Mineral Avenue Corridor Assessment

ITE Western District Annual Meeting
Monterey, CA June 26, 2019
Presentation Outline

- Project Background
- Assessment Methodology
- Study Process
- Implementation Strategy
- Results
Background

Study Area

Mineral, Colorado

• ½ Mile
• East-West Regional Suburb
• West End: Platte Canyon Road (SH) Traffic Signal
• East End: Polo Ridge Drive Ped Signal
• 6-Lane Arterial
• North-South Barriers
• Population 44,000
• 28,000 ADT
• Mineral Trail along North Side
• North-South Barriers
• South Platte River – Railroad/Light Rail
Community

7 Neighborhoods Engaged:
- Meadowbrook
- Polo Reserve-Polo Ridge Farms
- Polo Reserve-The Sanctuary
- Overlook at Platte Valley
- Pinnacle at Mountain Gate
- The Overlook Plateau
- Outlook (The Meadows at Platte Valley)
- Corridor Study Limits
- Mineral Ave Regional Trail
- City Limits
Methodology

• City Pilot Project
• Resident Engagement
• Community Meetings
• Cooperative/Iterative Process
Process

- Community Involvement
- Information Gathering
- Issues Assessment
- Preliminary Solutions
- Implementation Strategy
- Recommendations to City Council
- Implementation
Community Involvement

- Project Webpage on City Website
- Neighborhood Meetings
- Development of Mission, Goals & Users
- Identification of Issues & Concerns
- Feedback on Data, Assessment, Solutions & Implementation Strategy
Info & Data

- Past Studies
- Physical Environment & Surrounding Land Uses
- Vehicular Volumes
- Pedestrian/Bicycle Activity
- Vehicle Speeds
- Vehicle Intersection Delays
- Corridor Accident History
- Police Enforcement History
- Transit & School Buses
Assessment

Resident Perceived Issues Identified:

• Traffic Growth for Commuting & Commercial Land Use
• Increased Number & Severity of Accidents
• Speed of Traffic Creating Unsafe Conditions
• Delay Accessing Adjacent Neighborhoods

➢ Review with residents to verify issues being addressed
Preliminary Solutions

• Roadway Changes
• Intersection Modifications
• Side Street Improvements
• Access Revisions
• Traffic Control Considerations

- Review with residents to identify solutions to move forward
Implementation Strategy

- Concept Design
- Phasing Plan
- Cost Estimates

➢ Review with residents to develop an agreed upon strategy
Designs

• Mineral Avenue Modifications
• Platte Canyon Road Intersections
• Side Street Approach Improvements
Mineral Avenue Modifications

Road Diet Aspects & More – Completed
• Conversion to Right Turn Accel/Decel Lane
• Lane Width Narrowing
• Center Median Widening
• Speed Limit Reduction
• Specified U-turn Locations
• Deter Queues from Blocking Intersections
BEFORE

- Right Turn
- Accel Lane
- Widened Center Median

Narrowed Lanes

AFTER

- Right Turn Decel Lane
- Widened Right Turn Accel Lane
- Widened Center Median

Narrowed Lanes
Platte Canyon Road Movements

- Mineral Avenue Signalized Intersection
  - Dual NB & SB Left Turn Lanes
  - Traffic Signal Modifications
  - Channelized NB Right Turn Lane
  - Trail Safety Improvements

- Mineral Drive Side Street Stop Controlled T-Intersection
  - Full Movement Access
  - High Violation Rate
Side Street Improvements

Provisional Revisions – Completed
• Crosswalk Striping
• Ped Crossing Blank Out Signs
• Trail Signage
Side Street Improvements

Ultimate Alterations

- Curb Extensions
- Raised Crosswalk
- Additional Landscaping
Mineral Avenue

Dusk Court

CROSSING
SLOW DOWN

CROSSING SLOW DOWN

ULTIMATE
Phasing Plan

• Phase 1
  A. Side Street Provisional Improvements – Crosswalks, Trail Signage & Blank Out Signs
  B. Mineral Avenue Lane Reassignments

• Phase 2
  A. Platte Canyon Road/Mineral Avenue Signalized Intersection

• Phase 3
  A. Platte Canyon Road/Mineral Drive Full Movement Intersection
  B. Side Street Ultimate Improvements – Raised Crosswalks, Curb Extensions & Landscaping
## Cost Estimating

<table>
<thead>
<tr>
<th>Phase</th>
<th>Project</th>
<th>Improvements</th>
<th>Cost</th>
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| 1A    | Side Street Provisional Improvements | • Crosswalk Striping  
• Trail Signage  
• Blank Out Signs on Polo Ridge Drive Pedestrian Signal | $11,000 |
| 1B    | Mineral Avenue Lane Reassignment | • Right Turn Acceleration/Deceleration Lane  
• Lane Width Narrowing  
• Center Median Widening  
• Speed Limit Change  
• Specific U-turn Locations  
• Deter Vehicle Queues from Blocking Intersections | $35,000 |
| 2A    | Platte Canyon Road/Mineral Avenue Intersection | • Dual NB & SB Left Turn Lanes  
• Traffic Signal Modifications  
• Channelized NB Right Turn Lane | $92,000 |
| 3A    | Platte Canyon Road/Mineral Drive Intersection | • Full Movement Access | $107,000 |
| 3B    | Side Street Ultimate Improvements | • Curb Extensions  
• Raised Crosswalk  
• Additional Landscaping | $246,000 |
| **Total** | | | **$491,000** |
Funding

- Public Works Operating Budget
- Open Space Funds
- Capital Improvement Project Program
- State & Federal Grant Programs
Project Status To Date

- Community Engaged & Pleased with Process
- City Council Approved
- Phase Implementation
  - 1A & B Complete
  - 2A: Design 2019; Construction 2020
  - 3A: Design 2019; Construction 2020
  - 3B: TBD
Resident Feedback

• Improved Operations Due to U-turn Relocation
• Reduced Speeds Due to Lane Narrowing, RT Accel/Decel & Lower Speed Limit
• Decrease Delays Due to Two-stage Left Turn Option
• Corridor Less Intimidating to Access
After Data Indications

- Volume Increase by <5%
- Slight Growth in Traffic at Intersections
- Decrease in Corridor Traffic Speeds by ~5 mph
- Comparable Delays
- Fewer Reported Accidents & Lower Incident of Injury Accidents
Project Takeaways

- Corridor Functioning Safer for Bicyclists & Peds
- Corridor More Accessible for Side Streets
- Minimal Impact to Vehicle Operations

- Demonstrated Benefits of Resident Involvement & Good Communication
- Safety Improvements with Minimal Impacts to Operations & Congestion
- City Applying Process to Other Projects
Comments or Questions