Corridor Alternatives

4th & Montaño

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Key Issues

- River Crossings are Constrained
- This Constrained Facility needs special attention
- HOV moves People, not just cars
- Safety by design
- Community concerns are addressed

Transportation Management

- Constrained facility
  - Limited ability to enlarge
- Facility Management (FHWA)
  - Supply & Demand
  - Get more from existing lanes (supply)
  - Operate differently, changes behavior (demand)
- Demand Management
  - Get more use w/ HOV incentives for new, efficient travel patterns (demand)

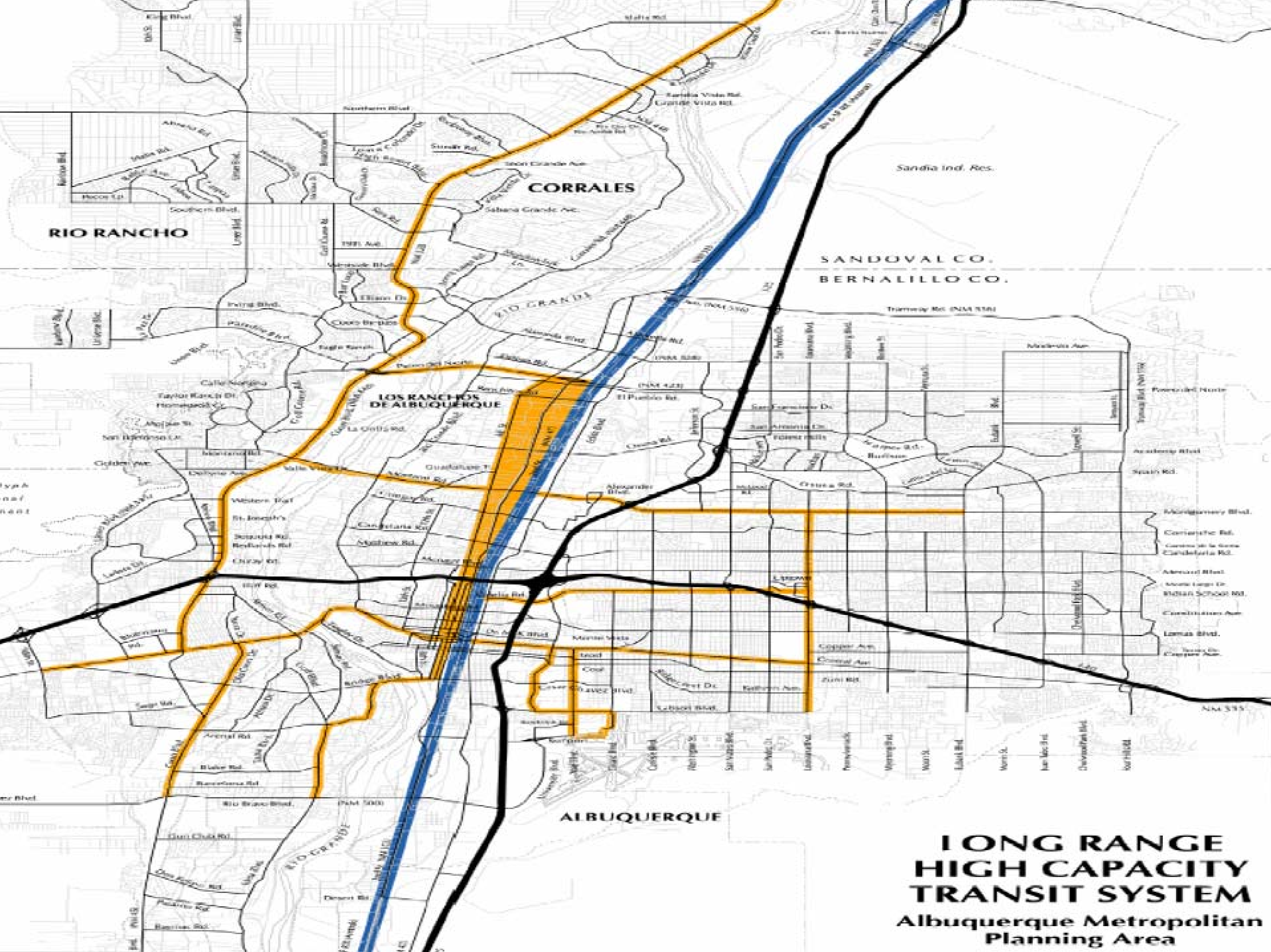
4th Street Redevelopment

- 2nd Street becomes a major arterial
- 4th Street redesign for improved parking, transit & pedestrian safety

4^{th} Street Becomes Walkable

Planning for Regional HOV

- High Occupancy Vehicle (HOV)
- Other HOV as “Managed Lanes”
- In conjunction with High Capacity Transit Corridors
- Rapid Ride Success



LONG RANGE HIGH CAPACITY TRANSIT SYSTEM

Albuquerque Metropolitan Planning Area

Mid-Region Council of Governments

- By the year 2010 all Four Lanes of Montano will be Congested to the point of stand still
- Projected Need for 12 to 16 additional Lanes
- HOV & Transit planned to supplement supply

Traffic Flow in One Lane

- A vehicle every 2 seconds (max.)
- Equals ≈ 30 vehicles per minute (60/2=30)
- Yields 1,800 vehicles per hour! (30x60=1,800)

AM Traffic Flow - 4th & Montaño

- Morning eastbound, how many vehicles per hour (vph).
- Average Green time is 35 % of cycle 1,800 x 0.35 = 630 vph
- Left & Right lanes are less, 25 % 1,800 x 0.25 = 450 vph

Total flow ≈ 2,160 vehicles per hour

(630+630+450+450 = 2,160)

Balanced Design?

- One lane ≈ 1,800 vph
- w/ Two lanes, 3,600 vph
- 4th & Montaño intersection accepts ≈ 2,160 vph

- Over capacity by 1,440 vph

(3,600 – 2,160 = 1,440)
demand – supply = excess

w/ HOV-Bus Lane

- Emphasizes moving people
- Faster lane as an incentive
- 2+ cars & trucks, now 16% ≈ 300 vph
- If HOV use is doubled

  1,800 + 600 = 2,400 vehicle demand

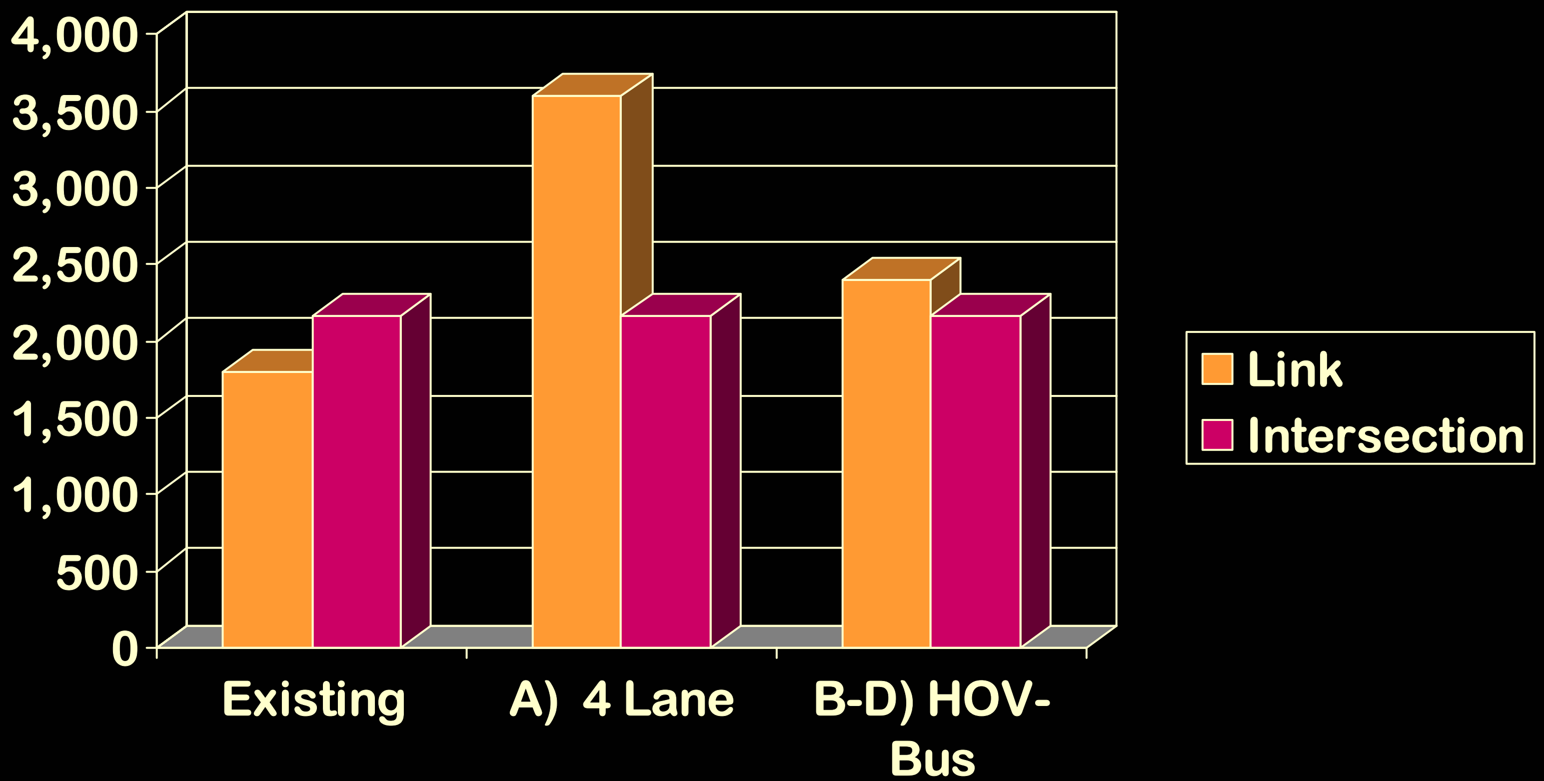
- Flow is Balanced btw. road & intersection

  2,400 – 2,140 = 260 vph

  demand – supply = balance

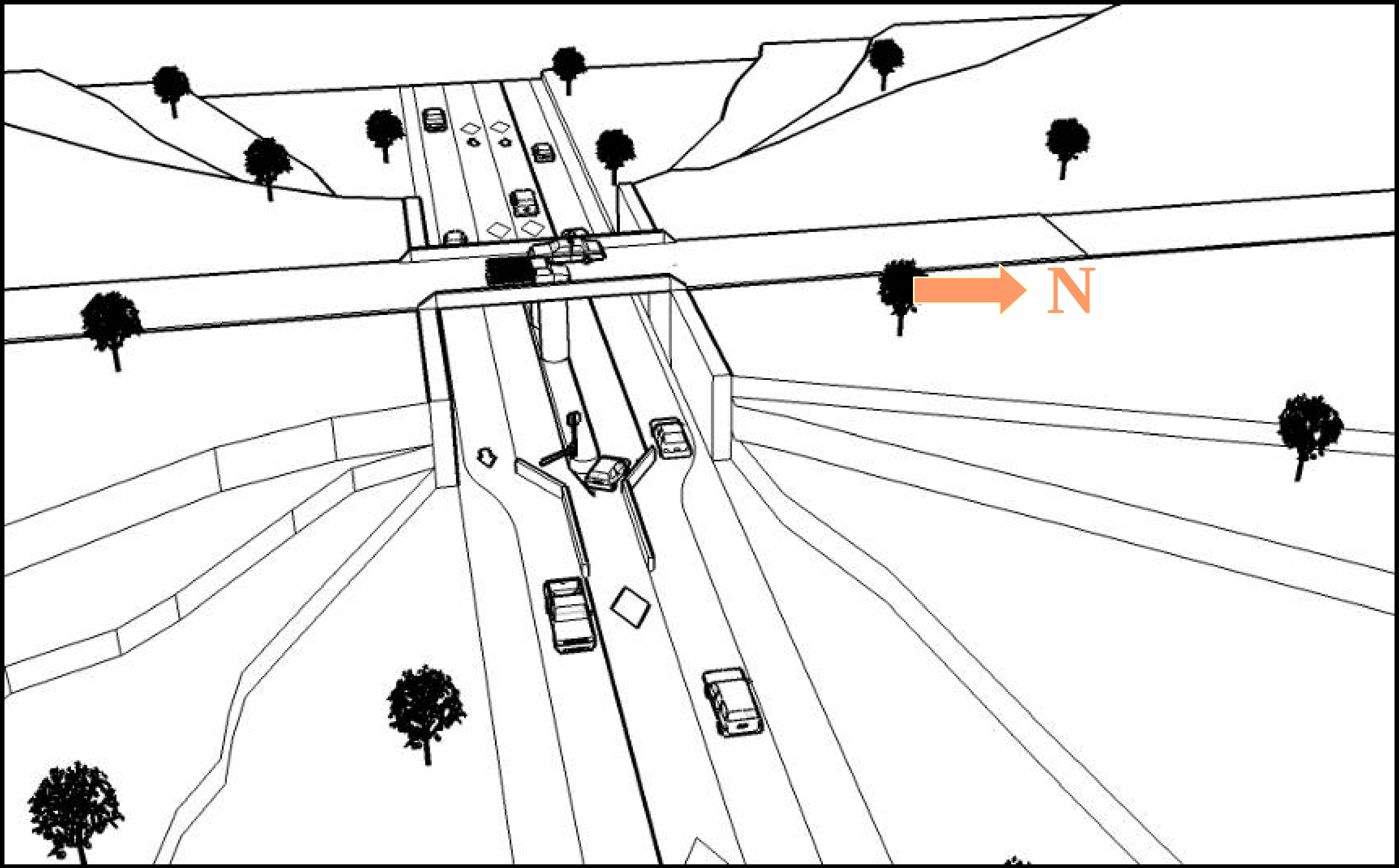
- People flow is 3,000+

Vehicle Flow Balance
4th & Montaño – eastbound in a.m.

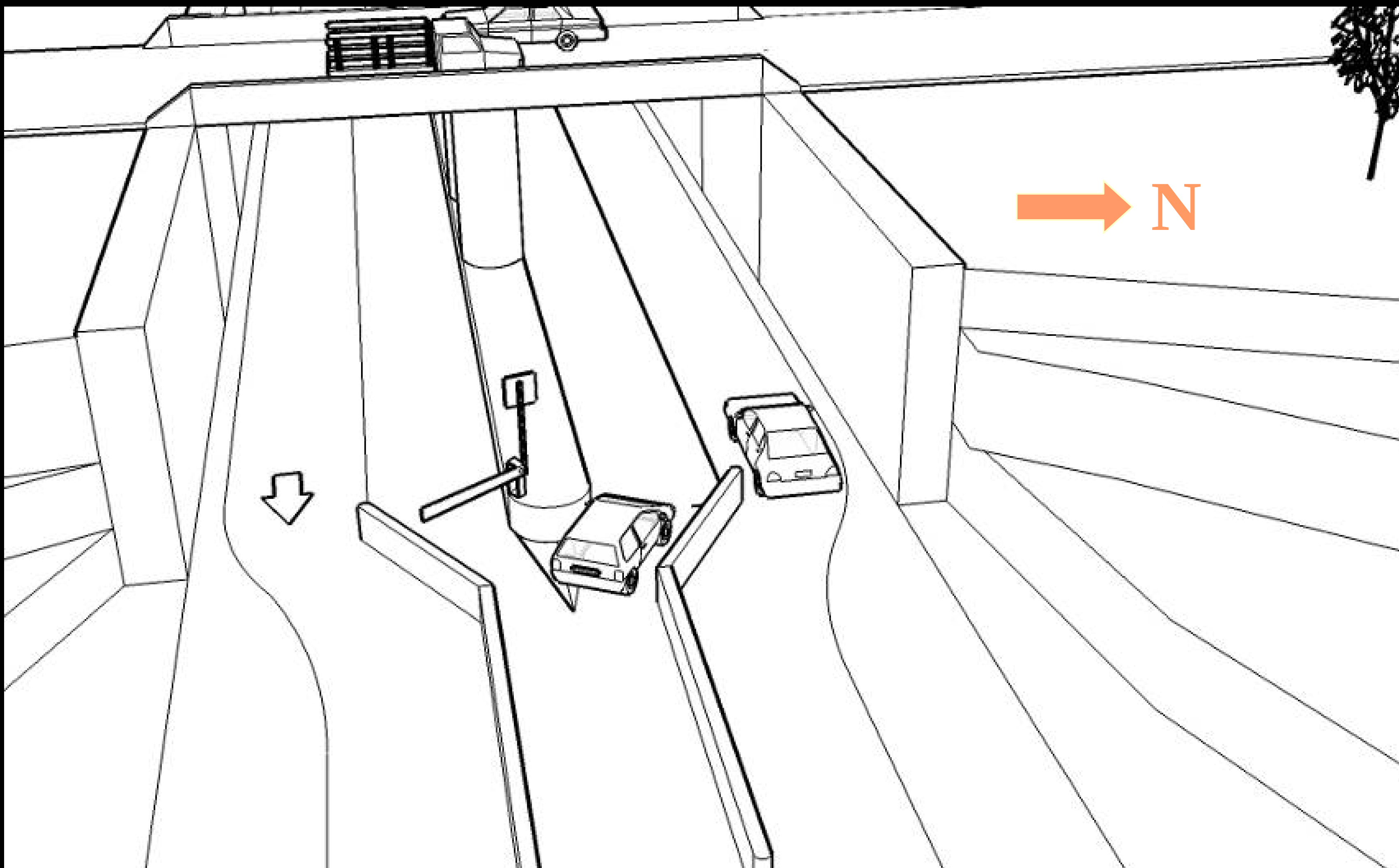



13 FT. 11 IN.

Recommended
Alt E – 3 lane @ Rio Grande

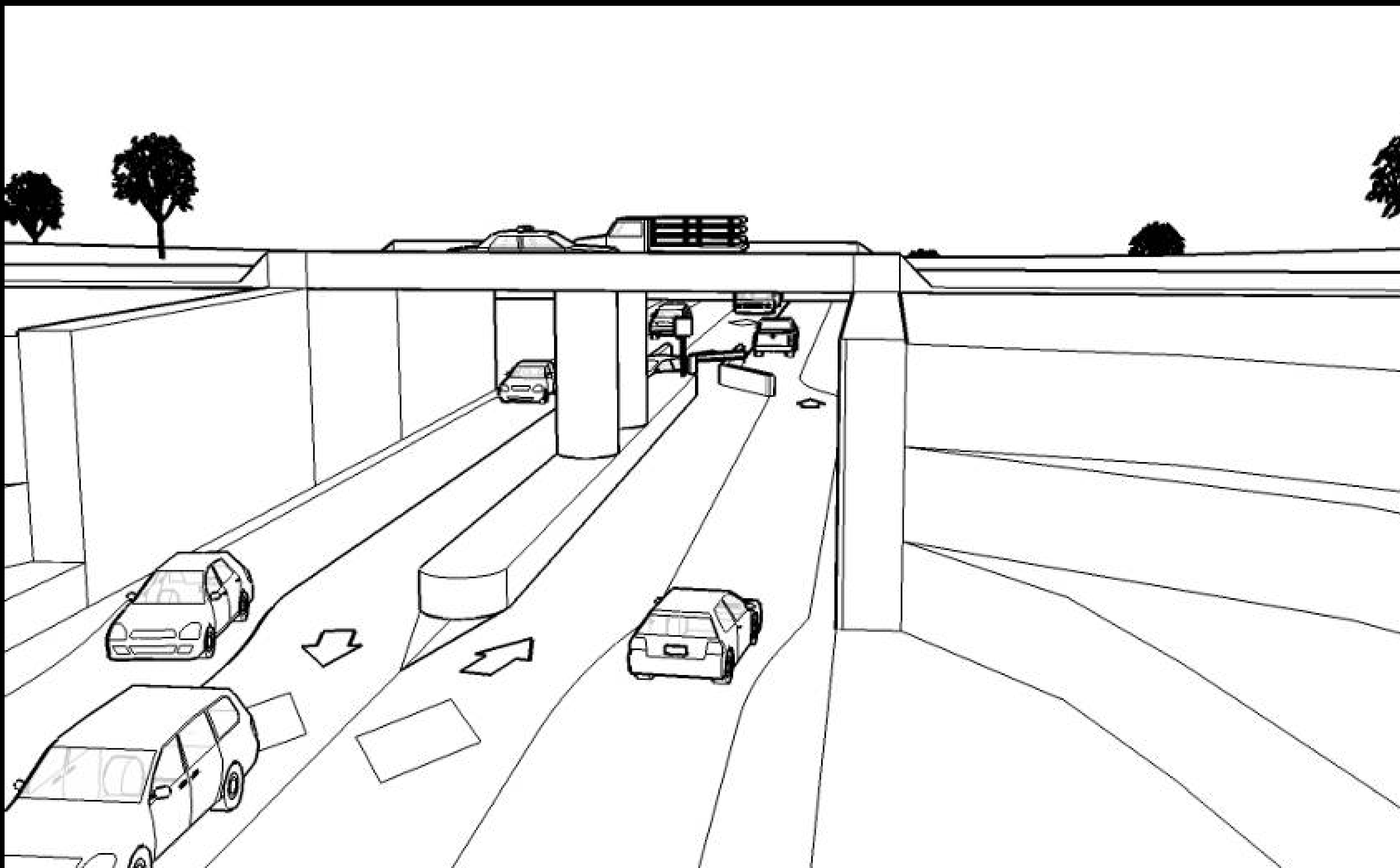


Alt E – 3 lane @ Rio Grande looking west



HOV Safety Gate

Alt E – 3 lane @ Rio Grande looking east



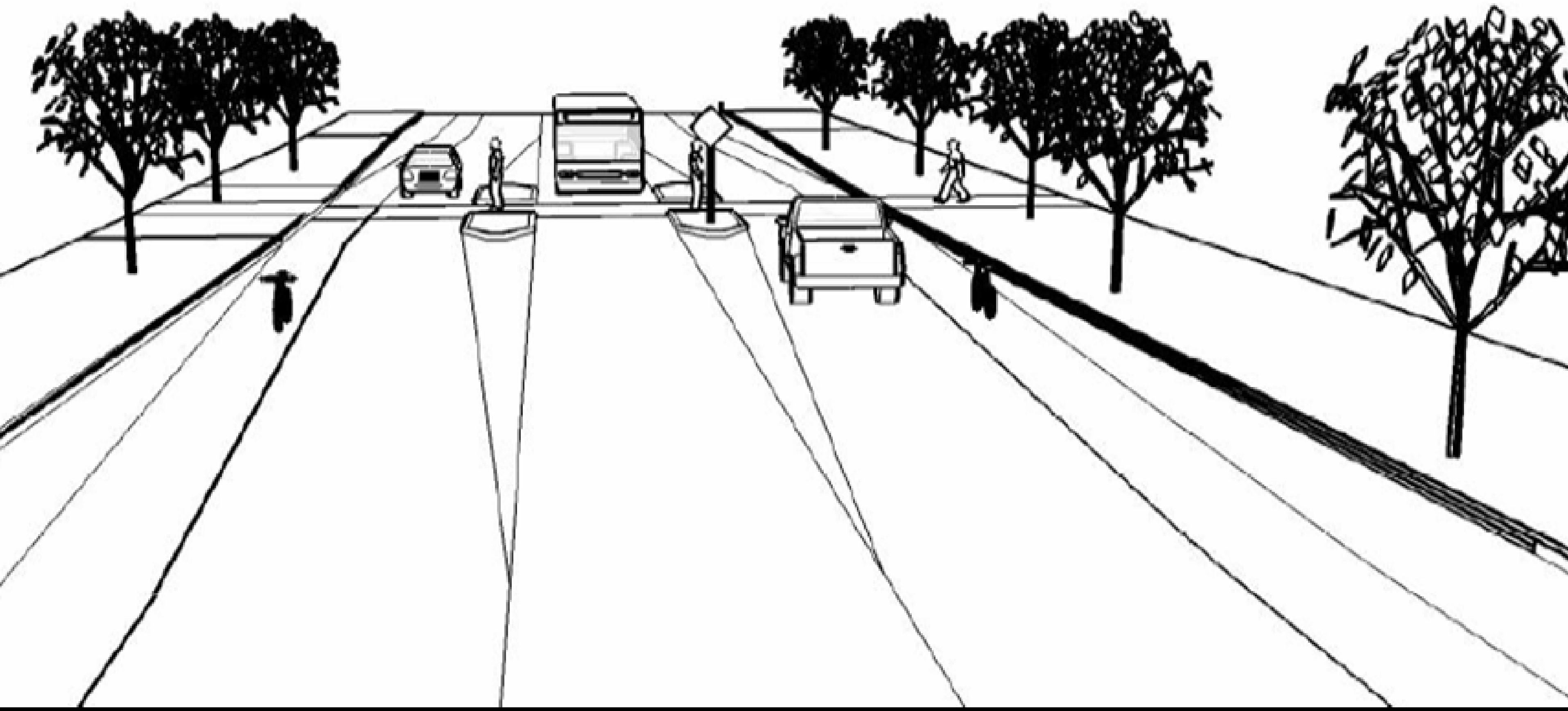
Historic Montaño Crossings

- Pedestrian crossings of Montaño need attention for improved walkability

Historic Montaño Crossings

- Elements of Design

HOV & Montaño Crossings



Safety Issues

- Opposing flows have separation
- Recommended Improvements manage speed to a safe level
- Lower speeds allow for reaction time
- Lower speeds minimize fatalities
- Improved community context

Nicholasville Road - Lexington, KY

- 2 miles in length
- 5 lane section
  - 1 lane in off peak direction
  - 4 lanes in peak direction
- From UK Campus to New Circle Road
- Controlled by signals, no barriers

The Lions' Gate Bridge

- Vancouver, British Columbia
- Reversible center lane
- 4,978 ft Br. & approaches
- 60,000 to 70,000 vehicles/day
- Originally two lanes
- Repainted to 3 lanes
- 1990s proposals to widen, but City objected to increased lanes into the urban center