

Volcano Heights Sector Development Plan

TCC Ad Hoc Committee Meeting #2

June 3, 2013

Agenda

Presentations

- **1: Confirmation of City Request**
 - **Intersection Spacing Constraints**
 - **Spacing Schemes**
 - **Justification for Access Request**
 - **Final Request**
- **2: Other Land Use Examples Considered**
- **3: Additional Analysis**
 - **Vehicular Traffic Analysis**
 - **2025 Travel Demand**
 - **Pedestrian Analysis**



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.

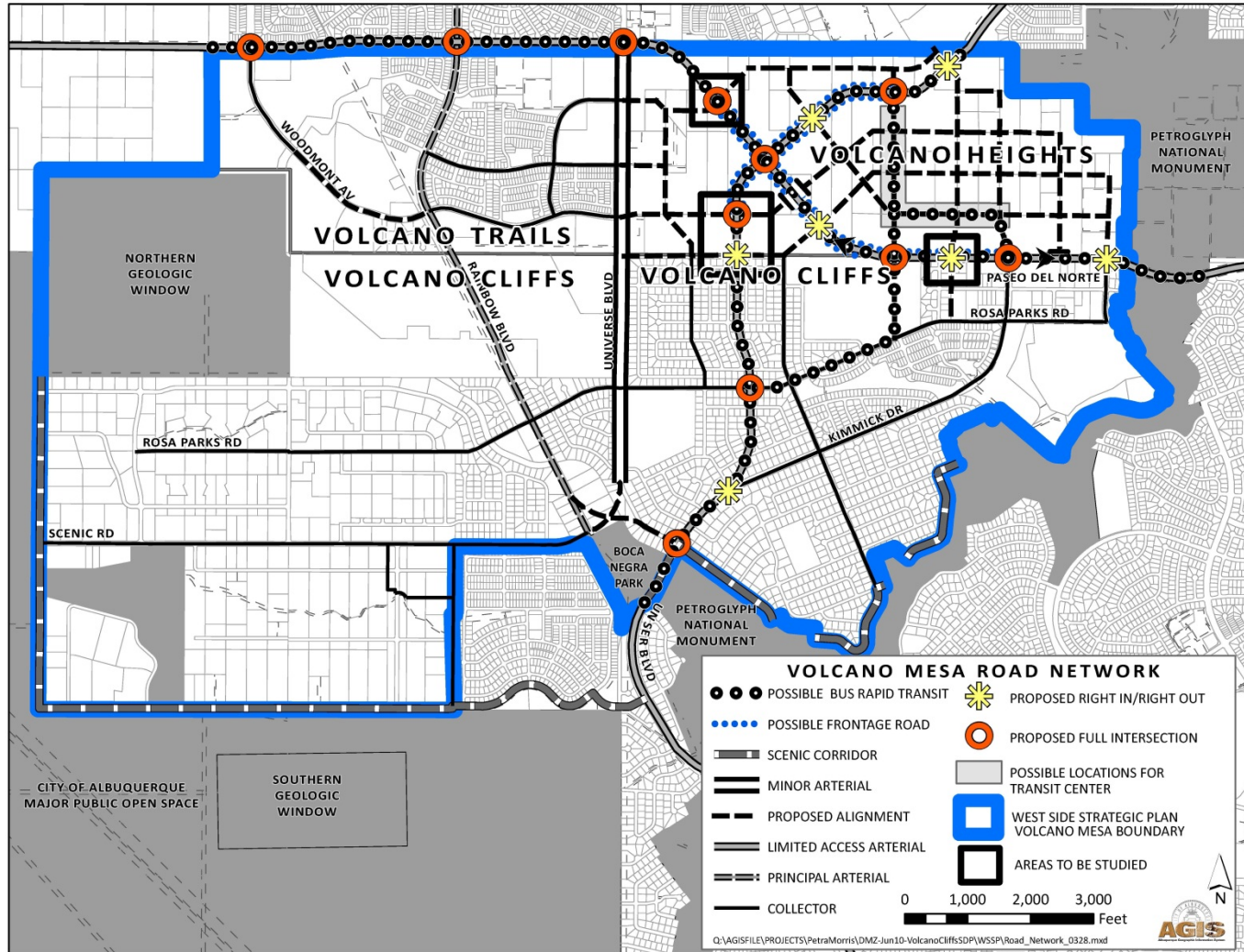


Changes to Access Modification Request: Intersection Spacing – Sector Plan Constraints

- **Prior planning efforts**
- Checkerboard ownership
- Irregular parcels
- Limited access roads at 45 degree angles to property lines
- Aligning access with existing access easements at property edges
- City-owned Unser vs. State-owned Paseo

Constraint 1:

Volcano Mesa Transportation Network



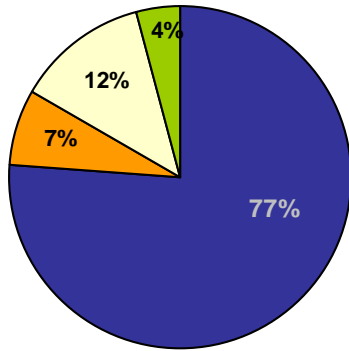
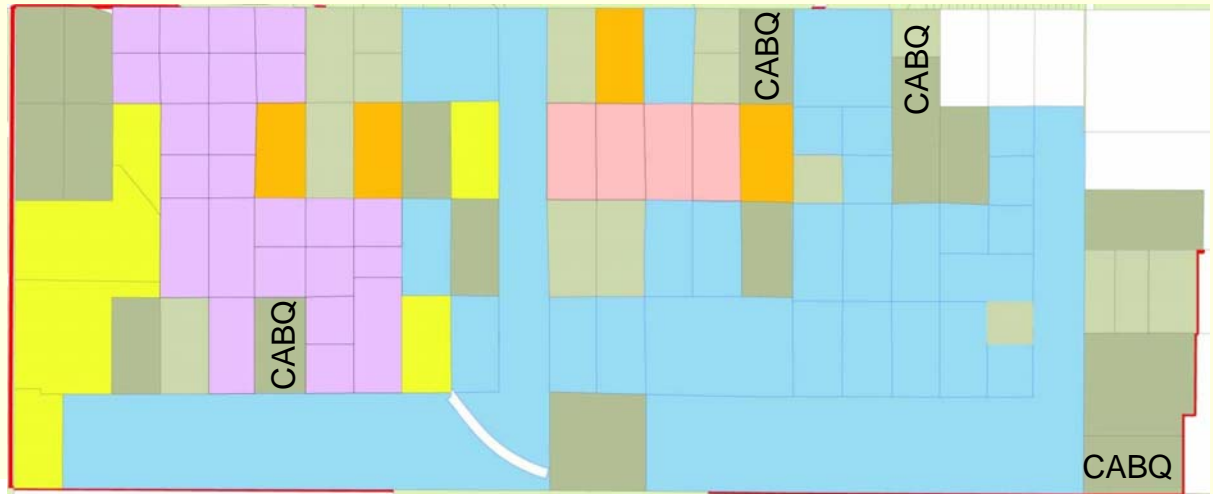
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Intersection Spacing – Sector Plan Constraints

- Prior planning efforts
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Constraint 2: Checkerboard Ownership

- 570 acres
- ~ 5-acre lots
- 34 owners
- 99 properties
- 5 owners = 413 acres



- Owners 20+ acres
- Owners 10-20 acres
- Owners 5-10 acres
- Owners <5 acres

- 259 Acres
- 69 Acres
- 45 Acres
- 20 Acres
- 20 Acres

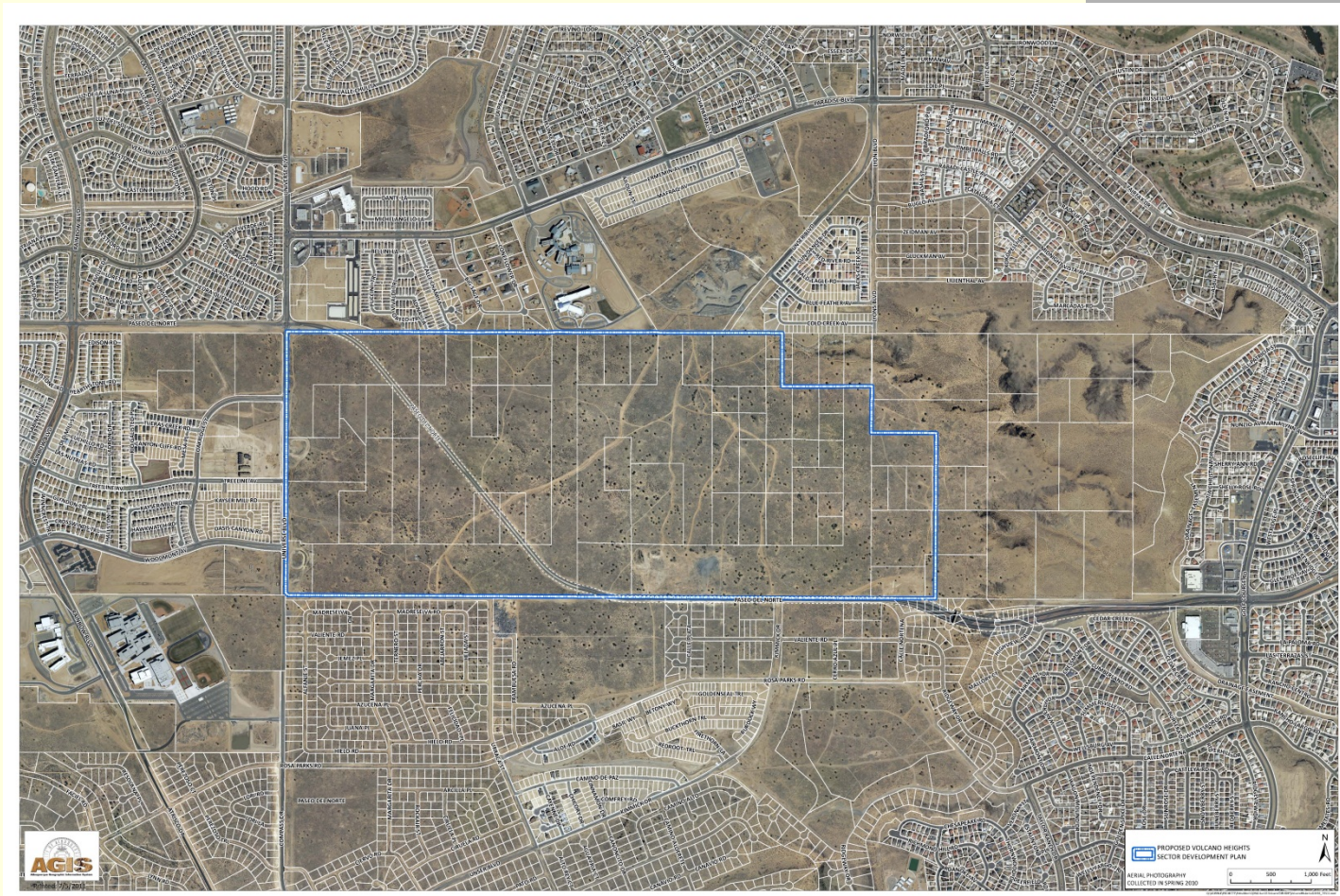
- 5-12 Acres
- <5 Acres

Changes to Access Modification Request:

Intersection Spacing – Sector Plan Constraints

- Prior planning efforts
- Checkerboard ownership
- **Irregular parcels**
- Limited access roads at 45 degree angles to property lines
- Aligning access with existing access easements at property edges
- City-owned Unser vs. State-owned Paseo

Constraint 3: Irregular Parcels



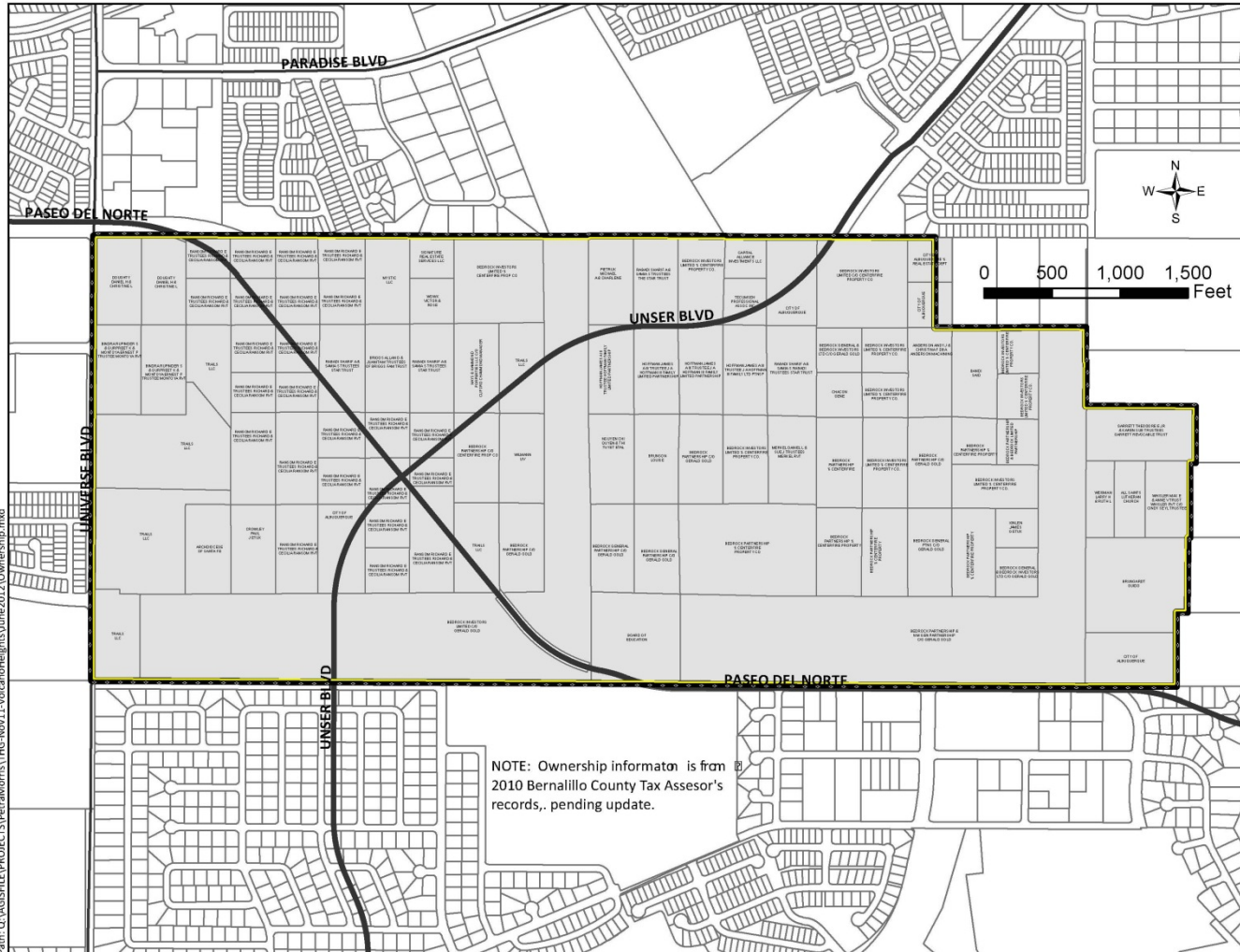
Changes to Access Modification Request:

Intersection Spacing – Sector Plan Constraints

- Prior planning efforts
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- City-owned Unser vs. State-owned Paseo

Constraint 4:

Limited access roads at 45 degree angles to property lines



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

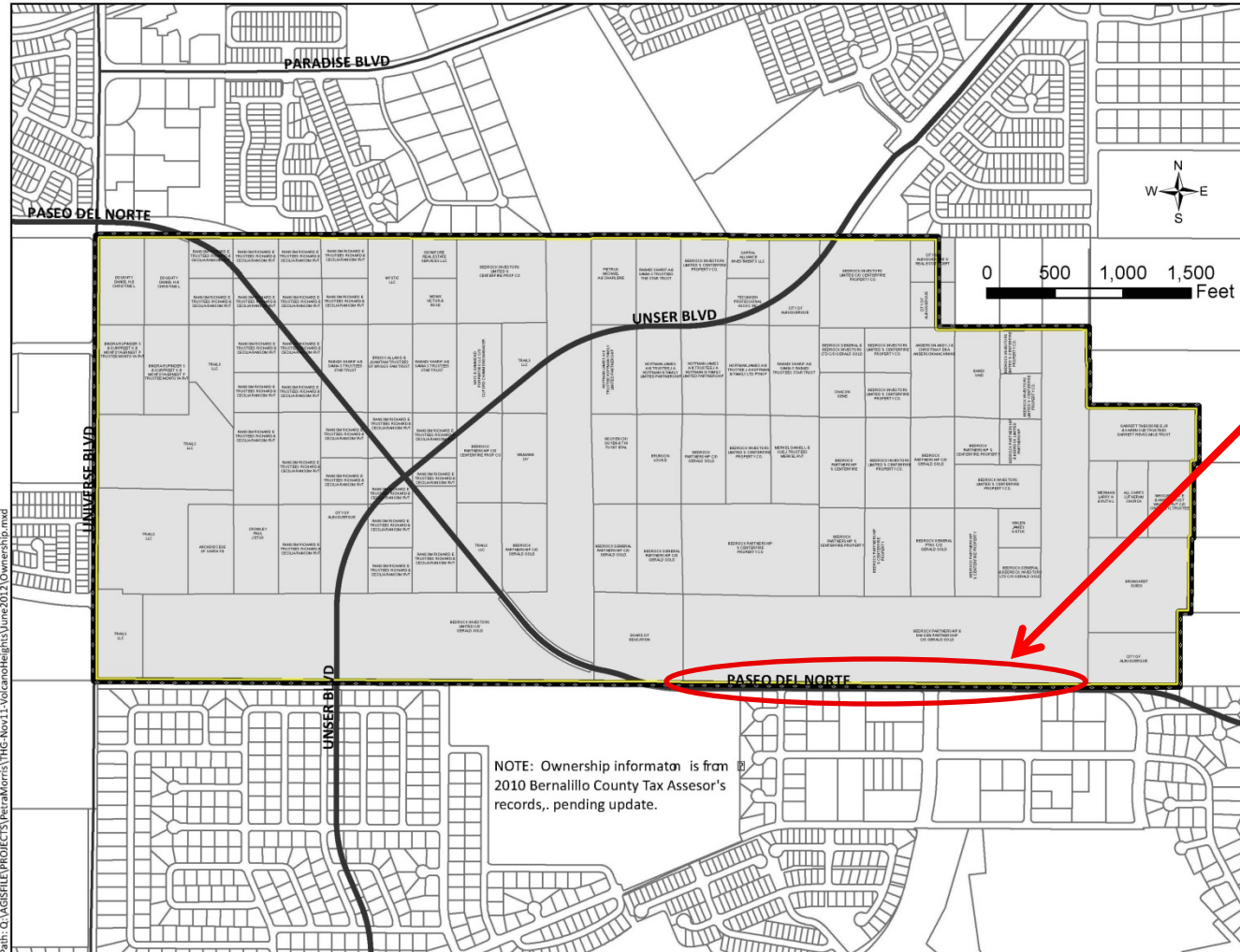
Changes to Access Modification Request:

Intersection Spacing – Sector Plan Constraints

- Prior planning efforts
- Checkerboard ownership
- Irregular parcels
- Limited access roads at 45 degree angles to property lines
- **Aligning access with existing access easements at property edges**
- City-owned Unser vs. State-owned Paseo

Constraint 5:

Aligning Access with Existing Access Easements at Property Edges



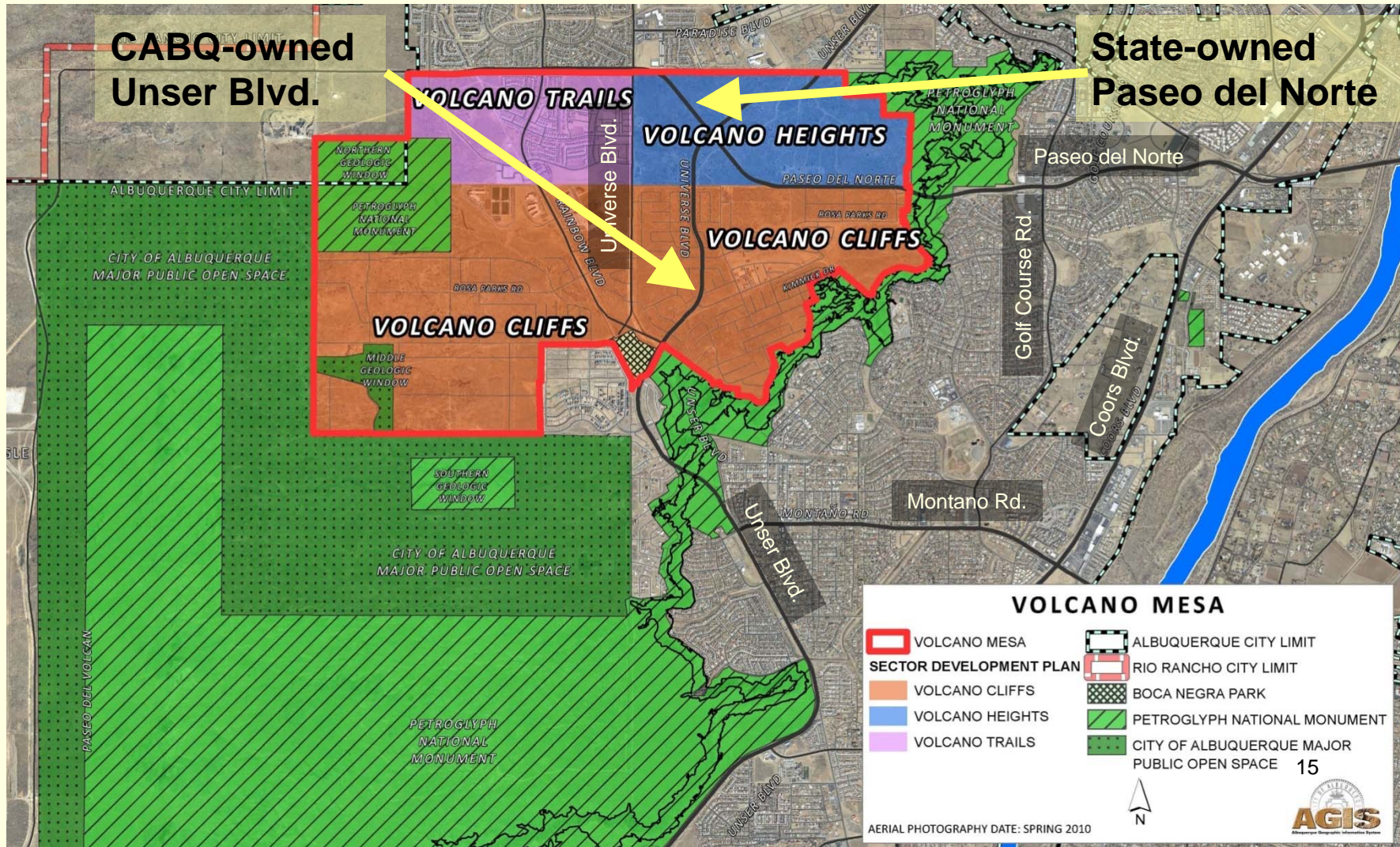
Parcel without 20-foot access easement abutting Paseo del Norte (City purchase for temporary road)

Changes to Access Modification Request:

Intersection Spacing – Sector Plan Constraints

- Prior planning efforts
- Checkerboard ownership
- Irregular parcels
- Limited access roads at 45 degree angles to property lines
- Aligning access with existing access easements at property edges
- **CABQ-owned Unser vs. State-owned Paseo**

Constraint 6: CABQ-owned Unser vs. State-owned Paseo



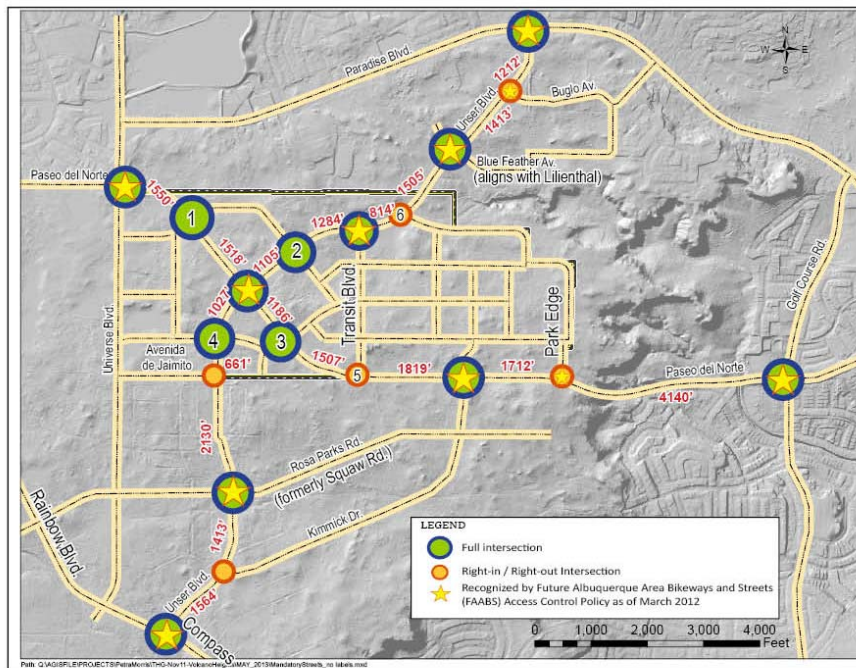
Changes to Access Modification Request: CABQ Decision Rules

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



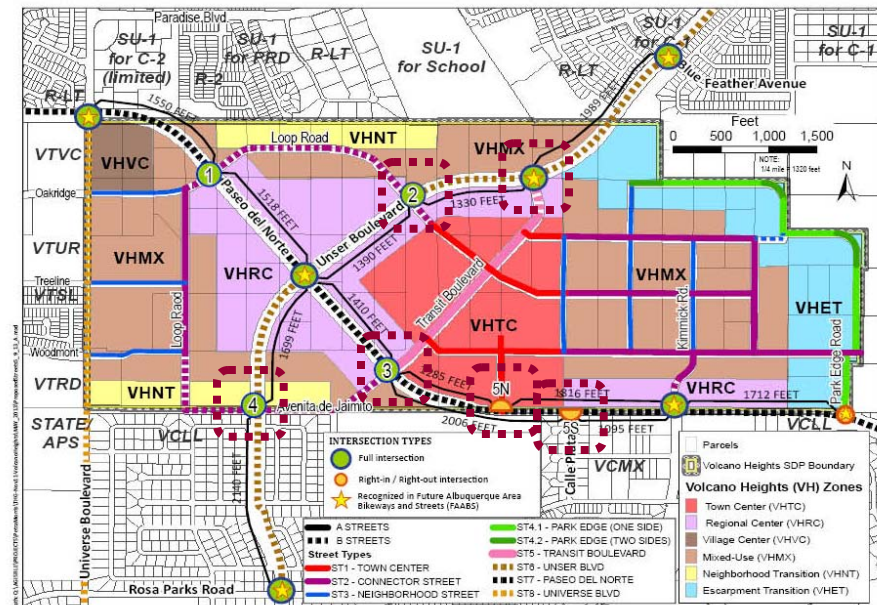
Access Schemes: New Intersections

Scheme A: Volcano Heights Sector Development Plan & Volcano Mesa WSSP Amendment



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

Scheme C: Official City Request (Post-negotiations)



Note: 1/2 mile = 2640 feet
1/3 mile = 1760 feet
1/4 mile = 1720 feet

Indicates change

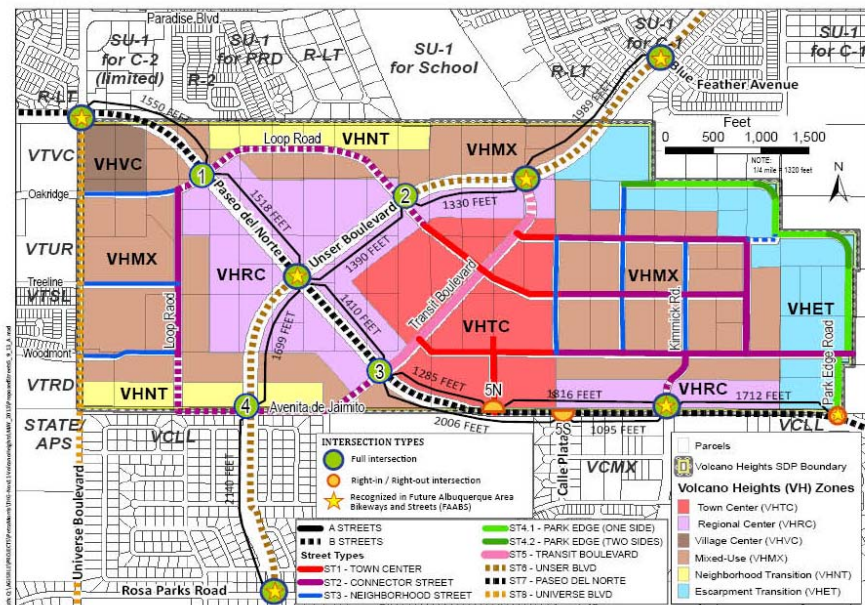
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Access Schemes:

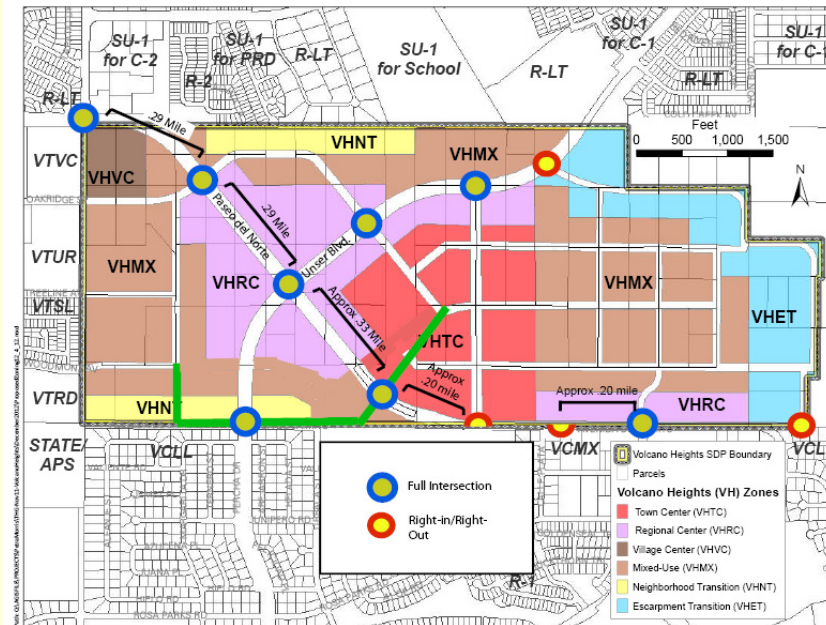
Evolution of Scheme C for Additional Traffic Analysis

Scheme C:

- Based on Official City of Albuquerque Request
- Spacing distances maximized to be over ¼ mile wherever possible based on TCC/RAC comments
- Modified Geometry to Connect Transit Boulevard to Full Access Intersections based on TCC/RAC comments



Map from City Letter of Request (Post-negotiations)



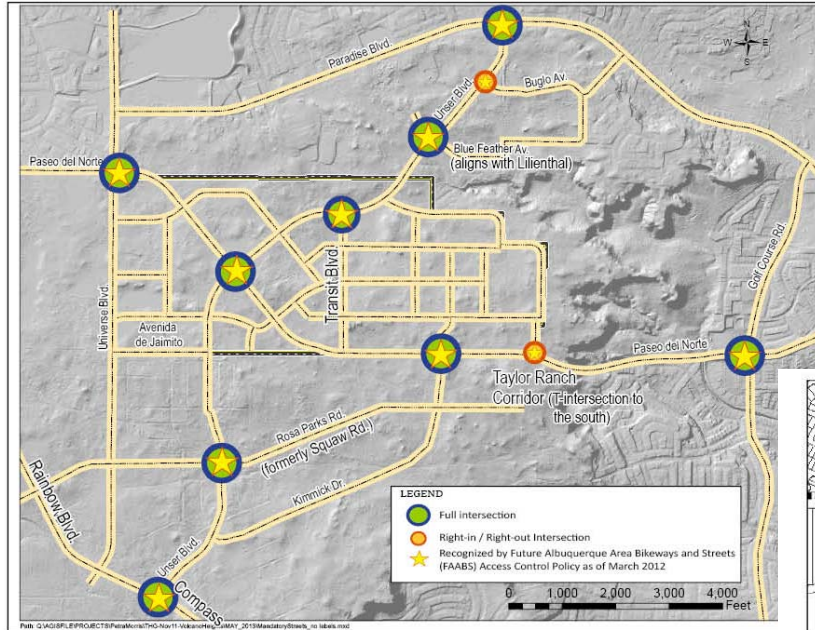
Note: 1/2 mile = 2640 feet
 1/3 mile = 1760 feet
 1/4 mile = 1720 feet

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Access Schemes: (cont'd)

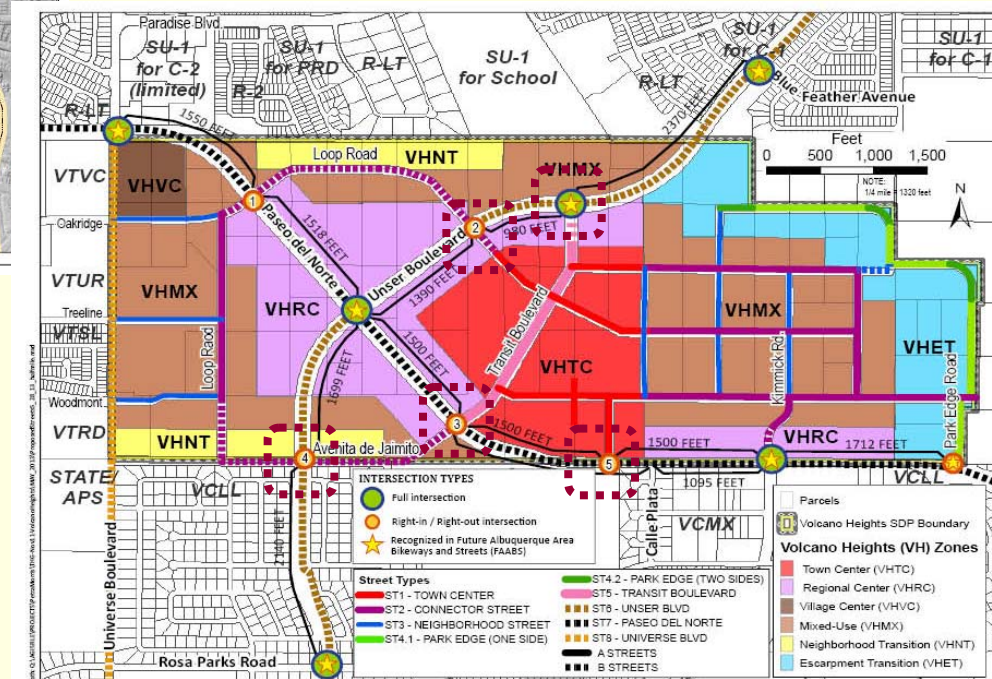
Per Limited-access Policies

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]

FAABS – Roadway Access 2012

Paseo del Norte

Paseo del Norte (NM 423)	
F. Paseo del Norte (R-85-3, R-86-8, R-86-15, R-86-17, R-86-24, R-88-6, R-01-24, R-03-26, R-05-13, R-06-01 TCC)	
A potential future freeway type facility from Coors Boulevard to Louisiana Boulevard, Paseo del Norte shall be a limited access Principal Arterial. Access to Paseo del Norte shall be permitted only as specified by resolution of the MTB and shall be limited to one of the following three types of interchange intersections. These three types are defined and locations of access are specified below.	
TYPE A: Interchange configuration	
TYPE B: At-grade dedicated street intersection with median opening	
TYPE C: At-grade dedicated street intersection without median opening	
TYPE A: Interchange configuration	<ol style="list-style-type: none"> 1. Coors Boulevard 2. I-25 3. 2nd Street
TYPE B: At-grade dedicated street intersection with median opening and traffic signalization, as warranted. At approximately one-half mile intervals, or as identified on the Long Range Roadway System, and specifically located at the following intersections. Additional Type B intersections may be permitted if they subsequently are added to the Long Range Roadway System and meet the approximate one-half mile interval criteria.	<ol style="list-style-type: none"> 1. Paseo del Volcan 2. Boulevard del Oeste, extended 3. Woodmont Avenue-Ventana Parkway R-06-01 TCC 4. Rainbow Boulevard 5. Universe Boulevard 6. Unser Boulevard 7. Kimmick Drive 8. Taylor Ranch Corridor (T-intersection to the south) 9. Golf Course Road 10. Unnamed Collector midway between Eagle Ranch Road and Golf Course Road 11. Eagle Ranch Road 12. Jefferson Street 13. San Pedro Drive 14. Louisiana Boulevard 15. Wyoming Boulevard 16. Mid block between Wyoming & Barstow (right in/right out) R-05-13 MTB 17. Barstow Street 18. Ventura Street 19. Holbrook Street 20. Eubank Boulevard 21. Browning Street 22. Lowell Street 23. Tramway Blvd
TYPE C: At-grade dedicated street intersection without median opening	<ol style="list-style-type: none"> 1. Rancho de Palomas (south side of Paseo del Norte between Wyoming and Louisiana) 2. Between I-25 and San Pedro Boulevard, to serve the south side parcel to and from Paseo del Norte

FAABS – Roadway Access 2012

Unser Boulevard

4. Dellyne Avenue to Paradise Boulevard	a. limited to full access at-grade intersections at the specified locations:	1) Montano Road
		2) Santo Domingo Street (T-intersection to the east)
		3) 81st Street (T-intersection to the west)
		4) Compass Drive
		5) Squaw Road
		6) Paseo del Norte
		7) A point approximately halfway between Paseo del Norte and Lilienthal
		8) Lilienthal
		9) Paradise Boulevard
	b. Partial access intersections shall be provided at the specified locations:	1) Flor del Sol Place (right in/right out)
		2) Buglo Avenue (right in/right out/left in) R-07-02 TCC
3) Bogart Street (right in/right out)		

Scheme Spacing Comparisons: Paseo del Norte Intersections

Proposed Intersections	Scheme A - VHSDP	Scheme B - Policy	Scheme C - Compromise
Paseo/Universe to Loop Road #1	1550	1550	1550
Loop Road #1 to Paseo/Unser	1518	1518	1518
Paseo/Unser to Loop Road #3	1186	1500	1410
Loop Road #3 to Paseo #5	1507	1500	To 5N: 1285 To 5S: 2006
Paseo #5 to Kimmick	1819	1500	From 5N: 1816 From 5S: 1095
Kimmick to Park Edge Road	1712	1712	1712

5N = RI/RO at Transit Boulevard
5S = RI/RO at Calle Plata

Scheme Spacing Comparisons: Unser Blvd. Intersections

Proposed Intersections	Scheme A - VHSDP	Scheme B - Policy	Scheme C - Compromise
Compass to Kimmick	1564	1564	1564
Kimmick to Rosa Parks (formerly Squaw)	1413	1413	1413
Rosa Parks to Avenida de Jaimito	2130	2130	2130
Avenida de Jaimito to Loop #4	661	0	0
Loop #4 to Paseo/Unser	1027	1699	1699
Paseo/Unser to Loop #2	1105	1390	1390
Loop #2 to Transit Blvd.	1284	980	1330
Transit Blvd. to Park Edge #6	814	N/A	N/A
Park Edge #6 to Blue Feather (formerly Lilienthal)	1505	N/A	N/A
Transit Blvd. to Blue Feather	N/A	2370	1989
Blue Feather to Buglo Ave.	1413	1413	1413
Buglo Ave. to Paradise Blvd.	1212	1212	1212

Final CABQ Request: Paseo del Norte Intersections

Proposed Intersections	Final Request	Scheme A - VHSDP	Scheme B - Policy	Scheme C - Compromise
Paseo/Universe to Loop Road #1	1550	1550	1550	1550
Loop Road #1 to Paseo/Unser	1518	1518	1518	1518
Paseo/Unser to Loop Road #3	1410	1186	1500	1410
Loop Road #3 to Paseo #5	To 5N*: 1285 To 5S*: 2006	1507	1500	To 5N**: 1285 To 5S**: 2006
Paseo #5 to Kimmick	From 5N*: 1816 From 5S*: 1095	1819	1500	From 5N**: 1816 From 5S**: 1095
Kimmick to Park Edge Road	1712	1712	1712	1712

5N* = T-intersection at Transit Boulevard
5S* = RI/RO at Calle Plata

5N** = RI/RO at Transit Boulevard
5S** = RI/RO at Calle Plata

Final CABQ Request: Unser Blvd. Intersections

Proposed Intersections	Final Request	Scheme A - VHSDP	Scheme B - Policy	Scheme C - Compromise
Compass to Kimmick	1564	1564	1564	1564
Kimmick to Rosa Parks (formerly Squaw)	1413	1413	1413	1413
Rosa Parks to Avenida de Jaimito	N/A	2130	2130	2130
Avenida de Jaimito to Loop #4	N/A	661	0	0
Rosa Parks to Loop #4	2791'	N/A	N/A	N/A
Loop #4 to Paseo/Unser	1027	1027	1699	1699
Paseo/Unser to Loop #2	1105	1105	1390	1390
Loop #2 to Transit Blvd.	1284	1284	980	1330
Transit Blvd. to Park Edge #6	1160	814	N/A	N/A
Park Edge #6 to Blue Feather (formerly Lilienthal)	1160	1505	N/A	N/A
Transit Blvd. to Blue Feather	N/A	N/A	2370	1989

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 system is integrated both internally and between major rural connections. 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, between major inner city communities, and between major suburban centers, is served by this class of highway. In urbanized areas, this system provides continuity for all rural arterials that intercept the urban boundary.
- **(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, railroad stations 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>

Justification for Access Request:

Access Management Guidelines for Activity Centers (1992)

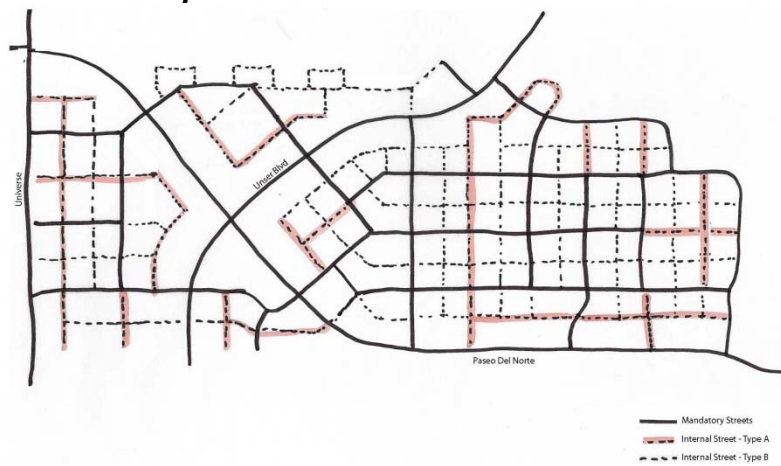
- Signalized spacing (pg. 4):
 - The spacing guidelines should minimize the need for variances or exceptions, while simultaneously protecting arterial traffic flow. They should view driveways to major activity centers as intersecting arterial roads rather than as curb cuts.
 - To assure efficient traffic flow, new signals should be limited to locations where the progressive movement of traffic will not be impeded significantly. The “optimum” distance between signals - where there is no loss in the through band width - depends on the cycle length and the prevailing speed. When signals are placed at other locations, there is a loss in band width and delay increases
- Unsignalized spacing (pg. 5):
 - *Strict application of traffic engineering criteria may push spacing requirements to 500 ft or more.* However, such spacings may be unacceptable for land use and perceived economic reasons in many suburban and urban environments where *development pressures opt for 100- to 200-ft spacing.* Spacing guidelines should achieve a reasonable balance between these conflicting requirements.

Justification for Access Request:

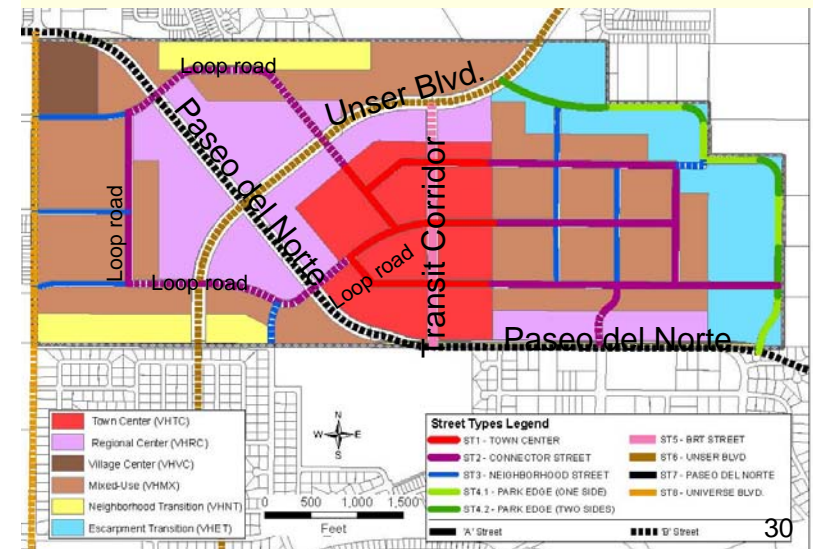
Benefits Outweigh the Costs

- 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



Next Steps:

Timelines

- **Volcano Heights Sector Development Plan**
 - June 3, 2013: City Council
- **Paseo del Norte High-Capacity Transit Study**
 - Summer 2013
- **Access Request**
 - TCC June 7, 2012 (and July 12, 2013?)
 - MTB June 21, 2013 or July 19, 2013

June 3, 2013



Volcano Heights Sector Development Plan

City Project Team



Mikaela Renz-Whitmore

Long-range Planner – Planning Dept.

mrenz@cabq.gov

505-924-3932

Andrew Webb

Policy Analyst – Council Services

awebb@cabq.gov

505-768-3161

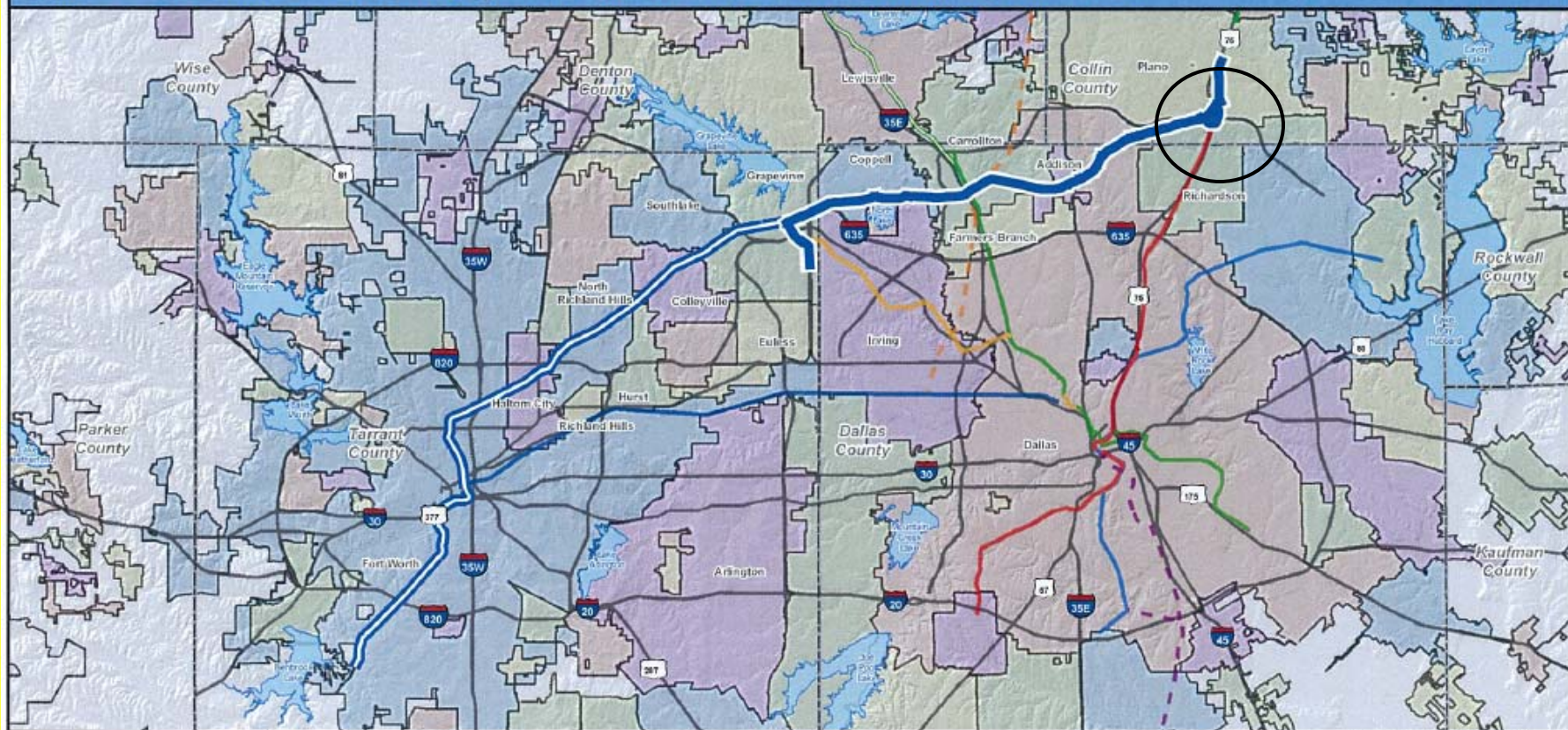


City's Project Webpage:

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

Bush Central, Richardson Texas

Figure 1-1 - Cotton Belt Corridor Sycamore School Road in Fort Worth to US 75 in Plano



North Central Texas Council of Governments

Legend

- Potential Cotton Belt Line
- Potential SW2NE Corridor
- DCTA A-train
- DART Blue Line
- DART Green Line
- DART Orange Line
- DART Red Line
- TRE
- Potential Frisco Line
- Potential McKinney Line
- Potential Waxahachie Line
- Highways/Tollways
- County Limits
- City / Town Limits
- Lakes

Key Map

Cotton Belt Corridor — Conceptual Engineering and Funding Study

Subject Properties – Existing Zoning

Bush Central Station

57.11 acres

Office

Research

Institution

Full Service Hotel

Light Manufacturing Limited/Incidental

Residential

Max. 2,855,031 SF

Max. 426 units

75' to 20-stories

Religious

Hospital

Retail

Caruth Properties

85.93 acres

Office

Research

Institution

Full Service Hotel

Light Manufacturing Limited/Incidental

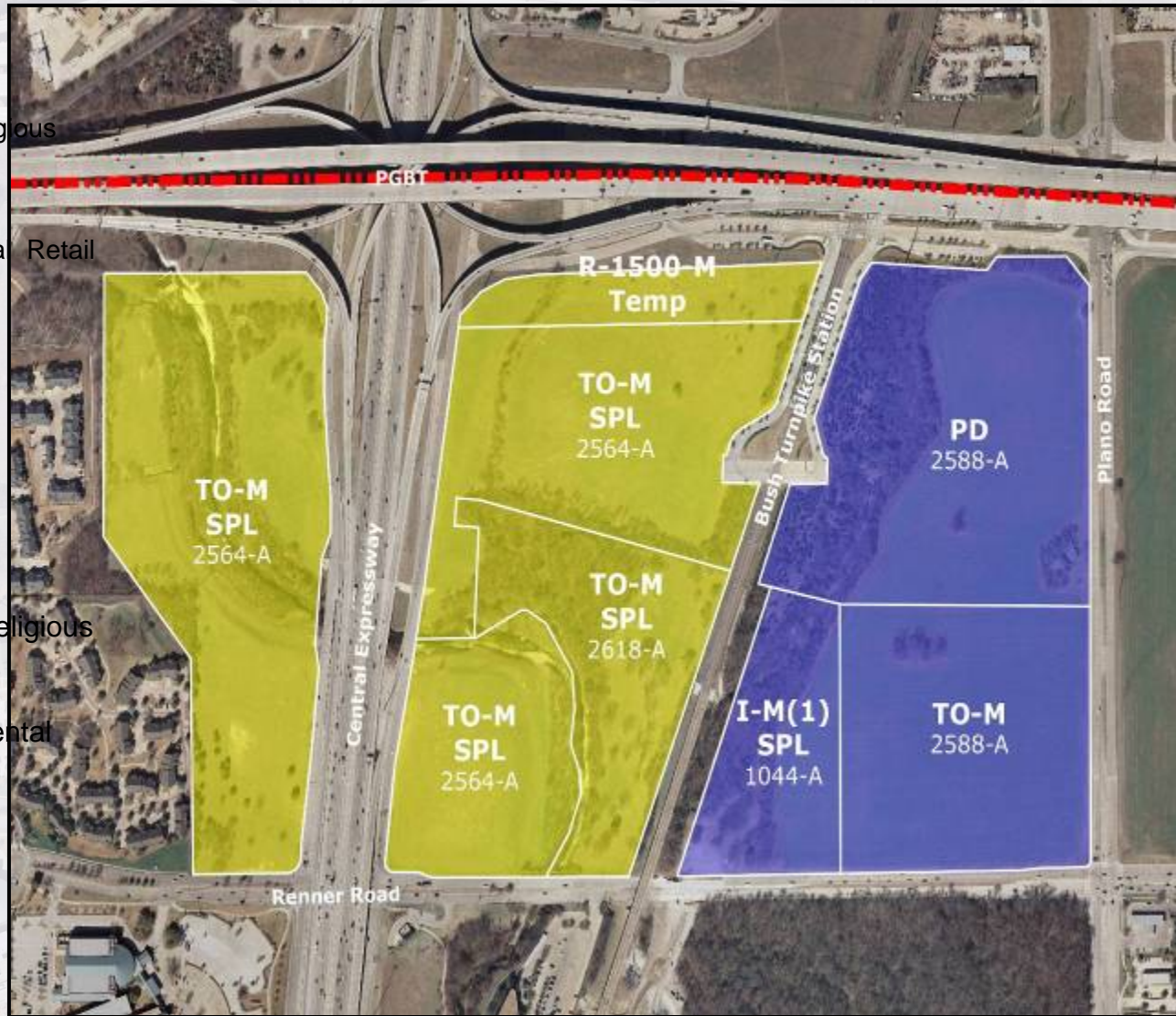
Retail

Religious

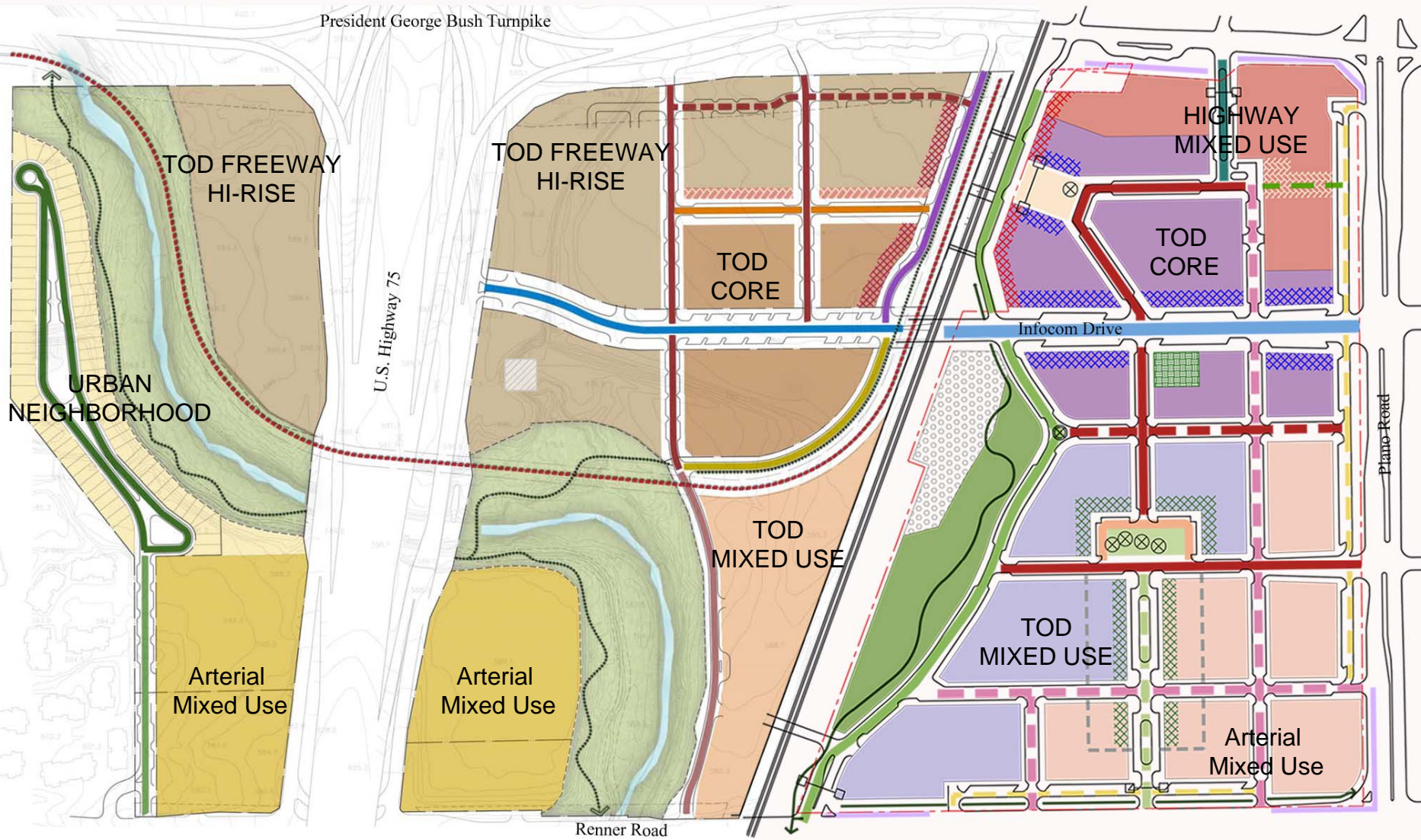
Hospital

Max. 2,529,377 SF

4 to 12-stories



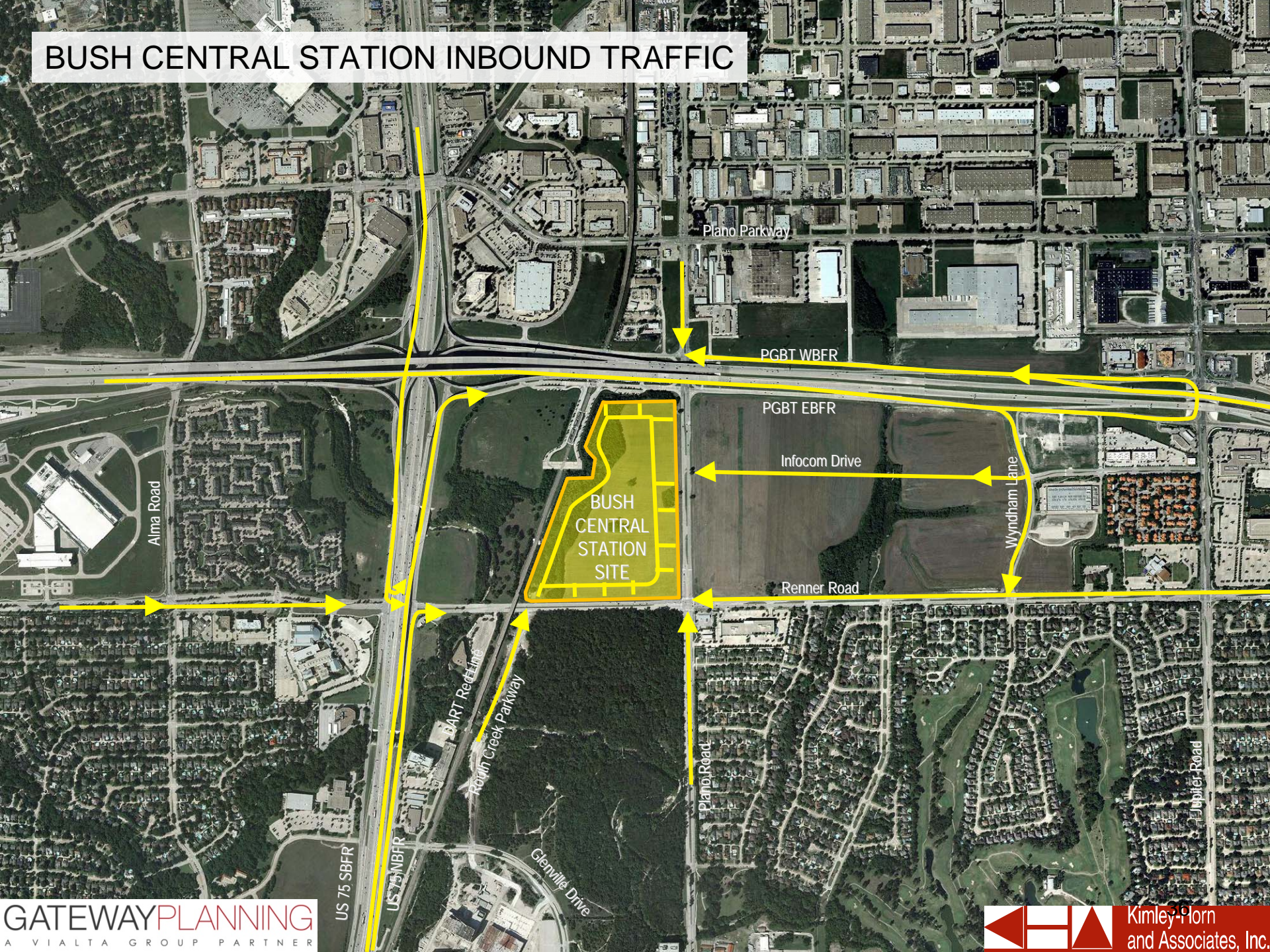
Regulating Plan – Character Zones



Approx. Gross Ac: 85.9
 Approx. Developable Ac: 52.5

Approx. Gross Ac: 57.2
 Approx. Developable Ac: 28.6

BUSH CENTRAL STATION INBOUND TRAFFIC



Alma Road

Plano Parkway

PGBT WBFR

PGBT EBFR

Infocom Drive

Wyncham Lane

Renner Road

BUSH
CENTRAL
STATION
SITE

BART Red Line

Robin Creek Parkway

Glenville Drive

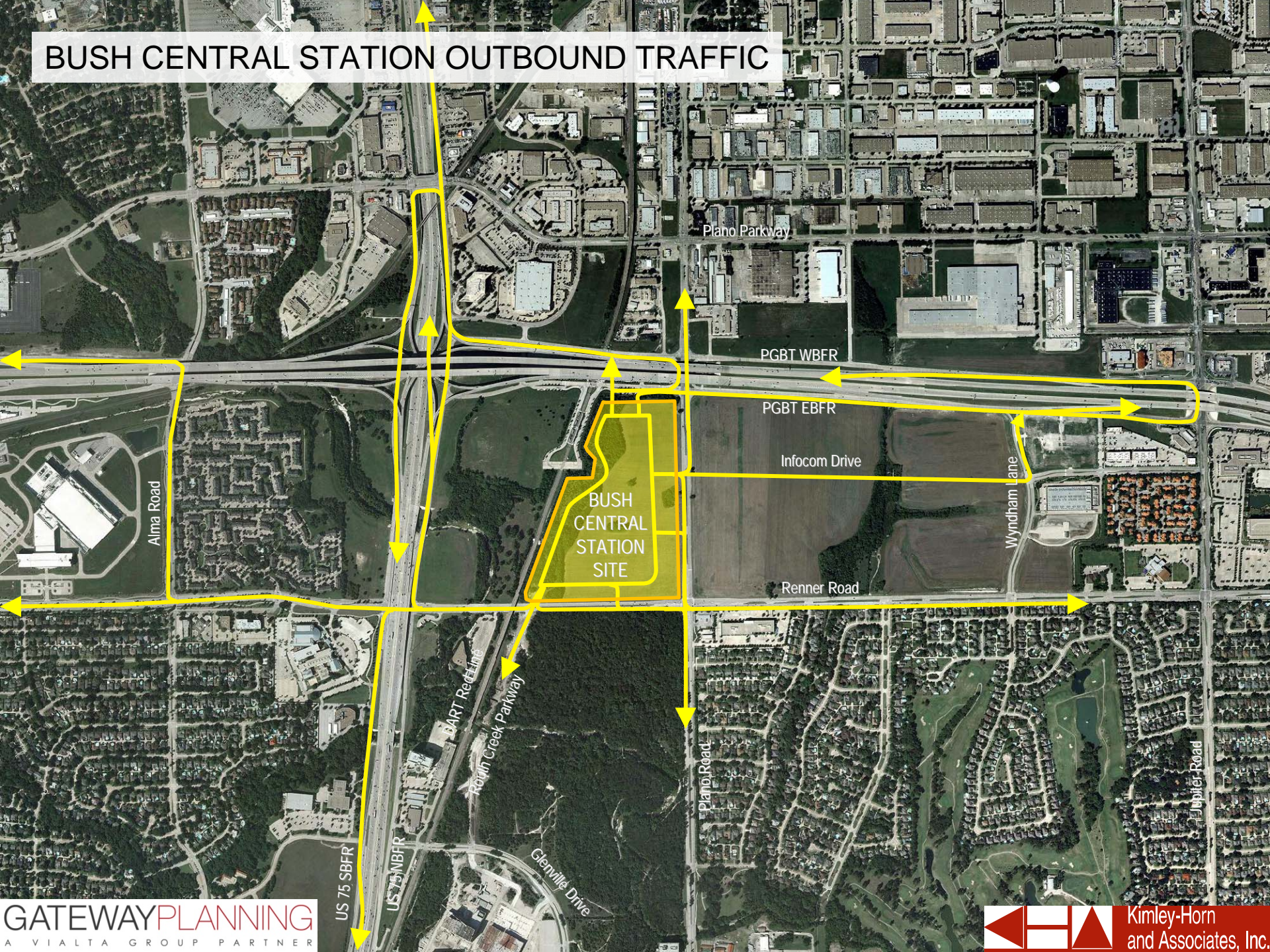
Plano Road

Jupiter Road

US 75 SBFR

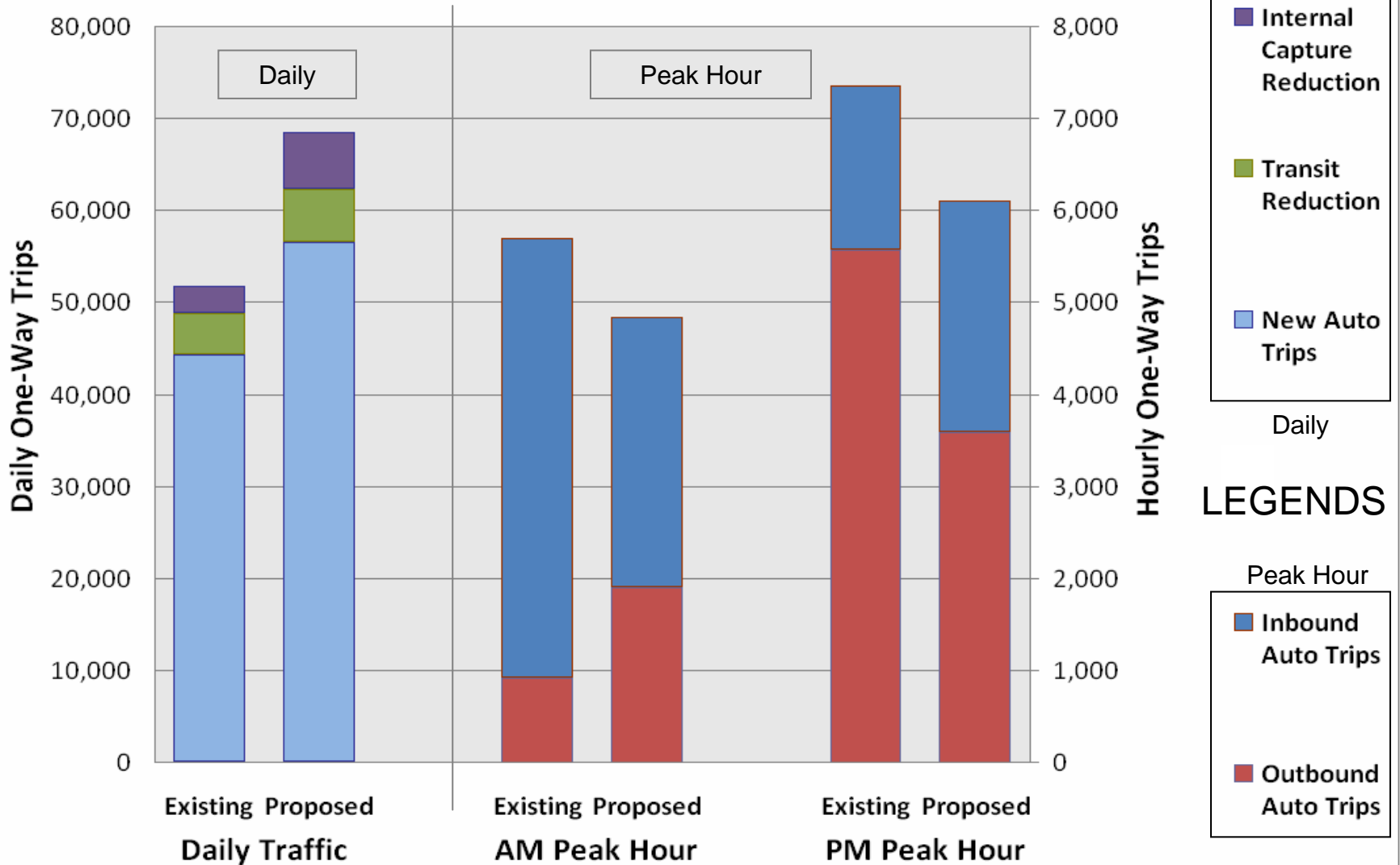
US 75 NBFR

BUSH CENTRAL STATION OUTBOUND TRAFFIC



Traffic Impact Analysis

Bush/75 Traffic Volumes - Zoning Comparison



LEGENDS

- Internal Capture Reduction
- Transit Reduction
- New Auto Trips

- Inbound Auto Trips
- Outbound Auto Trips

Conclusions By Staff

- TOD Mixed Use Zoning results in more daily traffic than the existing zoning, **but it is spread out over the day.** Peak Hour traffic volumes lower with a better distribution of inbound and outbound traffic.
- **Adequate provision of access and circulation drives evenly distribute traffic to Arterial and Freeway system minimizing impact to network.**
- Significant levels of roadway capacity enhancements, including additional turn bays and auxiliary lanes are proposed as part of the regulating plan, **maximizes efficiency of the roadway network.**

Resulting Employment Center Investment

KDC begins big State Farm Insurance project in Richardson



By Steve Brown

stevebrown@dallasnews.com

5:50 am on April 17, 2013 | [Permalink](#)



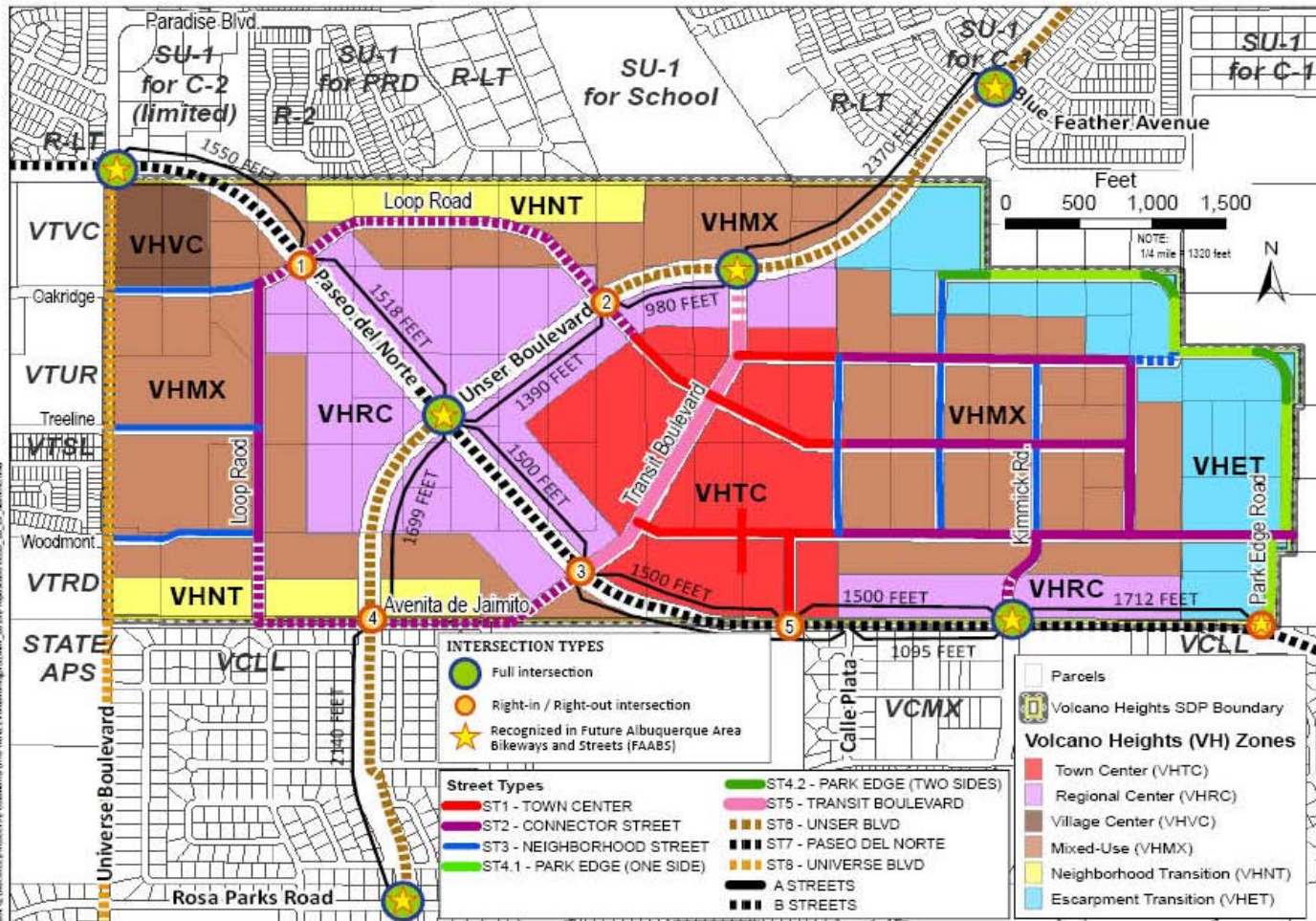
Additional Vehicular Traffic Study: Operations & Intersection Level of Service (LOS)

- 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

Operations & Intersection Level of Service (LOS): Paseo del Norte

- Key factors affecting delay in Year 2035 at intersections will be conflicting movements.
 - Left-turn movements are critical factor for traffic operations.
- Arriving from east (westbound on Paseo):
 - Inbound vehicles will be unable to directly access SE quadrant of VH under Scheme B (will require U-turns outside of sector).
- Arriving from west (eastbound on Paseo):
 - Access to NW & NE quadrants will require left-turn at Unser under Scheme B.

Vehicular Access: Scheme B



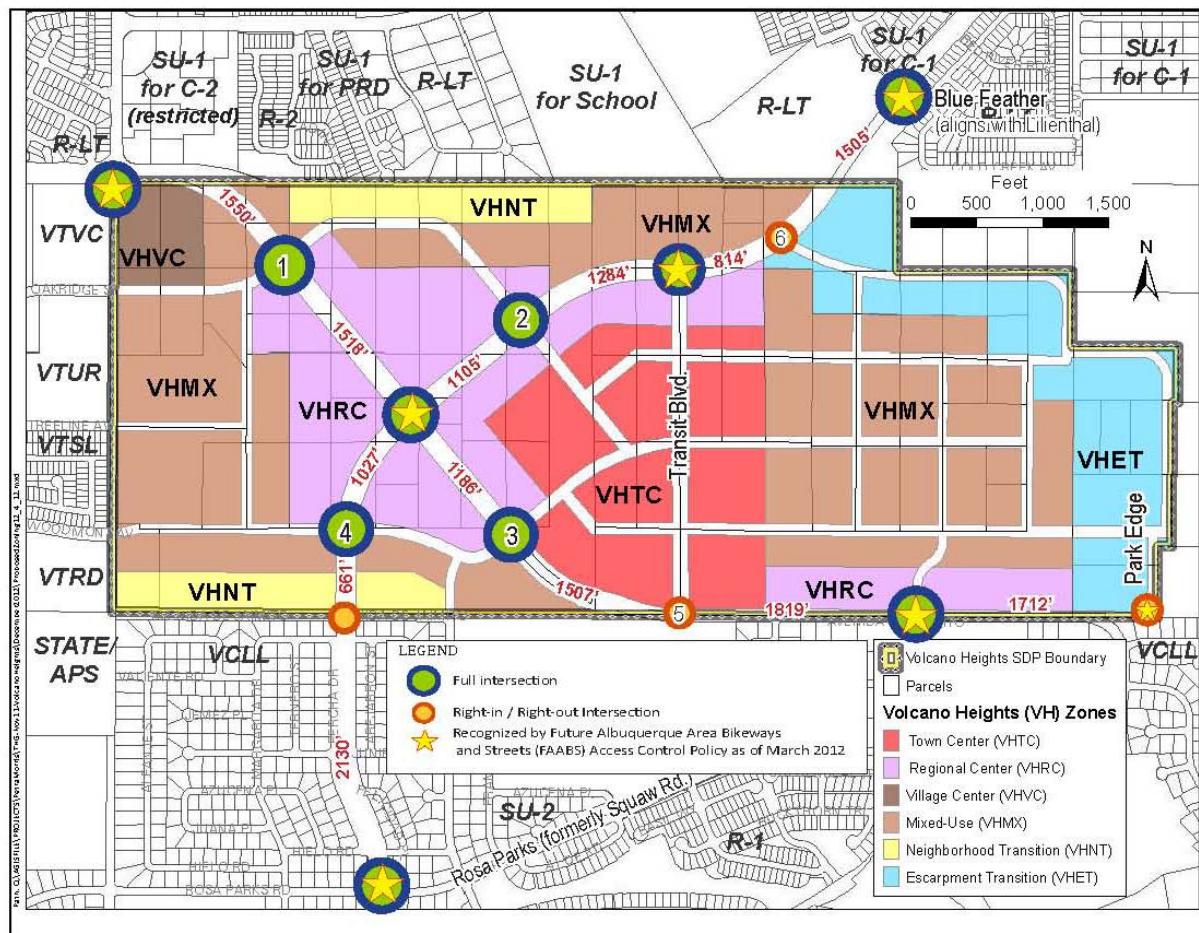
Operations & Intersection Level of Service (LOS): Unser Boulevard

- Key factors affecting delay in Year 2035 at intersections will be conflicting movements
 - Left-turn movements are critical factor for traffic operations.
- Arriving from south (northbound on Unser):
 - U-turn required for access to SW quadrant under Scheme B.
- Arriving from north (southbound on Unser):
 - No access to SE quadrant under Scheme B (requires U-turn at Rose Parks Dr, outside the sector).

Vehicular Access:

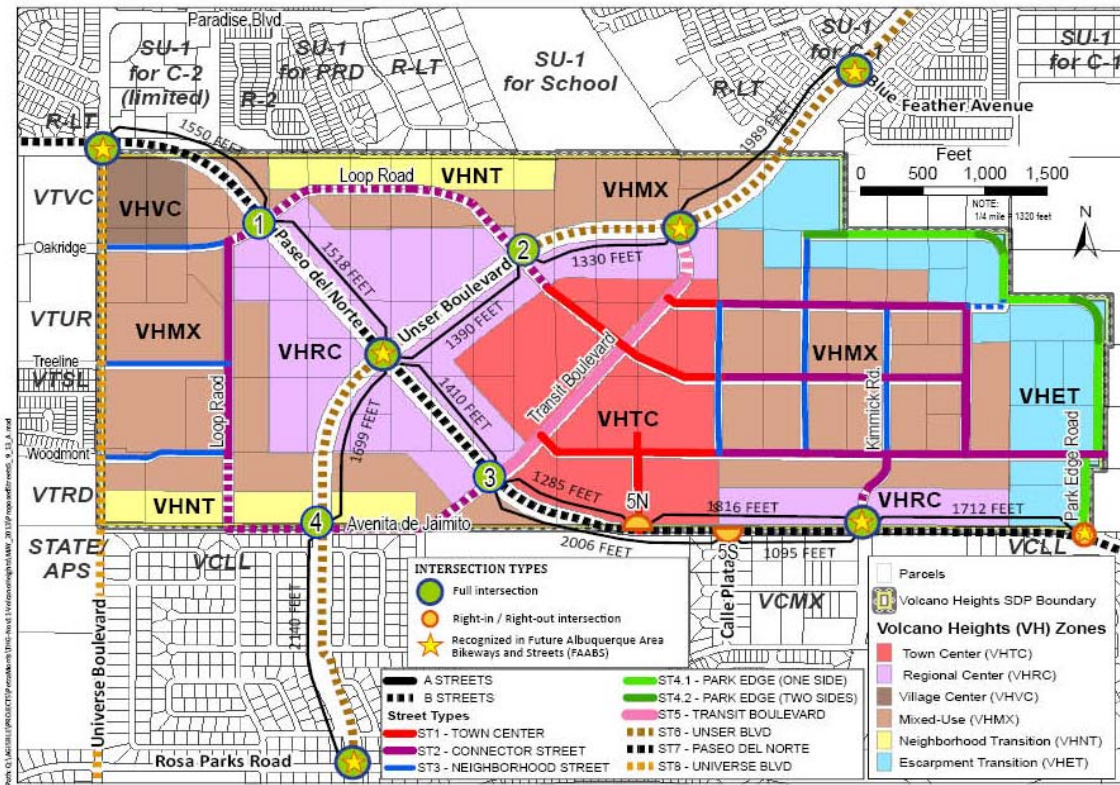
Scheme A

- Direct access provided to all quadrants of Volcano Heights



Vehicular Access: Scheme C

- Direct access provided to all quadrants of Volcano Heights



Note: 1/2 mile = 2640 feet
1/3 mile = 1760 feet
1/4 mile = 1720 feet

DRAFT

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

Year 2035 Intersection Level of Service - DRAFT PM Peak Hour	Scheme A: VHSDP		Scheme B: Policy		Scheme C: Compromise	
	Level of Service (LOS)	Avg. Delay (seconds)	Level of Service (LOS)	Avg. Delay (seconds)	Level of Service (LOS)	Avg. Delay (seconds)
Paseo del Norte						
Universe	C	23	C	29	C	26
#1 Loop Rd -- WEST (proposed – 1518' west of Unser)	C	31	N/A	N/A	C	33
Unser Transit Blvd (proposed – 1410' east of Unser)	C	33	E	78	C	31
Transit Blvd (proposed – 1410' east of Unser)	N/A	N/A	N/A	N/A	D	44
Kimmick Rd	D	37	E	74	C	33
Unser Boulevard						
#4 Loop Road – South Intersection (proposed 1699' south of Paseo del Norte)	C	31	N/A	N/A	C	29
Paseo del Norte	C	33	E	78	C	31
#2 Loop Road – North Intersection (proposed 1390' north of Unser)	C	34	N/A	N/A	D	40
Transit Blvd.	C	27	D	40	C	40

Additional Vehicular Traffic Study:

Conclusions: Scheme A

- 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 (through Volcano Heights) PM Peak Hour (Year 2035 Volumes)	Scheme A: VHSDP	Scheme B: Policy	Scheme C: Compromise
Paseo del Norte			
Eastbound	25 mph	29 mph	24 mph
Westbound	20 mph	19 mph	22 mph
Overall	22 mph	23 mph	22 mph
Unser			
Northbound	23 mph	23 mph	21 mph
Southbound	21 mph	28 mph	23 mph
Overall	22 mph	25 mph	23 mph

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 (through Volcano Heights) PM Peak Hour (Year 2035 Volumes)	Scheme A - Modified: VHSDP + 1T (add signal @ Paseo & Transit Blvd.)	Scheme B: Policy	Scheme A + 2T: (Signalized T- intersections on Paseo @ Transit Blvd. & Kimmick Rd.)
Paseo del Norte			
Eastbound	25 mph	29 mph	25 mph
Westbound	20 mph	19 mph	20 mph
Overall	22 mph	23 mph	22 mph
Unser			
Northbound	23 mph	23 mph	23 mph
Southbound	21 mph	28 mph	21 mph
Overall	22 mph	25 mph	22 mph

Additional Vehicular Traffic Study:

Year 2035 Peak Hour Travel Speeds

- Year 2035 travel speed on Paseo increases by 1 mph under both Scheme A and C, due to dispersal of turning movements to multiple locations.
 - Baseline travel speed on Paseo del Norte with forecasted Year 2035 volumes will be 23 mph during PM Peak Hour.
- Unser travel time potentially degrades by 3 to 5 mph (on segment through Volcano Heights sector).
 - Baseline travel speed on Unser with forecasted Year 2035 volumes will be 21 mph during PM Peak Hour.
 - Reduced travel speed primarily results from assumed signal progression favoring east/west movement on Paseo del Norte.

Pedestrian Analysis:

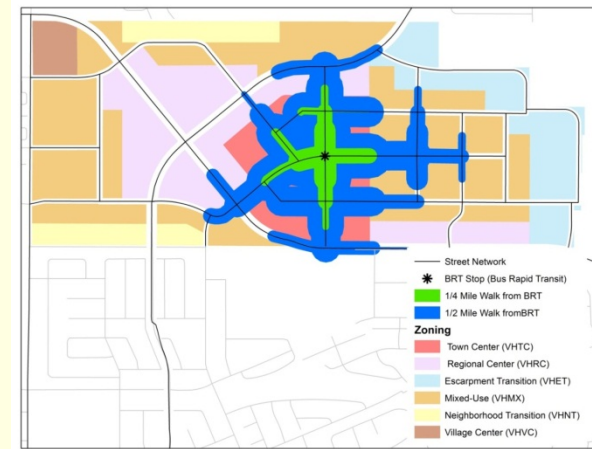
Scenario 1: Single Bus Rapid Transit Stop

TABLE 1: Single Bus Rapid Transit Stop Scenario

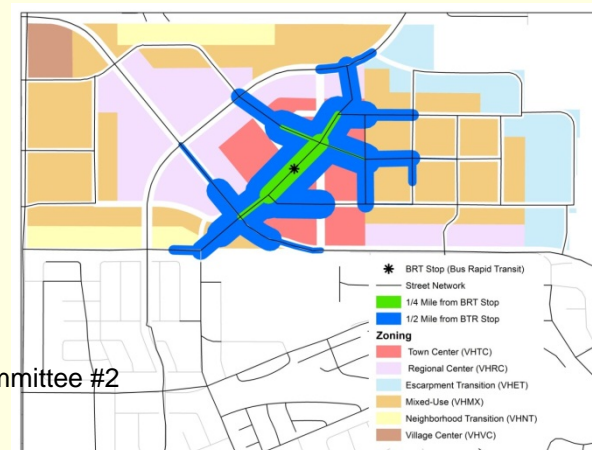
	Scheme A	Scheme B
Total accessible acres in a 1/2 mile walk or less	75.6	55.7
Total acres accessible in Town Center	50.8	37.1
Percent of Town Center Accessible	75%	55%

Note: Analysis assumes that pedestrians can cross any intersection, regardless of whether it is right-in/right-out or a signalized full-access intersection.

Scheme A



Scheme B



Pedestrian Analysis:

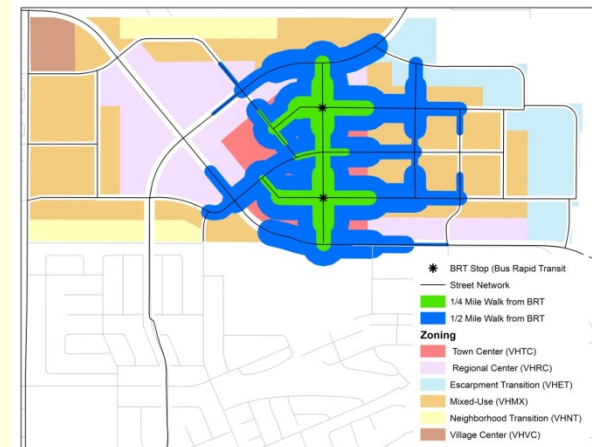
Scenario 2: Two Bus Rapid Transit Stops

TABLE 1: Single Bus Rapid Transit Stop Scenario

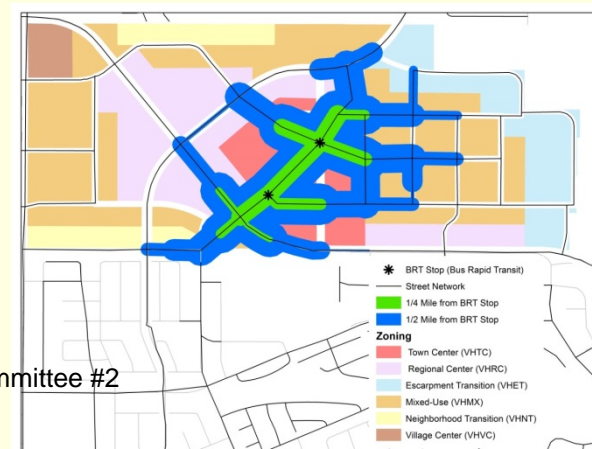
	Scheme A	Scheme B
Total accessible acres in a 1/2 mile walk or less	102.7	92.0
Total acres accessible in Town Center	57.4	47.0
Percent of Town Center Accessible	85%	70%

Note: Analysis assumes that pedestrians can cross any intersection, regardless of whether it is right-in/right-out or a signalized full-access intersection.

Scheme A



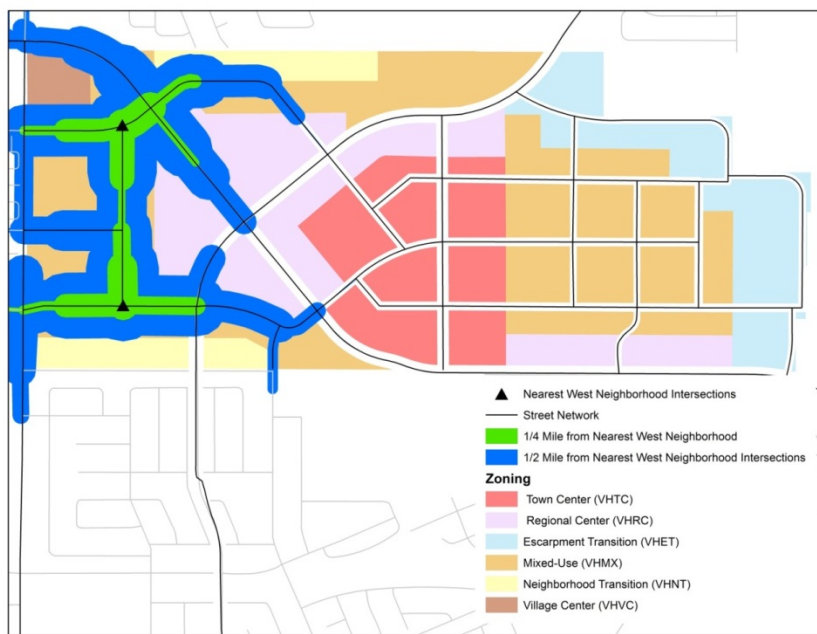
Scheme B



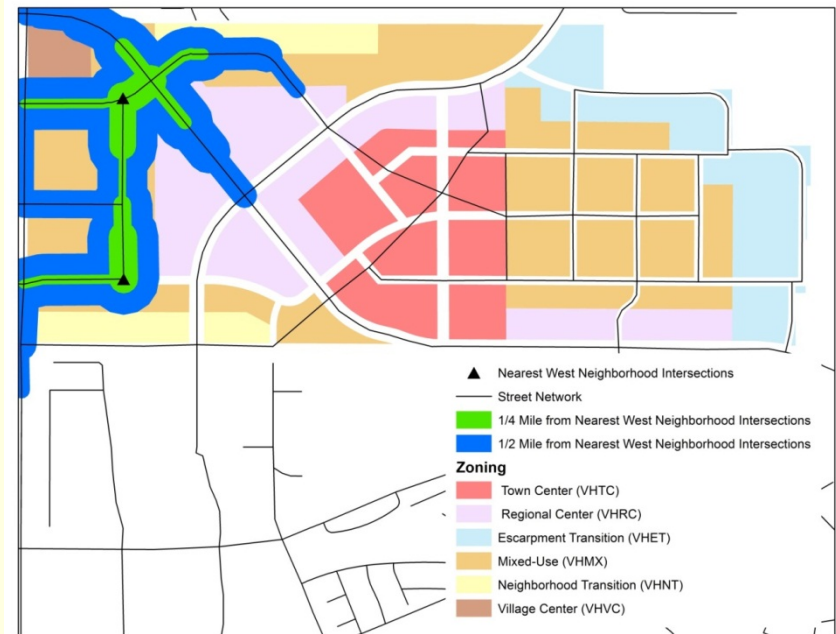
Pedestrian Analysis:

Scenario 3: Access from Neighborhoods West of Universe

Scheme A



Scheme B



Note: Analysis assumes that pedestrians can cross any intersection, regardless of whether it is right-in/right-out or a signalized full-access intersection.