STREET AND SITE PLAN DESIGN STANDARDS



City of Chicago Mayor Richard M. Daley

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Department of Transportation

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Dear Chicagoans:

The Chicago Department of Transportation is pleased to present this publication entitled <u>Street and Site Plan Design Standards</u>. These standards have been prepared for use by private developers, design consultants, and public agency staff in preparing and reviewing plans for land development and associated street infrastructure. The goal is to provide detailed standards and guidance for construction in the public way, as well as guidance in preparing off-street development site plans in a way that will best integrate with the public street system.

This document is intended to complement other City publications, including the <u>Streetscape Guidelines for the City of Chicago Streetscape and Urban</u> <u>Design Program</u>, the <u>Guide to the Chicago Landscape Ordinance</u>, the CDOT <u>Regulations for Openings, Construction, and Repair in the Public Way</u>, and the CDOT <u>ADA Standards Issued for 2007 Construction</u>. These reports provide a framework for designing City streets and communities in a fashion that will contribute to enhancing the livability of our vibrant Chicago neighborhoods.

We look forward to working with the design and development community and welcome their continued input on improving City street infrastructure to provide a functional and attractive living environment for our citizens.

Sincerely. le a

Cheri Heramb Acting Commissioner Chicago Department of Transportation





Chicago Department of Transportation Street and Site Plan Design Standards

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Chicago Department of Transportation Street and Site Plan Design Standards

Introduction

This document has been developed to serve as a guide to developers, architects and engineers responsible for designing streets in the City of Chicago, or preparing overall site plans for new subdivisions in the City or redevelopment of property along existing City streets. The aim is to provide detailed standards and guidance for construction in the public way, as well as guidance in preparing the off-street development site plan in a fashion that will best integrate with the public street system. While the standards described here are for public City streets, they are also recommended for application to private streets in new subdivisions, since the various design principles for moving traffic, providing access, and providing maintainable street pavements are pertinent to all streets. The street design standards attempt to reflect not only traditional traffic and civil engineering practices, but also the unique demands of a dense urban environment where space is limited. Development site design guidelines incorporate City Zoning Code requirements for parking layouts, driveway location and design, and landscaping both on the site as well as on adjacent public ways. References to City Code are included, and links to other City website information sources are also provided. The standards outlined here attempt to provide a balanced approach to urban street design which serves not only the transportation needs of the City in providing for the safe and efficient movement of people and goods, but also the need to create a livable urban environment while addressing such non-transportation requirements as landscaping, appearance, and stormwater management.

Functional Street Classification

The City street system is composed of about 3,600 miles of streets, ranging from higher speed and volume through traffic roadways, such as Lake Shore Drive or Cicero Avenue, to low volume, low-speed residential streets. These streets serve different functional roles in meeting the transportation needs of the City. The arterial streets are intended to provide for the movement of large volumes of through traffic and commercial traffic for longer distances, while local streets are intended primarily for the provision of access to adjacent property. Collector streets tend to be a blend of providing through traffic movement while still providing access to local property, typically for commercial and industrial uses, via driveways or on-street parking or loading areas.

Arterial and Collector Streets

There are roughly 1,000 miles of arterial or collector streets in Chicago, which provide the capacity for moving the vast majority of traffic volume in the City. These streets may also be referred to as preferential streets or through streets, since they are intended for preferential use by through traffic, as opposed to local traffic on local cross streets. The City Traffic Code (Title 9 of the overall City Code) defines through streets as follows: "Through street" means every public way or portion thereof on which vehicular traffic is given preferential right-of-way, and at the entrance to which vehicular traffic from intersecting public ways is required by law to yield right-of-way to vehicles on such through street in obedience to a traffic signal, stop sign, or yield sign, when such traffic control devices are erected as provided in the traffic code.

The preferential street system in Chicago is generally laid out on a rectilinear grid on a half-mile spacing, consisting of major arterials, minor arterials, and collector streets. It generally corresponds to the Chicago Transit Authority bus route system, and to the route locations of the City's traffic signals.

Right-of-way width for major arterials is typically 100 feet, with curb-to-curb street widths of 60 to 80 feet. Two moving traffic lanes are provided in each direction, with onstreet parking and left turn channelization or medians often provided. These major arterials are typically spaced no closer than about three miles apart on the City street grid.

Other arterials and collector streets are spaced one-half mile apart and typically have a 66-foot right-of-way width, with typical mid-block curb-to-curb street widths of 42 to 44 feet. One moving traffic lane is typically provided in each direction, with on-street parking, unless peak hour traffic demand requires rush hour parking restrictions. Left turn channelization is only provided at intersections where the street width has been throat-widened to 48 or 50 feet wide (a 50-foot width is the standard practice at signalized intersections), or where the street is a continuous 48 or 50-foot width.

There are some through streets within 80-foot rights-of-way. These tend to have curb-tocurb street widths of 48 feet. While some of these 80-foot right-of-way streets are located in outlying areas of the City, a number of them are found in downtown Chicago. Often, these downtown streets have one-way operation, for moving greater volumes of traffic and avoiding left turn conflicts

These various combinations of right-of-way, parkway, and street pavement width obviously result in various widths of parkway/sidewalk and roadway area available for vehicular traffic and parking, bike lanes, pedestrian movement, landscaping and other streetscaping elements and amenities.

Local Streets

The typical right-of-way width for local, residential streets in the City of Chicago is 66 feet. This is consistent with the layout of many of the City's platted subdivisions, which provide for typical block dimensions that are 660 feet by 330 feet. When much of the City was originally surveyed in the 1800's and early 1900's, a typical surveyor's "chain" was 66 feet long, so a typical block was 10 chains long (one-eighth of a mile, or one furlong) by five chains wide, and each street right-of –way bordering the block was one chain (66 feet) wide.

In Chicago, the typical roadway pavement width for a large proportion of local streets is 30 feet, measured from face of curb to face of curb. Following a major snowstorm in 1967, most of the local streets which were 30 feet wide or less were converted to one-way operation, since the snow conditions combined with significant on-street parking density made two-way traffic operation impossible. A typical one-way local street (26 to 30 feet wide) will provide for one traffic lane, usually with enough width to bypass a stopped vehicle (under non-snowy conditions), plus on-street parking on both sides of the street. Two-way local streets are typically 32 or 34 feet wide, and provide one traffic lane in each direction, as well as parking on both sides.

Street Design Elements

A number of physical elements and dimensions define the standard street design in the City of Chicago. Further information and illustration of these items can be found in the <u>City of Chicago Streetscape Guidelines</u>, the <u>Guide to the Chicago Landscape Ordinance</u>, and the CDOT <u>Construction Standards for Work in the Public Way</u>. The following is a summary of the CDOT standards for these elements and discussion providing further background for the rationale behind the standards, to provide street and site designers guidance in developing site plans and adjacent street designs. Table 1 and Figure 1 also provide a quick reference of the street cross-section elements discussed below.

Street Cross-Section Components

Parkway Area

Chapter 17 of the Chicago Zoning Ordinance and the <u>Guide to the Chicago Landscape</u> <u>Ordinance</u> defines the parkway as the "portion of the public way between the street and the nearest parallel property line, including sidewalk area." (A Glossary of selected items describing various public right-of-way elements is included at the end of this document.) The parkway may include paved sidewalk area, driveways, landscaped areas including raised parkway planters, tree pits and grates, the top of curb, and any offset from the property line and sidewalk. Various parkway elements are illustrated in Figure 1, and typical cross-section dimensions for local streets are illustrated in Figure 2 and listed in Table 1.

Right-of-Way Offset to Back of Sidewalk

The first street cross-section dimension is the distance between the property (or right-ofway) line and the back of sidewalk. Where there is a building setback from the property line, the standard offset to the back of sidewalk is one foot (per City Code Section 10-20-420). This distance is provided so that concrete forms can be set on City right-of-way when replacing sidewalk, without the need to obtain a construction easement from the adjacent property owner. This one-foot offset is typical on local streets in most residential areas. The one-foot offset is particularly important when fencing is being installed along the public right-of-way, so that there is separation between the back of





FIGURE 2 LOCAL STREET CROSS-SECTION TWO-WAY / PARKING BOTH SIDES

| | | Pa | arkw ay | | F | Roadw ag | y | | Parkw | ay | | | |
|---------------------|------------------|-----------|-------------------|------|---------|----------|---------|------|-------------------|-----------|------------------|------------------|-----------------------|
| Street | Offset to | | Parkw ay | Curb | Parking | Travel | Parking | Curb | Parkw ay | Sidew alk | Offset to | Total | Total |
| Operation Type | Property Line | Sidew alk | Landscape Area | | Lane | Lanes | Lane | | Landscape Area | | Property Line | Right-of- Way | Face-to-Face Width |
| Tw o-Way Parking | 1' | 6' | 4' | 0.5' | 7' | 10'-10' | 7' | 0.5' | 4' | 6' | 1' | 57' min. | 34' |
| Both Sides | 1' | 6' | 8.5' | 0.5' | 7' | 10'-10' | 7' | 0.5' | 8.5' | 6' | 1' | 66' | 34' |
| Tw o-Way Parking | 1' | 6' | 4' | 0.5' | 7' | 10'-11' | | 0.5' | 4' | 6' | 1' | 51' min. | 28' |
| One Side | 1' | 6' | 11.5' | 0.5' | 7' | 10-11' | | 0.5' | 11.5' | 6' | 1' | 66' | 28' |
| Tw o-Way | 1' | 6' | 4' | 0.5' | | 11'-11' | | 0.5' | 4' | 6' | 1' | 45' min. | 22' |
| No Parking | 1' | 6' | 14.5' | 0.5' | | 11'-11' | | 0.5' | 14.5' | 6' | 1' | 66' | 22' |
| One-Way Parking | 1' | 6' | 4' | 0.5' | 7' | 14' | 7' | 0.5' | 4' | 6' | 1' | 51' min. | 28' |
| Both Sides | 1' | 6' | 11.5' | 0.5' | 7' | 14' | 7' | 0.5' | 11.5' | 6' | 1' | 66' | 28' |
| One-Way Parking | 1' | 6' | 4' | 0.5' | 7' | 15' | | 0.5' | 4' | 6' | 1' | 45' min. | 22' |
| One Side | 1' | 6' | 14.5' | 0.5' | 7' | 15' | | 0.5' | 14.5' | 6' | 1' | 66' | 22' |
| One-Way | 1' | 6' | 4' | 0.5' | | 16'* | | 0.5' | 4' | 6' | 1' | 39' min. | 16'* |
| No Parking | 1' | 6' | 17.5' | 0.5' | | 16'* | | 0.5' | 17.5' | 6' | 1' | 66' | 16'* |

sidewalk and the fencing installed on private property. This separation minimizes the potential for damage to fencing when a sidewalk is being reconstructed.

In commercial areas where the building may be located on the property line, the sidewalk can extend up to the property line. Also, in rare cases, the back of sidewalk has been located on the property line, even with a building setback, after a permanent construction easement was provided to the City by ordinance.

Sidewalk Width

Where there is a separate planted parkway landscape area (with either a flush lawn on local residential streets or raised planter beds on arterial and collector streets) the CDOT standard for minimum sidewalk width is six feet, clear of light poles, fire hydrants, and any other street furniture. In low-density residential and manufacturing areas where the zoning (or equivalent zoning density for a Planned Development) is RS, a five-foot wide minimum sidewalk is acceptable where there is a planted parkway landscape area. In the Greater Downtown Area (bounded by North Avenue, Ashland Avenue, Cermak Road, and Lake Michigan) on streets with non-residential zoning, the minimum clear sidewalk width, exclusive of raised planter beds or any other obstruction, shall be nine feet.

For construction on newly-dedicated streets, a <u>minimum</u> width of 9.5 feet from the back of sidewalk to the face of curb must be provided in order to allow for the installation of street trees. (An additional one foot of right-of-way must be dedicated on each side of the street to provide the one foot offset between the back of sidewalk and property line, unless exempted by special City Council ordinance) On local streets not in areas zoned low-density residential (RS) or manufacturing, a 9.5-foot curb-attached sidewalk would be provided, with trees located in 4-foot by 6-foot tree pits with grates. The width of the sidewalk area from the back of sidewalk to the edge of the tree grate would be 5 feet, with an effective clear sidewalk width of 6 feet, including one foot of the tree grate width. For streets in RS or manufacturing zoning areas, a five-foot sidewalk and a four-foot flush parkway landscape area would be provided. (See Figure 3 and Table 2 for further illustration of these minimum width local streets.)

On streets in the Downtown District that are designated as Mobility Streets in Section 17-4-0600 of the Zoning Code, the Code requires that the overall minimum sidewalk width from property line to face-of-curb shall be 14 feet in order to accommodate special pedestrian movement needs. Mobility streets are those that serve as primary pedestrian routes linking commuter rail stations with the downtown employment core.

At certain locations throughout the City, existing left-turn lane channelization provides a 50-foot roadway cross-section within a 66-foot right-of-way, with an 8-foot curb-attached sidewalk on each side of the street. This 8-foot sidewalk width is the minimum that should be provided on existing streets where left turn lanes are provided. An absolute minimum clear width <u>at a point</u> around light poles, tree grates, or other street furniture shall be 48 inches.



FIGURE 3

MINIMUM LOCAL STREET PARKWAY DIMENSIONS

| | | P | arkw ay | | F | Roadw ay | / | | Parkw a | ay | | | |
|-----------------------------------|-------------------------------|----|-------------------------------|------|-----------------|-----------------|-----------------|------|-------------------------------|-----------|-------------------------------|---------------------------|--------------------------------|
| Street Operation Type | Offset to Property Line | | Parkw ay Landscape Area | Curb | Parking Lane | Travel Lanes | Parking Lane | Curb | Parkw ay Landscape Area | Sidew alk | Offset to Property Line | Total Right-of- Way | Total Face-to-Face Width |
| Tw o-Way Parking Both Sides | 1' | 5' | 4' | 0.5' | 7' | 10'-10' | 7' | 0.5' | 4' | 5' | 1' | 55' min. | 34' |
| Tw o-Way Parking One Side | 1' | 5' | 4' | 0.5' | 7' | 10'-11' | | 0.5' | 4' | 5' | 1' | 49' min. | 28' |
| Tw o-Way No Parking | 1' | 5' | 4' | 0.5' | | 11'-11' | | 0.5' | 4' | 5' | 1' | 43' min. | 22' |
| One-Way Parking Both Sides | 1' | 5' | 4' | 0.5' | 7' | 14' | 7' | 0.5' | 4' | 5' | 1' | 49' min. | 28' |
| One-Way Parking One Side | 1' | 5' | 4' | 0.5' | 7' | 15' | | 0.5' | 4' | 5' | 1' | 43' min. | 22' |
| One-Way No Parking | 1' | 5' | 4' | 0.5' | | 16'* | | 0.5' | 4' | 5' | 1' | 37' min. | 16'* |

Parkway Landscape Area Width

Efforts should be made to maximize parkway landscape areas to the extent possible, in order to not only provide visual amenities but also to address the City's goal of improved stormwater management that increases permeable surfaces both in the public way and on private property.

On local, residential streets, the minimum width of a flush, planted parkway landscape area shall be four feet, from the edge of sidewalk to the back of curb.

Where the distance between the property line and the face of curb is at least 12.5 feet, raised planter beds are required instead of flush parkway landscape areas "in the Greater Downtown [North, Ashland, Cermak, Lake Michigan], in commercial use areas, and in other heavy pedestrian traffic areas", per the Guide to the Chicago Landscape Ordinance. A minimum six-foot clear sidewalk width and a minimum planter soil width of 4.0 feet shall be provided, with six-inch wide border curbs around the planter bed. The street-side border curb shall have a minimum one-foot clearance to the back of the street curb.

On streets where the distance from the property line to the face of curb is between 9.5 and 12.0 feet, street trees planted in tree grates are required. A minimum effective clear sidewalk width of 6 feet must be provided, which can include one foot of the tree grate width. On streets where the distance from the property line to the face of curb is less than 9.5 feet, no street trees are required.

The City of Chicago Streetscape Guidelines (November 2003) were developed based on the Guide to the Chicago Landscape Ordinance (August 2000), and the cross-section dimensions of a streetscaped arterial/collector street in a commercial district are summarized in Table 3.

Curb and Gutter

In Chicago, the standard curb and gutter used is the BV.12 (Type 3 Curb), a variation on a common B6.12 curb and gutter design used in Illinois. The design provides a variable height barrier curb between 3 inches and 9 inches, as opposed to a constant 6-inch curb height, with a 12-inch gutter flag. The width of the top of curb is 0.5 feet for planning purposes.

Grades for curb and gutter should be designed based on a plat of survey and on the ordinance grades established by the Department of Water Management. For each dedicated street in the City, ordinance grades are established at the intersection of right-of-way lines for each street intersection. Designers must obtain ordinance grade information from the Department of Water Management in order to properly design sidewalk, curb and gutter, and street grades.

| | TABLE 3 - ARTERIAL/COLLECTOR STREET PARKWAY PLANTING DIMENSIONS - NON-CENTRAL AREA LOCATIONS | | | | | | | | | |
|----------------------------------|--|--------------------|----------------------------------|------------------------------------|------|--|--|--|--|--|
| Property Line to Face of Curb | Sidew alk Width (excluding curb or planted parkw ay) | Tree Grate Width | Raised Planter Curb/Soil/Curb | Offset to Curb (carriage w alk) | Curb | | | | | |
| 8.0' | 7.5' | | | | 0.5' | | | | | |
| 8.5' | 8.0' | | | | 0.5' | | | | | |
| 9.0' | 8.5' | | | | 0.5' | | | | | |
| 9.5' | 5.0' | 4.0' | | | 0.5' | | | | | |
| 10.0' | 5.5' | 4.0' | | | 0.5' | | | | | |
| 10.5' | 5.0' | 4.0' | | 1.0' | 0.5' | | | | | |
| 11.0' | 5.5' | 4.0' | | 1.0' | 0.5' | | | | | |
| 11.5' | 5.0' | 5.0' | | 1.0' | 0.5' | | | | | |
| 12.0' | 5.5' | 5.0' | | 1.0' | 0.5' | | | | | |
| 12.5' | 6.0' | | 0.5'/4.0'/0.5' | 1.0' | 0.5' | | | | | |
| 13.0' | 6.0' | | 0.5'/4.5'/0.5' | 1.0' | 0.5' | | | | | |
| 13.5' | 6.0' | | 0.5'/5.0'/0.5' | 1.0' | 0.5' | | | | | |
| 14.0' | 6.0' | | 0.5'/5.5'/0.5' | 1.0' | 0.5' | | | | | |
| 14.5' + | 6.0' | | 0.5'/4.5' minimum/0.5' | 2.5' | 0.5' | | | | | |
| Central Area bounde | ed by: North Avenue, A | Ashland Avenue, Ce | rmak Road and Lake M | ichigan | | | | | | |

Roadway Pavement Width

The roadway pavement width consists of the area between the face of curbs, used for vehicular traffic and parking.

Parking Lanes. On local streets, any parking lanes provided must be a minimum of seven feet wide, measured from the face of curb. (The parking lane width includes the gutter flag.) Traffic on local streets is relatively low volume and low speed, and most vehicles parked on local streets are passenger autos rather than trucks, so parking lanes are assumed to be narrower than on arterial streets, where parking lanes typically range from eight to ten feet in width, or seven feet if adjacent to a bike lane. In general, width for parking and loading should be provided where there is developed residential frontage on that side of the street, even when required minimum off-street parking is provided, since the on-street parking allows for visitor parking, deliveries, and pick-ups and drop-offs, as well as convenient parking use by residents themselves.

Traffic Lanes. On two-way local streets, traffic lanes should be 10 feet wide, exclusive of parking lane or gutter flag width. Where no parking exists on a particular side of the street, the one-foot gutter flag width is added to the base 10-foot traffic lane width.

On one-way local streets, the single traffic lane is assumed to be 14 feet wide, exclusive of parking lane or gutter flag. Where no parking exists on a particular side of the street, the one-foot gutter flag width is added to the base 14-foot traffic lane width.

The combination of these widths results in a standard roadway width of 34 feet for a twoway street with parking on both sides. Narrower widths require the elimination of parking, or a one-way traffic operation. The minimum nominal one-way street width would be a 16-foot street, with no parking allowed. However, while this width would allow bypass of a stopped vehicle (e.g., loading passengers), it is not recommended for extended distances, since this width might encourage more extensive illegal parking, resulting in difficult movement of traffic during snow conditions or during loading activities. In addition, the Fire Department requires that at least one roadway bordering a residential building be wide enough so that a 10-foot wide fire truck can set jacks down for its aerial ladder. Thus, the minimum width of a local street shall be 22 feet from faceof-curb to face-of-curb for either a two-way street with no parking, or a one-way street with parking on one side. The width of either a two-way street with parking on one side or a one-way street with parking on both sides shall be 28 feet.

On arterial and collector streets, the width of the street pavement is a function of the volume expected to use the roadway and the capacity needed to reasonably accommodate that volume. This determination is made by the Department of Transportation on the basis of traffic studies and volume projections for the preferential street in question.

Bike Lanes. On arterial streets, bike lanes may be striped where the City has determined that a bike lane would be in accordance with the City's Master Plan for Bicycle Routes and where the overall street width and street capacity is adequate to accommodate a bike

lane. Generally, a bike lane is a minimum of 5 feet in width. Adjacent parking lanes may be 7 feet in width, and any adjacent vehicular traffic lanes must be a minimum of 10 feet in width.

Medians. Boulevard treatments on local streets should be avoided. Providing landscaped medians on local streets requires more right-of-way than a comparable street with no median, or provides landscaping in the median at the expense of parkway landscaping width. Maintaining median landscaping is less convenient than maintaining a parkway adjacent to one's property, and would require a maintenance agreement by a homeowners association, since the Department of Transportation does not maintain landscaped medians in residential areas.

If medians are provided, either on local streets or arterial streets, they should conform to CDOT standards for median design. A minimum 10-foot width between the outside curb faces must be provided, with 18-inch wide median border curbs and a 7-foot minimum planting width. A minimum 100-foot planting length must be provided. Sight distance triangles must be calculated based on AASHTO requirements, and a 30-inch maximum height from top of plants to pavement surface must be maintained within sight triangle areas. Irrigation must be provided, and plant materials must be selected from the City of Chicago Roadway Plant List, which can be found on the CDOT web site.

Total Right-of-Way Width

The total street right-of-way widths resulting from these elements are shown in Table 1 and Table 2. The minimum widths in Table 1 range from 39 feet to 57 feet, depending on the one-way or two-way traffic operation, and the presence of on-street parking. The minimum right-of-way widths in Table 2 for streets in low-density residential (RS zoning) or manufacturing districts range from 37 feet to 55 feet. A one-way roadway with no parking should generally be avoided; a narrow one-way roadway width might be appropriate for a short distance between other segments where parking is provided.

While Table 1 shows minimum right-of-way widths for given traffic and parking conditions, it also indicates the widths to be used for a traditional standard right-of-way of 66 feet. Wherever possible, use of a 66-foot right-of-way is recommended, since it provides continuity with the existing Chicago Street grid and is currently required under Section 10-4-140 of the City Code. However, where redevelopment of oddly dimensioned property makes the provision of 66-foot streets and developable lots problematic, different right-of-way widths may be allowed at CDOT's discretion on a case-by-case basis.

Subdivisions

Street Configuration. A subdivision is created when large tracts of previously undeveloped land are separated into individual lots. When laying out a new subdivision street grid, offset intersection alignments should be strictly avoided. For this reason, proposed subdivision site plans should show the location of existing intersections, alleys

and driveways across from the new development. Whether public or private, a subdivision's streets and alleys should provide at least two ways in and out of a subdivision.

Public streets, parkways, sidewalks and alleys should be located completely within the dedicated City right of way. Easements may not be used in lieu of dedication to the City, for public sidewalks or other right of way elements. If private streets are built, it is strongly recommended that their geometry and pavement design be constructed to City standards. If there is a desire in the future to convert private streets to public (for maintenance reasons, for example), the City will not accept streets that have not been designed and built according to established City standards.

Street Names. The naming of new public streets is done at the discretion of the Commissioner of Transportation through the Office and Maps and Plats. Whenever possible, street names will be assigned in keeping with existing streets in the same plane, elsewhere within the City.

Street Addresses. CDOT's Office of Maps and Plats assigns the legal address for all properties within the City of Chicago. This is done based upon a Cartesian system, with each property having only one correct possible address. The official address is then conveyed to telephone service providers, and the City's 911 system, so that emergency and other services may be accessed.

The layout of a new subdivision must allow for proper addressing of individual properties. All units must have frontage (and therefore an address) on the street system. The proposed address for buildings, especially residential units, must additionally be reviewed by the Fire Department.

The Office of Maps and Plats reserves the right to make address corrections to both self-assigned (sometimes called vanity addresses) and to officially-assigned addresses that no longer hold to addressing standards. A Plat of Subdivision must be filed in the Office of Maps and Plats, and recorded in the Office of the Cook County Recorder of Deeds, prior to the issuance of house number certificates.

Vacation of Existing Streets

In limited cases, the Department of Transportation may approve the conveyance of little used segments of public street or alley to adjacent landowners. In addition to required documentation, proposed vacations must meet basic design criteria that include (but are not limited to):

1) No public way may be dead-ended through vacation. Any vacation of a portion of the public way must not result in the creation of remaining stubs of public street or alley.

2) Public streets cannot be vacated to mid-block such that the remaining public segment directs traffic into a perpendicular alley. Such a vacation of the street would be considered dead-ending it.

3) No vacation of the public way shall direct public traffic onto private property.

4) Air rights alone may not be vacated.

5) Vacations must run corner to corner and the full width of the right of way. No requests that propose to leave a jagged right of way line, will be approved.

6) Cul-de-sacs or hammerhead turnarounds are not considered preferable options to remediate dead-ending in a vacation situation.

Other Street Design Elements

Corner and Center Line Radii

At intersections of local streets with other local streets, the standard corner curb radius to be used is 10 feet. Large radii designed to accommodate large trucks should be avoided, since they encourage higher speed turning movements by passenger vehicles. A 10-foot radius, in combination with the parking lane widths, provides an adequate effective radius to accommodate the occasional delivery truck.

At intersections of local streets with preferential streets, the standard corner curb radius is 15 feet. However, where there is a full width curb-attached sidewalk (paved from property line to face of curb) on the preferential street, the radius may be adjusted to match standard radii of available detectable warning strips to be located at crosswalks, as needed. The available radii include 10', 12', 15', and 18'. However, detectable warning strips are most typically located perpendicular to the sidewalk walking path, as illustrated in the section on curb ramps.

The design of an intersection should provide for turning a fire truck. Depending on the street widths, parking provisions, and curb radius, some adjustments may be necessary to the street design elements to accommodate a fire truck turning movement which utilizes the entire intersection area. The center-line radius of all roadways shall be a minimum of 50 feet, to accommodate fire truck movements.

Curb Ramps

Curb ramps provide a connection from the sidewalk to the street for people in wheelchairs, people pushing strollers, children on bicycles, and delivery services. Curb ramps are required at all intersections and crosswalks, including mid-block crossings, and should align with the center of the crosswalk. Utility structures such as manholes, handholes, and poles must be located outside of sidewalk curb ramp areas.

A typical curb ramp consists of the ramp, side flares, approach, and landing. The slope of the ramp must not exceed a rate of 1:14, or a 1" rise per 14" of length. The flares must not exceed 1:10, although 1:12 is preferred whenever possible. The cross slope must not be greater than 1:64. The minimum width of a curb ramp in Chicago is 4', not including



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the width of the flared sides. A detectable warning strip must be included at the base of any curb ramp in accordance with Federal, State and City code requirements. Figure 4 shows standard Sidewalk Ramps Details. Designers should check the CDOT website for the most up-to-date drawing of Sidewalk Ramp Details.

Crosswalks

Crosswalks are where pedestrians are legally allowed to cross City streets. Marked crosswalks generally consist of two parallel lines perpendicular to the direction of traffic, should align with the edge of right-of-way, and be set back 2 feet from the curb line Crosswalks must be a minimum of 6 feet in width. Typically, the crosswalk lines are 6 inches in width. In some special applications, such as unsignalized mid-block crossings, a series of 12-inch wide lines parallel to the direction of traffic may be used to delineate the crosswalk, in a so-called "International" crosswalk pattern.

Cul-de-Sacs

Where no outlet is provided on a street, the ability to turn a vehicle around should be provided without the vehicle entering private property, in order to avoid forcing vehicles to back out to the nearest intersection. The dead-end street must meet the roadway width requirements for a two-way street.

Typically, the end treatment for a no outlet street is a circular cul-de-sac. Cul-de-sacs on local, residential streets shall be built with a 25-foot radius. The 50-foot diameter turnaround bulb is the standard size cul-de-sac used in a 66-foot right-of-way, and leaves eight feet between the face of the curb to the property line for provision of any sidewalk needed for access or circulation. The type of sidewalk treatment depends on whether there is street right-of-way (and continuous sidewalk) beyond the cul-de-sac, or private property to be accessed. Some examples of cul-de-sac sidewalk geometry are shown in Figure 5.

Where right-of-way exists beyond the cul-de-sac, through access for bicyclists, with appropriate curb cuts, markings, and signing, should be provided.

No on-street parking shall be permitted in the cul-de-sac area, beginning on the approach roadway at the tangent point of the reverse curve at the open end of the cul-de-sac. Driveways accessed off the cul-de-sac are permitted.

Where street right-of-way width is limited, or there is a desire to not eliminate parking in front of the last lots at the end of a block, a dead-end street may outlet into a public alley on streets that are zoned for low-density (RS zoning) residential use. The use of "hammerhead" turnarounds may also be considered for low-density residential streets where provision of alley access is not feasible.



FIGURE 5 CUL-DE-SAC TREATMENTS

Driveways

Driveways provide vehicular access to private property from the public way, and should be designed in a manner that does not present a hazard or create congestion on the public street system. The design and location of driveways must be done in conjunction with the off-street parking and loading facilities being accessed in order to ensure no adverse consequences on the public way. All driveways on the public way must be constructed with concrete in accordance with the detailed construction standards of the Department of Transportation. Standard Driveway Details are shown in Figure 6. Designers should check the CDOT website for the most up-to-date drawing of driveway details. Care should be taken in locating driveways to avoid removing existing street trees whenever possible.

Typically, driveway access is provided onto a public street rather than an alley. However, streets that have been designated as Pedestrian Streets or "P" Streets under the City's Zoning Code, may provide access to parking and loading only through alleys, and not via driveways onto streets. Pedestrian Streets are streets that are widely recognized as Chicago's best examples of pedestrian-oriented shopping districts, and are designated in outlying commercial districts (Section 17-3-0500) and Downtown Districts (Section 17-4-0500) in the Zoning Code

Widths. The maximum driveway width allowed under the Chicago Zoning Code is 25 feet, measured at the property line. This width provides for two-way traffic, with one lane entering and one lane leaving the site. The Chicago Department of Transportation will allow driveway widths up to 35 feet for commercial uses where there are truck turning movements, or where high driveway volumes require two outbound traffic lanes in order to reduce delay to exiting vehicles and minimize the need to signalize the exit driveway. Special approval from CDOT of driveways over 25 feet is necessary before obtaining Zoning Department sign-off for driveway permits.

On an arterial or collector street, the minimum driveway width for two-way traffic for a commercial parking lot or for a residential parking lot over six cars in capacity is 20 feet. A minimum driveway width of 16 feet (at the property line) may be used for residential parking lots of six cars or less.

The minimum driveway width for single-family residences is eight feet, measured at the property line.

Offsets. On local streets, driveways must be located a minimum of 10 feet from the property line of the intersecting cross-street, on either the near side (approaching the intersection) or far side (leaving the intersection) of the intersection.

On arterial or collector streets, driveways must be located a minimum of 30 feet from the property line of the intersecting street on the near side of the intersection, and 20 feet from the property line on the far side of the intersection. The additional near side clearance reduces conflicts in the immediate vicinity of the intersection, while additional

far side clearance provides increased queuing space between the driveway and the intersection where turning vehicles waiting for pedestrians to clear can queue with less likelihood of blocking the upstream intersecting roadway or crosswalk.

In the downtown area, new driveways are prohibited on streets designated as Class 1 Streets in Section 17-4-0700 of the Zoning Code, and are permitted on designated Class 2 Streets only when reviewed and approved as an administrative adjustment by the Zoning Administrator. Class 1 Streets are those for which alleys are intended to serve as the <u>sole</u> means of access to buildings and uses located on those streets, while Class 2 Streets are those for which alleys are intended to serve as the <u>primary</u> means of access.

In designing driveway access along streets in the downtown area, driveways should be located away from intersections to the extent possible to minimize traffic queuing problems. For example, entrance driveways on one-way streets should be located as far away as possible from upstream intersections to avoid queuing back through the intersections by entering vehicles waiting for pedestrians to clear, while exit driveways on one-way streets should be located away from downstream intersections to minimize the possibility of queued street traffic blocking the exit driveway and to avoid difficult weaving maneuvers by driveway traffic attempting to weave across the entire roadway close to the intersection. For parking facilities over 100 spaces in capacity, minimum corner clearances of 100 feet are recommended for entrance driveways located on the far side of intersections, or for exit driveways located on the near side approach of intersections. To further minimize queuing on-street at parking entrance driveways, the ticket gates inside the facility should be located the maximum distance feasible from the property line, based on an analysis of arrivals and queuing at the parking garage or lot, but never less than one vehicle length (20 feet) inside the property line.

The minimum distance between driveways, measured along the property line, shall be 10 feet. When adjacent driveways are designed with driveway flares, this provides a minimum four-foot width (with full-height barrier curb) of separation for pedestrians crossing adjacent driveways. The minimum distance between a driveway and an alley is also 10 feet.

The minimum distance from a driveway to an adjacent private property lot line is five feet. This provides for the 10-foot separation between driveways if a driveway is built on the adjacent property, and keeps the three-foot flare or five-foot radius from extending in front of the adjacent lot.

Flare and Radius Design. Driveways in the City of Chicago have traditionally been designed with driveway flares rather than radii. The purpose of the flare design has been to give preference to pedestrian movements along the sidewalk, indicating to the motorists that they are entering a pedestrian space and must yield, and slowing the turning movements since the flare design provides a zero-foot turning radius at the curb line unless the driveway is angled. (Since there is often on-street parking, the effective turning radius at a flared driveway is more like 7 to 10 feet, the width of the parking lane.) Where full width sidewalks are provided between the property line and curb line,

the flares also allow a continuous warped sidewalk with no pavement lip, thus minimizing any tripping hazard particularly in high volume pedestrian areas where pedestrians may be using the full sidewalk width.

However, the slope of driveway flares can be problematic, particularly for wheelchair users, when the transition from a 6-inch (or higher) curb height must be accomplished in the 3-foot flare width. Consequently, CDOT is adopting the use of a modified flare design for driveways, in conjunction with a properly sloped accessible sidewalk along the primary walking path. The design of the driveway flares and sidewalk sloping is shown in Option A of Figure 6.

Where driveways are signalized, curb radii should be used, rather than the flare design, since the driveway will operate like a signalized street intersection (See Option B of Figure 6). Ramped sidewalks must be provided, and pedestrian signal indications must be provided for the crosswalk crossing the driveway.

A minimum five-foot clearance must be provided between the edge of a driveway flare or radius and the face of any streetlight or traffic signal pole, lighting or traffic signal control box, fire hydrant, or tree. Any necessary relocation or replacement of these items will be at the driveway applicant's expense. However, for driveways to single-family residences, modification or elimination of the flare will be considered in order to avoid the removal of an existing street tree.

Sight Triangles. On all driveways, no landscaping, fencing, or signs above 30 inches in height are to be located on private property within a 12-foot sight triangle as measured from the right-of-way. Where a garage driveway enters public street right-of-way at the property line immediately adjacent to the sidewalk, provision should be made with windows or column or door setbacks to provide a clear sight triangle at some point before crossing the sidewalk. Where building design precludes providing this sight distance, audible/visible warning devices should be used to warn pedestrians of approaching vehicles. Fences and perimeter landscaping should not obscure the sight triangles at driveway entrances to the public way.

IDOT Driveway Permits. Driveways on streets under the jurisdiction of the Illinois Department of Transportation must also have IDOT Driveway Permits. The applicant is responsible for determining whether IDOT permits are required. IDOT driveway permits for streets in Chicago may be obtained at the IDOT District One headquarters at 201 West Center Court, Schaumburg, Illinois. City of Chicago



Alleys

Alleys providing access to parking, refuse pick-up, and deliveries at the rear of lots are encouraged. The standard minimum alley width in a residential area is 16 feet. In cases where existing alleys in the same block are larger than the minimum 16-foot standard, any newly dedicated alleys in the block must minimally match the predominant width. Alleys in the Greater Downtown Area (bounded by North, Ashland, Cermak, Lake Michigan) should be a minimum of 18 feet to allow bypassing of trucks stopped in the alley, or the width necessary to accommodate movements into and out of loading docks, as determined by an engineering evaluation of truck turning templates.

Alley intersections should be designed to accommodate a single unit vehicle (SU 30) making a turn. In residential areas, City refuse trucks typically are able to make a 90-degree turn between two 16-foot alleys. In commercial areas, turning may be accommodated by a corner property clip, or use of wider alleys.

In residential areas, to provide adequate maneuverability into and out of parking (typically aligned at 90-degrees to the alley), a two-foot setback and apron should be provided between garages and the edge of the alley.

Alley access is prohibited for uses requiring a commercial driveway permit, and for other parking lots or garages with a capacity of more than six parking spaces, unless approved by ordinance of the City Council, as specified in Sections 10-20-430 and 10-20-435 of the City Code. However, on designated Pedestrian Streets in Business and Commercial Districts and Downtown Districts, driveway access to parking and loading is prohibited, and alley access is required. Where the alley is to be used for parking access, CDOT will require that the alley pavement in the entire block be reconstructed as needed to provide an acceptable riding surface with proper drainage. Where soil conditions allow, the use of French drains or permeable pavement systems may be considered in providing alley drainage.

Where alleys meet City streets, a standard nine-foot radius should be used, and sidewalk ramps with detectable warning strips must be provided.

On-Street Parking and Loading Areas

As noted above, on-street parking and loading should be provided where there is developed residential frontage on that side of the street (even when required minimum off-street parking is provided), since the on-street parking allows for visitor parking, deliveries, pick-ups, drop-offs, as well as convenient parking use by residents themselves. For higher density residential uses, and for certain commercial uses such as hotels and restaurants, there will be greater use of taxis and higher passenger auto drop-off and pickup activity at building entrances, short-term parcel deliveries, and occasional bus loading needs than in lower density residential areas. The site designer should account for this potential curbside activity during development of the site plan. In some instances, it may be desirable to provide for these activities off-street, sometimes through the use of a pullthrough drive, or porte cochere. These pull-through drives require two driveways where they enter and exit the public way; the pull-through should be designed wide enough to allow bypassing a vehicle stopped for a long period of time. At other locations, where the curb lane is not needed for arterial street capacity and there is sufficient street width to allow on-street parking or loading, this activity can be accommodated on the street with appropriate parking control signs, and without the use of curb indentations.. Some examples of parking and loading area treatments are illustrated in Figure 6.

Parking Spaces. While all required accessory parking must be provided off-street in accordance with the provisions of the Zoning Code, on-street parking can play a role in serving visitors, and providing more convenient short-term parking by residents who may not wish to always pull into their off-street parking spaces. A parallel parking lane width of seven or eight feet may be used where there is no arterial traffic lane immediately adjacent. Stall lengths of 20 to 22 feet for interior spaces and 16 to 18 feet for end spaces can be assumed. The lengths of the parking stalls should be coordinated with breaks in the parkway planters, with gaps in the planters (and associated courtesy walk) provided every 50 feet at a minimum in residential areas, and with a maximum length of 35 feet for parkway planters in commercial areas. There is a recommended10-foot wide courtesy. walk between the parkway planters, or located in conjunction with other obstructions, taking into account minimum clearances

Loading Zones and Drop-Off /Pick-Up Zones. If there is a likelihood of a number of short-term deliveries throughout the day (e.g., express mail or parcel delivery services), a loading zone may be designated in front of a building. The typical minimum loading zone is 25 feet in length, and vehicles delivering goods are allowed 30 minutes to complete their deliveries. Shorter-term loading zones can include use of 15-minute meters or a requirement to activate flashers while loading. Short-term, expeditious (three minutes or less) passenger drop-off /pick-up activity is allowed if the delivery loading zone is unoccupied. Where possible, common loading zones serving the entire block should be located at the end of the block, where trucks may more readily access the space. Also, whenever possible, the time-of-day restriction on loading zones should be limited to the hours of delivery operation needed, rather than 24-hour restrictions, in order to make the curb space available for street parking when not needed for deliveries. All loading zones require passage of an ordinance by the City Council.

If there is a greater need for curb availability for quick passenger drop-off /pick-up activity, a No Parking Any Time zone is typically designated (with a standard 25 foot-length), thereby prohibiting use for 30-minute deliveries, and freeing the curb for passenger activity.

Passenger or goods delivery loading zone lanes should be wider than a low-turnover parking lane. Eight-foot (minimum) and nine-foot (desirable) lane widths should be provided, unless adjacent to a bike lane, in which case a seven-foot width may be used.



FIGURE 7 PARKWAY AND LOADING AREA TREATMENTS

Unless there is a continuous, all-day curb parking restriction upstream and downstream from the building entrance drop-off/pick-up area, such as for arterial capacity purposes, indented curb drop-off areas should <u>never</u> be used. These indented lanes often do not work as intended, with unintended and often undesirable consequences. Figure 8 illustrates some typical City experience on how these drop-off areas operate.

Generally, these curb setbacks work best on a street where there is no parking for the entire block on either side of the building entrance, and the curb lane is used as a continuous, moving traffic lane (Scheme A). In such a case, the setback allows drop-offs to occur out of the moving traffic lane, instead of blocking traffic. Where curb parking is allowed both upstream and downstream from a building entrance, the objective of providing a clear drop-off area can be achieved by prohibiting parking for a distance in front of the building (Scheme B). In such a case, widening the street to provide additional drop-off area is redundant, since it results in a double-width drop-off lane (Scheme C). If the parking restrictions at the building entrance are not actively managed, usually by a building doorman, people will park diagonally in this double width droop-off area, thereby defeating the purpose of the drop-off widening and potentially creating a traffic hazard with motorists backing blindly into moving traffic (Scheme D).

If a curb setback is used, it should be designed at a nine-foot width, with a 3:1 taper ratio on either end of the lane, a minimum 50-foot length of drop-off lane, and a six-inch solid white lane line along the normal curb alignment, parallel to the drop-off lane. A minimum 8-foot curb-attached sidewalk must be maintained after widening for a curb setback drop-off area. An ordinance authorizing the widening of the street is required for a curb setback area

Diagonal Parking. Where there is a desire to provide additional on-street parking, particularly on local side streets in commercial areas between the arterial street and the alley, diagonal parking may be used. According to Section 9-64-030 of the City Code, "diagonal parking zones shall be established only on streets at their termini beyond the last cross-street intersection, on streets which serve only as service drives, or on streets designated as service drives by ordinance." Diagonal parking should never be installed on arterial or collector streets, unless a separate service drive/frontage road is available or unless an auxiliary lane is provided that is adequate for backing maneuvers outside of the through traffic lanes.

Several criteria must be taken into account when designing diagonal parking, including width of right-of-way, traffic direction on the street, presence of utilities and mature trees, and adjacent land uses. For on-street diagonal parking spaces, nine-foot wide stalls should be used, typically angled at 45 degrees. If more than six diagonal spaces are needed, bumpouts with trees should be provided every six spaces with a minimum width of five feet from face of curb to face of curb. These bumpouts should be placed to preserve mature trees whenever possible. Figure 9 and Table 4 show standard dimensions for on-street diagonal parking.

SCHEME A - Acceptable No Parking No Parking **Building Entrance SCHEME B - Acceptable** Parking Parking No Parking — -┝ **SCHEME C - Unacceptable** Parking Parking No Parking -Double Width -**SCHEME D - Unacceptable** Parking Parking Unenforced No Parking





FIGURE 9 DIAGONAL PARKING LAYOUTS

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| | | TABLE 4 - | TYPICAL PARK | ING STANDARI | DS TABLE | |
|----------------------|---------------|--|------------------------------|---------------------------|---------------------------|----------------------------|
| | | One-Way Street | One-Way Street | Tw o-Way Street | Tw o-Way Street | Tw o-Way Industrial Street |
| | | Diagonal Parking | Diagonal & Parallel | Diagonal Parking | Diagonal & Parallel | Perpendicular |
| | | Both Sides | Parking | Both Sides | Parking | Parking Both Sides |
| A - Sidew alk Widt | th | 6' Minimum | 6' Minimum | 6' Minimum | 6' Minimum | 4' Minimum |
| B - Parking Depth | | 17' | 17' | 17' | 17' | 17' |
| C - Parking Stall V | Vidth | 9' | 9' | 9' | 9' | 9' |
| D - Stall Linear Dir | mension | 12.7' | 12.7' | 12.7' | 12.7' | 9' |
| E - Aisle Width | | 16' Minimum | 16' Minimum | 18' Minimum | 18' Minimum | 24' |
| | Diagonal | 14 | 7 | 14 | 7 | |
| Number of | Parallel* | | 4 to 5 | | 4 to 5 | |
| Parking Spaces** | Perpendicular | | | | | 120 |
| | Total | 14 | 11 to 12 | 14 | 11 to 12 | 120 |
| | | - Fire Hydrants - Drivew ays - Trees - Disabled Parking | | | | |
| | | *4 parallel spaces if on | approach to stop sign, 5 | parallel spaces if on ap | proach to alley. | |
| | | ** Assumes typical 125 | ' lot depth from street to a | alley for diagonal and pa | rallel parking. Assumes 6 | 60' |
| | | block length for Industri | al Street perpendicular pa | arking. | | |
| | | All parking layouts inclu | de 30' clearance on appr | oach to stop signs, 20' | clearance from crossw all | <s 5'<="" td=""></s> |
| | | | | | | , . |

Fire Access

The minimum clear width of at least one continuous, through public or private roadway serving a residential building shall be 20 feet, so that a 10-foot wide fire truck can set jacks down for its aerial ladder. The minimum pavement width for emergency access, such as on a riverwalk, off-street bike path or multi-use path, shall be 12 feet.

The distance from the nearest hydrant to the front door of a building should not exceed 150 feet of hose length. The distance between utility and street furniture structures to allow hose to pass through should not be less than three feet.

Easements for emergency access are strictly prohibited. Emergency vehicles must have access on a dedicated public way or private street. Only in rare cases (as necessitated by permanent, physical land limitations of the site and its surroundings) may a firelane be created.

In the event that a firelane is unavoidable, it should never be a dead-end. A cul-de-sac with a 50-foot turning radius or a hammerhead turn-around should be used as a last resort, and only where necessitated by permanent, physical land limitations (not design criteria).

Firelanes should be no less than 20 feet wide and constructed of asphalt, concrete, or other approved material capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds. Firelanes must be maintained year round by the private property owner or manager. This will include snow removal and the towing of vehicles parked illegally upon the firelane. In no instance should a firelane be planted with landscaping, or have other permanent or temporary hardscape elements (tables, benches, artwork) erected upon it.

Firelanes must be clearly marked. Per the International Fire Code, the sign shall be larger than 12" wide by 18" high and have red letters on a white reflective background. Firelane signage should be placed at frequent and regular intervals so as to announce its presence and preclude the placement of obstacles.

Other Street Design Features within the Public Way

Street Furniture

Bus Shelters. Location dimensions for bus shelters are included in the CDOT Streetscape Guidelines. The standard bus shelter "requires a minimum 12'6" sidewalk width and is either 5'4"x 9' or 5'4"x 13'. Shelter installation is 38 inches from back of curb and must maintain a 4-foot minimum clear sidewalk." In addition, "shelters must be at least 7' from adjacent light poles and 3 feet from [the edge of] all other objects."

Typical CTA bus stops are 85 feet in length on the near side of an intersection, and up to 100 feet on the far side of an intersection. The Guide to the Chicago Landscape

Ordinance requires that trees be located no closer than 40 feet from the cross street at a near side stop, and 75 feet from the intersection at a far side stop. Preferred CTA bus shelter layouts for near side and far side bus stops are included in the Appendix.

Newspaper Boxes, Mailboxes, Benches and Trash Cans. Permits for miscellaneous street furniture are regulated by the Department of Business Affairs and Licensing with a Use of the Public Way Permit (a grant of privilege) in the public way. Structures should be located a minimum of 2 feet from the face of curb to the edge of the kiosk, and should provide for 6 feet of clear sidewalk width for passage of pedestrians, except downtown, where 9 feet of clear sidewalk should be provided. They should not be located so as to obstruct the sight triangle (12 feet on each side) of an adjacent driveway or mid-block crosswalk, and should be a minimum of 30 feet from an intersection on the near side approach, and 20 feet from the intersection on the far side. Grants of Privilege for permanent advertising sign kiosks bolted to the public way cannot be accepted within the Greater Downtown Area. Private kiosks/ground structure signs are not recommended by CDOT and require special permission and ordinance.

Standard CDOT benches and trash cans should be used whenever possible. The City has chosen two types of steel benches for use in the public way: the black Victor Stanley Ribbon Bench (RB-28) and the black Victor Stanley Ornamental Bench (CR-10), or approved equal. The City has designated the Victor Stanley Steelsites (S-42) container, or approved equal, in the color black as the standard waste receptacle for use in the public way.

Advertising Signs at Street Level. Grants of Privilege for permanent kiosks and movable prop signs at grade cannot be accepted within the Greater Downtown (see glossary for limits). Outside of the Greater Downtown Area, these signs, while still discouraged, will be judged on a per case basis as to how they might serve the public good. Purely advertising-related signing or signing containing less than 50% community benefiting information will not be considered. Approvable signing will be subject to the same clearance regulations as other street furniture.

Lighting and Traffic Signal Poles/Traffic Signal Controller Cabinets. The Bureau of Electricity specifies that street light poles and traffic signal poles should be centered a minimum of 3.0 feet off the face of an adjacent curb. Light poles may not be located within landscape planters. Signal controller cabinets should be located to provide a minimum 2-foot clearance from the face of the cabinet to the face-of-curb, and should be a minimum of 3 feet from any accessible structure such as a bus shelter. They should be located outside of the extension of the crosswalk area.

Electrical manholes should be located outside of sidewalk ramp areas adjacent to crosswalks. Electrical conduit should be located along the back of curb where landscaping is present, or 3 feet from the back of curb if there is no landscaping. The conduit should be 30 inches deep
Fire Hydrants. According to the standard drawings of the Department of Water Management, fire hydrants should be located with the center of the vertical pipe located 2.0 feet from the face-of-curb, or 2.5 feet from the face-of-curb on an IDOT route. Other street furniture, including trees and planter beds, must be a minimum of 5 feet clear from hydrants.

Sidewalk Cafes. The Department of Business Affairs and Licensing administers the Sidewalk Café Program. According to Rules of Operation for the program, the physical boundary separating the café seating area from the remainder of the public way "must be set to leave at least six feet of clear and unobstructed sidewalk space to allow for pedestrian passage", including clearance from "a parking meter, planter, fire hydrant, light pole or other device". (In the Greater Downtown, a nine-foot clear distance is recommended). The six-foot clear dimension should run consistently and logically parallel to the curb line, except in the rare instance of tapering sidewalks. Proposals to create cutouts in the periphery of the sidewalk café to technically meet the standard clear distance from an obstacle in the public way will not be approved.

The railing or fence enclosing the café must have at least 50% of its railing covered with planter boxes. Additional shrubs must be provided for larger café area

Bollards. Bollards or other barriers in the sidewalk/parkway area may be employed on a limited basis for security reasons, or other public safety consideration.

Bare bollards will not be approved within the Greater Downtown Area (see glossary for limits). Within this area, security piers and bollards must be incorporated into planters or benches such that they are not obvious to pedestrians.

Outside of the Greater Downtown Area, bollard installations will be reviewed by CDOT on a case by case basis however, all installations must minimally include a 2' setback from the edge of the bollard to the curb face; and allow a minimum of 6' clear, public (excluding private property) pedestrian sidewalk, unobstructed by hydrants, light poles or other City facilities.

Standard CDOT bollards should be used whenever possible. The Streetscape and Urban Design Program has chosen tow bollard styles for use in the public way. The move conservative bollard, often used to protect gateway identifiers, above ground irrigation equipment, and other streetscape elements, is a 6'8" length of steel pipe filled with concrete. The above ground portion is then covered with a black, low density polyethylene sleeve and cap. The more decorative bollard is a precast concrete bollard, as manufactured by Wausau Tile, Inc. (Terra Form Series model TF 6092 Lapaz Bollard) or approved equal.

Tree Grates. Tree grates used in parkways should be standard City of Chicago tree grates. The City has adopted two standard grates, a 5' by 5' grate, Model R-8713, and a

4' by 6' grate, Model 8814-A, as manufactured by Neenah Foundry, or approved equal. These grates are 1-1/2" thick, and the opening for the tree is 16" in diameter minimum. All tree grates should be installed with corresponding tree grate frames as well as tree break out rings to accommodate future growth.

Bicycle Racks. Bicycle racks should be installed as close as possible to building entrances to encourage use by building occupants. They cannot be located on heated, vaulted, or architectural sidewalks with special paving materials. Racks should be located a minimum of 3 feet from the curb edge of the sidewalk. Ten feet is the minimum sidewalk width for rack installation. They should be located at least 4 feet from handicapped ramps, light poles, sign posts, sidewalk planters, driveways, and building entrances, and 5 feet from fire hydrants. Racks should not be located in bus stops, loading zones, or designated handicapped parking areas. More information on bicycle rack design standards and installation criteria is available at www.ChicagoBikes

Off-Street Site Design Features

Off-Street Parking and Loading

Off-street parking and loading spaces are to be provided according to the parking ratios specified in Section 17-10-0200. Accessible parking spaces must be provided according to the ratios specified in Section 17-10-0900 of the Zoning Code, and amount to 2% to 4% of the total spaces required, depending on the size of the parking lot or garage.

Zoning Ordinance Space Dimensions. The Chicago Zoning Ordinance requires provision of off-street parking stalls that are 8 feet by 18 feet, accessed from aisles with dimensions as specified in Figure 10, excerpted from Section 17-10-1000 of the Chicago Zoning Code. Accessible spaces must be at least 11 feet in width, with a minimum 5-foot access aisle. A two-foot overhang of parked vehicles into the landscaped setback area may be assumed when designing the parking space layout.

Landscaping Requirements. Section 17-11-0302 of the Chicago Landscape Ordinance requires a minimum seven-foot landscaped setback to provide screening along the perimeter of off-street parking lots and other vehicular use areas greater than 1200 square feet facing the public way. Landscape setbacks and other peripheral green areas are usually defined by a barrier curb. Wheel stops or breaks in the barrier curb may be provided in order to allow for drainage into peripheral green areas designed to accommodate the stormwater discharge directed to them. Setback areas that are to be used for stormwater management will need to be designed for both stormwater discharge and screen requirements as set forth in the Chicago Landscape Ordinance. Such on-site stormwater management practices help reduce the impact on the City sewer system. No drainage may be directed onto the public way.

Fences. Fences installed around the perimeter of a vehicular use area or elsewhere around the perimeter of a private lot should be located at least one foot behind the back of the public sidewalk, so that the sidewalk can be reconstructed without damage to the fence. Fences and perimeter landscaping should not obscure the sight triangles at driveway entrances to the public way. Any ornamental fencing more than 30 inches in height requires an exception from CDOT.

Vehicular Access. Access to off-street parking shall be provided via a driveway onto a City street. As noted previously, alley access is prohibited for uses requiring a commercial driveway permit, and for other parking lots or garages with a capacity of more than six parking spaces, unless approved by ordinance of the City Council, as specified in Sections 10-20-430 and 10-20-435 of the City Code. Where the alley is to be used for parking access, CDOT will require that the alley pavement in the entire block be reconstructed as needed to provide an acceptable riding surface with proper drainage. In addition, handicap ramps must be provided at sidewalks that cross the entrance drive to the alley.

As noted previously, to further minimize queuing on-street at parking entrance driveways in the downtown area, the ticket gates inside the facility should be located the maximum distance feasible from the property line, based on an analysis of arrivals and queuing at the parking garage or lot, but never less than one vehicle length (20 feet) inside the property line.

Pedestrian Access. Section 17-10-1006 of the Zoning Code requires that surface parking lots containing 150 parking spaces or more must be designed to provide protected walkways for pedestrians that link store entrances with parking spaces and with public sidewalks along adjacent streets. These walkways not only provide a safer path for people who have parked their cars, but also for transit users and people walking to the site from the adjacent neighborhood.

The walkway should provide a minimum clear path width of four feet. Barriers should be provided to preclude vehicular overhang intrusion into the clear pedestrian path. A two-foot vehicular overhang should be assumed when designing these barriers. The pedestrian paths can be combined with landscaping elements that meet the requirements of Landscape Ordinance as long as the clear width is maintained. Where the pedestrian path crosses vehicular circulation aisles, a crosswalk should be striped which is at least the width of the path or a minimum six-foot width.

17-10-1000 Parking Area Design

The parking area design standards of this section apply to all off-street parking areas.

17-10-1001 Dimensions

Unless otherwise expressly stated, off-street parking areas must comply with the following standards:

| Dimensions (in feet) | Parking Angle | | |
|--|---------------|------|--------------|
| | 45° | 60° | 90° |
| A. Stall Depth to Wall | 18.4 | 19.7 | 18 |
| B. Stall Depth Parallel to Vehicle | 18 | 18 | 18 |
| C. Aisle Width | 12 | 16 | 20 (indoor*) |
| D. Stall Depth to Interlock | 16.4 | 18.2 | 18 |
| E. Stall Depth Reduction due to Interlock | 2 | 1.5 | 0 |
| F. Stall Width (Parallel to Aisle) | 11.3 | 11.1 | 8 |
| G. Stall Width Perpendicular to Vehicle | 8 | 8 | 8 |
| 1. Module Width Wall to Wall | 48.8 | 55.4 | 56 (indoor) |
| | | | 58 (outdoor) |
| J. Module Width Interlock to Interlock | 44.8 | 52.4 | 56 (indoor |
| | | | 58 (outdoor) |

Figure 17-10-1001

and 4 feet from wall-to-wall dimensions.



FIGURE 10 PARKING AREA DESIGN

Loading Spaces. Loading spaces or docks should be designed in a fashion where they can be accessed from a street or alley without excessive maneuvering. All loading spaces must be located off the public way, and be of sufficient length to avoid blocking the sidewalk. Locating loading docks that require a backing maneuver to or from an arterial and/or collector street should be avoided. Such backing maneuvers on higher volume preferential streets can be unsafe, and federal funding of street improvements has been jeopardized in the past where loading docks were located on arterial streets.

Loading space sizes are either 10 feet by 25 feet, or 10 feet by 50 feet, as required by the zoning code.

Off-Street Bicycle Parking. Off-street bicycle parking must be provided in accordance with the off-street parking ratios of Section 17-10-0200 of the Chicago Zoning Ordinance. Unless otherwise stated in the ordinance, whenever bicycle parking is required, at least 2 bicycle spaces must be provided. No use is required to provide more than 50 bicycle parking spaces.

Required bicycle parking spaces for non-residential uses must have minimum dimensions of 2 feet in width by 6 feet in length, with a minimum overhead vertical clearance of 7 feet.

Use of the Public Way Permit/ Grant of Privilege in the Public Way

The Department of Business Affairs and Licensing administers the Use of the Public Way Program. Under this program, CDOT reviews all applications proposing to use the public way (sidewalk, parkway, street, alley) for exclusive private use, under a lease-type agreement. The applicant assumes all legal liability and maintenance responsibilities for any element erected under this program. Failure to secure proper insurance, or to maintain the site, will result in cancellation of the permit. Upon termination, the applicant shall remove the structures and restore the public way to current City standards.

Balconies. New balconies below 40' above grade, will not be approved unless non-interference with light poles can be proven via a certified survey. In no instance shall a balcony be less than 18' above the established grade of the public way.

Bollards. Bollards or other barriers in the sidewalk/parkway area may be employed on a limited basis for security reasons, or other public safety consideration.

Bare bollards will not be approved within the Greater Downtown Area (see glossary for limits). Within this area, security piers and bollards must be incorporated into planters or benches such that they are not obvious to pedestrians. Planters with bollards will then be subject to normal planter clearance requirements.

Outside of the Greater Downtown Area, bollard installations will be reviewed by CDOT on a case by case basis however, all installations must minimally include a 2' setback from the edge of the bollard to the curb face; and allow a minimum of 6' clear, public

(excluding private property) pedestrian sidewalk, unobstructed by hydrants, light poles or other City facilities.

Standard CDOT bollards should be used whenever possible. The Streetscape and Urban Design Program has chosen tow bollard styles for use in the public way. The move conservative bollard, often used to protect gateway identifiers, above ground irrigation equipment, and other streetscape elements, is a 6'8" length of steel pipe filled with concrete. The above ground portion is then covered with a black, low density polyethylene sleeve and cap. The more decorative bollard is a precast concrete bollard, as manufactured by Wausau Tile, Inc. (Terra Form Series model TF 6092 Lapaz Bollard) or approved equal.

Brick Pavers. The Department of Transportation supports the use of the public sidewalk for café use, where minimum remaining sidewalk clearance can be met (see 'Sidewalk Cafes' below) however, CDOT does not support the paving over of parkway green space for this use. Proposals of this nature will be denied. Bricks or pavers may not be personalized with logos or the names of companies or individuals.

It shall be the responsibility of the applicant to insure and maintain the pavers in a flat and level position so as not to present a tripping hazard to pedestrians. Permits are revocable at any time for failure to abide by the described terms.

Under CDOT's *Streetscape Guidelines*, decorative paving at the periphery of the normal 6' concrete sidewalk will be permitted where it does not encroach onto the parkway. Use of pavers as the principal walking surface however, will not be approved outside of the Greater Downtown Area (see glossary for limits).

Canopies / Signs / Windscreens. All awnings, structural canopies, building projections, and marquees must be constructed a minimum of 12' above the sidewalk (City Code sections 10-28-250 12-28-240 and 13-20-650g.), have no support poles extending down to the public sidewalk, and extend no farther than 18" from the back of the curb line 13-20-650g.

All awning and business ID signs which project over the public way more than 12 inches shall clear such public way (sidewalk) by 9 feet and 16 feet in alleys. (13-20-650)

Address numbers shall be posted prominently on the front of all canopies, awnings and windscreens placed over the business entrance, to ensure clarity for emergency responders, per City Code sections 10-24-020 and 10-04-100.

Newspaper Boxes, Mailboxes, Benches and Trash Cans. Miscellaneous street furniture items should be located a minimum of 2 feet from the face of curb to the edge of the kiosk, and should provide for 6 feet of clear sidewalk width for passage of pedestrians, except downtown, where 9 feet of clear sidewalk should be provided. They should not be located so as to obstruct the sight triangle (12 feet on each side) of an

adjacent driveway or mid-block crosswalk, and should be a minimum of 30 feet from an intersection on the near side approach, and 20 feet from the intersection on the far side.

Standard CDOT benches and trash cans should be used whenever possible. The City has chosen two types of steel benches for use in the public way: the black Victor Stanley Ribbon Bench (RB-28) and the black Victor Stanley Ornamental Bench (CR-10), or approved equal. The City has designated the Victor Stanley Steelsites (S-42) container, or approved equal, in the color black as the standard waste receptacle for use in the public way.

Sidewalk Cafes. A minimum of 6' of unobstructed, public sidewalk must remain for pedestrian movement. This measurement excludes areas occupied by parking meters, planters, hydrants, light poles or other City facilities. Given heavier pedestrian loads within the Greater Downtown Area (see glossary for limits), a 9' clear sidewalk will be required, where available. The clear sidewalk dimension must be taken consistently parallel to the curb line except in the rare instance of tapering sidewalks. Proposals to create cutouts in the periphery of the sidewalk café to technically meet the standard clear distance from an obstacle in the public way, will not be approved.

Benches / Fencing for Sidewalk Cafes. Benches or fencing associated with seasonal sidewalk cafes may not bolt these to the public sidewalk, or otherwise damage the public sidewalk in any way as also set forth in the Department of Business Affairs and Licensing' s *Sidewalk Café Guidelines*

Advertising Signs at Street Level._Grants of Privilege_for permanent kiosks and movable prop signs at grade cannot be accepted within the Greater Downtown (see glossary for limits). Outside of the Greater Downtown, these signs, while still discouraged, will be judged on a per case basis as to how they might serve the public good. Purely advertising-related signing will not be considered. Approvable signing will be subject to the same clearance regulations as other street furniture.

Maintenance of Pedestrian and Vehicular Traffic During Construction

All construction in the Public Way requires a permit from the Office of Emergency Management and Communications. Vehicular and pedestrian access must be maintained during construction according to the guidelines set forth in the CDOT publication <u>Regulations for Openings, Construction and Repair in the Public Way.</u>

In addition, any construction in the public way, whether for utility connections or construction of sidewalks, curb and gutter, and street roadway pavement, must construct or restore the public way in accordance with the construction standards and requirements of the <u>Regulations for Openings</u>, <u>Construction and Repair in the Public Way</u>. Any sidewalks, curb and gutter, or street roadway pavement damaged in the course of construction activity on adjacent private property must also be replaced. It should be further noted that certain streets may have construction moratoriums due to time of year

or recent reconstruction, and proposed construction by developers is subject to the limitations of the moratoriums.

CDOT Plan Review Committee

Representatives of various Divisions of the Department of Transportation meet on a regular basis to review and approve development site plans and associated street designs. Projects shall not proceed to the Plan Commission, Zoning Board of Appeals, or DCAP Permit Issuance prior to obtaining CDOT approval.

Strip mall and gas station site plans shall have approval from the Department of Planning and Development prior to CDOT plan review. Projects that propose curb cuts at a location with a prohibitive Zoning Use (e.g, for sites on designated Pedestrian Streets) shall obtain approval from the Department of Zoning and the Department of Planning and Development prior to review by the CDOT Plan Review Committee.

Permits for construction in the public way will not be issued until plans for that activity have been reviewed and approved by CDOT. The contractor must provide CDOT's letter approving the plans when applying for the public way construction permit. Civil plans for work in the public way should be submitted for review to the Division of Project Development, 5th Floor, 30 N. LaSalle Street, Chicago, Illinois, 60602.

Glossary of Terms Related to Street and Site Design

Back of Curb: The edge of the curb contiguous to the planted parkway area, the carriage walk,, or the sidewalk.

Carriage Walk: Narrow walk (usually 1'-0" to 2'-6") parallel to and attached to the back of curb, typically provided to allow a paved surface for passengers to use while entering or leaving parked vehicles.

Class 1 and Class 2 Streets: Streets in Downtown Districts officially designated in Section 17-4-0700 of the Zoning Code, on which driveway access is restricted. On Class 1 Streets, alleys are intended to serve as the <u>sole</u> means of access, and new curb cuts and driveways are prohibited. On Class 2 Streets, alleys are intended to serve as the <u>primary</u> means of access, and new curb cuts and driveways are permitted only when reviewed and approved as an administrative adjustment by the Zoning Administrator.

Courtesy Walk: Narrow walk (usually 2'-6" or 3'-0") crossing the planted part of the parkway, connecting the curb to the sidewalk.

Face of Curb: The vertical edge of the curb contiguous to the gutter.or the edge of roadway pavement.

Far Side: A relative term, dependent upon traffic direction, referring to that part of an intersection across (on the far side of) the intersecting street from the driver's point of view.

Greater Downtown Area: Area described in the *Guide to the Chicago Landscape Ordinance* as bounded by North Avenue, Ashland Avenue, Cermak Road, and Lake Michigan.

Mobility Streets: Streets in Downtown Districts officially designated in Section 17-4-0600 of the Zoning Code which serve primary pedestrian routes linking commuter rail stations with the downtown employment core. Sidewalks on mobility streets must be a minimum 14 feet in total width from building line to face-of-curb.

Near Side: A relative term, dependent upon traffic direction, referring to that part of an intersection before (on the near side of) the intersection from the driver's point of view.

Parkway: That portion of the public way between the street curb face and the nearest parallel property line, including sidewalk area.

Parkway landscape area: An area between the sidewalk and the back of street curb (or carriage walk) used for landscaping.

Parkway Planter: A large planter cut-out in a sidewalk, usually edged with a concrete curb and/or metal fence located in the parkway landscape area.

Pedestrian Streets: Streets in Business and Commercial Districts or Downtown Districts officially designated in Section 17-3-0500 or 17-4-0500 of the Zoning Code, where all vehicle access must come from an alley. No curb cuts or driveways are allowed along a pedestrian street.

Sidewalk: That portion of the parkway that is paved and used for pedestrian movement.

Tree Grate: Cast iron covering over a tree pit allowing pedestrian circulation over the pit while reducing soil compaction.

Tree Pit: A cut-out or hole in the sidewalk, filled with soil, in which a tree is planted, sometimes covered with a tree grate.

Vehicular Use Area: Any area of a [private] lot not located within any enclosed or partially enclosed structure and which is devoted to a use by or for motor vehicle including parking (accessory or non-accessory) or storage of automobiles, trucks, or other vehicles; loading areas; service areas and drives; and access drives and driveways.

APPENDIX



