Palm Beach MPO Complete Streets Working Group

Complete Streets Chicago Guidelines

May 25, 2016

www.PalmBeachMPO.org

2300 North Jog Road 4th Floor

West Palm Beach, FL 33411

561-684-4170

Complete Streets Chicago

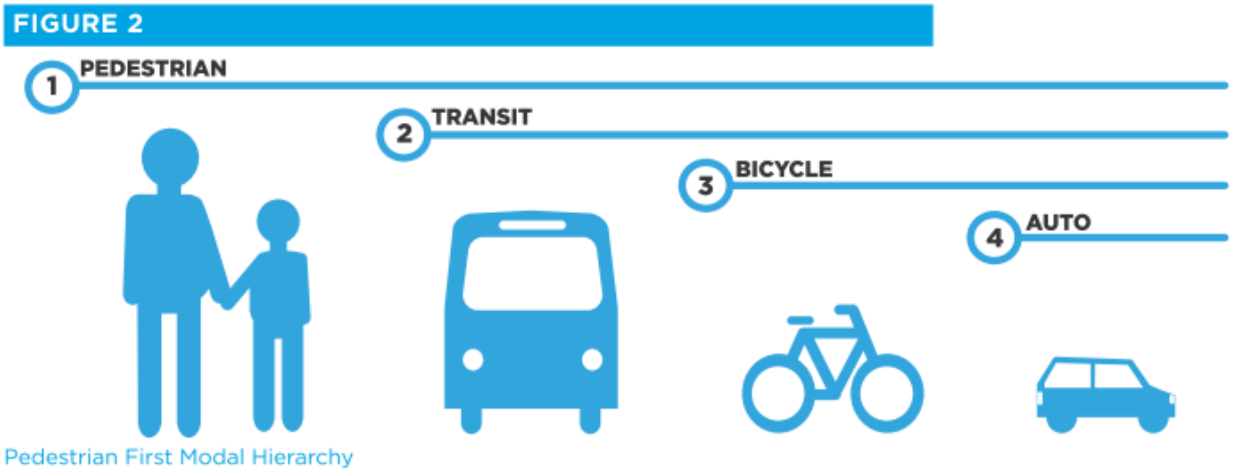
- An initiative of the Chicago Department of Transportation (CDOT)
- Published in 2013
- Provides design guidelines to implement the City's Complete Street Policy

Organizing Principles

TABLE OF CONTENTS
2013 Edition

CHAPTER ONE: INTRODUCTION

Modal Hierarchy



Pedestrian First Modal Hierarchy

Key Themes

CHAPTER TWO: TYPOLOGY

Typology Sets

- **Building Form and Function**
- Roadway Form and Function
- Intersections and Crossings
- Overlays

2.1.1 Building Form and Function

The important relationship between land use and transportation is well-established but often ignored. Understanding the context within which a street exists is an important first step.

The seven types for building form and function are specific to Chicago. They are influenced by the City's Zoning Ordinance as well as the Transect, an urban development theory. They simplify land use and zoning and apply them to street design; in effect serving as a code between roadway standards and zoning. See Figure 7 for a fuller description.

» R – residential

» M – mixed-use

» C – commercial center

» D – downtown

» IC – institutional or campus

» IN – industrial

» P – parks

Typology Sets

- Building Form and Function
- **Roadway Form and Function**
- Intersections and Crossings
- Overlays

2.1.2 Roadway Form and Function

Historical focus on roadway characteristics such as traffic volume, speed and functional classification does not always yield complete streets. Using typologies inverts this approach: design decisions are informed by roadway context and by a hierarchy of mode prioritization, switching the "burden of proof" for design from traffic measurements and functional classification to placemaking and community preferences.

The six types for roadway form and function describe the physical layout of the roadway.[5] See Figure 8 for a fuller description.

- TH – Thoroughfare
- CN – Connector
- MS – Main Street
- NS – Neighborhood Street
- SW – Service Way
- PW – Pedestrian Way

Typology Sets

- Building Form and Function
- Roadway Form and Function
- **Intersections and Crossings**
- Overlays

2.1.3 Intersections and Crossings

The typologies above focus primarily on street segments. The seven types below describe intersections and crossings in the city. Their design is particularly important due to the potential for modal conflicts and thus crashes. See Figure 9 for a fuller description.

- SIG – signal
- RBT – roundabout, traffic circle
- AWS – all-way stop
- STY – stop, yield
- UNC – uncontrolled
- MID – midblock pedestrian crossing
- DW – driveway

Typology Sets

- Building Form and Function
- Roadway Form and Function
- Intersections and Crossings
- **Overlays**

2.1.4 Overlays

The last set of types consists of overlays - jurisdiction, special use - that have an impact on design. For example, the design of a street overlaid with a state route will have to be coordinated with IDOT. A transit-priority street is one set to receive bus rapid transit. See Figure 10 for a fuller description.

- SRT – State Route
- CTY – County Route
- TRK – Truck Route
- SNW – Snow Route
- SRA – Strategic Regional Arterials
- MOB – Mobility Priority Street
- PED – Pedestrian Priority Street
- BIK – Bicycle Priority Street
- BRT – Transit Priority Street
- HBS – Historic Boulevard System
- TOD – Transit-Oriented District
- HZ – Home Zone

FIGURE 7 (CON'T)

BUILDING FORM AND FUNCTION

Mixed-Use (M)

Armitage Avenue

Halsted Street

Typology Code	M
Typology Name	Mixed-Use
Characteristics	» buildings with service and commercial uses on the ground floor that serve surrounding neighborhoods » residential or office uses above the ground floor
Typical Zoning Districts[6]	RM, B1, B2
Typical Buildings	Height is 2 or more stories and buildings typically abut the sidewalk
Examples	» 103rd (Longwood to Wood) » Damen Avenue

[6]Chicago Zoning Ordinance.

FIGURE 8 (CON'T)

ROADWAY FORM AND FUNCTION

Connector (CN)

Indiana Avenue

Ashland Avenue

Typology Code	CN	
Typology Name	Connector	
Definition	» main roads » may have median » connects between urban centers » may be commercial	
Characteristics	Lanes	2 to 4
	Speed[8]	20-30 mph
	Blocks	300-660 ft
	ADT	5-25k
	Flow	1 or 2 way
Examples	» North Avenue » Harlem Avenue » Ashland Avenue » Milwaukee Avenue » Most of the streets in the Loop	

[8]Speed refers to Target Speed, see Section 3.5.5.

FIGURE 9 (CON'T)

INTERSECTIONS AND CROSSINGS

Uncontrolled (UNC)

California Avenue

Dickens Street

Typology Code	UNC
Typology Name	Uncontrolled
Definition	Intersections that have no traffic control device (stop sign, signal)
Discussion	Typically these occur at low vehicle volume locations; nevertheless they need to be analyzed for pedestrian and bicycle access, especially crossings
Examples	» California Blue Line Stop » Dickens Street & Honore Street

FIGURE 10

OVERLAYS

State Route (SRT)

North Avenue


Irving Park Road

Typology Code	SRT
Typology Name	State Route
Source	IDOT
Discussion	Approximately 37% of Chicago's major roadways are under state jurisdiction. This limits the city's ability to control and maintain its street network. An inter-agency directive provides guidance on when and how to use jurisdictional transfer for such streets.

FIGURE 10

OVERLAYS

State Route (SRT)

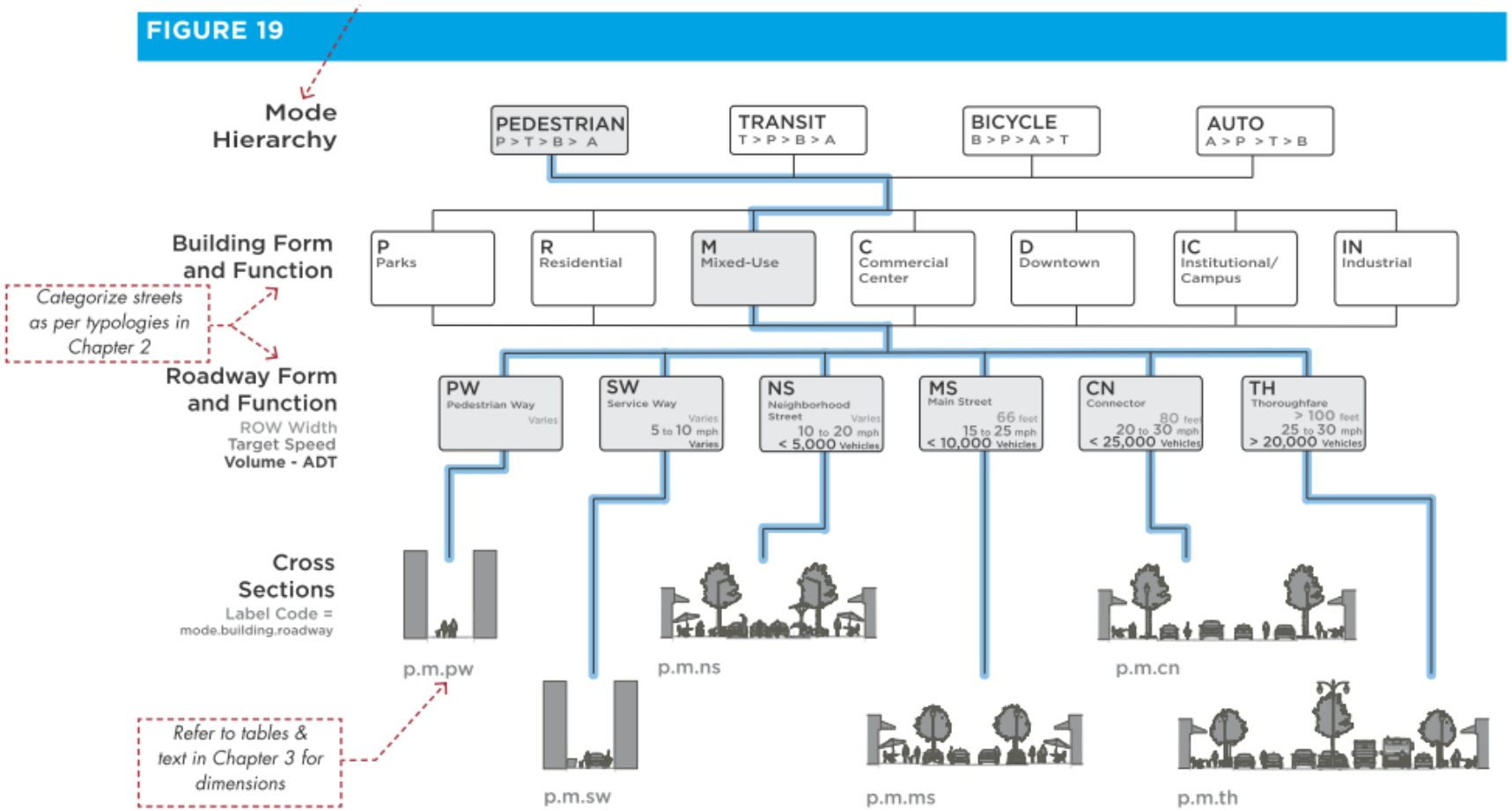
North Avenue


Irving Park Road

Typology Code	SRT
Typology Name	State Route
Source	IDOT
Discussion	Approximately 37% of Chicago's major roadways are under state jurisdiction. This limits the city's ability to control and maintain its street network. An inter-agency directive provides guidance on when and how to use jurisdictional transfer for such streets.

CHAPTER THREE: DESIGN GUIDANCE

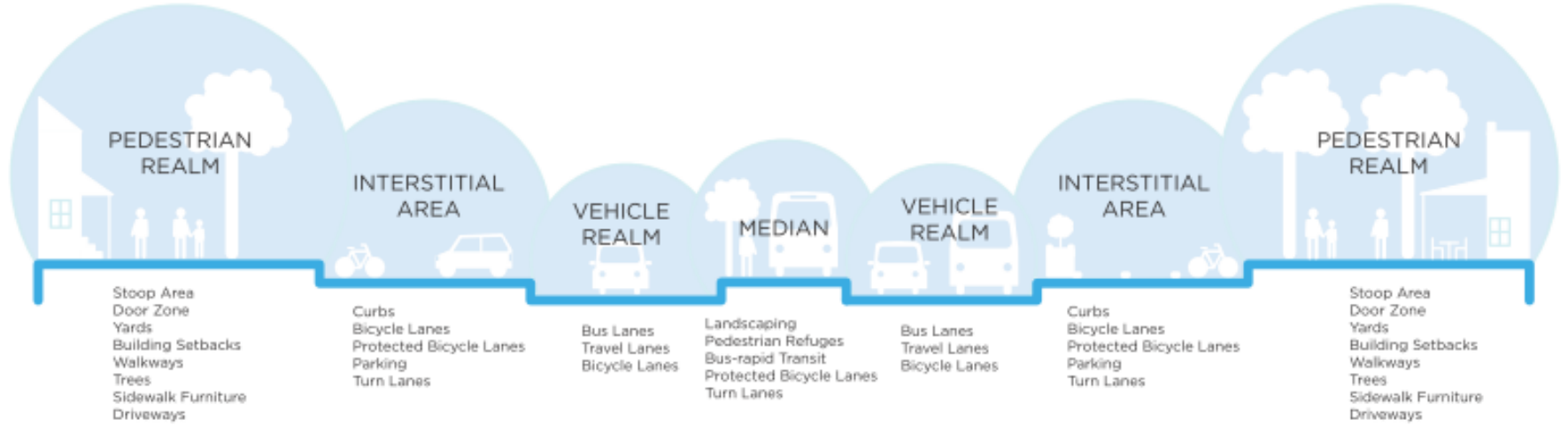
Design Trees



Design Tree for Mixed-Use

Cross-Section Elements

FIGURE 21



Cross-Section Elements

Cross-Section Dimensions

FIGURE 20.3

ROADWAY FORM AND FUNCTION

ALL DIMENSIONS ARE IN FEET

Building Form and Function				CN Connector							
				Pedestrian Realm			Interstitial Area			Vehicle Realm	Median
				Frontage	Pedestrian Zone	Furniture Zone	Curb Zone	Bikeway	Parking Area	Travel Lane	Center Median
	P	Parks	Target	0	8	10	1	8	7	10	8
			Maximum	2	10	–	2	10	8	11	16
			Constrained	0	5	6	0	5	7	9	6
	R	Residential	Target	0	8	8	1	5	7	10	6
			Maximum	1	10	12	2	6	8	11	16
			Constrained	0	5	0	0	5	7	9	6
	M	Mixed Use	Target	4	6	6	1	6	8	10	8
			Maximum	5	12	–	2	7	8	11	16
			Constrained	1	6	5	0	5	7	9	6
	C	Commercial Center	Target	1	8	6	1	6	8	10	10
			Maximum	5	12	10	2	8	8	11	18
			Constrained	1	8	5	0	5	7	9	6
	D	Downtown	Target	5	10	6	1	6	8	10	10
			Maximum	5	–	10	2	7	8	11	18
			Constrained	1	8	5	0	5	7	9	6
	IC	Institutional Campus	Target	0	8	6	1	6	8	10	8
			Maximum	4	10	10	2	7	8	11	16
			Constrained	1	6	5	0	5	7	9	6
	IN	Industrial	Target	1	6	6	1	6	10	10	6
			Maximum	3	9	5	2	8	10	14	18
			Constrained	1	5	0	0	5	8	10	6

Assemblage Table for Connector

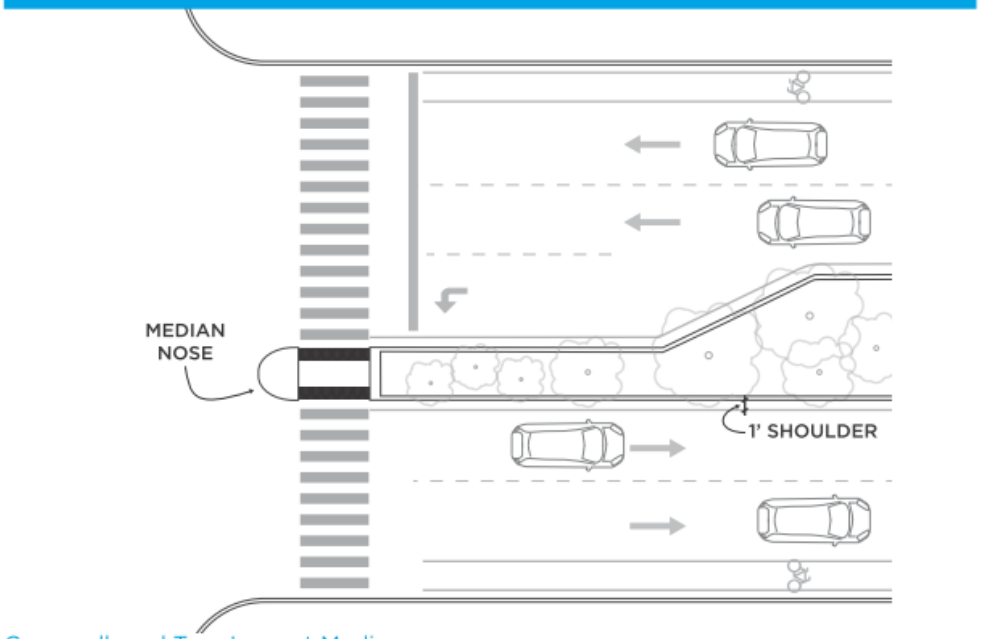
COMPLETE STREETS CHICAGO

Design Guidance

A key element of median design is the nose - the portion that extends past the crosswalk. The nose protects people waiting on the median and slows turning drivers.

Figure 24 illustrates a solution where a turn lane is needed at a median with a crosswalk. By striping a shoulder along the median, the width of the median increases so that both the turn lane and pedestrian refuge can be included. Note also the nose of the median, which extends past the crosswalk.

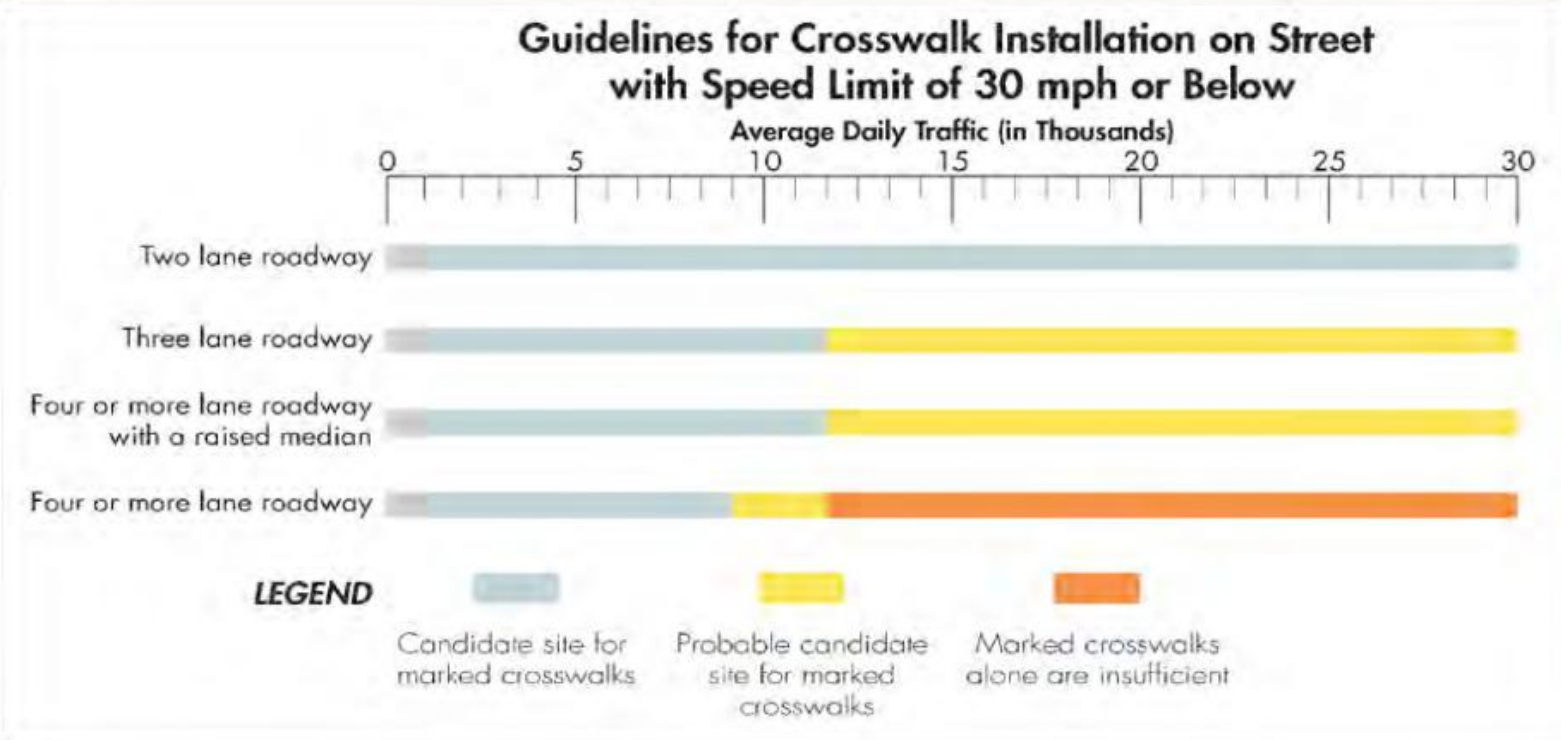
FIGURE 24



Crosswalk and Turn Lane at Median

Design Guidance

FIGURE 32



Crosswalk Selection Criteria[19]

[19]CDOT *Pedestrian Plan*

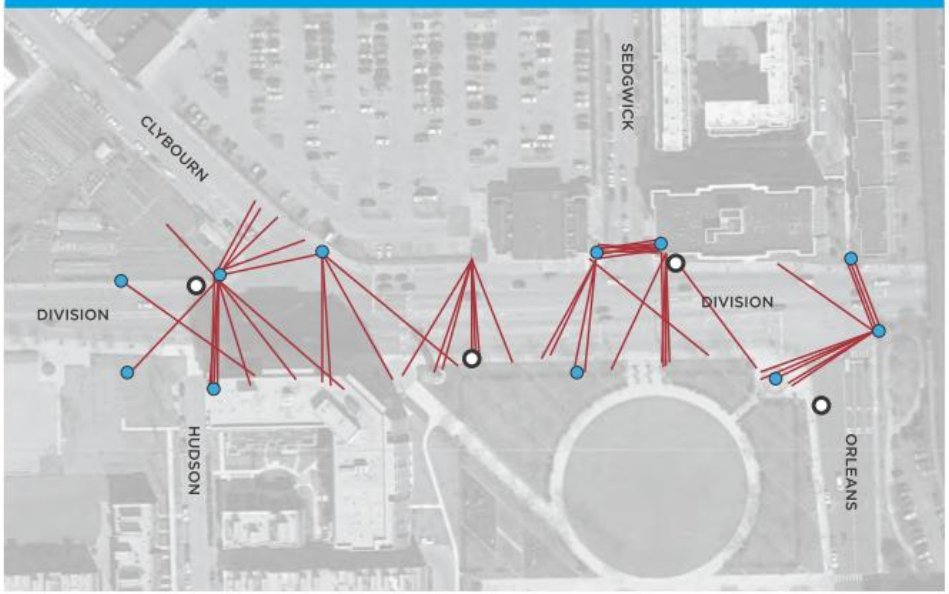
Design Guidance

Tracking Surveys

A tracking survey documents exactly where and how people cross a street, complex intersection, or plaza. This information is useful in locating crosswalks and refuge islands, redesigning intersections, and understanding the interface between streets and the surrounding buildings and spaces. The best time to perform this type of survey is a weekday between 3 and 6 PM, when there is an overlap of school, rush hour, and evening traffic. This is also the time period when most vehicle-pedestrian crashes occur[21]. Typically 20 minutes is required to establish a pattern, more or less depending on the volumes. Additional surveys can be done at different times of the day to highlight temporal fluctuations.[22]

Figure 34 envisions a tracking survey at the complex intersection of Clybourn-Division-Orleans-Sedgwick.[23] The diagram identifies 14 likely pedestrian destinations and funnel points: bus stops, park gates, building entrances, parking lot entrances, and sidewalks. These are shown as blue dots. A surveyor would stand at each of these points and "track" every person that passed and crossed the street. The lines track where a person would cross the street, irrespective of crosswalk. One line is shown for each person. Thicker lines indicate more people crossing at the same location.

FIGURE 34



Sample Tracking Survey

[21]Chicago Forward: DOT Action Agenda.
[22]For more information, refer to "Best Practices for Pedestrian Counts," CDOT, 2012.
[23]This drawing is speculative; no actual survey was conducted.

Design Guidance

Level of Service Policy

1. LOS should be consistent with modal hierarchy. In a typical project, pedestrians will enjoy the highest LOS, while drivers will have the lowest. In essence, all LOS is relative by mode. LOS should not purposely be *lowered;* a street where all modes rate A is acceptable.
2. There shall be no minimum MVLOS for any project. Within the Loop and River North,[26] the default maximum MVLOS for CDOT-initiated projects shall be E. This is not to say that the MVLOS must purposely be *lowered,* but efforts should not be made to increase it above E. Developer-initiated projects may not negatively impact the MVLOS, unless corresponding increases are made in pedestrian, bicycle, and transit level of service, consistent with the modal hierarchy.
3. LOS evaluations shall consider cross flows (especially pedestrian) as well as corridor flows.
4. Delay for pedestrians at signals shall not exceed 60 seconds.[27] Along streets with typology NM, C, D or IC, the minimum peak-hour sidewalk pedestrian LOS should be B.
5. A working group will best decide how to evaluate LOS, whether using traditional methods or more recent multi-modal level of service methodologies.[28] Project managers are encouraged to utilize multi-hour evaluations instead of peak-hour-only calculations, see Figure 17.
6. LOS evaluation is only required for projects identified in the Project Delivery Process (see 4.1). It should be calculated when required by funding sources, but may be balanced with other factors.

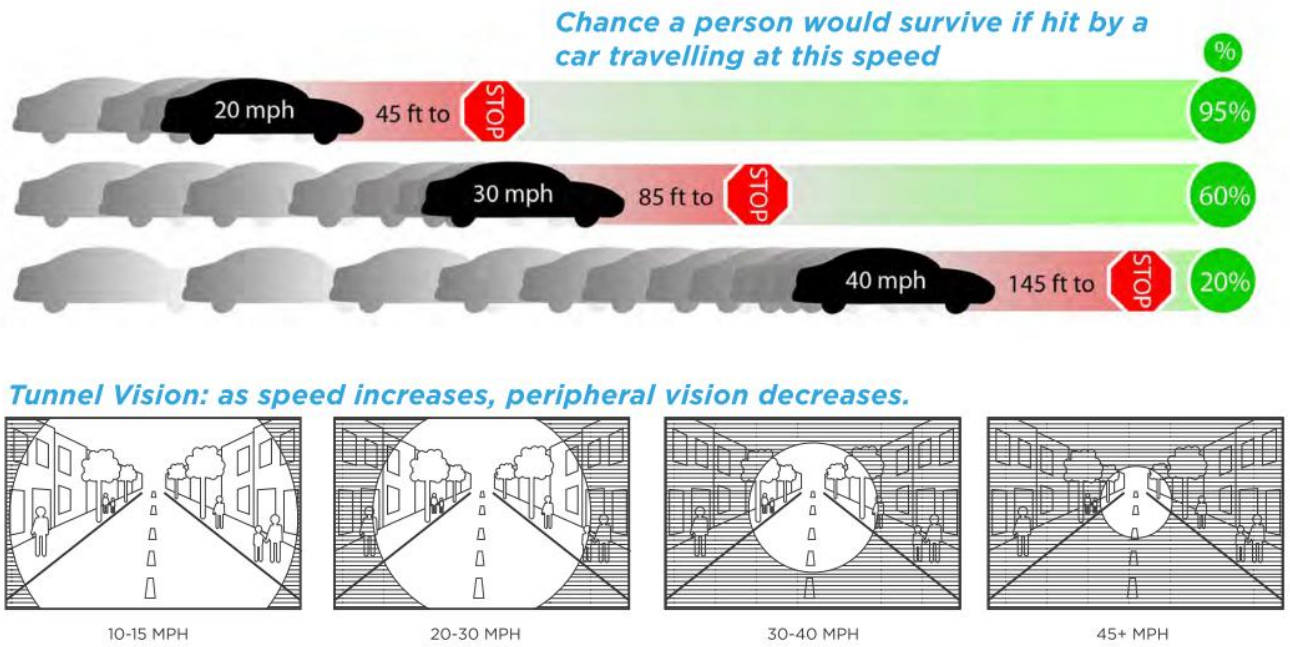
Relying primarily on MVLOS produces two outcomes inconsistent with complete streets:

1. streets are routinely "upgraded" for higher traffic volumes at the expense of other users

2. streets designed for rush hour volumes end up with excess speed and width off-peak and at night

Design Guidance

FIGURE 38



Speed Concepts

Policy

CDOT will use target rather than design speed. The target speed of each street will be equal to or less than the speed limit, as per roadway type.

- Thoroughfare: 25-30 mph
- Connector: 20-30 mph
- Main Street: 15-25 mph
- Neighborhood Street: 10-20 mph
- Service Way: 5-10 mph

The prima facie speed limit in the City of Chicago is 30 mph. The use of target speeds may require lowering the speed limit, or posting speed advisory signs. The target speed should account for specific geometric elements such as curves and traffic calming devices. The *Chicago Pedestrian Plan* proposes a 20 mph target speed for residential streets. These will generallly be on Main Streets and Neighborhood Streets.

Design Guidance

3.5.6 Lane Width

The width of a travel lane affects the completeness of a street in subtle ways. The difference between a 10 and 12 foot lane is but 24 inches. Yet on a six lane roadway, this equals another lane, two bike lanes, a wider sidewalk, on-street parking, or a median. Similarly the crossing distance becomes longer, which impacts signal timing. It has also been shown that wider lanes lead to higher travel speeds and are no safer than 10-foot lanes.[41]

Policy

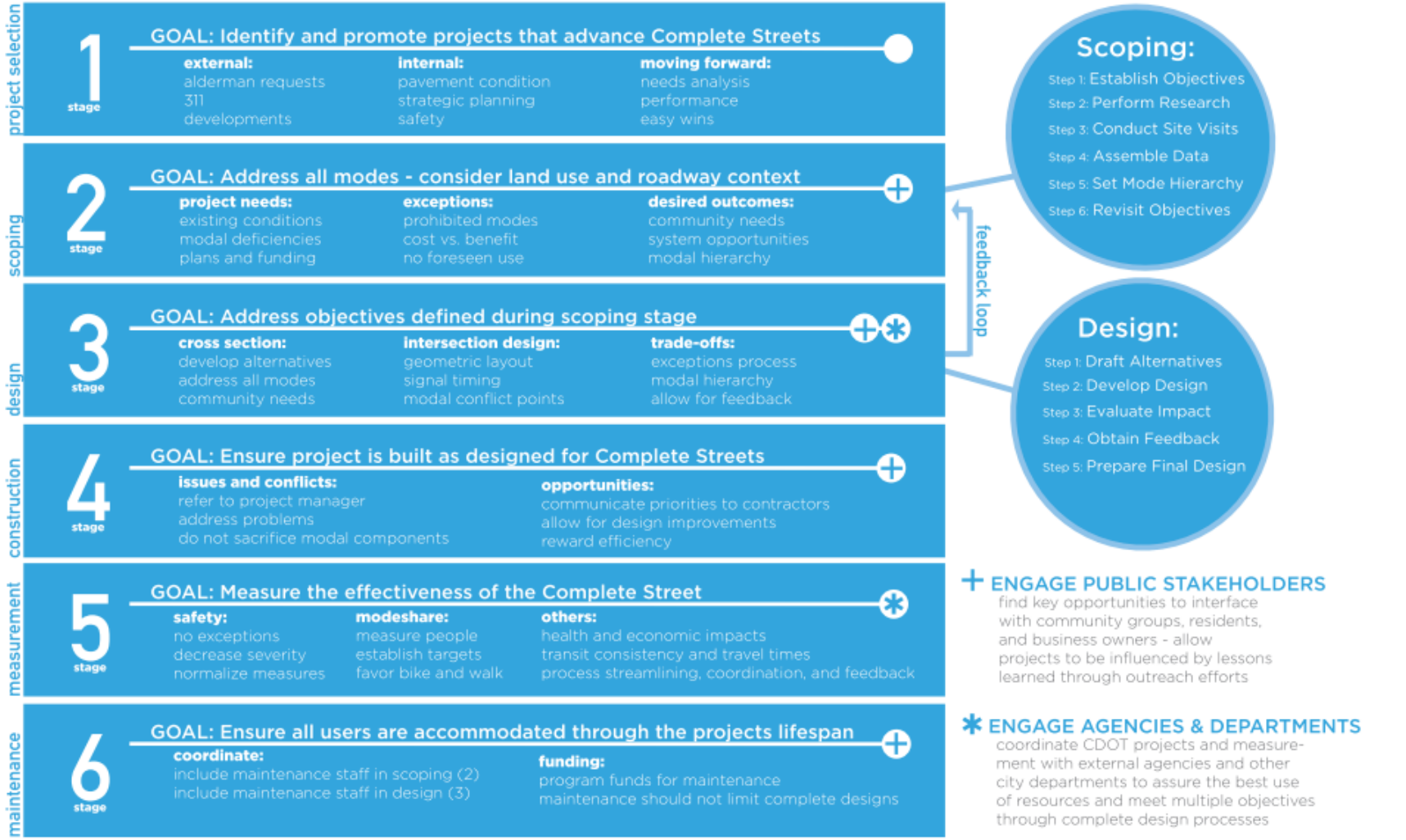
The standard width for automobile travel lanes, including turning lanes, shall be 10 feet. One lane per direction on scheduled Chicago Transit Authority (CTA) bus routes and/or on a mapped truck route may be 11 feet wide. Lanes widths are measured from the face of curb, where present. Lane widths are further articulated in section 3.2.1 above. In general, they will be as follows:

- Thoroughfare: 10-11'
- Connector: 9-11'
- Main Street: 9-10'
- Neighborhood Street: n/a

CHAPTER FOUR: IMPLEMENTATION

FIGURE 39

COMPLETE STREETS PROJECT DELIVERY PROCESS



Complete Streets Project Delivery Process

Make Way for People

What is Make Way for People?

MAKE WAY FOR PEOPLE
Transforming the Public Way

The Make Way for People Program is an initiative to strengthen communities. By converting neighborhood streets, sidewalks, plazas and alleys into places for people to sit, eat, and play, the program helps create safe, walkable neighborhoods that support local business and strengthen a sense of place. The idea is to use lighter, less expensive tools such as removable decks, paint, and flower pots to quickly convert underutilized or small sections of the public right-of-way into people centered places that help change the perception and the behavior of people in the community.The Chicago Department of Transportation (CDOT) has partnered with communities throughout the city in the development of over 20 Make Way for People initiatives in a variety of neighborhoods. These include People Spots, People Streets, People Plazas and People Alleys.

Make Way for People

What kind of projects can I do?

The Make Way for People program enables communities to use public ways such as streets, parking spots, plazas and alleys for programming that promotes safer and more walkable communities while encouraging economic development in Chicago neighborhoods

People Spots

Platforms in parking lanes adjacent to sidewalks

People Streets

Public spaces in “excess” asphalt areas

People Alleys

Temporary space for events in city alleys

People Plazas

Opportunities in existing CDOT malls, plazas, and triangles

Make Way for People

- People Streets and People Spots

Project Examples

DePaul People Street

Sponsoring Organization: DePaul University

Location: Kenmore between Fullerton and Belden

Lakeview People Street

Sponsoring Organization: Lakeview Chamber of Commerce

Location: 3000 N Lincoln Avenue

Paulina Avenue People Street

Sponsoring Organization: Lakeview Chamber of Commerce

Location: 3335-3354 N Paulina Avenue

Credit: Lakeview Chamber of Commerce

Project Examples

47th Street People Spots

Sponsoring Organization: Quad Communities Development Corporation

Location: 641-643 & 916-920 E 47th Street

Andersonville People Spot

Sponsoring Organization: Andersonville Development Council

Location: 5214-5216 N Clark Street

Lakeview People Spots

Sponsoring Organization: Lakeview Chamber of Commerce

Location: 2959 N. Lincoln Avenue & 3551 N. Southport Avenue

Lakeview People Spots

Sponsoring Organization: Lakeview Chamber of Commerce

Location: 2959 N. Lincoln Avenue & 3551 N. Southport Avenue

Palm Beach MPO
Complete Streets