City of Woodland

Transportation Infrastructure Division

Roadway Maintenance Program

Council Study Session

February 4, 2014

Transportation Engineering

Planning, Programming, Funding and Engineering

- Planning
  - –Sacramento Area Council of Governments (SACOG)
  - –Caltrans
  - –Yolo County Transportation District (YCTD/Yolo Bus)
  - –City Development
- Programming
  - –Bicycle and Pedestrian Transportation Program
  - –ADA Program, Transition Plan and ADA Coordinator
  - –Traffic Control – Planning, Review and Approval
  - –Police Department & Traffic Court Support and Coordination
  - –Pavement Management Program

Transportation Engineering

Planning, Programming, Funding and Engineering (Cont.)

- Funding
  - –Grants (State and Federal Caltrans, SACOG, CDBG)
    - Application Preparation and Submittal
    - Funding Acquisition and Programming
    - Expenditure Management and Invoicing
    - Grant Program Compliance and Documentation
- Engineering
  - –Traffic Engineering Services
    - Traffic Signal Timing and Operation
  - –Traffic Studies
    - Volumes, Speed Zone Surveys, Collision Analysis
  - –Capital Projects
    - New Infrastructure Construction, Maintenance and Rehabilitation
    - Design, Management, Inspection, Traffic Control and Staff Support

Pavement Management Program

Network & Classification

Maintenance Strategies

Funding Sources & Priorities

Pavement Management System

Pavement Condition & Goals

Accomplishments

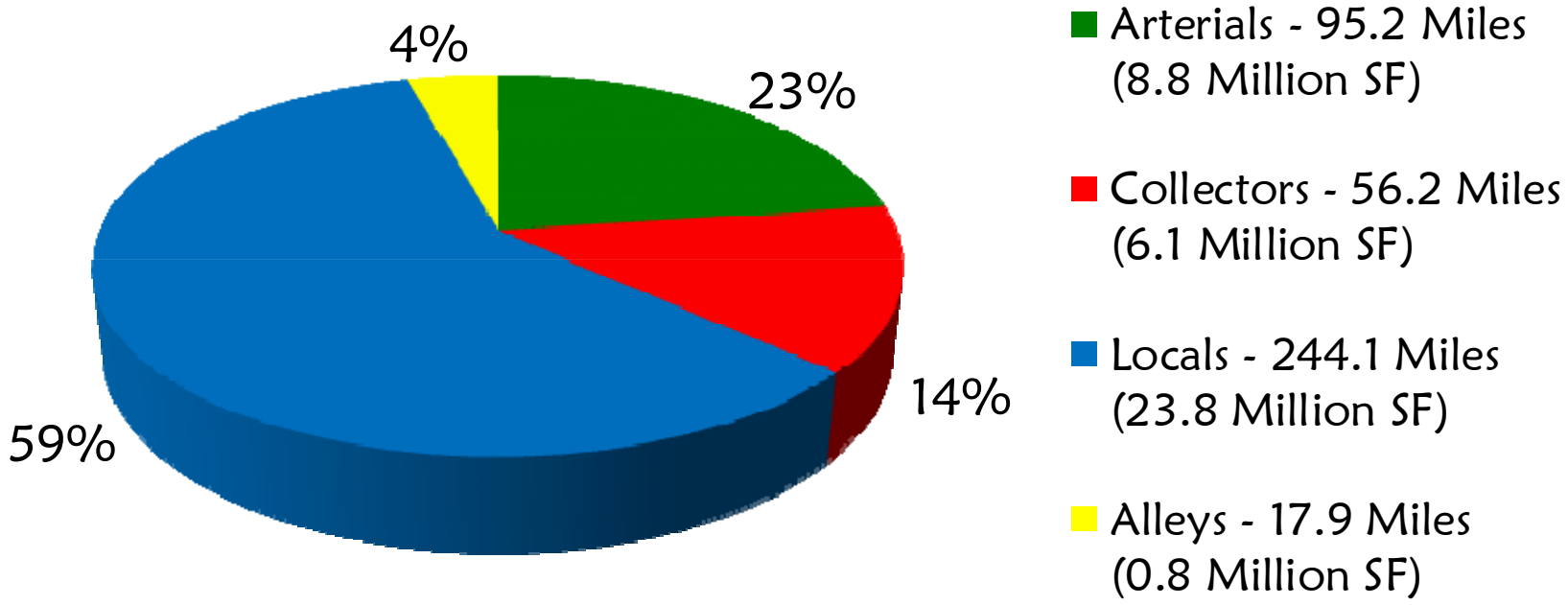
Planned/Funded Work

Unfunded Needs

Future

Network

- 413.4 Total Lane Miles (39.5M sq. ft.)
- Replacement Cost Over $400 Million



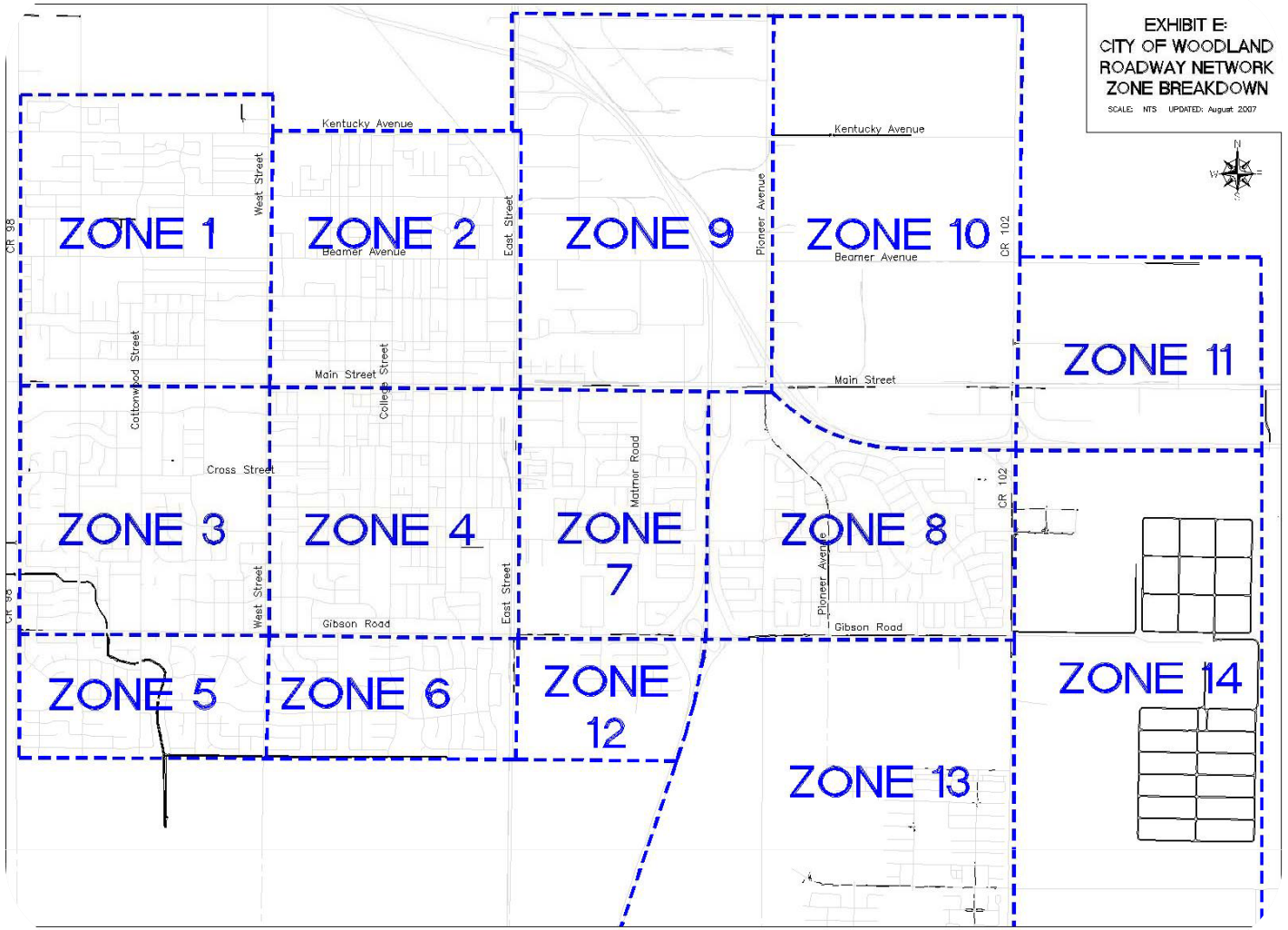
Road Classifications

Functional Class	Primary Function
Arterial	Carries local and through traffic to/from major destinations in and outside the City. Primary routes for trucks delivering commodities.
Collector	"Collect" traffic from local roads and some abutting properties and delivers it to arterial roadways.
Local/Residential	Provides access from residential properties to collectors and other areas of town. Through movement generally discouraged.
Alley	Provide access for service vehicles/functions, no pedestrian accommodation.

Maintenance Zones

- 14 Pavement Maintenance Zones
  - Zones Initiated in 2008
- Benefits:
  - Lower Cost
    - Less Traffic Control, Mobilization & Inspection
  - Minimize Public Inconvenience

Maintenance Zones



Funding Sources

- Federal and State Grants
  - Arterial and Collector Roads Only
  - Requires Matching Local Funding
  - Compete With Other Jurisdictions
- Measure E Sales Tax
  - Primary Funding Source for Road System
  - Only Funding Source for Local Roads
  - Match Funding for Grant Funded Road Projects
  - Compete With Other City Priorities

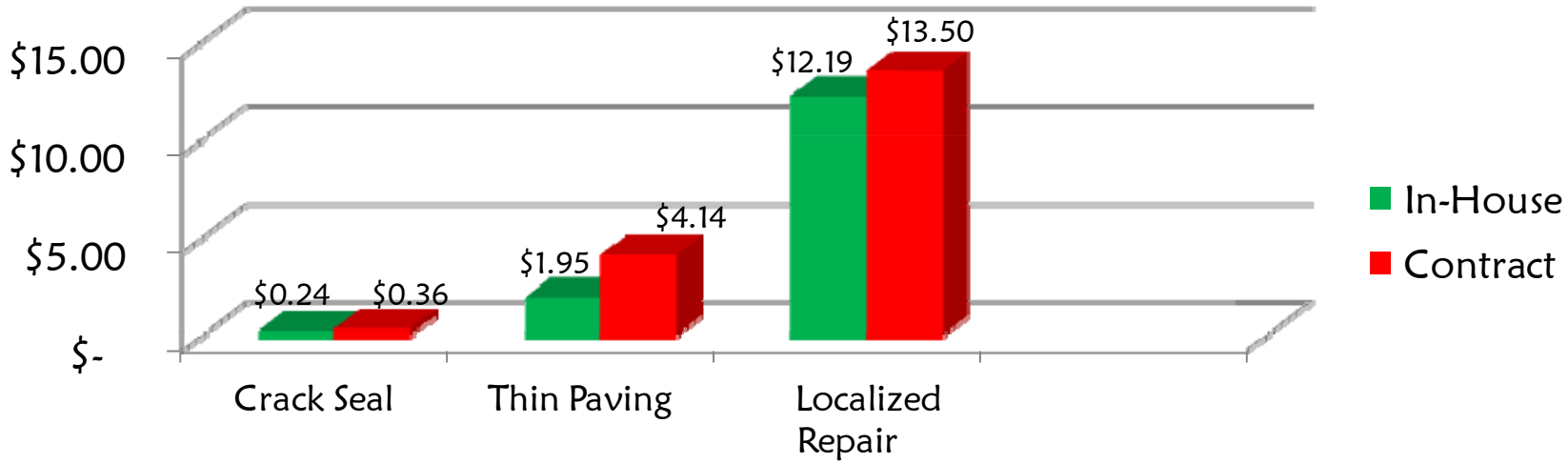
Funding Objectives

- Industry Wide Shift in Priorities
  - Away From Worst-First
  - Toward Pavement Preservation
    - Slurry, Cape Seal, Microsurface, etc.
- Right Treatment, the Right Road, the Right Time
  - Prevent Premature Failures to Help Minimize Backlog
  - Cost Effective Alternatives to Complete Reconstruction
- Budget
  - Separate Maintenance and Reconstruction Budgets
  - Prioritize Funding “Bang for the Buck”

Funding Objectives

Stop Gap and Preparatory Work (Materials)

- Quick Response for Repair/Maintenance Needs
  - Crack Seal, Pot Hole Repair, Thin Paving
  - Special Projects
- Value of Work Performed
  - Preparation for Capital Pavement Preservation Projects
  - More Cost Efficient for Preparatory Work



Funding Objectives

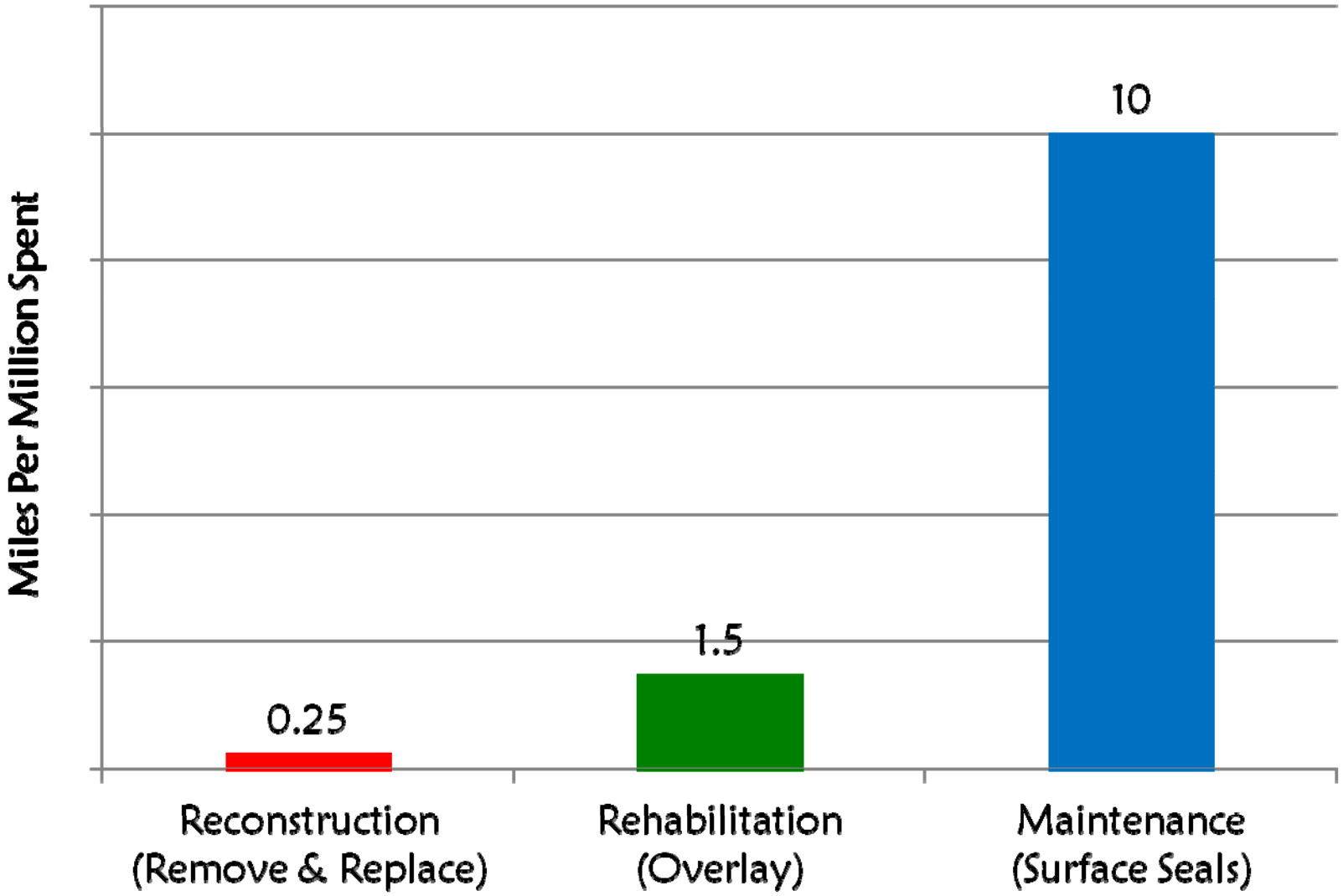
Pavement Preservation (Capital Projects)

- Pavement Preservation/Surface Seal Projects
- Maintain System in a State of Good Repair
- Efficient Use of Funding – System Wide Impact

Rehabilitation/Reconstruction (Capital Projects)

- Reconstruction is the Lowest Priority
- Highest Cost – Localized Impact
- Once Failed Only Minor Cost Escalation

Funding Objectives



Pavement Management System

- StreetSaver™ Software: A Budgetary Tool
  - What it Does
    - Pavement Management and Inventory
      - Work History
      - Deterioration Curves
    - Budget and Condition Forecast Based on Inputs
      - Visual Inspection Rating
      - Treatment Prices
      - Treatment Methods & Timing
    - Graphic Output
  - What It Does Not Do
    - Define Project Level Details
      - No Street List
      - No Treatment Specification
      - No Road Section Design

Condition

- Pavement Condition Index (PCI)
  - "Grading" Scale (0-100) for Surface Condition
  - Based on Visual Inspection (ASTM Standard)
  - Deterioration: Environmental vs. Load
- PCI Ranges
  - 100-70 "Good"
  - 50-69 "At Risk"
  - 25-49 "Poor"
  - 0-24 "Failed"
- Goal is PCI ≥ 70
  - Woodland & Statewide

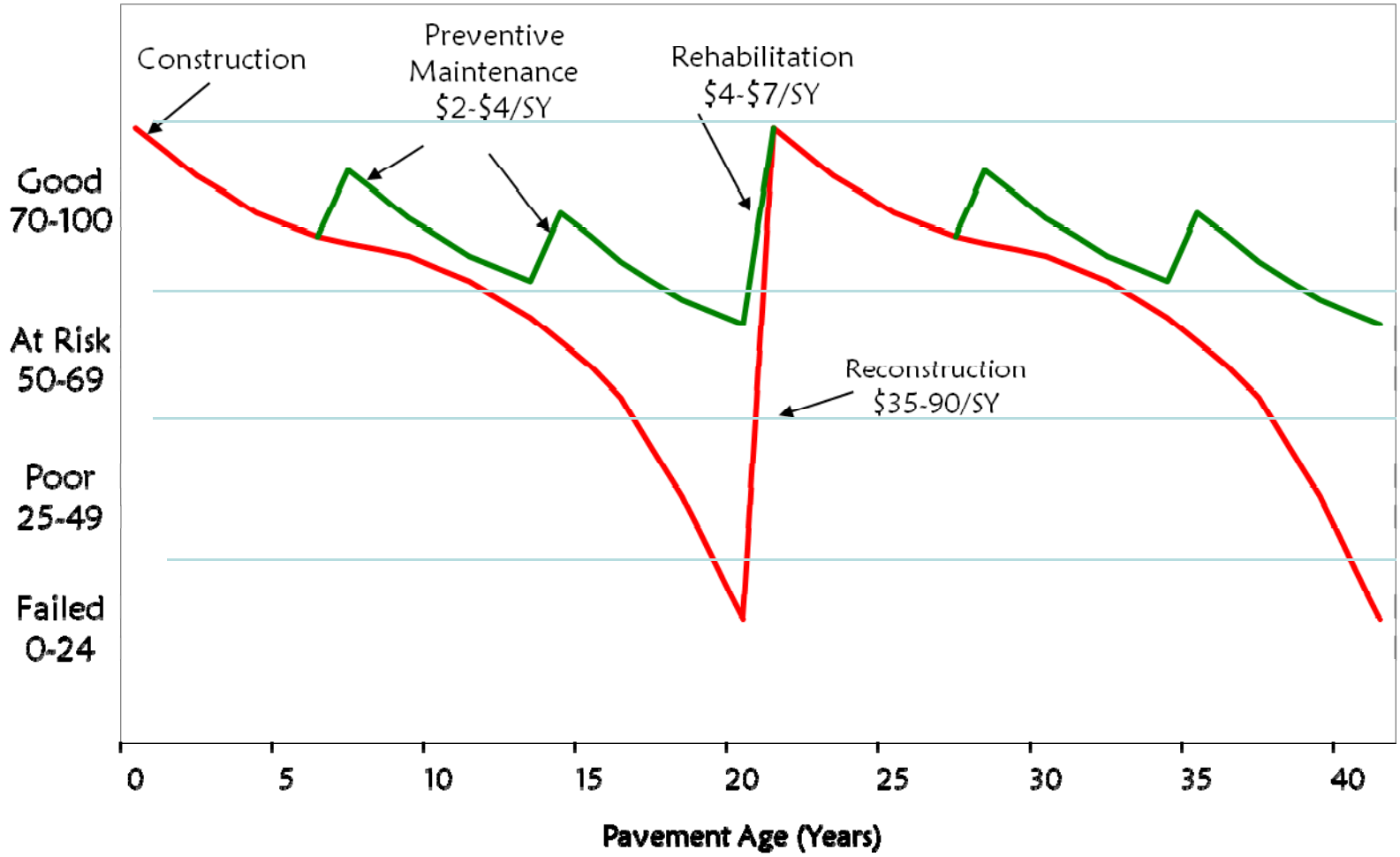
100-70 “Good”

50-69 “At Risk”

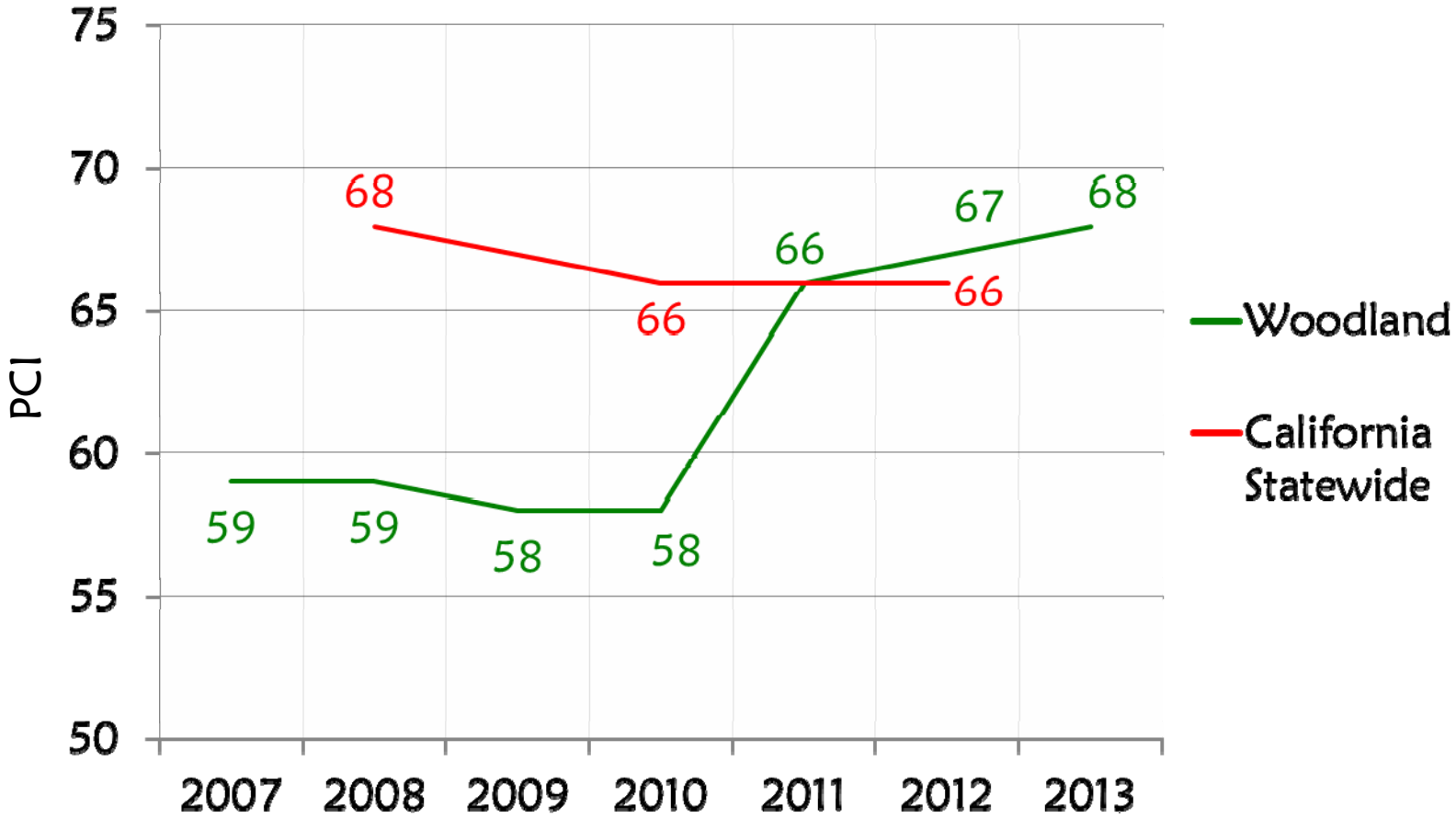
25-49 “Poor”

0-24 “Failed”

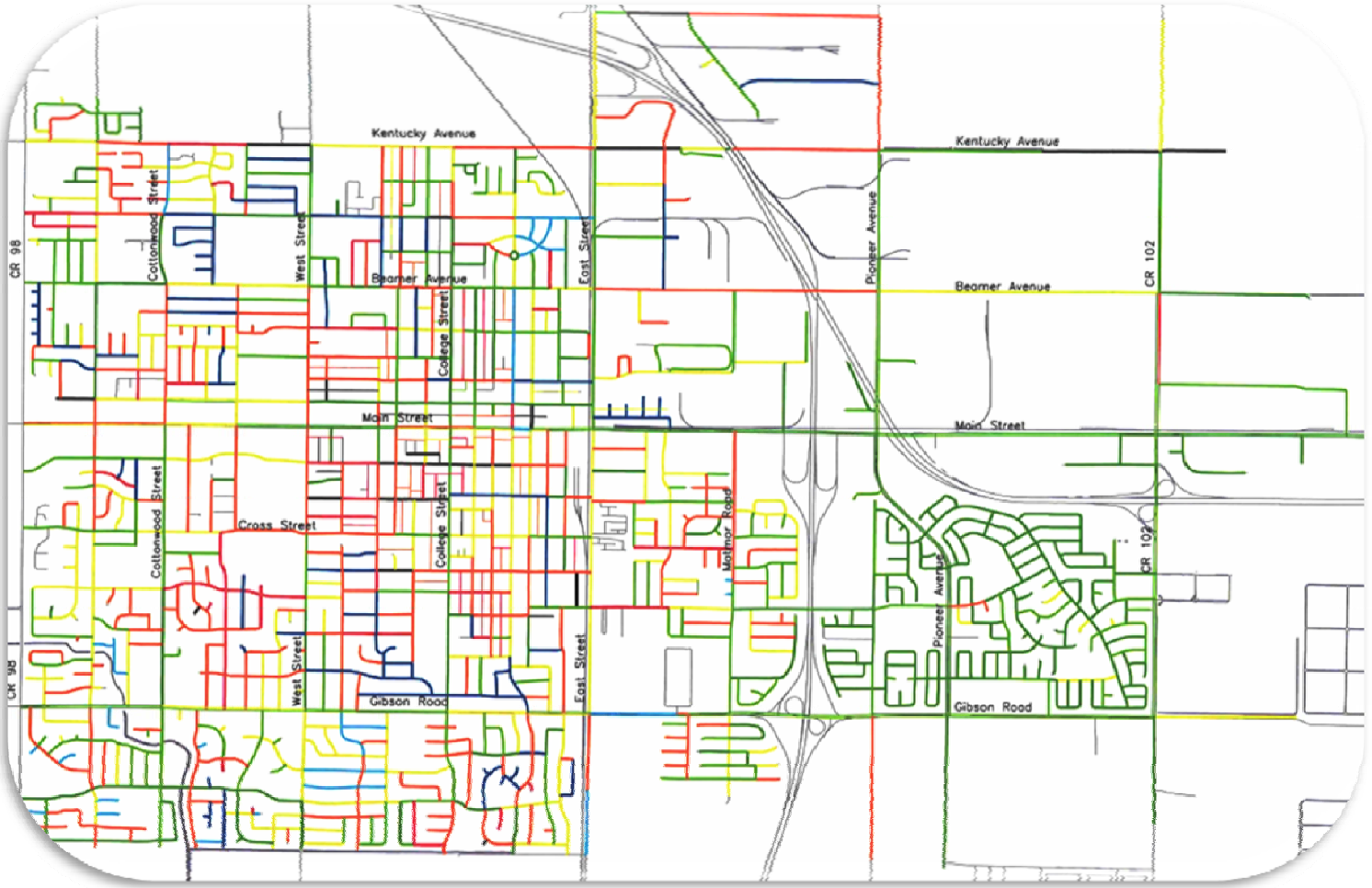
Why is 70 Critical?



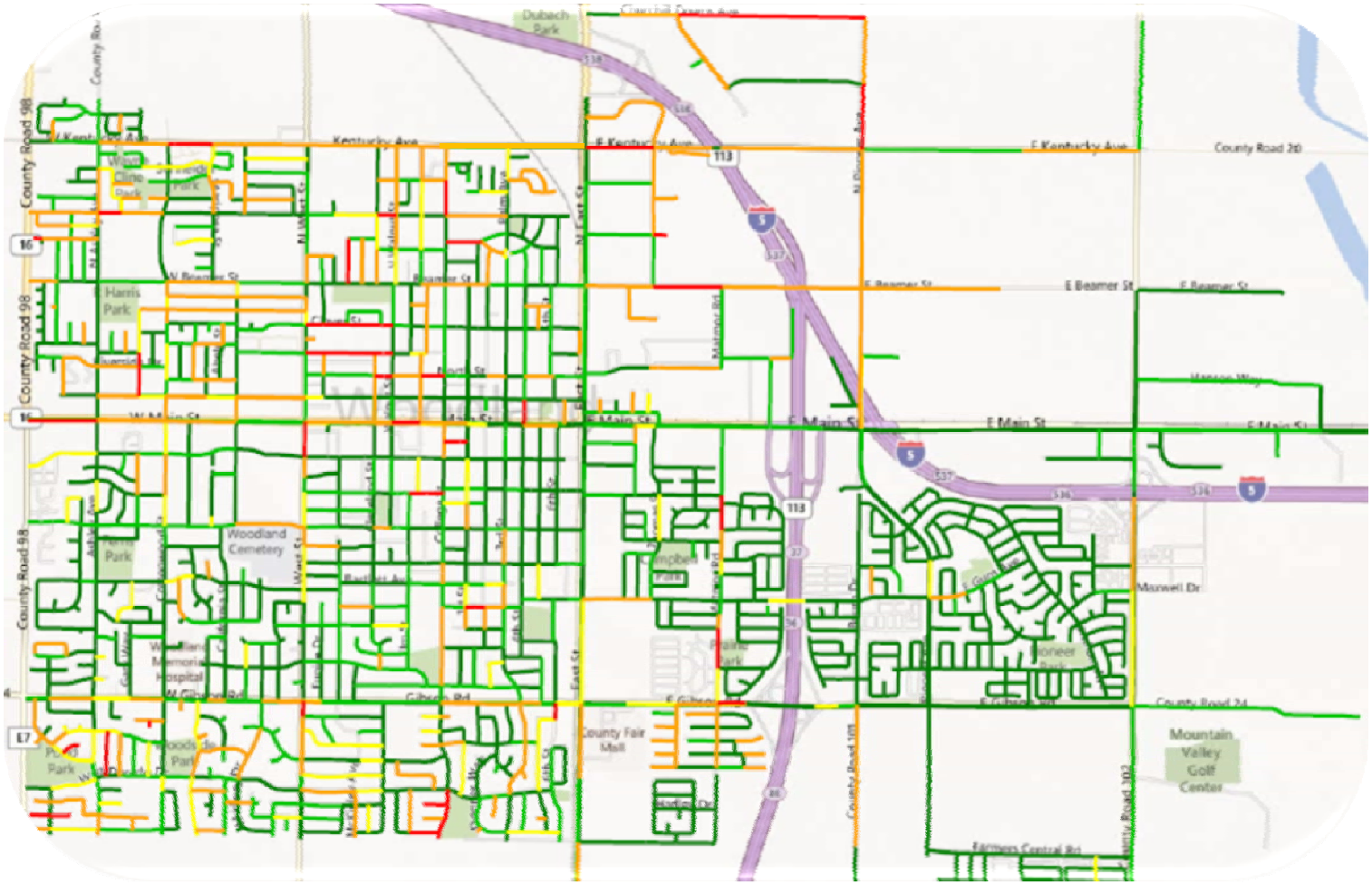
Historical Condition



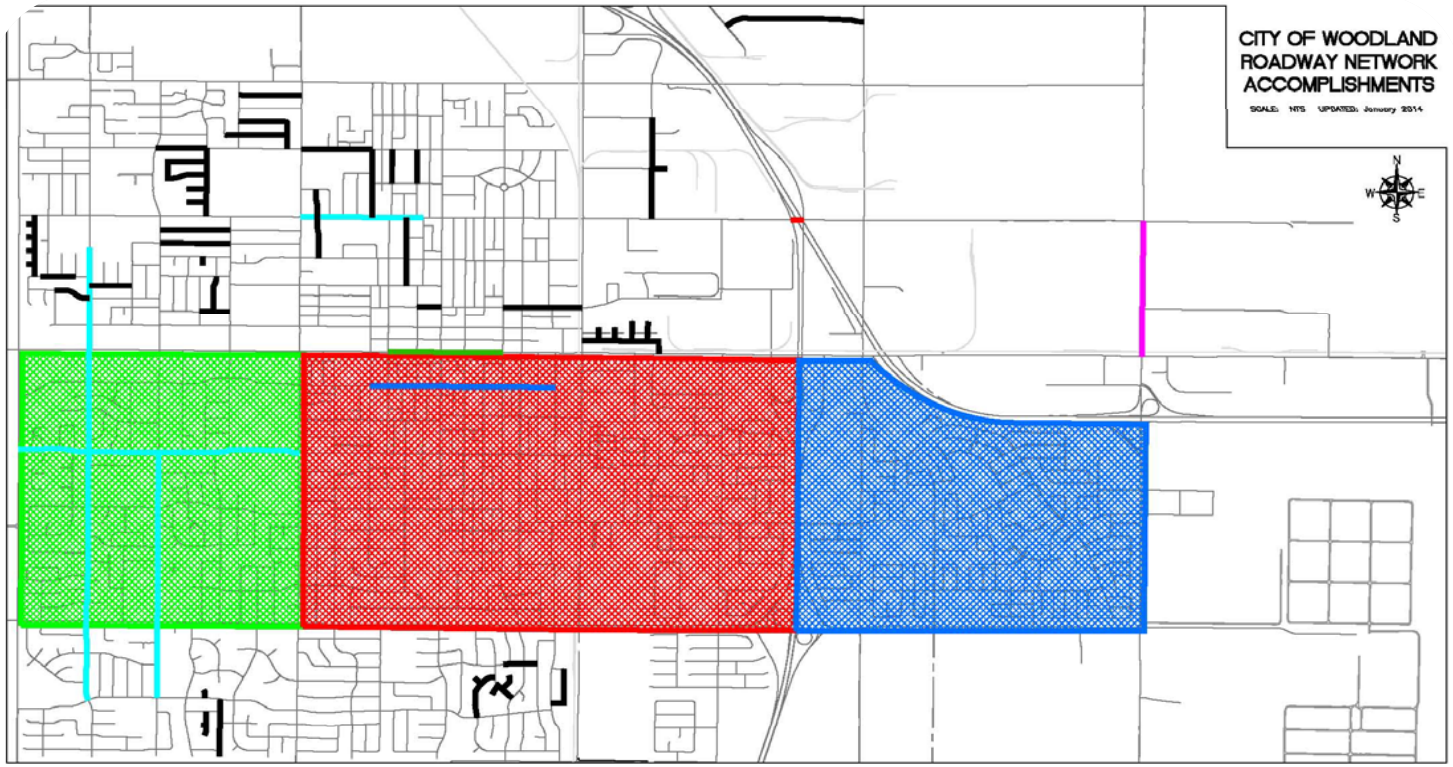
2006 Condition



2013 Condition

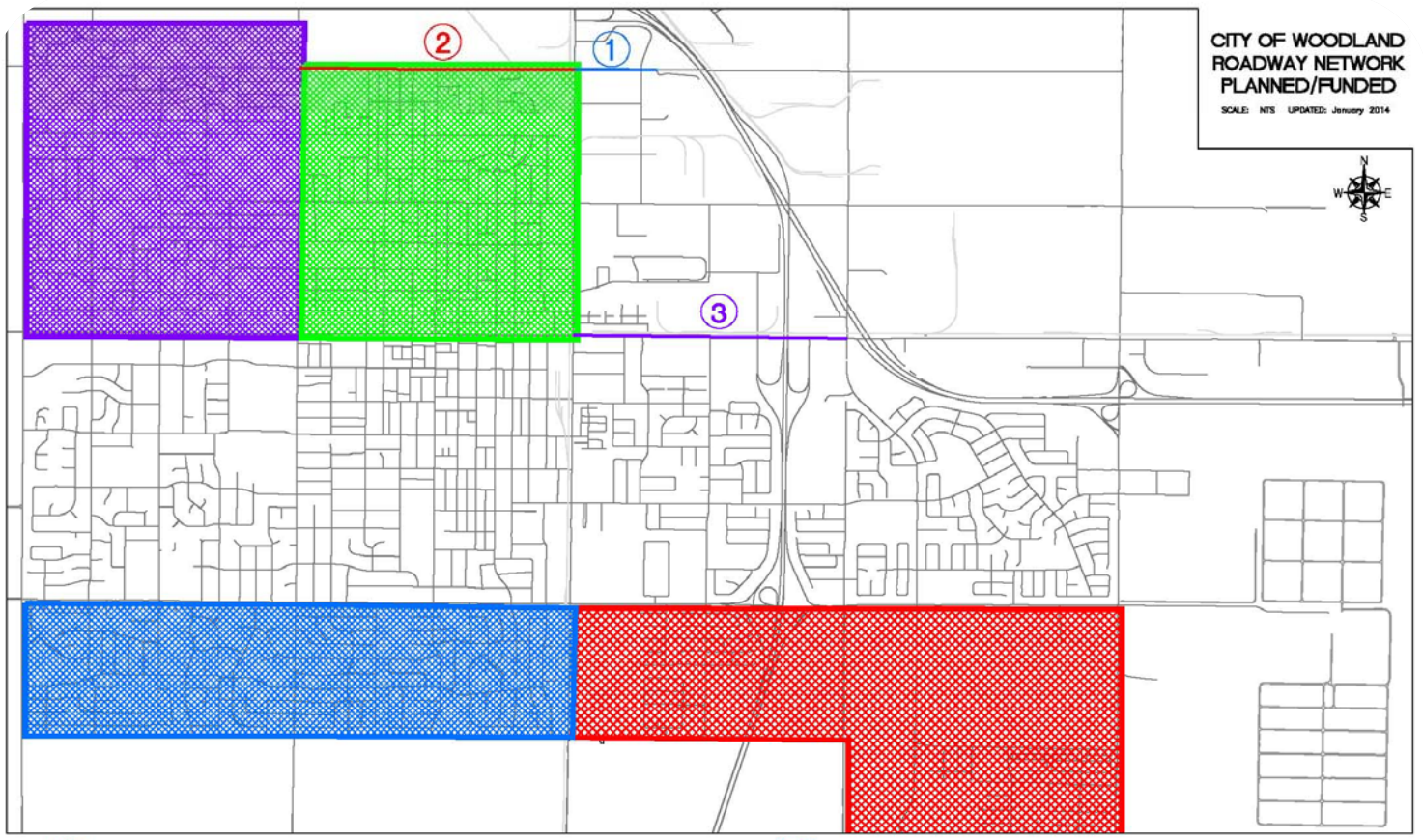


Accomplishments ($60M)

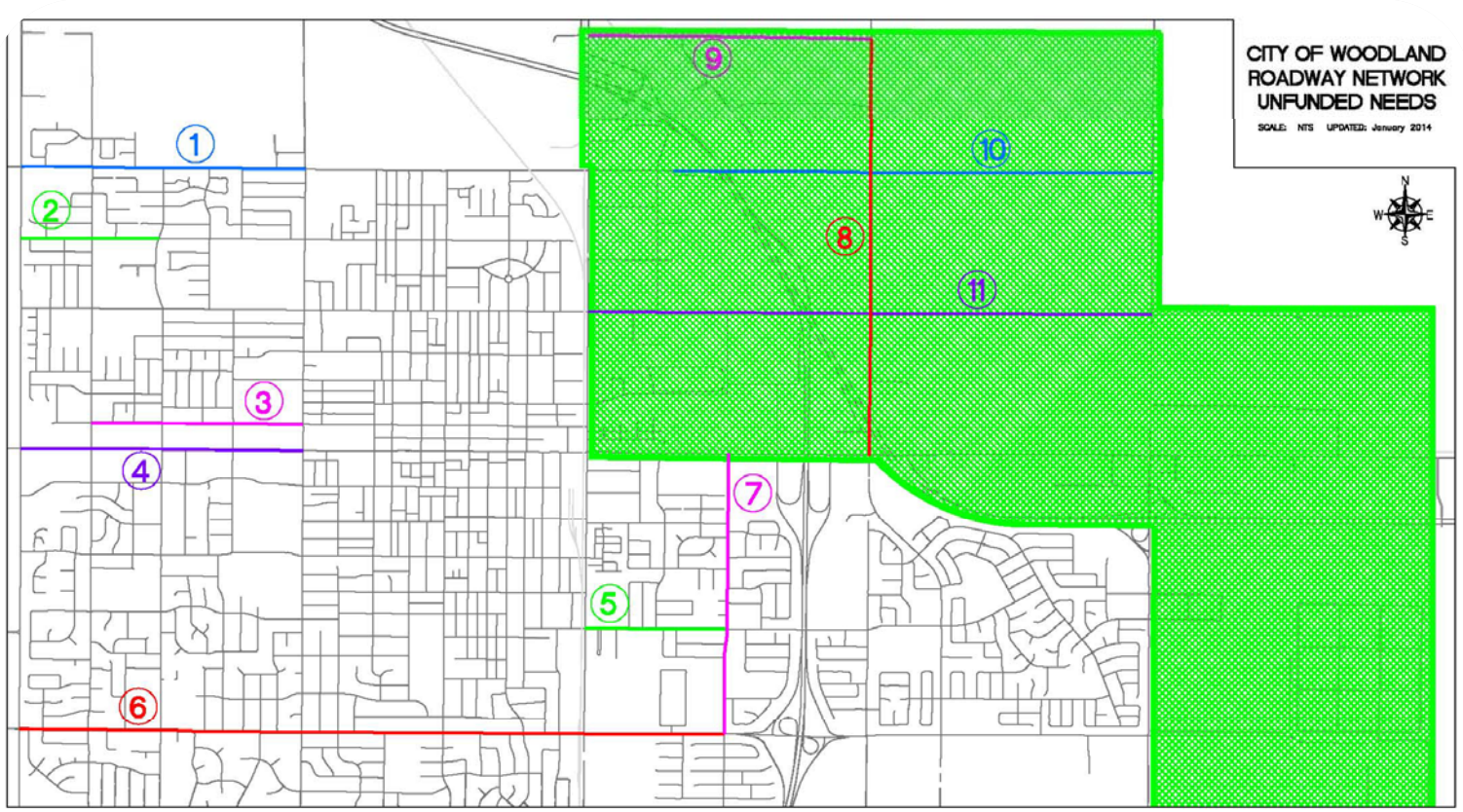


- 2007 – Miscellaneous Streets (Measure E): 8.2 mi., $0.8M
- 2008 – Maintenance Areas (Measure E): 16.5 mi., $1.5M
- 2008 – Beamer Undercrossing: 0.1 mi., $50K
- 2008 – Lincoln Ave. (Measure E, Prop 1B, Road Dev): 0.75 mi., $2M
- 2009 – Maintenance Areas (Prop 1B): 9.6 mi., $0.88M
- 2009 – County Road 102 (ARRA): 0.5 mi., $0.75M
- 2010 – Collector Roads (ARRA): 4 mi., $0.45M
- 2012 – Maintenance Areas (Measure E): 19 mi., $1.1M
- 2013 – Main Street Downtown (Measure E): 0.4 mi., $0.22M

Budgeted Work ($25M)



Unfunded Needs ($60M+)



1. W. Kentucky Ave.: 1 mi., $4M
2. W. Woodland Ave.: 0.5 mi., $2M
3. W. Court St.: 0.75 mi., $3M
4. W. Main St.: 1 mi., $4M
5. E. Gum Ave.: 0.5 mi., $2M
6. Gibson Rd.: 2.5 mi., $10M
7. Matmor Rd.: 1 mi., $4M
8. Pioneer Ave.: 1.5 mi., $6M
9. Churchill Downs Ave.: 1 mi., $4M
10. E. Kentucky Ave.: 1.75 mi., $7M
11. E. Beamer St.: 2 mi., $8M

Maintenance Areas: 25 mi., $3.25M

Future Planning & Funding

- Planning and Building Smarter Roadways
  - Complete Streets
  - Narrower Lane Widths
  - Thicker Pavement Structure
  - Accommodate Bikes – Reduce VMT
  - Potential for Higher Density and Infill Development
- Future Maintenance Funding
  - No Identified Source
  - Reduce Costs
- Future Grant or Other Funding

Other Considerations

- Capacity Increasing Projects
- Master Planned Projects
- Sidewalks & ADA Ramps
- Bicycles/Pedestrian Facilities
- Landscape & Lighting
- Signs and Striping
- Storm Drainage

Conclusion

- Valuable Infrastructure with Limited Funding
- Zone Maintenance & Repair
- Positive, Effective Progress
  - 60 Miles Complete, 90 More Miles Budgeted
  - Increased PCI from 59 to 67 over 4 years
- Pavement Preservation Extends Roadway Life
- Continue to Prioritize Road Funding
- Need Post Measure E Annual Funding

Questions?

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