

Mobility. Environment. Community. Economy. Technology



I-710 Corridor Project EIR/EIS

metro.net

Geometrics and Traffic Methodology

Presented to I-710 TSWG

October 5, 2009

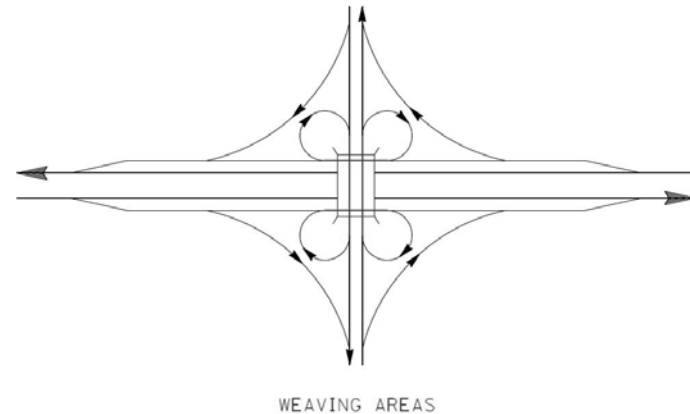


Current Problems

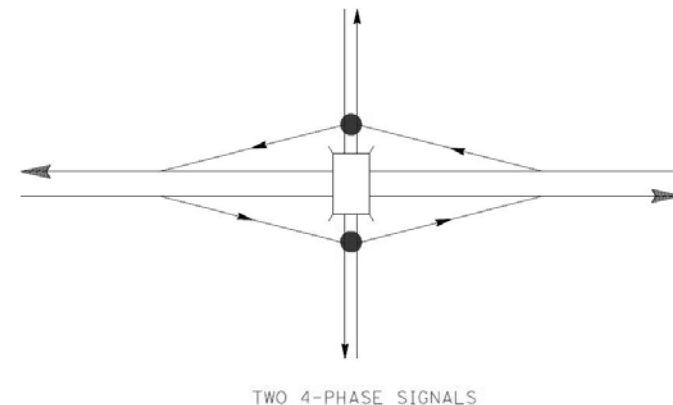
- **Existing Conditions Assessment**
 - Traffic Operations
 - Accidents
 - Geometric Deficiencies
- **Existing Interchanges**
 - Diamond (local)
 - Cloverleaf (local and freeway-to-freeway)

Local Interchanges

- **Cloverleaf**
 - Low Capacity
 - Weaving

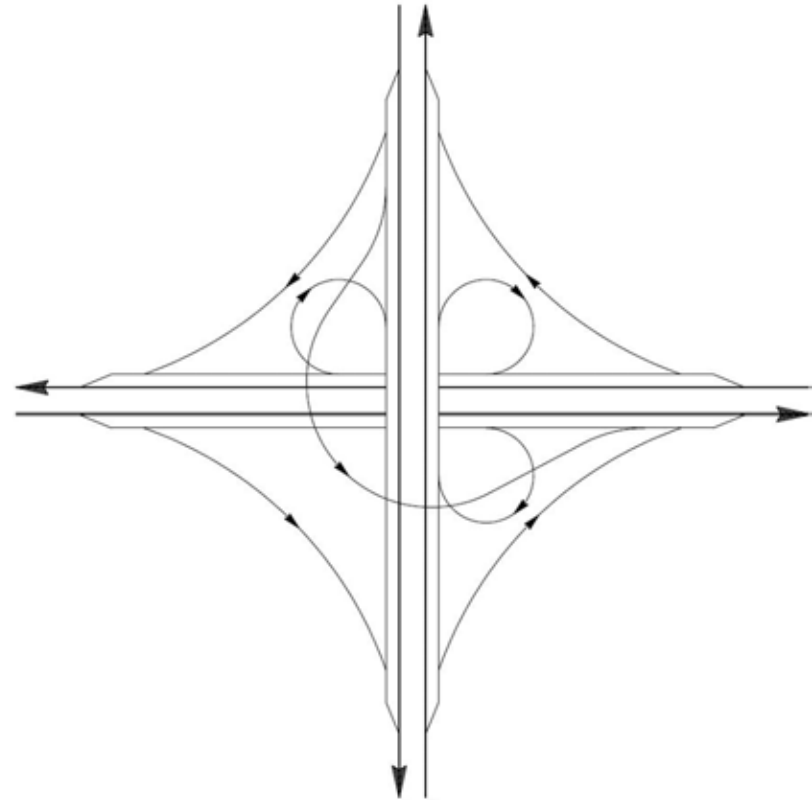


- **Diamond**
 - High Delay
 - Low Turn Storage



Freeway-to-Freeway Interchanges

- **Cloverleaf**
 - Low Capacity
 - I-405 (3 Loops)
 - SR-91 (1 Loop)



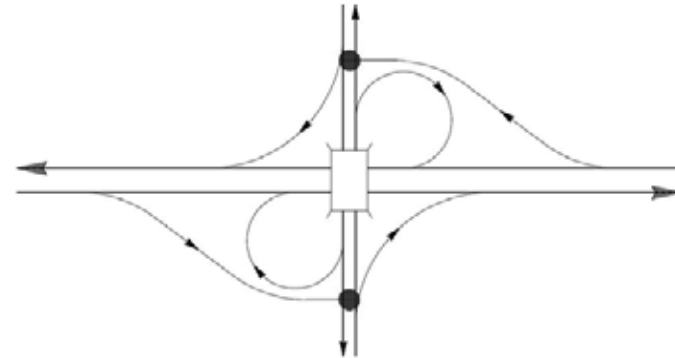
Conceptual Design

- **Major Corridor Study Review**
 - Feasibility
 - Required Changes

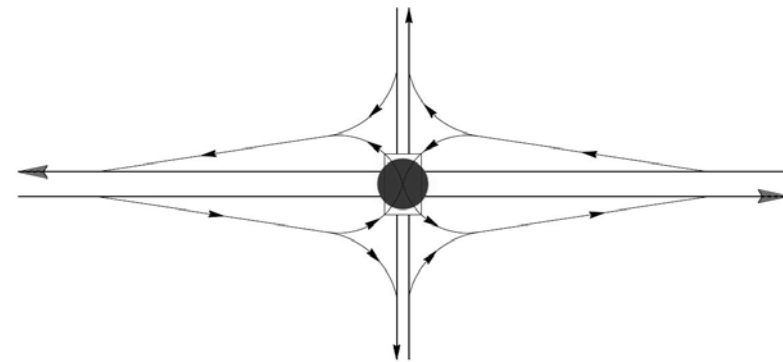
- **Options Analysis**
 - Interchange Configuration
 - Freight Corridor Alignment

Local Interchanges – Recommended

- **Partial Cloverleaf**
 - High Capacity
 - Large R/W
- **Single Point**
 - High Capacity
 - Small R/W



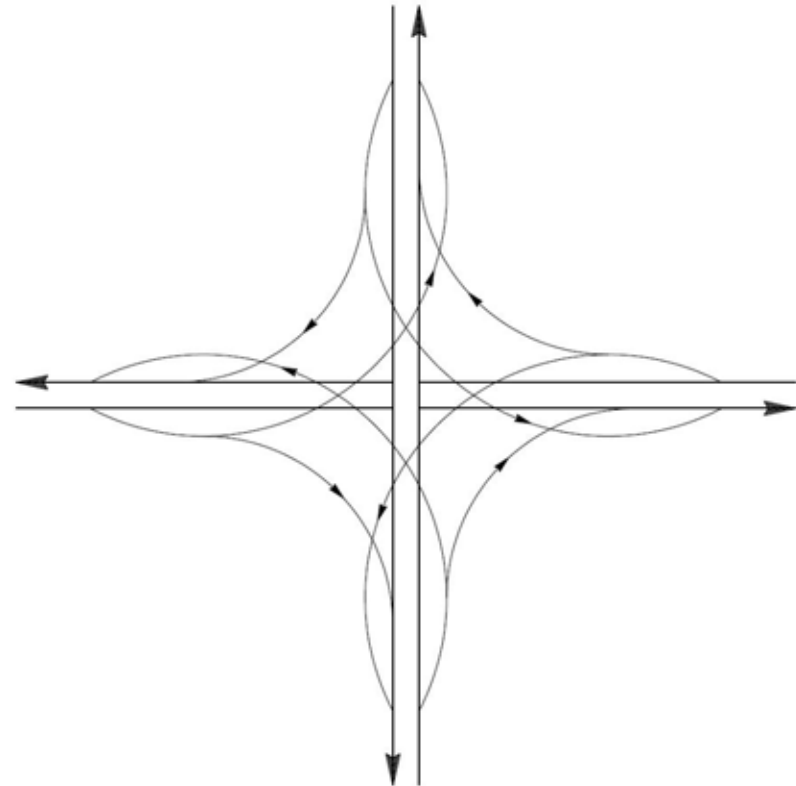
TWO 2-PHASE SIGNALS



ONE 3-PHASE SIGNAL

Freeway-to-Freeway – Recommended

- **Four-Level**
 - High Capacity
 - I-105



Traffic Forecasts

- **SCAG RTP Model**
- **Design Year: 2035**
- **Alternatives:**
 - **#1** **No-Build (8 Lanes)**
 - **#5** **Modernize (10 Lanes)**
 - **#6A/B** **Alt 5 + 4 Freight Movement Lanes**

Volumes

- **Average Daily Traffic (ADT)**
- **Peak Hour**
 - AM (Morning)
 - PM (Evening)
 - MD (Mid Day)
- **Truck Percentage**
- **Facility Type**
 - Freeway (both directions)
 - Connectors (freeway-to-freeway)
 - Ramps (local interchanges)

Freeway Operations

- **Mainline Capacity**
 - Number of freeway lanes needed
- **Merging / Diverging**
 - Number of ramp lanes
 - Auxiliary lanes
- **Weaving**
 - Ramp configuration
 - Auxiliary lanes

Freight Corridor Operations

- **Limited Access**
 - Ocean / Pico / Anaheim
 - I-405
 - SR-91
 - Indiana / Sheila (Rail Yards)
- **Volumes Controlled**
 - Desired operation: LOS D

Intersection Analysis

- **Ramp Terminals and Arterials**
- **Performance**
 - Level of Service (LOS)
 - Delay
- **Storage Checks**
 - Left Turns (ramps and pockets)
 - Ramp Meter Rate

Key Considerations

- **Right of Way**
- **Non-Standard Features**
- **Other Effects**
 - **Flood Protection (LA River)**
 - **Utilities (Power Transmission)**
- **Capital Cost**

Solutions

- **Benefits**
 - Improved air quality and public health
 - Improved traffic safety
 - Improved efficiency
- **Costs**
 - Minimize community impacts
 - Viable solutions for affected infrastructure

Status of Geometrics

- **Initial Geometrics Packages**
 - 14 Interchange Areas
 - Alternatives 5 and 6A/B
 - Plans, Traffic Analysis, Right of Way
 - Summary of Changes
 - Response to Agency Comments

- **Completed September 2009**

Timeline

- **Agency Reviews (Oct 2009 / On-going)**
 - Funding Partners
 - TAC Members
- **Local Advisory Committee Review (Nov 2009)**
- **Geometrics Update (Dec 2009)**
 - Incorporate Agency / TAC / LAC Comments
 - Provides Basis for Environmental Assessment
- **Draft EIR/EIS / Draft PR (Aug 2010)**

Questions and Answers

