

# Learning from other urban highway projects

▶▶▶ Cities across the nation have faced similar challenges:



# Reconstruct the highway

## THE MARQUETTE INTERCHANGE: I-794/I-43/I-94 MILWAUKEE, WI



### SIMILARITIES TO I-81

- Designated as an interstate highway
- Carried through and local traffic
- Did not meet design standards
- Included an interchange with other interstate highways
- Located in a similar climate

### DIFFERENCES FROM I-81

- Project focused primarily on an interchange
- Major alterations of highway network not considered

### SO WHAT HAPPENED?

- Complete reconstruction of Marquette Interchange in downtown Milwaukee
- Project emphasized community involvement to develop a community-sensitive solution
- The new design is considered more attractive and traffic flow has improved

### Lessons learned

- Project benefited from strong public outreach effort that included neighborhood committees
- Visual impacts can be mitigated through aesthetically pleasing design – clean lines, narrow piers, bright colors and decorative features

# Bury the highway

## CENTRAL ARTERY - THE BIG DIG: I-93 BOSTON, MA



### SIMILARITIES TO I-81

- Designated as an interstate highway
- Carried through and local traffic
- Perceived as a barrier between neighborhoods

### DIFFERENCES FROM I-81

- Carried twice the traffic volumes
- Located in an older and more densely populated city with greater development pressures
- Separated sections of the city from the waterfront

### SO WHAT HAPPENED?

- I-93 was torn down and an expanded interstate was relocated under the same footprint
- The elevated section of the highway was replaced by public space, improving connectivity to the waterfront and North End neighborhood
- The project also focused on upgrading and expanding public transit

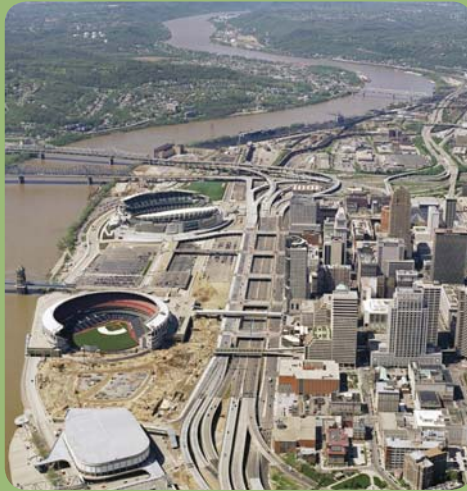
### Lessons learned

- Cost of burying a highway were significant - final costs of the project were 5 times the original estimate
- Payoffs of burying a highway were also great:
  - Improved connectivity between neighborhoods
  - Improved traffic circulation
  - Enhanced urban environment and stimulated economic development



# Depress the highway

## FORT WASHINGTON WAY: I-71 CINCINNATI, OH



### SIMILARITIES TO I-81

- Designated as an interstate highway
- Carried through and local traffic
- Carried comparable traffic volume
- Perceived as a barrier between neighborhoods

### DIFFERENCES FROM I-81

- Existed as a depressed rather than elevated highway
- Separated downtown from the riverfront

### SO WHAT HAPPENED?

- The project included highway widening and the elimination of several exits and entrances to simplify and improve traffic flow
- The total right-of-way width was substantially reduced
- Reclaimed space was developed as a waterfront park and professional sports venues
- Streets crossing the highway were redesigned to include broad sidewalks and landscaping

### Lessons learned

- Project benefited from effective stakeholder involvement
- Project benefited from extensive planning - 25 alternatives were explored
- Integration of economic development and improved riverfront access contributed to broad support

# Relocate the highway

## THE “I-WAY”: I-195 PROVIDENCE, RI



### Lessons learned

- Relocation allowed for existing road to remain operational, minimizing traffic disruptions
- Project benefited from extensive public outreach – media, websites and podcasts
- Focus on urban design, riverfront connections, and redevelopment opportunities fostered public support

### SIMILARITIES TO I-81

- Designated as an interstate highway
- Carried through and local traffic
- Included an interchange with another interstate highway

### DIFFERENCES FROM I-81

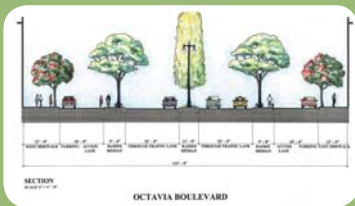
- Carried higher traffic volumes
- Did not include regional alternatives or bypasses
- Separated sections of city from a waterfront area

### SO WHAT HAPPENED?

- The elevated I-195 highway was relocated from downtown Providence to a nearby industrial corridor
- The project opened up valuable redevelopment areas and allowed the city to reconnect parts of the downtown street grid

# Remove the highway

## CENTRAL FREEWAY - OCTAVIA BOULEVARD SAN FRANCISCO, CA



### SIMILARITIES TO I-81

- Carried comparable traffic volumes
- Existed as an elevated freeway in an urban area

### DIFFERENCES FROM I-81

- Not designated as an interstate highway
- Carried no through traffic (spur to downtown)
- Previously closed due to earthquake

### SO WHAT HAPPENED?

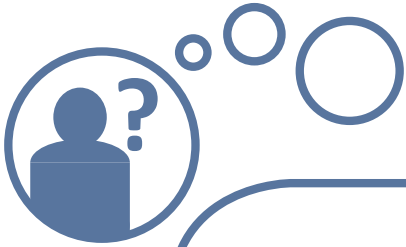
- In 1989, an earthquake damaged the freeway forcing it to close temporarily
- In 1996, the freeway was repaired and reopened
- Ultimately, a proposal to replace the freeway with a boulevard gained support, and it was redesigned as Octavia Boulevard
- At its opening, the new boulevard carried about half the volume of the freeway it replaced

### Lessons learned

- Surrounding street and transit network was able to absorb significant traffic
- A boulevard can:
  - Carry high traffic volumes
  - Spur development
  - Provide a pedestrian and bicycle-friendly environment



# What do you think?



I like this because...



I don't like this because...