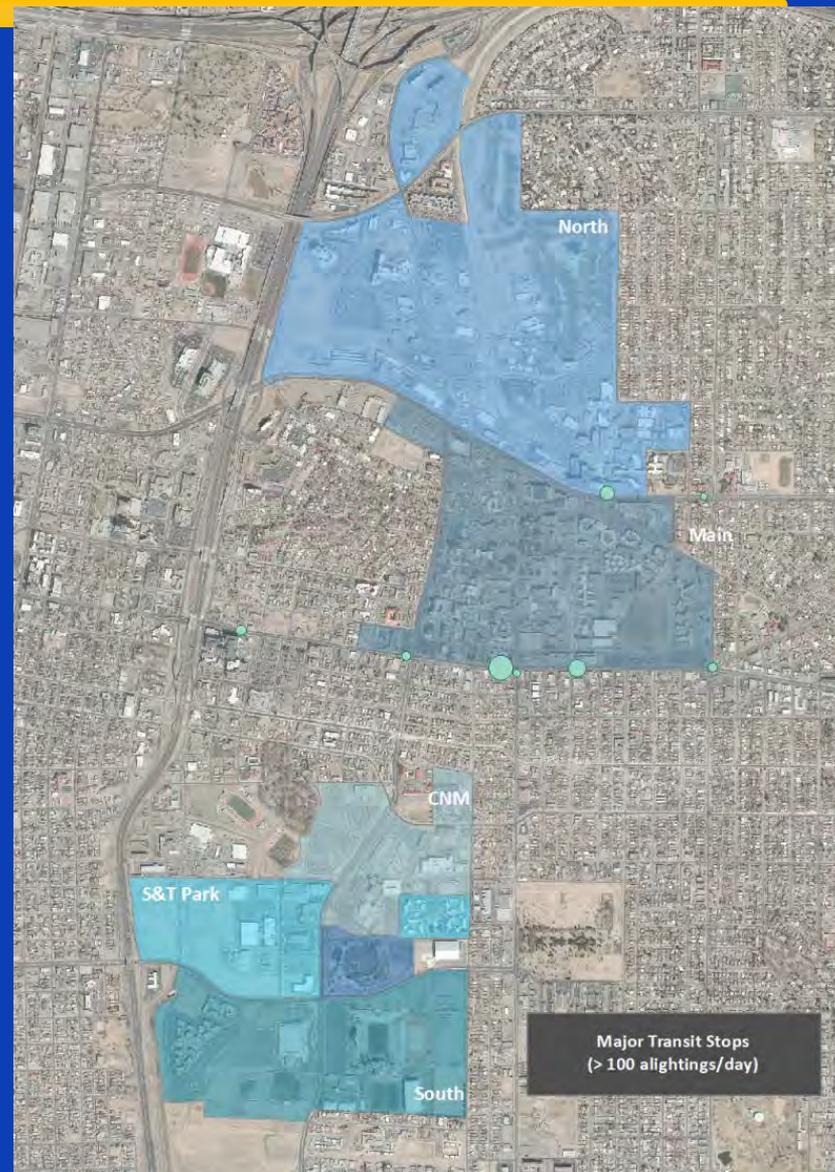
Base Year Transportation Analysis: Remote Parking Demand

- Demand at remote lots by UNM commuters
 - Estimates based on shuttle counts, permit registrations, and lot capacities
 - Includes Lobo Village, a significant source of local travel to main campus



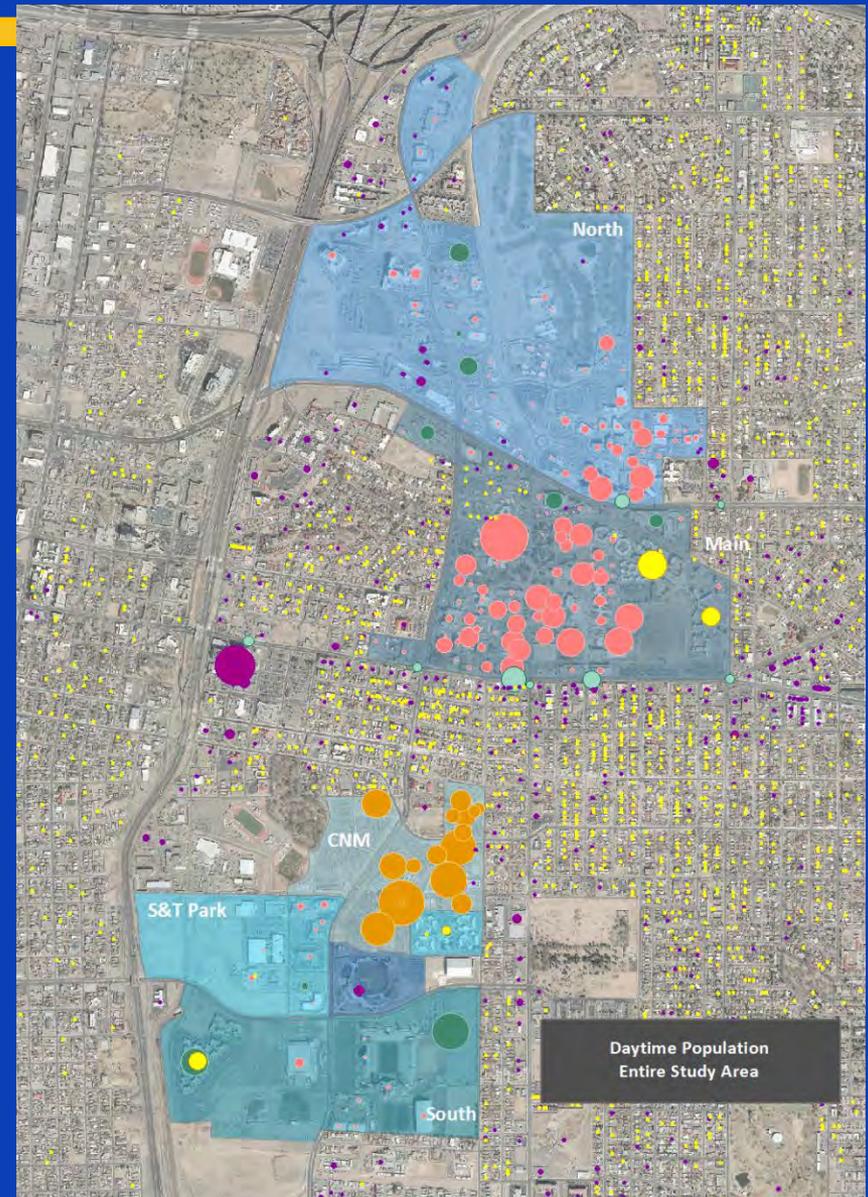
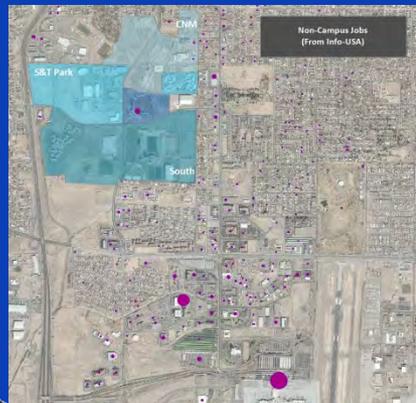
Base Year Transportation Analysis: Major Transit Stops

- From Boarding/Alighting Counts at Stops taken in Spring, 2011
 - Alightings only (going to UNM/UNMH)
 - Expanded from the sample of trips taken that day
 - Includes only stops with > 100/day



Base Year Transportation Analysis: Composite “Populations”

- Includes all Sources Together
 - UNM Staff, Faculty, Students
 - CNM Staff, Faculty, Students
 - UNMH Jobs
 - Non-Campus Jobs
 - Student Housing
 - Remote Parking
 - Transit Stops



Alignment & Stop Development



Future Conditions and Assumptions: Parking

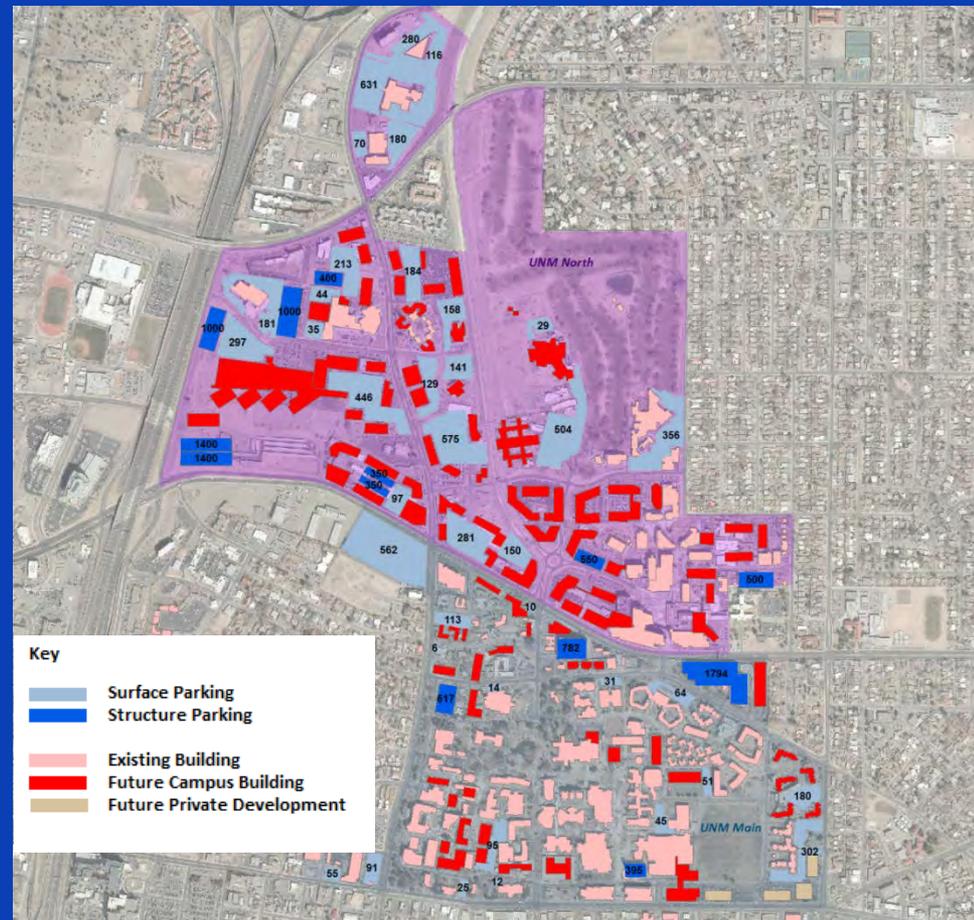
Study Area Parking - Future											
Campus Subareas	Surface Parking		Structure Parking		Total Capacity	Total Acres	Pct Area		Surface Change	Structure Change	Total Change
	Lots	Capacity	Structures	Capacity							
UNM North	22	5,097	9	6,950	12,047	58.6	15.3%		-2,755	6,578	3,823
UNM Main	16	1,656	4	3,588	5,244	21.8	9.2%		-1,696	617	-1,079
UNM South	12	3,608	2	962	4,570	34.2	22.4%		-1,461	962	-499
Science & Tech Park	9	1,092	4	1,667	2,759	12.5	16.0%		-403	1,169	766
Student Family Housing	7	342			342	2.5	18.8%		0	0	0
CNM	14	3,641			3,641	36.0	33.0%		0	0	0
Total	80	15,436	19	13,167	28,603	165.6	17.1%		-6,315	9,326	3,011

- Overall implications of the Master Plans are summarized here: 28,600 spaces overall
- These plans provide a net increase of parking of about 3,000 spaces: of course, much of this will be needed to serve new expanded academic and commercial uses
 - As mentioned earlier, there is room for even more parking, especially on south campus, but this is how the numbers play out now
- Also, much of the plan revolves around structured parking: roughly 9,300 new spaces. At \$18,000/space this runs to \$168 million; this is an obvious incentive to reduce auto-borne demand into the study area
- Main campus loses 1,700 surface spaces: Also, frees up over 12 acres now dedicated to parking
 - Partially offset by 600 spaces in the new parking structure on main campus
 - But 1,100 spaces shifted to remote locations (not accounting for growth needs)



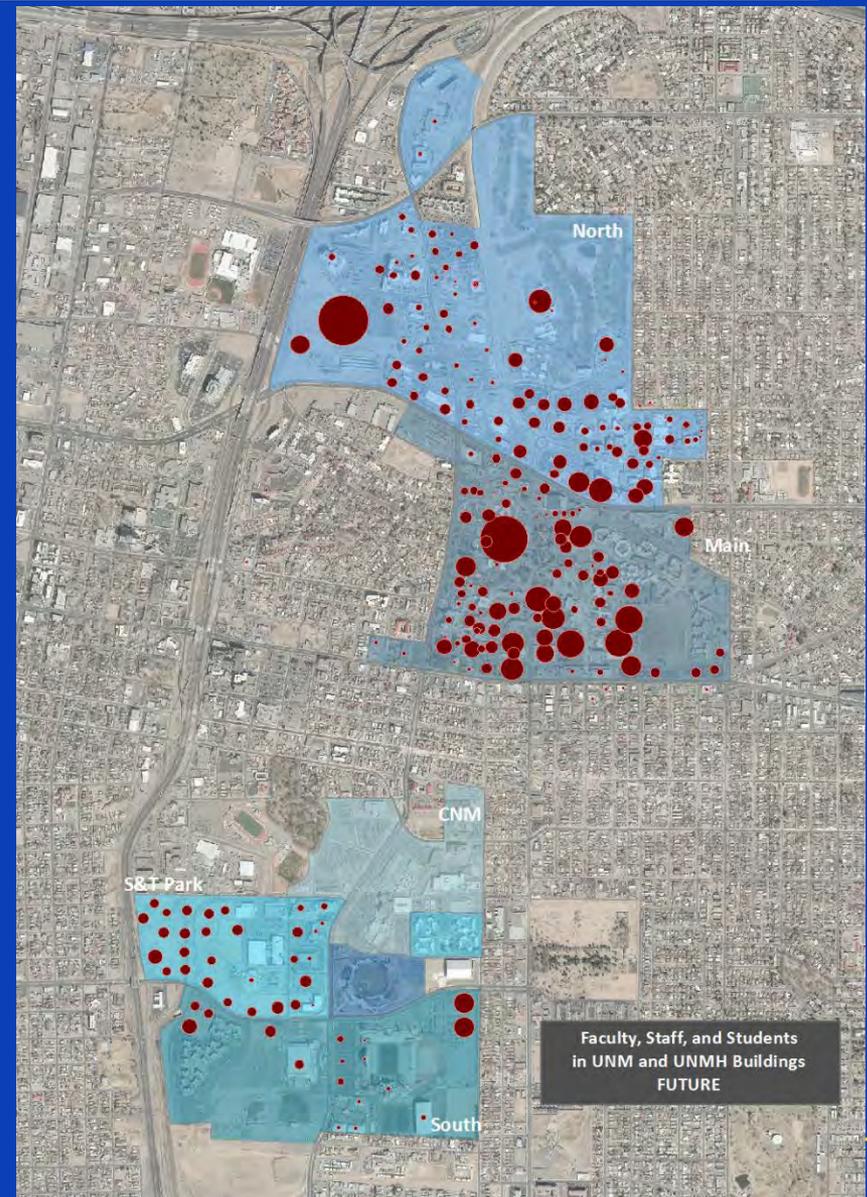
Future Conditions and Assumptions: UNM Main & North

- For example, this graphic depicts new proposed buildings in the North and Main campus areas
 - New building footprints are shown in red
 - Plans include proposals for new parking areas
- North Campus, in particular, is modified considerably in the Master Plan
 - The plan includes a quantification of GSF for buildings and capacities for the 9 new parking structures
 - We estimate capacities of surface lots from the Plan sketches
- Concepts for Main campus were also illustrated, but no quantities for the single new parking structure
 - We speculated about its size
- Much of existing parking is relocated: the big impact is the “G” and “Q” lots are gone



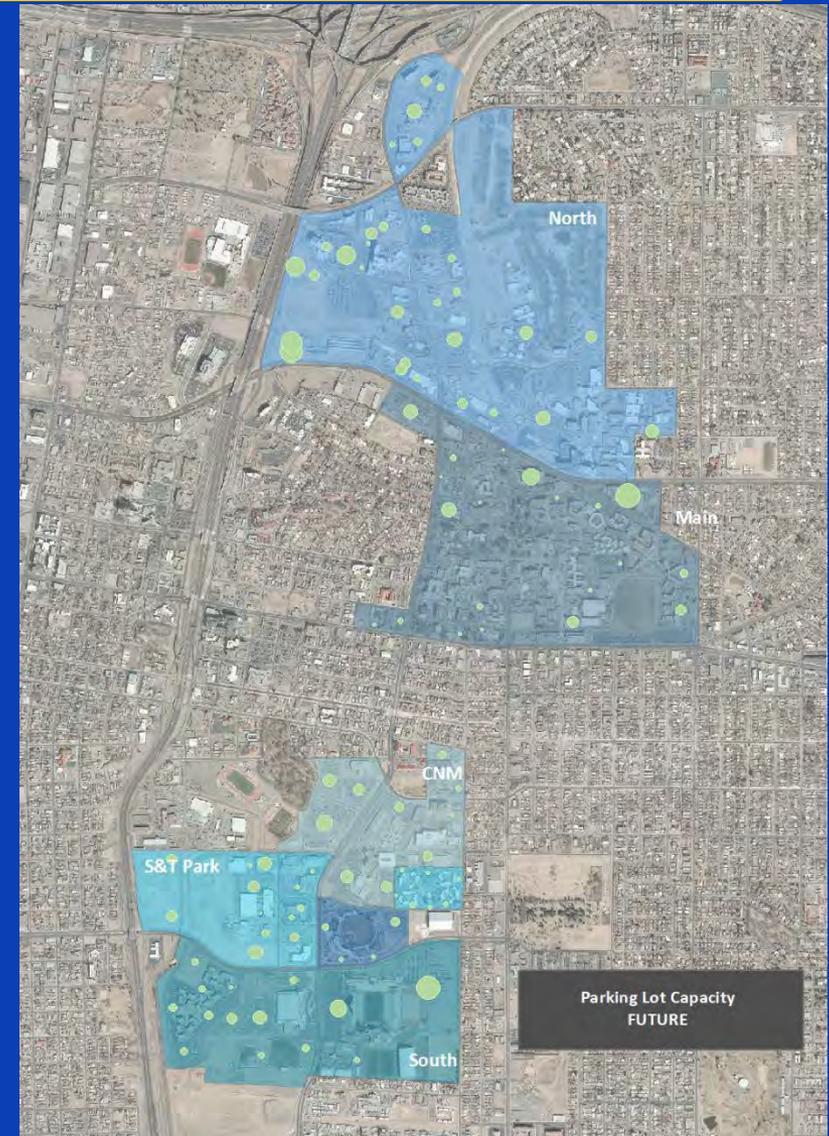
Future Year Conditions and Assumptions: UNM Population

- Currently existing buildings keep their current estimates of staff, faculty, students
- New/Future buildings from UNM Master Plan were estimated based on current rates
 - Staff: 1,130 sqft/job
 - Faculty: 2,100 sqft/job
 - Students: 232 sqft/student
- For UNMH and Private Buildings
 - 295 sqft/job (current rate)



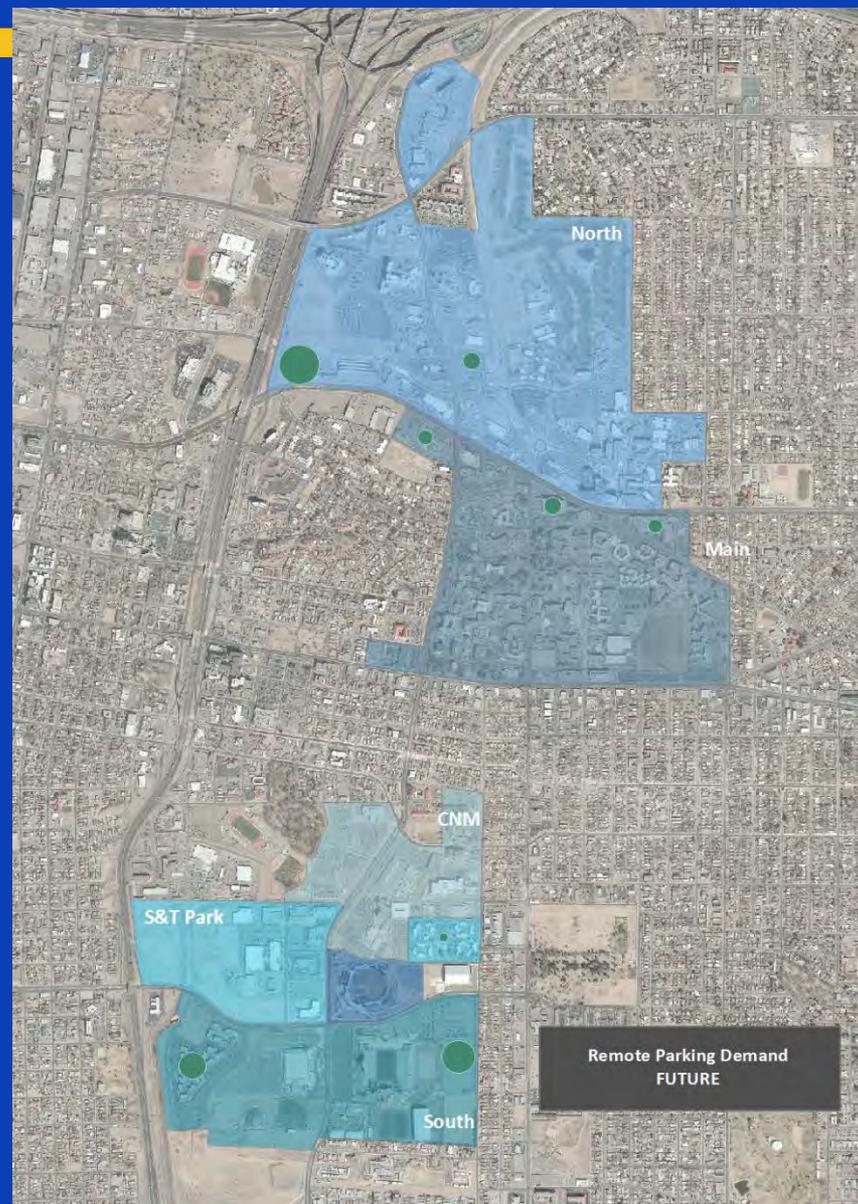
Future Year Conditions and Assumptions: UNM Parking

- Based on Our Parking Inventory and the UNM Composite Master Plan



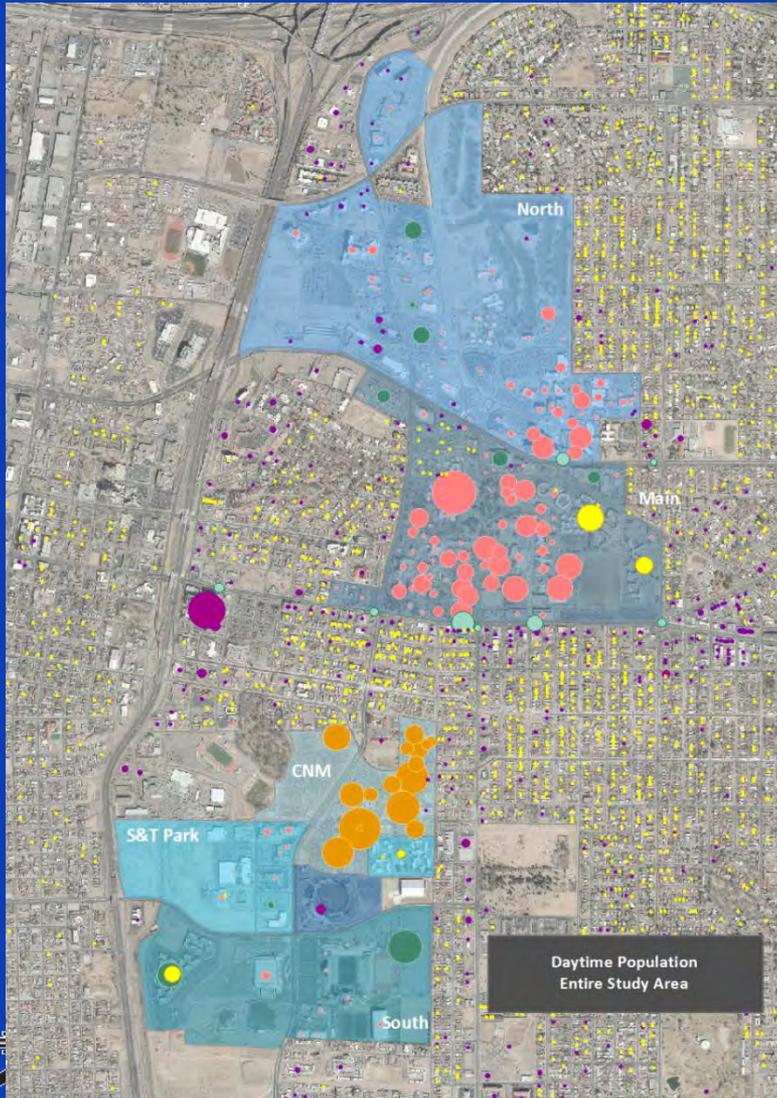
Future Year Conditions and Assumptions: Remote Parking

- Reflects loss in capacity at some existing remote lots
- Assumes capacity offset at new structures
 - Primarily: the 2 large parking structures at Lomas/I-25
 - Assumes similar turnover rates as exhibited in existing lots

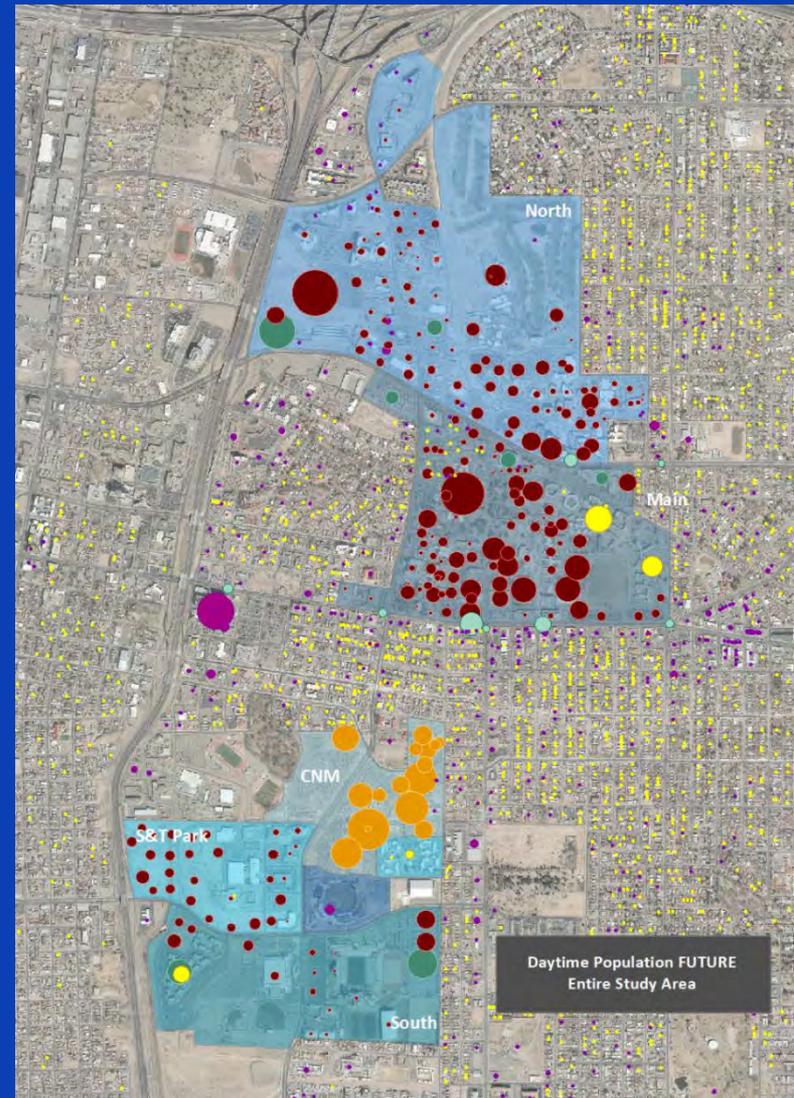


Existing & Future Year Composite “Populations”

Existing



Future



Draft Evaluation Measures: Examples

Mobility and Access:

- Improve transit access to the study area destinations (UNMH, UNM North, UNM Main, CNM, and the Sunport).

Measure: The number of jobs, students, remote parking spaces within a 5, 10 and 15 minute walk from stops / stations.

- Increase travel choices for all populations in the corridor.

Measure: The number of minority , low income and senior populations within a 10 minute walk from stops / stations .

- Provide transit improvements that enhance connections to the regional transit system.

Measure: Increase in number of faculty, staff, students and Visitors that can access the major destinations in the study area within 45 minute s.

Transportation Policies:

- Minimize negative impacts of parking on the surrounding neighborhoods.

Measure: Total number of parking spaces directly accessible to a principal or minor arterial



Draft Evaluation Measures: Examples

Land Use, Development, and Sustainable Communities:

- Encourage transit supportive land uses and development styles.

Measure: Number of acres within ¼ mile of stations that is vacant or underutilized.

Measure: Number of acres within ¼ mile of stations that are publicly owned.

Measure: Number of acres within ¼ mile of stations that have adopted plans including transit supportive zoning or intent

Improve connectivity between current and future housing and employment destinations.

Measure: Number of owner occupied and renter occupied units within ¼ mile of stations

Support land use and transportation development that reduces greenhouse gas emissions.

Measure: Reduction on Co2

Cost, Feasibility and Operations:

- Develop a cost-effective plan for improvements and operations.

Measure: Annual operating cost per rider (future).

Measure: Total construction cost per rider (future).



UNM/CNM/Sunport Transit Project

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www.mrcog-nm.gov (Transportation page)

Let us know if your group would like a presentation or more information

