

Village Center & Transit-Oriented Development Plan

May 17, 2012



Village of Hanover Park, Illinois



Adopted by the Village Board of Hanover Park on May 3rd, 2012



Prepared by the Consultant Team of:

Teska Associates, Inc. | Gewalt Hamilton Associates, Inc. | Fish Transportation Group | Business Districts, Inc. | Diane Legge Kemp Planning and Design

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William Cannon, Trustee
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Jon Kunkel, Trustee
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Introduction

The development of a Village Center within walking distance of the existing Metra station has been a long-term priority for the Village of Hanover Park, most recently articulated in the Village's 2010 Comprehensive Plan. The Village Center will serve as a focal point and community gathering place, will significantly expand economic development opportunities, and increase transportation options. As a result of changing economic and market conditions, lifestyle and housing choices, and success of several downtowns built near commuter rail stations, commonly known as "transit-oriented developments (TOD)," the establishment of Transit-Oriented Development for the area around Hanover Park's Metra station presents a well-timed opportunity to create a dynamic Village Center for Hanover Park that will be a center to live and work, as well as for entertainment and recreational opportunities – a truly "sustainable" community.



Impetus for a Village Center Plan

The area around the Hanover Park Metra Station has been earmarked in the Village's 2010 Comprehensive Plan as the primary long-term economic development opportunity for the Village, offering the potential for significant retail, higher-density housing, and business park development. The Village Center TOD Plan focuses on development in and around the proposed Elgin-O'Hare Expressway extension, redevelopment and infill within the Ontarioville and Metra station area, and redevelopment and infill along Lake Street.

The objective of the Village Center TOD Plan is to provide living and working opportunities within walking distance to public transit, with a population similar to other successful urban centers in the Chicago area that support a variety of business and employment opportunities for residents who can live and work in the same community. It is estimated the Village Center TOD may result in an annual sales tax revenue increase of approximately \$1.5 million, and an increase in property values of over \$1 billion. As such, development of the Village Center TOD will be one of the most significant new development opportunities in the Chicago metro region.

TOD Definition

*Transit oriented development (TOD) is the functional integration of land use and transit via the creation of **compact, walkable, mixed-use** communities within **walking distance of a transit stop or station**. A TOD brings together **people, jobs, and services** designed in a way that makes it efficient, safe, and convenient to travel on foot or by bicycle, transit, or car.*

Objectives of the Village Center and TOD Plan

The Village Center and TOD Plan will provide an opportunity to engage public/private interests in a partnership to develop a TOD district that is designed to accommodate higher density residential uses and provide for mixed use, retail, and office/warehouse/limited industrial development opportunities. **Key to the Plan is the promotion of the Elgin-O'Hare Expressway extension as a regional arterial boulevard with controlled points of access.** In contrast to an expressway, a regional arterial boulevard would create significant economic

opportunities by providing direct access to adjacent properties, which would allow for future TOD development of over a hundred acres of currently undeveloped/under-utilized land. Development within the Study Area will contribute resources and jobs and add value to the transit system by enhancing ridership of Metra in an area that is currently under-utilized. Furthermore, the TOD plan will leverage public investment in existing transit systems, and provide guidance in the use of TIF funding by establishing a specific "regulating" plan and implementation strategies.

TOD is a planning and development methodology that merges the functional integration of land use and transit through the creation of compact, walkable, mixed-use communities within **1/2 mile of a transit stop or station.**



Figure 1: Study area map



TOD Elements

TODs integrate the following common characteristics

1

RAIL TRANSIT STATIONS

Normally at strategic points along regional passenger lines or arterials.

2

MIXED LAND USES

Retail, office, residential

3

DENSITY

Moderate to high density residential and mix of dwelling types, e.g. single-family, condo, townhomes.

4

CONNECTIVITY

Well connected streets and paths



TOD design principles

1. Create a **compact development** within an easy walk (typically 1/2 mile) of public transit and **with sufficient density to support ridership**.
2. Make the **pedestrian the focus** of the development strategy **without excluding the auto**. Integrate **alternate transportation modes**, including bikes and bus services. Ensure block lengths do not exceed 500 feet.
3. Create **active places and livable communities** that service daily needs and where people feel **a sense of belonging and ownership**.
4. Include **engaging, high quality civic spaces** (e.g. small parks or plazas) as organizing features and **gathering places for the neighborhood**.
5. Encourage a **variety of housing types near transit facilities** available to a wide **range of ages and incomes**.
6. **Incorporate retail** into the development if it is a viable use at the location without the transit component, **ideally drawing customers both from the TOD and a major street**.
7. Ensure **compatibility and connectivity within and to surrounding neighborhoods**. No dead end or cul-de-sac roads.
8. Introduce **creative parking strategies** that integrate, rather than divide the site and reduce the sense of auto domination. Parking should be placed to the side or behind buildings.
9. Create **TOD plans that are flexible** so they can respond to changing conditions.
10. Strive to **make TODs realistic, yet economically viable and valuable from a diversity of perspectives** (Village, transit agencies, developer, resident, employer).

Opportunities for transit-oriented development in Hanover Park

The Study Area's combination of undeveloped land located strategically adjacent to major regional arterials and an existing Metra station is unique in the Chicagoland area. This scenario presents a development circumstance where the combined total of these elements is much greater than the value of the individual parts, offering unprecedented commercial and residential opportunities that cannot be found in any other suburban Chicagoland location.

Undeveloped Land

The approximate 165 undeveloped acres in and adjacent to the planned Elgin O'Hare Expressway extension offer unmatched opportunity for both commercial and residential growth. While wetlands, drainage corridors, and other environmental features pose constraints to development, the new projects will be designed in such as way as to turn these environmental features into unique public assets.



Figure 2: Outlined in red, undeveloped land in the study area includes approximately 165 acres.



Hanover Park station has the third highest ridership along Metra's Milwaukee District - West Line (MD-W)



The existing wetlands adjacent to the Elgin O'Hare Expressway expansion that present development constraints within the study area

Regional Transportation Network

The Study Area (figure 1) is strategically located 30 miles northwest of downtown Chicago and 17 miles due west of O'Hare International Airport. Located at the termination of the Elgin O'Hare Expressway (West extension), the Study Area offers excellent access to numerous markets. Several nearby Interstates link the Study Area to the metropolitan region. These Interstates include I-90, and I- 290/355 via Barrington Road, Lake Street, and the Elgin-O'Hare Expressway. 2008 approximate auto mid-day travel times include:

- I-90: 9 minutes
- I-290: 10 minutes
- I-355: 14 minutes
- I-88: 25 minutes
- Chicago Loop: 45 minutes

This unique regional access offers numerous commercial advantages. With its excellent access to both O'Hare Airport and major regional transportation routes, the Village Center serves an important commercial, warehousing, distribution, and office/business park niche. As noted in the June, 2011 Elgin-O'Hare West Bypass Advisory Council report:

"The communities showing the greatest gain in development potential, employment and tax revenues are the communities directly fronting the Elgin O'Hare West Bypass, which includes Hanover Park."

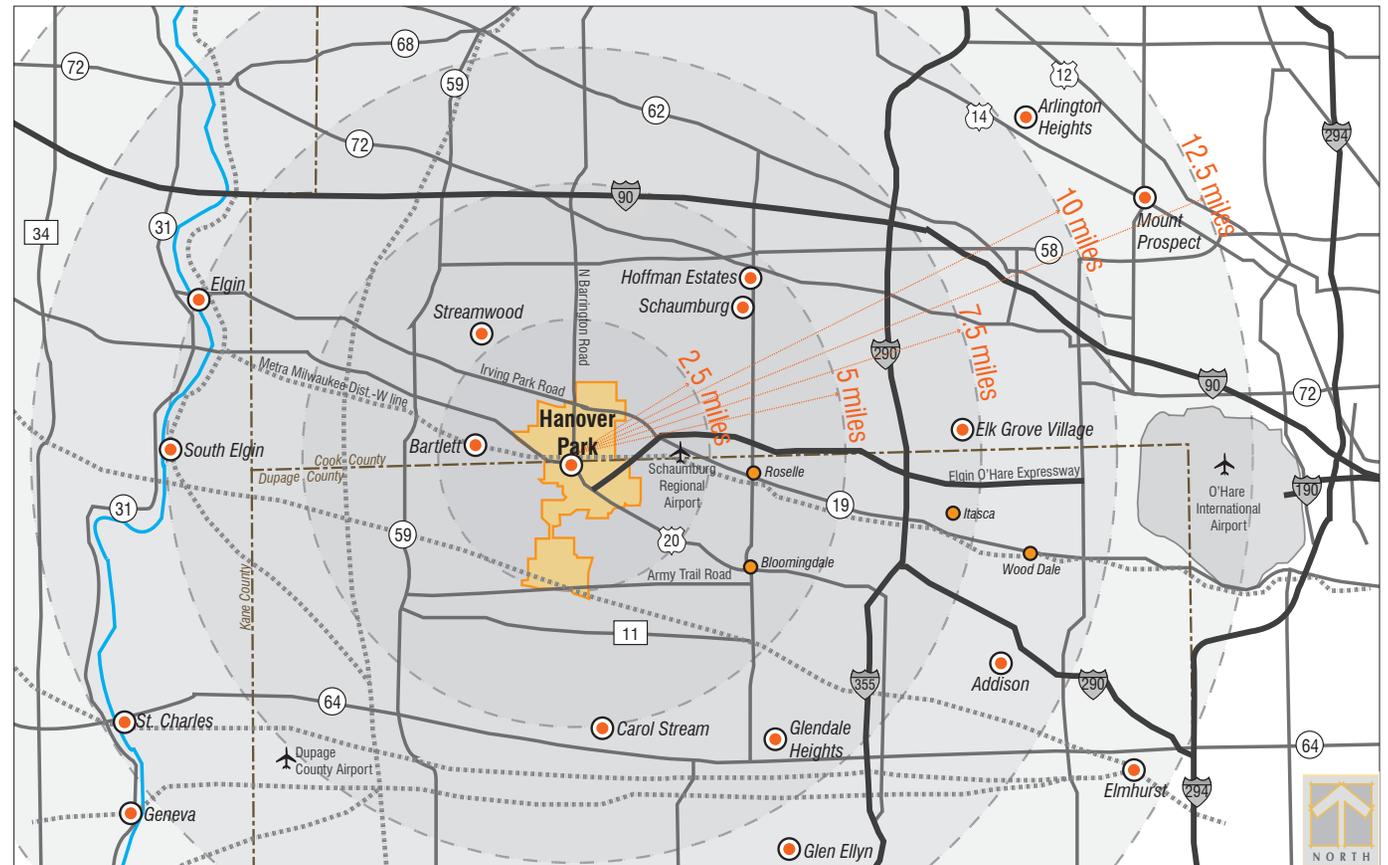


Figure 3: Location of numerous regional arterials with convenient access to major north/south and east/west Interstate Highways and Expressways, the Study Areas unique access offers numerous commercial advantages.

Relationship to the Hanover Park Comprehensive Plan

Precedent (past studies & planning efforts)

2010 Comprehensive Plan

Planning Objectives and Policies as they relate to the Village Center

Key policies of the Comprehensive Plan that related to the creation of a Village Center included:

- Extend the Elgin O'Hare Expressway extension as a regional arterial boulevard or parkway;
- Focus on mixed use development;
- Maintain a balance of residential, retail, institutional, and office activities;
- Create higher density residential in proximity to the Metra station(6-10 stories depending on location);
- Retention and enhancement of the existing historic buildings and preservation of the character of the Ontarioville Historic District through appropriate infill development and redevelopment; and
- Create a multi-modal transportation center around the Metra station accessible by foot, bicycle, bus, and train.



A major recommendation of the Comprehensive Plan was to extend the Elgin O'Hare Expressway as a boulevard.



Figure 4 : Village Center Concept Plan (2010)

» *Relevance to the Village Center Plan*

As the center of the Village Center Plan, the historic nature and preservation of Ontarioville will be an important aspect of the future development of the Village Center. The Ontarioville Historic Plan and Program will assist in identifying and planning for any historic structures and areas.

● **Market Findings**

Due to the unique advantages such as regional access opportunities, underutilized and vacant properties, and the proposed Elgin O'Hare Expressway extension, the Village Center offers an unprecedented economic opportunity. Consisting of increased housing density and multiple retail types and options, the full implementation of this plan could provide an annual sales tax revenue increase of approximately \$1.5 million and an increase in property values of over \$1 billion.

● **1985 Ontarioville Historic Plan and Program**

Following a 1977 Village Board recommendation to designate Ontarioville as a "historical area", the Village in 1983 created a new zoning district: the Central Core Historical Preservation District (CCD-2), and in 1985 commissioned a plan for Central Core Historical Preservation District (CCD-2). The 1985 Plan's recommended goal was "to maintain and enhance the historic qualities of Ontarioville, and revitalize the area as a place to live, conduct business, and participate in community events."



Historic Ontarioville includes a collection of buildings ranging from c.1870 to c.1970.

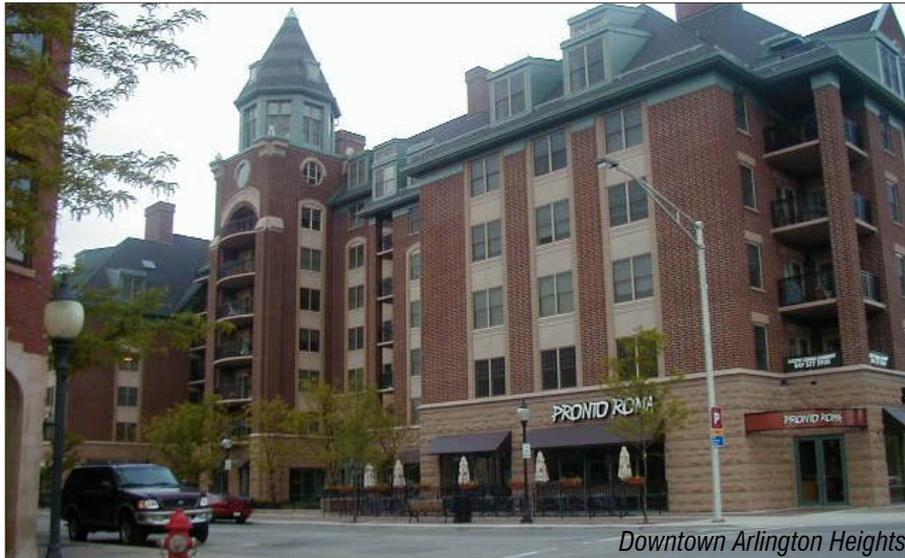


The Smyrna Church was the key preservation focus of the Historic Ontarioville Plan

Vision Statement

“The Hanover Park Village Center/Transit-Oriented Development Plan envisions a vibrant cultural, residential, employment, and entertainment center that will expand the Village’s economic base while creating a sustainable development and enhancing the overall quality of the community.”

- The Village Center/TOD will expand Hanover Park’s economic base while enhancing the overall quality of the community through the establishment of a vital, pedestrian and transit-oriented mixed-use district, supporting a variety of retail, commercial, employment and residential and entertainment uses.
- As a mixed use district, the Village Center/TOD combines access to the existing commuter train station with residential, employment, commercial, transit and civic uses into a fully integrated, sustainable community, while providing a new focal point for civic, social, and shopping needs, and “sense of place” and identity for Hanover Park residents.
- The Village Center/TOD will be a vibrant 24-hour center that offers lifestyle options and opportunities to accommodate work, play, and living in a high quality urban environment.
- New housing is a modern complement to the historic character of the area,



Downtown Arlington Heights

including apartments, condominiums and live/work residences - offering many lifestyle choices. Housing options provide opportunities for all income levels.

- Community life abounds in the Village Center/TOD in outdoor cafes, restaurants and in public plazas where festivals, farmers markets, art fairs, and other community events occur.

“Hanover Park Village Center is a diverse and exciting place to live, to entertain and be entertained, and to linger well into the night.”



Downtown Evanston



CHAPTER 1

Village Center TOD Plan

Introduction

The Village Center TOD Plan is the culmination of many layers of information obtained through extensive analysis of property conditions, land use policies contained in Hanover Park’s Comprehensive Plan, market economics, and community desires obtained from interviews, surveys and public workshops. This information provided the basis for the preparation of two conceptual development plans that provided the community with optional designs for land use, densities, site access and circulation, open space preservation, and public transit options, including commuter rail, bus, light rail and potential transit center.

Conceptual Plan Alternatives

As the initial visionary element of the Village Center & TOD Plan, the conceptual plan provides the general development guidelines for building types and locations, density, site access and circulation, open space preservation, and transit features. Two alternative conceptual framework plans were developed based on discussion with community members, Village officials, and transit agency representatives. Each concept plan was accompanied by a phasing plan to illustrate the likely sequencing of development over time in response to existing uses, market demand, and availability of infrastructure.

Each of the alternative plans focus on the fulfillment of the vision established in Hanover Park’s Comprehensive Plan which calls for the creation of a Village Center that fosters the use of transit and pedestrian access without the use of automobiles. This concept, known as “transit-oriented development” (TOD) encourages the establishment of high density, mixed land uses within close proximity to transit facilities. Hanover Park’s existing Metra commuter rail station provides a natural opportunity for a TOD.

The alternative concept plans were reviewed by transit agencies and a Steering Committee composed of Village officials, local businesspersons, and IDOT and transit agency representatives. Public review of the plans occurred at a Public Open House on December 6th, 2011. A preferred alternative concept plan (see Figure 1.1) was selected by the Steering Committee to be used for the further development of

the final plan. The final plan shown in figure 1.4 is to serve as the guiding plan for development. Below is a summary of each of the initial concept plan alternatives.

Concept Plan 1

Overall Strategy: Achieving maximum TOD development potential requires the balancing of environmental preservation and economic development. As wetlands occupy a large percentage of the Village Center it was necessary relocate a portion of the wetlands in order to take advantage of properties at prime locations that have significant economic potential due to good access to and visibility from major roads. Hence, the parcels along the Elgin- O’Hare Boulevard and County Farm Road are dedicated to auto-oriented commercial uses. The connection to Church Street from County Farm Road creates a vista into historic Ontarioville while accentuating the corner parcels as prime commercial property.

The historic character of Ontarioville is preserved and accentuated by additional community green spaces along Church Street creating a central public space.



Figure 1.1: Concept 1 (Preferred alternative)

The historic character and green spaces are maintained west along Ontarioville Road before transitioning into office and light industrial uses. A central green or “commons” is surrounded by mixed use buildings that have commercial businesses on the ground level with residential uses above. While wetlands and substantial tree masses are preserved as much as possible, existing wetlands east of County Farm Road were expanded to serve as mitigation areas for displaced wetlands. Connection from the Metra station area to developments and commuter parking north of the railway line is provided via a bridge at the second level for commuter traffic, while an underpass is provided for recreational, bicycle and pedestrian traffic. Wherever possible, sidewalks and bike paths are provided along these internal roads to provide multi-modal access and circulation throughout the Village Center. The bike paths are also extended around the wetland areas to take advantage of this natural recreational feature. Pedestrian crossings or bridges may be required along Elgin-O’Hare Boulevard and County Farm Road to connect them to bike trails to the south of the study area.

Land Use

The overall land use composition for Concept Plan 1 (figure 1.1) is as follows:

- **Residential Uses:** Residential density is highest in the vicinity of the Metra station, creating the walk-in market for commercial uses and the commuter train service. Multi-family residential may be provided either as stand-alone structures or as part of a mixed use building with retail at ground level. All residential uses are located within ¼ mile of the commuter station.
- **Historic Ontarioville:** The Ontarioville Historic District provides a unique opportunity to both create a new modern Village Center while retaining Hanover Park’s historic past. This plan promotes retaining existing historic structure where possible, and allowing for infill redevelopment that will match or compliment the historic character, architectural style, and scale of the historic district.
- **Civic Space:** A civic space is planned around the historic church and cemetery in the Ontarioville historic district to serve as the focal point for Hanover Park’s Village Center. A large community green space or ‘commons’ is provided as a southern extension of the green space provided by the cemetery, providing opportunities for community events
- **Business Park/Office Uses:** Business uses serve as a transitional use to lower density areas, and provide opportunity for expansion of the Village’s employment base.
- **Natural Area Preservation:** Except in limited instances where existing wetlands have been either modified or removed to enhance development potential, all

existing wetlands have been maintained and/or expanded to provide for the necessary mitigation of modified wetlands. The large open space preserved and expanded east of County Farm Road can serve as a conservation area/botanic gardens or arboretum providing a regional educational and open space benefit.

- **Commercial Uses:** Auto-oriented commercial uses providing opportunities for shopping center and larger format stores are conveniently located along the major arterial roads. These areas are within walking distance to transit and housing reducing auto dependence for employees and residents in nearby buildings.
- **Building Heights:** Building heights range from 4-14 stories at the core near the Metra station, with lower 1-2 story buildings serving as transitional uses at the periphery of the Village Center area, and are noted on the plan for each development site.

Concept Plan 2

Overall Strategy The overall land use composition of Concept Plan 2 (Figure 1.2) is the same as #1 above, but was developed with the intention of preserving all the existing wetlands and trees within the Village Center, while exploring an alternative access to the historic Ontarioville area along Church Street. In this alternative, access to the central commons is provided by a new road extending westward from the County Farm Road and Ontarioville Road Junction. A portion of Ontarioville Road and Church Street is converted into a pedestrian corridor along the central public plaza area.



Figure 1.2: Concept 2

Development Capacity Analysis and Phasing

The implementation of the Village Center plan will occur over many years due to several factors including availability of utilities, roads, relocation of existing uses, financing and willingness of property owners to sell. As such, the Phasing Plan (Figure 1.3) describes the opportunity sites that could be developed in the near term (1-5 years) and longer term (6-10+ years). The overall strategy focuses on the recognition that properties on the perimeter of the Village Center that are either served by existing or proposed major roads, are currently vacant, are most responsive to current market conditions, and are part or fully owned by the Village, have the best chance of development in the near term. Sites identified in Phase 2 are generally clustered at the center of the mixed-use, high density core of the Village Center. The development of Phase 2 sites will likely take longer due to difficulty in relocating existing uses, assembling several parcels to create economically viable development sites, and due to limited market demand in the near term. By pursuing this development strategy the Village has the ability to initiate projects in the near term, build necessary revenues to support public investment in other areas of the Village Center, and create the identity and destination uses that provide the building blocks for the ultimate vision. Capital investments that support Phase 1 sites should be a priority to facilitate development.

For each of the alternative development concepts described above an analysis



Figure 1.3: Phasing plan for the preferred alternative- Concept 1 (The phasing plan for concept 2 is similar to Concept 1 and is included in the appendix)

of development capacity is provided in Appendix A, and summarized below. The purpose of this analysis is to provide general estimates of the amount of residential dwelling units, commercial and office square footages, and parking demand that would occur at full build-out. This information was essential in developing an overall parking plan to ensure adequate parking will exist for all uses within the Village Center.

Land Use	Site Area Acres	Total Floors	Total Non-Res. Building Area sq ft	Total Employees	Total Dwelling Units	Total Parking
Business park - 1 story	14.3					
Office/limited manufacturing		1	249,163	332		747
Office- 2 story	6.8					
Office		2	229,997	920		586
Multi-Family - 6-9 story	12.0					
Residential		4			2,132	2,665
Mixed Use - 6-14 story	17.6					
Residential		5			2,559	3,199
Commercial		1	150,000	300		450
Office			374,088	1,496		
Parking		2				3,649
Commercial - 1 story	17.1					
Retail		1	321,473	643		964
Development Totals:			1,324,720	3,692	4,691	9,383
Total Population:						9,383
Mixed Use/First Floor Retail:			150,000			

Table 1.1: Summary of development capacity analysis for Concept 1

Land Use	Site Area Acres	Total Floors	Total Non-Res. Building Area sq ft	Total Employees	Total Dwelling Units	Total Parking
Business park - 1 story	14.3					
Office/limited manufacturing		1	249,163	332		747
Office- 2 story	6.8					
Office		2	229,997	920		586
Multi-Family - 6-9 story	12.0					
Residential		4			2,132	2,665
Mixed Use - 6-14 story	15.7					
Residential		5			1,893	2,366
Commercial		1	165,000	330		495
Office			374,088	1,496		
Parking		2				2,861
Commercial - 1 story	19.0					
Retail		1	248,292	497		745
Development Totals:			1,266,540	3,575	4,025	8,050
Total Population:						8,050
Mixed Use/First Floor Retail:			165,000			

Table 1.2: Summary of development capacity analysis for Concept 2



Urban Design Plan

The following plan shows the conceptual land use development for the Hanover Park Village Center and TOD.



Figure 1.4: Land use and urban design plan

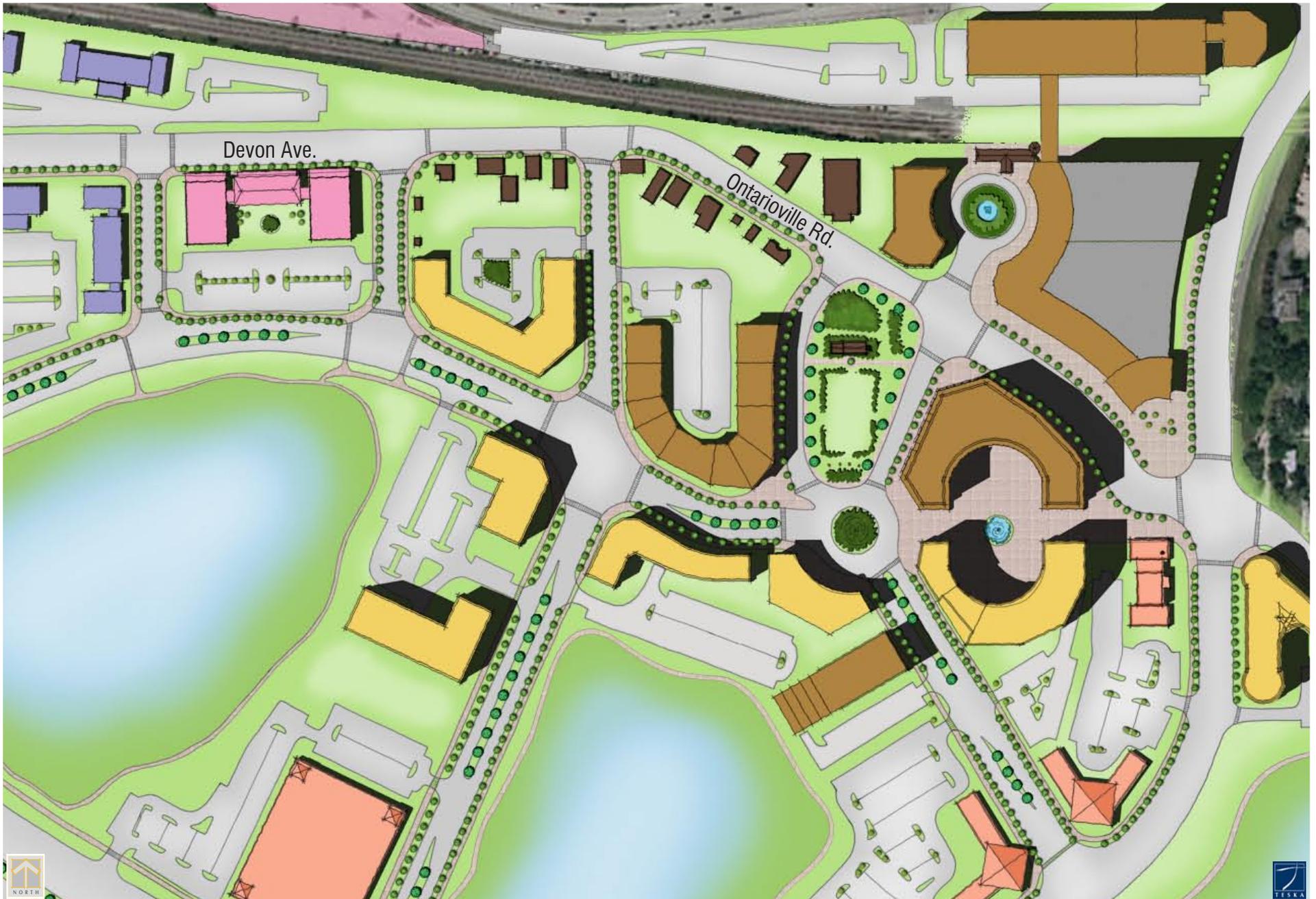
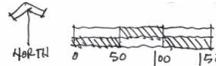


Figure 1.5: Enlarged map of the TOD core development area



- KEY**
- A - TRANSITION BETWEEN HISTORIC & NEW STREETSCAPE**
 - Pedestrian plazas
 - Public art/ sculpture
 - Interpretive signage
 - Decorative lighting
 - B - EVENTS STREET**
 - Street may be closed to accommodate events & markets
 - Festival lighting
 - Sound system
 - C - LANDSCAPED PARKING COURTS**
 - Salt tolerant landscaping
 - Service and loading access
 - Decorative lighting
 - Decorative paving
 - D - SOUTH ENTRY TRAFFIC CIRCLE**
 - Iconic public sculpture
 - Gateway entry signage
 - Salt tolerant landscaping
 - E - EXISTING CHURCH & CEMETERY**
 - Landscape buffering to direct and frame views
 - Convert parking lot to tree lined pathway
 - Mid block crossings provide connectivity between east and west
 - F - NORTH GATEWAY ENTRY**
 - Iconic building features and corner setbacks
 - Landscaped dining plazas
 - Public art/ sculpture
 - Decorative paving
 - Ornamental lighting
 - Landscape plantings
 - G - SHOPPING STREETS**
 - Welcoming and inviting storefronts
 - Wide sidewalks
 - Landscape planters
 - Ornamental lighting
 - H - METRA DROP OFF**
 - Kiss N Ride
 - On-Street Short Term Parking
 - Iconic public sculpture
 - Gateway entry signage
 - Salt tolerant landscaping

Figure 1.6: Concept plan for the Village Center core area



The core area of the Village Center is to be developed around parts of historic Ontarioville as a Village Green. This area is to be the heart of the development with public plazas, cafes and restaurants along the surrounding streets with the potential of closing off a street (label B in the adjacent sketch) for community events like farmer’s markets.



Examples of public plazas and sidewalks cafés

Land Use Plan

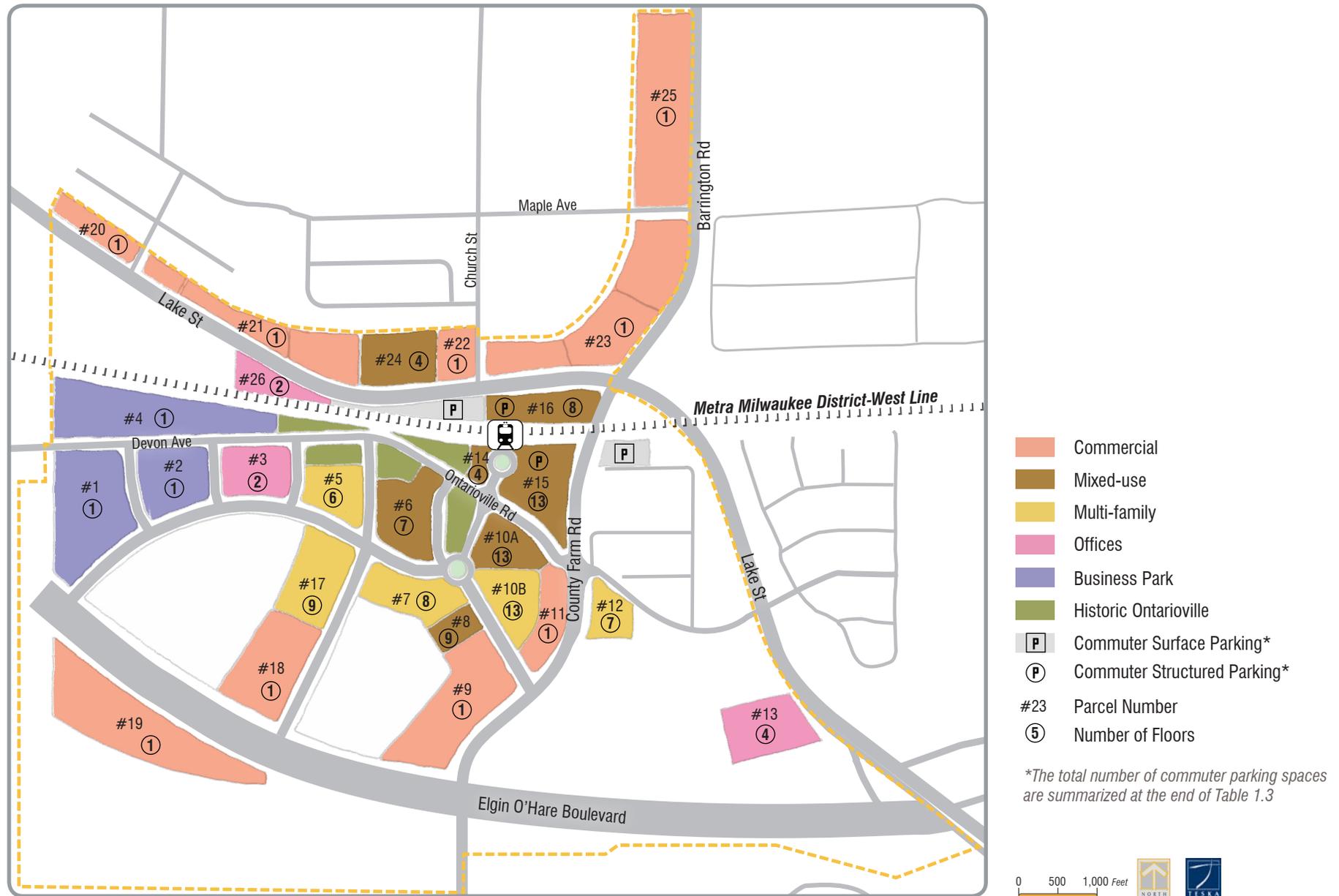
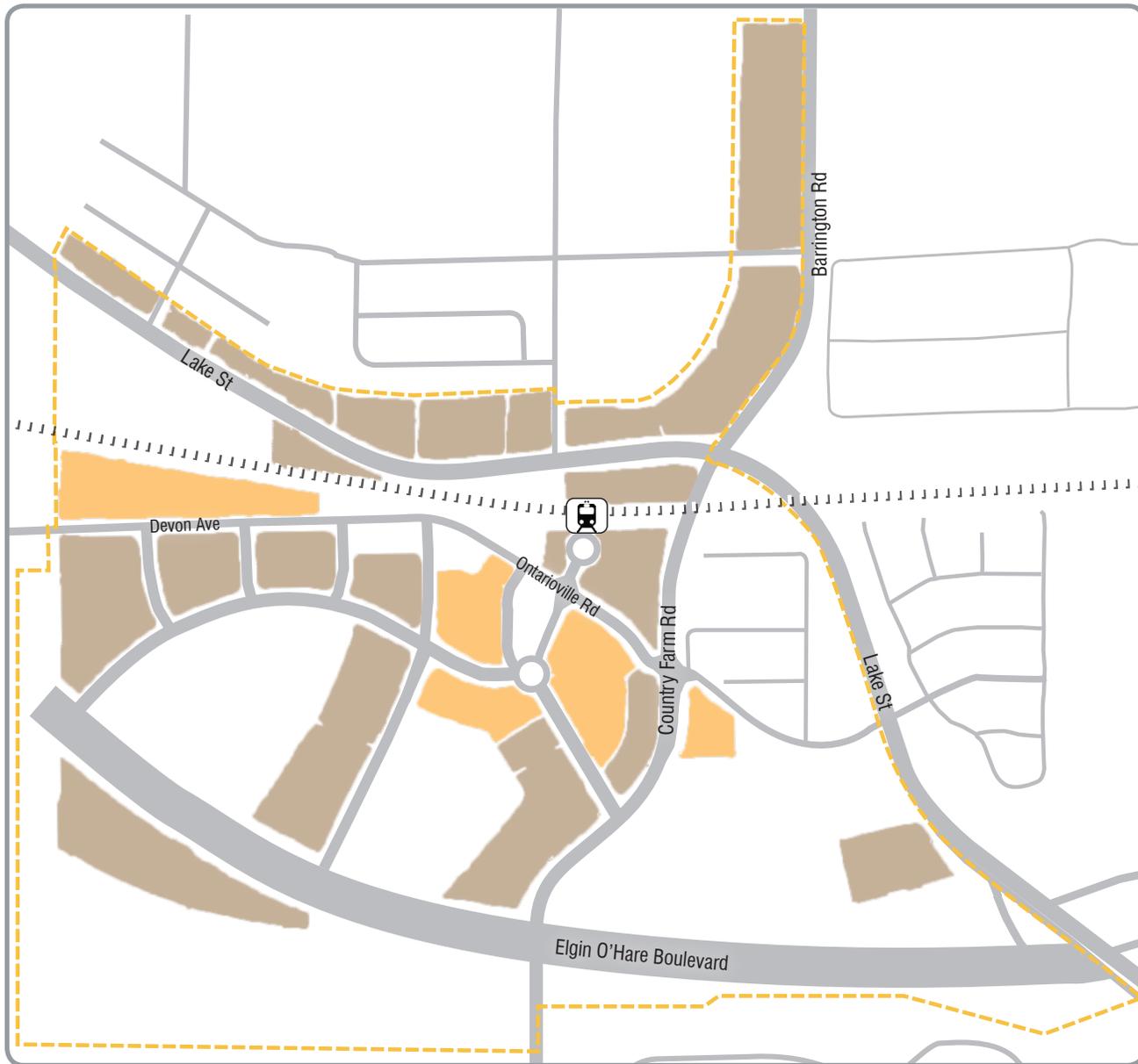


Figure 1.7: Land-use map showing the development parcel numbers

Phasing and Development Capacity



- Phase I
- Phase II

Figure 1.8: Phasing plan

Site	Land Use	Site Area		FAR	Total Non-Res. Building Area sq ft	Total Employees	Dwelling Units	Floors	Parking	Total Coverage Bldg. & Parking	Lot Coverage Ratio
		Acres	Total sq ft								
#1	Business Park - 1 story Office/limited manufacturing	7.4	322,846	0.40	129,138	172		1	387	264,734	0.82
#2	Business Park - 1 story Office/limited manufacturing	3.8	164,703	0.40	65,881	88		1	198	135,056	0.82
#3	Office- 2 story Office	3.1	133,134	0.60	79,880	320		2	204	111,233	0.84
#4	Business Park - 1 story Office/limited manufacturing	7.9	343,278	0.40	137,311	183		1	412	281,488	0.82
#5	Multi-Family - 6 story Residential Total Parking	2.7	115,930	4.24			328	4 2	411 411	86,948	0.75
#6	Mixed Use - 7 story Residential Commercial Total Parking	4.0	172,855 21,000	5.43	21,000	42	612	5 1 2	765 63 828	129,641	0.75
#7	Multi-Family - 8 story Residential Parking	3.4	146,202	6.36			621	6 2	777 777	109,652	0.75
#8	Mixed Use - 9 story Residential Commercial Total Parking	1.3	56,355 12,000	6.58	12,000	24	240	6 1 3	299 36 335	42,266	0.75
#9	Commercial - 1 story Retail	7.3	319,908	0.30	95,972	192		1	288	196,743	0.62
#10 A	Mixed Use - 13 story Residential Commercial Total Parking	2.6	114,090 42,000	9.93	42,000	84	727	9 1 4	909 126 1,035	85,568	0.75
#10 B	Multi-family - 13 story Residential Parking	3.0	130,035	9.54			829	9 4	1,036 1,036	97,526	0.75
#11	Commercial - 1 story Retail	2.7	116,156	0.30	34,847	70		1	105	71,436	0.62
#12	Multi-Family - 7 stories Residential Parking	1.9	82,327				292	5 2	364 364	61,745	0.75
#13	Office- 4 story Office Parking	4.0	174,682	0.90	157,214	629		3 1	472 472	217,479	1.25
#14	Mixed Use - 4 story Commercial Office Total Parking (accomodated on #15)	0.7	30,122 9,000	3.00	9,000 76,811	18 307		1 4 0	27 230 257	22,592	0.75

Table 1.3: Development capacity analysis for the final concept (Page 1 of 2)

Site	Land Use	Site Area		FAR	Total Non-Res. Building Area sq ft	Total Employees	Dwelling Units	Floors	Parking	Total Coverage Bldg. & Parking	Lot Coverage Ratio									
		Acres	Total sq ft																	
#15	Mixed Use- 13 story	4.3	187,851	1.69			159	4	198	140,888	0.75									
	Residential											42,000	42,000	84	1	126				
	Commercial																			
	Office																71,400	286	2	214
	Commuter Parking																2	626		
Total parking (including spaces from #14)	4	1,422																		
#16	Mixed Use- 8 story	3.1	135,687	4.56				1	72	101,765	0.75									
	Commercial											24,000	24,000	48	3	779				
	Office											259,501	1,038	3	684					
	Commuter Parking*											6	1,535							
Total parking																				
#17	Multi-Family - 9 story	4.4	191,664	6.88			950	7	1,188	143,748	0.75									
	Residential											2	1,188							
#18	Commercial - 1 story	5.5	240,624	0.30				1	217	147,984	0.62									
	Retail											72,187	144							
#19	Commercial - 1 story	9.4	409,931	0.30				1	369	252,108	0.62									
	Retail											122,979	246							
#20	Commercial - 1 story	1.9	84,827	0.30				1	76	52,169	0.62									
	Retail											25,448	51							
#21	Commercial - 1 story	5.4	236,722	0.30				1	213	145,584	0.62									
	Retail											71,017	142							
#22	Commercial - 1 story	1.9	80,720	0.30				1	73	49,643	0.62									
	Retail											24,216	48							
#23	Commercial - 1 story	10.3	447,345	0.30				1	403	275,117	0.62									
	Retail											134,204	268							
#24	Mixed-use- 4 story	3.5	152,098	3.35			323	3	404	114,074	0.75									
	Residential											24,000	24,000	48	1	72				
	Commercial																			
#25	Commercial - 1 story	9.5	413,932	0.30				1	373	254,568	0.62									
	Retail											124,180	248							
#26	Office- 2 story	1.7	75,411	0.60				2	115	63,006	0.84									
	Office											45,247	181							
Development Totals:					1,901,434	4,961	5,082													
Total Population:							10,163													
Mixed Use/First Floor Retail:							174,000													

Table 1.3: Development capacity analysis for the final concept (Page 2 of 2)

METRA COMMUTER PARKING SUMMARY-	
Existing Metra surface parking lot 1 (Lot location shown in Appendix Figure A-12)	142
Existing Metra surface parking lot 9 (Lot location shown in Appendix Figure A-12)	121
Proposed structured parking** on parcels #15 and #16*	1,310
Total Commuter Parking spaces (parcels #15, #16, Lot 1 and Lot 9)	1,573
*Includes the Metra surface lot 10 spaces relocated to the structured parking on parcel #16	
**A minimum of 200 new commuter parking spaces are included (100 spaces each on #15 and #16), with a potential of realizing more spaces on parcel #15 if needed.	



Circulation and Access Plan

The Plan for the Hanover Park *Village Center* brings both opportunities and challenges to the transportation network. As an outgrowth of a special study within the 2010 Comprehensive Plan, the Village Center Area Plan identified an opportunity to create and build a larger scale mixed-use and transit-oriented development as a foundation for future development and new revenue sources for the Village. A primary foundation of this Plan is recognition that the Village Center is ideally situated with respect to multi-modal opportunities, primarily due to the existence of the Hanover Park Metra Station. The roadway system serving the Village Center also provides a high level of accessibility due to its location in the midst of a network of expressways and major arterial roads. However, the Village Center area south of Lake Street and west of County Farm Road has a largely undefined local roadway system.

The Roadway Circulation and Access, Trails, and Transit Plans (Figures 1.5, 1.13 and 1.16) were carefully crafted with respect to the following key transportation planning factors.

- **Transit**– As a result of the transit-oriented nature of the project, the development is anticipated to have a high number of transit users and pedestrian trips. Accommodating existing and future transit options is of the utmost importance of the Plan.
- **Environmental Features**– Preservation of the area wetlands significantly shaped the Plan’s development pattern and roadway framework.
- **Elgin O’Hare Expressway (West Extension)**– The existing roadway right-of-way drives most of the Plan’s access considerations and development pattern. The Plan calls for the extension as a **boulevard** providing the opportunity to add strategically placed signalized local access. A feasibility study will be needed for this boulevard to determine its impact on issues like traffic volumes, travel patterns, and access points, as well as its terminus or further connection* to Lake Street via Bartlett and Streamwood [*as per the map for the ‘2030 RTP Major Capital Project: Elgin O’Hare Expressway (West Extension)’ available at <http://www.rtams.org/rtams/rtpProject.jsp?id=13>].
- **Impacts on Lake Street/US 20**– The new Elgin-O’Hare extension alignment will shift and redistribute current travel patterns along Lake Street, creating an opportunity for a more pedestrian-friendly street with fewer lanes.

- **Pedestrians and Bicyclists**– A high priority was given to accommodating both internal and external pedestrian and bicycle circulation. The external roadways are high volume arterials and their design can be quite hostile to non-auto modes calling for redesign and adjustment. Also, north-south access is limited due to the railroad tracks and a wide cross section on Lake Street.

Overview of Roadway Network

This section of the Plan addresses the overall roadway personality, streetscape, geometric characteristics, access control and spacing, traffic controls, and pedestrian/bicycle access.

The roadway network that will serve the Village Center creates the framework for future access opportunities to the development and the foundation of the development pattern. The recommended internal roadway system follows an angular and curvilinear pattern that radiates from the planned Elgin-O’Hare extension, reflects the existing street alignments and minimizes impact on wetland areas. It provides a hierarchical system that provides streets with varying degrees of travel mobility and land access. An internal roundabout will connect the entry roads with the local street system and create a Village Center focal point.

A key component of the roadway network is the multi-modal approach used to accommodate all users and modes of transportation alike. The roadway network was planned by employing “Complete Streets” design principles that cater to all forms of transportation including motorists, transit users, pedestrians, and cyclists. Roadway design and orientation should be “complete” and reflect this so that all right-of-ways can accommodate multiple means of transportation. This will encourage alternative modes of transportation within the station area by making transit, bike, or pedestrian trips a safe and viable option for travel. The plan includes a comprehensive trail system which extends throughout the Village Center, capitalizing on the abundance of passive recreational space and connecting to residential, commercial, and civic uses.

Access Locations

As illustrated in the Circulation and Access Plan, the roadway network includes strategically placed collector boulevards connecting the Village Center to the surrounding arterials (i.e. Elgin-O’Hare Boulevard, County Farm Road, Lake Street).

Full access locations were established by spacing intersections approximately ¼-mile from another. The ¼ -mile intersection spacing is typically a minimum guideline for signalized access that allows traffic signals to be coordinated along the corridor so that traffic progresses efficiently. Additional site access is shown as right-in/right-out driveways which may be spaced in between full access locations.



Figure 1.4: Uptown Circle, Normal, Illinois. Located in the heart of the Central Business District, the roundabout addressed community traffic issues and created an attractive public gathering place. The design is a showcase of green infrastructure with an extensive rainwater collection system below.

Green Infrastructure: is defined by the Environmental Protection Agency (EPA) as using natural hydrologic features to manage water and provide environmental and community benefits.

Intersections and Traffic Control

The full access intersections providing access from the external arterial roadways will be controlled by traffic signals. Intersection signalization will best facilitate future traffic turning into and out of the Village Center given the projected traffic volumes at these access locations on County Farm Road and the Elgin-O’Hare Boulevard. Within the Village Center, signalization may be required at key intersections (i.e. on Ontarioville Road near the train station). However, at most internal collector and local roadway intersections, traffic volumes will not reach levels that require traffic signals and will instead be controlled by stop signs on either two or all approaches.

An internal roundabout is illustrated in the roadway network to connect the entry roads with the local street system and create a Village Center focal point. Modern roundabouts, while common in other parts of the country and world, are considered alternative to traditional intersections in this region. Roundabouts provide considerable safety benefits and capacity advantages over conventional intersections. These intersections are safer and more efficient for drivers, pedestrians and cyclists. As a result, roundabouts are being used more. In this plan, the roundabout will include a single lane and be approximately 160 feet in diameter. The size will allow for public amenities and a central gathering space if desirable.

Roundabout operations reduce the likelihood and severity of collisions because of low travel speeds and the one-way pattern which eliminates more dangerous collisions such as T-bone and head-on. And, contrary to many peoples’ perceptions, roundabouts actually move traffic through an intersection more quickly, and with less congestion on approaching roads. Roundabouts promote a continuous flow of traffic by eliminating delays caused by traffic signals. Traffic is not required to stop – only yield – so the intersection can handle more traffic in the same amount of time.

Cost and space are additional benefits to roundabouts. The cost difference between building a roundabout and a traffic signal is comparable. Where long-term costs are considered, roundabouts eliminate annual hardware, maintenance and electrical costs associated with traffic signals. In addition, while a roundabout may need more property within the actual intersection, it often takes up less space on the streets approaching the roundabout because they can handle greater volumes of traffic more efficiently than signals.

Roadway Classification and Character

The recommended roadway network is comprised of several types or classifications of streets, each playing a different role or function within the overall system. Based on the Village Center Plan, the following describes the functional roadway classification and general character of each of the roadways: Expressway, Arterial, Major Collector, Minor Collector and Local Roadways.

-  Study Area Boundary
-  Metra Line
-  Metra Station
-  Local Roadways
-  Minor Collector Roadways
-  Major Collector Roadways
-  Arterial Roadways
-  Existing Traffic Signal
-  Proposed Traffic Signal
-  Roundabout
-  Metra drop-off area

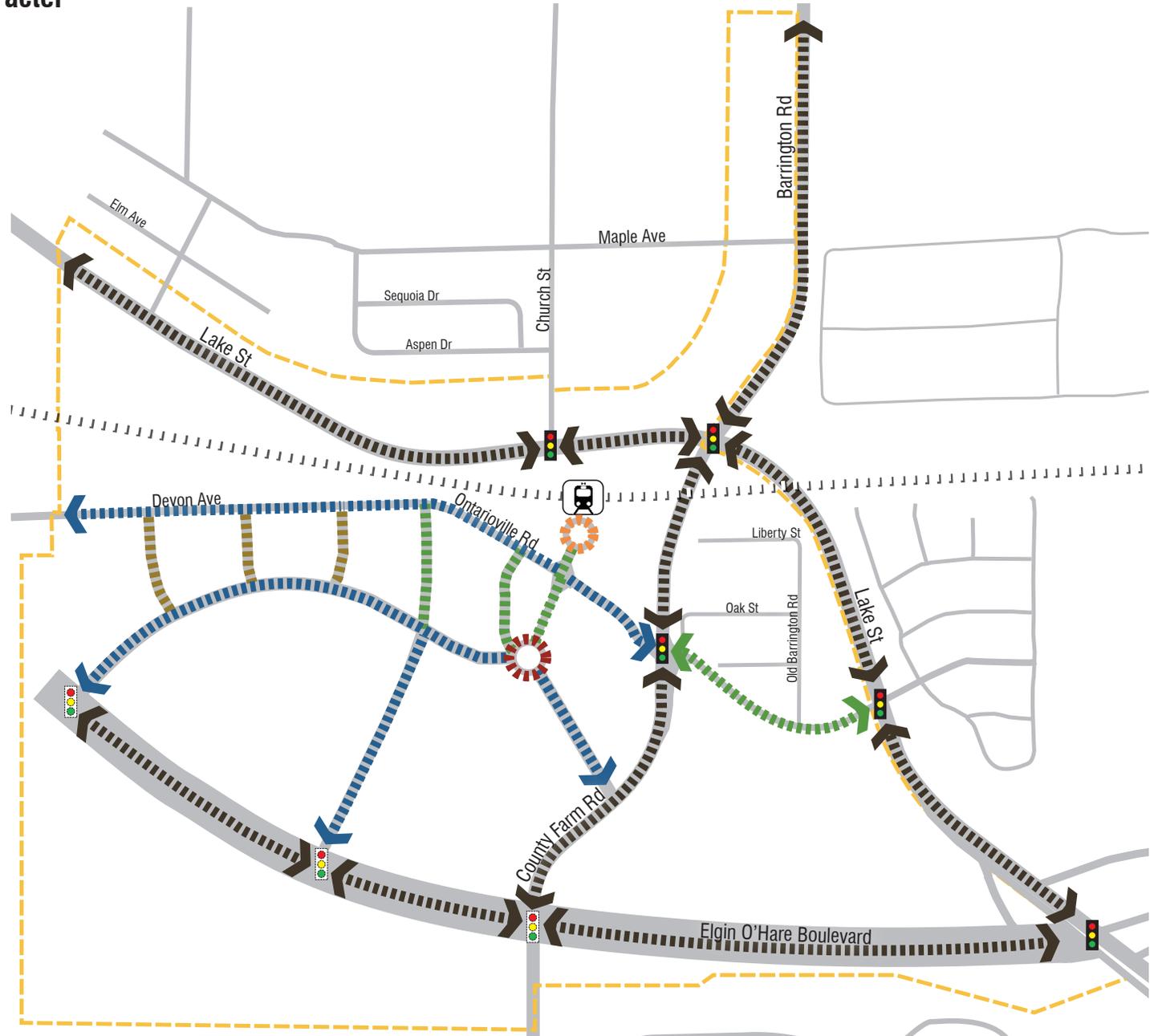


Figure 1.5: Circulation and Access Plan

Not to scale



Expressway

Expressways are regionally continuous roadways that are part of or link to the Interstate system. This type of facility prioritizes speed and mobility with access opportunities generally limited to ramps and interchanges. The existing Elgin-O'Hare Expressway east of Lake Street is an example of this type of roadway. The future extension of the Elgin-O'Hare west of Lake Street will function as an arterial instead of an Expressway.

Arterial Roadway

The arterial roadways in the study area are high-capacity, regionally continuous roadways that favor mobility over land access. Access is instead limited and controlled by minimum spacing requirements and preferably under traffic signal control. Pedestrian and bicycle facilities are ideally separated from vehicular traffic. County Farm Road and Lake Street are existing examples of this type of roadway. Furthermore, the Elgin-O'Hare extension is planned as an arterial roadway.

Elgin-O'Hare Boulevard: The extension of the Elgin-O'Hare Expressway through the study area is desired as an urban arterial boulevard section with controlled points of access that will provide direct access to the Village Center roadway network. The planned roadway section is environmentally sensitive to the surrounding wetland ecosystem and utilizes green infrastructure as much as possible. It is a true multi-modal facility accommodating pedestrians and cyclists within a generous right-of-way facility that integrates functionality and ecological sustainability with the characteristics described in Figure 1.6.

Lake Street: With the future expansion of the Elgin-O'Hare, an alternate travel route will be created that parallels Lake Street from the Elgin-O'Hare Expressway west to Bartlett. Once the expansion is built, travel in the area will be redistributed on the roadway network which may result in lower traffic volumes on Lake Street, especially west of County Farm Road. If lower traffic volumes on Lake Street are realized in the future, an opportunity is created for Lake Street to potentially be redesigned with fewer travel lanes and more right-of-way devoted to landscaping, buffering and accommodating pedestrian, bicycle and transit traffic. Also, if a redesignation of US 20 along Lake Street is ever considered once the Elgin-O'Hare expansion is built, a jurisdictional transfer of the roadway from IDOT to the Village may be an opportunity for Hanover Park to have more control over the roadway's character. A possible mid-block section for Lake Street west of County Farm Road near Church Street is shown

in Figure 1.7. It should be noted that this design is only identified as a *potential future opportunity*. The roadway is under the jurisdiction of IDOT and any future plans will require its approval. Traffic volumes and capacity on Lake Street should be studied further once the Elgin-O'Hare expansion is construction in order to determine if lane reduction is feasible.

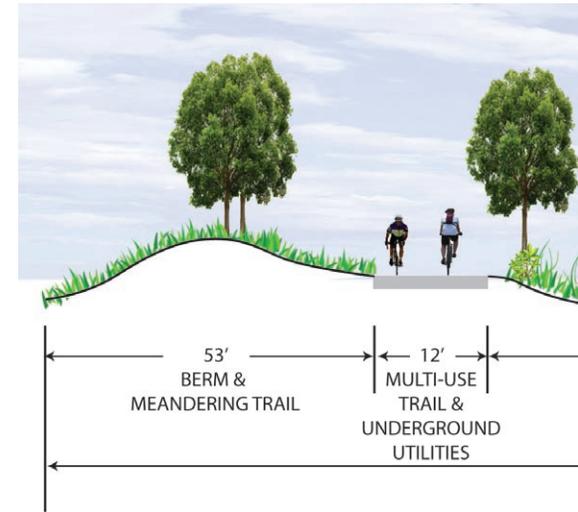
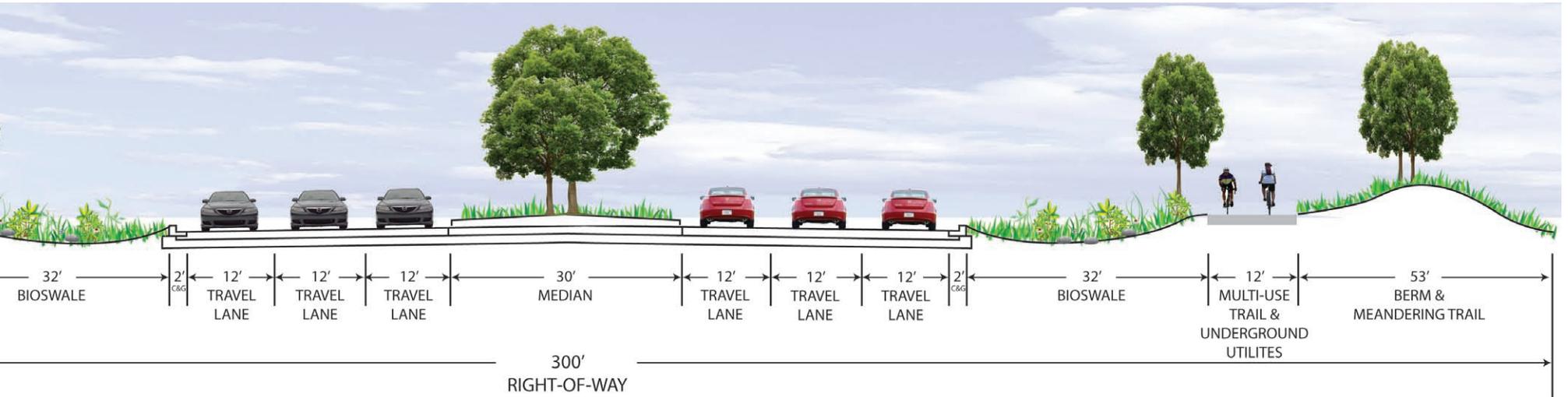


Figure 1.6: Cross-Section through the Elgin-O'Hare Boulevard



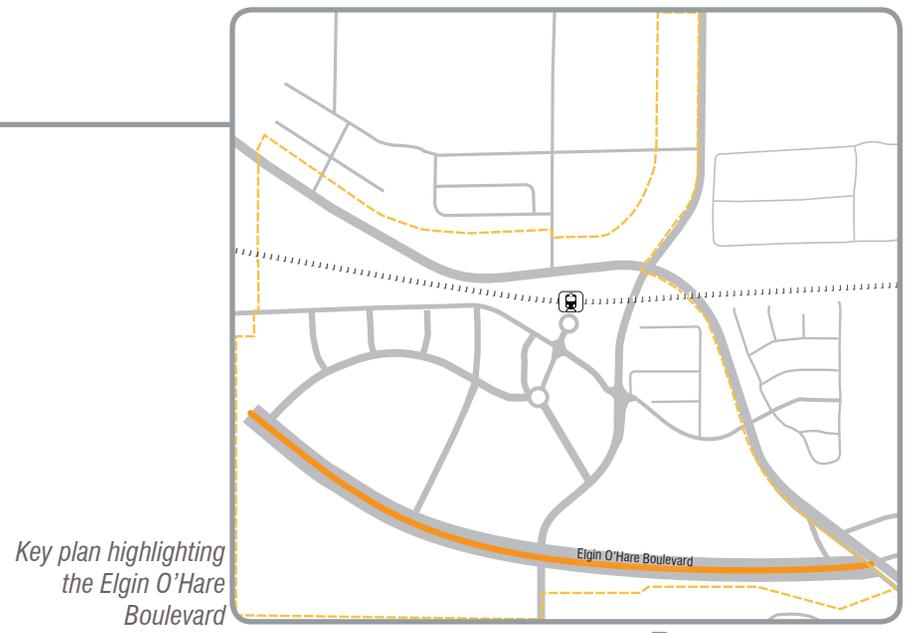
Aerial view of a similar arterial boulevard at Lake Shore Drive and 57th Street in Chicago



Arterial boulevard characteristics

- Right-of-way** 300' (already reserved by IDOT)
- Travel lanes** 3 in each direction
- Landscaped median** Raised and 30' wide (potential dual left turn lanes)
- Turn lanes** Single right-turn lanes at intersections
- Parkway** 32' to 53' on both sides with bioswales and landscaping
- Multi-use trail/Sidewalk** 12' wide pervious pavement
- Parking** No
- Curb and gutter** Yes

- Notes:**
- Access is permitted at 1/4-mile spacing under traffic signal control
 - Phasing of the roadway could initially allow implementation of only two travel lanes in each direction with paved shoulder instead of curb and gutter.



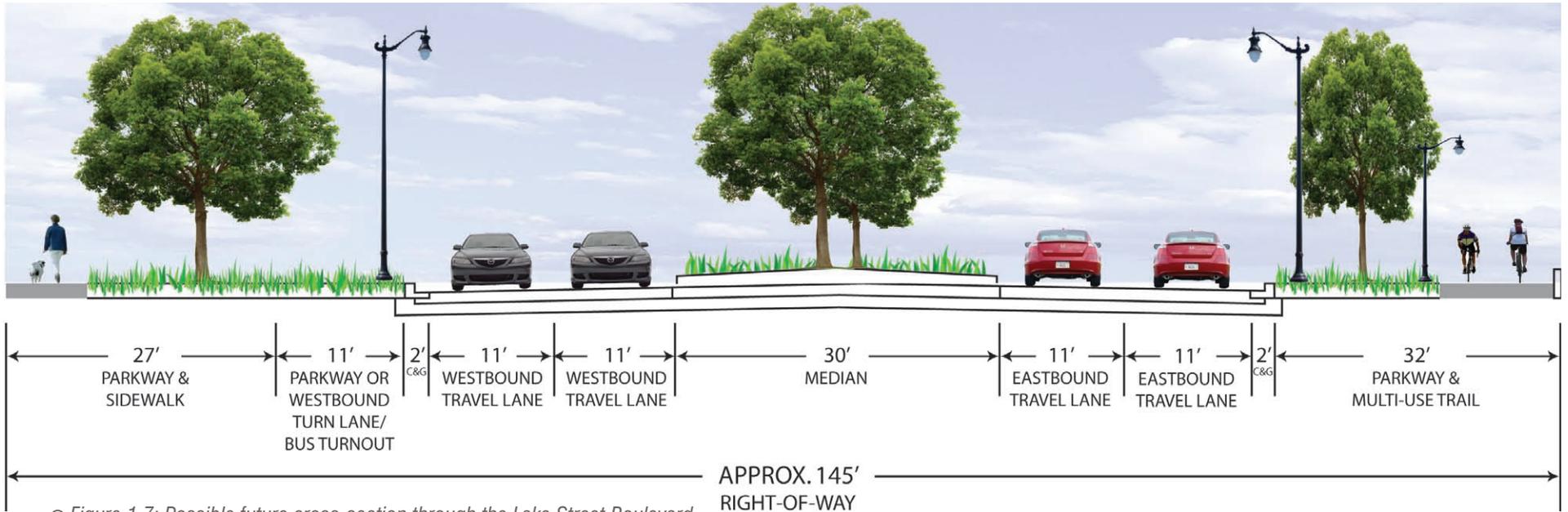


Figure 1.7: Possible future cross-section through the Lake Street Boulevard

Arterial boulevard characteristics

Right-of-way	145'
Travel lanes	2 in each direction
Landscaped median	Raised and 30' wide (potential dual left turn lanes)
Turn lanes	Single right-turn lanes at intersections
Parkway	32' to 53' on both sides with bioswales and landscaping
Multi-use trail/Sidewalk	32' to 38' wide pervious pavement
Parking	No
Curb and gutter	Yes

Notes:

- The parkway on the south side of the road could accommodate existing multi-use trail and a buffer
- The parkway on the north side of the road could accommodate bus turnout, westbound right-turn lane as necessary, parkway buffer and sidewalk. Further study is required once the EO expansion is constructed and IDOT approval

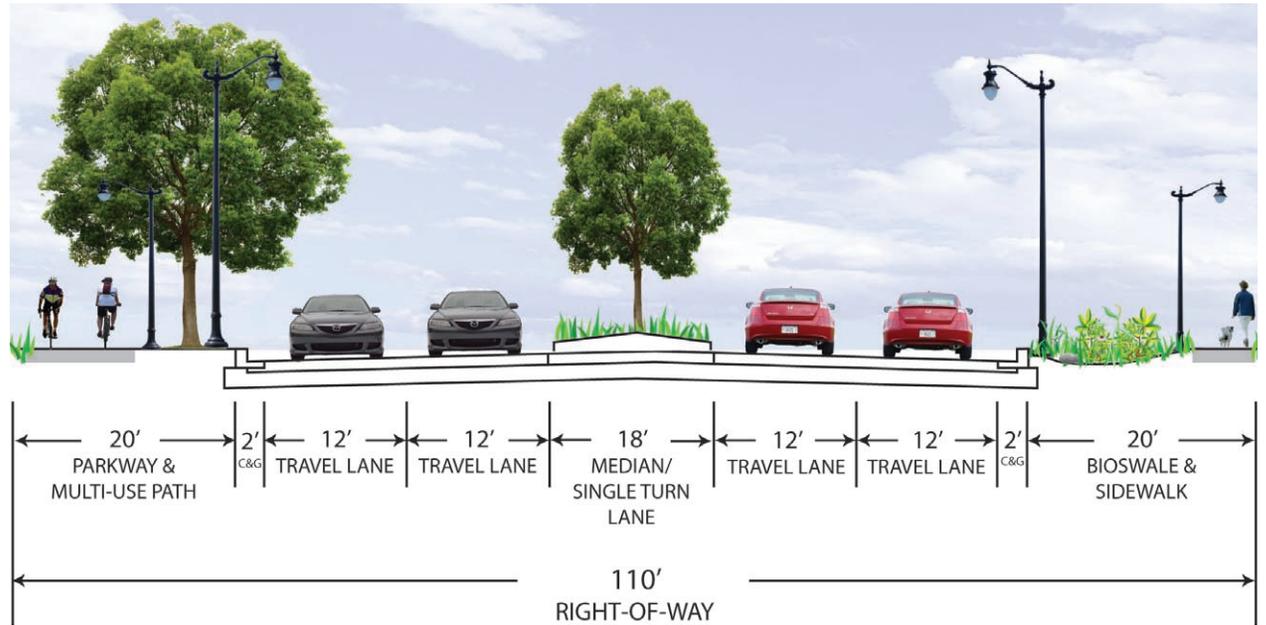
Key plan highlighting Lake Street Boulevard



● **Major Collector Roadway**

Major Collector roadways are generally moderate-capacity streets that connect arterials to other collectors and local streets. They provide a balance of mobility and land access as they are typically walkable. Within this Plan there are three internal Major Collector types: (1) *Outer-ring Commercial*, (2) *Inner-ring Village Center*, and (3) *Devon Avenue*. In this Plan, the term *Boulevard* refers to the character of the street as a landscaped gateway with a raised planted median.

● **Outer Ring Commercial:** This type of roadway section is located serving the auto-oriented land-uses along the Elgin-O’Hare and County Farm Road corridors. Generously landscaped boulevard gateways provide access into the Village Center from the external arterials. Bicycles are accommodated off-street on multi-use paths. The adjacent section also provides a parkway for sustainable runoff techniques.



● Figure 1.8: Cross-section through a major collector boulevard (Outer Ring Commercial)

● **Outer-ring commercial roadway characteristics**

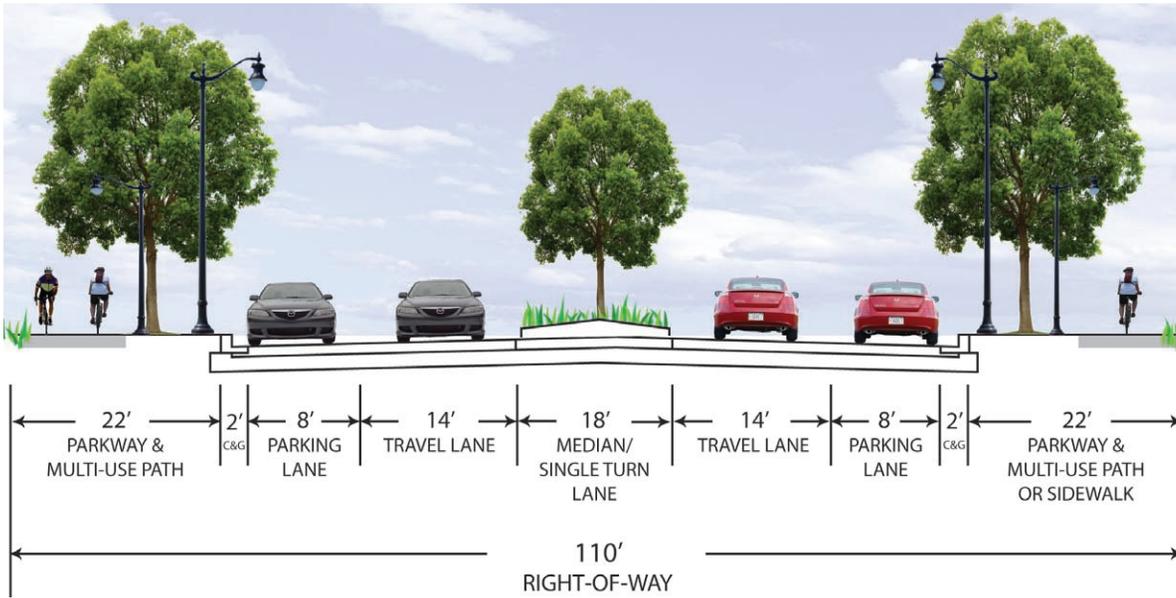
- Right-of-way** 110'
- Travel lanes** 2 in each direction
- Landscaped median** Raised and 18' wide (potential single left turn lane)
- Turn lanes** Single right-turn lanes at intersections
- Parkway** 32' to 53' on both sides with bioswales and landscaping
- Multi-use trail/Sidewalk** 10' wide pervious pavement (accommodates bike trail)
- Parking** No
- Curb and gutter** Yes

Notes:

- Traffic signal control at arterials and STOP control or traffic control at other collectors



Key plan highlighting the outer ring commercial roadways



Inner-ring Village Center: This type of roadway section transitions from the auto-oriented uses into a more Village Center mixed-use environment with on-street parking. The landscaped median is carried through as are the off-street multi-use paths as shown in Figure 1.9.



Figure 1.9: Major Collector Boulevard Characteristics & Cross-Section (Inner Ring Village Center)

Inner-ring Village Center roadway characteristics

- Right-of-way** 110'
- Travel lanes** 1 in each direction
- Landscaped median** Raised and 18' wide (potential 11' wide single left turn lane)
- Turn lanes** Single right-turn lanes at intersections
- Parkway** 12' on both sides with landscape buffers
- Multi-use trail/Sidewalk** 10' wide pervious pavement (accommodates bike trail)
- Parking** Yes
- Curb and gutter** Yes

Notes:

- No parking at intersections if right-turn lane needed

Key plan highlighting the inner ring commercial roadways



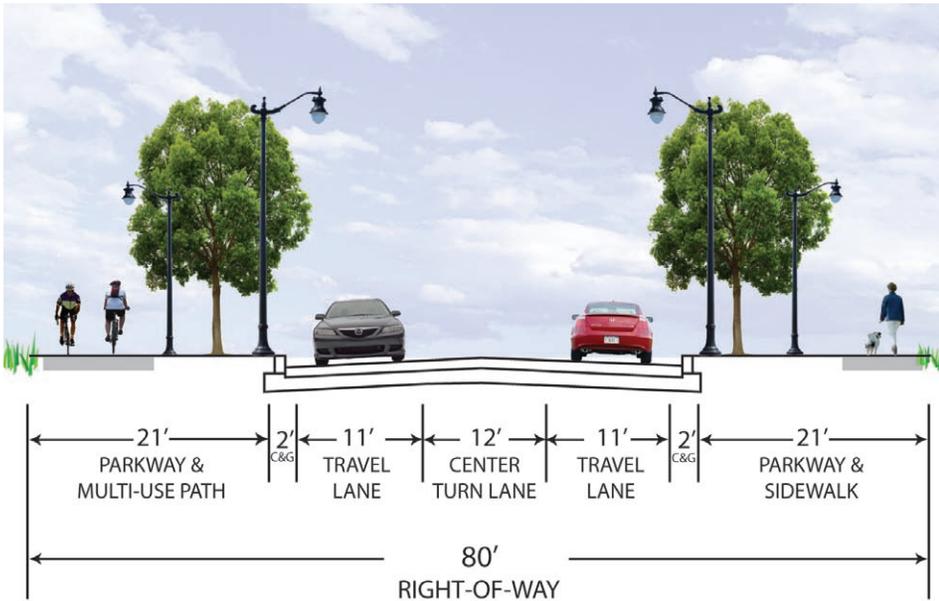


Figure 1.10: Devon Avenue Characteristics & Cross-Section

Devon Avenue/Ontarioville Road characteristics

- Right-of-way** 66' - 80'
- Travel lanes** 2 in each direction
- Landscaped median** No
- Turn lanes** Center turn lane where ROW permits
- Parkway** 12' on both sides with landscape buffers
- Multi-use trail/Sidewalk** 10' wide pervious pavement (accommodates bike trail)
- Parking** No
- Curb and gutter** Yes

Devon Avenue: Ontarioville Road/Devon Avenue will remain a continuous connection through the Village Center, as it currently exists. It will function as an important circulation street through the Plan, a direct route between local streets and County Farm Road and Lake Street. The character of the roadway should remain sensitive to its context through Historic Ontarioville where the right-of-way will remain as 66 feet. As development occurs to the east, the existing 80-foot right-of-way should be expanded to 110 feet as outlined in Figure 1.9. As development occurs toward the west, an 80-foot right-of-way should be preserved to accommodate the characteristics outlined in Figure 1.10.



Key plan highlighting the Major Collector Roadway along Devon Avenue

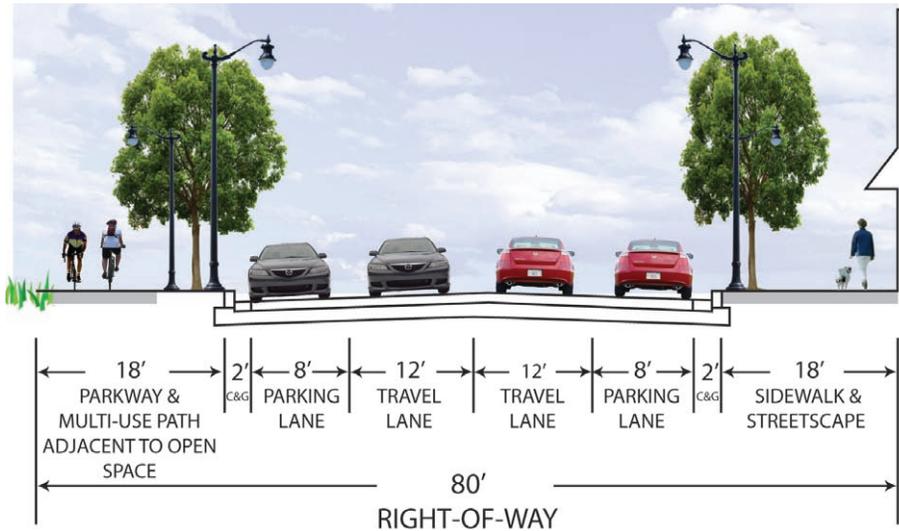


Figure 1.11: Minor Collector Roadway (Village Center Street)

Minor Collector/Local Roadway

Minor Collector and Local roadway are generally low volume streets that connect other collectors with Local streets and provide direct land access. In this plan, the minor collector roadways make up the core of the Village Center and provide the characteristics shown in Figure 1.11. The Local streets, within this plan, are located serving the business and office park uses toward the west part of the study area. Figure 1.12 outlines a typical section of local roadway.



Minor collector roadway characteristics

- Right-of-way** 80'
- Travel lanes** 1 in each direction
- Landscaped median** Raised and 18' wide (potential 11' wide single left turn lane)
- Turn lanes** Single right-turn lanes at intersections
- Parkway** 8' on both sides (accommodates streetscape)
- Multi-use trail/Sidewalk** 10' wide pervious pavement (accommodates bike trail)
- Parking** 1 on each side
- Curb and gutter** Yes

Notes:

- No parking at intersections if right-turn lane needed



Key plan highlighting the minor collector roadways

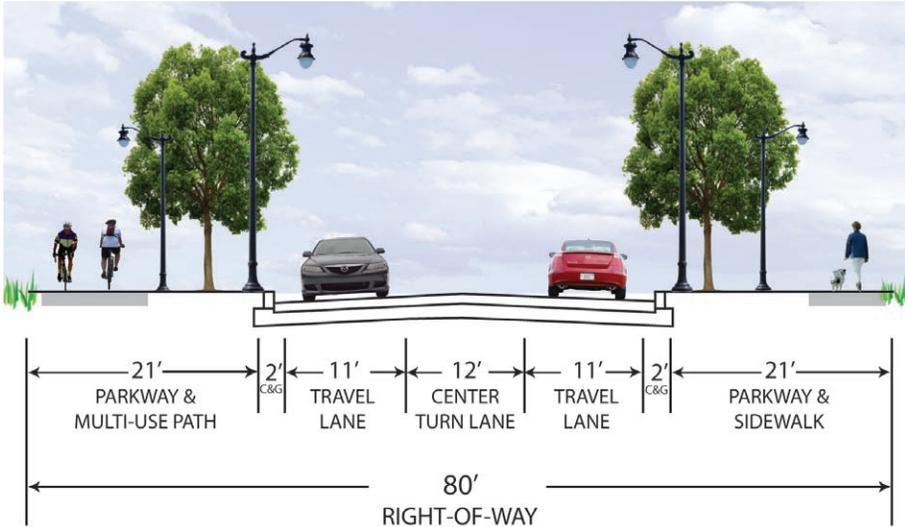


Figure 1.12: Local Roadway (Business Park)



Local roadway characteristics

- Right-of-way** 80'
- Travel lanes** 2 in each direction
- Landscaped median** No
- Turn lanes** Center turn lane where ROW permits
- Parkway** 11' on both sides (accommodates streetscape)
- Multi-use trail/Sidewalk** 10' wide pervious pavement (accommodates bike trail)
- Parking** No
- Curb and gutter** Yes

Notes:

- No parking at intersections if right-turn lane needed



Key plan highlighting the local roadways

Pedestrian and Bikeway Facilities

The Village Center is planned as a multi-modal public transportation hub. The transit-oriented nature of the development makes it especially important to plan for the various types of users that will need to be accommodated in the public right-of-way, especially bicyclists and pedestrians. Integrated, non-auto access connections throughout the development area are a priority of the Plan as illustrated by the Trail and Bikeway Plan in Figure 2.10. The plan includes a network of multi-use paths and sidewalks. Generally, all future internal roadways will provide a multi-use path and/or sidewalks on one or both sides of the roadway. Bikes are accommodated off-street along the paths. In order to create a continuous trail system, there is a need for a bicycle and pedestrian bridge spanning County Farm Road and the Elgin-O'Hare Boulevard. The bridges would provide a safe, ADA-compliant connection for pedestrians and bicyclists to cross both of these busy arterial roads that may otherwise create a physical barrier. Pedestrian and trail crossings throughout the Village Center should be located at roadway intersections wherever possible for maximum safety and visibility. Signed and delineated mid-block crossings should be considered though if block lengths are much longer than 700 feet. Pedestrian-friendly intersection designs along the arterial roadways are also important to safely accommodate at-grade crossings. Intersection pedestrian treatments are described at the end of this chapter.



Connection to the Metra Station from the north side of the railway line is provided in the Plan by a pedestrian bridge, as well as a trail underpass grade separated from the tracks. The overhead connection will be in the form of a second level pedestrian bridge between adjacent building/parking structures as illustrated in Figure 1.5. Phasing of the project will require that an underpass be implemented first before construction of the building and parking structure is feasible. For through bicycle travel that will not be entering the building, a trail tunnel under the tracks is shown.



Example of an underpass for bicycle and pedestrian usage



Example of a multi-use pathway

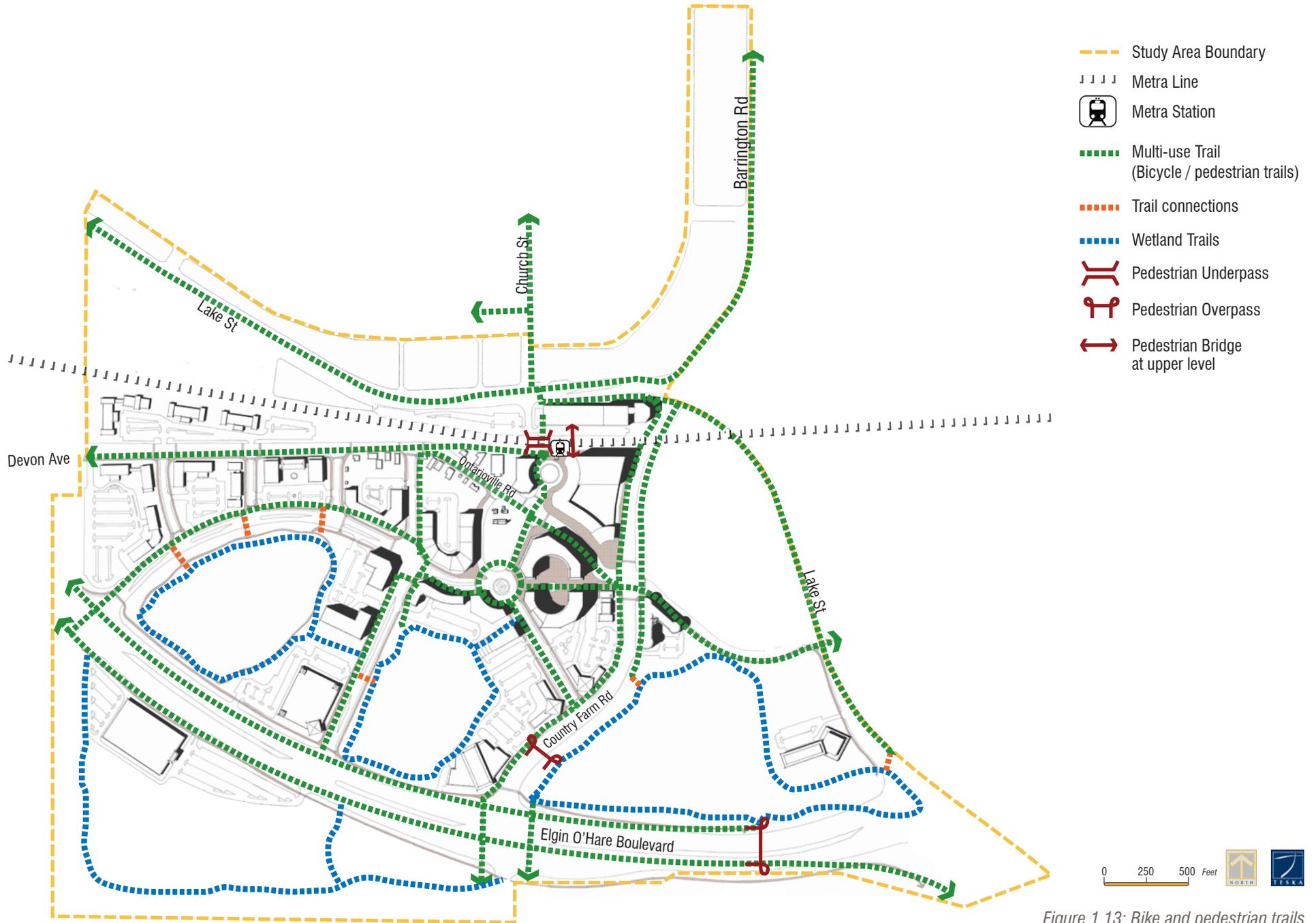


Figure 1.13: Bike and pedestrian trails

Future Traffic Projections

Future traffic conditions in the study area were assessed in order to determine the ultimate roadway design requirements. The first step of the assessment involved considering the construction of the Elgin-O’Hare extension which will significantly redistribute current travel patterns throughout the area. Anticipating these new travel patterns, existing daily traffic volumes were reassigned to the roadway network accounting for the planned Elgin-O’Hare boulevard. Although there is no modeling data available yet, our preliminary estimates are that Lake Street traffic volumes in the segment between County Farm Road and North Avenue may decrease as much as 40 percent from approximately 36,000 vehicles per day (vpd) to 20,000 vpd. Traffic volumes on the Elgin-O’Hare extension could be as high as 40,000 vpd without even considering development related traffic.



Source: John McCusker / The Times-Picayune archive

The second step of the assessment was based on the type and density of land uses anticipated to develop within the Village Center and the generation, distribution and assignment of the resulting traffic volumes. As land is developed in the study area and elsewhere over the next 20 years or more, the traffic volumes on these roadways will be redistributed and background traffic will increase overall. For the purpose of this study, a planning horizon of 20 years (i.e., Year 2030) was selected. In actuality, full build-out of the developable land in the Village Center area may occur beyond 2030.

The future development densities were utilized to calculate average daily (24-hour) traffic volumes that would be generated by these developments using trip generation equations published by the Institute of Transportation Engineers (ITE) in Trip Generation, 8th Edition, 2008 adjusted to account for transit usage and interaction factors. Table 1.4 shows the total daily trips associated with each land-use.

The assignment of future development traffic shown in the table was added to the redistributed background traffic to obtain the projected 2030 traffic volumes, which are shown on the Circulation and Access Plan in Figure 1.16. Traffic projections that include the Village Center development plan range from 38,000-52,000 vpd for the Elgin-O’Hare extension and range from 25,000-48,000 vpd for Lake Street. To plan for the ultimate design of adjacent roadways, it was assumed that all planned development would be completed by 2030.

Table 1.4: Trips generated for each land use

Roadway Network Improvements

Signal Warrants

The Illinois Department of Transportation maintains controls and requirements with regard to traffic signal installation on their roadways. Traffic volumes must meet certain threshold levels or warrants and access must be spaced appropriately. Given the estimated future traffic volumes, it is projected that each new Village Center access location on County Farm Road and the Elgin-O’Hare Boulevard will meet traffic signal warrants. The future intersection of County Farm Road with the Elgin-O’Hare will also meet traffic signal warrants.



Roadway Improvements

Based on projected future traffic volumes, the following summarizes improvements to the existing arterials that will directly serve the Village Center.

County Farm Road

Previous studies evaluating the Elgin-O’Hare extension indicate that transportation condition in the study area will change considerably with the new roadway segment as it redistributes travel on the roadway network, even without development associated with Village Center. Considering the traffic pattern changes and Village Center Plans, projected traffic demands on County Farm Road will increase such that the roadway will need to be widened to provide three travel lanes in each direction where it currently only provides two.

Lake Street

As previously mentioned, with the future extension of the Elgin-O’Hare, an alternate travel route is created that parallels Lake Street from the Elgin-O’Hare Expressway west to Bartlett. As travel is redistributed, lower traffic volumes are expected on Lake Street, especially west of County Farm Road. The bypass creates a unique opportunity to convert Lake Street into a more locally oriented street that narrows the roadway and better accommodates pedestrian, bicycle and transit traffic. The Village would likely need to take over control of the roadway from IDOT through a jurisdictional transfer.

Land-Use	Density	Daily Traffic
Multi-Family Residential	5,240 units	21,000 vpd
Commercial	583,000 s.f.	17,500 vpd
Office	805,000 s.f.	9,700 vpd
Metra Parking	200 spaces	300 vpd

Intersection Improvements

An analysis of the external arterial roadways indicates the following intersection geometry is anticipated:

County Farm Road/Lake Street

- Northbound: 1 left-turn lane, 3 through lanes
- Southbound: 2 left-turn lanes, 3 through lanes, 1 right-turn lane
- Eastbound: 2 left-turn lanes, 2 through lanes, 1 right-turn lane
- Westbound: 1 left-turn lane, 2 through lanes, 1 right-turn lanes

County Farm Road/Ontarioville Road

- Realign Ontarioville Road
- Northbound: 2 left-turn lanes, 3 through lanes
- Southbound: 1 left-turn lane, 3 through lanes, 1 right-turn lane
- Eastbound: 1 left-turn lane, 1 through lane, 1 right-turn lane
- Westbound: 1 left-turn lane, 1 through lane

County Farm Road/Village Center Access

- Install traffic signal
- Northbound: 2 left-turn lanes, 3 through lanes
- Southbound: 3 through lanes, 1 right-turn lane
- Eastbound: 2 left-turn lanes, 1 right-turn lane

County Farm Road/Elgin-O'Hare Boulevard

- Install traffic signal
- All approaches: 2 left-turn lanes, 3 through lanes, 1 or 2 right-turn lanes

Elgin-O'Hare Boulevard/Village Center Access

- Install traffic signal
- Northbound: 1 left turn lane, 2 through lanes
- Southbound: 1 or 2 left-turn lanes, 1 through lane, 1 right-turn lane
- Eastbound: 1 or 2 left-turn lanes, 3 through lanes, 1 right-turn lane
- Westbound: 1 or 2 left-turn lanes, 3 through lanes, 1 right-turn lane

Intersection Enhancement for Pedestrians

It is important to recognize that intersections along the high-volume external roadways will also accommodate pedestrian and bicycle crossings in addition to large vehicles such as buses and trucks. Design features will be used where possible to improve safety with slower turning speeds and shortened pedestrian crossing distances.

- Minimize curb radii as much as possible
- Generally minimize the number of travel lanes and width
- Provide raised channelized right-turn lane with pedestrian refuge area.
- Place high-visibility crosswalks on all intersection approaches
- Provide pedestrian signal heads with countdown timers on all approaches and ensure adequate crossing times
- Extend landscape median through pedestrian crosswalks to provide a refuge area



Figure 1.14: Photo showing raised channelize right-turn lane with pedestrian refuge area



Figure 1.15: Photo showing high visibility crosswalks

Transit Service Plan

Introduction

The future development of the Elgin-O'Hare West Bypass (EOWB) could possibly change the character and function of Lake Street, allowing for the transformation to a bike and pedestrian friendly street. The Village Center Plan, with existing Metra and Pace service plus proposed new services, can facilitate access by foot, bike, vehicle, bus, and train. The transit service plan will build on the existing Metra and Pace service, providing for improved pedestrian and bicycle connections, convenient drop-off locations, and opportunities for increased commuter parking. Should the EOWB roadway be realized in the future, along with the proposed EOWB transit services, the Village Center maintains flexibility for creating an even greater transit space. The overall transit service plan is shown in Figure 2.13 and described in the following section.



Existing Transit Services

Transit access to the Village Center is provided by several types of existing services including commuter rail, fixed route bus service, and paratransit services. Specifically, these include Metra Commuter Rail service along the Milwaukee District – West Line, Pace Route 554, and paratransit services offered by local townships and DuPage County. Future services could include potential new bus service along County Farm Road and new transit service along the Elgin-O'Hare. Pace Route 554 and Metra Commuter Rail service were described in the Existing Conditions Report. One change is the service improvement to Route 554. This improvement, along with the potential future services is described below.

● **Metra Commuter Rail**

The key element in the development of the Village Center is the Hanover Park Metra commuter rail station. Access to the Metra station by all modes is critical to the overall success of the Village Center. Currently there are 1,396 commuter parking spaces (including accessible spaces) provided in eight surface lots (For the location of these lots and number of parking spaces, refer to Figure A-12 and Table A-6 in

TRANSIT TERMINOLOGY

- **Fixed Route Bus Service** – Fixed route bus service is the most common mode for transit trips. In northeastern Illinois, fixed route service is provided by both the CTA, who operates in the City of Chicago, and Pace, who operates in the suburban areas. Characteristics of fixed route transit include: travels along collector and arterial roadways; makes frequent stops, and operates in mixed traffic.
- **Bus Rapid Transit (BRT)** – a form of high speed, high quality bus transit that allows bus service to operate faster and more reliable. BRT includes a combination of technology, design features and operating practices such as transit signal priority along arterial routes and dedicated roadway rights-of-way or lanes within a roadway. Both Pace and the CTA are considering opportunities for BRT.
- **Commuter Rail** – Commuter rail service often runs on rail lines shared with freight rail with at-grade or grade separated railroad crossings. Service is generally focused peak hours and directed towards the central business district. Service is longer distance and stations are spread out. Metra operates commuter rail service in northeastern Illinois.
- **Light Rail Transit (LRT)** – Rail transit that is operated in its own right of way or in the street, but not fully grade-separated. Stations are spaced less frequently than fixed route bus service, but more frequently than commuter rail service.
- **Paratransit Service** – Paratransit services are transit services generally provided for populations that include people with disabilities, seniors, and/or those that meet low income requirements.

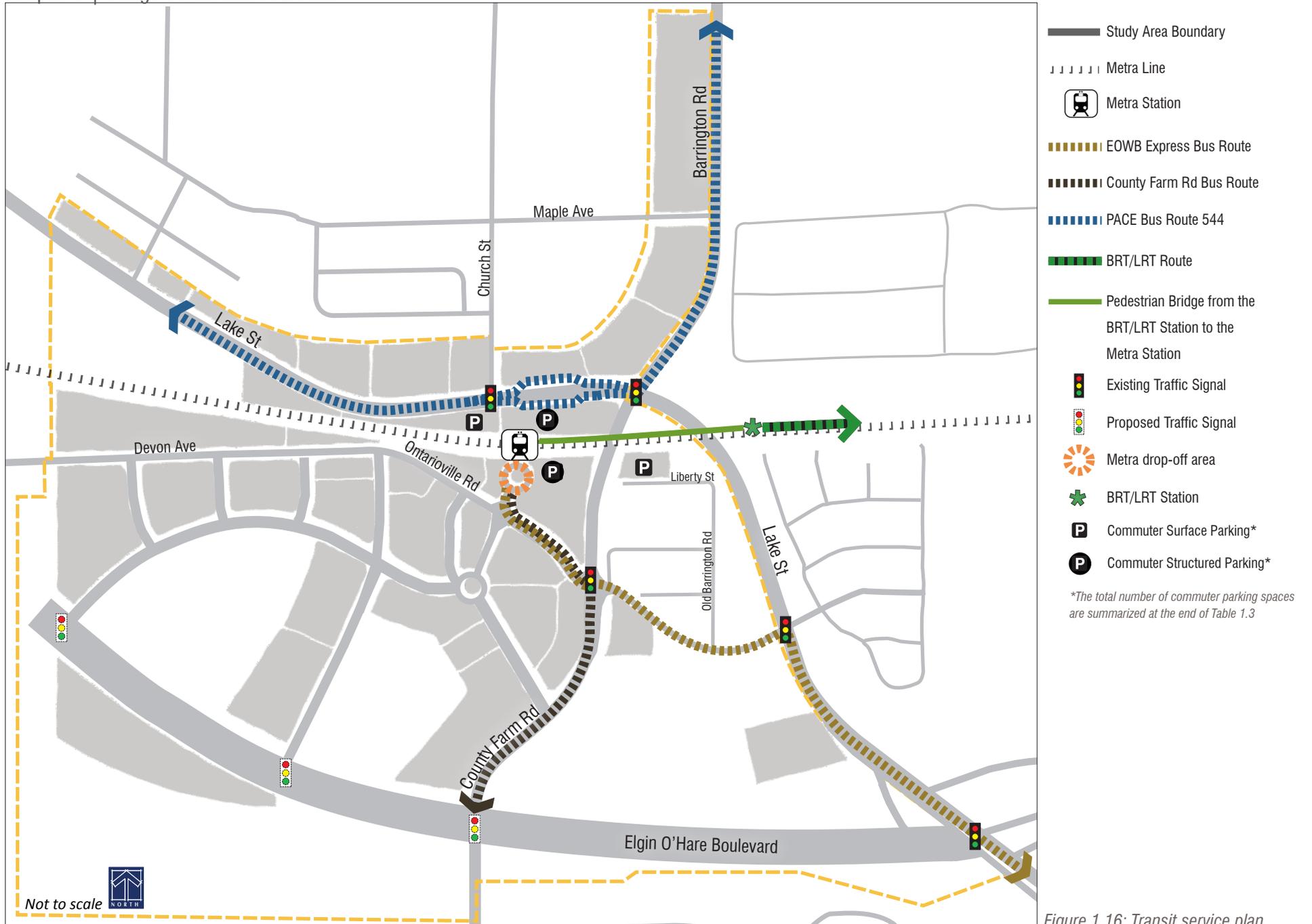


Figure 1.16: Transit service plan

Appendix-A). With the proposed parking structures located on both the north and south sides of the Metra MD-W line, an additional 200 spaces for Metra commuters could be realized*. Parking spaces allocated to commuters in the parking structures will be dedicated as such and should be located on the lower levels for quick connections to the Metra station. The existing surface lot spaces would be relocated to the parking structures, providing a more convenient location as opposed to the long walking distance currently required. Drop-off/kiss-n-ride locations would be available on both the north and south sides of the railroad. The south side drop-off area would be located off of the new circular access road. The north side drop-off area would be located near the existing drop-off area. Pedestrian connections across the railroad would be provided via a second level pedestrian bridge between the adjacent building/parking structures. Bicycle connections would be facilitated via a trail tunnel underneath the tracks. These two grade separated facilities will allow for the separation of commuter traffic and recreational pedestrian/bicycle traffic. Bus access would occur via Pace Route 554 as currently exists. Should the opportunity arise in the future for expanded bus access, the first floor of the north side parking structure could be reconfigured to accommodate transit vehicles.

*Commuter parking should be provided in accordance with RTA's "Access and Parking Strategies for Transit-Oriented Development".

● Pace Route 554

Route 554, shown in Figure 1.17, travels to and from the Pace Transportation Center in Elgin and the Northwest Transportation Center in Schaumburg. This route operates in both the eastbound and westbound directions on weekdays and Saturday. Weekday service is provided to Hanover Park from 6:00am to 6:00pm on generally a 30-minute peak/60-minute off-peak frequency. Connections can be made to Metra Commuter Rail service, as indicated in Table 1.5. Access from Pace Route 554 to the Village Center core and Metra station would continue to be from the intersection of Lake Street and Church Street. Bus turn-outs or 'bus-bulbs' (see Figure 1.18) should be considered on Lake Street at far side stop locations. To facilitate connections between the north side of Lake Street and the Metra station, the intersection of Lake Street and Church Street should include improved pedestrian crossing features.

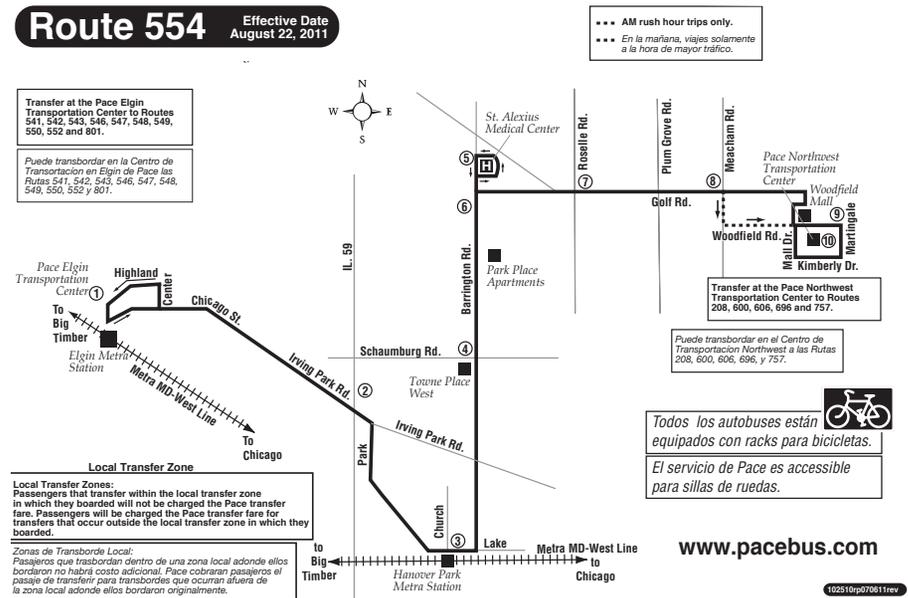


Figure 1.17: Pace Route 554 (route map)

Route 554 Eastbound	Route 554 Westbound	Connecting Metra Inbound (Eastbound)	Connecting Metra Outbound (Westbound)
607AM	713AM	634AM	722AM
637	743	657	806
707	813	712	900
737	851	746/803	900
807	921	855	926
837	951	855	1027
942	1056	955	1126
1047	1206PM	1141	1226PM
1157	116	1241	127
107PM	236	141	236/327
222	346	241	327
257	421	341	433
332	451	341	517
407	529	426	536
442	604	526	605/643

Table 1.5: Pace Route 554/Metra Rail Connections- Weekday Schedule



Figure 1.18: Examples of Pace bus turnouts

With the implementation of the Elgin-O’Hare West Bypass, traffic volumes should decline on Lake Street which would provide the opportunity for pedestrian-related improvements such as curb expansions to reduce pedestrian crossing distance, wider sidewalks, center medians, bus shelters, and bus turnouts. Additionally, a pedestrian bridge and tunnel are proposed to provide grade separated access across the railroad tracks.

● **Ride DuPage**

Ride DuPage is a transportation program that provides paratransit services within DuPage County. Ride DuPage services operate seven days per week/24 hours per day and require advance trip reservations. Agencies that provide transportation services as part of Ride DuPage (“Sponsoring Agencies”) include municipalities, townships, social service organizations, and employers. The Sponsoring Agencies determine service area boundaries and rider eligibility. Since the southern half of Hanover Park is located in DuPage County, the transportation services available to Hanover Park include the following DuPage County sponsored programs:

- DuPage County Human Services (Paratransit Service)
- DuPage County Senior Services
- DuPage Veteran’s Assistance Commission

DuPage County paratransit services are available to DuPage County residents based on age and income eligibility requirements. Trips are provided for medical and county community services purposes only. DuPage Senior Transportation Services are available to DuPage County residents for seniors (60 years old and older) and those meeting low income requirements. Veterans Medical Transportation Services are available to all DuPage County residents that are eligible for VA medical services. Trips are provided only for appointments at a VA medical facility.

● **Township Services**

Many townships offer transportation services to their residents for trips originating within their township borders. Most Township services will travel to destinations a short distance outside of their borders. The Village of Hanover Park is located within four different townships: Schaumburg and Hanover Townships is Cook County, and Wayne and Bloomingdale Townships in DuPage County. A description of services provided by each township is described below.

Hanover Township. Several services are provided: Dial-a-ride, Township Riders Initiative Pilot (TRIP), and taxi voucher program. Dial-a-ride service is provided for seniors and people with disabilities. Service is provided throughout the Township and up to 5 miles beyond. TRIP is a pilot program that offers inter-township transportation for medical purposes for seniors and people with disabilities. This service operates in Hanover and Schaumburg Townships.

Schaumburg Township. Door-to-door transportation service is offered to seniors and people with disabilities. Service is provided within the Township boundaries and up to 5 miles beyond for medical purposes only. TRIP service is provided as described above.

Wayne Township. General public dial-ride service is provided for trips within Wayne Township and trips between Wayne and Bloomingdale Townships. Service is provided for the general public although for trips beyond the Township boundary service is intended for persons with disabilities. Wayne Township also provides a subsidized taxi service for seniors and people with disabilities for travel within the Township and to selected destinations outside of the Township.

Bloomingdale Township. General public dial-ride service is provided for trips within Bloomingdale Township and trips between Bloomingdale and Wayne Townships. Service is provided for the general public although for trips beyond the Township boundary service is intended for persons with disabilities.

Proposed Transit Services

Elgin-O'Hare West Bypass (EOWB) Transit Service

IDOT and FHWA began the Elgin O'Hare – West Bypass (EOWB) project in 2007 to study transportation issues in a 127-square mile project area west of O'Hare Airport. The EOWB is being advanced in two parts or "tiers". "Tiering" refers specifically to transportation projects that are advanced in two phases that build upon one with the other. Tier One addresses the "big picture" issues focusing on the needed improvements and their location. Tier One concluded with a preferred multi-modal alternative consisting of new expressway, arterial, transit, and bicycle/pedestrian improvements.

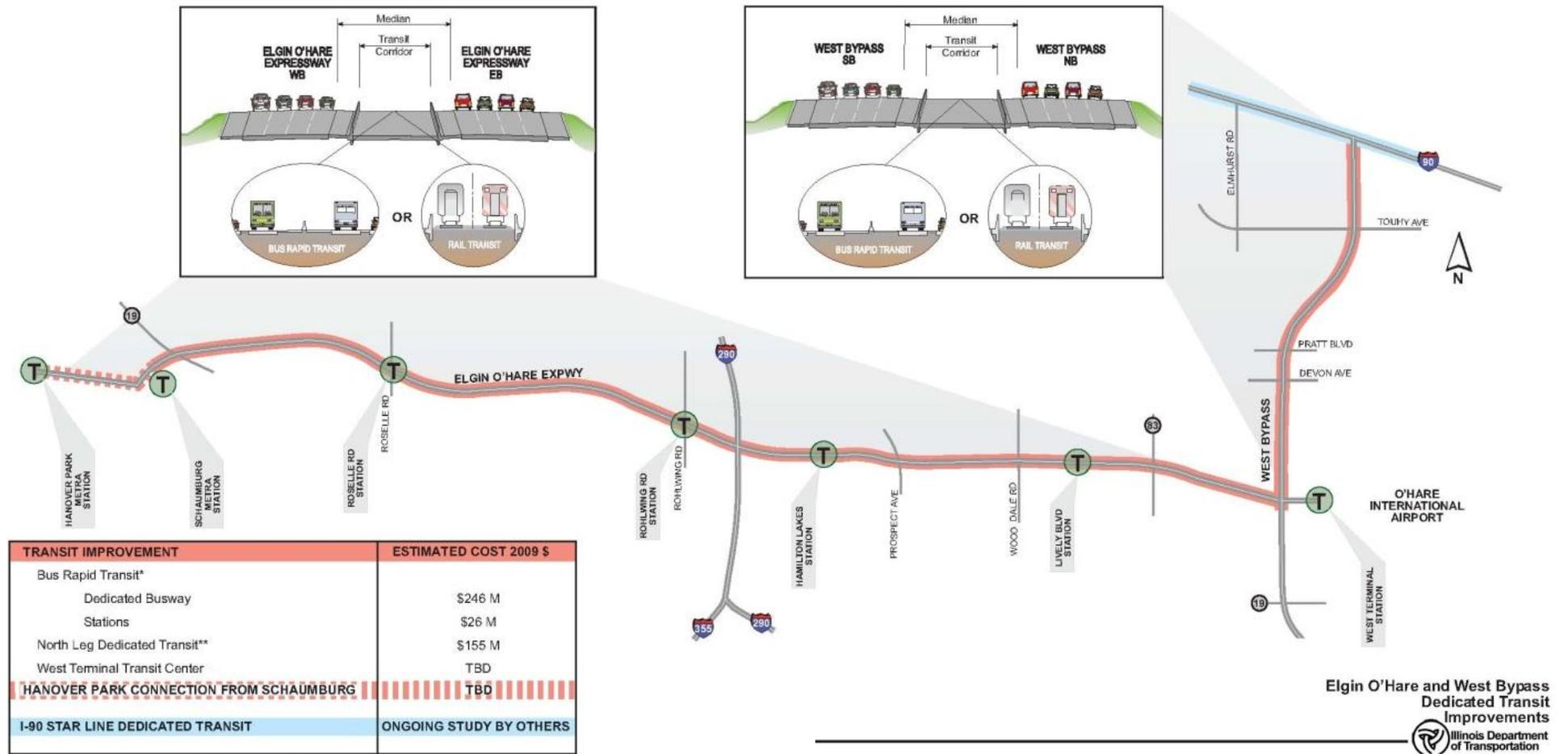


Figure 1.19: Dedicated transit service from Schaumburg to Hanover Park Metra Station (full build out)

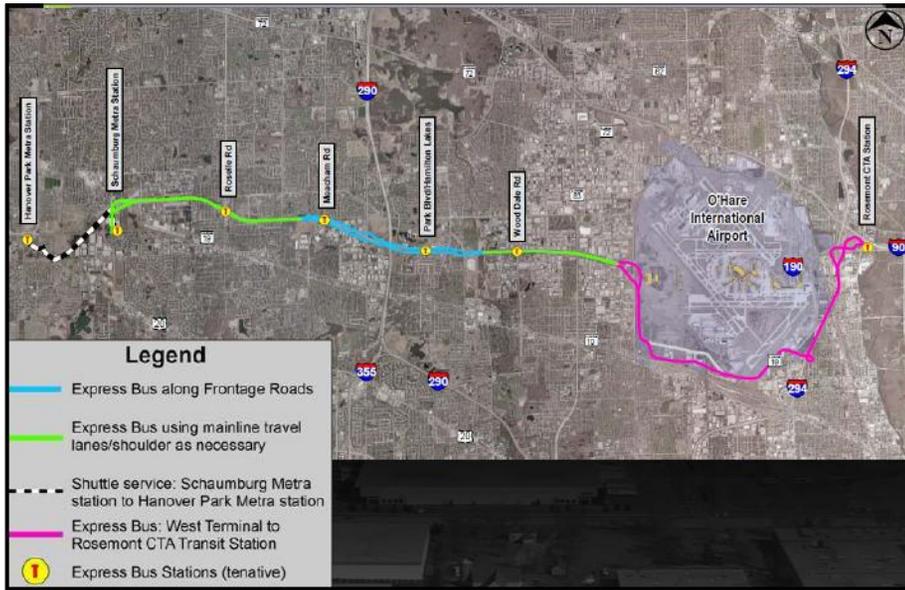


Figure 1.20: Initial transit phase



Figure 1.21: Schaumburg to Hanover Park connection via the EOWB Express Bus Shuttle

The Tier One process used technical analyses and stakeholder input to define transportation problems, evaluate alternative solutions, and identify the preferred transportation system alternative at a conceptual level of detail. The preferred alternative defines the types of improvement, their location (project corridor) and is a basis for hardship or protective right-of-way (ROW) acquisition. Tier One received Federal approval on June 17, 2010.

Tier Two is currently underway and builds on Tier One with detailed engineering and environmental studies to refine design within the preferred corridor. The overall scale of improvements identified with the Tier One Preferred Alternative represent an ultimate build-out transportation plan for the improvement corridors. Given the size and scale of the proposed improvements, it is unlikely that they can be constructed in their entirety in the near term. A staged approach is commonly used to implement major transportation projects. For this project, IDOT has developed a sequencing plan that will enable the project to be constructed in phases as funding allows. The staging plan includes an initial construction phase that is a scaled-back version of the entire project, and future construction phase(s) that provide the remaining improvements. The initial construction phase includes construction of both the Elgin O'Hare Extension and the West Bypass from I-90 to I-294 with fewer travel lanes and interchange ramps than the ultimate plan. The initial construction phase sets aside the median space for future construction of fixed route transit improvements along the Elgin O'Hare corridor and the north leg of the West Bypass. Transit construction, as well as construction of the additional lanes and access points along the EO-WB would occur in subsequent stages as funding allows. In the interim, transit would be provided in the west and central sections as express bus service in shared lanes with shoulder riding proposed. The initial phase would also include station provisions, parking and transit signage.

The proposed terminus for transit in the EOWB corridor is currently the Schaumburg Metra station. The full build out, as presented in Figure 1.19 would be transit service operating in a reserved median along the Elgin-O'Hare Corridor. The initial phase, shown in Figure 1.20 is proposed as Express Bus service operating in mixed traffic. A specific transit mode has not been selected for the full build out. The Tier Two study will consider both Bus Rapid Transit (BRT) and rail options.

Given the short distance from this terminus to the Hanover Park Metra station, the Village of Hanover Park requested that IDOT consider extending transit service to the Hanover Park Metra station. As a result, a proposed shuttle service, possibly operated with Arterial Rapid Transit (ART) features, between Schaumburg and

Hanover Park was added to the Tier One transit improvements. The Tier Two study will consider an extension of the BRT/rail options to Hanover Park, although due to operational constraints determined by IDOT, service would terminate east of the existing Hanover Park Metra station.

For future access to the Hanover Park Village Center, two transit options are addressed:

- Express Bus
- BRT or LRT

According to discussions with IDOT, while BRT appears to be more attainable to Schaumburg, rail options have not been dismissed. Analysis of all modes is currently underway in the Tier Two study, including two options being evaluated for connections to Hanover Park. The first option, presented in Figure 1.21, presents the Express Bus option which follows the Elgin-O'Hare to Lake Street and Ontarioville Road to connect to the Hanover Park station. The second option, shown in Figure 1.22 would be the continuation of the full build out BRT/rail option, located to the north of the Metra Milwaukee District-West line and terminating just east of the Metra station.

To connect to the Hanover Park Village Center, the Express Bus service was proposed to travel along Lake Street to Ontarioville Road. Graphics provided by IDOT for the potential long-term option of BRT/rail shows a terminating station east of the Metra station. Both the potential BRT and LRT service are proposed to travel along the north side of the railroad adjacent to and outside of existing railroad right of way. The Tier Two study, currently underway, will determine storage needs and other facility needs for these options.

● **County Farm Road Transit Service**

As previously described in the Existing Condition report, a study is currently underway regarding the feasibility of new transit service on County Farm Road. A draft report is currently under review by Pace and the Village of Hanover Park to determine if there is enough demand to warrant new service. This could range from either an expansion of existing fixed route service, a new fixed route, or a more flexible type of service such as a call-in-ride. For the purpose of determining possible access to the Village Center, it is assumed that should service be warranted, the proposed Hanover Park Village Center would be a terminus or stop location.



Figure 1.22: Schaumburg to Hanover Park connection via the EOWB



Market Strategy

Introduction

This Market Strategy looks at how to capitalize on the opportunity presented by the area surrounding Hanover Park's Metra Station. As the Village's recently completed Comprehensive Plan determined, this area offers short-term incremental development possibilities and a unique long term opportunity for catalytic redevelopment resulting from the Elgin-O'Hare West Bypass (EOWB). This analysis is designed to identify strategies and catalyst conditions that support the Hanover Park Metra Station area's economic development potential.

SWOT Analysis

The framework for Hanover Park's Transit Oriented Development (TOD) Strategy is a developer-focused assessment of community strengths, weaknesses, opportunities, and threats (SWOT).

1. Strengths: Internal advantages

- a. The study area offers regional transportation access for auto and transit users that is ideally suited for residential and job creating development.
- b. Assembled, undeveloped land parcels offer flexible development sites.
- c. Hanover Park is open to a full range of housing types, including apartment and owned multi-family development.
- d. The site's relative isolation makes adding the taller buildings that enable increased population density without impacting previous development.
- e. Unique historic scale of Ontarioville adds character and a sense of place to the study area.
- f. Hanover Park's ethnic and income diversity gives the area a welcoming image to a large population and offers a variety of workers to businesses that locate there.

2. Weaknesses: Internal disadvantages

- a. The high cost of providing infrastructure to the undeveloped land adds to development costs.
- b. Schaumburg's strong commercial concentration brings the advantages of an established location to compete for the most desirable tenants.
- c. Wetlands in the project area limit development and raise cost due to mitigation expenses.

3. Opportunities: External Advantages

- a. National changes in the entry level housing market have increased interest in apartment living
- b. Apartments fit mixed use better than owned housing because both are long-term commercial investments.
- c. There is growing interest in living and working near transit to save the high cost of gas.
- d. Sensitive development that integrates natural storm water management, energy conservation practices, and renewable building materials has market appeal.

4. Threats: External Disadvantages

- a. The persistently weak economy has delayed investment in new development.
- b. Funding for O'Hare's western bypass relies on the state and federal government, which are both grappling with diminished resources.
- c. The boulevard extension of the Elgin O'Hare expressway will lag the construction of the bypass.
- d. Building over four stories require steel construction that causes higher per square foot construction costs compared to frame construction.
- e. Changes in shopping that include Internet purchasing are reducing size and number of stores

Central Core Mixed-use Area: Market Supported New Uses/Business Opportunities

Hanover Park's Transit Oriented Development Plan seeks dramatic change to be achieved over time. At the micro level that change results from adding residents, commuters, and employees who utilize businesses that serve their needs and wants. The macro level challenge for mixed-use areas is adding employee and resident spending power at a rate that supports the added store, restaurant, and service commercial space at a pace that serves the whole Hanover Park community and the larger Chicago region. The natural evolution of housing and commercial development over time makes a flexible development approach critical to facilitating Hanover Park's TOD vision. The extended time anticipated for completing Hanover Park's TOD promises many changes to real estate products, however the goals for each development type and the catalyst conditions that support various uses likely will remain more constant. To support that flexibility the analysis that follows sets goals for each development type and notes the catalysts that support successful projects:

Ground Floor Commercial Uses

Goal: Create an economically sustainable mix of retail, restaurant, and office uses that offers increased amenities to all Hanover Park residents, serves the needs of those occupying upper floors, and adds to the vitality of the area by offering day into night activity.

As investors have gained experience with vertical mixed-use development, significant ground floor vacancy has occurred in finished projects. Balancing added spending power against added space is the primary challenge inherent to matching commercial supply and demand. If, for example, ground floor retail requires sales of \$300 per square foot for a sustainable business, and the building floor plate is 15,000 square feet, \$4.5 million in sales is required to support the ground floor businesses. If those ground floor businesses are boutiques and specialty food stores that each building household spends an average of \$200 a week supporting, the \$10,400 spending per household means 433 household are needed to support successful ground floor stores and restaurants ($\$4.5 \text{ million} / \$10,400 = 433$). With room for hallways and common elements, each upper story accommodates approximately 14 units and, therefore, 30 stories would be required to make the building's upper stories sustain its ground floor businesses. As this calculation confirms, only approximately one third of the building ground floors can be

commercial businesses that rely on the spending of building residents. The chosen commercial space must be the best sites based on visibility, access, and parking convenience.

Catalyst conditions

1. Land assembly into right sized parcels for development. If, for example, the upper story use is apartments, approximately 200 units create a community that supports building amenities and on-site management. With upper story density at 60 units per acre, a developable parcel would be three to four acres and the 200 households would support approximately 7,000 square feet of commercial space.
2. Allocate non-commercial ground floor space to parking, building foyers, and housing units of particular appeal to residents needing handicapped access.
3. To minimize vacancy and ensure vibrant ground floor uses, at least 50% of the commercial space should be leased before construction permits are issued so the space can be designed to user specifications.
4. Stage parking to match TOD demand by allowing initial buildings to provide 80% of expected demand with later construction adding any deficit spaces. Because parking is such a significant expense, this approach acts as a municipal development incentive that reduces the project cost without financial investment.

Upper stories

Goal: Provide apartment, condominium and office investment opportunities that offer market rate returns and annual revenue, net of any subsidies, sufficient to fund public improvements that make Hanover Park's TOD a significant Village enhancement.

Growth in Hanover Park's TOD area property values and spending power will come from the upper stories of the mixed-use core. This development awaits market support from growth in employment and the formation of new households. There is significant regional competition to capture this growth but Hanover Park's TOD has the natural advantages identified in the SWOT analysis and this plan increases investor confidence in the community's timely review and support for new projects. By allowing higher density in the TOD area, the community improves a developer's return on the land investment and creates revenue to fund infrastructure development while still allowing for a competitive return on investment.

Catalyst conditions

1. Land assembly into right sized parcels for development. As mentioned above, if the upper story use is apartments, approximately 200 units create a community that supports building amenities and on-site management. With upper story density at 60 units per acre, a developable parcel would be three to four acres. Stacked flat condominiums would require a similar configuration and benefit from buildings that contain no more than 50 units. If buildings of that size achieve presales at 3 to 4 units per month, half of each building's units can sell in six months. That pace keeps buyers engaged and meets the needs of financiers who usually demand a 50% presale before construction funding is released. Office development is more flexible and responds to the needs of the user.
2. Office Catalyst: With regional vacancies at an all-time high, speculative office development is not expected to resume soon. In past markets, speculative multi-tenant building began when regional vacancies, now above 20% fell below 10%.
3. Apartment: In addition to right sized parcels, new apartment development requires demand that supports prices necessary to cover new construction's cost. That price level generally occurs when regional vacancies are below 6%.
4. Condominium: Like other forms of residential development, condominiums are over supplied in today's market. The growth in the apartment product has been at the expense of the entry level condominiums. Projects in process as the economy floundered were converted to rental apartments and as the market recovers those units will be the first to capitalize on demand by converting apartments designed as condominiums.

Shopping Center

Goal: Offer space for high volume national tenants that are desired by residents and can attract the sales tax revenue to support enhanced Village services.

Although tenants change their preferred building sizes and location within shopping centers, unchanging core site characteristics determine whether a property can be the location choice for high volume retailers. There must be significant average daily traffic counts, usually in excess of 20,000. Access and visibility must make the property easy to find and there must be sufficient concentration for consumers to view the location as offering enough choice to justify a trip. Retailers refer to that concept as co-tenancies and often further refine their site location decisions

based on the presence of specific nearby tenants. With a continuing preference to locate rather than remodel, high volume retailers could find locations immediately adjacent to the newly constructed boulevard to offer ideal conditions for retail development if signalized intersections can serve large enough parcels to offer strong co-tenancies.

Catalyst Conditions:

1. High volume of traffic diverted off current Lake Street onto boulevard extension of Elgin-O'Hare.
2. Concentrations of committed tenants that offer product diversity and enough gravity to attract shopping away from current clusters
3. Significant Village project subsidy tapping both Tax Increment Financing (TIF) & sales tax revenue but offering enough residual new revenue to cover the expenses of servicing the project and adding amenities to the Village.

Flexible Business Park

Goal: Attract Single tenant or multi-tenant campus style development that recognizes the amenity laden plan and has employees who use Metra to commute.

The portion of the Hanover Park TOD area that has less visibility than retailers require presents an opportunity to create campus style business park space. That development product increases the area employment and adds a daytime population that supports nearby stores and restaurants. Employment also makes Hanover Park a more desirable community where residents can live and work. Locating employment near a Metra stop offers the possibility of reverse commuters who make the station a daily destination rather than just an origin point.

Catalyst Conditions:

1. Local business owners with growing enterprises, a desire to remain in the area, an interest in a short commute, and employees who can easily travel to the area.
2. From time to time opportunities arise for Illinois to win a multi-state competition for national headquarters relocations. If the interested business wants a campus environment, access to O'Hare as well as regional connection via the Elgin O'Hare Expressway may make this location desirable.
3. As with office development, a significant reduction in regional vacancy rates is key to tenanting the flexible business park.

Development Feasibility Analysis

Businesses and developers investing in Hanover Park’s TOD will examine the opportunities based on an overall investment that must include both provision for infrastructure and development of the property. At this conceptual level, the issue is whether the development can provide enough return to the developer and revenue to government to cover land purchase, development, and infrastructure. With limited information on building materials and other project specifics, any analysis of site concept financial feasibility is a gross estimate of potential market response. Essentially this feasibility analysis screens prototypical development concepts to estimate their potential contribution to realizing the Hanover Park Village Center/TOD concept. The goal is understanding the public and private resources that must be marshaled to achieve this plan. The assumptions listed in Table 1 underlie this initial investigation.

Investment Returns		
1	Equity & Mortgage Blended Return: New Development	11.0%
2	Equity & Mortgage Blended Return: Rental Apartment	9.0%
Project Income		
3	New Commercial Construction Net Operating Income per SF	\$23.00
4	Monthly Luxury Apartment Rent/SF	\$1.70
5	Large Retail Net Operating Income per SF	\$12.00
Project Costs		
6	4+ Floors Residential Construction per SF	\$167.05
7	4- Floors Residential Construction per SF	\$135.81
8	Commercial Construction	\$147.12
9	Soft Costs	15%
10	Surface Parking Space	\$6,000
11	Garage Parking Space	\$23,000

Table 2.1

Methodology

The Building Type Site Feasibility tables that follow use Table 5.1 assumptions to calculate the investment returns for sample blocks as shown on the final development concept plan to illustrate how the recommended development could

be accomplished through a public private partnership. This simplified assessment compares a basic cost estimate to the value of income from the proposed development. For example, if net operating income for new commercial space is \$23 per square foot (line 3), a 1,000 square foot new space provides annual income of \$23,000. The \$23,000 is an 11% return (line 1) on \$209,091 which is the amount a developer would invest to achieve the \$23,000 income, or the market rate return. The assumptions provide a cost to construct commercial space (line 8) of \$147.12 per square foot so a 1,000 square foot space costs \$147,120 to construct, the hard costs. Soft costs including design, engineering, and permitting typically add 15% to costs (line 9). Totaling construction costs, \$147,120, and soft costs, \$22,068, calculates project costs before land acquisition at \$169,188. Since in this example the investor is willing to invest \$209,091 for the expected income, there is \$39,903 available to pay for land and infrastructure costs (\$209,091-\$169,188=\$39,903). After the development is complete, the Village would have property tax revenue and, if there are stores and restaurants, sales tax revenue that it may dedicate to development costs.

Site Feasibility

At the conceptual proposal level, potential private partners and the Village need to see an indication that the project could cover construction, land, and infrastructure costs. These Sample Site Feasibility tables below confirm that the proposed densities present realistic public private partnerships.

Site 10A: 13-Story Mixed Use Center

Residential Units	1,194
Retail Square Feet	42,000
Costs	\$256,372,168
Value	\$243,594,054
Gap	(\$12,778,114)
Incremental Annual Property Tax	\$4,871,881
Bond payment potential	\$55,880,092
Annual Sales Tax	\$126,000

Applying the simplified feasibility assessment described above to mixed -use sites, such as Site 10A above, highlights the challenges of this development topology. In



this example, the costs exceed the development value by approximately 5%. The shortfall occurs because the density necessitates structured parking (Table 2.1: line 11). Market rate rents cannot cover the \$23,000 per parking space cost and be competitive with other nearby, surface parked developments where spaces are only \$6,000. The compensating factor is density that creates nearly \$250 million in property value that could result in annual property taxes of nearly \$5 million.

Site 17: 7-story Multi-Family

Residential Units	950
Costs	\$195,730,078
Value	\$193,868,136
Gap	(\$1,861,942)
Incremental Annual Property Tax	\$3,877,363
Net Present Value of 20 Years	\$44,473,045

Underwriting the garage shortfall would require less than three years of property tax revenue. The bond payment potential of nearly \$56 million would not only cover the parking garage shortfall, it also would support schools for new families and contribute to storm water control, building new roads and adding public infrastructure.

Site 18: 1-story Commercial

Retail Square Feet	72,187
Costs	\$13,565,712
Value	\$12,031,167
Gap	(\$1,534,545)
Incremental Annual Property Tax	\$240,623
Bond payment potential	\$2,759,931
Annual Municipal Sales Tax	\$577,496
Bond payment potential	\$6,623,834

In a similar fashion to the mixed use project example above, the density associated with this all residential development requires structured parking and results in a 1% shortfall when market rents are applied in the feasibility analysis. That shortfall is overcome by less than one year of \$3.9 million in new property tax revenue. The potential property tax revenue over 20 years would support schools for new families and contribute to adding the infrastructure necessary to support development.

Auto oriented, high volume, price competitive retail development requires public private partnership because the value platform necessitates rents that do not cover

the design standards proposed for this area. As this table reveals the increased annual sales taxes overcome the deficit in about three years. This project does not add to the need for schools so the balance of the new annual revenue can be allocated to infrastructure and Village expenses.

Development Concept Feasibility Summary

Applying this level of analysis to all development parcels in the Concept Plan reveals the potential to create over \$1 billion in value and approximately \$4 million in annual municipal sales taxes, in addition to over \$23 million in property taxes. This is a long-term plan that will be built in phases as public/private partnerships emerge to support projects. Public amenities such as garage parking for Metra commuters, parks, dining/entertainment, and convenient shopping will result from these partnering relationships. These amenities extend to the region as development offers jobs, housing choices, and improves traffic flow. That regional impact supports allocation of county, state and federal funds to project development costs. With a long range planning perspective, flexibility will be the key to the feasibility of developing Hanover Park’s TOD. As quality development investment occurs near the train station, County Farm Road, and north of Lake Street, the interest of long-term investors will be heightened. The goal is to preserve the long-term development framework as development emerges and the needs of the market change over time.

Conclusions

With a long range planning perspective, flexibility will be the key to successful development of Hanover Park’s TOD. In addition to the efforts directed at vacant and underutilized land, it is important to consider the ongoing development and redevelopment of parcels north of Lake Street and within the transit influenced geography. As quality, immediate investment occurs near the train station and north of Lake, the interest of long-term investors will be heightened. The goal is to preserve the long-term framework as development emerges and the needs of the market change over time.

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CHAPTER 3

Sustainability Analysis

A large portion of the study area is occupied by wetlands. In addition, Hanover Park has a historical preservation district that is a part of this area. Big or small, a development will have some impact on the physical or environmental character of the community. Minimizing these impacts is paramount for the proposed Hanover Park Town Center and TOD. Incorporating a sustainable analysis of the site will act as a guide for development of the Town Center so that it is respectful of the local character and environment that define the community, as well as make the development walkable and less demanding of finite natural resources.

As illustrated in the Village Center TOD Development Plan, and Design Guidelines, the overall Town Center and TOD Plan carefully consider how the proposed development concept relates to the existing historic district and wetlands, while developing the site to its full potential. An interconnected network of open spaces is also provided, preserving undeveloped green spaces for flora and fauna as well as offering opportunities for recreation.

Sustainability, Defined

Overall, the proposed development concepts are rooted in the idea of creating a sustainable Town Center and TOD in Hanover Park. But what exactly does the term “sustainable” mean? The Merriam-Webster Dictionary offers a general definition for “sustainable”, defining it as:

... of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.

For a more focused definition relating to the relationship between development and environment, the term “sustainable” often embodies a spirit of stewardship and a mindful integration of the physical and natural environments. The World Commission on Environment and Development defines “sustainable development” as an action:

... to meet the needs of the present without compromising the ability of future generations to meet their own needs.

Considering the two definitions together, the primary themes are: (1) to carefully utilize resources to meet current needs, and (2) to do so without sacrificing future needs for those same resources. Without question, this is certainly the way development should be approached. The Hanover Park Town Center and TOD is certainly no exception, and the Village understands how it can pave the way for other municipalities to achieve sustainable communities.

Sustainability, Measured

The Land Use Plan and Design Guidelines each provide a visual measure for fostering the sustainability of the Town Center and TOD and minimizing its impacts on the historic district and the environment. However, these visual depictions are fairly general and not always quantifiable, particularly to measure their effectiveness. For example, the Urban Design Plan calls for making the development more walkable, but not in a quantifiable manner that assesses the actual characteristics of a walkable development.

On the other hand, a rating system like the Leadership in Energy and Environmental Design (LEED™) for Neighborhood Development offers a more systematic measure to evaluate attributes of sustainability, including environmental impacts, walkability, compact mix of uses, and connectivity. Table 3.1 provides a general overview of the LEED-ND Rating System, including the different sections the development can be rated on, the number of points the development has the potential of achieving, and recommended implementation measures for the Village to pursue. It is important to note that seeking LEED-ND certification is not the driving force of the Town Center & TOD Plan; rather, the goals and concepts underlying the Plan have the intent of ensuring the sustainability of the developments while also lending support to the Village if it elects to seek certification.

Prefaced with a brief overview of LEED-ND, the remainder of this section includes a LEED-ND Analysis, which is designed as an assessment of how the proposed Town Center and TOD development concepts relate to the requirements needed to

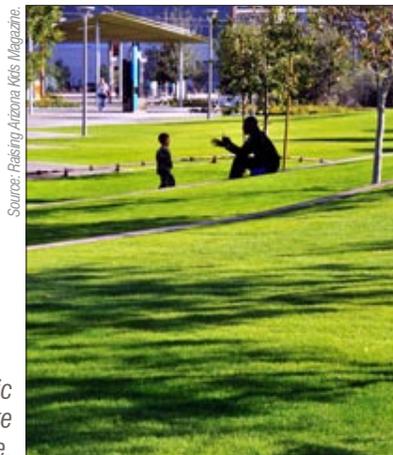
attain LEED-ND certification. This analysis should generally be used as a guide as the Village considers the potential for the Town Center and TOD, or certain aspects of them, to be certified as LEED-ND.

Overview of LEED-ND

LEED-ND is a national program that emphasizes the creation of compact, walkable, vibrant, mixed use neighborhoods with connections to nearby communities. It also encourages compact development patterns and the selection of sites that are within or adjacent to existing development to help minimize habitat fragmentation and preserve recreation areas.

The LEED-ND Rating System is a response to the interplay of land use and environmental factors as they relate to the development of communities and the built environment. As stated in the *LEED 2009 for Neighborhood Development Rating System Guidebook* prepared by the U.S. Green Building Council (USGBC), the Rating System emphasizes neighborhood morphology, pedestrian scale, and mix of uses, as well as underscores the importance of “the location of the neighborhood and the performance of the infrastructure and buildings within it.”

A neighborhood can achieve a higher quality-of-life with increased focus on sustainable benefits, particularly as the neighborhood provides proximity to transit, as well as allows residents, visitors, and workers to travel safely to jobs, amenities, and services. In addition, sustainable practices can help reduce energy consumption and water use, encourage best practices for stormwater management, and support environmental stewardship through green infrastructure and mindful site/landscape design.



The LEED-ND credit for civic and public spaces is designed to ensure they are accessible and of adequate size.



Based on core principles of smart growth, New Urbanism, and green infrastructure and building, the LEED-ND Rating System emphasizes concepts such as site selection, site design, and construction materials in order to create a neighborhood -- including both buildings and infrastructure -- that relates to the surrounding landscape and the local and regional context. The five topical areas rated by the Rating System are listed below. Points are awarded to the fulfillment of prerequisites and credits based on their potential environmental impacts on and human benefits of design, construction, operation, and maintenance of the built environment. Social and public health benefits are also considered. The *LEED 2009 for Neighborhood Development Rating System Guidebook* provides greater detail on the Rating System.



The LEED-ND Rating System is comprised of prerequisites and credits that address the following five topics:

- Smart Location and Linkage (SLL)
- Neighborhood Pattern and Design (NPD)
- Green Infrastructure and Buildings (GIB)
- Innovation and Design Process (IDP)
- Regional Priority Credit (RPC)

After tabulating the points achieved by a project, LEED-ND certification is awarded based upon the following scale:

- Certified 40-49 points
 - Silver 50-59 points
 - Gold 60-79 points
 - Platinum 80 points and above
- * 110 possible total points

Source: U.S. Green Building Council.

Table 3.1: Overview of the LEED-ND Rating System

LEED-ND Analysis

On the following pages is a LEED-ND analysis based on a detailed assessment of how the Town Center & TOD Plan relates to the prerequisites, credits, and requirements outlined in the *LEED 2009 for Neighborhood Development Rating System Guidebook*.

In addition to describing the point eligibility of the Town Center and TOD relative to each prerequisite/credit, mechanisms or municipal policies that can help the Town Center and TOD project attain prerequisites and credits are also outlined, which will help guide the Village as it seeks LEED-ND certification. In some cases, these mechanisms have already been integrated into the urban design site plan and design guidelines, which illustrates the ubiquitous nature of sustainability into the planning and design of a project. In other cases, these mechanisms or municipal policies are outlined as recommendations to be implemented by the Village and its community partnerships.

The LEED-ND analysis is summarized in table format in Table 3.2, which is spread over the next few pages. Wherever possible, the number of eligible points are tabulated based on available information at the time of publication of this report; otherwise, eligible points are labeled as TBD (to be determined), with the recommended mechanisms and municipal policies helping to determine the points as the Town Center and TOD transitions from plan to construction. The last three columns in the table indicate whether or not each prerequisite/credit is addressed in the Design Guidelines (DG), Site Plan (SP), and/or Implementation Plan (IP).

A neighborhood can achieve a higher quality-of-life with increased focus on sustainable benefits, particularly proximity to transit and the ability to travel safely to jobs, amenities, and services.



A rain garden is a vegetated depression that helps reduce stormwater runoff by filtering rain back into the ground to maintain the natural cycle of water. A rain garden can be placed near buildings, in parkways, and in and around parking areas.



Proximity to a farmers' market fulfills one LEED-ND credit aimed at encouraging local food production.

Table 3.2: LEED-ND analysis for the Hanover Park Village Center and TOD study area (Page 1 of 7)

Design Guidelines = DG
 Site Plan = SP
 Implementation Plan = IP

Prerequisite / Credit	Name*	General Requirement(s)	Option(s)	Mechanisms / Policies to help facilitate certification	LEED-ND Points				
					Eligible	Total Possible	DG	SP	IP
Rating System Topic: Smart Location & Linkage (SLL)									
SLL Prerequisite 1	Smart Location	Fulfills general requirement to locate project on a site served by existing water and wastewater infrastructure	Fulfills Option 3 to locate project on a site with planned transit service, meeting dwelling unit and walking distance requirements	N/A (all requirements fulfilled)	Meets the Prerequisite				
SLL Prerequisite 2	Imperiled Species & Ecological Communities Conservation	Need to determine the presence of any threatened or endangered species	Need to fulfill Option 1, 2, or 3	Consult with state National Heritage Program (Illinois Department of Natural Resources) and Illinois fish and wildlife agencies	Prerequisite				x
SLL Prerequisite 3	Wetland & Water Body Conservation	Need to comply with all local, state, and federal regulations pertaining to wetland and water body conservation	Potential to fulfill Option 2 provided that no new development will impact preproject wetlands, water bodies, land within 50 ft of wetlands, and land within 100 ft of water bodies	Develop site design that meets all requirements to minimize development impacts and design appropriate setbacks.	Prerequisite		x	x	x
SLL Prerequisite 4	Agricultural Land Conservation	Fulfills general requirement to locate project on a site not within a state or locally designated agricultural preservation district	Fulfills Option 3 to comply with SLL Prerequisite 1, Option 3	N/A (all requirements fulfilled)	Meets the Prerequisite				
SLL Prerequisite 5	Floodplain Avoidance	-	Fulfills Option 1 to locate on a site without any floodplains	N/A (all requirements fulfilled)	Meets the Prerequisite				
SLL Credit 1	Preferred Locations	-	Need to fulfill combination of Options 1, 2, and/or 3	Ensure final development meets the location type, connectivity standards and the other high-priority location options	TBD	10			
SLL Credit 2	Brownfields Redevelopment	-	Does not fulfill any of the requirements established in Options 1 or 2	N/A (project site is not located on a brownfield site)	0	2			
SLL Credit 3	Locations with Reduced Automobile Dependence	-	Potential to fulfill Option 1 and 2 provided that the project meets the specified VMT per capita requirements	Calculate the minimum daily transit service for the project to calculate the number of points possible, or research VMT per capita data for region	TBD	7			x
SLL Credit 4	Bicycle Network and Storage	Fulfills bicycle network requirement to locate project within 1/4-mile bicycling distance from an existing bicycle network of at least 5 continuous miles in length; potential to fulfill bicycle storage requirements	-	Develop design guidelines that meet specified bicycle storage requirements	TBD	1	x	x	
SLL Credit 5	Housing and Jobs Proximity	-	Does not fulfill any of Options 1, 2, or 3, which require a 1/2-mile walking distance proximity to existing jobs from the project's geographic center	N/A (unless full-time equivalent jobs are established within the 1/2-mile walking distance proximity of the project before LEED certification)	0	3			

Table 3.2: LEED-ND analysis for the Hanover Park Village Center and TOD study area (Page 2 of 7)

Design Guidelines = DG
 Site Plan = SP
 Implementation Plan = IP

Prerequisite / Credit	Name*	General Requirement(s)	Option(s)	Mechanisms / Policies to help facilitate certification	LEED-ND Points				
					Eligible	Total Possible	DG	SP	IP
SLL Credit 6	Steep Slope Protection	-	Does not need to fulfill Options 1, 2 or 3	Measure slopes in areas that may be disturbed by development	TBD	1	x	x	x
SLL Credit 7	Site Design for Habitat or Wetland and Water Body Conservation	-	Need to determine the presence of any significant habitats (Option 2); OR Need to meet setback requirements from wetlands and water bodies (Option 3)	Identify and commit to ongoing management activities so that habitats are maintained in pre-project condition or better for certain time frame (Option 2); OR Develop site development plan that meets all requirements to minimize development impacts and design appropriate setbacks (Option 3). Also check for compliance with wetland enhancement and distance from airports.	TBD	1	x	x	x
SLL Credit 8	Restoration of Habitat or Wetlands and Water Bodies	Need to restore predevelopment native ecological communities, water bodies, or wetlands on the project site in an area equal to greater than 10% of the development footprint	-	Ensure development of a management plan that meets the specified requirements	TBD	1	x		x
SLL Credit 9	Long-Term Conservation Management of Habitat or Wetlands and Water Bodies	Need to create and commit to implementing a long-term management plan for new or existing on-site native habitats, water bodies, and/or wetlands and buffers, including a guaranteed funding source for management	-	Ensure development of a management plan that meets the specified requirements	TBD	1	x		x
Rating System Topic: Neighborhood Pattern and Design (NPD)									
NPD Prerequisite 1	Walkable Streets	Need to meet requirements for (a) building entries, (b) building height-to-street width ratio, (c) continuous sidewalks, and (d) garage/ service bay frontage	-	Develop site development plan and/or design guidelines that meets all requirements to minimize development impacts and design appropriate setbacks	Prerequisite		x	x	
NPD Prerequisite 2	Compact Development	Density must be achieved within 5 years of the date that the first building of any type is occupied	Need to meet the minimum of 7 du/ac density for <u>any</u> residential uses AND 0.50 FAR minimum for <u>any</u> non-residential uses	Ensure the final development meets the density and FAR requirements	Prerequisite			x	
NPD Prerequisite 3	Connected and Open Community	-	Need to meet minimum intersection density AND minimum connectivity at project boundary at specified intervals (Option 1)	Ensure final development meets the intersection density (per square mile) and project boundary connectivity requirements	Prerequisite			x	
NPD Credit 1	Walkable Streets	Need to meet up to 16 requirements relating to façades and entries (a-e), ground-level use and parking (f-m), design speeds for safe pedestrian and bicycle travel (n-o), and sidewalk intrusions (p)	-	Develop site development plan and/or design guidelines that meets the specified walkable street requirements	TBD	12	x	x	

Table 3.2: LEED-ND analysis for the Hanover Park Village Center and TOD study area (Page 3 of 7)

Design Guidelines = DG
 Site Plan = SP
 Implementation Plan = IP

Prerequisite / Credit	Name*	General Requirement(s)	Option(s)	Mechanisms / Policies to help facilitate certification	LEED-ND Points				
					Eligible	Total Possible	DG	SP	IP
NPD Credit 2	Compact Development	Need to meet possible requirements range for residential density AND non-residential FAR (density must be achieved within 5 years of the date that the first building of any type is occupied)	-	Ensure the final development meets the density and FAR requirements	TBD	6		x	
NPD Credit 3	Mixed-Use Neighborhood Centers	Need to meet dwelling unit proximity to diverse uses per Table 1 (the specified number of diverse uses must be in place by the time of occupancy according to percentages indicated in Table 1); other requirements also apply	-	Develop site development plan that provides a fair distribution of diverse uses	TBD	4		x	
NPD Credit 4	Mixed-Income Diverse Communities	-	Generates a Simpson Diversity Index of 0.7, which qualifies for 3 points and indicates a diverse housing stock; also need to assess affordable housing thresholds (Option 2); eligible for 1 extra point for meeting portion of Options 1 and 2 (per Option 3)	Develop site development plan that provides a diverse housing stock with affordable options	3 (minimum)	7		x	
NPD Credit 5	Reduced Parking Footprint	Need to manage location and coverage of off-street parking, provision of bicycle storage, and parking spaces serving carpool and/or shared-use vehicles	-	Develop site development plan and design guidelines that foster a reduced parking footprint per the specified requirements	TBD	1	x	x	
NPD Credit 6	Street Network	Need to meet minimum connectivity at project boundary at specified intervals AND intersection density range	-	Ensure the final development creates an interconnected street network within and beyond the site	TBD	2	x	x	
NPD Credit 7	Transit Facilities	Need to identify transit stop locations with approved shelters, informational amenities, and other required improvements	-	Develop site development plan, circulation & access plan, and design guidelines that properly addresses transit station locations and design criteria	TBD	1	x	x	
NPD Credit 8	Transportation Demand Management	-	Need to fulfill at least two of Options 1-5 (1 point awarded for every two options fulfilled; maximum 2 points)	Develop a transit promotion program that includes a transportation demand management (TDM) program and other measures that encourage transit use	TBD	2			x
NPD Credit 9	Access to Civic and Public Space	Provides civic, public, and open spaces that meet specified size and proximity requirements	-	N/A (all requirements fulfilled)	1	1	x	x	
NPD Credit 10	Access to Recreation Facilities	Provides recreation facilities that meet specified size and proximity requirements	-	N/A (all requirements fulfilled)	1	1	x	x	
NPD Credit 11	Visitability and Universal Design	-	Need to provide dwelling units that adhere to universal design standards (Option 1) OR non-compliant public rights-of-way or accessible travel routes that adhere to ADA standards (Option 2)	Develop design guidelines that integrate universal design and ADA standards to meet specified requirements	TBD	1	x		

Table 3.2: LEED-ND analysis for the Hanover Park Village Center and TOD study area (Page 4 of 7)

Design Guidelines = DG
 Site Plan = SP
 Implementation Plan = IP

Prerequisite / Credit	Name*	General Requirement(s)	Option(s)	Mechanisms / Policies to help facilitate certification	LEED-ND Points				
					Eligible	Total Possible	DG	SP	IP
NPD Credit 12	Community Outreach and Involvement	-	Fulfills the first 4 of 5 requirements in Option 1; need to fulfill 5th requirement to establish ongoing communication between the developer(s) and community (Option 1); extra point to obtain endorsement from an ongoing evaluation program (Option 3)	Establish recommendations in Implementation Plan to fulfill remaining community involvement requirements	TBD	2			x
NPD Credit 13	Local Food Production	Need to establish that covenants, conditions, and restrictions (CC&R) or other forms of deed restrictions do not prohibit the growing of produce in the project area	Need to fulfill at least one of the following options: (1) dedicate growing space for neighborhood farms or gardens; (2) participate in a community-supported agriculture (CSA) program; or (3) locate within proximity of a farmers' market	Establish recommendations in Implementation Plan to fulfill local food production requirements; can also integrate recommendations into design guidelines and/or site plan	TBD	1	x	x	x
NPD Credit 14	Tree-Lined and Shaded Streets	Need to retain a registered landscape architect to assess all landscaping matters related to the project	Need to fulfill landscaping requirements relating to tree-lined and shaded streets	Establish recommendations in Implementation Plan to retain a registered landscape architect to assess all landscaping matters related to the project; can also integrate landscaping requirements into design guidelines and/or site plan	TBD	2	x	x	x
NPD Credit 15	Neighborhood Schools	Need to provide conditions that support a school, including new residential units that generate students and are in close proximity to the school; recommended size of school campus is also important to consider	-	Develop site development plan that provides a new school or proximity to existing schools, ensuring appropriate campus size	TBD	1		x	
Rating System Topic: Green Infrastructure and Buildings (GIB)									
GIB Prerequisite 1	Certified Green Building	Need to meet LEED certification requirements for design and construction of <u>one whole building</u> (may also use other green building rating systems besides LEED)	-	Ensure development projects require <u>at least one building</u> within the project to adhere to LEED or other green building rating systems as defined by ISO/IEC 17021	Prerequisite		x		
GIB Prerequisite 2	Minimum Building Energy Efficiency	Need to properly document minimum building energy efficiency using the specified guides and standards	-	Ensure development projects require all new buildings to properly document minimum building energy efficiency as specified. Outline funding mechanisms for making retrofits to reduce building energy consumption, as outlined in Implementation Plan.	Prerequisite		x		

Table 3.2: LEED-ND analysis for the Hanover Park Village Center and TOD study area (Page 5 of 7)

Design Guidelines = DG
 Site Plan = SP
 Implementation Plan = IP

Prerequisite / Credit	Name*	General Requirement(s)	Option(s)	Mechanisms / Policies to help facilitate certification	LEED-ND Points				
					Eligible	Total Possible	DG	SP	IP
GIB Prerequisite 3	Minimum Building Water Efficiency	Need to ensure buildings comply with baseline water usage standards to maintain minimum building water efficiency	-	Establish recommendations in Implementation Plan or design guidelines that require all new buildings to comply with baseline water usage standards	Prerequisite		x		
GIB Prerequisite 4	Construction Activity Pollution Prevention	Need to minimize pollution generated from construction activity	-	Ensure development projects utilize best management practices (BMPs) to minimize pollution generated from construction activity	Prerequisite				
GIB Credit 1	Certified Green Buildings	Need to meet LEED certification requirements for design and construction of new buildings (may also use other green building rating systems besides LEED)	-	Ensure development projects integrate new buildings that adhere to LEED or other green building certification requirements	TBD	5	x		
GIB Credit 2	Building Energy Efficiency	Need to properly document building energy efficiency using the specified guides and standards	-	Ensure development projects require all new buildings to properly document building energy efficiency as specified	TBD	2	x		
GIB Credit 3	Building Water Efficiency	Need to ensure buildings comply with baseline water usage standards to maintain building water efficiency	-	Ensure development projects require all new buildings to comply with baseline water usage standards	TBD	1	x		
GIB Credit 4	Water-Efficient Landscaping	Need to limit or eliminate the use of potable water and other natural surface/ subsurface water for on-site landscape irrigation	-	Ensure development projects meet landscaping requirements intended to maximize the efficiency of landscape irrigation techniques	TBD	1	x		
GIB Credit 5	Existing Building Reuse	Need to reuse an existing building structure and/or envelope	-	Reuse an existing building structure and/or envelope in accordance with the greater of two benchmarks	0	1			
GIB Credit 6	Historic Resource Preservation & Adaptive Use	Preservation of at least one historic building or cultural landscapes within the project site	-	Ensure the preservation of Historic Ontarioville District	1	1			
GIB Credit 7	Minimized Site Disturbance in Design & Construction	Need to conduct a tree survey and develop a tree preservation plan that meet the specified standards	Need to (a) meet minimum "area left undisturbed" standards based on residential density and non-residential FAR; and (b) identify construction impact zones that limit disturbances to specified minimum distance requirements (Option 2)	Ensure development standards are established that identify construction impact zones; Ensure development projects outline details for tree surveying and tree preservation plans	TBD	1	x		

Table 3.2: LEED-ND analysis for the Hanover Park Village Center and TOD study area (Page 6 of 7)

Design Guidelines = DG
 Site Plan = SP
 Implementation Plan = IP

Prerequisite / Credit	Name*	General Requirement(s)	Option(s)	Mechanisms / Policies to help facilitate certification	LEED-ND Points				
					Eligible	Total Possible	DG	SP	IP
GIB Credit 8	Stormwater Management	Implement a comprehensive stormwater management plan that retains a specified percentage of total rainfall volume (earn higher points for greater rainfall retention)	-	Develop and implement a comprehensive stormwater management plan; stormwater management features may be specified in design guidelines and/or on the development site plan	TBD	4	x	x	x
GIB Credit 9	Heat Island Reduction	-	Meet the specified requirements for one of the following roof categories: nonroof measures (Option 1); high-reflectance and vegetated roofs (Option 2); or mixed nonroof and roof measures (Option 3)	Ensure development projects meet the roof design requirements aimed at reducing heat islands	TBD	1	x		
GIB Credit 10	Solar Orientation	-	Orient blocks (Option 1) or buildings (Option 2) that meet the specified orientation requirements	Ensure development projects meet the solar orientation requirements	TBD	1	x	x	
GIB Credit 11	On-Site Renewable Energy Sources	Incorporate on-site non-polluting renewable energy generation (e.g. solar, wind, geothermal, hydroelectric, and/or biomass) w/ minimum production capacity of 5% of the project's annual electrical and thermal energy cost	-	Utilize an accepted building energy performance simulation tool to measure renewable energy generation	TBD	3	x		
GIB Credit 12	District Heating and Cooling	Incorporate a district heating and/or cooling system for space conditioning and/or water heating of new buildings (minimum 2, excluding single family residential and existing buildings) such that at least 80% of the project's annual heating and/or cooling consumption is provided by the district plant; efficiency performance and energy consumption standards must also be met	-	Ensure development projects require the incorporation of a district heating and/or cooling system for space conditioning and/or water heating of new buildings	TBD	2	x		
GIB Credit 13	Infrastructure Energy Efficiency	Install all new infrastructure, including but not limited to traffic lights, street lights, and water/wastewater pumps, to achieve a 15% annual energy reduction below an estimated baseline energy use for this infrastructure	-	Ensure development projects install the required infrastructure	TBD	1	x		
GIB Credit 14	Wastewater Management	Retain on-site at least 25% of the average annual wastewater generated by the project, and reuse that wastewater to replace potable water (1 point for 25%; 2 points for 50%)	-	Ensure development projects are designed and constructed to meet the specified wastewater management requirements	TBD	2	x	x	

Table 3.2: LEED-ND analysis for the Hanover Park Village Center and TOD study area (Page 7 of 7)

Design Guidelines = DG
 Site Plan = SP
 Implementation Plan = IP

Prerequisite / Credit	Name*	General Requirement(s)	Option(s)	Mechanisms / Policies to help facilitate certification	LEED-ND Points				
					Eligible	Total Possible	DG	SP	IP
GIB Credit 15	Recycled Content in Infrastructure	Use materials for new infrastructure such that the sum of pre- and post-consumer recycled content and in-place reclaimed materials constitute at least 50% of the total mass of infrastructure materials	-	Ensure development projects utilize infrastructure materials that meet the specified composition of recycled and reclaimed content	TBD	1	x		
GIB Credit 16	Solid Waste Management Infrastructure	Meet at least 4 of the following 5 minimum requirements: (a) one recycling or reuse station; (b) one drop-off point; (c) one compost station or location; (d) partnering recycling containers with other receptacles; and (e) 50% recycling and/or salvaging of nonhazardous construction and demolition debris	-	Ensure development projects address the specified solid waste management infrastructure requirements	TBD	1	x		
GIB Credit 17	Light Pollution Reduction	Meet lighting requirements that are aimed at: (a) reducing light levels; (b) reducing exterior lighting usage; (c) enforcing appropriate uplighting, light trespass, and roadway lighting standards; and (d) stipulating covenants, conditions, and restrictions (CC&R) or other binding documents to require continued adherence to these requirements	-	Ensure development projects address the specified light pollution reduction requirements	TBD	1	x		
Rating System Topic: Innovation and Design Process (IDP)									
IDP Credit 1	Innovation and Exemplary Performance	Need to identify, in writing: (1) the intent of the proposed innovation credit; (2) the proposed requirement for compliance; (3) the proposed submittals to demonstrate compliance; and (4) the design approach and strategies that might be used to encourage exemplary performance above the requirements set by LEED-ND and/or innovative performance in green building, smart growth, or new urbanist categories	-		TBD	5			x
IDP Credit 2	LEED Accredited Professional	Ensure that at least one principal member of the project team is one of the following: (a) a LEED Accredited Professional; (b) a professional who is credentialed in smart growth via the NRDC and SGA; or (c) a professional who is credentialed in new urbanism via the CNU	-		TBD	1			x
Rating System Topic: Regional Priority Credit (RPC)									
RPC Credit 1	Regional Priority	Comply with geographically specific environmental, social equity, and public health priorities, as identified on a database provided on the USGBC website: www.usgbc.org/DisplayPage.aspx?CMSPageID=1984	-		TBD	4			x



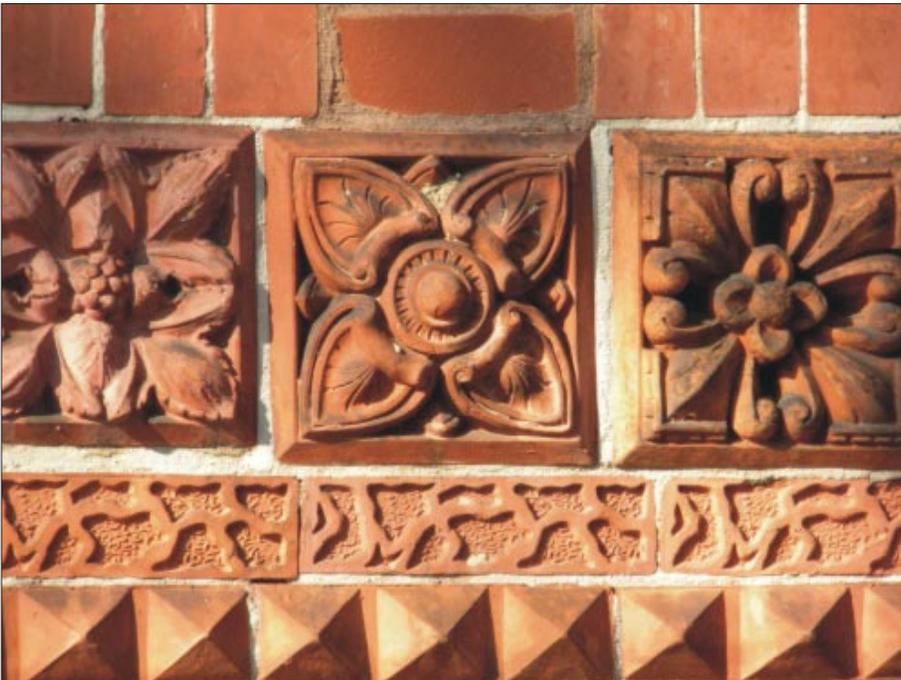
CHAPTER 4

Design Guidelines

Introduction and approach to the guidelines

Development in the Village Center should balance the sometimes competing design principles of:

- Preservation and reuse of Historic Ontarioville with the development of contemporary high rise structures
- Creation of a walkable core with convenient auto oriented access
- Development of modern conveniences with an emphasis on ecological sustainability



In order to ensure that the area is developed in a pattern that is consistent with Historic Ontarioville and the vision for the Village Center, a set of general design guidelines have been developed for the *architecture* and *streetscapes* of the study area.

Architectural Design Guidelines

The following general architectural guidelines are designed to enhance the living, shopping, working and overall quality of life that will be established in the years to come. As the Hanover Park Village Center Plan takes root, these guidelines will aid in the creation of a mixed-use environment oriented towards the needs of pedestrians, commuters, employees and residents alike. These guidelines are provided to help create and maintain a sustainable, upscale transit oriented community. They are divided into two sections based on the building massing and exterior building treatments. To further define the character of the development, specific guidelines have been developed for the following different building types-

- *Gateway Commercial*
- *Mixed-use*
- *Multi-family*
- *Business Park*
- *Offices*
- *Historic Ontarioville*

Building Massing

A building's mass, or shape, is defined by its component parts, including the size of its footprint and number of stories. Individual characteristics of mass include building form, roof shape, and orientation.

Building Orientation & Setbacks

- Main pedestrian access should be oriented along the public street for pedestrian oriented developments and from the parking lot for auto-oriented developments.
- Service areas should be oriented at the building rear and accessed from an alleyway or secondary access point.
- Promote pedestrian-oriented access via interconnected sidewalks and walkways to transit facilities, including Metra trains and bus stops.



Intermediate Walkways

- Walkways between buildings are important connective elements on-site. They should promote pedestrian activity and reduce automobile conflicts with pedestrians.
- Walkways between buildings should be well defined via pathways and sidewalks, and should be safe and inviting, providing pedestrians with a separation from noise and car traffic.
- Walkways between buildings should provide a more direct route between off-street parking and the primary street frontage.



Building Proportion, Size & Scale

- Provide a consistent pattern of architectural detailing, including the use of decorative elements, changes in roof lines and fenestrations, and changes in building materials and color.
- Vertical and horizontal design elements, including columns, pilasters, and cornices, should be defined at the ground level to break up the mass of buildings.
- Match or transition building proportions and architectural elements so they are consistent on all elevations visible from public streets and open spaces.



Exterior Building Treatments

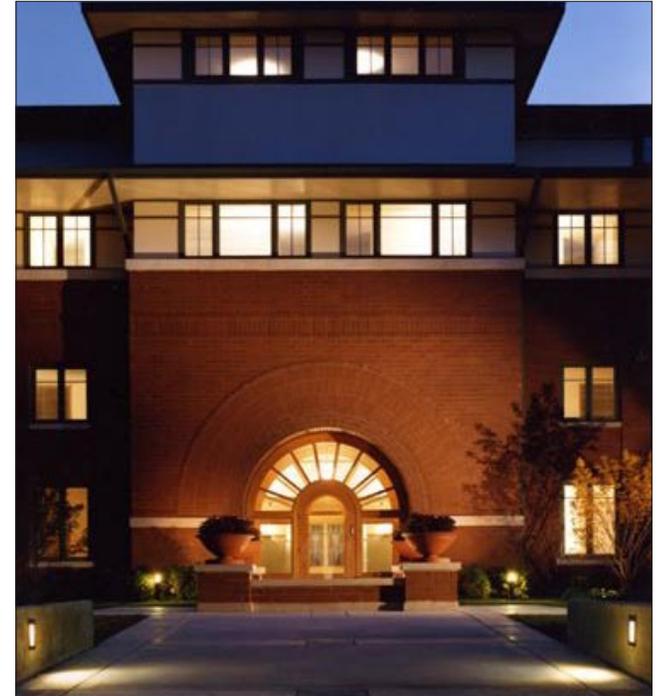
Exterior building treatments include everything from façade and roof materials, textures and color palette, window shapes and spacing, architectural articulation and most importantly the overall success of how these elements relate to each other.

Materials & Treatments

- Exterior building walls (1 to 2 stories) and the ground floor of multi-story buildings should include a clear distinction of base, middle, and top. At a minimum, masonry materials such as limestone and brick should be used at the building base. Masonry, cladding and glazing may be used at the middle and top sections of the building wall. Cladding, stucco and glazing materials are inappropriate at the base of buildings.
- The back and sides of the buildings should be consistent with the front façade in terms of design style, building materials and architectural features.
- A variety of complimentary materials, colors and textures should be integrated on all sides of buildings to add visual interest. This should be consistent with surrounding buildings.
- Building materials should be comprised of neutral colors that are versatile and mix well with other colors and the surrounding building color palette. However, brighter colors may be used for accent bands or special building features.
- Sustainable building and landscape systems and materials should be integrated into the development as appropriate to the land use and site features.

Entrances

- All developments must comply with the Americans with Disabilities Act; guidelines are provided on ADA's website at <http://www.ada.gov/stdspdf.htm>.
- Building entrances should be prominent and accessible, including such elements as large entry doors, specialty paving, and architectural treatments that are complimentary to the site's overall character; i.e. the application of different materials at the entrance, such as brick, glass or stone.



Corner Treatments

- Corner treatments for buildings must comply with vision triangles; consider integrating small, public corner plazas to enhance these sight-lines.
- Corner buildings should have their primary entrance at an angle, to face the intersection, or should be oriented to face the street of greater importance.
- Corner buildings may be recessed from the front and side property lines on a diagonal; the recessed corner can be just the ground level or upper levels as well.
- Buildings located at corners should integrate the following:
 - - Distinctive massing and roof form;
 - - Prominent entrance accessible from the corner;
 - - Architectural features including canopies, large display windows, tower features, and landmark art.

*Facade Transparency*

- Ground floors planned for retail or restaurant use should be comprised primarily of large display windows that are clear glass, unless a specific alternative design is otherwise approved. Where clear glass display windows are used, these exterior building walls should maintain a distinct masonry base to separate glass materials from finished grade.
- Tinted and reflective glass is discouraged at the ground level so as not to interfere with the visual connection between the indoor-outdoor environments.

*Backside of Buildings*

- Storage, loading and service areas should be located to the rear or sides of buildings where they are less visible from public view.
- Storage, loading and service areas should be screened from public view via landscaping and/or fencing. These elements should be consistent with the overall design of the associated building and surrounding site.
- Back and sides of buildings should be consistent with the front façade in terms of design style, building materials and architectural features.

*Blank Walls/Screening*

- Solid blank walls should be avoided. Façade modulation, canopies, lighting, artwork, and/or landscaping trellises can all be employed to avoid blank walls.
- Screening of electrical and mechanical equipment should be consistent with the overall building design style, building materials and architectural features.
- Electrical and mechanical equipment, when placed on the rooftop, shall be obscured from view (i.e. by parapet).
- Electrical and mechanical equipment, when placed along walls, should be located on the least visible side(s) of the building, to reduce visibility.

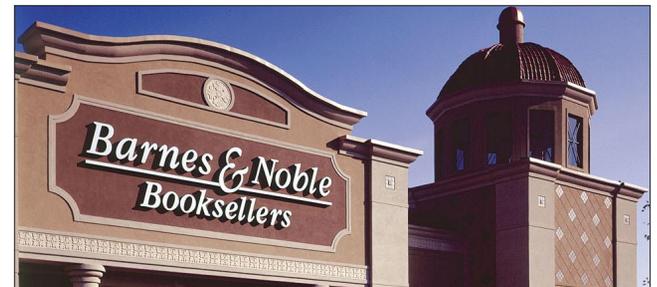


Facade Features

- Awning and canopies are encouraged along the public walkway and at the primary building entries. Awning and canopy materials should be of a consistent color and design and composed of compatible materials.
- Windows should have a repetitive rhythm which relates to the overall exterior of buildings on site.
- Windows should incorporate multiple divisions in the glass, such as mullions.
- Buildings should provide a consistent pattern of architectural detailing, including the use of decorative elements, changes in roof lines and fenestrations, vertical and horizontal articulation, and changes in building materials and color.
- Building cornices, friezes, lintels, sills and surrounds should be clearly expressed with limestone or metal materials.
- Bay windows are encouraged as appropriate; they should maintain the same details as principal façades: sills, lintels, cornices and expression lines.

*Roofing Treatments & Materials*

- Parapet roofs should comprise the majority of the building roof system. Where the overall building design calls for accentuation of specific building areas, such as the public entrance, Gable ends and canopies may be incorporated as appropriate.
- Varied roof lines and roof heights are encouraged but should remain consistent and complimentary with the overall building design; consider including parapets, gables, dormers, and overhangs as appropriate to the façade design.
- Long, straight roof lines should be avoided.
- When located on the roof of buildings, mechanical units should be concealed within parapet walls.
- Sustainable building and landscape systems and materials should be integrated into the development as appropriate to the land use and site features.



Gateway Commercial (1 story)

Vision

To promote opportunities for large format retail development within the context of and integrated into the TOD, along high accessible corridors. Due to their location four developments provide gateway entrances into the Village Center, and as such should be convenient for users accessing the site from vehicle, pedestrian walkway or public transit. Design must emphasize a parkland environment, including wide setbacks, landscaped parking areas, foundation plantings, visibility and access to wetland trails, and an emphasis on sustainable “green” practices.



Architectural guidelines

- The public building entrance and main vehicular access should be clearly visible from the street. Primary pedestrian access should be oriented along the main parking area.
- Primary public parking areas should be oriented towards the front of the building. Service and loading areas should be oriented at the building sides and building rear. Service and loading areas should be screened from public view.
- Recommended front yard setback: buildings should be set back behind modest parking areas. A 15' minimum setback is required to be located between the primary parking area and building frontage. This setback includes the following features:
 - 5'-0" wide minimum sidewalk area; and
 - 10'-0" wide minimum landscape area
- Façades should be subdivided with horizontal and vertical architectural elements to enhance building articulation and create an environment reminiscent of pedestrian scaled, mixed-use, shopping districts.
- Building entrances should be oriented towards the public street and primary parking area.
- Primary building entrances should not be oriented towards rear or side parking lots.



Mixed-use (7-13 stories)

Vision

To promote the heart of the Village Center as a welcoming and lively mixed-use district, with development oriented around pedestrian plazas and commons, and wide sidewalks, easy access to the commuter station and commuter parking areas, and connection both visibly and via paths to wetlands and other high quality open spaces, with an emphasis on sustainable practices.

Architectural guidelines

- Main pedestrian access should be oriented along the public street. Parking and service areas should be oriented at the building rear and accessed from an alleyway or secondary access point.
- Recommended front yard setback: 0'-0"
- Setbacks for Adjacent Buildings:
 - Side to Rear Setback: Minimum of 30'-0";
 - Side to Side Setback: Minimum 7'-0";
- Parking Setbacks: Off-street parking areas must be setback a minimum of 10'-0" from the rear of the building.
- Buildings may be set back an additional 10'-0" to create small, semi-public plazas, patios, and gardens, as appropriate to the land use, provided these setbacks do not negatively affect or significantly disrupt street wall continuity.
- Intermediate walkways should allow pedestrians to window shop and may serve as access points to surrounding shops and parking areas.



Multi-family (7-9 stories)

Vision

To support the Village Center as a quality mid-rise neighborhood, within walking distance to the mixed-use district and station area, including access to neighborhood green spaces, visibility and access to wetland trails, with an emphasis on sustainable practices.



Architectural guidelines

- Main pedestrian access should be oriented along the public street. Parking and service areas should be oriented at the building rear and accessed from an alleyway or secondary access point.
 - Minimum front yard setback is 10'-0";
- Setbacks for Adjacent Buildings:
 - Side to Rear Setback: Minimum of 30'-0";
 - Side to Side Setback: Minimum 7'-0";
- Parking Setbacks:
 - Off-street parking areas must be setback a minimum of 15'-0" from the rear of the building.



Business Park (1 story)

Vision

To offer employment opportunities within the Village Center within research, light manufacturing and business park uses developed in a unified campus environment, providing visibility and access to wetland trails, with an emphasis on sustainable practices.



Architectural guidelines

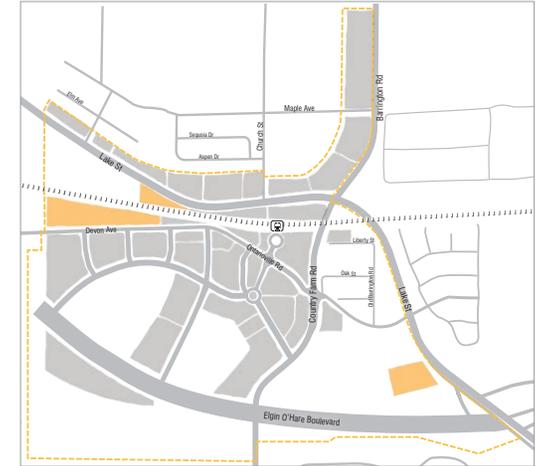
- Business park buildings should be designed in a manner that fits in with the surrounding development pattern and context. Including:
 - The spatial relationship between structures and public r.o.w.;
 - Circulation patterns;
 - Existing vegetation and topography;
 - Architectural elements in surrounding developments.
- The size and form of new structures in relationship to surrounding developments. The design should reflect similar setbacks, building heights and form, scale and mass, materials, compatible colors and landscape treatments. Buildings should not appear to be all uniform in appearance, but should appear to be compatible with one another.
- Site features such as parking areas and driveways, secondary structures and outdoor functions should be arranged and located to draw attention to the aesthetics of successful components on site; for example, existing wetlands, natural elements, open space features, existing trees and ponds, and nearby architectural features.
- Building entrances should be prominent and accessible, including such elements as large entry doors, specialty paving, and architectural treatments that are complimentary to the site's overall character.



Offices (2-4 stories)

Vision

To offer employment opportunities in the Village Center in office buildings within walking distance to the mixed-use district and station area, providing visibility and access to wetland trails, with an emphasis on sustainable practices.



Architectural guidelines

- Where office developments are located adjacent to the Core area, main pedestrian access should be oriented along the public street. Where office developments are located along principal arterial roadways, main pedestrian access should be oriented along the primary parking area.
- Modest parking areas should be oriented at the building front, with supplemental parking provided at the building rear and/ or side.
- Service areas should be provided at the building rear or side such that it is not visible from the public way.
- Recommended front yard setback: buildings should be set back behind modest parking areas. A 15' minimum setback is required to be located between the primary parking area and building frontage. This setback includes the following features:
 - 5'-0" wide minimum sidewalk area and;
 - 10'-0" wide minimum landscape area.



Historic Ontarioville

Vision

To reinforce Historic Ontarioville as the cultural and historic center of Hanover Park, including building preservation and adaptive reuse as appropriate.



Architectural guidelines

Over the past 20+ years, the Village of Hanover Park has worked to strengthen this area with public improvements, including improved roadways, sewer and water services. Private investment in the enhancement and reuse of some historic buildings has occurred.

As the Village Center develops, Historic Ontarioville will likely gain more visibility and interest. Future redevelopment of Historic Ontarioville should refer to the following for guidance on building enhancement and reuse:

- Teska Report- 'Ontarioville Historic District, Plan and Program' 1985
- Dearborn and Associates Architectural Survey of 14 buildings, 1985
- Secretary of the Interior's Standards and Guidelines, 1983 and amended, http://www.cr.nps.gov/local-law/arch_stnds_0.htm



Streetscape Design Guidelines

The following guidelines are designed to enhance the living, shopping, working and overall quality of life that will be established in the years to come. As the Hanover Park Village Center Plan takes root, these guidelines will aid in the creation of a mixed-use environment oriented towards the needs of pedestrians, commuters, employees and residents alike. These guidelines are provided to help create and maintain a sustainable, upscale transit oriented community.

*Note: Alternative design concepts that do not adhere to the guidelines set forth in the following sections must be approved by the Planning Director.

The streetscape guidelines have been organized into five categories listed below-

1. **Pedestrian connectivity and street treatments**
2. **Urban plazas and open spaces**
3. **Lighting and site amenities**
4. **Gateway and way finding signage**
5. **Landscape and opportunities for sustainability**

1. Pedestrian Connectivity and Street Treatments

To encourage strong pedestrian connections throughout the development, sidewalks and trailways are necessary. These pedestrian connections allow for circulation throughout the entire development without the use of vehicles. Specific streetscape guidelines have been identified for each of the different street types based on the adjacent building uses. These streets are identified as follows:

- TOD Core Streetscape
- Perimeter Commercial Streetscape
- Business Park Streetscape
- Metra Station Streetscape
- Historic Ontarioville Streetscape
- Wetland Trail

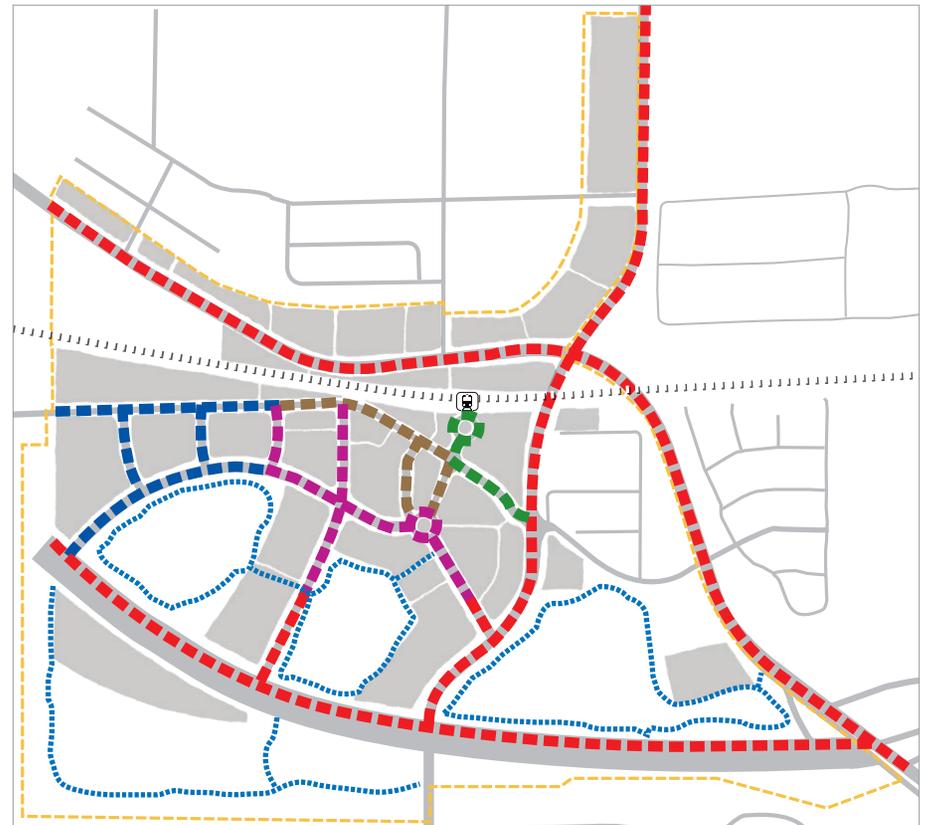


Figure 4.1: Key plan showing the different streetscape locations

☉ TOD Core Streetscape Guidelines

As the core area of the TOD has both mixed-uses and multi-family residential uses along the streets, it should emphasize a pedestrian friendly environment that allows safe and easy movement in an attractive and ‘walkable’ setting. All streets should have sidewalks on both sides of the road and should include the following:

Sidewalk width: 12'-0" minimum

Streetscape amenities:

- Decorative pedestrian and vehicular lighting with considerations for Dark Sky Initiatives
- Parkway trees planted at min. 35' spacing in planters or tree grates
- Signage: Way finding and directional signs that direct visitors to the Metra Station, Historic Ontarioville, recreation trails and other key destinations.
- Paving-
 - » Decorative unit pavers and/or integrated paving
 - » Decorative paving at all street crossings
- Handicap ramps / ADA compliant sidewalk crossings
- ‘Knuckles / bump-outs’ at intersections to provide greening and to minimize pedestrian crossing length
- Raised planters to buffer pedestrians from vehicles
- Flexible seating areas
- Public art and event banners
- Unified site amenities (benches, trash receptacles, bike racks, bollards)

The sidewalks should be organized in zones that allow for efficient pedestrian movement, and provide for landscaping opportunities. The adjacent diagram illustrates three critical zones for sidewalks along retail storefronts-

Zone A: Streetscape Furnishings Zone

- » Parkway tree plantings
- » Decorative lighting
- » Raised landscape planters or tree grates
- » 8'-0" minimum width

Zone B: Walking Zone

- » Obstacle free
- » 4'-0" minimum width

Zone C: Browsing/Outdoor Cafe Zone

- » Direct access to storefront windows
- » Doorway access to shops / restaurants
- » Benches and trash receptacles
- » 6'-0" minimum width

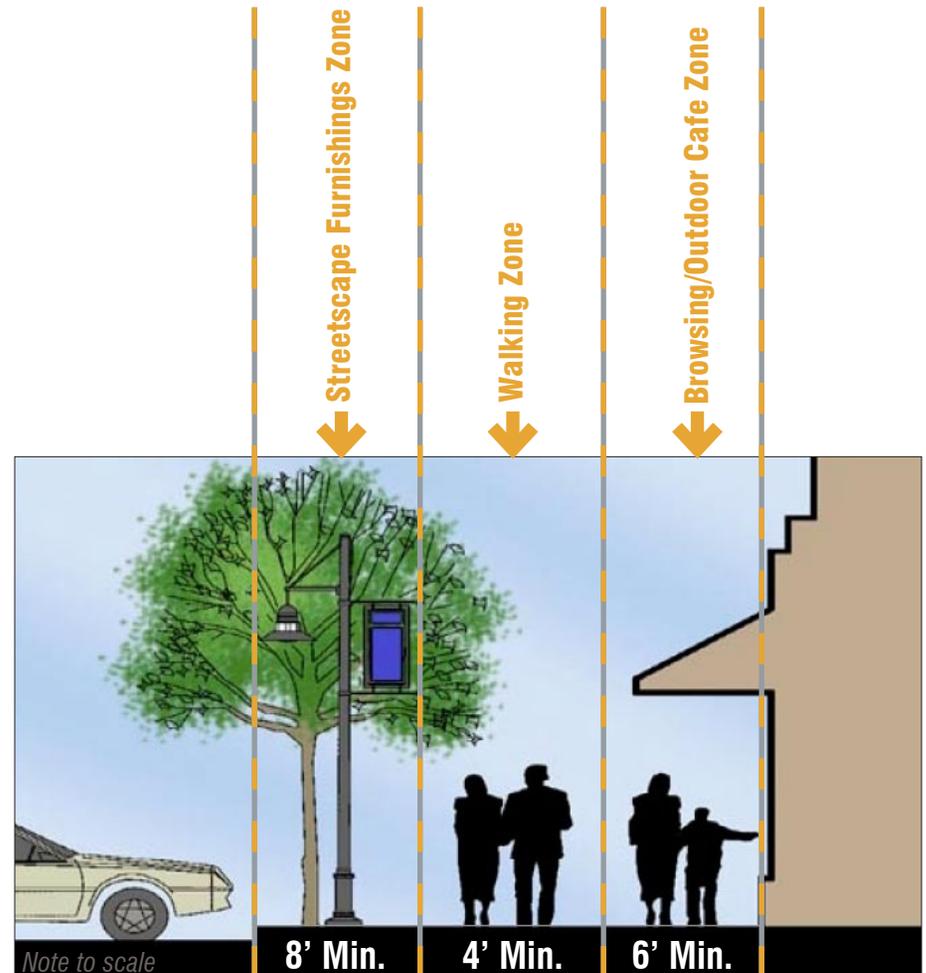


Figure 4.2: Sketch showing the sidewalk zones

☉ Perimeter Commercial Streetscape Guidelines

Sidewalks and parkways along the commercial streets should connect the commercial areas to the mixed-use core and to the surrounding wetland trails. All streets should have parkways or bioswales and multi-use paths or sidewalks on both sides. The streetscapes should include the following:

Parkway width: 10'-0" minimum

Signage: Way finding and directional signs should be consistent in format. Commercial signs should be proportional to and consistent with the material, color and details of the building. They should be expressive without the use of distracting illumination.

Multi-use path width: 10'-0" minimum

Sidewalk width: 6'-0" minimum



Example of a stand alone commercial property in Deer Park, IL

☉ General Guidelines for Parkway Amenities ☉

- *Decorative lighting with considerations for Dark Sky Initiatives*
- *Parkway trees planted in the adjacent parkway at min. 35' spacing*
- *Lawn ground cover plantings*
- *Bioswales and native plantings along wetland areas and where drainage patterns allow*

☉ Business Park Streetscape Guidelines

Sidewalks and parkways along the commercial streets should connect the business park to the mixed-use core, historic Ontarioville and surrounding wetland trails. All streets should have parkways or bioswales and multi-use paths or sidewalks on both sides. The streetscapes should include the following:

Parkway width: 11'-0" minimum

Signage: All way finding and directional signs should be consistent in format so that a gradual transition can be made towards the historic Ontarioville area. Business park signs should be proportional to and consistent with the material, color and details of the building. Multi-tenant buildings should develop a master sign plan to be used to guide individual sign design decisions.

Multi-use path / sidewalk width: 10'-0" minimum



Example of a colored pavers used at street crossings

General Guidelines for Multi-use Path/Sidewalk Amenities ☉

- Paving-
 - » Use pervious pavers in areas of pedestrian use and low volume, non-truck routes to reduce stormwater runoff
 - » Decorative pavers and/or colored and/or textured concrete
 - » Decorative pavers at all street crossings
- Handicap ramps / ADA compliant sidewalk crossings
- Appropriately scaled pedestrian and vehicular lighting
- Raised planters to buffer pedestrians from vehicles
- Trees located in planters and/or tree grates
- Public art and/or water fountains at key axis points
- Unified site amenities including public seating areas, trash receptacles, and bicycle parking
- Way finding and intermediated signage

☉ Metra Station Streetscape Guidelines

To accommodate the traffic generated by the Metra Station, the portion of Ontarioville Road that connects County Farm Road to the Metra Station and drop-off area should be designed to provide efficient ingress and egress while allowing for convenient access for pedestrians from the core area. Visual connections for both pedestrians and vehicular traffic are critical to link the Metra Station to the TOD core streets. Features of the streetscape include the following:



Signage amenities:

- » Gateway Signs that announce the Core District
- » Community Events signs that support temporary signs
- » Way finding and directional signs that direct visitors to the Metra Station, Historic Ontarioville and other key destinations

* Note that any proposed station design and related improvements will be subject to review and approval by Metra and will need to comply with their established guidelines (i.e. Metra's Station Manual and Metra's Parking Manual).



☉ Historic Ontarioville Streetscape Guidelines

Due to its location within the Village Center core area, historic Ontarioville should be treated as an extension of the core area. Where historic street and sidewalk amenities exist, they should be protected. New streetscape amenities located within Ontarioville should be designed and installed to match the existing. Other design considerations follow below:

- Realigned Church Street to connect the Metra Station to the Mixed-use Core
- Church Street to be planted with shade trees including provisions for a clear vision zone between grade and 7'-0" high to the first lateral branches
- Enhance pavement crosswalks; upgrade all intersection curb ramps and crosswalks to meet ADA standards as appropriate
- Align existing Ontarioville sidewalks with new Village Center Core sidewalks to maximize visibility and direct access
- Incorporate street tree plantings as needed and locate trees so as not to detract from views to historic building facades or signs
- Incorporate signage amenities:
 - » Interpretive signs that display Ontarioville's history and announce the historic district
 - » Way finding and directional signs that direct visitors to the Metra Station, public parking areas, historic buildings and other key destinations
 - » Community Events signs that support temporary signs



Example of directional signage

Wetland Trail

The abundance of wetland and natural areas on site provide many opportunities for trailways. The interconnected trailways support a variety of walking experiences and link the bustling Village Center, and Metra Station with the wetland areas. In addition to providing for pedestrian movement, the wetland trails also offer the opportunity for recreational fitness, interpretive landscape areas and park district programming. Design considerations for the trail system are as follows:

- Pathway material-
 - » On dry ground: asphalt or gravel pathway
 - » In wet areas: recycled wood boardwalk product
- Pathway width: 10'-0" minimum
- Overlook areas
- Interpretive areas
- Directional signage
- Tree plantings in naturalized groupings as appropriate to the trail



Example of directional signage

Example of a wetland trail



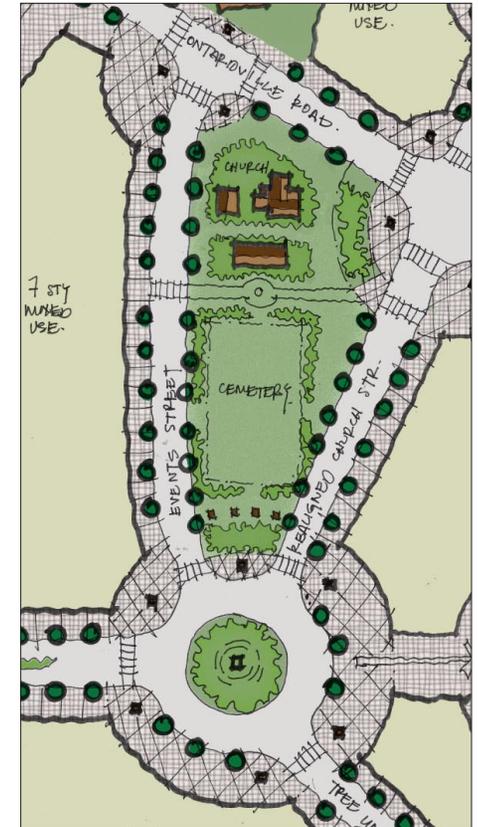
2. Urban Plazas and Open Spaces

Unique opportunities exist to create outdoor pedestrian oriented spaces throughout the development. These spaces allow pedestrians destinations to stroll to, spaces to congregate in, and generally enhance the streetscape appearance. These spaces should be evenly spread throughout the development, and logically located so they are easily accessible by pedestrians.

Central Commons

A strong pedestrian friendly, and aesthetically pleasing 'Central Commons' is key in creating a strong central place for the entire development. This area is the 'hub' that many people will see and travel through to various parts of the development. To reinforce this area, the following elements should be included:

- Symmetrical sidewalk layout leading to central buildings
- Enhanced pavement crosswalks
- Public art
- Public seating areas / Outdoor café plazas
- Handicap ramps / ADA compliant sidewalk crossings
- Parkway trees at min. 30' spacing, detailed shrub / perennial plantings
- Pedestrian and vehicular lighting
- Event banners
- Coordinated site amenities (trash receptacles, benches, etc.)
- Open lawn areas for passive use



Sketch of the Central Commons

☉ Sidewalk Plazas

Sidewalks along storefronts provide opportunities for enhanced landscaping, outdoor cafes / seating areas and emphasize pedestrian walking areas. The following should be considered in the mixed use core:

- Enhanced pavement crosswalks
- Public art
- Public seating areas with benches
- Raised planters to buffer pedestrians from vehicles
- Handicap ramps / ADA compliant sidewalk crossings
- Parkway trees at min. 35' spacing
- Pedestrian and vehicular lighting
- Event banners
- Coordinated site amenities (trash receptacles, benches, etc.)



A tree canopy and business entrances up to the sidewalk help make the streetscape a pedestrian-friendly environment.

3. Lighting and Site Amenities

Site amenities should be utilized throughout the site to visually unify the different parts of the development together. Colors and materials should be the same throughout the site. Amenities to be coordinated include the following:

- Benches
- Trash Receptacles
- Bollards
- Pedestrian Scaled Lighting
- Vehicular Scaled Lighting
- Event Banners on Light Poles
- Ornamental Fencing



Bicycle racks and benches

Pedestrian scale street lighting



4. Gateway and Way finding Signage

A hierarchy of signage should be utilized to help direct motorists and pedestrians to and throughout the development. In addition, opportunities exist to provide informational signage for community events and other civic activities.

☉ Gateway Signage

Gateway and way finding signage is the first opportunity to greet visitors to the transit oriented development. Visitors are attracted to the development from surrounding roadways as well as the Transit station. Gateway signage is organized into two sign types:

- Primary Gateway Signage is oriented towards motorists entering the development from County Farm Road, Lake Street, and the proposed Elgin O'Hare Boulevard.
- Secondary Gateway Signage is oriented towards pedestrians and motorists entering the development from the Metra Station, Transit Station, and from the secondary entrance intersections at Ontarioville Road



Example of coordinated business monument sign to be used for commercial and business park uses



Example of gateway sign

☉ Directional Signage

Directional signage incorporates a potential development logo with directions to key destinations within the development. Directional signage is organized into two types:

- Community Event Sign Kiosk is oriented towards motorists and pedestrians and is therefore large in scale. The architectural style of the kiosk should mimic the vocabulary of the mixed-use / retail core architecture.
- Directional Signage is oriented towards motorists and pedestrians and is intended to give direction to key destinations within the development (Transit Station, retail shops, regional trails, etc.).



Example of directional signage

5. Landscape and Opportunities for Sustainability

Landscaping of the development is critical to unify the appearance of the development, to define pedestrian / automobile areas, and to screen unsightly views.

☉ Parkway Trees

Parkway trees shall be planted along all roadways at a minimum spacing of 35'-0" o.c. Plantings along storefronts should occur in raised planters or in tree grates. All trees should tolerate urban conditions, and no ash trees shall be used.

☉ Parking Lots

Parking lot landscaping is encouraged as it enhances the visual environment, moderates the effects of heat and wind, and minimizes the nuisances of noise and glare. In addition to providing visual interest, landscaping can control public perception of a lot by masking unattractive areas, such as mechanical units, or focusing the motorist's attention to an entry or exit point.

Parking lot landscaping can also serve to slow the rate of surface runoff and minimize the amount and size of stormwater infrastructure. Porous pavements and bioswales are methods which reduce the rate of runoff on development sites.

☉ Foundation Plantings

The mixed use / retail core buildings should provide generous foundation plantings on all sides of the building, while not impeding access to stores, sidewalk plazas, pedestrian walkways and service areas. A mixture of deciduous and evergreen material should be used with an emphasis on native materials. Highly visible areas should also incorporate native perennials and ornamental grasses.

The residential buildings should provide generous foundation plantings on all sides of the building. Small ornamental trees, canopy trees, shrubs, and ground covers shall be used. A mixture of deciduous and evergreen material should be used with an emphasis on native materials. All HVAC units shall be properly screened. Shade tree plantings shall occur in the landscape islands on the alley side of all units.



The integration of rain gardens in a parking lot can help soften hardscapes, reduce stormwater runoff, and enhance the visual appearance of the lot.

☉ Stormwater Management, Detention Ponds and Floodplain

The on-site stormwater management detention ponds and floodplain should be enhanced to provide unique natural amenities to the site. The following should be incorporated into the design of the detention ponds and the floodplain:

- Pedestrian connections to these natural areas
- Pedestrian overlooks and other seating areas that overlook ponds and are immediately adjacent to trailways
- Native landscaping that tolerates wet/dry conditions and attracts wildlife
- Incorporate bird houses into native plantings
- Shallow pond slopes to support native plantings and attract wildlife

Green Opportunities

Opportunities exist to incorporate ‘green’ landscaping practices within this TOD development. The following Green opportunities may include the following within the TOD development:

Bioswales: Vegetated swales that are located in parking lot islands, adjacent to parking lots, and near other large expanses of impervious surfaces. The swales are planted with native materials that slow the speed of runoff and allow water to infiltrate back into the ground instead of into storm sewers or detention ponds.

Rain gardens: Similar to bioswales, rain gardens are vegetated depressions that slow stormwater runoff and allow water to infiltrate back into the ground. Native materials that can tolerate wet and dry conditions are planted in the bioswales and rain gardens. Rain gardens can be located near buildings, in parkways, and in and around parking areas.

Naturalized Detention: A naturalized detention area temporarily collects and stores stormwater runoff in a ‘wetland’ type area. It is then released at a slow and controlled rate to allow it to infiltrate into the ground. These areas are planted with native wetland plantings that can tolerate severe wet and dry conditions.

Level Spreaders: To assist with bioswales and naturalized detention, level spreaders can be utilized. Level spreaders collect and evenly disperse stormwater runoff into bioswales and other naturalized detention facilities.

Native Landscaping: The use of native grasses, forbs, shrubs, and trees should be strongly considered. Native species can withstand a wide range of temperature extremes, use less water, require less maintenance, and use less fertilizers.

Efficient Irrigation: Efforts should be undertaken to reduce the amount of irrigation that is needed on site. Native plant materials should be planted that require little irrigation. Other ways to be efficient with irrigation is to utilize rain-triggered shut-off devices, flow reducers, head layout that only sprays in softscape spaces, and the use of drip irrigation systems.

Permeable Paving: Various paving products exist that allow stormwater to infiltrate through the pavement and infiltrate the soil below. Various options include permeable concrete, permeable precast pavers, reinforced gravel and grass paving, and permeable asphalt. The benefits of permeable paving is the reduction in on site storm sewer capacity, the recharging of underground water supplies, and the filtering out of pollutants and other debris.

High Albedo Paving: Light colored pavement can be utilized to reflect sunlight away from paved areas. This will help reduce the urban heat island effect, allows vegetation to thrive, and cuts down on the amount of irrigation required in high pavement areas.

Green Roof: Vegetated roofs can assist with reducing the energy costs of heating and cooling buildings. In addition, green roofs help to reduce urban heat islands, reduce the rate and quantity of stormwater runoff, and provide unique and sometimes pedestrian accessible outdoor spaces. Green roofs require waterproofing, sub-roof drainage, structural soil, and native plantings.

Dark Sky Lighting: To reduce light pollution, dark sky lighting techniques should be utilized. Dark sky lighting fixtures are designed to be energy efficient, and to direct the lighting down and out, rather than up into the sky.

Recycled Construction Materials: Where possible, the use of recycled materials is strongly encouraged. Pre-consumer and post-consumer content can be incorporated into building materials, site amenities, paving, and various finishes.

Alternative Energy: Various options exist to incorporate alternative energies into the development. These include geothermal, reflective roofing, solar energy, and wind turbines.



In addition to keeping the sidewalk and public spaces clean, accessible receptacles for recycling and litter can also liven up the streetscape.



Although still a hard surface, pervious concrete allows water to flow through the material more freely, meeting EPA stormwater management standards.



CHAPTER 5

Implementation Plan

The successful implementation of the plan for the Hanover Park's Village Center and TOD is dependent on moving forward with various implementation actions to be undertaken by the Village, transportation agencies, and other community partners. Any work the Village can perform in the near term will set the tone for future implementation steps, particularly as the economy rebounds and results in a more favorable environ for development. This Chapter identifies recommendations to supplement existing municipal policies and programs to set in motion the necessary actions that will take the Village Center/TOD Plan from the planning to the implementation stage.

Review of Village Plans & Policies

With its Comprehensive Plan, Municipal Code, and Zoning Map already in place, the Village of Hanover Park has the necessary tools to regulate the development of the Village Center and TOD area. These regulating documents will ensure development meets the Village's standards and reflect the community's character and identity. To ensure consistency between the Village Center development concepts and the Village's existing plans and regulations, it is recommended that the Village adopt this Village Center & TOD Plan as an amendment to the Comprehensive Plan, and further consider modifying zoning regulations to ensure the vision can be carried out.

Core Implementation Strategies

The Implementation Plan is anchored by a series of core strategies that need to be met in order to ensure the concepts and recommendations detailed in this Plan are achieved to bring the Village Center, and TOD opportunities to life in Hanover Park. The core implementation strategies are outlined in the matrix in table 5.1. The matrix outlines tasks for each strategy, potential partnerships, and phasing. The Village of Hanover Park will assume primary responsibility for each task, with the potential to partner with other organizations or agencies, such as the RTA, Metra, Pace, Illinois Department of Transportation (IDOT), Illinois Tollway Authority (ITA), and property owners, among others. Many of the tasks can be supported by the funding sources and support resources described later in this chapter.

With the Conceptual Land Use Development Plan in place, numerous, incremental activities need to be accomplished to achieve the transit and development opportunities outlined in this Plan. While the present economy suggests that development may not be immediate, there are still many steps that can be accomplished in the near-term. As this Plan has determined, the Village Center/TOD area offers short-term incremental development possibilities and a unique long term opportunity for catalytic redevelopment resulting from the Elgin-O'Hare West Bypass (EOWB). The Village Center/TOD Plan focuses on development in and around the proposed Elgin-O'Hare Boulevard extension as this road is necessary to secure the economic development opportunity and real estate value represented by this Plan. Although identified as a longer term project due to the length of time to secure approvals and funding, the Village must development a strategic plan and aggressively pursue the construction of Elgin-O'Hare Boulevard extension as the principal driving element around which the Village Center/TOD will be built.

The phasing component of the matrix of core implementation strategies utilizes the following time frames:

- » Short-Term Tasks (0-3 years)
- » Intermediate-Term Tasks (3-5 years)
- » Long-Term Tasks (5+ years)

Implementation Strategies Matrix:

Strategy 1: Establish the Elgin-O'Hare west extension as a "Boulevard" road		
Task	Potential Partnerships	Phasing
Perform a feasibility study, to address issues such as traffic volumes, travel patterns, and access points, roadway design prototype, transit, and multiuse trails, and green infrastructure solutions, as well as its terminus or further connection to Lake Street via Bartlett and Streamwood. Items to be resolved: <ul style="list-style-type: none"> • Lead agency • Role of IDOT, counties, municipalities • Study funding sources • Study elements, potentially including roadways, access, transit, and multiuse trails 	Bartlett, Streamwood, IDOT, RTA, IDNR, Property Owners, Cook and DuPage Counties; Transportation Consultant	Short Term
Facilitate interagency coordination and assemblage of funding from a variety of sources.	IDOT, RTA, CMAP, DCEO, Village, DuPage County	Short to Intermediate Term
Identify funding sources and make grant applications.	IDOT, RTA, CMAP, DCEO, DuPage County	
Consult with local wetland jurisdictional agencies to determine existing data on wetlands and to present preliminary site and roadway plans.	DuPage County, IEPA	Short Term
Strategy 2: Initial Site Preparation		
Task	Potential Partnerships	Phasing
Due to the sites location and natural resources, preparation should include a more detailed study to further identify key environmental features, their location and calibrate the plan based on very specific options. <ol style="list-style-type: none"> 1. Prepare a site topographical survey and clearly define natural features including wetlands 2. Once defined evaluate grade, features/and mitigation requirements Prepare preliminary site area conditions exhibit and add EOH right of way	Village; Transportation/ Environmental Consultant	Short Term
Strategy 3: Build awareness of the development opportunities offered by the Village Center		
Task	Potential Partnerships	Phasing
Reach out to local newspapers and real estate trade journals to submit press releases and articles relating to the development prospects offered by the Hanover Park Village Center.	Local newspapers; real estate trade journals	Short Term
Create promotional materials, such as brochures and newsletters, to circulate around the region and among development companies and professional organizations to help attract developer and business tenant interest.	Real estate trade journals; real estate brokerages	Short Term
Create a project web-site dedicated to implementation of the Village Center/TOD with possible options for posting of media releases, announcements, property and ownership information, etc.	Village, Chamber of Commerce, DuPage and Cook County	Short Term
Promote the Village Center project at trade shows, like the International Council of Shopping Centers (ICSC).	Village, Chamber of Commerce, DuPage and Cook County	Intermediate to Long Term

Table 5.1: Implementation Strategies Matrix (Page 1 of 4)



Contact the real estate representatives at anchor retail companies to provide them with marketing materials and invite them for a tour of the project site and area.	Village, Chamber of Commerce, DuPage County	Intermediate to Long Term
Establish an RFQ/RFP process to accept and review development proposals, ensuring they adhere to the principles of the Conceptual Land Use Development Plan and the Design Guidelines.	Village, property owners	Intermediate to Long Term
Strategy 4: Strengthen Ontarioville as a destination retail and restaurant cluster that conveys an identity to the Village Center area		
Task	Potential Partnerships	Phasing
Create an informal study group that meets with staff to discuss Ontarioville business environment. <ul style="list-style-type: none"> Seek an Ontarioville business willing to provide meeting space and offer coffee. Create an e-mail notice list that includes property owners, business owners, and interested residents 	Chamber of Commerce, local business, Study group	Short Term
With Village staff leadership, organize quarterly study group meetings to promote cross marketing, events, Chamber of Commerce membership, and share information on Village Center progress.	Chamber of Commerce, Study group	Short Term
Work with property owners to understand pending vacancies and encourage leasing to destination restaurants, consumer services, and stores.	Village, Study group	Short Term
Maintain list of businesses that might have interest in an Ontarioville location.	Local Real Estate Agents, Chamber of Commerce	Short Term
Work with local banks; provide low interest loans or grants for building rehab, façade improvements or new infill construction that meets Historic District design standards.	Village, local banks	Short to Intermediate Term
Encourage the local press to cover Ontarioville events to provide greater visibility to the local businesses.	Real Estate Trade Journals	Short Term
Investigate advantages and disadvantages of adding a tag line like “Hanover Park’s Historic Center” to Ontarioville marketing.	Study Group	Short Term
Strategy 5: Create a strong character and sense of place in the Village Center by creating a brand identity and designing an urban design program for streetscape, signage, and gateways		
Task	Potential Partnerships	Phasing
Collaborate with a design and marketing firm to create a brand identity for the Village Center that is truly unique and clearly differentiates the project from other conventional Village centers, while relating to Historic Ontarioville.	Design and marketing firm	Intermediate to Long Term
Design a unified wayfinding and information signage program for the Village Center based on the brand identity from the previous task.	Village, IDOT, signage and design firms	Intermediate to Long Term
Integrate streetscape enhancements, signage, and gateway elements as detailed in the Streetscape Design Guidelines.	Village, IDOT, selected developer(s) for Village Center	Intermediate to Long Term
Design and integrate a gateway sign/element to affix to the potential pedestrian/bicycle trails and overpasses.	Village, IDOT, signage and design firms	Intermediate to Long Term

Table 5.1: Implementation Strategies Matrix (Page 2 of 4)

Strategy 6: Maintain open communication with the property owners and public officials to facilitate potential development interests		
Task	Potential Partnerships	Phasing
Maintain regular contact with individual property owners.	Property owners	Short to Intermediate Term
Acquire properties in cases where the property owner(s) are willing to sell and be part further build-out of the Village Center.	Property owners, selected developer(s) for Village Center	Intermediate to Long Term
Establish an Implementation Plan committee responsible for oversight and facilitation of transportation and development improvements within the Village Center/TOD area to meet on a quarterly basis. <ul style="list-style-type: none"> Report Quarterly to the Village Board on economic development contacts and response 	IDOT, ITA, Property Owners, MWRD, RTA, Pace, Metra, State and Congressional representatives	Short Term
Build working relationships with developers and brokers, and provide them with quality promotional and technical information on the advantages of developing in the Village Center.	Village, Chamber of Commerce	Short Term
Assist with relocation and re-establishment of viable businesses within the Village Center, consistent with the Village Center Plan, or other locations within the Village.	Village, private developers	Intermediate to Long Term
Strategy 7: Seek national, state, and regional awareness of economic development potential associated with the Hanover Park Town Center		
Task	Potential Partnerships	Phasing
Schedule individual briefing meetings to present the final report to Hanover Park’s federal and state elected officials.	Village	Short Term
Monitor legislation and grant programs with the potential to fund the Elgin O’Hare extension.	Legislative Staff, Village lobbyist, Steering Committee	Short Term
Participate in DuPage County Economic Development Initiatives with the goal of making the Hanover Park Village Center a regional initiative	Chamber of Commerce, DuPage County	Short Term
Encourage Real Estate trade journals to cover the Hanover Park Village Center as a logical next step to the eastern extension of the Elgin O’Hare Expressway	Real Estate Trade Journals	Short Term
Repeat briefing meetings, legislative review and trade journal outreach annually	Elected Officials, Chamber of Commerce	Long Term, ongoing
Strategy 8: Commit to dedicated adherence to the sustainability recommendations outlined in this Plan to facilitate the potential for the Village Center to achieve LEED-ND certification		
Task	Potential Partnerships	Phasing
Ensure at least one member of the project development team is a LEED Accredited Professional or equivalent, as defined in IDP Credit 2 of the LEED 2009 for Neighborhood Development Rating System Manual.	Selected developer(s) for Village Center	Short to Intermediate Term
Consult the sustainability analysis in Section 3 and recommendations to ensure the development of the Village Center adheres to the LEED-ND principles and methods specific to the Hanover Park Village Center.	Selected developer(s) for Village Center	Intermediate to Long Term

Table 5.1: Implementation Strategies Matrix (Page 3 of 4)



Monitor and tally the points accrued throughout the development process, per the LEED-ND Rating System.	Selected developer(s) for Village Center	Intermediate to Long Term
Submit an application for LEED-ND certification for the Hanover Park Village Center to the USGBC, outlining the prerequisites and credits met and the total points accrued.	Selected developer(s) for Village Center	Intermediate to Long Term
Strategy 9: Promote Transportation/Transit improvements to expand multi-modal travel options		
Task	Potential Partnerships	Phasing
Continue to work with Pace on the County Farm Road Transit Study to determine potential transit alternatives.	Village, Pace	Short Term
Work with IDOT and Pace to construct bus pull-outs on Lake Street near Church Street.	Village, IDOT, Pace	Short to Intermediate Term
Continue to participate with IDOT on the Elgin-O'Hare Tier 2 study for roadway and transit alternatives	Village, IDOT	Short to Intermediate Term
Continue to work with Pace on County Farm Road Transit Study to determine potential transit alternatives	Pace, DuPage County, RTA	Short Term
Work with IDOT and Pace to construct bus pull-outs on Lake Street near Church Street.		Intermediate Term
Secure an additional signalized intersection access to the Village Center on County Farm Road, south of Ontarioville Road.	Village, Transportation Consultant	Intermediate Term
Additional Strategies		
Task	Potential Partnerships	Phasing
Coordination with the Army Corps of Engineers and likely permitting for potential wetlands issues within and near the TOD study area.	Village, Army Corps of Engineers	Short Term to Intermediate Term
Pursue the acquisition of lands identified on the Village Center for wetland mitigation and public open space areas. Identify and contact property ownerships to determine availability.	Village, private-developers	Intermediate to Long Term
Open lines of communications with other utilities serving the community to ensure appropriate service to new development and coordination with existing service lines.	Village, utility companies	Short Term to Intermediate Term
Review and update Village zoning regulations as they relate to the Village Center/TOD area.	Village	Short Term
Where necessary, acquire key properties in strategic locations to facilitate the acquisition of sites sufficient to support desired developments.	Village	Intermediate to Long Term
Expand financial incentives available to all properties in the Village Center/TOD area to create a competitive economic development program and enhance private investment interest.	Village	Short Term

Table 5.1: Implementation Strategies Matrix (Page 4 of 4)

Sustainability Recommendations

The recommendations outlined below are based on the Sustainability Analysis in Chapter 3. More specifically, the Village and its community partners (i.e. developers, conservation districts, transportation agencies, etc) will need to carry out these recommendations to ensure that the Village Center and TOD project attains LEED-ND certification. The LEED-ND analysis in Table 3.2 of Chapter 3 outlines the general requirements, eligible certification points, and recommendations for mechanisms/policies to help facilitate certification. These following implementation recommendations are extracted from Table 3.2 and described below and replicated in the following implementation plan matrix with additional detail as needed.

To properly organize the sustainability recommendations they are listed under one of the following categories:

- Interagency Coordination
- Site Design
- Management Programs
- Additional Sustainability Measures

Where appropriate, sustainability recommendations are also integrated into the architectural and streetscape design guidelines in Chapter 4.

(For complete explanations of LEED-ND requirements, please consult the LEED 2009 for Neighborhood Development Rating System Manual, which can be viewed or downloaded here: <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>)

Interagency Coordination

1. Environmental Conservation:

Consult with State National Heritage Program (Illinois Department of Natural Resources) and Illinois Fish and Wildlife agencies to determine the presence of any of the following: threatened or endangered species; imperiled/affected species or ecological communities; and significant habitats.

- * [For more information: See SLL Prerequisite 2 (Imperiled Species & Ecological Communities Conservation) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]
- * [For more information: See SLL Credit 7 (Site Design for Habitat or Wetland and Water Body Conservation) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual, particularly if Option 2 is favored]

2. Reduced Automobile Dependence:

Research the current annual home-based vehicle miles traveled (VMT) per capita data for a predefined transportation analysis zone and ensure the VMT per capita does not exceed the average for the metropolitan region; potential to consult with CMAP or MPC.

- * [For more information: See SLL Credit 3 (Locations with Reduced Automobile Dependence) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual; in particular, consult the regional VMT per capita requirements in Option 2]

Site Design

Wetlands & Water Bodies:

Comply with all local, state, and federal regulations pertaining to wetland and water body conservation; also, design appropriate setbacks from/buffers around all wetlands and water bodies.

- * [For more information: See SLL Prerequisite 3 (Wetland & Water Body Conservation) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual; in particular, consult the setback requirements in Option 2]
- * [For more information: See SLL Credit 7 (Site Design for Habitat or Wetland and Water Body Conservation) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual; in particular, consult the setback requirements in Option 3]

Management Programs

1. Environmental Conservation:

Establish and administer an ongoing environmental management program that does the following:

- » Monitors the condition of significant habitats (SLL Credit 7);
- » Restores pre development ecological communities, water bodies, or wetlands (SLL Credit 8);
- » Oversees long-term management of new or existing on-site native habitats, water bodies, and/or wetlands and buffers (SLL Credit 9).

- * [For more information: See SLL Credit 7 (Site Design for Habitat or Wetland and Water Body Conservation) in the LEED-ND Analysis matrix Table 3.2 and the LEED-ND Rating System Manual, particularly if Option 2 is favored]
- * [For more information: See SLL Credit 8 (Restoration of Habitat or Wetlands and Water Bodies) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]

* [For more information: See SLL Credit 9 (Long-Term Conservation Management of Habitat or Wetlands and Water Bodies) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]

2. **Transit Promotion:**

Establish and administer a transit promotion program that includes a transportation demand management (TDM) program and other measures intended to encourage transit use. Other measures include subsidized transit passes, developer-sponsored private transit service, vehicle sharing, or unbundled parking (parking spaces associated with a residential or commercial use but can be sold or rented separately).

* [For more information: See NPD Credit 8 (Transportation Demand Management) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]

3. **Communication:**

Establish and administer an ongoing communication program between the Hanover Park community and the selected developer(s) throughout the design and construction phases of the Town Center and TOD project. In lieu of a communication program, the Village may also “obtain an endorsement from an ongoing local or regional non-governmental program that systematically reviews and endorses smart growth development projects under a rating and/or jury system.”

* [For more information: See NPD Credit 12 (Community Outreach and Involvement) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]

4. **Local Food Production:**

Establish and administer covenants, conditions, and restrictions (CC&R) or other forms of deed restrictions “that do not prohibit the growing of produce in project areas, including greenhouses, any portion of residential front, rear or side yards; or balconies, patios, or rooftops. Greenhouses but not gardens may be prohibited in front yards that face the street.”

Other steps that can be made to help support local food production include: (1) dedicating permanent, viable growing spaces and/or related facilities; (2) supporting the purchase of shares in a community-supported agriculture (CSA) program; and/or (3) establishing a farmers’ market within a ½ mile distance from the project’s geographic center.

* [For more information: See NPD Credit 13 (Local Food Production) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]

5. **Registered Landscape Architect:**

Retain a registered landscape architect to obtain a professional determination that planting details are appropriate for growing healthy trees.

* [For more information: See NPD Credit 14 (Tree-Lined and Shaded Streets) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]

6. **Stormwater Management:**

Establish and administer a comprehensive stormwater management plan that utilizes infiltration, evapotranspiration, and/or water reuse to retain on-site rainfall volumes as specified in GIB Credit 8.

* [For more information: See GIB Credit 8 (Stormwater Management) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]

Additional Sustainability Measures

1. **Innovation & Design Process:**

Identify the intent of a proposed innovation credit(s) that exceed the requirements established by the LEED-ND Rating System and/or innovative performance in green building, smart growth, or New Urbanism categories not specifically addressed by LEED-ND.

* [For more information: See IDP Credit 1 (Innovation and Exemplary Performance) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]

2. **LEED Accredited Professional:**

Ensure at least one principal member of the development project team is one of the following: (a) a LEED Accredited Professional, (b) a professional credentialed in smart growth, or (c) a professional credentialed in New Urbanism.

* [For more information: See IDP Credit 2 (LEED Accredited Professional) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual]

3. **Regional Priority Credit:**

Consult the USGBC database to determine compliance with environmental, social equity, and public health priorities specifically identified for projects in Illinois.

* [For more information: See RPC Credit 1 (Regional Priority) in the LEED-ND Analysis matrix in Table 3.2 and the LEED-ND Rating System Manual; the Regional Priority Credit database is available on the USGBC website: www.usgbc.org/DisplayPage.aspx?CMSPageID=1984]

Funding Sources & Support Resources

Multiple funding opportunities are available to support implementation of the transit opportunities and development concepts outlined in this Plan. Many of the funding sources noted below are administered by governmental agencies. Any program listed is subject to change or elimination.

Transportation Funding Sources

- **Congestion Mitigation Air Quality (CMAQ)**

CMAQ is a federally funded program part of the surface transportation improvements designed to improve air quality and to mitigate congestion. Eligible projects may include transit improvements, commuter parking, traffic flow improvements, and pedestrian and bicycle enhancements. Projects are submitted for northeastern Illinois through Chicago Metropolitan Agency for Planning (CMAP). CMAQ grants are awarded each fiscal year dependent on available funding from the Congressional appropriation of funds. Funding is available for 80% of the total engineering and construction costs. To be eligible for funding, a project must be included in the TIP.

- **Special Community Based Sales Tax**

Added to the pump an additional amount usually +/- 5 cent range is added to pay for new roadway infrastructure.

- **Illinois Transportation Enhancement Program (ITEP)**

The ITEP provides funding for community based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic, and environmental improvements related to transportation infrastructure. A project must fall into one of twelve eligible categories listed within the ITEP Guidelines Manual and also must relate to surface transportation in order to qualify. IDOT administers this program. Funding is available for 80% of engineering and construction costs.

A sub-category of the ITEP program is the Illinois Green Streets Initiative with a goal to reduce greenhouse gas emissions in the state, and to address the growing threat of global climate change, through landscape or streetscape projects that involve the planting of native trees and prairie grasses.

- **Surface Transportation Program (STP)**

The regional Surface Transportation Program (STP) is a federal transportation

program funded through the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This program is administered through CMAP and IDOT. Each of the 11 subregional councils receives individual funding and each council has a self determined methodology for selecting the most beneficial projects. All of the projects must follow federal guidelines and are included in the regional TIP. Each subregional council has a Planning Liaison who coordinates the project selection process with each council's vetting and approval.

The STP may be used to finance improvements to the surface transportation system. The funds can be used to improve eligible arterial and collector streets (highway) or Transportation Control Measure (TCM) projects. Examples of the types of highway projects that may be funded include those categorized as reconstruct, rehabilitate and restore; widen or add lanes; intersection improvements; or traffic signal improvements. TCM projects may include pedestrian or bicycle improvements; commuter parking; transit improvements- capital expenditures; and intelligent transportation systems (ITS) projects.

- **Illinois Pedestrian And Bicycle Safety (PBS) Program Grant**

This grant is designed to aid public agencies in funding cost effective projects that will improve pedestrian and bicycle safety through education and enforcement. Applicants for this grant can apply for one or more of 3 grant categories: enforcement efforts; educational efforts, which can include pedestrian and bicycle master plans, distribution of education materials, walk and bike promotional programs, and distribution of protective equipment; and research and training.

- **Illinois Department Of Natural Resources (IDNR)**

IDNR administers several Outdoor Recreation Grant programs. Relevant programs include:

- Bicycle Path Program – helps with the acquisition, construction and rehabilitation of public, non-motorized bicycle paths and directly related support facilities.
- Recreational Trails Program – provides up to 80% funding assistance for acquisition, development, rehabilitation and maintenance of motorized and non-motorized recreation trails.
- Open Space Lands Acquisition and Development (OSLAD) assists local government agencies in the acquisition and development of land for public parks and open space. This program has been used to fund bicycle/multi-use trail development. The OSLAD program is state financed and grants of

up to 50% may be obtained. Acquisition grants are limited to \$750,000 and park development grants are limited to \$400,000. The federal Land & Water Conservation Fund program (known as both LWCF and LAWCON) is a similar program with similar objectives. Both are managed in Illinois by the Department of Natural Resources with concurrent application due dates, equal grant maximums and similar general rules. Projects vary from small neighborhood parks or tot lots to large community and county parks and nature areas. The state program is financed by a percentage of the state's Real Estate Transfer Tax. The federal program is financed nationally by revenue from OSOD leases.

- **Transportation, Community and System Preservation Pilot Program (TCSP)**

The TCSP Program is a comprehensive initiative of research and grants to investigate the relationships between transportation, community, and system preservation plans and practices and identify sector-based initiatives to improve such relationships. Planning grants may include those to improve walking, biking, and transit systems, as well as the development of new types of transportation financing. Implementation grants may include grants for activities to implement TOD plans.

- **RTA Planning, Operating, And Capital Funding Programs**

RTA has four funding programs to provide planning, operating, and capital funds for transit projects:

- **RTA/CMAP Community Planning:** This collaborative program between the RTA and CMAP provides funding and planning assistance to communities for planning projects that benefit local communities and the regional transportation system. Projects can include the creation of transit-oriented development plans, local transit improvement plans for bus and rail and integrated transportation and land use plans.
- **Subregional Planning:** Provides funding and planning assistance for county, sub regional or corridor level transit and land use focused planning studies. Projects may explore and assess a range of corridor transportation options and their impacts, identifying alternatives that offer the best net advantage to corridor communities and the region.
- **Job Access Reverse Commute (JARC)/ New Freedom (NF):** Federally funded program that provides operating and capital assistance for transportation

services planned, designed, and carried out to meet the transportation needs of eligible low-income individuals and of reverse commuters regardless of income. The NF program provides new public transportation services and public transportation alternatives beyond those required by the Americans with Disabilities Act (ADA). Projects funded through this program advance the vision and goals of the RTA by reducing transportation barriers and expanding mobility options available to persons with disabilities beyond the requirements of the ADA.

- **Innovation, Coordination and Enhancement (ICE) program-** Through the ICE program the RTA provides operating and capital funding for projects that enhance the coordination and integration of public transportation and develop and implement innovations to improve the quality and delivery of public transportation.

- **IDNR/FHWA - Recreational Trails Program (RTP)**

The Recreational Trails Program (RTP) provides funds to the States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). Federal transportation funds benefit recreation including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles.

- **IDOT Economic Development Program**

IDOT provides funding for constructing highway access improvements to new or expanding industrial, distribution, or tourism developments. The focus of the program is retention and creation of jobs. The program provides 50% matching funds for roadway-related construction and engineering items.

- **CMAP Local Assistance Program**

CMAP offers technical assistance to advance the implementation of the GO TO 2040. The program is primarily focused on assistance with a small amount of grant funding available. Typical projects include local comprehensive plans, zoning ordinance updates, subarea plans, and projects related to sustainability and the natural environment.

- **TIGER Grants**

TIGER grants invest in road, rail, transit, and port projects to preserve and create jobs, promote economic recovery, invest in transportation infrastructure to provide long-term economic benefits, and assist those areas most affected by the economic downturn. Projects can include highway or bridge rehabilitation, interchange reconstruction, road realignments, public transportation projects (including projects in the New Starts or Small Starts programs), passenger rail projects, and freight rail projects. Pre-applications for 2012 TIGER discretionary grants were due on February 20th, 2012 and final applications due on March 19th, 2012.

- **Bicycle and pedestrian programs**

Formerly the Chicagoland Bicycle Federation, the Active Transportation Alliance provides support services for local governments on bicycle and pedestrian programs and issues.

Community & Economic Development Support Funding

- **Illinois' Department of Commerce and Economic Opportunity (DCEO)**

DCEO provides multiple grants and loans to local government for economic and community development purposes. Other state agencies and authorities have certain programs that could support implementation of Hanover Park's plan.

- DCEO's Business Development Public Infrastructure Program (BDPIP) provides a grant to local governments to improve infrastructure related to projects that directly create jobs. Other DCEO programs provide low interest financing for public infrastructure improvements for economic development purposes.
- DCEO assistance in the form of participation loans is available to community and economic development corporations to serve small businesses within their defined areas.
- As plan implementation proceeds, DCEO, through its Illinois Bureau of Tourism, provides grants to municipal and county governments and local non-profits to market local attractions to increase hotel/motel tax revenues.
- DCEO tourism grants are also available to private sector applicants, working with local government, to attract and host events in Illinois that provide direct and indirect economic impact.

- **Community Development Assistance Program for Economic Development (CDAP-ED)**

The CDAP- ED program is a federally funded program that is designed to provide grants to units of local government for economic development activities related to business retention and or expansion opportunities. The program is targeted to assist low-to-moderate income people by creating job opportunities and improving the quality of their living environment. Local governments qualifying to receive grant funds can then make these funds available in the form of loans to businesses locating or expanding in their community. A local government may request grant funds of up to \$750,000. Funds may be used for machinery and equipment, working capital, and building construction and renovation. The local government may also use the grant funds for improvements to public infrastructure that directly support a specific economic development project. Applications may be submitted at any time.

- **Large Business Development Program (LBDP)**

The LBDP program is designed to provide grants to businesses undertaking a major expansion or relocation project that will result in substantial private investment and the creation and/or retention of a large number of Illinois jobs. Funds available through the program may be used by large businesses for bondable business activities, including financing the purchase of land or buildings, building construction or renovation, and certain types of machinery and equipment. Grant eligibility and amounts are determined by the amount of investment and job creation or retention involved.

- **Illinois Finance Authority (IFA)**

The Illinois Finance Authority (IFA) is a self-financed, state authority with multiple programs for local governments (among other entities). IFA can assist with bond issuance, provide low cost loans, facilitate tax credits, and supply investment capital to encourage economic growth statewide.

- **Illinois Housing Development Authority (IHDA)**

IHDA offers certain similarly structured programs for multi-family housing development. With different multi-family options outlined in the Conceptual Land Use Development Plan, IHDA programs could be partnered with private developers.

Environment and Energy Efficiency Programs and Funding

- **Illinois Environmental Protection Agency (IEPA)**

IEPA provides multiple programs for specific purposes to local governments.

- IEPA provides technical assistance and funding support, depending upon the issue. IEPA has programs intended to protect watersheds and water quality near developments and roadways utilizing federal Clean Water funds. Municipal governments can also apply for revolving low interest loans for new wastewater facilities, collection systems, and sewers. Upgrades are eligible, too.
- Just like DCEO, IEPA offers programs to improve energy efficiency.

- **Illinois Department of Natural Resources (DNR)**

Besides those stated in the transportation funding section, IDNR has additional programs dedicated to open space preservation and land/water conservation.

- Wetland Reserve Program (WRP)
- Natural Heritage Landmarks
- Private Land Wildlife Habitat Program
- Rivers, Trails and Conservation Programs
- Soil and Water Conservation
- Ecosystems Program- Partners for Conservation
- Conservation Practices Cost-Share Program- Partners for Conservation

- **The DuPage Community Foundation- Environment program**

Supports environmental education; programs that promote conservation and restoration of natural areas, habitats, and green spaces; environmental efforts to reduce pollution and waste; and programs that protect wildlife and endangered species.

- **DuPage County Water Quality Improvement Program-**

DuPage County provides financial assistance to projects that provide a regional water quality benefit through the Water Quality Improvement Program. Eligible projects include: riparian buffer rehabilitation; wetland creation and/or restoration; and green building technologies that reduce or filter stormwater runoff, among others. This will be beneficial for the wetland mitigation and creation of buffers around the wetlands with the study area.

- **Smart Energy Design Assistance Program (SEDAC)-**

SEDAC is sponsored by the Illinois DCEO in partnership with investor-owned utilities in Illinois. SEDAC provides valuable services at no cost to Illinois businesses and public facilities. The program's goals are to:

- Reduce the cost of doing business for Illinois entities through energy efficiency design assistance projects. By expanding consumer awareness of energy efficient design alternatives and retrofit options, we transform markets to make these choices more viable.
- Demonstrate the cost effectiveness of energy efficiency strategies as a response to higher energy prices.
- Support job creation and retention in Illinois by reducing operating costs and providing a variety of opportunities (for architects, engineers and other building professionals) to learn and practice innovative, efficient building design and construction techniques.
- Support electric and natural gas reliability in the state by promoting energy efficient building practices that release system capacity
- Reduce pollution by minimizing wasted energy and demonstrate that reducing environmental impact yields improved economic viability.

Private & Foundation Support

Certain regional and community foundations, private sector entities, and individuals may provide grant funding to support economic development, environmental, and land use activities or study.

- The Grand Victoria Foundation (GVF) includes land use as a general field of interest to prepare grants. Taxing bodies are eligible to apply for funding, assuming any proposed program is outside of their normal scope of services. Only proposals invited by GVF are considered.
- Other potential grantors may be identified through the Donors Forum of Chicago.
- Local citizens or businesses may also provide a donation or series of donations to fund a specific local public improvement project. These projects can include funding for subsequent studies, or physical improvements and their maintenance. These activities are usually conducted under the auspices of a local public charity and may be subject to written commitment.

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