Making Smart Choices:

Transit-Oriented Development Selector Analysis of South Suburban Corridors



Prepared for: South Suburban Mayors & Managers Association
Submitted by: Center for Neighborhood Technology

March 2009

Center image courtesy of the Village of Tinley Park

CNT

Acknowledgements

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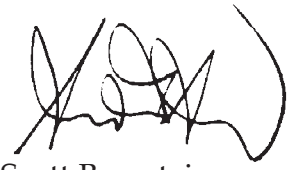

Scott Bernstein
President

Kathryn Tholin
Chief Executive Officer

March 2009

About the Center for Neigborhood Technology

The Center for Neighborhood Technology (CNT) was founded in 1978 to research, adapt and test new community revitalization strategies relevant to urban communities, especially strategies that harness the environmental and economic value of the more efficient use of natural resources. Over the years, CNT has worked to disclose the hidden assets of the Chicagoland economy and urban areas more broadly; to demonstrate the multi-bottom line benefits of more resource-efficient policies and practices; and to show how the value of what we demonstrate can be captured to benefit communities and their residents inclusively. CNT's work, especially in the areas of energy, transportation, materials conservation and housing preservation, helped fuel a generation of community development institutions and learning, garnering us a reputation as an economic innovator and leader in the field of creative sustainable development.

CNT serves as the umbrella for a number of projects and affiliate organizations, all of which help the organization fulfill its mission: to promote the development of more livable and sustainable urban communities.

More information about CNT is available at
www.cnt.org

Executive Summary

The South Suburban Mayors and Managers Association (SSMMA) is working to build transit-oriented development (TOD) at the most intense level consistent with local community desires and market conditions throughout the south suburbs. By facilitating TOD SSMMA intends to increase the supply of quality mixed-income housing, revitalize local commercial districts, generate a significant number of jobs, build the local tax base, improve member communities' capacities to foster development, increase transit usage, create viable alternatives to automobile use, and so improve the quality of life and natural environment in the southern suburbs and the metropolitan area.

To support SSMMA's initiative the Center for Neighborhood Technology (CNT) has conducted a preliminary analysis of the potential for TOD in 33 south suburban station areas.

Through comparative analysis CNT found that:

- No south suburban station area has yet developed to the scale of a Town Center TOD found in other suburbs of the Chicago region. However, the station areas of Vermont Street in Blue Island, Ivanhoe in Riverdale, Homewood, and downtown Tinley Park show strong potential for development as Town Center TODs.

- More than a third of the south suburban station areas now possess elements of a Community Area TOD and show definite potential for growth as this type of TOD. The station area plan for 143rd Street in Orland Park serves as a model well-planned Community Area TOD, and Richton Park seeks to improve the performance of its substantial Community Area TOD with streetscape improvements in its station area. Other station areas with strong potential to develop as Community Area TODs can be found in the municipalities of Calumet City, Midlothian, Oak Forest, Harvey, Matteson, Worth, and Hegewisch.

- Some communities have made land use and development choices that commit their station areas to long-term development as a Residential TOD. These include the communities of Palos Park, Orland Park at 153rd Street, and Robbins.

- Some communities, including Manhattan, the Hickory Creek station area in Mokena, and the 179th Street station area in Orland Park, stand at a crossroads as to whether they will develop as Community Area or Residential TODs, while other station areas such as University Park and Laraway Road (New Lenox) have so little existing development that their futures are hardly indicated, although the large blocks of developable land in these station areas allow for a wide range of development possibilities.

- Data indicate some relationships that need to be considered in TOD planning, such as the station areas of Calumet, Hazel Crest, Homewood, and Flossmoor that share convenience retail markets; or the car-oriented regional retail centers and station areas in Olympia Fields and Matteson.

- As a broad pattern, station areas in the northern sections of transit corridors show strong potential for Town Center and Community Area TOD indicated by existing density and market needs, but difficulties in assembling land and altering land use must be solved to capture these opportunities. In central sections of the lines many communities could make design and development decisions that could capitalize on a potential for development as Community Area TOD, while others could improve the value of transit as an amenity in a Residential TOD. Station areas with little existing development and wide open TOD opportunities are located at or near the southern terminals of transit lines.

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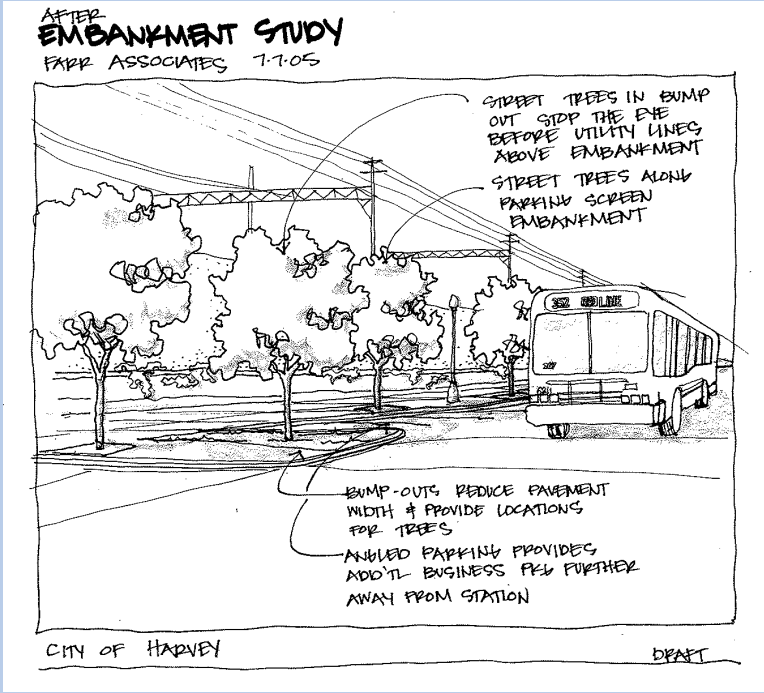


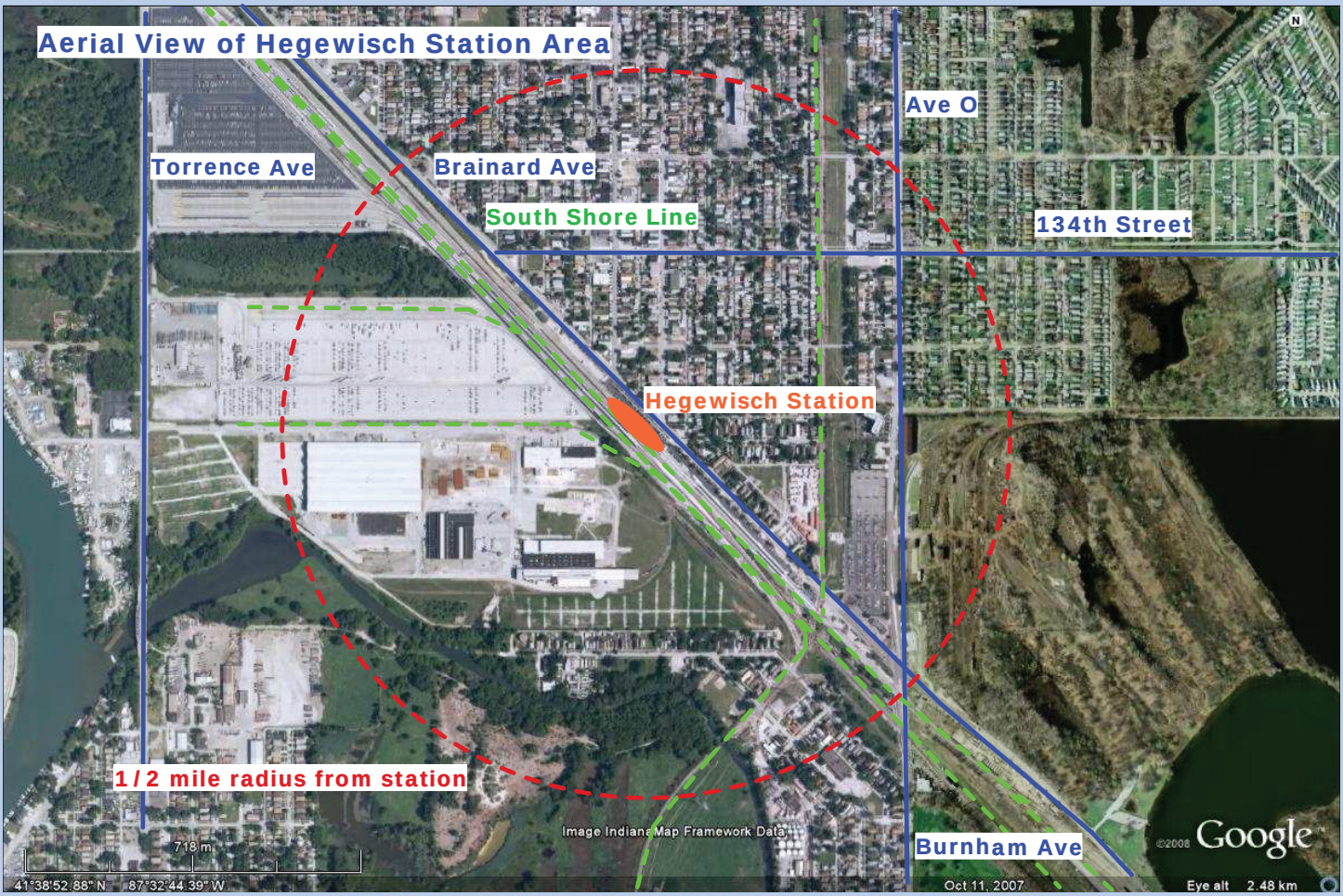
A sketch for the Harvey Station Area Plan prepared by Farr Associates.

Fostering Transit Oriented Development in Chicago's South Suburbs

This report presents the findings of the Center for Neighborhood Technology's (CNT) Transit Oriented Development (TOD) Selector Analysis for 32 Metra stations and one South Shore station in Chicago's south suburbs. CNT has partnered with South Suburban Mayors and Managers Association (SSMMA) and consulted with the Metropolitan Planning Council (MPC), the Urban Land Institute (ULI) and the Chicago Metropolitan Agency for Planning (CMAP) to develop an objective assessment about the current state of and potential for further TOD in the Southland.

The goal of this project is to build TOD at the most intense level consistent with local community desires and market demand. Such development will increase the supply of quality mixed-income housing, revitalize local commercial districts, generate a significant number of jobs, build the local tax base, increase transit usage, create viable alternatives to automobile use, and so improve the quality of life and the natural environment in the southern suburbs in particular and the metropolitan area in general.

Optimum TOD in the south suburbs will be more readily achieved if the public agencies, local governments and not-for-profit organizations that are working to bring it about share a common vision and strategy. To provide part of the empirical basis for this strategy, CNT has performed the following analysis of base line conditions and opportunities for TOD in the south suburbs.



The Selector Analysis combines data on 38 characteristics of transit station areas to indicate how these areas can be developed most effectively, in keeping with community goals and in coordination with other station areas in a TOD corridor.

The Selector Analysis Approach

CNT introduced its Selector Analysis tool in 2003 and has been refining it over the last five years in collaboration with its partners at the Center for Transit Oriented Development, Reconnecting America and Strategic Economics, and through its pilot projects in metropolitan Chicago and other cities. The Selector Analysis relies on a GIS-based statistical tool that calibrates different variables such as level of transit service and usage, land use, socioeconomic data, housing characteristics and market potential to describe an "ideal" development type, in this case different TOD typologies. The ideal for each TOD type is derived from TOD typologies discussed in the planning literature to conditions of the built environment in the south suburbs. When applied to individual station areas, the TOD Selector rank orders stations based upon how well each one matches the criteria of the TOD type against which it is compared from the perspective of both existing conditions as well as prospective development potential.

For example, a Town Center TOD that serves as the commercial center of a suburban town is typically characterized by high levels of transit service and transit ridership, fairly dense residential development, a varied mix of retail and service businesses, and a higher than usual amount of pedestrian traffic. A station area would rate highly in a Selector Analysis geared to a suburban downtown TOD if it currently incorporates all of these characteristics or excels in some while ranking moderately in others. Similarly, a station area could be deemed a good prospect for developing as this type of TOD if the potential exists for putting these fundamental features in place.

A Selector Analysis necessarily includes three elements:

- Data variables that describe the critical characteristics associated with development and redevelopment;
- A typology representing points along the development spectrum that vary by scale, density, mix of uses and the requisite community characteristics necessary to support each category of development; and
- Comparison areas to be considered.

Variables: Characteristics That Shape TOD

This analysis uses 38 variables for which public data are available to describe characteristics of TOD typologies as well as actual conditions surrounding each of the station areas. These variables are organized into five categories that provide indications of:

- Transit Service and Usage
- Land Use and Scale of Developable Land
- Demographics
- Housing Characteristics
- Retail/Service Business Sector

The 38 variables are summarized in the "TOD Selector Analysis Variables and Typologies Summary" chart on the following page, which also shows how these variables apply to the fit of a particular station to each of the three TOD typologies whether from the perspective of existing conditions or development potential. The variables are described in more detail in Appendix A.

VARIABLE LIST		Existing Conditions				Ease of Land Assembly	Market Strength for Development		
No.		Town Center TOD	Community Center TOD	Residential TOD	Undeveloped Station Area		Town Center	Community Center	Residential
	TRANSIT USAGE AND SERVICE								
1	Prevalence of Transit Use (1/2 mile radius)	H	M	L	-		H	M	L
	PACE Transit Competitiveness Score								
2	Origin (1/2 mile radius)	-	-	-	-	-	H	M	L
3	Destination (1/2 mile radius)	-	-	-	-	-	H	M	L
4	Metra Ridership, Total Onboards and Offboards	H	M	L	-	-	-	-	-
5	Metra Commuters Who Bike Or Walk	H	H	L	-	-	-	-	-
6	Average TCI Trips Per Hour	H	M	L	-	H	H	M	L
	LAND USE AND DEVELOPMENT SCALE								
7	Walkability (Average Block Size, 1/2 mile radius)	L	M	H	-	-	L	M	M
8	Land Use Diversity Index (1/2 mile radius)	H	M	L	-	-	-	-	-
9	Assessed Value By Acre of Selected Land Use Types (1/2 mile radius)	-	-	-	-	L	-	-	-
	Developable Land Measures (1/2 mile radius)								
10	Total Developable Acres	L x 2[1]	M x 2[1]	L x 4[1]	H x 4[1]	H x 2[1]	M x 2[1]	M x 2[1]	L x 2[1]
11	Total Developable Acres Per Owner	-	-	-	-	H	-	-	-
12	Total Acres Per Developable Cluster	-	-	-	-	H	-	-	-
13	Total Area of Developable Clusters Above 2 Acres	-	-	-	-	H	-	-	-
	DEMOGRAPHICS								
14	Household Density Per Acre (1/2 mile radius)	H	M	L	L	-	-	-	-
15	Household Density Per Residential Acre (1/2 mile radius)	H	M	L	L	-	-	-	-
16	Owner and Renter Diversity Index (1/2 mile radius)	H	M	L	L	-	H	M	L
17	Aggregate Household Income (1/2 mile radius)	H	M	L	L	-	H	M	L
18	Aggregate Household Income (2 mile radius)	-	-	-	-	-	H	M	L
	HOUSING								
19	Housing Price Change Over 5 Years	H	M	-	-	-	H	M	-
20	Foreclosures Per 10,000 Owner Occupied Housing Units (1/2 mile radius)	-	-	-	-	L	L	L	M
21	Transportation Costs (1/2 mile radius)	L	L	M	-	-	L	L	H
22	Housing + Transportation Costs (1/2 mile radius)	L	M	H	L	L	L	M	H
	RETAIL INDICATORS								
23	Average Daily Traffic Counts	-	-	-	-	-	H	M	L
24	Number of Jobs (1/2 mile radius)	H	M	L	L	-	-	-	-
25	Number of Jobs (2 mile radius)	-	-	-	-	-	H	M	L
26	Total Output of Office Businesses (1/2 mile radius)	H	M	L	-	-	H	M	L
	Store Count Index								
	Convenience Retail								
27	1/2 mile	H	M	L	L	-	-	-	-
28	1 mile	H	M	L	L	-	-	-	-
29	2 mile	H	M	L	L	-			
	General Retail								
30	1/2 mile	H	M	L	L	-	-	-	-
31	1 mile	H	M	L	L	-	-	-	-
32	2 mile	H	M	L	L				
	Retail Gap Index								
	Convenience Retail								
33	1/2 mile	-	-	-	-	-	H	M	-
34	1 mile	-	-	-	-	-	H	M	-
35	2 mile	-	-	-	-	-	H	M	-
	General Retail								
36	1/2 mile	-	-	-	-	-	H	M	-
37	1 mile	-	-	-	-	-	H	M	-
38	2 mile	-	-	-	-	-	H	M	-
	TOTAL NUMBER OF VARIABLES	23	23	24	16	9	24	24	16

H = High; M = Medium; L = Low

[1]These items were weighted two to four times in the Selector.

Table 1: TOD Selector Analysis Variables and Typologies Summary

The Homewood station area enjoys one of the richest mixtures of convenience and specialty retail businesses in the south suburbs and serves neighboring communities in addition to its own residents.

Three TOD Typologies

TODs can take many forms and range from commercial and residential centers that form the heart of a town's central business district to compact but less dense residential neighborhoods with some or no retail amenities. By definition, all TOD typologies include transit service. They also include greater density than the surrounding community, a mix of residential and commercial land uses, and a walkable environment. Typologies vary as to their degree of intensity and mix of development, which may differ so greatly as to produce developments that differ in kind.

Three distinct TOD classifications from planning literature describe existing conditions as well as gauge the potential for further development around all 33 transit stations that serve SSMMA member communities (the Southland), the planning area for the upcoming corridor study. Existing conditions include one additional category, undeveloped station area, which applies to stations surrounded by vacant or under-developed property.

Town Center TODs are places that might constitute the main street district of a relatively large suburban town or several towns. They have frequent transit service and usage by both train and bus, relatively high commercial and residential density, a mix of discretionary and convenience retail and service businesses that meet most of the daily needs of residents and commuters, and high aggregate income. While these station areas contain little vacant land, they may contain land that could be redeveloped for a higher use. These station areas fit the classic image of TOD: mixed use development with first floor commercial and multi-family residential and, possibly, office uses above, in a broader district with a pedestrian-friendly environment.

Community Area TODs are places that provide a commercial service center for a neighborhood or a village of a few thousand residents. They have frequent to moderately frequent transit service and usage, moderate residential density, and a cluster of convenience goods and service businesses. They contain some but not extensive vacant or under-utilized land. This TOD typology includes a mix of residential and commercial uses, but the commercial space is less extensive and represents a narrower segment of retail than in a Town Center TOD. The transition from this TOD district to the surrounding residential neighborhood of townhouse and single family homes is less marked than in a Town Center TOD, and is still designed to accommodate people on foot or bicycle.

Metra station and retail development in LaGrange, IL.

Residential TODs are places that consist almost completely of residential development. They have moderately frequent to infrequent daily transit service and usage, relatively light residential density, and few, if any, convenience retail/service businesses. Virtually all of the land surrounding the station is in residential use, mostly in single family homes, although some attached townhouses or small apartment buildings may be present, and little vacant land is available. As with the other types, these neighborhoods contain safe pedestrian and bicycle routes through them.

Undeveloped Station Areas describe existing conditions in station areas with an extensive amount of undeveloped land. While not one of the three TOD classifications, the category has been added to highlight the fact that these station areas more so than the others offer a blank slate for development purposes.

Transfer Station Areas are not included as a typology in this analysis but some station areas add value to a transit system by providing infrastructure to facilitate the transfer of travelers from one form of transportation to another such as from train to bus. The Pace Bus terminal at the Harvey Metra station provides a notable south suburban example of an intermodal or transfer facility although most south suburban Metra service connects with Pace routes at train stations with the simple use of a bus stop. Train stations with park and ride lots also allow riders to transfer (from train to car), and all south suburban rail station areas perform this function to some degree. In the past, park and ride was the primary if not sole function of many south suburban station areas, but today communities are generally aware of opportunities for mixed use housing and retail developments that can coexist with commuter parking and add value to station areas.

Stations as Comparison Areas

In this south suburban TOD analysis the comparable areas consist of the neighborhoods located within ½ mile, 1 mile, and 2 miles around each rail transit station; areas of different size were taken into account depending upon the variable under consideration. Thirty-three (33) rail transit station areas were included in the analysis (32 Metra stations and the South Shore Railroad station in Hegewisch). These station areas accounted for all currently active rail transit stations in SSMMA member municipalities, except for several secondary stations in Blue Island, in close proximity to the major stations.

This analysis also relies on data for five Metra station areas in Chicago suburbs outside of the Southland: Arlington Heights, Evanston, LaGrange, Oak Park, and Palatine for comparison purposes.

Blue Island's downtown station area includes over 100 businesses and a regional hospital.

Key Findings

The South Suburban Station Area Rankings Chart (Table 2) lists the 33 rail station areas in alphabetical order and includes each station area's score and rank for the three TOD types broken out by existing conditions and development potential. **A low numerical score and a low rank indicate a close fit with the TOD type at the top of the column whereas a higher score or rank reflects a mismatch between the station area and the TOD typology, the same principle as in golf scores.** The Selector Analysis starts by assessing existing conditions but goes beyond them relying upon:

- Findings from a Pace study identifying concentrations of potential transit riders;
- Employment levels and aggregate household income in a two-mile radius of each transit station;
- Home foreclosure rates among other housing market indicators;
- Daily car traffic counts for the station area's principal intersection; and
- The retail gap or unmet latent demand for goods and services, especially convenience purchases,

to gauge the potential for station areas to develop into a particular TOD type.

The analysis permits the identification of: (1) outstanding opportunities for development as a particular TOD type considering the existing base of development, the apparent obstacles to land assembly, and market potential for further development; (2) conditions that need to change for that station area to become a more intensive TOD with higher economic value and greater positive environmental impact; and (3) the totality of development potential between and along each Metra corridor and how stations could compliment each other.

The Selector Analysis clearly reveals that the characteristics of certain transit station areas predispose them to be developed as one of the TOD types. Others, however, have the potential to develop as one of either of two different types. Their course will be impacted by the local community's wishes for station area development, compatibility with development at neighboring stations and with other nearby development projects, possible shifts in market demand, and local government's commitment to the execution of TOD plans.

Station Area	A. TOD Existing Conditions								B. Ease of Land Assembly		C. Market Strength for Further Development					
	A1. Town Center TOD		A2. Community Area TOD		A3. Residential TOD		A4. Undeveloped Area				C1. Town Center		C2. Community Area		C3. Residential	
	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order
119th Street, Blue Island	133.86	7	22.57	19	151.80	30	159.33	28	136.06	14	132.74	1	11.78	6	61.91	31
143rd St., Orland Park	172.79	23	31.58	24	129.62	25	120.78	11	134.18	11	194.25	25	26.35	24	49.01	24
147th St./Sibley Blvd., Harvey	140.11	9	17.79	8	115.04	17	136.04	21	144.00	23	145.61	5	12.54	7	40.57	18
153rd St., Orland Park	204.62	28	40.33	28	94.30	6	135.68	20	149.11	28	214.68	30	33.87	29	22.27	2
179th St., Orland Park	225.21	30	42.17	29	76.29	3	72.24	4	113.23	5	202.22	26	32.26	28	25.29	3
211th St./Lincoln Hwy., Matteson	146.32	14	22.94	20	137.55	28	137.78	22	123.61	6	183.57	23	23.14	22	43.11	19
80th Avenue, Tinley Park	144.94	11	29.75	23	138.65	29	131.37	18	124.86	7	152.66	7	17.18	13	35.87	12
Ashland Avenue, Calumet Park	124.17	3	17.26	6	128.27	24	140.25	24	136.04	13	133.81	2	9.03	1	53.42	30
Calumet, East Hazel Crest	166.28	20	21.82	16	96.59	7	128.20	16	142.19	22	162.23	11	10.37	4	39.93	16
Flossmoor	164.24	19	27.81	22	98.39	9	123.80	14	147.72	26	165.39	12	19.35	17	34.90	10
Harvey (Downtown)	137.74	8	20.19	15	126.61	23	148.57	25	148.82	27	158.21	9	18.10	15	50.34	26
Hazel Crest	172.76	22	18.74	12	91.26	4	115.97	10	138.28	18	170.72	16	12.99	8	35.34	11
Hegewisch	153.37	16	18.09	9	118.50	19	124.00	15	134.16	10	158.60	10	13.85	10	48.32	21
Hickory Creek, Mokena	194.08	25	33.73	25	108.19	14	81.67	5	97.40	4	218.78	31	26.71	25	34.32	8
Homewood	114.13	2	15.90	4	152.34	31	164.31	30	139.65	19	169.75	14	17.51	14	48.62	23
Ivanhoe (Downtown Riverdale)	132.90	6	14.29	2	119.52	20	149.26	26	154.84	32	149.81	6	21.72	20	45.93	20
Laraway Road, New Lenox	300.65	33	88.10	32	122.81	22	22.04	1	22.88	1	224.77	32	64.66	33	79.68	32
Manhattan	294.80	32	74.19	31	71.83	1	30.72	3	92.76	3	229.04	33	34.08	30	32.27	7
Matteson (Downtown)	149.03	15	18.18	11	131.22	26	132.09	19	127.45	9	209.27	29	21.98	21	38.36	14
Midlothian	146.10	13	14.47	3	102.34	12	106.83	9	135.70	12	153.69	8	13.11	9	39.14	15
Mokena (Downtown)	172.73	21	22.51	18	102.31	11	122.80	12	151.94	30	180.60	22	14.45	11	29.15	5
New Lenox (Downtown)	163.63	18	26.89	21	113.45	16	99.90	7	125.14	8	184.97	24	20.33	19	34.80	9
Oak Forest	143.16	10	16.69	5	115.63	18	130.85	17	144.61	24	140.59	4	15.85	12	53.07	29
Olympia Fields	201.42	27	40.09	27	93.50	5	123.72	13	137.62	16	202.47	27	28.36	26	29.62	6
Palos Heights	176.17	24	22.38	17	103.60	13	153.20	27	151.59	29	172.92	18	10.46	5	27.02	4
Palos Park	194.50	26	40.00	26	74.45	2	102.69	8	140.15	20	172.10	17	24.56	23	19.08	1
Richton Park	127.72	5	17.26	7	167.95	33	164.60	31	141.23	21	177.68	21	19.80	18	49.31	25
Riverdale (Riverdale Park)	160.02	17	18.17	10	100.73	10	138.97	23	168.78	33	172.96	19	38.62	31	48.37	22
Robbins	218.55	29	43.02	30	97.58	8	88.16	6	137.32	15	177.67	20	29.72	27	40.11	17
Tinley Park (Downtown)	125.70	4	12.80	1	131.86	27	159.94	29	147.17	25	167.85	13	9.27	2	38.27	13
University Park	289.48	31	96.13	33	110.76	15	26.75	2	46.38	2	206.14	28	64.29	32	88.18	33
Vermont St., Blue Island	102.56	1	19.84	14	156.82	32	171.91	33	138.11	17	136.20	3	9.48	3	50.73	27
Worth	145.13	12	19.44	13	122.09	21	170.46	32	151.97	31	169.93	15	18.71	16	51.39	28

Table 2: South Suburban Station Rankings

Figure 1:

The Vermont Street Station area includes a major hospital and business district as assets. With over 26 acres of developable land, Blue Island can continue to grow as a Town Center TOD.

Few Existing Town Centers but Strong Potential for More

No station in the south suburbs currently represents a good match for the Town Center TOD comparable to successful suburban Town Center TODs in other parts of the Chicago region. However, a number of station areas show strong potential for development to a scale comparable to any TOD in the region.

Vermont Street Station in Blue Island ranks at the top of south suburban station areas as an existing Town Center and high in its market strength. Vermont Street counts among its assets the highest level of transit service in the Southland with the Metra Rock Island local and express lines as well as the Metra Electric District converging here. The Metropolitan South Medical Center, formerly St. Francis Hospital, is located two blocks from the station and employs 1,500 workers. Western Avenue, one of Blue Island's main retail districts with a diverse mix of businesses, is also within walking distance. This station area could become one of the region's leading suburban Town Centers if it could relocate some industrial and other lower-level uses of land now in the station area and build additional relatively dense housing.

The Homewood Station holds the second highest position as an existing Town Center because it harbors one of the richest mixes of convenience and specialty retail businesses in a south suburban station area and serves market functions for neighboring communities. It shows less potential for retail growth because it shares its market area with a power center along Halsted Street but if additional dense housing and office development were built in Homewood this development would benefit from existing retail amenities, cement the market for those retail businesses, and ensure the station area's position as a regionally significant TOD Town Center.

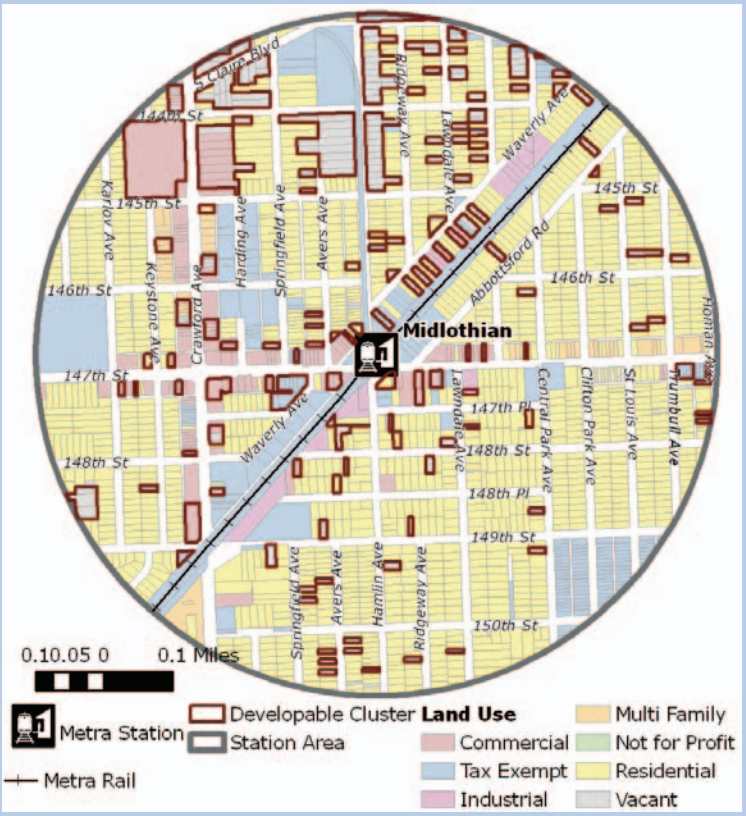
Riverdale's Ivanhoe station area possesses key assets of a potential Town Center TOD: pedestrian-friendly streets, residential density and strong retail market potential.

Ivanhoe Station in Riverdale forms the western boundary of Riverdale's downtown shopping district. The Ivanhoe district is now among the most successful Community Area TODs in the south suburbs, a direct result of the Village's progress in the implementation of a well crafted TOD plan. The area may have the market potential to reach a Town Center level of development but further development is hampered by one of the most complex land assembly situations in the south suburbs. Further development will also depend on the success of Cargo Oriented Development (COD) projects advanced in Riverdale by the Greater Riverdale Industrial Partnership (GRIP) and the Village and in neighboring Dolton as well as by housing developments in progress in Riverdale and needed in Dolton.

Tinley Park's Station ranks first in this analysis as an existing Community Area TOD and second in terms of its potential for further development at this scale of development. Tinley Park has carefully planned and facilitated the creation of this TOD of moderate size with some multi-unit housing and convenience retail in walking distance of the station. Density here is higher than for any other outer suburban station. Although aggregate income is high, current retail needs are met, which causes Tinley Park to have only a moderate ranking for future development as a Town Center TOD. However, the Village wants to execute an ambitious plan for a more intensive downtown TOD, with multi-story housing over retail in an expanded mixed use district. Realization of this plan will make Tinley Park a leading Town Center TOD in the south suburbs.

Figure 2:

The Midlothian Station area contains 45 acres of developable land, including several large residential clusters to the north, and could increase density and infrastructure in these areas.



Broad and Varied Opportunities for Community Area TODs

In their existing conditions and their apparent development potential, most south suburban station areas resemble the Community Area TOD more closely than any other typology. More than a third of the station areas are closely grouped with a spread of less than 20 points, indicating a similar potential to function as Community Area TODs. Station areas, however, reflect these similar levels of capacity from very different development situations, as indicated by the following examples:

143rd Street Orland Park is a station area in the process of transformation from an under-utilized transit location to a model Community Area TOD. The Village of Orland Park has invested $35 million for land assembly and infrastructure improvements to lay the groundwork for this project. The TOD will add some 240 homes to an existing residential neighborhood and replace a car-oriented shopping center with 150,000 square feet of retail space in a mixed use community designed around access to transit, parks, and other sections of the Village.

Midlothian presents a high ranking as both an existing Community Area TOD and one with the potential for further development. Commercial development along a major arterial highway and the concentration of some duplex and three-flat buildings in an older section of the Village have yielded moderately high commercial and residential densities within the station area. Midlothian has more clustered developable land than most mature south suburban communities, which would aid any effort to build greater density and pedestrian infrastructure in the station area. Retail market data suggests that the station could support some additional convenience retail, even as its other retail needs are largely met by existing businesses. Midlothian has recently updated its TOD plan to address these development opportunities and challenges.

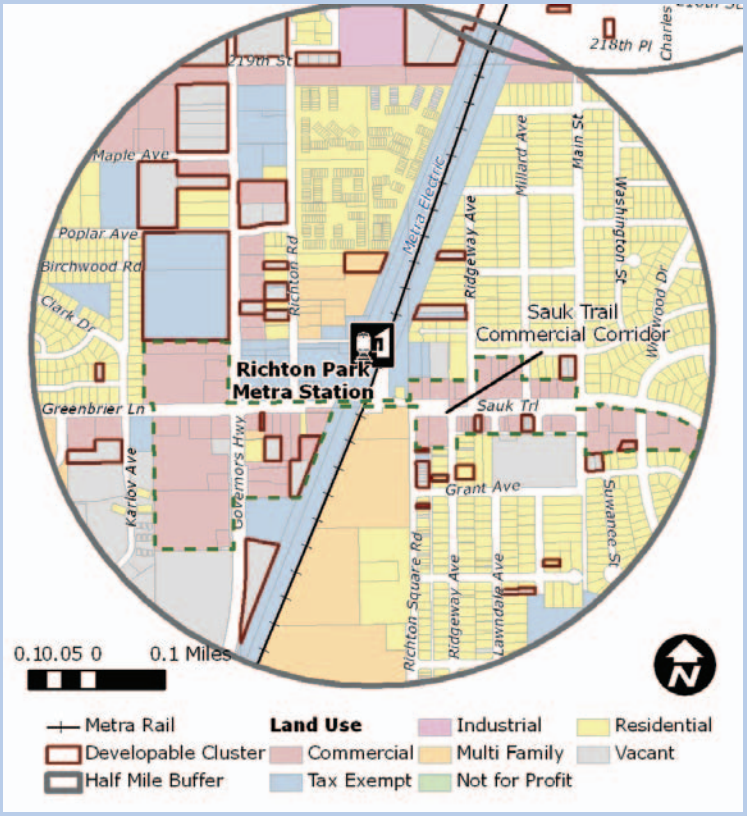


Figure 3:
The Richton Park Station Area includes the Sauk Trail commercial corridor and multi-family housing adjacent to the station. Its 44 acres of development opportunities are primarily commercial in nature.

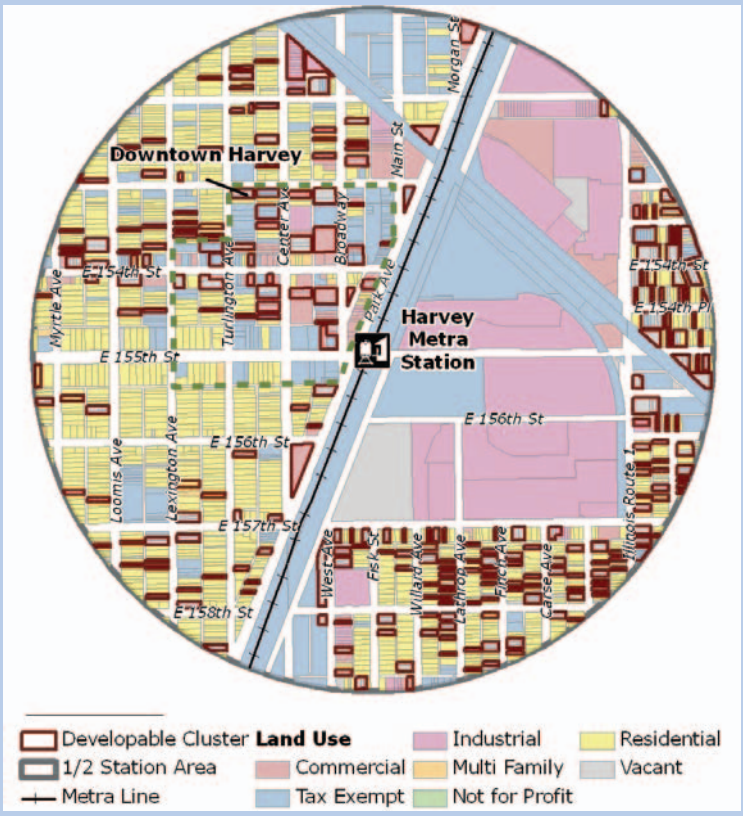


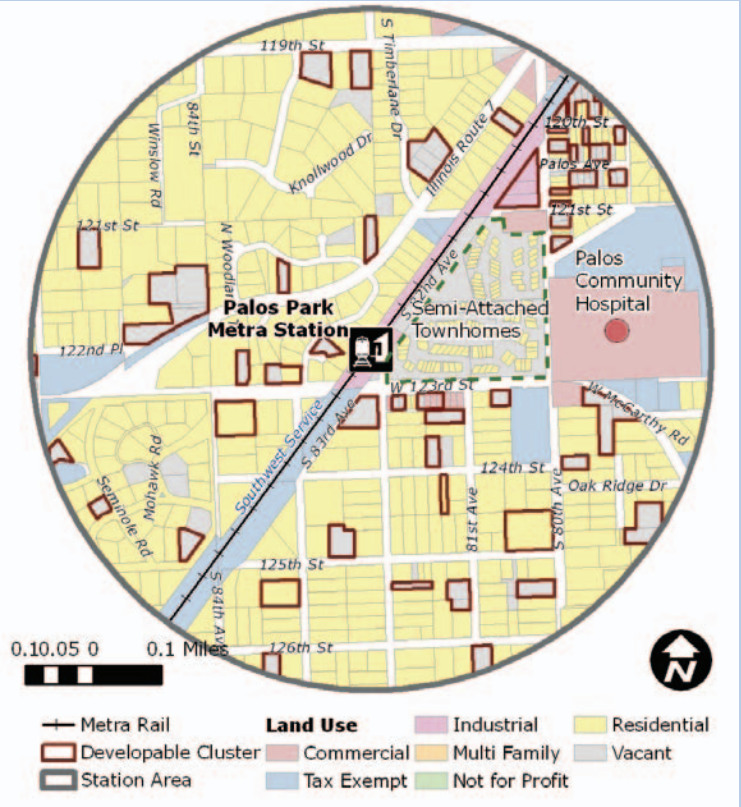
Figure 4:
Downtown Harvey offers 39 acres of vacant commercial and residential land, with public amenities and a pedestrian-friendly street grid as a site for TOD.

The Richton Park Station area ranks highly as an existing Community Area TOD because it contains some successful multi-story housing close to the Metra station as well as a downtown district that meets the convenience needs of the community. However, Richton Park will need to replace some low-intensity land uses and build a more pedestrian-friendly streetscape to grow its downtown as a TOD. The Village is committed to completing its RTA-funded TOD plan to achieve these objectives.

Downtown Harvey possesses many assets as a site for TOD: a newly renovated Metra station across the street from a Pace terminal; public buildings that include City Hall, a community center, and public library; a commercial district anchored by two banks with more than 20 retail businesses; the transit gateway to Ingalls Hospital; and a traditional street grid that supports pedestrian movement. However, decades of disinvestment have left Harvey with a low average household income and a tax levy that discourages new investment. Downtown Harvey's 39 acres of vacant commercial and residential land reinforce the impression of decline as well as the potential for substantial redevelopment. Harvey is pursuing implementation of its station area plan that lays out the necessary course for a Community Area TOD: concentrate streetscape improvements and mixed-use development in the downtown core and expand outward from this base.

Figure 5:

The Palos Park Station area contains 38 acres of vacant, residentially-zoned land. Semi-attached townhomes are an asset in this Residential TOD.



Residential TODs Offer A Different Style of Development

Deliberate or not, communities make decisions to eschew relatively intensive forms of development and become Residential TODs when they allot the large bulk of land within their station area to low-density residential use. Once established, such patterns are difficult to alter. However, residential communities may incorporate elements of TOD such as a few convenience retail businesses and/or a limited amount of mixed use development or townhouses near the station that are consistent with their general land use decisions. Such decisions can blur the distinction between a smaller Community Area and a Residential TOD.

The SouthWest Service includes a number of station areas that appear committed to continuation as residential station areas as well as communities that are on the cusp of development as Residential or Community Area TODs. Auto-oriented land use patterns of the last 50 years, when most of these communities were built out, are among the challenges they face in implementing TOD. Metra service that has been less frequent than service on other south suburban lines, along with a lighter pattern of Pace connections, have also factored into existing development patterns. Metra is increasing the frequency of trains on the SouthWest Service, which may create new market opportunities as communities reconsider their level of TOD.

Palos Park heads the ranking of station areas for fit with the Residential TOD typology per its existing conditions and potential for future development. It comes as no surprise that a station area in a town with one of the south suburbs' major concentrations of auto-oriented, big box retail development would be difficult to integrate with TOD. Nevertheless, Palos Park contains a neighborhood of semi-detached townhomes near its Metra station and 38 acres of vacant land for future residential development with convenient access to public transportation.

Orland Park's Triangle Site Redevelopment Plan *demonstrates how a Residential station area can be transformed into a Community Area TOD through the addition of townhomes and pedestrian-scale open space.*

153rd Street and 179th Street Stations in Orland Park also fall in the top ten ranking of station areas for the Residential typology but the two differ markedly. While 153rd Street has a development situation very similar to Palos Park with latent retail demand satisfied by Orland Square Mall, the 179th Street station area has not been fully developed. Its tracts of farmland and low-density housing restrain the population density and buying power needed for retail development.

Hazel Crest, Calumet (which serves East Hazel Crest), and Flossmoor, all rank highly as a Residential TOD because of low residential densities and thin retail development. Yet each of these stations also shows some existing development as a Community Area TOD and potential for this more intensive form of TOD. In both cases, Homewood fills some of their retail needs, both for auto-oriented shopping and for convenience retail needs through its downtown TOD. The communities that bracket Homewood need to decide whether to continue the present arrangement or develop as Community Area TODs, with expanded retail districts and the denser housing that would be required to make this retail successful.

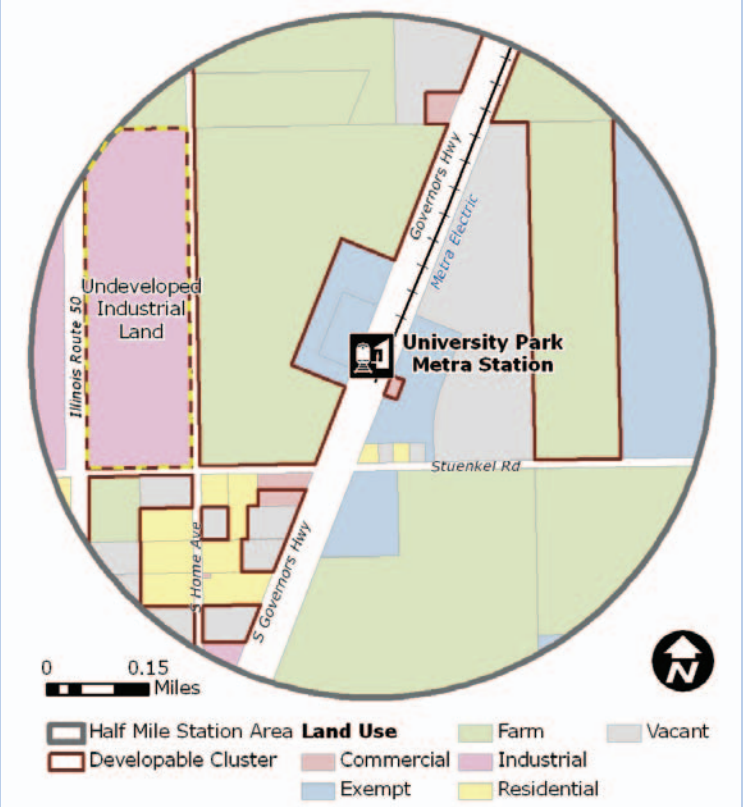
A number of south suburban municipalities must choose whether to accept the lower densities of a Residential TOD or undertake more intensive development of their residential and retail sectors as a Community Area TOD. Then as municipalities monitor the implementation of their plans, they need to evaluate whether or not their development practice is realizing the levels of TOD intensity that are consistent with their aspirations. Helping communities implement such choice may be one of the major benefits of this analysis and the south suburban TOD corridor planning study for which it paves the way.

Undeveloped Station Areas Provide Broad Development Potential

The south suburbs contain at least six station areas with extensive tracts of vacant or undervalued land. These areas are at or near the southern terminus of each of Metra's rail corridors and stand at the top of a ranking of station areas for ease of land assembly. The developable land lies in large contiguous blocks held by a few owners. The presence of such station areas within the transit network of a major metropolitan region represents extraordinary opportunities. A municipal government and developer team with vision and adequate capital could rapidly create large scale projects with significant regional impacts.

Figure 6:

The University Park Station area contains 217 acres of vacant and agricultural land in eight contiguous clusters and represents an opportunity to create a station oriented to the campus of Governors State University.



Laraway Road (New Lenox) represents the quintessential undeveloped station area, leading our analysis in the amount of undeveloped land and with a simple land assembly situation. A plan exists to develop the area into a transit village of low and medium density housing clustered around the station. With its proximity to the logistics and industrial businesses that have been developing in the I-80 corridor, the Laraway station area could be built as an attractive community for managers and workers in the new industrial economy and a point of transfer for workers from communities in the north commuting to logistics/manufacturing jobs.

University Park at the terminus of the Metra Electric District ranks second in our ordering of undeveloped station areas. By connecting the station to Governors State University, a developer could build an entire campus-oriented community, that would more effectively link a major educational institution to other south suburban communities and the region.

Manhattan and Hickory Creek (Mokena) represent a pattern of station areas that by the most recent available data are largely undeveloped, yet are located in rapidly growing suburban towns, for which the emerging land use appears to be low-density residential. These communities can establish their station areas as viable Community Area TODs or allow them to develop as Residential TODs.

Three Metra lines, the Metra Electric District, Rock Island District and SouthWest Service, supply the 32 stations in the south suburban TOD corridor study area with regular rail service.

Metra Corridor Characteristics

Three Metra lines serve the Southland. In addition to its South Chicago Branch, the Metra Electric District serves two south suburban branches providing 15 closely clustered stations with regular peak, off-peak, and weekend service. Further west, the Rock Island District offers moderately frequent service to ten stations. The SouthWest Service provides commuter service that is being expanded with more off-peak and weekend trains for the eight stations located in SSMMA member communities. The Northern Indiana Transportation District's South Shore Line also serves the region at its Hegewisch station. Service to nine additional south suburban stations will be provided on the planned SouthEast Service.

Metra Electric District

From its origins in Chicago's Millennium Park to its Main Line terminus in University Park and a second terminus along its Blue Island spur, the Metra Electric runs in a south by southwesterly direction through the heart of the Southland and serves 15 stations within the study area. The service opened as a commuter route along the Main Line in 1856, with the Blue Island spur added in 1892. By the 1920s, the Electric line reached as far south as Matteson. Service runs frequently along the line during peak periods, off-peak periods and weekends with most stations enjoying an average of one to two trains per hour.

Owing to the line's long history as a transit corridor with cities that developed as commuter towns, stations in the northern third of the corridor study area enjoy the density and land use patterns that, when matched with their unmet retail demand, suggest strong potential for additional Town Center and Community Area development. Further south, lower density and existing big box retail probably precludes such intense development at every station, so existing nodes in Homewood and Richton Park should be strengthened, with smaller-scale, convenience-oriented TOD at the remaining stations. The University Park station area offers the opportunity for a major planned unit development.

The Rock Island District main line serves ten south suburban stations, including Tinley Park.

Rock Island District

Metra's Rock Island District runs between Chicago's LaSalle Street Station and its terminus in Joliet and serves ten stations in the southwestern section of the SSMMA service area. The Rock Island District dates to 1870 when its first tracks were laid and several of its station areas developed as commuter towns. Most stations along this line enjoy frequent rush hour service and a number of trains during off-peak periods and weekends.

High household density, aggregate income and daytime population along with some unmet retail demand and local assets that include the convergence of the Beverly Branch with the Rock Island main line make Blue Island's Vermont Street Station the most likely candidate for a Town Center TOD. In the central portion of the corridor, the communities of Midlothian and Oak Forest are more representative of the Community Area style development with commercial districts offering a mix of automotive and pedestrian businesses. Modest demand for additional retail should help these communities continue to grow along these lines. Tinley Park, meanwhile, has been recognized as a region-wide leader in TOD development; its downtown, which largely meets its existing demand for retail services, is undergoing further planned mixed use development.

The corridor ends in Joliet after passing through the rapidly growing towns of Mokena and New Lenox, which could bolster their TOD potential with additional residential density and imaginative land use decisions.

SouthWest Service
The SouthWest Service skirts the western edge of the Southland. Stations along this line typically serve the western- and southwestern-most municipalities represented by SSMMA. Building on the commuter service of this line, in 2009, Metra expanded off-peak service and added Saturday trains for the first time. However, Metra and Pace service is still somewhat less frequent here than in the Metra Electric and Rock Island districts.

Having developed after World War II, the towns along this line are low density, automobile-oriented communities with little existing business development near transit, with the exception of Worth, which has the most densely developed station area in the study corridor and where three Pace bus lines intersect. Residential densities and supporting infrastructure decrease as the SouthWest Service passes into more recently developed communities. However, the Village of Orland Park is breaking this pattern with an ambitious TOD plan for the 143rd Street station area. After Orland Park, the SouthWest Service's station areas feature large tracts of vacant or rural land. Like other exurban communities in the region, these towns could strengthen their TOD development potential through innovative land use decisions surrounding the SouthWest Service stations, especially as service levels increase.

Proposed SouthEast Service
The nine communities with stations along this new corridor have invested considerable time and resources in planning their station areas' development. In a refinement of this report, an appendix will be added to examine the market characteristics of the SouthEast Service station areas and compare these potential TOD locations with the markets of other south suburban station areas.

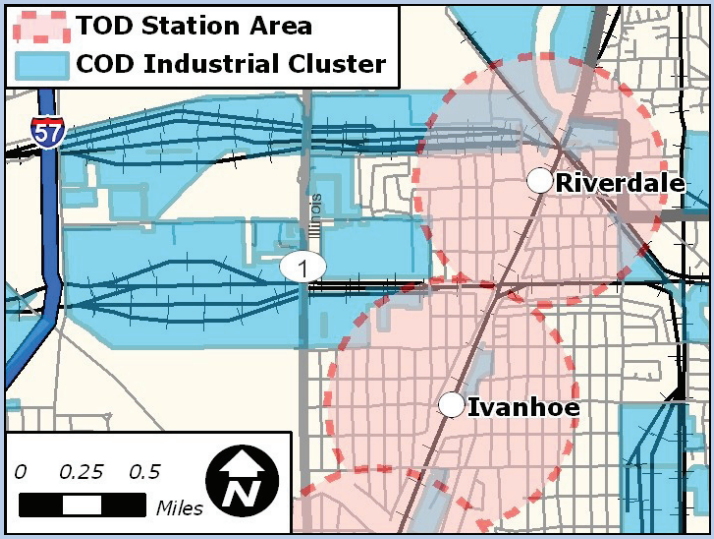
South Shore Line – Hegewisch Station
The South Shore Line's Hegewisch station area straddles the boundary between the City of Chicago and the Village of Burnham before crossing the Illinois-Indiana border. Though not a part of the three Metra corridors that serves the region, it provides commuter service to Chicago's Loop. Its high level of ridership and moderate density could support an expanded Community Area TOD to satiate needs for retail in Burnham and Calumet City.

Related Development Initiatives

TOD corridors need to be planned and developed in the context of other development initiatives unfolding in the south suburbs under SSMMA's leadership.

Linking Cargo Oriented Development (COD) with TOD

For the past decade the Chicago region and the south suburbs in particular have become increasingly aware of freight logistics and value-added distribution as businesses of vital regional importance -- major industries in their own right and the key to attracting and retaining a range of other industrial businesses. In the summer of 2008 CNT in collaboration with SSMMA and CMAP completed a Selector Analysis that identified and ranked industrial sites throughout the south suburbs that contain clusters of vacant or under-utilized land and benefit from excellent access to multiple modes of freight transportation. Over 400 of these Cargo Oriented Development (COD) sites encompassing more than 12,000 acres have been identified and are available for development.

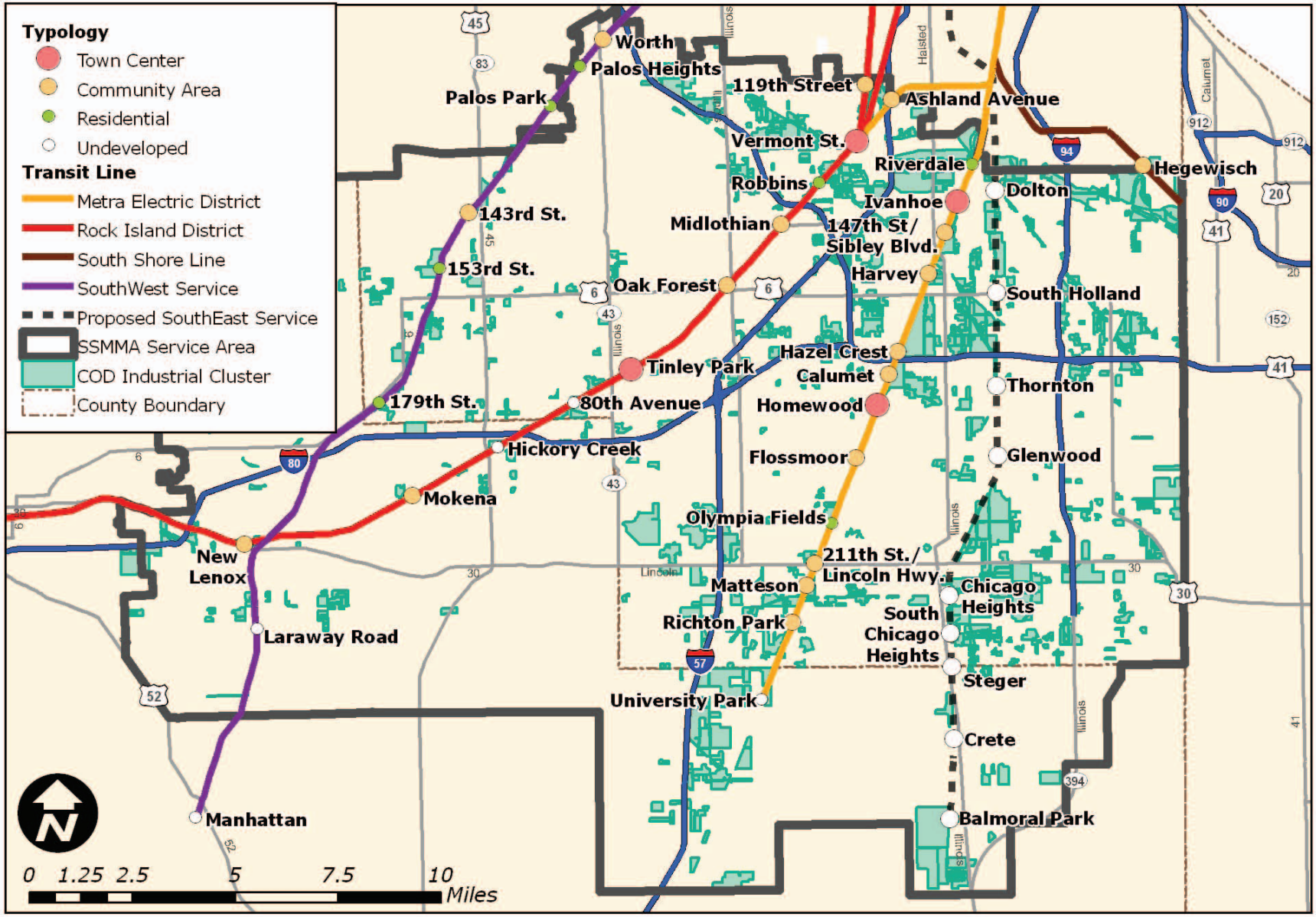


South suburban cargo oriented development opportunities like these in Riverdale and Dolton exist in close proximity to transit oriented development districts. When combined, the two strategies reinforce and enhance the redevelopment prospects of many south suburban communities.

Since last July, the SSMMA-CNT-CMAP team has been meeting with officials of the 18 towns where these sites are concentrated to refine information about them, make them the subject of municipal and inter-governmental industrial redevelopment plans, and brief landowners about the initiative. These efforts reveal the need for predevelopment funding to complete environmental assessments and remediation so that sites can be marketed to the industrial development community. This sustainable development initiative that will restore hundreds of acres to productive use and create thousands of jobs over the next decade is intertwined with the TOD Corridors Initiative in three critical ways:

- As the map on the following page illustrates, the two initiatives involve many of the same municipalities, infrastructure assets and overlapping land areas. Coordinated planning and development is necessary to sort through competing demands and minimize negative impacts.
- COD can enhance the development potential of the transit station areas. The TOD Selector Analysis indicates that most south suburban station areas could support a Community Area TOD if the aggregate purchasing power within the station area can be increased. Much of the spending power that will be needed for a successful TOD can be generated by COD businesses.
- By linking TOD and COD the pattern of working in active industrial districts and living in transit-served neighborhoods that originally made the south suburbs desirable places to live can be restored.

South Suburban Transit Corridors and Cargo Oriented Industrial Clusters



Coordinating TOD With Retail Center Development

SSMMA has engaged the retail consulting firm Business Districts Inc (BDI) to study existing shopping centers and prospects for developing new centers in the south suburbs. The project is focusing on commercial intersections with daily traffic counts of 20,000 or more cars, but it includes opportunities for any SSMMA member municipality to consult with BDI regarding the enhancement of its retail districts. This project needs to be coordinated with the TOD Corridor initiative so that available expertise is fully utilized in planning the retail aspects of TOD and to avoid over-saturation of retail markets.

Some level of convenience retail is an integral part of each TOD typology. Town Center and larger Community Area TOD districts will include a range of businesses that meet most daily convenience shopping needs, as well as some point-of-destination businesses that attract customers from a larger area (such as restaurants and specialty shops). Consequently, BDI will be advising municipalities on capturing the loyal convenience retail purchases of residents, commuters, and local workers as well as customers who would not otherwise visit the station area.

Like most American retail analysts and developers, BDI is accustomed to examining markets in terms of drive times – a five-minute or three-mile radius for convenience retail, larger times and distances for stores that feature larger ticket items. Quality of life issues such as a resident/customer's experience of the built environment, controlling traffic and air pollution, and engendering a sense of community are distant seconds to driver convenience in most retail development. The generally unappealing character of retail strip centers and power centers reflects these priorities.

In a virtual reversal of the standard retail orientation, some of the architects and planners who have been the philosophical pioneers of TOD have traditionally been inspired by a mission to build livable spaces as well as commercially successful developments. But these same pioneers have, on occasion, failed to grasp that even basic convenience retail businesses usually need to draw on a customer base from an area larger than walking distance, particularly in low-density areas like the south suburbs. To realize the multiple objectives of the south suburban TOD Corridor Initiative, including successful retail businesses in TOD districts, the tenets of standard American retail planning and TOD will need to be creatively integrated. Within the Chicago region the RTA has worked to achieve such an integration in its station area studies. SSMMA will need to extend this blended perspective into its corridor planning project. Such integration will require special attention to such issues as: mixed use development, shared parking, signage and facade presentation from driver and pedestrian perspectives, along with the recognition that TOD retail districts serve market areas defined by both walk and drive times.

TOD projects rarely share sites with regional mall or power center retail complexes. Extensive investments in parking structures, roadways, and tall buildings are necessary to make dual use viable. Since such intensive investment appears unlikely in any south suburban location in the near future, separation and coordination of retail functions appear more feasible. Appropriate TOD retail businesses cater mainly to convenience needs, while retail power centers house "category killer" stores that sell commodities or large-ticket items for the lowest available price; yet the markets do bleed into each other. Where major retail centers in the south suburbs are now close to transit station areas, our selector analysis indicates that the retail centers are limiting TOD potential (e.g., in Homewood, Matteson, and possibly Richton Park). So plans for TOD and major retail centers should be coordinated:

- To ensure appropriate siting, scale and retail mix of each when the two types of development share a market area; and
- To create synergy between them by establishing a shuttle between a transit station and a retail center or by directing power center customers to unique businesses in a TOD district as appropriate.

Planned I-57 and I-294 Interchange to Add Value

The construction of an interchange between these two expressways (for which design has been completed and public funds committed for construction) epitomizes the types of impacts that related developments will have on south suburban TOD corridors. This interchange will be built at approximately 147th Street (Sibley Boulevard), a major arterial highway in the south suburbs. The interchange is roughly equidistant (at about 1.5 miles) between the Metra Electric and Rock Island rail corridors and between the northern Harvey and Midlothian stations, each of which is located on 147th.

Both station areas are currently underdeveloped but show strong promise for development as Community Area TODs. The interchange will increase the value of housing in both these station areas, so the best means of capturing this value needs to be carefully considered. Some commercial development should be placed directly by the expressway ramps, so that this valuable opportunity is not squandered but planning should ensure that this development will compliment rather than compete with existing and planned development in the two nearby station areas.

The new interchange is also located in the center of existing and potential COD sites in ten south suburban towns. These 211 potential sites encompass over 7,500 acres within a five-mile radius. The value of nearby freight facilities and active industrial sites will rise because of the new interchange. This value could make a critical difference in COD retention and the feasibility of new projects. As discussed earlier, expanding COD will raise the aggregate buying power and development potential of TOD all along Metric Electric and Rock Island corridors, provided that the industrial development does not interfere with intensive housing and commercial development in the transit station areas.

Cal-Sag River Development and the Green River Pattern Book

SSMMA has been a primary sponsor of the Cal-Sag River Bicycle Trail which will run along the Cal-Sag River from Burnham in the northeast to Palos Park in the southwest, passing through at least five station areas considered in this analysis, including the center of the potential Town Center TOD in Blue Island. With federal funding allocated through the regional transportation planning process, engineering work is now proceeding to create plans complete with construction specifications for the entire length of this path. So increased pedestrian/cyclist traffic should be considered in estimating the market potential of station areas on the path, and infrastructure to ensure a smooth interchange of bicycle traffic with roads and pedestrian ways should be a feature of station area planning.

SSMMA has also coordinated a sustainable economic planning project for seven of its member communities along the Cal Sag River, five of which have rail transit station areas. The effort has produced the Green River Pattern Book, a guide to permitting and building developments that will be highly sustainable in regard to their treatment of storm water, construction for energy efficiency, buffering residential and industrial areas, and establishing a pedestrian-friendly environment. The Green River Pattern Book will be a useful reference tool for subsequent TOD station area and corridor planning.

Appendix A
Variables, Calculations, and Station Area Comparisons

Appendix A:
Variables, Calculations, and Station Area Comparisons

CNT's Transit-Oriented Development (TOD) Selector Analysis considers 38 different variables drawn from a variety of public and private data sources, including CNT's prior work. The analysis builds on scatterplot diagrams of each variable that map out relationships between some of the key characteristics of a robust TOD area: density, employment, transit service and convenience retail service. Not surprisingly, many of these variables correlate strongly to population density and to each other. Though diverse in their source and relationship with a TOD, variables fall into five categories:

Variables

Transit Service and Usage variables measure both the level and connectivity of transit within each station, the ridership at that station and the opportunity for increased service. Unless noted, measures capture data for a ½ mile radius around each station. These six variables are as follows:

- ***Prevalence of Transit Usage*** among commuters, calculated using Journey to Work information from 2008 Claritas projections;
- ***Transit Competitiveness Score, Origin Trips,*** an index developed by Pace that measures the extent to which local residents fit a transit user profile, as presented in the "Pace South Cook County - Will County Restructuring Report";
- ***Transit Competitiveness Score, Destination Trips,*** a similar PACE index that measures how closely commuters to a given area fit a transit user profile, again as presented in the "Pace South Cook County - Will County Restructuring Report";
- ***Total Onboard and Offboard Ridership*** at each Metra station as provided by Metra;
- ***Total Metra Commuters Who Walk or Bike to the Station*** as identified in a 2005 Metra survey of its ridership; and
- ***Average TCI Trips Per Hour,*** a tabulation of the total transit trips available per hour, per data provided by the servicing transit agencies, calculated by CNT as part of the Transit Connectivity Index.

Land Use and Scale of Developable Land variables, meanwhile, measure the size, scale and nature of development in each transit area. Because the study area spans Will and Cook Counties, parcel-level land use and assessed value information provided by the Cook County Assessor and Will County Supervisor of Assessment comprise our data. Data for the following 12 variables gathered for the half mile radius surrounding the station area comprise this category:

- ***Walkability,*** measured through the average size of U.S. Census blocks;
- ***Land Use Diversity Index,*** an entropy score that quantifies the station area's mix of commercial and residential land uses;
- ***Assessed Value by Acre*** of residential, commercial and vacant properties;
- ***Total Developable Acres,*** a summation of all land in the station area deemed developable. Developable parcels are properties identified as vacant by either Assessor's office, of marginal use by our calculations (i.e., where structures add nominally to the land value) or publicly-held land without an active civic use on the site;

- ***Total Acres Per Developable Cluster,*** the acres of developable land that are adjacent parcels, a measure of land fragmentation in the station area and its relative developability;
- ***Total Developable Acres Per Owner,*** a second measure of land fragmentation in each station area;
- ***Total Area of Developable Clusters More Than 2 Acres in Size,*** a summation of larger development opportunities surrounding each station.

Demographics data has been drawn from 2008 Geolytics projections for ½ and 2 mile radii. These projections are rooted in the 2000 Census and, consequently, cannot account for dramatic changes in land use intensity since that time. Five variables make up this category:

- ***Household Density Per Acre*** at a ½ mile radius;
- ***Household Density Per Residential Acre*** at a ½ mile radius averaged over the total residential area of the station area;
- ***Own/Rent Mix Index,*** an entropy score that quantifies the station area's balance between renter-occupied and owner-occupied housing at a ½ mile radius;
- ***Aggregate Household Income,*** the total income earned within both ½ and 2 mile radii of each station. .

Housing Characteristics variables measure the state of the housing market in each station area through changes in market value and cost burden to local residents. The four housing variables follow:

- ***Housing Price Change Over Five Years,*** the absolute change in housing value between November 2003 and November 2008 has been aggregated at the municipal level using the Chicago Tribune's Market Pulse tool;
- ***Foreclosures Per 10,000 Owner Occupied Units,*** tabulated using foreclosure data from Record Information Services between 2006 and 2008 as well as 2008 projections of owner occupied units from Geolytics at a ½ mile radius;
- ***Local Transportation Costs*** as estimated in CNT's Housing + Transportation Affordability Index using 2000 Census data;
- ***Housing + Transportation Affordability Index,*** a statistical tool developed by CNT that calculates the affordability of each station area as the ratio of housing and transportation costs to the Area Median Income (AMI) using 2000 Census data.

Retail/Service Business Sector variables include a diverse set of 16 economic indicators to measure the level of market activity in each station area that were gathered at different radii. Four indices measure convenience and expanded retail activity and opportunity at three different geographic levels.

- ***Average Daily Traffic*** Counts for major thoroughfares immediately surrounding the station as provided by the Illinois Department of Transportation;
- ***Number of Jobs, ½ Mile,*** the total number of jobs in the station area as provided by infoUSA and aggregated through CMAP;
- ***Number of Jobs, 2 Mile,*** the total number of jobs within a 2 mile radius of the station as provided by Claritas;
- ***Total Sales and Output of Office Businesses,*** the total economic output of professional, financial and medical service businesses as provided by infoUSA and aggregated through CMAP at a ½ mile radius;
- ***The Convenience Store Count Index,*** ½ mile radius, a composite score of convenience businesses among ten store types and calculated using infoUSA sales information aggregated by CMAP;

- ***Convenience Store Count Index, 1 Mile,*** calculated using Claritas and infoUSA data aggregated by CMAP;
- ***Convenience Store Count Index, 2 Mile,*** calculated using Claritas and infoUSA data aggregated by CMAP;
- ***The Expanded Store Count Index,*** an expanded and weighted composite score of retail stores among 44 store types, calculated using infoUSA sales information aggregated by CMAP;
- ***Expanded Store Count Index, 1 Mile,*** calculated using Claritas and infoUSA data aggregated by CMAP;
- ***Expanded Store Count Index, 2 Mile,*** calculated using Claritas and infoUSA data aggregated by CMAP;
- ***The Convenience Retail Gap Index, ½ Mile,*** a composite score of convenience retail opportunity among ten store types and calculated using both Claritas' Retail Market Power data and infoUSA sales information aggregated by CMAP;
- ***Convenience Retail Gap Index, 1 Mile,*** calculated using Claritas and infoUSA data aggregated by CMAP;
- ***Convenience Retail Gap Index, 2 Mile,*** calculated using Claritas and infoUSA data aggregated by CMAP;
- ***The Expanded Retail Gap Index, ½ Mile,*** an expanded and weighted composite score of retail opportunity among 44 store types, calculated using both Claritas' Retail Market Power data and infoUSA sales information aggregated by CMAP;
- ***Expanded Retail Gap Index, 1 Mile,*** calculated using Claritas and infoUSA data aggregated by CMAP;
- ***Expanded Retail Gap Index, 2 Mile,*** calculated using Claritas and infoUSA data aggregated by CMAP.

Calculations

To combine the variables used in the TOD Selector Analysis for an assessment of station areas CNT used a Geographic Information Systems (GIS)-based algorithm. The GIS allows the spatial collection and analysis of the data and the interrelationships between input variables and across the entire set of input variables. The algorithm allows us to input a set of site-specific variables to define an ideal type of area (in this case a combination of the 38 variables listed above that define several TOD typologies) and then rank the sites according to how closely they "fit" that variable set or typology.

For example, in this analysis a Town Center station area is characterized by high levels of transit service, high density of development and aggregate income; low-to-moderate levels transportation costs, low mortgage foreclosure rates, and specified levels for many other variables. Conversely, a Residential TOD is characterized by moderately frequent to infrequent daily transit service and usage, relatively light residential density, low counts of convenience retail/service businesses, and specified levels for many other variables.

To calculate the fit of an area with all of the defining characteristics of a typology, the Selector uses a common statistical method, namely the Chi Square Minimization. For any given location The Chi-Square (named after the Greek letter Chi χ) is defined as follows:

$$\chi^2 \equiv \sum_{i=1}^{n} \left(\frac{x_i - \langle x_i \rangle}{\sigma_i} \right)^2$$

In this case where n is the total number of criteria, x_i is the measured values of the i^{th} criteria for this location and $\langle x_i \rangle$ is the desired value of this criterion, and σ_i is the standard deviation of this criterion for the entire sample of locations. It is easy to see that the value of χ^2 will be zero if the measured value for each criterion is exactly met, and that for criteria that vary greatly are weighted the same at those that vary only slightly (since the denominator takes into account this variation). The overall score for each location is simply this χ^2, thus the locations that have the minimum value meet the criteria the best, and are therefore the optimal choices.

Comparison of Station Areas

Using the Chi Square Minimization method, CNT measures the fit of each south suburban station area with each TOD typology in the Selector Analysis. Station areas are compared according to how closely they fit each typology. Separate iterations of the analysis were conducted for each typology to see how closely the station areas fit the typologies in terms of their existing conditions and their apparent capacity for further development.

These comparisons are shown in the following tables and charts. One table and an accompanying chart are shown for each iteration. In these exhibits the more closely a station area fits a typology the lower its score number, its position in the rank order of station areas, and the height of its bar graph will be. For each iteration the station areas are graphed from left to right in order of their closeness to the typology. All charts display data from Table 2 on page 8.

The following bar charts show the score and rank order of the 33 south suburban station areas considered in this analysis. The first two bar graphs also display a horizontal black line for purposes of comparison that represents the average score of five suburban Town Center TODs from other parts of metropolitan Chicago: Arlington Heights, Evanston, LaGrange, Oak Park, and Palatine. The line illustrates how the Southland station areas compare to leading suburban Town Center TODs elsewhere in the region.

The data used in this analysis is available by request.

Station Area	A. TOD Existing Conditions								B. Ease of Land Assembly		C. Market Strength for Further Development					
	A1. Town Center TOD		A2. Community Area TOD		A3. Residential TOD		A4. Undeveloped Area				C1. Town Center		C2. Community Area		C3. Residential	
	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order
Vermont St., Blue Island	102.56	1	19.84	14	156.82	32	171.91	33	138.11	17	136.20	3	9.48	3	50.73	27
Homewood	114.13	2	15.90	4	152.34	31	164.31	30	139.65	19	169.75	14	17.51	14	48.62	23
Ashland Avenue, Calumet Park	124.17	3	17.26	6	128.27	24	140.25	24	136.04	13	133.81	2	9.03	1	53.42	30
Tinley Park (Downtown)	125.70	4	12.80	1	131.86	27	159.94	29	147.17	25	167.85	13	9.27	2	38.27	13
Richton Park	127.72	5	17.26	7	167.95	33	164.60	31	141.23	21	177.68	21	19.80	18	49.31	25
Ivanhoe (Downtown Riverdale)	132.90	6	14.29	2	119.52	20	149.26	26	154.84	32	149.81	6	21.72	20	45.93	20
119th Street, Blue Island	133.86	7	22.57	19	151.80	30	159.33	28	136.06	14	132.74	1	11.78	6	61.91	31
Harvey (Downtown)	137.74	8	20.19	15	126.61	23	148.57	25	148.82	27	158.21	9	18.10	15	50.34	26
147th St./Sibley Blvd., Harvey	140.11	9	17.79	8	115.04	17	136.04	21	144.00	23	145.61	5	12.54	7	40.57	18
Oak Forest	143.16	10	16.69	5	115.63	18	130.85	17	144.61	24	140.59	4	15.85	12	53.07	29
80th Avenue, Tinley Park	144.94	11	29.75	23	138.65	29	131.37	18	124.86	7	152.66	7	17.18	13	35.87	12
Worth	145.13	12	19.44	13	122.09	21	170.46	32	151.97	31	169.93	15	18.71	16	51.39	28
Midlothian	146.10	13	14.47	3	102.34	12	106.83	9	135.70	12	153.69	8	13.11	9	39.14	15
211th St./Lincoln Hwy., Matteson	146.32	14	22.94	20	137.55	28	137.78	22	123.61	6	183.57	23	23.14	22	43.11	19
Matteson (Downtown)	149.03	15	18.18	11	131.22	26	132.09	19	127.45	9	209.27	29	21.98	21	38.36	14
Hegewisch	153.37	16	18.09	9	118.50	19	124.00	15	134.16	10	158.60	10	13.85	10	48.32	21
Riverdale (Riverdale Park)	160.02	17	18.17	10	100.73	10	138.97	23	168.78	33	172.96	19	38.62	31	48.37	22
New Lenox (Downtown)	163.63	18	26.89	21	113.45	16	99.90	7	125.14	8	184.97	24	20.33	19	34.80	9
Flossmoor	164.24	19	27.81	22	98.39	9	123.80	14	147.72	26	165.39	12	19.35	17	34.90	10
Calumet, East Hazel Crest	166.28	20	21.82	16	96.59	7	128.20	16	142.19	22	162.23	11	10.37	4	39.93	16
Mokena (Downtown)	172.73	21	22.51	18	102.31	11	122.80	12	151.94	30	180.60	22	14.45	11	29.15	5
Hazel Crest	172.76	22	18.74	12	91.26	4	115.97	10	138.28	18	170.72	16	12.99	8	35.34	11
143rd St., Orland Park	172.79	23	31.58	24	129.62	25	120.78	11	134.18	11	194.25	25	26.35	24	49.01	24
Palos Heights	176.17	24	22.38	17	103.60	13	153.20	27	151.59	29	172.92	18	10.46	5	27.02	4
Hickory Creek, Mokena	194.08	25	33.73	25	108.19	14	81.67	5	97.40	4	218.78	31	26.71	25	34.32	8
Palos Park	194.50	26	40.00	26	74.45	2	102.69	8	140.15	20	172.10	17	24.56	23	19.08	1
Olympia Fields	201.42	27	40.09	27	93.50	5	123.72	13	137.62	16	202.47	27	28.36	26	29.62	6
153rd St., Orland Park	204.62	28	40.33	28	94.30	6	135.68	20	149.11	28	214.68	30	33.87	29	22.27	2
Robbins	218.55	29	43.02	30	97.58	8	88.16	6	137.32	15	177.67	20	29.72	27	40.11	17
179th St., Orland Park	225.21	30	42.17	29	76.29	3	72.24	4	113.23	5	202.22	26	32.26	28	25.29	3
University Park	289.48	31	96.13	33	110.76	15	26.75	2	46.38	2	206.14	28	64.29	32	88.18	33
Manhattan	294.80	32	74.19	31	71.83	1	30.72	3	92.76	3	229.04	33	34.08	30	32.27	7
Laraway Road, New Lenox	300.65	33	88.10	32	122.81	22	22.04	1	22.88	1	224.77	32	64.66	33	79.68	32

Table 1: Score and Order for Existing Conditions, Town Center TOD

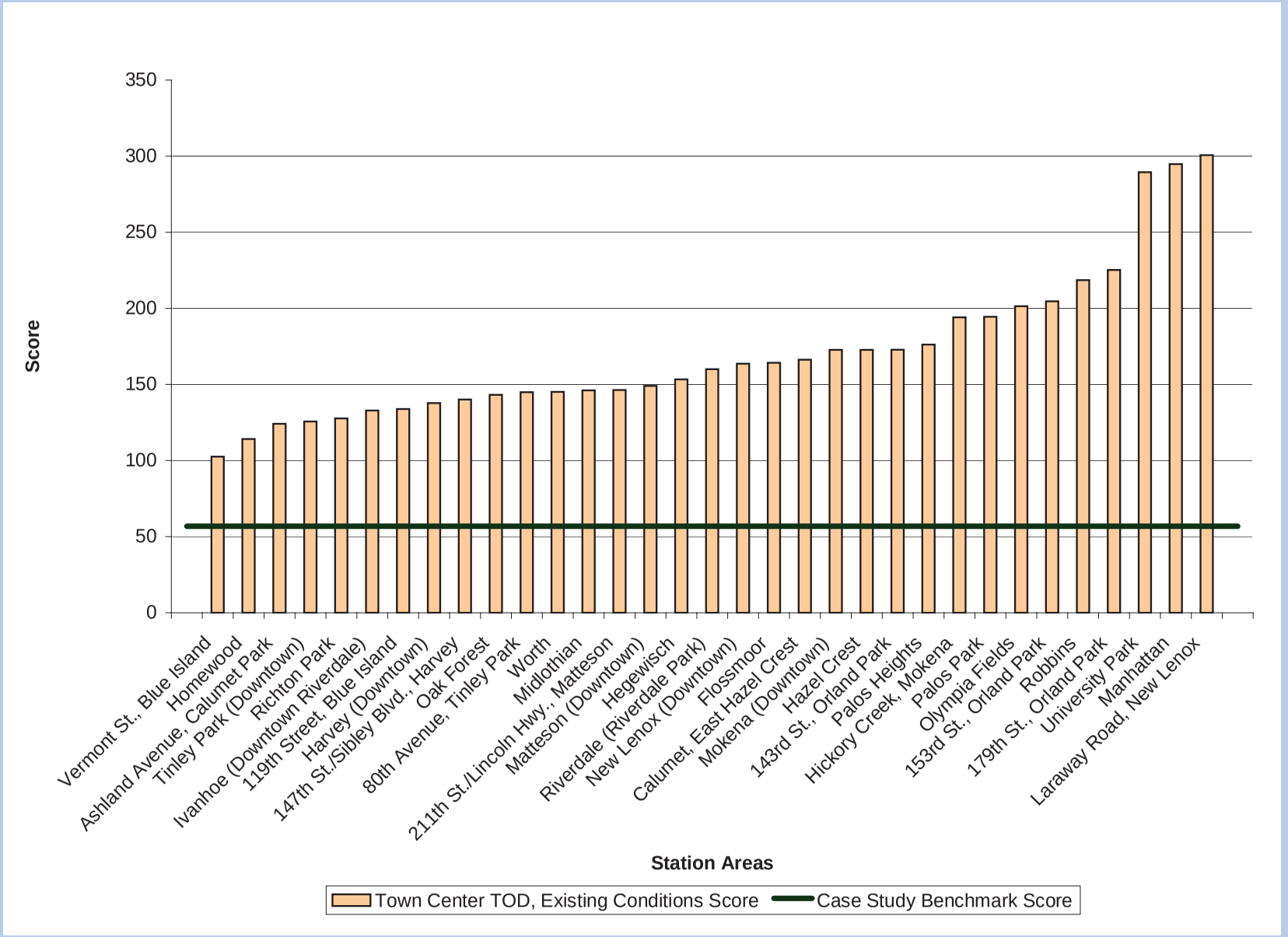


Figure 1: Station Area Scores and Ranking Order for Existing Conditions, Town Center TOD

Station Area	A. TOD Existing Conditions								B. Ease of Land Assembly		C. Market Strength for Further Development					
	A1. Town Center TOD		A2. Community Area TOD		A3. Residential TOD		A4. Undeveloped Area				C1. Town Center		C2. Community Area		C3. Residential	
	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order
Tinley Park (Downtown)	125.70	4	12.80	1	131.86	27	159.94	29	147.17	25	167.85	13	9.27	2	38.27	13
Ivanhoe (Downtown Riverdale)	132.90	6	14.29	2	119.52	20	149.26	26	154.84	32	149.81	6	21.72	20	45.93	20
Midlothian	146.10	13	14.47	3	102.34	12	106.83	9	135.70	12	153.69	8	13.11	9	39.14	15
Homewood	114.13	2	15.90	4	152.34	31	164.31	30	139.65	19	169.75	14	17.51	14	48.62	23
Oak Forest	143.16	10	16.69	5	115.63	18	130.85	17	144.61	24	140.59	4	15.85	12	53.07	29
Ashland Avenue, Calumet Park	124.17	3	17.26	6	128.27	24	140.25	24	136.04	13	133.81	2	9.03	1	53.42	30
Richton Park	127.72	5	17.26	7	167.95	33	164.60	31	141.23	21	177.68	21	19.80	18	49.31	25
147th St./Sibley Blvd., Harvey	140.11	9	17.79	8	115.04	17	136.04	21	144.00	23	145.61	5	12.54	7	40.57	18
Hegewisch	153.37	16	18.09	9	118.50	19	124.00	15	134.16	10	158.60	10	13.85	10	48.32	21
Riverdale (Riverdale Park)	160.02	17	18.17	10	100.73	10	138.97	23	168.78	33	172.96	19	38.62	31	48.37	22
Matteson (Downtown)	149.03	15	18.18	11	131.22	26	132.09	19	127.45	9	209.27	29	21.98	21	38.36	14
Hazel Crest	172.76	22	18.74	12	91.26	4	115.97	10	138.28	18	170.72	16	12.99	8	35.34	11
Worth	145.13	12	19.44	13	122.09	21	170.46	32	151.97	31	169.93	15	18.71	16	51.39	28
Vermont St., Blue Island	102.56	1	19.84	14	156.82	32	171.91	33	138.11	17	136.20	3	9.48	3	50.73	27
Harvey (Downtown)	137.74	8	20.19	15	126.61	23	148.57	25	148.82	27	158.21	9	18.10	15	50.34	26
Calumet, East Hazel Crest	166.28	20	21.82	16	96.59	7	128.20	16	142.19	22	162.23	11	10.37	4	39.93	16
Palos Heights	176.17	24	22.38	17	103.60	13	153.20	27	151.59	29	172.92	18	10.46	5	27.02	4
Mokena (Downtown)	172.73	21	22.51	18	102.31	11	122.80	12	151.94	30	180.60	22	14.45	11	29.15	5
119th Street, Blue Island	133.86	7	22.57	19	151.80	30	159.33	28	136.06	14	132.74	1	11.78	6	61.91	31
211th St./Lincoln Hwy., Matteson	146.32	14	22.94	20	137.55	28	137.78	22	123.61	6	183.57	23	23.14	22	43.11	19
New Lenox (Downtown)	163.63	18	26.89	21	113.45	16	99.90	7	125.14	8	184.97	24	20.33	19	34.80	9
Flossmoor	164.24	19	27.81	22	98.39	9	123.80	14	147.72	26	165.39	12	19.35	17	34.90	10
80th Avenue, Tinley Park	144.94	11	29.75	23	138.65	29	131.37	18	124.86	7	152.66	7	17.18	13	35.87	12
143rd St., Orland Park	172.79	23	31.58	24	129.62	25	120.78	11	134.18	11	194.25	25	26.35	24	49.01	24
Hickory Creek, Mokena	194.08	25	33.73	25	108.19	14	81.67	5	97.40	4	218.78	31	26.71	25	34.32	8
Palos Park	194.50	26	40.00	26	74.45	2	102.69	8	140.15	20	172.10	17	24.56	23	19.08	1
Olympia Fields	201.42	27	40.09	27	93.50	5	123.72	13	137.62	16	202.47	27	28.36	26	29.62	6
153rd St., Orland Park	204.62	28	40.33	28	94.30	6	135.68	20	149.11	28	214.68	30	33.87	29	22.27	2
179th St., Orland Park	225.21	30	42.17	29	76.29	3	72.24	4	113.23	5	202.22	26	32.26	28	25.29	3
Robbins	218.55	29	43.02	30	97.58	8	88.16	6	137.32	15	177.67	20	29.72	27	40.11	17
Manhattan	294.80	32	74.19	31	71.83	1	30.72	3	92.76	3	229.04	33	34.08	30	32.27	7
Laraway Road, New Lenox	300.65	33	88.10	32	122.81	22	22.04	1	22.88	1	224.77	32	64.66	33	79.68	32
University Park	289.48	31	96.13	33	110.76	15	26.75	2	46.38	2	206.14	28	64.29	32	88.18	33

Table 2: Score and Order for Existing Conditions, Community Area TOD

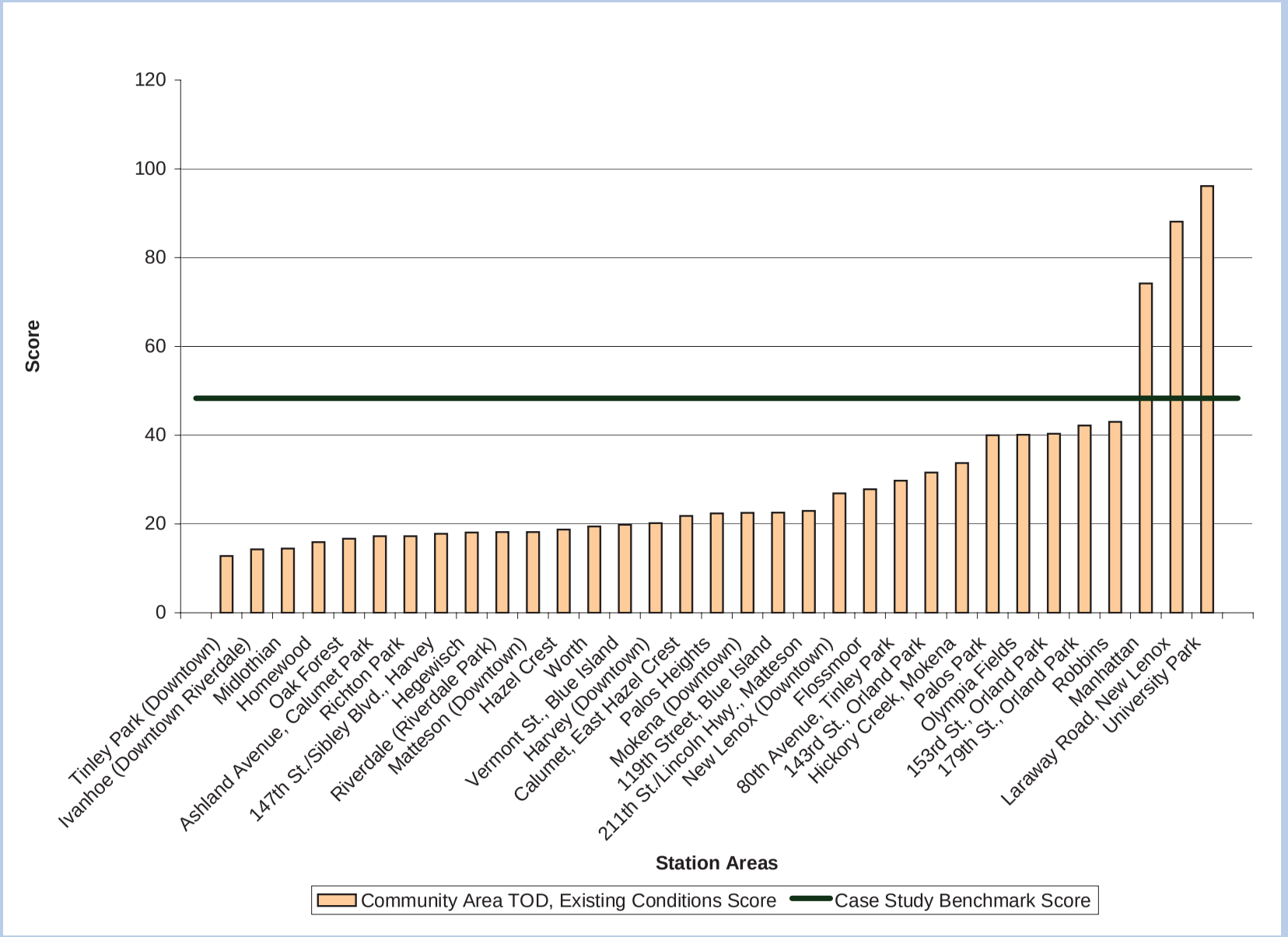


Figure 2: Station Area Scores and Ranking Order for Existing Conditions, Community Area TOD

Station Area	A. TOD Existing Conditions								B. Ease of Land Assembly		C. Market Strength for Further Development					
	A1. Town Center TOD		A2. Community Area TOD		A3. Residential TOD		A4. Undeveloped Area				C1. Town Center		C2. Community Area		C3. Residential	
	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order
Manhattan	294.80	32	74.19	31	71.83	1	30.72	3	92.76	3	229.04	33	34.08	30	32.27	7
Palos Park	194.50	26	40.00	26	74.45	2	102.69	8	140.15	20	172.10	17	24.56	23	19.08	1
179th St., Orland Park	225.21	30	42.17	29	76.29	3	72.24	4	113.23	5	202.22	26	32.26	28	25.29	3
Hazel Crest	172.76	22	18.74	12	91.26	4	115.97	10	138.28	18	170.72	16	12.99	8	35.34	11
Olympia Fields	201.42	27	40.09	27	93.50	5	123.72	13	137.62	16	202.47	27	28.36	26	29.62	6
153rd St., Orland Park	204.62	28	40.33	28	94.30	6	135.68	20	149.11	28	214.68	30	33.87	29	22.27	2
Calumet, East Hazel Crest	166.28	20	21.82	16	96.59	7	128.20	16	142.19	22	162.23	11	10.37	4	39.93	16
Robbins	218.55	29	43.02	30	97.58	8	88.16	6	137.32	15	177.67	20	29.72	27	40.11	17
Flossmoor	164.24	19	27.81	22	98.39	9	123.80	14	147.72	26	165.39	12	19.35	17	34.90	10
Riverdale (Riverdale Park)	160.02	17	18.17	10	100.73	10	138.97	23	168.78	33	172.96	19	38.62	31	48.37	22
Mokena (Downtown)	172.73	21	22.51	18	102.31	11	122.80	12	151.94	30	180.60	22	14.45	11	29.15	5
Midlothian	146.10	13	14.47	3	102.34	12	106.83	9	135.70	12	153.69	8	13.11	9	39.14	15
Palos Heights	176.17	24	22.38	17	103.60	13	153.20	27	151.59	29	172.92	18	10.46	5	27.02	4
Hickory Creek, Mokena	194.08	25	33.73	25	108.19	14	81.67	5	97.40	4	218.78	31	26.71	25	34.32	8
University Park	289.48	31	96.13	33	110.76	15	26.75	2	46.38	2	206.14	28	64.29	32	88.18	33
New Lenox (Downtown)	163.63	18	26.89	21	113.45	16	99.90	7	125.14	8	184.97	24	20.33	19	34.80	9
147th St./Sibley Blvd., Harvey	140.11	9	17.79	8	115.04	17	136.04	21	144.00	23	145.61	5	12.54	7	40.57	18
Oak Forest	143.16	10	16.69	5	115.63	18	130.85	17	144.61	24	140.59	4	15.85	12	53.07	29
Hegewisch	153.37	16	18.09	9	118.50	19	124.00	15	134.16	10	158.60	10	13.85	10	48.32	21
Ivanhoe (Downtown Riverdale)	132.90	6	14.29	2	119.52	20	149.26	26	154.84	32	149.81	6	21.72	20	45.93	20
Worth	145.13	12	19.44	13	122.09	21	170.46	32	151.97	31	169.93	15	18.71	16	51.39	28
Laraway Road, New Lenox	300.65	33	88.10	32	122.81	22	22.04	1	22.88	1	224.77	32	64.66	33	79.68	32
Harvey (Downtown)	137.74	8	20.19	15	126.61	23	148.57	25	148.82	27	158.21	9	18.10	15	50.34	26
Ashland Avenue, Calumet Park	124.17	3	17.26	6	128.27	24	140.25	24	136.04	13	133.81	2	9.03	1	53.42	30
143rd St., Orland Park	172.79	23	31.58	24	129.62	25	120.78	11	134.18	11	194.25	25	26.35	24	49.01	24
Matteson (Downtown)	149.03	15	18.18	11	131.22	26	132.09	19	127.45	9	209.27	29	21.98	21	38.36	14
Tinley Park (Downtown)	125.70	4	12.80	1	131.86	27	159.94	29	147.17	25	167.85	13	9.27	2	38.27	13
211th St./Lincoln Hwy., Matteson	146.32	14	22.94	20	137.55	28	137.78	22	123.61	6	183.57	23	23.14	22	43.11	19
80th Avenue, Tinley Park	144.94	11	29.75	23	138.65	29	131.37	18	124.86	7	152.66	7	17.18	13	35.87	12
119th Street, Blue Island	133.86	7	22.57	19	151.80	30	159.33	28	136.06	14	132.74	1	11.78	6	61.91	31
Homewood	114.13	2	15.90	4	152.34	31	164.31	30	139.65	19	169.75	14	17.51	14	48.62	23
Vermont St., Blue Island	102.56	1	19.84	14	156.82	32	171.91	33	138.11	17	136.20	3	9.48	3	50.73	27
Richton Park	127.72	5	17.26	7	167.95	33	164.60	31	141.23	21	177.68	21	19.80	18	49.31	25

Table 3: Score and Order for Existing Conditions, Residential TOD

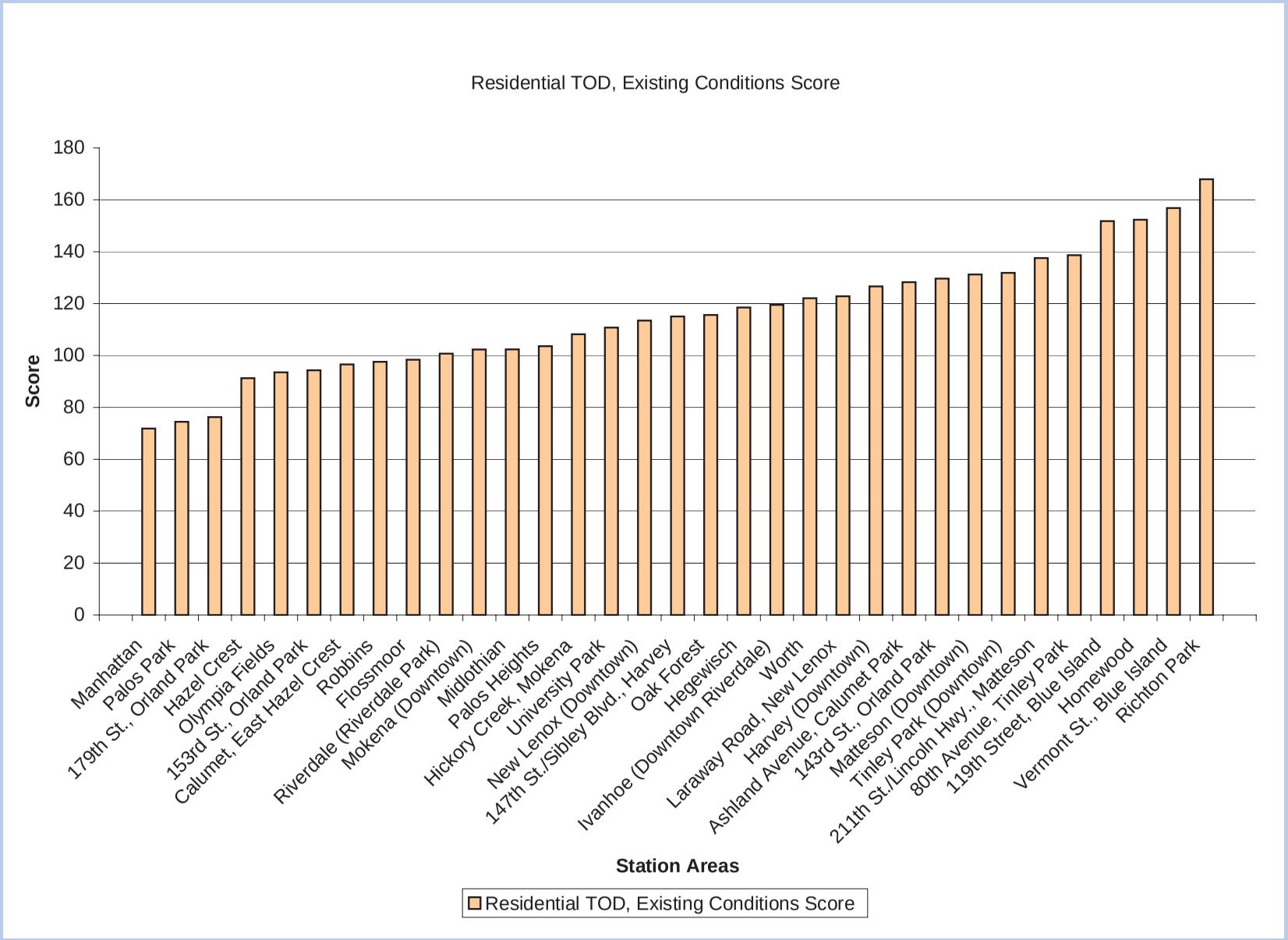


Figure 3: Station Area Scores and Ranking Order for Existing Conditions, Residential TOD

Station Area	A. TOD Existing Conditions								B. Ease of Land Assembly		C. Market Strength for Further Development					
	A1. Town Center TOD		A2. Community Area TOD		A3. Residential TOD		A4. Undeveloped Area				C1. Town Center		C2. Community Area		C3. Residential	
	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order
Laraway Road, New Lenox	300.65	33	88.10	32	122.81	22	22.04	1	22.88	1	224.77	32	64.66	33	79.68	32
University Park	289.48	31	96.13	33	110.76	15	26.75	2	46.38	2	206.14	28	64.29	32	88.18	33
Manhattan	294.80	32	74.19	31	71.83	1	30.72	3	92.76	3	229.04	33	34.08	30	32.27	7
179th St., Orland Park	225.21	30	42.17	29	76.29	3	72.24	4	113.23	5	202.22	26	32.26	28	25.29	3
Hickory Creek, Mokena	194.08	25	33.73	25	108.19	14	81.67	5	97.40	4	218.78	31	26.71	25	34.32	8
Robbins	218.55	29	43.02	30	97.58	8	88.16	6	137.32	15	177.67	20	29.72	27	40.11	17
New Lenox (Downtown)	163.63	18	26.89	21	113.45	16	99.90	7	125.14	8	184.97	24	20.33	19	34.80	9
Palos Park	194.50	26	40.00	26	74.45	2	102.69	8	140.15	20	172.10	17	24.56	23	19.08	1
Midlothian	146.10	13	14.47	3	102.34	12	106.83	9	135.70	12	153.69	8	13.11	9	39.14	15
Hazel Crest	172.76	22	18.74	12	91.26	4	115.97	10	138.28	18	170.72	16	12.99	8	35.34	11
143rd St., Orland Park	172.79	23	31.58	24	129.62	25	120.78	11	134.18	11	194.25	25	26.35	24	49.01	24
Mokena (Downtown)	172.73	21	22.51	18	102.31	11	122.80	12	151.94	30	180.60	22	14.45	11	29.15	5
Olympia Fields	201.42	27	40.09	27	93.50	5	123.72	13	137.62	16	202.47	27	28.36	26	29.62	6
Flossmoor	164.24	19	27.81	22	98.39	9	123.80	14	147.72	26	165.39	12	19.35	17	34.90	10
Hegewisch	153.37	16	18.09	9	118.50	19	124.00	15	134.16	10	158.60	10	13.85	10	48.32	21
Calumet, East Hazel Crest	166.28	20	21.82	16	96.59	7	128.20	16	142.19	22	162.23	11	10.37	4	39.93	16
Oak Forest	143.16	10	16.69	5	115.63	18	130.85	17	144.61	24	140.59	4	15.85	12	53.07	29
80th Avenue, Tinley Park	144.94	11	29.75	23	138.65	29	131.37	18	124.86	7	152.66	7	17.18	13	35.87	12
Matteson (Downtown)	149.03	15	18.18	11	131.22	26	132.09	19	127.45	9	209.27	29	21.98	21	38.36	14
153rd St., Orland Park	204.62	28	40.33	28	94.30	6	135.68	20	149.11	28	214.68	30	33.87	29	22.27	2
147th St./Sibley Blvd., Harvey	140.11	9	17.79	8	115.04	17	136.04	21	144.00	23	145.61	5	12.54	7	40.57	18
211th St./Lincoln Hwy., Matteson	146.32	14	22.94	20	137.55	28	137.78	22	123.61	6	183.57	23	23.14	22	43.11	19
Riverdale (Riverdale Park)	160.02	17	18.17	10	100.73	10	138.97	23	168.78	33	172.96	19	38.62	31	48.37	22
Ashland Avenue, Calumet Park	124.17	3	17.26	6	128.27	24	140.25	24	136.04	13	133.81	2	9.03	1	53.42	30
Harvey (Downtown)	137.74	8	20.19	15	126.61	23	148.57	25	148.82	27	158.21	9	18.10	15	50.34	26
Ivanhoe (Downtown Riverdale)	132.90	6	14.29	2	119.52	20	149.26	26	154.84	32	149.81	6	21.72	20	45.93	20
Palos Heights	176.17	24	22.38	17	103.60	13	153.20	27	151.59	29	172.92	18	10.46	5	27.02	4
119th Street, Blue Island	133.86	7	22.57	19	151.80	30	159.33	28	136.06	14	132.74	1	11.78	6	61.91	31
Tinley Park (Downtown)	125.70	4	12.80	1	131.86	27	159.94	29	147.17	25	167.85	13	9.27	2	38.27	13
Homewood	114.13	2	15.90	4	152.34	31	164.31	30	139.65	19	169.75	14	17.51	14	48.62	23
Richton Park	127.72	5	17.26	7	167.95	33	164.60	31	141.23	21	177.68	21	19.80	18	49.31	25
Worth	145.13	12	19.44	13	122.09	21	170.46	32	151.97	31	169.93	15	18.71	16	51.39	28
Vermont St., Blue Island	102.56	1	19.84	14	156.82	32	171.91	33	138.11	17	136.20	3	9.48	3	50.73	27

Table 4: Score and Order for Existing Conditions, Undeveloped Area

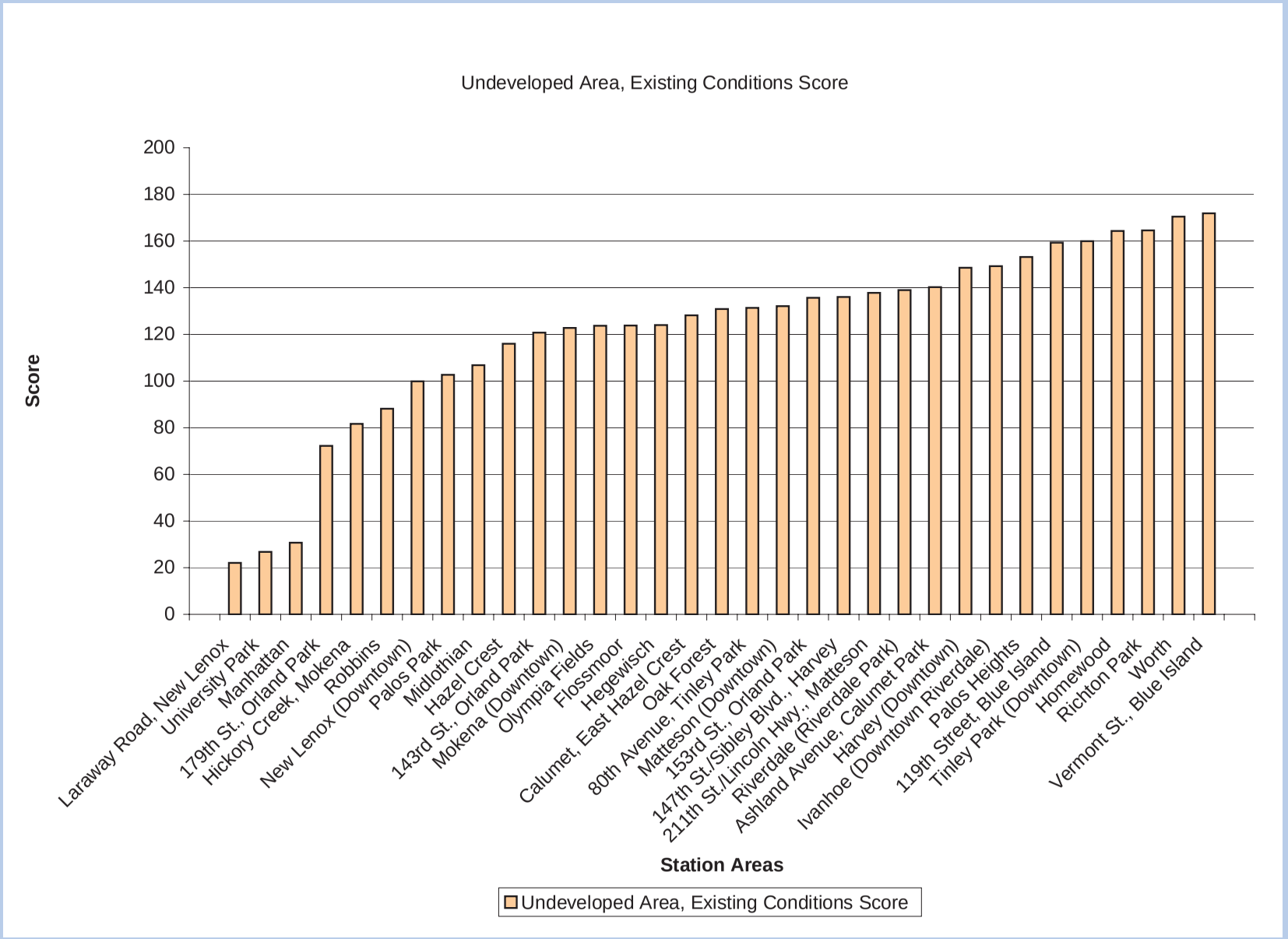


Figure 4: Station Area Scores and Ranking Order for Existing Conditions, Undeveloped Area

Station Area	A. TOD Existing Conditions								B. Ease of Land Assembly		C. Market Strength for Further Development					
	A1. Town Center TOD		A2. Community Area TOD		A3. Residential TOD		A4. Undeveloped Area				C1. Town Center		C2. Community Area		C3. Residential	
	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order
Laraway Road, New Lenox	300.65	33	88.10	32	122.81	22	22.04	1	22.88	1	224.77	32	64.66	33	79.68	32
University Park	289.48	31	96.13	33	110.76	15	26.75	2	46.38	2	206.14	28	64.29	32	88.18	33
Manhattan	294.80	32	74.19	31	71.83	1	30.72	3	92.76	3	229.04	33	34.08	30	32.27	7
Hickory Creek, Mokena	194.08	25	33.73	25	108.19	14	81.67	5	97.40	4	218.78	31	26.71	25	34.32	8
179th St., Orland Park	225.21	30	42.17	29	76.29	3	72.24	4	113.23	5	202.22	26	32.26	28	25.29	3
211th St./Lincoln Hwy., Matteson	146.32	14	22.94	20	137.55	28	137.78	22	123.61	6	183.57	23	23.14	22	43.11	19
80th Avenue, Tinley Park	144.94	11	29.75	23	138.65	29	131.37	18	124.86	7	152.66	7	17.18	13	35.87	12
New Lenox (Downtown)	163.63	18	26.89	21	113.45	16	99.90	7	125.14	8	184.97	24	20.33	19	34.80	9
Matteson (Downtown)	149.03	15	18.18	11	131.22	26	132.09	19	127.45	9	209.27	29	21.98	21	38.36	14
Hegewisch	153.37	16	18.09	9	118.50	19	124.00	15	134.16	10	158.60	10	13.85	10	48.32	21
143rd St., Orland Park	172.79	23	31.58	24	129.62	25	120.78	11	134.18	11	194.25	25	26.35	24	49.01	24
Midlothian	146.10	13	14.47	3	102.34	12	106.83	9	135.70	12	153.69	8	13.11	9	39.14	15
Ashland Avenue, Calumet Park	124.17	3	17.26	6	128.27	24	140.25	24	136.04	13	133.81	2	9.03	1	53.42	30
119th Street, Blue Island	133.86	7	22.57	19	151.80	30	159.33	28	136.06	14	132.74	1	11.78	6	61.91	31
Robbins	218.55	29	43.02	30	97.58	8	88.16	6	137.32	15	177.67	20	29.72	27	40.11	17
Olympia Fields	201.42	27	40.09	27	93.50	5	123.72	13	137.62	16	202.47	27	28.36	26	29.62	6
Vermont St., Blue Island	102.56	1	19.84	14	156.82	32	171.91	33	138.11	17	136.20	3	9.48	3	50.73	27
Hazel Crest	172.76	22	18.74	12	91.26	4	115.97	10	138.28	18	170.72	16	12.99	8	35.34	11
Homewood	114.13	2	15.90	4	152.34	31	164.31	30	139.65	19	169.75	14	17.51	14	48.62	23
Palos Park	194.50	26	40.00	26	74.45	2	102.69	8	140.15	20	172.10	17	24.56	23	19.08	1
Richton Park	127.72	5	17.26	7	167.95	33	164.60	31	141.23	21	177.68	21	19.80	18	49.31	25
Calumet, East Hazel Crest	166.28	20	21.82	16	96.59	7	128.20	16	142.19	22	162.23	11	10.37	4	39.93	16
147th St./Sibley Blvd., Harvey	140.11	9	17.79	8	115.04	17	136.04	21	144.00	23	145.61	5	12.54	7	40.57	18
Oak Forest	143.16	10	16.69	5	115.63	18	130.85	17	144.61	24	140.59	4	15.85	12	53.07	29
Tinley Park (Downtown)	125.70	4	12.80	1	131.86	27	159.94	29	147.17	25	167.85	13	9.27	2	38.27	13
Flossmoor	164.24	19	27.81	22	98.39	9	123.80	14	147.72	26	165.39	12	19.35	17	34.90	10
Harvey (Downtown)	137.74	8	20.19	15	126.61	23	148.57	25	148.82	27	158.21	9	18.10	15	50.34	26
153rd St., Orland Park	204.62	28	40.33	28	94.30	6	135.68	20	149.11	28	214.68	30	33.87	29	22.27	2
Palos Heights	176.17	24	22.38	17	103.60	13	153.20	27	151.59	29	172.92	18	10.46	5	27.02	4
Mokena (Downtown)	172.73	21	22.51	18	102.31	11	122.80	12	151.94	30	180.60	22	14.45	11	29.15	5
Worth	145.13	12	19.44	13	122.09	21	170.46	32	151.97	31	169.93	15	18.71	16	51.39	28
Ivanhoe (Downtown Riverdale)	132.90	6	14.29	2	119.52	20	149.26	26	154.84	32	149.81	6	21.72	20	45.93	20
Riverdale (Riverdale Park)	160.02	17	18.17	10	100.73	10	138.97	23	168.78	33	172.96	19	38.62	31	48.37	22

Table 5: Score and Order for Ease of Land Assembly

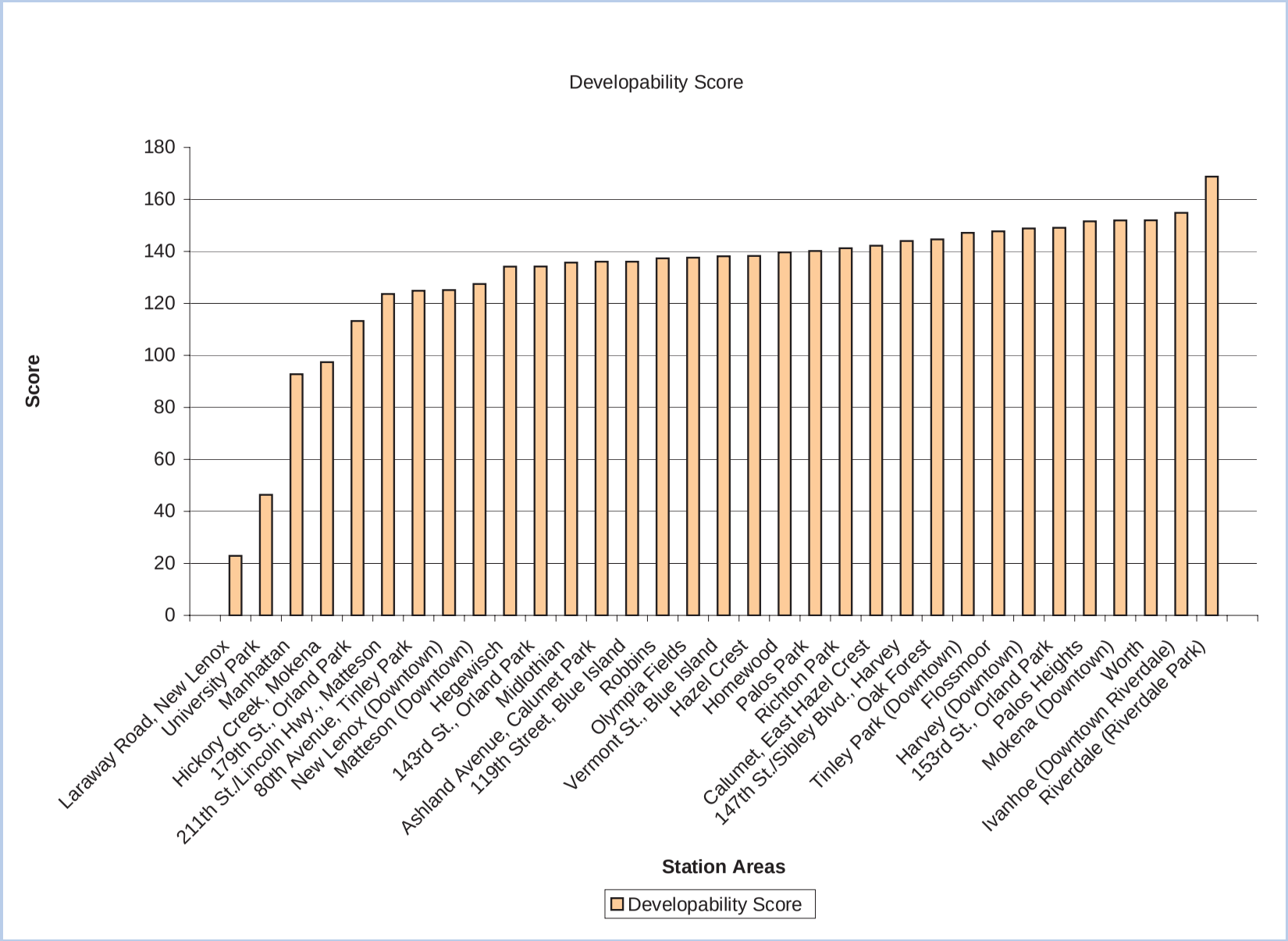


Figure 5: Station Area Scores and Ranking Order for Ease of Land Assembly

Station Area	A. TOD Existing Conditions								B. Ease of Land Assembly		C. Market Strength for Further Development					
	A1. Town Center TOD		A2. Community Area TOD		A3. Residential TOD		A4. Undeveloped Area				C1. Town Center		C2. Community Area		C3. Residential	
	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order
119th Street, Blue Island	133.86	7	22.57	19	151.80	30	159.33	28	136.06	14	132.74	1	11.78	6	61.91	31
Ashland Avenue, Calumet Park	124.17	3	17.26	6	128.27	24	140.25	24	136.04	13	133.81	2	9.03	1	53.42	30
Vermont St., Blue Island	102.56	1	19.84	14	156.82	32	171.91	33	138.11	17	136.20	3	9.48	3	50.73	27
Oak Forest	143.16	10	16.69	5	115.63	18	130.85	17	144.61	24	140.59	4	15.85	12	53.07	29
147th St./Sibley Blvd., Harvey	140.11	9	17.79	8	115.04	17	136.04	21	144.00	23	145.61	5	12.54	7	40.57	18
Ivanhoe (Downtown Riverdale)	132.90	6	14.29	2	119.52	20	149.26	26	154.84	32	149.81	6	21.72	20	45.93	20
80th Avenue, Tinley Park	144.94	11	29.75	23	138.65	29	131.37	18	124.86	7	152.66	7	17.18	13	35.87	12
Midlothian	146.10	13	14.47	3	102.34	12	106.83	9	135.70	12	153.69	8	13.11	9	39.14	15
Harvey (Downtown)	137.74	8	20.19	15	126.61	23	148.57	25	148.82	27	158.21	9	18.10	15	50.34	26
Hegewisch	153.37	16	18.09	9	118.50	19	124.00	15	134.16	10	158.60	10	13.85	10	48.32	21
Calumet, East Hazel Crest	166.28	20	21.82	16	96.59	7	128.20	16	142.19	22	162.23	11	10.37	4	39.93	16
Flossmoor	164.24	19	27.81	22	98.39	9	123.80	14	147.72	26	165.39	12	19.35	17	34.90	10
Tinley Park (Downtown)	125.70	4	12.80	1	131.86	27	159.94	29	147.17	25	167.85	13	9.27	2	38.27	13
Homewood	114.13	2	15.90	4	152.34	31	164.31	30	139.65	19	169.75	14	17.51	14	48.62	23
Worth	145.13	12	19.44	13	122.09	21	170.46	32	151.97	31	169.93	15	18.71	16	51.39	28
Hazel Crest	172.76	22	18.74	12	91.26	4	115.97	10	138.28	18	170.72	16	12.99	8	35.34	11
Palos Park	194.50	26	40.00	26	74.45	2	102.69	8	140.15	20	172.10	17	24.56	23	19.08	1
Palos Heights	176.17	24	22.38	17	103.60	13	153.20	27	151.59	29	172.92	18	10.46	5	27.02	4
Riverdale (Riverdale Park)	160.02	17	18.17	10	100.73	10	138.97	23	168.78	33	172.96	19	38.62	31	48.37	22
Robbins	218.55	29	43.02	30	97.58	8	88.16	6	137.32	15	177.67	20	29.72	27	40.11	17
Richton Park	127.72	5	17.26	7	167.95	33	164.60	31	141.23	21	177.68	21	19.80	18	49.31	25
Mokena (Downtown)	172.73	21	22.51	18	102.31	11	122.80	12	151.94	30	180.60	22	14.45	11	29.15	5
211th St./Lincoln Hwy., Matteson	146.32	14	22.94	20	137.55	28	137.78	22	123.61	6	183.57	23	23.14	22	43.11	19
New Lenox (Downtown)	163.63	18	26.89	21	113.45	16	99.90	7	125.14	8	184.97	24	20.33	19	34.80	9
143rd St., Orland Park	172.79	23	31.58	24	129.62	25	120.78	11	134.18	11	194.25	25	26.35	24	49.01	24
179th St., Orland Park	225.21	30	42.17	29	76.29	3	72.24	4	113.23	5	202.22	26	32.26	28	25.29	3
Olympia Fields	201.42	27	40.09	27	93.50	5	123.72	13	137.62	16	202.47	27	28.36	26	29.62	6
University Park	289.48	31	96.13	33	110.76	15	26.75	2	46.38	2	206.14	28	64.29	32	88.18	33
Matteson (Downtown)	149.03	15	18.18	11	131.22	26	132.09	19	127.45	9	209.27	29	21.98	21	38.36	14
153rd St., Orland Park	204.62	28	40.33	28	94.30	6	135.68	20	149.11	28	214.68	30	33.87	29	22.27	2
Hickory Creek, Mokena	194.08	25	33.73	25	108.19	14	81.67	5	97.40	4	218.78	31	26.71	25	34.32	8
Laraway Road, New Lenox	300.65	33	88.10	32	122.81	22	22.04	1	22.88	1	224.77	32	64.66	33	79.68	32
Manhattan	294.80	32	74.19	31	71.83	1	30.72	3	92.76	3	229.04	33	34.08	30	32.27	7

Table 6: Score and Order for Market Strength, Town Center TOD

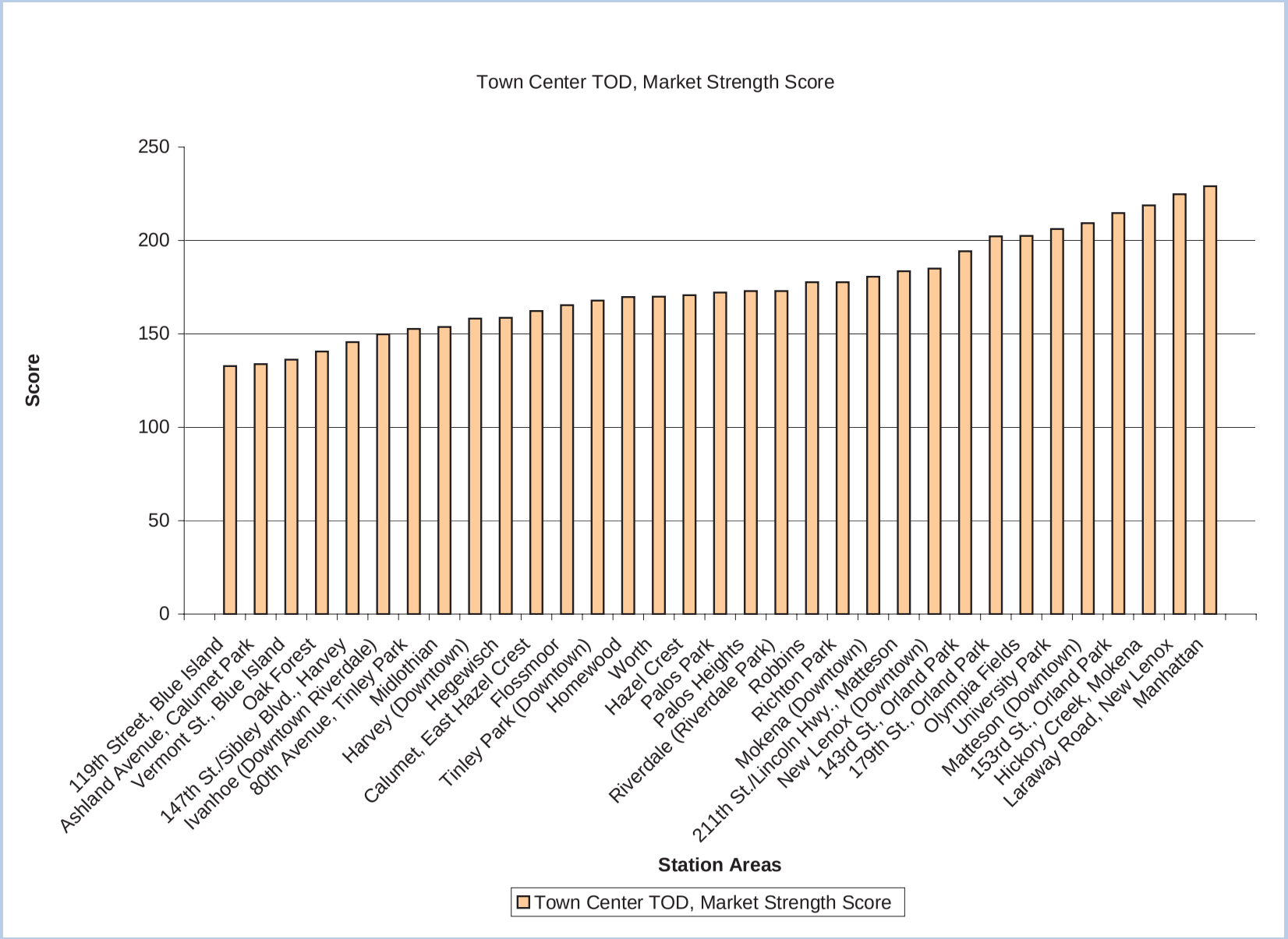


Figure 6: Station Area Scores and Ranking Order for Market Strength, Town Center

Station Area	A. TOD Existing Conditions								B. Ease of Land Assembly		C. Market Strength for Further Development					
	A1. Town Center TOD		A2. Community Area TOD		A3. Residential TOD		A4. Undeveloped Area				C1. Town Center		C2. Community Area		C3. Residential	
	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order
Ashland Avenue, Calumet Park	124.17	3	17.26	6	128.27	24	140.25	24	136.04	13	133.81	2	9.03	1	53.42	30
Tinley Park (Downtown)	125.70	4	12.80	1	131.86	27	159.94	29	147.17	25	167.85	13	9.27	2	38.27	13
Vermont St., Blue Island	102.56	1	19.84	14	156.82	32	171.91	33	138.11	17	136.20	3	9.48	3	50.73	27
Calumet, East Hazel Crest	166.28	20	21.82	16	96.59	7	128.20	16	142.19	22	162.23	11	10.37	4	39.93	16
Palos Heights	176.17	24	22.38	17	103.60	13	153.20	27	151.59	29	172.92	18	10.46	5	27.02	4
119th Street, Blue Island	133.86	7	22.57	19	151.80	30	159.33	28	136.06	14	132.74	1	11.78	6	61.91	31
147th St./Sibley Blvd., Harvey	140.11	9	17.79	8	115.04	17	136.04	21	144.00	23	145.61	5	12.54	7	40.57	18
Hazel Crest	172.76	22	18.74	12	91.26	4	115.97	10	138.28	18	170.72	16	12.99	8	35.34	11
Midlothian	146.10	13	14.47	3	102.34	12	106.83	9	135.70	12	153.69	8	13.11	9	39.14	15
Hegewisch	153.37	16	18.09	9	118.50	19	124.00	15	134.16	10	158.60	10	13.85	10	48.32	21
Mokena (Downtown)	172.73	21	22.51	18	102.31	11	122.80	12	151.94	30	180.60	22	14.45	11	29.15	5
Oak Forest	143.16	10	16.69	5	115.63	18	130.85	17	144.61	24	140.59	4	15.85	12	53.07	29
80th Avenue, Tinley Park	144.94	11	29.75	23	138.65	29	131.37	18	124.86	7	152.66	7	17.18	13	35.87	12
Homewood	114.13	2	15.90	4	152.34	31	164.31	30	139.65	19	169.75	14	17.51	14	48.62	23
Harvey (Downtown)	137.74	8	20.19	15	126.61	23	148.57	25	148.82	27	158.21	9	18.10	15	50.34	26
Worth	145.13	12	19.44	13	122.09	21	170.46	32	151.97	31	169.93	15	18.71	16	51.39	28
Flossmoor	164.24	19	27.81	22	98.39	9	123.80	14	147.72	26	165.39	12	19.35	17	34.90	10
Richton Park	127.72	5	17.26	7	167.95	33	164.60	31	141.23	21	177.68	21	19.80	18	49.31	25
New Lenox (Downtown)	163.63	18	26.89	21	113.45	16	99.90	7	125.14	8	184.97	24	20.33	19	34.80	9
Ivanhoe (Downtown Riverdale)	132.90	6	14.29	2	119.52	20	149.26	26	154.84	32	149.81	6	21.72	20	45.93	20
Matteson (Downtown)	149.03	15	18.18	11	131.22	26	132.09	19	127.45	9	209.27	29	21.98	21	38.36	14
211th St./Lincoln Hwy., Matteson	146.32	14	22.94	20	137.55	28	137.78	22	123.61	6	183.57	23	23.14	22	43.11	19
Palos Park	194.50	26	40.00	26	74.45	2	102.69	8	140.15	20	172.10	17	24.56	23	19.08	1
143rd St., Orland Park	172.79	23	31.58	24	129.62	25	120.78	11	134.18	11	194.25	25	26.35	24	49.01	24
Hickory Creek, Mokena	194.08	25	33.73	25	108.19	14	81.67	5	97.40	4	218.78	31	26.71	25	34.32	8
Olympia Fields	201.42	27	40.09	27	93.50	5	123.72	13	137.62	16	202.47	27	28.36	26	29.62	6
Robbins	218.55	29	43.02	30	97.58	8	88.16	6	137.32	15	177.67	20	29.72	27	40.11	17
179th St., Orland Park	225.21	30	42.17	29	76.29	3	72.24	4	113.23	5	202.22	26	32.26	28	25.29	3
153rd St., Orland Park	204.62	28	40.33	28	94.30	6	135.68	20	149.11	28	214.68	30	33.87	29	22.27	2
Manhattan	294.80	32	74.19	31	71.83	1	30.72	3	92.76	3	229.04	33	34.08	30	32.27	7
Riverdale (Riverdale Park)	160.02	17	18.17	10	100.73	10	138.97	23	168.78	33	172.96	19	38.62	31	48.37	22
University Park	289.48	31	96.13	33	110.76	15	26.75	2	46.38	2	206.14	28	64.29	32	88.18	33
Laraway Road, New Lenox	300.65	33	88.10	32	122.81	22	22.04	1	22.88	1	224.77	32	64.66	33	79.68	32

Table 7: Score and Order for Market Strength, Community Area TOD

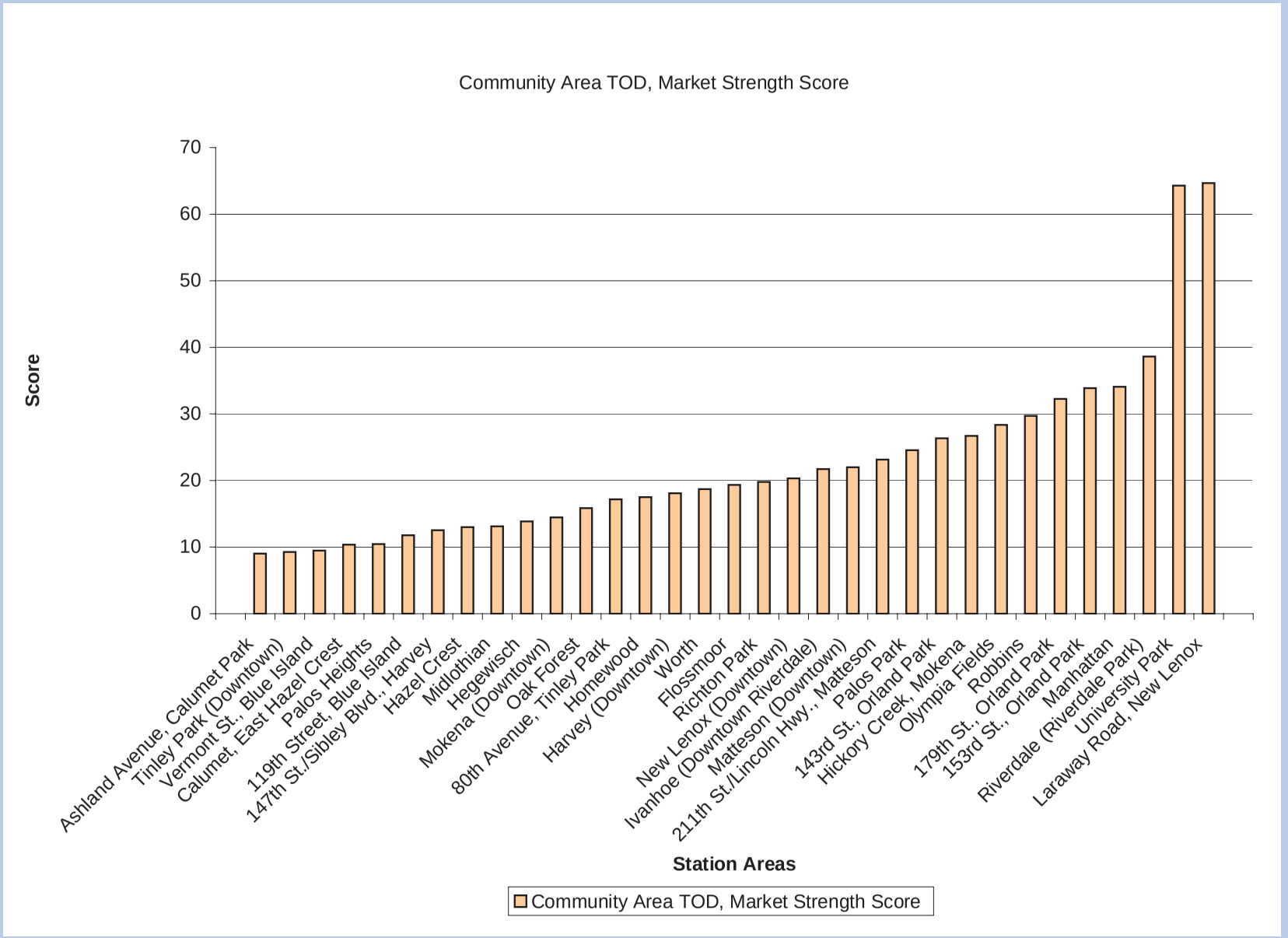


Figure 7: Station Area Scores and Ranking Order for Market Strength, Community Area TOD

Station Area	A. TOD Existing Conditions								B. Ease of Land Assembly		C. Market Strength for Further Development					
	A1. Town Center TOD		A2. Community Area TOD		A3. Residential TOD		A4. Undeveloped Area				C1. Town Center		C2. Community Area		C3. Residential	
	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order	Score	Order
Palos Park	194.50	26	40.00	26	74.45	2	102.69	8	140.15	20	172.10	17	24.56	23	19.08	1
153rd St., Orland Park	204.62	28	40.33	28	94.30	6	135.68	20	149.11	28	214.68	30	33.87	29	22.27	2
179th St., Orland Park	225.21	30	42.17	29	76.29	3	72.24	4	113.23	5	202.22	26	32.26	28	25.29	3
Palos Heights	176.17	24	22.38	17	103.60	13	153.20	27	151.59	29	172.92	18	10.46	5	27.02	4
Mokena (Downtown)	172.73	21	22.51	18	102.31	11	122.80	12	151.94	30	180.60	22	14.45	11	29.15	5
Olympia Fields	201.42	27	40.09	27	93.50	5	123.72	13	137.62	16	202.47	27	28.36	26	29.62	6
Manhattan	294.80	32	74.19	31	71.83	1	30.72	3	92.76	3	229.04	33	34.08	30	32.27	7
Hickory Creek, Mokena	194.08	25	33.73	25	108.19	14	81.67	5	97.40	4	218.78	31	26.71	25	34.32	8
New Lenox (Downtown)	163.63	18	26.89	21	113.45	16	99.90	7	125.14	8	184.97	24	20.33	19	34.80	9
Flossmoor	164.24	19	27.81	22	98.39	9	123.80	14	147.72	26	165.39	12	19.35	17	34.90	10
Hazel Crest	172.76	22	18.74	12	91.26	4	115.97	10	138.28	18	170.72	16	12.99	8	35.34	11
80th Avenue, Tinley Park	144.94	11	29.75	23	138.65	29	131.37	18	124.86	7	152.66	7	17.18	13	35.87	12
Tinley Park (Downtown)	125.70	4	12.80	1	131.86	27	159.94	29	147.17	25	167.85	13	9.27	2	38.27	13
Matteson (Downtown)	149.03	15	18.18	11	131.22	26	132.09	19	127.45	9	209.27	29	21.98	21	38.36	14
Midlothian	146.10	13	14.47	3	102.34	12	106.83	9	135.70	12	153.69	8	13.11	9	39.14	15
Calumet, East Hazel Crest	166.28	20	21.82	16	96.59	7	128.20	16	142.19	22	162.23	11	10.37	4	39.93	16
Robbins	218.55	29	43.02	30	97.58	8	88.16	6	137.32	15	177.67	20	29.72	27	40.11	17
147th St./Sibley Blvd., Harvey	140.11	9	17.79	8	115.04	17	136.04	21	144.00	23	145.61	5	12.54	7	40.57	18
211th St./Lincoln Hwy., Matteson	146.32	14	22.94	20	137.55	28	137.78	22	123.61	6	183.57	23	23.14	22	43.11	19
Ivanhoe (Downtown Riverdale)	132.90	6	14.29	2	119.52	20	149.26	26	154.84	32	149.81	6	21.72	20	45.93	20
Hegewisch	153.37	16	18.09	9	118.50	19	124.00	15	134.16	10	158.60	10	13.85	10	48.32	21
Riverdale (Riverdale Park)	160.02	17	18.17	10	100.73	10	138.97	23	168.78	33	172.96	19	38.62	31	48.37	22
Homewood	114.13	2	15.90	4	152.34	31	164.31	30	139.65	19	169.75	14	17.51	14	48.62	23
143rd St., Orland Park	172.79	23	31.58	24	129.62	25	120.78	11	134.18	11	194.25	25	26.35	24	49.01	24
Richton Park	127.72	5	17.26	7	167.95	33	164.60	31	141.23	21	177.68	21	19.80	18	49.31	25
Harvey (Downtown)	137.74	8	20.19	15	126.61	23	148.57	25	148.82	27	158.21	9	18.10	15	50.34	26
Vermont St., Blue Island	102.56	1	19.84	14	156.82	32	171.91	33	138.11	17	136.20	3	9.48	3	50.73	27
Worth	145.13	12	19.44	13	122.09	21	170.46	32	151.97	31	169.93	15	18.71	16	51.39	28
Oak Forest	143.16	10	16.69	5	115.63	18	130.85	17	144.61	24	140.59	4	15.85	12	53.07	29
Ashland Avenue, Calumet Park	124.17	3	17.26	6	128.27	24	140.25	24	136.04	13	133.81	2	9.03	1	53.42	30
119th Street, Blue Island	133.86	7	22.57	19	151.80	30	159.33	28	136.06	14	132.74	1	11.78	6	61.91	31
Laraway Road, New Lenox	300.65	33	88.10	32	122.81	22	22.04	1	22.88	1	224.77	32	64.66	33	79.68	32
University Park	289.48	31	96.13	33	110.76	15	26.75	2	46.38	2	206.14	28	64.29	32	88.18	33

Table 8: Score and Order for Market Strength, Residential TOD

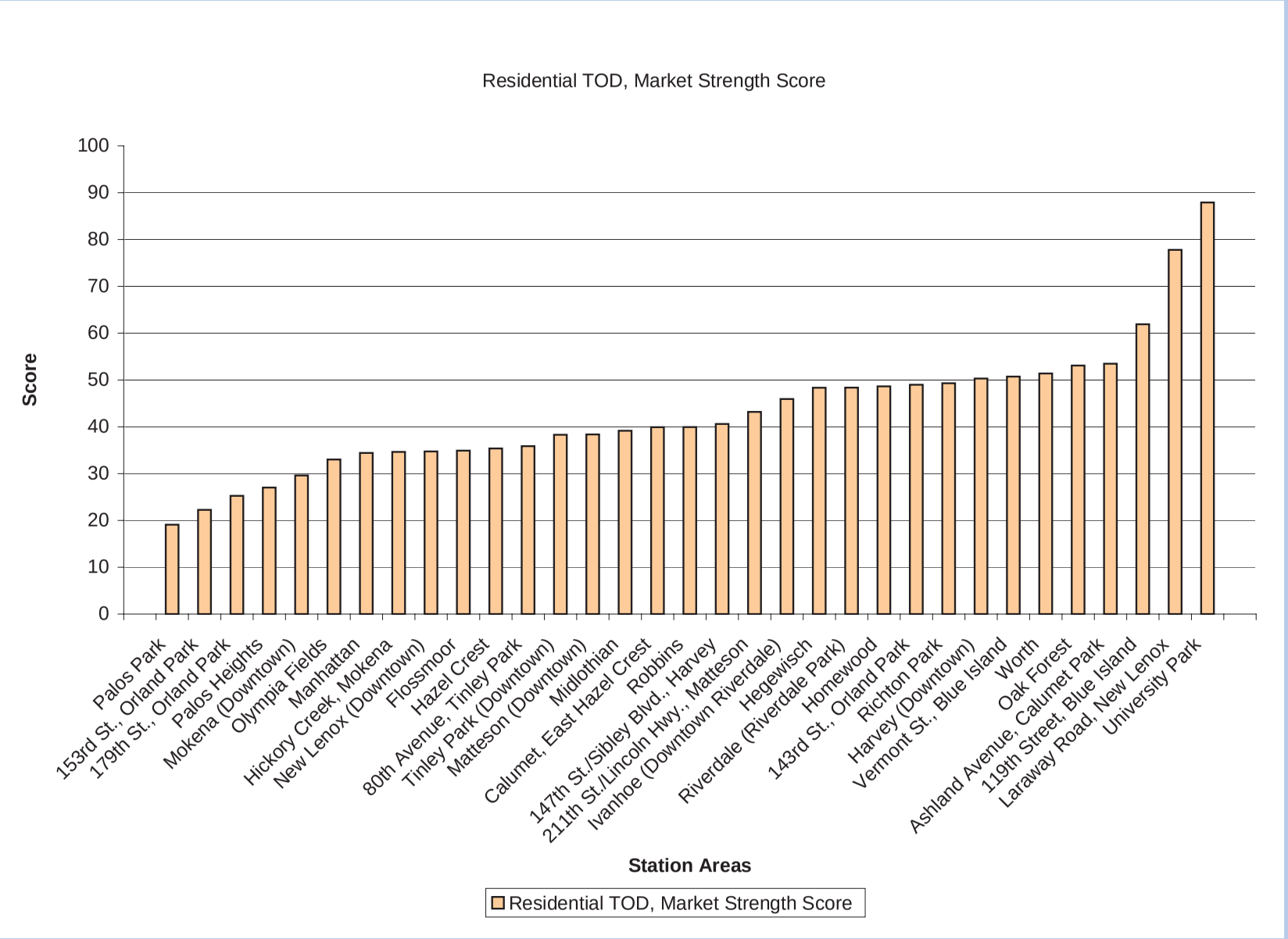


Figure 8: Station Area Scores and Ranking Order for Market Strength, Residential TOD