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February 2011

Temporary Traffic Calming Plan

24th Street – Cactus Road to Shea Boulevard



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City of Phoenix Street Transportation Department
Safety & Neighborhood Traffic



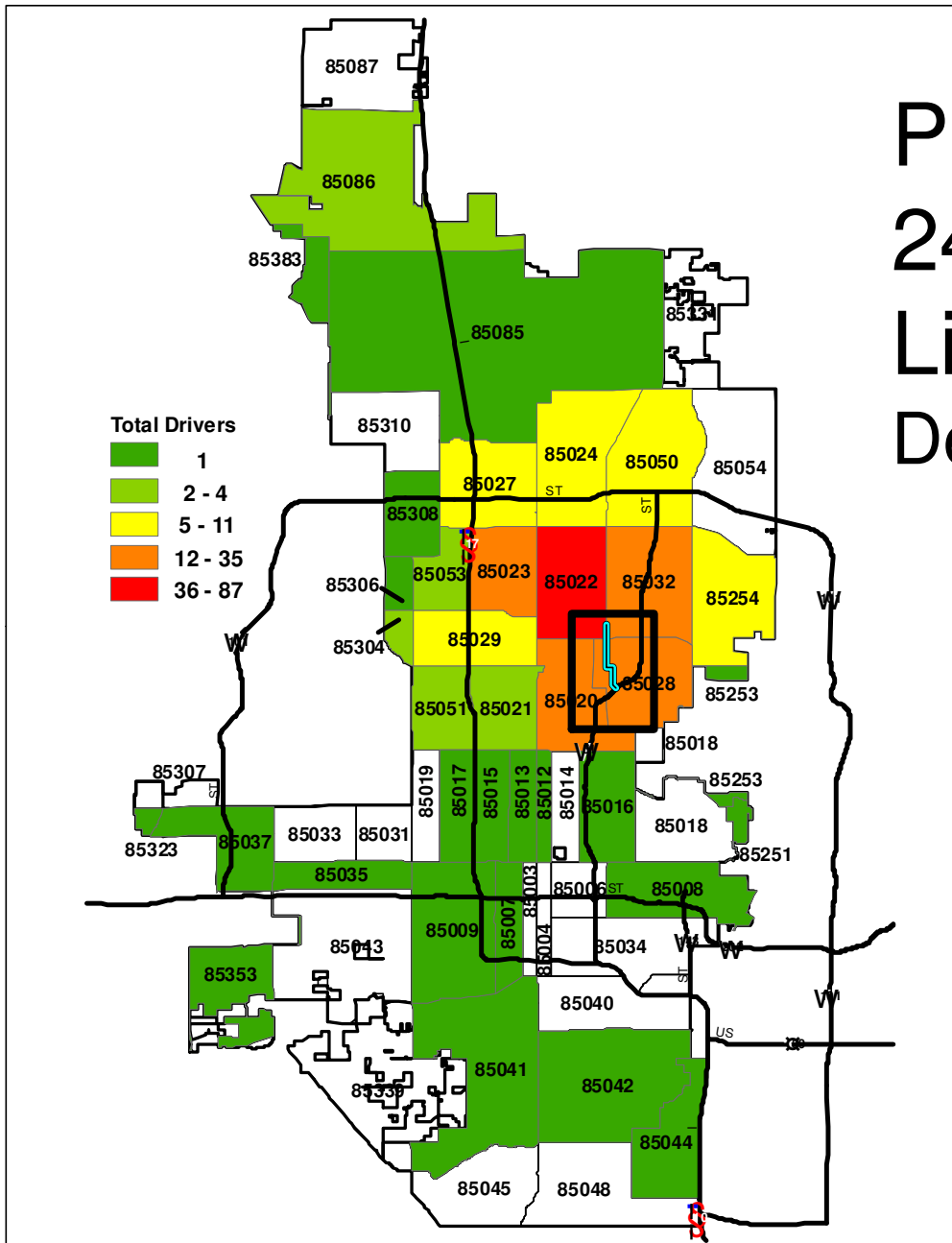
24th Street Traffic Calming

In 2009 the City of Phoenix was contacted by residents along 24th Street between Cactus Rd and Shea Blvd

Resident were concerned about traffic speed and volume on 24th Street

They requested the city evaluate the street for traffic claming

Point of Origin Study: 24th Street Traffic License Plate Survey December 2009



Useable License Plate Numbers
296 Units 36 Zip Codes



Neighborhood Traffic Problem



Route A at 40 mph
3.4 Miles
3.8 Minutes

Route B at 30 mph
2.0 Miles
4 Minutes



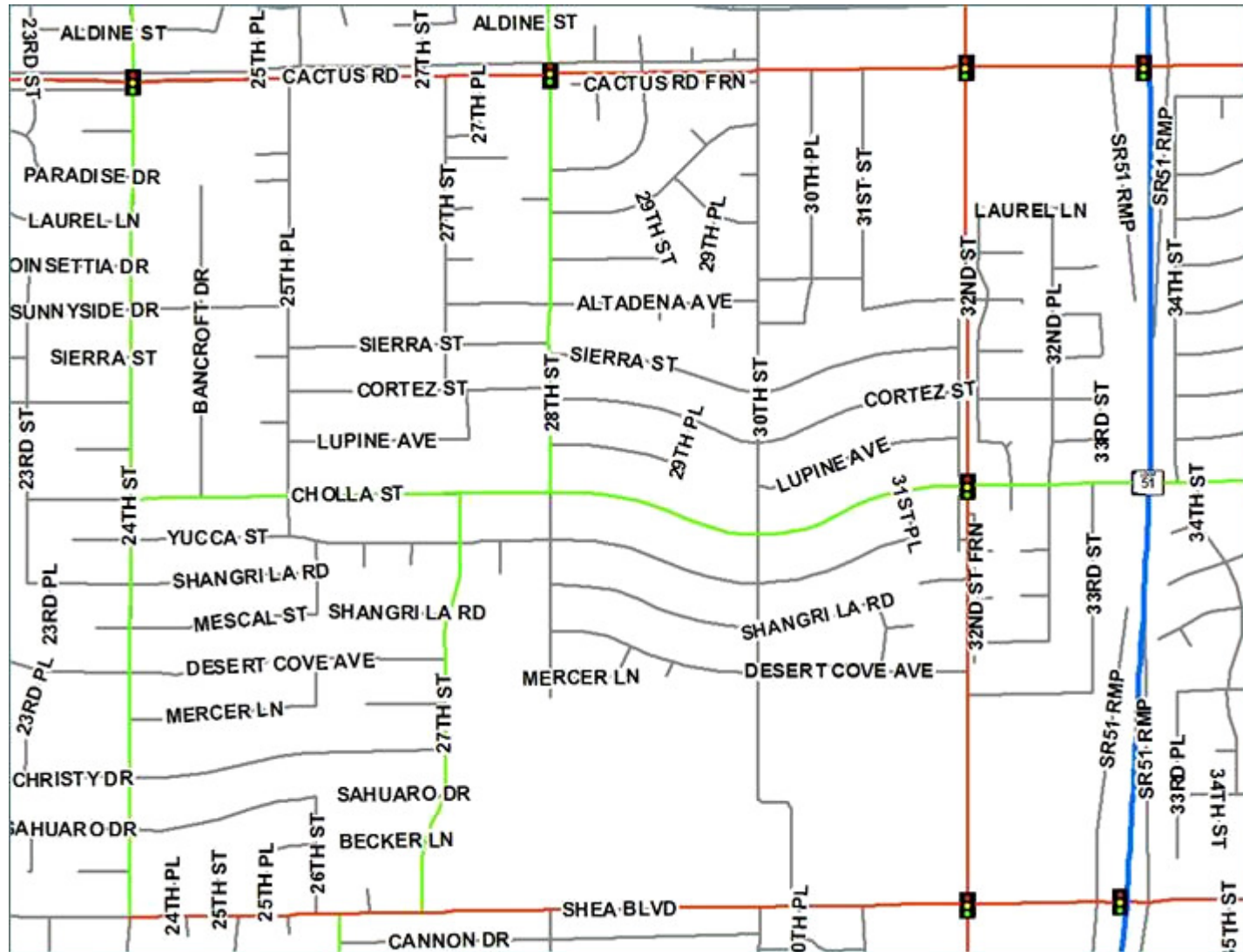
Temporary Traffic Calming

Freeway

Arterial Street

Collector Street

Local Street





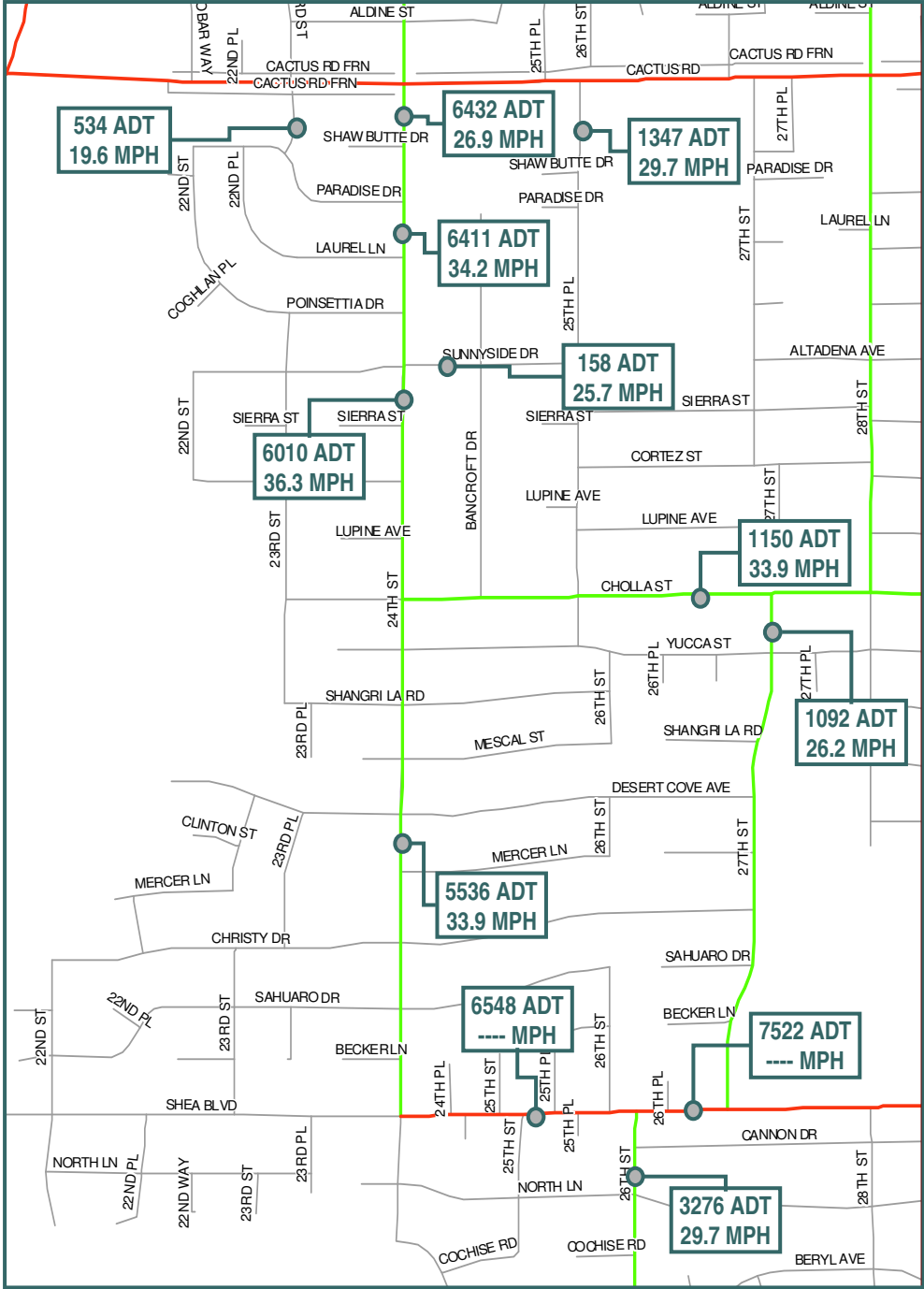
Temporary Traffic Calming

24th Street Traffic Problems

- Collector (a.k.a. emergency access) street
 - Speed humps not permitted
- Provides convenient access to SR-51
 - Result: Higher traffic volume and speed
- Wide, low volume, uninterrupted mile segment

Neighborhood Traffic Study Results

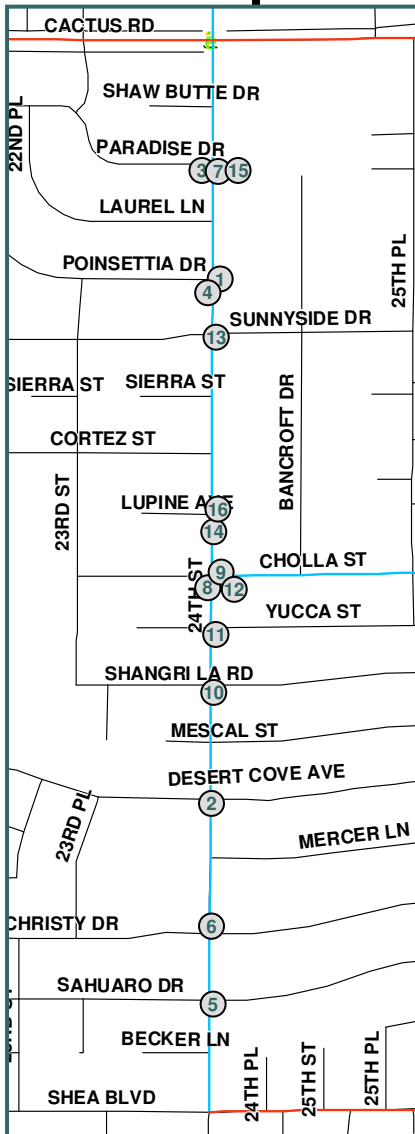
Average Daily Traffic (ADT)
December 2009



24th Street Traffic
 Cactus to Sunnyside:
 2009 - 6422 vehicles/day
 2010 - 6986 vehicles/day
 Increase: 564 vehicles/day

24th Street Traffic Crash History

2006 thru September 2009



<p>①</p> <p>04/29/06 12:22 pm</p> <p>Sideswipe Unsafe Passing</p>	<p>⑤</p> <p>07/10/06 6:13 pm</p> <p>Rear End Speed Too Fast</p>	<p>⑨</p> <p>04/19/07 10:19 am</p> <p>Rear End Speed Too Fast</p>	<p>⑬</p> <p>05/1/08 7:30 am</p> <p>Bike Other Violation</p>
<p>②</p> <p>05/29/06 4:30 pm</p> <p>Rear End Inattention</p>	<p>⑥</p> <p>09/07/06 11:01 pm</p> <p>Single Vehicle Speed Too Fast</p> <p><small>**No Collision Details Available**</small></p>	<p>⑩</p> <p>08/13/07 1:31 pm</p> <p>Sideswipe Inattention</p>	<p>⑭</p> <p>05/13/09 9:32 am</p> <p>Single Vehicle Other Violation</p>
<p>③</p> <p>06/14/06 3:22 pm</p> <p>Rear End Speed Too Fast</p>	<p>⑦</p> <p>09/25/06 3:00 pm</p> <p>Rear End Inattention</p>	<p>⑪</p> <p>09/20/07 10:19 am</p> <p>Angle Speed Too Fast</p>	<p>⑮</p> <p>08/26/09 8:12 am</p> <p>Left Turn Unsafe Turn</p>
<p>④</p> <p>06/21/06 10:40 am</p> <p>Single Vehicle Speed Too Fast</p>	<p>⑧</p> <p>02/04/07 10:15 am</p> <p>Angle Failed to Yield</p>	<p>⑫</p> <p>09/28/07 2:50 pm</p> <p>Left Turn Failed to Yield</p>	<p>⑯</p> <p>09/15/09 7:43 am</p> <p>Rear End Speed Too Fast</p>

Total Collisions: 16 Annual Average: 4-5/year
 Most Common Type: Rear end (6 out of 16)



Temporary Traffic Calming

Conclusions

- Route to SR-51 thru neighborhood is nearly as fast as Cactus route
- Traffic on 24th Street and some local streets is above average **throughout the day**
- Traffic volume on 24th Street is increasing
- No safety problems exist on any neighborhood streets

24th Street qualifies for collector street traffic mitigation program

Temporary Traffic Calming

Collector Street Traffic Mitigation Program

Program to install new striping, traffic circles or chicanes on neighborhood collector streets

Devices intended to slow traffic

Applies to COLLECTOR street intersections or segments





Temporary Traffic Calming

Why no speed humps?

Collector streets serve as primary emergency access into neighborhoods

Speed humps...

- Increase emergency response time
- Potential damage to emergency equipment

Collector streets are also designed to carry storm run-off for neighborhoods

Speed humps...

- Block or divert run-off



Temporary Traffic Calming

Why not use 4-way STOP Control?

STOP signs considered traffic control device,
not a traffic mitigation device

Multi-way STOP control is justified...

- Where traffic signals are justified but not yet installed
- Where crash problems exist
- Where traffic volumes on both streets justify
 - Average of 300 vph on collector and 200 vph on local

Improper use of multi-way STOP can make
intersection **more dangerous**



Temporary Traffic Calming Strategy

- Reduce average speed
 - Physical barriers to speeding
 - Traffic Circles and islands
 - Always in place
 - Restricts residents and non-residents
 - Highly effective





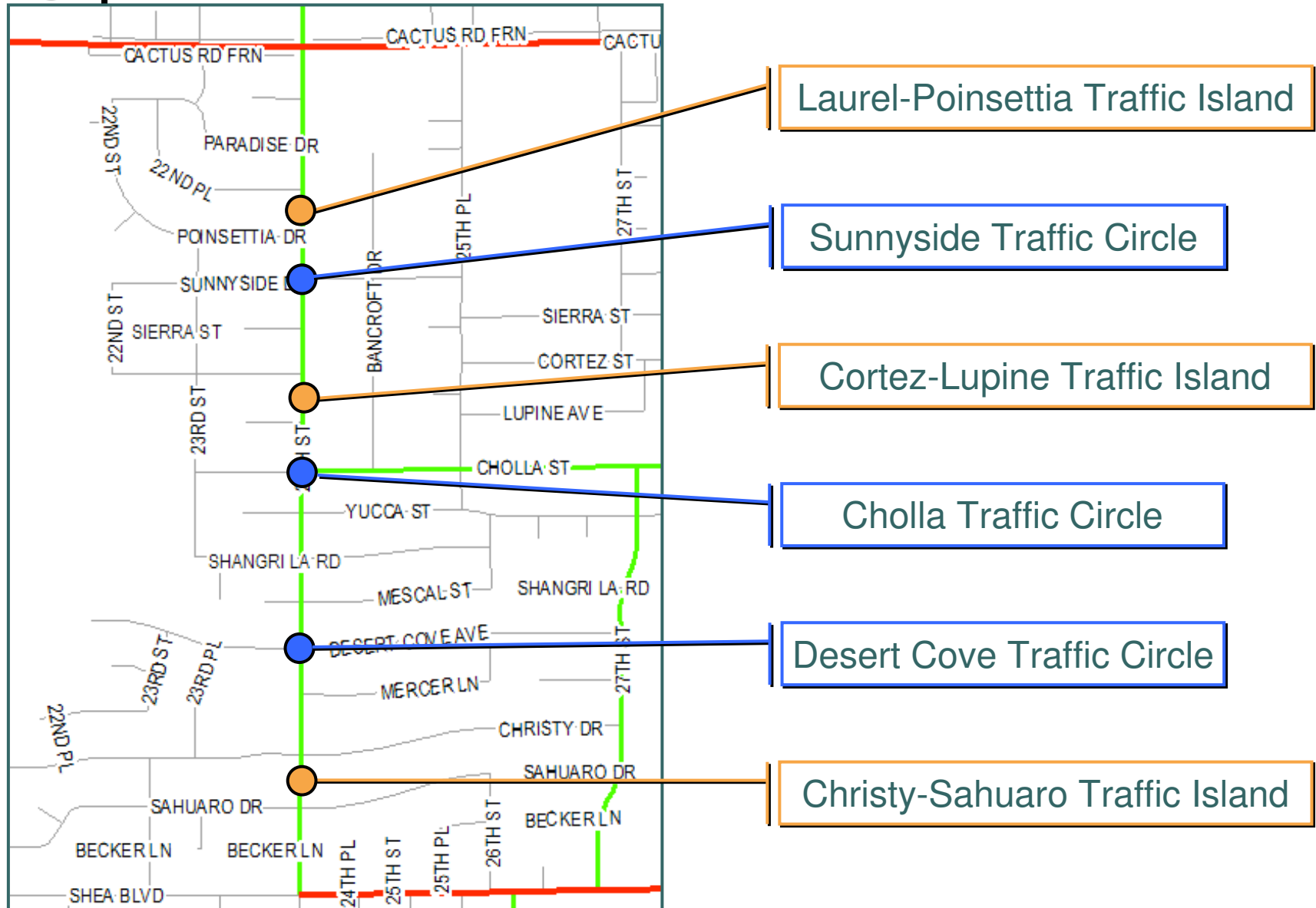
Temporary Traffic Calming

Possible Traffic Calming Solutions

All solutions require neighborhood input and neighborhood involvement in the form of:

- Traffic committee ✓
- Petitioning
 - Temporary installation ✓
 - Permanent installation To be determined

Proposed Installation Locations





Temporary Traffic Calming Typical Installation Petition

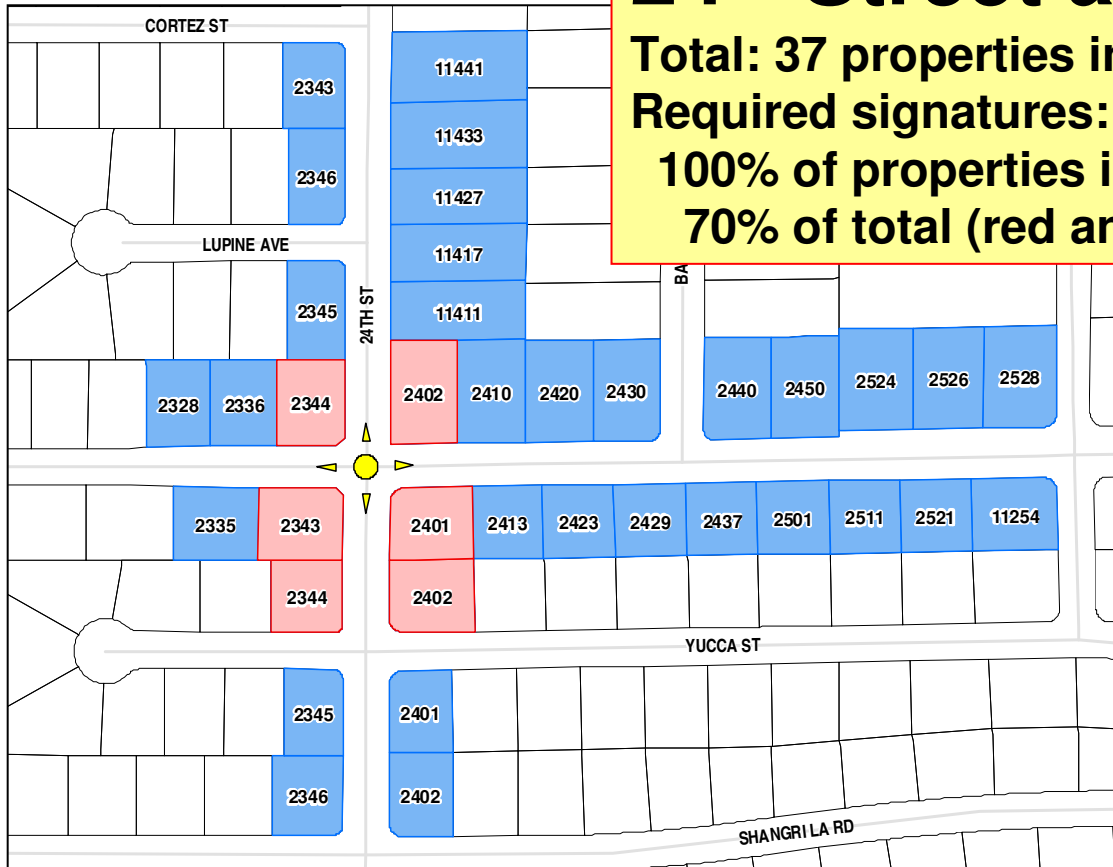
Temporary Traffic Circle 24th Street at Cholla

Total: 37 properties in petition boundary

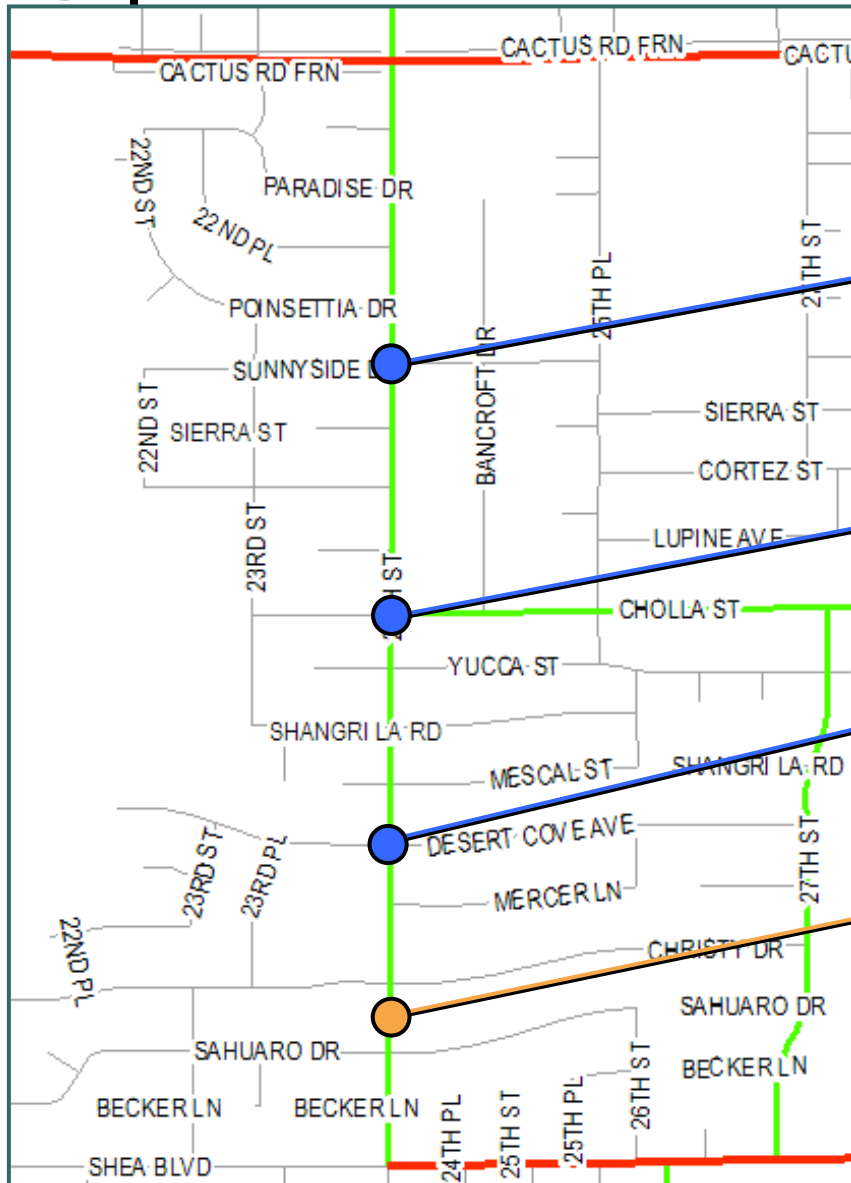
Required signatures:

100% of properties in red – 6 properties

70% of total (red and blue) – 26 properties



Approved Installation Locations



Sunnyside Traffic Circle
70% Approval

Cholla Traffic Circle
86% Approval

Desert Cove Traffic Circle
72% Approval

Christy-Sahuaro Traffic Island
73% Approval



Temporary Traffic Calming

Typical Construction



Temporary Traffic Circle



Temporary Traffic Island



Temporary Curb Extension

Temporary Traffic Calming

Example Temporary Structures



Hearn Road east of 12th Street



Equestrian Trail and Appaloosa Street



Permanent Traffic Circle

What is required to make the island and circles permanent?

- Temporary traffic calming must work (i.e. they must slow traffic)
- A super majority of the residents within the petition boundary must approve installation



Permanent Traffic Circle

If permanent traffic island and circles are approved, what will they look like?

- Each design is unique to the location but the city ensures that all permanent traffic calming is:
 - Safe
 - Effective at slowing traffic and
 - Attractive



Permanent Traffic Circle

Examples

Permanent traffic circles are in place at various locations throughout town.



- 36th St & Rosemonte Dr
- Central Av & Mountain View Dr
- 15th Av & Townley Av
- 15th Av & El Caminito Dr
- Stanford Dr & 43rd St
- 56th St & Exeter Bl
- Virginia Av & 8th St
- Oak St & 12th St
- Lafayette Bl & Invergordon Rd



Temporary Traffic Calming

Example Permanent Structures



Permanent Traffic Circle at 36th Street and Rosemonte Drive



Permanent Traffic Islands on 48th Street south of Indian School Road



Project Timeline

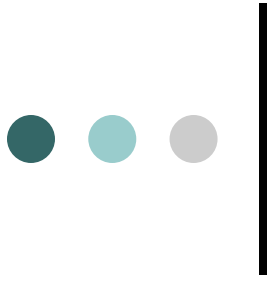
Timeline:

- Traffic Calming
 - Installation of Temporary January 2011
- Neighborhood Meeting April 2011

If Permanent Petitioning is Approved

- Start of Permanent Petition April 2011

Permanent installation will require new neighborhood petitioning



Questions

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