2006 National Rural ITS

New Frontiers in Data Collection

Central California Location

San Joaquin

Stanislaus

Merced

Tuolumne

Amador

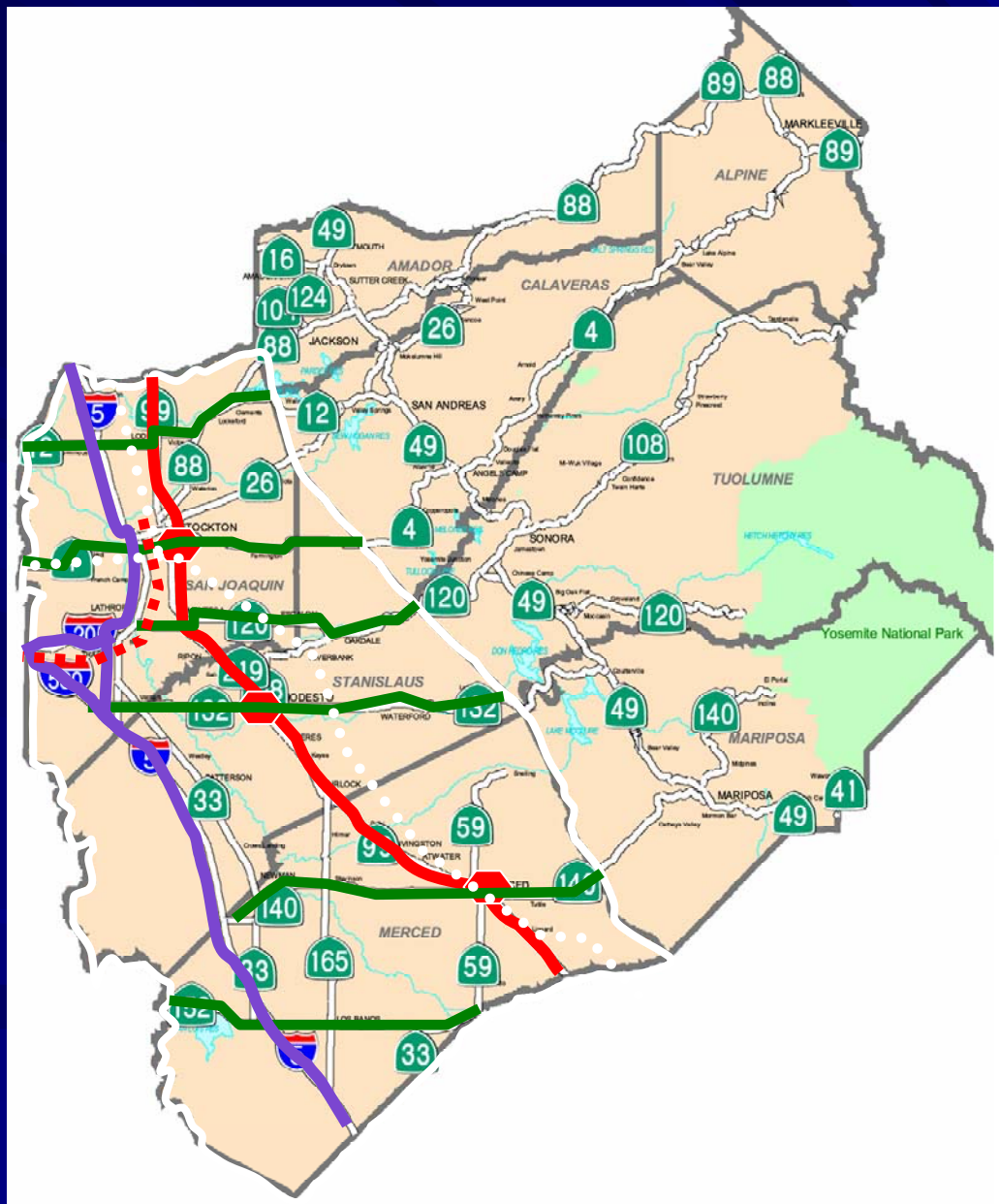
Calaveras

Alpine

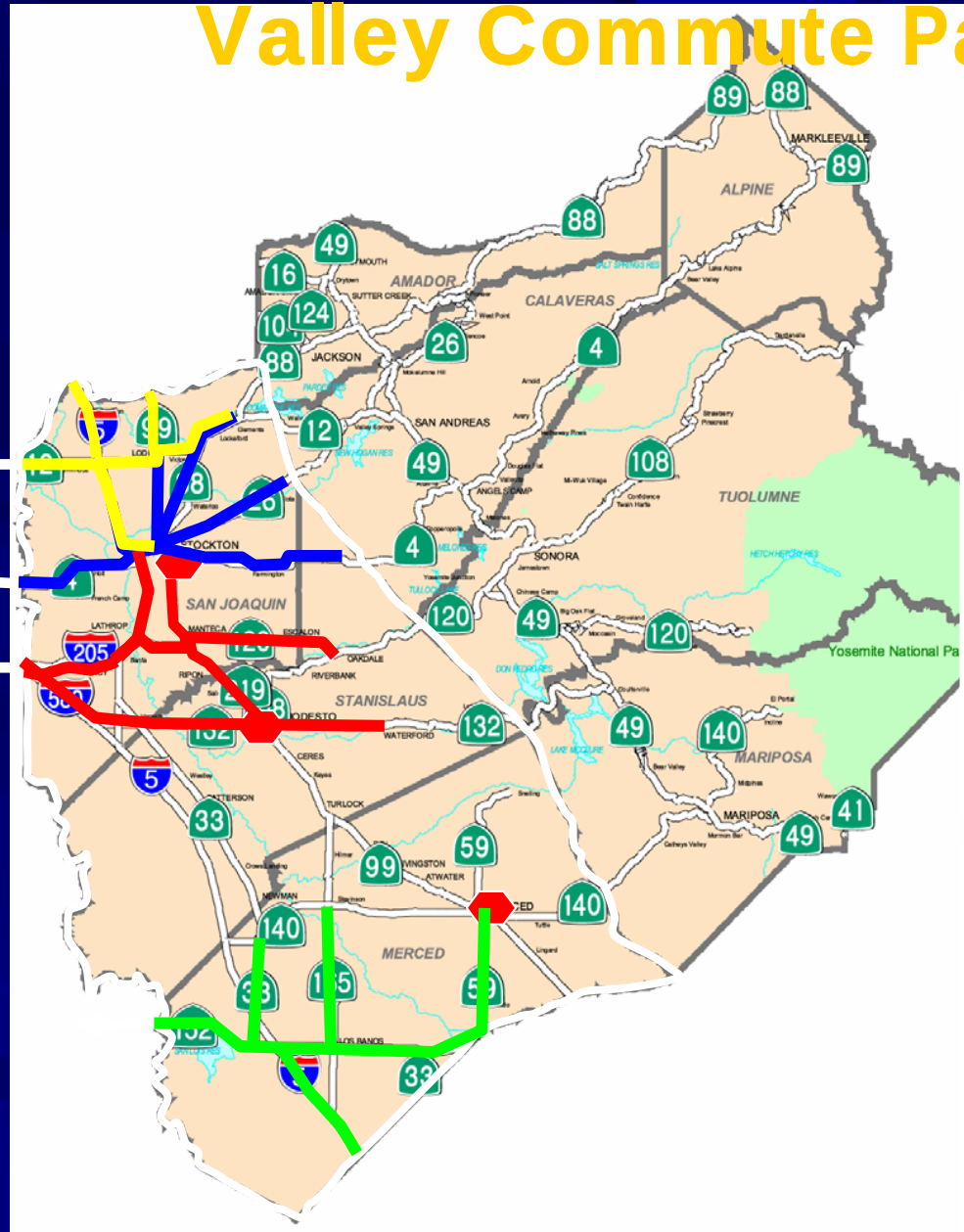
Mariposa

Valley

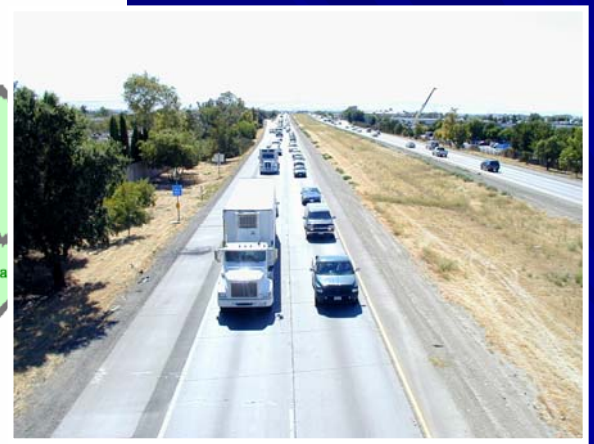
Counties: San Joaquin
Stanislaus
Merced



Valley Commute Patterns



Counties: San Joaquin
Stanislaus
Merced



Caltrans

Alpine
Amador
Calaveras
Tuolumne
Mariposa

Counties:

Mountains

Outline

- Why
- Overview of System
- Wizard
- Application
- Database
- Next Steps
- Thanks

Why ask Why?

- Money, high cost of old solution
- Maximize worker’s efficiency
- Older equipment, no support
- Environmental concerns of trenching
- Needed near-real time traffic data

Why ask Why?

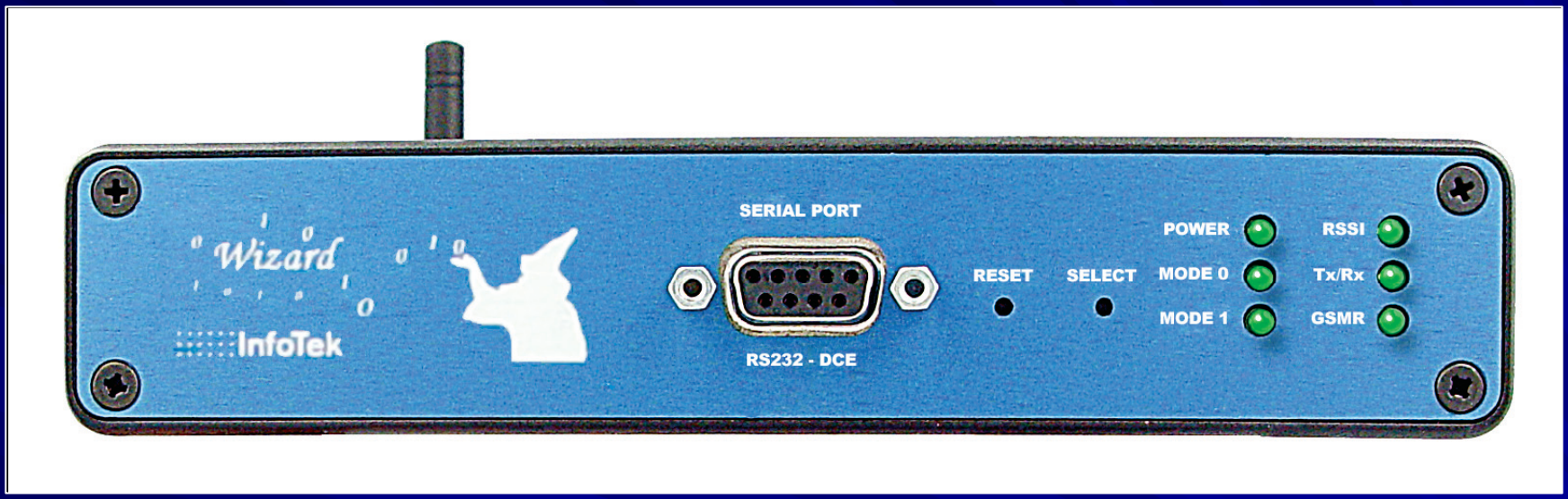
Overview

- Detection of Traffic (Loops, Radar, Etc.)
- Wizard Collects Data
- Transmits into Network
- Received into Database
- Alarms, Triggers and Archived

Wizard

- Cellular Modem
- Java Virtual Machine
- Open Standard
- Low Power Required
- Easy to Install, Small Size

Wizard

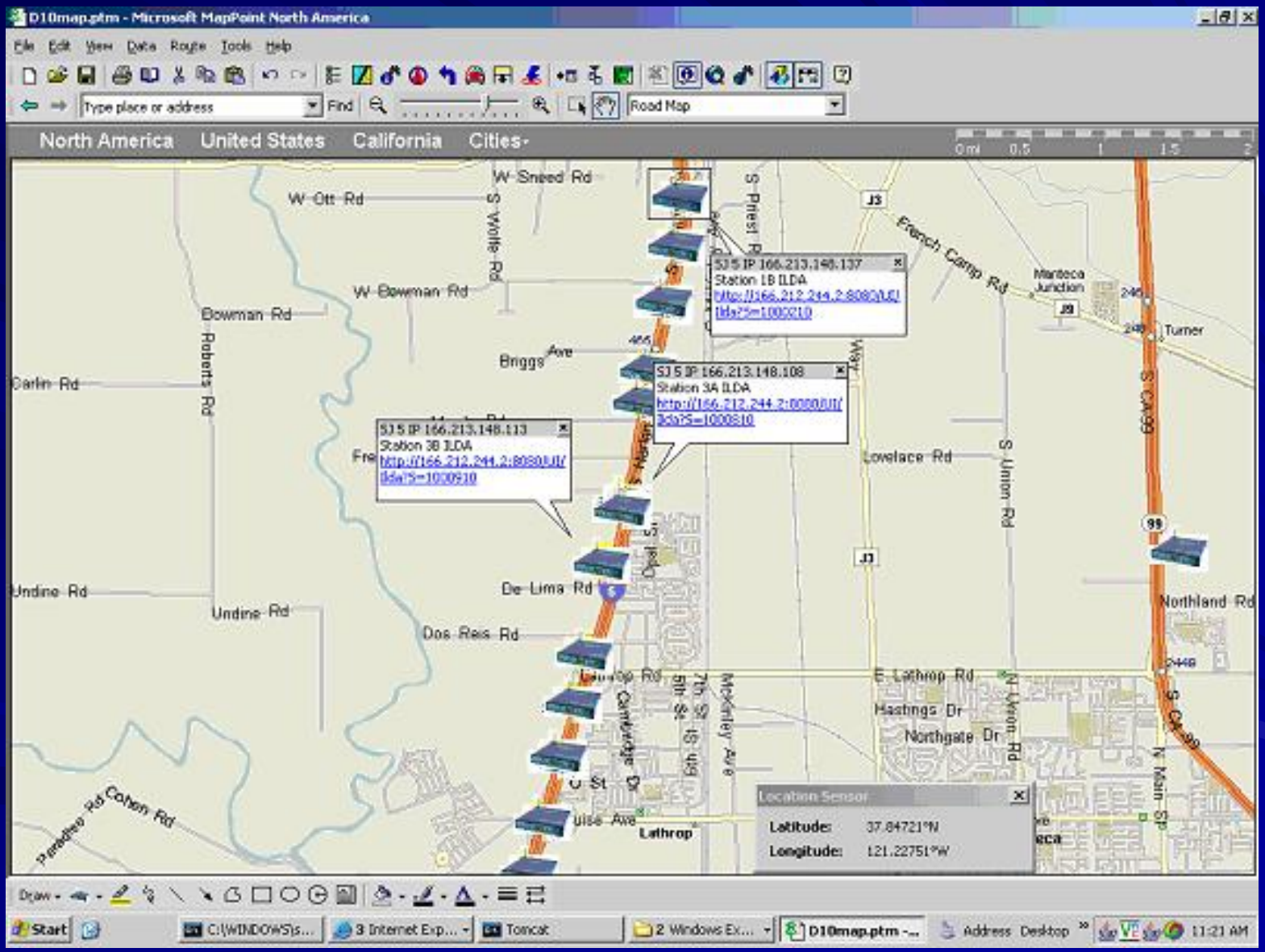

Wizard
InfoTek
SERIAL PORT
RS232 - DCE
RESET
SELECT
POWER
MODE 0
MODE 1
RSSI
Tx/Rx
GSMR


CHANNELS 01-16
CHANNELS 17-32
I/O
POWER
12 VDC

Application

- Inductive Loop Detector Application (ILDA)
- Volume
- Speed
- Length Class
- Real Time Telnet Data

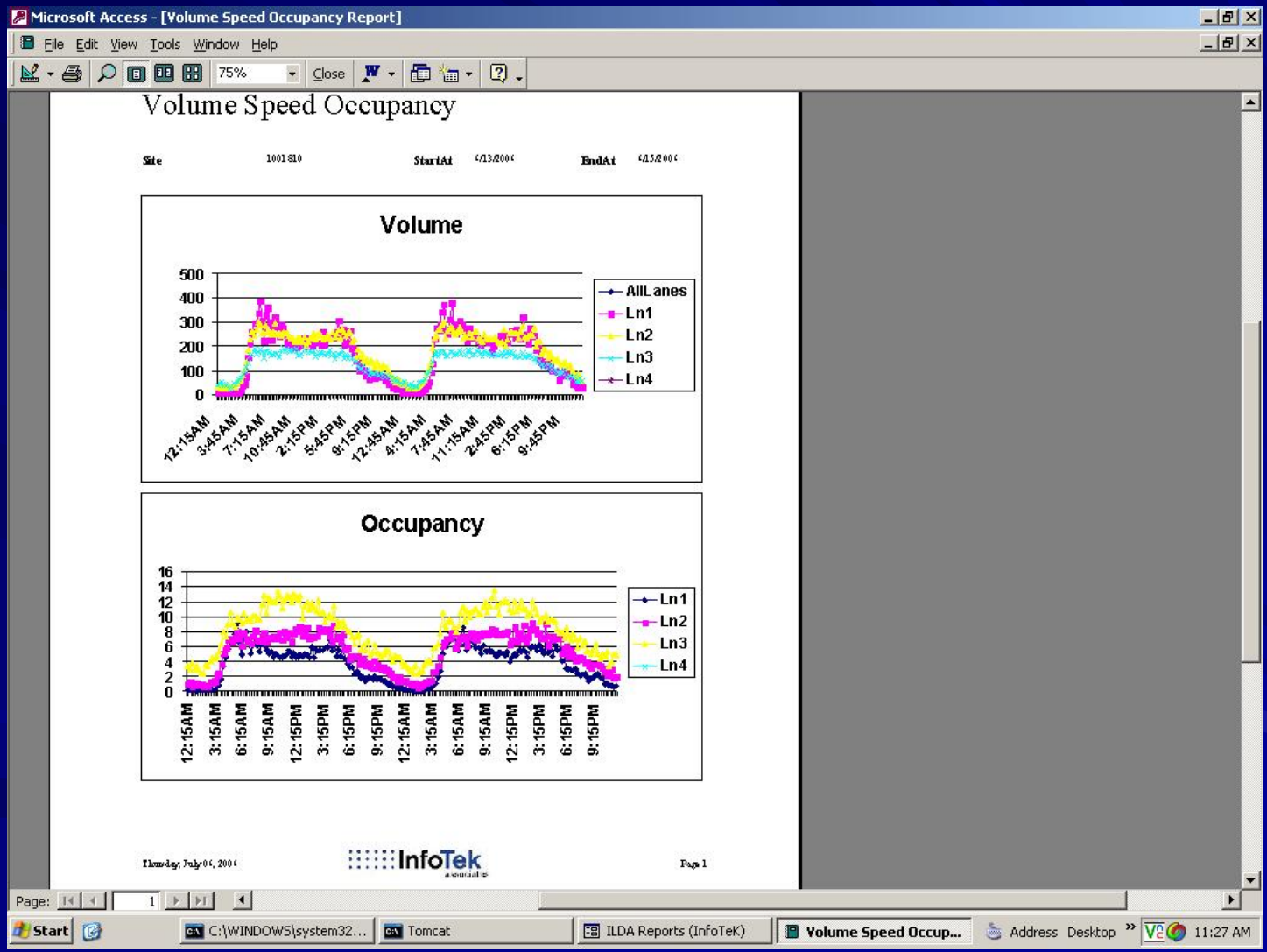
Application



Database

- Middleware (Standalone PC)
- Traffic Bin Data (Census)
- Alarms with Speed Algorithms
- Alerts to Changeable Message Signs
- Feeds to Performance Measurement System (PeMS)

Database


Microsoft Access - [Volume Speed Occupancy Report]
File Edit View Tools Window Help
75%
Close
Volume Speed Occupancy
Site 1001810
StartAt 6/13/2006
EndAt 6/13/2006
Volume
500
400
300
200
100
0
12:15AM 3:45AM 7:15AM 10:45AM 2:15PM 5:45PM 9:15PM 12:45AM 4:15AM 7:45AM 11:15AM 2:45PM 6:15PM 9:45PM
AllLanes
Ln1
Ln2
Ln3
Ln4
Occupancy
16
14
12
10
8
6
4
2
0
12:15AM 3:15AM 6:15AM 9:15AM 12:15PM 3:15PM 6:15PM 9:15PM 12:15AM 3:15AM 6:15AM 9:15AM 12:15PM 3:15PM 6:15PM 9:15PM
Ln1
Ln2
Ln3
Ln4
Thursday, July 06, 2006
InfoTek
Page 1
Page: 1
Start
C:\WINDOWS\system32...
Tomcat
ILDA Reports (InfoTeK)
Volume Speed Occup...
Address Desktop
11:27 AM

Where do we go from here?

- Statewide (D-11 Rural San Diego)
- Study Report (Validation Pro)
- Monitoring Corridor (Rt 120 45 ft bus)
- 300 units Dec 2006
- Over 700 units by 2007

Where do we go from here?

Thanks

- Infotek
- Cingular
- Janus
- M2M for the Gold Value Chain Award