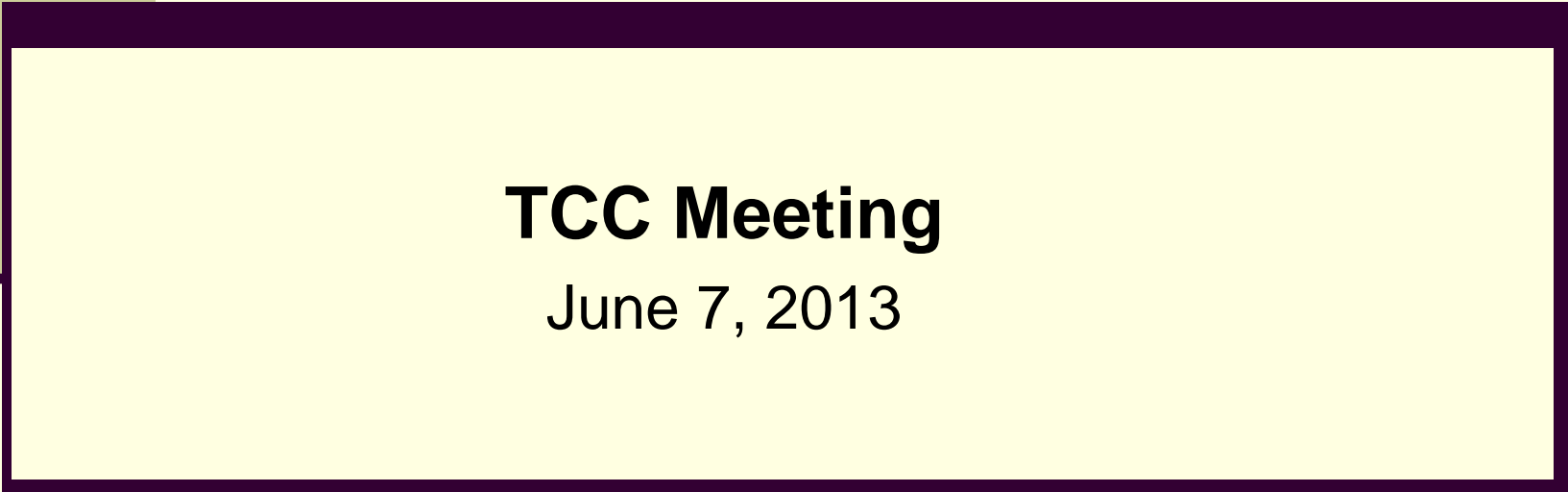






Volcano Mesa Access Modification Request

TCC Meeting

June 7, 2013



Agenda

Presentations

- **1: Intersection Spacing Schemes**
 - Updated CABQ Request
 - By-policy Scheme B
 - Justification for Access Request
- **2: Additional Traffic Analysis**
 - Level of Service (LOS)
 - Travel Speed



Intersection Spacing Requests:

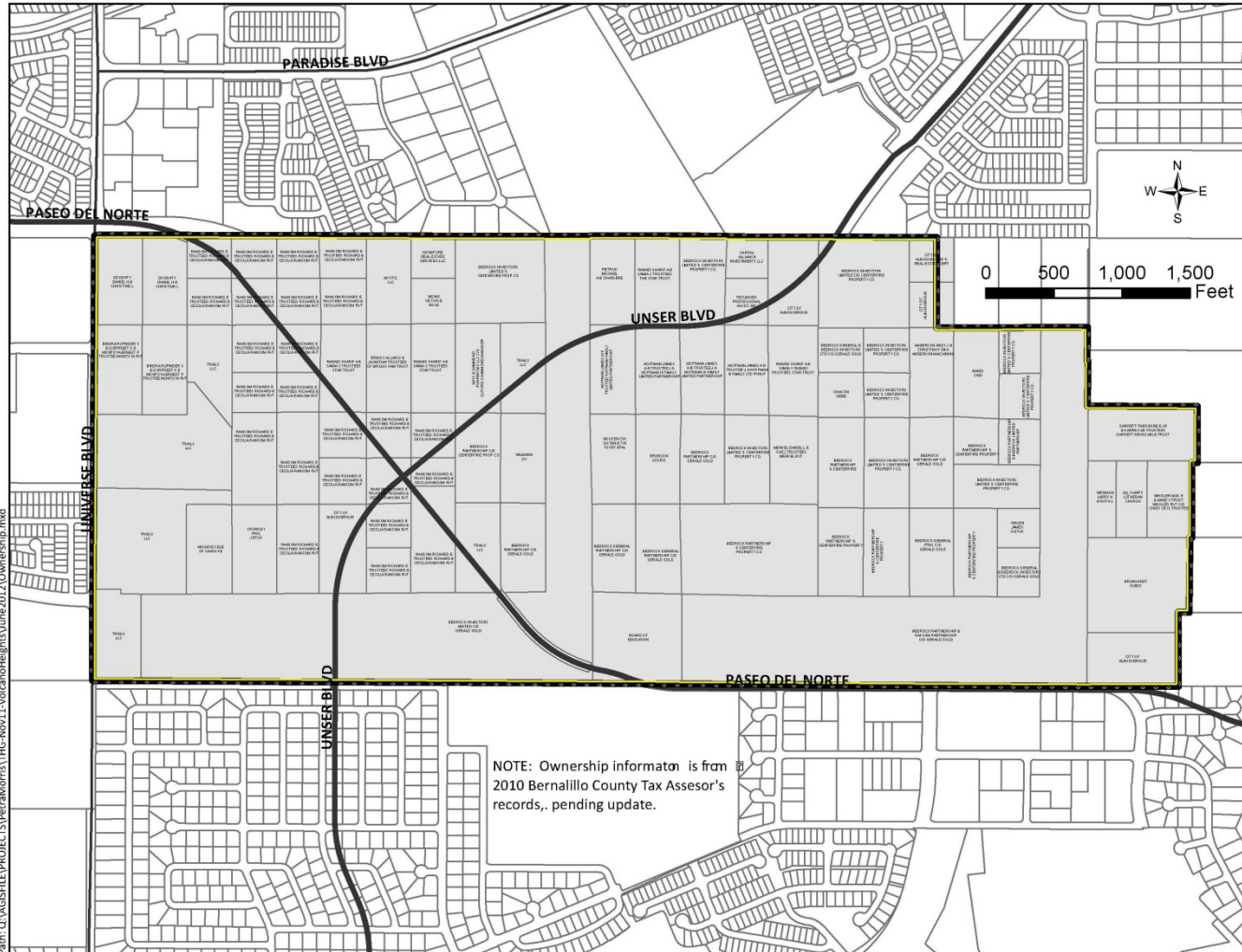
What we've heard from TCC & RAC members

- North/South travel times matter.
- Regular spacing is important.
- NMDOT Access Management Manual policies are important for Paseo del Norte.



Access:

Aligning Intersections with Existing Access Easements at Property Edges



Path: Q:\AGISFILE\PROJECTS\PerlaMorris\THG-Nov11-VolcanoHeights\June2012\Ownership.mxd

Changes to Access Modification Request: CABQ Decision Rules

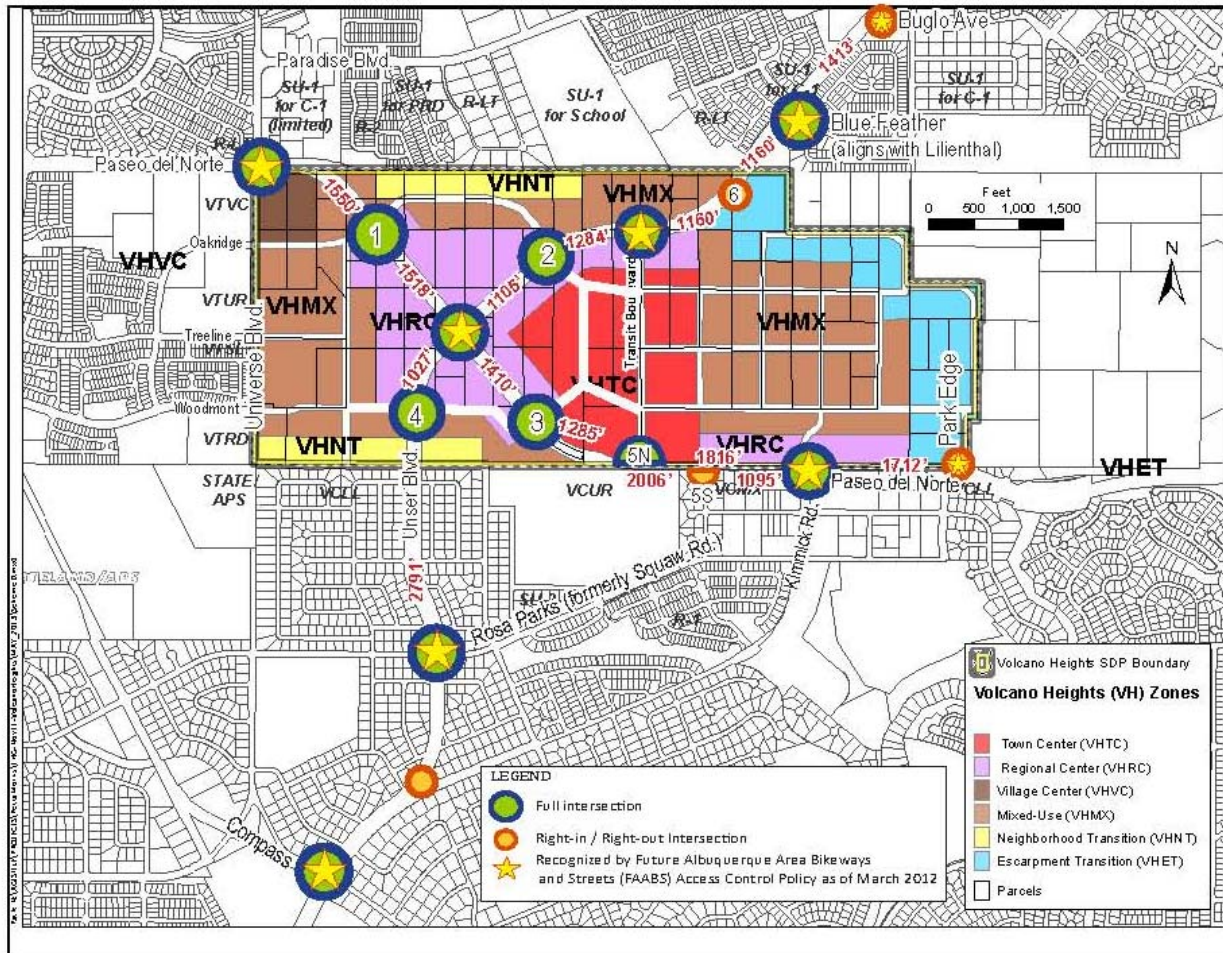
- Best spacing to:
 - coordinate land use and transportation
 - support job creation and economic development goals
 - support multi-modal transportation and transit-supportive land uses
 - provide access to all properties within Volcano Heights
 - provide best traffic outcomes for both regional and local trips



Final City Request: Scheme D

Compared to Initial Request:

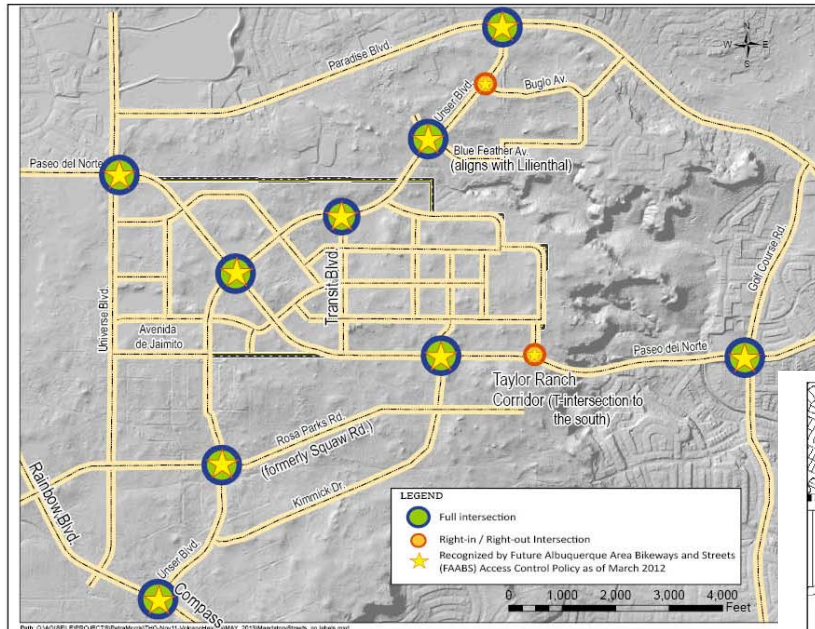
- Same spacing on Paseo del Norte
- Transit Blvd. T-intersection on south
- #4 moved to provide access to nearby parcels
- More regular spacing on Unser north of Paseo intersection
- RI/RO at Kimmick/Unser



* 1/4 mile = 1320 feet
 1/3 mile = 1760 feet
 1/2 mile = 2640 feet

Access Schemes: Per Limited-access Policies

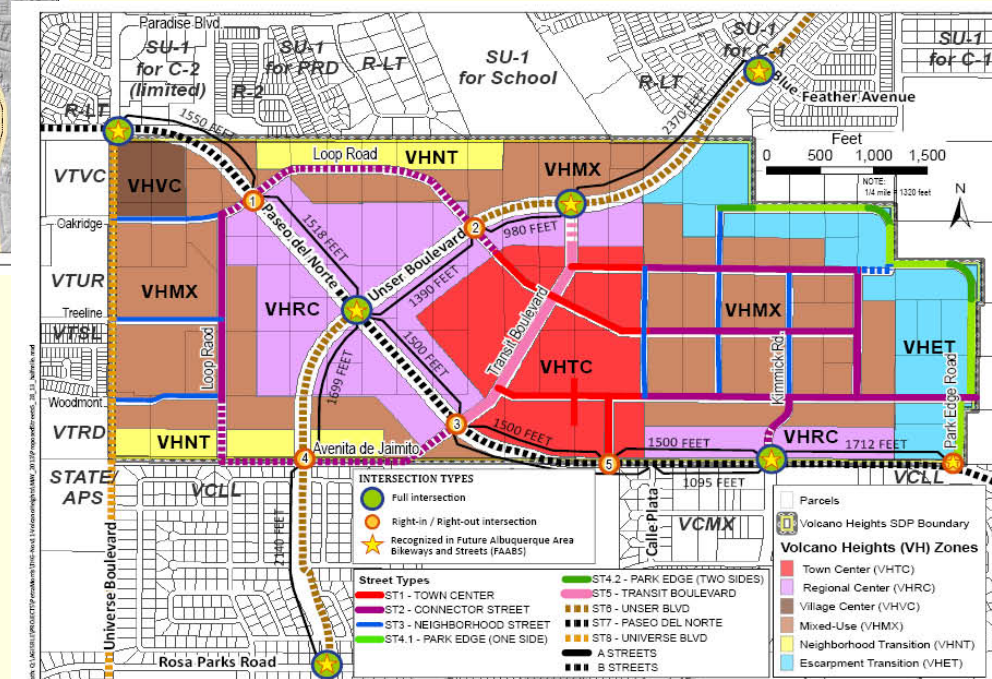
Intersections Recognized by FAABS



Scheme B: Allowed by Policy

- Generated for additional traffic analysis only
- Starts with FAABS intersections
- Adds right-in/right-out Intersections approximately every ¼ mile, equidistant between full access intersections

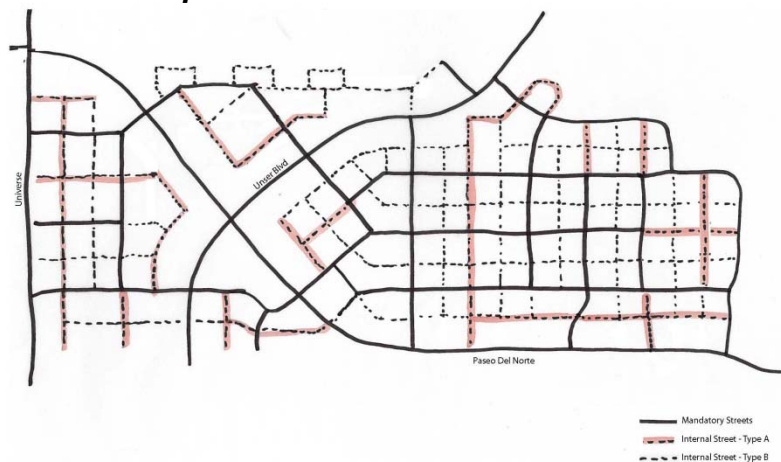
[See FAABS excerpts on next 2 slides]



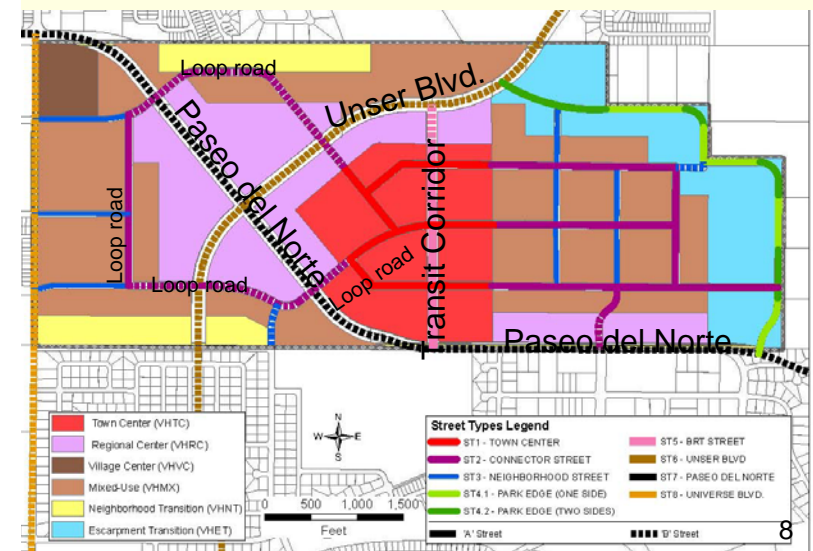
Justification for Access Request: Benefits Outweigh the Costs

- Backbone Grid to disperse traffic, offer redundancy
- Loop road to alleviate pressure on Paseo/Unser intersection
- Predictable access for local development (no more curb cut requests!)
- Local roads to serve local development
- Access that supports Major Activity Center

Sample: Local Roads

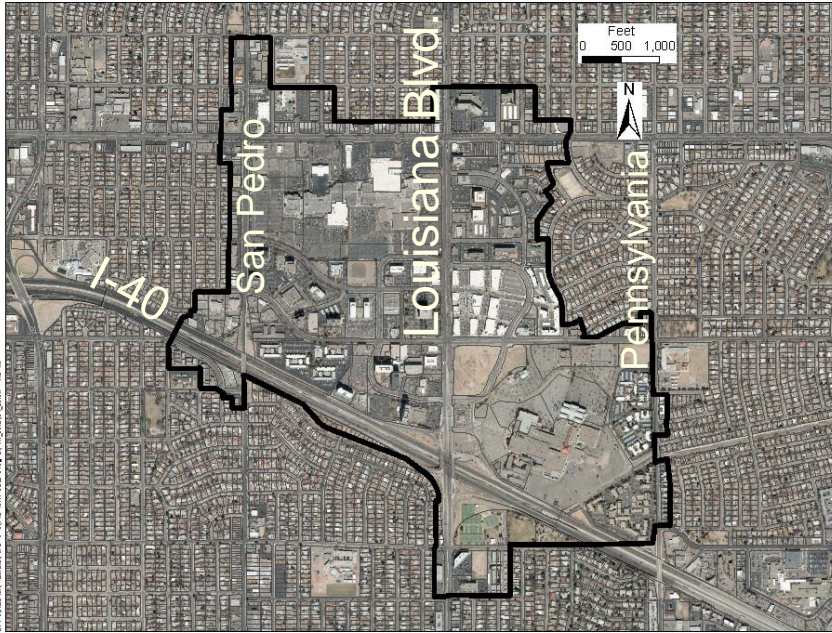


Backbone Grid



Comparison

Uptown Major Activity Center
(595 acres)



Volcano Heights Major Activity Center
(570 acres)



Justification for Access Request:

Access Management Guidelines for Activity Centers

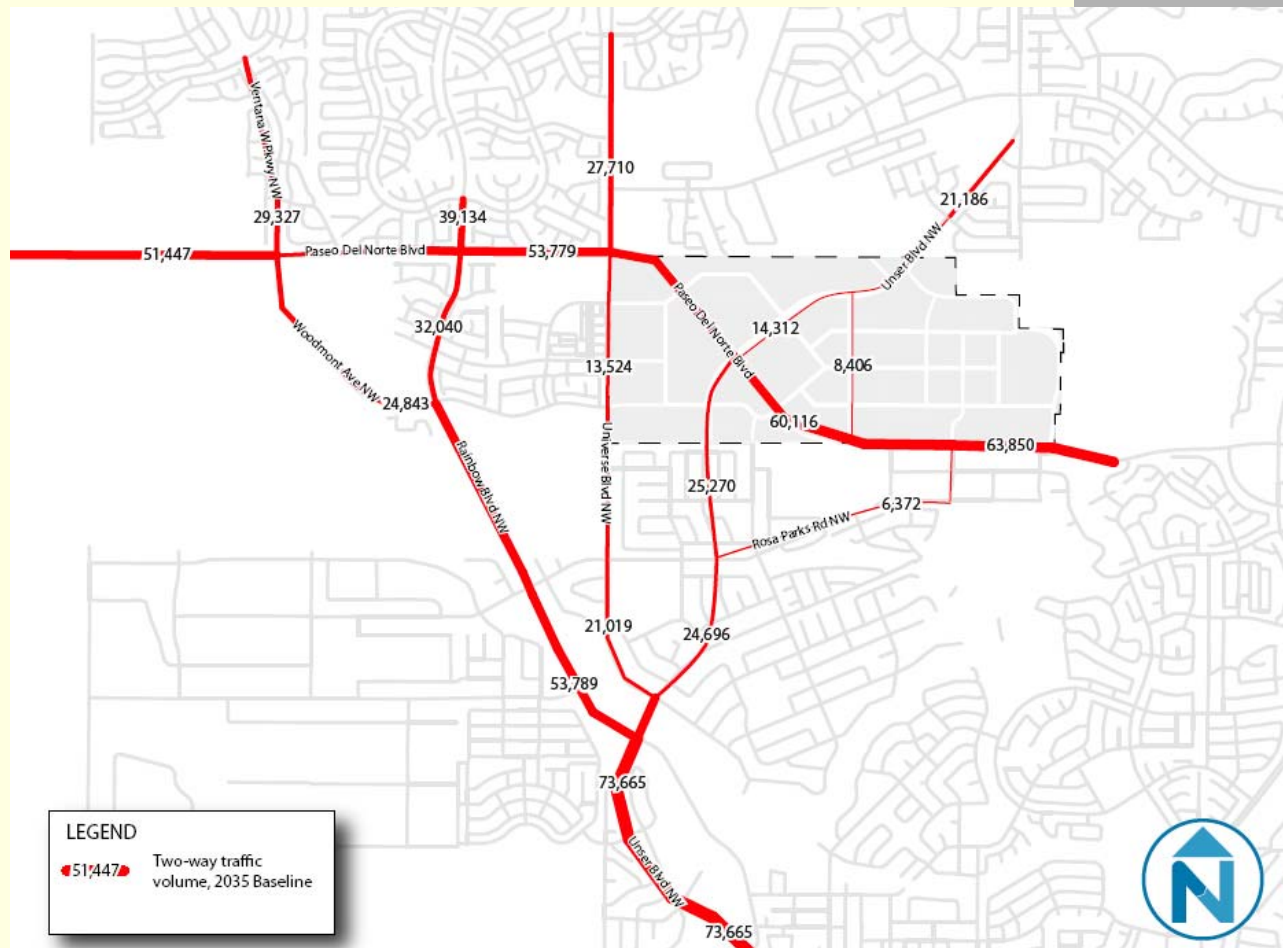
- **Chapter 4 E. ACCESS CATEGORY: Urban Principal Arterial (UPA)**
- **(1) Functional Description:** The urban principal arterial system serves the major centers of activity of urbanized areas, the highest traffic volume corridors, the longest trip desires, and carries a high proportion of the total urban area travel on a minimum of mileage.... The principal arterial system carries most of the trips entering and leaving an urban area, as well as most of the through movements bypassing central city areas. In addition, significant intra-area travel, such as between central business districts and outlying residential areas ... and between major suburban centers, is served by this class of highway.
- **(2) General Access Characteristics:** The primary functional responsibility of urban principal arterials is through traffic movement. Many urban principal arterials are fully or partially access controlled. Direct access service to abutting properties is subordinate to providing service to through traffic movements. Access location and spacing standards are strictly enforced.
- **(3) Performance:** The operational performance of UPA facilities should meet **LOS D standards at a minimum**. See Sub-Section 15.C, Table 15.C-1.

Justification for Access Request:

NMDOT Access Management Manual

- Specifically exempts "business districts" from spacing requirements.
 - **18.31.6.7 Business District--** A business district occurs along a highway when within 300 feet along such highway there are buildings in use for business or industrial purposes (including but not limited to hotels, banks or office buildings ... and public buildings) which occupy at least fifty percent of the frontage on one side or fifty percent of the frontage collectively on both sides of the highway (*page 2*).
 - **18.31.6.18 C (3) Business Districts.** The spacing of access points within business districts on urban or rural highways may be adjusted based on site-specific conditions consistent with the requirements for the access category of the highway (*page 23*).
 - Refers to *Access Management Guidelines for Activity Centers, NCHRP 348, 1992*.
<http://www.accessmanagement.info/pdf/348NCHRP.pdf>

2035 Traffic Volume



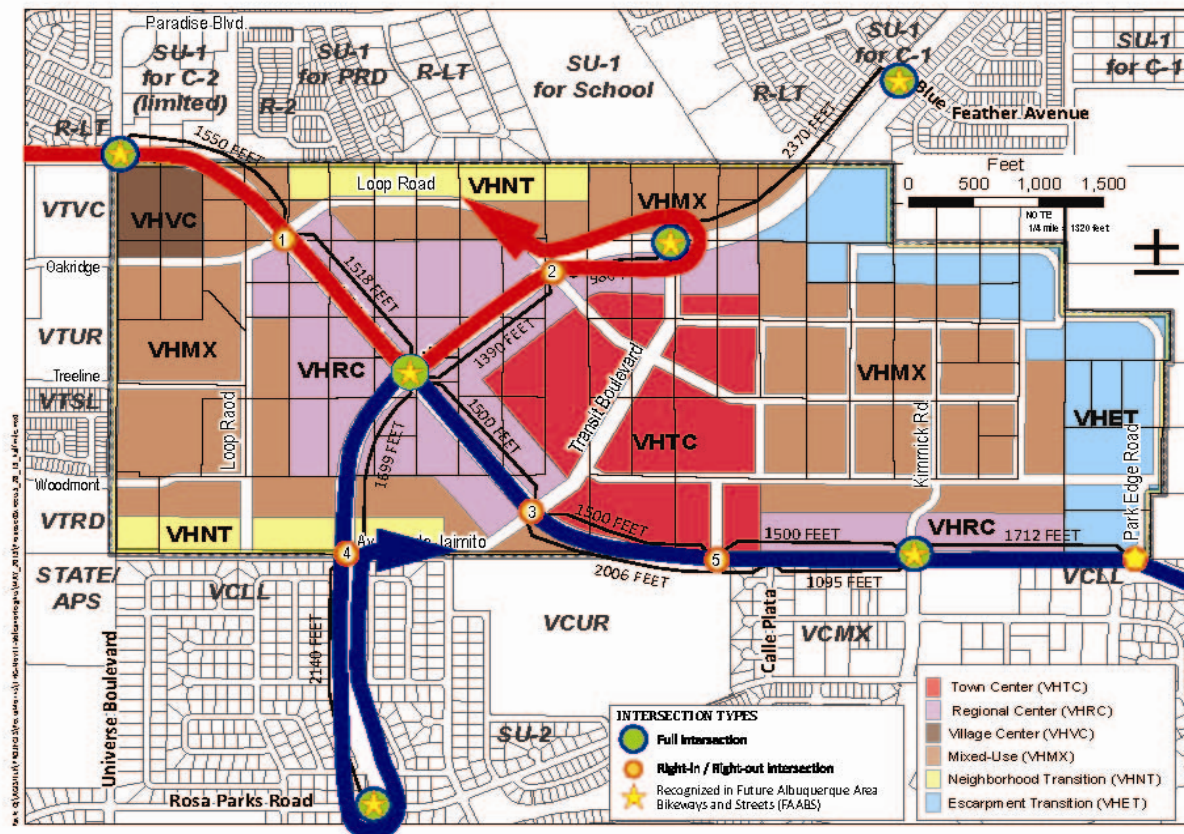
Additional Vehicular Traffic Study: Operations & Intersection Level of Service (LOS)

- Signal plan will need to balance the needs of through trips with access to/from jobs, services & homes in Volcano Heights.
- Paseo del Norte: 5,000 peak-hour vehicles approaching Volcano Heights in Year 2035
 - 3,000 “through” trips (passing through)
 - 2,000 vehicles traveling to Volcano Heights (exiting Paseo del Norte)
- Unser: 2,300 peak-hour vehicles approaching Volcano Heights in Year 2035
 - 1,300 “through” trips
 - 1,000 vehicles traveling to Volcano Heights

Vehicular Access:

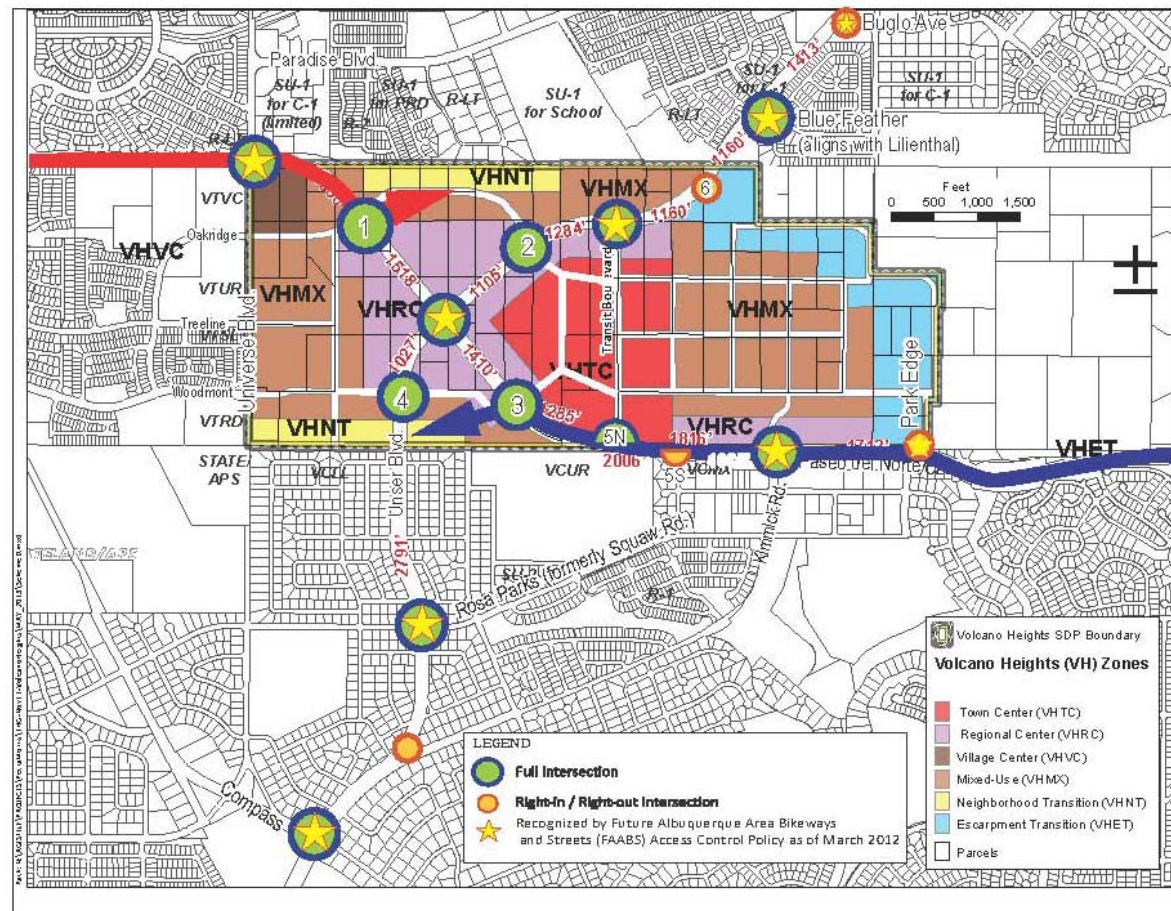
Scheme B

- Key factors affecting delay in Year 2035 at intersections will be conflicting movements.
 - Left-turn movements are critical factor for traffic operations.



Vehicular Access: Scheme D

- Direct access provided to all quadrants of Volcano Heights

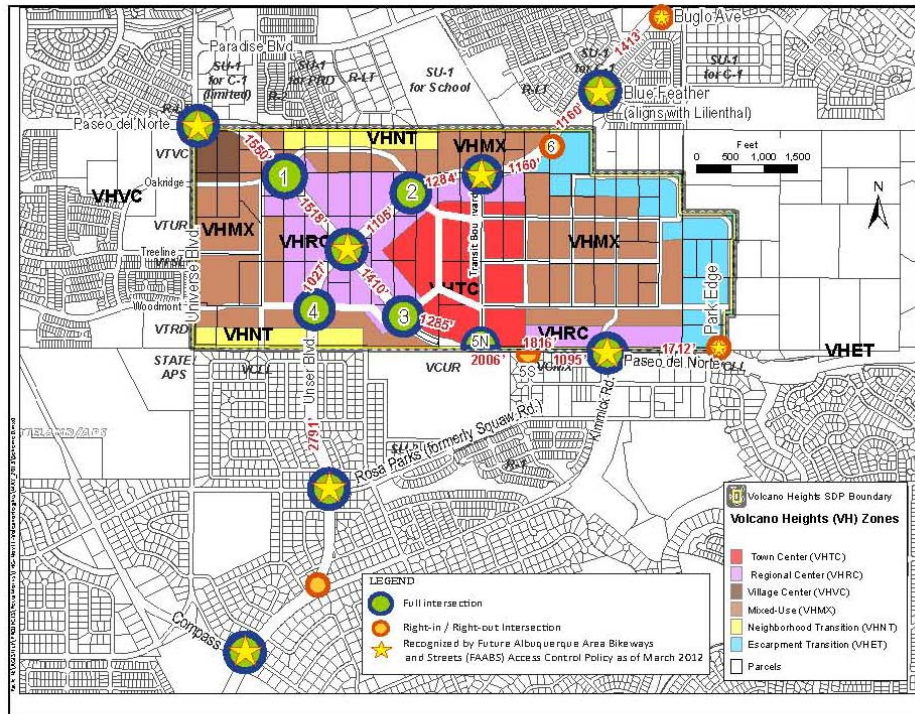


Additional Vehicular Traffic Study: Signalized Intersection Level of Service (LOS)

Year 2025 Intersection Level of Service (LOS) PM Peak Hour	Scheme A: VHSDP		Scheme B: Policy		Scheme C: Compromise		Scheme D: Final Request	
	LOS	Avg. Delay (seconds)	LOS	Avg. Delay (seconds)	LOS	Avg. Delay (seconds)	LOS	Avg. Delay (seconds)
Paseo del Norte Intersections								
Universe	C	25	C	25	C	25	C	25
Loop Rd #1 -- WEST (proposed 1500' west of Unser)	C	27	N/A	N/A	C	27	C	27
Unser	D	40	E	58	D	39	D	40
Avenida de Jaimito / Loop Rd #3 EAST (proposed 1186' to 1500' east of Unser)	C	34	N/A	N/A	C	34	C	31
Transit Blvd. (signalized T-intersection on Paseo del Norte)	N/A	N/A	N/A	N/A	N/A	N/A	A	6
Kimmick Rd	C	34	E	57	D	35	C	32
Unser Boulevard Intersections								
Loop Road #4 – SOUTH (proposed 1000' to 1700' south of Paseo del Norte)	B	16	N/A	N/A	B	16	B	16
Paseo del Norte	D	40	E	58	D	40	D	40
Loop Road #2 – NORTH (proposed 1400' north of Unser)	B	16	N/A	N/A	B	16	B	16
Transit Blvd (2700' north of Paseo del Norte)	C	24	C	28	N/A	N/A	C	24

Additional Vehicular Traffic Study:

Conclusions: Scheme D



* 1/4 mile = 1320 feet
 1/3 mile = 1760 feet
 1/2 mile = 2640 feet

- Individual intersections will operate better with dispersal of conflicting movements.
 - Eliminates U-turns and out-of-the-way trips to access VH.
- Eliminates failing LOS E at Paseo intersections (including Paseo/Unser) under Year 2035 conditions.
- Additional intersections would primarily operate at LOS C.

Additional Vehicular Traffic Study:

Travel Speeds

- PM Peak Hour (Year 2035) comparison
 - Estimated average travel speed based on Synchro 8 progression analysis

Travel Speed Comparison Motor Vehicle Trips through Volcano Heights PM Peak Hour (Year 2035 Volumes)	Scheme A: VHSDP	Scheme B: Policy	Scheme C: Compromise	Scheme D: Final Request
Paseo del Norte				
Eastbound	25 mph	29 mph	24 mph	24 mph
Westbound	20 mph	19 mph	22 mph	20 mph
Overall	22 mph	23 mph	22 mph	22 mph
Unser Boulevard				
Northbound	23 mph	23 mph	21 mph	23 mph
Southbound	21 mph	28 mph	23 mph	21 mph
Overall	22 mph	25 mph	23 mph	22 mph

Volcano Heights Sector Development Plan

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City's Project Webpage:

<http://www.cabq.gov/planning/residents/sector-development-plans/volcano-mesa-area-sector-development-plans/volcano-heights-sector/>