

# DWIGHT MEGASITE

## Site Assessment and Benchmark Report



June | July 2020



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# EXECUTIVE SUMMARY

The Dwight Megasite is comprised of 1,741 potential acres in Livingston County, Illinois. Presently, 365 acres are controlled by the Greater Livingston County Economic Development Council. The site is comprised of a large trapezoidal area, with the general boundaries of Livingston Road to the north and IL-17 to the south. The western border of the site approximately follows Brewster Road and the adjacent railroad, and the eastern border abuts N 3000 E Road. The site is located just northeast of Dwight, Illinois, and is approximately 75 miles from downtown Chicago.

JLL was retained by the Greater Livingston County Economic Development Council to objectively evaluate the Dwight Megasite, from the perspective of a potential large occupier. The site was reviewed on the basis of four key categories: site features, available labor, operating environment, and location and logistics. Within each of these categories, detailed sets of quantitative metrics were obtained and analyzed. In order to understand the viability of the site relative to other competing sites, a set of ten benchmark locations was also analyzed, and the Megasite was ranked against these peers.

**From the perspective of a large manufacturer, the Dwight Megasite has many positive attributes.** The site size, topography, utility connectivity, and dual rail access make it very attractive in the competitive marketplace.

**In fact, the Dwight Megasite is one of only two large-scale, project-ready greenfield sites in the entire United States, with dual Class I rail service from both an east coast and west coast provider. This makes the site truly unique in the country.**

However, the site also has challenges which may eliminate it from consideration by some users. In the immediate vicinity, the site lacks the population density which some very large manufacturers may require. Furthermore, when evaluated on a national scale, the site's location within Illinois may be viewed by some occupiers as a negative attribute due to assumptions pertaining to costs, taxes, union labor issues, and fiscal stability. Finally, the site's geometry is such that it is bisected in one direction by rail tracks, and in the other direction by utility lines. This condition limits the contiguous usable acreage for a very large manufacturer and may not meet the criteria for some of the largest operators in their site selection process.

The Dwight Megasite does have many favorable characteristics which could make it attractive to mid-sized industrial users, such as direct highway and rail access and a large skilled workforce within an hour's commuting reach. **JLL recommends that the site be marketed toward both large-scale industrial projects and mid-sized industrial users, as the segments are not mutually exclusive.**

The following report details the approach that was taken for the site evaluation, the information that was collected to analyze and benchmark the site, and the conclusions and recommendations of the analysis. JLL truly appreciates the opportunity to assist in this project and our team is available to address any questions or concerns.



## Site Analysis Methodology

In order to determine the attractiveness of the Dwight Megasite, from the perspective of an end user, a detailed site selection ranking model was created. This model incorporated a set of key criteria which has been used by dozens of manufacturers in their location decisions. Examples of companies which have used this approach to determine their next production location include Caterpillar, Volkswagen, and Toyota, along with many other large employers across a range of industries.

It is important to note that this evaluation approach is reliant on quantitative and objective metrics. No consideration was given to political influence or personal affiliations with any site. Subjective opinions, unverifiable statements, and marketing claims were not considered in this analysis.

For reference, the key criteria which were included in the analysis, and the associated subcategories, are detailed below. The analyzed information was grouped into the primary categories of Site Quality, Available Workforce, Operating Environment, and Location and Logistics.

**01 Site Quality:** Physical characteristics of the site, and any associated limitations.

### Features

- Size/Shape
- Topography/Geotechnical Conditions
- Easements
- Natural Disaster Risk (flood, hurricane, tornado, seismic)

### Environmental

- Regulatory Risk
- Adequate Odor/Noise Buffer
- Wetlands
- Presence of Endangered Species or Artifacts, as available

### Transportation Infrastructure & Access

- Ingress/Egress
- Highway & Truck
- Rail
- Community & Traffic Impact

### Development Factors

- Zoning
- Master Plan
- Existing Neighbors
- Other Engineering Challenges

### Utility Infrastructure (Capacity & Availability)

- Waste Water
- Water
- Electric
- Natural Gas

**02 Workforce:** Assessment of the quality and sustainability of regional labor force.

### Labor Supply

- Total Labor Force
- Manufacturing Employment
- Unemployment Trends / Availability
- Population Projections
- Median Age

### Labor Quality

- Educational Attainment
- Production Occupation Concentration
- Skilled Labor Density
- Local Training Programs and Partnerships

**03 Operating Environment:** Examination of the competitive environment and operating costs.

### Competitive Environment

- Proximity to Direct Competitors
- Proximity to Indirect Competitors

### Taxation Levels

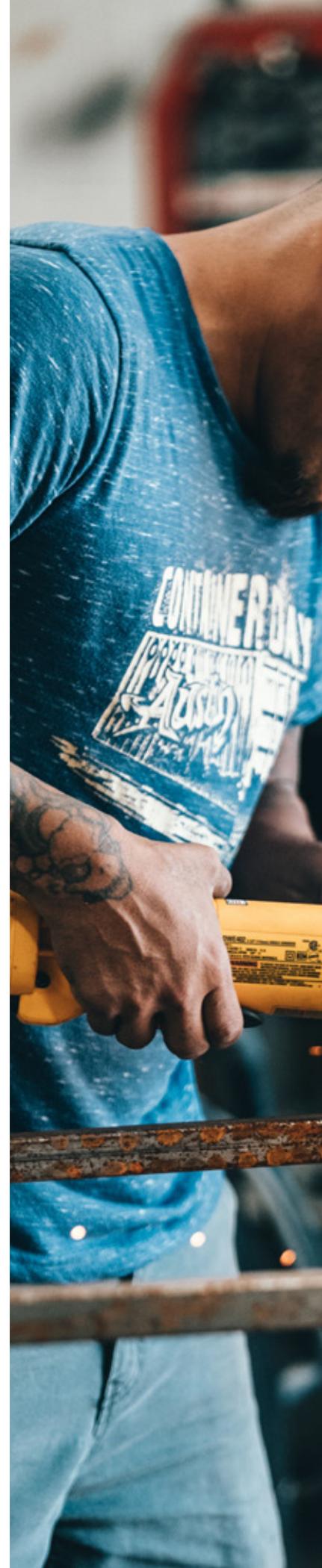
- Property Taxes
- Income Taxes
- Corporate Taxes
- Sales and Use Taxes

### Wage Rates

- Costs vs. Sustainability
- Union Presence and Impact
- Organized Labor Environment
- Right to Work and Organized Election Activity

### Utility Rates

- Utility Connection Costs and Fees
- Utility Rates and Taxes





#### 04 Location & Logistics:

Assessment of location efficiencies in regard to supply chain and proximity to potential consumer and supplier base.

##### **Outbound Logistics**

One-Day Population, Drive  
Time Reach  
Industrial Clusters

##### **Distance to:**

Nearest Interstate  
Nearest Regional Airport  
Class I Rail Access

Once all of this data was collected for the Dwight Megasite, it was determined that the best approach would be to compare the site to a **realistic set of peer sites**, to determine how the Dwight Megasite would rank relative to the group, in each category individually, and in aggregate.

The following page provides a list and map of the peer sites which were selected for this analysis.



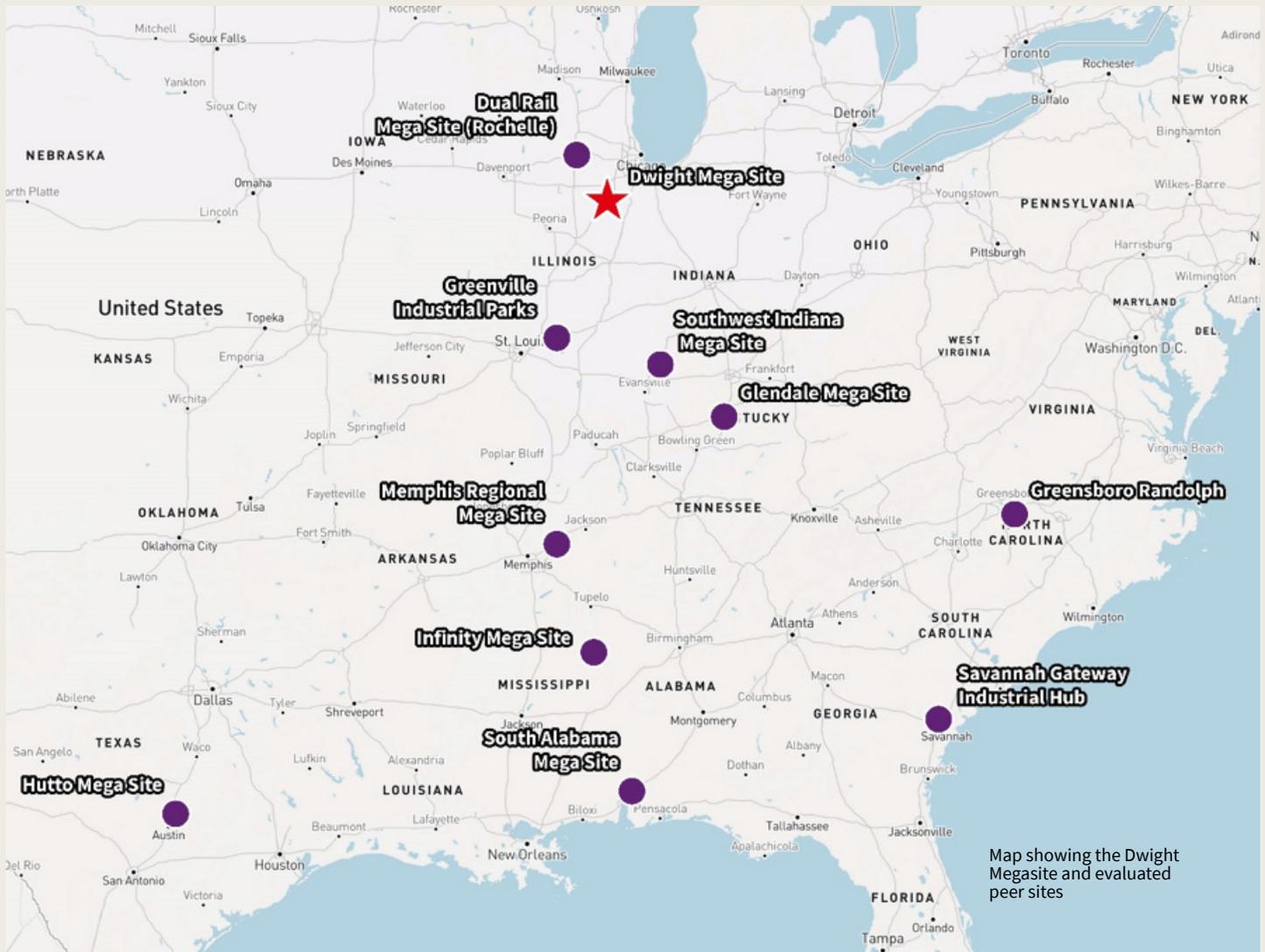
## Benchmarked Sites

Based on several factors, including geographic location, competitive position, and end-user input, the listed peer sites were selected for evaluation and comparison:

As evident from this list and map, the peer sites cover a range of locations across the country. What they share in common is that all have made the short lists for recent site selection decisions and some have been selected by large manufacturers for upcoming projects.

With all the data collected on the Dwight Megasite and also the peer sites, an objective comparison was then possible. The following sections of this paper illustrate how the Dwight Megasite compared to the peer sites, in each of the four major categories of analysis.

BENCHMARK SITES	COUNTY	STATE
Hutto Mega Site	Williamson	Texas
Greensboro Randolph	Randolph	North Carolina
Dual Rail Mega Site (Rochelle)	Ogle	Illinois
Memphis Regional Megasite	Stanton Haywood	Tennessee
Glendale Megasite	Hardin	Kentucky
Greenville Industrial Parks	Bond	Illinois
South Alabama Mega Site	Baldwin	Alabama
Southwest Indiana Megasite	Pike	Indiana
Infinity Mega Site	Lowndes	Mississippi
Savannah Gateway Industrial Hub	Effingham	Georgia



Map showing the Dwight Megasite and evaluated peer sites

## Key Findings, Benchmark Study

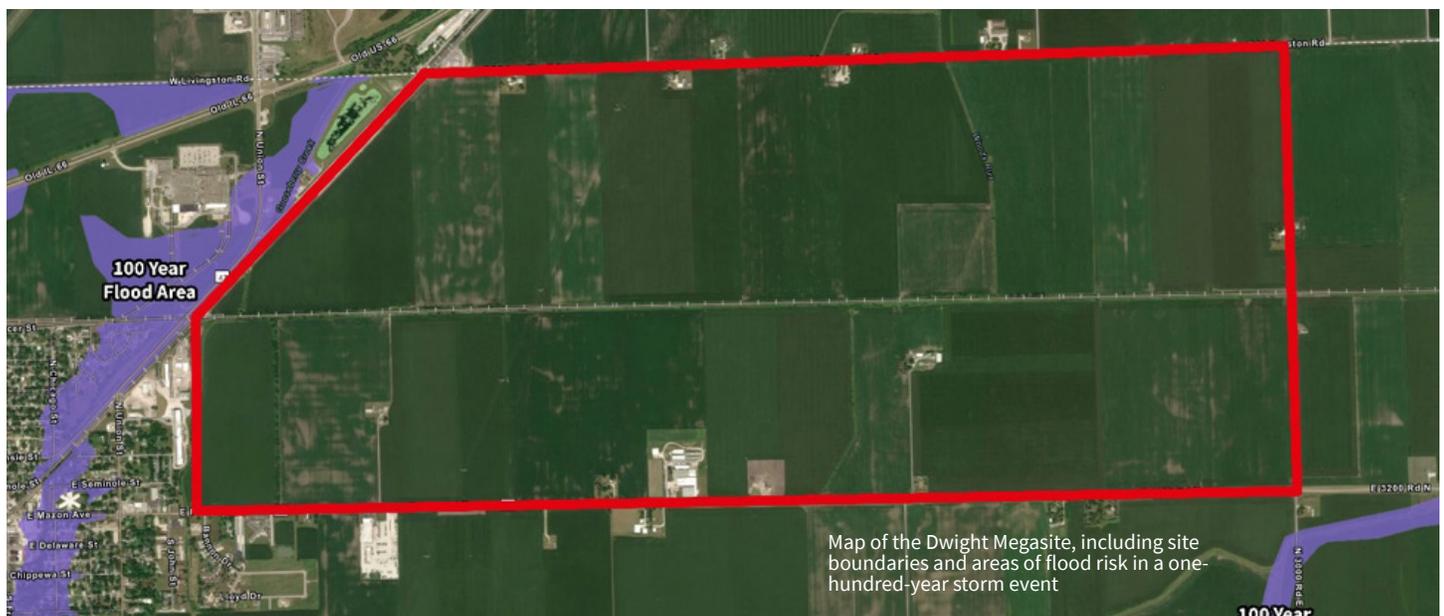
### Site Quality

When evaluating a megasite, the physical characteristics of the site are some of the first filters for consideration. At the most basic level, the size, shape and topography are reviewed by end users. Megasites are often advertised based on total size of their combined parcels and many initially appear to have significant acreage. However, **from the perspective of an end user, the critical metric for evaluation is not the total acreage of any site, but rather the flat, contiguous, dry, and buildable acreage of a site.** While some megasites around the country claim to have 2,000 acres or more available for purchase, closer inspection often reveals that the actual usable size is much smaller. Once allowances are taken for streams, wetlands, elevation changes, easements and access, many sites have less than one third of the advertised space available for the end user to construct their needed facilities.

#### **By any measure, the Dwight Megasite has excellent topographical features.**

It is incredibly flat and uniform in elevation. It has convenient and feasible access from many points of entry. The site can accommodate many large uses and can also accommodate subdivision into smaller parcels. The clear and linear site boundaries are well defined and ideal for many functional operations.

**Flood Risk:** For any site, flood risk is a critical component of a site quality evaluation. As illustrated in the map below, the actual usable acreage of the Dwight Megasite site is unimpeded by flood plains or streams through the site.



**The one-hundred-year flood plain in the vicinity of the Dwight Megasite does not appear to encumber any of the defined site boundaries.**

**This is a very positive attribute of the site, and is fairly unique in the market for megasites,** as many competing sites have issues with streams running through the sites or have areas of significant depression which are at risk of submersion in heavy rainfall events.

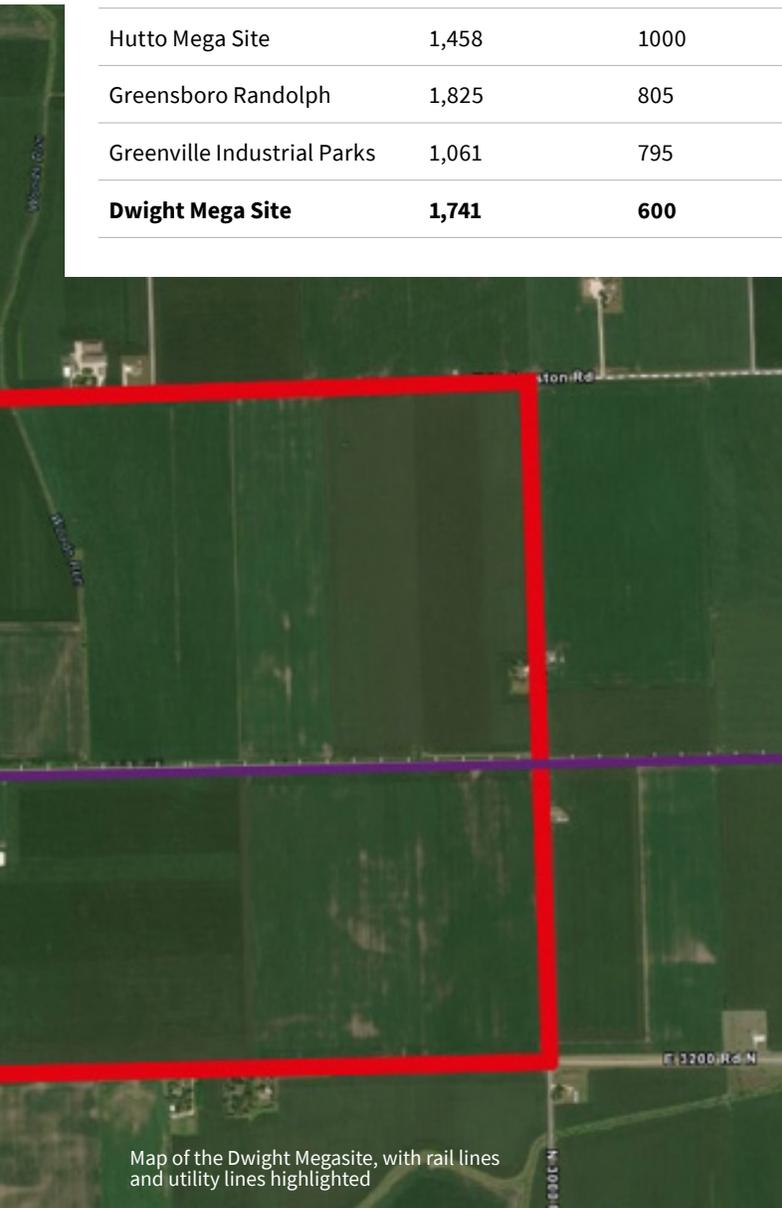
From the perspective of potential end users, the Dwight Megasite appears to require minimal, if any, areas of required cut and fill to establish a flat working surface for the construction of facilities and internal infrastructure. **This is incredibly favorable from a cost and timing perspective.**

**Buildable Acreage:** Despite the excellent topographical features of the property, there are a few site conditions which must be considered from the perspective of a very large manufacturer. As illustrated in the following maps, **the Dwight Megasite is actually bisected for functional use in both the north-south and the east-west directions.** Running east-west, almost directly along the middle of the site, the Norfolk Southern Class I rail tracks provide direct east-west rail connectivity. However, these tracks also create a barrier to contiguous construction across the entire middle latitude of the site. The Dwight Megasite, therefore, may not be able to accommodate any project requirement that exceeds 3,000 feet in the north-south direction.



This differential between total site size and buildable site size is illustrated in the table below:

SITE	TOTAL SITE SIZE (ACRES)	MAXIMUM CONTIGUOUS BUILDABLE PAD AREA (ACRES)
Memphis Regional Megasite	4,100	1500
Glendale Megasite	1,500	1446
South Alabama Mega Site	1,309	1200
Infinity Mega Site	1,144	1138
Southwest Indiana Megasite	8,000	1000
Savannah Gateway Industrial Hub	2,580	1000
Dual Rail Mega Site	1,500	1000
Hutto Mega Site	1,458	1000
Greensboro Randolph	1,825	805
Greenville Industrial Parks	1,061	795
<b>Dwight Mega Site</b>	<b>1,741</b>	<b>600</b>



Map of the Dwight Megasite, with rail lines and utility lines highlighted



### 3.1

Independent of the site size and geometry, it should be noted that **the governing authority for the Dwight Megasite has done incredible work in getting the site to its current level of readiness.** The controlling authority has taken all of the recommended steps in assembling the land and in obtaining the appropriate options and certifications. JLL understands that there may be additional land purchase options which may increase the maximum contiguous buildable acreage for the Dwight Megasite, and that this issue of site division could be mitigated with additional, adjacent parcel options or purchases.

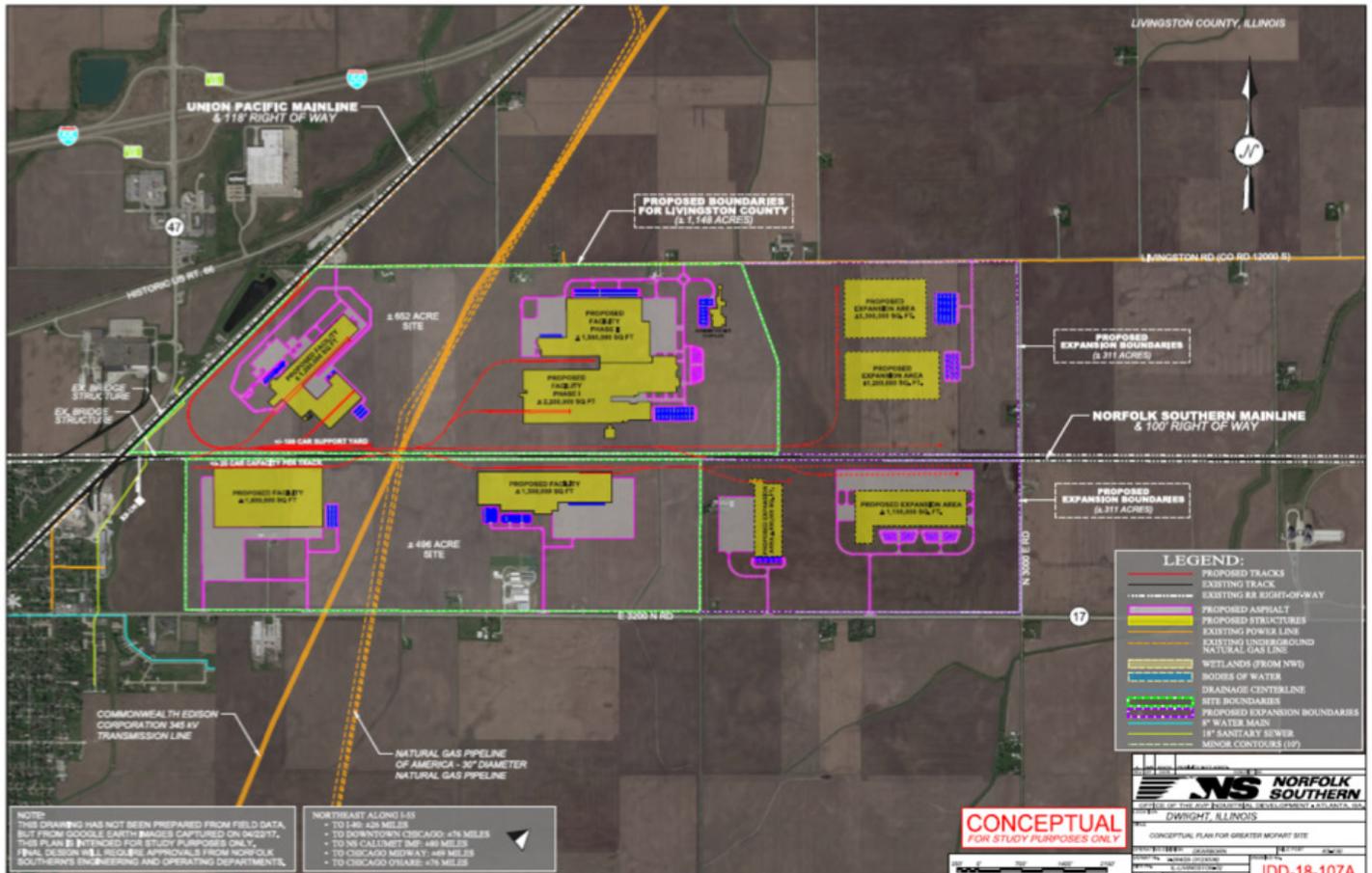
However, in its present state, the site geometry could appear challenging for the support of a single, 1,000 acre development. Preliminary, conceptual site master plans by Norfolk Southern, shown below, are laid out to accommodate an industrial park. This layout is very logical and feasible for multiple users. However, it is unlikely that a single user would lay out a manufacturing campus this way, due to the barriers to connectivity created by the rail and utility lines.

In summary, when evaluating the total size and buildable size of the site, the Dwight Megasite has excellent characteristics for mid-sized industrial users, but also has some conditions which may cause concern for the largest potential users. This may

impact the plan for the marketing and positioning of the site.

**Direct Site Access:** An additional consideration of many industrial users is the immediate access of the site to an interstate highway. **The Dwight Megasite provides incredible connectivity to I-55, with less than a five-minute drive time from the site to the entrance ramp. This is a very favorable component for national site selectors.**

However, it was noted during site visits that access to I-55 is achieved by traversing Illinois Route 47. From the site, access to Route 47 requires an at-grade railroad crossing. This is an important consideration, as the railroad which must be crossed serves Union Pacific freight and is an Amtrak high-speed rail corridor. For some manufacturers, and particularly for logistics users, highway access which requires passage over a highly trafficked railroad crossing is less than ideal. It was noted that safety crossing signalization and gates have been recently upgraded as part of the Illinois High Speed Rail Project. This improves the condition, yet the required crossing condition may still raise concerns for a limited subset of potential occupiers.



Map of the Dwight Megasite, with conceptual layout of industrial parcels



### Infrastructure Analysis

Beyond the basic criteria of size and topography, the next site-level consideration of many large manufacturers is infrastructure. The costs to install or upgrade utilities – and notably the time required to do so – are critical factors which can influence whether a site is viable for selection or not.

**In the case of the Dwight Megasite, the utility infrastructure conditions are favorable; particularly for small and mid-sized industrial users. However, there may be conditions which require upgrades and investment to accommodate the largest users.** This is to be expected at most sites. At a high level, the existing utility capacity conditions are summarized in the table below:

UTILITY	PROVIDER	CURRENT CAPACITY	POTENTIAL CAPACITY	MOST COMMON LARGE USER REQUIRED CAPACITY	COSTS TO UPGRADE TO MEET REQUIRED CAPACITY	NOTES AND TIMING
Electricity	Comed	4 MW	100 MW	15 to 60MW	\$14 mil. To \$53 mil	12 to 30 months
Natural Gas	NICOR	300 MCFH	TBD	500 to 1500 MCFH	TBD	
Water	Village of Dwight	500K GPD	1M GPD	500K to 1.5M GPD	\$1.6 mil.	12 to 24 months
Waste Water	Village of Dwight	1M GPD	1M GPD	250K to 750K GPD	None required	12 to 24 months

### 3.1

Beginning with electrical service, the site has excellent connectivity and capacity. For most small and mid-sized industrial users, 4 MW of power is sufficient. Occasionally, the largest manufacturers will request up to 65 MW of service, but this occurs in fewer than 10% of national search requests. (Again, however, it is important to highlight that the potential users which may need the greatest electrical service may be the same users which place the greatest value on having dual, multi-directional Class I rail links.)

It is important to note that utility capacity needs vary significantly among large industrial users. In order to delineate between general and specialized users, the table below illustrates the most common needs of large-scale producers, by facility usage.

	ELECTRICITY	NATURAL GAS	WATER	WASTEWATER
Aluminum Products	34 MW	81.85 MCFH	100K GPD	90K GPD
Frozen Food Products	20 MW	0.25 MCFH	2.0M GPD	2.6M GPD
Light Assembly & Paint Shop	10 MW	125 MCFH	150K GPD	100K GPD
Metal Refinery (Low)	15 MW	1,250 MCFH	700K GPD	350K GPD
Metal Refinery (High)	45 MW	2,500 MCFH	2.1M GPD	1.2M GPD
Transportation Equipment Mfg. (Low)	65 MW	600 MCFH	700K GPD	300K GPD
Transportation Equipment Mfg. (High)	85 MW	1,200 MCFH	1.25M GPD	612K GPD

As indicated in the table, light assembly facilities may only require 10MW of electrical capacity and 150,000 gallons of water per day for full operations. Conversely, an integrated automobile plant may require up to 85 MW of electrical capacity and over one million gallons of water service per day.

Based on documentation provided by the existing utilities, the Dwight Megasite has considerable capacity to support most light and medium industrial uses on site, without upgrades. However, to accommodate very heavy uses, the site could require improvements with costs upwards of \$96 million in infrastructure upgrades for Water and Electricity alone.

No parcel of land is perfect and even those with everything on site tend to require some degree of investment. Capacity and cost are invariably project dependent and most project RFPs withhold improvement cost specifics until the utility providers have a detailed understanding of the user's requirements. Infrastructure improvement costs for the competing sites can range anywhere from \$10 million to upwards of \$150 million.

One common misconception is that the sites with the highest utility capacities will find themselves at the top of site selection lists. Although project timelines and development costs are certainly an important factor, some users may be willing to

overlook certain site deficiencies in favor of long-term location advantages (pertaining to labor and logistics). For example, the Infinity Mega Site, a publicly owned, shovel-ready site in Lowndes County Mississippi, boasts over \$100 million in infrastructure investments since 2003. Despite being perhaps one of the best 1,000+ acre sites on the market, the site has been passed over by multiple projects for sites requiring significantly greater infrastructure investment.

Conversely, sites with limited due diligence are often rejected for those which have at least established preliminary project estimates and timelines. **The key to site attractiveness, therefore, is not necessarily having the maximum capacity for every utility, for every potential user. It is simply a plan in place to get there, with clear costs and timelines.** The Dwight Megasite appears to have such a plan with its utility partners.

It should be noted that many substantial projects will often see the bulk of infrastructure investment subsidized through the utility provider, municipal government, or state. It is common for a user to pay for interior improvements, but it is rare for a large user to be willing to pay for substantial off-site extensions without some level of financial assistance. Working with utility partners to devise alternative financing scenarios can offset some of the initial cost concerns.



### Natural Disaster Analysis

An additional site-level concern of some manufacturers which plan on significant capital expenditures relates to the frequency of natural disasters in the region. The natural disaster risks which are most commonly evaluated include seismic activity (earthquakes), flood events, tornados, and wildfires. Depending on the region of the country, these events in isolation or in combination can have a considerable impact on site selection and planning.

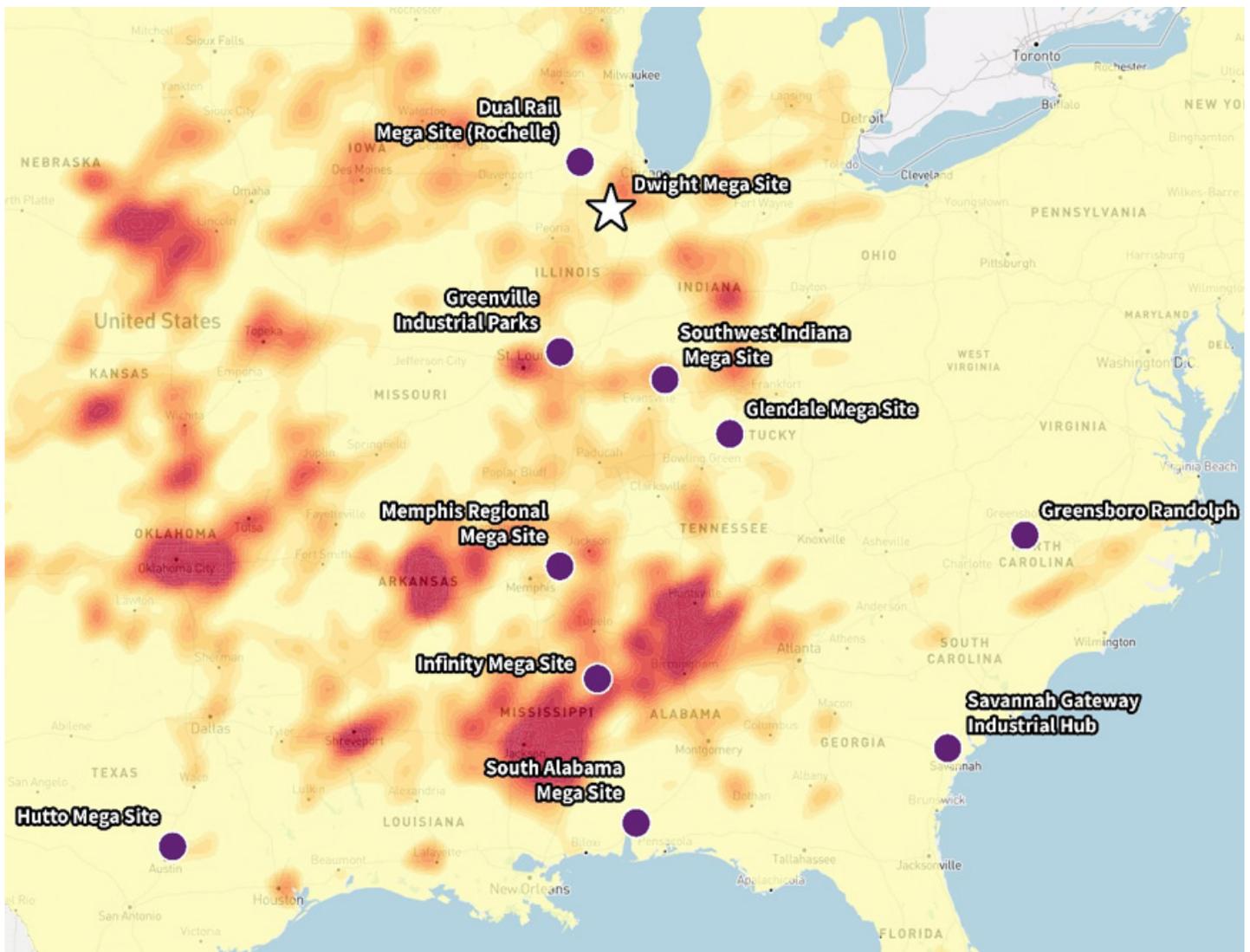
**Seismic Risk:** The Dwight Megasite is in the fortunate location of north central Illinois, such that earthquake risk in the vicinity is quite limited. In contrast to sites near the New Madrid Fault (West Memphis) or the Charleston regional fault (Savannah Gateway site), the Dwight Megasite has limited risk of earthquake events.

The map below illustrates the relative seismic risk for the Dwight Megasite, in contrast to the evaluated peer sites.

Of course, seismic risk can be quantified and mitigated with proper engineering, and this concern in isolation would not be likely to drive a company’s location decision. However, the reduced seismic risk is an advantage for the Dwight Megasite in a national comparison.

**Tornado Risk:** Although any region can experience extreme winds and weather events, there are certain parts of the country which are at a particularly high risk for tornados. Again, the Dwight Megasite is in the fortunate location of north central Illinois, such that tornado risk in the vicinity is non-zero, but limited. The map below illustrates the regions which are most likely to experience tornado events, based on a fifty year record of historic frequency.

In contrast to sites located in high-risk regions such as Oklahoma, Kansas, Arkansas, and northern Mississippi, the Dwight Megasite has limited risk of tornado events. This presents an advantage in the site selection process.

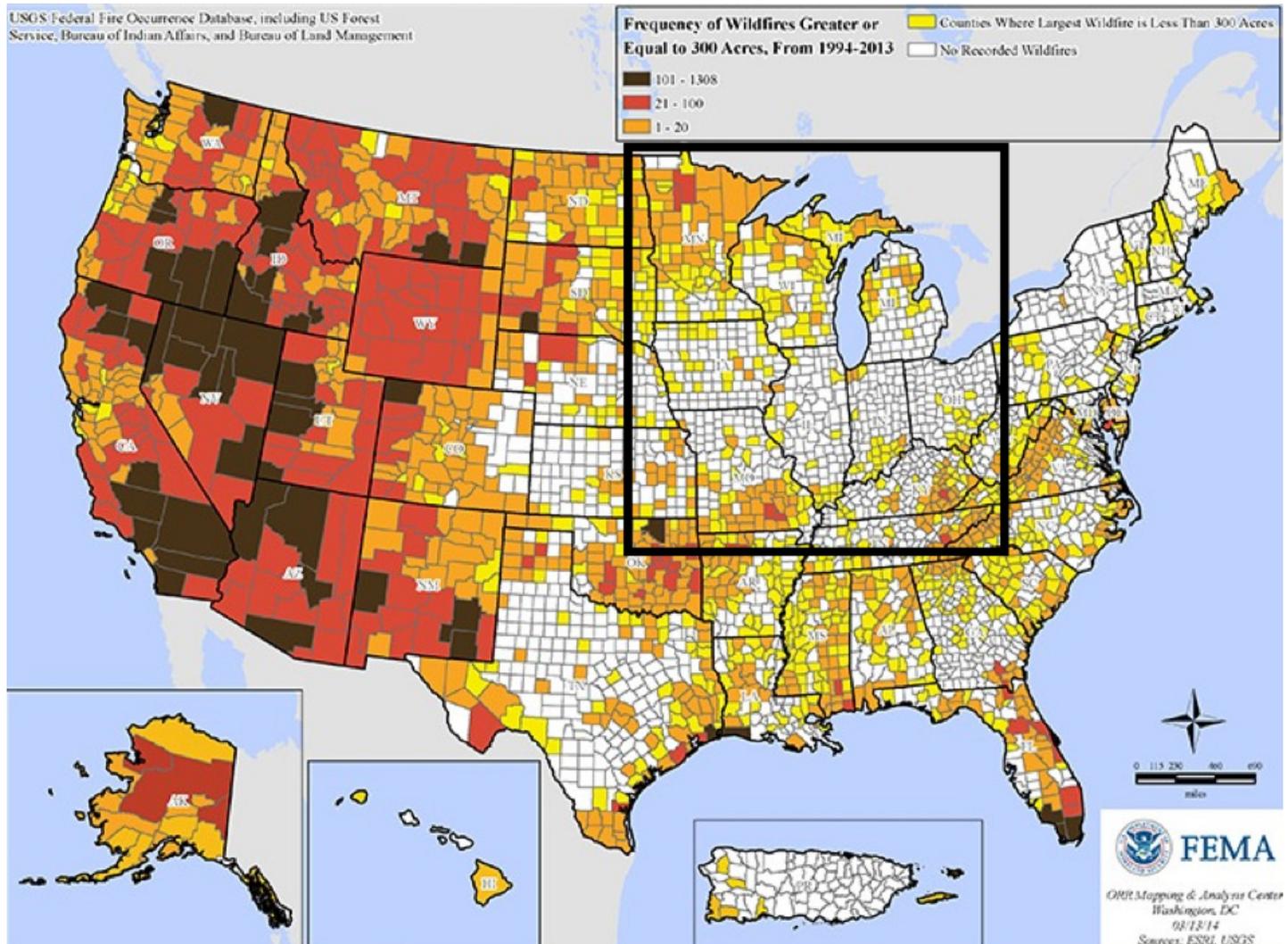
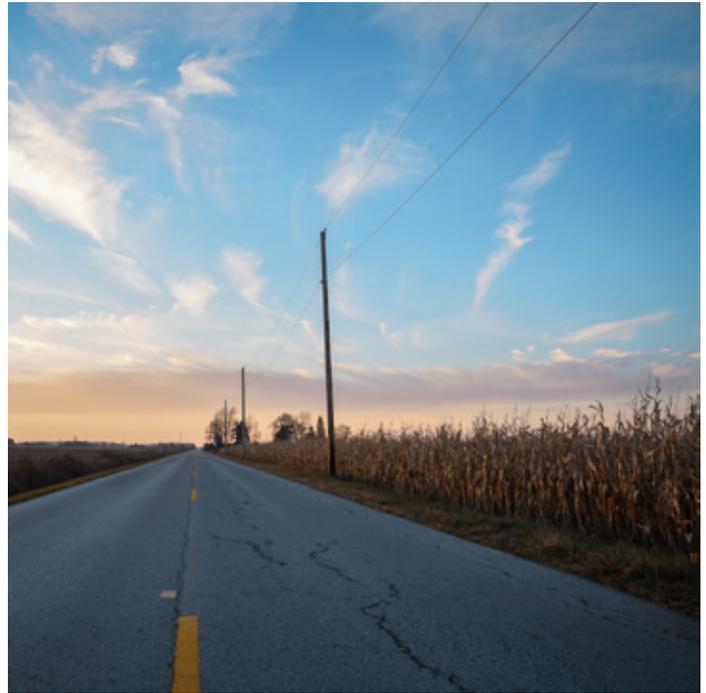


Heat map of relative tornado risk, including the Dwight Megasite and evaluated peer sites

**Wildfire Risk:** The Dwight Megasite is in a fortunate position within Illinois, such that wildfire risk is relatively minimal. As this risk increases in severity for other sites and other parts of the country, the Dwight Megasite presents limited wildfire risk for users. As indicated in the following map, the region, in the upper Midwest of the United States presents the lowest risk in the country for such concerns. This presents an additional advantage in the site selection process.

**Redundancy and Reliability:** The Dwight Megasite has the further advantage of reliable infrastructure. While some competitive sites in other regions may have issues of downtime due to extreme weather events and obsolete infrastructure, the Dwight site is served by a modernized electric grid in a low risk area.

**Site Quality Conclusion:** Overall, the Dwight Megasite ranks near the median of the benchmarked sites, in terms of site quality. While the site's topography, connectivity and risk profile are well above average, its current geometry, access, and divided configuration may limit or prohibit some very large uses.

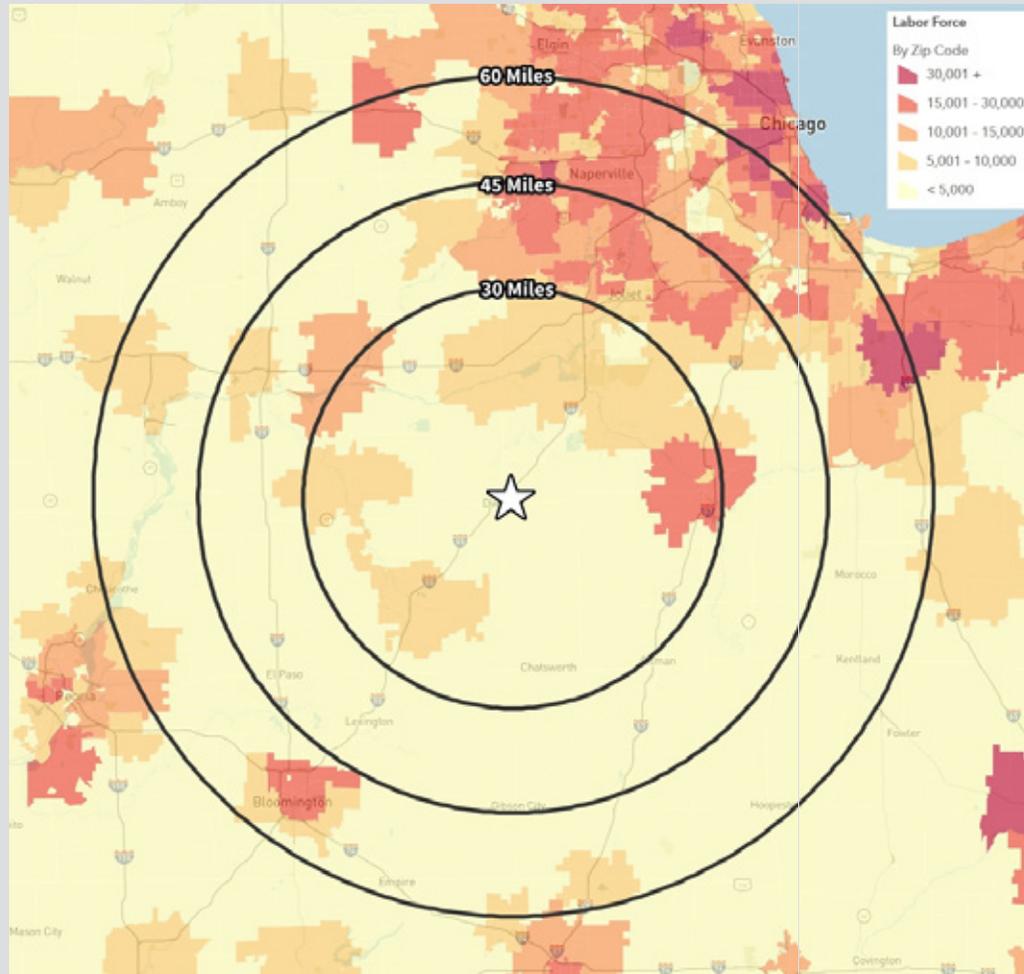


FEMA Map of US Wildfire Occurrence Risk

## Labor Metrics

In an environment of low unemployment and high demand for qualified talent, **there is no component in a large site selection project that is more important than labor.** To understand the labor market around each benchmarked site, the following information was gathered for each site:

- Total population within a 30-minute, 45-minute, and 60-minute drive time radius
- Five-year forecast of population growth within a 30-minute, 45-minute, and 60-minute drive time radius
- Total addressable workforce employed in production occupations in the metropolitan statistical area
- Concentration of key talent in the metropolitan statistical area, including manufacturing employees, engineers, managerial employees, operations and logistics managers, and others



Dwight Megasite, Laborshed Map by Distance

The total population contained within the 60-minute radius of the Dwight Megasite is approximately 1,318,000 people. Within this population base, there is an addressable workforce of approximately 748,000 people. This available workforce at the 60-minute radius level is considerable.

Many hiring managers at large-format manufacturing facilities require an available workforce base of 100 available persons per every one planned job. This implies that a large plant that plans to hire 2,000 employees would seek a minimum labor base of 200,000 employable workers in the 60-minute drive time radius. By this measure, the Dwight Megasite would meet the first threshold criteria for some site selectors.

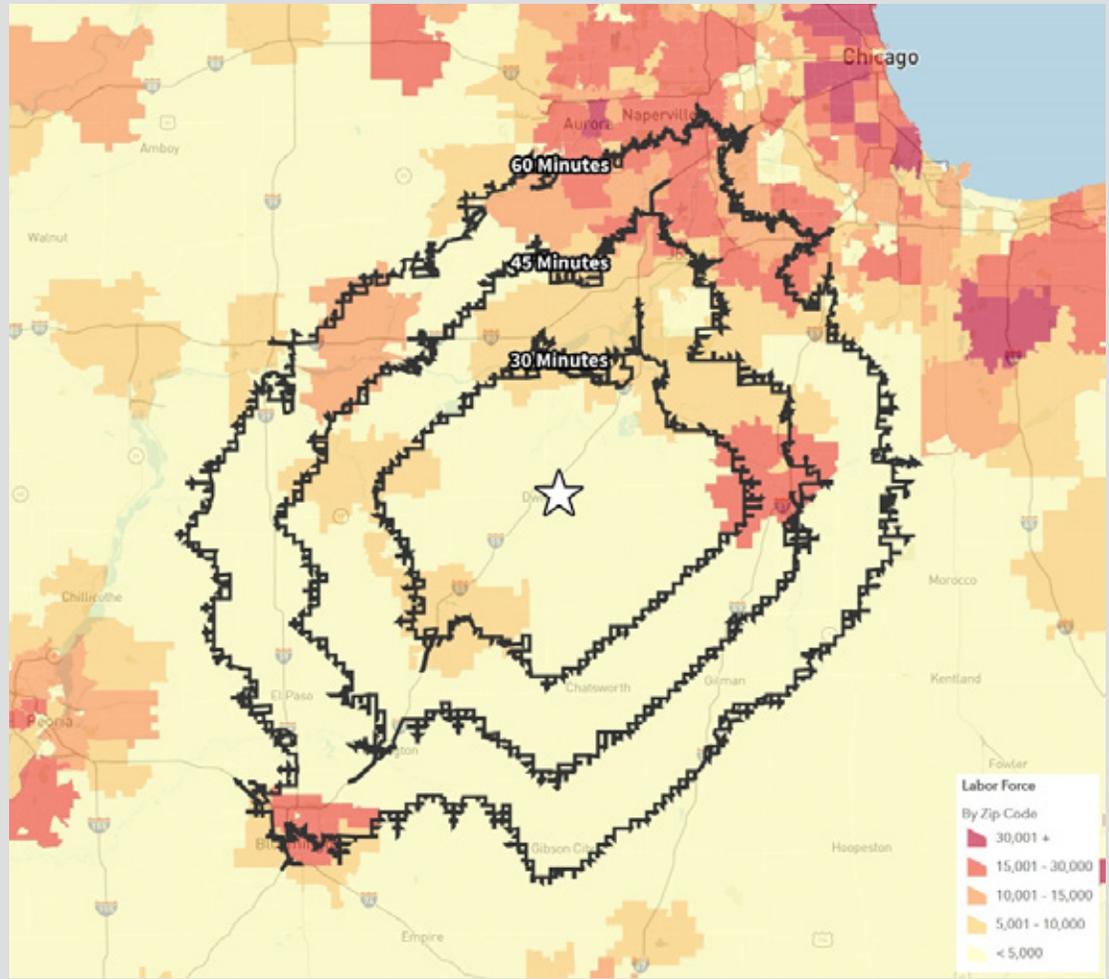
However, it is important to note that the strength of the Dwight laborshed increases geometrically as the drive time distance increases. In the immediate vicinity of the Dwight Megasite, the labor force remains very limited. Within the 30-minute drive time radius of Dwight, the total labor force is reduced to approximately 41,000 people, placing the site at the lower end of the range for the benchmarked sites.

As indicated in the adjacent maps, the density of available labor immediately adjacent to Dwight is limited, yet the labor force concentration increases with distance, as areas such as metropolitan Chicago and Bloomington can be reached beyond a 45-minute drive time.

**When benchmarked against the set of peer sites, the Dwight Megasite ranks well in terms of available workforce in a 60-minute radius.**

Some comparable sites, such as the Greensboro Randolph Megasite and Hutto Megasite have local workforce numbers that significantly exceed those in Dwight. This partially explains why these two sites have seen the most interest from site selectors and large manufacturers over the past three years.

However, the Dwight Megasite remains competitive on this metric. The adjacent table illustrates the 60-minute labor force available for the benchmarked sites:



Dwight Megasite, Laborshed Map by Drive Time

SITE NAME	AVAILABLE WORKFORCE WITHIN A 60-MINUTE DRIVE TIME RADIUS
Hutto Megasite	1,311,091
Greensboro Randolph	987,182
Dual Rail Mega Site	789,224
<b>Dwight Megasite</b>	<b>748,520</b>
Memphis Regional Megasite	700,863
Glendale Megasite	535,852
Savannah Gateway Industrial Hub	338,076
South Alabama Megasite	322,091
Southwest Indiana Megasite	276,273
Infinity Megasite	95,355

## 3.2

Narrowing the drive time distance to 30 minutes considerably changes this dynamic. As illustrated in the table below, the Dwight Megasite appears less competitive when evaluating sites based on the labor pool available to them within a shorter commute radius::

SITE NAME	AVAILABLE WORKFORCE WITHIN A 30-MINUTE DRIVE TIME RADIUS
Hutto Megasite	481,409
Greensboro Randolph	241,127
Savannah Gateway Industrial Hub	91,004
Dual Rail Mega Site	68,774
Glendale Megasite	64,892
Memphis Regional Megasite	59,609
Infinity Mega Site	42,931
Southwest Indiana Megasite	42,130
<b>Dwight Mega Site</b>	<b>41,379</b>
South Alabama Mega Site	35,008
Greenville Industrial Parks	25,920

Beyond the high-level assessment of total available labor, another key criterion in site selection is the skill level and concentration of manufacturing talent in the region. In this regard, the Dwight Megasite performs well relative to the peer set. **Dwight has a production occupation location quotient of 1.90, which means that the region has a concentration of production labor that far exceeds the national average.** Among the peer sites studied, Dwight ranks fourth, and the strength of the local talent base, in terms of manufacturing qualifications, is quite high.

This indicates that the workforce mix in the Dwight region is very strong for a manufacturing operation. Additionally, it is apparent that the local regional workforce development efforts have been beneficial for the area and its manufacturers.

However, there are other fields of skill concentration that are notably lower in the region of Dwight. In particular, engineering skills are lower in the immediate region than they are for several other competing megasites. It is important to note that many new manufacturing facilities that are under planning or development are centered around technology integration and automation. A growing requirement in recent site selection projects is for the hiring of local engineers with advanced manufacturing or robotic experience. Cities like Huntsville, Alabama and Raleigh, North Carolina have high concentrations of local employees with graduate degrees in advanced engineering, while Dwight currently lags in this category. As factories across the country increasingly focus on advanced manufacturing and automation, the Dwight region may be at a disadvantage to some locations which are aggressively developing and marketing their local engineering programs.

This perceived disadvantage could be mitigated through partnerships with some of the best engineering programs in the entire country which exist through the nearby University of Illinois and Bradley University, among others.

Manufacturers across the United States are finding it increasingly difficult to attract and retain qualified labor. Although skilled labor is at the forefront of most user's criteria, quantifying it can prove difficult. As such, an understanding the existing employer base, educational institutions, and workforce development programs is key for context.

In the case of the Dwight Megasite, Joliet Community College serves the region with dedicated job training and up-skilling programs which could be highly valued by potential site users.

Based on interviews with Joliet Junior College and supplemental data provided by the institution, the broad region around the Dwight Megasite has a considerable number of professionals which have been trained in dedicated manufacturing programs. The following table provides a comparative analysis of the Dwight region, relative to the competing benchmarked megasites.

Finally, an additional consideration that many large manufacturers now incorporate into their labor analysis is regional population growth. In order to plan for a labor pool that is sustainable and for a workforce that will not see significant wage pressure, several manufacturers have set targets for regional population gains. Regional population growth can mitigate the challenges faced by manufacturers that experience frequent employee turnover based on wage or benefit increases from competitors. This factor was evaluated for the region of the Dwight Megasite and for those of the peer sites. Again, the Dwight region ranks lower than many peer sites in this category, and while some regions of the country are forecast to see appreciable population gains over the next five years, many regions in the central United States are likely to experience flat or even negative population growth. The Dwight region is one of the latter.

**In summary, the Dwight Megasite absolutely meets the threshold criteria for most large manufacturers, in terms of available labor within a 60-minute radius.**

However, there are some potential concerns with the depth and expertise of the labor pool within closer proximity to the site. These can be mitigated with a concentrated plan to attract and retain talent to the immediate area and through continued partnerships with Illinois universities.

***A note on the population metrics that were used in this study:***

*There are several ways to evaluate sites and local areas for their population metrics. Many site selection consultants rely entirely on data at the level of the 60-mile radius around the subject property. While this high-level analysis can be useful at first, JLL has determined after several projects that the 60-mile metric is insufficient in final site selection decisions.*

*A more refined approach evaluates the actual drive times that prospective employees will have to travel to the sites for their jobs, and therefore the 30-minute and 60-minute drive time radii have been used in this report. Our experience has shown that a distance of 60 miles does not always correlate to a commute of 60 minutes, and that employees tend to evaluate their reasonable commutes in terms of time, rather than distance, when evaluating jobs and locations.*

*The Dwight Megasite has the advantage of limited vehicular traffic in the immediate vicinity and the ability for employees in the south suburbs of Chicago to reach the site in a 60-minute drive time.*

*Typical industrial users have confirmed that 75% of their ultimate labor force falls within a 45-minute radius of their location, and that 90% of their labor force is located within 60 minutes (not miles) of their location. For this reason, we have elected to use commute times as the basis for our comparisons. This approach has been validated by several professionals in human resources at large manufacturing firms, and provides a more conservative method for comparing site locations.*

## Operating Environment

The next component of site selection that large manufacturers evaluate in their decision process is the operating environment. There are several market variables and political dynamics which can shape a local business environment, but the factors which can be most objectively measured are those related to direct costs.

In this analysis, the following set of cost metrics was collected to understand how the Dwight Megasite compares to the peer set.

- **Taxation rates:** Corporate income tax rates and personal income tax rates
- **Median hourly wage by occupation:** all occupations, production occupations, architecture and engineering occupations, transportation and material moving occupations, and installation, maintenance, and repair occupations
- **Utility costs:** rates for electricity, water, waste, and natural gas

**Overall, the Dwight Megasite ranks eighth for operating environment, placing it near the lower end of the range.**

Beyond this ranking, it is necessary to break this down into sections to highlight the strengths and challenges of the region.

## TAXES

The corporate income tax rate and the personal income tax rate were gathered for each site. All firms, but specifically manufacturers, seek to minimize overall operating costs and taxation rates can factor significantly in achieving that goal. While companies are responsible for the payment of the corporate income tax rate, most also consider the personal income tax rates that their employees will be required to pay.

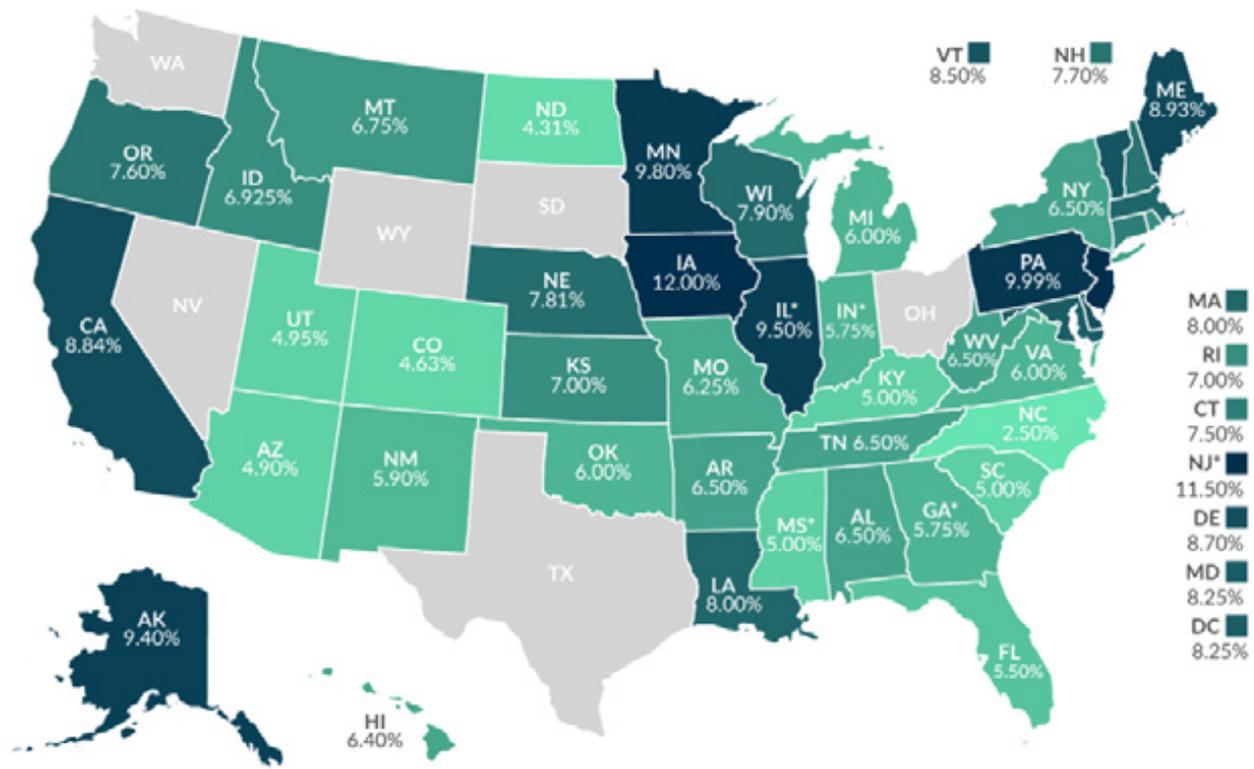
Potential occupiers of the Dwight Megasite are subject to a 9.5 percent corporate tax rate and their employees are subject to a 4.75 percent personal income tax rate. While the Illinois flat personal income tax rate is (currently) relatively favorable, **corporate income tax rates in Illinois are among the highest in the country.** Of the peer set evaluated, the corporate income tax rates for the Dwight Mega Site and the other Illinois sites exceed their nearest competitors by 3.0 percent. Although it is highly unlikely that tax rates will immediately disqualify an option for site selection, it should be noted that Illinois' high corporate taxes may serve to validate site selector preconceptions of the state business climate, particularly for cost conscious operators.

The most frequently cited source on national corporate tax rates is the nonpartisan Tax Foundation. The map on the following page indicates the top marginal corporate income tax rates by state.

As clearly indicated in the map, there are a range of states, including Illinois, which have relatively high corporate tax rates. However, when the Dwight Megasite is compared by potential occupiers to sites in neighboring states such as Indiana and Kentucky, it may be perceived negatively.



### Top Marginal Corporate Income Tax Rates as of January 1, 2019



Map of Marginal Corporate Tax Rates by State. Source: Tax Foundation, 2019.



**WAGES**

While access to talented labor is arguably the most crucial factor in site selection, wages and transportation expenses tend to be critical components in the decision process as well.

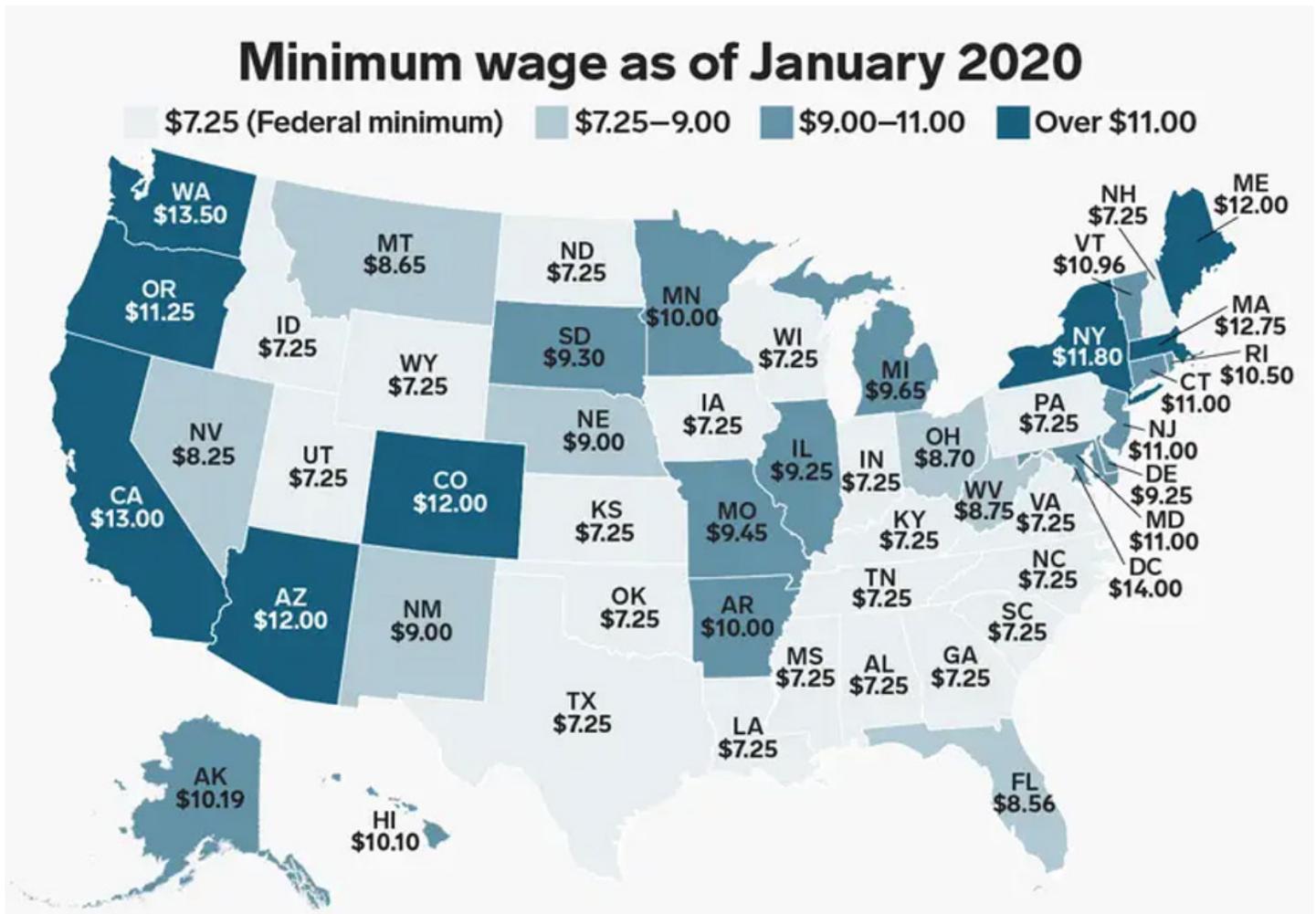
Following several years of very low unemployment rates, paired with growth in demand for industrial and logistics labor, blue-collar wages have been rapidly rising across the United States. It is well documented that some regions and some employers are required to exceed minimum wages by a significant margin, in order to remain competitive in low-density labor conditions.

Despite this fact, **state minimum wages are still influential in establishing the floor for wages in a given area.** The map below provides an indication of the minimum hourly wages across the country, by state.

In this analysis, it is clear that Illinois is not the state with the highest minimum wages, but it is nowhere near the lowest. While most manufacturers will not base their location decisions on the absolute minimum wage in a given state or region, the overall market wages are a key factor.

Site users which previously opted to enter low population, low cost-of-living markets have discovered that opportunities for wage arbitrage have diminished as competition in smaller markets has elevated wage rates above levels which may even be found in many larger labor markets.

Despite Dwight’s impressive 60-minute labor shed, it is important to highlight that the majority of the workforce which may be drawn to a production facility would be coming from beyond the 45-minute drive time radius. This would imply that a wage premium may be required in order to entice employees to make a longer commute.



Map of minimum hourly wages by state. Source: Economic Policy Institute.

This implication is validated in JLL's labor wage analysis on the region. Current median hourly wage rates in the Dwight area are \$18.19 per hour for Production Workers and \$15.77 per hour for Material Moving Workers. These values place Dwight at 9th and 8th respectively, within the peer set of benchmarked sites.

For added context, median wage rates in Greater Chicagoland stand at \$15.56 per hour for Production and \$14.46 per hour for Material Moving workers. In other words, production employees near Dwight currently command a wage premium of 17% over other production employees in the general northern Illinois area. Material moving and handling employees near Dwight currently command a wage premium of 9% over other moving workers in northern Illinois. This premium would suggest that future large industrial employers choosing to operate in Dwight would need to be willing to offer above-market wages in order to draw employees.

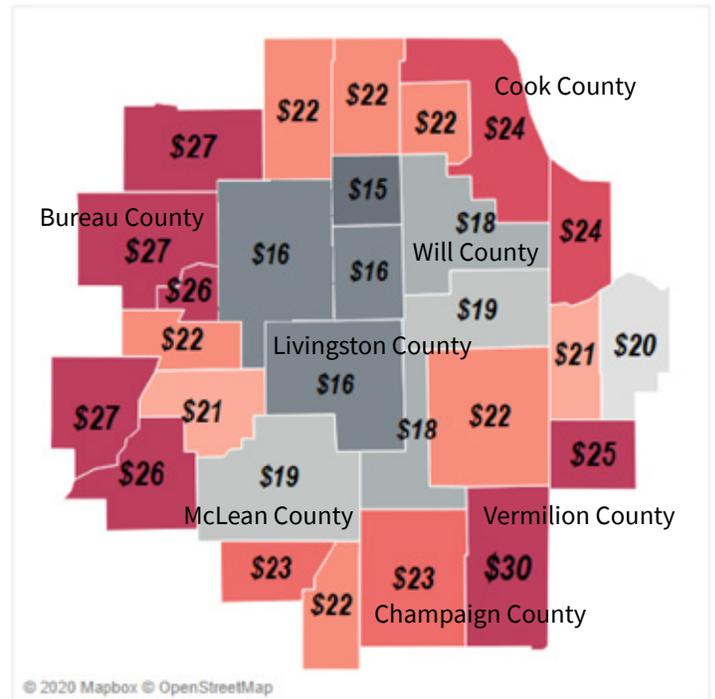
In an effort to measure what the wage premium might be for a future project in Dwight, JLL conducted a high-level analysis using data from the Economic & Social Research Council. This analysis correlates a twenty minute increase in commute time to the same level of satisfaction resulting from a nineteen percent pay cut. This relative condition was then applied against county level median hourly wage rates and average commute times. Given the wide variance in production wages (which are dependent on sector and skill), median material mover rates were applied in this analysis.

This wage premium analysis indicates that a \$2 to \$3 per hour premium may be required to draw employees from neighboring counties within a 60-minute drive time radius. It further indicates that a \$6 to \$8 hourly premium may be required to attract employees which have commute times that exceed one hour.

The map above presents an image of the wage premium which may be required to attract production employees to the Dwight Megasite from various parts of the broader labor shed. The map indicates that "local" employees, or those most proximate to Dwight would require average hourly wages in the range of \$16 per hour. However, production workers traveling from Cook County may require up to \$24 per hour to make the commute to Dwight attractive relative to competing employment opportunities closer to their homes.

### OPERATING COSTS SUMMARY

When comparing operating costs holistically, the Dwight Megasite has many positive attributes, and the site ranks near the average of the peer set for cost efficiency. While the personal income tax rate in Illinois may be one factor of relative concern for manufacturers, the prevailing labor wages and utility costs in the region of the megasite are very favorable.



## Location and Logistics

Transportation related expenses account for 50.3% of a typical total operating budget for a manufacturing plant. Therefore, location considerations are core to industrial site selection. It is evident that large manufacturing plants need direct connectivity to infrastructure and freight networks, to manage their inbound and outbound products. In order to analyze and rank the transportation and freight networks surrounding each peer site, the following metrics were compiled and compared:

- Distance to the nearest interstate
- Distance to the nearest international airport
- Number of on-site Class I Rail providers

With a three to five minute drive to the I-55 ramp, the Dwight Megasite scores exceptionally well in regard to interstate proximity. Distances greater than fifteen minutes from an interchange can cause some sites to be eliminated from consideration by certain manufacturers.

On average, the considered peer sites are within 4.1 miles of the nearest interstate, and some have direct access. The Central South Carolina Megasite is within .25 miles of the nearest interstate, and the Glendale Megasite and Memphis Regional Megasite, which are both within one mile of their nearest interstate highway.

Beyond interstate (I-55) proximity, the Dwight Megasite has the advantage of access to I-80, the premier coast-to-coast distribution corridor in the United States, linking San Francisco to New York. This is a key freight artery connecting three of the country's largest cities. This backbone of America has spurred tens of millions of square feet of industrial inventory development across the region and I-80 has secured the Joliet area the distinction as North America's largest inland port. The Dwight Megasite has a unique competitive advantage against its peers which do not have such access to this key corridor.

In addition to highway connectivity, a critical component for most heavy industries is direct, on-site rail. It is important to note that regional proximity to rail is not equal to on-site rail.

On-site, Class 1 rail access provides unmatched connectivity to highly populated markets for manufacturers. Class 1 railroads account for 69 percent of U.S. freight rail mileage and 79 percent of heavy manufacturer shipment mileage. Immediate access to these railroads provides the efficient transport of consumer goods across the region and country. **The Dwight Megasite is one of select few megasites across the country to feature two on-site, Class 1 rail providers.**

In addition, Dwight is one of only two megasites to boast coast-to-coast Class I connectivity through both Union Pacific and Norfolk Southern access. For context, there are 44 counties, across seven states, where east-coast and west-coast rail lines meet. JLL Research was able to identify five actively marketed industrial sites featuring coast-to-coast Class I connections including the Dwight Megasite and Greenville Mega Site. Further analysis provided by Norfolk Southern identified 19 potential rail-served sites where an east-west intersection was present. While a handful of these locations might someday compete with the Dwight Megasite, the majority of these intersections are currently "off market" and they would require an incredible amount of land option and purchase agreements, governmental coordination, site preparation, and utility connection before they could be considered as viable development opportunities. In theory, the remaining on-market opportunities, which range from 75 to 300 acres, could compete with the Dwight Megasite on smaller scale projects. However, the site attributes, location, and level of due diligence completed make the Dwight Megasite a much more qualified candidate.

The table below illustrates the current competitive landscape for qualified, dual-rail, east-west access sites in Illinois.

SITE NAME	CITY	COUNTY	STATE	SITE SIZE (ACRES, CURRENTLY CONTROLLED)	RAIL CARRIERS
Rouff Farm #1	Jacksonville	Morgan	IL	138	BNSF Railway, Norfolk Southern
South Quincy Development District	Quincy	Adams	IL	300	BNSF Railway, Norfolk Southern
Alton Center Business Park (1625 E. Broadway)	Alton	Madison	IL	75	Union Pacific Railroad, Norfolk, Southern
John W. Kelsey Industrial Park	Greenville	Bond	IL	439	BNSF Railway, CSX Transportation
Dwight Mega Site	Dwight	Livingston	IL	365	Union Pacific Railroad, Norfolk, Southern

Within this peer set, the Dwight Megasite is the leading site in the cohort, for almost all categories.

The principal advantages of dual rail connectivity can be summarized as access and competition.

In terms of access, there is clear advantage in the ability to reach the entire country with inbound and outbound product, without transfer or interruption.

From the competitive perspective, when a shipper has the ability to choose from two available railroads, they can leverage the two for pricing power. However, this power may be better utilized when pitting “the two east coasts” or pitting the two “west coasts” against each other, rather than an “east coaster” versus a “west coaster.”

Large development sites featuring BN and UP service or NS and CSX are uncommon, but not impossible to find. Development opportunities with service from one of the east coast railroads and one of the west coast railroads on the other hand are virtually non-existent. Typically moving across the country involves at least one “interchange” from a Class 1 line to another Class 1 or even onto a short line to complete the journey. The dual east coast and west coast rail scenario here may be more powerful due to the geographic reach afforded by direct connections. The ability to reach the western half or eastern half of the country with no connections could prove incredibly valuable.

For example you could produce widgets in Dwight and ship them east directly on Norfolk Southern to consumers in New York or to Savannah for export to Europe. Likewise, you could produce the widgets and also ship them westbound directly on Union Pacific to Dallas or on to Long Beach for export to Asia. Note the usage of the particular railroad when shipping geographically.

According to the Association of American Railroads freight rail moves 75 percent of new cars and light trucks purchased in the U.S. Given the complexity of their supply chain it is widely understood that transportation equipment producers and automotive assemblers tend to place the greatest emphasis on dual rail accessibility. Of 40+ assembly plants operating in the United States virtually all have some degree of rail connectivity, six have direct access to two or more class one carriers. Only one features coast-to-coast rail access, the Ford Kansas City Assembly. Home to the F-150 and Transit van, the 4.7 million square foot facility is the largest domestic auto manufacturing plant in terms of unit volume. The F-150 which has been the United States' best-selling consumer vehicle for 42 years also happens to be one of the most profitable vehicles ever produced. Although model specific margins are not published, most analysts concur that Ford earns \$10,000 to \$13,000 on every F-150 sold.

While Class 1 rail and interstate access can provide connectivity to markets *within* the continent, international airports connect markets across the globe. For this reason, airport connectivity was reviewed as well, as shown on the following pages.

## Airport Connectivity

The Dwight Megasite is within a 60 minute drive of the Central Illinois Regional Airport (BMI) and a 120 minute drive to Chicago O’Hare International Airport (ORD). Dwight’s proximity to two major international airports place it in a favorable position among foreign executives and investors, who may have operations in Asia or Latin America.

In general, site selection projects require sufficient infrastructure and extensive freight networks to increase their market penetration and optimize their logistics. As markets become more interconnected and global logistics networks drive efficiency, viable sites need to offer competitive access to transit, rail, and airports. **The Dwight Megasite benefits from incredibly strong transportation assets and is one of the leading sites in the entire country from a logistics and connectivity perspective.**

### *A note on rail networks and service operations*

For any audience not in the logistics or transportation sector, it is important to describe the two main types of rail operators, which are “Class 1” and “short lines.” First we will describe Class 1.

The North American Class 1 Railroad Networks can be described in terms of different geographies or orientations: “Canadians” “East Coast” and “West Coast.” While all have grown over time due to consolidations and mergers, they are known as Class 1 due to their large scale and geographic reach. Furthermore, it is important to generally describe the geographies in which they generally operate. CSX and Norfolk Southern (NS) are commonly referred to as the “east coast” railroads while Burlington Northern (BN) and Union Pacific (UP) are referred to the “west coast” railroads. The east coast railroads generally do not service west of the Mississippi River, and conversely the west coast railroads (BN & UP) do not service east of the Mississippi River; although there are exceptions to this rule in places like the Midwest and Texas. However, you will not find CSX trackage in California, and you will not find UP service in Pennsylvania. The Canadian railroads (Canadian Pacific (CP) and Canadian National (CN)), are more self-explanatory but do service portions of the US Midwest and East Coast. The smallest Class 1, Kansas City Southern is excluded from this description for purposes of simplicity but it does service the State of Illinois.

The second railroad tier is commonly referred to as a “short line” railroad. Such short lines often operate in much smaller geographies which could cover a few select states or just a few select cities. A main responsibility of such lines is to act as an intermediary to collect or distribute cars between end users and the Class 1 main lines.

For example, the Toledo, Peoria and Western Railway which covers 247 miles in Illinois and Indiana offers connections to six Class 1 lines. It frequently serves to transfer one or several cars for individual customers either on the beginning or end of their journey.

An oversimplified description is that the short-line railroad picks up or drops off inbound or outbound loaded rail cars for the “last mile” of their journey. In theory, they may pick up their scheduled manifest of loaded cars from a Class 1 at a predetermined location, to then be taken the rest of the way to the end user, manufacturing plant, or distribution center.



It is also important to note the Precision Scheduled Railroading initiative adopted by the major Class 1 operators and its impact on rail service around the country. Changes in service frequency, with the ultimate goal of obtaining cost efficiencies and railroad profitability may impact both large and small volume users, but may have more adverse impacts on smaller users. The growth in intermodal transport and the decline in coal carload volumes are also important variables when evaluating the railroad landscape in the current environment for rail-served sites.

Finally, when considering sites and the Precision Scheduled Railroading initiative, the condition of getting a service commitment is not a guarantee, even if a site is located on a rail line.

Topography, track geometry and location may play a role in the process. Traffic frequencies are also a key variable.

If the site is along an active industrial lead track, that may be advantageous. However, if it is along a highly trafficked mainline or a line which shares commuter rail traffic, a siding may not be feasible due to the potential to disrupt the existing traffic. In summary, site selectors and site users must carefully evaluate the details of the rail access for sites, beyond simple adjacency.

## Regional Competitive Assessment

In contrast to a single user requirement, in a national search process, there are also many other tenants who engage in a more focused regional search. For the purposes of this evaluation, target industrial users are assumed to have requirements in the range of one million to two million square feet.

**Competitive Positioning:** The regional market for mid-sized industrial sites is divided into the three primary categories of established sites, near-term ready sites, and long-term ready sites. JLL has aggregated a set of competitive local sites in each category, for comparison to the Dwight Megasite.

The adjacent table summarizes the current market for industrial development sites in the immediate competitive vicinity to Dwight. Each site in this competitive analysis has the capacity to accommodate a minimum user requirement of one million square feet. Furthermore, each site is actively engaged in marketing or negotiations with potential users.

**Within the immediate Chicagoland market, there are very few large development sites with Class 1 rail access. When filtering for dual rail access, the pool shrinks further and JLL is not aware of any others that have east and west coast Class 1 service.**

Across the country there are 300 promoted, industrial rail-served sites; of which, 30% have Class 1 service on site. And for Dwight’s direct national competitive set, only 6% have dual rail on site. We are aware of only 2 sites with “east coast” and “west coast” dual rail service. There are 4,322 total locations where Class 1’s intersect but only 284 are where eastern and western carriers meet. From a site selection perspective, there are 22 frequently shortlisted US Mega Sites with rail and 16 with dual rail. Funneling further down, there are three mega sites in IL with dual rail, and only two in IL with eastern and western carriers.

The national industrial real estate community is well aware of building and land opportunities available in CenterPoint Intermodal Center which is served by two railroads. However, the BNSF and UP are both servicing the west coast only. And this terminal largely handles unit trains of containerized imports and not manifest rail service. There are few users here receiving carload service directly from these two yards. For context, we will point out closer to Dwight two other actively marketed rail sites. Just north in Wilmington near US Cold Storage, there is a UP served site of 76.25 acres for sale. Further west in Peru, the I-80 / I-39 Rail Center has a 97.55 acre site served by the shoreline, PeruRail which connects to BN.

	SITE NAME
<b>Established (Project Ready)</b>	CenterPoint
	Elion Logistics Center
	Compass Business Park
	Gateway Commerce Center
<b>Near Term (Ready for a potential Project within 24 months)</b>	Liberty Business Center
	Clarius Park Morris
	Route 47
	Gateway 80
	Gateway 57 Corporate Park
	McDonald/Joliet Stie
<b>Long Term (Significant work required before Project Ready)</b>	Utica Logistics Park
	Smith Family Farm
	Ottawa Industrial Park
	Minooka Crossings
	DuPont/Dow
Monroe Partners	
	Inland Rail Park Chicago

CITY	RAIL ON SITE	MAX BUILDABLE	PARK SIZE (ACRES)	DEVELOPER NAME
Joliet	Yes	2.5 Million SF+	6,400	CenterPoint
Wilmington	Yes	30 Million SF	2,500	Elion Partners
Joliet	No	2.2 M SF phase 1	280 phase 1	NorthPoint
Edwardsville	No	14M SF currently	2,300	TriStar, Panattoni, Exeter
Minooka	No	1,220,000	106.49	Prologis
Morris	No	1,600,000	156	Clarius Partners, LLC/JP Morgan
Morris	No	1,200,000	60	Lee Associates
Morris	No	1,239,500	150	Seefried Industrial Properties
University Park	No	2,500,000	300	VentureOne
Joliet	No	1,200,000	197	Hillwood
North Utica	No	2,300,000	215	IDI Gazeley Logistics
Joliet	No	TBD	138	Local owner
Ottawa	Yes	TBD	130	Plaza Property Advisors, Inc.
Minooks	No	2,000,000	200	Local owner
Channahon	Yes	TBD	300	Dow
Dwight	No	TBD	137	Monroe Partners
Coal City	Yes	TBD	200	Janko Group

## Recommendations

### Site Quality

Due to its location, geometry, connectivity, and scale, the Dwight Megasite has the unique and impressive ability to meet the needs of almost any potential occupier. The challenges of marketing the site relate to the prioritization and allocation of resources to increase the probability of connecting with the right project, within the universe of potential users over the next several years.

In our professional experience, the wide range of site selection projects can be divided into two primary categories. These are:

1. **Large-scale, national search projects**
2. **Mid-scale and regional site search projects**

### Large-Scale Projects

The first category of projects is defined by a very formal process, which is primarily driven by state-level economic development organizations, in response to requests from site selectors, management consultants, or commercial real estate consultants representing a particular company. These projects tend to have the following characteristics:

- Large anticipated capital expenses (capital investment exceeding \$200 million)
- Large job creation potential (greater than 200 jobs)
- Some degree of confidentiality (ranging from project specifics to complete non-disclosure)
- Multiple states under consideration
- Incentives contributing considerably to the decision process

An important aspect of this first category of site selection projects is that the **state EDC most frequently serves as the gateway or deciding entity** which interprets the project requirements and then determines the sites which should be considered by the requesting party. In this process, therefore, the state EDC teams have immense power, and these site selection assignments are often steered to certain designated sites that the state has already marked for investment and development.

As a result of this state-level gateway for large-scale projects, the marketing of a megasite for consideration for such projects actually involves marketing not to companies, or even consultants, but to the state EDCs. There are many credible or potential megasites across the country which have a very low probability of ever capturing a large project, simply because they are not on the preferred list of sites which are promoted by their respective states. Some state EDCs and governors have particular sites or regions of their states which receive priority, in terms of marketing and promotion, for a range of economic or political reasons.

**The key to marketing the Dwight Megasite as a candidate for a large-scale, national search project is to ensure that the site is the preferred site of the Illinois Department of Commerce and Economic Opportunity (DCEO).** This will require coordination and information sharing at the local and state EDC level, to ensure that DCEO is not only aware of the many strengths of the Dwight Megasite, but also aligned in promoting the site to all appropriate potential projects.

JLL recommends that the Greater Livingston County Economic Development Council engage in direct communication with the Illinois Department of Commerce and Economic Opportunity. In particular, Erin Guthrie, the Acting Director of DCEO could be an incredible resource for site qualification, awareness, and promotion.

## Mid-sized Projects

The second category of site selection projects includes those which are mid-sized in their requirements, and typically have the following characteristics:

- Considerable capital expenditures, but often less than \$200 million
- Varying job creation potential, depending on use
- Multiple counties or a defined regional geography under consideration
- Incentives can be an influencing (but generally not a deciding) factor in the decision process

In this second, broader category of site selection projects, the site filtering and decision process is much more heavily influenced by the advising real estate broker or professional consultant. During the course of such a site search, the advising broker or consultant will likely (but not necessarily) interface with state and local economic development agencies. Primarily, they will rely on third-party data sources to gather a list of appropriate site options, and they will supplement that list with internal market knowledge.

The broker-led site selection process typically involves broad surveys and market tours, requests for proposals, submissions, negotiations, and contract closings. Brokers strive to create value for their clients through local market expertise, integrated services, project management capabilities, and negotiating skills. In addition, this process likely involves the consideration of “off market” opportunities or potential sites which could be improved with capital investment.

**The key to marketing the Dwight Megasite as a candidate for a mid-sized project is to ensure that the greatest number of brokers are aware of the specific strengths and availability of the site.**

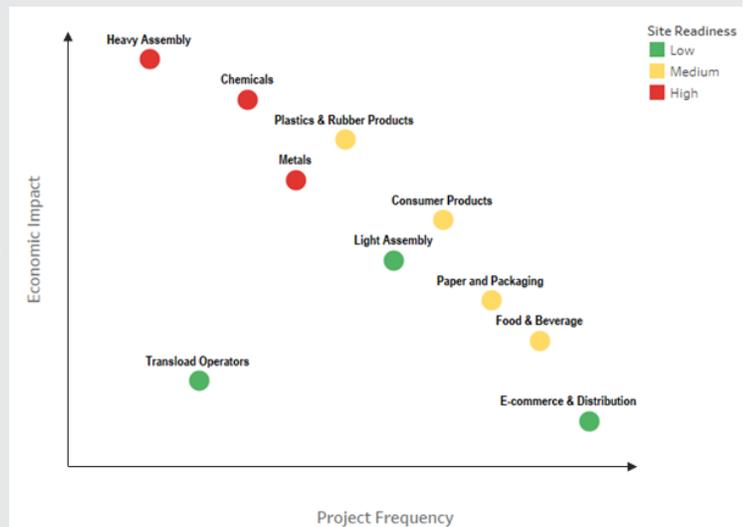
The most important component of this awareness is having the site, and all of its critical details, listed on CoStar and any related listing clearinghouses. Within the public listing, all of the pertinent site details must be available for reference and download, and the utility and infrastructure information must be easily accessible.

Beyond the basic requirement of posting the site as available, the next recommended step is a coordinated marketing program, which includes outreach to the largest brokerage companies, and a targeted campaign to connect with the most frequent and likely potential user industries. This campaign should include both digital and physical components, and should include a series of in-person presentations at economic development meetings, trade shows, and broker events.

## Large-Scale vs. Mid-Sized Projects

It is important to note that the two major project categories are not at all equal, in terms of their economic impact and frequency. In fact, there is generally a negative linear correlation between project size and frequency.

As illustrated in the graphic below, the projects which have the greatest impact, in terms of capital investment and job creation, are also the projects which have the lowest frequency of occurrence in the marketplace.



As indicated in the chart, the most “valuable” projects for job creation and regional economic impact are heavy assembly plants. These can include projects such as major automobile manufacturing (such as a Ford Motor Company assembly plant), heavy equipment manufacturing (such as a John Deere plant), or a next-generation manufacturing facility (such as a Tesla plant).

These projects can employ up to 5,000 people and be responsible for billions of dollars of economic activity. This impact makes such projects very attractive to economic development councils and megasite owners. However, it is important to note the relative infrequency of such projects.

**Based on an analysis of new, large, heavy assembly plants over the past decade, such projects only arise within any given region at an average rate of one per year.** In some years, there may be up to four heavy assembly plants which are engaged in a national search process and seeking land for the establishment of a new factory. In other years, or even for a period of years, there may be none. Due to the massive capital expenditures related to such projects, their originations can be cyclical in nature and dependent on many external circumstances ranging from global trade policies to macroeconomic conditions.

**For this reason, JLL recommends that the Dwight Megasite be prepared and ready to meet the needs of a heavy assembly plant; especially considering that such plants are the most likely to benefit from the multi-directional dual rail available at the site.** However, due to the relative infrequency of such projects, the Dwight Megasite marketing approach cannot be entirely reliant on attracting such a user. Considering the potential shifts in the macroeconomy, potential changes in political leadership, and the site’s location in Illinois, it could take one year, a few years, or even many more years, before a heavy assembly plant engages in a national search with requirements exactly aligned to the offerings of the Dwight Megasite.

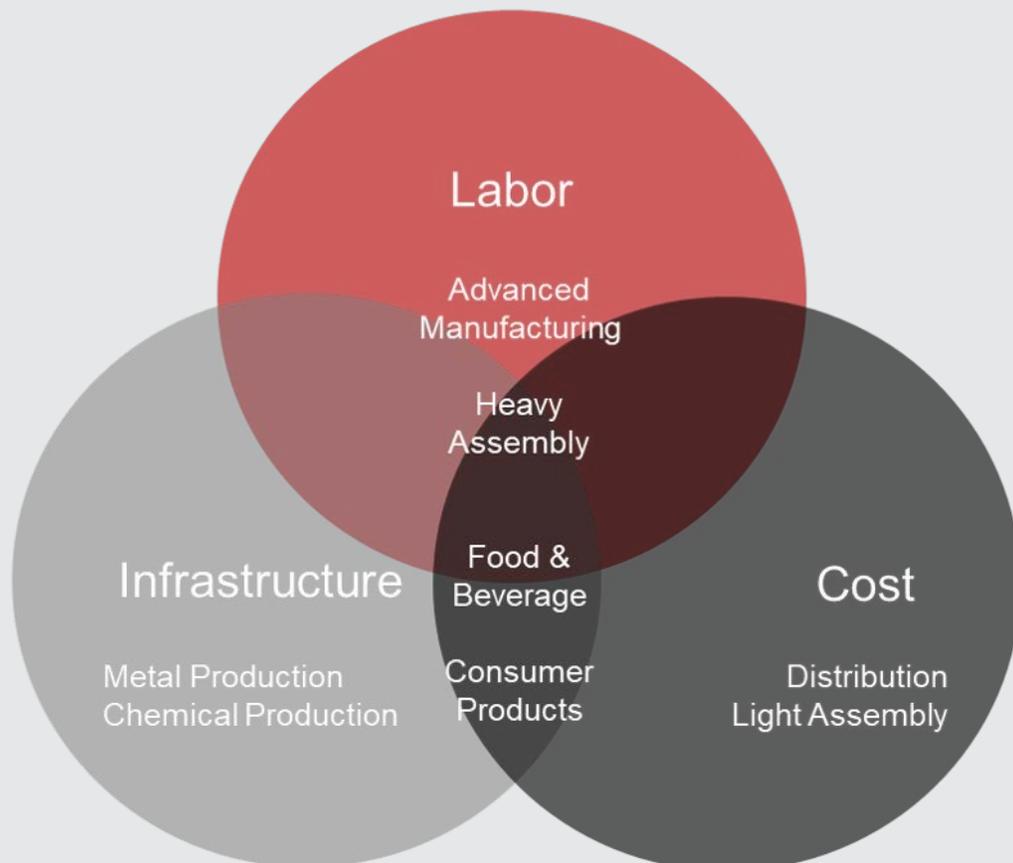
At the opposing side of the previous chart, a project category with lower relative economic impact but much greater frequency is that of distribution centers. These projects can employ hundreds of people, but often at lower wages than skilled manufacturing plants. Furthermore, these projects generally require lower capital expenditures than large factories.

However, despite their lower economic impact, distribution center projects arise with consistent and considerable frequency. In an average year, up to eighty distribution center projects can be engaged in site selection efforts across the United States. This increases the probability that such a project can be matched with the Dwight Megasite over a shorter period of time.

For this reason, although such projects are not necessarily ideal for the Dwight Megasite, JLL recommends that the site be prepared to meet the needs of logistics and operations centers as well. More importantly, it is critical that the site be able to accommodate the entire range of projects which is shown on the chart, as they may arise at different times in the economic cycle.

As indicated in the graphic below, different project categories allocate varying degrees of importance to the primary decision variables of labor, cost, and infrastructure. It is recommended that the Dwight Megasite be prepared to market the site for each component, depending on the audience.

### Key Site Selection Criteria by Requirement Type



## Due Diligence

It is noteworthy that the upfront due diligence work that is required to attract any project is largely the same.

For any large or small project, surveys, geotechnical investigations, preliminary engineering, and planning studies will all have to be undertaken, and it is unlikely that such work would be needed for one project type but not the other. However, they

should be shared upon request for legitimate proposals. If additional professional and technical surveys are required, there are market protocols for requesting upfront due diligence funding or indemnification before expending additional agency or prospect capital on additional Phase II and Phase III engineering and environmental reports.

## Internet Presence

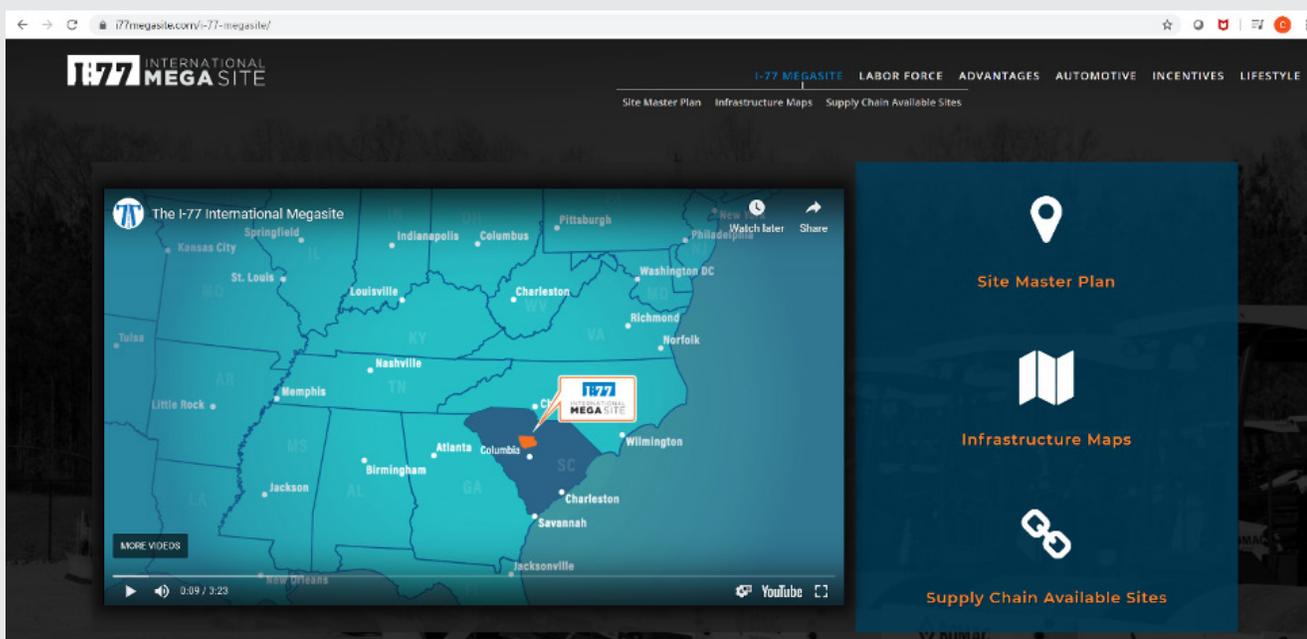
Regardless of the target user, a key requirement for the marketing of the Dwight Megasite is a dedicated, high-quality and informational website. Currently, the Dwight site has a fairly limited internet presence, with some information available through various sources, including the Livingston County Economic Development Council and Norfolk Southern.

One megasite with a website that is frequently considered “best in class” by the site selection industry is the I-77 Megasite in South Carolina. This website provides detailed information on every component that a potential occupant may consider, including labor information, site conditions, approvals, costs, and quality of life. The information is presented in a clear and engaging format and the marketing is professional yet accessible.

The following image is a screenshot of the I-77 Megasite website, which provides an exceptional level of detail, presented through clear and interactive media.

JLL recommends that the Dwight Megasite create a dedicated website which highlights the outstanding and unique features of the site, while also providing extensive detail on the relevant labor force, utilities, costs, and regional benefits. With regards to posting technical data on the project website, JLL recommends advertising that all of the required work has been funded, is in process, or has already been undertaken, but specific findings do not need to be made available online to the general public or CRE community.

The completed website could and should be included in a broad digital marketing campaign, which is distributed to a targeted set of brokers, advisors, and economic development professionals.



## Site Naming

Related to the subject of marketing and awareness, the actual name of the site should be considered for a potential change. Although the name of Dwight is familiar for residents of central Illinois, it is somewhat unfamiliar to large corporate occupiers on the national stage. It is also less known to brokers and consultants in other regions of the country. For these reasons, a name change for the site is recommended.

Many competing megasites have elected to change their locally-oriented names to site names which have the following impacts:

- Increased national visibility and awareness
- Direct call-out or recognition of their strengths or primary connection point
- Improved search engine optimization

Based on these criteria, potential names for the site could include examples such as Illinois Dual Rail Megasite, I-55 Dual Rail Megasite, America's Intersection Megasite, or others.

Of course, the ultimate name is at the discretion of the controlling authority, and the notes above are suggestions only. The intention of this recommendation is to emphasize that the name of the site can play a key role in a broader campaign of awareness and occupier attraction.



## Target user Base

The reach of east coast railroads into the Midwestern heartland is now becoming more important. Post Panama Canal widening, the influence of the west coast railroads in “land bridging” as a supply chain strategy is weakening. Coupled with the ILWU strikes at POLA/LB and port diversification strategies, locating import distribution centers in the southeast and shipping into the Midwest is growing in importance. Combined with the rail connectivity of the Dwight Megasite, this implies that the site may be a strong candidate for a global distributor.

Heavy rail transportation users focused on transloading commodities could also benefit from direct rail and highway access. Movement of bulk commodities that are lower value and non time-sensitive could be an opportunity. Especially users that are looking to avoid the rail bottleneck of Chicago by staying on the fringes of the marketplace so as not to get bogged down at rail junctions waiting for METRA and Amtrak trains to pass and avoid the quagmire of switching yards. Therefore, the Dwight Megasite could potentially promote its location beyond the Chicago traffic sphere as a unique competitive advantage.

For distribution occupiers, a further recommendation would be to focus on retailers seeking super-regional store restocking, (but not same-day truck routing) bulk goods storage, or movement of slower moving and seasonal items.

Warehousing slower moving SKUS such as furniture or using the Dwight location as a consolidation facility to replenish other urban last mile hubs around the Midwest could be an opportunity. Retailers would likely view this site as one where they may send one or two trucks a week outbound to an individual store. They would likely not use this for more frequent restocking with daily trucks to Chicagoland as a grocer or retailer might.



## Conclusion

The Dwight Megasite is truly unique in the country. The differentiating feature of multi-directional, dual Class 1 rail access places the site essentially in a class of its own.

The site topography and low natural risk factors also make it one of the more attractive large sites in the United States. The utility access and connectivity are positive and the governing authority has taken all of the appropriate steps to prepare the site for project readiness.

However, the site has some challenges which may reduce its attractiveness for certain user profiles. The location of the site (in Illinois) may be perceived by some potential users as a challenge, due to assumptions related to costs, taxes, and economic incentives. The bisection of the site by utility lines and rail may impede the site layouts of the largest potential users.

The Dwight Megasite is likely to be particularly valuable to a large, heavy assembly plant, which could utilize the dual rail availability and multi-directional access for inbound and outbound logistics. However, such projects only arise with limited frequency, and many tend to exclude Illinois from their multi-state search process due to their parallel focus on minimizing costs. For this reason we recommend that the site be marketed toward both large and mid-sized projects and that a dual-track strategy is implemented: one at the state level, in partnership with DCEO, and one at the regional level, in partnership with the commercial real estate industry.

The Dwight Megasite has incredible potential and we are hopeful that this site benchmarking analysis has assisted in the understanding and positioning of the site.

On behalf of JLL, we truly appreciate the opportunity to assist in the evaluation of this important and unique site. We value the partnerships that we have developed during this process and we strive to serve as a resource for the Greater Livingston County Economic Development Council as needed.

Please contact us with any questions or concerns on this report and please inform us if we can be of service in the future.

Christian Beaudoin  
Managing Director  
JLL  
Christian.Beaudoin@am.jll.com

It is critically important to build awareness and gain exposure for the Dwight Megasite by socializing its unique benefits with the commercial real estate and site selection community. The naming and branding of the site, along with a considerable digital presence will assist in this effort.

We recommend that the marketing program focus on the strongest attributes of the site, including proximity to the deep labor pool of the Chicago Metropolitan Area, the dual and multi-directional Class 1 rail access, and the direct link to the I-55 and I-80 corridors.

A further component of exposure is to ensure that the site is properly marketed through the commercial multiple listing services (CoStar, LoopNet, etc.) such that the site will be found in all searches by local and national real estate brokers. The Dwight Megasite is in a strong position due to the foresight of the controlling authorities, and its ability to expand through options on neighboring parcels. In the current economic environment, flexibility to meet user requirements will be a further advantage. This flexibility can take the form of site size, utility capacity, or project terms.

Finally, in addition to online marketing and a robust digital presence, traditional awareness campaigns can still have incredible impact. We recommend that all channels be considered, including association advertising (AIRE, NAIOP, SIOR, etc.), print media, and in-person discussions.





# Appendix

## Appendix

### Appendix A: Peer Site Profiles

#### GREENSBORO RANDOLPH

The 1,500-acre site is in Randolph County North Carolina. It has 805 buildable acres, 0 FEMA acreage, and 1.34 wetland acreage. The site's price is \$15,000 per acre. The nearest CBSA is Greensboro-High Point.

#### HUNTSVILLE ALABAMA MEGASITE

This megasite in Huntsville, Alabama spans 1,252 acres, 1,203 of which are buildable acres. The site also includes 2.25 in wetland acreage and no FEMA acreage. The site is valued at \$25,000 per acre.

#### MEMPHIS REGIONAL MEGASITE

This site is in the city of Stanton in Haywood County, Tennessee. The site is the second largest of the peer sites spanning 4,100 acres, including 1,500 buildable acres. The nearest CBSA is Brownsville, Tennessee with a population of 18,842 residents.

#### CENTRAL SC MEGASITE

The Central SC Megasite encompasses 1,425 acres in Orangeburg County, South Carolina. It includes 957 buildable acres, 23 FEMA acres, and 125 wetland acres. The site is priced at \$20,000 per acre. Its nearest CBSA the capitol city of Columbia, which is home to 831,046 people.

#### SOUTHWEST INDIANA MEGASITE

The Southwest Indiana Megasite is the largest of the group of peer sites, with 8,000 acres. It is in Pike County, Indiana and its nearest CBSA is Jasper, Indiana. Jasper has a population of 5,622 people.

#### MONTGOMERY ROBERTSON SITE

The 1,722-acre site is in Clarksville, Tennessee and includes 1,400 buildable acres. The site priced at \$35,000 per acre. Clarksville's total population is 291,174. The area spans across the border to Kentucky.

#### GLENDALE MEGASITE

The Glendale Megasite is in Hardin County, Kentucky. The 1,500-acre includes 1,446 buildable acres and minimal wetland acreage. Elizabethtown-Fort Knox is the nearest CBSA and has a total population of 156,064.

### Dwight Appendix Contents

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JLL 4Q 2019 US Industrial Market Conditions Overview and Property Clock

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JLL 4Q19 Chicago Industrial Overall Highlights

JLL 4Q19 I-80 & I-55 submarket narrative

I-80 Joliet area Business Park Map and I-80 Joliet Area Corporate Occupier Map

Chicago Market Freight Rail & Intermodal Terminals Map

Local Drayage Map and JLL GIS 1-2-3 Day Truck Drivetime and Population Reach Map

Inland Port Distribution Hubs Map & North American Seaports & Rail Linkage Map

Illinois Foreign Trade Zones Map

Intermodal and Inland Port Analysis

## Project Team Biographies



### **CHRISTIAN BEAUDOIN, PROJECT DIRECTOR**

Managing Director – JLL Research

Christian Beaudoin is the Director of Research and Strategy for JLL in the Americas. He manages a team of research analysts covering market dynamics in office, industrial, multifamily, and retail properties. He drives industry-leading research and analysis on economics, real estate development, and market conditions. He has led several publications on real estate strategy and trends, including JLL's 2013, 2015 and 2017 Global Real Estate Reports.

Christian advises many of the world's largest organizations across multiple industries on real estate strategy and development. He is currently serving as an Advisor to the Obama Foundation on the planning, design, and development of the Obama Presidential Center. He has presented at ULI, CoreNet, IFMA, and related real estate association events and authored published papers on real estate trends, innovation, and strategy.

#### **Previous Experience**

At JLL, Christian has served as a National Director in JLL's Project & Development Services business. He led a team of over 40 people, delivering capital projects globally for some of our largest corporate and private clients. He also served as Research Director for our Corporate Solutions business, with a focus on corporate strategy and global growth opportunities.

Prior to joining JLL, Christian was a program manager and director of research and strategy at Siemens Corporation, reporting directly to the CEO of the Americas.

Earlier in his career, he worked in asset management at Starwood Capital (ST Residential), and was a consulting structural engineer managing the design and development of large-scale construction projects around the world.

#### **Education and Certifications**

Christian holds a BS and MS in Civil Engineering from the University of Illinois, and an MBA from the University of Chicago. He is a licensed Real Estate Broker, licensed Professional Engineer and licensed Structural Engineer.



### **PAUL MARSH, SENIOR RESEARCH ANALYST**

Paul Marsh is a Senior Research Analyst at JLL covering the national industrial markets, with a particular focus on site selection, location strategy, and economic development.

Paul works closely with various business lines including tenant representation, agency leasing and capital markets and is responsible for tracking tenant, investor and development activity in the industrial markets across the United States. Paul is recognized in the industry as a leading analyst in the United States related to current and future trends in the commercial real estate market and the national economy.

Paul has produced tailored research for a wide spectrum of industrial firms ranging from local distribution to multinational manufacturers. Leveraging a data-driven approach, his modeling and analysis have guided location decisions for over one hundred clients across North America.

Paul received a Bachelor of Arts in Economics and a Bachelor of Business Administration from University of Illinois. Prior to JLL, Paul worked for a regional economic development organization in Central Illinois where he led their research initiatives related to site certification, business attraction, and labor market analysis.



### **CHAD BUCH, RESEARCH MANAGER**

Mr. Buch co-leads JLL's industrial research and strategy platform covering a 1.3 billion square-foot market spanning the IL-IN-WI tristate region. He is a member of JLL's largest industrial brokerage team sitting in the global headquarters in Chicago. Primary responsibilities include support of new business development pursuits, and tenant representation, agency leasing and investment sales transactions. Jones Lang LaSalle Research produces consulting and advisory studies, thought leadership articles and quarterly insights including in depth submarket narratives and market statistics. Mr. Buch works in collaboration with marketing leads on advanced mapping and development of content marketing materials. He is also a member of JLL's National Industrial Research Leadership Council. In addition, Mr. Buch co-hosts JLL Chicago Industrial Real Time Podcast which is in its third season.

#### **Education**

East Carolina University: MS Geography: Urban and Regional Planning, Cum laude  
 North Carolina State University: Bachelor of Science

#### **Affiliations**

CCIM Candidate  
 AIRE: Association of Industrial Real Estate  
 NAIOP Developing Leaders  
 Jones Lang LaSalle: Young Guns Executive Committee  
 Licensed Real Estate Broker: State of IL and NC  
 Delta Sigma Phi Chicagoland Alumni Association Charter Member  
 Eagle Scout

JLL 4Q 2019 US Industrial Market Conditions Overview

Total United States

Type	Total stock (s.f.)	Total vacancy	Total availability	YTD net absorption	YTD const. deliveries	Under construction	Q4 2019 avg. rent
Warehouse & distribution	9,947,633,856	5.8%	9.1%	205,920,638	239,828,657	268,344,470	\$6.07
Manufacturing	3,454,288,733	3.1%	4.6%	19,992,406	14,047,414	13,429,643	\$6.30
Special purpose	37,262,790	2.2%	3.3%	14,628	0	20,000	\$10.06
Totals	13,439,185,379	5.1%	7.9%	225,927,673	253,876,071	281,794,113	\$6.12

The fourth quarter saw the U.S. industrial market closing out 2019 on a positive note. Industrial markets finished the year strong with declines in vacancy and increases in asking rent. Fundamentals continue to perform well, in line with historical trends, and show no tangible signs of a

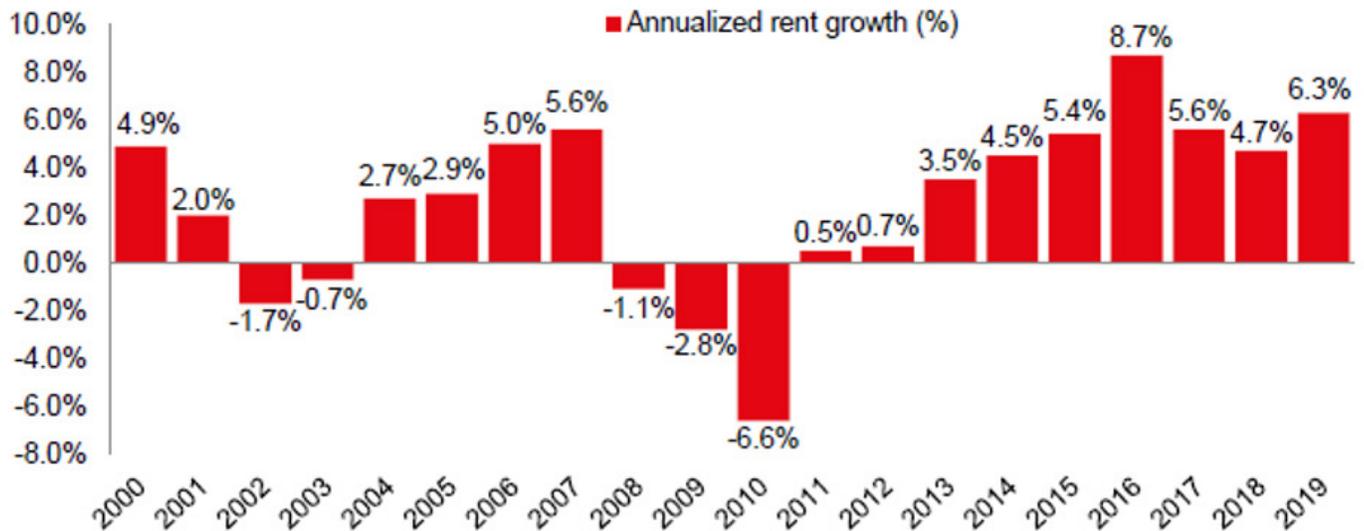
slowdown in tenant demand. The U.S. industrial vacancy rate did inch up marginally to 5.1 percent, but leasing velocity picked up in most markets in the final quarter of 2019.

Supply continues to rise—total under-construction pipeline up by 12.8 percent—but demand keeping up for now

Industrial vacancy for the U.S. ticked up by 20 basis points quarter-over-quarter—a slight increase but still near historic lows. About half of the markets tracked by JLL reported increases in overall vacancy for Q4. However, that change was nominal in many markets and averaged about 50 basis points. Rent growth is expected to persist in core industrial markets. New speculative construction and tight vacancy in many industrial markets are driving this rent growth. Overall, rents increased in about 73.0 percent of the markets tracked quarter-over-quarter.

The U.S. aggregate net absorption was close to 62 million square feet, and for 2019 it was 225.9 million square feet. That is not too far off the historic trends seen in the past three to four years. Looking back, the third and fourth quarters combined accounted for 57.0 percent of the total 2019 absorption. Increasing e-commerce sales and demand for last-mile facilities is increasing demand in second- and third-generation spaces. This healthy demand for industrial space was matched by the rising supply levels.

U.S. annualized rent growth climbed to 6.3%—a three-year high in growth rate



Source: JLL Research

## JLL 4Q 2019 US Industrial Market Conditions Overview

### 2019's top leasing industries solidify their spot in Q4

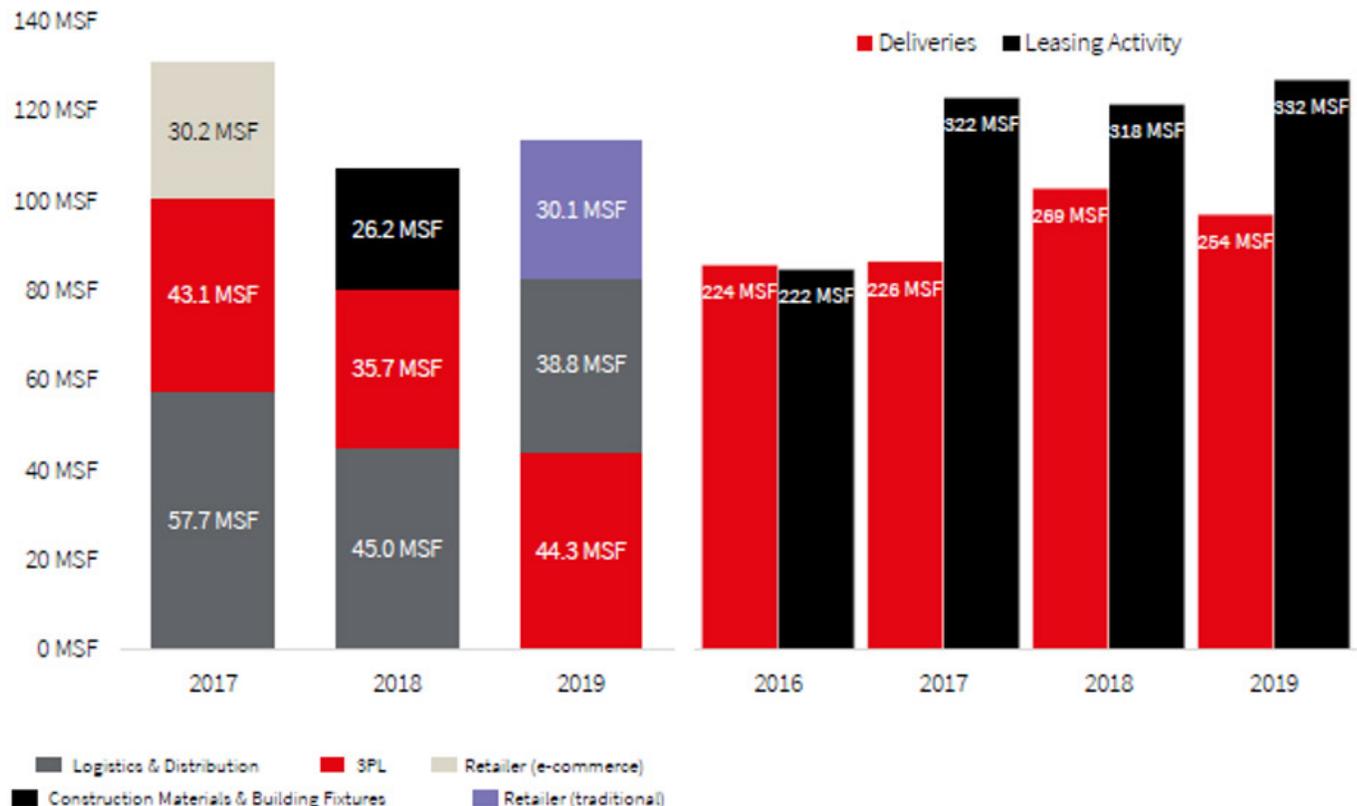
Leasing activity was dominated by the three core industrial tenant sectors—retailers, 3PLs and logistics and distribution companies—a trend we expect to continue seeing into 2020. Our traditional big-box markets like Chicago, Dallas–Fort Worth, Eastern and Central Pennsylvania and Atlanta all were the top markets for new deliveries and leasing activity. Retailers in general seem to be getting more active in the supply chain reset, often using 3PLs to quickly get into the game. This again points to the urban logistics trends of last-mile delivery and being close to your consumer base.

### Construction pipeline is strong yet leasing activity outpaces new supply

The development pipeline continues to push forward. Q4 deliveries totaled 80.9 million square feet, which is up from Q3 (73.6 million square feet). Even though 2019 showed strong in new supply, leasing activity surpassed deliveries in terms of total square footage. This trend has been consistent since 2017, which points to how vacancy is remaining low in so many markets. Tenants are leasing any space that they can find, even though first-generation space has limited availability. Speculative product under construction makes up close to 65 percent of the total development pipeline. Preleasing rates for speculative product are still holding steady for new deliveries, close to the 30.0 percent range. Despite talks of an economic downturn and trade wars, there are no tangible signs of slowdowns in demand yet, justifying all the new supply.

3PL tops logistics and distribution as the leading industries for industrial leasing in 2019. Expect this to continue into 2020.

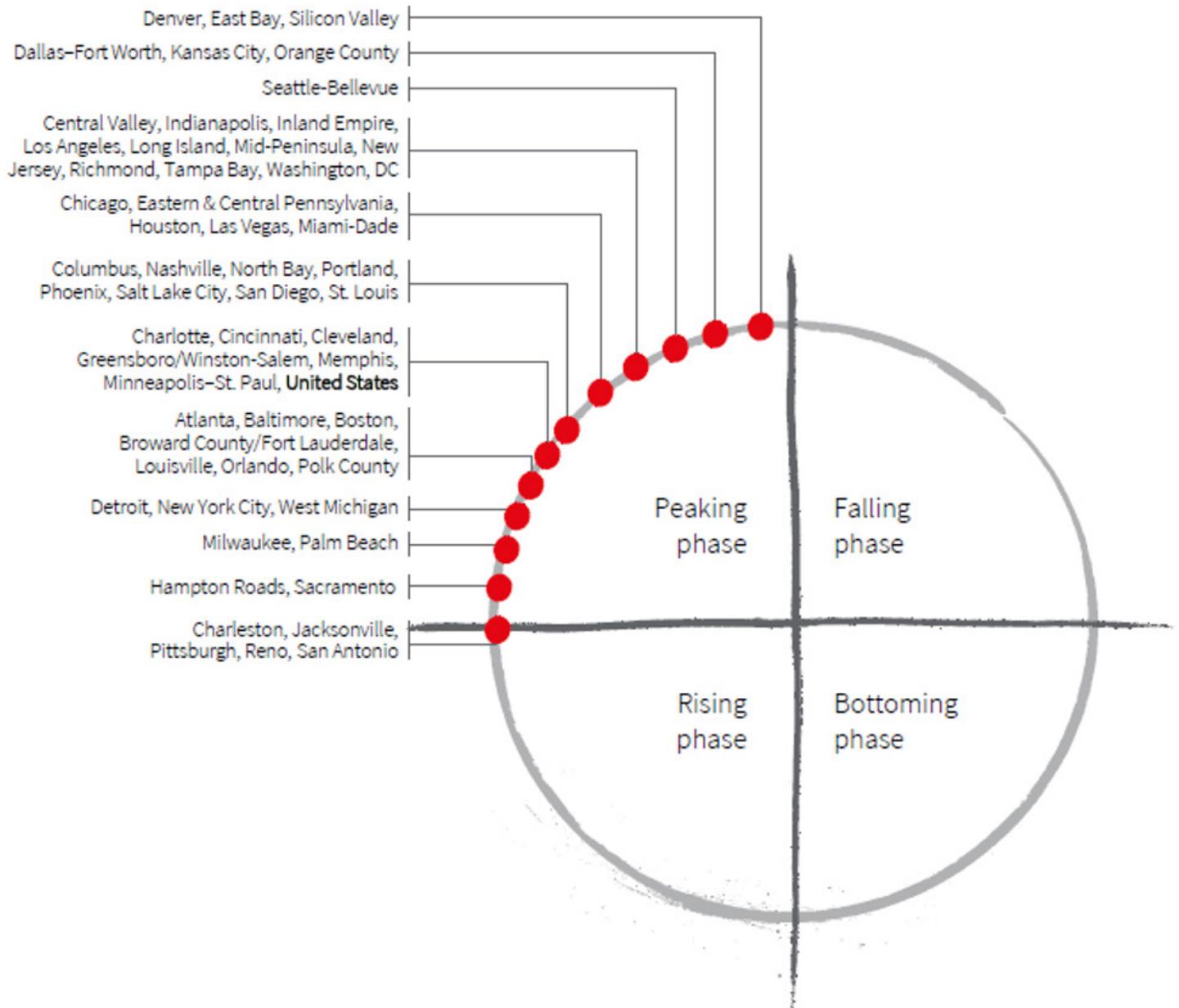
Since 2017, leasing activity has outpaced new deliveries. With the steadily low vacancy rate, this points to tenants taking whatever space they can, whether it is up to par or not.



# Industrial clock

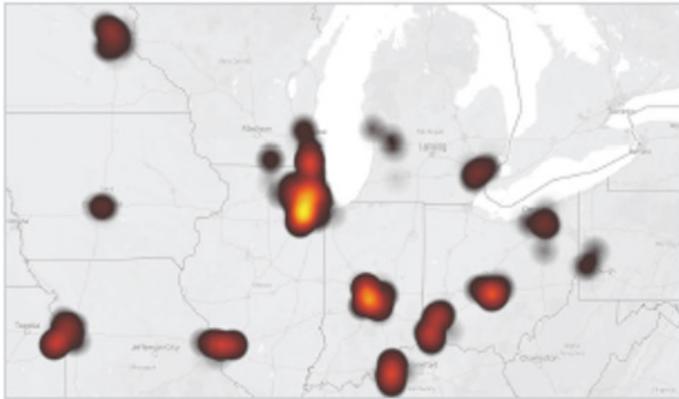
The JLL industrial property clock illustrates where each market sits within its real estate cycle. Markets generally move clockwise around the dial, with those markets on the left side generally facing more landlord-favorable environments, whereas those on the right experience

generally tenant-favorable conditions. All major industrial markets have witnessed stable growth for the past seven to nine years and are positioned in the rising or peaking phase of the JLL industrial property clock.

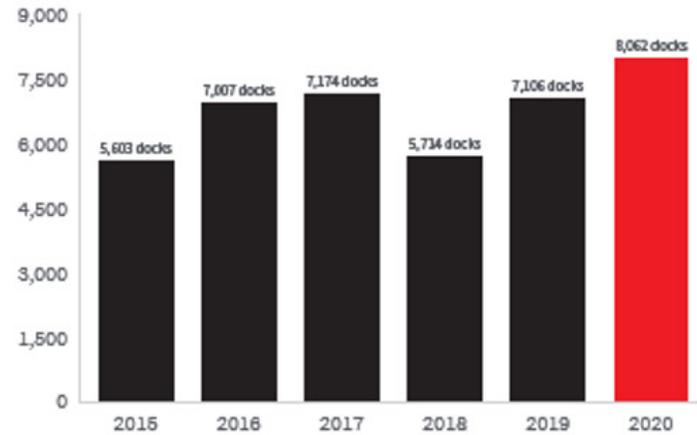


## Midwest & Great Lakes- Construction Heatmap

Heat Map



Docks Delivered by Year



Building Specs



Average building size  
**358,064 s.f.**



Average clear height  
**33 ft**



Average # of docks  
**45**



Average dock ratio  
**1.31**

## Market Averages

Market Name	Avg. Building s.f.	Avg. Clear Height ft	Avg. Number of Docks	Avg. Dock Ratio	Total Docks
Central Iowa / Des Moines	227,523	31	18	0.83	467
Chicago	349,900	34	48	1.48	14,448
Cincinnati	413,454	34	51	1.24	3,102
Cleveland	280,680	33	44	1.32	1,423
Columbus	468,285	33	55	1.17	3,241
Detroit	382,542	31	43	1.03	955
Indianapolis	393,587	34	48	1.20	5,603
Kansas City	403,623	34	47	1.22	3,070
Louisville	404,810	33	48	1.18	2,795
Milwaukee	183,849	30	22	1.29	398
Minneapolis / St. Paul	197,040	31	26	1.35	1,687
Pittsburgh	240,586	31	33	1.28	367
St. Louis	423,272	34	54	1.40	2,776
West Michigan	362,112	32	48	1.37	334
<b>Midwest Average</b>	<b>358,064</b>	<b>33</b>	<b>45</b>	<b>1.31</b>	<b>40,666</b>



# Chicago

Q4 2019

## Industrial Insight

### Rush of large deals at year end

- Deliveries outpace 2018, construction pipeline still very deep
- Retailers confidently expanding
- Amazon makes huge expansion push across market
- Vacancy stabilizes in low 6's
- Rent growth most visible around O'Hare market
- Manufacturing sector facing challenges

The final months of the 2010's decade saw a huge rush of big box activity come back to the Chicago market. After some nervousness early in the year, large occupiers have gotten back out to tour the market and in some cases are even competing for the same vacant speculative buildings. With Amazon making a big push simultaneously in multiple submarkets and some big retail deals getting signed, we feel that market conditions have improved significantly from the start of the year. A mammoth 1.6 million square-foot build-to-suit was signed by Harbor Freight Tools in the CenterPoint Intermodal Center Joliet which marks the largest deal of the year. Meanwhile, right after signing for 1.2 million square feet in Joliet in quarter three, retailer Target preleased just under one million square feet from Hillco Redevelopment Partners in Chicago. While 2018 posted 24 million square feet of absorption, the 2019 figure of 18 million square feet is still incredibly strong. Industrial developers have not slowed down in 2019 as nearly 19.5 million square feet is under construction at this time which beats the year end 2018 figure of 14.3 million.

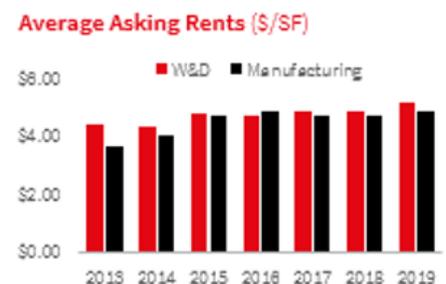
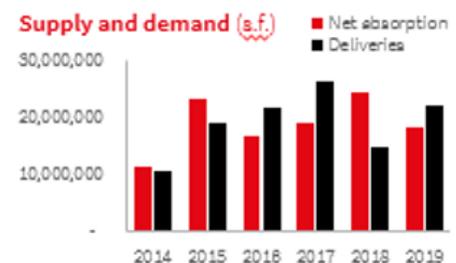
#### Outlook

Looking ahead, it will be hard to top 2018's absorption figures but the pipeline of active requirements for 2020 appears to be on the right track. We see the investment marketplace as robust with several groups looking to expand their footprint in the region such as MetLife, LBA Realty and Morgan Stanley. Meanwhile other new entrants to the marketplace like Starwood Capital made a big splash with their recapitalization of a portfolio of Becknell Industrial and UBS assets. Finally, investors are willing to take on leasing risk as the sale of vacant and partially leased speculative buildings has been brisk. While the manufacturing industry is facing some slowdowns, we see healthy conditions moving into 2020 which could shift leverage into landlords favor.

For more information, contact: Chad Buch | [Chad.Buch@em.jll.com](mailto:Chad.Buch@em.jll.com)

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Fundamentals	Forecast
Q4 net absorption	3,966,865 s.f. ▲
YTD net absorption	18,091,111 s.f. ▲
Under construction	19,461,706 s.f. ▼
Total vacancy	6.1% ▶
Average asking rent (NNN)	\$5.08 p.s.f. ▲
Tenant improvements	Rising ▲



## Submarket Narrative

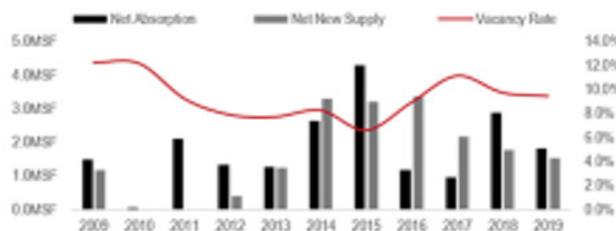
Chicago Industrial Submarket Report Q4 2019

# I-55 Corridor

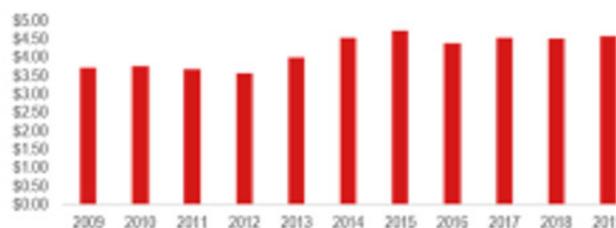
## Key Market Indicators

Supply	Total Inventory (SF)	91,141,160	▲	▲
	Total Vacancy (%)	9.49%	▼	▼
	Total Availability (%)	12.51%	▼	▲
Demand	Total Net Absorption (SF)	-502,914	▼	▼
	YTD Net Absorption (SF)	1,821,546	▲	▼
Pricing	Average Rental Rate (\$PSF)	5.462	▲	▲
	12 Month Dollar Change	5.005	▲	▲
Quarterly Trend ▲   Annual Trend ▲				

## Net New Supply, Net Absorption, Vacancy



## Average Rental Rate



## Submarket Drivers



Consumer Products



E-Commerce



Food



Local Distribution



Manufacturing



Third Party Logistics

## Lease

Market conditions were mixed in the I-55 Corridor at year end. While the submarket posted a healthy 1.8 million square feet of net absorption in 2019, the fourth quarter figure of negative 502,900 square feet was slower than expected – due to two large second generation spaces vacated in quarter four in Bolingbrook: 200,000 square feet at 1701 Remington Blvd and 445,900 square feet at 501 Territorial Drive. The fourth quarter vacancy rate of 9.5 percent unfortunately was the highest of any core Chicago submarkets. One of the fastest expanding companies in Chicago, SPL R/JW absorbed another 545,000 square feet at Duke Realty Corporation's recently completed speculative facility at 20300 Renwick Road in Romeoville. Another SPL active around the Chicagoland marketplace, GEODIS signed a 400,000 square-foot new lease at 901 Bluff Road in Romeoville. This project was also recently completed on speculative basis in 2019 by California-based CT Realty. At 175-107 Southcreek Parkway, Romeoville Quality Custom Distributing signed a long-term lease for 345,600 square feet as the second tenant in the 678,000 square-foot building developed by Panattoni Development Company in partnership with MetLife. The largest lease signed was by Crate & Barrel for a 646,000 square-foot build-to-suit lease with Pizzutti Companies at the Pinnacle Business Center, Romeoville.

## Sale

In Bolingbrook, Northern Builders, Inc and TA Associates sold a vacant 302,400 square-foot speculative building to ML Realty Partners for \$21.9 million or \$73 per square foot. This trade indicates the strong investor interest in speculative vacancies and the willingness for local operators to take on leasing risk. A notable sale leaseback was signed by VPET with Black Creek Group for 133,700 square feet at 61 Paragon Drive in Romeoville. The building was sold for just under \$14 million or \$104 per square foot with VPET signing a long-term lease. Active on the market is the above-mentioned two-building speculative development on Bluff Road at Interchange 55 Logistics Park in Romeoville, developed by CT Realty. The buildings total 1.3 million square feet are partially leased.

## Development

Construction crews were very busy along I-55, delivering 1.5 million square feet of industrial product in 2019. Moreover 2.0 million square feet of projects are underway, which is the third most active submarket behind I-90 and Southeast Wisconsin. The largest single building under construction is the 646,000 square-foot Crate & Barrel distribution center on Taylor Road in the Pinnacle Business Center in Romeoville being developed by Pizzutti Companies. This project represents an expansion in the marketplace for the locally based retail chain. At the Veterans Point Business Park in Bolingbrook, Crow Holdings Industrial is making rapid progress on three speculative buildings. The sizes range from 98,000 to 256,000 square feet. Interestingly the 98,000 square-foot development is a truck terminal structure which are typically not built on a speculative basis.

## Outlook

The 2020 outlook remains favorable for I-55 as this remains a top tier submarket for institutional investors and transportation related occupiers. It is likely that tenant demand will work through existing speculative inventory and vacancy will decline slightly. Meanwhile, the former Manheim Auto Auction site along Route 55 in Bolingbrook is on the market as a landmark redevelopment site with very strong interest from multiple parties both developers and users which should set the bar on land pricing in the market.

Submarket Narrative

Chicago Industrial Submarket Report Q4 2019

# I-80 Corridor

## Key Market Indicators

Supply	Total Inventory (SF)	102,975,027	▼	▲
	Total Vacancy (%)	8.74%	▼	▼
	Total Availability (%)	10.63%	▼	▼
Demand	Total Net Absorption (SF)	1,253,795	▼	▲
	YTD Net Absorption (SF)	5,866,325	▲	▲
Pricing	Average Rental Rate (\$PSF)	\$4.11	▲	▲
	12 Month Dollar Change	\$0.06	▼	▼

Quarterly Trend ▲ | Annual Trend ▲

## Lease

Across the 100 million square-foot I-80 Corridor, big box market demand has roared back with a stunning 3.9 million square feet of absorption. The vacancy rate has also posted a healthy decline from the year-end 2018 rate of 10.3 percent, declining to 8.7 percent. Asking net rents also posted a slight gain year over year from \$4.09 per square foot to \$4.11 per square foot. The largest lease signed this year is the Harbor Freight Tools build-to-suit lease in the CenterPoint Intermodal Center Joliet. The project will be just over 1.8 million square feet and will be the largest industrial building in the city of Joliet. Additionally, Amazon announced another expansion in the marketplace, with a build-to-suit lease for 1.0 million square feet in Channahon at a site controlled by Venture One Real Estate. Also, of note, DSC Logistics is expanding in the marketplace with a 376,000 square-foot lease within a 797,000 square-foot building at 21500-21540 SW Frontage Road, Shorewood which was recently built by Clarion Partners and H.S.A Commercial Real Estate.

## Sale

Only one investment sale was completed in quarter four. As part of a 4 million square-foot portfolio from The Blackstone Group to Nuveen, the sale included 4001 Olympic Boulevard, Joliet within the Rock Run Business Park. The 277,800 square-foot asset traded for \$66 per square foot. On the far western fringe of the market in Morris, Allied Building Products acquired a 47,700 square-foot building from Weitz Properties for \$20 per square foot. The market is keeping an eye on a three-building fully leased portfolio measuring 2.0 million square feet on the investment market by Prologis which contains three single tenant assets in Minooka.

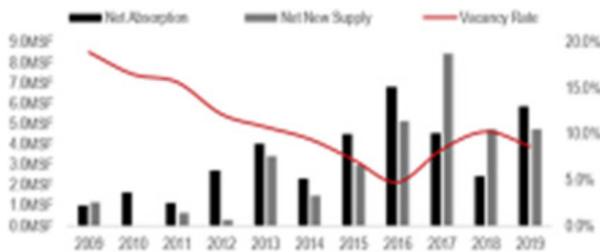
## Development

The industrial development pipeline in I-80 is the most active of all Chicago and submarkets. With 4.9 million square feet built in 2019, the market surpassed 2018 by approximately 200,000 square feet. Additionally, there is 4.9 million square feet under construction across nine projects – 3.9 million square feet is build-to-suit in nature. Notable projects include the above-mentioned Harbor Freight project and a 1.1 million square-foot speculative building being developed by CenterPoint Properties, also within the CenterPoint Intermodal Center Joliet. Meanwhile in Lockport, ML Realty Partners is working on a 542,900 square-foot speculative project within Heritage Crossings Corporate Center. And on the smaller format, The Opus Group, in conjunction with USA Real Estate Company is building twin speculative buildings on 187th Street in Mokena which will total approximately 300,000 square feet.

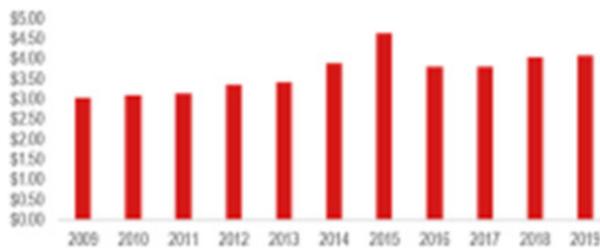
## Outlook

At the end of 2019, there now appears to be a balance in the market when considering the pipeline of active and pending deals. There could even be an opportunity for speculative developers to kick off or at least get a pad ready for the next big box project. Whereas 12 months ago, the outlook was bleak, we now see the I-80 Corridor coming back around as a prime location for national and regional distribution.

## Net New Supply, Net Absorption, Vacancy



## Average Rental Rate



## Submarket Drivers



Consumer Products



E-Commerce



Food



Regional Distribution

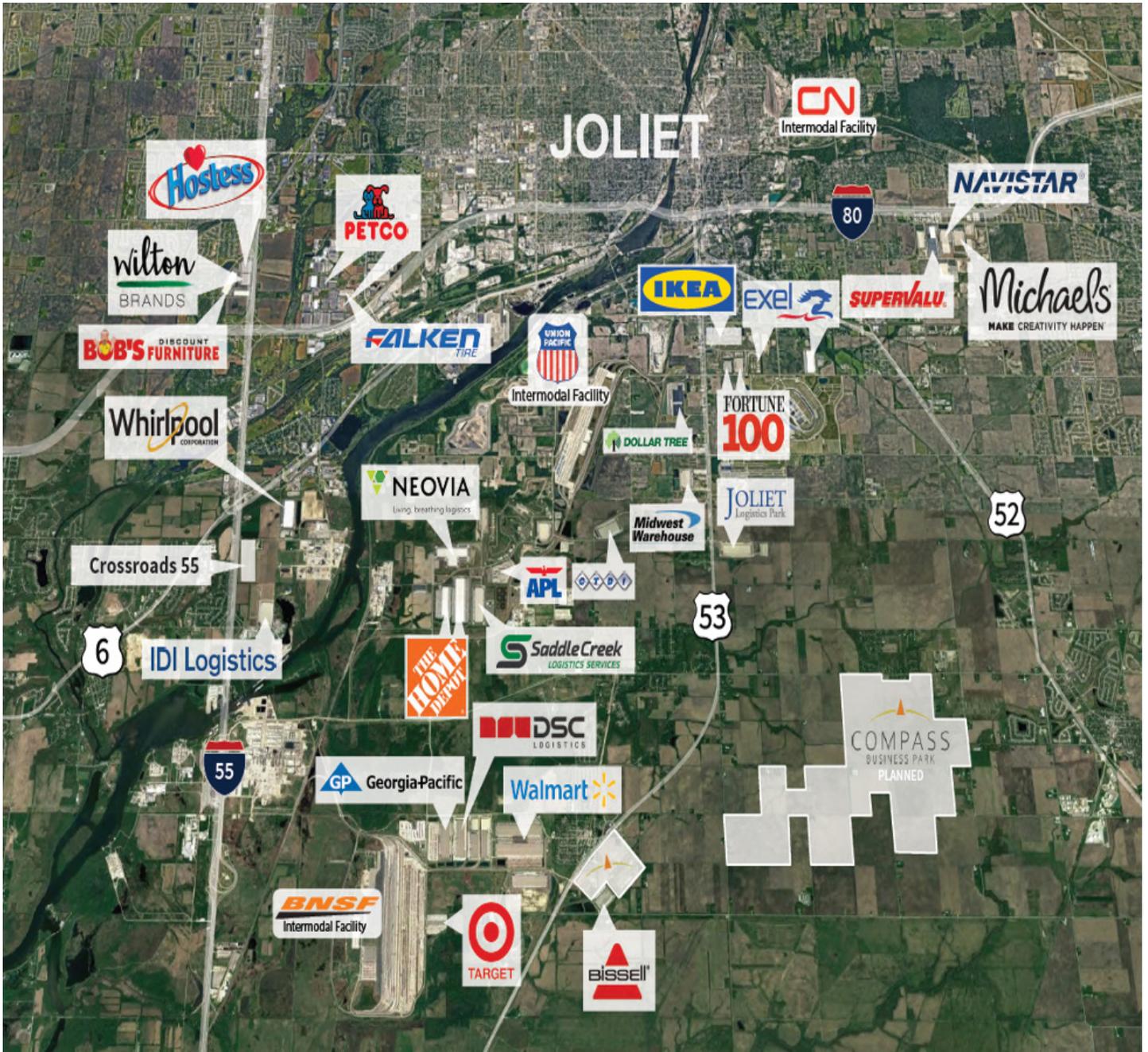


Retail

### I-80 Submarket and Joliet Area Institutional Industrial Business Parks

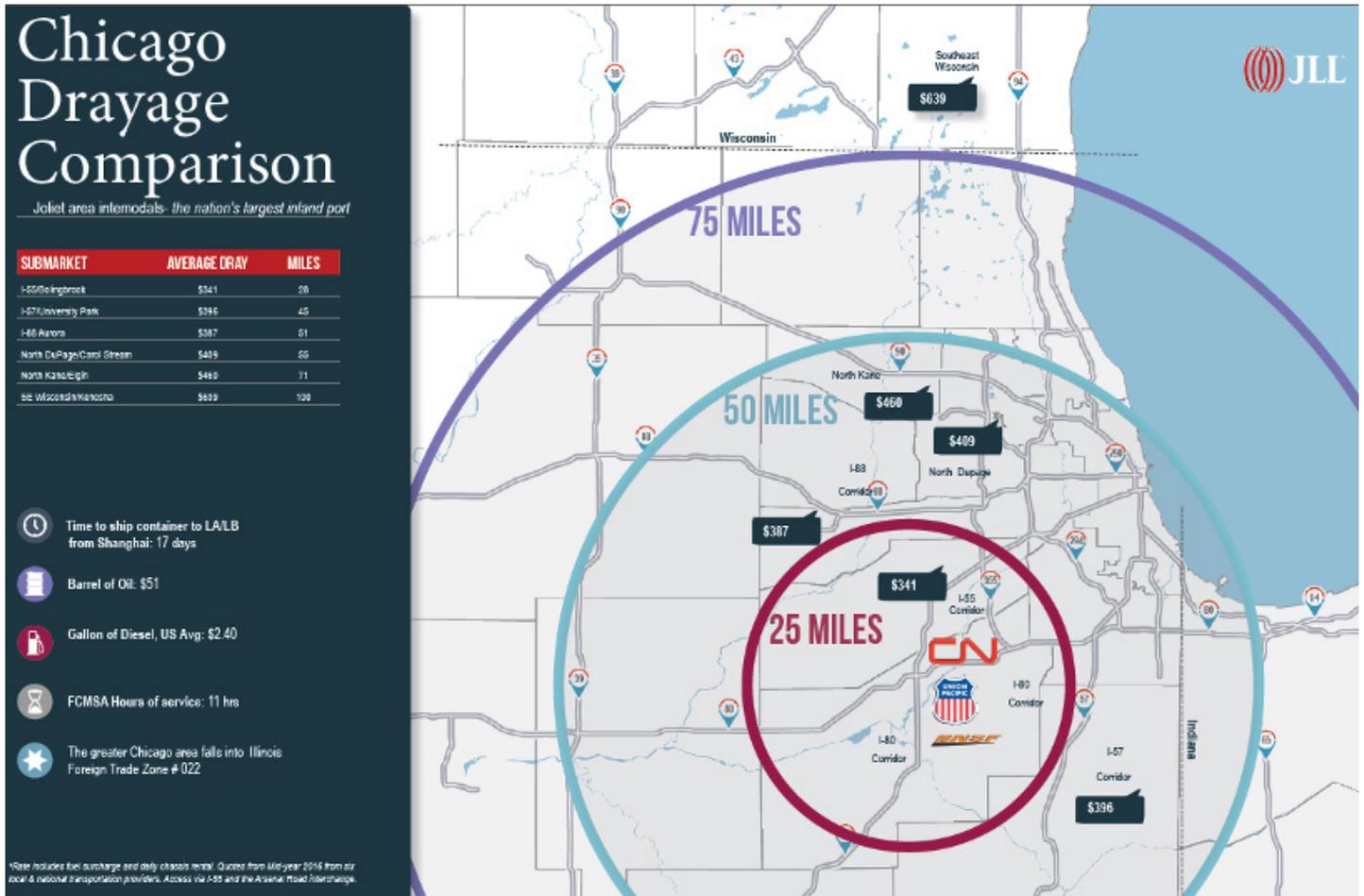


### I-80 Submarket and Joliet Area Corporate Distribution Occupiers





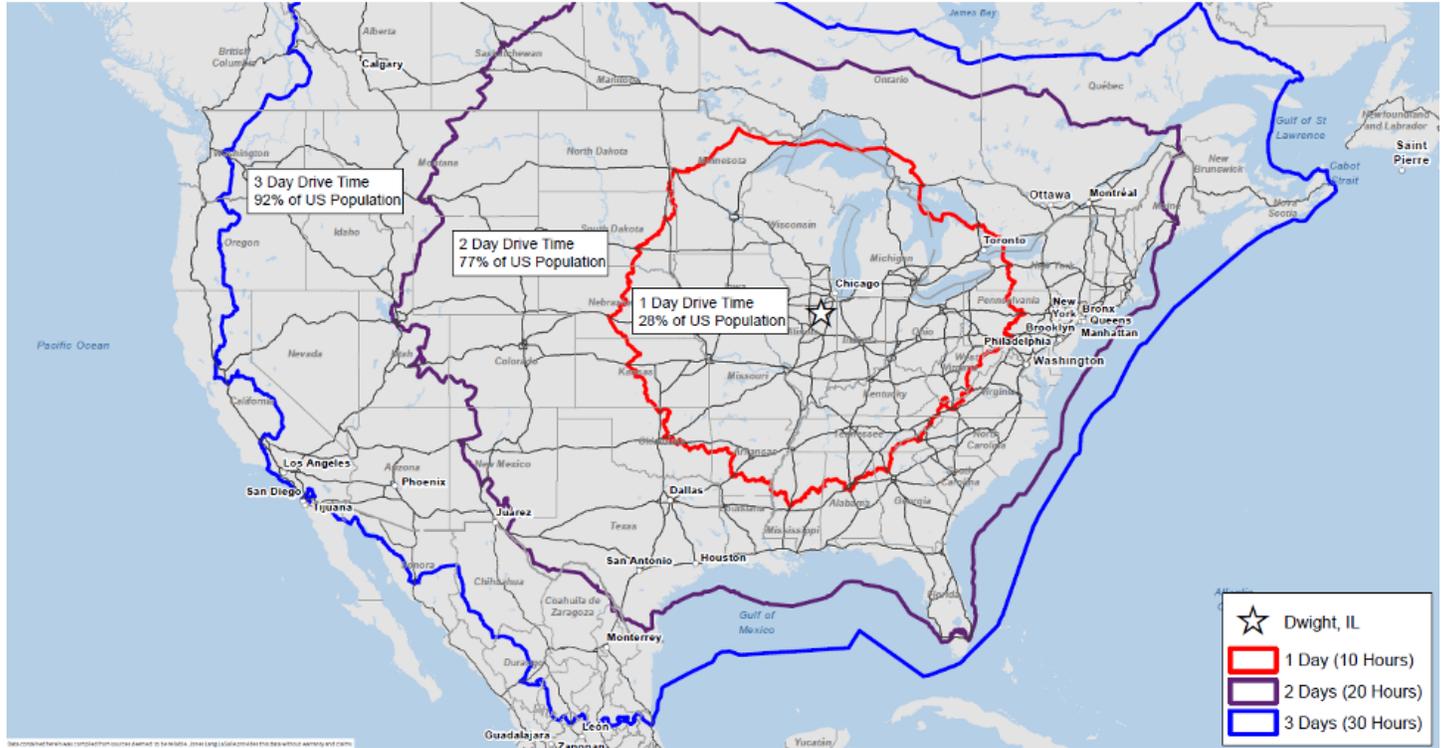
Local Transportation: Intermodal Drayage



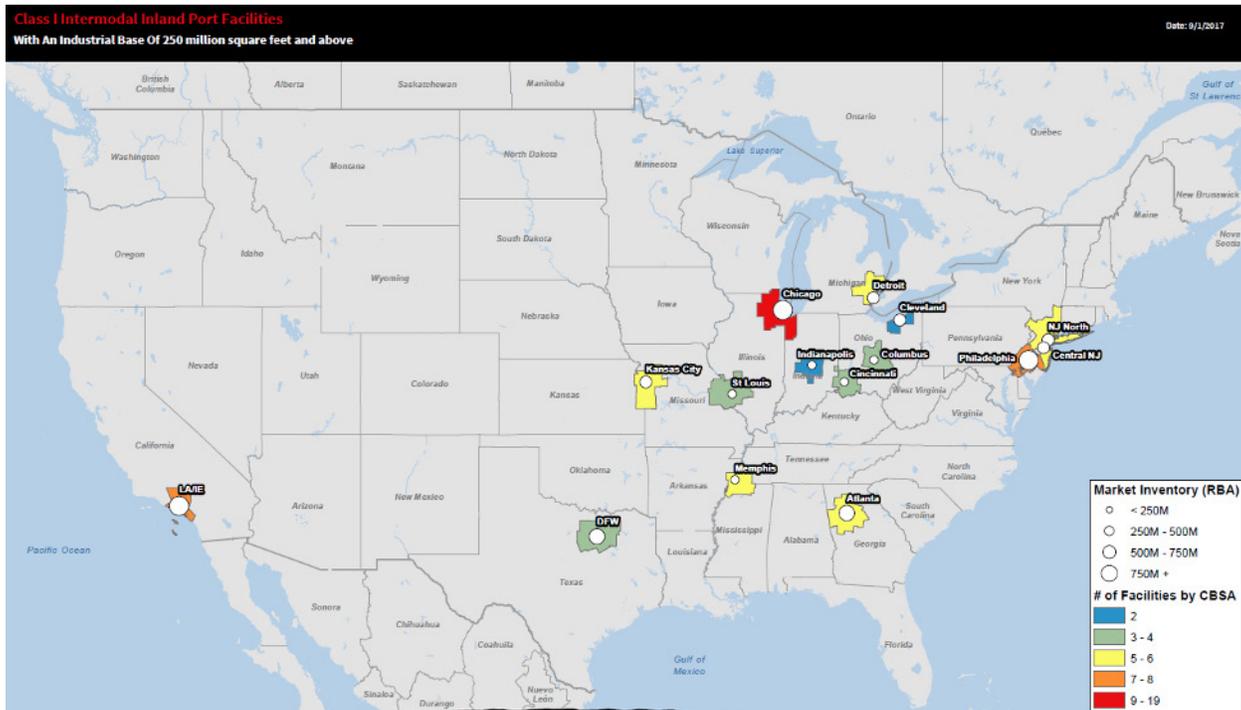
# National Transportation: One Day Truck Drivetime Reaches 28% of US Population

## Dwight, IL

1-3 Day Drive Time from Dwight, IL

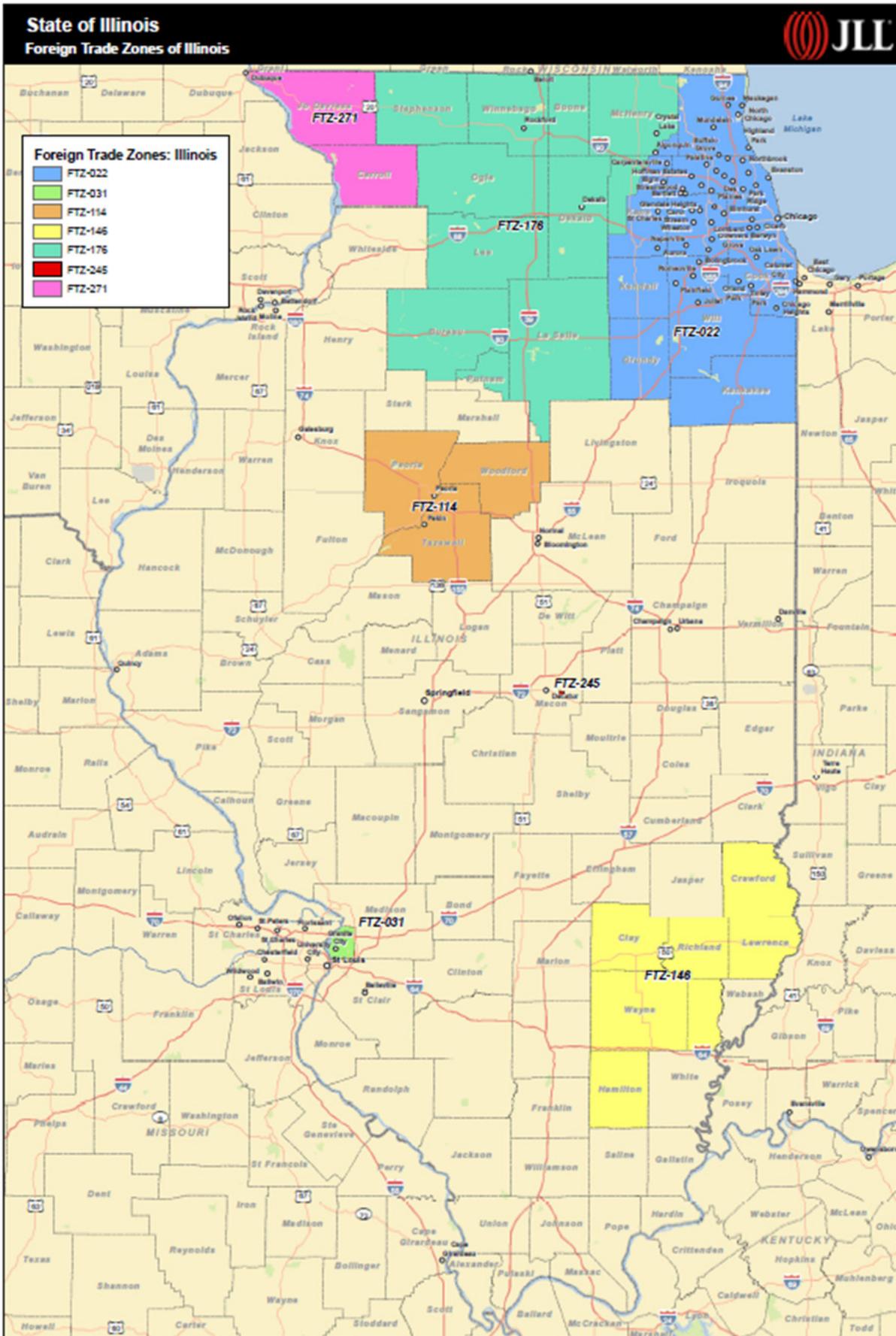


## Intermodal “Big Box” Distribution Markets



## Rail Linkages Between North American Seaports and Inland Distribution Hubs







# Industrial

United States | 2018

## Intermodal

### On the right track—growth in intermodal rail leads to new warehouse real estate

Intermodal facilities remain an increasingly critical component of the U.S. transportation network. Without them, coastal seaport connections to major cities and the long-haul movement of goods and materials throughout the country would be far less effective. With them, significant “inland port” destinations have become an essential part of the U.S. supply chain.

And importantly, they have helped enable the development of significant distribution and logistics real estate along

major rail corridors, specifically the top U.S. industrial markets.

This report is an update of our 2014 white paper, “[The re-emergence of the iron horse](#).” The inland port role has advanced and modernized significantly throughout the current economic expansion period, and its impact on industrial real estate development will only increase in the years to come, especially if the United States moves to more export-oriented growth.

### 3 key takeaways

1

**Sustainable growth trend: class I railroads are continuing to undertake massive infrastructure and technology improvements**, as well as expanding their terminal networks to boost efficiency and position themselves for long-term growth in the intermodal segment.

2

**The value added: inland hubs such as Atlanta, Chicago, Dallas, Eastern Pennsylvania and Kansas City benefit from direct express rail service from major U.S. seaports.** These non-stop “hot trains” typically have fewer delays for the end user, as containers may only be handled or “touched” two or three times before arriving at the beneficial cargo owner’s (BCO) loading dock.

3

**Impact on Industrial real estate: There is a direct linkage to rail volume growth and warehouse inventory growth.** The inland port markets of Atlanta, Chicago and Dallas have benefited significantly from their freight transportation connections and have seen warehouse inventory growth between 3 to 12 percent over the past five years.

## Why intermodal? The back story...

The railroad industry has been a major driver of the economy for generations. U.S. railroads move over two billion tons annually over 139,000 miles of track. The railroad industry continues to invest heavily in infrastructure improvements. According to the Association of American Railroads, "America's freight railroads spent more than \$635 billion since 1980 (on rail track, other fixed infrastructure and technology.)<sup>1</sup> This represents more than 40 cents out of every revenue dollar."

The rising economic cycle of consumer spending and imports continues to bode well for industrial real estate. Remarkably, 42 percent of all product in box and intermodal cars originated from international trade, according to The Association of American Railroads.<sup>2</sup> For reference, there are two types of intermodal service, domestic and international, and many railroad terminals are dedicated solely to one type of traffic. To elaborate, this relates to the origination point and often, but not always, the type and length of container (40' vs. 53').

By TEU (twenty-foot equivalent unit, the standard measure of container volume), the top U.S. container ports are as follows: Los Angeles/Long Beach, New York/New Jersey, Seattle/Tacoma and Savannah. However, other major ports also play an integral role on all three coasts. The other key U.S. import hubs by containerized TEU volume are Houston, Norfolk and

Oakland (San Francisco). From here, the majority of consumer goods then flow to the interior of the country to inland port hubs and distribution nodes.

To keep inventory moving to its final destination and reduce costs, oftentimes, logistics and transportation firms need to transload 20- and 40-foot international containers from the gateway ports and repack the goods into the U.S. standard 53-foot boxes. As a rule of thumb, three 40-foot containers can be re-packed into two 53-foot containers, which, if double-stacked on a railcar, would speed up time to market as well as drive down transportation costs.

Rising fuel costs and a worsening driver shortage are the two most prominent concerns of the long-haul truck industry today.

The Wall Street Journal reported in February 2018 that a number of U.S. companies have told investors that rising shipping costs in recent months are cutting into earnings. Large corporate industrial occupiers mentioned in the article that have made references to cost pressure include Hershey's, Packaging Corp of America, and Tractor Supply Co.<sup>3</sup> On the trucking capacity side, according to C.H. Robinson, its truckload rates were up 21.5 percent in the first quarter of 2018.<sup>4</sup> As freight costs go up and delivery time or service requirements become more compressed, we expect

### 140,000

Miles of railroad in the U.S.

### \$2.84/gallon

Gallon of diesel, national average (July 2018, U.S. EIA)

### 50,000

Current shortage of Truck Drivers (ATA)

### 233M

Square feet of U.S. new industrial construction (2017, JLL)

### +7.2%

Y-o-Y truckload per-mile pricing (March 2018, Cass Truckload Linehaul Index)

### +11%

2017 Y-o-Y TEU throughput at Ports of LA & LB

1 <https://www.aar.org/article/why-good-public-policy-not-public-funding-drives-freight-rail-investment/AAR-4-10-18>

2 <https://www.aar.org/wp-content/uploads/2018/05/AAR-Economic-Impact-US-Freight-Railroads.pdf>

3 <https://www.wsj.com/articles/rising-freight-costs-are-weighing-on-companies-profits-1517521490>

4 <https://seekingalpha.com/article/4168624-c-h-robinson-worldwide-ohrw-q1-2018-results-earnings-call-transcript>

that many companies will have a tendency to locate more distribution facilities closer to their end customers and will also strongly consider shifting additional volume onto rail.

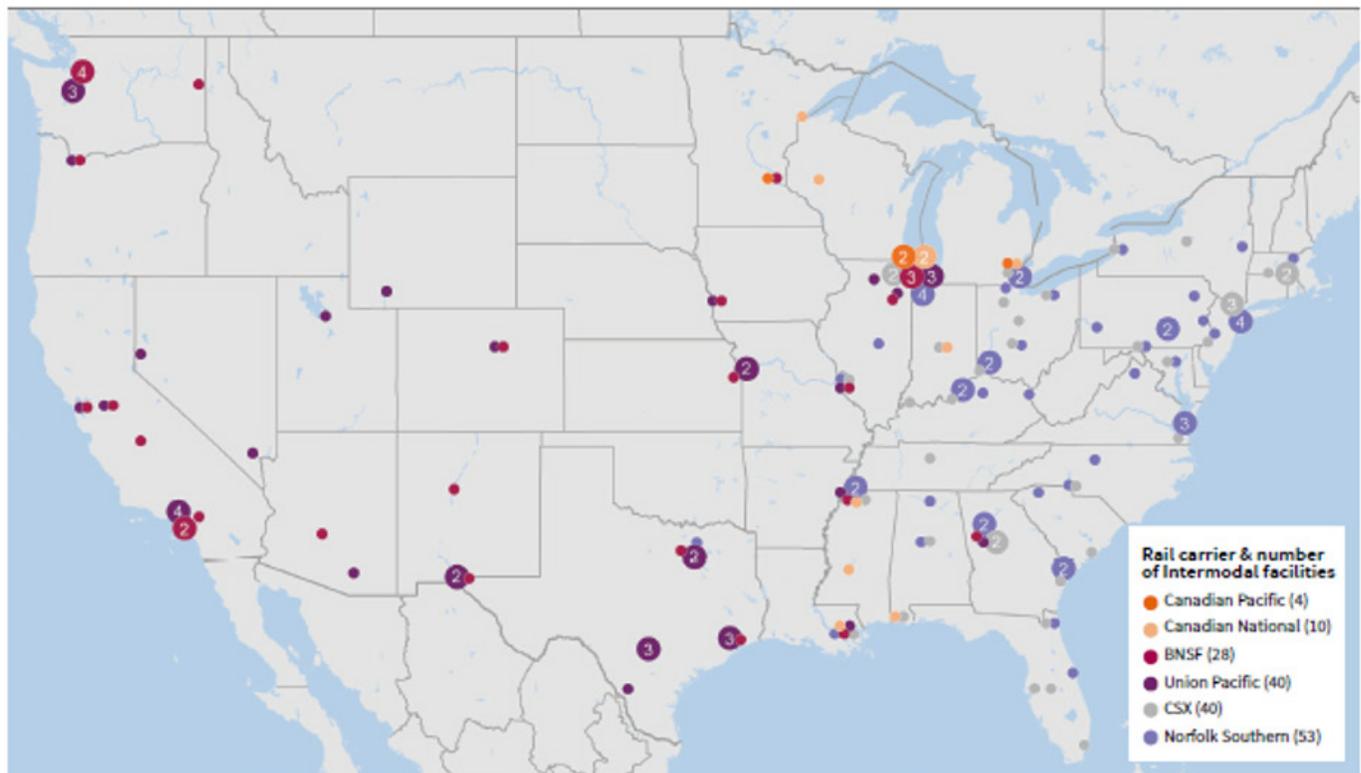
The Federal Highway Administration predicts that total U.S. freight shipments will rise to 25.5 billion tons by 2040—a stunning 41 percent increase.<sup>5</sup> However, according to the American Trucking Association, the current truck driver shortage is expected to grow to 174,000 drivers by 2026.

The reduction in available drivers is exacerbated by demographic or generational shifts not bringing new entrants into the driver workforce, the recently implemented federal Department of Transportation’s Electronic Logging Device (ELD) mandate and worsening traffic congestion.

*Coupled with supply chain diversification and corporate sustainability initiatives, we expect to see supply chains shift more volume off of the nation’s highways and onto rail. In the midst of both capacity volatility and structural change in the trucking industry, intermodal continues to prove a stable and cost effective near- and long-term shipping alternative.*

5 <https://www.aar.org/wp-content/uploads/2018/05/AAR-Rail-Intermodal.pdf>

U.S. Class I intermodal facilities



## Into the heartland...

Inland hubs such as Kansas City, Dallas, Chicago, Memphis, Atlanta and Eastern Pennsylvania benefit from direct rail service from major U.S. seaports. Containers are shipped via expedited unit trains, which are composed of cars of a single type, such as tankers, hoppers, intermodal containers, etc. They carry a single type of commodity, are all bound for the same destination and can be several miles in length. These trains typically have fewer delays for the end-user as containers may only be handled or “touched” two or three times before

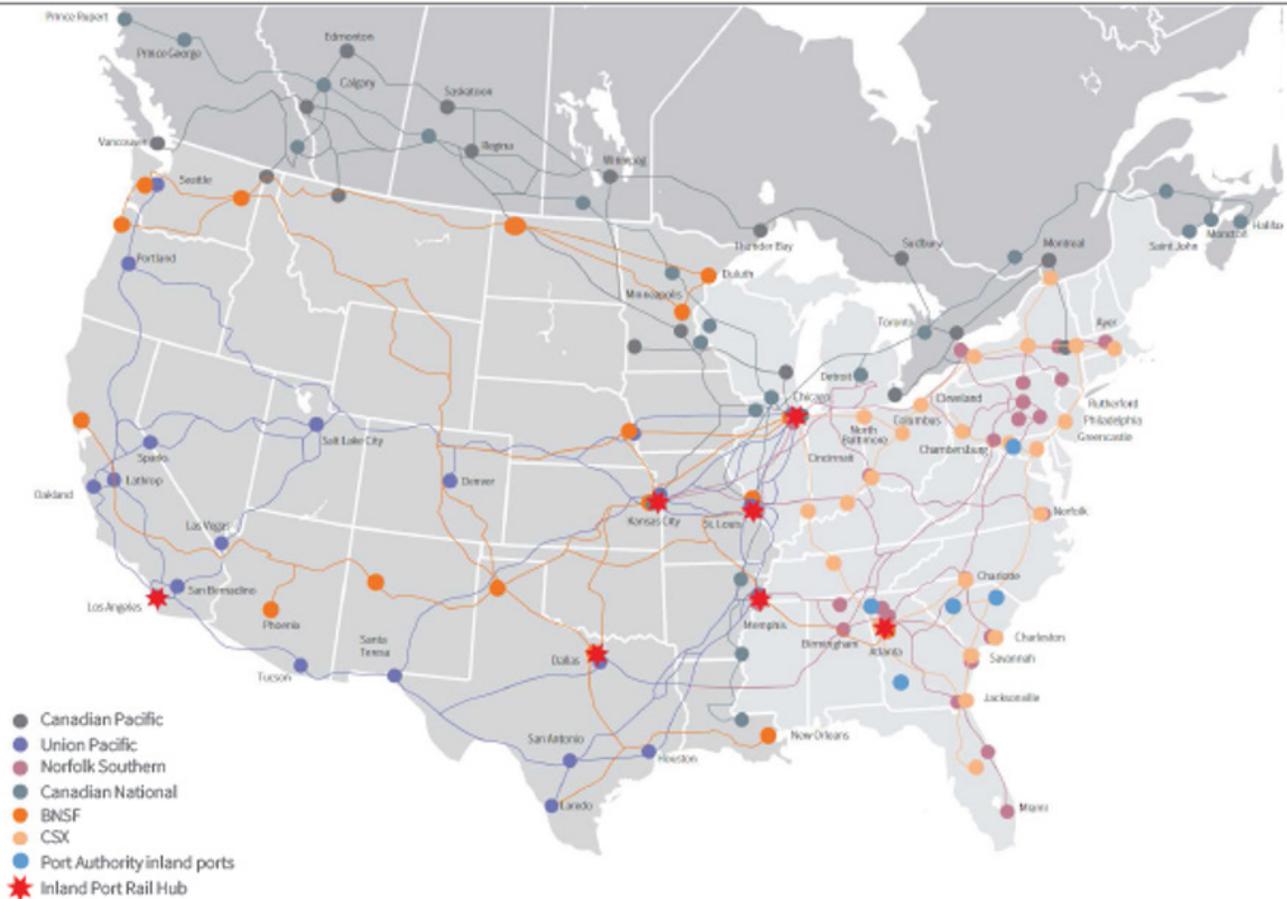
arriving at the beneficial cargo owner’s loading dock.

While an increasingly diverse mix of cargoes are shipped via intermodal, logistics companies and Beneficial Cargo Owners need to understand the cargo mix and types of service provided at various terminals in order to make real estate decisions. For example, the BNSF Logistics Park Chicago in Elwood primarily handles international traffic to and from the west coast, while the infill city of Chicago Corwith terminal handles domestic containers to and from

California and Dallas/Fort Worth.

Conversely, Norfolk Southern’s Landers Terminal in Chicago primarily handles ocean containers traversing the double-stacked “Premier Corridor” to and from Northern New Jersey and Baltimore. Additionally, Norfolk Southern’s Atlanta Inman domestic terminal primarily handles containers to and from inland hubs in Croxton, New Jersey and Rutherford, Pennsylvania.

### North American seaport and inland port hub markets



## “Show me the money...”

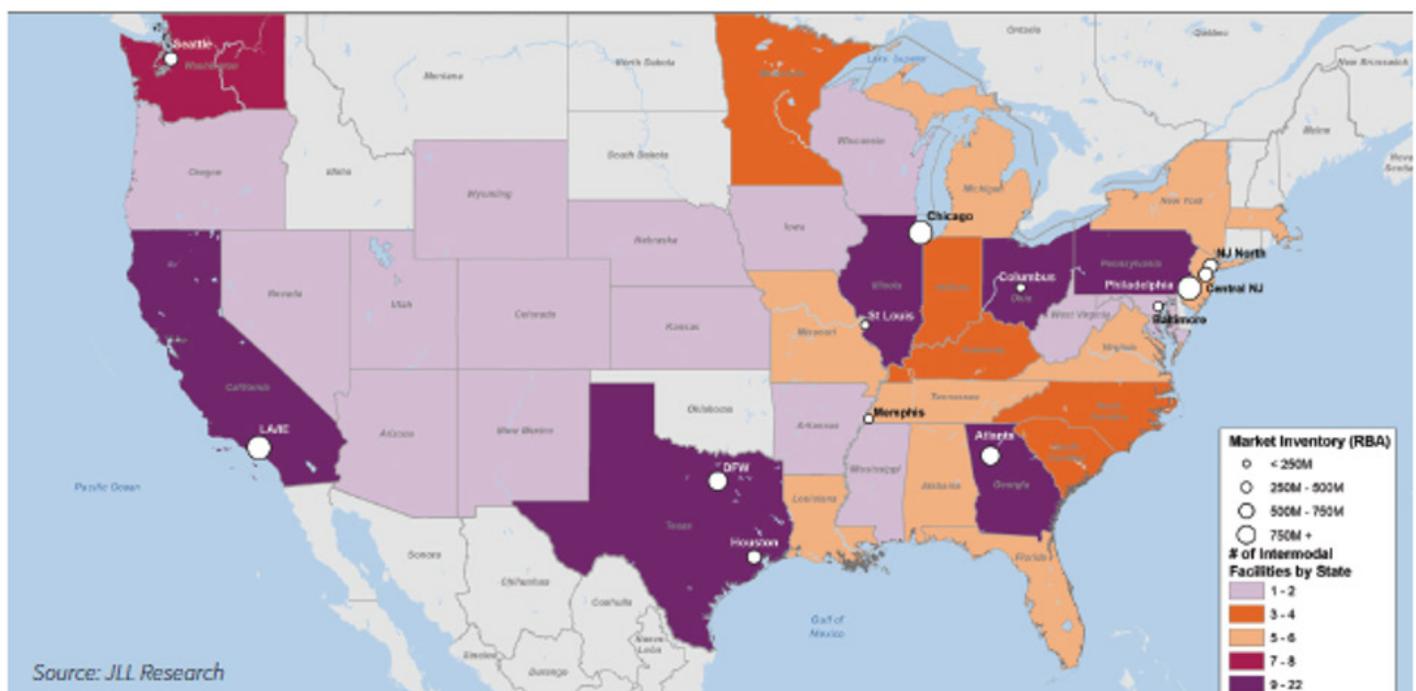
Class I railroads are undertaking massive infrastructure and technology improvements – expanding their terminal networks to boost efficiency and position themselves for long-term growth in the intermodal segment. U.S. freight railroads were expected to spend an estimated \$22 billion to maintain and upgrade the nation’s private rail network in 2017, this also includes investments in technology. With improvements in railroad service times and safety records due to signal and communications upgrades, railroads have become more price-competitive and have anticipated future growth—creating flexibility in their network to absorb projected population swings in certain regions of the country. Also, track and line improvements are helping to add more capacity via double-stacking along key intermodal routes.

This has also resulted in more-reliable schedules, and parcel carriers are moving more product via intermodal in both trailer on flatcar configuration and the traditional 53-foot containers.

We expect further investments in infrastructure and technology to improve longer-term efficiencies, such as new Automated Gate Systems (AGS) and others to improve in freight matching, as well as more real-time inventory visibility—all of which should keep adding efficiencies into intermodal shipping. However, in many major urban markets, getting around traffic congestion and driver shortages in the near-term is likely unavoidable. In addition, equipment shortages arising at various hubs and compressed “free time” and demurrage/detention charges are growing issues.

*When local draymen are tied up in traffic, wait in long gate security lines and miss cut-offs, this ripples through our “just-in-time” U.S. supply chain and racks up unnecessary costs. Reducing congestion will help not only efficiently move boxes in and out of urban terminals, but also improve the ability to smartly move containers throughout the country, especially those that may be loaded with exports.*

### Intermodal terminal density by state



## Bringing it all back home...

We expect that companies will continue to be drawn to regions where logistics infrastructure is in place or is being developed to meet the complex multimodal transportation demands. Additionally, we continue to forecast additional growth in logistics parks strategically located on the periphery of major urban consumption zones and distribution nodes that operate as 24-7 hubs of global commerce.

Industrial parks or hubs that are anchored by an intermodal facility attract distribution centers, warehouses, manufacturing plants as well as commodity and/or automotive transload facilities. A main opportunity is offering shippers lower overall transportation costs, including drayage rates and other supply chain efficiencies. **We believe the expansion of both international and domestic intermodal services will lead to more industrial development near key 'inland port' destinations & terminals – and attract more beneficial cargo owners.**

## Looking forward: more intermodal growth due to continued trucking constraints

We expect to see continued growth in intermodal logistics as a critical part of the overall U.S. supply chain, countering worsening congestion and skyrocketing transportation costs and the truck driver shortage. Improved railroad scheduling and network visibility as a result of large-scale communication and signaling infrastructure investments will allow the industry to break away from the stigma that trains are slower and less reliable than trucking. In addition, railroads and shippers are getting more creative on the ever-crucial “back-haul” marketplace, with previously empty containers being filled with goods for export like agricultural commodities and scrap steel and paper for recycling.



### Looking to the future, what other factors will intersect with intermodal growth?

- Will **autonomous trucking** be competitive sooner rather than later?
- Could **changes in trade policies** curtail international intermodal growth, both from the movement of imported boxes as well as inhibiting export activity?
- Will **additional intermodal facilities, expanded capacity and a more connected network** make pricing even more competitive with over-the-road (OTR) trucking?
- Could **corporate sustainability initiatives** help drive even more traffic off of the highways and onto rail, where net fuel emissions are greatly lower?
- **Efficient temperature-controlled transportation** could further benefit U.S. markets with heavy concentrations of food and beverage-related companies that have locations near a key, Class I intermodal terminal.

## The outlook for warehouse and logistics real estate

The U.S. logistics sector has seen a dramatic uptick in new construction, averaging 212 million square feet of annual new completions over the past three years with over 232 million square feet delivered in 2017 alone. This growth in industrial inventory is in response to a resurgence in U.S. manufacturing, the explosion of e-commerce, as well as a structural shift in corporate supply chains for both risk avoidance and to meet customer demands for more-rapid order fulfillment.

The Panama Canal expansion has changed the competitive dynamics of shipping by rail from the U.S. West Coast. Shippers and U.S. port authorities have been making plans and upgrading their near-dock transportation and storage capacity as the key U.S. East Coast and Gulf Coast ports grow their volumes of containerized cargo. Correspondingly, inland ports will grow in importance as near-dock coastal land is increasingly at a premium—and moving containers by rail to an inland port frees up valuable near-shore real estate—unimpeding the flow of goods for other customers, i.e., bulk or automotive roll-on/roll-off (RORO) traffic. **Over the long term, the majority of containerized imports will likely still flow from the U.S. West Coast, but East Coast ports will continue to grow market share and their need for industrial real estate.**

The re-shoring of manufacturing will create new opportunities for intermodal services and logistics real estate, especially in the automotive and industrial goods sectors. The Midwest is unique in that due to historical railroad development, cities such as Chicago, St. Louis, Memphis and Kansas City benefit from at least three Class I rail providers servicing the market, whereas most

coastal markets will only be served by two individual railroads.

Over the past three decades, inland ports have been developed by port authorities, such as Virginia Port Authority's inland port in Front Royal in 1989, by private investors such as Ross Perot's development in Alliance Texas in 1992, by railroads such as the BNSF supported Logistics Park Kansas City and by the clustering of distribution centers in locations such as the Inland Empire. Most of these efforts took years to reach breakeven volumes, but have become fixtures of America's freight movement infrastructure. Railroad investment and service commitments, in partnership with land availability, are a requirement for development of an inland logistics park and or intermodal terminal. Yet, in the speculative nature of real estate development, there have been clear winners—but also losers—who suffer from either ill-timed land acquisitions or overly optimistic projects that just never took off. We continue to see land rushes around the BNSF and Union Pacific (UP) intermodal terminals in Joliet, Illinois as well as the BNSF and UP intermodal yards in Dallas. However, at this point in time in these markets, there is a rising amount of vacancy and limited barriers to entry for additional warehouse growth. Conversely, the markets of New Jersey, the Inland Empire and Pennsylvania are supply-constrained for large distribution requirements, providing few leasing options for big-box warehouse users. However, developments in partnership and subsidized with a government port authority have been more successful; although, these can require taxpayer funds and bonding obligations.

*Population shifts will also likely create new opportunities to establish intermodal service in Winter Haven, Florida; Greer, South Carolina; Chatsworth, Georgia; Salt Lake City, Denver and Reno. Additionally, multi-national courier delivery service companies such as FedEx and UPS both have their own intermodal network and are expanding to meet the need for last-mile deliveries.*



