

IMPLEMENTING COMPLETE STREETS DECISION MAKING PROCESSES (Module 4)

- **Reversing the burden of proof and using checklists**
- **Public and stakeholder involvement**

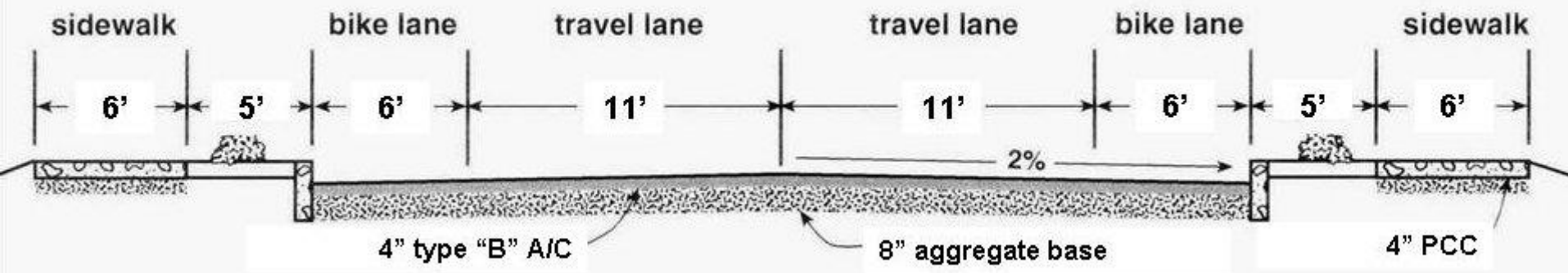
Decisions - changed outcomes



Decision-making

Examples of common methods:

- Is everything based on the original “project scope”?
- Is everything based on minimizing cost?
- Is everything based on vehicular LOS and speed?
- Is the design speed reasonable?
- ***Or is there a way to balance needs, invest wisely and expand the original project scope?***



Decisions Based on Original Project Scope: Checklists & Triggers

Project scoping checklist asks about pedestrians, bicycles, and transit; reverse burden of proof:

- Old way: Check **No**, end of story
- New way: Assume **Yes**, or justify why not



INDOT Open Roads

- AKA Practical Design / Practical Solutions
- Design Alternatives Based on Engineering Judgment
- “Design Up” Philosophy
- Well-Defined Project Scope
- Emphasize System/Network Safety for All Users

Typical Elements in a checklist

- 1. General information**
- 2. Existing conditions**
- 3. Current typical configuration**
- 4. Planned conditions**
- 5. Proposed design**
- 6. Trade-offs discussion**
- 7. Exceptions approval**
- 8. Construction, maintenance, operations**

1. General information

- **Project name**
- **Purpose and need**
- **Project manager/contact**
- **Project area/limits**
- **Funding source(s)**
- **Dates of site visits**

Mid-Ohio Regional Planning Commission: General information

LPA Project Manager:

Project Title:

Describe Project's Purpose & Need:

Project Limits (Include County, Route and Section) & Project Length:

2. Existing conditions

- Land use/development patterns
 - Character (transect)
 - Urban design
 - Trip generators within project or proximate, e.g., school, retail, fire station
- People trips, by mode
- Automobile speed – posted, observed
- Crashes by mode – serious injuries, fatalities



Hennepin County, MN:

Existing conditions

Existing Corridor Characteristics Review			
Average Daily Traffic (ADT):	Click here to enter ADT.	Posted Speed:	Select posted speed.
Critical crash rate history within the project corridor?	Yes or No	If yes, describe locations and note crash rates.	
Roadway Functional Class	Choose a functional class		
Road Use Classification	Choose an item.	Click here to add additional comments.	
Trip Generators: ☐ School ☐ Retail ☐ Hospital ☐ Fire station ☐ Park ☐ Church ☐ Airport ☐ Known Historic Site ☐ Sports facility ☐ Other Describe other.			

Philadelphia: Existing conditions

11. Does the Existing Conditions site survey clearly identify the following existing conditions?

- | | | | |
|---|------------------------------|-----------------------------|------------------------------|
| a. Parking and loading regulations in curb lanes adjacent to the site | YES ☐ | NO ☐ | |
| b. Street Furniture such as bus shelters, honor boxes, etc. | YES ☐ | NO ☐ | N/A ☐ |
| c. Street Direction | YES ☐ | NO ☐ | |
| d. Curb Cuts | YES ☐ | NO ☐ | N/A ☐ |
| e. Utilities, including tree grates, vault covers, manholes, junction boxes, signs, lights, poles, etc. | YES ☐ | NO ☐ | |
| f. Building Extensions into the sidewalk, such as stairs and stoops | YES ☐ | NO ☐ | N/A ☐ |

3. Typical configuration

- **Total ROW width**
- **Existing cross-section, including elements for driving, walking, bicycling, transit, landscaping**
- **Condition of those facilities**
- **Gaps in facilities and other deficiencies**
- **Intersection elements, including lane configuration, crossing distance, radii, other features**

Hennepin County, MN: Typical configuration

Existing corridor R/W width:	Click here to enter existing corridor R/W width or range of widths.	
Typical Roadway Section/Lane Configuration:	Describe here (# lanes & width, curb type, etc.)	
Intersection Configurations:	Describe here (traffic signals, geometry, side street stops, turn lanes, etc.)	
Side Street skewed <70° or existing sight distance issue	Identify the intersecting streets and specify the problematic leg.	
Any roadway or pedestrian (underpass/overpass) bridges?	Yes or No	If yes, list type, location, number, and over/under roadways.
Any railroad crossings?	Yes or No If yes, describe.	
Complete Streets Accommodations ☐ Pedestrians List accommodations, i.e. sidewalk, trail, tunnel, etc. ☐ Bicycles List accommodations, i.e. bike lanes, trails, bike boxes, etc. ☐ Autos List accommodations, i.e. parking lanes, etc. ☐ Trucks List accommodations, i.e. no lane encroachment, etc. ☐ Buses List accommodations, i.e. bus stops, etc. ☐ Light rail List accommodations, i.e. LRT stops, etc. ☐ Other List other here.		
What is the average daily bicycle traffic?	Click here to enter bicycle traffic numbers and associated locations.	
On City/County Bike Plan?	Yes or No	If yes, indicate which plans.
House Moving Route?	Yes or No	
Roadway Restrictions	☐ Reduced Speed Zone ☐ Advisory Signage ☐ Clearance Restriction ☐ Weight Restriction ☐ Other List other here.	
Existing drainage problems or deficiencies?	List flooding/ponding and treatment/rate issues here.	

4. Planned conditions

- Land use plans
 - Comprehensive, Neighborhood/Sub-Area, Zoning, etc.
- Transportation plans
 - Circulation element, Multi-modal, Pedestrian, Bicycle, Transit, Freight, ADA transition, SRTS, etc.
- Nearby/relevant programmed transportation projects
- Studies: traffic impact, safety impact, speed, etc.
 - Potentially related to performance measures for project

Seattle: Planned conditions

- **SDOT plans/studies**
 - Completed and pending
- **Streetscape concept plans**
- **Other plans (e.g., Neighborhood plans, station area plans, urban design framework)**
- **Pedestrian Master Plan**
 - Sidewalk condition, pedestrian-scaled lighting, trees
- **Bicycle Master Plan**
- **Transit Master Plan**
 - Bus stop spacing
- **Freight Mobility Action Plan**
- **ITS Strategic Plan**
- **Urban Forestry**
- **Green Stormwater Infrastructure**
- **SDOT Art Plan**

Seattle: Planned conditions

...checklist asks three questions:

- 1. Are there recommendations within the project area? (Y/N)**
- 2. Describe any recommendations included in this project.**
- 3. Describe any recommendations NOT included in this project and reason for deferral.**

5. Proposed design

- Define design objectives, as related to existing and planned conditions
- Define target speed, street typology, modal priorities, any special overlays
- Proposed cross-section
 - Incl. intersection information: signals, signs, markings, other treatments
- Drainage and utilities impacts

Seattle: Proposed design

Matrix defines
priority elements
per street type

Seattle Department of Transportation

Complete Streets Checklist

Priority Elements Matrix	Street Types	Regional Connector	Main Street	Green Street	Commercial Connector	Mixed Use Street	Neighborhood Green Street	Local Connector	Industrial Access
Preferred 									
Consider 									
Preferred in Center City 									
Primary Design Features									
Sidewalks buffered from moving traffic by additional sidewalk width or planting strip									
Street trees and landscaping									
Low landscaping or high branching trees in planting strip									
Weather protection integrated with buildings for street level uses and at transit zones									
Pedestrian scaled lighting									
Emphasis on coordinated street furniture									
Short-term, on-street parking									
Curb bulbs where there is on-street parking									
Emphasis on small curb radii and curb bulbs where on-street parking exists									
Load zones to support delivery activities									
Striped bicycle lanes or sharrows, and signage on designated bicycle routes									
Bicycle access accommodated if parallel route is not feasible									
Bicycle route appropriate to share with motor vehicles									
Emphasis on bicycle parking in business districts									
Truck route signage									
Traffic calming									
Bus shelters at transit stops									
Minimize curb cuts and driveways to create continuous sidewalk									
Natural Drainage encouraged									

Hennepin County: Proposed design

Proposed Corridor Characteristics Review

Average Daily Traffic (ADT) Forecasted Year:	Enter forecast year.	Enter ADT	Posted Speed: Select posted speed.	Design Speed: Select design
Proposed Corridor R/W width:	Click here to enter proposed corridor R/W width or range of			
Highway Easements Required?	Yes or No			
Typical Roadway Section/Lane Configuration:	Describe here (# lanes & width, curb type, etc.)			
Variances or Exceptions?	Yes or No	List and describe each variance/exception		
Design Vehicle	☐ Passenger Car ☐ Single-unit Truck ☐ Bus ☐ Other List type.			
Traffic Lane Information	Through # of lanes Lane Width: feet Roadway Surface Material: Choose an item. ☐ Left ☐ Double left ☐ Right ☐ Double right			
Shoulders?	Yes or No	Width: feet Shoulder Surface Material: Choose		
Curb or Curb & Gutter?	Yes or No	Type: If yes, list type.		
Medians?	Yes or No	Minimum Width: feet Type: Choose		
On Street Parking?	☐ Both sides ☐ One side ☐ None			
Sidewalk/Trail Separation from Cars	Choose an item. If other, describe.			
Streetscape/Landscape	List components, not including bike/bus accommodations			
Any roadway or pedestrian (underpass/overpass) bridges?	Yes or No	Type: If yes, list type, location, number of		
Retaining Walls	Choose type.	☐ Fencing proposed ☐ Building		
Safety Barrier/Guardrail	Yes or No	☐ With 4" curb ☐ Crashworthy ☐ Pedestrian Friendly End Treat		
Mailboxes	Yes or No			
Intersection Configurations:	Describe here (traffic signals, geometry, side street stops, etc.)			
Traffic Signals Proposed	Yes or No	List intersections.		
Traffic Signals Warranted	Yes or No	If yes, warrant information	☐ SJR ☐ ICE Report	
Traffic signal components included in design:				
☐ All pedestrian phase ☐ Pedestrian actuated ☐ Countdown timers ☐ Accessible pedestrian signals ☐ Bus preemption ☐ Railroad preemption ☐ Emergency Vehicle Preemption ☐ Street lights ☐ Interconnect ☐ Video detection ☐ Protected left turn ☐ Permissive left turn with green globe ☐ Permissive left turn with flashing yellow arrow				
Roundabouts Proposed?	Yes or No	List locations.	☐ ICE report	
4-Way Stop Proposed?	Yes or No	List intersections.		
Intersection Components	☐ Crosswalks at all crossings ☐ Crosswalks at some crossings ☐ School crosswalks ☐ Refuge islands ☐ Pedestrian bump-outs Crosswalk Type: List crosswalk striping type(s)			
Side Street skewed <70° or sight distance issue	Identify the intersecting streets and specify the problematic leg.			
Complete Streets Accommodations				
☐ Pedestrians List accommodations, i.e. sidewalk, trail, tunnel, etc. ☐ Bicycles List accommodations, i.e. bike lanes, trails, bike boxes, etc. ☐ Autos List accommodations, i.e. parking lanes, etc. ☐ Trucks List accommodations, i.e. no lane encroachment, etc. ☐ Buses List accommodations, i.e. bus stops, etc. ☐ Light rail List accommodations, i.e. LRT stops, etc. ☐ Other List other here.				
Sidewalk	☐ Both sides ☐ One side Location. ☐ None			Width: feet
Sidewalks ADA Compliant?	Yes or No If no, explain why not.			
Street Lighting	☐ Street Level ☐ Pedestrian Level ☐ Combined ☐ None			
Stairways Proposed	Yes or No	☐ Handrails Included ☐ Building Permit Required		
On-Road Bike Lanes	☐ Both sides ☐ One side Location. ☐ None ☐ Follows Right Turn Lane ☐ Follows Thru Lane			Width: feet
Off-Road Multi-Use Trail	☐ Both sides ☐ One side Location. ☐ None			Width: feet
Trails ADA Compliant?	Yes or No If no, explain why not.			
Bike Amenities	☐ Bike lane/path signage ☐ Bike racks ☐ Bike lockers ☐ Diamond Lanes ☐ Bus Bays ☐ Far Side Stops ☐ Near Side Stops ☐ Bus stop benches ☐ Shelters ☐ ADA landing If not checked, explain why not.			
Light Rail Accommodations	Yes or No	If yes, describe stops, location, etc.		



6. Trade-offs discussion

- **Guided questions to describe how proposed design meet established goals and criteria**
 - **Explain why the project was unable to meet them**
- **Indicate plan to address these issues in future projects**

Philadelphia: Discussion

15. Does the design limit block lengths to 500 feet or less?

YES ☐ NO ☐ N/A ☐

16. When considering the overall design, does the design create a pedestrian environment that provides safe and comfortable access for all pedestrians?

YES ☐ NO ☐

DEPARTMENTAL REVIEW ONLY

ACCEPT ☐ N/M ☐

ACCEPT ☐ N/M ☐

*N/M = Needs Modification

APPLICANT: Pedestrian Component

Additional Explanation / Comments: _____

DEPARTMENTAL REVIEW

Reviewer Comments: _____

27. Identify proposed "high priority" bicycle design treatments (see Handbook Table 1) that are incorporated into the design plan, where width permits. Are the following "High Priority" elements identified and dimensioned on the plan?

- Conventional Bike Lane
- Buffered Bike Lane
- Bicycle-Friendly Street

YES ☐ NO ☐ N/A ☐

YES ☐ NO ☐ N/A ☐

YES ☐ NO ☐ N/A ☐

28. Does the design provide bicycle connections to local bicycle, trail, and transit networks?

YES ☐ NO ☐

29. Does the design provide convenient bicycle connections to residences, work places, and other destinations?

YES ☐ NO ☐

DEPARTMENTAL REVIEW ONLY

ACCEPT ☐ N/M ☐

ACCEPT ☐ N/M ☐

ACCEPT ☐ N/M ☐

ACCEPT ☐ N/M ☐

ACCEPT ☐ N/M ☐

*N/M = Needs Modification

APPLICANT: Bicycle Component

Additional Explanation / Comments: _____

DEPARTMENTAL REVIEW ONLY: Bicycle Component

Reviewer Comments: _____

Philadelphia: Discussion

19. Identify proposed “high priority” building and furnishing zone design treatments that are incorporated into the design plan, where width permits (see Handbook Table 1). Are the following treatments identified and dimensioned on the plan?

- Bicycle Parking
- Lighting
- Benches
- Street Trees
- Street Furniture

YES ☐ NO ☐ N/A ☐
 YES ☐ NO ☐ N/A ☐
 YES ☐ NO ☐ N/A ☐
 YES ☐ NO ☐ N/A ☐
 YES ☐ NO ☐ N/A ☐

DEPARTMENTAL REVIEW ONLY

ACCEPT ☐ N/M ☐
 ACCEPT ☐ N/M ☐
 ACCEPT ☐ N/M ☐
 ACCEPT ☐ N/M ☐
 ACCEPT ☐ N/M ☐

20. Does the design avoid tripping hazards?

YES ☐ NO ☐ N/A ☐

ACCEPT ☐ N/M ☐

21. Does the design avoid pinch points? Pinch points are locations where the Walking Zone width is less than the required width identified in item 13, or requires an exception

YES ☐ NO ☐ N/A ☐

ACCEPT ☐ N/M ☐

22. Do street trees and/or plants comply with street installation requirements (see sections 4.4.7 & 4.4.8)

YES ☐ NO ☐ N/A ☐

ACCEPT ☐ N/M ☐

23. Does the design maintain adequate visibility for all roadway users at intersections?

YES ☐ NO ☐

ACCEPT ☐ N/M ☐

24. When considering the overall design of the Building & Furnishing Component, does the design enhance the pedestrian environment?

YES ☐ NO ☐

ACCEPT ☐ N/M ☐

*N/M = Needs Modification

APPLICANT: Building & Furnishing Component

Additional Explanation / Comments: _____

DEPARTMENTAL REVIEW ONLY: Building & Furnishing Component

Reviewer Comments: _____

Philadelphia: Discussion

35. What is the maximum AASHTO design vehicle being accommodated by the design?	_____	ACCEPT ☐	N/M ☐
36. Will the project affect a historically certified street? An inventory of historic streets ⁽¹⁾ is maintained by the Philadelphia Historical Commission.	YES ☐ NO ☐	ACCEPT ☐	N/M ☐
37. Does the design plan incorporate roadway medians (a “high priority” vehicle / cartway design treatment for some street types)? <i>*Any proposed median may require a maintenance agreement with the Streets Department.</i>	YES ☐ NO ☐ N/A ☐	ACCEPT ☐	N/M ☐
38. Does the design facilitate safe and accessible, deliveries to local industries and businesses?	YES ☐ NO ☐	ACCEPT ☐	N/M ☐
39. Will the public right-of-way be used for loading and unloading activities?	YES ☐ NO ☐	ACCEPT ☐	N/M ☐
40. Does the design maintain emergency vehicle access?	YES ☐ NO ☐	ACCEPT ☐	N/M ☐
41. Where new streets are being developed, does the design connect and extend the street grid?	YES ☐ NO ☐ N/A ☐	ACCEPT ☐	N/M ☐
42. Does the design support multiple alternative routes to and from destinations as well as within the site?	YES ☐ NO ☐ N/A ☐	ACCEPT ☐	N/M ☐
43. Overall, does the design balance vehicle mobility with the mobility and access of all other roadway users?	YES ☐ NO ☐	ACCEPT ☐	N/M ☐

*N/M = Needs Modification

APPLICANT: Vehicle / Cartway Component

Additional Explanation / Comments: _____

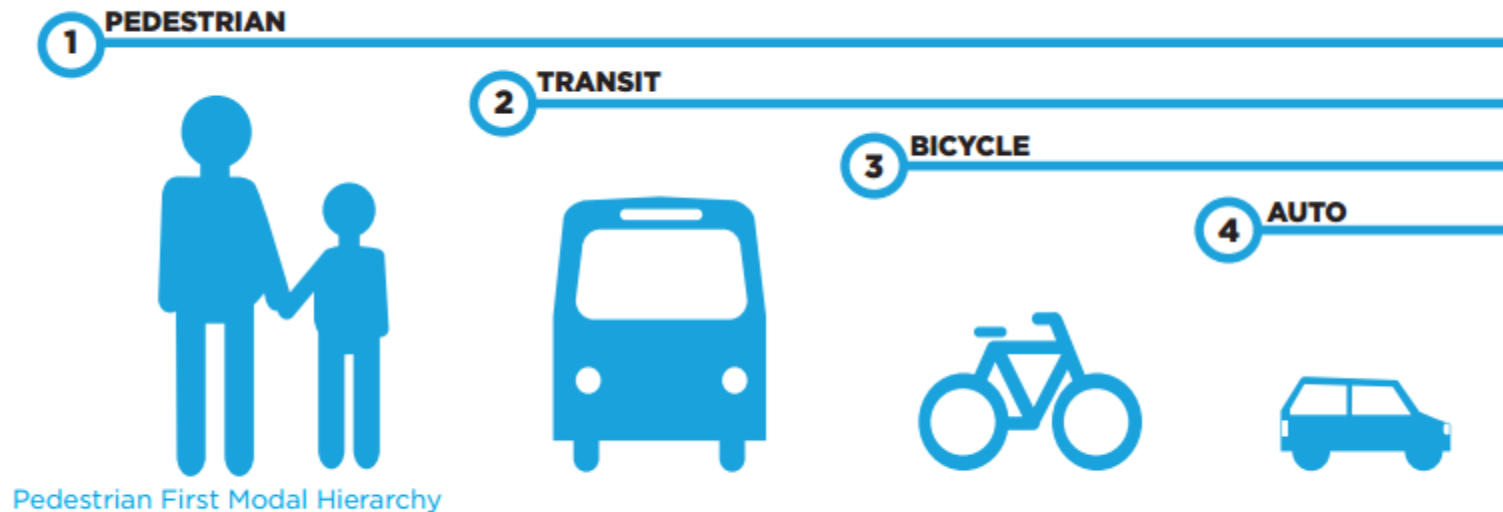
DEPARTMENTAL REVIEW ONLY: Vehicle / Cartway Component

Reviewer Comments:



Chicago: Modal Hierarchy

FIGURE 2



COMPLETE STREETS CHICAGO

7. Exceptions approval

- **Clearly state circumstances when exceptions *may* be granted**
- **Require written adequate explanation for seeking exception**
- **Allow submitter to propose plan or identify opportunity to incorporate needs of all users in future project**

Seattle: Exceptions

Exceptions

In the following unusual or extraordinary circumstances, Complete Streets principles will not apply (*Note: the Complete Streets Ordinance requires the SDOT Director to issue a documented exception concluding that the application of Complete Streets principles is unnecessary or inappropriate because it would be contrary to public safety; or where other available means or factors indicate an absence of need, including future need*):

- Does the project wholly consist of simple repairs made pursuant to the Pavement Opening and Restoration Rule (SDOT Director's Rule 2004-02)?
- Does the project wholly consist of standard maintenance activities designed to keep assets in serviceable condition (e.g. mowing, sweeping, spot repair, and surface treatments such as chip seal)?
- Is there a plan to implement Complete Streets principles incrementally through a series of smaller improvements or maintenance activities over time?
- Does the Project Team recommend an exception to Complete Streets for this project?

8. Construction, maintenance, operations

- **Ensure adequate access for all users is maintained during construction**
 - Or clearly-marked detour route provided
- **Names agency responsible for maintenance**
- **Coordination of signal timing within and proximate to project limits**

MORPC: Construction, maintenance, operations

A. During construction, will safe access be maintained for all users, including pedestrians, bicyclists, transit users, and delivery vehicles?

☐ Yes

☐ No

B. Will detour routes for all users on site or nearby be provided and clearly marked, including advanced warning signs?

☐ Yes

☐ No

C. Is there additional information you would

A. What agency will be responsible for ongoing maintenance of the facility and how will this be budgeted? If the project sponsor is not responsible for maintenance after the project ends, please indicate responsible agency name. Please attach the maintenance agreement as well.

Please explain:

☐ Maintenance agreement attached

B. Describe the signal timing. Include information on the wait time for cars, pedestrians and cyclists, crossing time for pedestrians, cycle length, delay, level of service, and time of day being evaluated.

C. Have you coordinated the signal timing within and beyond the project limits and irrespective of jurisdiction to allow traffic flow and discourage speeding?

☐ Yes

☐ No

D. Is there additional information you would like to provide about the project?



Project Scope – Reversed “Burden of Proof”

- Assume facilities for all modes w/exceptions:
- No expected users = no need *now or in the future*,
- Costs disproportionately high relative to need, or
- Other factors indicate no need, *now or in the future*



Decisions Based on Minimizing Cost

- What can be done without moving curbs/drainage?
 - Restripe for bike lanes
- Do not construct unneeded lanes
- Install sidewalks when drainage, curb, and gutter are added
- Interconnect signals, shorten cycle lengths:
 - Low cost way to control speed, increase safety, maintain LOS



Decisions Based on Motor Vehicle LOS

- Designing to Level Of Service C or higher is expensive
- Shorter pedestrian crossing lengths can improve automobile LOS at intersections
- Sometimes it's better to allocate space for all users, and accept resulting vehicle LOS
- What about pedestrian and bike and transit LOS?



Decisions Based on Maximizing Speed

- Higher speeds (>35 mph) reduce roadway capacity
- Higher speeds increase crash severity for all users
- Use signal interconnection to control speeds, reduce stops and Improve LOS



Decisions Based on Stakeholder Input

Old way: Publish open house notice

- Show proposed design,
- Take comments

New way: Involve all possible stakeholders

- Use small group public workshop process
- Include all, don't let one group exclude another
- Stakeholders propose design solutions



Complete Streets Public Process Revolves Around People

- The Complete Streets public Process involves a collaborative, interdisciplinary approach in which citizens and all involved agencies are part of the planning and design team



Identify Potential Stakeholders

- People who could potentially be affected by the project
 - Negative impact as well as positive
 - Indirect impacts as well as direct
- People who have a “stake” in the success or failure of the project
 - Individuals
 - Public groups
 - Private groups
 - Elected officials
 - Non-governmental organizations
 - Government agencies
 - Owning agency

Some Methods for 2-Way Stakeholder Involvement



- Public workshops/charrettes
- Stakeholder Advisory Groups
- Individual interviews and/or meetings
- Interactive Web sites
- Newsletters with return, postage-paid surveys

Public Workshop Techniques

- Specifically invite representatives from key groups
 - Public-at-large invitations usually attract only a small number of participants
- Use small group techniques, allow stakeholders to hear from all disciplines
 - Avoid providing a forum for single-issue proponents
- Provide opportunities for media coverage to reach those who don't attend
 - Provide content online as a follow up – keep your comment period open

Suggested Public Workshop Format

- Pre-assign people to small groups
 - Mix disciplines and advocacy groups
- Begin with 15 to 20-minute presentation on project
 - Everyone needs to be on the same page
- Begin group exercise with non-threatening question
 - Like, what do you like about your community?
- Break issue into bite-sized topics
 - That logically lead from now to future design
- Each table report back to hear comments

End of Module