City of Lincoln

Downtown Revitalization Plan

"You cannot escape the responsibility of tomorrow by evading it today."
--Abraham Lincoln

Project Team

CITY OF LINCOLN

Downtown Lincoln Redevelopment Plan

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City of Lincoln, Illinois

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INTRODUCTION

The *Downtown Revitalization Plan* is a comprehensive planning document focused on redeveloping Downtown Lincoln into a compelling place to live, work, shop and play. This plan provides detail for the implementation of shorter-term goals contained in the Downtown Redevelopment Plan.

Purpose: To encourage public and private investment that will spur job creation, enhance local amenities, and strengthen the community as a whole.

The *Downtown Revitalization Plan* encompasses the 25 block area bound by Logan Street, Delavan Street, Hamilton Street and Decatur Street. The study area is unique in that it has essentially two business districts within a single Downtown. The rail-centered district consists mostly of retail and dining establishments located along Sangamon Street and Chicago Street with the Union Pacific Railroad (UPRR) positioned between the two streets. This rail-centered district is highly visible from the Amtrak passenger rail service that travels between Chicago and St. Louis. The Amtrak station is located within the rail-centered district, providing the perfect opportunity for travelers to disembark the train to experience Downtown Lincoln. Proposed high speed passenger rail service will only strengthen these opportunities.

The second business district located in Downtown Lincoln is centered on the Logan County Courthouse Square. The square largely consists of retail and dining establishments and also supports many of the local and county government offices and services such as the County Courthouse, Post Office, City Hall, fire department, public library, and community college. The Courthouse Square District is also home to many professional offices, including attorneys, accountants, dentists, engineers, optometrists, real estate agents, and software developers. Personal and business services exist as well, including several salons, plumbing and heating contractors, and banks. Downtown Lincoln also contains a grocery store and a movie theater.

Lincoln is fortunate to have this much diversity in businesses and services in its downtown. In addition, Lincoln has a large downtown for the size of the community, with many of its original buildings still in place. The majority of the downtown planning area is located within the Courthouse Square Historic District. A major tourist attraction, Old Route 66 borders the west side of the study area, and the original alignment of Route 66 travels through the downtown.

Although Downtown Lincoln does have many varied businesses and services, there has been a decline since its heyday period of the mid-twentieth century. Many buildings have fallen into disrepair as economic realities have shifted. The elected leaders of Lincoln have recognized that Downtown may be at a critical juncture, and there is a need to halt the decline and provide new life to the Downtown. In an effort to preserve and build on the strengths of Downtown, the City of Lincoln began pursuing a revitalization grant from the State of Illinois' Department of Commerce and Economic Opportunity (DCEO) in early 2010. The City was awarded a Flexible Funding Grant from DCEO in early 2012. Through the efforts of a local steering committee and public involvement, a Downtown Redevelopment Plan was finalized in early 2013 which established a vision and core strategies relative to the revitalization of Downtown Lincoln.

This document, the Downtown Revitalization Plan, outlines the infrastructure development and preservation goals for the City in order to encourage public and private investment that will spur job creation, enhance local amenities, and strengthen the community as a whole.

STREETSCAPE PLAN

The most visible aspect of the Revitalization Plan is the Streetscape Plan. The Streetscape Plan addresses specific improvements that can be made within street rights-of-way in Downtown Lincoln to enhance the safety, aesthetics, desirability, and economic feasibility of downtown properties. This plan is centered on the Courthouse Square, addressing three blocks each of Kickapoo, McLean, Broadway and Pulaski Streets, but its concepts can be extended to other areas of Downtown as well. The Streetscape Plan establishes the character of the Downtown, and should respect and enhance the historical feel of the area. The Streetscape Plan establishes curb line geometrics and plans hardscape elements, such as type and color of sidewalks, paving strips, benches, trash receptacles, planters and other pedestrian way elements. The Streetscape Plan was supported by or supplemented with an aerial map survey, a Lighting Plan, a Bicycle Routes Plan, and a Brick Streets Plan. All of these elements work together to develop a cohesive and consistent appearance for the Downtown.

The streetscape has a large influence on Downtown Lincoln's character. It connects the gateways, shops, and points of interest in the city, and represents the way that people use to move around downtown. An attractive streetscape can encourage residents and visitors to appreciate their time Downtown, to mingle with others and enhance the sense of community, and to return often to enjoy the experience again. As such, the physical appearance and condition are important for the success of the Downtown Revitalization Plan.

Proposed Streetscape Improvements

The following drawings show improvements that could be made along the streets in Downtown Lincoln. Generally, this plan recommends maximizing the width of sidewalks in the downtown for improved pedestrian circulation and safety, accessibility for impaired users, opportunities for outside dining, and sidewalk sales. A border area should be developed along the outer edge of sidewalks to separate pedestrian areas from the traffic and parking. This border should have distinctive elements which visually separate the vehicular use areas and provide an attractive unifying image within the downtown.

Elements used along the border could include:

- Special pavement
- Decorative light fixtures
- Benches
- Planting beds
- Street trees in grates
- Large planters
- Bicycle Racks
- Bollards
- Railings
- Kiosks, signs and banners

Several downtown streets have one or more steps from the street and parking lane to the sidewalk. These steps can be eliminated in some areas by altering the cross-section of the diagonal parking lane to drain internally to the street rather than draining to the curb. Several of the following cross-sections illustrate this concept. The option of leaving the steps in place is also shown in some cases. Both options will be considered during the design phase of the project.

In the block of Kickapoo Street between Broadway and Pekin, the elevation difference between the street and sidewalk is too great to completely eliminate steps. At this location, multi-level sidewalks are proposed, with the lower sidewalk being 2 feet wide and multiple locations for steps up to the upper level. The lower level sidewalk accommodates pedestrians between step locations, and provides room for opening car doors adjacent to the sidewalk. Because the lower level will be wider than the existing condition, the upper level sidewalks would be reduced in size if the current street cross-section remained. We recommend removing one lane of on-street parking from this block to provide wider upper level sidewalks that are appropriate in the retail district. Additional parking to compensate for the parking loss can be provided by expanding the existing Library parking lot along the east side of this block.

Elevation differences in the blocks of Broadway and Pulaski, east of Chicago Street, will be reduced due to proposed roadway vertical alignment changes associated with the high speed rail improvements. To reduce the approach grades to the rail crossings, the intersections of Broadway and Pulaski Streets with Chicago Street will be raised above the existing grade. The proposed roadway reconstruction at these locations should take into consideration the grade changes for the existing sidewalks, and eliminate the sidewalk steps where feasible.

Implementation Costs

Streetscape Implementation Costs Per Block

Location	Cost
Pulaski Street between Chicago & Kickapoo	$175,000
Broadway Street between Chicago & Kickapoo	$245,000
Kickapoo Street between Pekin & Broadway	$172,000
Kickapoo Street between Broadway & Pulaski	$237,000
Kickapoo Street between Pulaski & Clinton	$228,000
Pulaski Street between Kickapoo & McLean	$225,000
Broadway Street between Kickapoo & McLean	$299,000
McLean Street between Pekin & Broadway	$207,000
McLean Street beween Broadway & Pulaski	$237,000
McLean Street between Pulaski & Clinton	$262,000
Pulaski Street between McLean & Hamilton	$197,000
Broadway Street between McLean & Hamilton	$199,000
TOTAL ESTIMATED STREETSCAPE COST	***$2,683,000***

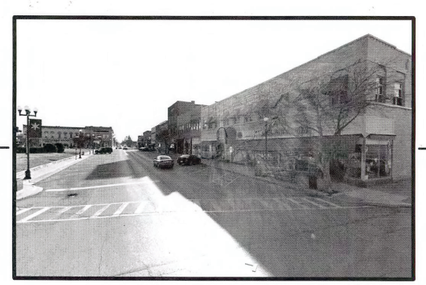
Optional Additional Implementation Costs To Reconstruct Parking Lanes as Permeable Pavement to Eliminate High Step

Location	Cost
Broadway Street between Chicago & Kickapoo	$80,000
Broadway Street between Kickapoo & McLean	$70,000
Pulaski Street between Kickapoo & McLean	$78,000
Kickapoo Street beween Broadway & Pulaski	$48,000

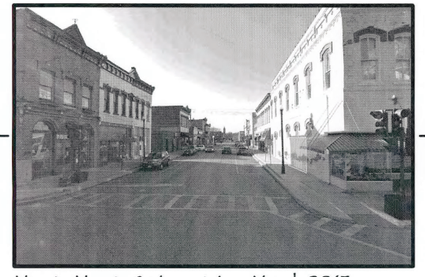
The implementation costs noted above include demolition, new pavements and sidewalks, street and walkway lighting, new inlets, and street furniture. Costs for sewer and water reconstruction are not included.

Downtown Lincoln Revitalization

View south on Kickapoo Street from Broadway Street



Massie Massie & Associates, March 2013



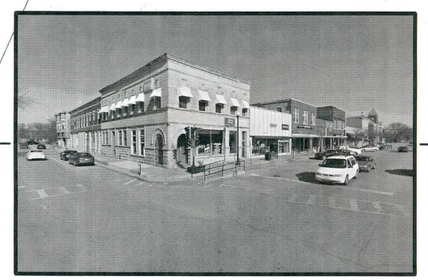
Massie Massie & Associates, March 2013

Downtown Lincoln Revitalization

View west on Pulaski Street from Kickapoo Street

Downtown Lincoln Revitalization

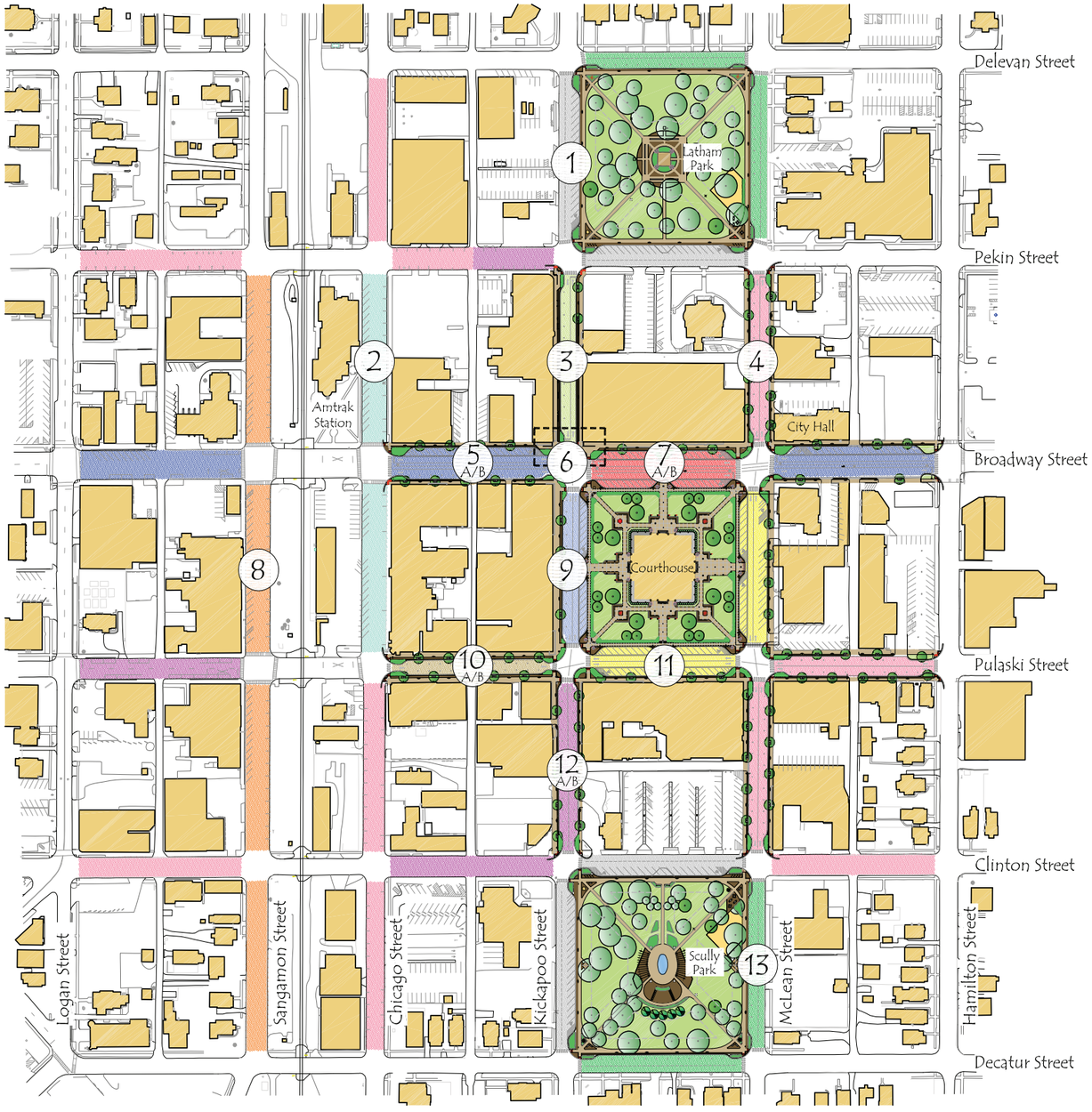
View northeast from Kickapoo and Broadway Street



Massie Massie & Associates, March 2013

Key Plan and Cross-Sections

The following pages illustrate how the downtown street rights-of-way can be enhanced following the above guidelines. The Key Plan shows two things. Color-coding on the Key Plan indicates streets that have similar existing conditions and, therefore, would have similar streetscape designs. The numbered locations on the Key Plan reference the locations of Typical Street Cross Sections. On subsequent pages, these cross sections illustrate the exact improvements that could be implemented at each location.



Streetscape Sections
Key Plan

Downtown Lincoln Revitalization Plan

Lincoln, Illinois
March 2013

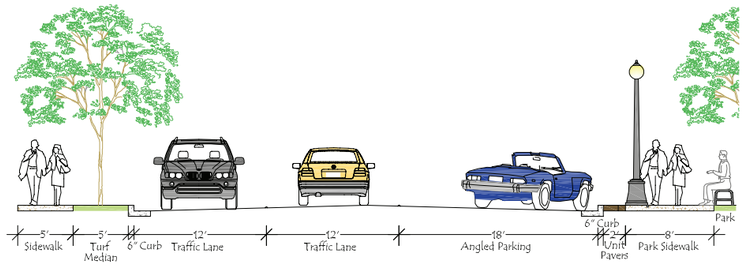
Typical Streetscape Treatments

Similar Streetscape Treatment	Cross Section Number
	1
	2
	3
	4
	5 - A&B
	6
	7 - A&B
	8
	9
	10 - A&B
	11
	12 A&B
	13

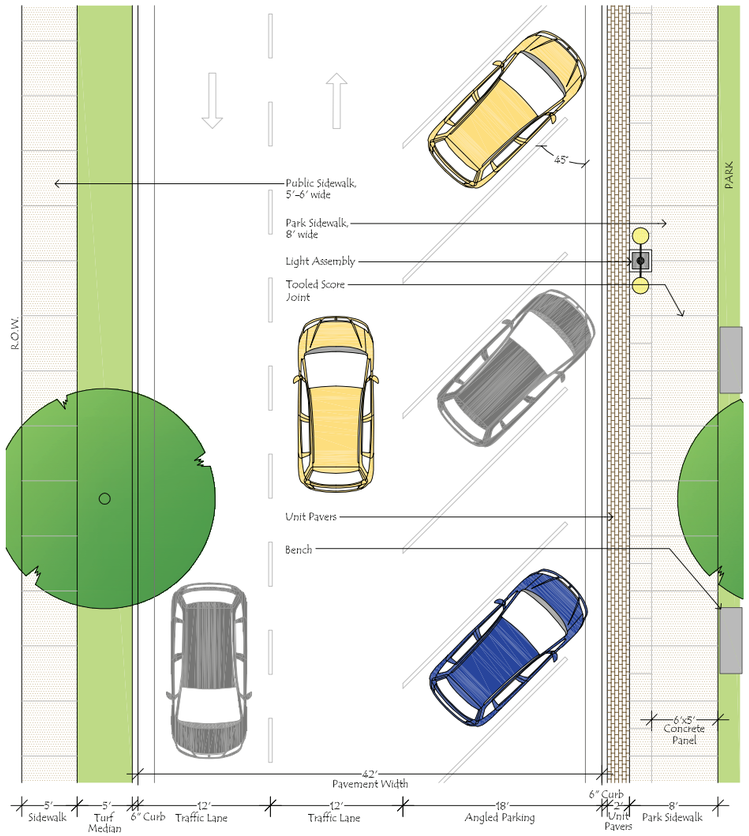
Massie & Massie Associates
LAND PLANNING AND LANDSCAPE ARCHITECTURE
Springfield, Illinois

Prairie Engineers OF ILLINOIS, P.C.

Graphic Scale
0′ 100′ 200′ 400′
N



Streetscape Section



Typical Street Cross Section - 63' R.O.W.

Kickapoo Street at Latham Park - looking north

Lincoln, Illinois

March 2013

1

See Key Plan

Scale 0' 7'

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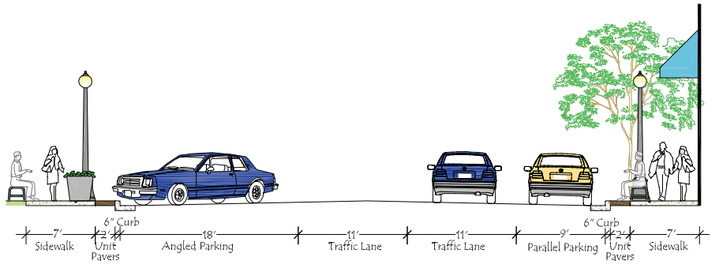

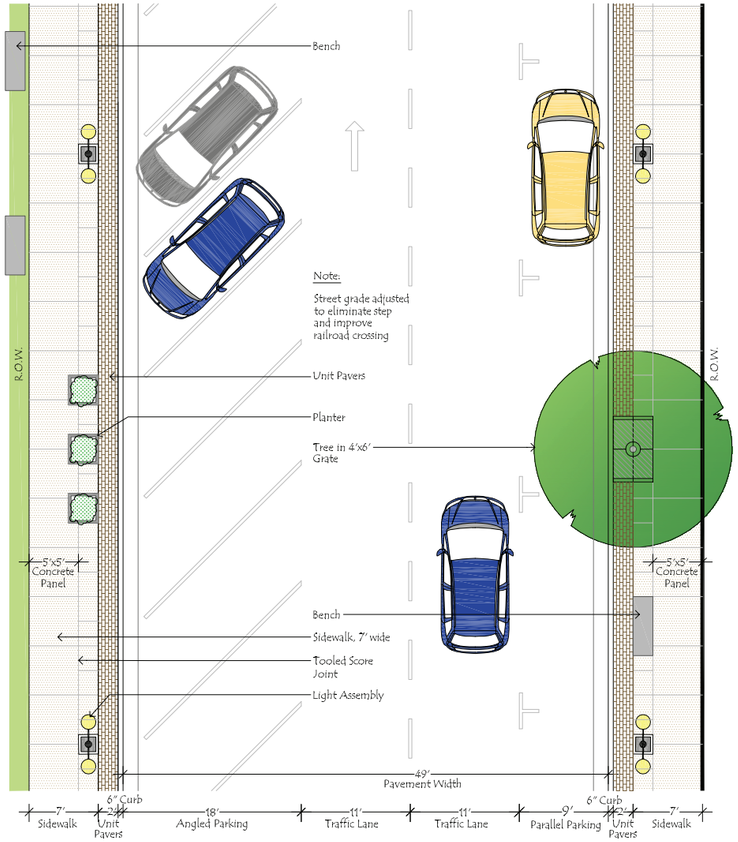

Typical Street Cross Section - 68' R.O.W.

Chicago Street at Amtrak Station - looking north

Lincoln, Illinois

March 2013

2

See Key Plan

Scale 0' 8'

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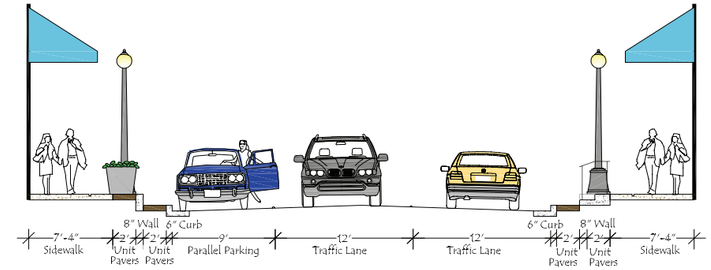
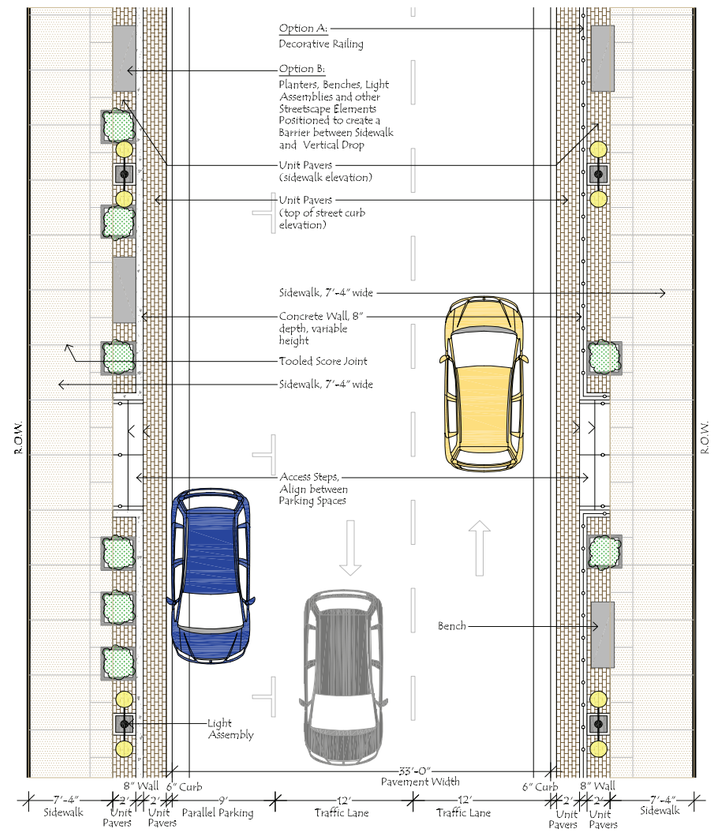


Streetscape Section



Typical Street Cross Section - 58' R.O.W.

Kickapoo Street north of Broadway- looking north

Lincoln, Illinois

March 2013

3

See Key Plan

Scale 0' 7'

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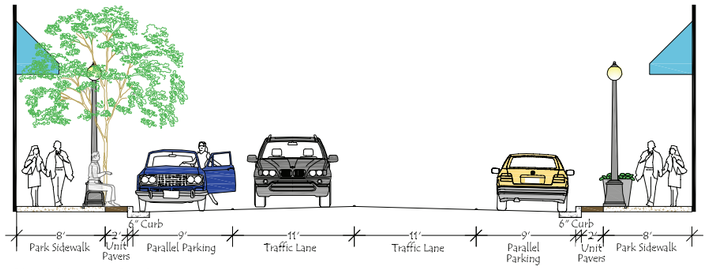

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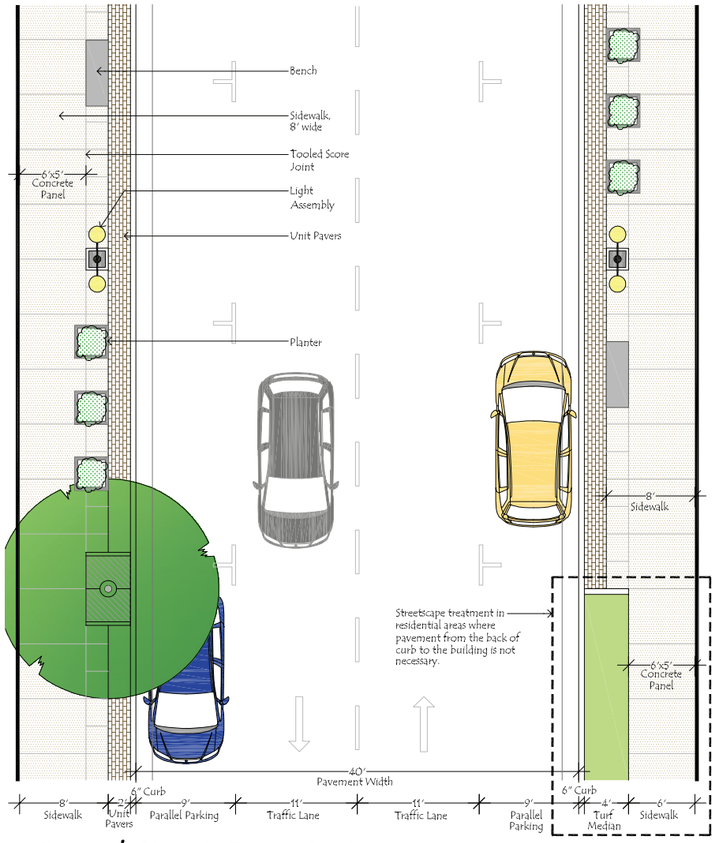

Typical Street Cross Section - 61' R.O.W.

McLean Street between Broadway and Pekin - looking north

Lincoln, Illinois

March 2013

4 See Key Plan

Scale 0' 7'

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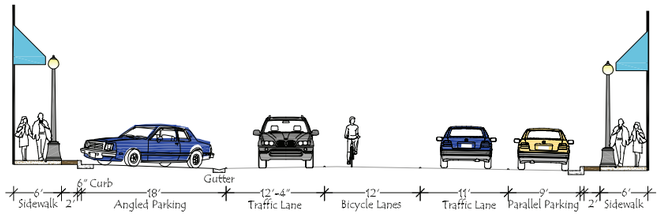

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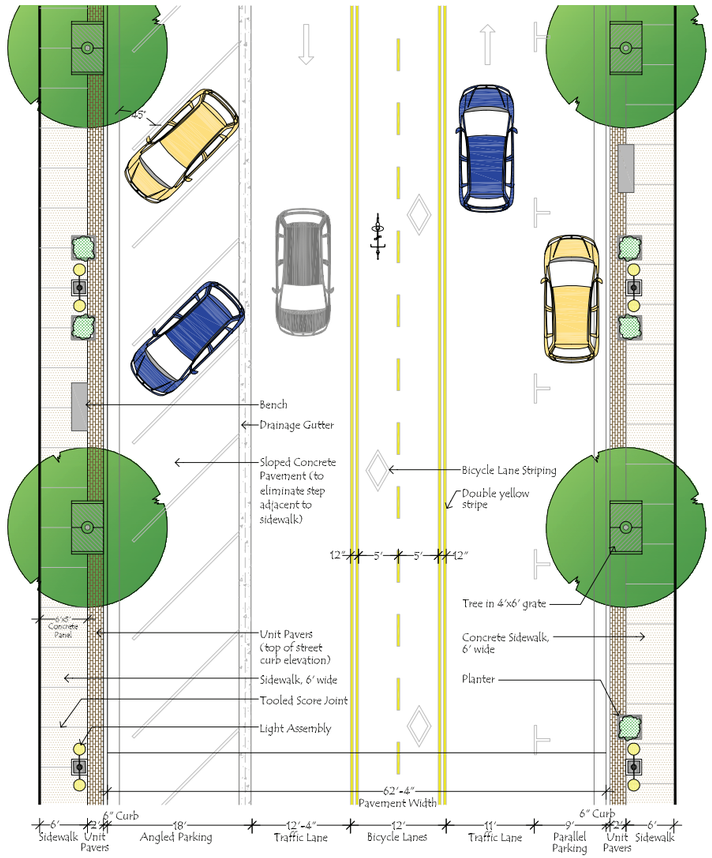

Typical Street Cross Section - 80' R.O.W. - Option A (no step)

Broadway Street between Chicago and Kickapoo looking east

Lincoln, Illinois

March 2013

5a See Key Plan

Scale 0' 10'

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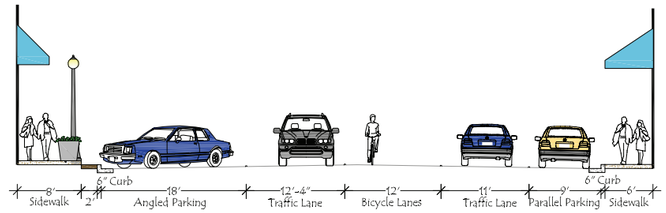

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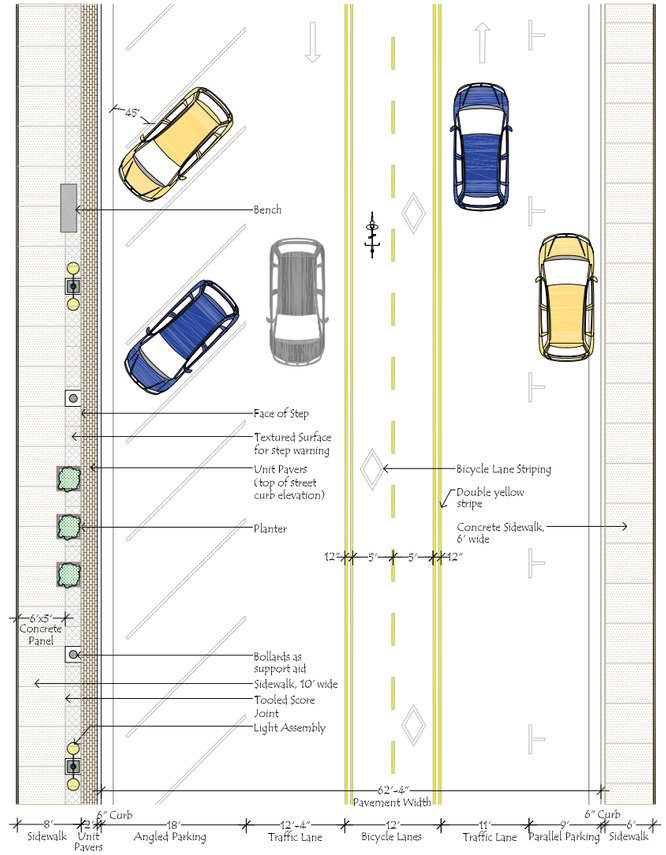

Typical Street Cross Section - 80' R.O.W. - Option B (step)

Broadway Street between Chicago and Kickapoo looking east

Lincoln, Illinois

March 2013

5b See Key Plan

Scale 0' 10'

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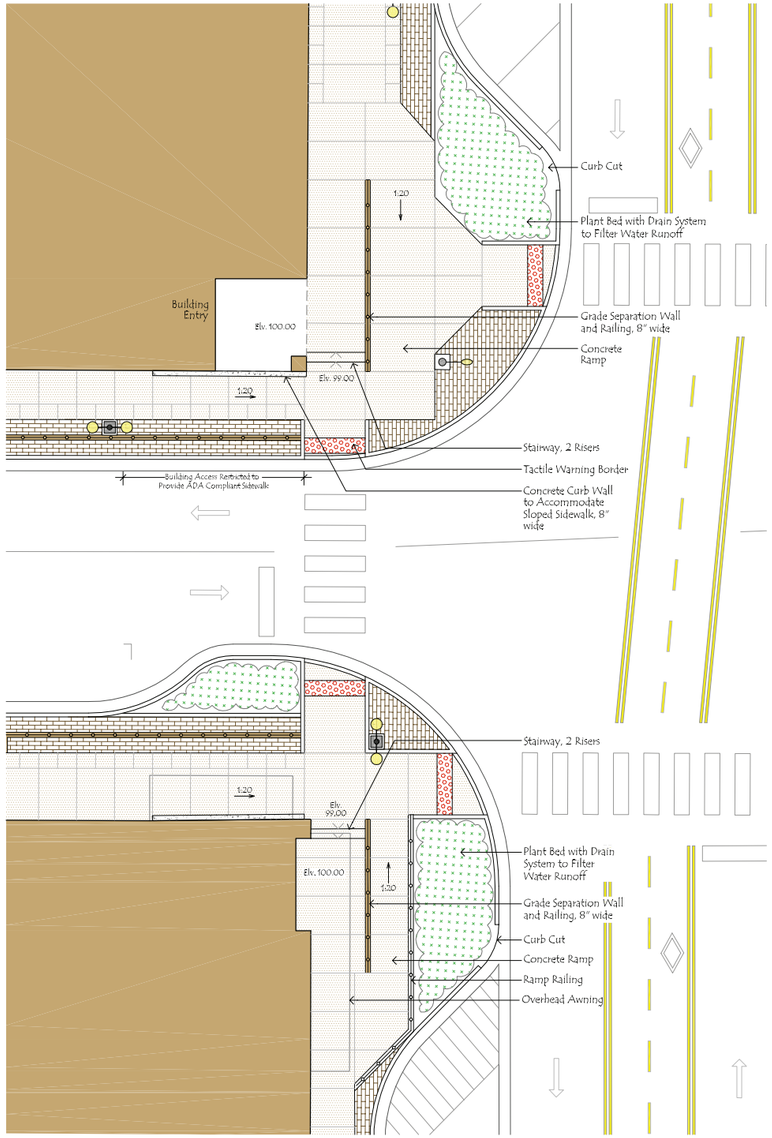

Typical Intersection

Kickapoo Street at Broadway Street
Lincoln, Illinois
March 2013

6 See Key Plan

Scale 0' 10'

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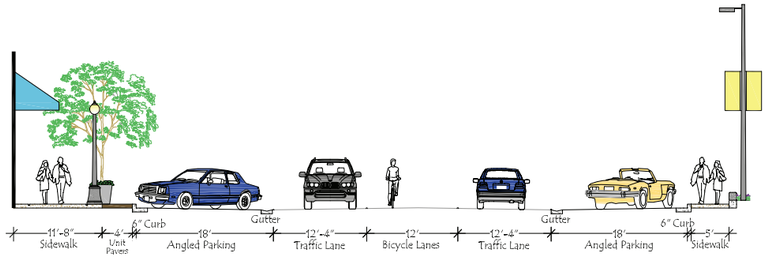

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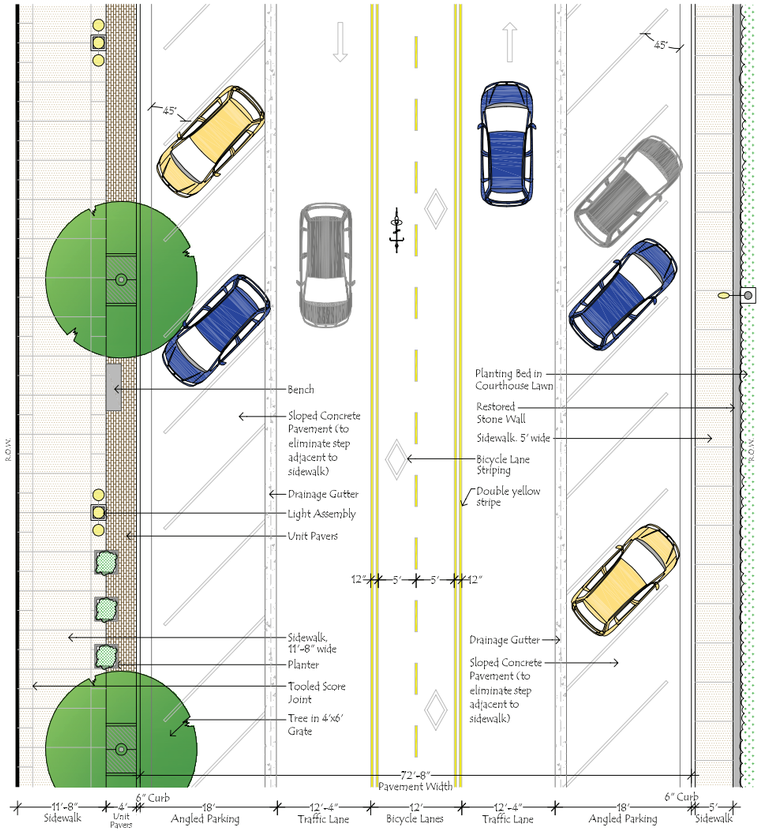

Typical Street Cross Section - 95' R.O.W. - Option A (no step)

Broadway Street at Courthouse - looking east
Lincoln, Illinois
March 2013

7a See Key Plan

Scale 0' 10'

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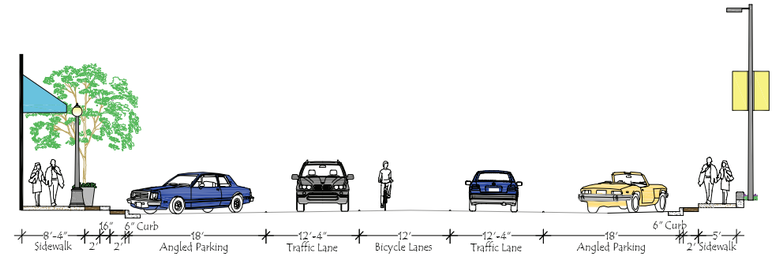

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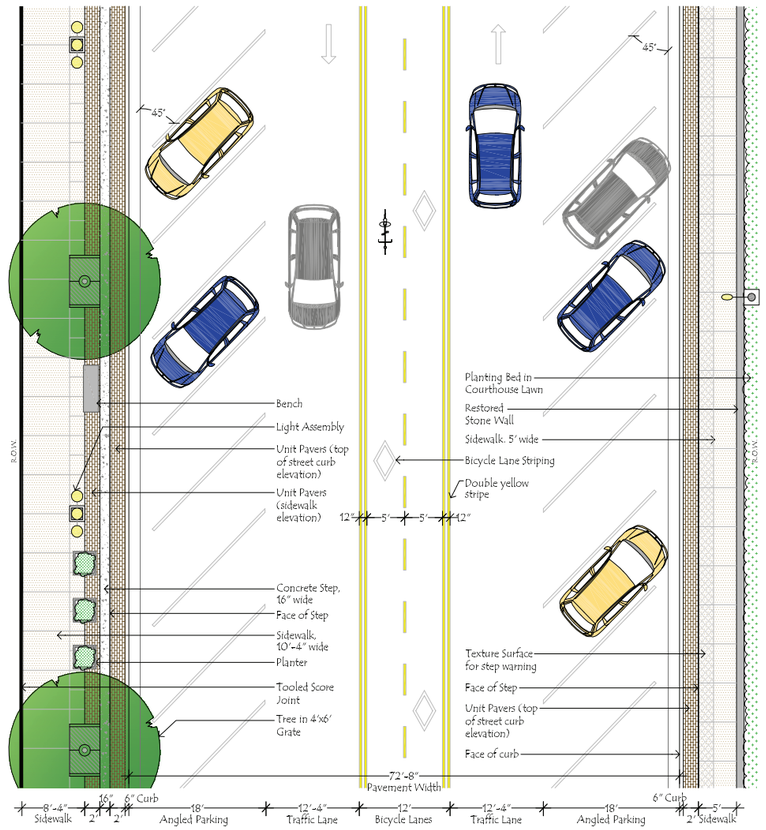

Typical Street Cross Section - 95' R.O.W. - Option B (step)

Broadway Street at Courthouse - looking east
Lincoln, Illinois
March 2013

7b See Key Plan

Scale 0' 10'

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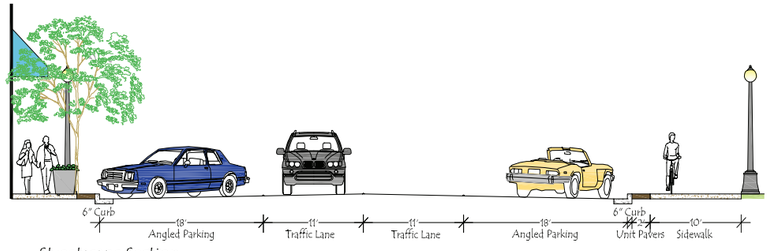
Streetscape Plan



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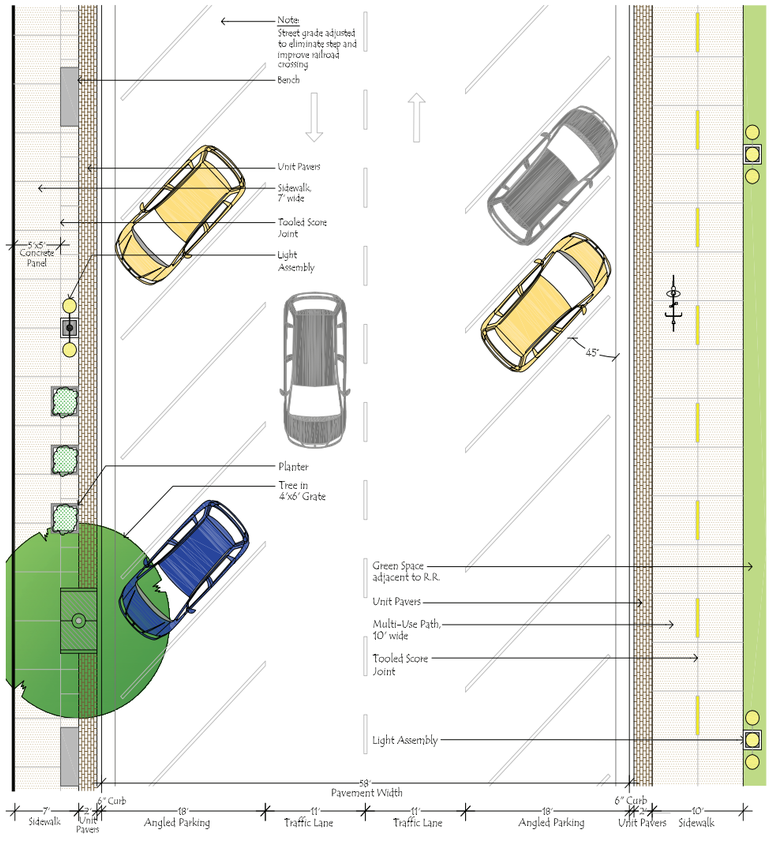

Typical Street Cross Section - 80' R.O.W.

Sangamon Street between Broadway and Pulaski looking north

Lincoln, Illinois
March 2013

8 See Key Plan

Scale 0' 8'

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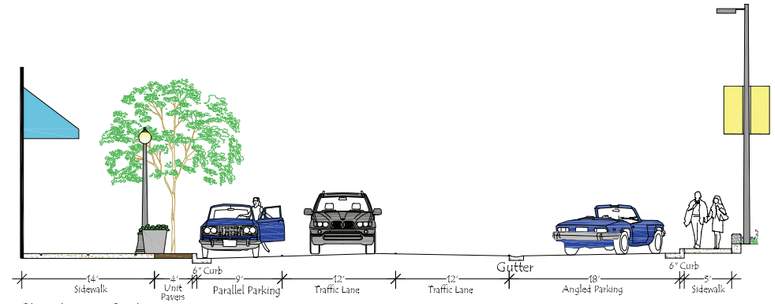

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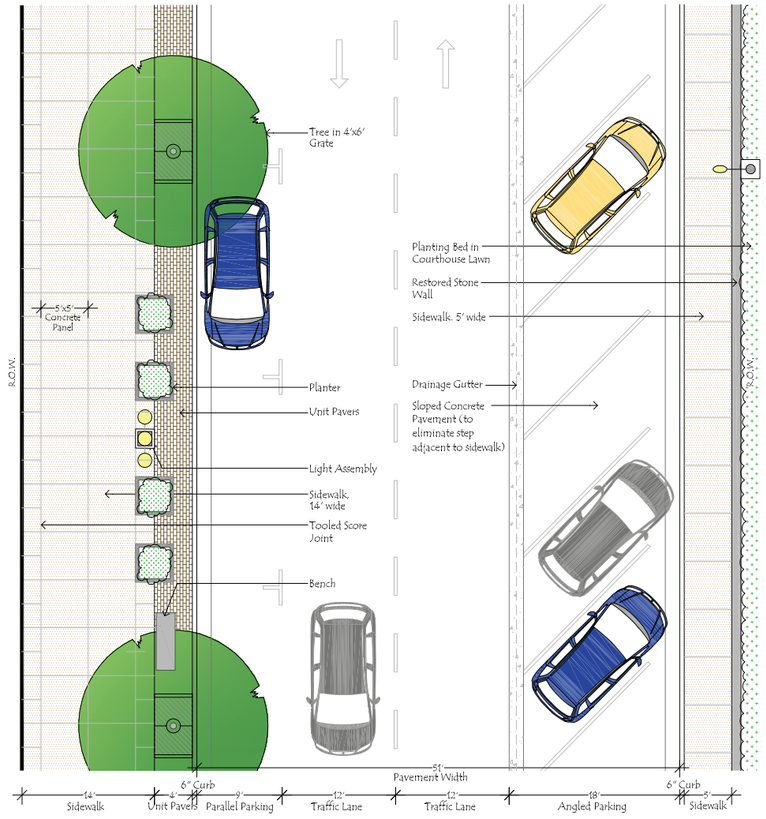

Typical Street Cross Section - 75' R.O.W.

Kickapoo Street at Courthouse - looking north

Lincoln, Illinois
March 2013

9 See Key Plan

Scale 0' 8'

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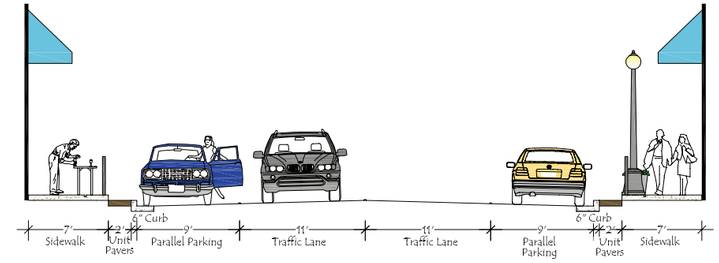

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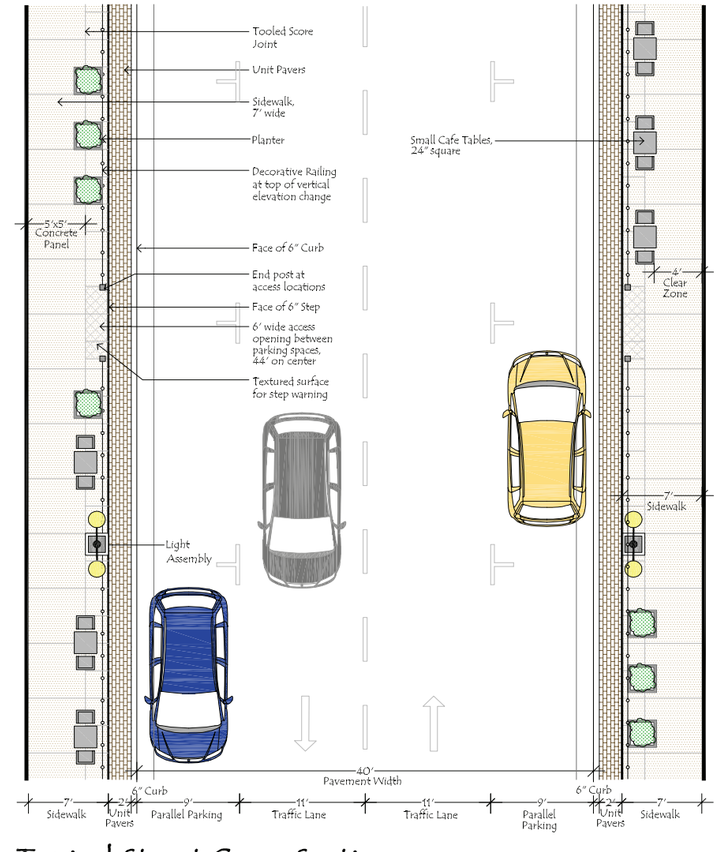

Typical Street Cross Section - 59' R.O.W. - Option B (2-way)

Pulaski Street between Chicago and Kickapoo - looking east

Lincoln, Illinois
March 2013

10a See Key Plan

Scale 0' 7'

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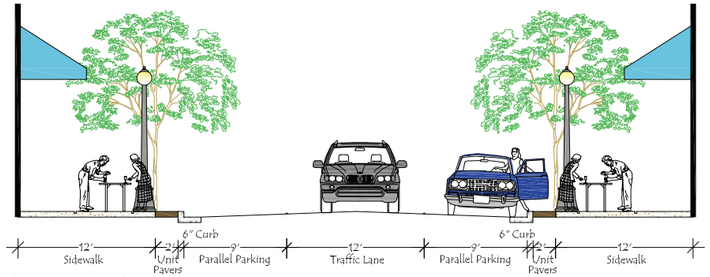

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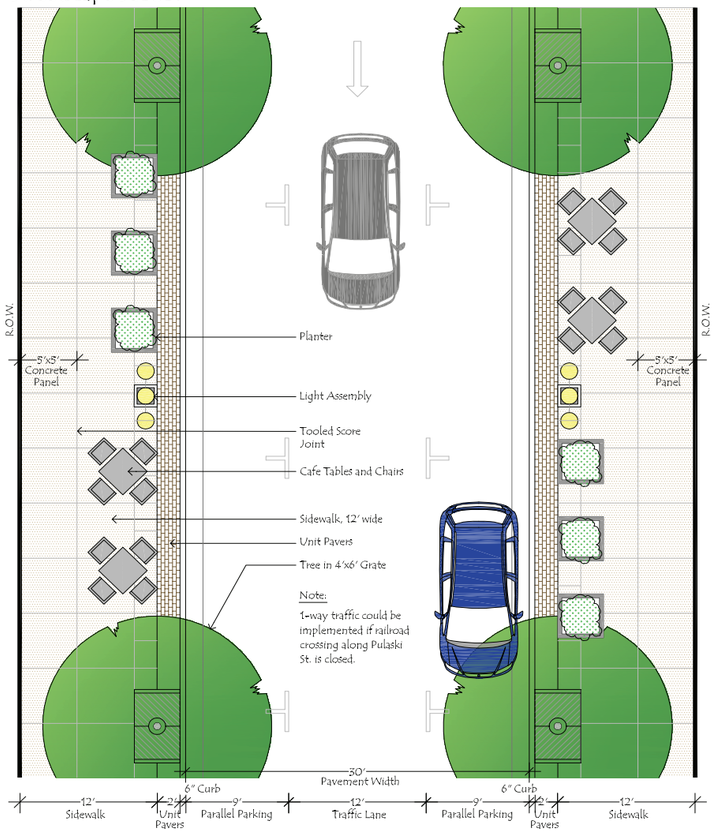

Typical Street Cross Section - 59' R.O.W. - Option A (1-way)

Pulaski Street between Chicago and Kickapoo - looking east

Lincoln, Illinois
March 2013

10b
See Key Plan

Scale N 0' 7'

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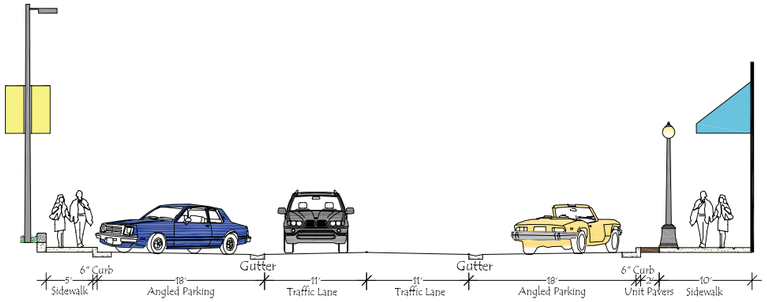
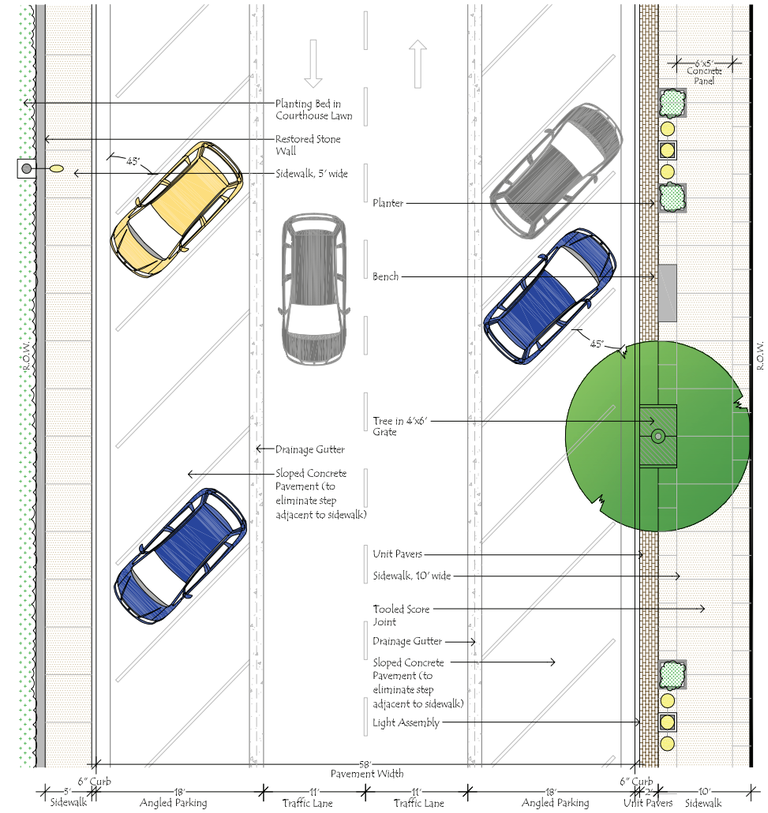


Streetscape Section



Typical Street Cross Section - 76' R.O.W.

Pulaski Street at Courthouse - looking east

Lincoln, Illinois
March 2013

11
See Key Plan

Scale 0' 8'

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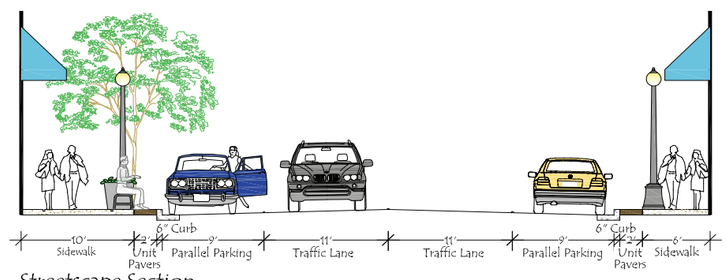
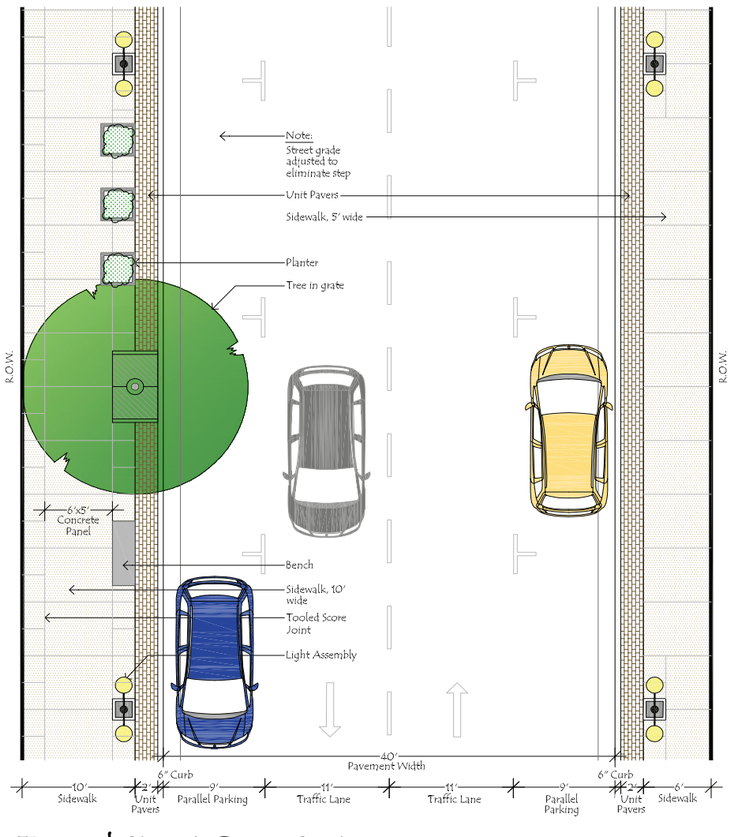


Streetscape Section



Typical Street Cross Section - 61' R.O.W. - Option A (no step)

Kickapoo Street at Theater - looking north

Lincoln, Illinois
March 2013

12a
See Key Plan

Scale N 0' 7'

Massie & Massie Associates

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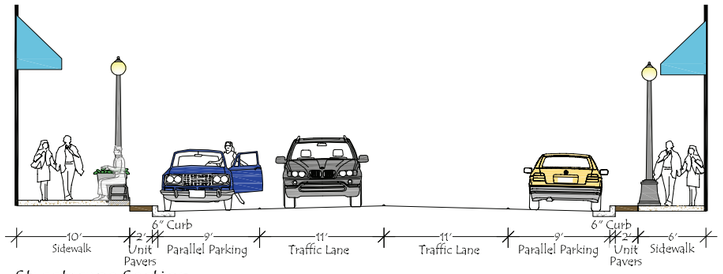
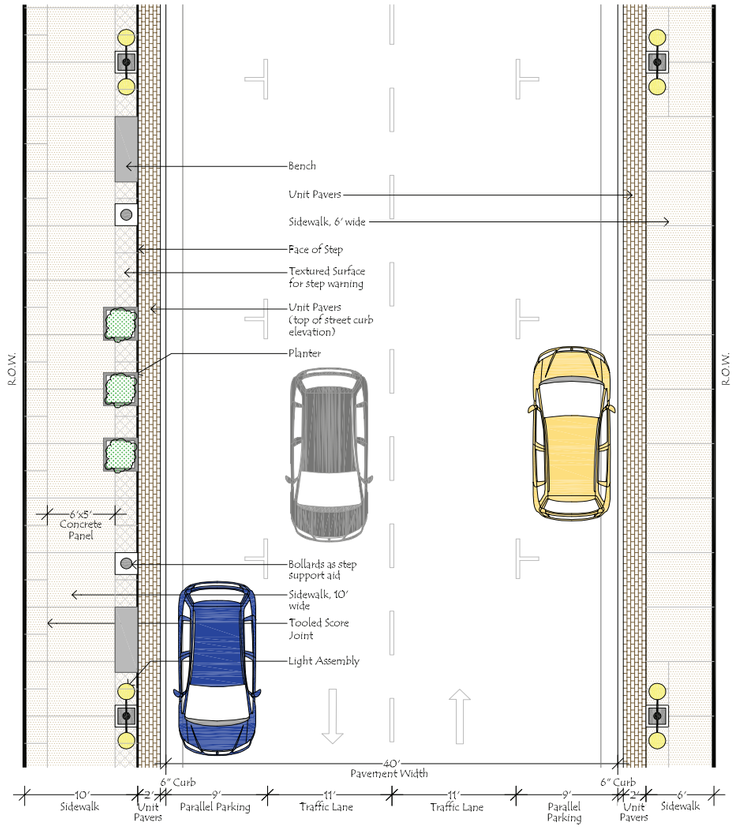
Streetscape Plan



Streetscape Section



Typical Street Cross Section - 61' R.O.W. - Option B (step)

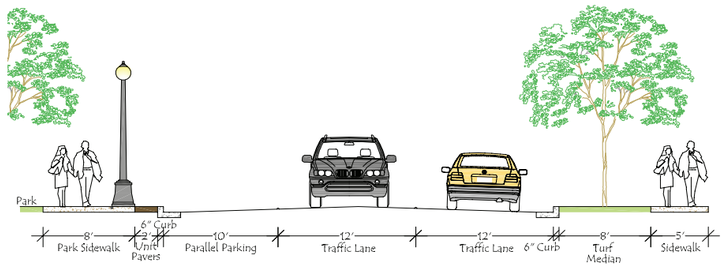
Kickapoo Street at Theater - looking north
Lincoln, Illinois
March 2013

12b
See Key Plan

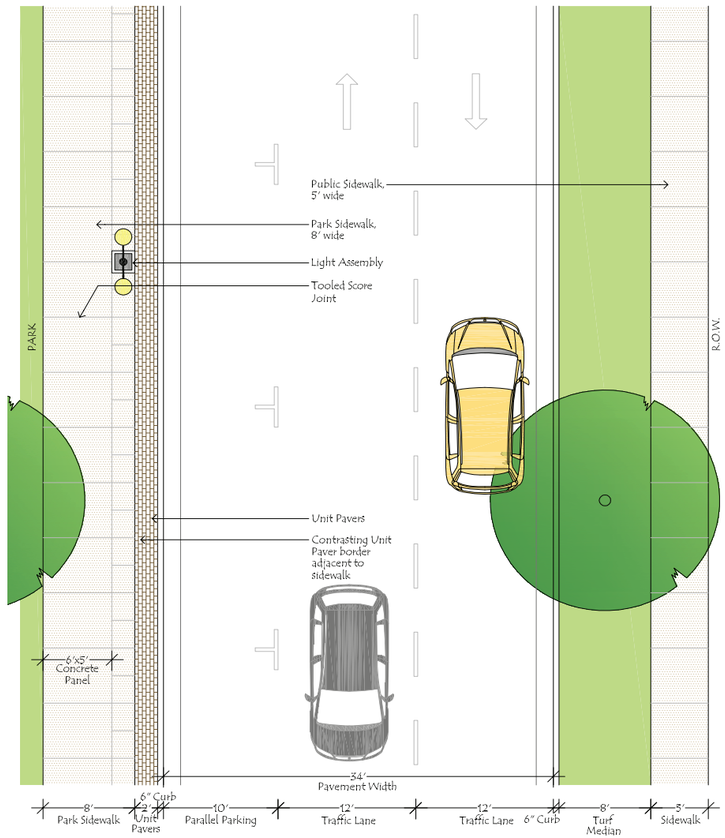
Scale 0' 7'

Massie & Massie Associates

Prairie Engineers OF ILLINOIS, P.C.



Streetscape Section



Typical Street Cross Section - 58' R.O.W.

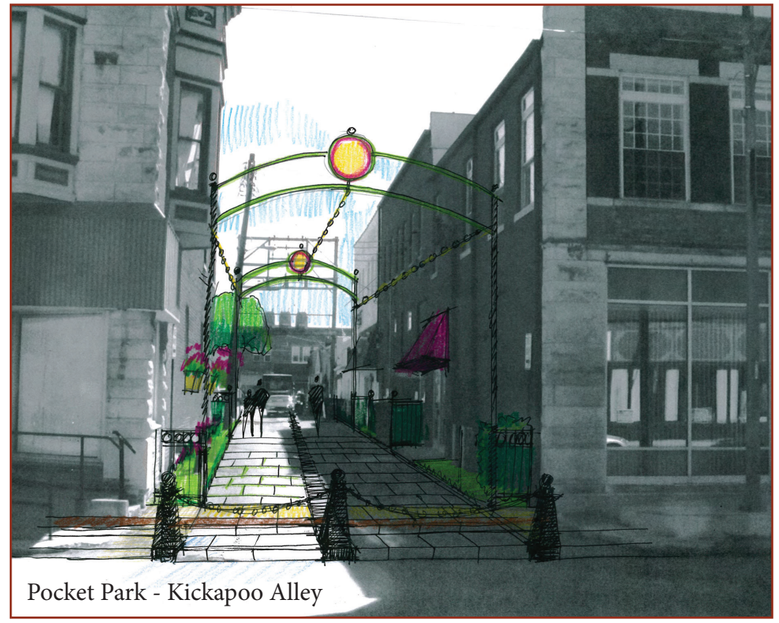
McLean Street at Scully Park - looking north
Lincoln, Illinois
March 2013

13
See Key Plan

Scale 0' 7'

Massie & Massie Associates

Prairie Engineers OF ILLINOIS, P.C.



Pocket Park - Kickapoo Alley

Pocket Park - Theater Alley

Streetscape Elements

Furniture and Trees

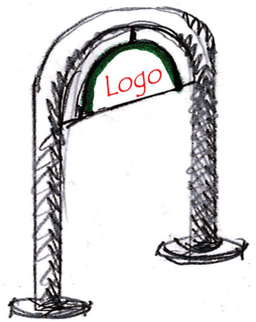
Bench

Planter

Trash/Recycling Receptacle

Bicycle Rack

Streetscape Pavement



Street Trees

Accolade Elm

Armstrong Freeman Maple

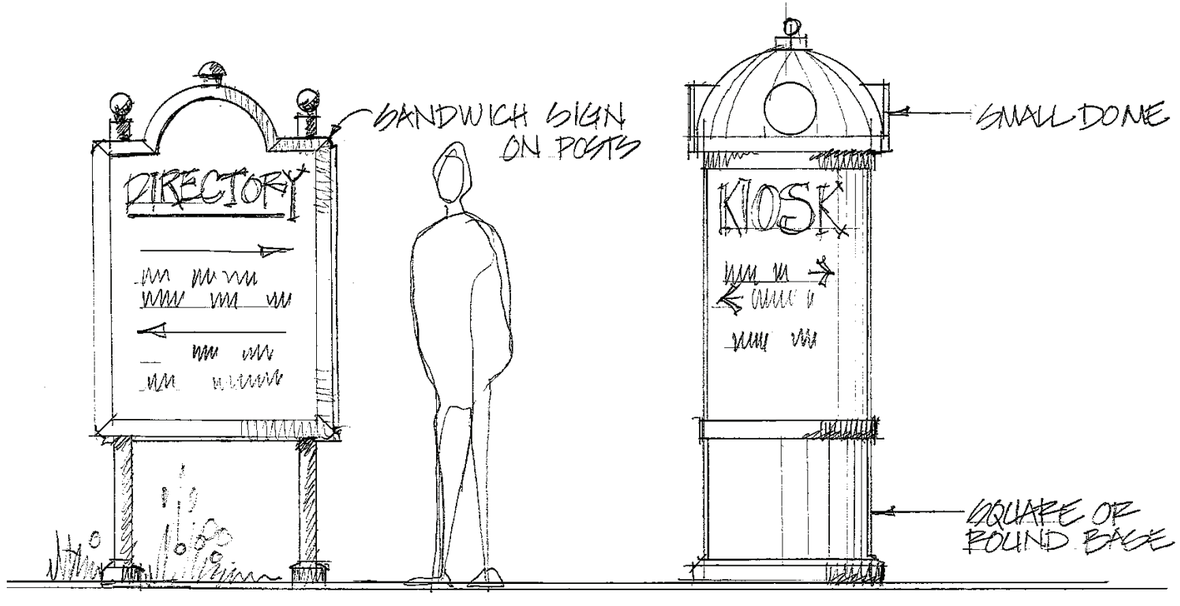
Skyline Thomless Honeylocust

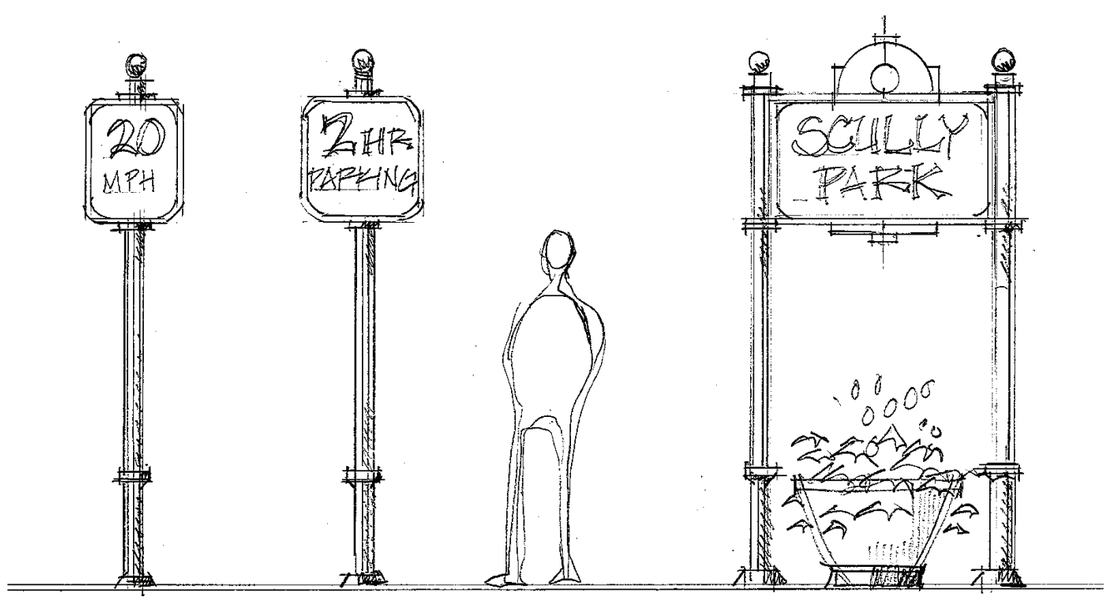
Sentry American Linden

Prospector Elm

Fastigate English Oak

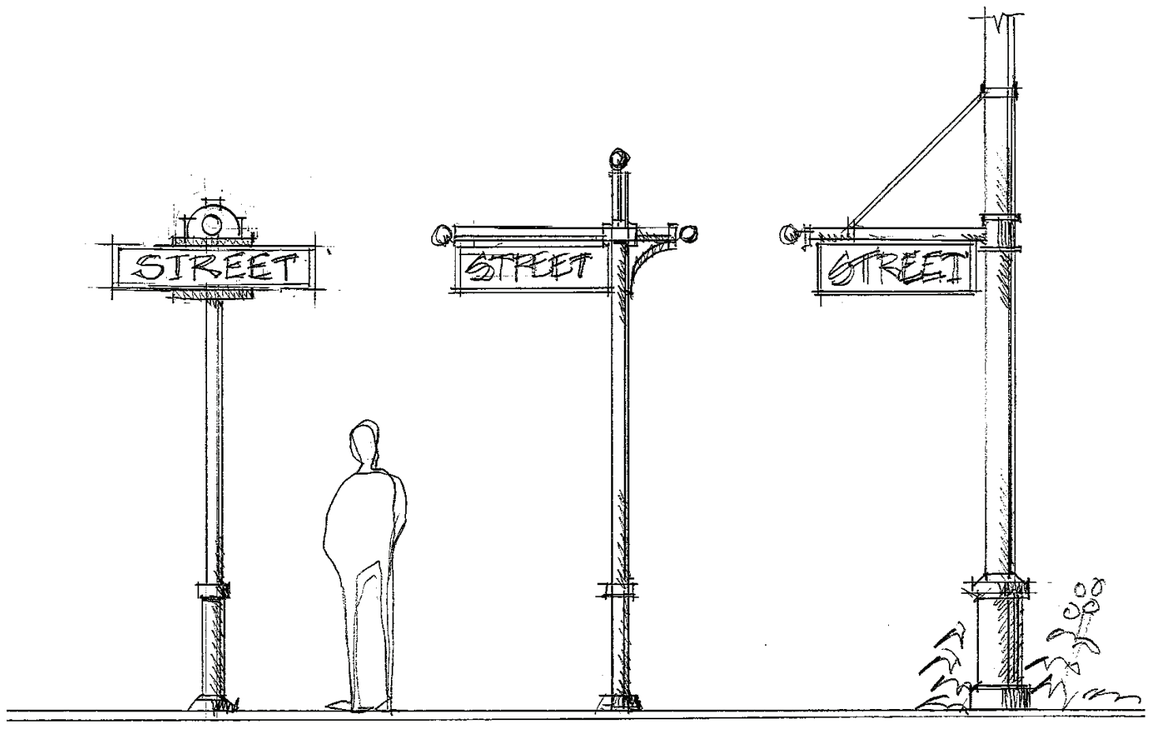
State Street Maple





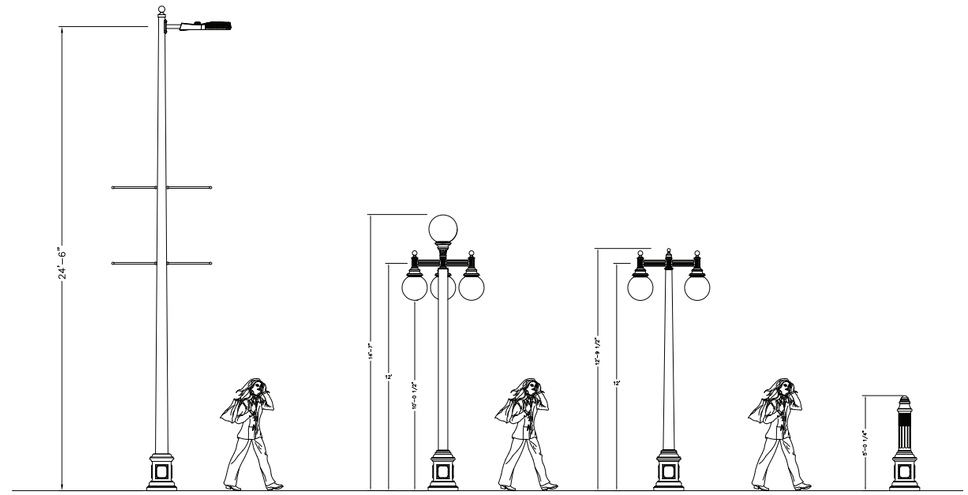
Streetscape Elements

Signage and Wayfinding



Streetscape Elements

Lighting Plan Overview



Legend

- Street Light Fixture
- Decorative Light Assembly to match historic courthouse lights
- Decorative Light Assembly
- Proposed Tree
- Tree in Grate
- Unit Pavers
- Planting Bed

Vehicular Turning Movements at Intersections

Two downtown intersections were analyzed to evaluate the ability of larger vehicles to make left and right turns with narrower intersections due to the proposed curb extensions. A "design vehicle" is selected based on the functional classification of the streets. In downtown Lincoln, three functional classifications exist, as shown in the map at right and summarized in the table below.

Design Vehicle Classification	
Functional Classification	Locations
Minor Arterial	Broadway Street Kickapoo Street south of Broadway Logan Street
Major Collector	Kickapoo Street north of Broadway Pulaski Street Sangamon Street Sherman Street north of Pulaski
Local	All other streets not listed above

The recommended design vehicle for turns from an Arterial to a Collector is a WB-55, meaning a tractor/semi-trailer combination with an overall wheelbase of 55 feet. The design vehicle for Arterials or Collectors to a Local street is a WB-50, and the design vehicle for a Local to Local street intersection is an SU, or single-unit truck.

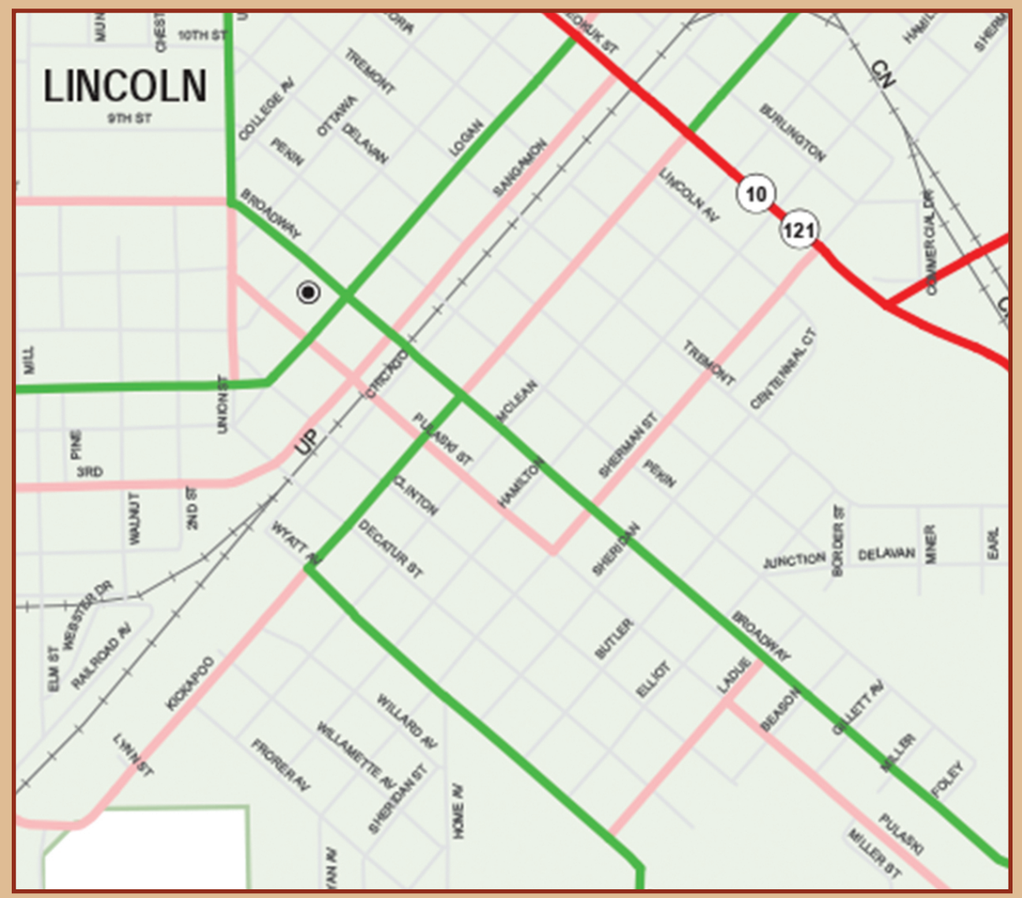
As design of the streetscape progresses, turning radii will need to be evaluated at each intersection. For this study phase, the team selected the two intersections with the highest functional classifications. As lower functional classifications require smaller design vehicles, the design criteria for intersection corners are not as restrictive.

The Broadway Street and Kickapoo Street intersection was analyzed for WB-55 trucks, as well as for 84-passenger school buses. The conceptual design adequately accommodates left turns for both the WB-55 truck and school bus. Right turns are accommodated for the school bus, with the exception of minor encroachment on the southwest corner (the eastbound Broadway to southbound Kickapoo right turn movement). Right turns for the WB-55 were found to be unacceptable for all four corners. During the design phase of the project, the City will be required to seek a variance from the Illinois Department of Transportation for this intersection. A variance request can ask for allowing encroachment on opposing lanes of traffic for right-turning trucks, or for the use of a smaller design vehicle. The variance request should include information on the ability of the designed vehicles to make the turns under existing conditions. In the case of the Broadway/Kickapoo intersection, the existing conditions do not adequately accommodate the WB-55 design vehicle, although proposed conditions due exacerbate this problem.

The Pulaski Street and Kickapoo Street intersection was also analyzed for WB-55 truck and school bus turns. Although Pulaksi Street has a lower functional classification than Broadway Street, the design vehicle required is still a WB-55 truck for this intersection. As this is a smaller intersection than the Broadway/Kickapoo intersection, there were more encroachments at the corners. Left turns failed for both of the south corners for the WB-55 truck, and right turns failed on all four corners for both design vehicles. Under existing conditions, right turns for school buses are acceptable, but right turns for WB-55 trucks currently fail the right turn test with the swept path shown even clipping the building corners at the east side. As WB-55 trucks cannot be making this turn currently, a variance request to use a smaller design vehicle should include that information. If the Pulaski Street rail crossing is closed in the future, the functional classification of Pulaski Street will be reduced to a local street. Prior to that time, the curb extensions as shown in the conceptual plan may need to be reduced in size to accommodate larger truck turns.

When design plans are prepared and variances are requested to IDOT's design policy, it may be beneficial to take counts of the number and type of trucks and larger vehicles passing through and turning at these intersections. If existing counts are minimal, variances are more likely to be granted. In addition, the City may consider establishing a truck route through downtown, and not allowing trucks over a certain size to access other downtown streets. Similarly, school bus routes can be restricted to certain streets within the downtown area, with buses allowed to make turns at the Kickapoo and Broadway intersection, but only allowed through movements at all other downtown intersections.

Design Vehicle Classification Map



5-Year Classification

Minor Arterial
Major Collector
Other Principal Arterial

Potential Funding Sources Streetscape

Illinois Transportation Enhancement Program (ITEP)	• 80% Federal/20% Local • Competitive Grant Program
Illinois High Speed Rail (HSR)	• 80% Federal (minimum)/ 20% Local (maximum) • Applies to rail district and areas disturbed by high speed rail street improvements
Tax Increment Financing (TIF)	• 100% Local
City Infrastructure Sales Tax	• 100% Local
Motor Fuel Tax (MFT)	• 100% State
Surface Transportation Urban (STU) allotment	• 80% Federal/20% Local • Non-competitive allotment program
Illinois Green Infrastructure Grant (IGIG)	• 75% Federal/25% Local • Competitive grant program • Ranges from $15,000 to $85,000 • for rain garden or permeable pavement elements

LIGHTING PLAN

As an integral part of the streetscape plan, new pole and pole top mounted light fixtures will enhance the safety, aesthetic and desirability of the downtown properties. This will be accomplished by introducing pedestrian level decorative globe fixtures in select locations of the downtown revitalization areas. In addition to the decorative fixtures taller more functional roadway lighting fixtures will be introduced at intersections and mid-block.

Decorative Walkway Lighting

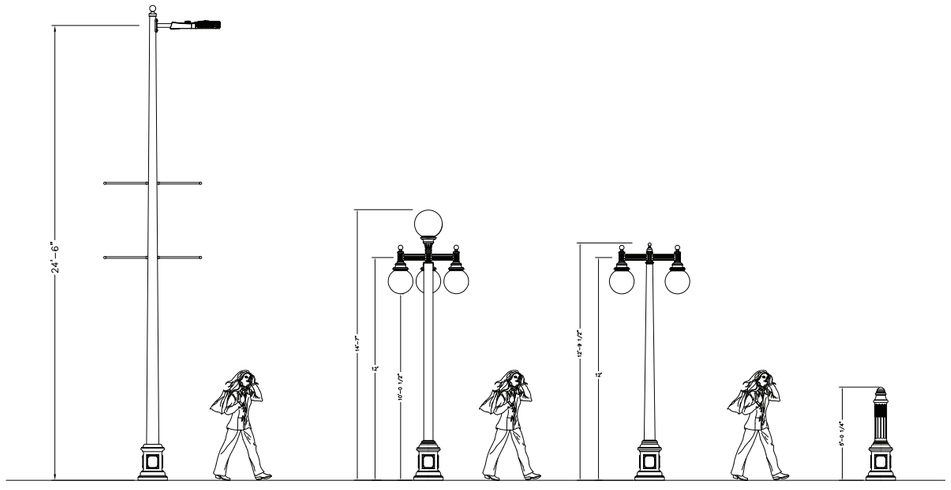
The decorative light fixtures will consist of two distinct pedestrian level fixtures each with traditional poles. These fixtures will be located in the downtown square consisting of Broadway Street, McLean Street, Pulaski Street and Kickapoo Street. These fixtures will provide functionality as well an attractive element of the downtown streets.

The first of these fixtures will be comprised of a 12'-2" high traditional pole with five globes. Four of these globes will be in the downward position and the fifth globe will be mounted on top of the assembly. The overall fixture height will be approximately 15'-6" tall. These fixtures will be placed on the courthouse side of the square. Two will be located in the streetscape area of each intersection and two will be located in the streetscape area at mid street, a total of sixteen fixtures will be utilized.

The second of the decorative fixtures will comprised of a 12'-2" high traditional pole with two globes. The globes will be mounted in the downward position. The overall fixture height will be approximately 12'-6" tall. Four of these fixtures will be placed along each side of the implemented streetscape.

Roadway Light Fixtures

In addition to the decorative fixtures, the design will implement taller more functional fixtures. They will be comprised of 25 foot tall traditional poles with a single high intensity discharge (HID), metal halide lamp. These poles will be fitted with four banner arms at two levels of the pole. Two of these fixtures will be located at each intersection of the downtown square and one at mid street.



Street Lighting Photomoetric Calculations (Fc)

Street	Avg	Max	Min	Avg/Min	Max/Min
Kickapoo St/Clinton St (Intersections)	2.90	9.40	0.40	7.25	23.50
Kickapoo St/Decatur St (Intersections)	1.66	8.90	0.20	8.30	44.50
Kickapoo St/Pekin St (Intersections)	3.07	8.60	0.90	3.41	9.56
Kickapoo St/Lathem St (Intersections)	1.34	4.60	0.10	13.40	46.00
Kickapoo St (Between Clinton/Pulaski)	2.41	11.70	0.80	3.01	14.63
Mclean St/Clinton St (Intersections)	3.19	11.60	0.90	3.54	12.89
Mclean St/Decatur St (Intersections)	2.01	11.50	0.30	6.70	38.33
Mclean St/Pekin St (Intersections)	3.58	11.80	0.70	5.11	16.86
Mclean St/Lathem St (Intersections)	1.59	6.20	0.20	7.95	31.00
Kickapoo St (Between Pulaski/Broadway)	2.42	13.10	0.50	4.84	26.20
Kickapoo St (Between Broadway/Pekin)	2.39	10.50	0.80	2.99	13.13
Kickapoo St (Between Pekin/Lathem)	1.36	10.20	0.20	6.80	51.00
Mclean St (Between Decatur/Clinton)	1.54	9.30	0.20	7.70	46.50
Mclean St (Between Clinton/Pulaski)	2.49	13.00	0.80	3.11	16.25
Mclean St (Between Pulaski/Broadway)	1.55	6.10	0.30	5.17	20.33
Mclean St/Pulaksi St (Intersections)	3.62	9.60	1.10	3.29	8.73
Mclean St (Between Broadway/Pekin)	2.25	13.00	0.90	2.50	14.44
Mclean St (Between Pekin/Lathem)	1.58	10.30	0.30	5.27	34.33
Lathem St (Between Kickapoo/Mclean)	0.78	2.80	0.20	3.90	14.00
Pekin St (Between Kickapoo/Mclean)	0.60	2.70	0.20	3.00	13.50
Broadway St (Between Kickapoo/Mclean)	1.71	10.90	0.30	5.70	36.33
Pulaski St (Between Kickapoo/Mclean)	2.30	12.70	0.50	4.60	25.40
Clinton St (Between Kickapoo/Mclean)	0.61	2.60	0.20	3.05	13.00
Decatur St (Between Kickapoo/Mclean)	0.66	2.50	0.20	3.30	12.50
Pulaski St (West Of Kickapoo St)	2.52	10.40	0.90	2.80	11.56
Pulaski St (East Of Mclean St)	2.31	10.90	0.70	3.30	15.57
Kickapoo St (Between Decatur/Clinton)	1.35	12.80	0.20	6.75	64.00
Broadway St (West Of Kickapoo St)	1.60	12.60	0.50	3.20	25.20
Broadway St (East Of Mclean St)	1.66	10.90	0.30	5.53	36.33
Kickapoo St/Broadway St (Intersections)	3.35	12.80	0.90	3.72	14.22
Kickapoo St/Pulaksi St (Intersections)	3.46	7.00	1.30	2.66	5.38
Mclean St/Broadway St (Intersections)	3.08	12.80	0.90	3.42	14.22

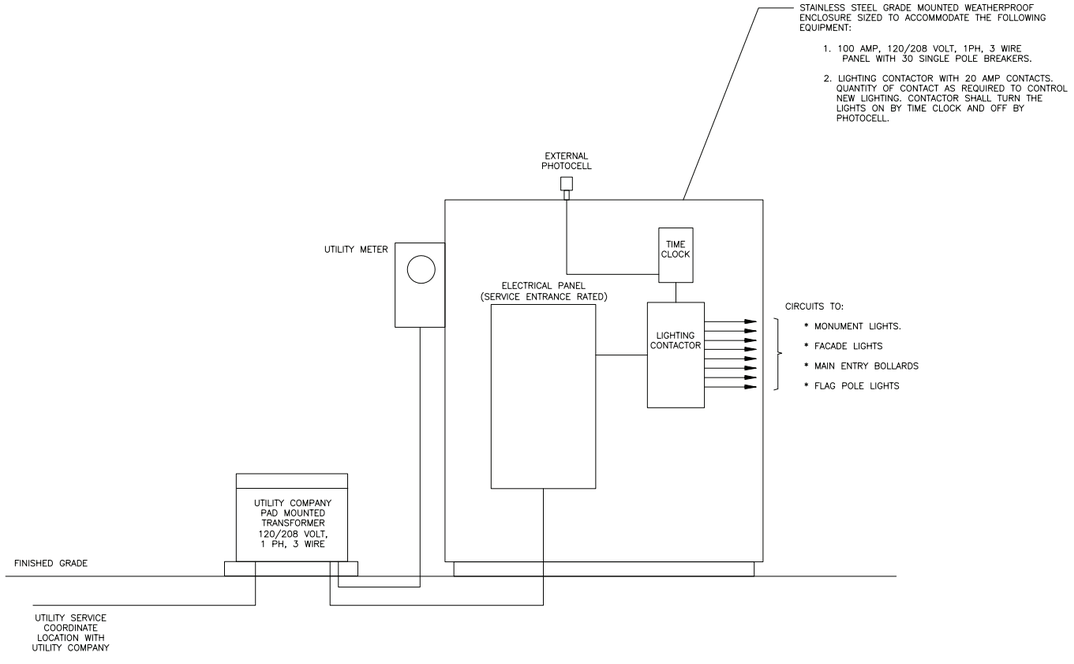
Courthouse Building Lighting

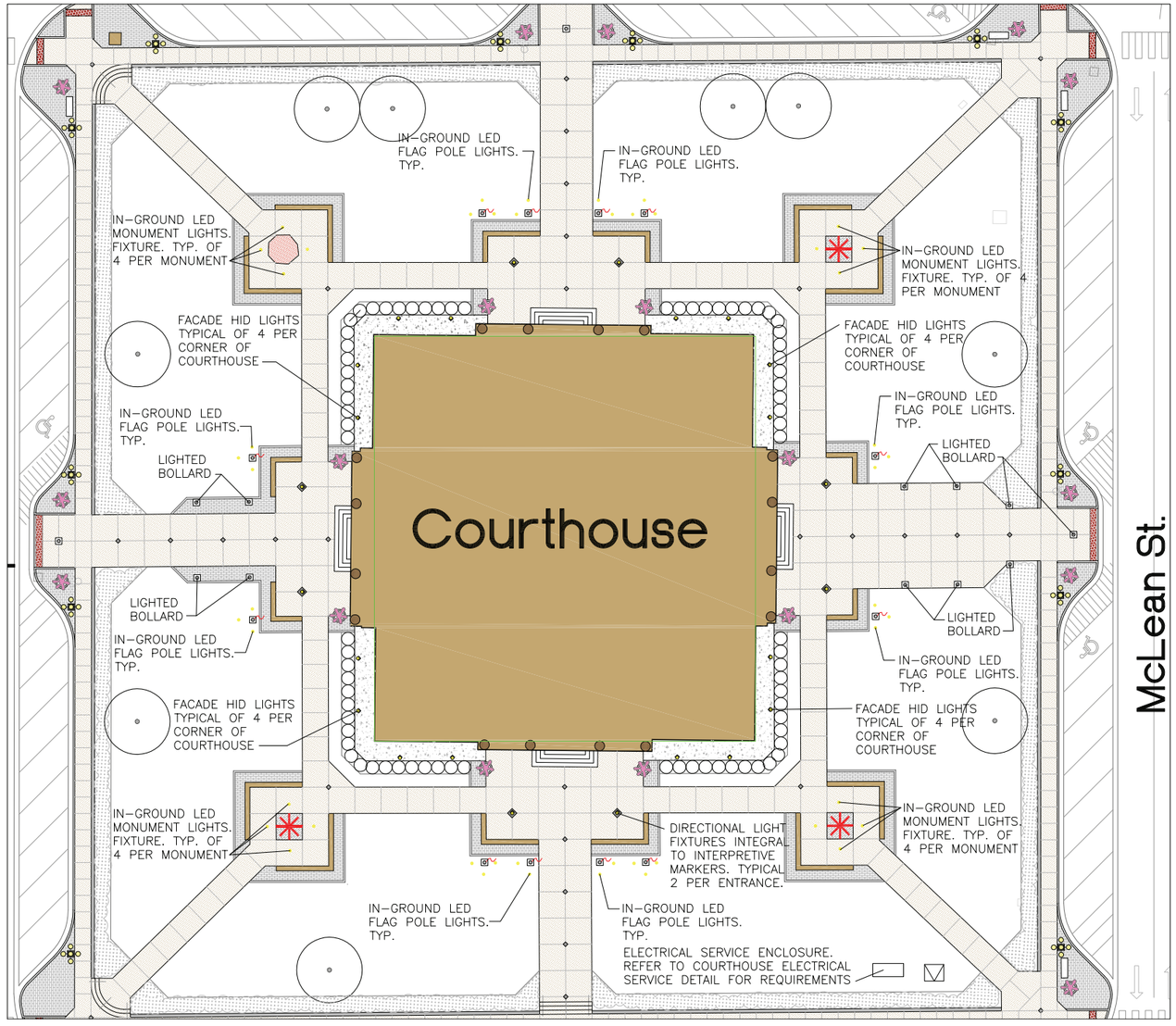
Courthouse Façade Lighting – The courthouse façade will be illuminated by the use of post top HID light fixtures and directional HID fixtures. The directional fixtures will be integral to the new interpretive markers located on the four entrances to the courthouse.

Courthouse Walkway Lighting – Traditional style lighted bollards to match the decorative streetscape poles will illuminate the main walkways leading to the courthouse.

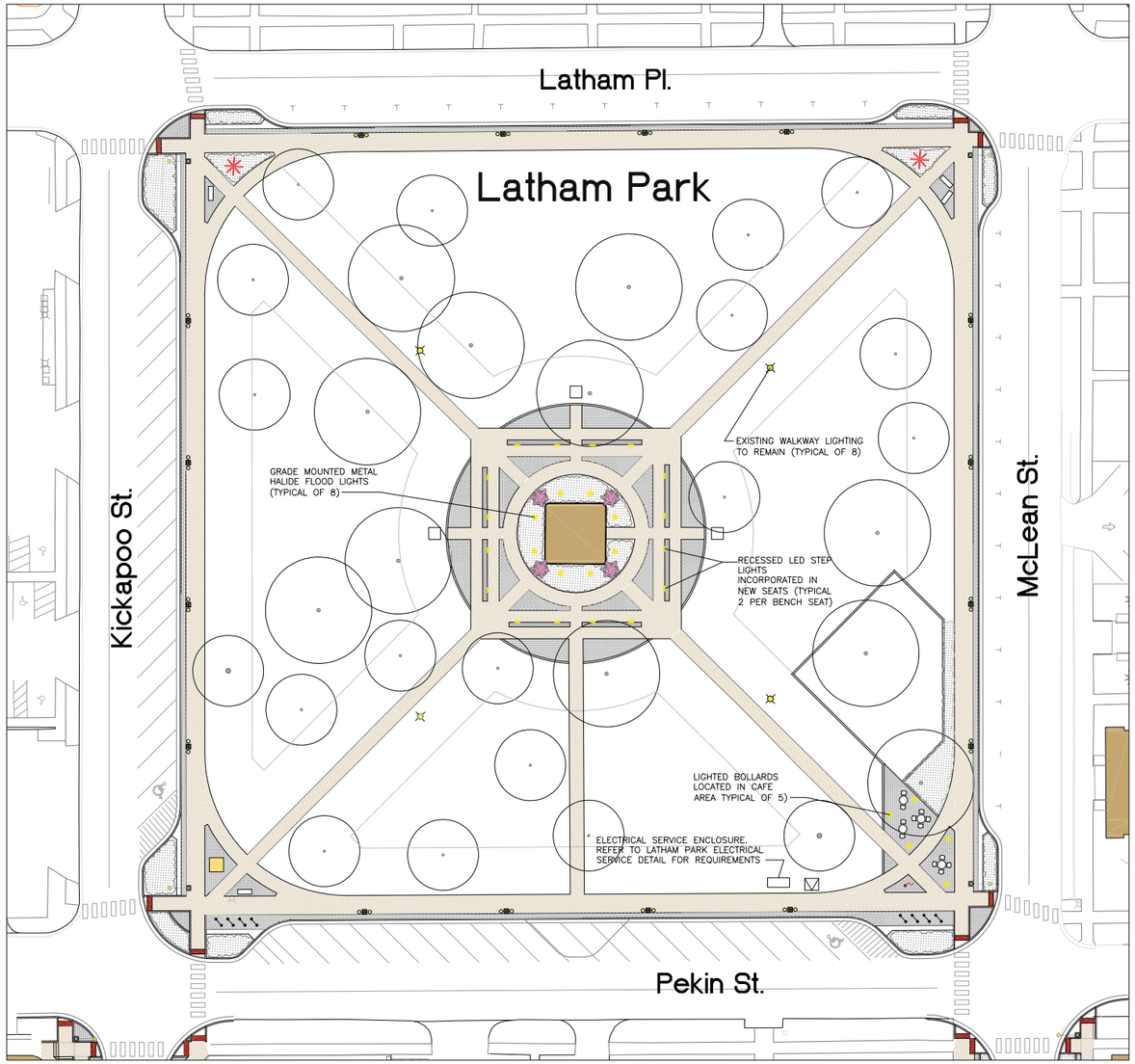
Flag Pole Lighting – Each flag pole will be illuminated using three in-ground up lights spaced at 120 degrees around the flag pole at 1/3 the mounting height of the flag from the center of the pole). These fixtures will utilize LED lamps.

Monument Lighting – Each of the monuments located at the corners of the courthouse building will be illuminated from in-ground fixtures; the light source will be LED.





Lighting Plan

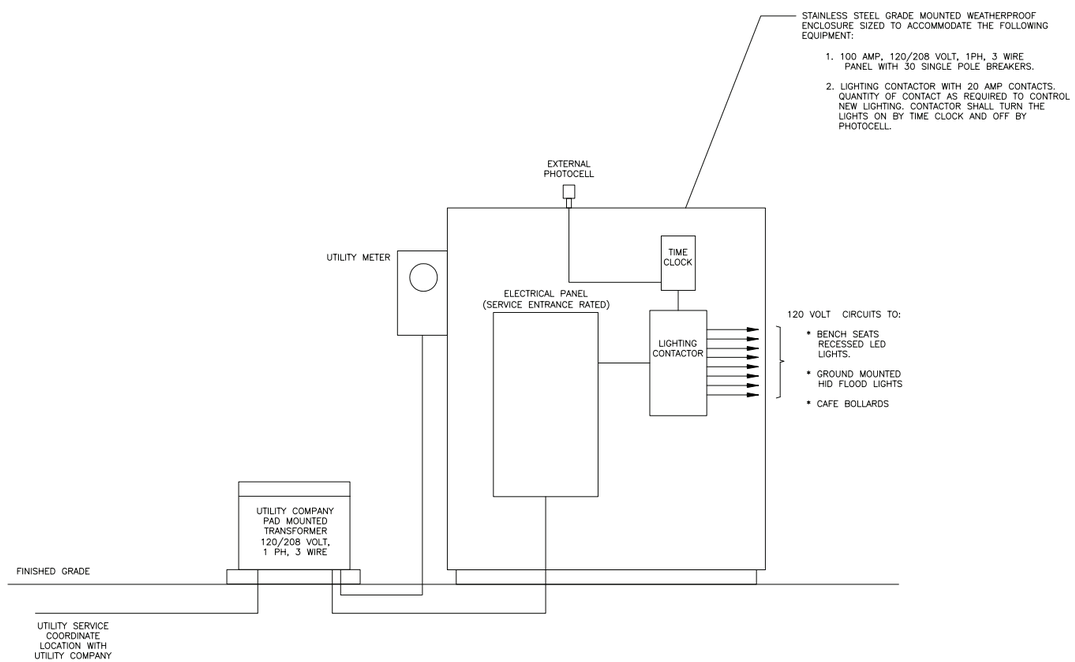


Latham Park

Walkway Lighting – The existing pole and globes lights currently located at each of the parks interior walkways will be retained and incorporated in the new lighting layout. New pedestrian level pole lights with two globes mounted in the downward position will be introduced on the parks exterior walkways. In addition to the decorative pole lights, roadway lighting fixtures will be located one at each of the parks intersections. Traditional style lighted bollards to match the decorative streetscape poles will illuminate the new café and at each of the parks corner.

Band Stand Structure – The existing building façade will be illuminated with ground mounted HID flood lights. The new band stand masonry seats will incorporate step lights with LED lamps.

Family Shelters – Each of the new family shelters will have fluorescent lighting and a single 20 amp weatherproof receptacle.

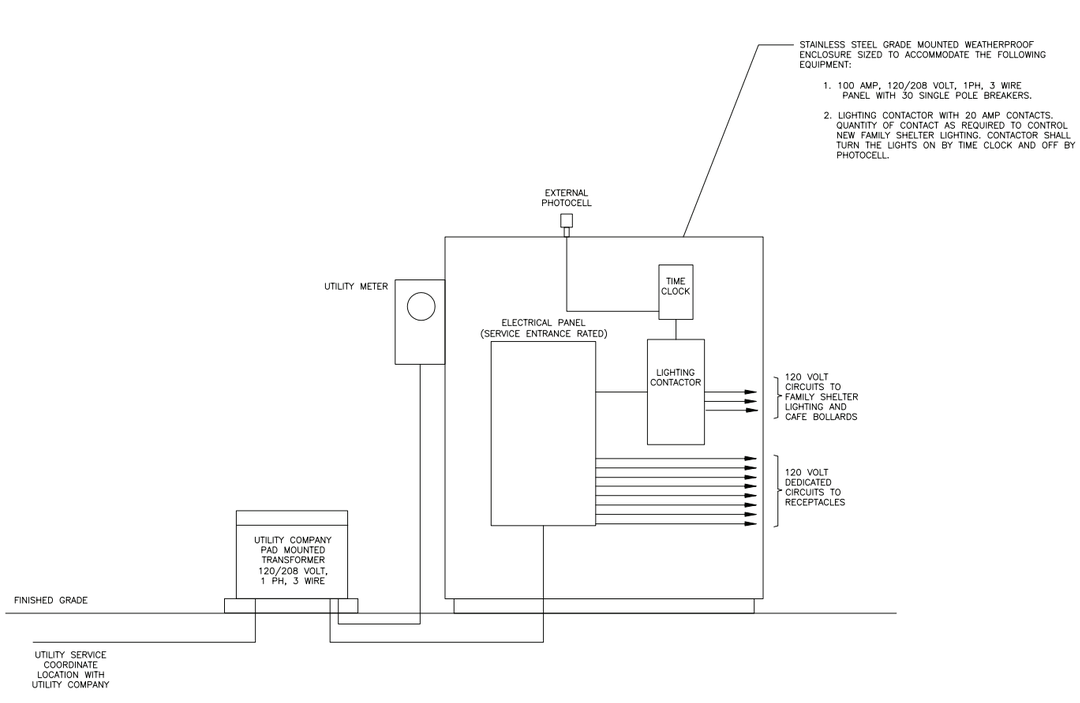


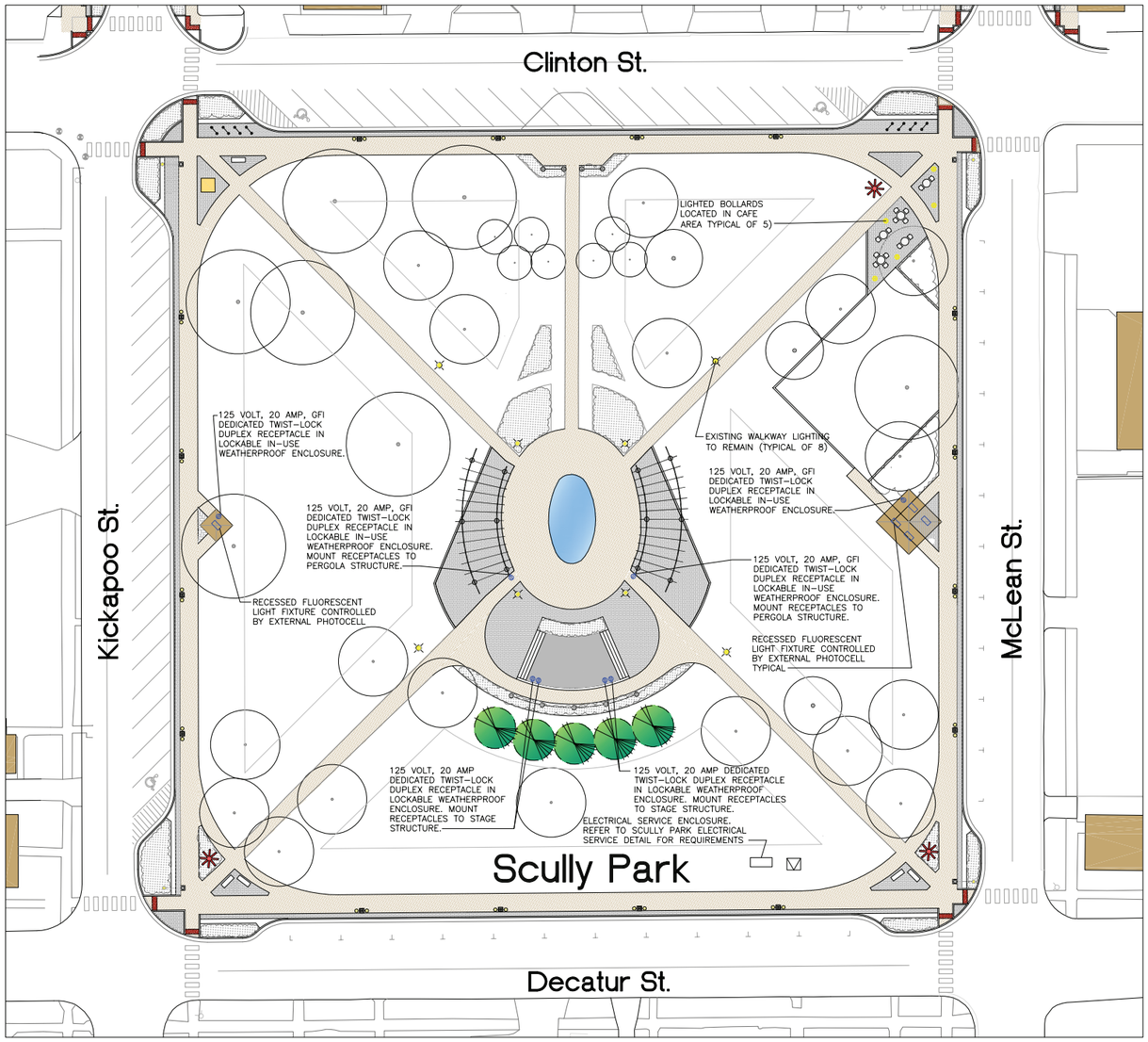
Scully Park

Walkway Lighting – The existing pole and globes lights currently located at each of the parks interior walkways will be retained and incorporated in the new lighting layout. New pedestrian level pole lights with two globes mounted in the downward position will be introduced on the parks exterior walkways. In addition to the decorative pole lights, roadway lighting fixtures will be located one at each of the parks intersections. Traditional style lighted bollards to match the decorative streetscape poles will illuminate the new café and at each of the parks corner.

Power for Future Stage Use in Scully Park – New 120 volt circuits will feed four 20 amp, 1 pole twist lock weatherproof recessed receptacles in lockable enclosures. Remote stage lighting will be strategically located on the existing pergolas. Two weatherproof receptacles with in-use weatherproof covers will be fed from a single 20 amp circuit each.

Family Shelters – Each of the new family shelters will have fluorescent lighting and a single 20 amp weatherproof receptacle.





BICYCLE ROUTES PLAN

The Bicycle Routes Plan analyzes potential bicycle corridors leading into downtown and routes that could connect focal points in the community with Downtown and with each other.

Additional accessibility is gained by the addition of bicycle routes into the downtown area. Primary routes through the downtown study area are being proposed on Broadway Street and on Sangamon Street. Areas on Lincoln's northwest and southeast sides of town would enter downtown on Broadway Street. Because parking exists on both sides of the street, the bicycle route would be in the center of the street, and striped and signed for safety. Areas on Lincoln's northeast and southwest would enter downtown on Sangamon Street along the railroad tracks. Here, the bicycle route would run along the side of the street on a ten-foot wide combined sidewalk/bicycle trail.

The existing Route 66 Bike Path is a designated shared bike lane that traverses Downtown Lincoln, following Kickapoo Street and Broadway Street. However, signage for the route is sparse and non-descript. Additional wayfinding signs through Lincoln, particularly through the busy downtown area, would greatly improve the route and would draw cyclists into Downtown.

Other bike routes are proposed within Downtown that would tie into the existing Route 66 Bike Path and that would connect cyclist generators such as schools, parks, and other institutional facilities. The proposed routes are made up of dedicated bicycle lanes, shared bicycle lanes and separated bicycle paths. For example, a proposed route on the east side of Lincoln would stretch between Lincoln Christian University, Lehn & Fink Park, Lincoln Community High School, and the Lincoln Recreation Center. By utilizing the existing Route 66 Bike Path or the proposed Broadway Street dedicated bike lane, a cyclist could easily access other points of interest such as the Carnegie Library, Latham Park, the Logan County Courthouse, Scully Park, the Amtrak Station, the Post Office, City Hall, Lincoln Junior High School, Washington-Monroe Elementary School, Central Elementary School, Carroll Catholic School and Lincoln College.

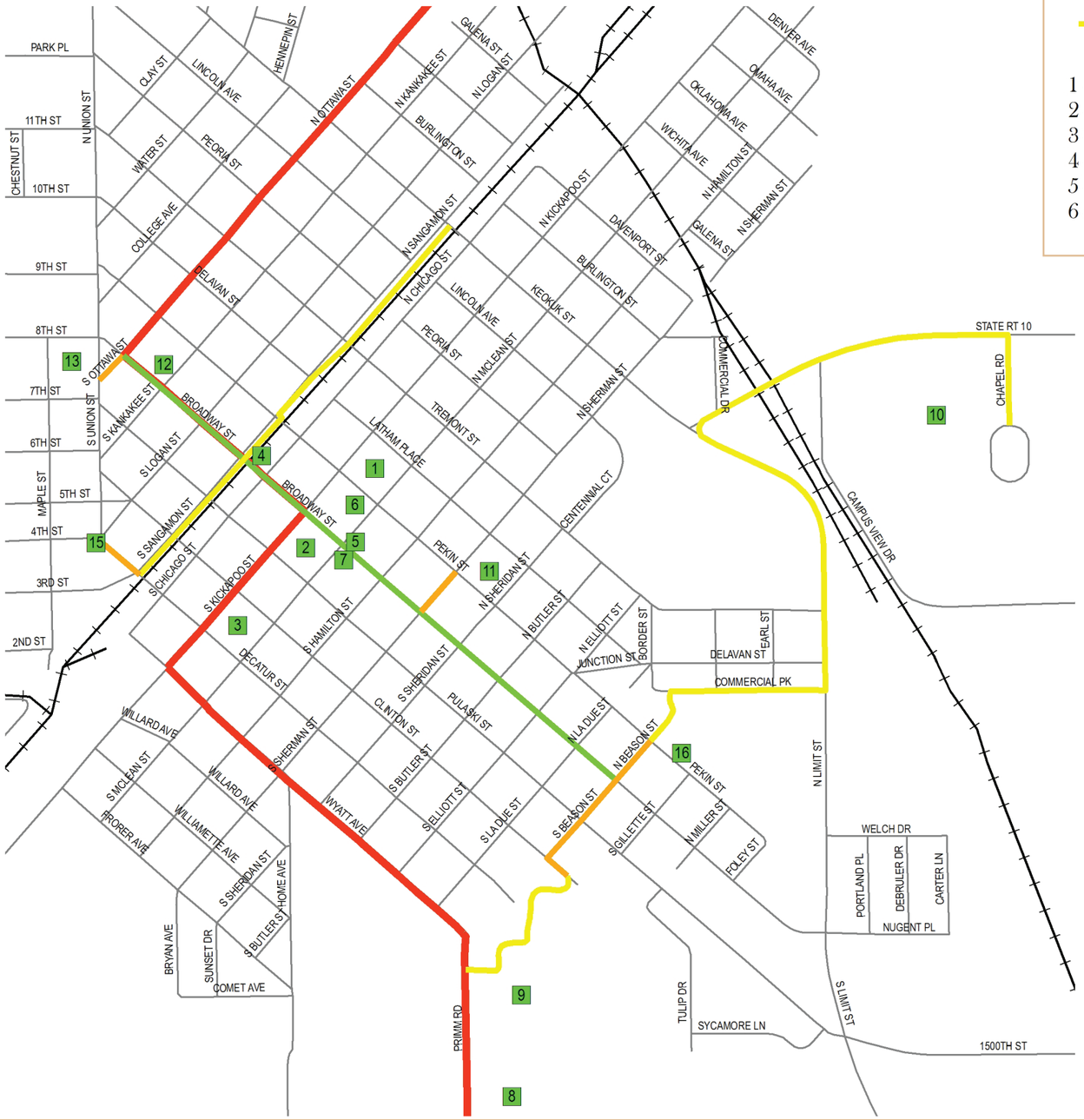
Placement of bicycle racks at schools, parks, and other strategic locations will further support the functionality of the existing and proposed bicycle routes. Making Downtown more bicycle friendly may encourage downtown workers to use this mode of transportation, lessening the traffic and parking demands on Downtown, while increasing the health and fitness levels of the community.

BICYCLE ROUTE TYPES

Dedicated Bike Lanes
A dedicated bike lane is a portion of a roadway which has been designated by striping, signing and pavement marking for the preferential or exclusive use of bicyclists.

Shared Bike Lanes
A shared bike lane allows motorists and cyclists to use the same lane. Pavement markings and signage are typically used to remind motorist that cyclists may be present.

Separated Bike Path
A separated bike path is a distinct cyclist path separated from the roadway surface by a median or developed as a stand alone path.



Proposed Dedicated Bike Lanes
Proposed Shared Bike Lanes
Points of Interest
Proposed Separate Bike Path
Existing Rt 66 Bike Path (Shared Lanes)

1 - Latham Park
2 - Logan County Courthouse
3 - Scully Park
4 - Amtrak Station
5 - City Hall
6 - Carnegie Library
7 - Post Office
8 - Recreation Center
9 - Lincoln Community High School
10 - Lincoln Christian University
11 - Washington-Monroe Elementary School
12 - Lincoln Junior High School
13 - Central Elementary School
14 - Lincoln College
15 - Carroll Catholic School
16 - Lehn & Fink Park

Potential Funding Sources Bicycle Routes

Illinois Transportation Enhancement Program (ITEP)		• 80% Federal/20% Local • Competitive Grant Program
Transportation Alternatives - Safe Routes to School Program		• 100% Federal • Competitive Grant Program
Tax Increment Financing (TIF)		• 100% Local
City Infrastructure Sales Tax		• 100% Local
Motor Fuel Tax (MFT)		• 100% State
Illinois Bicycle Path Program	ILLINOIS DEPARTMENT OF NATURAL RESOURCES	• 50% State/50% Local • $200,000 maximum • Competitive grant program

BRICK STREETS PLAN

Brick streets are an asset to Lincoln and accentuate the historical nature of the community. In addition, brick streets are economical over their life cycle. Consider the longevity of the City's existing brick streets which are more than 100 years old and still in operating condition.

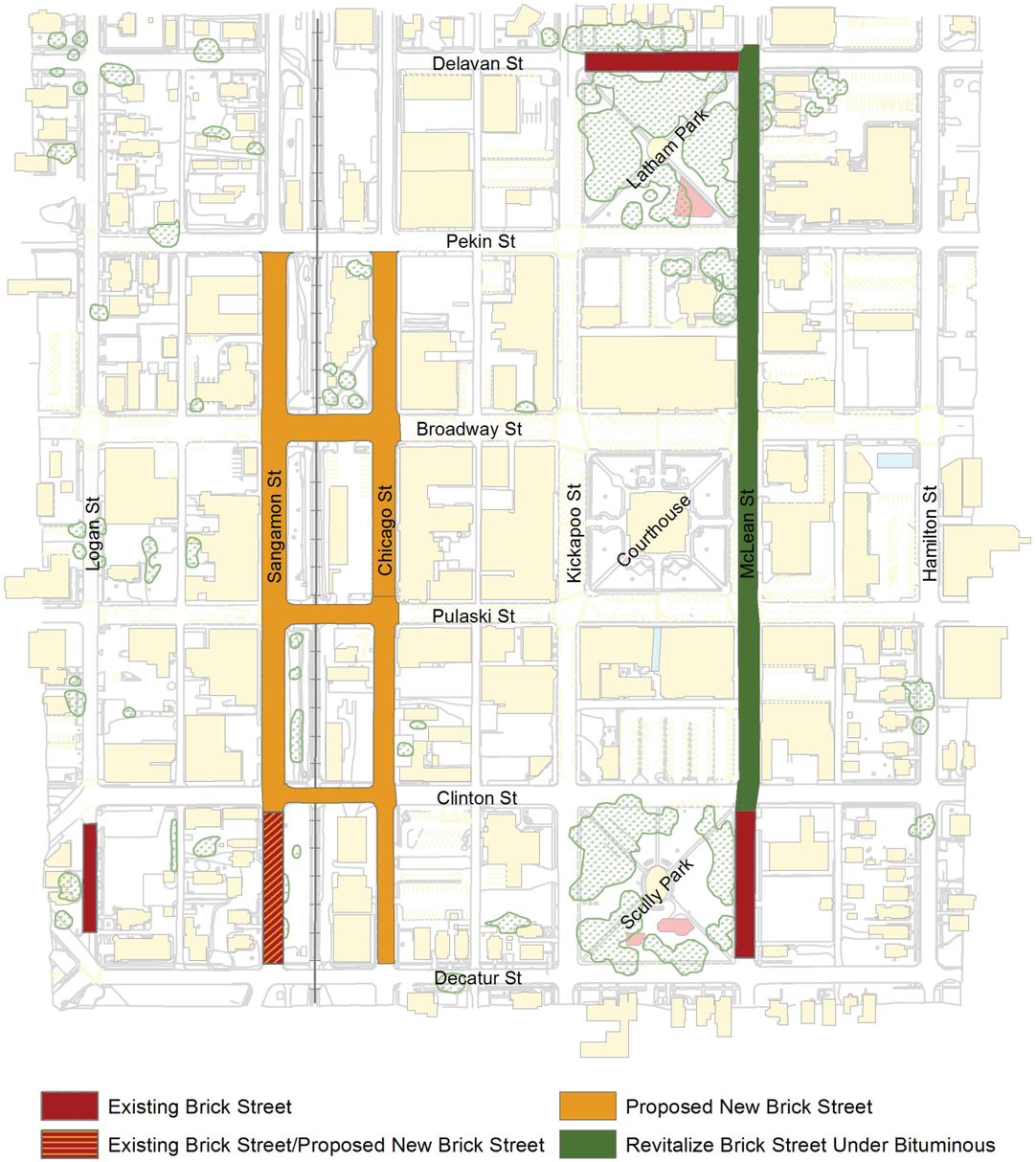
This Brick Streets Plan has been developed for the preservation of historic brick streets within the downtown study area. Existing brick streets have been inventoried and prioritized for preservation or restoration based upon existing condition, cost of improvements, and perceived contribution to the surrounding properties. Specific recommendations are provided on a block by block basis.

Repairs to Existing Brick Streets

Most of the brick streets located in the study area have been removed, paved over with asphalt or are in need of repair. There are four roadway segments with exposed original brick streets within the Downtown study area. Each segment was evaluated based on the crown condition, drainage, and ride-ability. The presence of underground utilities was also determined for each segment.

Logan Street from Decatur Street to Clinton Street – This section of Logan Street is rated as "good" in terms of crown condition and "fair" in terms of drainage and ride-ability. Approximately 10 percent of the road is patched. A 6 inch water line is located under this street.

Sangamon Street from Decatur Street to Clinton Street – This section of Sangamon Street is rated as "fair" in terms of crown condition and ride-ability and "poor" in terms of drainage. Approximately 1 percent of the road is patched. A 4 inch water line is located under this street.



McLean Street from Decatur Street to Clinton Street – This section of McLean Street is rated as "fair" for crown condition, "good" for drainage, and "poor" for ride-ability. Approximately 10 percent of the road is patched. A 4 inch water line is located under this street.

Delevan Street from Kickapoo Street to McLean Street – This section of Delavan Street is rated as "fair" for crown condition, drainage, and ride-ability. Approximately 8 percent of the road is patched. A 24 inch sewer is located under this street.

It is recommended that these remaining brick streets be prioritized for preservation. Efforts should focus on improving/maintaining the street to meet a rating of "good". Initial improvements should include replacement of existing concrete and asphalt patches with bricks and smoothing out rough areas.

Restoration of McLean Street

The restoration of existing brick streets is proposed for four blocks of McLean Street in the downtown study area. These blocks lie between Clinton Street and Delavan Street and their restoration would create a continuous 12 block stretch of brick street between the Canadian National Railroad and Decatur Street.

Bricks to complete this project may be secured by salvaging removed bricks during the planned reconstruction of Pulaski Street or other future street reconstruction projects. Brick pavers from such renewal projects should be saved to offset costs for these and other brick street restoration projects.

Brick Street Reconstruction

The construction of new brick streets is proposed in the historical railroad district in downtown. Currently, the Illinois Department of Transportation plans to reconstruct several streets in this downtown district to support high-speed rail improvements. This work could be accomplished as soon as the summer of 2014. Streets to be reconstructed include Chicago and Sangamon Streets between Broadway and Decatur as well as the Decatur, Clinton, Pulaski, and Broadway Street rail crossings. As funding allows, the City should consider reconstructing these streets as brick streets to emphasize the historical aspects of this district, and to create a distinction between the Railroad District and the Courthouse Square District.

View of Sangamon Street between Decatur Street and Clinton Street.

View of concrete patchwork on McLean Street between Decatur Street and Clinton Street.

View of historic brick street beneath modern bituminous surface.

View of Logan Street between Decatur Street and Clinton Street.

Conceptual Cost Estimates for Proposed Brick Streets Improvements

Proposed Improvements	Est. Cost
Cost to repair one block of existing brick street using reclaimed bricks	$50,0000 to $60,000
Cost to restore one block of existing brick street (currently overlaid with bituminous material) using reclaimed bricks	$100,000 to $120,000
Additional cost to reconstruct one street block, 37 feet wide as a brick street (above cost for Bituminous Surface)	$225,000 to $250,000

Potential Funding Sources Bicycle Routes

Illinois Transportation Enhancement Program (ITEP)		• 80% Federal/20% Local • Competitive Grant Program
Tax Increment Financing (TIF)		• 100% Local
City Infrastructure Sales Tax		• 100% Local
Motor Fuel Tax (MFT)		• 100% State • Non-competitive Allotment Program

DOWNTOWN SEWER PLAN

The Downtown Utilities Plan investigates the feasibility of utility relocations in the downtown area. Costs and impacts for utility relocations will be reduced if they take place simultaneously with other revitalization plan improvements where a separate surface restoration is not required. The Utilities Plan explores the concept of upgrading existing downtown combined sewers to a separated sewer system, deploying fiber-optic broadband throughout the downtown area, and removing or relocating certian overhead utility lines underground.

Conceptual Downtown Sewer Separation Study

A combined sanitary/storm sewer collection system currently exists throughout many areas in Lincoln, including the downtown revitalization study area. This system transports the collection of rainwater runoff, domestic sewage and industrial wastewater to the sewage treatment plant. Heavy rainfall can produce excessive combined wastewater volumes that exceed the capacity of the current combined sewer system, creating an overflow of untreated wastewater into the natural drainage way. In some locations within the downtown study area this combined sewer is connected to stormwater inlets and basement drains without a trap which allows sewer odors to permeate these areas. Sewer odors from the combined sewer system is a major detractor to a successful redevelopment of Downtown, and was mentioned by several workshop participants and members of the public as an item that needs addressed. Within the Downtown area, most of the combined sewers are at or beyond their useful lifetime, although some sewers have been lined with cured-in-place pipe.

Separation of sewers in the downtown study area should be accomplished before or during a downtown streetscaping project to eliminate surface restoration costs. Separating the sewers downtown will require an interim solution which re-combines the storm and sanitary flows downstream. The Downtown area is tributary to the existing Rubicon trunk sewer, which is a combined sanitary/storm sewer. While this interim solution will not solve the combined sewer overflow issue, it will reduce or eliminate downtown sewer odors and will contribute to the ultimate combined sewer overflow solution.

This study provides a conceptual plan and cost estimate to separate the sewer system in the downtown revitalization plan area. A common solution utilized in separating combined sewers involves rehabilitating current systems to maintain sewage wastewater flow and constructing a new separate system for rainwater runoff. It was determined this method would be the most cost effective and was the condition used to determine our preliminary cost estimate.

The study area was divided into two separate drainage study areas, divided by the Union Pacific Railroad corridor. The proposed storm sewer network west of the rail corridor will divert rainwater north along Sangamon Street . The proposed storm sewer network east of the rail corridor will divert rainwater north along Kickapoo Street. These proposed storm sewer networks will drain to the existing combined Rubicon trunk sewer on Delavan Street until sewer separation projects outside of the downtown study area are completed.

Conceptual Cost Estimates for Proposed Sewer Improvements	
Proposed Improvement	Est. Cost
Cost to install one block of 12” to 24” diameter storm sewer, including removal and replacement of four inlet structures, one new manhole, pavement removal, and trench backfill	$60,000 to $70,000
Cost to install one block of 30” to 42” diameter storm sewer, including removal and replacement of four inlet structures, one new manhole, pavement removal, and trench backfill	$80,000 to $90,000
Cost to install one block of 48” to 54” diameter storm sewer, including removal and replacement of four inlet structures, one new manhole, pavement removal, and trench backfill	$95,000 to $105,000
Additional cost to restore one block of paved surface if sewer installation is not done in conjunction with a streetscaping or street reconstruction project	$45,000 to $55,000

Potential Funding Sources Sewer

City Sewer Fund	• 100% Local
Tax Increment Financing (TIF)	• 100% Local
City Infrastructure Sales Tax	• 100% Local
Community Development Assistance Program (CDAP) Public Infrastructure Grant (Construction)	• 75% Federal/25% Local • Competitive Grant Program • $450,000 maximum
Community Development Assistance Program (CDAP) Public Infrastructure Grant (Design Engineering)	• 100% Federal • Competitive grant program • $150,000 maximum

“I like to see a man proud of the place in which he lives. I like to see a man live so that his place will be proud of him.”
--Abraham Lincoln

FIBER OPTIC BROADBAND PLAN

To promote the economic appeal of downtown Lincoln for existing and prospective businesses, the City of Lincoln is interested in making available fiber optic broadband throughout the downtown study area. Although basic internet service is available throughout Lincoln, there is currently no high-speed fiber-optic broadband access within the downtown study area. There are at least two existing fiber-optic lines running through the downtown study area which have the spare capacity to serve downtown Lincoln.

A Broadband Technology Plan was developed in 2009 to investigate the feasibility of providing fiber optic broadband within Lincoln (including in Downtown Lincoln) and Wireless Broadband throughout Logan County. This portion of the Downtown Lincoln Revitalization Plan takes a more in-depth look at what is required to serve the only the downtown study area with fiberoptic high-speed broadband service.

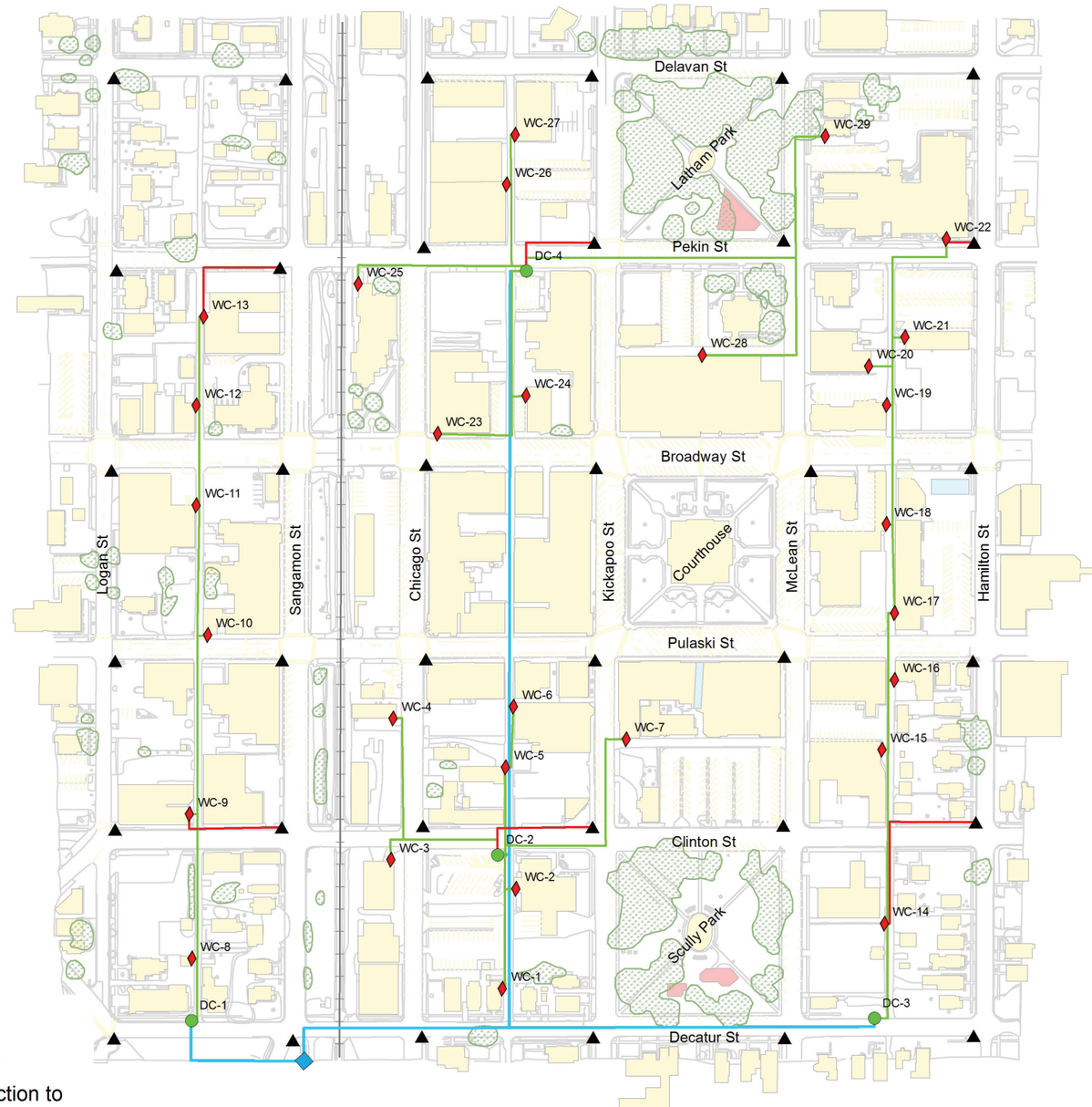
Primary Service Providers

The Illinois Rural Health Network proposed as the fiber-optic broadband primary service access point in the 2009 study has not yet been constructed in Lincoln. Two alternate service provider were identified and can provide sufficient bandwidth to serve the downtown study area.

Metro Communications Company – MCC recently installed fiber optic lines through Lincoln to connect two existing Verizon cellular towers. This line is located generally south of the downtown study area, but enters the study area at the southwest corner along Decatur Street between Chicago and Sangamon Streets. MCC has capacity to provide 200 Mbps high-speed fiber-optic broadband service to the downtown study area, but they would require a 4 year contract to do so.

Hurricane Electric –Hurricane Electric, in conjunction with Comcast, who would provide the fiber build out from their local connection point to the City's main point of service, can provide a 1000 MBPS connection. There are two options for this scenario. The first is that Comcast will provide the complete installation of the main backbone fiber from their local connection point to the City's main point of distribution as well as all connections necessary in the data center in Chicago for no upfront cost. Hurricane electric would then provide the data transmission services. This would require either a 3 or 6 year contract term.

Fiber Optic Broadband and Wireless Mesh Access Point Location Map



Network Hub

The development of a high-speed broadband network in Downtown Lincoln would require a central data center / IT room to serve as the hub of the downtown network. Space requirements would include:

- Minimum 10 foot by 12 foot space with additional space for expansion to a 20 foot by 12 foot space is preferable. This space should be physically enclosed to eliminate environmental issues such as dust and moisture.
- An uninterruptible power supply (UPS) to allow the system to shut down safely in the event of a utility power failure. A stand-by generator is preferred to allow the system to function normally during a utility power failure.
- Dedicated HVAC systems to control temperature and humidity.

Fiber Distribution Center

Three potential locations were identified including (also noted on previous page in the Fiber Optic Broadband Map):

Site 1: The basement of City Hall at 700 Broadway Street - The basement of City Hall is not sufficiently finished and numerous upgrades, including HVAC, UPS, and possibly a standby generator are required to configure the space as a Data Center. The space is sufficiently sized, centrally located, and owned and controlled by the City.

Site 2: The basement of the Integrity Data Building at 125 North Kickapoo Street - The basement of this building is currently configured for a private data center, including separate HVAC, UPS, and a standby generator. These existing upgrades are not sufficiently sized to provide the additional capacity required to serve another data center. The space is sufficiently sized, centrally located, and the owner would be willing to discuss the use of the space with the City.

Site 3: A modular building placed near the connection with the Primary fiber-optic broadband utility at 3rd and Decatur Street (near existing City Street Department Garage) - An alternate data center could be developed in a modular building placed at the site of the existing City Street Department Garage. This location is very near to the connection point to the primary fiber-optic service provider which would greatly reduce the costs for initial network connectivity. The location is not, however, centrally located within the downtown, which could increase the costs of the distribution network. Assuming the City proceeds with the placement of conduit throughout the downtown streetscape, these costs should be controlled.

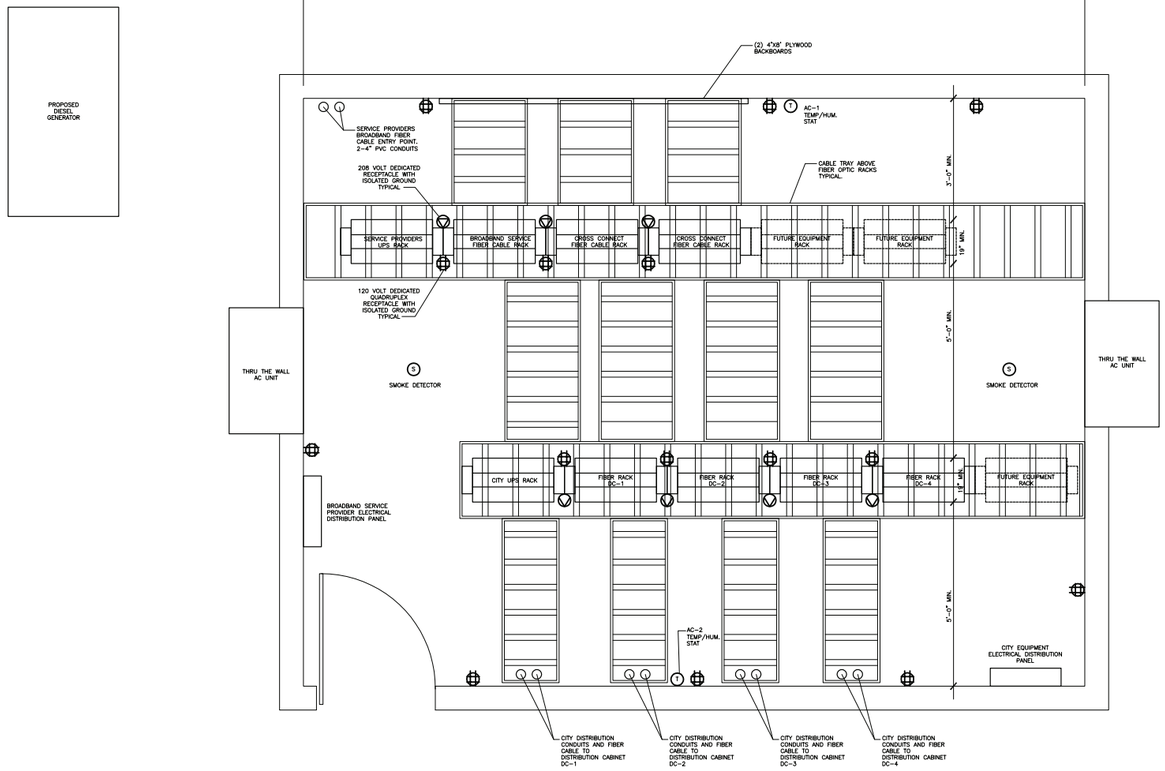
Sample Central Data Center Building

Potential Funding Sources Broadband

Tax Increment Financing (TIF)	•	100% Local
City Infrastructure Sales Tax	•	100% Local
Broadband Utility User Fees	•	100% Local

Implementation Costs	
Monthly Cost for 200 Mbps Primary Broadband Service (MCC Communications)	$3,000
Monthly Cost for 1000 Mbps Primary Broadband Service (Hurricane Electric - 3 year contract)	$4250
Monthly Cost for 1000 Mbps Primary Broadband Service (Hurricane Electric - 6 year contract)	$3780
Cost to Establish Data Center (Option 1)	$250,000
Cost to Establish Data Center (Option 2)	$250,000
Cost to Establish Data Center (Option 3)	$275,000
Typical Cost per block for Conduit Installation Supporting a Fiber-Optic Distribution Network	$10,000
Typical Cost per block for Fiber-Optic Installation	$5,000
Overall Cost to Establish Mesh Wi-Fi Network throughout the Downtown Study Area	$150,000

Fiber Optic Broadband Plan

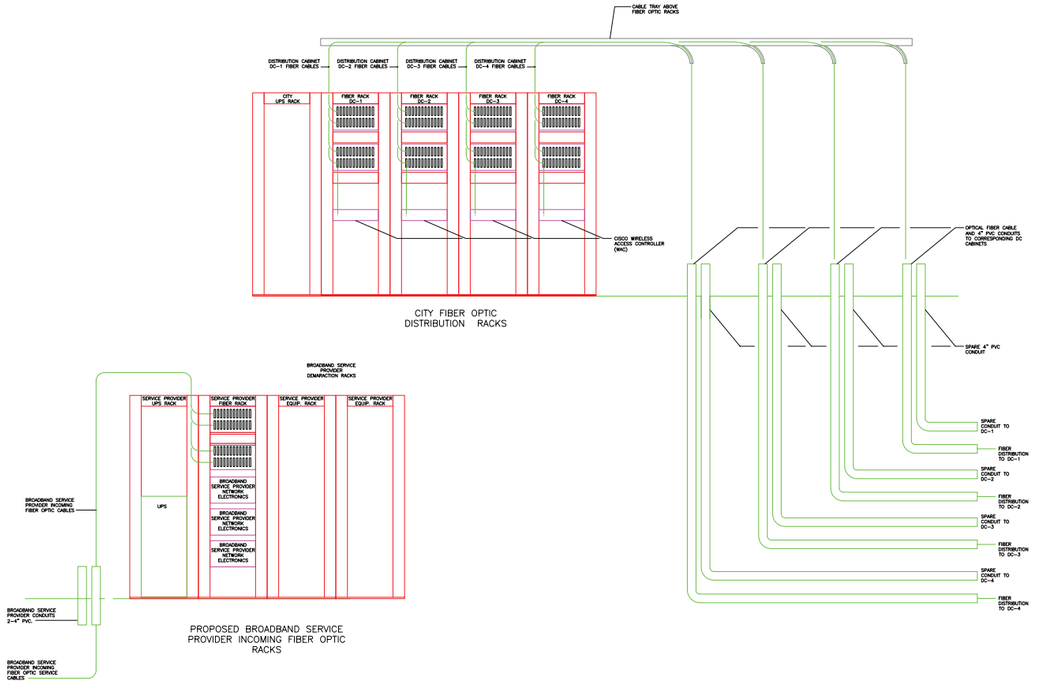


PROPOSED FREE STANDING PRE-MANUFACTURED STRUCTURE GENERAL DESIGN REQUIREMENTS

Wi-Fi Connectivity

A Wi-Fi network could also be implemented within the downtown study area to provide free basic wireless internet access for visitors and residents downtown. We are recommending that this system be based on the Cisco Wireless Mesh Networking components consisting of multiple Cisco 1500 Series Wireless Mesh Access Points (AP) devices located on existing or new street lighting poles, building facades or individual poles to provide the required mesh network connectivity. A wireless mesh network was chosen over a single tower because of the increased scalability and reliability of this type of system. A single point access radio can easily become overwhelmed causing it to drop users without apparent reason. A mesh network consists of multiple points of access and multiple back haul locations. This setup allows multiple points to fail and the system will continue to operate normally. The faulty equipment can be replaced as schedules allow without interruption of service.

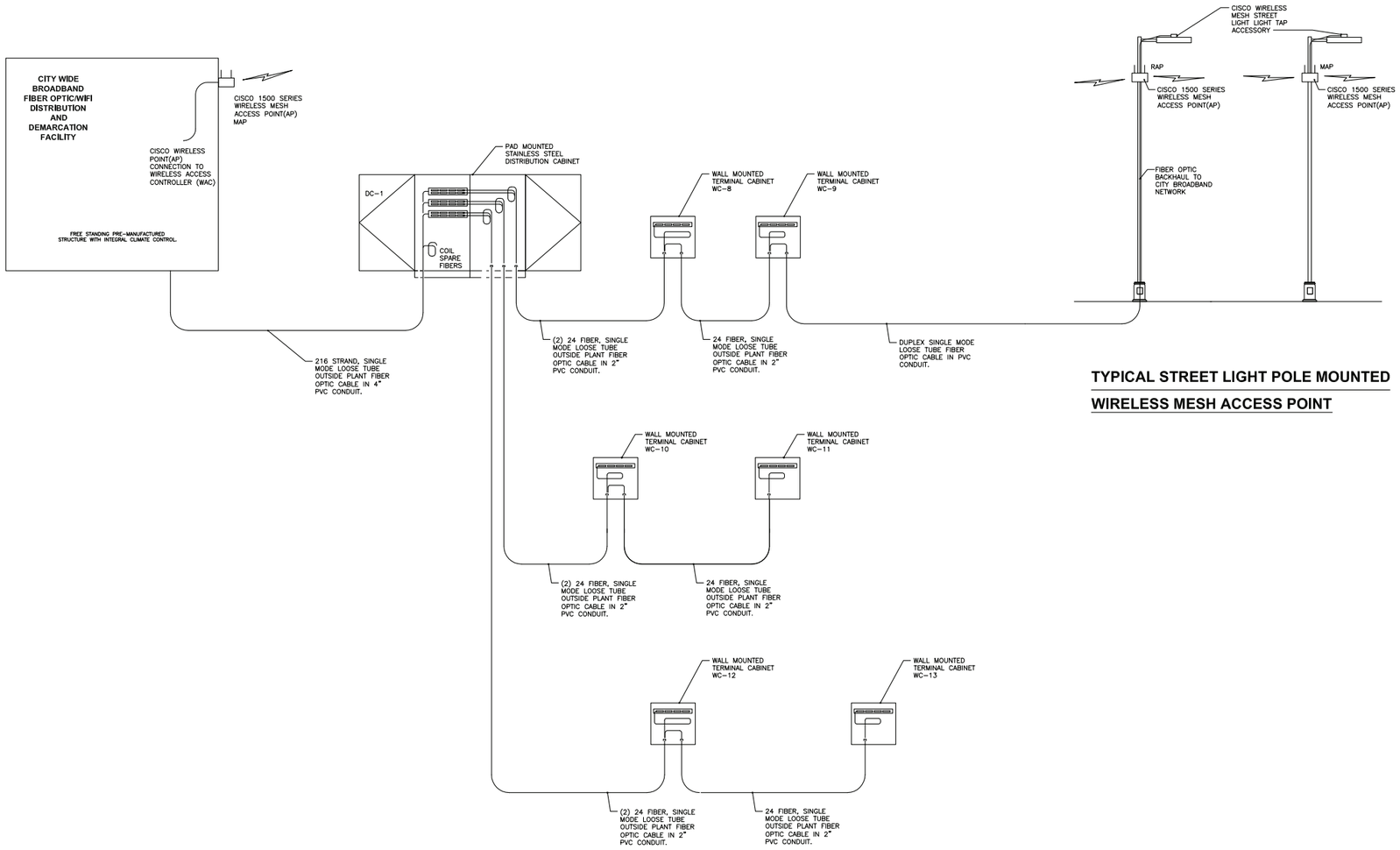
Cisco 1500 Series Wireless Mesh Access Points device



CITY FIBER OPTIC DISTRIBUTION RACKS

PROPOSED BROADBAND SERVICE PROVIDER INCOMING FIBER OPTIC RACKS

PROPOSED BROADBAND DEMARCATION RACKS AND CITY FIBER DISTRIBUTION RACK ELEVATIONS



TYPICAL STREET LIGHT POLE MOUNTED

WIRELESS MESH ACCESS POINT

PROPOSED

BROADBAND FIBER DISTRIBUTION AND

WIRELESS WI-FI ACCESS POINT LAYOUT

DISTRIBUTION CABINET DC-1

Fiber Optic Broadband and Wireless Distribution Layout

The Data Center Hub for the Downtown Fiber Optic Broadband Network would also serve as the distribution and demarcation facility for wireless service downtown. From this facility, service would be sent to four (4) separate distribution cabinets (similar to DC-1 pictured on this page). Each of the distribution cabinets would transfer signal to several wall mounted cabinents and wireless terminals. Each of these terminals would either be wall mounted or placed on new or existing lighting structures. The proposed system is detailed in the map on page 31 and would provide wireless coverage for the entire downtown area shown.

DOWNTOWN UTILITIES PLAN

Relocation of overhead utility lines

The electrical distribution system in downtown Lincoln is older and the majority of the distribution lines and service connections are located or distributed from overhead poles. Overhead distribution of electrical power is less reliable than underground distribution due to outages during storms. The relocation of these lines underground reduces operating costs for the utility, improves reliability of the system, improves public safety, and most importantly for this study, improves aesthetics and property values in downtown. Making such a conversion is rarely justified solely on the basis of costs and incentives are often required to make the goal of undergrounding a reality.

Primary Distribution Lines

The primary distribution lines within the downtown business district are typically located in the alleyways on double power poles with attached overhead transformer platforms. This infrastructure, while dated, is very expensive to replace. The estimated cost to replace and move this infrastructure underground is greater than five hundred thousand dollars, and in some locations more than one million dollars per block. This study recommends that while relocating primary distribution lines underground would greatly improve the aesthetics of downtown, this amount of money could make a much greater impact in other proposed improvements.

Secondary Distribution Lines

Numerous secondary distribution and lighting lines located within the downtown business district are still located overhead. The replacement of some of these lines is included in proposed upgrades to the downtown streetscape in the core of the downtown business district. Relocation of these lines underground should be undertaken when possible to improve the aesthetics of the downtown streetscape. Several examples and associated costs are recommended in the following paragraphs.

Example # 1 - Relocation of service panel and overhead lighting at the Library Parking Lot

The public parking lot adjacent to the Lincoln Public Library is anticipated to be expanded, reconfigured, and resurfaced within the next year. At that time, the three wooden poles used for lighting and for a service panel distribution should be removed. More aesthetically pleasing light fixtures along with a ground mounted transformer, a new ground mounted service panel, and underground wiring in conduit servicing the above new infrastructure should be installed as part of the library parking lot project.

Cost of removal of existing poles and power lines	$0
Cost of new lighting and power (included in parking lot construction costs)	$12,400

Example # 2 - Relocation of overhead power pole and replacement of existing service panel for decorative downtown lighting

The power pole at the corner of Pulaski and McLean Streets can be removed. The associated overhead distribution lines can be relocated underground and the service panel, which serves the existing decorative downtown lighting, can be relocated to a new ground mounted electrical control box. This work should be performed in coordination with any downtown streetscape project to reduce the costs of directional boring and surface restoration.

Cost of removal of existing pole and power lines	$0
Cost of associated new underground power lines and relocation of existing service panel (per Ameren Illinois)	$6,200

Example # 3 - Replacement of existing lighting along Chicago Street

The existing street lighting along the west side of Chicago Street both north and south of Broadway Street includes three wooden poles and overhead power lines. It is recommended that these three poles be replaced with more decorative street light fixtures and underground wiring in conduit.

Cost of removal of existing poles and power lines	$0
Cost of three new street light fixtures	$24,000
Cost of associated new underground power lines (per Ameren Illinois)	$7,500

Example # 4 - Relocation of the existing power distribution poles along Chicago Street (North)

The existing secondary power distribution line along the west side of Chicago Street both north and south of Pulaski Street includes six wooden poles and overhead power lines. The wooden poles included in this segment are taller than required to support the existing power lines which results in degraded aesthetics and a "run-down" feel. It is recommended that these four poles be removed and the overhead lines be relocated underground. The existing street lighting should be replaced with more decorative street light fixtures served by the underground wiring. The existing pole mounted transformer should be replaced with a ground mounted transformer.

Cost of removal of existing poles and power lines	$0
Cost of five new street light fixtures	$40,000
Cost of existing service entrance relocations (Greime Insurance and Alexander Lumber)	$15,000
Cost of associated new underground power lines (per Ameren Illinois)	$12,500

Example # 5 - Relocation of the existing power distribution poles along Chicago Street (South)

The existing secondary power distribution line along the west side of Chicago Street north and south of Clinton Street includes four wooden poles and overhead power lines. The wooden poles included in this segment are taller than required to support the existing power lines which results in degraded aesthetics and a "run-down" feel. It is recommended that these four poles be removed and the overhead lines be relocated underground. Street lighting should be added, including decorative street light fixtures served by underground wiring.

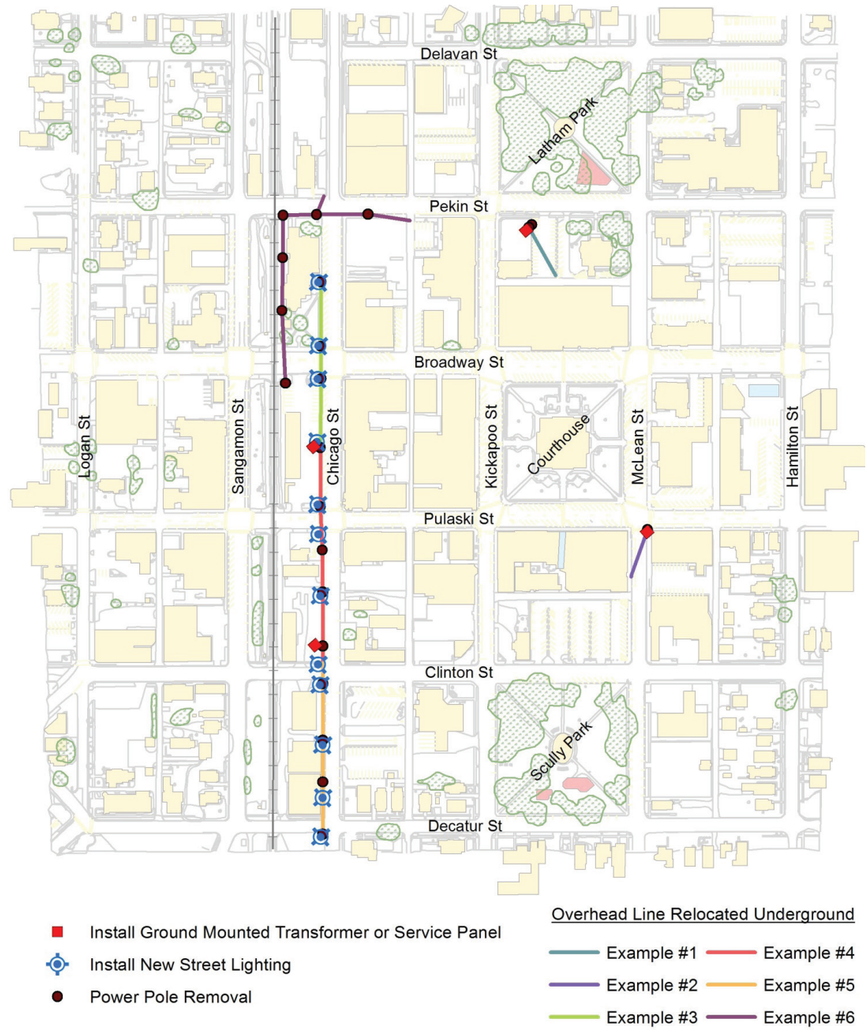
Cost of removal of existing poles and power lines	$0
Cost of three new street light fixtures	$24,000
Cost of associated new underground power lines (per Ameren Illinois)	$6,000

Example # 6 - Removal of the existing power distribution system serving the Lincoln Depot Property

As High Speed Rail improvements are made in downtown Lincoln, it is anticipated that the existing Lincoln Depot property will be acquired by the City of Lincoln. The intent is to restore this property and use a portion of the building to serve Amtrak passengers at the Lincoln stop. In this scenario, the existing at-grade railroad crossing at Pekin Street would be closed to accommodate an expanded passenger waiting platform.

The existing power lines run from the primary overhead distribution line in the alleyway between Chicago and Kickapoo Street, along the south side of Pekin Street to the Union Pacific Railroad and then south along the railroad serving the platform lighting and the existing Amtrak waiting station. These lines should be removed during the restoration of the Lincoln Depot property. As part of the restoration of the depot and development of an expanded passenger waiting platform, a new underground service line should be extended from the existing power pole on the north side of Pekin Street which serves the new facility and waiting platform lights.

Cost of removal of existing poles and power lines	$0
Cost of new electrical service and passenger waiting platform lighting	To Be Determined



A Landscape Plan was developed for public spaces within the downtown study area. Individual conceptual plans were developed for the Courthouse Square, Latham Park and Scully Park and other proposed open spaces within the downtown study area. These concept plans set forth an overall design and will guide the redevelopment of each of these existing public spaces to maximize public benefits and aesthetics.

LOGAN COUNTY COURTHOUSE SQUARE

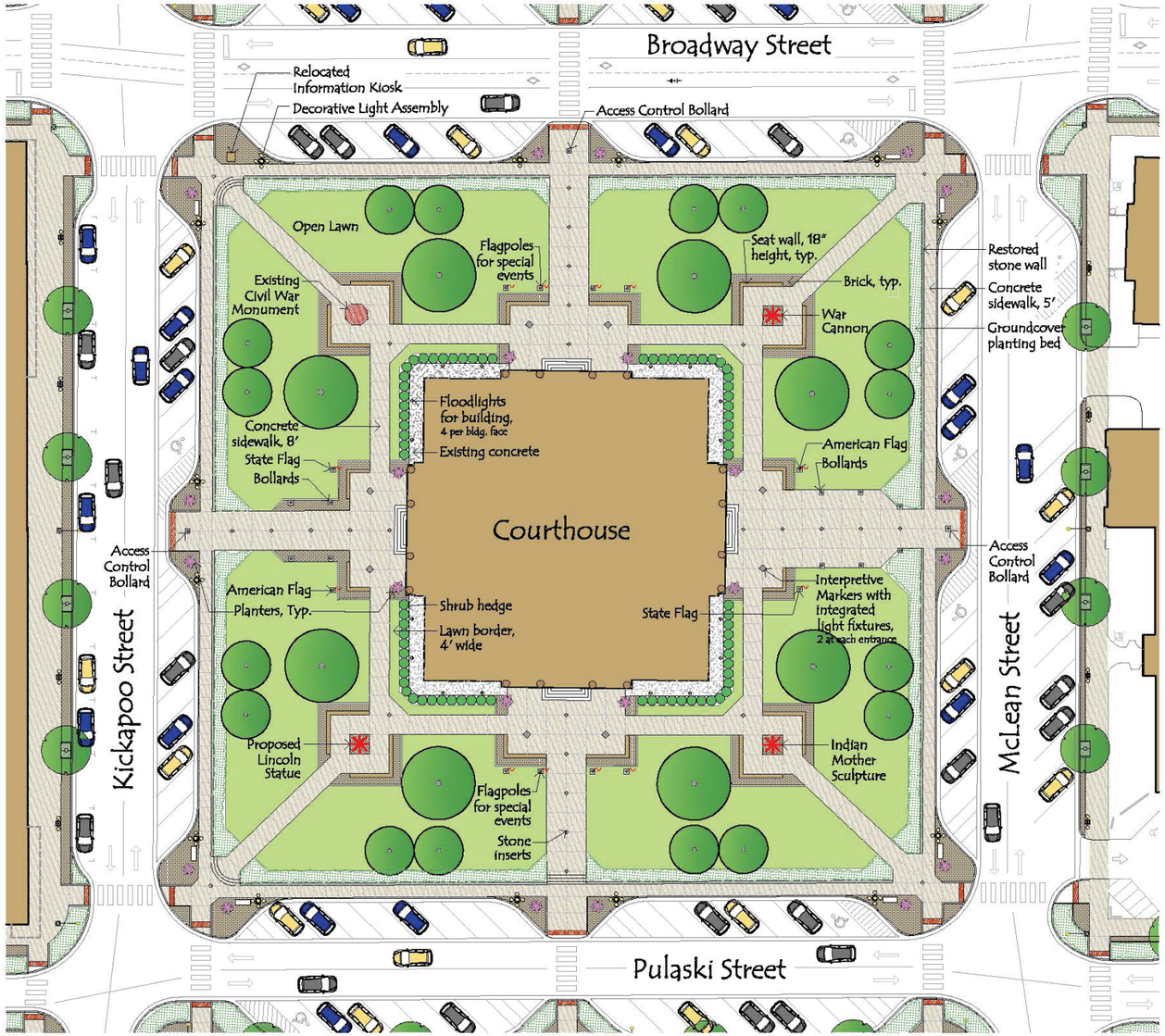
Existing Conditions

The historic Logan County Courthouse occupies an entire city block in downtown Lincoln surrounded by the following streets: Pulaski on the southwest, McLean on the southeast, Broadway on the northeast, and Kickapoo on the northwest. A sidewalk along the streets surrounds the courthouse grounds, and additional sidewalks extend from each corner and each mid-block to the courthouse building in the center. A stone curb along the perimeter sidewalk defines the raised lawn that surrounds the building. A Civil War Monument and the Indian Mother sculpture are positioned within the lawn, as are a Civil War canon, informational kiosk, and other smaller markers and memorials.

Each side of the courthouse has an entrance but the only public entrance is located on the McLean Street side. The Kickapoo Street entrance is used for prisoner escort and as an employee entrance. The other two sides are not used, except for emergencies and rarely for events.

Enhancement Plan

With the proposed enhancement plan, pedestrian access patterns to the courthouse building will not change. Access to the square itself will be improved with safer street crossings and better connections from perimeter parking spaces to the sidewalk. The grounds will be developed with unifying materials and elements to improve both the usability of the area and its visual quality. New areas for sitting will allow pedestrians to make use of



Concept Plan

Logan County Courthouse

Lincoln, Illinois
March 2013

Legend

- Proposed Tree
- Tree in Grate
- Street Light Fixture
- Decorative Light Assembly
- Concrete Planter
- Unit Pavers
- Planting Bed

Massie & Massie Associates
LAND PLANNING AND LANDSCAPE ARCHITECTURE
Springfield, Illinois

Prairie Engineers OF ILLINOIS, P.C.

Graphic Scale
0' 20' 40' 80'
N

the site. By careful selection and placement of elements, the current views of the courthouse from every direction will be enhanced.

At each of the ten proposed crosswalks, the sidewalk on the courthouse side will be extended across the parking lane with a curb extension. These extensions will allow pedestrians to better see oncoming traffic. This reduction in the distance of the street crossings will improve pedestrian safety and accessibility. With counterpart curb extensions on the opposite sides of the streets, the crossing distance will be reduced by 50%, providing a great safety value especially for those walking slowly.

Additionally, at the four corner curb extensions, benches and planters can be located to improve aesthetics and usability. The existing informational kiosk will be relocated to the Kickapoo and Broadway corner extension. This location will be convenient for visitors approaching the square from the railroad station to the northwest and from major streets in the area.

The McLean Street entrance is the only public entrance to the courthouse. It is also the service entrance for vehicles. A new paved entrance area will be plaza-like, about 32 feet wide, with vintage-style bollards along the edge to provide character and lighting at night. Two flag poles are positioned at the sides of the entry court, one for the American flag, the other for the Illinois or Logan County flag.

Sidewalk paving shown on the plan is well-finished concrete, scored into eight-foot squares with stone inserts at select intersections. This paving pattern concept is shown around the courthouse to provide visual interest and continuity. The sidewalk pavement on the McLean and Kickapoo Street sides will need to be thick and reinforced for use by cars and trucks.

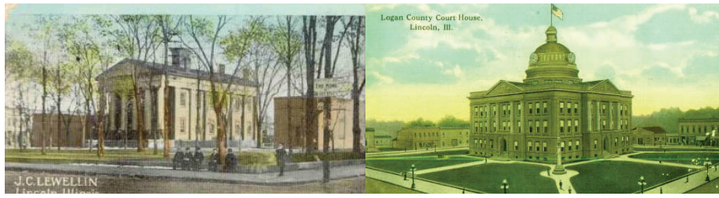
Along each diagonal sidewalk near the courthouse building, a statue or other feature would be symmetrically positioned. Three existing elements - the Civil War Monument, Indian Mother Sculpture, and the Civil War Cannon - would be used. The new Lincoln Statue will be the fourth feature. These elements would be in the center of small sitting areas approximately 24 feet square. Bounding the sculpture areas would be low stone walls capped for sitting.

The same low stone walls also are shown at the entry courts of each of the four building entrances. Taken together, the low walls around the sculpture courts and entry courts will create the impression that the courthouse is sitting on a slightly raised platform, making the building even more prominent. This terraced appearance will repeat the terraced effect of the historic raised stone curb along the street sidewalk.

On the Pulaski Street side, the existing entrance walkway will be replaced with a 16-foot wide sidewalk leading to an entry court. In front of the court, four flag poles (possibly removable) would be used during holidays or special events. Improvements on the Broadway Street side will mirror those on the Pulaski Street side.

The Kickapoo Street side entrance is used both by employees and by vehicles for prisoner transport. Here a 16-foot wide sidewalk leading to the entry court can be used by authorized vehicles for access and parking when needed.

Bollards along the sides provide light for evening use. As on the McLean Street side, two flag poles are positioned at the sides of the court, one for the American flag and the other for the state or county flag. Although this entrance is seldom used by the general public, it is the most viewed side of the courthouse and therefore it was determined that it should appear prominent.



Plant material will be used to enhance the appearance of the courthouse square in keeping with historic records. Mowed turf will cover most of the ground. The perimeter stone curb would be restored and, behind it, an edge of groundcover will be planted to cover the slope and protect the wall and perimeter drain. The courthouse itself will be outlined with a shrub hedge. Additionally, shade trees and ornamental flowering specimens will be strategically placed within the lawn to frame the principal vistas.

Anticipated Uses of the Courthouse Square

The courthouse square will provide a passive green space within the downtown. Employees, shoppers and clients, and visitors to town can walk through the area for exercise and enjoyment.

The informational kiosk and monuments on the square will tell the story of Logan County and its honored citizens. The sitting area will afford views of the courthouse and surrounding commercial buildings that are attractive and interesting.

People will be able to take breaks and lunch in the sitting areas or along the entry courts.

Community events such as fairs, farmers markets, rallies, and exhibitions can also take place on the square. The sidewalks are positioned to allow rows of vendor tents. Electric and water connections could be installed underground to minimize the need for exposed cables and hoses during special events.

Conceptual Cost Estimate for Proposed Courthouse Lawn Improvements

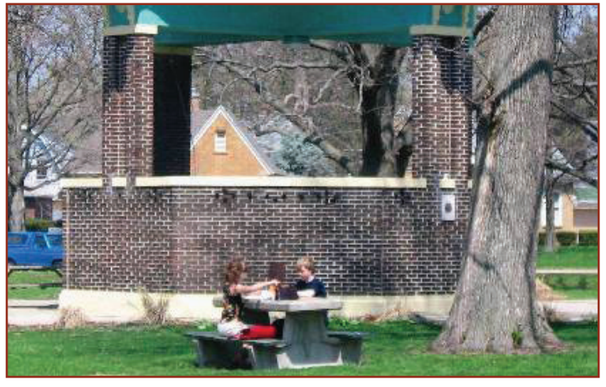
Proposed Improvement	Est. Cost
Cost of Demolition and Removal	$70,000
Cost of Earthwork and Utilities	$60,000
Cost of New Pavements and Structures (including curb extensions and interior sidewalks)	$550,000
Cost of Stone Wall Restoration	$250,000
Cost of Site and Building Lighting	$160,000
Cost of Site Elements (railing, bollards, benches, planters, flagpoles, etc.)	$115,000
Cost of Landscaping	$70,000
Total Cost of Proposed Courthouse Lawn Improvements	**$1,275,000**

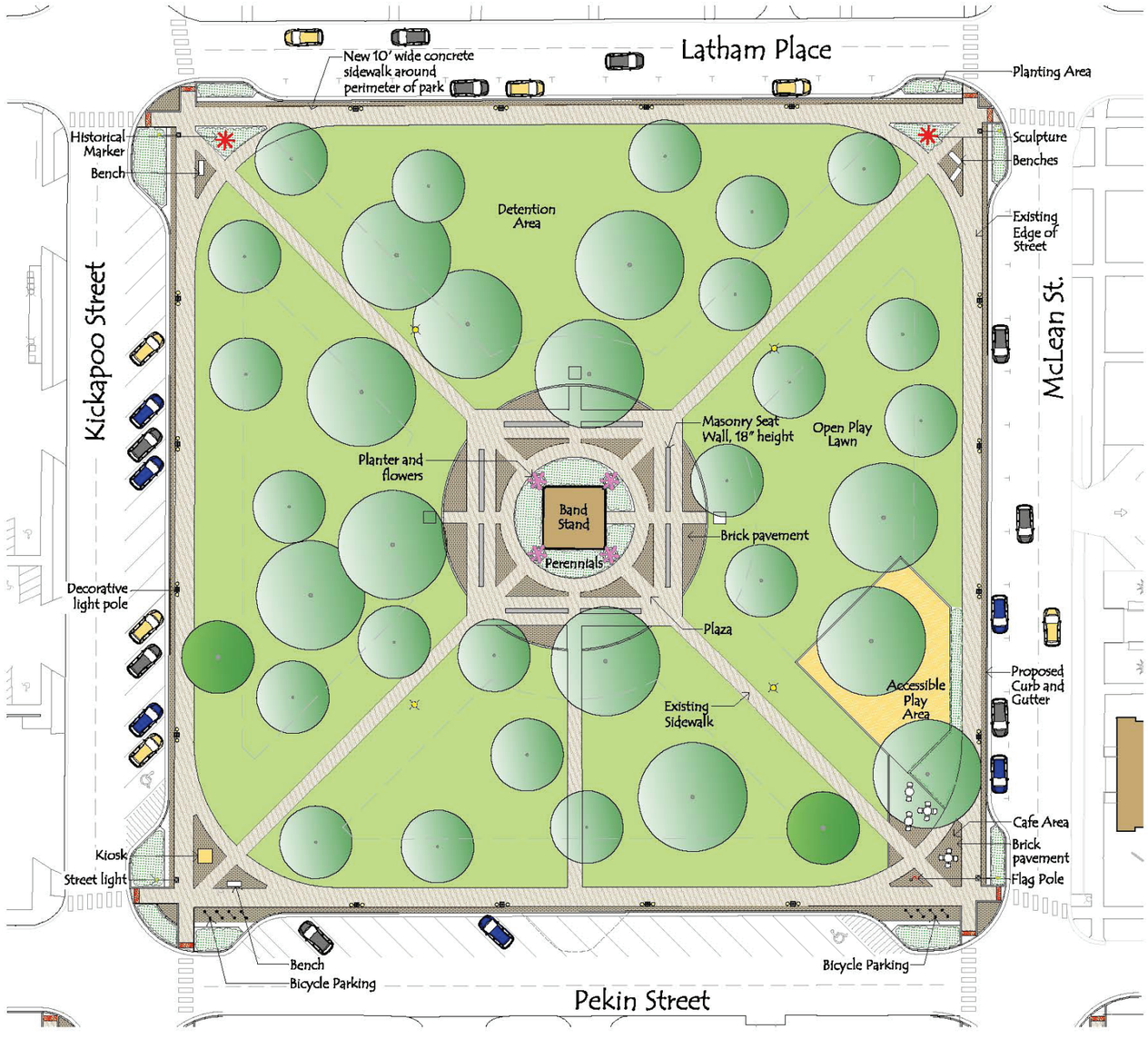
LATHAM PARK

Existing Conditions

Latham Park is located two blocks northeast of the Courthouse Square. It too occupies an entire city block and is bounded by the following streets: Pekin on the southwest, McLean on the southeast, Latham Place on the northeast, and Kickapoo on the northwest. There is on-street diagonal parking on all sides except McLean Street where parking is parallel. A sidewalk along the street surrounds the block except along Latham Place. Sidewalks extend from each corner of the park to the center Bandstand which has an identifying American Veterans plaque.

At the Pekin/McLean street intersection is a playground. Scattered within the park are benches (metal frames with wood seats) and tables (concrete with wood seats). There are globe lights with banner arms midway along the diagonal sidewalks. Approximately 33 shade and ornamental trees, ranging in trunk diameter from 4 inches to 48 inches, are uniformly located throughout the park. There are low areas in the lawn on the north and west sides that may, at times, retain surface water.





Concept Plan

Latham Park

Lincoln, Illinois
March 2013

Legend

- Existing Tree
- Proposed Tree
- Street Light Fixture
- Decorative Light Assembly
- Concrete Planter
- Unit Pavers
- Planting Bed

Massie & Massie Associates
LAND PLANNING AND LANDSCAPE ARCHITECTURE
Springfield, Illinois

Prairie Engineers OF ILLINOIS, P.C.

Graphic Scale
0' 20' 40' 80'
N

Enhancement Plan

The proposed plan retains much of what is within the park now. The many trees would remain, as well as the Bandstand in the park's center. Diagonal parking along Pekin and Kickapoo streets will remain, as well as parallel parking along McLean. The diagonal parking along Latham Place will be converted to parallel parking allowing for a continuous perimeter sidewalk.

The perimeter sidewalk will be widened to ten feet and extended around the entire park. The widening would be done by absorbing several feet of pavement from the adjacent streets which are wider than necessary. The interior diagonal walkways will remain. Soil would be added along the steep-sloped edges to create more level, useable areas. A new mid-block sidewalk is proposed from Pekin Street to the center Bandstand, emphasizing this primary façade, and possibly leading farther south across Pekin Street through a mid-block pedestrian route to the Courthouse Square.

The Bandstand will be enhanced with up-lights to emphasize this central feature. A plaza would be built around it. Brick paving alternating with concrete sections will create an attractive and useable area. Four large planters and masonry benches would be placed within the plaza to create a sense of a horizontal base and increase the visual impact of the Bandstand as the central feature of the park.

A new play area meeting accessibility codes would be developed along McLean Street. Next to it, at the intersection, would be a brick terrace area with tables and chairs where parents could watch children and others could enjoy a break or an outdoor lunch.

At each intersection the sidewalks would be extended to the edges of the vehicular lanes. The extensions will allow pedestrians to better see oncoming traffic, and will reduce the distance of pedestrian street crossings, providing greater safety for both pedestrians and motorists. At the park corners, special paving and planting will create attractive nodes where benches, bicycle parking, sculpture, historical markers, informational kiosks, etc. will be easily accessible to the public.

Vintage-style pedestrian lights along with modern street lights would be added along the surrounding streets to provide improved night lighting and enhance the historic character of the park.

Anticipated Uses of Latham Park

The park will continue to be used passively, for both its visual open space and opportunities for walking through the shady park site.

The improvements will broaden its appeal. The new ten-foot wide perimeter walkway can be used as a track for walking, running, rollerblading, and for children on tricycles and other riding toys.

The center plaza can be used during Bandstand events, for small performances, gatherings and perhaps for picnics. Paved areas at the corners provide spots for people to rest, wait for rides, and congregate. The various possible elements at these locations – benches, markers, sculpture, informational signs – could be easily accessed by visitors to the park.

The park can be used more effectively for the city-wide festival and other events. By filling the steep side grades along several sidewalks, tents can be set-up throughout the park. The potential Pedestrian Arcade, a mid-block link pedestrian link will allow festival goers to walk directly and safely from Latham Park, to the Courthouse Square and to Scully Park beyond.

Conceptual Cost Estimates for Proposed Latham Park Improvements

Proposed Improvement	Est. Cost
Cost of Demolition and Removal	$75,000
Cost of Earthwork and Utilities	$60,000
Cost of New Pavements and Structures (including curb extensions, playground surfaces, and interior sidewalks)	$450,000
Cost of Site and Building Lighting	$185,000
Cost of Playground Equipment	$85,000
Cost of Site Elements (Kiosk, Sculpture, benches, café tables, bicycle racks, planters, flagpoles, etc.)	$65,000
Cost of Landscaping	$40,000
Total Cost of Proposed Latham Park Improvements	**$960,000**

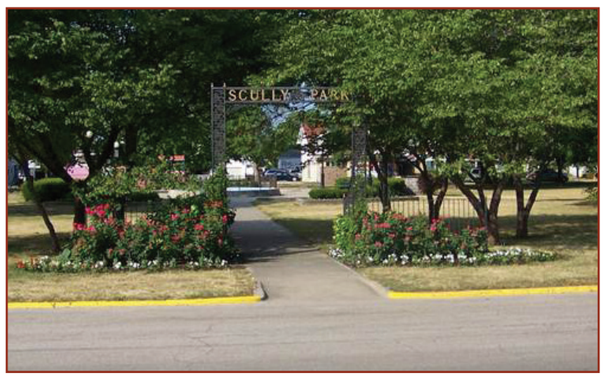
SCULLY PARK

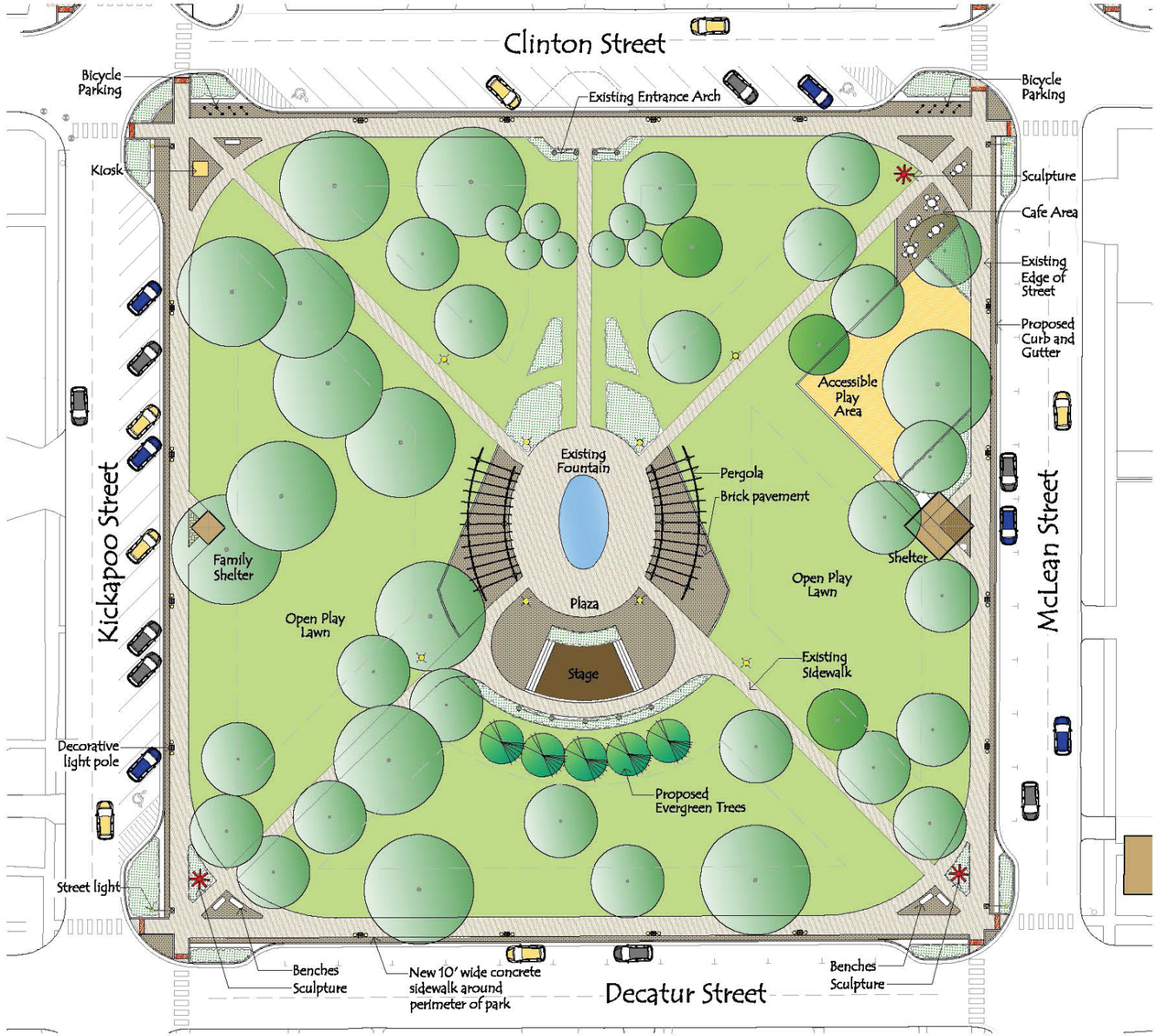
Existing Conditions

Scully Park is located two blocks southeast of the Courthouse Square. It occupies an entire city block and is bounded by the following streets: Decatur on the southwest, McLean on the southeast, Clinton on the northeast, and Kickapoo on the northwest. There is currently on-street diagonal parking along Clinton Street and parallel parking along the other three sides.

A sidewalk along the streets surrounds the block except along Clinton Street. Sidewalks extend from each corner of the park to a center fountain and pool. A paved area surrounds the pool with benches and flower beds beyond. There are globe lights with banner arms along the diagonal sidewalks and around the pool. A mid-block sidewalk leads from Clinton Street, under a decorative gateway arch, to the park's center.

Two playground areas are located near Decatur Street, and horseshoe courts are near Kickapoo Street. Approximately 43 shade and ornamental trees, ranging in trunk diameter from 4 inches to 48 inches, are located throughout the park. The lawn surface is level and not well drained.





Concept Plan

Scully Park

Lincoln, Illinois
March 2013

Legend

- Existing Tree
- Proposed Tree
- Street Light Fixture
- Decorative Light Assembly
- Concrete Planter
- Unit Pavers
- Planting Bed

Massie & Massie Associates
LAND PLANNING AND LANDSCAPE ARCHITECTURE
Springfield, Illinois

Prairie Engineers
OF ILLINOIS, P.C.

Graphic Scale
0' 20' 40' 80'
N

Enhancement Plan

The proposed plan retains much of what is within the park now. The many trees would remain, as well as the fountain and pool in the park center. Diagonal parking along Clinton Streets will remain, as well as parallel parking along McLean and Decatur streets. The parallel parking along Kickapoo Street will be converted to diagonal parking absorbing several feet of the street which is currently wider than necessary.

As at Latham Park, a new perimeter sidewalk, ten feet wide, will be constructed around the entire park. The widening will absorb several feet of the adjacent street pavements which are wider than necessary. The diagonal walkways will remain, as well as the mid-block sidewalk with its overhead arch near Clinton Street. That walkway may eventually extend north across Clinton Street, through a mid-block Pedestrian Arcade to the Courthouse Square.

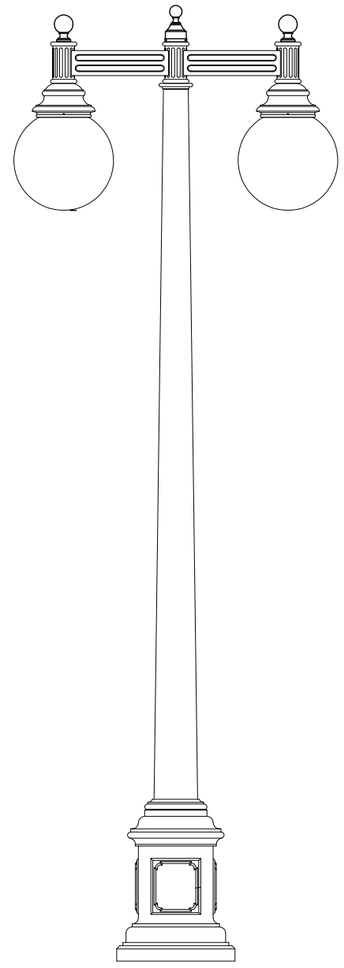
Around the existing fountain and pool, a larger paved area would be developed. A small stage area and pergolas on the side would provide a setting for performances, ceremonies and other special events. A row of evergreen trees and flanking flower beds would provide a backdrop and beautify the area.

Two new shelters would be built in the park. Near Kickapoo Street a small shelter about ten feet square would accommodate small group activities such as family picnics. Access to this shelter is conveniently located near parking and along the perimeter sidewalk. A small open lawn area is nearby. Near McLean Street, a larger shelter about twenty feet square would serve bigger groups. This shelter is also conveniently located near parking and the perimeter sidewalk. The playground and a larger open play area are nearby.

The playground would be relocated near McLean Street where it would meet accessibility codes. Next to it, near the intersection, a paver terrace with tables and chairs would accommodate parents watching children and others enjoying a break or an outdoor lunch. In the open area south of the playground people can play Frisbee, kick a soccer ball, or engage in other casual activities.

At each intersection the sidewalks would be extended to the edge of the parking lanes. These extensions will allow pedestrians to better see oncoming traffic, and will reduce the distances of the pedestrian street crossing, providing greater safety for both pedestrians and motorists. At the park corners, special paving and planting will create attractive nodes where benches, bicycle parking, sculpture, historical markers, informational kiosks, etc. will be easily accessible to the public.

Vintage-style pedestrian lights along with modern street lights would be added along the surrounding streets to provide improved night lighting and enhance the historic character of the park.



Anticipated Uses of Scully Park

Similar to Latham Park to the north, Scully Park will continue to be used passively, for both its visual open space as well as opportunities for walking through the shady park site.

The improvements will broaden its appeal. The new ten-foot wide perimeter walkway can be used as a track for walking, running, rollerblading, and for children on tricycles and other riding toys.

The center plaza can be used for ceremonies, small performances and social gatherings. Paved areas at the corners provide spots for people to rest, wait for rides, and congregate. The various possible elements at these locations – benches, markers, sculpture, informational signs – could be easily accessed by visitors to the park.

The park can be used more effectively for the city-wide festival and other events. Tents can be set-up throughout the park. The "Pedestrian Arcade", a potential pedestrian mid-block link between blocks, would allow festival goers to walk directly and safely from Scully Park, to the Courthouse Square and to Latham Park beyond.

Conceptual Cost Estimates for Proposed Scully Park Improvements

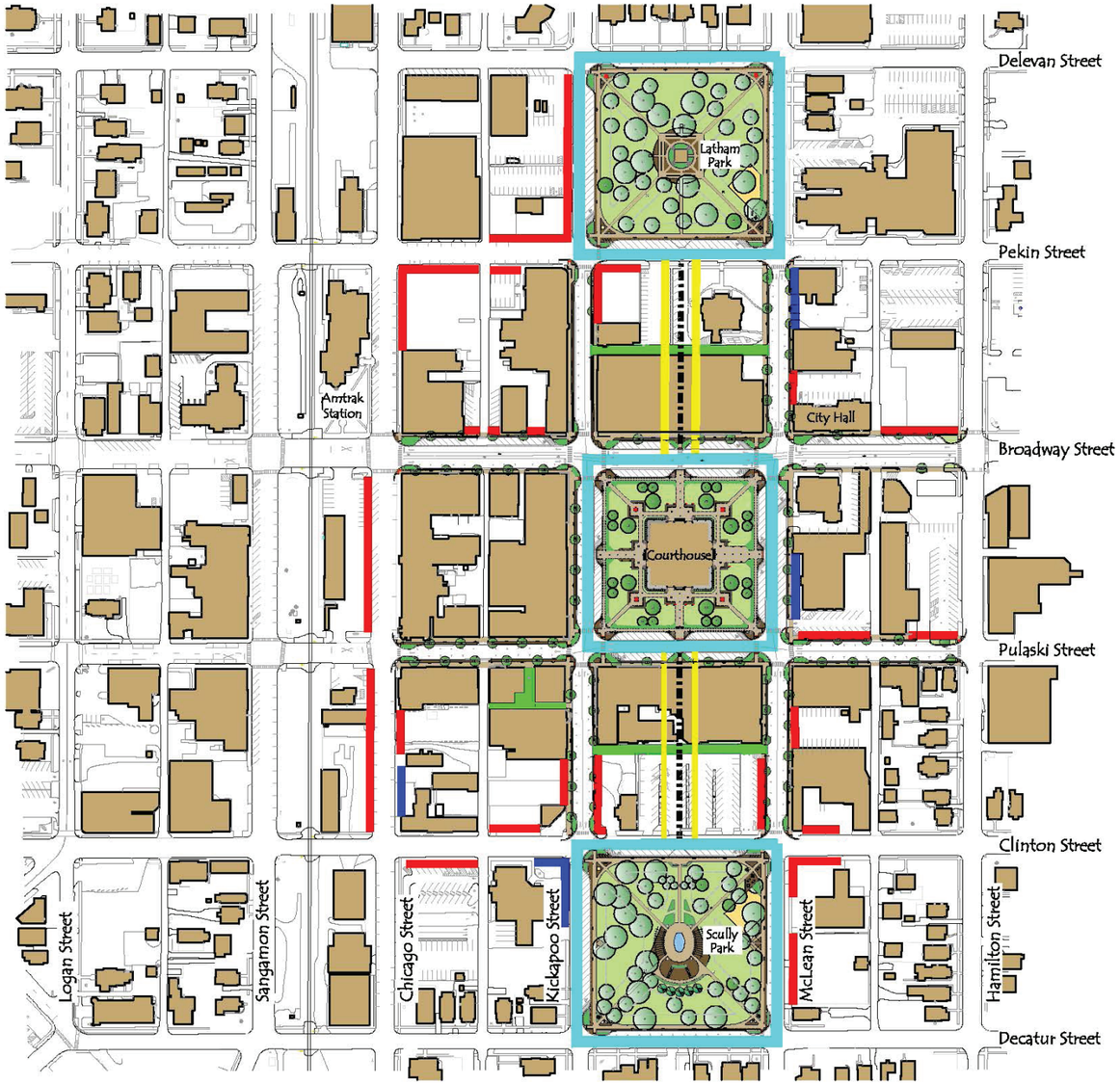
Proposed Improvement	Est. Cost
Cost of Demolition and Removal	$80,000
Cost of Earthwork and Utilities	$55,000
Cost of New Pavements and Structures (including curb extensions, playground surfaces, and interior sidewalks)	$605,000
Cost of Site and Building Lighting	$175,000
Cost of Playground Equipment	$130,000
Cost of Site Elements (Kiosk, Sculpture, benches, café tables, bicycle racks, planters, flagpoles, etc.)	$45,000
Cost of Landscaping	$60,000
Total Cost of Proposed Scully Park Improvements	**$1,150,000**

AUXILIARY URBAN GREEN SPACES

Off-Street Parking Areas

The following recommendations are for improvements of the public and private parking lots in the downtown. These recommendations also apply to areas beside or behind downtown buildings that are visible from city streets, and used for parking, storage, trash containers, etc.

- Provide screening between public sidewalks and parking areas.
- Borders should be 36" minimum width.
- For screening, install one or more of the following elements:
  - A shrub hedge with 48" maximum height.
  - A low metal fence or masonry wall with a 48" maximum height.
  - A combination of hedge and fence or wall.
- A row of small-scale columnar trees, light poles, flagpoles and sign panels can be added along the screening border to provide vertical elements that visually extend the "historic urban wall" of adjacent commercial building facades.
- Other downtown streetscape elements, such as lights, planters, trees, should be used within parking lots to enhance the lots and integrate them with the downtown.
- In using the above elements, visibility must be maintained for motorist and pedestrian safety, particularly near intersections and driveway crossings.



Urban Green Space Development

Downtown Lincoln Revitalization Plan

Lincoln, Illinois
March 2013

Legend

- Greenspace Improvements
  - Courthouse Lawn
  - Latham Park
  - Scully Park
- Pedestrian Arcade
- Alley Improvements and Potential Pocket Park
- Screening of off-Street Parking
- Define Urban Edge
- Downtown Buildings

Massie & Massie Associates
LAND PLANNING AND LANDSCAPE ARCHITECTURE
Springfield, Illinois

Prairie Engineers OF ILLINOIS, P.C.

Graphic Scale
0' 100' 200' 400'
N

Buildings set back from the sidewalk

Several newer buildings, including the US Post Office, are set back from the sidewalk edge which is considered the "historic urban wall" within the downtown. Creating a sense of this urban wall along the lots with newer, set-back buildings, will help achieve a unity with the historic downtown.

- Create an edge along the public sidewalk to define the urban wall.
- Edges can be formed by:
  Stone or concrete curbs, 6" to 18" high, that elevate the lawn edge above the sidewalk.
  Low garden walls, 36" maximum height.
  Decorative railings or fences, 36" maximum height.
  Shrub hedges, 36" maximum height.
- A row of small-scale columnar trees, light poles, flagpoles and sign panels can be added along the edge, further developing, the "historic urban wall" of commercial building facades.
- In using the above elements, visibility must be maintained for motorist and pedestrian safety, particularly near intersections and driveway crossings.

Pedestrian Arcades

Two Pedestrian Arcades, either seasonal or permanent, are recommended. They would link the three major open spaces in the downtown - Latham Park, Scully Park, and the Courthouse Square – by forming a pedestrian route midway through the blocks separating them. The arcades can be formed by adapting the existing features along each route.

- The historic arcade in the half block south of the Courthouse Square.
  This arcade is already used for pedestrian traffic.
- The parking lot south of the historic arcade.
  Special pavement and other elements could be used to define the route.
  Shade trees, pergolas and/or other shade structures could provide some protection from the weather.
  Planters, furniture and signs can designate the route for pedestrian use.
  Barricades and signs would be provided at the Clinton Street crossing for safety of pedestrians accessing Scully Park.
- A new arcade could be developed through the commercial building north of the Courthouse Square.
  A pedestrian walkway through the existing building might be possible.
- The parking lot north of the existing commercial building which is adjacent to the Lincoln Public Library.
  Some adjustment in the parking lot layout would be required.
  Improvements would be similar to those for the alley south of the historic arcade.
  Special festival lighting, sound systems, banners and other elements along the Pedestrian Arcade would unify the route and encourage pedestrian movement between the Courthouse Square and the downtown parks.

Conceptual Cost Estimates for Proposed Parking Lot Screening and Urban Wall Improvements

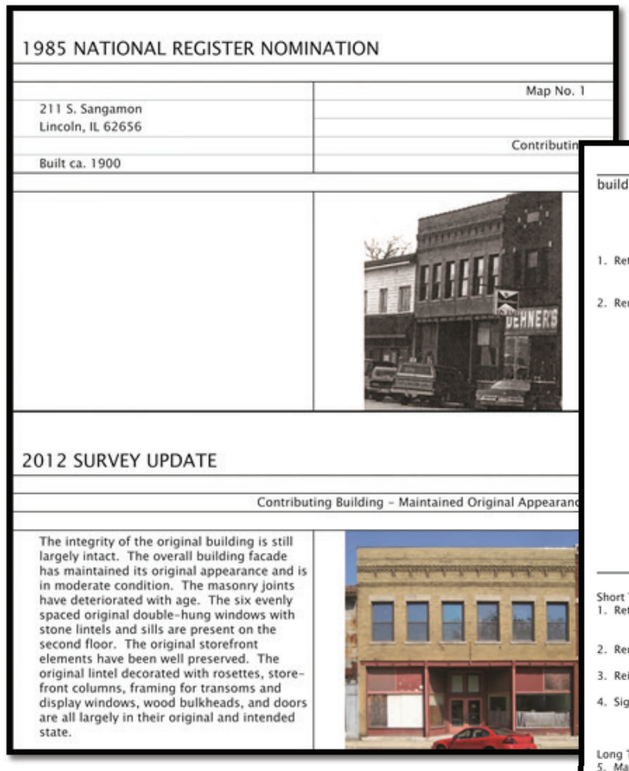
Proposed Improvement	Est. Cost
Cost of Ornamental Fence (48" height), per foot	$70
Cost of Shrub Hedge, per foot	$15
Cost of low brick or stone wall, per foot	$300
Cost of proposed screenings (varies based upon type of screening)	$50,000 to $1,000,000

HISTORIC PRESERVATION PLAN

The Historical Preservation Plan provides a guide for the preservation of existing historical structures and other assets in the downtown historical business district. This plan emphasizes the importance of historical preservation for existing assets and includes several components including an Architectural Survey, a Façade Analysis, and assistance with the development of a Lincoln Historic Preservation Commission.

Architectural Survey

An Architectural Survey Update was conducted for buildings and infrastructure within the Downtown Lincoln National Register Historic District. The survey includes photo documentation of all structures comprising the historic district and identifies changes and alterations that have occurred since the initial survey was conducted in 1985. An example of the survey for one property is included here. Refer to the accompanying Historical Architectural Plan for additional details for individual properties.


1985 NATIONAL REGISTER NOMINATION

Map No. 1

211 S. Sangamon
Lincoln, IL 62656

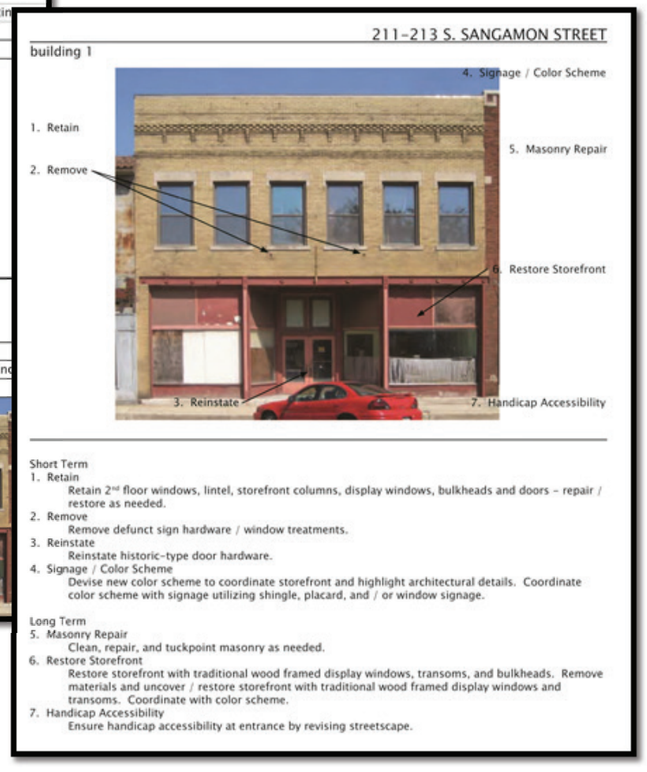
Contributin

Built ca. 1900

2012 SURVEY UPDATE

Contributing Building – Maintained Original Appearanc

The integrity of the original building is still largely intact. The overall building facade has maintained its original appearance and is in moderate condition. The masonry joints have deteriorated with age. The six evenly spaced original double-hung windows with stone lintels and sills are present on the second floor. The original storefront elements have been well preserved. The original lintel decorated with rosettes, store-front columns, framing for transoms and display windows, wood bulkheads, and doors are all largely in their original and intended state.


211–213 S. SANGAMON STREET

building 1

1. Retain
2. Remove
3. Reinstate
4. Signage / Color Scheme
5. Masonry Repair
6. Restore Storefront
7. Handicap Accessibility

Short Term
1. Retain
   Retain 2nd floor windows, lintel, storefront columns, display windows, bulkheads and doors – repair / restore as needed.
2. Remove
   Remove defunct sign hardware / window treatments.
3. Reinstate
   Reinstate historic-type door hardware.
4. Signage / Color Scheme
   Devise new color scheme to coordinate storefront and highlight architectural details. Coordinate color scheme with signage utilizing shingle, placard, and / or window signage.

Long Term
5. Masonry Repair
   Clean, repair, and tuckpoint masonry as needed.
6. Restore Storefront
   Restore storefront with traditional wood framed display windows, transoms, and bulkheads. Remove materials and uncover / restore storefront with traditional wood framed display windows and transoms. Coordinate with color scheme.
7. Handicap Accessibility
   Ensure handicap accessibility at entrance by revising streetscape.

Façade Analysis

To further evaluate the condition of structures in Downtown Lincoln, a Façade Analysis was performed. The analysis consists of a building by building examination of each façade in the National Register Historic District. Annotated photographs illustrate historic features to retain, inappropriate past alterations and a prescription for restoration of each structure. An example of the analysis for one property is included on the next page. Refer to the accompanying Historical Architecture Plan for additional details for individual properties.

Creation of Historic Preservation Commission

To promote downtown revitalization efforts and to aid in the preservation of the numerous historical structures in our downtown, the City of Lincoln has appointed a committee to develop a Historical Preservation Commission and ordinance. This committee has been tasked with making recommendations to the City including:

- Form a Historical Preservation Commission
- Develop a Historical Preservation Ordinance to be adopted by the City Council
- Obtain Certified Local Government status for the City to make state and federal grants and other funding assistance available for historical preservation efforts
- Assist and advise the City Council and citizens of Lincoln on historical preservation

Chicago Street

Pulaski Street

Walking Tour

Downtown Lincoln has a rich history spanning 160 years since its christening by namesake, Abraham Lincoln, in 1853. Lincoln, as with most towns, has seen its fair share of change but relics of the past are still present throughout the city, especially in the downtown area. This cluster of historic points of interest provides an excellent opportunity to share Downtown Lincoln's history through an interpretive walking tour centered around the Logan County Courthouse.

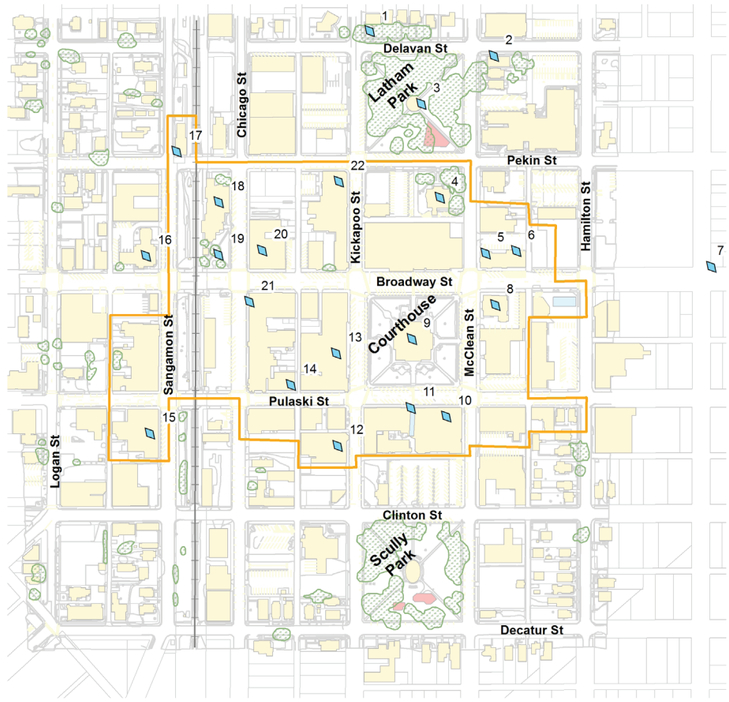
There are several delivery options that could be implemented in a downtown walking tour. These options require minimal input from city staff after the materials have been developed and allow the user to experience Downtown Lincoln at their own convenience.

Printed Brochure – A small brochure including a map of Downtown Lincoln and a brief description of each point of interest could be placed at well-used public locations such as City Hall, the courthouse, the postal office or at an informational kiosk at Latham Park.

Smartphone Applications – There are several applications available to smartphone users that would allow them to quickly access information along the walking tour. A barcode at each point of interest could be scanned, displaying information about the location on the smartphone. A second option utilizing technology would be to create a route and submit it to GPSmyCity.com (or similar entity) that would allow the user to download the walking tour content directly to their smartphone for a small fee.

Radio – This option is designed for those with handicaps or disabilities that may prevent them from walking long distances. The user would be able to take the tour from the comfort of their vehicle by tuning in to a designated AM radio station and listening to a pre-recorded message that plays on a continuous loop or at designated times.

Permanent Displays / Kiosks – This approach would require the design and installation of permanent information stations at each point of interest. This option could be implemented for those sites with connections to Abraham Lincoln through the "Looking for Lincoln" program as administered by the Looking for Lincoln Heritage Coalition.



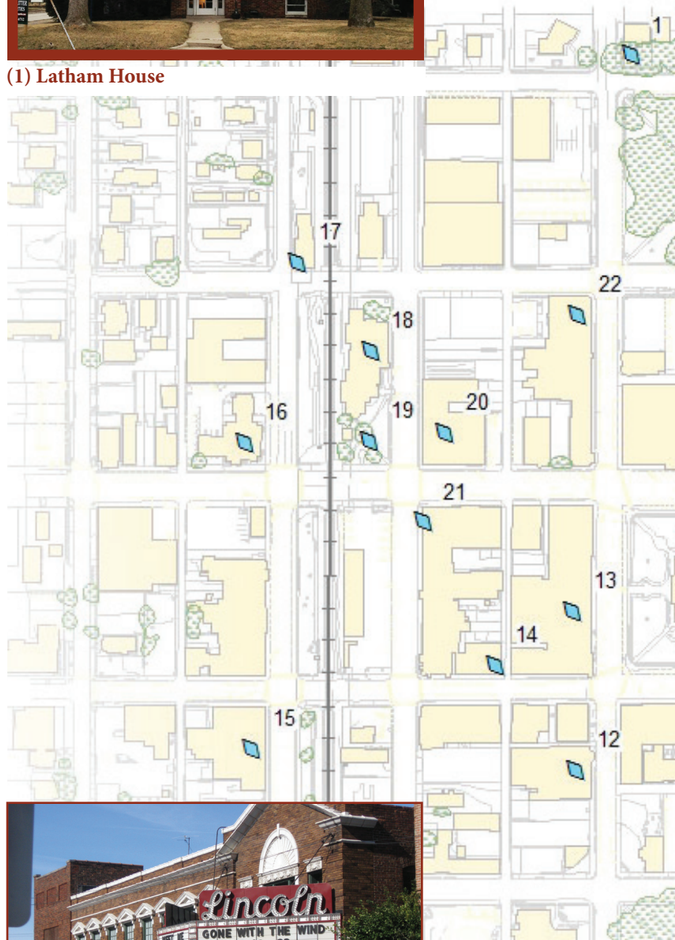
1 - Latham House
2 - Lincoln Woman's Club
3 - Latham Park Bandstand
4 - Lincoln Public Library
5 - City Hall Phone Booth
6 - City Hall/Fire Station
7 - Allen Chapel AME Church
8 - U.S. Post Office
9 - Logan County Courthouse
10 - Lincoln Lot Site
11 - Arcade
12 - Lincoln Theater
13 - Three Roses
14 - Site of Rustic Inn
15 - Old Joe's
16 - State Bank of Lincoln
17 - Gulf, Mobile and Ohio Railroad Freight Depot
18 - Lincoln Depot
19 - Centennial Tree (1953)
20 - Logan County Genealogical and Historical Society
21 - Site of Lincoln House Hotel
22 - Scully Building

Historic District

Kickapoo Street

START

(1) Latham House



(12) Lincoln Theater

(13) Three Roses

(14)Site of Rustic Inn

(15) Old Joe's

(16) State Bank of Lincoln

(17) Gulf Mobile & Ohio Railroad Freight Depot

(18) Lincoln Depot

(19) Centennial Tree (1953)

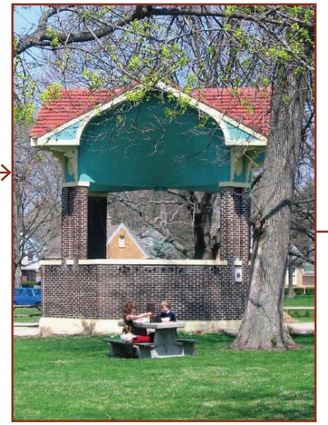
(20) Logan County Genealogical and Historical Society

(21) Site of Lincoln House Hotel

(22) Scully Building

END

(2) Lincoln Woman's Club



(3) Latham Park Bandstand

(4) Lincoln Public Library

(5) City Hall Phone Booth

(6) City Hall/Fire Station

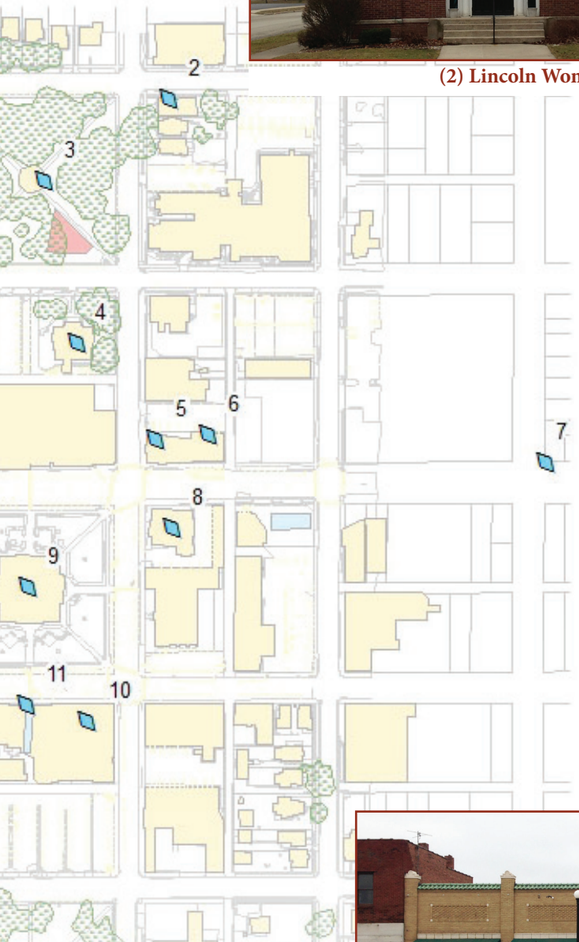
(7) Allen Chapel AME Church

(8) U.S. Post Office

(9) Logan County Courthouse

(10) Lincoln Lot Site

(11) Arcade



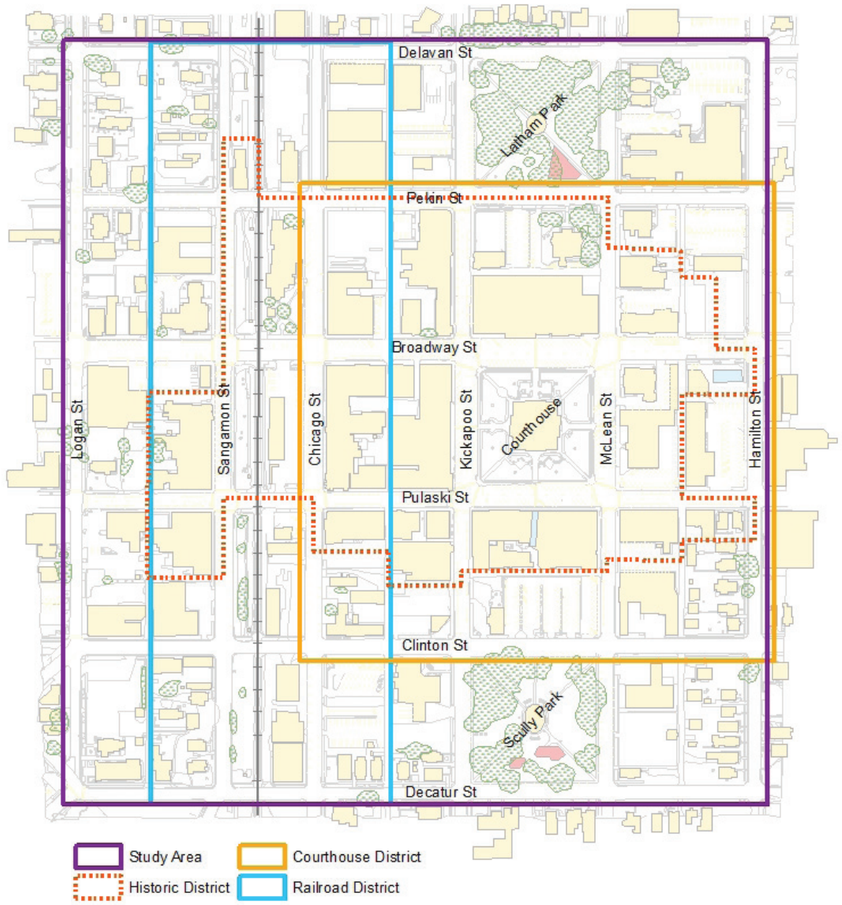
EXECUTIVE SUMMARY

A lack of adequate parking, or even a perceived lack of parking, can be detrimental to a retail district. If potential shoppers cannot find a parking place, quickly, and in close proximity to their destination, they may abandon their pursuit and shop elsewhere. Patrons to a downtown shopping district may not be willing to park more than a block and a half away from their destination, and perhaps not even that distance for short duration trips. The constant pursuit of a close parking space may also lead to additional vehicular traffic brought on by those drivers circling the block in search of the perfect space. It is critical to the success of downtown to provide adequate, well-marked parking, with some degree of availability. Spaces nearest the retail corridor should be reserved for shorter term parking with all day parking located nearby in public parking lots. If Downtown Lincoln is to become a destination, the easily accessed, highly visible, and close to retail spaces need to be reserved for visitors, and downtown employees should park away from the retail corridor.

Currently there are over 1,000 public parking spaces in the downtown area, but not all of these spaces are within an ideal distance for high parking turnover areas. This study will produce results from parking inventories to assess current supply and demand, followed with projections for future demand, suggestions for future supply, and finally, parking management strategies that seek to balance the supply and demand of downtown parking.

Introduction

In late 2011, the City of Lincoln was awarded a grant from the Illinois Department of Commerce and Economic Opportunity to undertake downtown redevelopment and revitalization efforts to update and refresh the central business district of the City. The first step of that process was to undertake several studies of the downtown area, including an economic analysis, transportation planning, landscape and streetscape planning, a historical façade analysis, and a parking study. The overall goal of the downtown planning is to revitalize downtown in a way that enhances the quality of life in Lincoln, drives population growth, and encourages economic development throughout the community. Some of the items that were identified to be of key importance were to increase and diversify shopping and dining options, provide additional arts and entertainment downtown, expand housing and employment opportunities, and create an environment that fosters special events to be held in the downtown area. Downtown parking should support those goals by providing sufficient and convenient parking while maintaining a pedestrian-friendly environment. The parking study seeks to guide the City in developing a strategy to effectively manage parking within the downtown area as it continues to redevelop.



Study Area

The study area encompasses a five by five block area of Lincoln's downtown as shown on the map above. It is bounded by Logan Street, Delavan Street, Hamilton Street and Decatur Street. Included in the study area are the two main downtown planning areas – the Courthouse Square District and the Railroad Corridor District. The study area also includes the two downtown parks, Latham Park and Scully Park, and contains the Courthouse Square Historic District.

The downtown streets in the City of Lincoln were built parallel to the railroad in a grid pattern. The railroad angles from northeast to southwest, resulting in the street grid being rotated from true north by approximately 41 degrees. Although Latham Park is located northeast of the Courthouse Square, the City's staff and residents commonly refer to Latham Park as being north of the Courthouse Square. For ease of description, this report will adopt the practice of referring to the northeast direction as north.

The Land Use Plan developed as part of the Downtown Redevelopment and Revitalization Study suggested the three blocks of Kickapoo Street centered on the Courthouse Square be developed as the retail core of the downtown. As such, the highest parking demand would be located within one and a half blocks of this corridor, representing a two to three minute walk.

The north four blocks of the west boundary, Logan Street, are under State of Illinois jurisdiction on the Old Route 66 alignment. There is no on-street parking on that portion of Logan Street; therefore, all public parking within the study area is under City jurisdiction.

EXISTING PARKING SUPPLY

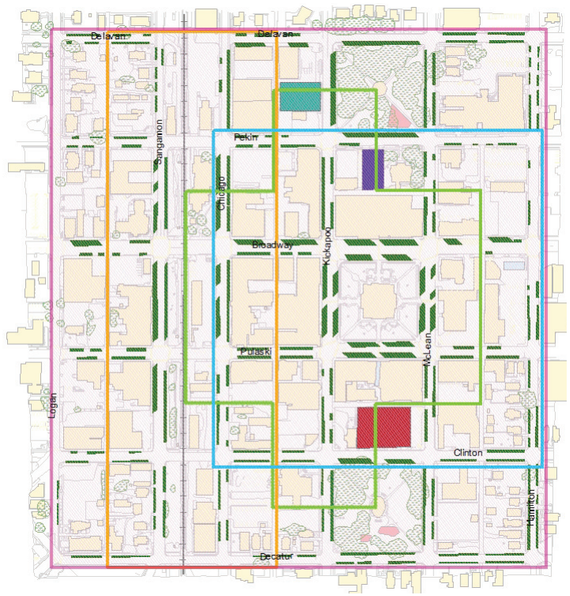
Public

There are 145 public off-street parking spaces contained in three public parking lots. Within the study area, there are 921 public on-street parking spaces, for a total of 1,066 total public parking spaces. Of this total, 27 spaces are reserved for handicapped use. In addition, 44 spaces are reserved for use only by public employees. The locations of the public parking spaces are highlighted in the maps on this page.

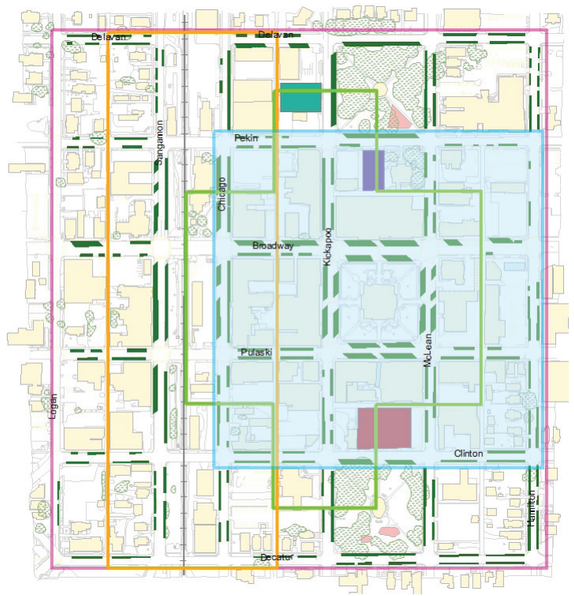
Downtown Lincoln has two distinct districts. The older downtown area is centered on the rail corridor, and is composed of Sangamon and Chicago Streets. The second area consists of the nine blocks centered on the Courthouse Square. These two areas are adjacent to one another; however, people are likely to park in whichever district they are visiting. The core retail block is the 100 south block of Kickapoo Street, on the square. In general, the current retail district extends a half of a block in all directions of this core block. Therefore, the "prime" parking spaces are located along this block and extend to one and a half blocks away.

Public Parking Spaces by District			
Area	On-Street	Off-Street	Total
Downtown Study Area	921	145	1,066
Courthouse District	456	106	562
Railroad District	313	0	313
Retail District	330	106	436

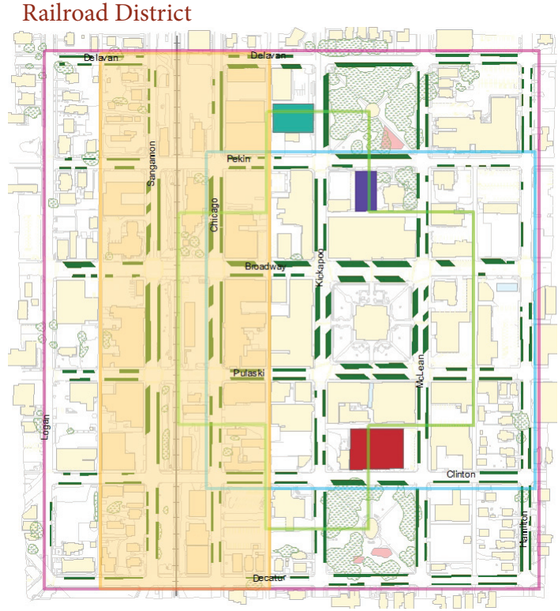
Downtown Study Area



Courthouse District

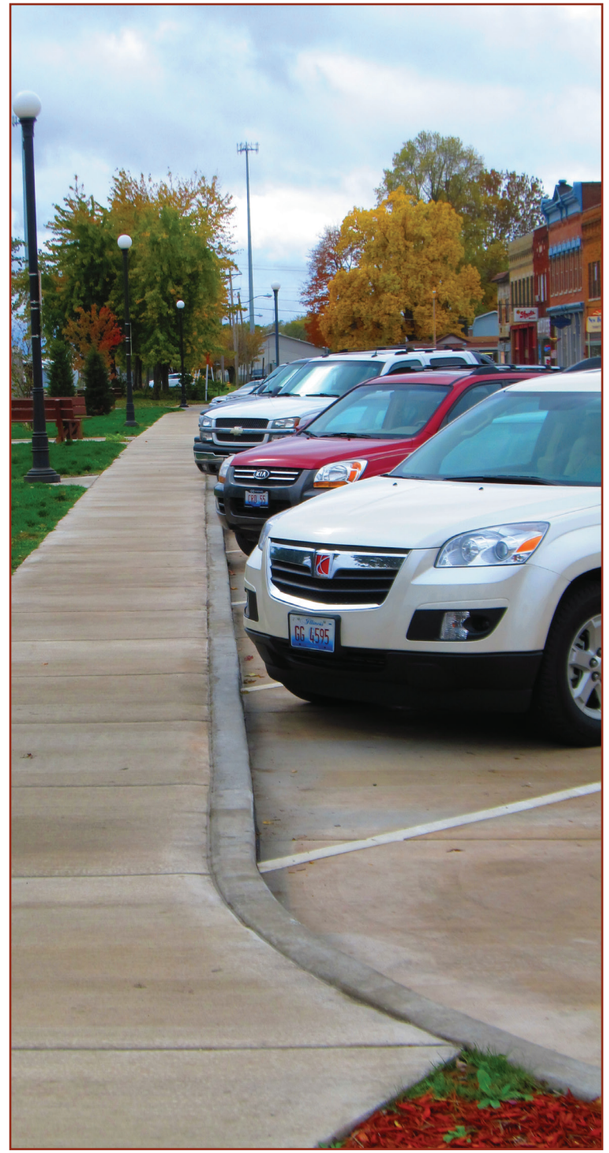


Railroad District



Retail District

Courthouse District Railroad District Retail District



On-Street

There are a total of 921 on-street parking spaces in the downtown study area. Broken down by district, there are 456 on-street parking spaces in the Courthouse Square District, 313 spaces in the Railroad District, and 330 spaces within one and one-half blocks of the Kickapoo Street retail core. Note there is some overlap in each of the districts, so the sum of the three districts exceeds the total of the study area.

All streets within the downtown have either angled parking or parallel parking on both sides of the street, with the exception of the four blocks of Logan Street under State jurisdiction. Angled parking is present on the Courthouse Square, on a portion of the perimeters of the two downtown parks, and on portions of Sangamon, Chicago, and Broadway Streets. The angle of parking ranges from forty-five degrees to seventy-five degrees. On a typical block face, angled parking at forty-five degrees can accommodate up to 18 spaces, compared to 11 parallel parking spaces in the same distance.

Some of the on-street parking spaces are currently time restricted. In general, the time restricted parking is located along the Kickapoo Street Retail Corridor, and within the "prime" parking spaces located within one and a half blocks of the retail corridor. Nearly all of the time restricted spaces have a limit of 2 hours. There is a small section of 1 Hour Parking adjacent to Lincoln Christian Church, and 12 Minute Parking adjacent to the Post Office.

Off-Street

There are three City owned public parking lots within the study area, commonly referred to as the Shay Parking Lot, the Library Parking Lot, and the Amtrak Parking Lot. These three lots are all contained within the core retail district, with all located within one and a half blocks of the Kickapoo Street side of the Square.

The Shay Parking Lot is located a half of block south of the Courthouse Square with a pedestrian walkway leading from the parking lot to the Square. Although the pedestrian walkway is privately owned, this space is publicly used. A portion of the walkway through the Arcade Building is covered, making this parking lot ideal for employees or visitors to the Courthouse and businessses located on the south side of the Square. A pedestrian crosswalk exists across Pulaski Street to connect this walkway with the Courthouse lawn sidewalks.

The Shay Parking Lot contains 64 public spaces, with 18 of those spaces marked reserved for county employees, senior citizens, and other general reserved parking, and two spaces reserved for handicapped parking. A private parking lot is located directly east of the Shay lot. The private lot is used primarily for employee parking for the businesses on the east end of the south side of the Square.

The Library Parking Lot is similarly located a half of block north of the Courthouse Square; however, there is no walkway connecting the parking lot with the Square. Several businesses along the north side of the Square have alley entrances for employees and patrons using this parking lot. The east row of this parking lot is owned by the Lincoln Library although the entire parking lot is available for public use. The City owns a vacant lot adjacent to the Library Parking Lot and intends to construct pavement there for additional parking. The Library Parking Lot currently contains 42 public spaces, with two of those spaces reserved for handicapped parking. The proposed expansion of this parking lot by the City will add approximately 15 additional public parking spaces.

The third public parking lot is primarily used for Amtrak patrons, and is located northeast of the Amtrak station, or west of Latham Park. The City owns additional property adjacent to this parking lot that is currently being used as a dropoff center for recycling and for drive-through payment boxes for various governmental agencies and utilities. A vacant building that was formerly used as a City garage is also located adjacent to this parking lot. This building is being considered for demolition. The Amtrak Parking Lot currently has 39 public spaces, with three of those spaces reserved for handicapped parking.

The off-street parking spaces had a similar number of parking restrictions to the on-street parking spaces. Regulations included 2 Hour Parking, handicap parking, No Parking 8am-5pm and Reserved Parking and affected 35 spaces, or 24 percent, of the spaces.

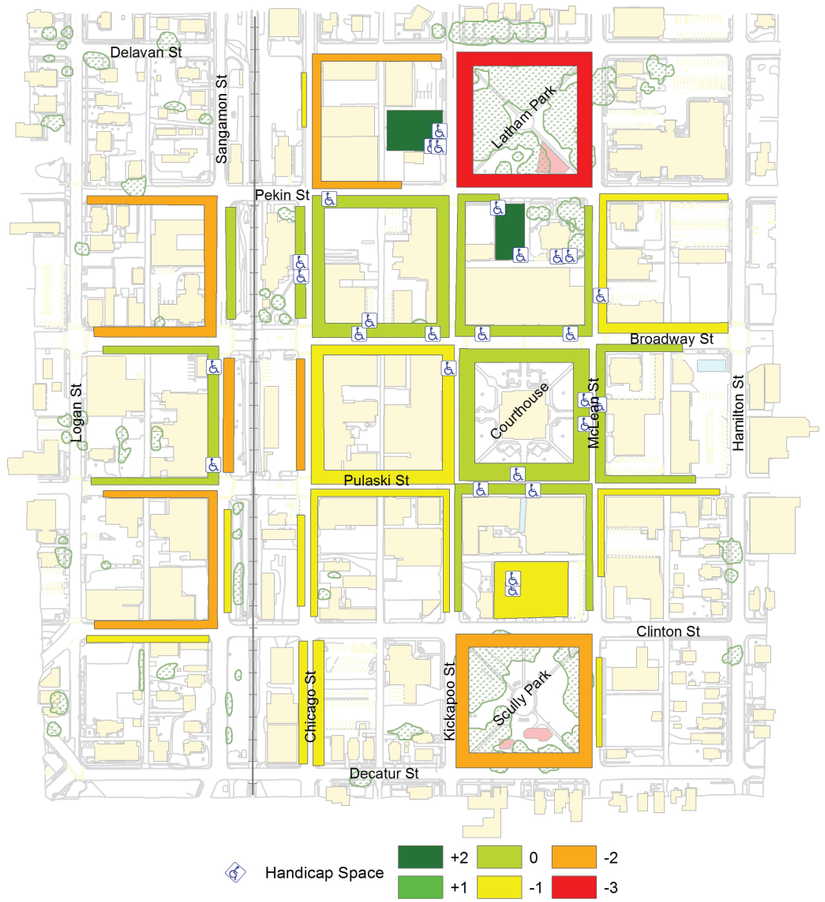
Handicapped Accessible

Requirements for accessible parking are governed by the Americans with Disabilities Act (ADA) for public parking lots (off-street parking) and by the Public Rights-of-Way Accessibility Guidelines (PROWAG) for on-street parking. The number of accessible parking spaces required is dependent on the total number of marked or metered spaces in a parking lot or on a block perimeter. The number of accessible spaces required is the same for both on-street block perimeters and off-street parking lots for up to 200 total parking spaces, and is shown below.

While the total overall number of accessible spaces in the downtown area meets the required minimum number, when parking lots and on-street block perimeters are analyzed on an individual basis, many fail to meet the required minimums. The map to the right shows the areas that are deficient, along with areas that meet or exceed the requirements. Many of the areas that have failed to meet the minimum requirements for accessible spaces have adjacent blocks that exceed the minimum, and can be remedied by "swapping" the location of the marked handicapped space. This can be accomplished in any number of ways; one potential solution is shown to the right.

Requirements for Handicapped Accessible Parking Space	
Total Number of Marked or Metered Parking Spaces on the Block Perimeter or Parking Lot	Required Minimum Number of Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6

Current Level of Accessible Parking

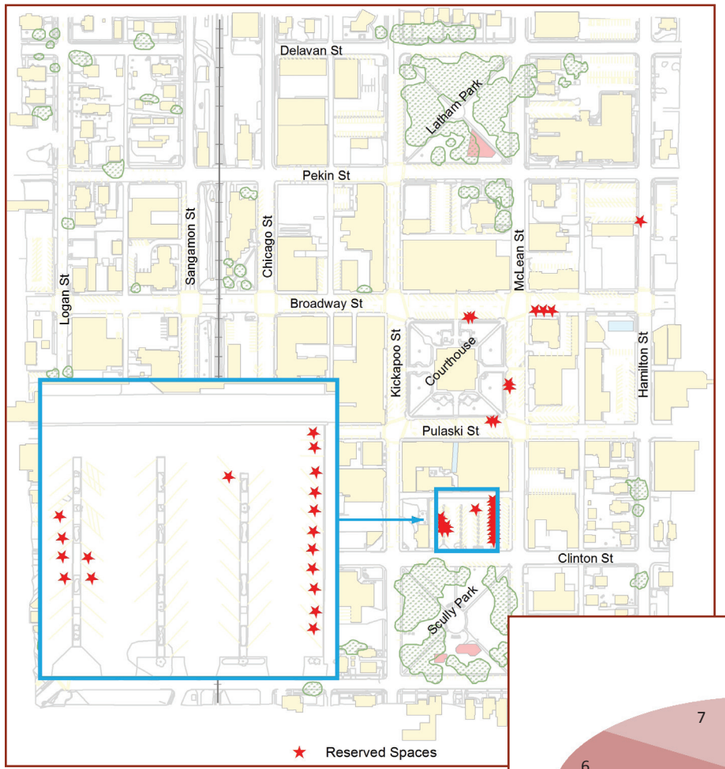


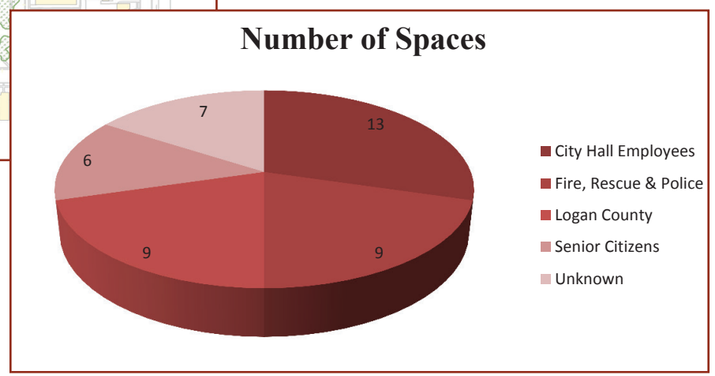
Proposed Location of New Spaces

Parking Study - Downtown Lincoln

Reserved

Some of the on-street parking spaces and public parking lot spaces have been reserved for various groups of people such as employees for the city/county, senior citizens, etc. The map below outlines the reserved spaces in the downtown area and the pie graph shows for what use the spaces are reserved.





Private

In addition to the on-street parking and three public parking lots, there are numerous off-street private parking spaces scattered throughout the downtown area. Many of these are two or three spaces on the alley side of a building with back door access for owners and employees, but there are also several private parking lots for use by employees and visitors. The map to the right shows the location of private parking spaces within the downtown.

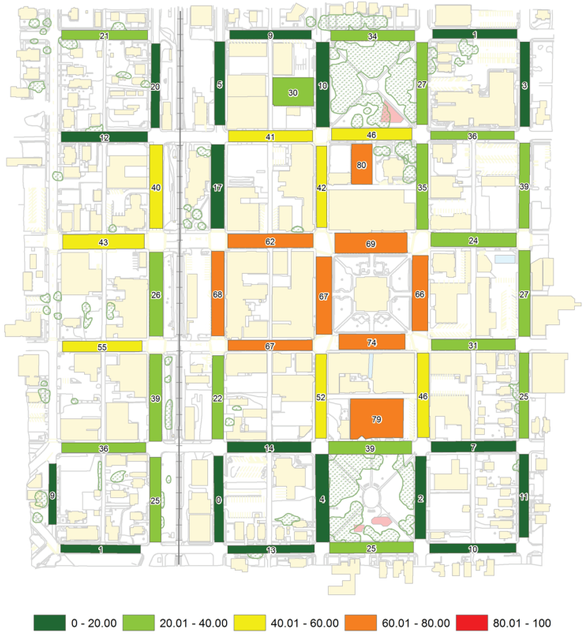
There are a total of 66 private parking lots, ranging in size from 1 space to 50 spaces, for a total of 755 private parking spaces in the downtown area. Within the Kickapoo Retail Corridor, there are 24 private parking lots, ranging in size from 1 space to 28 spaces, with a total of 233 private parking spaces. The Courthouse District has 374 private parking spaces contained in 31 lots ranging in size from 1 to 50 spaces, and the Railroad District has 263 private parking spaces contained in 23 lots ranging in size from 2 to 50 spaces.

EXISTING PARKING DEMAND

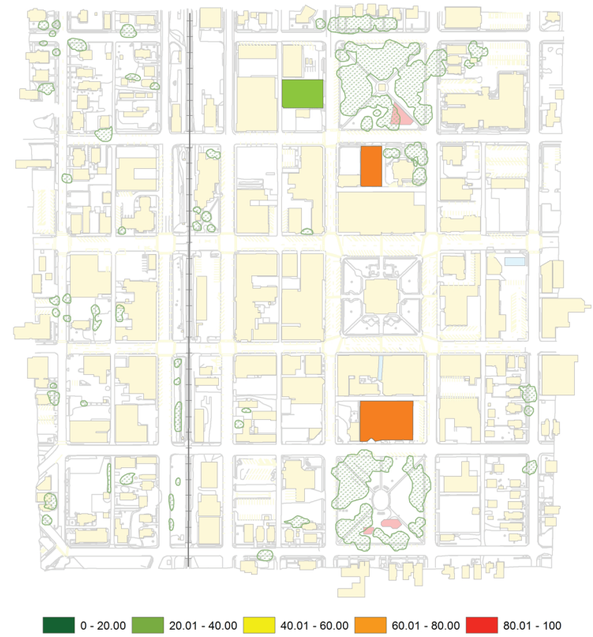
Existing Parking Occupancy

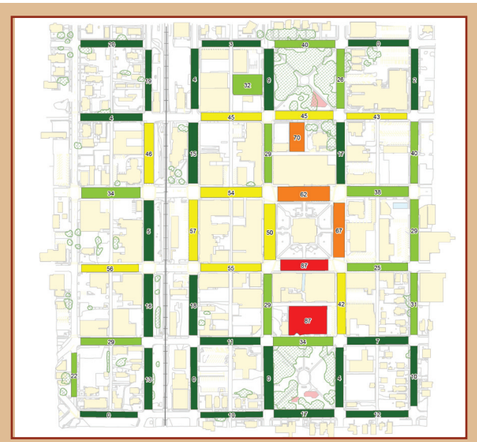
Parking occupancy counts were conducted on 18 separate weekday occasions between May 2012 and January 2013. Counts were completed at intervals of one to two hours with counts recorded at 9:00 am, 11:30 am, 12:30 pm, 1:30 pm, and 3:00 pm. All spaces within the study area were counted on at least 4 days, with additional counts conducted within the vicinity of the Courthouse Square and within the retail corridor. Weekend days and weekday evenings were observed to have less parking demand with many on-street parking spaces available. This finding suggests that much of the weekday on-street spaces are occupied by downtown employees.

The overall peak utilization occurred around 1:30 pm when 32% of all on-street spaces within the study area were occupied as shown to the right. Peak utilization rates for the area around the Courthouse and centered on the 100 block of North Kickapoo for this timeframe approached 80%, and similar utilization rates existed for the public parking lots, with the exception of the Amtrak parking lot. Utilization rates varied throughout the day within the downtown area. The series of maps below represent the block by block utilization of parking for the various time frames. The Pulaski Street block between Kickapoo Street and McLean Street at 9:00 am was the only block that averaged over an 80% occupancy rate during the parking analysis. Parking counts confirmed that the highest demand for parking is along the 100 block of South Kickapoo Street and locations within one and a half blocks from it.

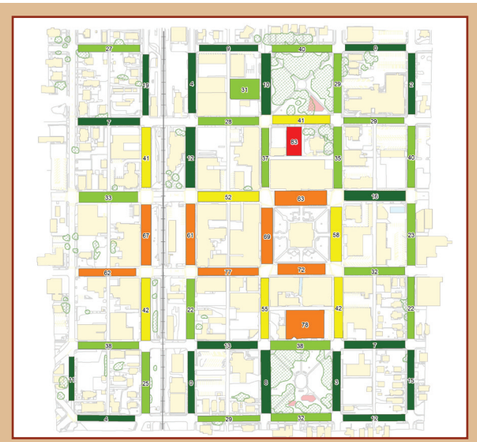


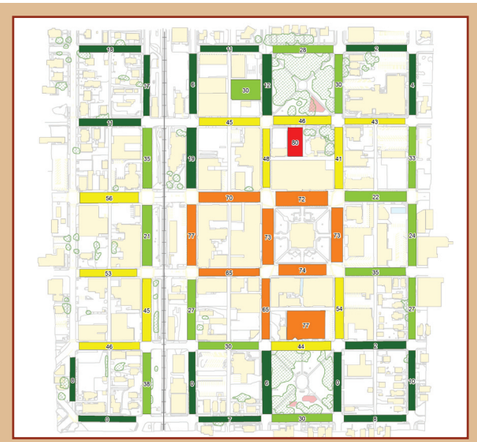
The peak utilization for the public parking lots occurred around 11:30 am when 70% of all spaces were occupied as shown in the map to the right. Both the Library and Shay parking lots had average occupancy rates over 80%. The Shay parking lot had higher occupancy in the morning hours, with the Library parking lot peaking in the afternoon. Parking counts confirmed that both the Library and Shay parking lots are heavily used throughout the day while the Amtrak parking lot never reaches half its capacity.




9:00 am


11:30 am


12:30 pm


1:30 pm


3:00 pm

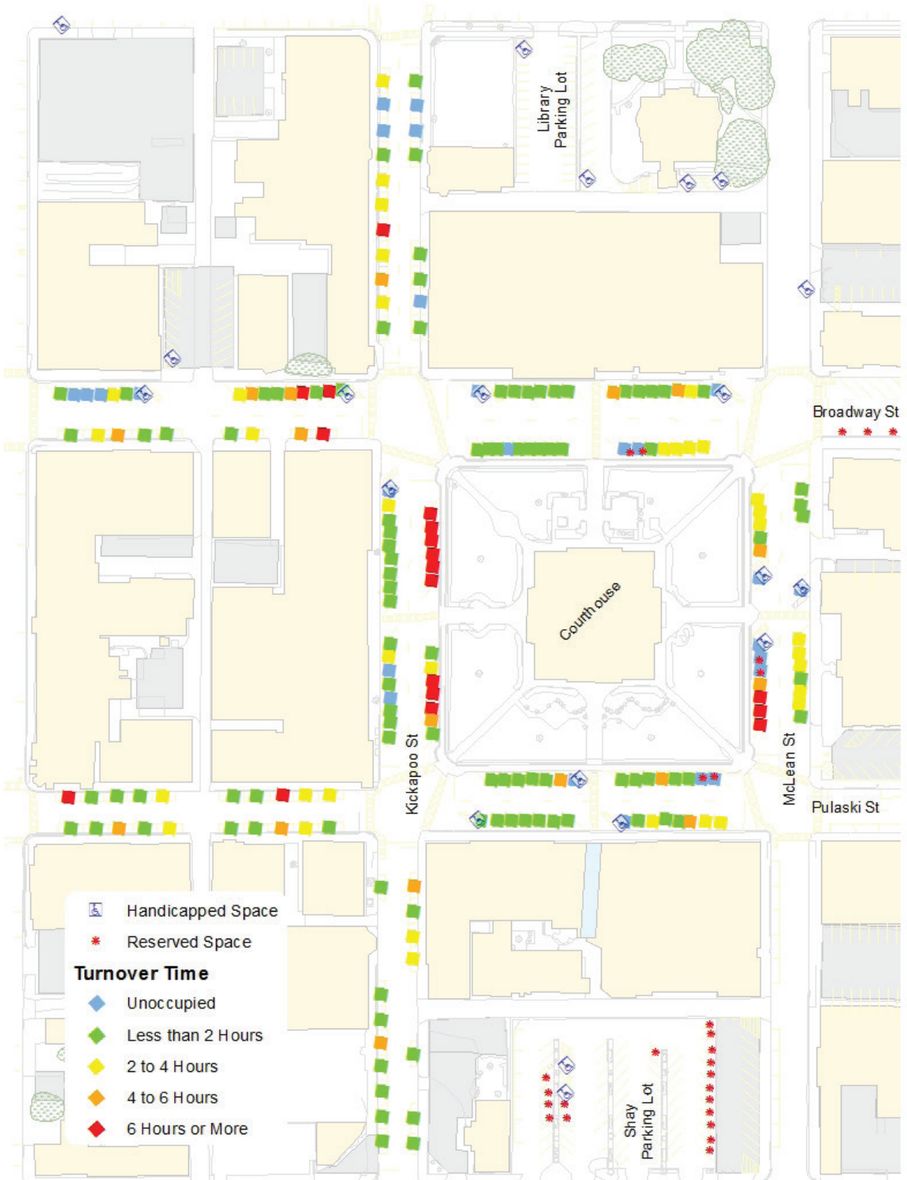
PEAK UTILIZATION PARKING TREND ANALYSIS

On-Street Turnover Rates

To determine a turnover rate within the highest occupied on-street parking locations, the study team recorded license plates at intervals of one to two hours between the hours of 9:30 am and 3:30 pm on a Wednesday. A total of five counts were made within the Kickapoo Street three block retail corridor, the remaining three sides of the Courthouse Square, and Broadway Street and Pulaski Street between Chicago and Kickapoo. The counts were taken at two hour intervals between the hours of 9:30 am and 3:30 pm, with an additional count at 12:30 pm.

All of these locations are within the posted 2 Hour Parking time restriction. A total of 195 on-street parking spaces are located within this area, including 11 handicapped spaces. On this particular day, the occupancy rate of the 195 spaces in this area was fairly consistent throughout the day, with the non-handicapped occupancy rates shown in the table below. However, there was a wide distribution in occupancy rates on a block by block basis. Low and high occupancy rates on a per block basis are also noted in the table below.

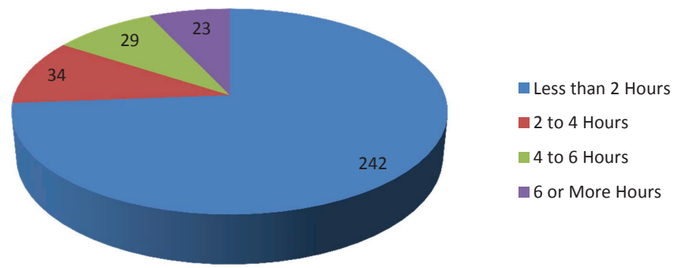
Occupancy Rates					
	9:30 am	11:30 am	12:30 pm	1:30 pm	3:30 pm
Average	54%	64%	55%	52%	55%
Minimum Block	32%	26%	30%	37%	45%
Maximum Block	78%	98%	76%	71%	69%



A total of 328 unique license plates were recorded during the five counts of this area. Of these, 242 were parked for 2 hours or less, with 43 of those being over the noon hour. Another 34 cars were parked from 2 to 4 hours; 29 from 4 to 6 hours; and 23 for more than 6 hours. The locations for nearly all of the "all day" violators were located on the inside of the Courthouse Square, mostly on the west side, and the southeast side. The measured turnover time for each of these spots is shown in the figure to the left.

There was some amount of "shuffling" observed, where a vehicle was parked all day within the area observed, but moved spots midway through the day. This appeared to be especially prevalent on the interior of the Courthouse Square.

Overall, a large portion of drivers are ignoring the 2 hour time limit, with over 25% of the vehicles in violation. With the clusters of all day violators around the Courthouse, it appears that many violators may be employees that work within the Courthouse. It is especially problematic that the highest cluster of all day parking violators are located on the primary retail block of Downtown.



Existing Parking Demand

Building sizes obtained from the mapping were used along with parking demand rates contained in the Parking Generation Manual, 4th Edition, by the Institute of Transportation Engineers (ITE) for various land uses. Rates were analyzed for peak weekday daytime use, based on existing ground floor uses and areas. In addition, some land uses were reduced by an estimated vacancy percentage, and peak demands were split between an estimated public and private parking supply for each land use.

Peak parking demand rates may have different time distributions for demand during the daytime depending on the land use category. Parking needs fluctuate throughout the day based on the type of activity or land use that is associated with that need. For example, the dining land use category will see 100% of its peak demand during the noon hour, with lower rates before and after, while the movie theater may have very little use prior to noon, and then steadily increase until it reaches 100% of its peak demand in the evening hours. Time distribution of the peak demand rates were analyzed for each category to find the corresponding overall peak demand rate for the downtown area. The hourly adjusted peak demand was found to be at 12:00 pm, with a prediction of 938 spaces required.

The hourly adjusted peak demand must be further split into private and public parking spaces to determine the public parking space demand. This was accomplished by estimating the percentage of private spaces available for each type of land use, based on the parking inventories.

The ITE Parking Generation Manual may significantly overestimate parking demand, particularly in a downtown area where ground floor space may not be fully utilized, even if it is occupied. When peak demand is calculated using the Parking Generation Manual peak rates and the various assumptions noted above, the predicted demand is indeed greater than the observed occupancy rates. Therefore, the estimated parking demand was "calibrated" to the observed values, resulting in a reduction of peak values by approximately 15%.

EXISTING

Ground Floor Uses	%	Approximate Area (square feet)	Percent Occupied	Parking Demand Rate (per 1,000 SF unless otherwise noted)	# of Spots Required for Peak Demand	Hourly Adjustment (12:00 pm)	Adjusted Demand (12:00 pm)	Est. Percent Private Parking	Private Spaces Supplied	Public Spaces Required	Calibrate to Actual (85%)
Education	2%	12,203	90%	0.82	9	88%	8	5%	-	8	6
Government Services	8%	56,820	80%	4.15	189	77%	145	50%	73	73	62
Institutional	9%	62,519	90%	0.64	36	58%	21	75%	16	5	4
Housing	-	49 Units	90%	1.23/unit	54	85%	46	75%	35	12	10
Vacant	16%	108,813	0%	0	0	0%	0		-	0	0
Personal Services	5%	37,496	50%	2.55	48	42%	20	40%	8	12	10
Drinking Establishments	0%	2,280	80%	10.6	19	51%	10	10%	1	9	8
Dining	2%	12,911	80%	10.6	109	100%	109	10%	11	99	84
Dining (Evening Only)	1%	5,429	85%	10.6	49	0%	0	10%	-	0	0
Mixed Retail/ Restaurant	2%	13,627	80%	6	65	100%	65	10%	7	59	50
General Apparel, Furnishings, Other	24%	167,399	50%	2.55	213	100%	213	50%	107	107	91
Professional & Business Services	31%	213,044	50%	2.84	303	90%	272	50%	136	136	116
Movie Theatre	-	530 Seats		0.26/seat	138	20%	28	5%	1	26	22
Total	**100%**	**692,541**		-	**1232**		**937**		**395**	**546**	**463**

Future Parking Demand

Several predictions need to be made to develop a future parking demand model. Some new construction can be expected; however, the majority of redevelopment will come from rehabilitation of current historic properties and a shift in land uses as the downtown redevelops. Some ground floor spaces that are currently occupied may be underutilizing their available space, and as redevelopment occurs, those businesses may begin fully using available space, thereby generating additional parking demand. Likewise, many existing upper level spaces are currently unoccupied or underutilized. As conditions improve, it may become economically viable to rehabilitate upper story spaces for residential or office uses. For the purposes of this study, we will assume that 150,000 square feet of currently unoccupied upper story spaces can be redeveloped. Finally, there are some vacant sites within the downtown area where new construction may occur.

Currently there is an estimated 108,813 square feet of vacant ground floor space in the downtown area. If one assumes the vacant ground floor space will be developed as 15% restaurant and 85% retail space, and that underutilized space that is currently occupied will become more fully utilized, an additional 721 parking spaces would be required. To further assume potential future development, an expanded movie theater was added to the future parking demand model, increasing the parking demand by an additional 24 spaces. In a fully revitalized and successful downtown Lincoln, currently unoccupied upper story space would be renovated to provide downtown residential units, or professional office space. Approximately 150,000 square feet of upper story space could be potentially renovated for office space and residential use adding an additional demand for 85 parking spaces. With all of these assumptions, an estimated 1,293 public parking spaces will be required to support redevelopment. As shown in the Existing Parking Supply section on page 45 of this report, a total of 436 public parking spaces exist within the Retail District. The projected shortage in downtown parking is approximately 830 public parking spaces. While some of the public parking can be expanded into downtown areas further away from the Courthouse Square and the retail corridor, in areas where public parking is currently underutilized, additional parking spaces will need to be provided in the core retail area for convenience.

Evening and weekend usage of public parking is expected to increase as the downtown area redevelops. Some uses, such as the movie theater, reach their peak hour demand in the evening hours. With an expanded movie theater, additional dining options, and some retail businesses providing evening hours, parking demand downtown in the evening hours could reach 50 to 70 percent of the peak weekday daytime parking demands.

If one assumes the vacant ground floor space will be developed as 15% restaurant and 85% retail space, and that underutilized space that is currently occupied will become more fully utilized, an additional 721 parking spaces would be required.

FUTURE

Ground Floor Uses		Approximate Area (square feet)	Percent Occupied	Parking Demand Rate (per 1,000 SF unless otherwise noted)	Number of Spots	Hourly Adjustment (12:00 pm)	Adjusted Demand (12:00 pm)	Private Spaces Supplied	Public Spaces Required	Calibrate to Actual (80%)
Education		12,203	90%	0.82	9	88%	8	-	8	6
Government Services		56,820	80%	4.15	189	77%	145	73	72	58
Institutional		62,519	90%	0.64	36	58%	21	9	12	10
Housing		49 Units	90%	1.23/unit	54	85%	46	35	11	9
Upper Story Housing		150,000	90%	1	135	85%	115	15	100	80
Personal Services		37,496	90%	2.55	86	42%	36	8	28	22
Drinking Establishments		2,280	90%	10.6	22	51%	11	1	10	8
Dining		29,221	90%	10.6	279	100%	279	16	263	210
Mixed Retail/ Restaurant		13,627	90%	6	74	100%	74	7	67	54
General Apparel, Furnishings, Other		265,331	90%	2.55	609	100%	609	107	502	402
Professional & Business Services		213,044	90%	2.84	545	90%	490	136	354	283
Movie Theatre		1060 Seats		0.26/seat	276	20%	55	1	54	43
Total - Ground Floor Space		**692,541**		-	**2,314**		**1,889**	**408**	**1,481**	**1,185**

RECOMMENDATIONS FOR CHANGES IN PUBLIC PARKING AREAS

As redevelopment occurs in downtown Lincoln and the demand for parking spaces grows, the City will need to provide an additional supply of public parking. This parking supply will need to be balanced with demand as it increases, so that new tourism based customers are not turned off or driven away by parking difficulties. The overriding tenet of the block and a half principal should prevail during the redevelopment period, so that new parking is located at least within a block and a half of newly developed or redeveloped properties. An additional consideration for future parking locations is for close proximity to downtown festivals and special event locations.

It is also important to remember that creating a walkable and inviting outdoor environment is of primary importance. While parking should be readily available, in certain locations the pedestrian accommodation should be given priority over ample parking. On-street parking should not diminish the motorist view of downtown or detract from the pedestrian experience. In some cases, consideration should be given to reducing on-street parking in the core retail area in order to provide ample outdoor spaces. On-street parking that is removed, however, should be equaled or exceeded by nearby public parking lot spaces. In general, on-street parking should be considered a convenience for short duration trips. Long term parking for downtown workers and all-day shoppers should be located in off-street parking spaces as much as possible, reserving the on-street parking spaces for high turnover, short trips.

The map to the right designates potential areas that have been identified as possibilities for parking modifications. These proposed parking changes are summarized in the table to the right with the approximate cost to construct each proposed improvement, along with the net increase or decrease in public parking spaces. It should be noted that parking lot lighting costs are not included in the proposed costs. Most of the proposed parking lots are adjacent to proposed streetscape improvement areas, where additional street and pedestrian lighting should be installed.

Proposed Parking Changes

Location	# of Spaces Net Change	Approximate Cost	Approximate cost per Space
100 Block N. Kickapoo - angle parking to parallel	-6	Included in streetscape	
200 Block N. Kickapoo	-8	Included in streetscape	
Library Parking Lot Expansion	15	75,000	5,000
200 N. and 100 S. Sangamon - parallel to angled	16	160,000	10,000
200 Block S. Chicago - parallel to angle parking	8	70,000	8,750
Latham Park On-Street Parking Modifications	-9	Included in park development	
Scully Park On-Street Parking Modifications	9	Included in park development	
210 S. Chicago Parking Lot	23	85,000	3,696
419 Broadway Street	20	85,000	4,250
716 Broadway Street	72	380,000	5,278
Shay Parking Lot - Garage	200	4,100,000	20,500
Broadway Street Arcade	0	250,000	N/A
100 Block South Chicago Street Parking Lot (Neal Tire)	75	625,000	8,333
200 Block South Chicago Street Parking Lot	57	370,000	6,491
Amtrak Lot Expansion	111	720,000	6,486
TOTALS	**583**	**$6,920,000**	**$11,870**

(1) Kickapoo Street On-Street Parking

To better accommodate pedestrians and allow for outdoor dining and shopping along the core retail block of Kickapoo Street on the Square, the Downtown Redevelopment Plan recommends removing the existing angled parking on the west side of this block, and replacing it with parallel parking. This change would result in a reduction of six parking spaces.

A block north on Kickapoo Street, between Broadway and Pekin, the east lane of parallel parking would be entirely removed to allow for wider, two level sidewalks to better accommodate the grade change between the street and sidewalk. Eight on-street parking spaces would be removed. The construction cost associated with these changes will be part of the streetscape enhancement costs and a separate cost has not been calculated.

(2) Library Parking Lot Expansion

The loss of on-street parking spaces along Kickapoo Street would be offset by expanding the existing Library Parking Lot to a City owned lot at the northeast corner of Kickapoo and Pekin Streets. This expansion would add approximately 15 additional spaces. In conjunction with the expansion, the existing parking lot pavement should be replaced or resurfaced and pavement markings should be reconfigured to merge the two lots together. Landscaping should be added in accordance with the recommendations contained elsewhere in the Revitalization Plan. The cost associated with this expansion ranges from $75,000 to $105,000. Rehabilitation and repaving of the existing parking lot is not included in this cost, and the cost reflects only the new parking area.

(3) Sangamon Street On-Street Parking

Angled parking was added to the east side of Sangamon Street between Pulaski and Broadway Streets in 2012. This addition required expanding the parking lane into the adjacent greenspace between Sangamon Street and the railroad tracks. The Sangamon Street blocks located north and south of this block are similarly configured. A change from parallel to angled parking in each of these locations would result in an increase from 11 current spaces to 19 for each block, for an overall net increase of 16 spaces. The City should pursue obtaining excess right-of-way from the Union Pacific Railroad to allow for the addition of angled parking in these blocks in the future as the Railroad District continues to evolve. The estimated cost per block for the addition of the angle parking is $80,000.

(4) Chicago Street On-Street Parking

On the Chicago Street side of the railroad, angled parking exists on the west side of the central block between Broadway and Pulaski Streets, and the block north between Broadway and Pekin Streets. The north block is adjacent to the Amtrak Station, and changes to the parking pattern at this location are anticipated if the former depot is purchased and used as the future Amtrak station. Consideration should be given to converting

the parallel parking to angled parking for the block between Pulaski and Clinton, which would result in an increase of parking spaces from 9 to 17, for a net increase of 8 spaces. A further recommendation is to develop the area between Chicago Street and the railroad on this block to a public parking lot. The on-street parking could be a temporary measure to provide some additional parking until such time as the property can be acquired and a public parking lot constructed. The estimated cost for the one additional block of angle in parking to replace the parallel parking is $70,000.

(5) Latham Park On-Street Parking Modifications

As part of the proposed park improvements at Latham Park, the on-street parking along the north side of the park on Latham Place (Delavan Street) would be modified from angled parking to parallel parking. The three remaining sides would remain the same, leaving the Kickapoo Street and Pekin Street sides with angled parking, and Latham Place and McLean Street with parallel parking. The placement of angled parking in the area closest to the retail corridor will increase parking supply for this area, with less parking supply contained in the area closest to the residential districts. This would also allow for construction of a sidewalk along the north boundary of the park where none currently exists, creating a closed loop sidewalk system around the perimeter of the park. The resulting loss of parking spaces totals 9 spaces, reducing the existing 20 to 11. The cost associated with this parking modification is not tallied here separately, and should be considered as part of the cost of the park redevelopment, per the number found on page 47.

(6) Scully Park On-Street Parking Modifications

Similarly to Latham Park, on-street parking around Scully Park is proposed to be modified to provide angled parking in areas closest to the retail corridor. In this case, the Kickapoo Street and the Clinton Street sides, and parallel parking in the residential district areas of McLean Street and Decatur Street. In the case of Scully Park, this modification results in a change to Kickapoo Street, converting the existing parallel parking to angled parking. This modification would result in a net gain of 9 parking spaces, increasing the existing 10 parallel spaces on Kickapoo Street to 19 angled spaces. Again, the cost associated with this parking modification is not calculated separately here, but should be considered included in the cost of the park redevelopment, per the number found on page 47.

(7) 210 S. Chicago Street Parking Lot

An existing private parking lot accessed from Chicago Street south of Pulaski Street could be purchased by the City and converted to public parking. The lot is in poor condition and would need resurfaced. Spaces are rented by the current owner at a low monthly rate. The lot contains 23 parking spaces and is connected by a 10 foot wide pedestrian alley leading to Kickapoo Street south of Pulaski. If the pedestrian alley is made more attractive and maintained, this parking lot would be an attractive option for reaching the Kickapoo Street corridor. Its location adjacent to the movie theater and the Pulaski Street eating and drinking establishments would lead to this lot being used in daytime and evening hours. Including land acquisition, the estimated cost for this parking lot is $85,000. The parking lot would contain 23 spaces.

(8) 419 Broadway Street Parking Lot

This lot is currently owned by Salt Creek Chiropractic, LLC. It is an existing private parking lot accessed from either Broadway Street from the north, Sangamon Street from the east, or an alley from the west. The City could pursue obtaining partial rights to this parking lot in return for renovations for relieving parking congestion along Sangamon Street. Alternatively, the City could purchase the back portion of these parcels. The current parking lot is in poor condition and underutilized. A parking lot at this location could serve several eating and drinking establishments located along both Sangamon Street and Broadway Street. It could also serve as short-term parking for the Amtrak station. This parking lot is highly visible with its location along Broadway Street, and attractive landscaping should be considered. This lot could add approximately 20 parking spaces at an estimated cost of $85,000.

(9) 716 Broadway Street Parking Lot

An existing private grass lot east of City Hall is currently being used as a make-shift parking lot owned by Lincoln Sand and Gravel Company. The City could pursue purchasing this lot and constructing a parking lot at this location. Due to its location close to County and City government buildings, but further away from the retail district, this location would be an ideal spot for reserved parking for City and County employees, possibly allowing some of the existing reserved spots around the Courthouse Square and in the Shay parking lot to be made public. A concrete parking lot at this location is estimated to cost $315,000 and provide approximately 72 parking spaces.

(10) Shay Parking Lot

The existing parking lot referred to as Shay parking lot is a heavily used public parking lot with several spaces reserved for various reasons. The Shay lot is at capacity much of the day, particularly in morning hours, and is also heavily used during evening hours due to its proximity to Guzzardo's restaurant and the Lincoln Theater. The Shay Parking Lot is connected to the Courthouse Square by an open covered walkway through the Arcade Building. Because the Shay Parking Lot is consistently near capacity, additional parking at this location would be utilized under current conditions. With its proximity to the Courthouse Square, the Kickapoo Street retail corridor, and Scully Park, demand for spaces within this parking lot will continue to grow.

At the west end of this parking lot, there is a privately owned office building with additional parking, and on the east side, another privately owned parking lot exists. Both of these parcels could be acquired by the City and the existing office building demolished. If these properties are acquired and assembled, it would result in a half block area; enough space to consider a multi-level parking deck. A parking deck in this location would accomplish several objectives. First, additional parking would be provided for County employees working in the Courthouse, freeing up some of the on-street parking spaces for short-term parking. Second, additional parking would be provided for two popular evening venues downtown, Guzzardo's restaurant and the Lincoln Theater. Lastly, additional parking at this location would provide much needed access during downtown festivals and events. With its location adjacent to Scully Park and easy access to the Courthouse Square, this location is ideal for expanded tourism parking.

The estimated cost for acquiring the two additional parcels, demolition of the existing office building, and construction of a two-level parking garage containing 264 spaces is approximately $4,100,000 and would result in an additional 200 public parking spaces.

(11) Broadway Street Arcade

Part of the reason the Shay Parking Lot is so popular, is the presence of the arcade connecting the parking lot to the Courthouse Square. The Library Parking Lot is similarly located on the north side of the square, but no easy access to the Square exists. Consideration should be given to acquiring a property mid-block on Broadway Street to allow public access. Public restroom facilities could be incorporated at this location, as well as interior access to adjacent businesses. The estimated cost for acquiring a parcel and building renovation for public access can vary widely based on how extensive the renovation would be. For purposes of this study, we have used an estimate of $250,000.

(12) 100 Block South Chicago Street Parking Lot (Neal Tire)

As a longer term recommendation and as Lincoln's downtown redevelops, a public parking lot is recommended for the current Neal Tire location between Broadway and Pulaski Streets, and Chicago Street and the railroad. This location is attractive as it can easily serve both the Courthouse Square District and the Railroad District.

One of the long term transportation plans recommends developing Pulaski Street between Kickapoo and Chicago as a one-way westbound street, if and when the Pulaski Street at-grade rail crossing is closed. This would eliminate one through lane of traffic on this block of Pulaski Street, allowing for wider sidewalks and an enhanced pedestrian environment. With these improvements and the narrower right-of-way with buildings throughout both sides of the block, Pulaski Street will have a pedestrian focus rather than a vehicular focus. Parking lots located at the Pulaski Street terminus will funnel pedestrians through this route. Under this scenario, Pulaski Street would become the pedestrian connection between the Railroad District and the Courthouse Square District.

To redevelop the existing Neil Tire lot into a parking lot would require land acquisition, building demolition, and parking lot construction. Approximately 75 spaces would be created by this parking lot, at an estimated cost of $600,000 to $650,000.

(13) 200 Block South Chicago Street Parking Lot

Similarly to the 100 Block of South Chicago Street where Neal Tire is currently located, the 200 Block of South Chicago between the railroad and Chicago Street could provide additional parking to serve the Pulaski Street pedestrian corridor. As noted, this location has the advantage of being able to serve both the Railroad District and the Courthouse Square District. In order for this parking lot development to occur, the current Alexander Lumber warehouses would need to be acquired and demolished. Approximately 57 spaces would be created by this parking lot, at an estimated cost of $365,000 to $400,000, including land acquisition and demolition.

The current lot takes up about an eighth of the block, but it may be possible to expand this lot to a full half block size. The parcel to the north is currently owned by the City of Lincoln, and a street department garage is located on the site. Also located on the site are the drop off center for various recyclables, payment drop boxes for various utilities, and postal drop boxes. An 80 x150 foot lot is located at the northwest corner of the Pekin Street and Kickapoo Street intersection that currently contains a 1,500 square foot building used as a hair salon. The City could acquire this parcel, demolish both the hair salon and street department garage, and construct a large parking lot at this location.

This parking lot location is advantageous for several reasons. First, it is located at the beginning of the Kickapoo Street retail corridor. Also, it is located across the street from Latham Park and can be used for special event and festival parking.

(14) Amtrak Parking Lot

The existing "Amtrak" parking lot located on the west side of Kickapoo Street across from Latham Park was the least utilized public parking lot within the study boundary. Long term parking for Amtrak patrons is allowed within this lot, and ample spaces are available for that purpose. Existing parking usage at this lot hovered around 30% regardless of the time of day, leading one to believe that much of the parking in this lot is Amtrak related. This low utilization rate might be partially related to poor signage, as this parking lot is not readily evident as public parking to an out of town visitor.

To expand the existing Amtrak Parking Lot into a parking lot would require land acquisition, building demolition, and parking lot construction. Approximately 150 spaces would be created by this parking lot, at an estimated cost of $685,000 to $750,000.

PARKING MANAGEMENT AND ENFORCEMENT STRATEGIES

Existing Management and Enforcement

Chapter 7 of Title 9 of the City Code describes the existing ordinances related to parking in the City. Currently the City of Lincoln manages parking capacity by instituting a two hour time restriction on high demand parking areas. City Police and volunteer parking enforcers monitor time-restricted parking spaces and use a tire marking system to determine if vehicles have occupied a space for longer than the time limit.

According to City Code, violators of the parking ordinance must pay a $10 fine within 48 hours of the issued ticket. Failure to make prompt payment results in an incremental increase in the fine amount (i.e. >48 hours =$25, >30 days = $50, >60 days = $100). The maximum fine is capped at $100.

Because of the time consuming and labor intensive methodology, enforcement has been spotty and somewhat ineffective. One problem that has been brought to the attention of the study team is that parked cars are being shuffled throughout the square on days when parking enforcement is being conducted, further undermining the goal of the posted time limits.

New parking management and enforcement alternatives will likely require modifications to the existing City parking ordinance.

Proposed Options for Management and Enforcement

As investments in Downtown are made, parking demand is expected to increase due to decreased vacancy rates and increased business patronage.

The main goal of the proposed parking management strategies is to improve visitation to the core business district around the courthouse. This can be achieved by improving accessibility to primary parking spaces for the new patrons of the downtown area. As discussed above, primary parking spaces are those located within a block and a half of the retail corridor and should be reserved for shorter term parking with a higher turnover rate. Secondary parking spaces are those located further from the retail corridor and are less desirable to patrons due to a distance greater than a block and a half from their destination.

To accomplish this goal, this Revitalization Plan recommends a staged approach that would allow the City to take initial steps and then reevaluate the parking conditions to determine if further action is needed.

Stage 1 Parking Management Strategies

Stage 1 focuses on providing additional capacity through creation of a portion of the new parking lots recommended above and improving wayfinding signage. Downtown employees should be required to use off-street public parking lots, thereby freeing up on-street parking for customers of businesses along the Courthouse Square and elsewhere within the retail corridor for customers of downtown businesses. Currently, many employees of downtown businesses park in on-street spaces all day, contributing to the perception of a parking shortage in Downtown Lincoln. The City may consider passing an

Anti-Shuffling ordinance, stating that a vehicle may not return to the same parking spot (or same block) until a certain amount of time, such as four hours, has passed since first arrival. This may prevent the shuffling of vehicles when parking enforcement is underway.

In addition to increasing the off-street public parking supply, the installation of wayfinding and restricted use signage should be installed for visitors to more readily identify public off-street parking spaces. Public parking lots should have signs at each of the entrances that identify the area as public parking. Directional signs to public parking lots should be placed on the Kickapoo Street corridor to direct out of town visitors to off-street lots. Signage should be consistent for easy recognition. If downtown themed signage is used for public parking lots, the standard blue parking symbol (solid blue background with a white P in the center) should also be used on the signage for quick identification.

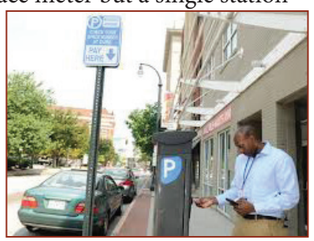
For downtown festivals and other events, consideration should be given to developing event specific movable signage identifying public parking lots available for use during the event.

Stage 2 Parking Management Strategies

Stage 2 relies on a shift toward a metered parking system with higher rates placed on the most convenient spaces. A Parking Division of either the Police Department or the Public Works Department should be established, with an employee assigned for enforcement of the system. There are many options for metered parking systems but a few of the more common choices are explained to the right.

Single Space Parking Meters – This style of meter is now available with features such as solar powered operations, vehicle detection systems, the option to pay by coin or credit card, automated alerts sent to smartphone users if time is running out, and the option to add more time from a remote location. The computerized system allows parking officials to see real time information about parking demand, improves the efficiency of resolving parking disputes, and decreases expenses related to coin collection services. Single space parking meters are also convenient for the user in that they can park, pay, and go without having to return to their vehicle to place a parking receipt. (Providers: IPS Group Parking & Telecommunications, Duncan Solutions)

Multi-space Parking Meters – This meter style has many of the features of a single-space meter but a single station covers multiple parking spaces. Multi-space meters come in two options: Pay and Display Systems and Park-by-ID Systems. (Providers: Parkeon, Digital Payment Technologies)



Pay and Display Systems require the user to park, walk to a pay station, and pay for desired amount of time. A receipt is issued to the user and the user must walk back to their car and place the receipt on the dashboard with the expiration time visible. Due to use of printed receipts, there is no option to pay for additional time from a remote location. The user must return to the pay station and repeat the process. Since there is a printed receipt that must be checked, this option is also more labor intensive for parking enforcement.

Park-by-ID Systems require the user to park, locate a pay station, enter an ID such as a parking space number or license plate number, accept a receipt and then continue to their destination without returning to their vehicle. This method also provides the option of the user extending time to their meter from a remote location via cell phone. Enforcement requires less labor and time as notifications of expired spaces can be sent directly to the enforcement officer, eliminating the need to check individual vehicles.

Image compliments of Digital Payment Technologies

Both single space meters and multi-space meters can be either solar powered or AC powered. Meters can communicate with the internet via a direct Ethernet line or wirelessly. Internet access is required for credit card acceptance, and also allows monitoring and rate adjustments to be made from an office location.

Coupon Parking - Coupon parking is a variation of pay and display without the use of machines; instead, the motorist purchases a booklet of coupons in advance from the authorities. To use a parking coupon, the motorist has to completely tear off tabs of the date and time, or scratch off panels on the date and time in which he/she leaves the vehicle. An enforcement officer then continuously monitors and can issue tickets from a handheld device.

License Plate Recognition (LPR) Systems – This technology uses handheld, vehicle-mounted, or fixed cameras to scan license plates, which are then used to confirm parking payment, manage reserved parking, and issue citations.

Market Rate Pricing - Associated with any type of metered system is the potential to set "market-rate pricing". This price structure would put a premium price on the most desirable spaces (i.e. on-street spaces in the primary parking zone) while spaces in the secondary parking zone are less expensive. The least convenient spaces could be offered free of charge. The strategy of allowing the first small block of time (15 to 30 minutes) within any paid parking space to be free of charge allows free parking for dropping off or picking up items.

The cost to implement solar powered multi-space pay-by-ID parking meters, with the ability to accept credit cards, is approximately $12,000 for each, plus installation costs. Installation costs will be minimal for solar powered units and could be incorporated with the streetscape improvements. With an assumption of initially covering eight blocks with one unit on each side of the street, the approximate initial cost would be $195,000.

The current enforcement method of marking tires is much more time consuming, and not enforced on a daily basis, so enforcement costs may not change significantly. Operation costs range from $20 per month per machine for wireless fees at the basic service end, to $90 per month for expanded services. With a total of 16 machines, monthly operation costs will range from $320 to $1,440.

For approximately 180 parking spaces included within the paid parking district, annual collections may run from $75,000 to $150,000. Annual operation costs would range from $3,840 to $17,280, and enforcement costs may remain similar to existing costs. Surplus funds developed from the parking collections should be set aside for downtown development, and can help in paying for beautification items such as banners, flowers and other plantings, or for special events to promote the downtown.

Paid parking should be implemented only in the prime parking areas, allowing remaining areas and off-street surface parking lots to remain available for free parking without time restrictions. The implementation of paid parking should increase the turnover rate at those locations. For an initial paid parking area, we suggest the Kickapoo Street three-block retail corridor, plus the remaining block of McLean Street to complete the Courthouse Square area, and the blocks of Pulaski Street and Broadway Street between Kickapoo and Chicago, as shown on the figure to the right. Parking space occupancy should be monitored and rates adjusted as necessary to maintain peak occupancy rates around 80%.

Additional Parking Management Strategies

Lincoln is in the advantageous position of having Amtrak train service, with ten daily trains. The Amtrak station is located in the downtown area, opening up the possibility of marketing Downtown Lincoln to rail passengers. Visiting Lincoln by train is a low-cost hassle-free alternative to driving, and brings additional visitors to downtown without adding to the parking and transportation demands. However, a detriment to rail travel is the lack of autonomy provided with an automobile. To alleviate this issue, the City could consider several options.

Zipcar is an increasingly popular travel choice to allow people access to cars by the hour or by the day. Zipcars can be used by rail visitors to Lincoln, people who choose to live downtown with limited or no automobile access of their own, and for businesses located downtown that may need additional automobile availability on a limited basis. Zipcars currently rent for an $8 hourly fee, including gas, maintenance, and insurance. Users only need to join Zipcar and obtain a card that is used to unlock the vehicle and track time and cost.

Another option may be to provide access to bicycles or quadricycles. These could be located near the Amtrak station for use in the downtown area, and could be provided free of charge or for a small hourly or daily rental fee.

For employees of downtown businesses and government agencies, the City can develop an informal program to encourage walking or bicycling to work. Besides the obvious health benefits, employees that leave their cars at home reduce the parking demand within the downtown area. Lincoln is a compact City with many downtown workers living within easy bicycling distance. Promotion of walking or biking to work, including incentives for reaching mileage goals, can begin to change people's habits.

There are a large number of private parking spaces within the downtown study area, and not all are occupied at high rates. Private parking spaces were only counted on ??? occasion, and at that time, only xx% of the private parking spaces located within the study area were occupied. Perhaps a parking space "sharing" program could be developed amongst downtown businesses, or allowing the City to lease spaces for public use within certain parking lots.

TRAFFIC IMPACT STUDY

Introduction

In late 2011, the City of Lincoln was awarded a grant from the Illinois Department of Commerce and Economic Opportunity to undertake downtown redevelopment and revitalization efforts. The first step of that process was to undertake several studies of the downtown area, including an analysis of the transportation system and the effects a more vibrant downtown economy would have on it. The overall goal of the downtown planning is to revitalize downtown in a way that enhances the quality of life in Lincoln, drives population growth, and encourages economic development throughout the community. Some of the items that were identified to be of key importance were to increase and diversify shopping and dining options, provide additional arts and entertainment downtown, expand housing and employment opportunities, and create an environment that fosters special events to be held in the downtown area.

Existing Conditions

The base study area encompasses a five by five block area of Lincoln's downtown. It is bounded by Logan Street, Delavan Street, Hamilton Street and Decatur Street; however, for the traffic impact study, some analysis also includes Union Street and Wyatt Avenue. The streets in Downtown Lincoln were built parallel to the railroad in a grid pattern. For ease of description, this report will adopt the practice of referring to Kickapoo Street as a north-south street and Broadway Street as an east-west street.

Several thriving land uses already exist within the study area, notable land uses include:

- Latham Park,
- Scully Park,
- Historic Logan County Courthouse,
- Guzzardo's Restaurant,
- Lincoln Theatre,
- Amtrak Station, and
- Other retail uses along Kickapoo Street.

Before an assessment of a proposed transportation system can be completed, it is first necessary to evaluate existing conditions of the affected transportation system. A brief description of each of the major routes affected by the proposed changes to the surrounding land uses, parking infrastructure, and roadways in the study area is below:

Kickapoo Street is a two lane arterial/collector roadway that runs north-south through the middle of the study area. It provides access to the Courthouse and the existing retail corridor while serving as a gateway for trips entering the study area from the north and west. The existing operational characteristics include angled on-street parking, an all-way stop controlled intersection with Broadway and Pulaski Streets, low speeds, uncongested traffic flows, and a mid-block pedestrian access between Broadway Street and Pulaski Street.

Broadway Street is a two lane arterial roadway that runs east-west along the north side of the Courthouse and includes an at-grade railroad crossing on the west side of the study area. It provides access to the Courthouse and the existing retail corridor while serving as a gateway for trips entering the study area from the east and west. The existing operational characteristics include angled on-street parking, all-way stop controlled intersections at McLean Street and Kickapoo Street, uncongested traffic flows, and mid-block pedestrian access between McLean Street and Kickapoo Street.

Pulaski Street is a two-lane collector roadway that runs east-west along the south side of the Courthouse and includes an at-grade railroad crossing on the west side of the study area. The existing operational characteristics include angled on-street parking, all-way stop controlled intersections at McLean and Kickapoo Streets, low speeds, uncongested traffic flows, and mid-block pedestrian access between McLean and Kickapoo Streets.

Logan Street is a two lane arterial roadway that generally runs north-south through the study area. It becomes I-55 Business at the signalized intersection with Broadway Street. The existing operational characteristics include access to several commercial properties, a signalized intersection with Broadway Street, and relatively congested traffic flows.

Wyatt Street is a two lane arterial roadway that runs east-west along the south end of the study area. Currently, it terminates at the intersection with Chicago Street. The existing operational characteristics include access control via a boulevard and uncongested traffic flows.

Figure 2 illustrates the most current average daily traffic (ADT) volumes as reported by the Illinois Department of Transportation (IDOT) with the study area being outlined in red.

Study Area ADT's

Existing peak hour traffic counts were conducted randomly to determine the a.m. and p.m. peak hours at the intersection of Kickapoo Street and Broadway Street, as this intersection will likely become the gateway to patrons entering the study area. The counts were performed on an average weekday between July 16, 2012 and September 26, 2012 between the hours of 7 a.m. and 6 p.m. The counts revealed that the a.m. peak hour consistently occurs from 7:30 a.m. and 8:30 a.m., and the p.m. peak hour generally occurs between 4:00 p.m. and 5:00 p.m. Count data also indicated that travel patterns and volumes during these time frames are fairly consistent from day to day.

The recorded peak hour traffic volumes and a study area map showing the location of the counts are provided below.

Downtown Traffic Impact Study Objectives

Transportation is a critical success factor for any downtown revitalization effort. Downtown transportation systems should consider the safety and convenience of all transportation modes. In the case of Downtown Lincoln:

- Pedestrians should be able to safely maneuver between parking spaces, retail shops, and restaurants.
- Bicyclists should be able to pedal down the street without feeling uneasy as they pass by angle on-street parking.
- Vehicle traffic should be able to easily find parking areas, and travel safely and efficiently within, to, and from Downtown Lincoln.

This transportation study seeks to recommend the transportation infrastructure changes that may be needed to promote safe and efficient movement of people through Downtown Lincoln no matter the transportation mode they choose. The questions this analysis seeks to answer are as follows:

1. How many additional trips will be generated by proposed adaptive reuse development in downtown?
2. How will the additional trips access Downtown Lincoln?
3. Will the additional trips generated by adaptive reuse development cause congestion, and, thereby, discourage potential visitors from coming to Downtown Lincoln?
4. Will transportation network improvements not directly related to revitalization efforts have detrimental effects to the safety and congestion levels in downtown?
5. Are there any existing safety concerns that could be addressed with improvements proposed to take place as redevelopment occurs?

Trip Generation and Improvement Scenario Traffic Projections

The actual impact of the redevelopment cannot be precisely measured until the project is complete. Therefore, potential trips from adaptive reuse development must be estimated. The number of trips expected to be generated by a proposed land use can be estimated by measuring the trips from a similar existing land use and applying the measured trip generation rate to the proposed redevelopment. For this study, trip generation rates published in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition, were used to provide the corresponding rates.

The economic analysis indicates that existing first floor vacancies may likely redevelop into retail and restaurant space, and existing second floor vacancies may likely become residences or professional office space. The proposed trip generation shown below is for a fully redeveloped, 100% occupied Downtown Lincoln. The forecast trip generation for the proposed redevelopment is shown for typical morning and afternoon peak periods in the table below.

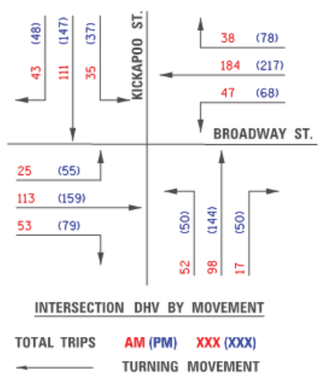
Forecasted Trip Generation (100% Occupancy)

Land Use	Square Feet	A.M. Peak Hour			P.M. Peak Hour		
		Total Trips	Directional Distribution		Total Trips	Directional Distribution	
			In	Out		In	Out
Specialty Retail	92,491	-	-	-	251	110	141
Restaurant	16,322	176	97	79	161	97	64
Office	73,740	115	101	14	110	19	91
Residential	71 (units)	33	7	26	41	27	14
Movie Theater	530 (seats)	-	-	-	37	28	9
Hotel	25 (rooms)	13	8	5	15	8	7
Total Site Trips		337	213	124	615	289	326

Trips to any site are comprised of primary trips and pass-by trips. Primary trips are those made for the specific purpose of visiting a site. Pass-by trips are attracted from traffic passing the site on an adjacent street. Some of these movements would also consist of common captured trips, or those that do not leave the site but instead travel from one use to the other. For a conservative planning level analysis, all trips are considered primary trips.

As with any redevelopment, an occupancy rate of 100% is the goal; however, a more realistic 90% occupancy rate was factored into the trips presented in the table on page 54 prior to completing any further analysis.

After completing trip generation calculations, the proposed trips caused by the revitalization are distributed to the existing transportation network based upon the location of the currently vacant land uses and the number of parking spaces nearby. Because the intersection of Broadway Street and Kickapoo Street is the most heavily traveled intersection in Downtown Lincoln and is projected to be the gateway to the Retail and Courthouse Districts (See Parking Study Figure), it will be the only intersection further analyzed. It is assumed that if this intersection is projected to operate satisfactorily, then all other intersections within the study area should as well. The map on the right depicts the location of vacant buildings, location of parking space increases, and the projected traffic volumes after redevelopment for the am and pm peak hour at the intersection of Kickapoo Street and Broadway Street.



PERCENT LOCATIONS OF PROPOSED TRIPS
BUILDINGS
PARKING AREAS (NET SPACE INCREASE)

ALTERNATE #1 CHANGES TO TRANSPORTATION NETWORK

1. NO CHANGES TO EXISTING SYSTEM.

Further adjustments to the existing traffic volumes and distribution of generated trips will need to account for potential changes to the nearby transportation system. Redistribution of traffic volumes in Downtown Lincoln will likely occur because of changes in access to the nearby at-grade railroad crossings or the addition of a grade separated railroad crossing. Coordination efforts with the high speed railroad and Downtown Lincoln advocate groups have identified the following changes (in order of likelihood) to the Downtown Lincoln transportation network:

1. Closure of the Pekin Street at-grade railroad crossing,
2. Closure of the Decatur Street at-grade railroad crossing,
3. Construction of an underpass crossing the railroad and connecting Wyatt Avenue and Union Street, and
4. Closure of the Pulaski Street at-grade railroad crossing and changing the block between Kickapoo Street and Chicago Street to one-way westbound traffic only.

Because there is potential for each one of these changes to occur, trip distributions were completed for each transportation network change in order of likelihood and assuming that they build upon each other (i.e. if scenario 2 is considered, then scenario 1 will have already been implemented). Figures 5, 6, and 7 on the following page illustrate the changes to the transportation network and the projected changes to the traffic volumes at the intersection of Broadway Street and Kickapoo Street.

Figure 5: Scenario 1

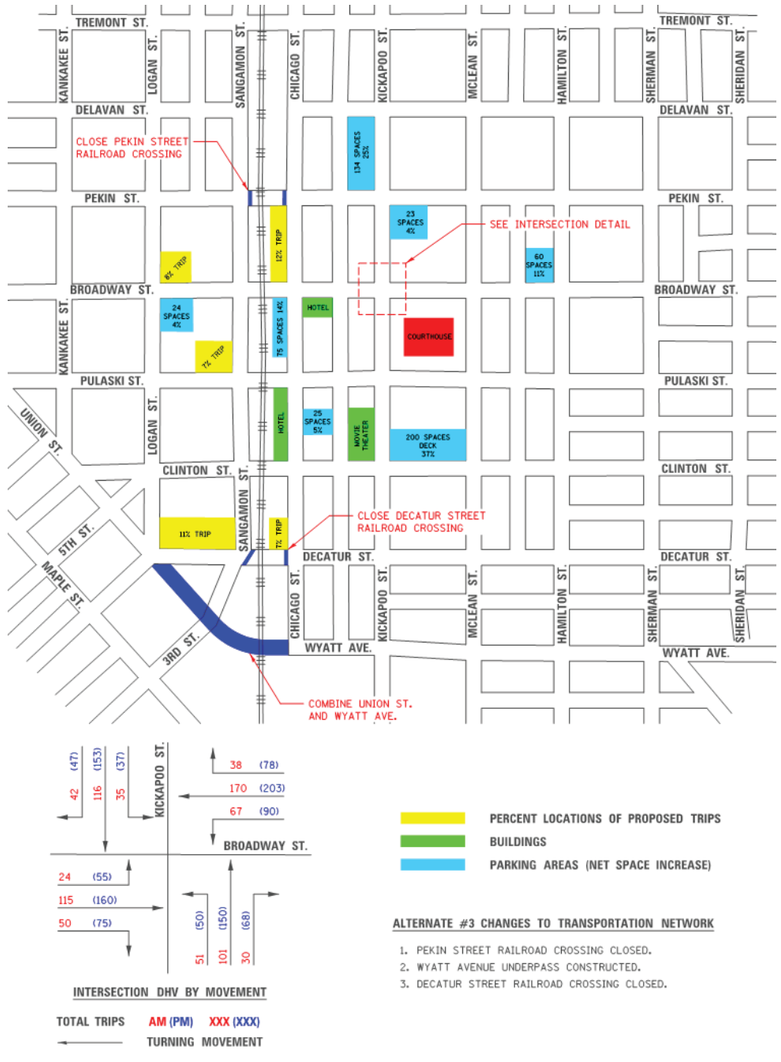


Figure 6: Scenario 2

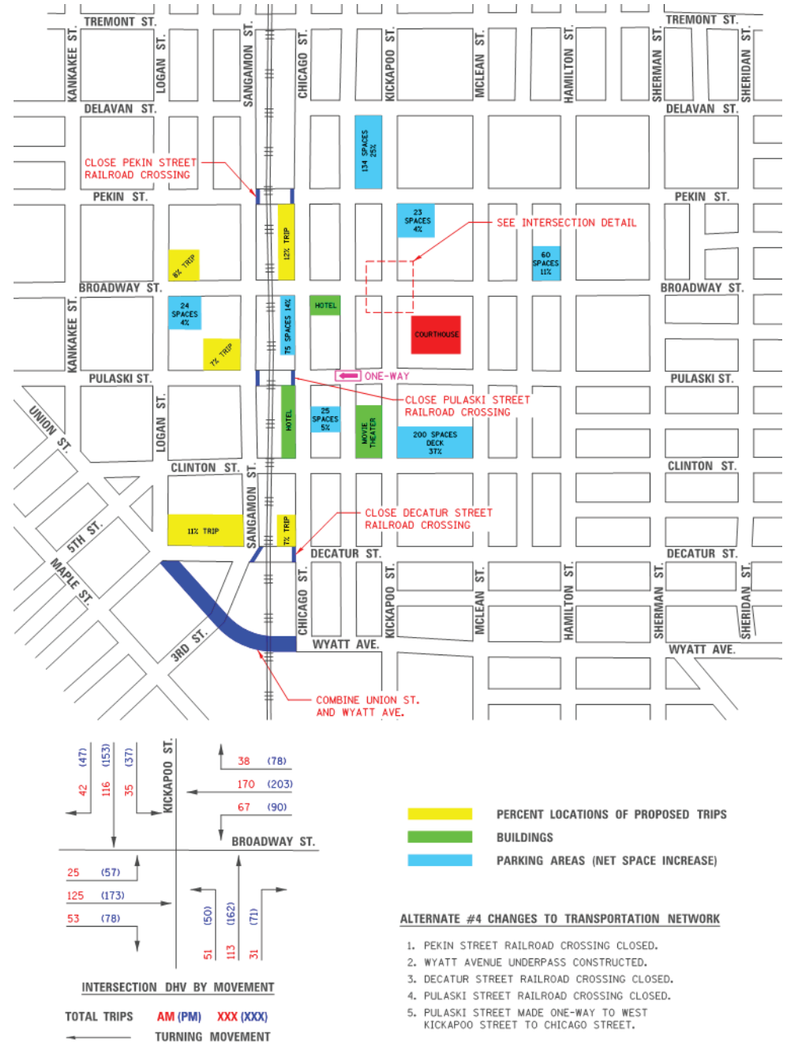


Figure 7: Scenario 3

Improvement Alternative Traffic Operations

Traffic operation analysis begins with traffic signal warrant analysis as the existing intersection with Broadway Street and Kickapoo Street is already operating as an all way stop controlled intersection, and there is potential for an all way stop condition to cause undue delay as traffic volumes increase. The traffic signal warrant analysis was completed using the projections for the Broadway Street and Kickapoo Street intersection in Figures 4 through 7. Traffic volume signal warrants from the Manual on Uniform Traffic Control Devices (MUTCD) are the most commonly used traffic signal warrants, and were used for this analysis. However, as redevelopment occurs and pedestrian traffic increases at the intersection, application of the pedestrian volume traffic signal warrant should be considered. Table 2 shows that it is unlikely that any of the projected traffic volume scenarios will warrant the installation of a traffic signal at the intersection of Broadway Street and Kickapoo Street.

Table 2: Traffic Signal Warrant Analysis

Scenario	Traffic Signal Warrant		
	#1 - 8th Busiest HR/Day	#2 - 4th Busiest HR/Day	#3 - Busiest HR/Day
Existing	Not Met	Not Met	Not Met
Trip Generation	Not Met	Not Met	Not Met
Scenario 1	Not Met	Not Met	Not Met
Scenario 2	Not Met	Not Met	Not Met
Scenario 3	Not Met	Not Met	Not Met

For urban street systems, intersection capacity analyses are the primary means of measuring the impact of any traffic increases on operating conditions. The existing and projected Broadway Street and Kickapoo Street intersection operations were evaluated using Highway Capacity Software 2010. Capacity analyses indicate how well an intersection is operating by applying a grading system called level-of-service. The level-of-service (LOS) for intersections is an "A-B-C-D-E-F" grading system, whereby the quality of operation on a street system can be identified. LOS can range from an "A", the best traffic operation, to "F", the poorest. It is generally accepted that the minimum acceptable LOS is LOS "D", and LOS "E" represents full capacity. Table 3 describes the expected LOS with each scenario operating as an all way stop condition and suggests that each scenario should operate acceptably as single lane approaches with all-way stop control (ASWC).

Table 3: Intersection LOS

Scenario	LOS - AWSC	
	AM	PM
Existing	B	C
Trip Generation	B	D
Scenario 1	B	D
Scenario 2	B	D
Scenario 3	B	D

As redevelopment occurs, the operations at the intersection of Broadway Street and Kickapoo Street should be reviewed because the type land use and number of trips generated may vary from what was used to complete the projections. Additionally, the intersection of Wyatt Avenue and Kickapoo Street should be analyzed and possibly redesigned to accommodate the projected 9,000 daily trips that would use the Wyatt Avenue to Union Street underpass.

Existing Condition Crash Analysis

A crash analysis was completed for a six by six block area of downtown Lincoln. The study area is bounded by Delavan, Sherman, Decatur, and Logan. Crash data was retrieved from the Illinois Department of Transportation's Safety Data Mart for the years 2005 through 2010 for the study area. Each crash report was reviewed to determine the type, cause, crash trends and injuries associated with the crash.

Crashes are generally classified by the severity of the injury that is suffered by those involved in the crash. Figure 8 and Figure 9 show the locations and severity of each crash. The order of severity for crash related injuries is a fatality (K), incapacitating injury (A), non-incapacitating injury (B), reported but not evident (C), and property damage only (PDO).

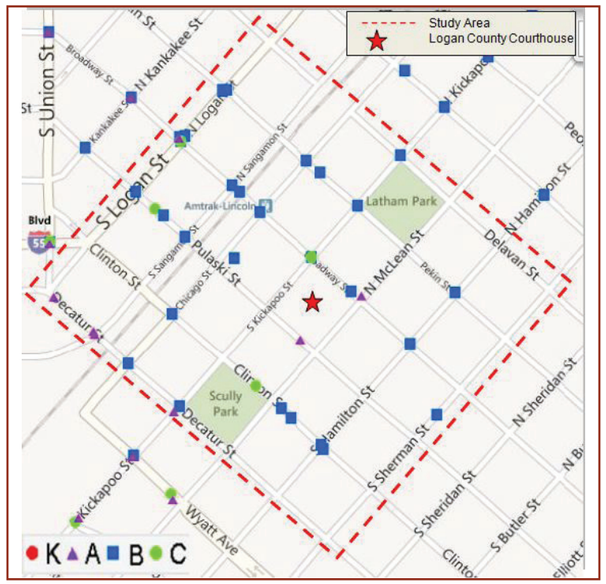


Figure 8: Injury Crash Report Summary

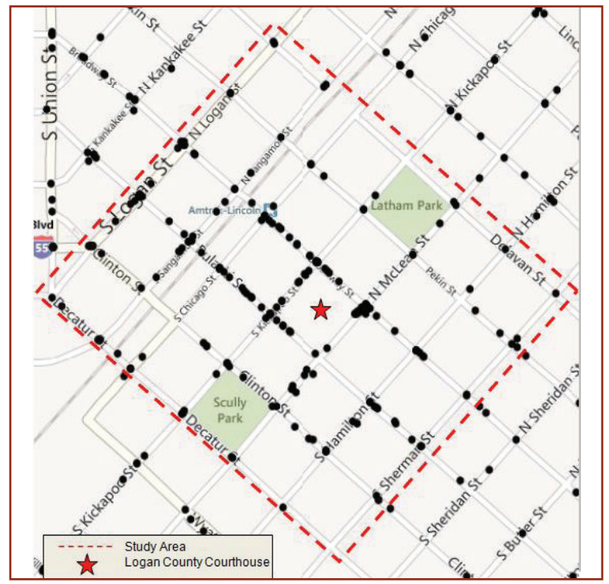


Figure 9: PDO Crash Report Summary

The following trends were identified through data analysis and visiting the site:

- Approximately 27% of all crashes reported were caused by someone failing to yield right-of-way, 15% due to improper backing and 12% failed to reduce speed to avoid a crash.
- Approximately 55% of all crashes were identified as being related to an intersection.
- Most injury crashes occurred near intersections, and failing to yield right-of-way accounted for approximately 46% of all injury crashes.
- A significant number of PDO crashes occurred along Broadway and Pulaski between McLean and Chicago. Of PDO crashes, 39% were angle crashes, 26% involved a parked motor vehicle and 16% were rear end crashes.

Potential causes for the noted trends include:

- Several offset travel lanes through intersections; including the Kickapoo Street and Broadway Street intersection and the Kickapoo Street and Pulaski Street intersection.
- On-street angle parking is present along both directions of travel, particularly surrounding the Logan County courthouse. Even though employing angle on-street parking can increase the number of spaces available near a business, angle parking requires drivers to back into oncoming traffic (vehicles and bicycles) with limited available sight distance caused by adjacent parked vehicles.
- On-street parking spaces are located close to existing stop bars and mid-block pedestrian crossing locations. This condition seems to limit the sight distance at the intersection or mid-block crossing.
- Many buildings within the study area are built to the ROW line and may limit intersection sight distance in some instances.

Also of note is that 21% of the injury crashes involved a pedestrian or cyclist. One potential cause for pedestrian crashes may be mid-block crosswalks surrounding the courthouse. The crosswalks do not have signs or activated warning systems, and pedestrians entering the crosswalk must enter from between angled parking spaces causing drivers and pedestrians to have limited sight of one another.

Angle parking may also be the cause for a large number of PDO crashes. The three major PDO collision types, previously stated (angle, parked motor vehicle and rear end), may all be caused from angle parking.

It is recommended that prior to completing any further engineering studies the study area be reviewed thoroughly for sight distance problems. While offset intersections and buildings close to the ROW may not be easily fixed, angle parking may be changed to parallel parking for better visibility. Removing parking spaces near intersections may provide better sight distances at these intersections as well. Signing or installing pedestrian activated mid-block crosswalk warning systems may help reduce pedestrian crashes.

Proposed Streetscape Improvements Safety Review

Proposed parking types and locations, travel patterns, and roadway geometrics were reviewed for implications to the potential safety of the transportation system users. The following recommendations were made to improve the level of safety experienced by all modes of transportation in Downtown Lincoln.

1. Bump outs should be constructed at each intersection quadrant and mid-block crossing to shorten the length of time a pedestrian needs to cross the street and help with visibility between pedestrians and vehicles. Design of the bump out geometrics should accommodate a bus without encroachment and a WB-55 with encroachment.
2. Existing angled on-street parking should be removed from the public right-of-way as much as feasible, and it should be replaced by on-street parallel parking or back-in angled parking. Angle parking requires drivers to back into oncoming traffic (cars and bicycles) with limited visibility from adjacent parked vehicles.
3. If the use of angled parking is continued along streets in Downtown Lincoln, safety for bicycle users may be improved if on-street bike lanes are placed in the center of the roadway cross section away from the rear of the angle parked vehicles. This configuration may increase the visibility between drivers backing out of angle parking spaces and bicyclists approaching from behind and the right.
4. Parking spaces should be set back from the radius return at least 20 feet (per AASHTO standard) to reduce visibility obstructions at intersections.
5. The use of a pedestrian activated Rectangular Rapid Flashing Beacon (RRFB) system is recommended for all mid-block crossings and is especially necessary for the mid-block crossing on Pulaski Street, which connects the Courthouse Square to the Scully parking lot.

Conclusions

This transportation study recommends transportation infrastructure changes needed to promote safe and efficient movement of people moving through Downtown Lincoln no matter the transportation mode they choose. The recommended changes to the transportation network are:

1. Continued use of all way stop control and single lane approaches at the intersection of Broadway Street and Kickapoo Street should allow for satisfactory capacity operations for all scenarios studied.
2. If the Wyatt Avenue to Union Street underpass is constructed, the intersection of Wyatt Avenue and Kickapoo Street will need to be analyzed and possibly redesigned to accommodate the projected 9,000 daily trips that would use the Wyatt Avenue to Union Street underpass.
3. Bump outs should be constructed at each intersection quadrant and mid-block crossing.
4. Existing angled on-street parking should be removed from the public right-of-way as much as feasible, and it should be replaced by on-street parallel parking or back-in angled parking.
5. If the use of angled parking is continued along streets in Downtown Lincoln, safety for bicycle users may be improved if on-street bike lanes are placed in the center of the roadway cross section away from the rear of the angle parked vehicles.
6. Parking spaces should be set back from the radius return at least 20 feet (per AASHTO standard) to reduce visibility obstructions at intersections.
7. The use of a pedestrian activated Rectangular Rapid Flashing Beacon (RRFB) system is recommended for all mid-block crossings and is especially necessary for the mid-block crossing on Pulaski Street, which connects the Courthouse Square to the Scully parking lot.

PUBLIC INVOLVEMENT

Public involvement has been a key component of this study. It is important to have open communications between the Study Team and the stakeholders served by the proposed improvements. For that reason, a variety of public involvement techniques were used during the course of study including the formation of a Steering Committee, workshops, public informational meetings, a study website, social media sites, and media publications.

Steering Committee

A Steering Committee composed of downtown leaders and business owners was formed at the inception of the Downtown Lincoln Study. Nine Steering Committee meetings were held over the course of planning for the Redevelopment and Revitalization projects. Some of these meetings focused on the selection of streetscape furnishings and materials and lighting styles, and discussions of bicycle route placement, walking tour points of interest, the use of grant funds, and the formation of a Historic Preservation Committee. Between the formal meetings of the Steering Committee, numerous email conversations were exchanged between the Study Team and the Steering Committee.

Workshops

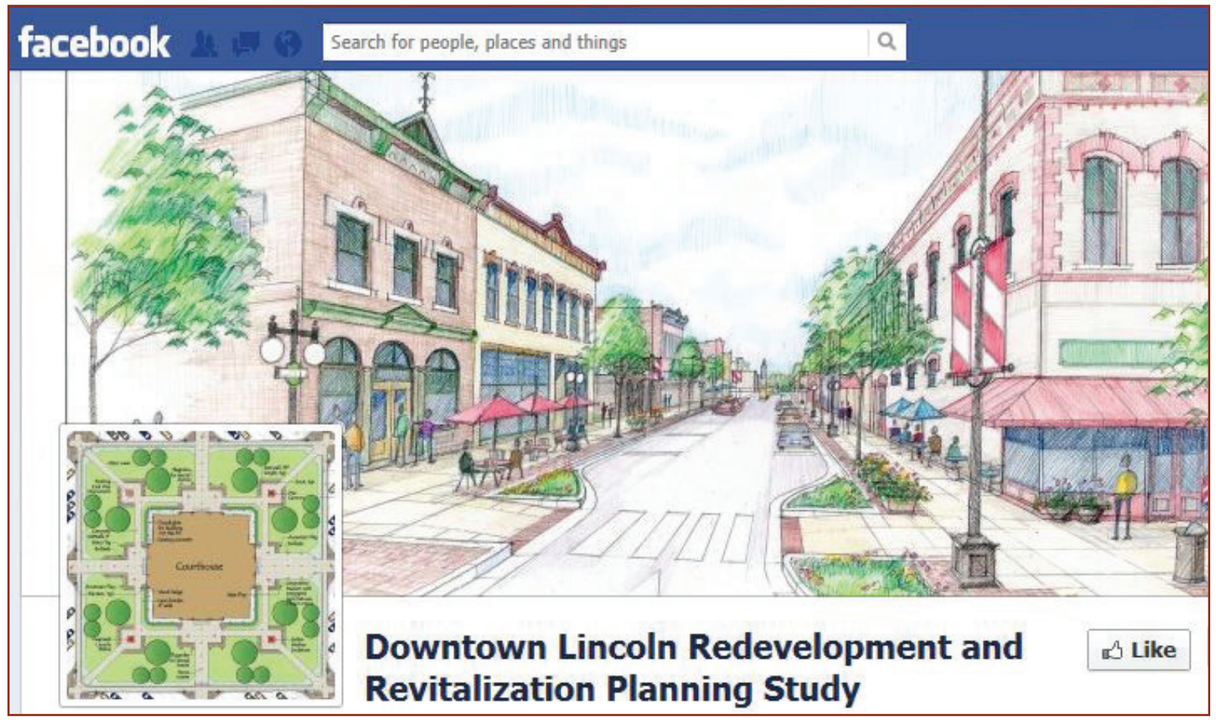
Workshops were attended by the Study Team, Steering Committee members, members of City Council and the Logan County Board, downtown business and property owners, city staff, community leaders, and other interested parties. Workshops covered a range of topics including Strategic Planning, Economic Development, Land Use Planning, Transportation and Utilities, Parks and Courthouse Landscaping, Historical Preservation, and Streetscape Improvements, and were held over a period of two days in September, 2012. A variety of surveys were conducted during the workshop sessions to seek input on specific elements of the downtown plan. The workshops laid out a vision for the downtown planning to come, and set the course for the Redevelopment Plan, and ultimately, this Revitalization Plan.

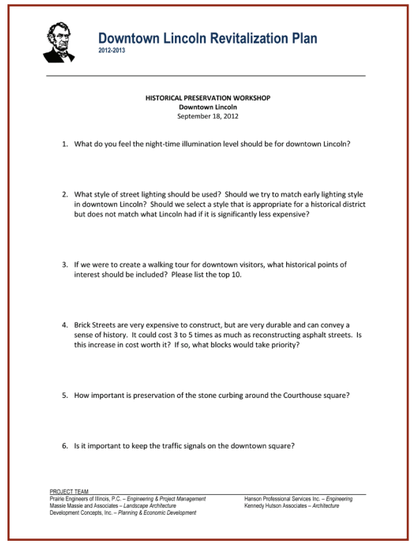
Public Informational Meetings

A total of three public informational meetings were held over the course of the project planning. The first public meeting was held on September 18, 2012 and shared information that was gathered during workshop sessions. The second public meeting was held on January 29, 2013 and provided an opportunity for the public to view information developed during the Downtown Redevelopment Study phase of this project. The final public meeting was held on March 27, 2013 in an open house format, and presented information regarding the Downtown Revitalization Study phase, including a preliminary draft of the Revitalization Plan. Exhibits depicting many of the results contained in this study were available for the public to review, with the Study Team on hand to answer questions and receive comments.

Media

The Study Team made use of a variety of media outlets to promote public participation including announcements in three local newspapers, distribution of fliers at many downtown businesses prior to the workshop series and the public informational meetings, the creation of a study website (http://explorelogancounty.com/explorelogancountyil/DowntownLincolnStudy/) and the creation of a Facebook page (Downtown Lincoln Redevelopment and Revitalization Planning Study). Study documents were provided as they were developed on the website, and upcoming events were announced.




Downtown Lincoln Revitalization Plan
2012-2013

HISTORICAL PRESERVATION WORKSHOP
Downtown Lincoln
September 18, 2012

1. What do you feel the night-time illumination level should be for downtown Lincoln?
2. What style of street lighting should be used? Should we try to match early lighting style in downtown Lincoln? Should we select a style that is appropriate for a historical district but does not match what Lincoln had if it is significantly less expensive?
3. If we were to create a walking tour for downtown visitors, what historical points of interest should be included? Please list the top 10.
4. Brick Streets are very expensive to construct, but are very durable and can convey a sense of history. It could cost 3 to 5 times as much as reconstructing asphalt streets. Is this increase in cost worth it? If so, what blocks would take priority?
5. How important is preservation of the stone curbing around the Courthouse square?
6. Is it important to keep the traffic signals on the downtown square?

PROJECT TEAM
Prairie Engineers of Illinois, P.C. – *Engineering & Project Management*
Massie Massie and Associates – *Landscape Architecture*
Development Concepts, Inc. – *Planning & Economic Development*
Hanson Professional Services Inc. – *Engineering*
Kennedy Hutson Associates – *Architecture*

"Be sure you put your feet in the right place, then stand firm."
--Abraham Lincoln