
APPENDIX A: DEFINITIONS

AASHTO standards: industry standards for the multi-use path established by the American Association of State Highway and Transportation Officials in its Guide For the Development of Bicycle Facilities.

Angle of Repose: the maximum slope at which unconsolidated earth, gravel or similar material will remain at rest, i.e. the angle that naturally forms when loose material is dumped into a pile. With respect to the riverbank, the angle of repose means the steepest angle not subject to erosion. The minimum angle of repose along the Chicago River or new natural slopes is 3H:1V.

Applicant: the person or entity submitting a planned development application.

Bioswale: is a shallow depression created in the earth to accept and convey stormwater runoff. The bioswale uses natural means, including vegetation and soil, to treat stormwater by filtering out contaminants being conveyed in the water.

BMP: practice or type of control to keep pollutants and debris from being washed into the sewer system or waterway.

Chicago Landscape Ordinance: the portion of Titles 10 and 17 of the Municipal Code of Chicago pertaining to landscaping, as detailed in the Guide to the Chicago Landscape Ordinance.

Chicago River: includes the following waterways

- Main Branch of the Chicago River
- North Branch of the Chicago River
- North Branch Canal (east side of Goose Island)
- North Shore Channel
- South Branch of the Chicago River
- Sanitary and Ship Canal
- South Fork of the South Branch of the Chicago River (“Bubbly Creek”)
- Associated slips and inlets along the South Branch and Sanitary and Ship Canal

Deep Tunnel: a system of tunnels and reservoirs operated by the MWRD intended to control flooding and water pollution in the Chicago Metropolitan area. Formally known as the Tunnel and Reservoir Project (TARP).

Design Guidelines and Standards: the present document of the Chicago River Corridor Design Guidelines and Standards.

Dock : any structure extending or elevated over the water from the riverbank for the purpose of berthing a boat.

Development zone: the private use area “outside” of the urban greenway zone or river setback area.

Federal Navigation Channel: the federal authorized portion of the river open to commercial navigation. Includes the Main Branch, South Branch, portion of Bubbly Creek north

of 31st Street, Sanitary and Ship Canal, and the portion of the North Branch south of Addison Street.

Infiltration Filter Strip: are vegetated areas intended to treat stormwater sheet flow from adjacent impervious areas. Filter strips function by slowing down runoff velocities, filtering out sediment and other pollutants, and provide infiltration to underlying soils.

Floor Area Bonus: the right to build a larger building in return for providing a public amenity. The Chicago Zoning Ordinance provides floor area bonuses for additional river set-back area in the downtown zoning districts.

Mooring: a location where a boat may be tied up or anchored for a period of time, which may or may not include a dock for loading and unloading.

MWRD: the Metropolitan Water Reclamation District of Greater Chicago, the public agency responsible for sewerage treatment and flood control in the Chicago Metropolitan area.

Park District hours: hours during which outdoor Chicago Park District facilities are open to the public, typically from 6:00 am to 11:00pm every day.

Planned development: a real estate parcel in the city of Chicago developed in accordance with the planned development provisions of the Chicago Zoning Ordinance (Municipal Code, Chapter 17-8).

Planned development ordinance: an amendment to the Chicago Zoning Ordinance governing a particular planned development. Planned developments are negotiated by the Chicago Department of Planning and Development, and approved by the Chicago Plan Commission and the Chicago City Council.

Public access easement: a legal instrument by which a riverside property owner conveys to a public entity or other entity the right to permit public access.

Public accessible: open to the public free of charge during park district hours.

Riparian zone: plantings that closely approximate that of a natural river edge, consisting of native plant species to serve as wildlife habitat.

Riverbank zone: the area adjacent to the river between the water's edge and the top of bank (where there is a bank). Where there is a vertical bulkhead or other engineered vertical structure, there is no riverbank zone. See the "Setbacks" section for a definition of the water's edge and the "top of bank."

River Dependent Uses: those uses or activities that can be carried out only on, in, or adjacent to a waterway because the use requires access to the waterway and which, therefore, cannot be located inland, including:

- Bulk material operations that ship or receive materials by barge
- Marinas
- Recreational and commercial boating facilities

- Waterfront dock and port facilities
- Navigation aids, basins, and channels
- Bridge abutments
- Recreational parks and open spaces
- Other uses that require waterborne transportation or the river as a source of water

River Plan: Chicago River Corridor Development Plan, as adopted by the Chicago Plan Commission.

Riverwalk trail (multi-use path): continuous paved riverside shared use path intended for multiple recreation uses, including but not limited to walking, jogging, bicycling, and in-line skating. Motorized use of the trail is not permitted except by emergency vehicles.

Setback Zone: also called the urban greenway zone, extends from the top of bank to the development zone. Setbacks are used to regulate and direct development to preserve or achieve a public good or benefit.

Setback variances: are permitted in the setback to accommodate irregular and constrained development sites. Variances require mitigation ratio of 2.5:1 of additional open space adjacent to the setback area.

Toe of bank: the area where the sloped riverbank meets the water line.

Top of bank (sloped bank): the point at the top of the slope at the water's edge where the steepness of the slope becomes less than ten (10) percent.

Top of bank (vertical bulkhead): the point at the top of the bulkhead where a line between other analogous points is located continuously over land and does not cross over the water.

Urban greenway zone: the area between the top of bank or face of vertical bulkhead and the setback line furthest from the river and top of bank.

Water's edge: the high water level for a particular site or reach of the river.

APPENDIX B: DEVELOPMENT AREAS

TWO DEVELOPMENT AREAS ALONG THE CHICAGO RIVER

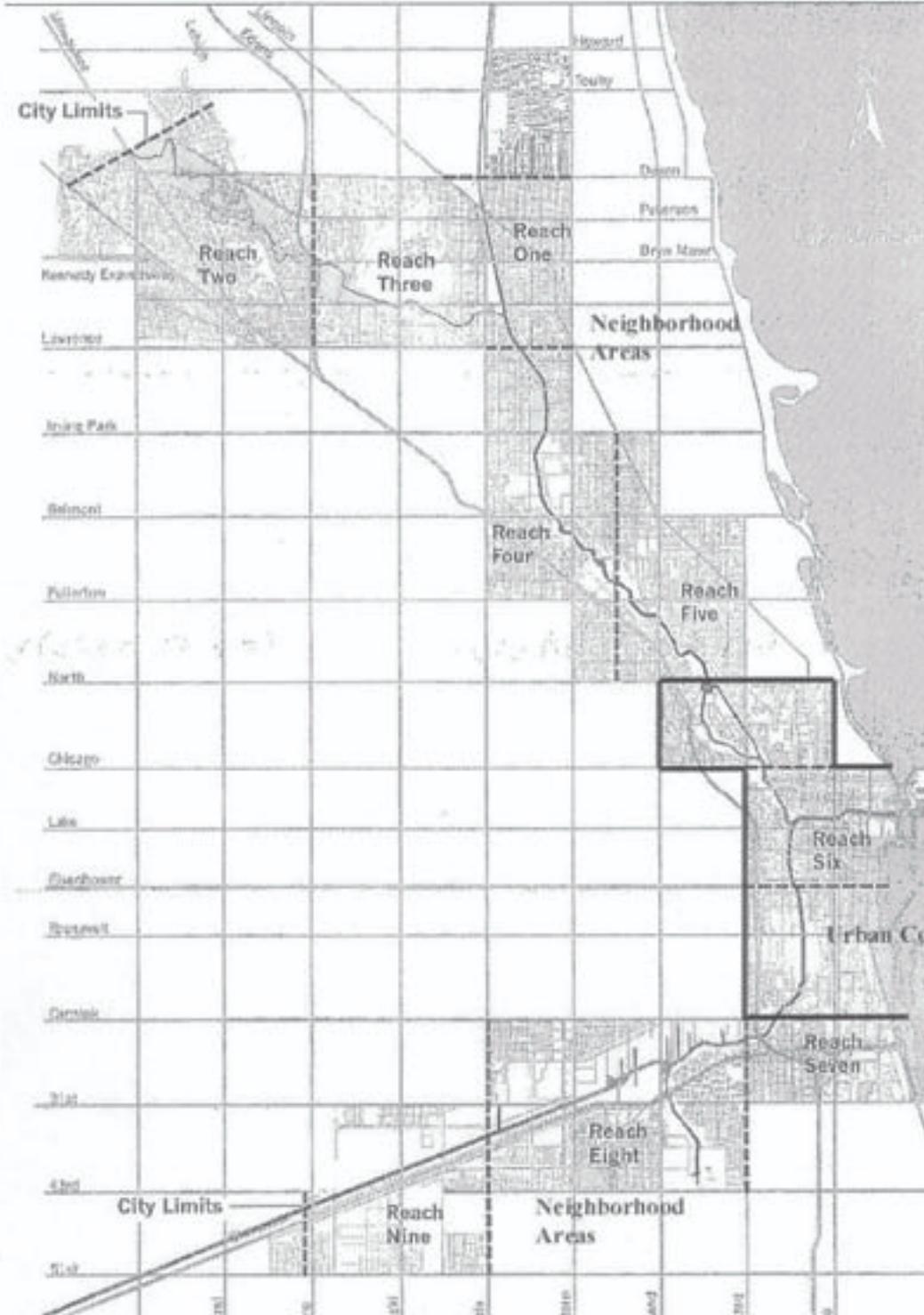
The character of the areas adjacent to the Chicago River differs depending whether the area is located within the urban core or within a residential neighborhood. The riverfront areas in the urban core are generally formal in appearance and dominated by architectural elements. The riverfront areas located in the residential neighborhoods are generally informal in appearance and are more likely to be dominated by vegetation.

Therefore, where appropriate, different site elements for areas depend upon whether they are located in the urban core or the residential neighborhoods.

Urban Core: This area is defined by North Avenue (north), Ashland Street (west), Cermak Street (south), and Lake Michigan (east).

Neighborhoods: The remainder of river sites not contained within the urban core are categorized as neighborhood sites. These sites are north of North Avenue, west of Ashland Street, south of Cermak to the city limits.

**Location of Urban Core and Neighborhood Areas
Relative to the Nine Reaches of the Chicago River Corridor Development Plan**



APPENDIX C: SITE FURNISHINGS

BENCH

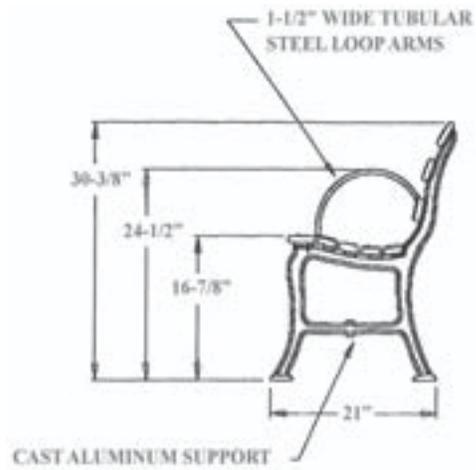
All benches should be 8 feet long with a center armrest. The vertical distance from the top of the center armrest to the top of the sitting area must not exceed 12". If the vertical distance from the top of the center armrest to the top of the sitting area exceeds 12" then intermediate armrests must be added every two feet. Benches should be powder coated with welded steel construction and must be securely fastened to a concrete slab or footing.

Product: 8 foot ornamental iron bench with center armrest
Application: Urban Core and Neighborhood Areas
Manufacturer: Du Mor or supplier of equivalent product
Product #: Bench 93
Color: Black
Contact: NuToys Leisure Products, Box 2121, LaGrange,
Illinois 60525, 1-800-526-6197



Bench Alternate for Private Developments

Product: 8 foot wood bench with arms and center
armrest added
Application: Urban Core and Neighborhood Areas
Manufacturer: Landscape Forms or supplier of equivalent product
Product Model: Chicago
Color of Frame: Black
Contact: Landscape Forms, 835 West Webster, Chicago,
Illinois 60614, 1-800-255-0341



BACKLESS BENCH

Backless benches are appropriate seating at river outlooks. All backless benches should not exceed 4 feet in length. Benches should be powder coated with welded steel construction and must be securely fastened to a concrete slab or footing.

Product: 4 foot ornamental iron backless bench
Application: Urban Core and Neighborhood Areas
Manufacturer: Du Mor or supplier of equivalent product
Product Model: Bench 95, Model 46
Color: Black
Contact: NuToys Leisure Products, Box 2121, LaGrange, Illinois 60525, 1-800-526-6197



RIBBON BICYCLE RACK

Bicycle racks should be of the continuous ribbon style, powder coated welded steel construction, capable of securing a minimum of four bicycles. Bicycle racks should be securely fastened to a concrete slab or footing.

Ribbon Bicycle Rack:

2 Humps -	Model #:600-5A
3 Humps -	Model #:600-7A
Application:	Urban Core and Neighborhood Areas
Manufacturer:	Tubular Forms or supplier of equivalent product
Color:	Black
Contact:	Kay Park Recreation, P.O. Box 477, Janesville, Iowa 50647, 1-800-553-2476



ACCESSIBLE DRINKING FOUNTAIN

Universally accessible drinking fountains should be securely mounted to a concrete slab and should be located within five feet of a drain inlet or catch basin.



Product:	Dual Bowl Accessible Drinking Fountain
Application:	Urban Core and Neighborhood Areas
Manufacturer:	Most Dependable Fountain or supplier of equivalent product
Product #:	440
Color:	Black
Contact:	Most Dependable Fountains, 4697 Winchester Road, Memphis, Tennessee 38118, 1-800-552-6331

Accessible Drinking

TRASH RECEPTACLE

Trash receptacle should be securely attached to concrete paving.

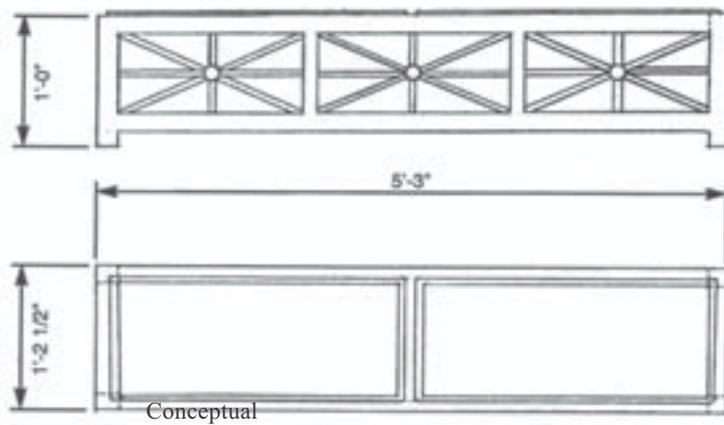
Product: Bethesda 32 Gallon Capacity with spun steel lid
Application: Urban Core and Neighborhood Areas
Manufacturer: Victor Stanley or supplier of equivalent product
Product #: S42
Color: Black
Contact: Howard L. White & Associates, Inc. P.O. Box
95642, Hoffman Estates, Illinois 60195,
1-800-225-2880



FLOWER BOX

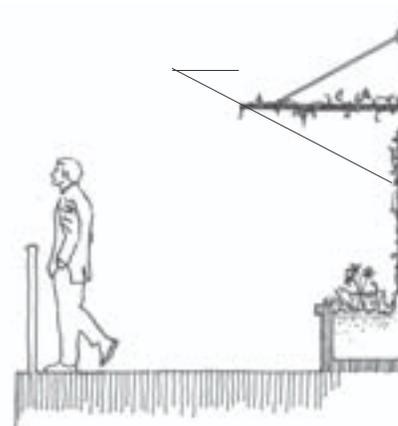
Flower boxes are composed of two parts: a metal bracket and removable plastic containers for planting.

Product: Flower Box with welded bracket supports
Manufacturer: G.F. Structures or supplier of equivalent product
Color: Black
Contact: G.F. Structures, Chicago, Illinois, 773-626-4122



VINE SUPPORTS

Vine supports are encouraged along the river as a method by which to introduce foliage on unattractive vertical surfaces. Vine supports may be secured directly against the vertical plane or may project from the vertical plane to create an overhead canopy. Vine supports must not impede pedestrian movement along the riverwalk and must be securely fastened.



TREE GRATES

Tree grates selected for use along the riverwalk should be ADA compliant. Therefore, grate openings must be no greater than a half inch wide in one direction. Tree grates should be oriented so that the primary pedestrian movement is perpendicular to grate openings. Recognize that grate openings must be of sufficient size to accommodate tree growth over time.

Product: 5' X 5' Tree grate, 3/4" thickness
Application: Urban Core and Neighborhood Areas
Color: Black

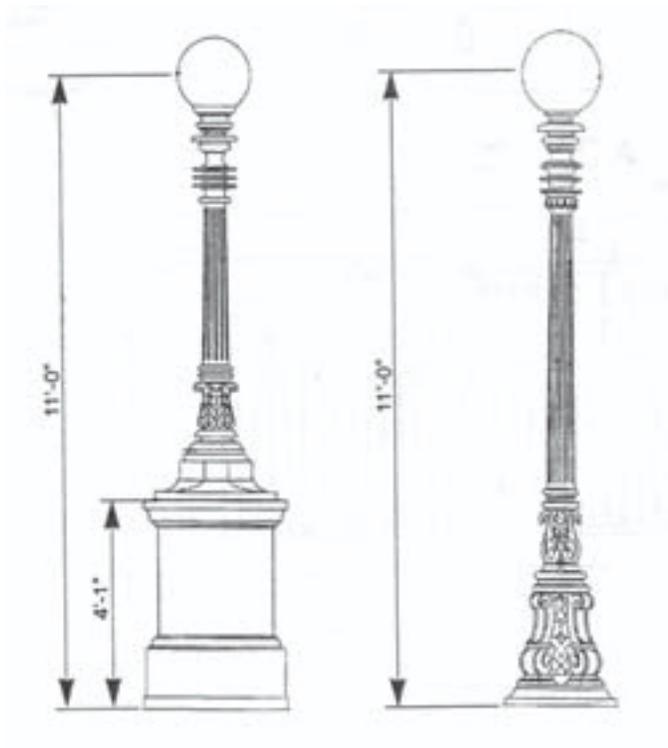


Tree Grate

WACKER DRIVE LIGHT

In the urban core where the Wacker Drive railing style applies (the area defined by Chicago Avenue on the north, Harrison Street on the south and Lake Michigan on the east), the Wacker Drive railing light fixtures must be used. In this same area, lighting fixtures away from the railing must conform with the Wacker Drive light fixture.

Product: Wacker Drive Railing Light Fixture and Wacker Drive Light Fixture
Manufacturer: Robinson Iron, Alexander City, Alabama or supplier of equivalent product
Contact: Building Blocks, Inc., Chicago, IL 312-243-9960



Wacker Drive Railing Light

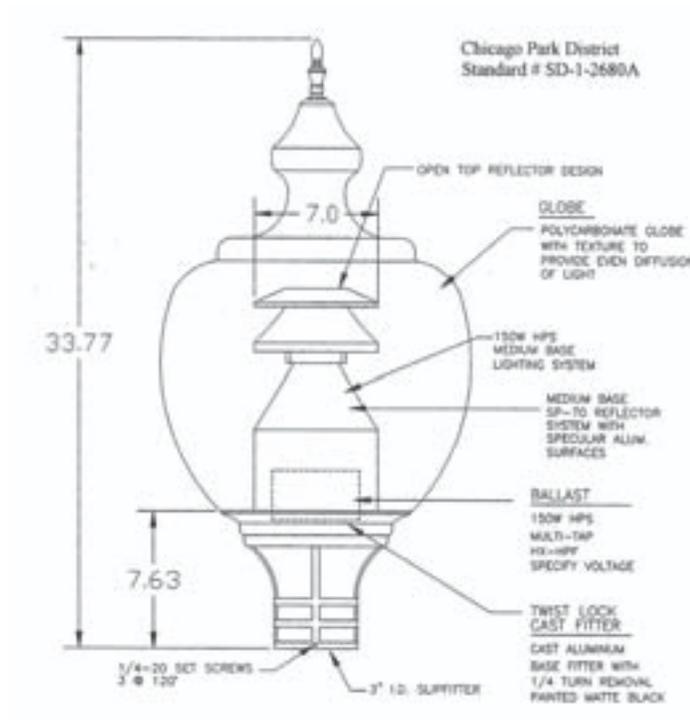
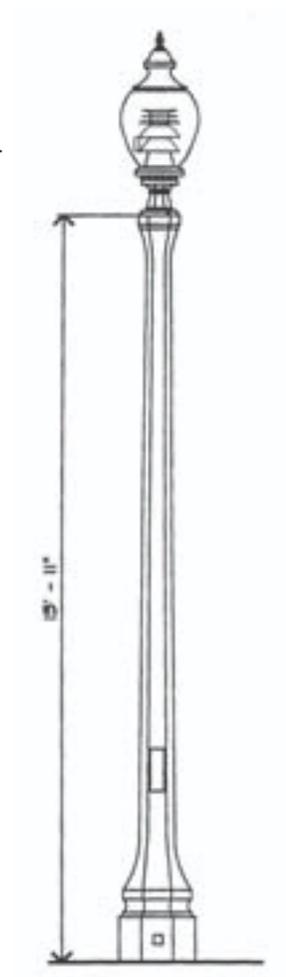
Wacker Drive Light

URBAN CORE AND NEIGHBORHOOD AREA LIGHTS

Light fixtures in areas of the urban core and neighborhood areas outside of the defined Wacker Drive area must use specified acorn fixture on the pre-cast concrete pole



- Product: Bureau of Electricity standard acorn fixture with acrylic lens, 150 watt, high pressure sodium
- Application: Urban Core and Neighborhood Areas
- Manufacturer: Hadco #S5855 or equivalent
- Poles: Light poles should be precast concrete mounted on a concrete footing
- Manufacturer: StressCrete #KT14, Color: Salt and Pepper S-30, Base Plate Mounting, Bureau of Electricity standard



TREE UPLIGHTING

Tree uplighting creates a dramatic effect. Bullet lights or floodlights may be located at the base of the tree and shields on the fixtures direct the light upward. Frequently, along the riverwalk in the urban core, lights are located at the base of the tree canopy projecting light upward. Generally, two uplights per tree are recommended to maximize the depth and texture of the projected light. If uplights are to be located in the tree canopy, it is recommended that the cords be neatly concealed along the tree trunk in a 1/2 inch diameter black PVC conduit. Direct burial of electrical line is preferable to stringing line above grade. In Chicago, where corrosion is an issue, composite non-metallic fixtures are preferable.



STEP LIGHT

Step lamps may be used for illuminating stairs or ramps.

Product: Brushed Stainless Steel Step Light
Application: Urban Core and Neighborhood Areas
Manufacturer: Bega or supplier of equivalent product
Product Model#: 2915P -CPC housing
Remarks: Provide integral electronic ballast with 0 degree F starting temperature
Contact: Morr-Sharp Associates, 20 East Jackson Blvd.
Chicago, IL 60604, 312-986-1515

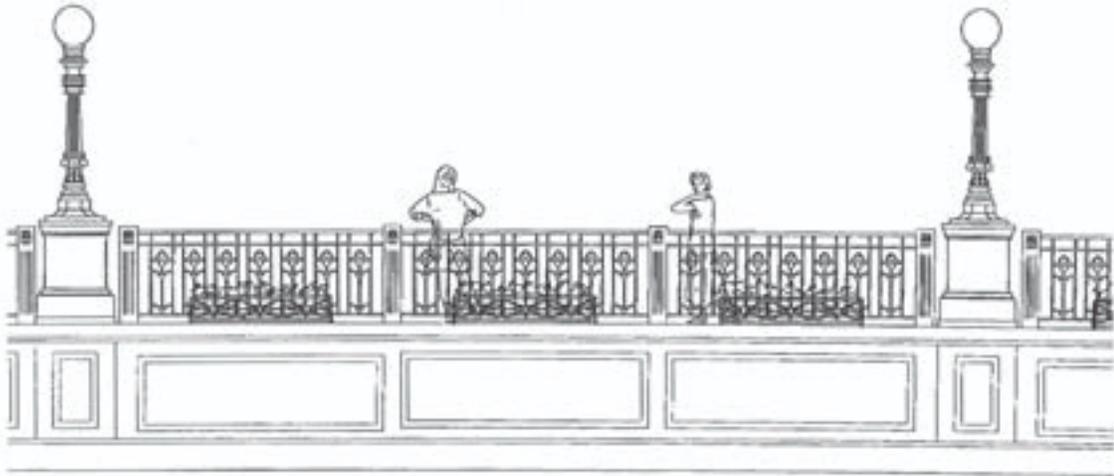


RAILINGS

In Neighborhood Areas, the maintenance of a natural riverbank is encouraged whenever possible and should be modified to accommodate a railing only when dangerous conditions exist. When a seawall exists, railings are required if the mean water level is more than 30 inches below the surface elevation of an adjacent walkway. All railings must comply with the City of Chicago's Building Code.

WACKER DRIVE RAILING

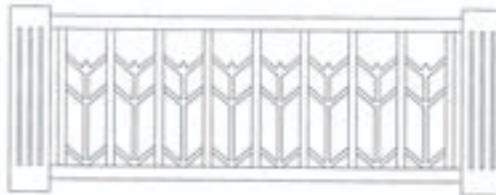
The Wacker Drive railing style applies to all riverwalk railing in the area defined by Chicago Avenue on the north, Harrison Street on the south and Lake Michigan on the east. This railing standard is currently being developed by the Chicago Department of Transportation.



Wacker Drive Railing Conceptual Design

URBAN CORE BEYOND WACKER DRIVE RAILING

The Urban Core beyond Wacker Drive railing style applies to all riverwalk railing in two areas. The first area is defined by the North Avenue Turning Basin on the north to Chicago Avenue on the south. The second area is defined by Harrison Street on the north and Cermak Street on the south. This railing standard is currently being developed by the Chicago Department of Transportation

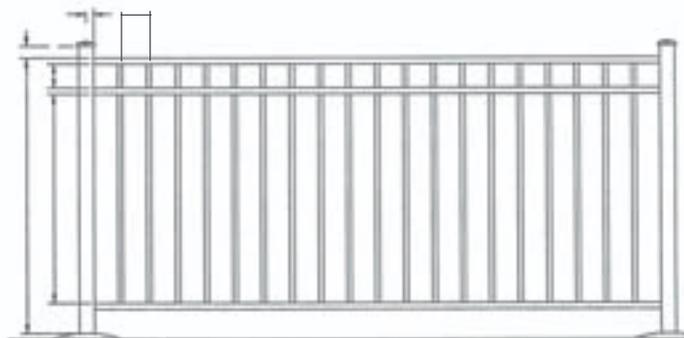


Urban Core Railing

NEIGHBORHOOD RAILING

All areas beyond the urban core that require railing must satisfy the following criteria:

- a) the railing must be 42 inches in height
- b) the top horizontal rail must be a minimum of 2 inches wide
- c) the distance from the top horizontal rail to the second horizontal rail must be 4 inches
- d) pickets must not extend below the bottom horizontal rail
- e) railing posts must have smooth caps
- f) 3/4 inch railing pickets must be spaced no farther than 4 inches on center
- g) railing posts shall be solid bar stock
- h) the railing must be black
- i) railing design must comply with all building and safety codes



Paving and Surfacing

In the Urban Greenway Zone, paving should be a hard, smooth impermeable surface, either asphalt or poured-in-place concrete. Gravel should be avoided for safety and accessibility reasons. Materials with joints and the potential for differential settling, such as precast concrete or brick pavers, should also be avoided.

Pavement design: Multi-use trail paving design should vary according to soil and subsurface conditions. In no case should an asphalt multi-use trail be less than 3 inches of asphalt (1 1/2 inches binder course and 1 1/2 inches of surface course) over 9 inches of compacted aggregate base on a compacted subgrade. In no case should a concrete multi-use trail be less than 5 inches of concrete over 6 inches of compacted aggregate base on a compacted subgrade.

The following paving and aggregate surfaces are suggested for use in the Development Zone, and should comply with Illinois Department of Transportation Standards and Specifications for Road and Bridge Construction, including AFTM standards:

Asphaltic Concrete Paving

Cast-in-Place Concrete

Expansion Joints and Contraction Joints

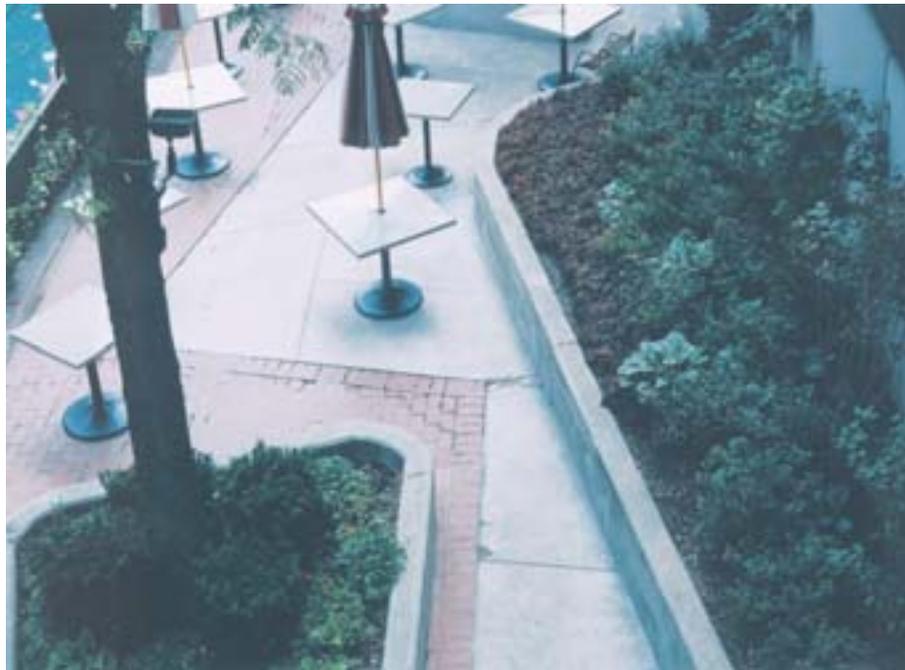
Unit Paving

Decomposed Granite

Limestone Screening

ARCHITECTURAL CONCRETE STRUCTURES

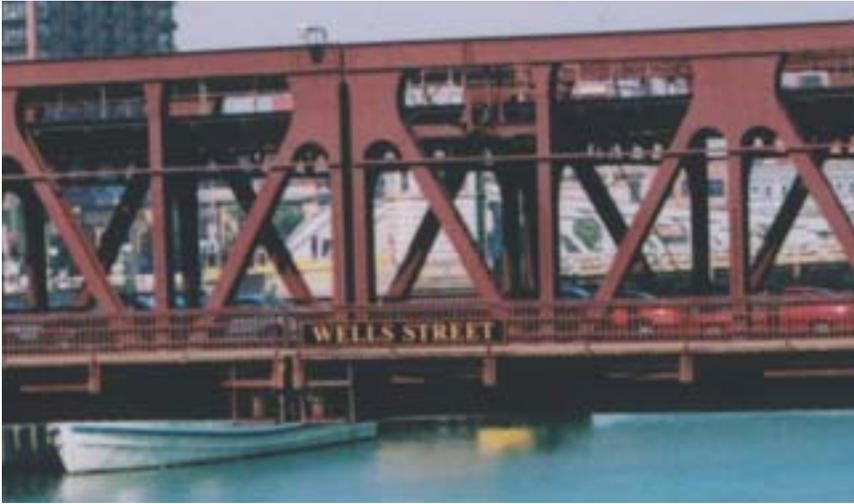
Architectural concrete structures such as planter walls and curbs, stairways, and light pole footing frequently occur along the river particularly in the urban core. Weep holes are typically needed in any rigid wall construction to relieve pressure due to infiltration and are placed 4 - 6 inches above grade and spaced 3 - 10 feet apart depending on soil porosity. Granular soils require less frequent spacing while clay soils require frequent spacing of weep holes. A batter (slight vertical sloping of the wall face toward the retained side) of 12:1 is typically recommended for rigid walls with relatively smooth surfaces. Tops of walls should typically slope 2% toward the retained side to prevent staining. (See Section 5 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, including AFTM standards)



APPENDIX D: SIGNAGE

IDENTIFICATION SIGNAGE

All identification signage within the urban core is to be consistent in color, font, and spatial arrangement with the black and gold signs attached to the bridges. All text should be gold on a black background, with a fine gold line near the sign's perimeter.



The Riverwalk emblem should be incorporated in identification signage along the main branch.



PARK SIGNAGE

In the parklands of neighborhood areas, identification signage should be consistent with the Chicago Park District Signage Standards currently being developed. Standard Park District Signage is manufactured by: Western Industries, Inc., 3501 South Cicero Avenue, Chicago, Illinois 60804. Signage Contact at Western Industries is John Beckman at 708-656-0900.

The Eastland Disaster was the second largest marine disaster after the sinking of the Titanic. This interpretative sign along the Chicago River marks the location of the disaster.



INTERPRETATIVE SIGNAGE

The river is a biological system as well as a significant cultural element within Chicago. Efforts to create informative signage that interpret the river's importance to the city's heritage are strongly encouraged. Signage that includes not only text but maps and illustrations is desirable.



The sign at Mariano Park describes the shelter's architectural significance.

APPENDIX E: PLANT PALETTES

The Chicago Landscape Ordinance should be consulted prior to undertaking any landscape related work along the Chicago River. This document specifies the appropriate soil mixtures, acidity, and organic content.

9.1 RECOMMENDED PLANT PALETTE FOR RIVERBANK ZONE

This list is derived from the Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois and Restoring and Managing Stream Greenways. Suggested plant species are intended to provide land owners, planners, and developers with an understanding of the diversity of native plants found along natural stream corridors in this area. Selection of species should also consider local environmental conditions, such as soils and hydrology. The recommended native plant palette represents only a limited number of plant species, emphasizing those species that should be relatively easy to establish in river bank restoration projects.

Trees and shrubs which provide edible fruit for wildlife are indicated with an asterisk (*)

LOWER BANK (STREAM STABILIZATION)

Trees

Salix nigra Black Willow

Shrubs

Cephalanthus occidentalis Common Buttonbush
Salix amygdaloides Peachleaf Willow
Sambucus canadensis Elderberry*

Forbs/Grasses/Aquatic plants

Acorus calamus Sweet Flag
Alisma subcordatum Water Plantain
Carex vulpinoidea Fox Sedge
Eleocharis acicularis Creeping Spike Rush
Eleocharis obtusa Blunt Spike Rush
Elymus canadensis Nodding Wild Rye
Elymus virginicus Virginia Wild Rye
Eupatorium maculatum Spotted Joe Pye Weed
Glyceria striata Fowl Mana Grass
Helenium autumnale Common Sneezeweed
Leersia oryzoides Rice Cut Grass
Lobelia cardinalis Cardinal Flower
Panicum virgatum Switch Grass
Scripus americanus Chairmaker's Rush
Solidago gigantea Late Goldenrod
Spartina pectinata Prairie Cordgrass
Verbena hastata Blue Vervain

UPPER BANK AND RIPARIAN ZONE

Trees

Betula nigra	River Birch*
Celtis occidentalis	Hackberry*
Juglans nigra	Black Walnut *
Populus deltoides	Cottonwood (male)
Quercus bicolor	Swamp White Oak*
Quercus macrocarpa	Bur Oak*
Quercus palustris	Pin Oak*

Shrubs

Cornus racemosa	Gray Dogwood*
Cornus stolonifera	Red-Osier Dogwood*
Corylus americana	Hazelnut*
Viburnum dentatum lucidum	Arrow-Wood Viburnum*
Viburnum lentago	Nannyberry*

Forbs/Grasses/Aquatic plants

Andropogon gerardi	Big Bluestem
Aster laevis	Smooth Blue Star
Aster lanceolatus	Panicled Aster
Aster novae-angliae	New England Aster
Bouteloua curtipendula	Side-Oats Grama
Chelone glabra	Turtlehead
Coreopsis tripteris	Tall Coreopsis
Filipendula rubra	Queen of the Prairie
Elymus canadensis	Nodding Wild Rye
Elymus virginianum	Virginia Wild Rye
Monarda fistulosa	Wild Bergamot
Panicum virgatum	Switch Grass
Petalostemum purpureum	Purple Prairie Clover
Pycnanthemum virginianum	Common Mountain Mint
Ratabida pinnata	Yellow Coneflower
Rudbeckia hirta	Black Eye Susan
Silphium laciniatum	Compass Plant
Silphium terebinthinaceum	Prairie Dock
Solidago rigida	Stiff Goldenrod
Sorghastrum nutans	Indian Grass
Spartina pectinata	Prairie Cord Grass
Tradescantia ohioensis	Spiderwort
Veronia fasciculata	Common Ironweed
Veronicastrum virginicum	Culver's Root

RECOMMENDED PLANT PALETTE FOR URBAN GREENWAY ZONE

The following list identifies native species and horticultural varieties and cultivars of native species with the designation. Ornamental non native species less appropriate to the naturalized areas and parks yet well suited to an urban setting are designated "U.S.". Native species and their cultivars may also be selected for the developed areas. "Native" as used in this document describes plants indigenous to the area within one hundred miles of Chicago.

Large Deciduous (Shade) Tree

U.S.	Acer ginnala	Amur Maple
N.	Acer x freemanii varieties	Autumn Blaze Maples
N.	Acer rubrum varieties	October Glory and Red Sunset Maples
N.	Acer saccharinum	Silver Maple
N.	Betula nigra	River Birch
N.	Celtis occidentalis	Hackberry*
N.	Gleditsia triacanthos inermis varieties	Skyline, Shademaster, and other thornless Honeylocusts
N.	Quercus bicolor	Swamp White Oak*
N.	Tilia americana	American Linden
U.S.	Tilia americana 'Redmond'	Redmond Linden
U.S.	Tilia x euchlora	Crimean Linden
U.S.	Tilia tomentosum 'Sterling Silver'	Sterling Silver Linden

Small Deciduous (Ornamental) Trees

N.	Amelanchier canadensis	Shadblow Serviceberry*
N.	Amelanchier x grandiflora	Apple Serviceberry*
N.	Amelanchier laevis	Allegheny serviceberry*
U.S.	Carpinus Betulus	European Hornbeam
N.	Carpinus caroliniana	Blue Beech and Musclewood
N.	Cercis canadensis	Redbud
N.	Cornus alternifolia	Pagoda Dogwood*
N.	Cornus mas	Cornelian Cherry Dogwood*
N.	Crataegus crusgalli	Cockspur Hawthorn*
N.	Crataegus crusgalli inermis	Thornless Cockspur Hawthorn*
N.	Crataegus mollis	Downy Hawthorn*
N.	Crataegus phaenopyrum	Washington Hawthorn*
N.	Crataegus punctata	Dotted Hawthorn*
N.	Crataegus viridis	Winter King Hawthorn*
U.S.	Malus varieties	Adams, Siberian, Jackii Siberian, Bob White, Beverly, Donald Wyman, Prairiefire, Profusion, Red Jewel, Sargent, Snowdrift, Red Zumi, and Yellow Zumi Crabapple
N.	Ostrya virginiana	Ironwood

Deciduous Coniferous Trees

U.S.	Larix decidua	European Larch
N.	Larix laricina	American Larch
U.S.	Taxodium distichum	Bald Cypress

Evergreen/Coniferous Trees

U.S.	<i>Picea abies</i>	Norway Spruce
U.S.	<i>Pinus flexilis</i>	Lumber Pine
U.S.	<i>Pinus mugo</i>	Mugo Pine
U.S.	<i>Pinus nigra</i>	Austrian Pine
N.	<i>Pinus strobus</i>	White Pine
U.S.	<i>Pseudotsuga menziesii</i>	Douglas Fir

Deciduous Shrubs

N.	<i>Aronia arbutifolia</i>	Red Chokeberry*
N.	<i>Aronia melanocarpa</i>	Black Chokeberry*
U.S.	<i>Berberis thunbergii</i> varieties	Japanese Barberry
U.S.	<i>Buddleia davidii</i>	Butterfly Bush
U.S.	<i>Chaenomeles japonica</i>	Japanese Flowering Quince
N.	<i>Cornus sericea (stolonifera)</i>	Redtwig Dogwood*
N.	<i>Cornus sericea (stolonifera)</i> 'Bailey's'	Bailey's Redtwig Dogwood*
N.	<i>Cornus sericea (stolonifera)</i> 'Isanti'	Istanti Redtwig Dogwood*
U.S.	<i>Cotoneaster</i> spp.	Peking, Cranberry, Hesse, Rock Spray and Multiflorus Cotoneaster
U.S.	<i>Diervilla sessilifolia</i>	South Bush Honeysuckle
U.S.	<i>Forsythia intermedia</i> hybrids	Forsythia
U.S.	<i>Forsythia viridissima</i>	Bronx Forsythia
U.S.	<i>Fothergilla gardenii</i>	Drawf Bottlebrush, Drawf Fothergilla
N.	<i>Hydrangea arborescens</i>	Smooth Hydrangea
U.S.	<i>Hydrangea paniculata</i> varieties	Peegee Improved and Tardiva Late
U.S.	<i>Hydrangea quercifolia</i>	Panicle Hydrangea
N.	<i>Hypericum kalmianum</i>	Oakleaf Hydrangea
U.S.	<i>Ilex glabra</i>	St. John's wort
U.S.	<i>Kerria japonica</i>	Inkberry*
U.S.	<i>Lonicera xylosteum</i>	Japanese Kerria
U.S.	<i>Myrica pennsylvanica</i>	Clavey's Honeysuckle*
U.S.	<i>Myrica pennsylvanica</i>	Northern Bayberry
N.	<i>Potentilla fruticosa</i>	Potentilla
N.	<i>Potentilla fruticosa</i> varieties	Abbottswood, Gold Drop, Gold Finger, Jackman's Potentilla
N.	<i>Physocarpus opulifolius</i>	Common Ninebark
N.	<i>Rhus aromatica</i> 'Gro-Low'	Gro-Low Sumac
N.	<i>Rhus glabra</i>	Smooth Sumac
N.	<i>Rhus typhina</i>	Staghorn Sumac
U.S.	<i>Ribes alpinum</i>	Alpine Currant
U.S.	<i>Ribes alpinum</i> 'Green Mound'	Green Mound Alpine Currant
U.S.	<i>Rosa rugosa</i>	Rugosa Rose, Pink Mediland, Red Mediland, Scarlet Mediland, and Carolina Rose
U.S.	<i>Spirea x bumalda</i>	Anthony Waterer, Froebel, Gold Flame, Gold Mound Spirea
U.S.	<i>Spirea japonica</i>	Little Princess Japanese Spirea
U.S.	<i>Spirea nipponica</i>	Snowmound Spirea
U.S.	<i>Stephanandra incisa</i>	Cutleaf Stephanandra
U.S.	<i>Symphoricarpos albus</i>	Common Snowberry
U.S.	<i>Symphoricarpos x chenaultii</i>	Chenault Coralberry

U.S.	<i>Syringa</i> spp.	Chinese Lilac, Meyer's Dwarf Lilac, Miss Kim Dwarf Lilac, and Japanese Tree Lilac
U.S.	<i>Syringa vulgaris</i>	Common Purple Lilac
U.S.	<i>Syringa vulgaris</i> var. <i>alba</i>	Common White Lilac
U.S.	<i>Syringa vulgaris</i> varieties	French hybrid Lilacs
U.S.	<i>Viburnum x burkwoodii</i>	Burkwood Viburnum
U.S.	<i>Viburnum carlcephalum</i>	Carlcephalum Viburnum
U.S.	<i>Viburnum carlesii</i>	Koreanspice Viburnum
N.	<i>Viburnum dentatum</i> varieties	Autumn Jazz, Chicago Lustre Arrowwood Viburnum*
U.S.	<i>Viburnum x judii</i>	Judd Viburnum
N.	<i>Viburnum lentago</i>	Nannyberry*
U.S.	<i>Viburnum plicatum tomentosum</i>	Doublefire Viburnum*
N.	<i>Viburnum prunifolium</i>	Blackhaw Viburnum*
U.S.	<i>Viburnum sieboldii</i>	Siebold Viburnum*
N.	<i>Viburnum trilobum</i>	American Cranberrybush*
N.	<i>Viburnum trilobum compactum</i>	Compact American Cranberrybush*
N.	<i>Viburnum trilobum</i> varieties	Haws, Wentworth Cranberrybush*
U.S.	<i>Weigela florida</i>	Weigela

Evergreen/Coniferous Shrubs

U.S.	<i>Buxus micophylla</i> varieties	Dwarf Korean Boxwood
U.S.	<i>Ilex x meserveae</i>	Meserve Holly
	'Blue Prince' 'Blue Princess'	'Blue Prince' / 'Blue Princess'
U.S.	<i>Ilex x meserve</i>	China Boy and China Girl 'China boy' / 'China Girl' Meserve Holly
U.S.	<i>Juniperus chinensis pfitzeriana</i>	Pfitzer Juniper
U.S.	<i>Juniperus chinensis</i> 'Sea Green'	Sea Green Juniper
N.	<i>Juniperus horizontalis</i> var.	Spreading Juniper varieties
U.S.	<i>Juniperus procumbens</i>	Japanese Garden Juniper
U.S.	<i>Juniperus sargentii</i>	Sargent Juniper
N.	<i>Juniperus virginiana</i> var.	Eastern Red Cedar varieties
U.S.	<i>Rhododendron</i> hybrids	P.J.M. hybrid Rhododendrons
U.S.	<i>Taxus cuspidata</i> varieties	Japanese Yew varieties
U.S.	<i>Taxus x media</i> varieties	Anglo - Japanese Yew varieties
N.	<i>Thuja occidentalis</i> varieties	Arborvitae varieties
N.	<i>Tsuga canadensis</i>	Canadian Hemlock

Groundcovers

U.S.	<i>Euonymus fortunei</i>	Wintercreeper
U.S.	<i>Euonymus fortunei colorata</i>	Purpleleaf Wintercreeper
U.S.	<i>Pachysandra terminalis</i>	Pachysandra, Japanese Spurge
U.S.	<i>Polygonum Reynoutria</i>	Fleece Flower
U.S.	<i>Vinca minor</i>	Periwinkle

Vines

N.	<i>Celastrus scandens</i>	Bittersweet
U.S.	<i>Hydrangea perfoliaris</i>	Climbing Hydrangea

N.	<i>Parthenocissus quinquefolia</i>	Virginia Creeper
U.S.	<i>Parthenocissus tricuspidata</i>	Boston Ivy
N.	<i>Vitis riparia</i>	Riverbank or Fox Grape*
Perennials / Forbs		
U.S.	<i>Alchillea</i> x hybrid	Coronation Gold yarrow 'Coronation Gold'
U.S.	<i>Alchillea</i> x hybrid 'Moonshine'	Moonshine Yarrow
N.	<i>Aquilegia canadensis</i>	American Columbine
N.	<i>Arunus dioicus</i>	Goat's Beard
N.	<i>Asclepias tuberosa</i>	Butterfly Weed
N.	<i>Aster nova-angliae</i> 'Purple Dome'	Purple Dome New England Aster
U.S.	<i>Astilbe</i> x <i>arendsii</i> cultivars	Deutschland, Fanal, Rheinland astilbe
U.S.	<i>Astilbe chinensis</i> cultivars	Chinese Astilbe varieties
U.S.	<i>Calamagrostis</i> x <i>acutiflora</i> cultivars	Karl Foerster, Stricta Feather Reed Grass
N.	<i>Chasmanthium latifolium</i>	Northern Sea Oats
U.S.	<i>Chrysanthemum maximum</i>	Shasta Daisy
U.S.	<i>Chrysanthemum superbum</i>	Little Princess Shasta Daisy
U.S.	<i>Coreopsis verticillata</i> 'Moonbeam'	Moonbeam Coreopsis
U.S.	<i>Dicentra spectabilis</i>	Bleeding Heart
N.	<i>Echinacea purpurea</i> cultivars	Purple Coneflower
U.S.	<i>Hemerocallis</i> spp.	Daylily varieties
U.S.	<i>Hosta</i> spp.	Hosta Daylily varieties
U.S.	<i>Iris siberica</i> cultivars	Siberian Iris varieties
N.	<i>Liatris spicata</i>	Blazing Star
U.S.	<i>Miscanthus sinensis</i> cultivars	Purple, Silverfeather Maiden Grass
N.	<i>Monarda didyma</i> 'Cambridge Scarlet'	Cambridge Scarlet Bee Balm
N.	<i>Panicum virgatum</i>	Swith Grass
U.S.	<i>Pennisetum alopecuroides</i>	Hamelin and Common Fountain Grass
U.S.	<i>Perovskia atriplicifolia</i>	Russian Sage
U.S.	<i>Phlox paniculata</i> cultivars	Phlox varieties
U.S.	<i>Rubeckia fulgida</i> 'Goldstrum'	Goldstrum Black Eyed Susan
N.	<i>Schizachyrium scoparium</i>	Little Blue Stem
U.S.	<i>Sedum spectabilis</i> 'Autumn Joy'	Autumn Joy Sedum
N.	<i>Sporobolus heterolepis</i>	Prairie Dropseed

RECOMMENDED PLANT PALETTE FOR DEVELOPMENT ZONE

Large Deciduous (Shade) Tree

N.	Acer x freemanii 'Autumn Blaze'	Autumn Blaze hybrid Maples
U.S.	Acer ginnala	Amur Maple
N.	Acer rubrum	October Glory and Red Sunset Red Maples
N.	Acer saccharum varieties	Sugar Maple
N.	Acer saccharinum	Silver Maple
U.S.	Alnus glutinosa	European Black Alder
N.	Betula nigra	River Birch
N.	Celtis occidentalis	Hackberry
N.	Gleditsia triacanthos inermis	Thornless Honeylocusts
N.	Gleditsia triacanthos inermis 'Skyline'	Skyline Thornless Honeylocusts
N.	Quercus bicolor	Swamp White Oak
N.	Tilia americana	American Linden
U.S.	Tilia americana 'Redmond'	Redmond Linden
U.S.	Tilia x euchlora	Crimean Linden
U.S.	Tilia tomentosum 'Sterling Silver'	Sterling Silver Linden

Small Deciduous (Ornamental) Trees

N.	Amelanchier canadensis	Shadblow Serviceberry*
N.	Amelanchier x grandiflora	Apple Serviceberry*
N.	Amelanchier laevis	Allegheny Serviceberry*
N.	Celtis occidentalis	Hackberry*
N.	Cercis canadensis	Redbud
N.	Cornus alternifolia	Pagoda Dogwood*
U.S.	Cornus mas	Cornelian Cherry Dogwood*
N.	Crataegus crus - galli	Cockspur Hawthorn*
N.	Crataegus crus-galli inermis	Thornless Cockspur Hawthorn*
N.	Crataegus mollis	Downy Hawthorn*
U.S.	Crataegus phaenopyrum	Washington Hawthorn*
N.	Crataegus punctata	Dotted Hawthorn*
N.	Crataegus viridis	Winter King Hawthorn*
U.S.	Malus varieties	Adams, Siberian, Jackii Siberian, Bob White, Beverly*, Donald Wyman, Prairiefire, Profusion, Red Jewel, Sargent, Snowdrift, Red Zumi, and Yellow Zumi crabapple

Deciduous Coniferous Trees

U.S.	Larix decidua	European Larch
N.	Larix laricina	American Larch
U.S.	Taxodium Distichum	Bald Cypress

Evergreen Coniferous Trees

U.S.	Picea abies	Norway Spruce
U.S.	Pinus flexilis	Lumber Pine
U.S.	Pinus mugo	Mugo Pine
U.S.	Pinus nigra	Austrian Pine

N.	<i>Pinus strobus</i>	White Pine
U.S.	<i>Pseudotsuga menziesii</i>	Douglas Fir
Deciduous Shrubs		
N.	<i>Aronia arbutifolia</i>	Red Chokberry*
N.	<i>Aronia melanocarpa</i>	Black Chokeberry*
U.S.	<i>Berberis thunbergii</i> varieties	Japanese Barberry
U.S.	<i>Buddleia davidii</i>	Butterfly Bush
U.S.	<i>Chaenomeles japonica</i>	Japanese Flowering Quince
N.	<i>Cornus sericea</i> (stolonifera) 'Bailey'	Bailey's Redtwig Dogwood*
N.	<i>Cornus sericea</i> (stolonifera) 'Isanti'	Istanti Redtwig Dogwood*
U.S.	<i>Cotoneaster</i> spp.	Peking, Cranberry, Hesse, Rock Spray and Multiflorus Cotoneaster
U.S.	<i>Dievilla sessilifolia</i>	South Bush Honeysuckle
U.S.	<i>Forsythia intermedia</i> hybrids	Forsythia
U.S.	<i>Forsythia viridissima</i>	Bronx Forsythia
N.	<i>Hydrangea arborescens</i>	Smooth Hydrangea
U.S.	<i>Hydrangea paniculata</i> varieties	Peegee Improved and Tardiva Late Panicule Hydrangea
U.S.	<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea
N.	<i>Hypericum kalmianum</i>	St. John's wort
U.S.	<i>Ilex glabra</i>	Inkberry*
N.	<i>Ilex verticillata</i> varieties	Jim Dandy, Red Sprite, Winter Red Common Winterberry
U.S.	<i>Kerria japonica</i>	Japanese Kerria
U.S.	<i>Lonicera xylosteum</i>	Clavey's Honeysuckle*
U.S.	<i>Myrica pennsylvanica</i>	Northern Bayberry
N.	<i>Potentilla fruticosa</i>	Potentilla
N.	<i>Potentilla fruticosa</i> varieties	Abbottswood, Gold Drop, Gold Finger, Jackman's Potentilla
N.	<i>Rhus aromatica</i> 'Gro-Low'	Gro-Low Sumac
U.S.	<i>Ribes alpinum</i>	Alpine Currant
U.S.	<i>Ribes alpinum</i> 'Green Mound'	Green Mound
U.S.	<i>Rosa rugosa</i>	Alpine Currant Rugosa Rose, Beach Plum
U.S.	<i>Rosa</i> x 'Pink Meidiland'	Pink Meidiland Rose
U.S.	<i>Rosa</i> x 'Red Meidiland'	Red Meidiland Rose
U.S.	<i>Rosa</i> x 'Scarlet Meidiland'	Scarlet Meidiland Rose
U.S.	<i>Rosa virginiana</i>	Carolina Rose
U.S.	<i>Spirea x bumalda</i>	Anthony Waterer, Froebel, Gold Flame, Gold Mound Spirea
U.S.	<i>Spirea japonica</i>	Little Princess Japanese Spirea
U.S.	<i>Spirea nipponica</i>	Snowmound Spirea
U.S.	<i>Stephanandra incisa</i>	Cutleaf Stephanandra
U.S.	<i>Symphoricarpos</i> x <i>chenaultii</i>	Chenault Coralberry
U.S.	<i>Syringa</i> spp.	Chinese Lilac, Meyer's Dwarf Lilac, Miss Kim Dwarf Lilac, and Common Purple Lilacs

U.S.	<i>Viburnum burkwoodii</i>	Burkwood Viburnum
U.S.	<i>Viburnum carlcephalum</i>	Carlcephalum Viburnum
U.S.	<i>Viburnum carlesii</i>	Koreanspice Viburnum
N.	<i>Viburnum dentatum</i> varieties	Autumn Jazz, Chicago Lustre Arrowwood Viburnum*
U.S.	<i>Viburnum x judii</i>	Judd Viburnum
N.	<i>Viburnum lentago</i>	Nannyberry*
U.S.	<i>Viburnum plicatum tomentosum</i>	Doublefire Viburnum*
N.	<i>Viburnum prunifolium</i>	Blackhaw Viburnum*
U.S.	<i>Viburnum sieboldii</i>	Siebold Viburnum*
N.	<i>Viburnum trilobum</i>	American Cranberrybush*
N.	<i>Viburnum trilobum compactum</i>	Compact American Cranberrybush*
N.	<i>Viburnum trilobum</i> varieties	Hahs, Wentworth American Cranberrybush*
U.S.	<i>Weigela florida</i>	Weigela

Evergreen Shrubs

U.S.	<i>Buxus micophylla</i> varieties	Dwarf Korean Boxwood
U.S.	<i>Ilex x meserveae</i> 'Blue Prince' / 'Blue Princess'	Meserve Holly Blue Prince and Blue Princess
U.S.	<i>Ilex x meserveae</i>	China Boy and China Girl China boy' / 'China Girl' Meserve Holly
U.S.	<i>Juniperus chinensis pfitzeriana</i>	Pfitzer Juniper
U.S.	<i>Juniperus chinensis</i> 'Sea Green'	Sea Green Juniper
N.	<i>Juniperus horizontalis</i> var.	Spreading Juniper varieties
U.S.	<i>Juniperus procumbens</i>	Japanese Garden Juniper
N.	<i>Juniperus virginiana</i> var.	Eastern Red Cedar varieties
U.S.	<i>Rhododendron</i> hybrids	P.J.M. hybrid Rhododendrons
U.S.	<i>Taxus cuspidata</i> varieties	Japanese Yew varieties
U.S.	<i>Taxus x media</i> varieties	Anglo - Japanese Yew varieties
N.	<i>Thuja occidentalis</i> varieties	Arborvitae varieties
N.	<i>Tusga canadensis</i>	Canadian Hemlock

Groundcovers

U.S.	<i>Euonymus fortunei</i>	Wintercreeper
U.S.	<i>Euonymus fortunei colorata</i>	Purpleleaf Wintercreeper
U.S.	<i>Pachysandra terminalis</i>	Pachysandra, Japanese Spurge
U.S.	<i>Polygonum Reynoutria</i>	Fleece Flower
U.S.	<i>Vinca minor</i>	Periwinkle

Vines

N.	<i>Celastrus scandens</i>	Bittersweet
U.S.	<i>Hydrangea perfoliata</i>	Climbing Hydrangea
N.	<i>Parthenocissus quinquefolia</i>	Virginia Creeper
U.S.	<i>Parthenocissus tricuspidata</i>	Boston Ivy
N.	<i>Vitis riparia</i>	Riverbank or Fox Grape*

Perennials / Forbs

U.S.	<i>Alchillea</i> x hybrid 'Coronation Gold'	Coronation Gold Yarrow
U.S.	<i>Alchillea</i> x hybrid 'Moonshine'	Moonshine Yarrow
	<i>Aquilegia canadensis</i>	American columbine
	<i>Arunus dioicus</i>	Goat's Beard
	<i>Asclepias tuberosa</i>	Butterfly Weed
	<i>Aster nova-angliae</i> 'Purple Dome'	Purple Dome New England Aster
U.S.	<i>Astilbe</i> x <i>arendsii</i> cultivars	Deutschland, Fanal, Rheinland Astilbe
U.S.	<i>Astilbe chinensis</i> cultivars	Chinese Astilbe varieties
U.S.	<i>Calamagrostis</i> x <i>acutiflora</i> cultivars	Karl Foerster, Stricta Feather Reed Grass
U.S.	<i>Chrysanthemum maximum</i>	Shasta Daisy
U.S.	<i>Chrysanthemum superbum</i>	Little Princess Shasta Daisy
U.S.	<i>Coreopsis verticillata</i> 'Moonbeam'	Moonbeam Coreopsis
U.S.	<i>Dicentra spectabilis</i>	Bleeding Heart
N.	<i>Echinacea purpurea</i> cultivars	Purple Coneflower
U.S.	<i>Hemerocallis</i> spp.	Daylily varieties
U.S.	<i>Hosta</i> spp.	Hosta Daylily varieties
U.S.	<i>Iris siberica</i> cultivars	Siberian Iris varieties
	<i>Liatris spicata</i>	Blazing Star
U.S.	<i>Miscanthus sinensis</i> cultivars	Purple, Silverfeather Maiden Grass
	<i>Monarda didyma</i> 'Cambridge Scarlet'	Cambridge Scarlet
		Bee Balm
	<i>Panicum virgatum</i>	Swith Grass
U.S.	<i>Pennisetum alopecuroides</i>	Hamelin and Common Fountain Grass
U.S.	<i>Perovskia atriplicifolia</i>	Russian Sage
U.S.	<i>Phlox paniculata</i> cultivars	Phlox varieties
U.S.	<i>Rubeckia fulgida</i> 'Goldstrumí'	Goldstrum Black Eyed Susan
U.S.	<i>Sedum spectabilis</i> 'Autumn Joy'	Autumn Joy Sedum

APPENDIX F: SAFETY EQUIPMENT

LIFE PRESERVER RINGS

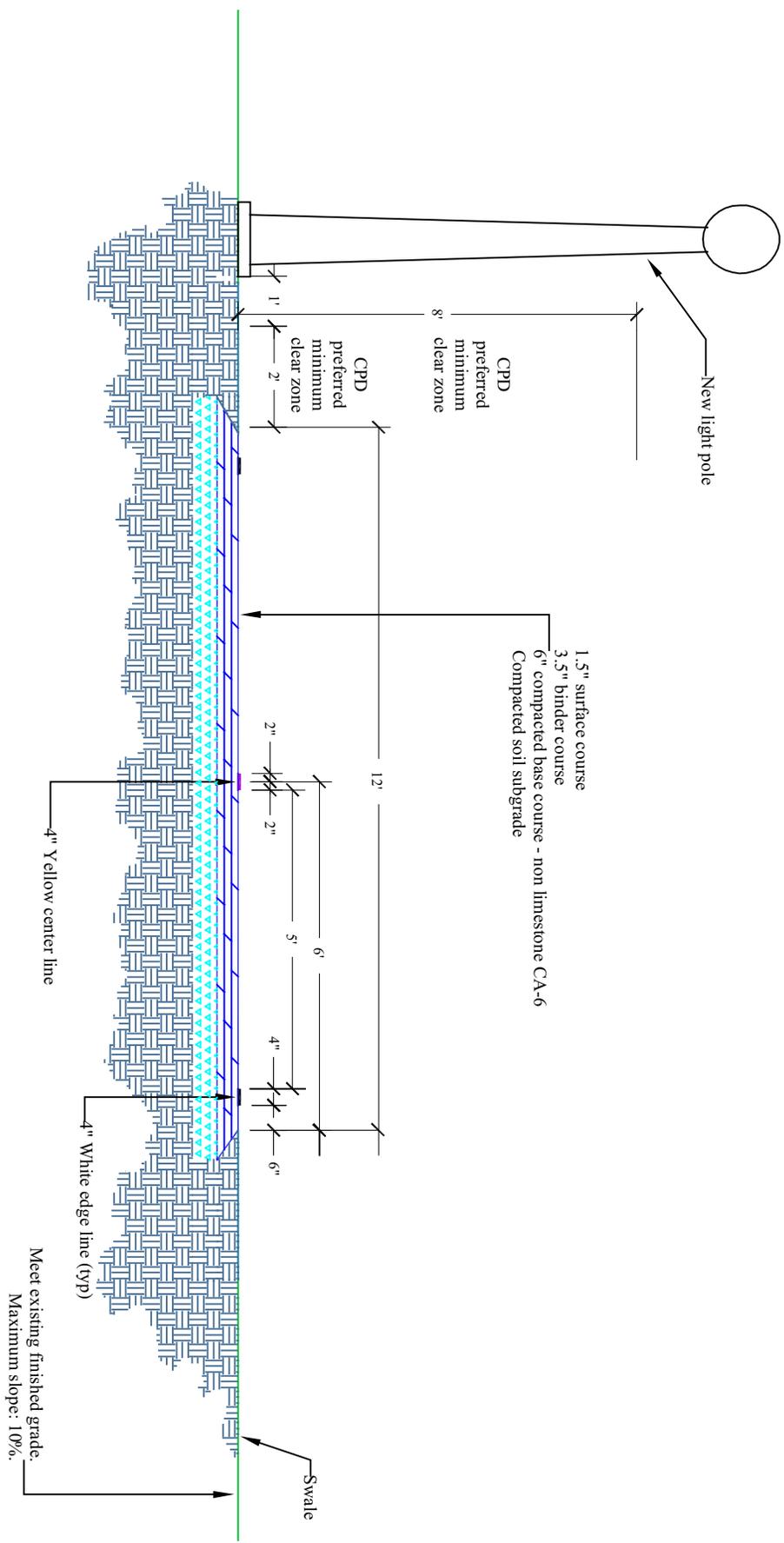
All life preserver rings shall be circular rings, 24 inches in diameter and white in color. The rope attached to the life preserver ring shall be white nylon rope, 3/8 inch in diameter and 100 feet in length. Life preserver rings should be spaced no further than 300 feet apart. Life preserver rings may be purchased from supplier of marine equipment and must be approved for use by the US Coast Guard.

SEAWALL LADDERS

Seawall ladders are fabricated of stainless steel. Seawall ladders measure 24 inches wide with the length varying according to the distance from the top of the seawall to the low water point of the site. Ladder rungs are 3/4 to 1 inch in diameter, with a 1 foot spacing between rungs. Rungs are welded onto a flat steel member that is 3 inches wide by 1/2 inch thick. Seawall ladders should be installed no further than 300 feet apart.

APPENDIX G: CHICAGO PARK DISTRICT RIVERFRONT TRAIL

The following are sample riverfront trail specifications used by the Chicago Park District. The width of the riverfront trail will vary from 8 - 12 ft depending on intensity of use and character of the riverwalk.



1. RIVERFRONT TRAIL - STANDARD CROSS SECTION

Scale 1" = 40'
 OCT 29/2002
 REVISION

APPENDIX H: FEDERAL NAVIGATION CHANNEL

The following are maps from the U.S. Army Corps of Engineers delineating the Federal Navigation Channel within the Chicago River Waterway * (source: U.S. Army Corps of Engineers Illinois Waterway Charts).

* Blue area on navigation maps indicate portion of channel outside federal navigation channel.

Illinois Waterway Navigation Charts

Legend

Navigation Aids

- Daymark Left Bank
- Daymark Right Bank
- Right Navigation Buoy
- Left Navigation Buoy
- Light
- Light & Daymark
- Wreck Buoys
- River Miles from Grafton, IL
- Sailing Line & Current

Roads & Railroads

- Interstate Highway
- U.S. Highway
- State Highway
- Secondary Roads
- Railroads

Drainage

- Rivers
- Streams

Recreation Facilities

- Boat Club
- Boat Launch
- Marina
- Gaming Boat
- Corps of Engineers Facility

Levees

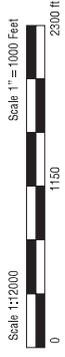
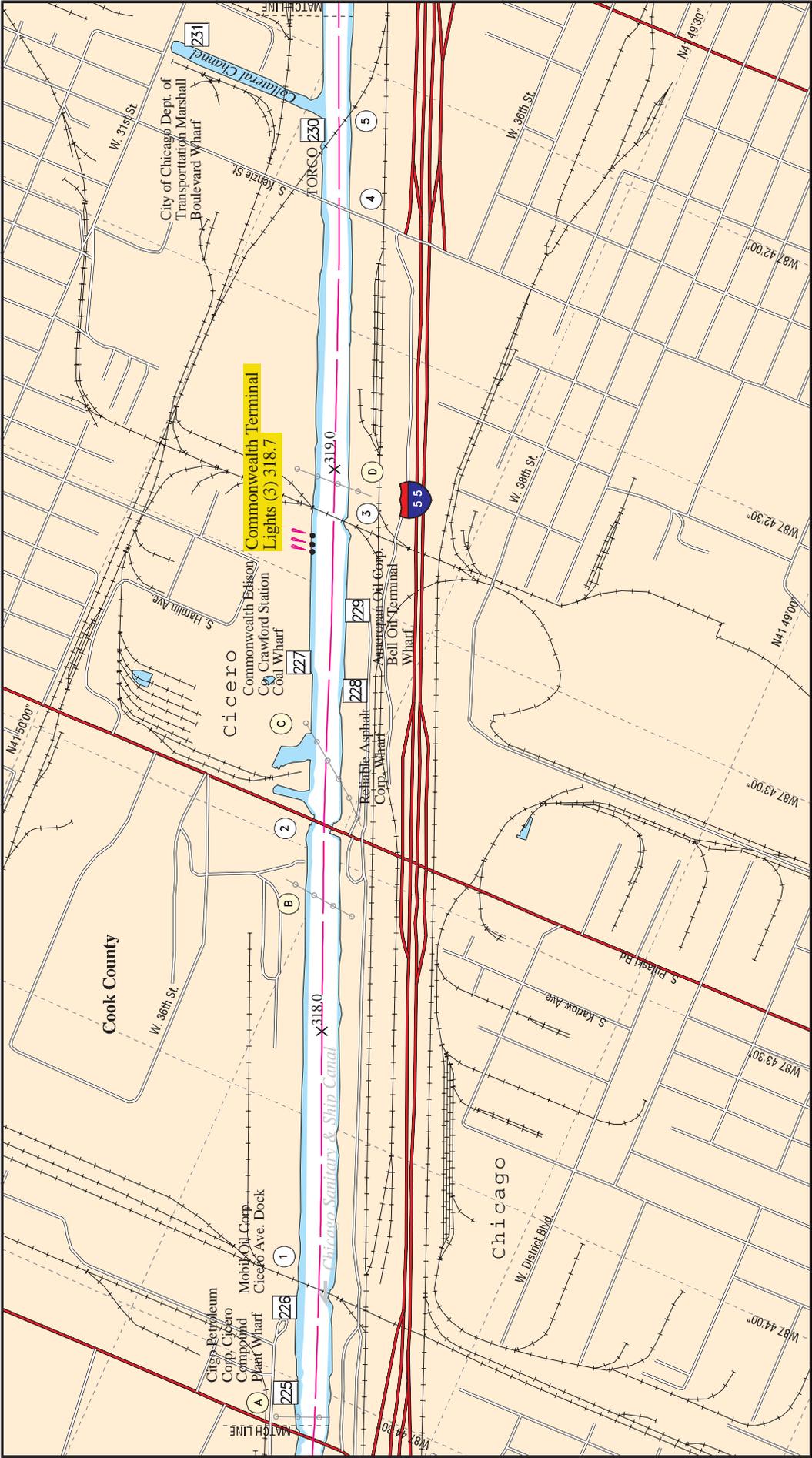
- Levee
- Levee with Railroad
- Levee with Road

Other Features

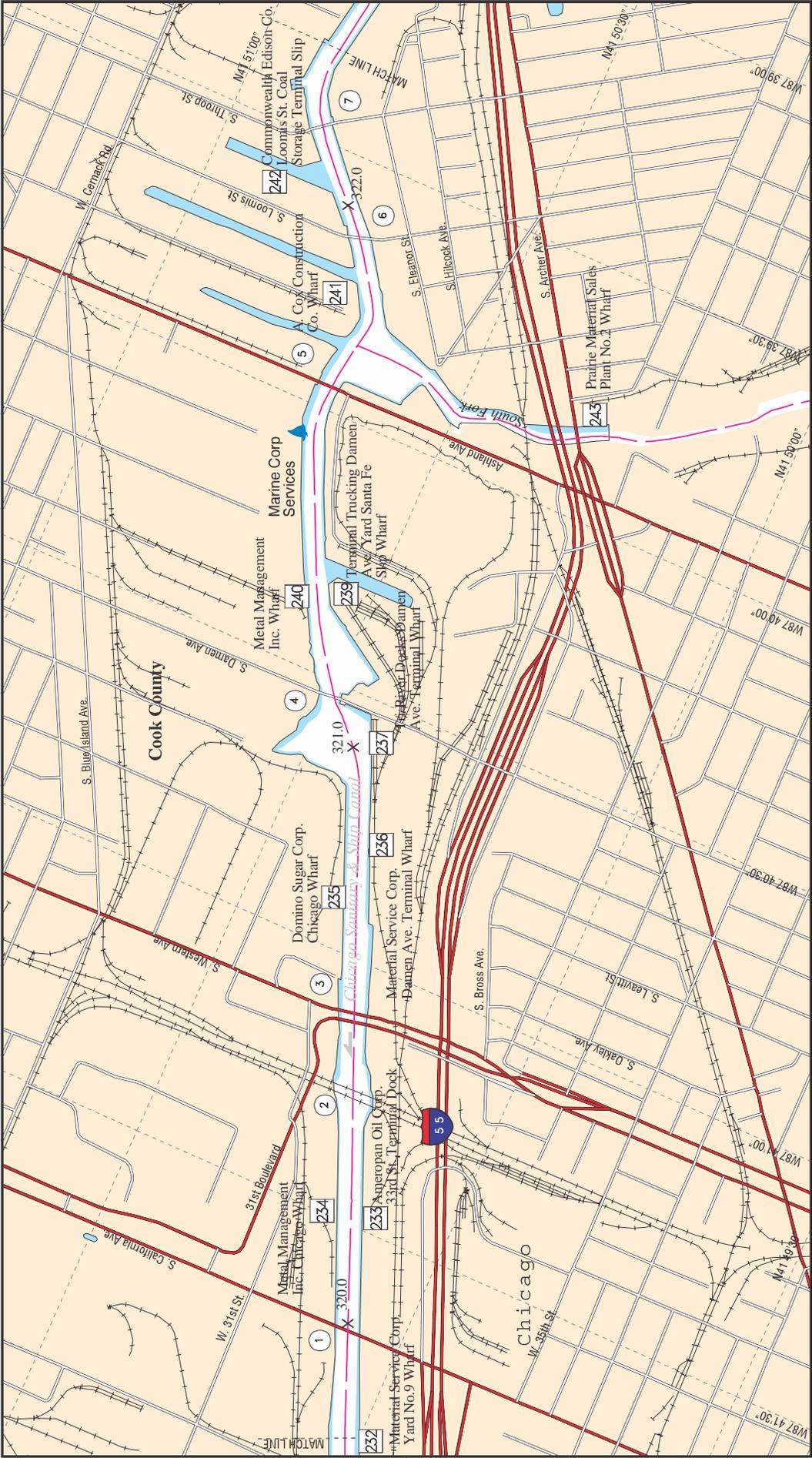
- Wing Dams
- Aerial Crossings
- Submerged Crossings
- Bridge Piers
- Stream Gaps
- Mooring Calf/Dolphin
- Aerial Crossing Profile Identifier
- Bridge Crossing Profile Identifier
- Federal Lands
- State Lands

Boundary

- County Boundary
- County



- 1) The legend is located immediately preceding map No. 1
- 2) Barge Facility information and submerged cable and pipeline clearances are located in appendices A and B respectively.

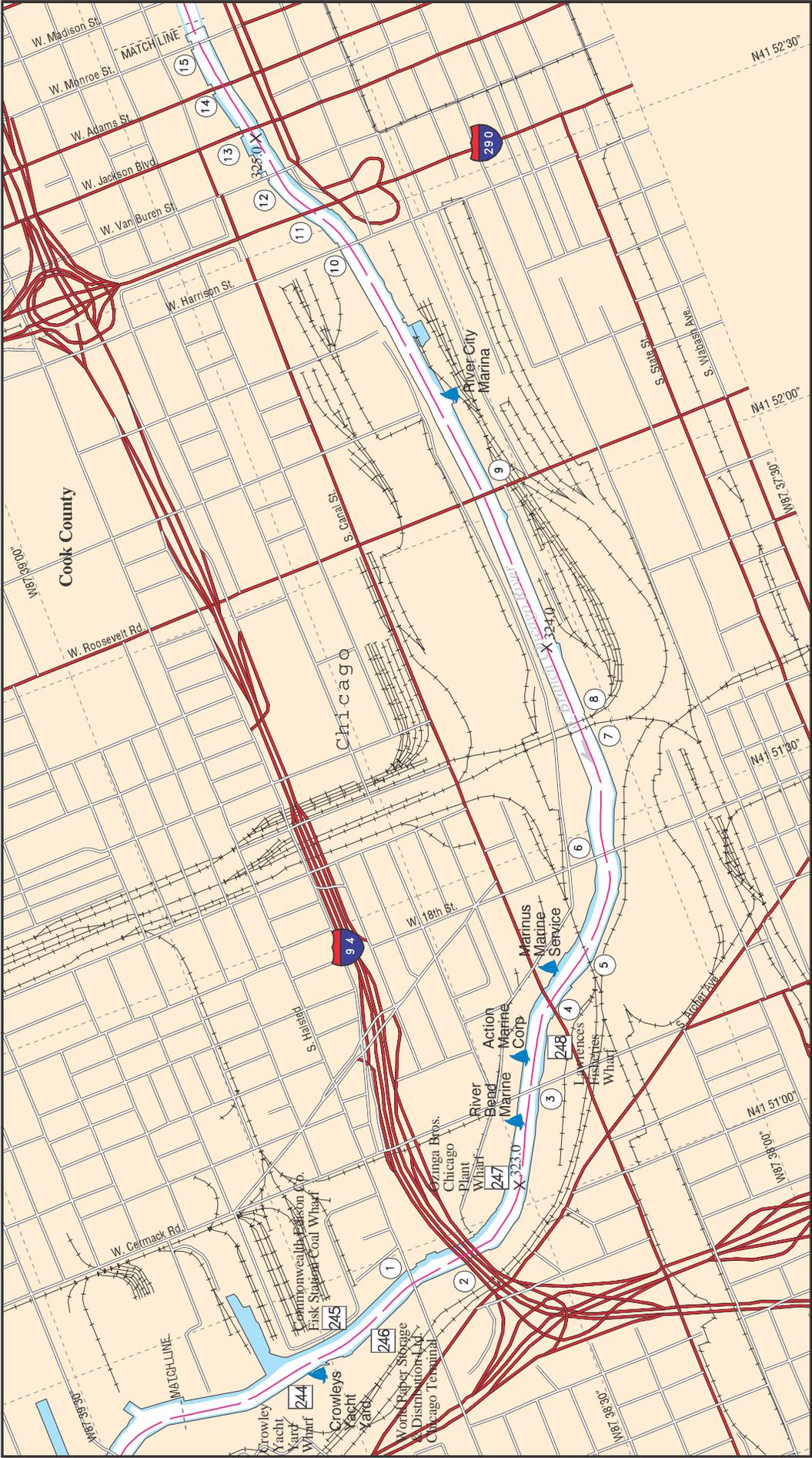


- 1) The legend is located immediately preceding map No. 1
- 2) Barge Facility information and submerged cable and pipeline clearances are located in appendices A and B respectively.

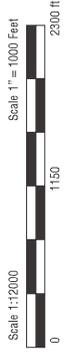
US ARMY CORPS OF ENGINEERS

ILLINOIS WATERWAY

MILE 322.2 TO 325.2

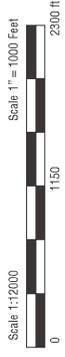
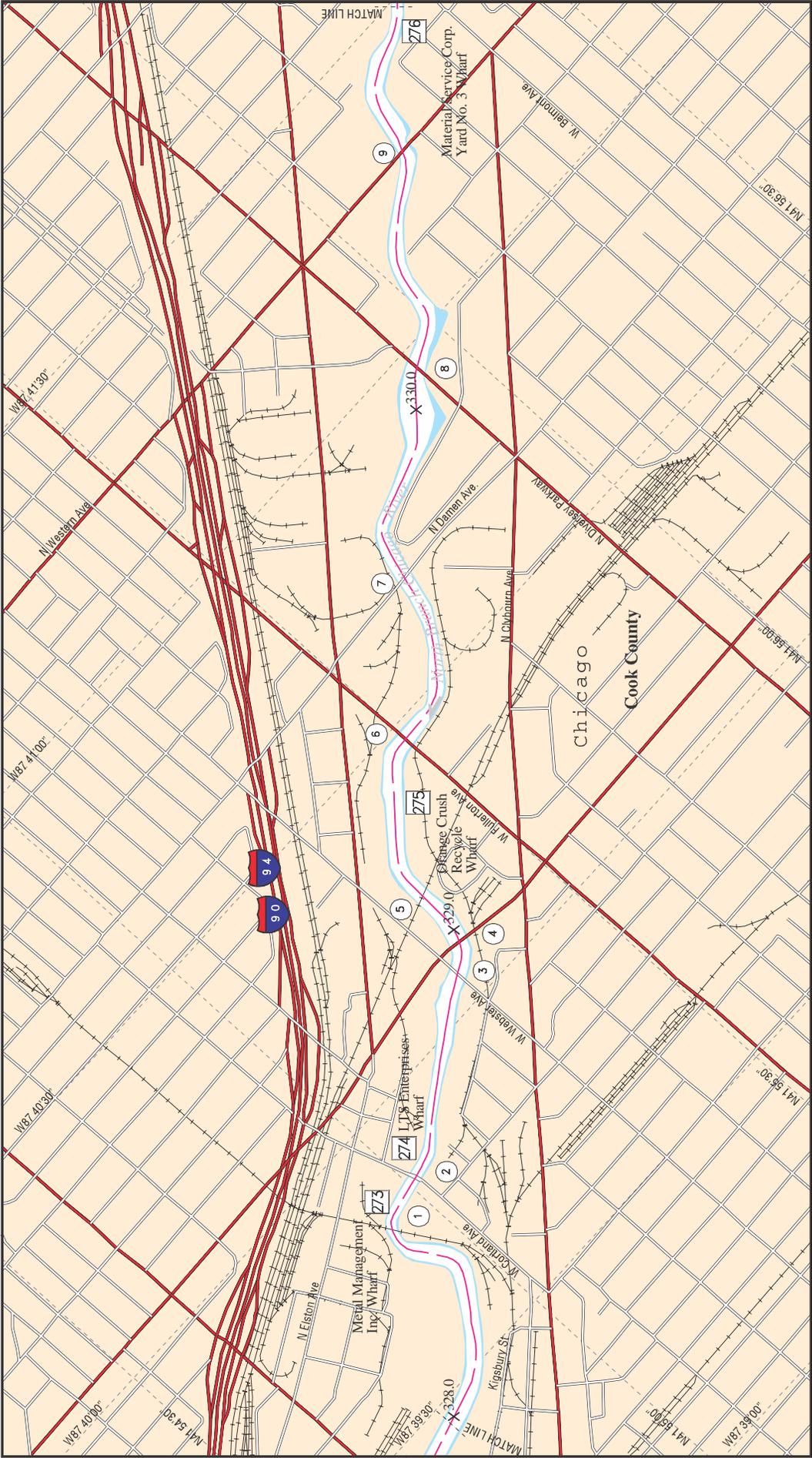


- 1) The legend is located immediately preceding map No. 1
- 2) Barge Facility information and submerged cable and pipeline clearances are located in appendices A and B respectively.



1998

MAP NO. 127



- 1) The legend is located immediately preceding map No. 1
- 2) Barge Facility information and submerged cable and pipeline clearances are located in appendices A and B respectively.