

# CLARK AVENUE

# Corridor Plan

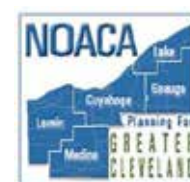
April 30, 2015



PREPARED FOR:



STOCKYARD, CLARK-FULTON & BROOKLYN CENTRE  
COMMUNITY DEVELOPMENT OFFICE



PREPARED BY:



# acknowledgements

## PROJECT SPONSORS

City of Cleveland  
Tremont West Development Corporation (TWDC)

# THANK YOU

## TECHNICAL ADVISORY COMMITTEE

Bike Cleveland  
Canalway Partners  
City of Cleveland Planning  
Cleveland Neighborhood Progress  
Greater Cleveland Rapid Transit Authority (GCRTA)  
Northeast Ohio Areawide Coordinating Agency (NOACA)  
Ohio Department of Transportation (ODOT)  
Stockyard, Clark-Fulton & Brooklyn Centre Community Development Office (SCFBCDO)  
Ward 3, Councilman Joe Cimperman – Cleveland City Council  
Ward 12, Councilman Anthony Brancatelli - Cleveland City Council  
Ward 14, Councilman Brian Cummins – Cleveland City Council  
Ward 15, Councilman Matt Zone - Cleveland City Council

## COMMUNITY ADVISORY COMMITTEE

Clark Bar  
Cleveland Municipal School District (CMSD)  
Cleveland Public Library  
Community Meeting Participants  
Hispanic Alliance, Inc.  
La Villa Hispana Merchant Group  
Members of Clark Avenue Block Clubs  
Northeast Ohio Hispanic Chamber of Commerce/Hispanic Business Center (NEOHCC/HBC)  
Old San Juan Jewelers

## PLANNING TEAM

Behnke Landscape Architecture, Michael Baker International, 4Ward Planning



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# chapter 1: introduction

Through comprehensive analysis and stakeholder engagement, the Clark Avenue Corridor Plan identifies corridor configurations, streetscape standards, and redevelopment opportunities to stimulate reinvestment and improve the quality of life for all users along Clark Avenue, from Quigley Avenue to West 65th Street.

Clark Avenue has been an important arterial since the late nineteenth century, when industry and the population were growing on the Near West Side of Cleveland. The corridor provided direct access to industrial commerce, while supporting commercial, institutional and residential areas along the corridor. Today, Clark Avenue is still an important arterial, supporting commercial, institutional and residential uses.

In an effort to revitalize the corridor and to push redevelopment energy in the Tremont neighborhood west along Clark Avenue, the City

of Cleveland and Tremont West Development Corporation secured Transportation for Livable Communities Initiative funding from NOACA for the preparation of this study. Traversing a number of neighborhoods within the Tremont West Development Corporation (TWDC) and the Stockyard, Clark-Fulton and Brooklyn Centre Community Development Office (SCFBCDO) service areas, the corridor study provides recommendations to create a safer, more vibrant, cohesive, and healthier community for residents, merchants, and visitors alike.

## PROJECT GOALS

- 1 Unify and Connect the Community
- 2 Strengthen Neighborhoods
- 3 Identify Districts and Define Brands
- 4 Make Clark Avenue a Memorable Place
- 5 Strengthen Existing Businesses
- 6 Encourage Redevelopment Authentic to Local Context
- 7 Balance All Transportation Modes
- 8 Optimize Transportation Capacity
- 9 Improve Residents' Experience
- 10 Improve Safety
- 11 Beautify the Corridor
- 12 Instill Resident & Business Ownership
- 13 Reduce environmental impact



The Study Area is approximately 2.5 miles long.

## RELATED STUDIES

The past or current studies listed to the right impact Clark Avenue, in some way. The Clark Avenue Corridor Plan takes all these studies' observations and recommendations into account, in the development of its own recommendations. The Metro Health Master Plan and West 25th Street Corridor Initiative are both currently in progress, which can significantly impact the future Villa Hispana area.

## STUDIES

- 1 Tremont Strategic Investment Initiative
- 2 West 65th TLCI
- 3 Train Avenue Greenway Plan
- 4 Towpath Trail Master Plan
- 5 West 25th Street Corridor Initiative
- 6 West 25th Transit Development Study
- 7 West 25th TLCI Plan
- 8 Clark Fields Master Plan
- 9 2007 Tremont Bicycle Linkages
- 10 MetroHealth Master Plan (in progress)
- 11 Safe Routes to School

## PROCESS

The planning process began in 2012 with the development of the Tremont West Development (TWDC) Corporation Strategic Plan, which was completed in 2013. During this study, a series of surveys, analyses, and public meetings were conducted. The information gathered during this plan became an essential foundation for the corridor plan.

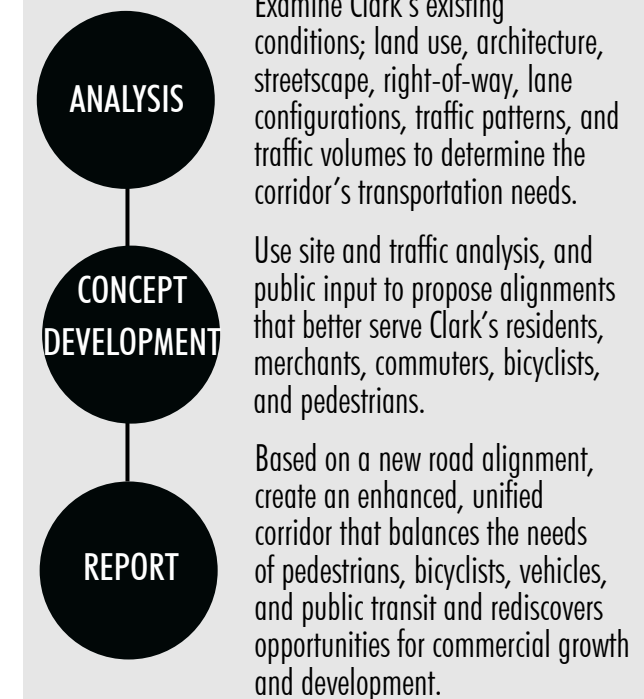
The Clark Avenue Corridor Plan began with the establishment of a technical advisory committee (TAC), whose members are listed on the acknowledgements page. Concurrently, a community advisory committee (CAC) was also formed as listed on the acknowledgements page. The planning team met with each committee to review and discuss the progress made at each project milestone.

Over an eight month period the planning team conducted six TAC, three CAC, and three public meetings. The project began in late August, 2014, and the final plan was submitted in late March, 2015. During the first phase, the first TAC and CAC meetings formed and confirmed a series of project goals. At this time, the planning team conducted an in-depth inventory and analysis of the existing conditions that focused on opportunities and constraints within the corridor. The planning team performed a block-by-block walking audit of the corridor's existing conditions, including land use, architecture, streetscape, and traffic. The site analysis cataloged, mapped and photographed community assets with development potential, as well as conditions in disrepair. Traffic volume counts and operation analysis were also completed at this time. In conjunction with the site

## TIMELINE

August 2014	Project Kickoff
October 2014	Existing Conditions, Traffic Analysis, Economic Development Study, Public Meeting 1
December 2014	Concept Development, Public Meeting 2
February 2014	Concept Refinement, Draft Report, Public Meeting 3
March 2014	Final Report

## PROCESS



# introduction

analysis phase, the economic development study was underway.

The planning team also initiated a third party volunteer bike/walk audit effort to provide a thorough analysis. Bike Cleveland led the bike/walk audit, and provided written surveys to their volunteers (results are summarized to the right.) Along with the TAC and CAC meetings, the design team held a work session with Neighborhood Progress and the Hispanic Alliance, and a separate focus group with the Cleveland Municipal School District (CMSD). An online survey was also provided at the first community meeting. The survey asked residents and merchants specific questions about Clark Avenue's current public transportation and streetscape. The survey responses (results summarized to the right,) along with the additional outreach and site reconnaissance helped the planning team to develop a better understanding of the needs and uses of each user group, and the current insufficiencies found within the corridor.

Following the site analysis, traffic and economic development study, the planning team compiled its data into a detailed presentation for stakeholders. The presentation encouraged discussion and teamwork; participants formed groups to develop potential design alternatives.

These group discussions influenced the next phase of the planning process -- concept development. The planning team used participants' feedback to create options for improving Clark Avenue's traffic circulation and streetscape. Planners explored potential corridor configurations that would incorporate on-street parking and bike facilities, as well as increase pedestrian safety and comfort.

The proposed configurations and streetscape design elements -- including benches, trash receptacles, street trees, and lighting -- were then presented to stakeholders and the public; their feedback was incorporated in the development of the final concepts shown later in this report.

## SURVEY RESULTS (122 RESPONDENTS)

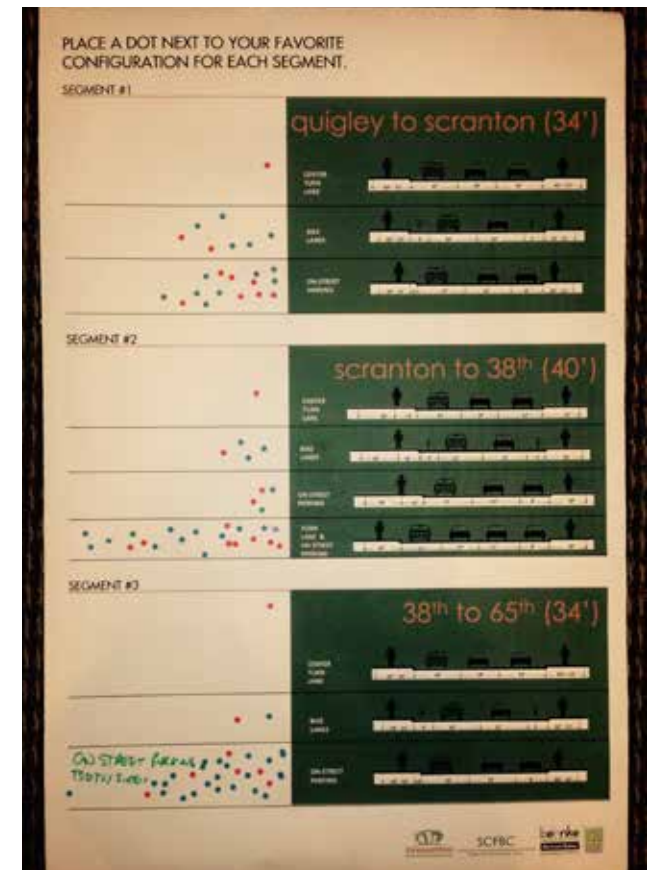
- 1 TYPE OF USER**
  - 53% Residents
- 2 TRANSPORTATION METHOD**
  - 90% Automobile
- 3 PUBLIC TRANSPORTATION**
  - Not enough buses
  - bus stops, overall, are accessible
  - the current service is not adequate
  - more shelters are needed
- 4 PREFERRED CONFIGURATION**
  - (3) lanes, with bike lanes
  - the second highest ranked - (3) lanes with (1) parking lane.
- 5 CORRIDOR SEGMENT RANKING**
  - W. 25th to Fulton is most important
- 6 GENERAL IMPROVEMENTS**
  - Additional green space
- 7 STREETScape IMPROVEMENTS**
  - Trash receptacles

## BIKE/WALK AUDIT RESULTS

- 1 WALKABILITY:**
  - Traffic feels too close
  - Clearly-marked crosswalks needed
  - Vehicles drive too fast
  - More green space needed
- 2 BIKEABILITY:**
  - Poor lighting
  - Vehicles drive too fast



The volunteer bike/walk audit in November provided first-hand experience of pedestrians and bicyclists that use the corridor.



The second public meeting (December, 2014) provided opportunities for Clark's stakeholders, merchants, and residents to provide feedback about the corridor plan. Group discussions encouraged active participation from meeting participants. Participants also selected their preferred lane configurations and streetscape furnishings; their responses were incorporated into the corridor plan recommendations.

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# chapter 2: existing conditions

## HISTORY

Tremont, Clark-Fulton and the Stockyard neighborhoods are three diverse and historically -significant neighborhoods within Cleveland's Near West Side, all connected by Clark Avenue. Clark has functioned as an essential east-west arterial connection to the steel mills along Quigley Avenue, other industries, and the stockyard on and around West 65th Street. Tremont, by the late nineteenth century, had a dramatic increase in population when the steel mills began operating, due to its proximity to the steel mills and downtown. During this time, the Clark-Fulton neighborhood became the home of the City's first hospital, now MetroHealth, and the Stockyard neighborhood included the Cleveland Union Livestock yard, during the early 20th century. Several industries thrived in each of these neighborhoods during the mid to late 19th century and early 20th century, which attracted European immigrants from Germany, Italy, Czechoslovakia, Poland, Slovakia and Ukraine to live and work here. Each neighborhood began to develop during this time with the influx of people seeking job opportunities in the region's numerous factories. Each ethnic group that came to work and live here brought with them their rich culture, including architecture, which can still be seen today. Several historic churches and buildings on Clark Avenue that are on either the local or National Register of Historic Places.

By the late 1960's many industries, including the stockyard, closed, and Interstates 90 and 71 were planned and built. The construction of these freeways sliced through the Near West Side neighborhoods, and dramatically changed development patterns. By the late sixties, the near

westside's population began to decline significantly especially when the steel mills ceased operation.

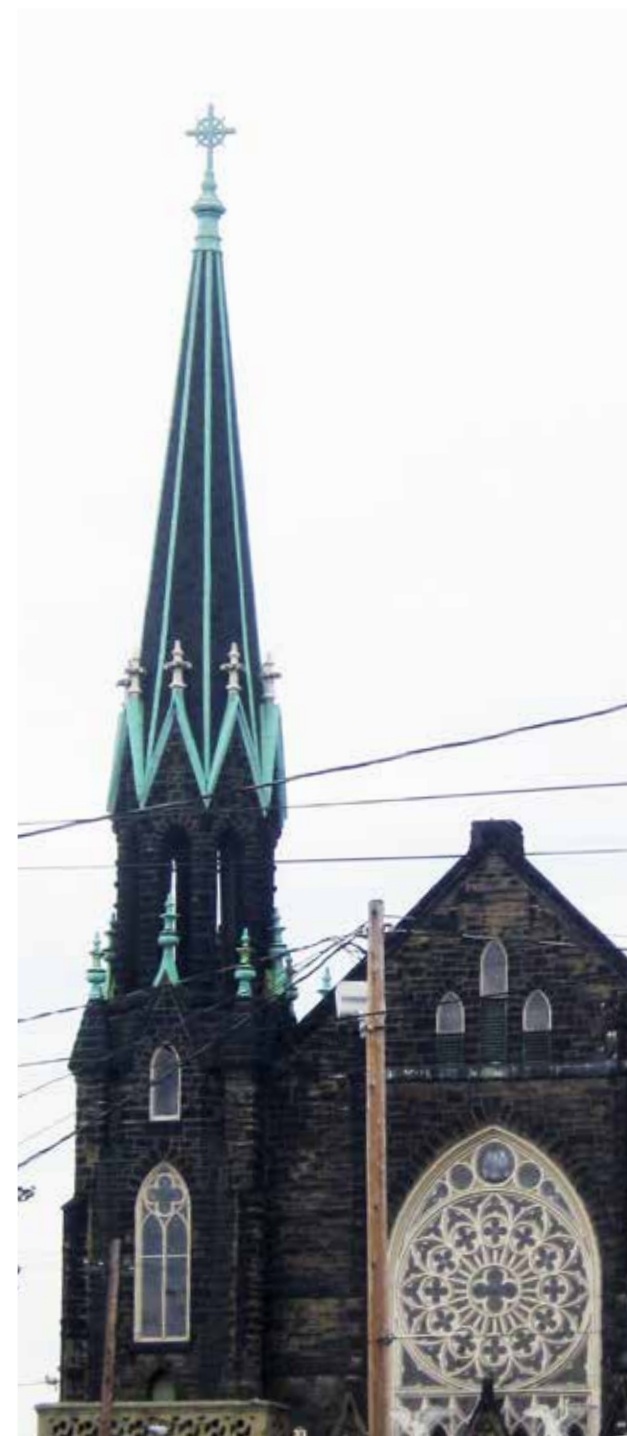
Although there have been several decades of industrial decline within the region, Clark Avenue today is still an important east-west connector that supports commercial, institutional and residential uses. The corridor maintains several operating industries. The Clark Avenue corridor and surrounding neighborhoods have potential for revitalization, due to their close proximity to freeway access, cultural amenities, and downtown.

### NATIONAL REGISTER OF HISTORIC PLACES

- 1 St. Michael the Archangel Church

### CLEVELAND HISTORICAL LANDMARKS

- 1 Carnegie South Branch Library
- 2 Ceska Sin Sokol – Czech Sokol Hall
- 3 Immanuel Evangelical Lutheran Church
- 4 Lion Knitting Mills
- 5 Italian Club
- 6 Northern Ohio Blanket Mills
- 7 Pearl Street Bank
- 8 St. Procop's Church



The St. Michaels, Carnegie Library Building (top right), Pearl Street Bank (middle), and Czech Sokol Hall (bottom) are treasured historical landmarks. St. Michaels steeple can be seen from almost all directions within the corridor.



# existing conditions

## LAND USE

The eastern end of the corridor at Quigley Avenue terminates at a steel mill, and is bordered by several acres of undeveloped land. Some of this land, however, is slated for future development, including the new Clark Fields plan and Stage 3 of the Towpath Trail. The Towpath Trail will connect to Clark Avenue near W. 14th Street. This will provide the Clark corridor vital access to green space, downtown, and eventually Lake Erie. The Western terminus of this study is located at West. 65th Street, which will be home to the new Max Hayes High School and the Train Avenue Trail and Greenway. St. Mary's Cemetery at W. 41st and a park at West 53rd Street are the only green spaces within the corridor.

The majority of the corridor is commercial, with West 25th Street to Fulton Road, and West 41st Street to West 56th Street being the most established commercial destinations. Several big box stores, such as Walgreens, have built along the corridor. Industries still can be found here, mostly within the western section of the corridor.

While the most residential area is between West 11th Street and Scranton Road, several residences are scattered throughout the commercial area, in the form of first floor commercial with second floor residential. The Carnegie Library Building along with St. Michaels on Scranton Road are institutions that have been serving the area for over a century.

Several neighborhood schools serve the highly-residential areas immediately north and south of Clark: Max Hayes High School, Clark Elementary, Thomas Jefferson Elementary, Walton Elementary, and Luis Munoz Marin School. Currently, safe

crossings are a concern for these particular institutions; the City is working on securing Safe Routes to Schools funding to upgrade these crossings.

On numerous parcels, underutilized parking lots and vacant buildings reduce eyes on the streets, which contributes to perceived and real safety concerns for pedestrians, residents, and businesses.

Adding open space ranked highest on survey responses for most desired improvement. Only three open spaces currently exist along the corridor: Clark Fields, (slated for future renovations,) St. Mary's Cemetery between W. 38th and W. 41st Streets, and the neighborhood park adjacent to the local Feed and Seed. Clark Fields is a particularly important asset serving youths and residents of the Tremont neighborhood.



Abandoned and boarded-up home



Clark Fields



Vacant industrial site



St. Mary's Cemetery



Vacant lot



Neighborhood Park

# existing conditions

## NEIGHBORHOODS

The Tremont neighborhood extends along Clark Avenue from Quigley to W. 25th Street. This neighborhood cannot only boast that it is the oldest neighborhood on the Near West side, but it can be proud of its recent renaissance that is attracting new people to live, work and play within the neighborhood. The Tremont neighborhood is a popular dining and entertainment area that attracts both locals and tourists. This district has been a catalyst for economic growth and is strategically located near downtown, easy freeway access, and to several cultural amenities.

Both the Clark-Fulton neighborhood, which extends from W.25th to W. 44th Streets, and Tremont neighborhoods are fortunate to have the MetroHealth Hospital as an anchor destination for care and employment, and the West 25th Street/ Clark Avenue Retail District, with locally-owned ethnic restaurants and stores. New loft-style housing has begun emerging, and there are plans for additional housing. The MetroHealth Master Plan and West 25th Street Corridor Initiative will help provide guidance for future development.

The Stockyard neighborhood, extending from W. 44th to W. 65th, has a well-established neighborhood network, as well as good commercial building stock, with potential for redevelopment. Councilman Cimperman recently proposed branding the area between Fulton Road and W. 58th as the “Dream Neighborhood,” in hopes of encouraging incoming refugees to settle there. Several neighborhood amenities, including the Thomas Jefferson International Newcomers Academy, Sokol Hall, the Clark Recreation Center,

and affordable housing options, make the area a logical destination for refugees, and provide them opportunities to revitalize the neighborhood.

A Pedestrian Retail Overlay zone was recently established between W. 41st - W. 58th Streets, setting pedestrian-oriented standards to strengthen existing commercial establishments and direct the development of future businesses.



The Tremont neighborhood is comprised of mostly residential from W. 11th Street to Scranton Road.



The Stockyard neighborhood has good small scale commercial building stock.

## Branding and Identity

Branding can define a neighborhood or district by highlighting its unique characteristics and amenities. Tremont’s themed wayfinding signs and banners along Clark Avenue between W. 14th up to W. 25th convey the district’s distinct identity. There is an opportunity to continue to use banners and signage throughout the corridor, to establish an identity for other neighborhoods and districts, since none other than Tremont’s exists.



The Tremont neighborhood has a well defined brand and identity, as seen on the left, that can further be enhanced along Clark Avenue. The other neighborhoods currently do not have a well defined brand or identity.

# existing conditions

## CORRIDOR FUNCTION

Clark Avenue's history influenced its current right-of-way width. Originally a connector to major industrial commerce, it still provides access to commercial, institutional, residential, and some industrial areas.

Clark Avenue's right-of-way varies in width throughout the corridor. The average width is 60', with the roadway being 34'-40' wide, which is typically divided into four travel lanes. The two curb lanes provide on-street parking, providing a needed buffer between roadway and pedestrian space. However, where there are no parked cars, the travel lanes are unclear, due to a lack of striping.

Numerous off-street parking lots and vacant lots exist, in addition to on-street parking. A detailed parking utilization analysis for the corridor was not part of this study, but should be performed, to determine the true need for parking.

### Corridor Edges

Many of corridor's land uses, such as parking lots, car dealerships, schools, and residences, are required by city code to have an ornamental fence or enclosure. Currently, there are many different types (including a lack of) edge treatments, with varying heights, along the corridor.

## PEDESTRIANS

Sidewalks vary in width between 6' and 10' on both sides of the street along the entire corridor. Few trees exist along the corridor, except for W.11th – W.13th, and W.16th – Scranton Road,

resulting in a lack of separation between the pedestrians and vehicles. Existing utility poles offer some separation along the remainder of the corridor, but are unsightly. The existing trees in the residential area are well established, create a solid canopy, and form a separate comfortable pedestrian space.

Between W. 41st and 56th Streets, the sidewalks are cluttered with a dense collection of utility poles, folding signs and other obstacles. Many of the buildings in this area are without windows facing Clark, which does not allow for "eyes on the street."

Curb heights also pose safety issues. Many curbs are nearly the same height as the road surface due to years of overlaid pavement; consequently, there is little vertical separation between sidewalk and roadway.

### Crossings

There are several busy intersections throughout the corridor, however, only the Clark/Fulton intersection has enhanced crosswalks that have both color and texture. Clearly-marked crosswalks are also very important at schools. The Luis Munoz School has signage and painted crosswalks, along with pedestrian countdown traffic signals. The W. 56th intersection, adjacent to Clark Elementary, does not have pedestrian countdown signals and the crosswalk striping within the intersection and mid-block crossing has worn away over time, but there are flashing 20 MPH signs in front of the school. Max Hayes High School does have painted crosswalks and pedestrian countdown signals at the West 65th intersection.



Tremont's residential neighborhood with existing mature trees



Area within Tremont neighborhood that has insufficient curb heights, and a chain-link fence as an edge treatment.



Stockyards neighborhood: example of no "eyes on the street", and a low fence edge treatment.



A lack of street trees results in a uncomfortable condition for pedestrians.



Existing windows have been boarded along the sidewalk, which reduces safety.



# existing conditions

## PUBLIC TRANSIT

The Greater Cleveland Regional Transit Authority (RTA) has three bus routes along Clark Avenue. Route 45/45A and 21 extend along the corridor from W. 25th Street beyond W. 65th Street. Route 81 continues from W. 14th Street to Scranton Road. The existing bus routes along Clark Avenue, as listed above, provide connections to Routes 79A&B, 20, 31, and 51. The transit waiting environments throughout Clark are mostly signed, and do not provide shelters, seating, or adequate lighting.

Approximately 6% of the study's survey respondents are current transit users. During the analysis phase, RTA was contacted for additional information concerning the current conditions, which can be found on page 29.

## BICYCLISTS

Of the 122 respondents who participated in the survey, about 7% categorized themselves as cyclists. There are very few bike racks along Clark Avenue currently, most of which are the City standard U-shaped rack. However, one at St. Michaels is in the form of the Tremont branches and leaves logo. Clark Avenue is not currently listed as a dedicated bike route on the Cleveland Bikeway Plan, but the future towpath trail connection at the corner of W. 11th creates the need to provide a bicycle connection with W. 14th, which is slated to receive dedicated bike lanes in the future. The current conditions for bicyclists are not conducive to safe travel; many use the sidewalks as an alternative path of travel.

## UTILITIES

Utility poles and overhead lines run the length of Clark Avenue, and are especially dense west of W. 61st Street near the existing railroad tracks and W. 65th Street. The poles become sidewalk obstacles for pedestrians, and restrict locations for street furnishings and trees.

Current lighting includes cobra-head fixtures and lamps attached to utility poles.

## PARKING

A combination of on-street and off-street parking exists along the corridor, in a haphazard manner. Clark Avenue merchants depend heavily on parking as a key ingredient to a successful business. On-street parking, directly in front of each business is most highly preferred; merchants informed the planning team that customers feel less safe in off-street parking lots, particularly behind businesses, in areas where they cannot be seen from the street.

Many vacant lots exist along the corridor, directly on the Right of Way, which could provide additional parking capacity. Based on public input, the area along Clark with the highest demand for parking appears to be between Scranton and West 30th.



This intersection and mid-block crossing do not have highly-visible crosswalks (top), as the Clark/Fulton intersection does (middle.) Bicyclists often travel on the sidewalks. Utilities poles become dense near the existing railroad tracks, (bottom right)

# existing conditions

## FURNISHINGS

Trash receptacles and bike racks are scattered throughout the corridor, and only two benches can be accounted for along the entire stretch. Locations and styles are inconsistent, which contributes to an overall discordant streetscape and lack of identity. Additional elements -- such as newspaper vending boxes, broken pay phones, and folding signs -- clutter the walks and restrict pedestrian movement in certain locations.



## PUBLIC ART

Public art adds color, life, and a sense of identity, pride, and ownership. Two vibrant building murals, just west of W. 25th Street, add interest to bare walls and building facades. The corridor offers many more opportunities for public art.

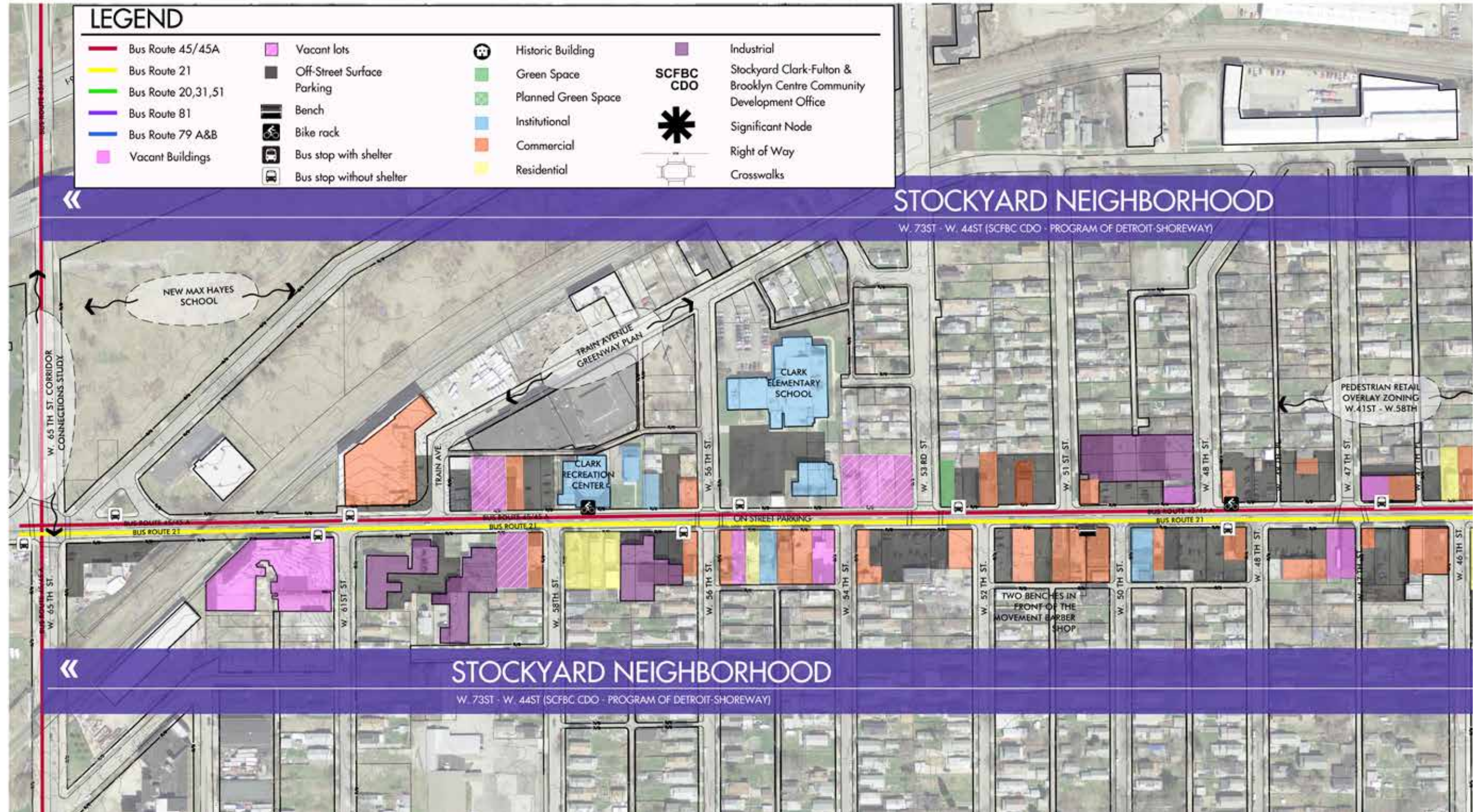


Existing furnishings photos, clockwise from top right: Newspaper vending boxes are unused and/or outdated and should be removed; standard trash receptacles should be replaced; outdated pay phones clutter the sidewalks, and many have been vandalized; sidewalk clutter detracts from sculptural earphone-shaped bike racks; Benches are needed



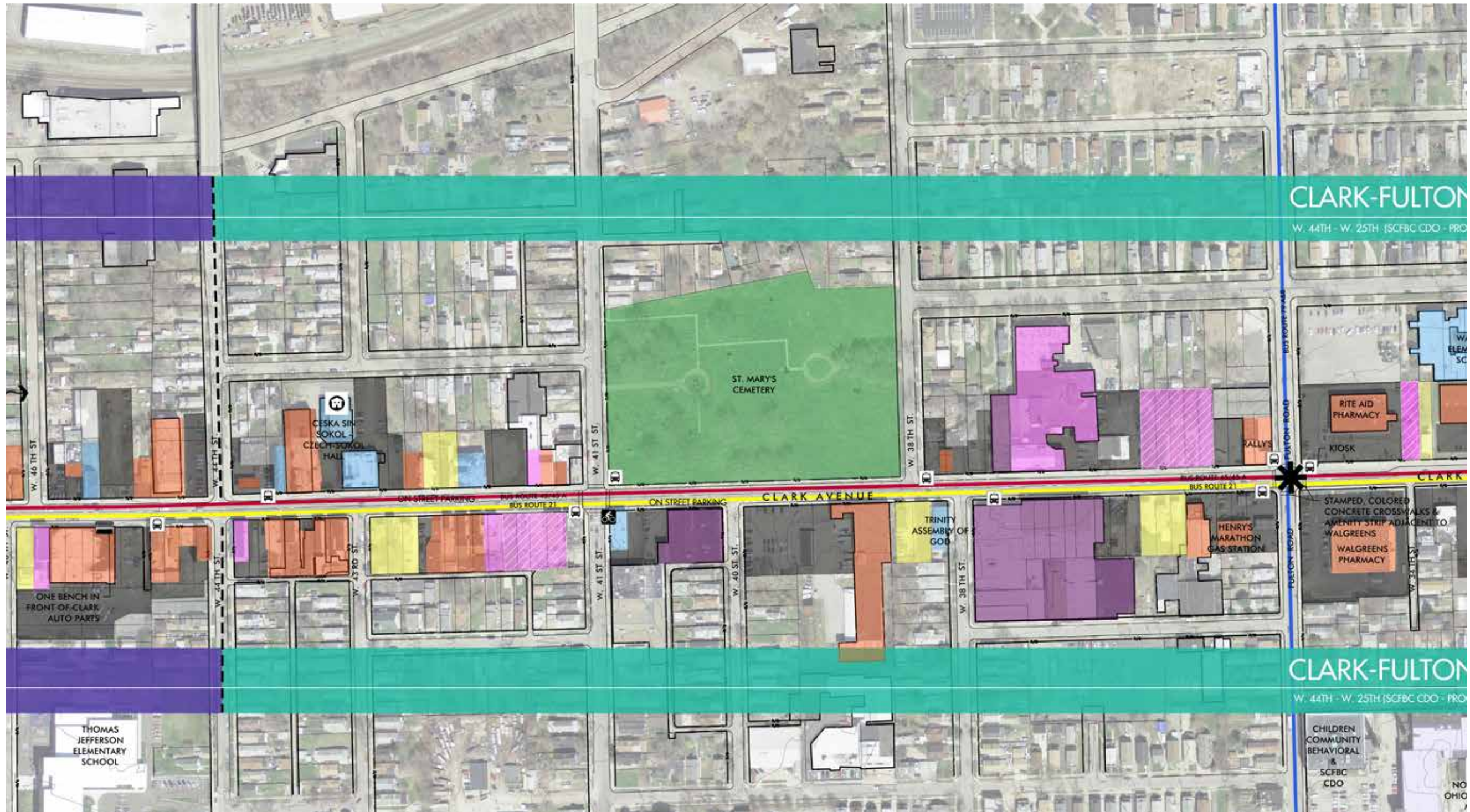
# existing conditions

The existing conditions map on the following four pages summarizes many of the observations noted earlier in this chapter. Maps are not to scale



Clark Avenue's existing conditions from W. 65th Street to W. 46th Street (section 1 of 4)

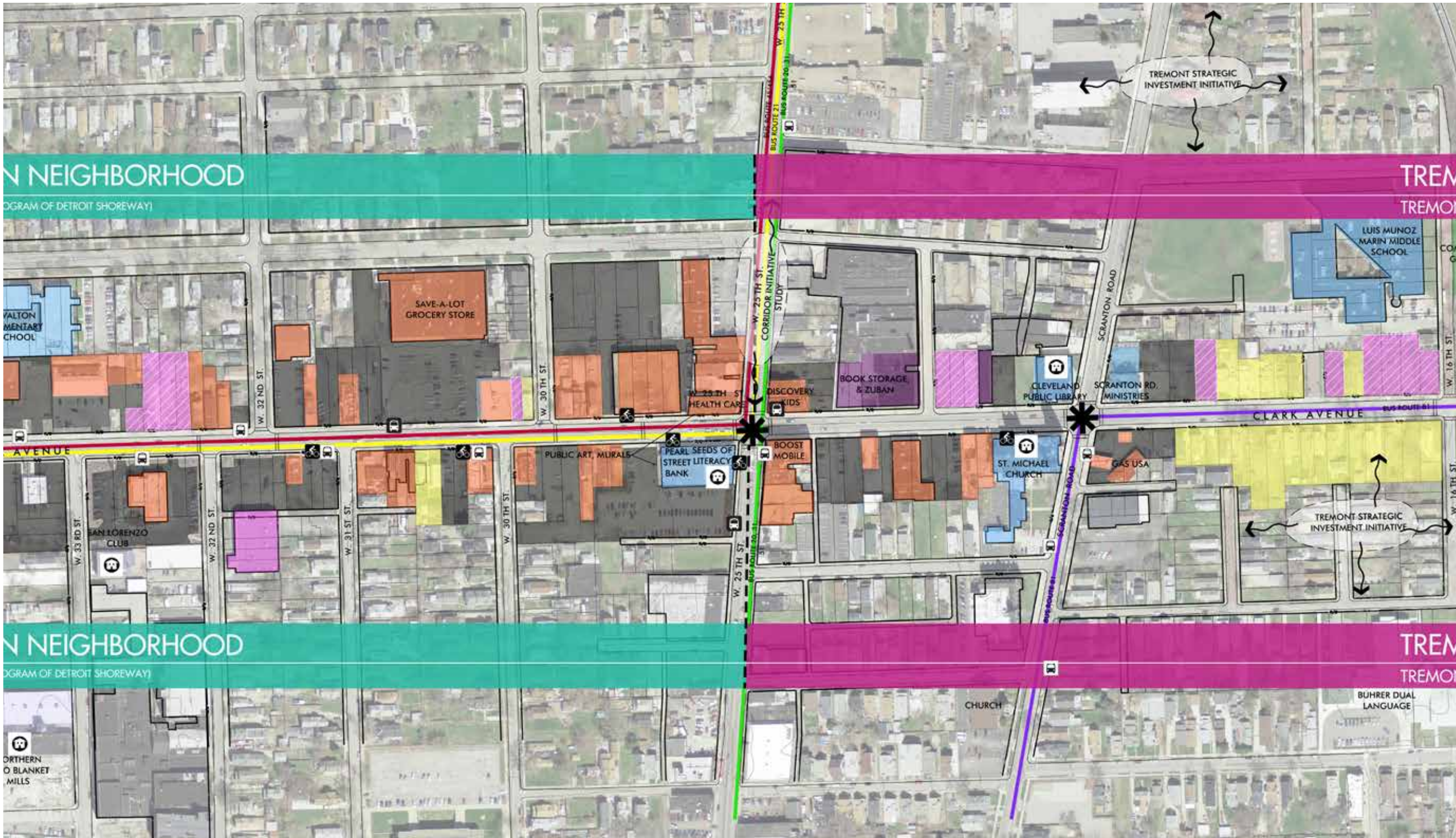
# existing conditions



Clark Avenue's existing conditions from W. 46th Street to W. 34th Street (section 2 of 4)

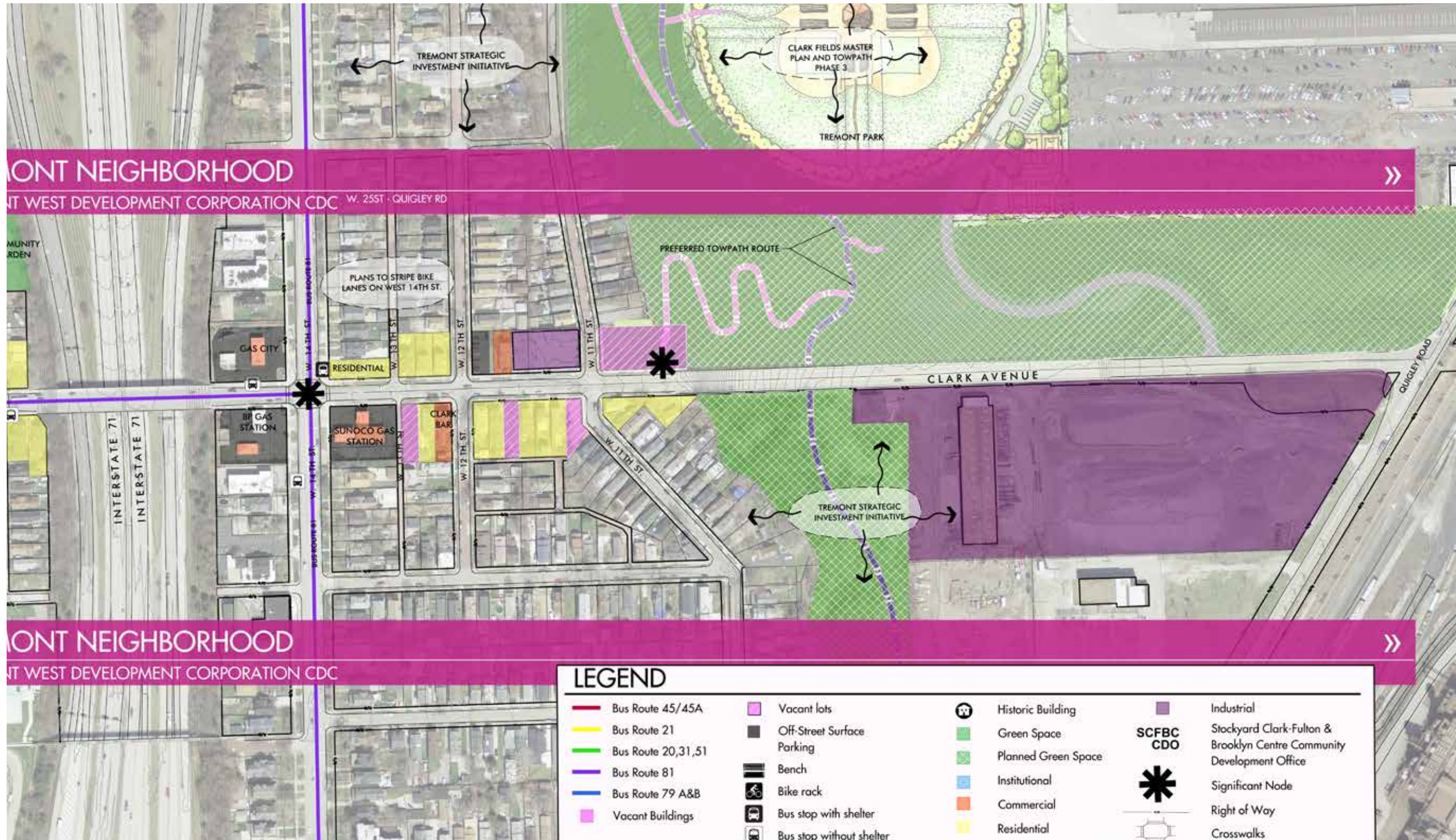


# existing conditions



Clark Avenue's existing conditions from W. 34th Street to W. 16th Street (section 3 of 4)

# existing conditions



Clark Avenue's existing conditions from W. 16th Street to Quigley (section 4 of 4)

# chapter 3: traffic analysis

## EXISTING CONDITIONS

As part of the Clark Avenue Corridor Plan, traffic operations were evaluated along the corridor from West 65th Street east to Quigley Road. The purpose of evaluating and documenting existing traffic operations is to develop a clear understanding of how the corridor is currently functioning for all forms of transportation (automotive, transit, bicycle, and pedestrian,) and to provide a baseline for future alternatives to be compared against.

### Corridor Configuration

Throughout the study area, Clark Avenue generally operates as two lanes in each direction, with dedicated left turn lanes at some of the major intersections. The only existing pavement markings provided to motorists along most of the corridor is a center double line, as seen in the General Existing Corridor Configuration image to the right; without lane lines delineating individual lanes, the roadway functions in a disorganized manner. This lane configuration is typical of many City of Cleveland streets that have not recently been rehabilitated. The lack of existing pavement markings can create confusion along the corridor, as some motorists may use the road as a single lane, while other motorists may use it as two lanes. When using the corridor as two lanes, passing may be difficult, as the overall width of the road is insufficient to accommodate four standard travel lanes. In addition to the unclear lane use along the corridor, on-street parking exists sporadically.

It should also be understood that in many areas, buildings are set back from the Right of Way, with concrete pavement extending from the road

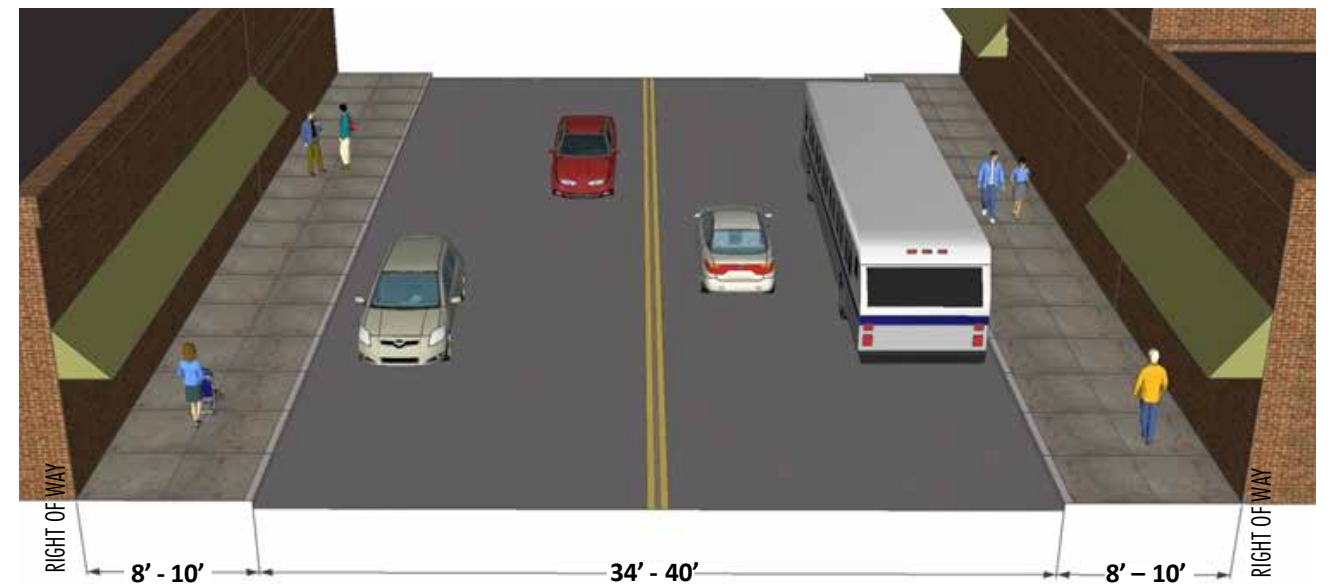
curbs to the face of the buildings. All pavement between the Right of Way and building faces is private property.

### Access

A main goal of this study is to develop recommendations that balance the needs of all users of the Clark Avenue corridor, and provide the appropriate amount of access to businesses and residents along the corridor. As business and property ownership has changed during the history of the corridor, so have the required access points. Many of the businesses have an abundance of drive access that is not required to support their establishment. As seen in the photo to the right, some businesses have drive aprons that are not currently being used and will not likely be used in the foreseeable future. In addition to excess access drives for existing businesses, several vacant parcels along the corridor also have multiple access points that are not needed.



Extraneous drive aprons and varying widths.



General existing corridor configuration (Not to Scale)

# traffic analysis

## Traffic Operations

To fully understand traffic operations along the corridor, peak period turning movement volumes were collected on September 9, 2014. Morning peak data was collected from 7:00 to 10:00 a.m.; noon peak data was collected from 11:00 a.m. to 2:00 p.m.; and evening peak data was collected from 3:00 p.m. to 6:00 p.m. Data was collected at four major intersections along the corridor including:

### DATA COLLECTION:

1. Clark Avenue & West 14th Street
2. Clark Avenue & Scranton Road
3. Clark Avenue & West 25th Street
4. Clark Avenue & Fulton Road

The morning and evening peak hour traffic volumes are illustrated in Figures 1 and 2, respectively. Traffic counts indicate that the AM peak hour is between 7:45 AM and 8:45 AM and the PM peak hour is between 4:30 PM and 5:30 PM. Average Daily Traffic (ADT) was calculated from the traffic count data. ADT along Clark Avenue varies from 7,000 to 9,200 vehicles per day. It is interesting to note that the travel patterns do not reflect any inbound or outbound trends. Rather, the AM and PM peak patterns are very similar to each other.

The AM and PM peak hour traffic volumes were analyzed to assess intersection operations and to determine the performance of the corridor with the existing conditions. The traffic analysis is based on the existing traffic volumes, as recorded by the traffic data collection, and existing signal timings and phasing provided by the City of Cleveland. The traffic data was analyzed using Synchro, to

assess the traffic performance and operational efficiency at each intersection. The analysis results include the approach delay (measured in seconds of delay), volume-capacity (v/c) ratio, and level of service (LOS) for each approach as well as the overall intersection. Average delay is an indication of the expected delay that would typically be experienced in the lane, on the approach, or at the Highway Capacity Manual, as shown in Table 1. LOS D is considered the acceptable performance level for urban areas such as the Clark Avenue corridor intersection. A v/c ratio that is less than 1.0 indicates that the lane is operating below capacity. A v/c ratio of 1.0 indicates that the lane is operating at capacity and a v/c greater than one indicates over-capacity conditions. Level of service (LOS) is a grading scale based upon average delay, with LOS A representing free-flow conditions, LOS E representing operational capacity, and LOS F being over-capacity. The specific delay thresholds for assessing intersection performance are provided by the Transportation Research Board in the Highway Capacity Manual, as shown in Table 1. LOS D is considered the acceptable performance level for urban areas such as the Clark Avenue corridor.

An overview of the capacity analysis results are shown in Table 2 on the following page. The analysis results show that AM and PM peak hour operations at all four intersections perform at acceptable levels, with all intersections functioning at LOS C or better. In addition, all approach movements also operate at LOS D or better, with the exception of the eastbound left at the West 25th Street during both AM and PM peaks.

TABLE 1: LEVEL OF SERVICE (LOS) (HIGHWAY CAPACITY MANUAL, 2010)

LOS	Signalized Intersection	Unsignalized Intersection
	AVERAGE DELAY (SEC/VEH)	AVERAGE DELAY (SEC/VEH)
A	$x < 10$	$x < 10$
B	$10 < x < 20$	$10 < x < 15$
C	$20 < x < 35$	$15 < x < 25$
D	$35 < x < 55$	$25 < x < 35$
E	$55 < x < 80$	$35 < x < 50$
F	$80 < x$	$50 < x$

FIGURE 1: EXISTING TRAFFIC VOLUMES – AM PEAK HOURS

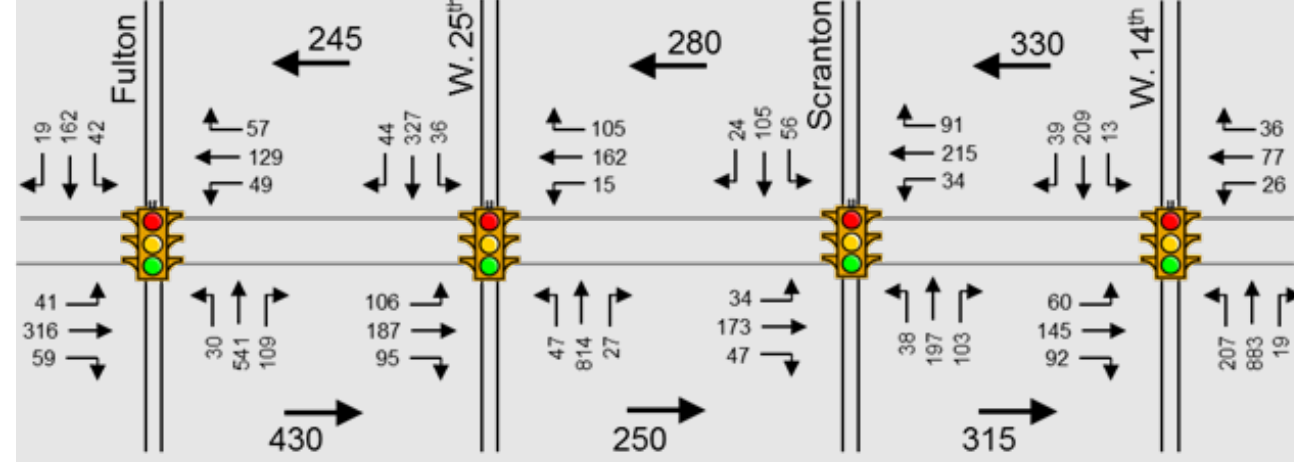
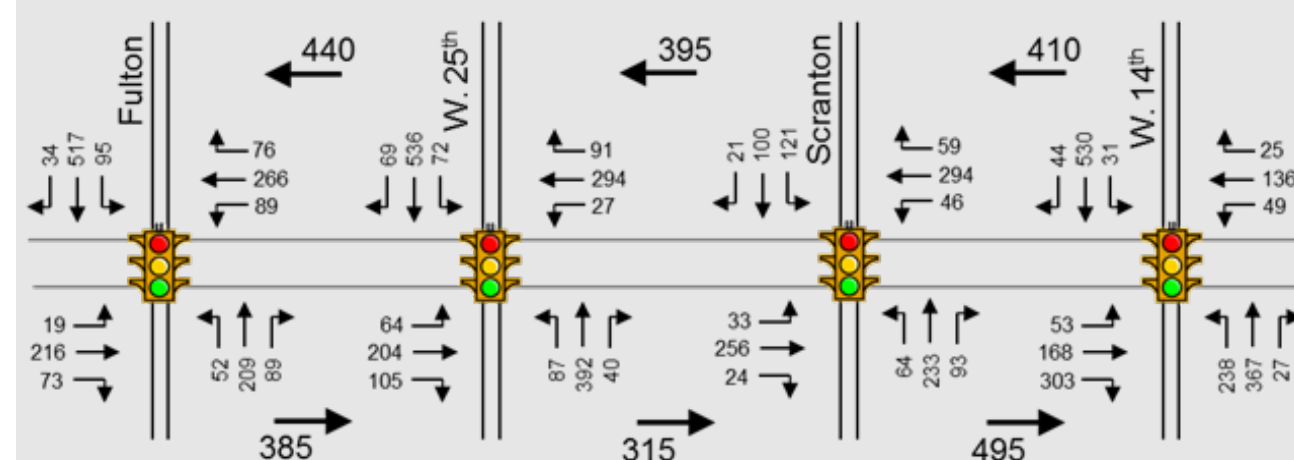


FIGURE 2: EXISTING TRAFFIC VOLUMES – PM PEAK HOURS



# traffic analysis

## AM TRAFFIC OPERATIONS



## PM TRAFFIC OPERATIONS



TABLE 2: CAPACITY ANALYSIS RESULTS FOR 2014 EXISTING CONDITIONS

INTERSECTION / APPROACH / DIRECTION		EXISTING YEAR 2014											
		Cycle Length			AM Peak			Cycle Length			PM Peak		
					LOS	DELAY	V/C				LOS	DELAY	V/C
CLARK AVENUE @ WEST 14TH STREET	EASTBOUND	LEFT	90	B	15.4	0.13	90	B	15.3	0.12			
		THRU-RIGHT		C	21.6	0.41		D	37.0	0.84			
	WESTBOUND	LEFT	B	14.9	0.06	B		17.1	0.23				
		THRU-RIGHT	C	20.2	0.23	C		24.7	0.32				
	NORTHBOUND	LEFT	B	17.9	0.45	D		39.4	0.80				
		THRU-RIGHT	B	19.8	0.61	C		21.2	0.32				
	SOUTHBOUND	LEFT	C	23.4	0.09	B		13.5	0.08				
		THRU-RIGHT	C	20.8	0.25	C		27.2	0.58				
<b>OVERALL</b>					<b>B</b>	<b>19.8</b>	--				<b>C</b>	<b>28.8</b>	--
CLARK AVENUE @ SCRANTON AVENUE	EASTBOUND	LEFT-THRU-RIGHT	75	A	9.5	0.22	75	B	11.3	0.26			
	WESTBOUND	LEFT-THRU-RIGHT		A	9.0	0.28		B	11.5	0.34			
	NORTHBOUND	LEFT	B	10.3	0.08	B		10.8	0.13				
		THRU-RIGHT	B	11.8	0.42	B		12.8	0.45				
	SOUTHBOUND	LEFT	B	11.4	0.15	B		14.4	0.35				
		THRU-RIGHT	A	9.5	0.18	A		9.5	0.17				
<b>OVERALL</b>					<b>B</b>	<b>10.1</b>	--				<b>B</b>	<b>11.8</b>	--
CLARK AVENUE @ WEST 25TH STREET	EASTBOUND	LEFT	120	E	60.7	0.70	120	E	56.1	0.60			
		THRU		D	38.0	0.45		C	32.9	0.43			
		RIGHT		A	7.4	0.22		A	6.5	0.22			
	WESTBOUND	LEFT	C	31.6	0.07	C		29.1	0.11				
		THRU-RIGHT	D	40.3	0.65	D		47.4	0.82				
	NORTHBOUND	LEFT-THRU-RIGHT	B	11.3	0.51	C		33.2	0.68				
	SOUTHBOUND	LEFT-THRU-RIGHT	C	23.0	0.39	B		13.9	0.53				
	<b>OVERALL</b>					<b>C</b>		<b>22.8</b>	--				<b>C</b>
CLARK AVENUE @ FULTON ROAD	EASTBOUND	LEFT-THRU-RIGHT	90	C	22.4	0.59	90	B	15.9				
	WESTBOUND	LEFT-THRU-RIGHT		B	16.3	0.37		C	21.3	0.62			
	NORTHBOUND	LEFT	A	6.8	0.05	A		9.8	0.17				
		THRU-RIGHT	B	13.5	0.68	A		8.6	0.29				
	SOUTHBOUND	LEFT	A	8.6	0.16	A		9.1	0.18				
		LEFT-THRU	A	7.0	0.19	B		13.1	0.60				
<b>OVERALL</b>					<b>B</b>	<b>15.3</b>	--				<b>B</b>	<b>14.6</b>	-

# traffic analysis

## Truck Operations

The Clark Avenue residents have expressed concern regarding truck traffic along the corridor, particularly between W. 25th Street and Quigley Road. As part of the traffic count survey that was conducted, trucks were specifically counted along the corridor to determine the actual percentage of trucks using the corridor. The count data shows that during the AM peak hour the corridor is carrying on average 6% trucks and during the PM peak hour the corridor is carrying an average of 1.5% trucks. Trucks are more prevalently found on the east end of the corridor near West 14th Street heading down to Quigley Road, with truck amounts nearing 12%. Residents have indicated that truck traffic has significantly increased with peak periods being between 5:00 AM to 7:00 AM and between 7:00 PM and 9:00 PM since the opening of Steelyard Commons in 2007.

In addition to the traffic count survey at various intersections, a specific truck traffic count was performed at the intersection of West 14th Street and Clark Avenue. This intersection was selected due to its proximity to both the residential section of Clark Avenue and Steel Yard Commons. At Public Meeting #1, residents between West 25th Street and West 16th Street, indicated that truck traffic is heaviest during the AM hours, as early as 5:00 AM. Since the traffic survey data collected began at 7:00 AM, additional truck data was collected on Wednesday, January 14th, 2015 from 5:00 AM to 10:00 AM to ensure a complete understanding of truck movements along Clark Avenue.

The results of the truck traffic count indicate that during a 5 hour period (5:00 AM to 10:00 AM) a combined (both eastbound and westbound)

38 single unit trucks and 11 tractor trailer trucks traveled the Clark Avenue corridor between West 25th Street and West 16th Street. The turning movement data collected at the intersection of West 14th Street and Clark Avenue indicates that during the morning hours the primary movement for trucks is northbound along West 14th Street and the secondary movement is southbound along West 14th Street.

A GPS mapping exercise was also completed to determine the shortest routes from major freeways to Steelyard Commons. As seen on the figure to the right, all routes to Steelyard Commons use either the Quigley Road or Jennings Road for freeway access except for the I-90 eastbound movement. It is expected that some of the truck traffic along Clark Avenue can be contributed to trucks exiting I-90 eastbound at West 25th Street and using Clark Avenue and West 14th Street for Steelyard Commons access.

Although Clark Avenue is not the primary truck movement during the morning hours, the 49 trucks that traveled the corridor in a 5 hour period equates to about 10 trucks an hour and once every 6 minutes. Residents along this section report that during summer months truck traffic is more prevalent due to construction activities. Residents also reported that overall truck traffic along the corridor may be slightly decreased since the closure of the West 14th Street entrance ramp to I-90 eastbound. Residents anticipate that when that entrance ramp re-opens additional truck traffic will return.

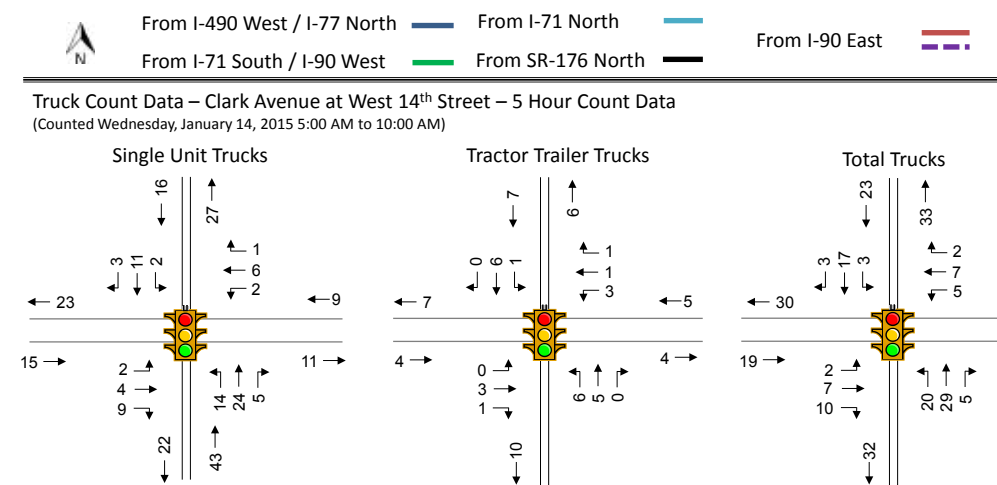
In 2009, residents along Clark Avenue recognized that truck traffic (and overall traffic numbers) had been increasing and associated most of the

increase to the opening of Steelyard Commons. The residents developed a mitigation plan that was presented to the City. The primary focus was to increase way finding signage to Steelyard Commons. The residents plan called for proposed signage along Quigley Road, West 3rd Street, West 14th Street, I-90 Eastbound, I-490 Westbound and I-71 north and southbound.

### Recommended strategies to mitigate truck traffic:

- Inform Steelyard Commons and WIRE-Net on desired truck routes to access their facilities. These routes would primarily use Quigley Road and Jennings Road.
- Along the residential section of Clark Avenue, between West 25th Street and West 16th Street, create a road that feels more like a residential street and less inviting for trucks. Adding green space and constructing parking bump outs may reduce truck traffic.
- Coordinate with the City of Cleveland and ODOT to add wayfinding signs on I-90 east, directing traffic to Steelyard Commons.

## TRUCK ROUTES, PER GPS MAPPING



# traffic analysis

## TRUCK PERCENTAGES

Summary	Clark Ave. Eastbound				Clark Ave. Westbound				Scranton Rd. Northbound				Scranton Rd. Southbound				TOTAL
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	
	AM Peak Hour: 7:45 AM To 8:45 AM																
Total Volume	47	173	34	254	91	215	34	340	103	197	38	338	24	105	56	185	1117
PHF	0.78	0.92	0.85	0.95	0.91	0.93	0.94	0.92	0.83	0.79	0.63	0.93	0.86	0.69	0.74	0.73	0.92
Truck Volume	1	9		10	3	10	6	19	7	4	1	12	2	2	5	9	50
Truck Percentage	2%	5%	0%	4%	3%	5%	18%	6%	7%	2%	3%	4%	8%	2%	9%	5%	4%
PM Peak Hour: 4:30 PM To 5:30 PM																	
Total Volume	24	256	33	313	59	294	46	399	93	233	64	390	21	100	121	242	1344
PHF	0.86	0.88	0.75	0.93	0.87	0.90	0.72	0.95	0.93	0.84	0.73	0.86	0.66	0.66	0.92	0.81	0.95
Truck Volume		2		2	3	5	1	9	3	1	1	5					16
Truck Percentage	0%	1%	0%	1%	5%	2%	2%	2%	3%	0%	2%	1%	0%	0%	0%	0%	1%

FIGURE 4: CAPACITY ANALYSIS RESULTS FOR 2014 REDUCED LANE USE

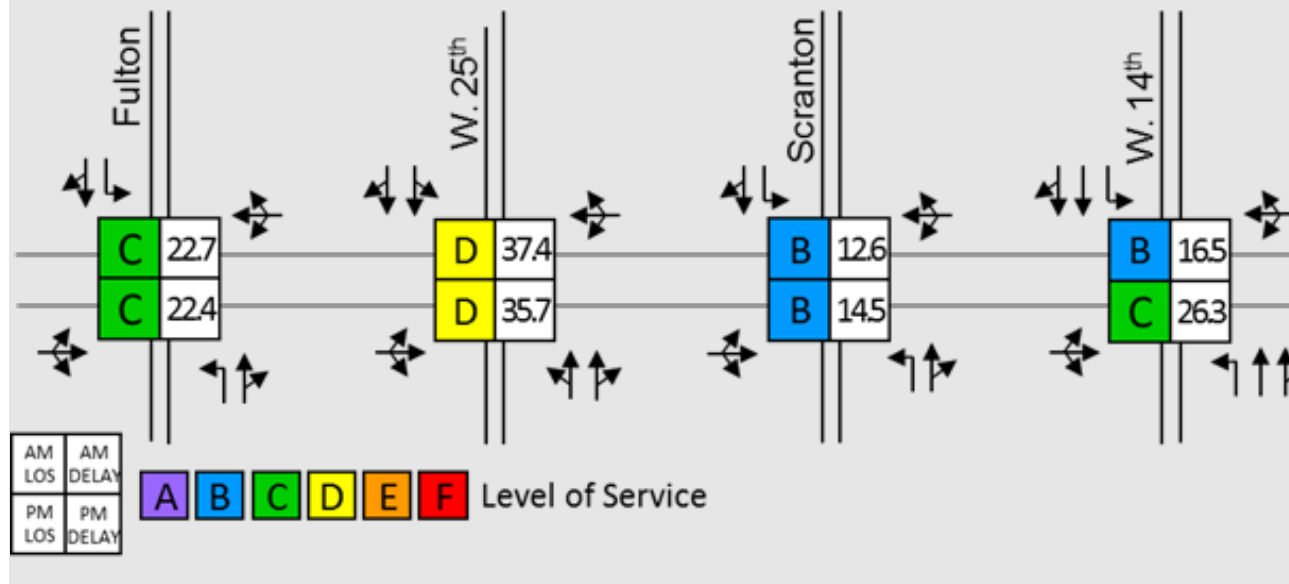
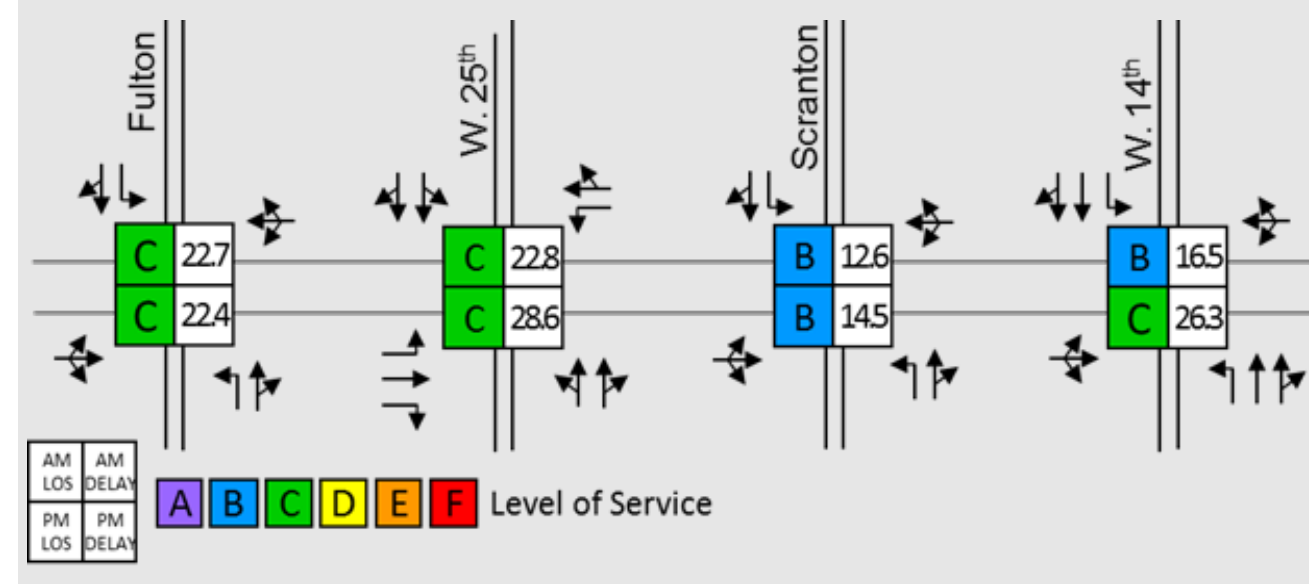


FIGURE 5: CAPACITY ANALYSIS RESULTS FOR 2014 PROPOSED LANE USE



## Lane Configuration Concept Development

In order to determine feasible lane configuration along the Clark Avenue corridor, additional traffic analysis was conducted to determine the minimum capacity requirements for Clark Avenue's four major intersections. This analysis was used to determine if it would be possible to reduce the east/west capacity of the intersections (and associated adjacent roadway and intersections in between,) while maintaining an acceptable level of service. The capacity of the north/south approaches was not changed, and remained the same as existing at all intersections. The analysis determined whether or not eastbound and westbound left turn lanes are needed at the four major intersections. An overview of the reduced capacity analysis results and reduced lane use are shown in Table 3 (to the right,) and Figure 4, on page 19.

The analysis results show that AM and PM peak operations for the reduced capacity roadway would operate at LOS D or better for all eastbound and westbound approach movements at the West 14th Street, Scranton Road and Fulton Road intersections, with a majority of movements operating as LOS C or better. These results indicate that acceptable LOS would be provided at these intersections with a reduction in east/west capacity.

Without an exclusive eastbound left turn lane, the level of service at the intersection of West 25th Street and Clark Avenue results in unacceptable LOS on the eastbound approach (LOS F in the AM and LOS E in the PM). Although the overall intersection operates at LOS D in the AM and PM peak periods, it is expected that a reduction in

east/west capacity would result in unacceptable delays for commuters using Clark Avenue.

### Recommended Lane Use

Optimal east-west approach configurations were developed for the four major intersections on Clark Avenue based on the assessment of the existing and reduced east/west intersection capacity. The analysis showed that reduced capacity on the east-west approaches with standard single lane approaches would provide acceptable operations at the West 14th Street, Scranton Road and Fulton Road intersections. The intersection of West 25th Street and Clark Avenue should be configured with two lanes on the eastbound and westbound approaches (exclusive left and through/right). The four major study area intersections, together with the adjacent roadway segments, should be configured as described above to optimize corridor operations with the appropriate capacity, providing opportunity for other amenities, and to provide a better balance between all travelers on the corridor. Figure 5 depicts the capacity analysis for the proposed intersection configuration at the four major intersections along the Clark Avenue corridor.

### Signalization

Along the Clark Avenue corridor there are currently 13 existing signalized intersections. The existing signalization hardware and equipment is at various stages of its life cycle, with some signals being recently upgraded and others in need of repairs. It is likely that several of the existing signalized intersections along the corridor are no longer

TABLE 3: CAPACITY ANALYSIS RESULTS FOR 2014 REDUCED LANE USE

INTERSECTION / APPROACH / DIRECTION		EXISTING YEAR 2014							
		Cycle Length	AM Peak			Cycle Length	PM Peak		
			LOS	DELAY	V/C		LOS	DELAY	V/C
CLARK AVENUE @ WEST 14TH STREET	EASTBOUND LEFT-THRU-RIGHT	90	C	26.3	0.61	90	D	35.7	0.87
	WESTBOUND LEFT-THRU-RIGHT		B	18.8	0.28		C	22.2	0.46
	NORTHBOUND LEFT		B	11.6	0.37		C	22.9	0.66
	THRU-RIGHT		B	13.4	0.53		B	17.4	0.28
	SOUTHBOUND LEFT		C	21.2	0.08		B	13.0	0.09
	THRU-RIGHT		B	18.7	0.24		C	27.4	0.58
<b>OVERALL</b>			<b>B</b>	<b>16.5</b>	--		<b>C</b>	<b>26.3</b>	--
CLARK AVENUE @ SCRANTON AVENUE	EASTBOUND LEFT-THRU-RIGHT	75	B	13.1	0.39	75	B	14.6	0.47
	WESTBOUND LEFT-THRU-RIGHT		B	14.5	0.51		B	16.9	0.60
	NORTHBOUND LEFT		B	10.3	0.08		B	11.4	0.13
	THRU-RIGHT		B	11.8	0.42		B	13.3	0.45
	SOUTHBOUND LEFT		B	11.4	0.15		B	15.2	0.36
	THRU-RIGHT		A	9.5	0.18		A	10.0	0.17
<b>OVERALL</b>			<b>B</b>	<b>12.6</b>	--		<b>B</b>	<b>14.5</b>	--
CLARK AVENUE @ WEST 25TH STREET	EASTBOUND LEFT-THRU-RIGHT	120	F	92.1	1.03	120	E	57.3	0.89
	WESTBOUND LEFT-THRU-RIGHT		C	34.1	0.53		D	42.5	0.76
	NORTHBOUND LEFT-THRU-RIGHT		B	18.2	0.60		D	38.0	0.71
	SOUTHBOUND LEFT-THRU-RIGHT		C	29.6	0.44		B	17.9	0.59
	<b>OVERALL</b>		<b>D</b>	<b>37.4</b>	--			<b>D</b>	<b>35.7</b>
CLARK AVENUE @ FULTON ROAD	EASTBOUND LEFT-THRU-RIGHT	90	C	31.4	0.78	90	B	20.0	0.51
	WESTBOUND LEFT-THRU-RIGHT		C	21.8	0.52		C	34.2	0.83
	NORTHBOUND LEFT		B	11.3	0.06		B	16.4	0.24
	THRU-RIGHT		C	21.6	0.76		B	13.4	0.34
	SOUTHBOUND LEFT		B	15.4	0.22		B	14.2	0.21
	LEFT-THRU		B	11.2	0.21		C	20.8	0.68
<b>OVERALL</b>			<b>C</b>	<b>22.7</b>	--		<b>C</b>	<b>22.4</b>	-

warranted and could potentially be removed. This plan recommends that a warrant analysis be completed for all of the signalized intersections along the corridor to determine their need. For the purposes of this study, it was assumed that 8 of the 13 signals will be completely replaced

with the other 5 signals either being removed or retained, due to recent upgrades.



# chapter 4: concepts & recommendations

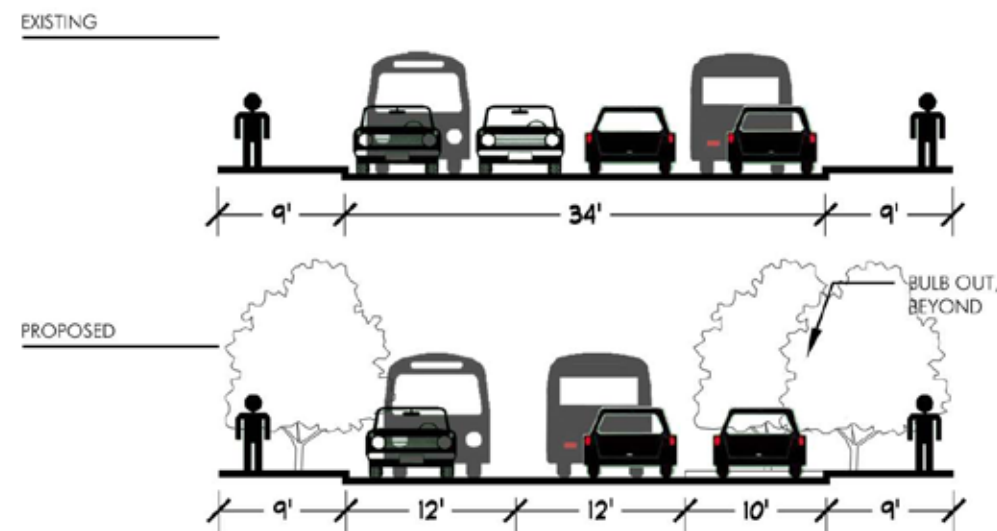
## COMPLETE STREETS

Make Clark Avenue a destination, a memorable place, and an economic success by making it an Complete Street:

- Balance the priorities of all corridor users: pedestrians, cyclists, public transit, motorists, merchants, and residents.
- Create space for people to walk at a leisurely pace and beautiful places for people to gather.
- Provide physical comfort for pedestrians, through shade in the summer, protection from the elements where possible, and traffic calming measures.
- Define the street edge, to direct and engage people's eyes.
- Edges are transparent, to invite people beyond the street edge, and to foster a feeling of security.
- Foster complementarity between the architecture and the streetscape design and materials.
- Reduce solar heat gain and reduce the impact of rainwater on the local and regional environment.
- Are maintainable, to promote a sense of cleanliness and to reduce the burden on the owner and stakeholders.
- Utilize high quality design, details, and construction.

## CORRIDOR CONFIGURATIONS

Utilizing the planning process described earlier, the planning team arrived at the following recommended corridor configurations.



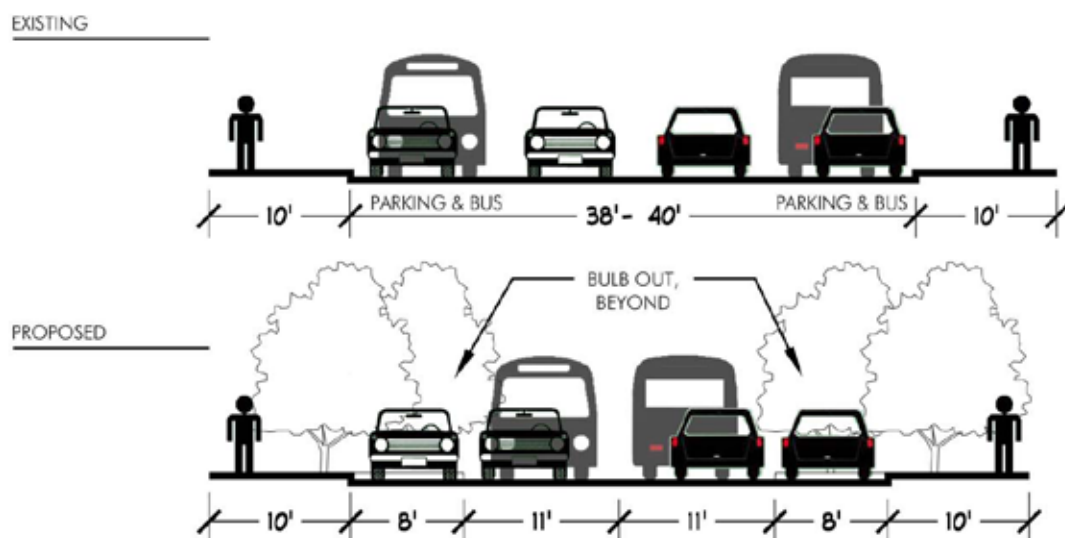
**A**

### W. 65th Street to W. 51st Street

Sharrows should be installed on Clark, from West 65th to West 16th. On-street parking should be located on the side of Clark that has the fewest drive aprons (after apron consolidation) and fire hydrants, to maximize parking spaces. The location of the parking lanes will be confirmed during detailed design. Bulb outs and a solid stripe between parking and travel lanes will calm traffic and discourage motorists from using the parking lane as a passing lane. Two exceptions to the proposed configuration shown above are:

1. When Clark Elementary School is rebuilt, the building will most likely face and abut Clark, and the Cleveland Metropolitan School District will add a drop off lane on the north side of Clark, between 54th and 56th.
2. Exclude on-street parking from under the railroad bridge, between 61st and 65th.

# concepts & recommendations

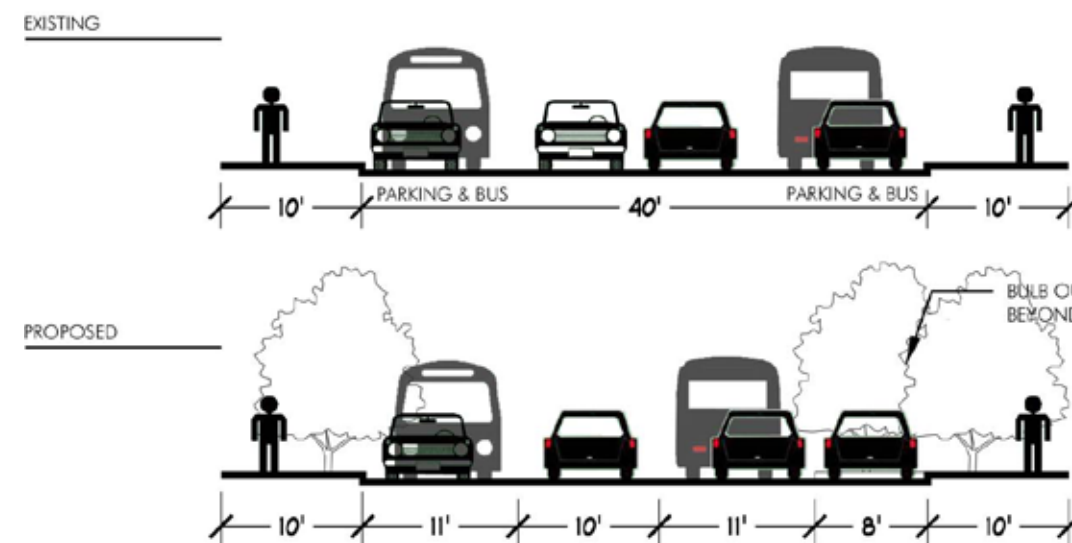


## **B** W. 51st Street to W. 38th Street

This segment is wide enough for parking on both sides; the corridor parking study recommended by this plan will determine if parking on both sides is needed. Bulb outs and a solid stripe between parking and travel lanes will calm traffic and discourage motorists from using the parking lane as a passing lane.

There are two exceptions to configuration B:

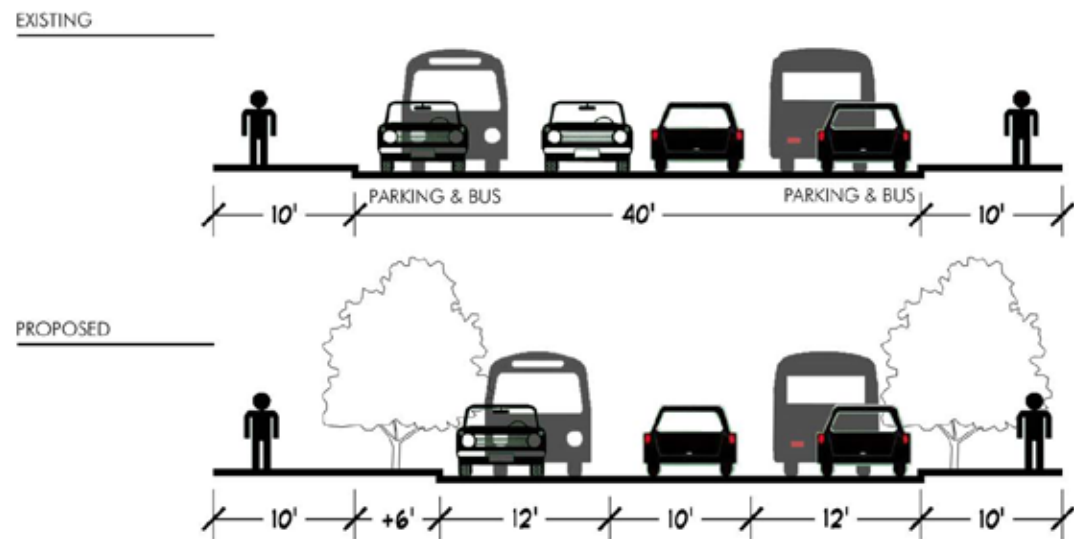
1. Between 38th and 41st, regardless of the future parking study's recommendations, the street should be narrowed on the north side, along the length of the cemetery, since the cemetery does not require parking.
2. Left turn lanes are recommended at West 44th Street, based on stakeholder input. Traffic counts and analysis of this intersection were not part of this study, and should be included in the design and engineering stage of Clark Avenue's rehabilitation.



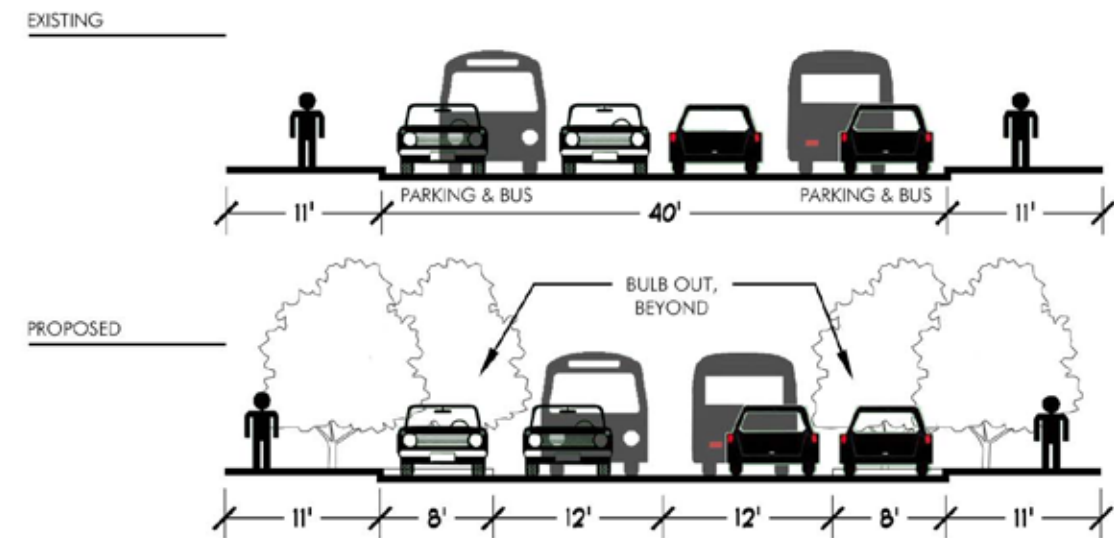
## **C** W. 38th Street to W. 30th Street

The presence of many in-out businesses in this segment, such as fast food establishments, calls for a continuous center turn lane. On-street parking should be located on the side of Clark that has the fewest drive aprons (after apron consolidation) and fire hydrants, to maximize parking spaces. The location of the parking lanes will be confirmed during detailed design. Bulb outs and a solid stripe between parking and travel lanes will calm traffic and discourage motorists from using the parking lane as a passing lane.

# concepts & recommendations

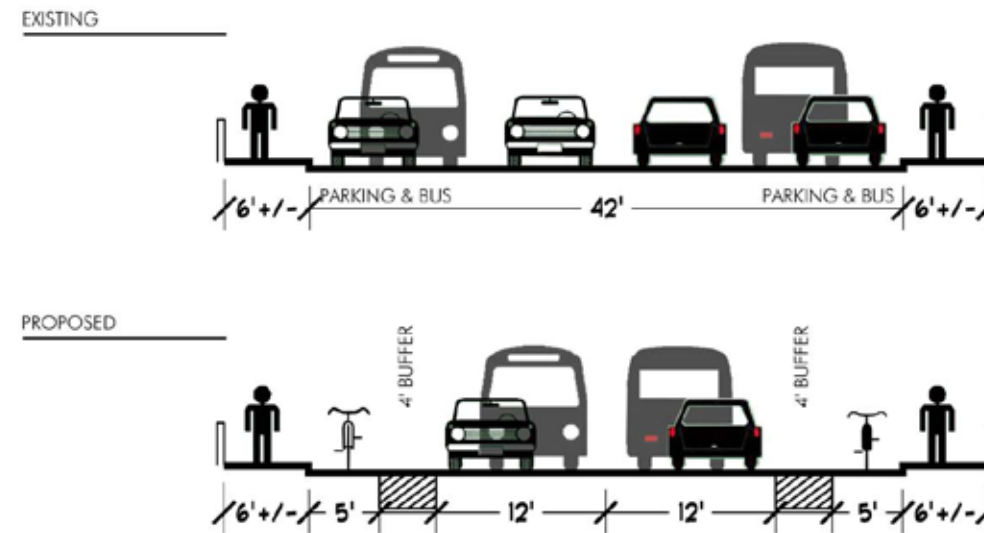
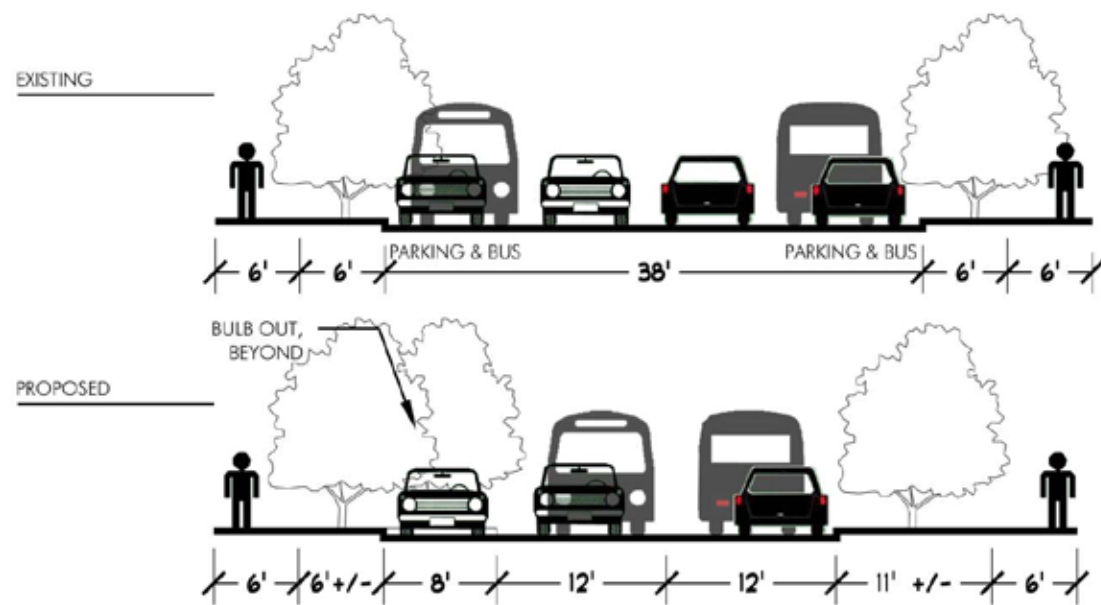
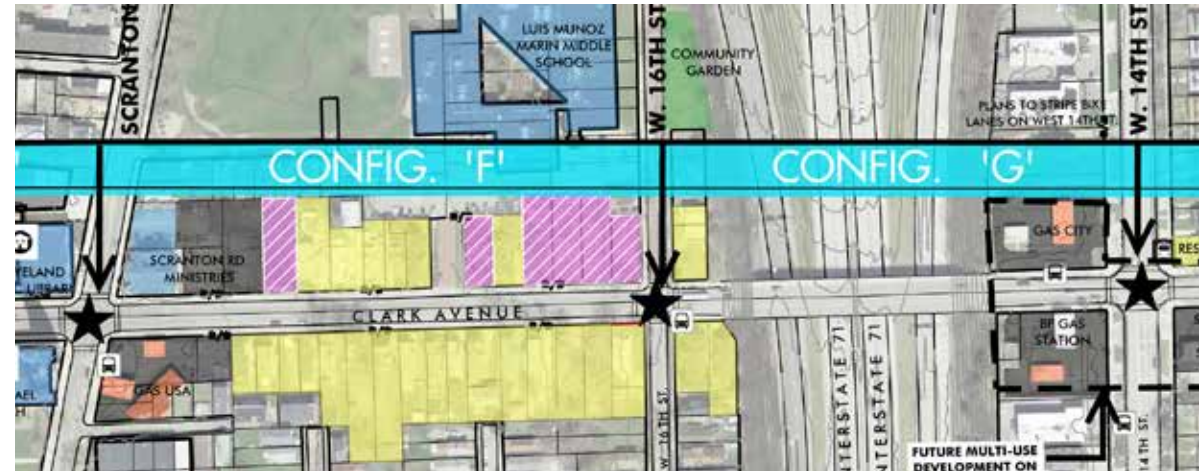


**D** **W.30th to Twinkie Lane**  
 West 25th is the busiest vehicular and pedestrian intersection along the corridor, and one of only two intersections recommended by this study for left turn lanes. On-street parking spaces should be implemented, west of and as close as possible to West 25th, to support retail businesses on Clark Avenue.



**E** **Twinkie Lane to Scranton Road**  
 On-street parking on both sides is important here, to serve the St. Michael's Church community and the future use of the library building. Bulb outs and a solid stripe between parking and travel lanes are essential, to calm traffic.

# concepts & recommendations



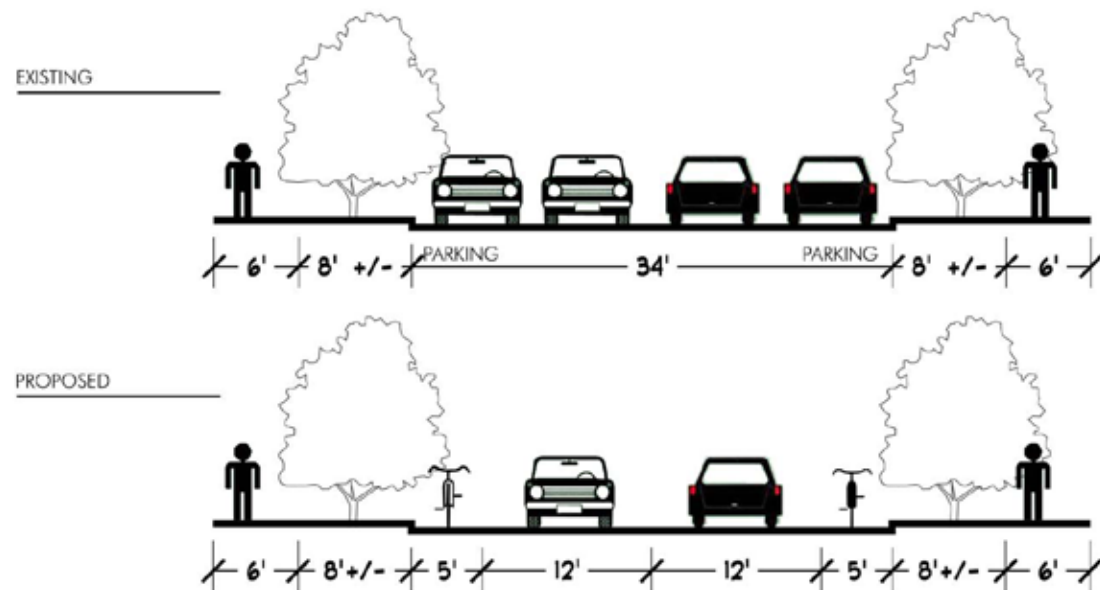
## F Scranton Road to W. 16th Street

The focus of this highly residential section is to calm traffic as much as possible. Bulb outs and a solid stripe between parking and travel lanes are critical for achieving this goal. While connecting the Towpath Trail to the future bike lanes on Scranton is a high priority, local residents strongly requested on-street parking, in lieu of bike lanes, due to a lack of off-street or nearby parking capacity.

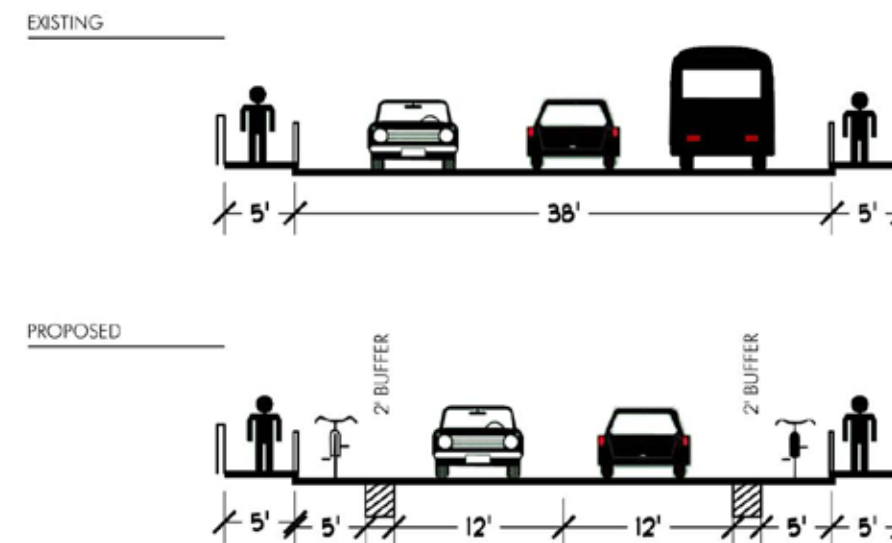
## G W. 16th Street to W. 14th Street

Bike lanes begin at West 16th Street, toward the east. The majority of this segment consists of the bridge over Interstate 71, which provides enough width for a 4' buffer for each bike lane. Buses turn off of Clark, at West 14th Street.

# concepts & recommendations



**H** **W. 14th Street to W. 11th Street**  
 This segment, with mixed residential, commercial, and industrial uses, features bike lanes, to connect the future Towpath Trail neighborhood connector to West 14th, and to calm traffic.



**I** **W. 11th Street to Quigley**  
 In order to make this segment more complete, the width of one of the two existing westbound lanes will be replaced with bike lanes. There is room for 2' buffers between the travel and bike lanes, to separate cyclists from truck traffic.

## Design for Pedestrians

Safe and accessible sidewalks benefit both pedestrians and merchants. Not only do active sidewalks allow for more “eyes on the street” to monitor safety, but they also improve business -- pedestrians often become patrons in local shops and restaurants.

On-street parking is also an asset to commercial districts, not only does it provide parking for patrons, but it also works congruently with sidewalks to provide protective buffers between pedestrians and on-coming traffic. The Cleveland Complete and Green Streets report identifies seven essential key elements for successful sidewalks, which should be implemented wherever possible along Clark:

### COMPLETE & GREEN STREETS

#### KEY ELEMENTS:

- Accessibility
- Adequate width
- Safety
- Continuity
- Landscaping
- Drainage
- Quality of place and Social space

### Accessibility

All new sidewalks and corner features (such as curb ramps and landings) must adhere to the Americans with Disabilities Act (ADA). Call buttons, signs, symbols, markings, and pavement textures should also be ADA-compliant. Accessible curb ramps designed according to the Americans with

Disabilities Act create accessible routes across streets. Compliant ramps also create high visual contrast that guides pedestrians to crossing locations and raise motorists' awareness of crossing zones.

### Adequate Width

The minimum width for an unobstructed sidewalk within a City of Cleveland central business district is six feet. A two- to six-foot wide amenity strip should be placed behind the curb. This amenity strip can include street trees, landscaping (in areas that will be maintained) and site furnishings, and serves as a buffer between pedestrians and moving vehicles.

### Safety

Pedestrian safety can be enhanced with the following tools:

#### Crosswalks

All crosswalks should be designed with a high visual contrast to the roadway pavement, such as the painted ladder design shown in the image to the right. The high visibility clarifies pedestrian crossing zones for motorists, and encourages pedestrians to cross only at specific locations. Enhanced crosswalks, with colored and stamped concrete, add a texture and color contrast to adjacent pavement, and should be constructed at the locations shown on the following page.

#### Curb Radius

Smaller curb radii slow turning vehicles, shortens the crossing distance, and creates more space for pedestrians and/or green infrastructure.

#### Median Pedestrian Refuge

Center islands narrow the cartway and shorten

pedestrians' crossing distance, but also provide a place of pedestrian refuge. On a two-travel lane road (one each direction,) the refuge allows pedestrians to cross one lane of traffic at a time. To improve car visibility and increase pedestrian-motorist eye contact, the pedestrian ADA-cut through the island should be oriented at an angle toward oncoming traffic. The feasibility of implementing median pedestrian refuges within mid-block crosswalks at Clark Elementary School, and Clark Recreation Center should be further studied. These particular areas were identified by the community as potential midblock crossing opportunities, since each has a high number of children who utilize these facilities.

#### In-Street Pedestrian Crossing Signs

Signs which sit in the middle of the street and denote crossing zones raise motorist awareness, and increase pedestrian comfort. These are a less durable option than median pedestrian refuges, but are inexpensive and require less space.

#### Countdown Pedestrian Signals

Crossing signals with a countdown number show pedestrians if and how long they have to cross safely. All crossing signals should have a countdown number.

#### Rectangular Rapid Flashing Beacons (RRFB)

RRFB's are user-actuated amber LEDs that supplement warning signs at unsignalized intersections or mid-block crosswalks. They can be activated by pedestrians manually by a push button or passively by a pedestrian detection system. These signals have been found to be more effective, and are recommended at all five proposed mid-block crossings shown on the following page.



Bulbouts reduce the crossing distance for pedestrians



Painted ladder crosswalks are considered high-contrast and are more visible to vehicles



Rectangular Rapid Flashing Beacon

# concepts & recommendations

## Safe Crossings



 Enhanced Crosswalks

 Mid-Block Crossings

The mid-block crossings are located at “T” intersections or between intersections, where there is a high volume of pedestrian crossings, particularly for children going to or from schools or the Clark Recreation Center. The crossing near West 33rd Street is a lower priority, since Walton Elementary is planned to be closed in the near future.

The mid-block crossings will be shortened with a bulbout in the parking lane(s) and a median pedestrian refuge, if space allows, and will be highly visible, with high-contrast striping and RRFB's.



Example of a high-contrast ladder crosswalk with a median pedestrian refuge.



Example of a high-contrast ladder crosswalk with a median pedestrian refuge and a rectangular, rapid flashing beacon, (RRFB)



Example of an enhanced crosswalk with colored, stamped concrete.



An off-set ladder crosswalks and median pedestrian refuge.



# concepts & recommendations

## Continuity

Furnishings, specialty paving, public art, and lighting compose a continuous streetscape by delineating pedestrian space and creating character. The planning team recommends using ADA-compliant permeable pavers in the Clark Avenue amenity strip as a unifying element. The proposed furnishings and materials chart on page 33 shows design elements selected by the planning team to create a cohesive streetscape.

## Landscaping

Street trees enhance the overall visual and spatial character of the pedestrian zone and the corridor as a whole. A continuous canopy unifies the corridor and defines pedestrian space on both sides of the road, especially where buildings are set back from the sidewalk or are non-existent. Street trees and landscaping also create a more pleasant setting for pedestrians, cyclists, and motorists. An aesthetically-pleasing street increases property value and encourages commercial growth.

The existing trees that occur within the residential area between W. 11th and Scranton Road should be maintained in place. Additional street trees should be urban- and salt-tolerant, mature to a size that does not conflict with overhead power lines, require little maintenance, and given adequate soil volume to grow in, per the chart to the right. For appropriate tree species, refer to the City of Cleveland's Urban Forestry list of approved street trees in the appendix.

Additional salt- and urban-tolerant landscaping can be utilized to define gathering spaces, but should be used only where they will be properly maintained.

## Drainage

Permeable pavement is proposed throughout Clark Avenue's amenity strip.

Bioretention plantings should be considered for pedestrian bulbouts, if a merchant or Community Development Corporation commits to regular maintenance. Bioretention plantings consist of plants that thrive in wet conditions, are urban-tolerant, and in northern climates, are salt-tolerant. Bioretention planters are designed to collect, slow, infiltrate, and remove pollutants from rainwater runoff before it enters a drainage system, and should only be used where pervious solutions are not feasible, or visual impact or public education is desired. The proposed locations and design should be reviewed with the City and local CDC's during the design phase to ensure a responsible entity and adequate budget is established for proper maintenance. See page 31 for cost and more maintenance considerations.

## Quality of Place and Social Space

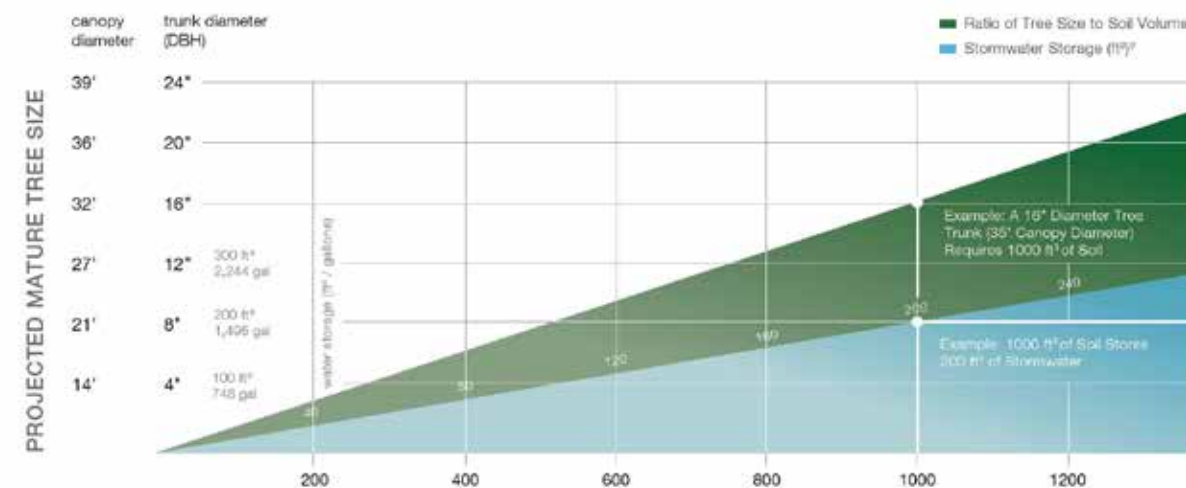
Not only is a complete street a transportation link, but its sidewalks are a destination in and of themselves. Spaces along the corridor can function as gathering and meeting places (see La Villa Plaza concept on page 39.) Appropriate streetscape materials can compliment local architecture and enhance the neighborhood, well beyond the right-of-way.

It is important to understand that in many locations along the corridor, buildings are set back from the Right of Way, resulting in existing pavement between the Right of Way and building faces lying on private property. Since private property cannot be improved with public dollars, all improvements

implemented within the Right of Way should be designed with the interface with the private property taken into account. Optimally, additional funding should be secured, to cover the costs of improvements to the face of each building.



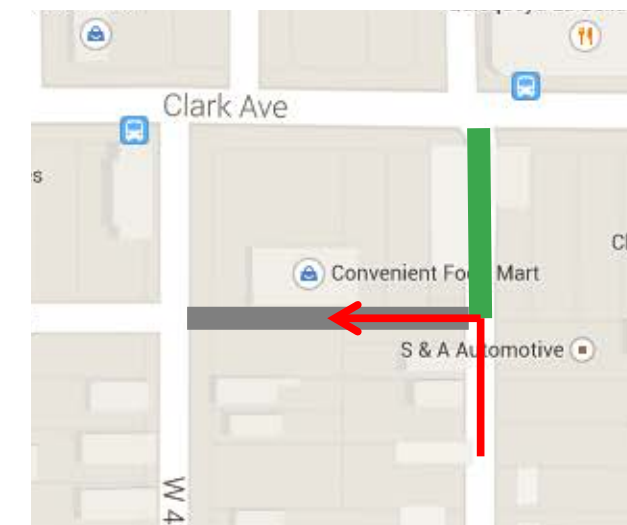
Planted bioswales within bulbouts, in Tremont



Adequate soil volume is necessary for large, long-lived, vigorous trees. - Source: Deeproot

## Block Consolidation

The intersection of West 47th and Clark is unsafe and uncomfortable for pedestrians, since the two buildings on the south corners create a blind condition for northbound vehicles on 47th and east-westbound pedestrians on the south side of Clark. West 47th vehicular traffic should be rerouted to West 48th, through the vacant parcel behind the commercial property, as shown to the right, and the closed portion of West 47th can be upgraded to a pocket park that functions as a pedestrian connector.



Gray line represents new egress alley; green line denotes new pedestrian park.



# concepts & recommendations

## Design for Bicyclists

The most successful bicycle facilities accommodate a broad range of bikes and meet the needs of all cyclists, whether experienced or beginner.

### Bicycle Facility Types

A variety of bicycle facilities can serve and provide safety for cyclists within a roadway:

#### Sharrows

Cyclists and motorists share the same space on the road. Pavement markings increase motorists' awareness of cyclists.



Sharrow markings are recommended from W. 16th Street to W. 65th Street.

#### Bike Lanes

Bike lanes and buffered bike lanes use pavement markings to separate cyclists and motorists on the same pavement. For the Clark Avenue corridor sharrows are recommended for the majority of the study area, with bike lanes recommended from Quigley to W. 16th Street, connecting to the future bike lanes on W. 14th Street. This particular corridor is not listed as a recommended dedicated route on the Cleveland Bikeway Plan. It was also decided during the public outreach phase that on-street parking is more desirable to both residents and merchants than bike lanes. The existing right of way width cannot accommodate both a dedicated parking lane and a separated bike lane.



Bike lanes are proposed from Quigley to W. 16th Street.

## Design for Public Transit

Formerly known as bus stops, Transit Waiting Environments (TWE) should be attractive destinations with lit, transparent shelters (where space allows, and if the boardings meet Greater Cleveland RTA's criteria, as noted to the right,) pedestrian-scale lighting, specialty pavement, seating, trash and recycling receptacles, and low-maintenance landscaping. TWE's that meet these criteria and receive regular maintenance will feel safe for transit riders. The current TWE boardings, along Clark Avenue, however, do not meet RTA's eligibility criteria for new bus shelters. All existing bus shelters should be preserved and protected from damage, during any construction near them.

TWDC and SCFBCDO should continue working with GCRTA to further analyze the bus routes on Clark.

1. During the community outreach process, direct service to downtown, and bus access to Clark Fields was requested.
2. Wayfinding on TWE shelters was also recommended by the community.
3. If TWE's were consolidated into locations at 41st, 31st, and Fulton for both East- and Westbound routes, all six TWE's may be afforded shelters.

### CURRENT CLARK TWE BOARDING DATA

#### WESTBOUND

- 01015, Clark Ave at W 31ST, WB - 24 boardings
- 03021, Clark Ave at W 32ND, WB - 4 boardings
- 01109, Clark Ave at W 33RD, WB - 0 boardings
- 03016, Clark Ave at Fulton, WB - 8 boardings
- 03024, Clark Ave at W 36TH, WB - 0 boardings
- 03026, Clark Ave at W 41ST, WB - 1 boardings
- 03028, Clark Ave at W 44TH, WB - 2 boardings

#### EASTBOUND

- 03025, Clark Ave at W 41TH, EB - 24 boardings
- 03023, Clark Ave at W 38TH, EB - 2 boardings
- 03019, Clark Ave at W 30TH, EB - 7 boardings
- 03020, Clark Ave at W 31ST, EB - 7 boardings
- 03022, Clark Ave at W 33RD, EB - 5 boardings
- 03015, Clark Ave at Fulton, EB - 15 boardings
- 11154, Clark Ave at W 25TH, EB - 10 boardings

### RTA TWE SHELTER CRITERIA

- 1 50 boardings a day to be eligible for a shelter.
- 2 Standard shelters are 12' long & 6' wide.
- 3 RTA prefers 6' between curb and shelter, and 2' clearance between the shelter and the side walk.



The few existing shelters that are located along Clark Avenue should remain.



Proposed bus bulbs can provide ample space for more heavily-utilized TWE's that do not have a shelter currently.



## Traffic/Truck Calming

Traffic speeds along the corridor are a major concern that was expressed throughout the public meetings. The intersections most noted include; the W. 25th Street, Fulton and W. 41st and W. 44th intersections. Clark residents are also concerned with increased truck traffic between W. 25th Street and Quigley, as stated in the traffic analysis section, since Steelyard Commons began operation. The following treatments are feasible recommendations to assist in traffic calming.

### Road Diet

Any reduction in the number of travel lanes is considered a road diet. Studies have determined the reduction from four lanes to three (one travel lane in each direction, with a center turn lane,) increases traffic flow efficiency and turning safety. A center turn lane is proposed between Twinkie Lane and W. 38th Street.

### Bulbouts

Curb extensions toward the center of the road at intersections and mid-block crossings narrow the cartway, and tightened the radii, thereby slowing motorists, and shorten pedestrians' crossing distance. Bulbouts are proposed at both ends of on-street parking lanes, at midblock crossings, and bus bulbs, where feasible.

### Zero Lot-Line Setback

Buildings located on or close to the Right of Way line create a sense of enclosure, define the corridor edge, and reduce the sense of scale to a pedestrian level. This minimum setback was established from W. 41st to 58th, through City Council's passage of the Pedestrian Retail Overlay District. Parcels redeveloped in the future will be

required to locate their buildings on or very near the Right of Way line.

### Street Trees, Landscaping, Site Furnishings, and Decorative Elements

All of these elements create a sense of enclosure, pedestrian scale, and visual engagement. See page 33 for proposed materials.

### Vehicular Pavement Treatments

Pavement materials that contrast with the typical street pavement in color, hue, and texture signal pedestrian zones (crosswalks) and increase motorists' awareness of their speed. See page 27 for proposed locations.

### Pedestrian-Scaled Lighting

Low, pedestrian-scale, decorative street lighting helps denote pedestrian zones. Higher light levels create a safer environment. See page 33 for proposed lighting.

### Traffic signage

The planning team recommends implementing wayfinding signage to direct truck traffic from Steelyard Commons directly to the interstates, and vice versa, as noted on page 18. This could help to alleviate residential truck traffic.

## Parking

Adequate parking is a must for a viable commercial district and where residents have limited parking options. Merchants and residents voted to keep on-street parking throughout most of the corridor, which is reflected in the proposed corridor configurations, on pages 21-25. In certain instances, on-street parking is proposed only on one side of the street, due to current ODOT lane

width standards.)

However, if on-street parking is implemented but is under-utilized and is without curb bumpouts to control traffic, the parking lane may be used as a vehicular passing lane, resulting in an unsafe condition. Throughout the corridor, existing lots provide existing parking capacity, and vacant lots can provide additional parking spaces. In order to determine the appropriate number of on-street and off-street parking spaces needed in different areas of the corridor and to determine the most efficient way to use those parking spaces, a follow-up parking utilization study should be performed.

## Access Management

Removing or reducing the number of existing access points and curb cuts will improve safety. There are multiple extraneous access points throughout the corridor that can be eliminated without impacting residents or merchants. Some access points are wider than necessary, and a reduction in width that is to City of Cleveland design standards will also promote safety. For example, gas stations often have multiple, wide entrances, and should be evaluated.

During the community outreach process, it was noted that access management should be a priority from W. 25th to Fulton Road. Analyze, during design, utilizing north-south side streets, for the main access to businesses adjacent to those side streets, to reduce the number of drives along the Clark Avenue.



The recent Walgreens development at the corner of Fulton Road and Clark Avenue is a good example of good access management and corridor edge definition.



An example image that demonstrates a combination of street trees, site furnishings, decorative elements, and on-street parking



Parking lot opportunities have been identified for the Towpath Trail District at the W. 11th and Clark Avenue Towpath Trail connection.

# concepts & recommendations

## Streetscape

The consistent use of appropriate streetscape elements can unify and create a sense of place and an identity for a corridor. All of the following elements will be important to incorporate along the full length of Clark Avenue, to work toward making it a complete street.

### Pavement

By repeating common materials and colors from buildings and pavement along the corridor within the amenity strips and crosswalks, the corridor becomes unified. This plan recommends brick pavers for specialty pavement treatments, for authenticity, durability, and color longevity.

### Site Furnishings & Public Art

Furnishings should also complement the surrounding architecture, but they also offer an opportunity for visual punctuation with color or unique designs. Metal benches, trash receptacles and bike racks will be most durable. These furnishings should be located regularly at gathering places, TWE's, and eating establishments. Due to the City of Cleveland's lack of resources to maintain public trash receptacles, they should be located only where they are needed most.

Public art should be located in areas with high visibility.

### Lighting and Utilities

Lighting is critical for security, the sense of safety, and to encourage pedestrian traffic and gatherings. A combination of high lights and pedestrian-scale lights will ensure adequate light levels and pedestrian-friendly spaces.

Cleveland Public Power is currently planning for a wholesale replacement of its cobra-head fixtures with LED lamps, which will reduce the number of its high-level and pedestrian light fixture models, establish consistency throughout the city, and decrease maintenance costs. The pedestrian-scale light and pole should be historic, per the future CPP standard.

All existing utility poles should be examined for consolidation.

### Landscaping

A minimum of five varying tree species should be selected for the standard streetscape. Use the following U.S. National Arboretum Agricultural Research Service guidelines for tree diversity: (1) plant no more than 10% of any species, (2) no more than 20% of any genus, and (3) no more than 30% of any family to ensure biological diversity. Also refer to the City of Cleveland's Urban Forestry list of approved street trees.

### Maintenance

All parts of the roadway and pedestrian areas must be designed with longevity and maintenance as a top priority. Infrastructure is not sustainable if its maintenance requirements are beyond the capacity of the responsible entity. Implementation of the recommended improvements listed in this report should be prioritized based on cost and maintenance capacity. This is particularly pertinent when determining the most appropriate green infrastructure solution. Consider the following:

- The greenest and most aesthetically-pleasing option is to use bioretention in the bump outs. However, this requires the highest capital investment and regular maintenance.

- Tree biofiltration cells under pervious pavement require far less maintenance than bioretention cells.
- The next step down is planting beds in the curb bump outs (no bioretention.) This still is aesthetically-pleasing and still requires maintenance, but has a lower capital cost.
- The most economic option is lawn and trees in the bump outs. This only requires regular mowing, and is a lower capital investment.
- The most economic option is paving the bumpouts with pavers or colored, stamped concrete. This has the least visual impact, but also requires little maintenance.
- Consider life cycle costs when choosing materials and designing construction details.
- Quality of construction will affect longevity and maintenance.

## Identity Zones

Through the community outreach process, three distinct zones within the corridor emerged, based on characteristics unique to each area. Developing an identity and brand around those qualities should be highlighted and promoted to existing and prospective residents, business owners, and visitors, to foster economic growth. For example, Tremont's brand development and expression of it through the branches and leaves concept has served Tremont well in creating its identity and encouraging economic growth.

The Standard Clark Avenue Streetscape Palette recommended for implementation along the entire length of the corridor is shown on the

following page. The pages after discuss each zone's existing or proposed identity, and how it can be expressed, through distinct variations on or concentrations of elements in the Standard Streetscape Palette.



# concepts & recommendations

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# concepts & recommendations

## Typical Clark Avenue Streetscape Palette



Enhanced amenity strip with historic, pedestrian-scaled lighting and banners.



Brick or concrete pavers for permeable amenity strip and Transit-Waiting Environments.



Enhanced colored and stamped concrete crosswalk



City of Cleveland historic pedestrian-scaled lighting, with vehicular lighting, in Ohio City



Bench, trash receptacle and City of Cleveland standard bike rack



Metal banner



Consistent street tree planting

# concepts & recommendations

## Stockyard/Clark-Fulton Zone (Dream Neighborhood)

The Stockyard neighborhood is already seeing interest in managed, pedestrian-friendly redevelopment, through the recently-instituted Pedestrian Retail Overlay zoning from W. 41st to 56th Street, and through the recent proposal by Councilman Cimperman for the recent proposal for the creation of the Dream Neighborhood. The area's pedestrian-scale commercial area, SCFBCDO's aggressive home rehabilitation program, Thomas Jefferson Elementary School, and the Clark Recreation Center create a welcoming environment for many of the 635 international refugees that Cleveland receives each year.

### Pavement

Implement the standard Clark amenity strip and enhanced crosswalk materials, as shown on page 33.

### Site Furnishings & Public Art

Specify typical street furnishings, as shown on page 33. This intimate, pedestrian-scaled district can benefit from additional benches and bike racks. Metal banners hung on utility poles, as shown in the rendering to the right, can celebrate many of the nationalities of area residents, and serve as public art.

### Lighting and Utilities

Implement lighting as is shown on page 33. Consolidate utility poles wherever possible.

### Landscaping

Install street trees, where they fit. There are areas where the Right of Way and public space narrows; street trees may not be applicable in these particular areas.



This area can accommodate on-street parking on both sides of the street (W. 44th intersection shown, in distance.) An example of a bus-bulb is shown, in front of the historic Sokol Hall, and public art banners celebrate many of the local residents' nationalities.



Dream Neighborhood establishment area, according to a promotional flyer.



Flags from some of the countries of the newest residents to the area



International peoples mural, in Thomas Jefferson Elementary School

# concepts & recommendations

## Stockyard / Clark-Fulton Zone (Dream Neighborhood)



### LEGEND

Vacant buildings	Off-Street surface parking	Green space	Industrial
Vacant lots	Bus stop with shelter	Planned green space	Stockyard Clark-Fulton & Brooklyn Centre Community Development Office
Historic building	Bus stop without shelter	Institutional	Proposed enhanced crosswalks
Right of way	Commercial	Residential	Proposed mid-block crosswalks
			Existing Crosswalks

# concepts & recommendations

## La Villa Hispana

From W. 25th to Fulton Road, the foundation for La Villa Hispana, a district intended to celebrate the Latino cultures of its residents and business owners, has already been established. This district has a well-established commercial stock, and has started to express its identity through some public art.

### Pavement

The pavement materials within Villa Hispana should be more colorful than the standard Clark streetscape palette, to harmonize with Latino cultural characteristics.

Due to the significance of the West 25th/Clark intersection and in order to serve as the gateway La Villa Hispana deserves, this plan recommends a dynamic, intersection pavement design, as shown to the right. If an entity (e.g., TWDC or other,) commits itself to regular monitoring and maintenance of the intersection, this plan recommends brick pavers installed on a concrete base with asphaltic leveling course and a neoprene adhesive.

A blue-gray paver blend will be placed within the amenity strip, to mimic the unique paver colors often found within Colonial Latin America.

### Site Furnishings, Gateways, & Public Art

Use the standard street furnishings, in a bright color, to commemorate the Latino cultures' admiration for color. An overhead gateway element will announce people's arrival at the district, the exact location of which will be coordinated with existing utilities and structures, during the design phase.

Coats of brightly-colored paint on dreary buildings and Public art with a Hispanic flare will brighten the district.

### Lighting and Utilities

Lighting should be as shown on page 33. If the implementation budget does not allow for historical, pedestrian-scaled lighting throughout the entire corridor, prioritize La Villa Hispana for receiving it.

### Landscaping

Specify ornamental street trees, acceptable to the Division of Urban Forestry, for additional color.



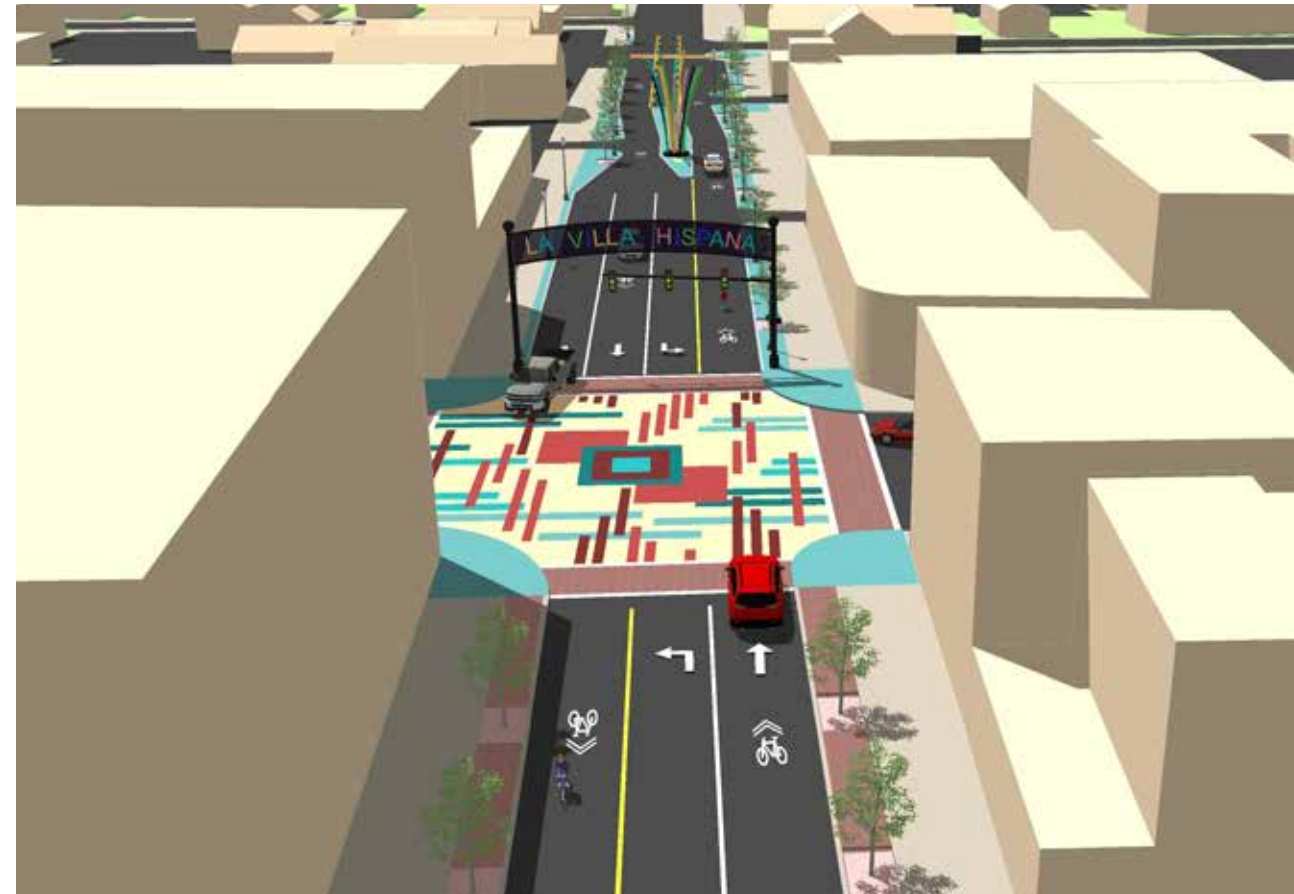
The gateway element is a good candidate for public art.



Example of pavers with color and texture, proposed for W. 25th intersection



The amenity strip pavers, above left, will mimic traditional Colonial pavers, above right.



Intersection of W. 25th and Clark Avenue, with proposed pavement treatments, gateway location, and public art for Villa Hispana.



Brightly-colored building facades



Specify standard streetscape palette furnishings, in a bright color

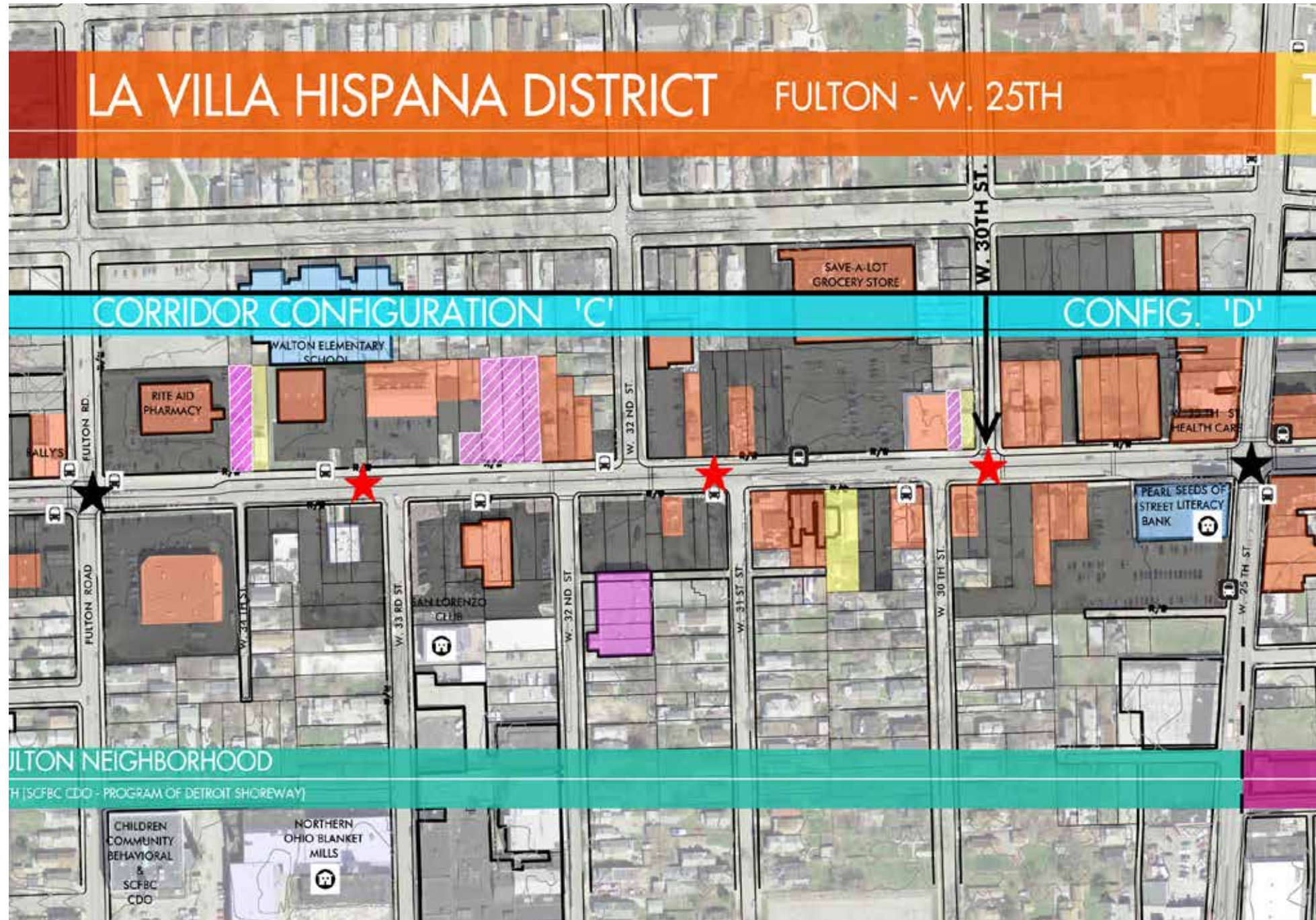


Vibrant, cultural art will be the most effective expression of La Villa Hispana.



# concepts & recommendations

## La Villa Hispana



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# concepts & recommendations

## La Villa Hispana Plaza

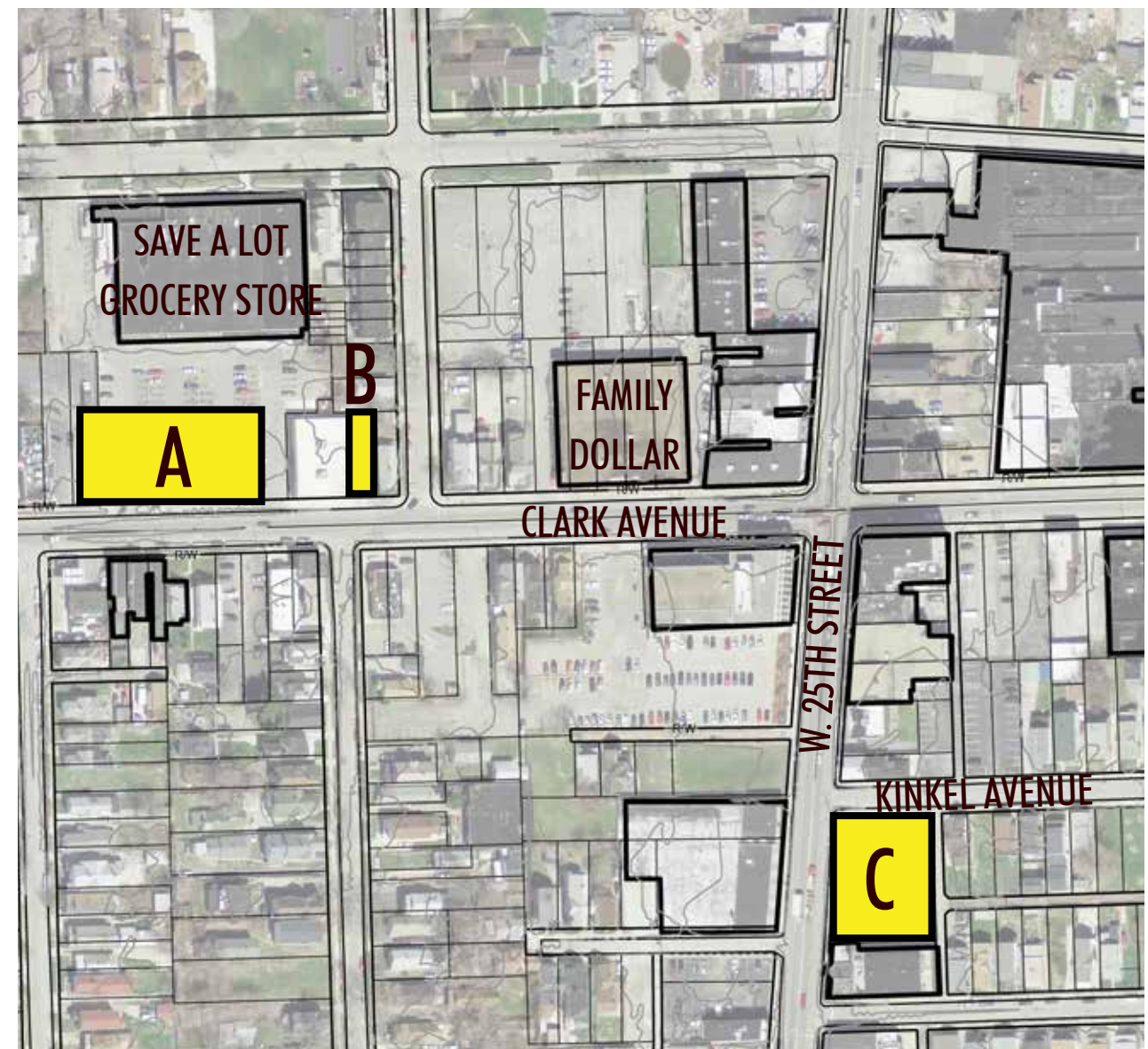
There is a need for and community interest in a public plaza in the La Villa Hispana district. The plaza should serve multiple functions, such as an open air market, an open space for gatherings and cultural performances, and will provide an infusion of green and a splash of color in this highly urban area.

The materials used to develop the plaza should celebrate the Hispanic culture; materials similar to the proposed La Villa streetscape will achieve this goal. The overall layout of the plaza should be open, to create a flexible space that can accommodate the variety of uses mentioned above. The edges should be defined with trees, lighting, seating and public art.

Three possible locations for the plaza are shown in the map to the right.



Character images of possible plaza functions and design elements.



Possible plaza locations

# concepts & recommendations

## Towpath Trail Zone

Within the Tremont neighborhood, the Towpath Trail Zone (W. 25th Street to Quigley) will function as a destination point along the future Towpath Trail. Clark residents and employees will gain access to the trail and points north and south, and Towpath users will gain access to the Clark commercial district and Tremont neighborhood establishments.

### Pavement

This plan recommends maintaining existing and installing new tree lawns, to further enhance the residential feel along this segment. Colored, stamped concrete matching the standard palette pavers should be used where tree lawns are not feasible, and along large drive aprons. The crosswalks at key intersections, per page 27, will be comprised of colored, stamped concrete.

### Site Furnishings, Gateways, & Public Art

The bench and trash receptacle from the standard streetscape palette are proposed for this district. The Tremont banners, leaf bike racks and street sign brackets, both in Corten or galvanized steel, should be used throughout this zone, to blend the industrial heritage of the Towpath Trail and river valley with the Tremont brand.

A gateway element that functions as a sign and kiosk should be installed at the future towpath trail connector/West 11th intersection. The kiosk can inform trail users about local points of interest in the Clark Tremont area, and, likewise, can inform Clark residents and cyclists about the Towpath Trail and its connections to regional destinations. When the Clark Fields complex is renovated, the entry sign at Clark Avenue should employ a similar design and materials approach.

The bridge over Interstate 71 is a key opportunity for public art, as shown in the image to the right.

### Lighting and Utilities

Vehicular and pedestrian-scale lighting should be upgraded, as noted on page 33.

### Landscaping

Tree lawns are recommended for this district, to maintain the residential character and scale. Install trees, per comments on pages 28 and 31.



Intersection of W. 11th and Clark Avenue, the future location of the Towpath Trail connection. Areas highlighted in yellow include (2) future parking lots, Rehabilitated building that can serve as a cafe/retail space for Towpath trail users, and a mixed-use building on one of the corners of the W. 16th Street intersection.



Examples of industrial-style gateway/kiosk at Towpath Trail connector (West 11th)



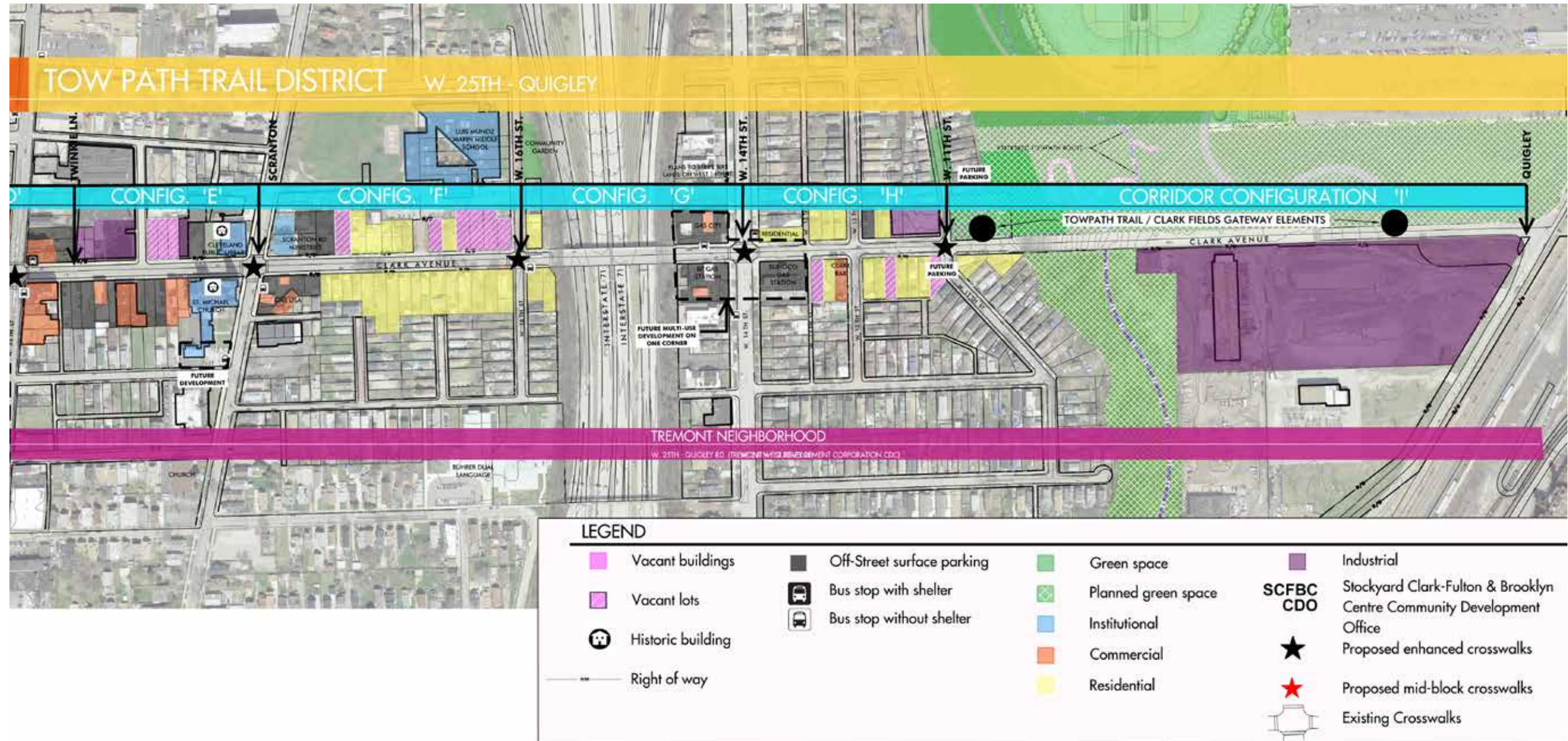
Continue using the Tremont brand to reinforce zone identity



The I-71 overpass is an opportunity for Tremont wind art (branch groupings rotate on each pole.)

# concepts & recommendations

## Towpath Trail Zone



## SAFETY AND SECURITY

Safety is one of the most important issues throughout the corridor, based on community input. There is currently a security camera at the corner of W. 14th and Clark Avenue. The residents in this location believe that it has reduced the number of incidents in this location. The cameras have good full range and are visible to motorists and pedestrians, and they provide an additional set of eyes on the street. The process is lengthy to acquire these cameras. Two additional cameras are currently on order for the West 25th and Fulton Road intersections. During the community outreach process it was decided that the best location for the cameras is at primary entrances and exits to neighborhoods, schools and high crime intersections.

Additional lighting was another request made by residents. Most agreed that the current lighting levels are inadequate, and pedestrians and transit riders do not feel safe at night. Cleveland Public Power's plan to conduct a wholesale replacement of its cobra-head fixtures with LED lamps will help the current levels; however, additional lighting is still needed in the form of pedestrian-scale pole lights.

Additional lighting under the existing railroad bridge at W. 65th Street, along with improved drainage, is important for instilling a sense of safety for pedestrians walking under the bridge, particularly future Max Hayes High School students.



Police security cameras

## RECOMMENDATION SUMMARY

### Related Studies

- Prior to design and implementation, coordinate streetscape efforts with the Metro Health Master Plan and the West 25th Street Corridor Initiative. See page 2 for additional related studies.
- Coordinate with the current Pedestrian Retail Overlay Study area designation.
- Coordinate with the future Towpath trail on the proposed trail head design at the corner of W. 11th.

### Corridor Configurations

- In general, change the roadway to (2) driving lanes. Width varies between 11' and 12'. See pages 21-25 for configurations.
- Install a 5' bike lane on either side of Clark Avenue from Quigley to W. 16th Street.
- Install an 8' wide parking lane, on either side of Clark Avenue, where space allows, as determined during the design effort.
- Install a 10' wide turn lane at West 25th and West 44th. Perform traffic counts and analysis at 44th, during design phase.

### Traffic Signals

- Perform warrant analysis for all signalized intersections along the corridor, to determine their need.

### Design for Pedestrians

#### Sidewalks

- Meet all ADA requirements.
- Maintain 6' wide concrete sidewalk.
- Maintain clear lines-of-sight at all sidewalk corners and intersections.
- See Enhanced Intersections below for safe crossing recommendations.
- Eliminate sidewalk clutter, including extraneous signage on utility poles, pay phones, and newspaper vending boxes.
- Examine all utility poles for consolidation.
- Install pedestrian-scaled lighting.
- See "Landscaping & Drainage" for information on sidewalk tree plantings and tree lawn locations.
- See "Site Furnishings & Public Art" for streetscape furnishing recommendations.

#### Standard Crosswalks

- Replace crosswalks with highly-visible continental or ladder striping.
- Install pedestrian countdown signals.
- Install ADA compliant curb ramps.
- Place a sign in the middle of the street at non-signalized intersections to denote a pedestrian crossing zone (where necessary.)

#### Enhanced Crosswalks

- See map, pages 27, for enhanced crosswalk locations.
- Install stamped, colored concrete within crosswalks. Select colors and textures that provide high visual contrast. See pages 26 and 27 for recommendations.
- Reduce curb radii and create sidewalk bulbouts at key intersections and at the end of on-street parking areas. See pages 21-25 and 26.
- Install pedestrian refuges where feasible and as determined during the design phase. Minimum recommended locations are Clark Recreation Center and Clark Elementary School, but should be installed at all mid-block crossings, if feasible.
- Install in-street pedestrian crossing signs if pedestrian refuges are not feasible.

### Landscaping & Drainage

- Install a minimum 2'-wide amenity strip with permeable pavers throughout the Villa Hispana District and Stockyard/Clark-Fulton Zone. Clear the permeable pavers with the City of Cleveland, to ensure they have the capacity to maintain them.
- Install street trees with appropriate mature sizes and tolerance of urban conditions (e.g. drought, salt, low maintenance,) at regular intervals along the permeable pavement amenity strip. Structural soil is recommended within the amenity strip to help alleviate compaction to the tree roots, and provide

adequate soil volume.

- Install bioretention cells where public awareness or education is desired, where their aesthetic value is most needed, and where they will be properly maintained.

### Block Consolidation

- Reroute vehicular traffic at West 47th to West 48th, and change West 47th to pedestrian connector/pocket park.

### Social Space

- Secure additional funding for, and coordinate with private property owners on improvements outside of Right of Way, where hardscape continues to face of building(s).

### Sustainability

- Use an effective combination of permeable pavement, bioretention, and tree biofiltration to clean, slow, and reduce rainwater runoff where feasible, and if proper maintenance can be achieved.

### Bicycle Facility Types

- Create a shared roadway by installing sharrow symbols from W. 16th to W. 65th streets.
- Separated bike lanes are recommended from Quigley to W. 16th Street.

# concepts & recommendations

## Design for Public Transit

- Provide trash and recycling receptacles, lighting, and seating at all TWE's.
- Provide plantings, or tree lawns depending on availability of maintenance.
- Install specialty pavement.
- See page 33 for material recommendations.
- Closely coordinate all improvements with RTA.
- Continue working with RTA to analyze service and TWE numbers and locations, per page 29.

## Traffic /Truck Calming

- Traffic calming design measures include: a reduction in roadway lanes, the installation of bulbouts, constructing new buildings on the existing right of way, adding streetscape amenities, varying vehicular pavements that contrast in color and texture, providing pedestrian-scaled lighting and additional traffic signage.
- Discourage and redirect truck traffic away from between W. 25th and W. 16th Street. See page 18.

## Parking

- Provide a dedicated parking lane on each side of the street, where feasible and as determined during the design phase. See pages 21-25 for recommended locations.
- Parking should begin as soon as possible

once the left turn lane is fully developed and determined during the design phase.

- Potential to utilize existing vacant lots for parking. This study recommends conducting a separate parking study for this area.
- Establish a consistent parking lot edge treatment (such as ornamental fence).

## Access Management

- Remove or reduce the number of existing access points/curb cuts.
- Reduce the width of curb cuts to meet, but not exceed code.
- Analyze the feasibility of utilizing north-south side streets to access adjacent Clark businesses, and to eliminate curb cuts on Clark.

## Streetscape

### Pavement

- Repeat common materials and colors within the amenity strips and crosswalks to create a unified corridor. See page 33 for recommendations

### Site Furnishings & Public Art

- Install additional bike racks. See page 33 for preferred models.
- Install new benches and trash/recycling receptacles throughout corridor (see page 33 for preferred models). Review trash receptacle locations with the City of Cleveland prior to installation to ensure the City has the proper maintenance capacity.

- Public art should be located in areas with high visibility.

## Landscaping

- A minimum of five varying trees should be selected for the standard streetscape to ensure tree diversity.
- Refer to the City of Cleveland's Urban Forestry List of approved street trees.

## Maintenance

- Design with longevity and maintenance as a top priority.
- See page 31 for additional maintenance considerations.

## Identity Zones & Branding

- Three distinct identity zones have been identified: The Towpath Trail Zone, La Villa Hispana, and the Stockyard/Clark-Fulton Zone (Dream Neighborhood.)
- Consider gateway treatments for the Towpath Trail Zone, and La Villa Hispana, during the design process
- See pages 35-41 for detailed information on district branding/identity improvements

## La Villa Hispana Plaza

- Explore opportunities for a public plaza in the Villa Hispana District. See page 39 for potential locations.

## Safety and Security

- Additional security cameras for an additional set of eyes on the street.

- Upgrade existing lighting and add pedestrian-scaled lighting.

- Add lighting and improve drainage below the railroad bridge just east of W. 65th Street

## Economic Redevelopment

- See analysis Takeaway Summaries on Appendix pages 11, 17, 20, 22, 24, and 27.
- See financial feasibility analysis conclusions on page 31.



# chapter 5: implementation

## Cost Estimate

The information and level of detail in this estimate is similar to a City of Cleveland Division of Engineering and Construction Stage 1 cost estimate, but without survey base information. Quantities are derived on the planning team's field reconnaissance and base information generated from Cuyahoga County GIS data, as exhibited in the existing conditions map, and are derived from the proposed conditions shown in the configuration sections and streetscape recommendations.

The estimate makes the following assumptions:

- Existing pavement is in fair condition; the wearing course will be removed, and base repair will be completed. Estimate assumes partial-depth pavement repair totaling 10% of the project area.
- Eight of the 13 traffic signals will be completely replaced, and the other 5 signals will either be removed or retained, due to recent signal upgrades.
- 6' wide sidewalks the entire length of corridor
- All curb and sidewalk will be replaced
- Basic water line adjustments
- Eight traffic signal upgrades
- 3'-4' wide amenity strip with permeable pavers in La Villa Hispana & Stockyard/Clark-Fulton Zone
- Rolled curbs around tree openings
- Trees and lawn, only, at bulb-outs and transit waiting areas.

The estimate does not include R/W Land, utility relocation, or construction engineering and inspection costs.

Roadway					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	CLEARING AND GRUBBING	LS	LS	\$ 25,000.00	\$ 25,000.00
2	PAVEMENT REMOVED	3,500	SY	\$ 9.00	\$ 31,500.00
3	PAVEMENT REMOVED FOR DRIVES	4,200	SY	\$ 10.00	\$ 42,000.00
4	WALK REMOVED	228,750	SF	\$ 1.25	\$ 285,938.00
5	CURB REMOVED	22,875	FT	\$ 6.00	\$ 137,250.00
6	PIPE REMOVED, 24" AND UNDER	800	FT	\$ 18.00	\$ 14,400.00
7	CATCH BASIN REMOVED	130	EACH	\$ 350.00	\$ 45,500.00
8	EXCAVATION	500	CY	\$ 18.00	\$ 9,000.00
9	EMBANKMENT, AS PER PLAN	500	CY	\$ 15.00	\$ 7,500.00
10	SUBGRADE COMPACTION	5,125	SY	\$ 1.00	\$ 5,125.00
11	PROOF ROLLING	20	HOUR	\$ 150.00	\$ 3,000.00
12	GEOTEXTILE FABRIC	2,584	SY	\$ 2.00	\$ 5,168.00
13	6" CONCRETE WALK - SIDEWALK	133,475	SF	\$ 5.00	\$ 667,375.00
14	CURB RAMP LAYOUT COMPLETE IN PLACE WITH TILE, AS PER PLAN	100	CORNER	\$ 1,000.00	\$ 100,000.00
15	MONUMENT BOX ADJUSTED TO GRADE	50	EACH	\$ 450.00	\$ 22,500.00
16	PIPE CLEANOUT	2,600	FT	\$ 15.00	\$ 39,000.00
17	UNDERCUTTING SUBGRADE AND SUBBASE	300	CY	\$ 60.00	\$ 18,000.00
<b>SUBTOTAL</b>					<b>\$ 1,458,256.00</b>
Drainage					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	6" UNCLASSIFIED PIPE UNDERDRAINS WITH FABRIC WRAP	2300	FT	\$ 11.00	\$ 25,300.00
2	6" BASE PIPE UNDERDRAINS WITH FABRIC WRAP	19175	FT	\$ 10.00	\$ 191,750.00
3	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	1400	FT	\$ 15.00	\$ 21,000.00
4	6" CONDUIT, TYPE E	500	FT	\$ 12.00	\$ 6,000.00
5	12" CONDUIT, TYPE B, 706.08, AS PER D-32	1000	FT	\$ 150.00	\$ 150,000.00
6	12" CONDUIT, TYPE B, DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER D-32	100	FT	\$ 150.00	\$ 15,000.00
7	12" CONDUIT, TYPE C, AS PER PLAN	500	FT	\$ 100.00	\$ 50,000.00
8	15" CONDUIT, TYPE B, 706.08, AS PER D-32	500	FT	\$ 150.00	\$ 75,000.00
9	CATCH BASIN, CITY OF CLEVELAND CB-1, AS PER D-34	135	EACH	\$ 3,000.00	\$ 405,000.00
10	CATCH BASIN, CITY OF CLEVELAND CB-2, AS PER D-34	5	EACH	\$ 4,400.00	\$ 22,000.00
11	VAULT/MANHOLE ADJUSTED TO GRADE, AS PER PLAN	45	EACH	\$ 800.00	\$ 36,000.00
12	MISCELLANEOUS METAL (WPC), AS PER D-72	75000	LB	\$ 1.50	\$ 112,500.00
<b>SUBTOTAL</b>					<b>\$ 1,109,550.00</b>

# implementation

Pavement					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	PARTIAL DEPTH PAVEMENT REPAIR	5,168	SY	\$ 30.00	\$ 155,043.00
2	PAVEMENT PLANING, ASPHALT CONCRETE	51,681	SY	\$ 4.50	\$ 232,565.00
3	PATCHING PLANED SURFACE	2,584	SY	\$ 50.00	\$ 129,203.00
4	FULL DEPTH PAVEMENT SAWING	22,770	FT	\$ 1.25	\$ 28,463.00
5	AGGREGATE BASE	850	CY	\$ 45.00	\$ 38,250.00
6	9" CONCRETE BASE, AS PER D-23 AND D-24	635	CY	\$ 180.00	\$ 114,300.00
7	TACK COAT	5,168	GAL	\$ 3.00	\$ 15,505.00
8	TACK COAT FOR INTERMEDIATE COURSE	2,584	GAL	\$ 3.00	\$ 7,753.00
9	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22, AS PER D-29	51,681	SY	\$ 8.00	\$ 413,448.00
10	0" MIN. ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22, AS PER D-29	360	CY	\$ 175.00	\$ 63,000.00
11	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, AS PER D-29	51,681	SY	\$ 7.00	\$ 361,767.00
12	8" NON-REINFORCED CONCRETE PAVEMENT, AS PER D-23 AND D-24	4,200	SY	\$ 65.00	\$ 273,000.00
13	NON-REINFORCED CONCRETE PAVEMENT, MISC.: CONCRETE PAVEMENT BEHIND DRIVES AND WALK	420	SY	\$ 75.00	\$ 31,500.00
14	SURCHARGE FOR CLASS MS CONCRETE, AS PER D-25	50	CU YD	\$ 12.00	\$ 600.00
15	SURCHARGE FOR CLASS FS CONCRETE, AS PER D-26	50	CU YD	\$ 12.00	\$ 600.00
16	CURB, TYPE 6	22,875	FT	\$ 15.00	\$ 343,125.00
<b>SUBTOTAL</b>					<b>\$ 2,208,122.00</b>
Water Work					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	GENERAL WATERWORK ADJUSTMENTS - DOES NOT INCLUDE NEW WATER MAIN	LS	LS	\$ 50,000.00	\$ 50,000.00
<b>SUBTOTAL</b>					<b>\$ 50,000.00</b>
Lighting					
1	PEDESTRIAN CORRIDOR LIGHTING	150	EACH	\$ 6,000.00	\$ 900,000.00
2	VEHICULAR LIGHTING ENHANCEMENTS	165	EACH	\$ 2,000.00	\$ 330,000.00
<b>SUBTOTAL</b>					<b>\$ 1,230,000.00</b>
Traffic Control					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	SIGNING - REMOVAL AND REPLACEMENT ENTIRE CORRIDOR BOTH SIDES	LS	LS	\$ 80,000.00	\$ 80,000.00
2	CENTER LINE	2.15	MILE	\$ 7,000.00	\$ 15,050.00
3	CHANNELIZING LINE, 8"	15,000	FT	\$ 2.00	\$ 30,000.00
4	STOP LINE	500	FT	\$ 7.00	\$ 3,500.00
5	CROSSWALK LINE	2,000	FT	\$ 3.50	\$ 7,000.00
6	LANE ARROW	40	EACH	\$ 140.00	\$ 5,600.00
	BIKE LANE SYMBOL MARKING	10	EACH	\$ 120.00	\$ 1,200.00
<b>SUBTOTAL</b>					<b>\$ 142,350.00</b>

# implementation

Traffic Signals					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	MAINTAINING TRAFFIC, MISC.: MAINTENANCE OF TRAFFIC SIGNAL INSTALLATIONS, AS PER D-49	LS	LS	\$ 10,000.00	\$ 10,000.00
2	SIGNING, MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON SIGN ASSEMBLY	8	EACH	\$ 8,000.00	\$ 64,000.00
3	SIGNALIZATION UPGRADES	8	EACH	\$ 125,000.00	\$ 1,000,000.00
<b>SUBTOTAL</b>					<b>\$ 1,074,000.00</b>
Landscaping/Streetscaping					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	4" TOPSOIL	306	CY	\$ 30.00	\$ 9,180.00
2	SEEDING	24,850	SF	\$ 0.10	\$ 2,485.00
3	STREET TREES (ASSUME 1 TREE EVERY 50')	442	EACH	\$ 465.00	\$ 205,530.00
4	PLANTING MISC.: PLANTING SOIL FOR TREES (ASSUME 3.7 CY PER TREE)	1,420	CY	\$ 50.00	\$ 71,000.00
5	STRUCTURAL SOIL FOR TREES	4,315	CY	\$ 55.00	\$ 237,325.00
6	SPECIAL MISC.: ROLLED CURB AROUND TREE OPENING (ASSUME 5' X 8' = 26 LF PER TREE)	9,932	LF	\$ 40.00	\$ 397,280.00
7	SPECIAL MISC.: TRASH RECEPTACLE (ASSUME 1 EVERY 2 BLOCKS)	30	EACH	\$ 1,750.00	\$ 52,500.00
8	SPECIAL MISC.: BICYCLE RACKS (ASSUME ONE EVERY 300 LINEAR FEET)	90	EACH	\$ 500.00	\$ 45,000.00
9	SPECIAL MISC.: METAL BENCHES 6' (ASSUME ONE EVERY 300 LINEAR FEET)	90	EACH	\$ 2,000.00	\$ 180,000.00
10	SPECIAL MISC.: PERMEABLE PAVERS IN AMENITY STRIP	50,200	SF	\$ 20.00	\$ 1,004,000.00
11	SPECIAL MISC.: STAMPED/COLORED CONCRETE FOR CROSSWALKS	14,460	SF	\$ 32.00	\$ 462,720.00
12	SPECIAL MISC.: STAMPED/COLORED CONCRETE FOR ENHANCED INTERSECTION (W.25TH)	4,600	SF	\$ 32.00	\$ 147,200.00
13	SPECIAL MISC.: BRICK PAVERS AT PED. AREAS FOR ENHANCED INTERSECTION (W. 25th)	1,000	SF	\$ 12.00	\$ 12,000.00
<b>SUBTOTAL</b>					<b>\$ 2,826,220.00</b>
Transit Waiting Areas (27)					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	4" TOPSOIL	234	CY	\$ 30.00	\$ 7,020.00
2	SEEDING	19,116	SF	\$ 0.10	\$ 1,911.60
3	BRICK PAVERS ADDED TO CONCRETE BASE (ASSUME 252SF PER TWE. TRASH RECEPTICLES INCLUDED ABOVE)	6,800	SF	\$ 12.00	\$ 81,600.00
<b>SUBTOTAL</b>					<b>\$ 90,531.60</b>
Bulbout Areas (52)					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	4" TOPSOIL	51	CY	\$ 30.00	\$ 1,530.00
2	SEEDING	4,160	SF	\$ 0.10	\$ 416.00
3	STREET TREES (ASSUME 1 TREE EVERY 50')	52	CY	\$ 50.00	\$ 2,600.00
<b>SUBTOTAL</b>					<b>\$ 4,546.00</b>
<b>STREETSCAPE SUBTOTAL</b>					<b>\$ 2,921,297.60</b>
1	SPECIAL MISC.: PUBLIC ART (1.5% OF STREETSCAPE BUDGET)	1	LUMP		\$ 43,819.46
<b>STREETSCAPE TOTAL</b>					<b>\$ 2,965,117.06</b>



# implementation

Maintenance of traffic					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	TRAFFIC COMPACTED SURFACE, TYPE A OR B, AS PER PLAN	200	CY	\$ 60.00	\$ 12,000.00
2	TEMPORARY ASPHALT CONCRETE WALK, AS PER PLAN	10,000	SF	\$ 2.00	\$ 20,000.00
3	PORTABLE CHANGEABLE MESSAGE SIGN	600	DAY	\$ 30.00	\$ 18,000.00
4	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	60	HOUR	\$ 60.00	\$ 3,600.00
5	LAW ENFORCEMENT OFFICER WITHOUT PATROL CAR FOR ASSISTANCE	60	HOUR	\$ 60.00	\$ 3,600.00
6	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	150	CY	\$ 150.00	\$ 22,500.00
7	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	500	FT	\$ 6.00	\$ 3,000.00
8	WORK ZONE CROSSWALK LINE, CLASS I, 740.06, TYPE I	2,000	FT	\$ 5.00	\$ 10,000.00
9	WATER	10	MGAL	\$ 15.00	\$ 150.00
10	CALCIUM CHLORIDE	1.00	TON	\$ 250.00	\$ 250.00
<b>SUBTOTAL</b>					<b>\$ 93,100.00</b>
Testing					
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	ASPHALT EXTRACTION TEST, AS PER D-73	40	EACH	\$ 50.00	\$ 2,000.00
2	THICKNESS OF COMPACTED ASPHALT TEST, AS PER D-73	40	EACH	\$ 50.00	\$ 2,000.00
3	CONCRETE CYLINDER TEST (4 SPECIMENS PER SET), AS PER D-73	40	SETS	\$ 50.00	\$ 2,000.00
4	SUBSEQUENT SLUMP AND TEMPERATURE TEST, AS PER D-73	40	EACH	\$ 10.00	\$ 400.00
5	SUBSEQUENT AIR CONTENT AND TEMPERATURE TEST, AS PER D-73	40	EACH	\$ 10.00	\$ 400.00
6	FLEXURAL STRENGTH OF CONCRETE (BEAM) TEST (ASTM C-78), AS PER D-73	2	EACH	\$ 100.00	\$ 200.00
7	TECHNICIAN WITH NUCLEAR DENSITY METER (SUBGRADE COMPACTION, SUBBASE, ASPHALT), AS PER D-73	200	HOUR	\$ 50.00	\$ 10,000.00
8	PROCTOR TEST, AS PER D-73	6	EACH	\$ 100.00	\$ 600.00
<b>SUBTOTAL</b>					<b>\$ 17,600.00</b>

# implementation

Miscellaneous						
ITEM #	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST	
1	MAINTAINING TRAFFIC, AS PER PLAN	LUMP	LS	\$ 125,000.00	\$ 125,000.00	
3	FIELD OFFICE, TYPE B	24	MNTH	\$ 3,000.00	\$ 72,000.00	
4	COMPUTER EQUIPMENT FOR TYPE B FIELD OFFICE, AS PER D-46, FOR CITY OWNERSHIP	LUMP	LS	\$ 2,000.00	\$ 2,000.00	
5	ADDITIONAL SMARTPHONE FOR CITY INSPECTOR, AS PER D-45	24	MNTH	\$ 125.00	\$ 3,000.00	
6	DIGITAL CAMERA FOR CITY OWNERSHIP	LUMP	LS	\$ 500.00	\$ 500.00	
7	CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	LUMP	LS	\$ 20,000.00	\$ 20,000.00	
8	MOBILIZATION	LUMP	LS	\$ 100,000.00	\$ 100,000.00	
9	STORM WATER POLLUTION PREVENTION PLAN	LUMP	LS	\$ 5,000.00	\$ 5,000.00	
10	EROSION CONTROL	LUMP	LS	\$ 20,000.00	\$ 20,000.00	
11	AS-BUILT RECORD DRAWINGS	LUMP	LS	\$ 5,000.00	\$ 5,000.00	
12	PRE-CONSTRUCTION VIDEOGRAPHY, AS PER PLAN	LUMP	LS	\$ 5,000.00	\$ 5,000.00	
13	PRE-CONSTRUCTION VIDEOGRAPHY, AS PER D-36	LUMP	LS	\$ 5,000.00	\$ 5,000.00	
14	PROJECT SIGNS FURNISHED AND PLACED	2	EACH	\$ 750.00	\$ 1,500.00	
15	ENGINEERING & CONSTRUCTION FORCE ACCOUNT (FA-1A)	LUMP	LS	\$ 100,000.00	\$ 100,000.00	
16	CLEVELAND WATER DEPARTMENT FORCE ACCOUNT	LUMP	LS	\$ 25,000.00	\$ 25,000.00	
17	CLEVELAND WATER POLLUTION CONTROL FORCE ACCOUNT	LUMP	LS	\$ 50,000.00	\$ 50,000.00	
<b>SUBTOTAL</b>					<b>\$ 539,000.00</b>	
Estimated Project Subtotal					\$ 10,887,095.06	
Contingency (30%)					\$3,266,129	
Inflation 2018 (10.6%)					\$1,500,242	
<b>Total Probable Construction Cost</b>					<b>\$15,653,465.81</b>	

## Cost Management Strategies

Options for reducing or delaying costs, but which may impact the effectiveness of this study's recommendations include:

- Keep all curbs in existing locations
- Stripe bumpouts
- Replace only sidewalk panels that are in poor condition
- Reduce level of finishes (e.g., install colored, stamped concrete, in lieu of unit pavers, in accent strips.)
- Focus streetscape improvement investments on La Villa Hispana district.
- Install corridor reconfigurations via low-cost striping and pavement markings, if street rehabilitation funding for east of West 41st is not imminent.
- Encourage owners of private properties to paint facades facing Clark bright colors, in La Villa Hispana district.
- Phase implementation of improvements, as described on the following two pages.

## Next Steps

### Short term

- Coordinate with City of Cleveland, Division of Engineering and Construction, to find Streetscape Enhancement funding for Clark Avenue Rehabilitation project West of West 41st St., which is currently out for design.
- Coordinate with NOACA on corridor parking analysis.
- Coordinate with the City of Cleveland regarding the camera at Scranton Road, which has been taken down. Residents would like the camera back as soon as possible.
- Addition of security cameras to begin establishing safety within the corridor.
- Work with local merchants to begin upgrading storefronts, especially painting exteriors in La Villa Hispana. Help them navigate through the City's storefront Renovation Program.
- Coordinate with the current Pedestrian Retail Overlay (PRO) Study area designation. SCFBCDO should reach out to the small business owners to help explain the purpose and benefits of the PRO, and direct them to the services offered to small businesses, including securing certificates of occupancy, for those who do not possess one currently.
- Begin coordination with CPP on pole consolidation and the City's future LED City street lighting program. They may develop a street priority list.
- Further coordination is required with CPP for

the historic pedestrian-scale lights. CPP's board will have to review and approve pedestrian-scale lighting. If approved; CPP would furnish and install lights, and pole. Payment of power for these lights would also have to be coordinated with CPP.

- Lighting improvements under the railroad bridge, near 65th, are important.
- Contact the City of Cleveland to see if they are able to add additional City standard trash receptacles along the corridor and have the capacity to collect and maintain them.
- Contact LAND Studio to discuss public art and potential funding opportunities.
- Identify key individuals at Steelyard Commons and WIRE-Net to discuss desired truck routes to access their facilities.
- Coordinate with the City of Cleveland and ODOT on the potential for increasing the number of wayfinding signs to Steelyard Commons other than Clark Avenue.
- Secure funding for District branding, wayfinding and street signage.
- Attend NOACA's workshops to develop a prioritized program of low-cost projects that are recommended for TLCI implementation grant funding. NOACA will help identify common projects, and then help in the programming of projects across the region. This component of the TLCI program focuses on smaller-scale projects that can be implemented in multiple locations across northeast Ohio. Candidates for this funding source include:

1. Striping separated bike lanes from Quigley to W. 16th Street.
  2. Install bumpouts and on-street parking markings between West 16th and Scranton. Coordinate with bike lanes east of 16th.
  3. If rehabilitation funding for Clark, east of 41st Street will not be secured for several years, install crosswalks at schools and Clark Recreation Center.
  4. Install wayfinding signs to and from Steelyard Commons.
- CDC's discuss sources of funding for larger projects, with NOACA.
  - Coordinate with Towpath Trail Partnership on the future towpath trail connector kiosk design.
  - Determine preferred La Villa Hispana Plaza site and raise funds for purchase.

### Medium Term

- Coordination should begin with Cleveland Neighborhood Progress, MetroHealth, NOACA and the City of Cleveland on the MetroHealth Masterplan and the West 25th Street Corridor Initiative. MetroHealth is interested in moving administrative offices off campus, into the neighborhood's commercial areas. There is potential to combine redevelopment recommendations found in the appendix of this study with the above-mentioned studies' recommendations, and combine funding strategies.
- The cost estimates provided in this study

can serve as a tool to determine how much additional funding is needed for enhancements. Once the additional amount is determined, a funding strategy can be developed.

- Continue to coordinate with Cleveland Municipal School District (CMSD) on the proposed timing of all projects that was scheduled to be approved by the Board of Education in late February, early March 2015. CMSD recently adopted an updated master plan for its facilities. Plans for the schools along the corridor are as follows:
  1. Clark Elementary will be rebuilt in the near future, as a neighborhood PK-8, which will likely include pick up and drop off areas on Clark Avenue.
  2. Thomas Jefferson School currently houses the Newcomers' Academy Program but has significant capacity for more students. In the future, this program may be relocated so the building can serve as a swing site for Clark School while a new Clark is being constructed. The permanent disposition of the building after it is used as a swing site is yet to be determined. It will however, remain a PreK-8 neighborhood school.
  3. Walton School, although currently open as a K-8 school, is recommended for closure in the future.
  4. Lincoln West High School will continue to function as a high school; however, it currently is unclear if the school will be renovated (wholly or partially) or replaced with a new building on that site.

# implementation

A planning process for the school will begin in 2015.

5. Recommendations for Luis Munoz Marin PreK-8 School call for it to remain open and be maintained until other improvements are made to schools in this cluster.
  6. Buhner Dual Language School is newly built and will remain open.
  7. The new Max Hayes High School is on schedule to open in August, 2015.
- Acquire property for La Villa Hispana Plaza and raise funds for design and installation.
  - Identify and prioritize redevelopment sites and strategies, particularly in La Villa Hispana
  - Secure funding for La Villa Hispana-specific improvements
  - Develop and prioritize vacant lot conversion strategies
  - Consider PRO overlay for Scranton to West 41st.

## Long Term

- Design and build La Villa Hispana Plaza.
- Implement road rehab and streetscape improvements for 41st-Quigley.
- Implement Towpath Trailhead Building, Vacant Brewery Building and La Villa redevelopments (per financial feasibility analysis in appendix.)







# chapter 6: appendix

## meeting dates

1. NPI Coordination call, May 15, 2014
2. TAC #1, August 20, 2014
3. CAC #1, September 25, 2014
4. TAC #2, October 21, 2014
5. Community #1, October 29, 2014
6. NPI Work Session, November 12, 2014
7. TAC #3, December 4, 2014
8. Community #2, December 11, 2014
9. CMSD Focus Group, December 12, 2014
10. TAC #4, January 29, 2015
11. CAC #2, February 5, 2015
12. Community #3 (Draft), February 12, 2015

NPI - Neighborhood Progress Inc.

TAC - Technical Advisory Committee

CAC - Community Advisory Committee

## survey results

Clark Avenue Corridor Plan: User Survey

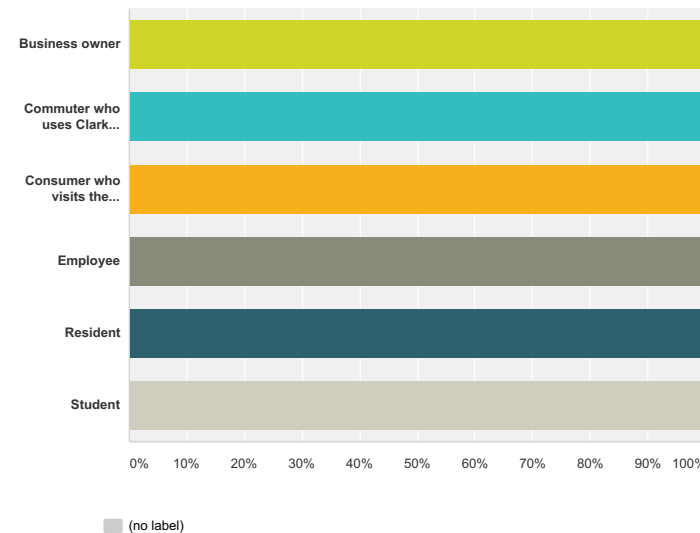
SurveyMonkey

Clark Avenue Corridor Plan: User Survey

SurveyMonkey

Q1 Please check one type of Corridor user that you most identify with.

Answered: 116 Skipped: 3



	(no label)	Total
Business owner	100.00%	13
Commuter who uses Clark Avenue frequently	100.00%	32
Consumer who visits the businesses	100.00%	21
Employee	100.00%	8
Resident	100.00%	53
Student	100.00%	4

Q2 Please identify and describe the geographic limits of specific neighborhoods along the Clark Avenue Corridor.

Answered: 62 Skipped: 57

#	Responses	Date
1	41st to 44th	12/2/2014 1:30 PM
2	Valley - East of 14th Tremont - 14th to Scranton MetroHealth - Scranton to 30th Clark-Fulton - 30th to 65th	11/26/2014 1:19 PM
3	Clark Fields to W. 65th apparently? This question is confusing.	11/26/2014 9:39 AM
4	Clark Avenue is an unfortunate major artery for the near west/south side neighborhoods. A stronger urban design along this corridor could help the close in neighborhoods.	11/25/2014 7:31 PM
5	abandoned properties can be demolished, existing store front businesses on Clark not well taken care of, need more trash cans on sidewalks, could have flower plants along Clark ave., W.65th plaza where K-mart used to be could have a tremendous economic impact if neighborhoods that surround it are attractive and companies are motivated to rent the empty spaces on the plaza.. The plaza is almost a ghost town with only two businesses open and many empty spaces for rent. I am wondering why businesses does not rent the spaces. Is it the neighborhood? Why not make it more attractive. Abandoned buildings are across from the plaza. Demolish them and create a nice, beautiful garden or/ and an indoor mall with places to eat. Lets be proud of the neighborhood where we live and serve and lets make it attractive to other communities. Why does not businesses on Clark ave. unite and bring activities to the community on special times of the year? Maybe a Santa race or walk? or a mother's or fathers special activities, what about a bike rally? The city should decorate our main streets( Clark, Newark, w41, Fulton, w.65th, w25th) for christmas. Beautiful mural we have on Clark ave. by w25th, this is the way to go. Lets invest in our community, demolish abandoned structures, take advantage of empty spaces, create family events, Clark- fulton development corp. working with our councilman and mayor can bring these projects to life. Lets make the Clark- fulton neighborhood a desirable place to live, shop and do bussiness. We need to beautify the area, surrounding streets and involve the community. OH City did it, Tremont did it, and we can do it too. I hope to see and experience the changes of my neighborhood.	11/24/2014 11:37 AM
6	Not familiar enough with specific neighborhoods to identify/describe.	11/24/2014 10:51 AM
7	Parking issues and traffic	11/22/2014 4:16 PM
8	Safety.	11/20/2014 8:36 PM
9	Between W. 25th and W. 65th	11/20/2014 5:20 PM
10	Metro Clark Fulton	11/20/2014 11:21 AM
11	Distinct neighborhoods, moving east to west: steel mill to just before W14th, just east of 14th to Scranton, Scranton to W25th, W25th to W44, W44 to the rail tracks east of W65, W65 and west.	11/19/2014 3:50 PM
12	I don't understand the question.	11/19/2014 3:41 PM
13	Lorain to Storer, W 25 to W 65	11/19/2014 2:09 PM
14	LACK OF PARKING ON CLARK	11/17/2014 10:34 AM
15	Tremont West, Clark-Fulton, Clark Metro, Stockyards	11/13/2014 8:32 AM
16	Fulton, Walton, Seymour, Scranton	11/13/2014 8:28 AM



# survey results

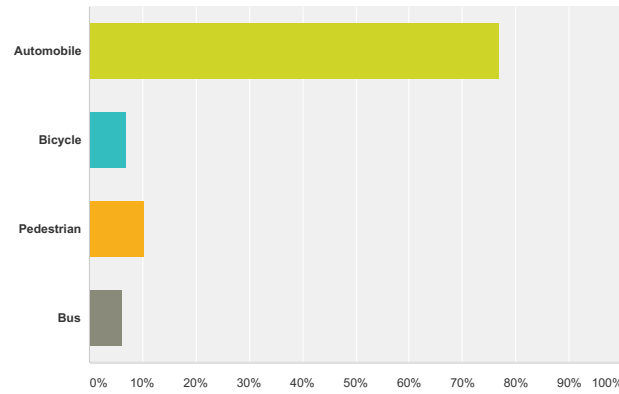
## Clark Avenue Corridor Plan: User Survey SurveyMonkey

17	Educational institutions and historical context in Stockyards - w53-w65 Concentration of commercial - La Villa Hispana (no 7) - Scranton to Fulton Residential, historical housing, beautiful trees - Clark Fulton - Fulton to w41st Cool local businesses, great old history @ Hildebrandt; walter area with school - Walter/Hildebrandt Building - Improve crosswalks @ w65/clark; w56/clark; w53/clark; w 46th/clark w41st/clark; Fulton/Clark; Scranton/Clark, etc. - More active Greenspace - pks, passive green space; comm plaza near Fulton - Schools play a huge role in our community and access and safety are very important. There are many schools and youth serv. org. off of the Clark corridor. need to Keep Safe, Green Well Lit and accessible. Very important - need a safe crosswalk and sidewalk area for West students @ Clark 3 w30/33rd, etc.	11/13/2014 8:21 AM
18	Tremont - w.3rd to w.25th st. Clark Fulton - w.25th to w. 5th st. Stockyards w.50th to w.65th st.	11/13/2014 7:46 AM
19	Clark and Fulton - Turn signal on each side.	11/12/2014 4:18 PM
20	Residential between W 16 and Scranton	11/12/2014 11:24 AM
21	Businesses right up on the street, making street widening and/or more pedestrian-friendly a problem. And crime is an issue.	11/12/2014 11:15 AM
22	I live on Scranton in the Metrolifts, I use Clark frequently for commuting purposes.	11/12/2014 10:39 AM
23	I have no idea what this means.	11/7/2014 6:18 PM
24	I have used Clark from one end to the other. Quigley to W 82. I have shopped at several places on Clark. Hair Dresser is on Clark. Bank. Gas etc	11/7/2014 4:02 PM
25	Tremont: W 3rd to W 25th Clark/Fulton: W 25th to W 44th Stockyards: W 44th to W 65	11/7/2014 11:49 AM
26	this question is confusing.	11/6/2014 5:39 PM
27	I'm a long-time resident of this area (54 years), and to me, Tremont's boundaries are Scranton Rd., the Cuyahoga River, West 7th, and the end of W. 14th at Steelyard Commons.	11/6/2014 5:30 PM
28	mostly W. 11th to W. 25th, sometimes to W. 41st	11/6/2014 4:56 PM
29	West 33rd	11/6/2014 4:24 PM
30	roads are too narrow and in terrible conditions. The turning lanes and signals on 25th and clark make no sense whatsoever. For example, there is only one lane on Clark near the library. Unfortunately, the library allows parking on Clark, meaning that cars have to drive on the opposite lane to get around.	11/6/2014 4:10 PM
31	I live on W. 14th Street, 1 and 1/2 blocks south of Clark Avenue.	11/6/2014 2:07 PM
32	no idea	11/6/2014 1:00 PM
33	The street is awful and they are narrow because of the vehicles parked along the way. The area looks like it is run down, some of those buildings and houses could use painted. Additionally a little more lighting wouldn't hurt.	11/6/2014 7:03 AM
34	Not sure of the intent of the question. I travel from Clark bar area to w44th (I-90 access). Beyond 44th, rarely traveled.	11/5/2014 9:38 PM
35	Clark-Fulton North: I-90 South: Sacket Avenue West: W 44th Street East: Scranton Stockyards North: Train Ave South: Denison Ave West: Ridge Road East:W. 44th Street	11/5/2014 5:02 PM
36	Howlett.	11/5/2014 1:48 PM
37	41-44th St	11/5/2014 1:44 PM
38	31st to 58th St	11/5/2014 1:42 PM
39	41st to 44th St	11/5/2014 1:37 PM
40	41st to 56th Street	11/5/2014 1:34 PM
41	To the north is I-90 and the southern border I would consider Storer Avenue, and from the east W. 25th, and the west W. 65th with pockets of key landmarks such as Thomas Jefferson, Clark Rec, Lincoln West, Salvation Army as anchors surrounding the neighborhood with Metro Health on the outskirts.	11/5/2014 12:16 PM
42	west 48+ = stockyards west 48th to scranton = clark-fulton scranton to quigley = tremont	11/5/2014 11:50 AM
43	clark fulton stockyards	11/3/2014 8:56 AM
44	A quarter-mile circle around W. 25th and Clark (LaVilla Hispania); the entire length of both Clark Ave. and Fulton Rd.	11/2/2014 9:23 AM
45	Those of us who used to walk or use public transportation no longer do! The criminal activity, panhandlers, and overall decay of the businesses is awful. Many friends ask me, "Why do you live HERE?"	10/31/2014 8:47 PM
46	I live on Poe Ave. Poe used to be part of the Clark Fulton neighborhood until redistricting put us in the Brooklyn Centre neighborhood.	10/31/2014 7:08 PM
47	Parking on street taking it down to one lane	10/31/2014 6:30 PM
48	1/2 mile radius of Clark Ave.	10/31/2014 12:33 AM
49	Stockyards and Clark-Fulton. Not sure what the survey is asking for here. Diverse neighborhoods.	10/30/2014 11:21 PM
50	Clark Ave Scranton to w 65	10/30/2014 8:03 PM
51	Tremont (Quigley to I-71) La Villa Hispana (I-71 to W 30th) Clark-Fulton (W 30th to W 44th) Stockyard (W 44th to Highway area) Lorain Station (small section to the west)	10/30/2014 4:17 PM
52	Clark area does not have well-defined neighborhoods - area around St. Michael was strong at one time, but devastated by loss of Catholic services and loss of the library that served 3 schools w/in walking distance	10/30/2014 4:07 PM
53	West 14th to Fulton.	10/30/2014 4:02 PM
54	I don't understand the question.	10/30/2014 3:38 PM
55	Detroit Shoreway Clark-Fulton, Ohio City Tremont Brooklyn Centre Old Brooklyn	10/30/2014 2:18 PM
56	Not sure what this question is asking.	10/30/2014 12:53 PM
57	need more info - maybe there were maps or graphics at meeting?	10/30/2014 12:49 PM
58	Underdeveloped	10/30/2014 12:11 PM
59	Need better RTA service, weekend service	10/30/2014 11:24 AM
60	I am most concerned with the state of the road itself and the lack of convenient cross walks. Perhaps if there were more pedestrian cross walks people wouldn't wander aimlessly across the street.	10/30/2014 10:28 AM
61	Clark and West 14th	10/30/2014 10:23 AM
62	Walton neighborhood: north of Clark from 25th to 38th Lincoln-West neighborhood: south of Clark from 25th to Fulton Fulton-West neighborhood: south of Clark from Fulton to W 44th Stockyards: south of Clark from W 44th to W 65th	10/30/2014 9:46 AM

## Clark Avenue Corridor Plan: User Survey SurveyMonkey

### Q3 Please check the transportation method you use most on Clark Avenue.

Answered: 117 Skipped: 2

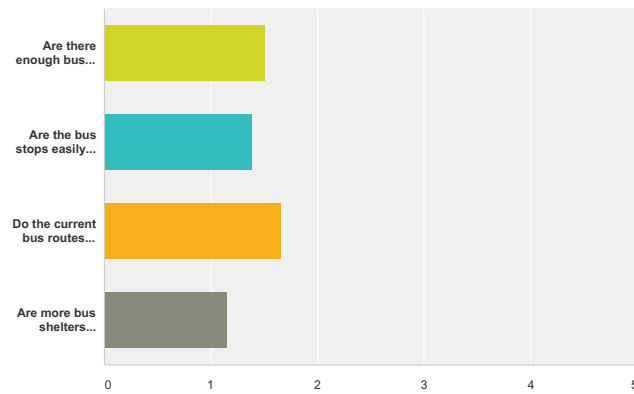


Answer Choices	Responses
Automobile	76.92% 90
Bicycle	6.84% 8
Pedestrian	10.26% 12
Bus	5.98% 7
<b>Total</b>	<b>117</b>

## Clark Avenue Corridor Plan: User Survey SurveyMonkey

### Q4 Public Transportation

Answered: 86 Skipped: 33

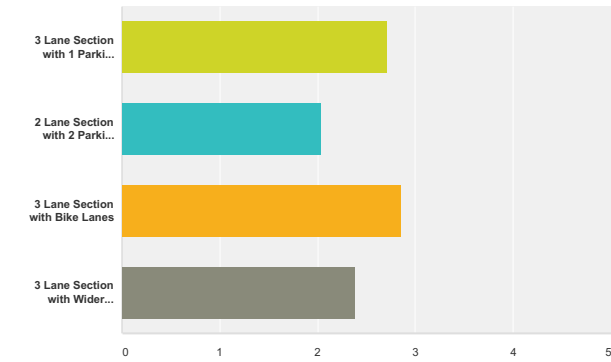


	Yes	No	Total	Weighted Average
Are there enough bus stops along the corridor?	50.00% 38	50.00% 38	76	1.50
Are the bus stops easily accessible?	60.81% 45	39.19% 29	74	1.39
Do the current bus routes provide adequate service?	33.80% 24	66.20% 47	71	1.66
Are more bus shelters needed?	85.00% 68	15.00% 12	80	1.15

## Clark Avenue Corridor Plan: User Survey SurveyMonkey

### Q5 Please rank your preferred corridor lane configuration, as shown below, from most preferred (1) to least preferred (5).

Answered: 109 Skipped: 10

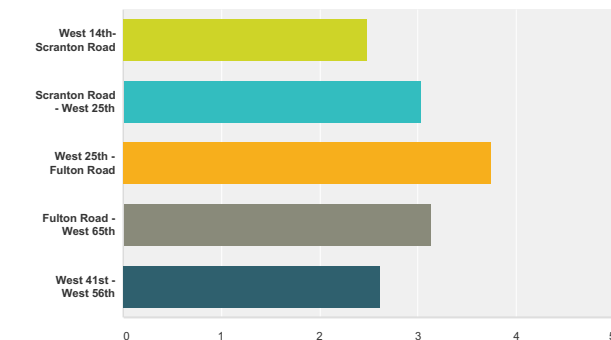


	1	2	3	4	Total	Score
3 Lane Section with 1 Parking Lane	26.61% 29	29.36% 32	32.11% 35	11.93% 13	109	2.71
2 Lane Section with 2 Parking Lanes	14.68% 16	19.27% 21	21.10% 23	44.95% 49	109	2.04
3 Lane Section with Bike Lanes	41.28% 45	22.94% 25	16.51% 18	19.27% 21	109	2.86
3 Lane Section with Wider Sidewalks	17.43% 19	28.44% 31	30.28% 33	23.85% 26	109	2.39

## Clark Avenue Corridor Plan: User Survey SurveyMonkey

### Q6 Please rank the corridor segments below, from most important (1) to least important (5) for improvement.

Answered: 104 Skipped: 15



	1	2	3	4	5	Total	Score
West 14th - Scranton Road	11.54% 12	9.62% 10	30.77% 32	11.54% 12	36.54% 38	104	2.48
Scranton Road - West 25th	10.58% 11	32.69% 34	12.50% 13	37.50% 39	6.73% 7	104	3.03
West 25th - Fulton Road	36.54% 38	17.31% 18	34.62% 36	7.69% 8	3.85% 4	104	3.75
Fulton Road - West 65th	22.12% 23	24.04% 25	11.54% 12	28.85% 30	13.46% 14	104	3.13
West 41st - West 56th	19.23% 20	16.35% 17	10.58% 11	14.42% 15	39.42% 41	104	2.62

# survey results

Clark Avenue Corridor Plan: User Survey

SurveyMonkey

### Q7 Please rank the improvements below, from most important (1) to least important (4).

Answered: 109 Skipped: 10

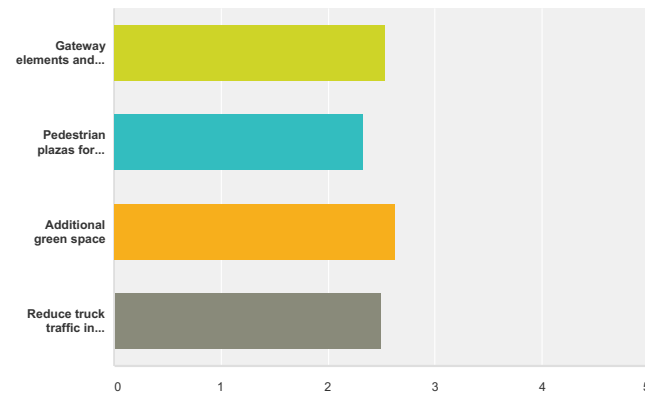


Table with 7 columns: Improvement, 1, 2, 3, 4, Total, Score. Data for Gateway elements and signage, Pedestrian plazas for events, Additional green space, and Reduce truck traffic in residential areas.

Clark Avenue Corridor Plan: User Survey

SurveyMonkey

### Q8 Please rank the streetscape elements below, from most important (1) to least important (5).

Answered: 109 Skipped: 10

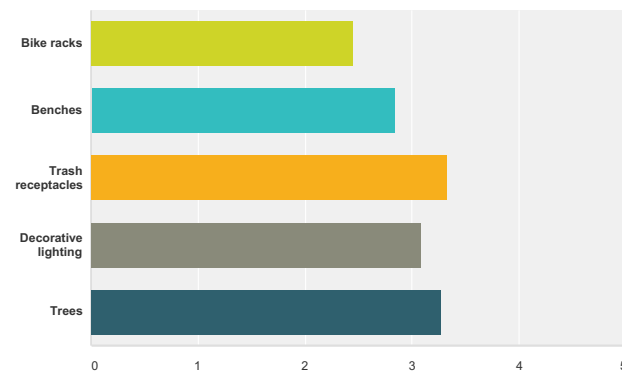


Table with 7 columns: Streetscape Element, 1, 2, 3, 4, 5, Total, Score. Data for Trees, Trash receptacles, Benches, and Bike racks.



STOCKYARD, CLARK-FULTON & BROOKLYN CENTRE COMMUNITY DEVELOPMENT OFFICE

Clark Avenue Corridor Plan: User Survey

SurveyMonkey

### Q9 Do you have any other comments, questions, or concerns?

Answered: 57 Skipped: 62

Table with 3 columns: #, Responses, Date. List of 27 user comments and dates.

Table with 3 columns: #, Responses, Date. Continuation of user comments and dates from Q9.

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## Clark Avenue Corridor Market Analysis

Cleveland, Ohio

December 17, 2014



ECONOMIC AND REAL ESTATE ANALYSIS FOR SUSTAINABLE LAND USE OUTCOMES™

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## BACKGROUND

ECONOMIC AND REAL ESTATE ANALYSIS FOR SUSTAINABLE LAND USE OUTCOMES™



### Background

Serving as a sub-consultant to Behnke Associates, 4ward Planning was engaged to provide economic development analysis services to the Tremont West Development Corporation and the City of Cleveland in support of a transportation corridor plan for the Clark Avenue Corridor in Cleveland, Ohio. The project is part of the Transportation for Livable Communities (TLCI) program.

The following market analysis includes a detailed socio-economic and labor analysis and an estimation of real estate market demand for residential, office, and retail land use to further identify market-supportable adaptive reuse and infill opportunities along the corridor. An improvement-to-land value (ILV) analysis screens existing sites for redevelopment potential, a first cut at identifying opportunities on-the-ground. This market analysis informs the creation of redevelopment scenarios for the overall corridor master plan being designed by other consultants. This analysis will be supplemented by a financial feasibility analysis on key sites.

## SOCIO-ECONOMIC TRENDS ANALYSIS

ECONOMIC AND REAL ESTATE ANALYSIS FOR SUSTAINABLE LAND USE OUTCOMES™



### Methodology: Socio-Economic Trends Analysis

4ward Planning examined socio-economic trends for 2010, 2014 (estimated), and 2019 (forecasted) to comparatively analyze the Clark Avenue Corridor and the surrounding region. The geographic areas studied include:

- Clark Avenue Corridor
- 10-Minute Drive Contour (from the intersection of Clark Avenue and Fulton Road)
- Cuyahoga County

The analysis and recommendations that follow are based on a combination of quantitative and qualitative techniques. Quantitative analysis is underpinned by both public and proprietary data sources, including U.S. Census-based data and Esri's Community Analyst – a socio-economic data analysis tool.

For the study areas, estimated and forecasted socio-economic trends examined include population growth, formation of family and non-family households, age cohort characteristics, household income, residential tenure, educational attainment, and consumer expenditures.

### Glossary of Terms: Socio-Economic Trends Analysis

**Household Population** Household population, as compared to total population, excludes persons living in dormitories, penal facilities, hospitals, and other institutional settings.

**Family** A family is a group of two or more people (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people are considered as members of one family. The number of families is equal to the number of family households; however, the count of family members differs from the count of family household members, because family household members include any non-relatives living in the household.

**Non-Family** A non-family household consists of a householder living alone (a one-person household), or where the householder shares the home exclusively with people to whom he/she is not related.

**Household** A household consists of all the people who occupy a housing unit. A house, an apartment, or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters. The count of households excludes group quarters and institutions.

**Empty Nester Household** A household in which one or more parents live after the children have left home, typically represented by ages 55 to 74.

**Metropolitan Statistical Area (MSA)** Metropolitan Statistical Areas (metro areas) are geographic entities defined by the Office of Management and Budget. A metro area contains a core urban area of 50,000 or more population. Each metro or micro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core.

**Flat Growth** Flat growth is defined as an annualized rate of change between -0.75 and 0.75 percent.

### Key Findings: Socio-Economic Trends Analysis

#### Stabilizing population with slight decline in coming years

All geographies examined are forecasted to experience flat population growth through 2019, albeit with a slight decline. The rate of decline is likely to be significantly lower than previous years, suggesting a stabilizing population.



#### Relative rise in surrounding area non-family households

Consistent with national and regional trends, non-family households are growing faster than family households, as well as outpacing the overall rate of population growth, in the geographies surrounding the Clark Avenue Corridor. Particularly, the rise of single-person households is expected to continue for the foreseeable future.



#### Aging population

The age groups forecasted to undergo the greatest growth in the study areas over the coming years include Younger Empty Nesters (55 to 64) and Older Empty Nesters (65 to 74), both of which will greatly influence housing demand, especially for smaller units.



#### Low incomes and retail spending

The Clark Avenue Corridor exhibits notably low incomes and spending patterns that are below the surrounding geographies and national average. This trend suggests future retail development and redevelopment would need to draw upon those from the surrounding region, while also ensuring consumer staples for local residents.



# economic analysis report

## Socio-Economic Trends Analysis Study Areas – 2014 Summary

Clark Avenue Corridor



Population: 8,715  
 Total Households: 3,218  
 Median Age: 31  
 Median Household Income: \$19,911  
 Percent of Household Incomes >\$75,000: 4%  
 Percent Owner-Occupied Housing: 25%

10-Minute Drive Contour (from intersection of Clark Ave and Fulton Rd)



Population: 225,644  
 Total Households: 96,003  
 Median Age: 35  
 Median Household Income: \$28,813  
 Percent of Household Incomes >\$75,000: 13%  
 Percent Owner-Occupied Housing: 51%

Cuyahoga County



Population: 1,258,105  
 Total Households: 541,402  
 Median Age: 41  
 Median Household Income: \$42,589  
 Percent of Household Incomes >\$75,000: 27%  
 Percent Owner-Occupied Housing: 52%



Source: US Census Bureau; Esri; 4ward Planning Inc., 2014



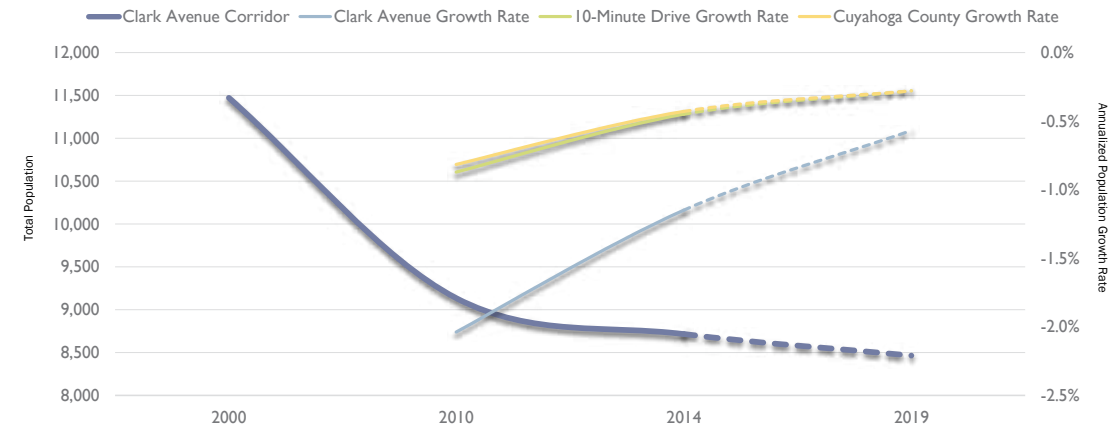
# economic analysis report



## Total Population

While all three study areas have experienced population declines since 2000, the rate of decline has slowed - a trend expected to continue over the next five years. The Clark Avenue Corridor decreased to approximately 9,000 residents in 2010, from 11,500 in 2000 (a nearly 23 percent decline). Total population for the corridor is likely to stabilize around 8,500 persons over the next five years, which still represents a sizeable (and relatively high density) population for a corridor of this size.

Total Population of Clark Avenue Corridor and Annualized Growth Rates, 2010-2019

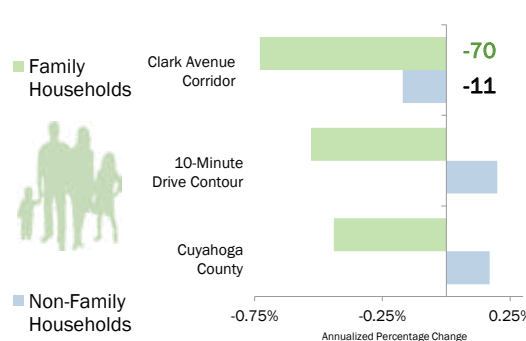


Source: US Census Bureau; Esri; 4ward Planning Inc., 2014

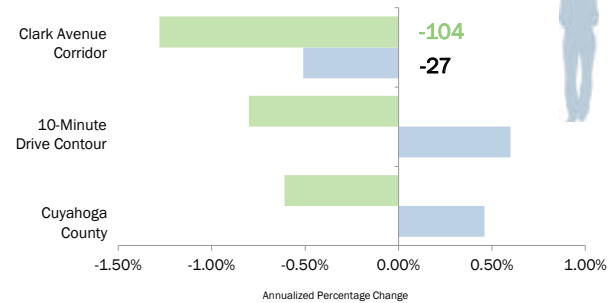
## Household Formation

The figures to the right and below illustrate household formation trends and projections for all three study areas, by family and non-family households. While both types of households are declining in the Corridor, the surrounding geographies have experienced growth in non-family households, despite overall population decline. This trend is expected to continue over the coming years. Further, in all three study areas, the rate of family household decline exceeds the rate of overall population decline.

Annualized Percentage Change, 2014-2019



Annualized Percentage Change, 2010-2014



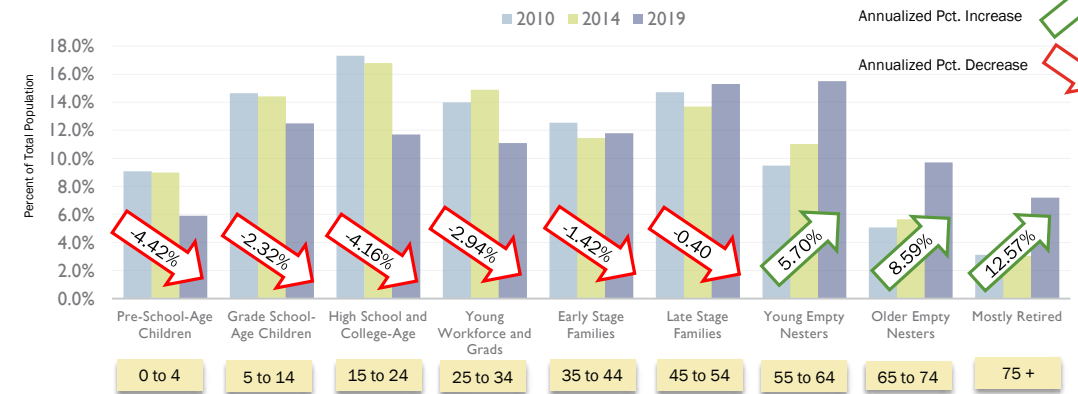
The relatively strong increase in non-family households, outside of the corridor, is consistent with national demographic trends as couples are choosing to marry and start families later, or not at all. This trend will continue to drive the increase in non-family households - influencing the rise in demand for smaller, multi-family units in locations such as Ohio City.

Sources: US Census Bureau; Esri; 4ward Planning Inc., 2014

## Age Distribution

Despite population decline, the Clark Avenue Corridor has experienced steady growth in the number of persons 55-and-over - a trend that is very likely to continue over the coming years. In contrast, the share of residents ages 15 through 44, while comprising the majority of all persons in the area, is declining. This decline, combined with overall population trends, suggests a net outmigration by persons in this age group, either due to issues of housing availability, amenities, and/or employment prospects. The revitalization of the Clark Avenue Corridor can help to reverse this outmigration.

Age Cohorts as a Percentage of Total Population, Clark Avenue Corridor



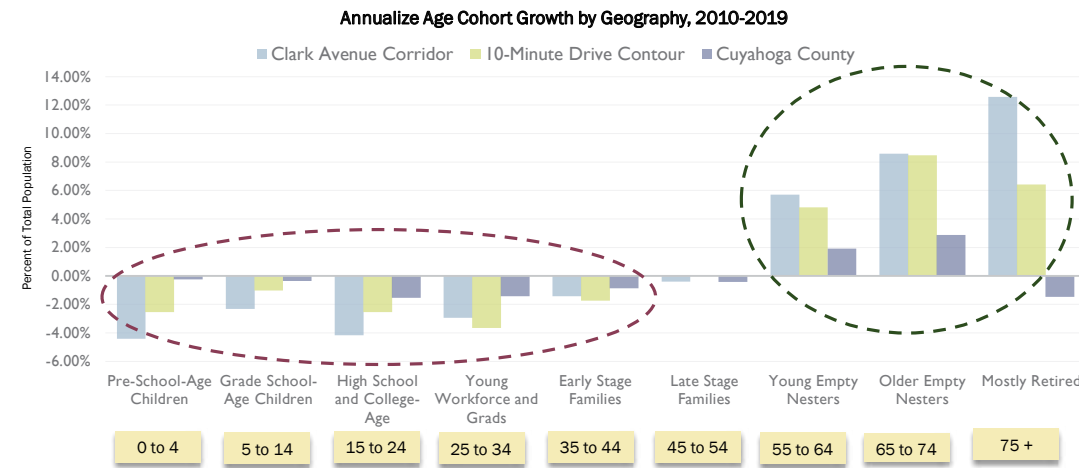
Source: US Census Bureau; Esri; 4ward Planning Inc., 2014



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## Age Cohort Growth

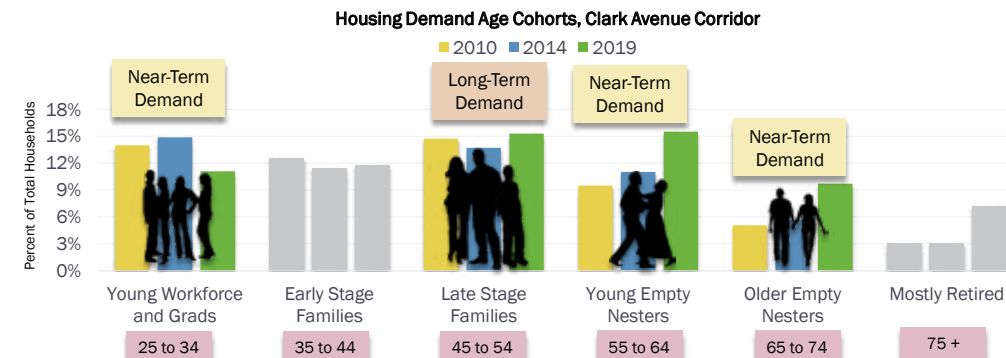
When compared to the 10-minute drive contour and Cuyahoga County, the Clark Avenue Corridor is expected to experience a greater rate of decline among younger (44 and below) persons and a greater rate of increase among older persons (45 and older) over the next five years.



Source: US Census Bureau; Esri; 4ward Planning Inc., 2014

## Age and Housing Demand

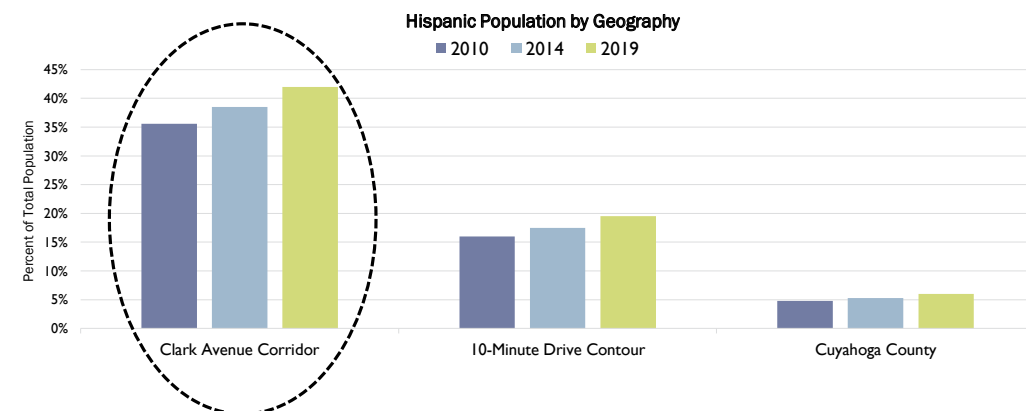
In the near term (the next seven years) and long term (beyond the next seven years), housing demand in the Clark Avenue Corridor and surrounding area will likely come from within the demographic groups highlighted below. The 55-to-74 age cohort (Empty Nesters) will exert considerable influence on the type of housing developed, specifically smaller housing units, as they downsize from traditional single-family units. As previously highlighted, this group is increasing as a share of the total county population. To a lesser extent, Young Professionals (ages 25 to 34) may also influence the county's housing market over the coming years. While this age group is forecasted to decline as a percent of the total population through 2018, they also typically seek small, affordable, rental units with convenient commutes to jobs or school, and thus, may be more likely to locate to a neighborhood offering such housing types.



Source: US Census Bureau; Esri; 4ward Planning Inc., 2014

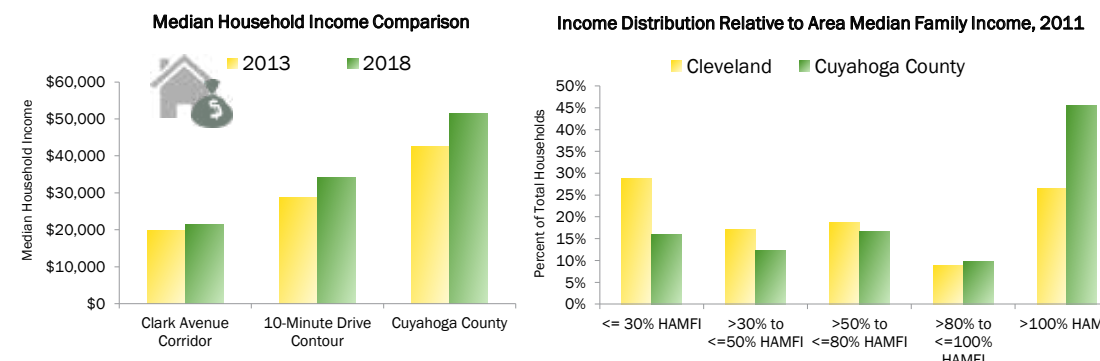
## Hispanic Population

At nearly 40 percent of the total population, the Clark Avenue Corridor is represented by a significantly higher concentration of Hispanic population relative to the other study areas, with more than double the rate of 10-minute drive contour (17.5 percent) and seven times that of Cuyahoga County (5.3 percent). The Hispanic population is generally younger and consists of larger household sizes relative to non-Hispanics. Additionally, the strong presence of Hispanics within the Clark Avenue Corridor can provide niche opportunities for neighborhood retail and cultural amenities.



## Median Household Income

The Clark Avenue Corridor had a notably low 2013 median household income, at under \$20,000, nearly \$10,000 less than then 10-minute drive contour and more than \$20,000 lower than the county. Additionally, Cleveland underperforms relative to Cuyahoga County in the percentage of households with income greater than the U.S. Department of Housing and Urban Development (HUD) Area Median Family Income (AMI), which is \$62,600 for 2014.

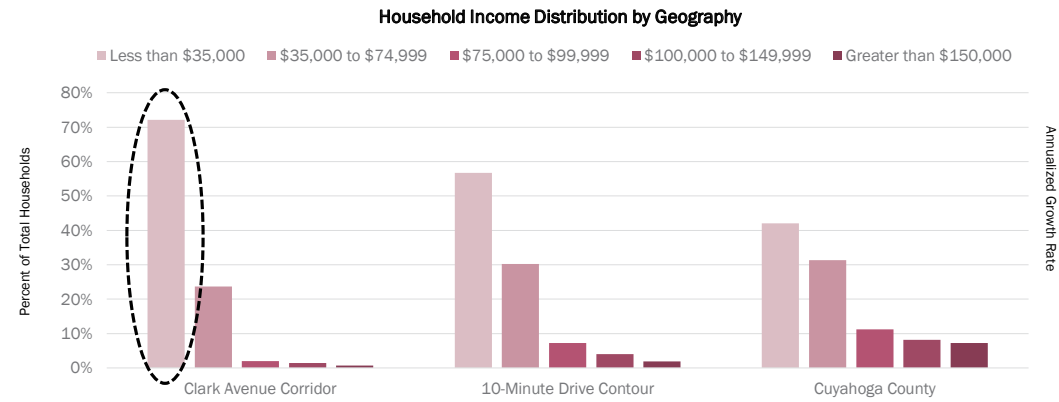


Sources: US Census Bureau; Esri; CHAS; 4ward Planning Inc., 2014

# economic analysis report

## Income Distribution

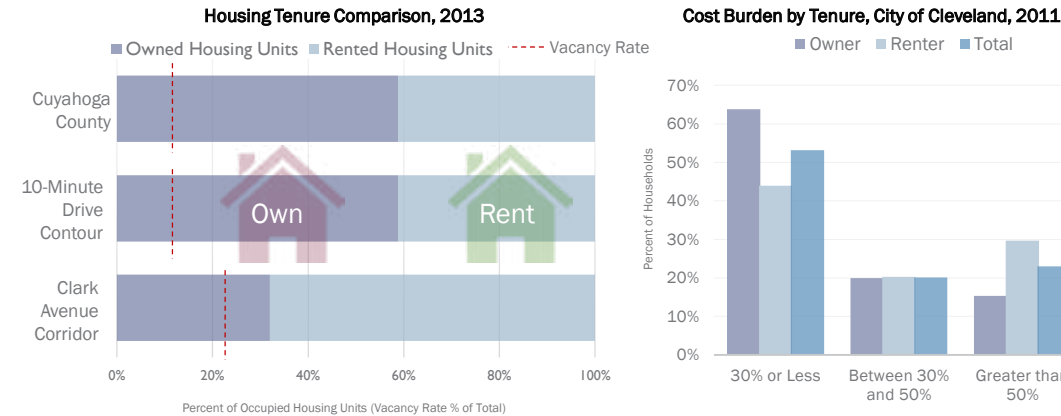
As exhibited below, more than 70 percent of all households within the Clark Avenue Corridor earned less than \$35,000 in 2013, compared to just over half of all households within the 10-minute drive contour and just over 40 percent in the county. This is consistent with the corridor's high poverty rate of nearly 46 percent.



Sources: US Census Bureau; Esri; 4ward Planning Inc., 2014

## Housing Tenure Trends

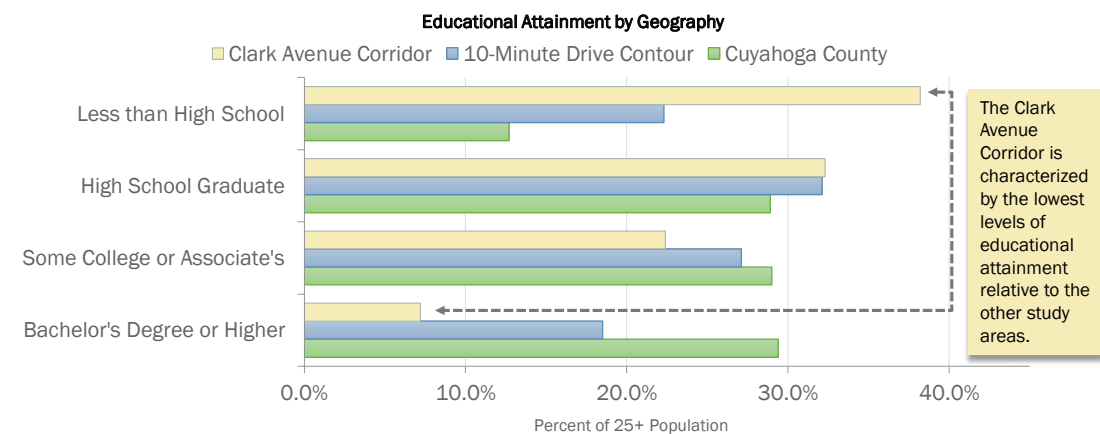
The figure below comparatively illustrates trends in housing tenure for the three study geographies, indicating that rental rates are relatively higher within the Clark Avenue Corridor. The vacancy rate is also higher along Clark Avenue, hovering around 20 percent. Within the City of Cleveland, homeowners are less likely to be cost-burdened (e.g., paying over 30 percent of income toward housing) compared to area renters. Indeed, half of all renter households in Cleveland are cost-burdened, while just over one-third of owner households are cost-burdened, according to U.S. Census data.



Source: US Census Bureau; Esri; 4ward Planning Inc., 2014

## Educational Attainment

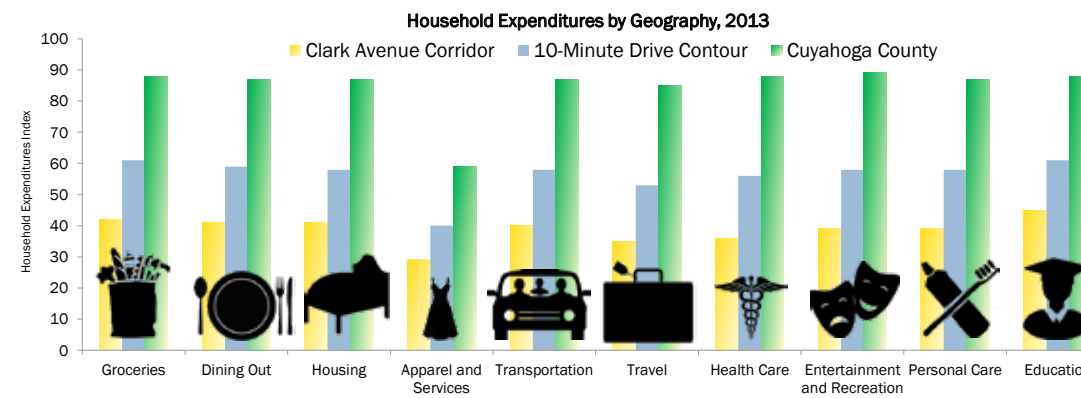
Illustrated below, the Clark Avenue Corridor is characterized by significantly lower levels of educational attainment levels than both the 10-minute drive contour and county. Relatively high levels of educational attainment are consistent with the corridor's low income levels, as these characteristics are highly correlated. Further, households exhibiting low educational attainment levels, typically, are more likely to demand renter-occupied housing, versus owner – and this, in turn, influences what is built.



Source: US Census Bureau; Esri; 4ward Planning Inc., 2014

## Household Expenditures

The figure below illustrates the spending potential of households in each of the three analysis geographies, on a select set of discretionary spending categories. An index value of 100 represents the national average. All geographies are generally below the national average in most spending categories, with the Clark Avenue Corridor the lowest among them; consistent with its low household incomes. These trends suggest that retail development along Clark Avenue (particularly as part of a mixed-use residential development project) may need to draw consumers from the surrounding area.



Source: US Census Bureau; Esri; 4ward Planning Inc., 2014

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## Key Challenges

What key implications do the **Socio-Economic** findings have for the Clark Avenue Corridor, should current trends continue and holding all other factors constant?



## Key Opportunities

What key opportunities do the **Socio-Economic** findings have for the Clark Avenue Corridor, should current trends continue and holding all other factors constant?



## Takeaway: Socio-Economic Trends

The preceding analysis of socio-economic trends for the Clark Avenue Corridor, 10-minute drive contour, and Cuyahoga County provides insight into the population, housing, and demographic characteristics of the area. While growth in population and household formation is likely to stay relatively flat, with modest declines in the near future, a number of indicators suggest a need for strategic redevelopment in the area:

- There is a fast-growing segment of those 55 years of age and older in the corridor, as well the surrounding area. As persons near retirement, greater consideration is given to downsizing one's residence while remaining close to family, friends, and employment opportunities. This suggests a need for affordable housing choice accommodating the 55-plus set – again, a demand driver for smaller housing units.
- Half of all renter households are cost-burdened, spending more than 30 percent of their income on housing. Further, relatively strong growth in non-family households suggests a likely increasing demand for small, affordable rental units.
- Lower incomes, lower educational attainment and higher poverty rates indicate that both businesses and residential developers looking to locate in the corridor will need to market outside of the corridor to generate sufficient demand.



## LABOR AND INDUSTRY TRENDS ANALYSIS

ECONOMIC AND REAL ESTATE ANALYSIS FOR SUSTAINABLE LAND USE OUTCOMES™



## Methodology: Labor and Industry Trends Analysis

4ward Planning Inc. conducted an examination of labor and industry trends in the labor areas encompassing the Clark Avenue Corridor and surrounding geographies. The following study areas were analyzed:

- Cuyahoga County
- Cleveland-Elyria-Mentor Metropolitan Statistical Area
- State of Ohio

Industry and labor data were gathered from the U.S. Census Bureau's *OnTheMap* data server, as well as from Quarterly Workforce Indicators (QWI) and Bureau of Labor Statistics (BLS) reports. Work area analysis was performed for the most recent available years. Industry and occupational projections from the Ohio Department of Job and Family Services were also utilized.

## Glossary of Terms: Labor and Industry Trends Analysis

**Primary Job** According to the U.S. Census, a primary job refers to the job an individual has which provides the greatest income. If an individual is employed by a single job, this would be considered a primary job. If an individual is employed at multiple jobs, including part-time employment, the job that provides the greatest income would be considered a primary job.

**Metropolitan Statistical Area (MSA)** Metropolitan Statistical Areas (metro areas) are geographic entities defined by the Office of Management and Budget, containing a core urban area of 50,000 or more population. Each metro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core.

**Flat and Moderate Growth** 4ward Planning defines flat growth as an annualized rate of change between -0.75 and 0.75 percent. We further define moderate growth is an annualized rate of change between (-)0.75 and (-)1.5 percent.

**Traded Industries** Industries which create and sell their goods and/or services to end users located outside of the market area (e.g., outside of the Cleveland MSA). The manufacturing industry is an example of a traded industry.

**Local Serving Industries** Industries which, principally, sell their goods and/or services to end users located within the market area (e.g., within the Cleveland MSA). The retail industry is an example of a local serving industry.

Source: US Census Bureau

## Key Findings: Labor and Industry Trends Analysis

### Employment remains below pre-crisis levels

Cuyahoga County experienced a sharp drop in total employment between 2007 and 2009, at nearly 70,000 jobs or over nine percent of total employment. While the number of jobs grew by nearly 29,000 between 2009 and 2012, total employment remains well below 2007 levels.



### High unemployment and declining employment-to-population ratio

The unemployment rate of Cleveland remains considerably high, relative to pre-crisis norms. While the rate of unemployment has begun to trend downward, this is partly because more working-age people are dropping out of the workforce due to retirement, aging, and discouragement, rather than being an indicator of overall economic health.



### Growing wage gap

The ratio of the top five to bottom five industries, by average monthly earnings, has grown since the financial crisis. Additionally, much of the occupational growth within the Cleveland MSA over the coming years is likely to be disproportionately concentrated in low-wage jobs.



### Growth in health care, declines in manufacturing

Already the largest industry by employment in all study areas, Health Care and Social Assistance is expected to further expand through 2020, with nearly 41,000 jobs in Cleveland, alone. Manufacturing is expected to experience employment declines.



## Labor and Industry Trends Analysis – 2012 Key Metrics

Cuyahoga County



Total Employment: 713,673

Top Industry by Employment: Health Care and Social Assistance

Unemployment Rate (2013 Annual Rate): 7.7%

Cleveland-Elyria-Mentor MSA



Total Employment: 984,937

Top Industry by Employment: Health Care and Social Assistance

Unemployment Rate (2013 Annual Rate): 7.5%

State of Ohio



Total Employment: 4,917,575

Top Industry by Employment: Health Care and Social Assistance

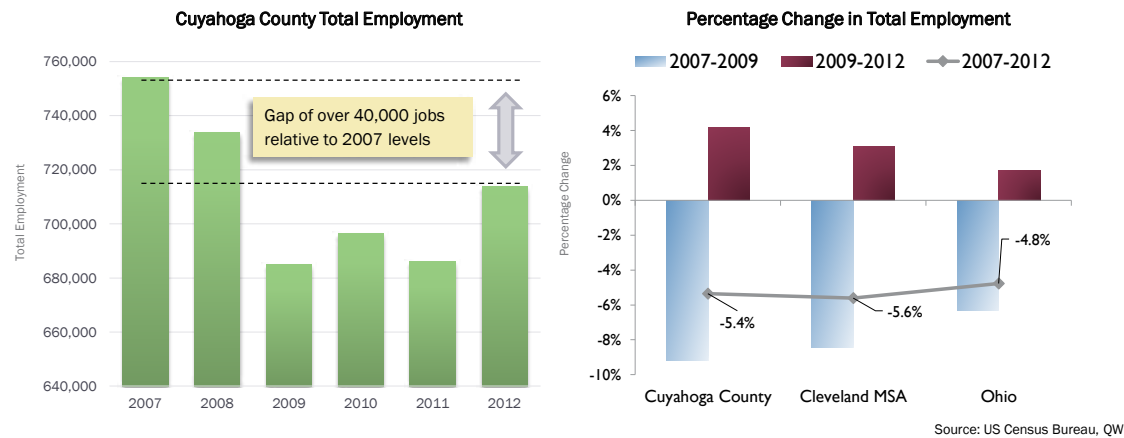
Unemployment Rate (2013 Annual Rate): 7.4%

Source: US Census Bureau; QWI; BLS

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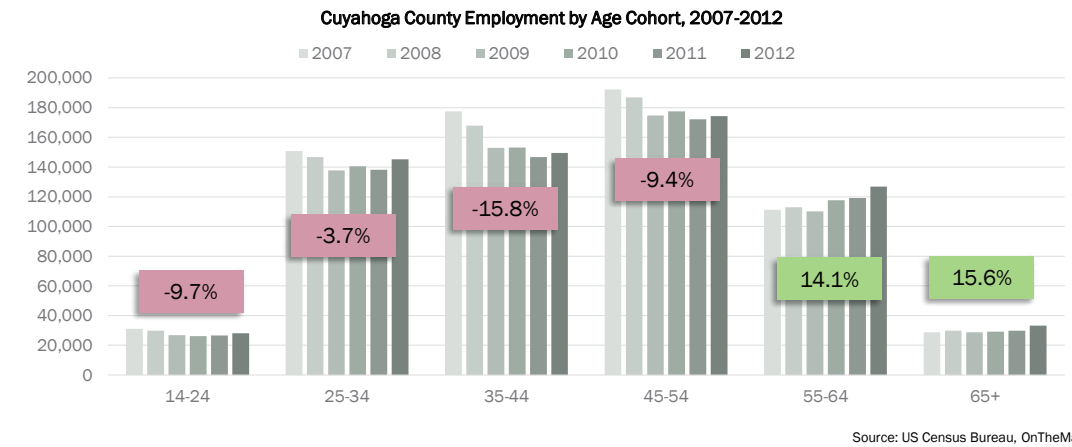
## Employment Profile: 2007 to 2012

The Great Recession had an enormous impact on the number of total jobs within Cuyahoga County and the surrounding region, with losses of more than five percent of the county's workforce between 2007 and 2012. However, a modest post-crisis net employment recovery occurred between 2009 and 2012, adding nearly 29,000 jobs and exceeding the employment growth rate of the Cleveland MSA and Ohio during the same time period. Despite recent employment gains, total employment within the county in 2012 remained well below 2007 levels, with a shortfall of over 40,000 jobs.



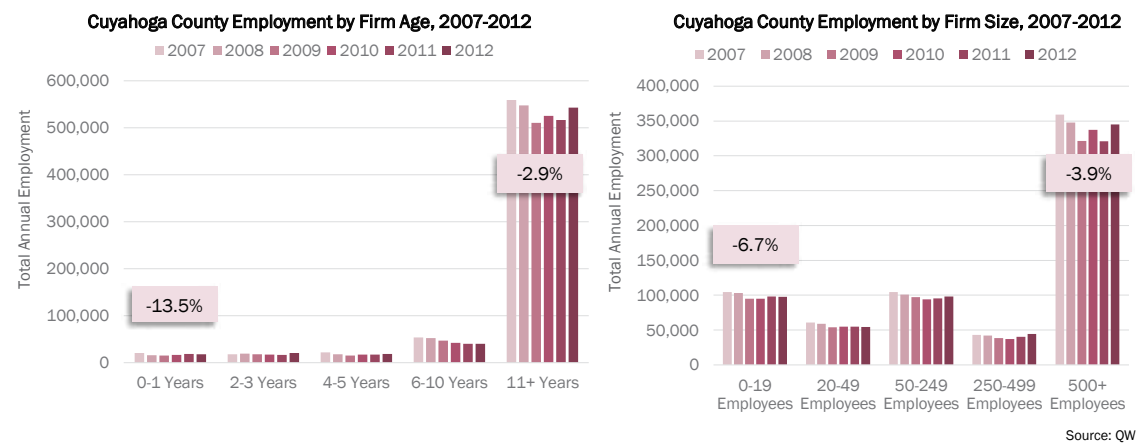
## Employment Area Profile: Workers by Age Group

The Cuyahoga County workforce is aging, as shown below. Every age cohort below 55 years saw a net decline in workers between 2007 and 2012, while workers ages 55 to 64 and over 65 saw employment gains of over 14 percent and 15 percent, respectively. These trends are consistent with younger and middle-aged workers being disproportionately worse off, in terms of employment, as a result of the economic downturn. Further, the relatively strong rise in the share of workers 55 and older in the area suggests many companies value experience and productivity over youth and, generally, lower payroll costs.



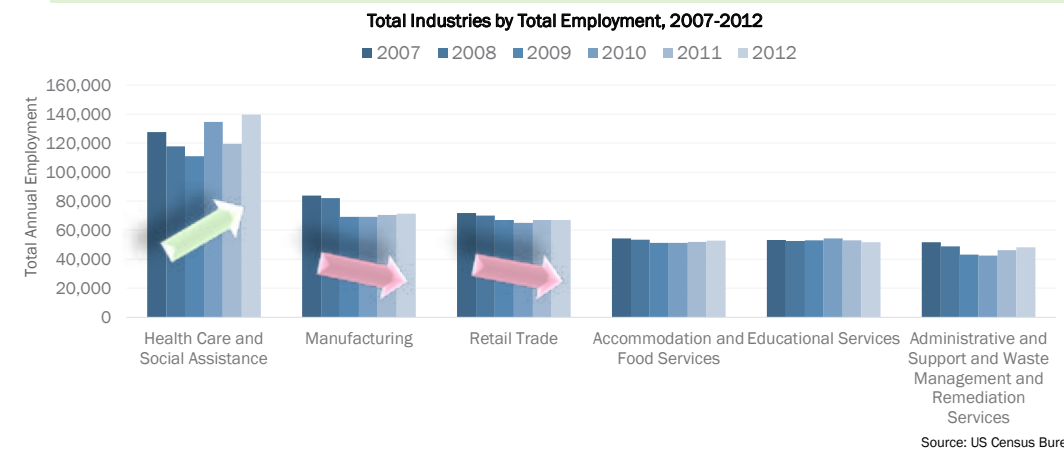
## Employment Area Profile: Workers by Firm Age and Size

Consistent with national and regional trends, older and bigger firms dominate the employment landscape within Cuyahoga County, while the employment generated via new firm formation appears to be in general decline. Indeed, the rate at which employment at newly formed firms (0-1 years) declined between 2007 and 2012 exceeded that of older firms (11+ years). Similarly, smaller firms experienced greater employment decreases relative to larger firms. Expanding access to entrepreneurship within the Clark Avenue Corridor could substantially increase labor demand and promote greater business dynamism.



## Top Six Sectors by Total Employment: Cuyahoga County

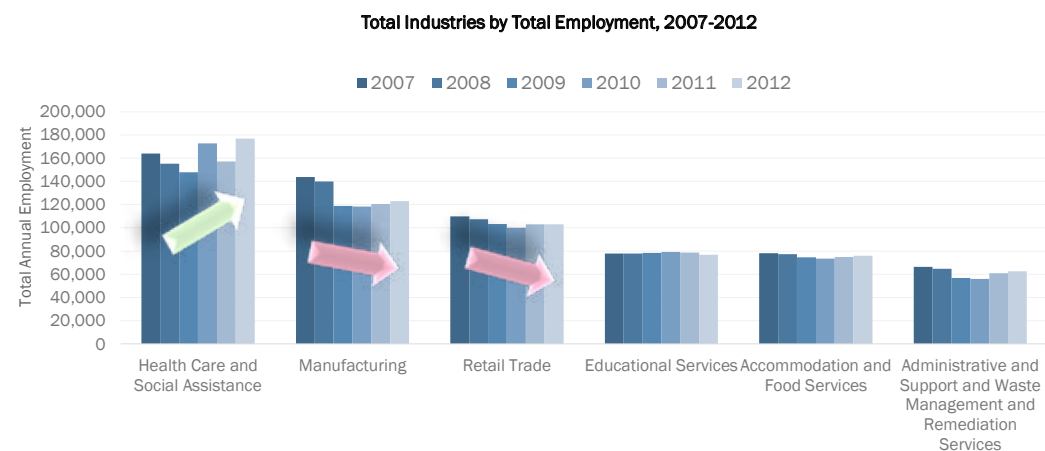
While the majority of sectors within Cuyahoga County experienced a net decline between 2007 and 2012, Health Care and Social Assistance was a notable exception, expanding by nearly 12,000 jobs. Of the top six sectors by employment, the remaining five saw losses, with Manufacturing leading at nearly 13,000 jobs lost, consistent with increasing automation and capital intensity of the tradable sector. However, since the recession, Manufacturing, Accommodation and Food Services, Administrative and Support, and Retail Trade have experienced modest employment gains.



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## Top Six Sectors by Total Employment: Cleveland MSA

Similar to Cuyahoga County, the Cleveland MSA experienced the greatest employment growth in Health Care and Social Assistance, and declines in Manufacturing. The healthcare sector is likely to remain the region's dominant industry and source of employment growth for the foreseeable future.



Source: US Census Bureau; QWI

## Industry Growth Projections: Cleveland MSA

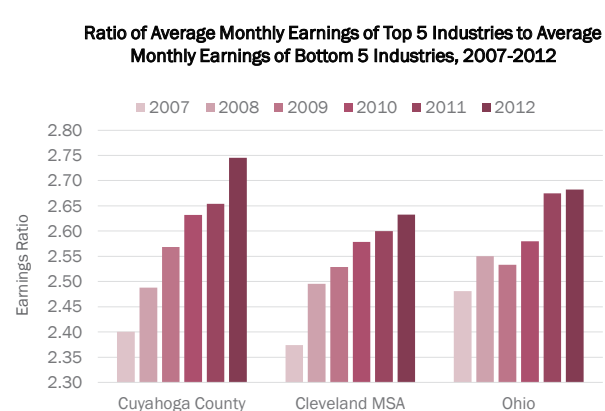
According to the Department of Job and Family Services, Health Care and Social Assistance is the industry with the greatest anticipated numeric employment change in the Cleveland MSA, by a significant margin. It is also an industry which creates, generally, a large number of lower-wage jobs.

Industry	2010 Estimated Employment	2020 Projected Employment	Numeric Change	Percent Change
Health Care and Social Assistance	160,300	201,000	40,700	25.4%
Administrative Support and Waste Services	54,600	64,800	10,200	18.7%
Professional and Technical Services	49,300	59,400	10,100	20.5%
Construction	30,200	36,500	6,300	20.9%
Retail Trade	99,300	104,500	5,200	5.2%
Accommodation and Food Services	73,600	78,700	5,100	6.9%
Educational Services	80,600	84,400	3,800	4.7%
Management of companies and enterprises	21,400	24,900	3,500	16.4%
Other Services	45,500	48,900	3,400	7.5%
Arts, Entertainment, and Recreation	12,800	14,900	2,100	16.4%
Finance and Insurance	46,200	47,800	1,600	3.5%
Real Estate and Rental and Leasing	14,700	16,300	1,600	10.9%
Natural Resources, incl. Agriculture and Mining	6,100	5,900	-200	-3.3%
Information	15,400	15,200	-200	-1.3%
Government	77,500	77,300	-200	-0.3%
Utilities	3,100	2,600	-500	-16.1%
Manufacturing	116,600	115,500	-1,100	-0.9%

Source: Ohio Department of Job and Family Services

## Average Monthly Earnings

Between 2007 and 2012, all geographies experienced inflation-adjusted average monthly earnings increases across all industries, with Cuyahoga County having the greatest increase at over eight percent. Much of the gains were concentrated among the highest paying industries. All study areas also demonstrated a growing earnings gap between the top five industries and bottom five industries by average monthly earnings. Additionally, within the county and broader region, the bottom five industries, particularly Administration and Support, Retail Trade, and Accommodation and Food Services are expected to experience high relative occupational growth over the coming years. Many of these occupations offer low wages.



Top 5 Industries Average Monthly Earnings, Cuyahoga County, 2012

Management of Companies	\$7,839
Finance and Insurance	\$6,534
Mining, Quarrying, and Oil and Gas	\$6,430
Professional and Scientific Services	\$6,370
Utilities	\$5,986

Bottom 5 Industries Average Monthly Earnings, Cuyahoga County, 2012

Administrative and Support Services	\$3,349
Other Services (except Public Admin)	\$2,733
Retail Trade	\$2,421
Agriculture, Forestry, Fishing	\$2,092
Accommodation and Food Services	\$1,483

Source: US Census Bureau; QWI

## Occupational Growth Projections: Cleveland MSA

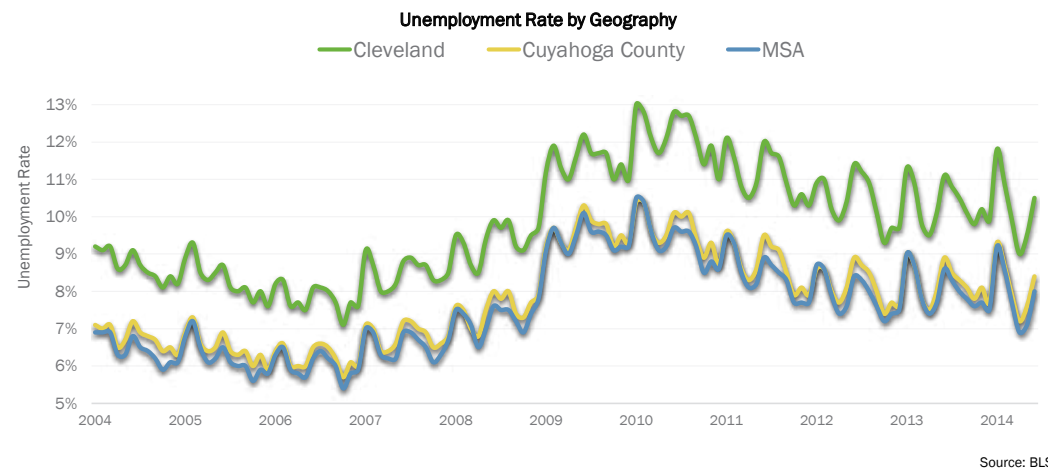
The occupations projected to add the most jobs between 2010 and 2020 include registered nurses, food preparation workers, medical secretaries, and nursing aides. For many occupations, the majority of job openings throughout the decade are projected to result from annual worker replacement rather than new job growth, reflecting the greying workforce across industries and cautious hiring practices. Crucially, many of the highest-growing occupations, including food preparation, nursing aides, office clerks, and retail salespersons, are characterized by low wages.

Occupation	2010 Estimated Employment	2020 Projected Employment	Numeric Change	Percentage Change	Median Hourly Wage
Registered Nurses	29,710	36,720	7,010	23.6%	\$31.13
Food Prep. & Serv. Work, Inc. Fast Food	23,710	26,500	2,790	11.8%	\$8.86
Medical Secretaries	8,110	10,640	2,530	31.3%	\$15.25
Nursing Aides, Orderlies, and Attendants	16,030	18,250	2,220	13.8%	\$11.58
Office Clerks, General	19,240	21,340	2,100	11.0%	\$13.70
Retail Salespersons	28,900	30,830	1,930	6.7%	\$9.99
Truck Drivers, Heavy and Tractor-Trailer	9,760	11,390	1,630	16.8%	\$18.51
Landscaping and Groundskeeping Workers	8,060	9,570	1,510	18.8%	\$10.59
Laborers and Freight, Stock, and Material Movers, Hand	15,320	16,820	1,500	9.8%	\$10.82
Customer Service Representatives	14,190	15,490	1,300	9.2%	\$15.17
Security Guards	9,700	10,960	1,260	13.0%	\$12.03
Computer Systems Analysts	5,110	6,360	1,250	24.5%	\$34.42
Bookkeeping, Accounting, and Auditing Clerks	12,770	13,940	1,170	9.2%	\$16.95
Market Research Analysts and Marketing Specialists	3,230	4,370	1,140	35.3%	\$28.54
Accountants and Auditors	9,090	10,220	1,130	12.4%	\$31.01
Personal and Home Care Aides	1,960	3,070	1,110	56.8%	\$9.37
Licensed Practical and Licensed Vocational Nurses	8,090	9,190	1,100	13.6%	\$21.13
Hairdressers, Hairstylists, and Cosmetologists	8,310	9,410	1,100	13.2%	\$10.52

Source: Ohio Department of Job and Family Services

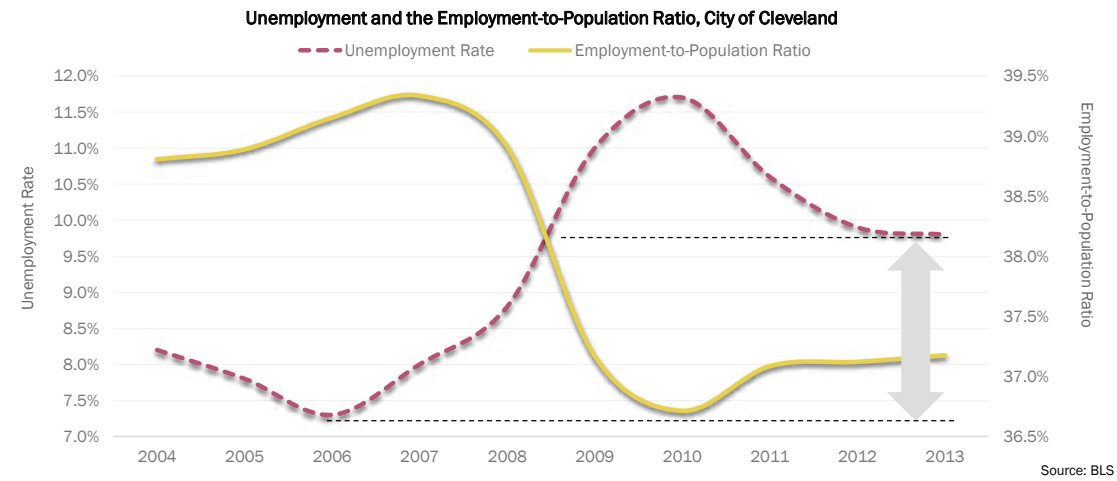
## Employment Area Profile: Unemployment

The unemployment rate of Cleveland has consistently remained above that of Cuyahoga County and the MSA over the past ten years. While the rate of unemployment has slowly begun to trend downward, it remains well above pre-crisis norms, shooting back up to 10 percent as of June 2014. The unemployment rate remains at or above 7.5 percent for all geographies.

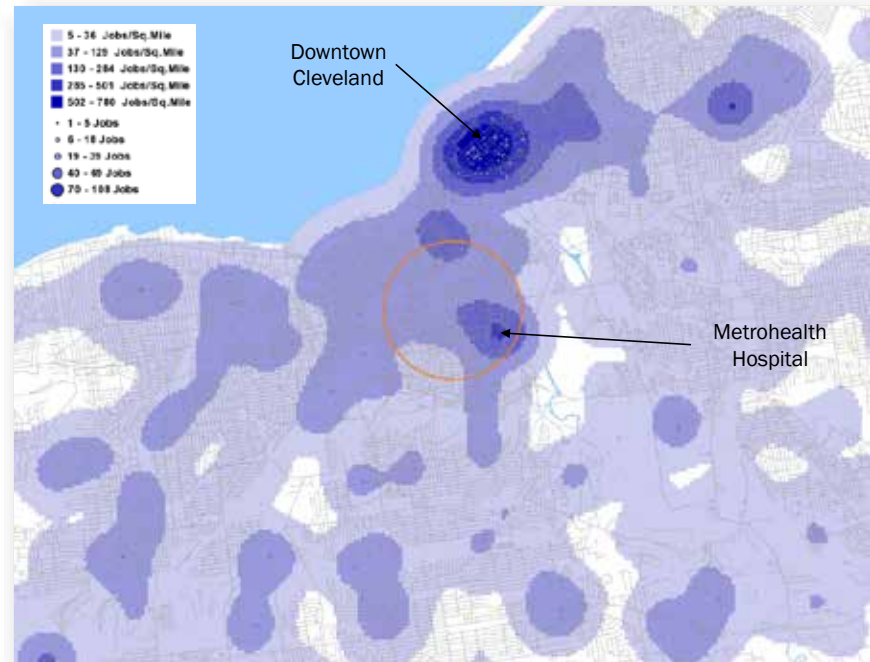


## Employment Area Profile: Unemployment and Population

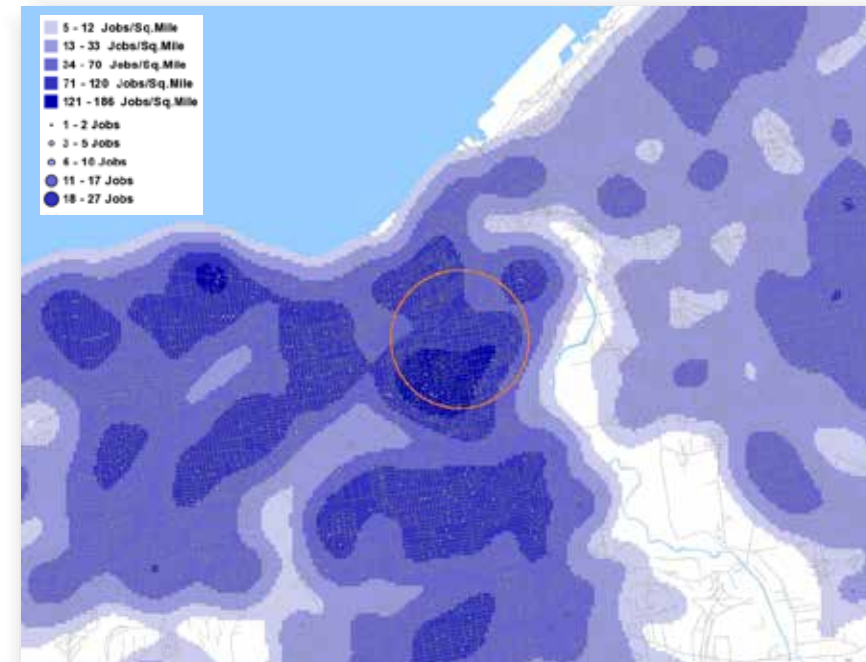
Within Cleveland as well as the surrounding region, there remains a large gap in unemployment, relative to pre-crisis levels. While the unemployment rate started to decline in 2010, to reach the lowest level since 2008 by 2013, this was partly a result of decreasing labor force participation and a declining employment-to-population ratio attributed to retiring, aging, and discouraged workers, rather than a sign of overall economic health. It is reasonable to assume that some of those who have left the labor force as a result of the recession will not be coming back.



## Work Destinations for Residents of 1-Mile Clark Avenue Radius



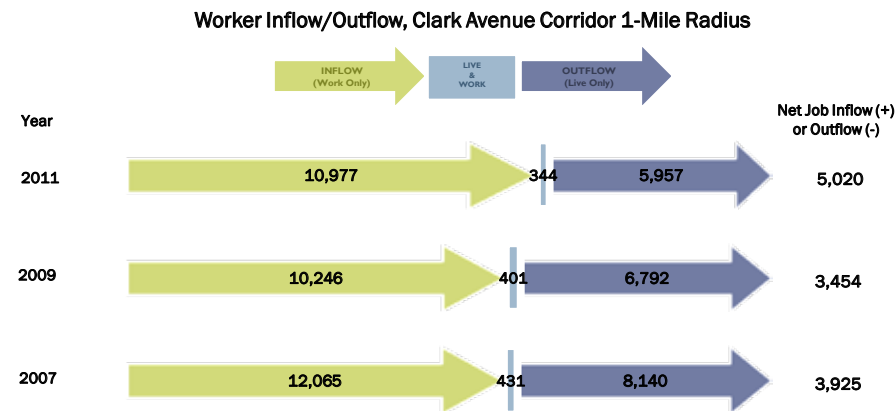
## Home Destinations for Workers of 1-Mile Clark Avenue Radius



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## Worker Inflow/Outflow

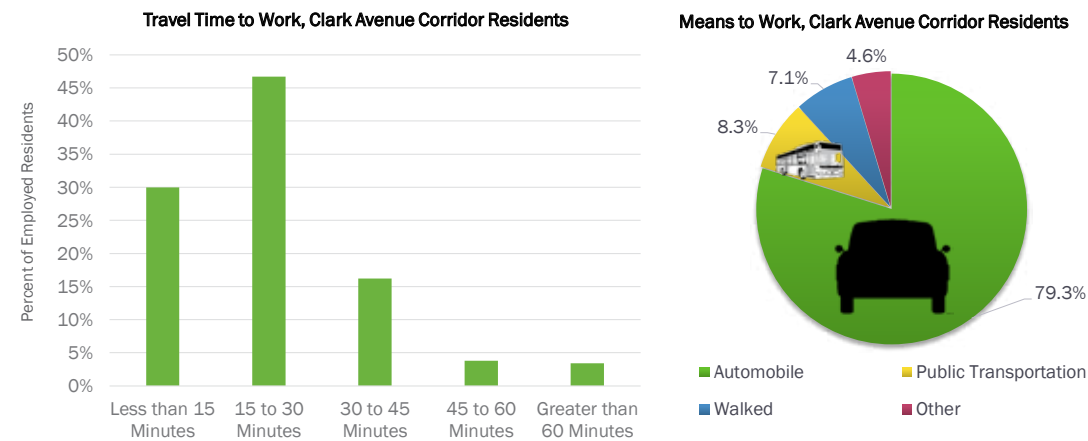
Between 2007 and 2011, the net worker inflow for the one-mile radius of Clark Avenue increased, indicating that the number of employed residents commuting outside of the area declined by a greater number than that of those commuting into the area. As of 2011, twice as many employed workers commute into the area as commute out. Those who live and work within the one-mile radius decreased to less than 350 workers, a very low number, during the same time period.



Source: US Census Bureau, OnTheMap: 4ward Planning, 2014

## Commute Time and Means to Work

More than three-quarters of employed Clark Avenue Corridor residents have a commute time of less than 30 minutes, with less than 10 percent traveling over 45 minutes. The vast majority of employed Clark Avenue Corridor residents travel to work via automobile, while just over eight percent commute via public transportation.



Source: ACS

## Industrial Composition: Clark Avenue Corridor

For both employed residents of the Clark Avenue Corridor and those who work within the Clark Avenue Corridor, Manufacturing is the leading industry by employment. Additionally, there are fewer employed Clark Avenue Corridor residents than those who work within the neighborhood, consistent with the net worker inflow of the surrounding area.

Top 10 Industries by Employment, Clark Avenue Corridor Residents

Industry	Jobs	Percent
Manufacturing	590	21.8%
Retail Trade	451	16.7%
Health Care and Social Assistance	342	12.6%
Accommodation and Food Services	315	11.6%
Admin and Support, Waste Mgmt Services	163	6.0%
Transportation and Warehousing	143	5.3%
Construction	119	4.4%
Arts, Entertainment, and Recreation	93	3.4%
Professional, Scientific, Technical Services	80	3.0%
Other Services (except Public Admin)	80	3.0%

Top 10 Industries by Employment, Clark Avenue Corridor Workers

Industry	Jobs	Percent
Manufacturing	1,058	30.0%
Educational Services	538	15.3%
Retail Trade	430	12.2%
Other Services (except Public Administration)	236	6.7%
Health Care & Social Assistance	232	6.6%
Accommodation & Food Services	223	6.3%
Wholesale Trade	200	5.7%
Admin and Support, Waste Mgmt Services	144	4.1%
Construction	127	3.6%
Professional, Scientific & Tech Services	92	2.6%

Source: American Community Survey 2008-2012y, Esri: 4ward Planning, 2014

## Industrial Composition: 10-Minute Drive Contour

The leading industries by employment for the residents of the 10-minute drive contour include Health Care, Manufacturing, Retail, and Accommodation and Food Services, all relatively low-wage industries. In contrast, Public Administration and Professional Services, higher wage industries, lead employment of those working within the 10-minute drive contour. This is further validation that higher-wage workers commute into the corridor but do not live there. Prospective redevelopment along Clark Avenue will likely benefit from attracting a portion of the many workers in professional services and public administration within the 10-minute drive contour.

Top 10 Industries by Employment, 10-Minute Drive Contour Residents

Industry	Jobs	Percent
Health Care & Social Assistance	15,149	15.9%
Manufacturing	13,190	13.9%
Retail Trade	10,407	10.9%
Accommodation & Food Services	9,842	10.3%
Educational Services	5,894	6.2%
Professional, Scientific & Tech Services	5,043	5.3%
Admin and Support, Waste Mgmt Services	5,007	5.3%
Other Services (except Public Admin)	4,726	5.0%
Finance & Insurance	4,402	4.6%
Construction	4,229	4.4%

Top 10 Industries by Employment, 10-Minute Drive Contour Workers

Industry	Jobs	Percent
Public Administration	22,391	13.3%
Professional, Scientific & Tech Services	22,156	13.1%
Manufacturing	19,631	11.6%
Admin and Support, Waste Mgmt Services	17,103	10.1%
Educational Services	11,204	6.6%
Health Care & Social Assistance	10,147	6.0%
Accommodation & Food Services	9,614	5.7%
Finance & Insurance	8,516	5.1%
Retail Trade	8,482	5.0%
Wholesale Trade	8,173	4.9%

Source: American Community Survey 2008-2012, Esri: 4ward Planning, 2014



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## Key Challenges

What key implications do the **Labor and Industry** findings have for the Clark Avenue Corridor, should current trends continue and holding all other factors constant?



## Key Opportunities

What key opportunities do the **Labor and Industry** findings have for the Clark Avenue Corridor, should current trends continue and holding all other factors constant?



## Takeaways: Labor and Industry Trends Analysis

While Cuyahoga County has recovered some employment losses resulting from the Great Recession, there is still a significant shortfall of over 40,000 jobs relative to pre-crisis levels. Further, unemployment within the region, though trending downward, remains persistently higher than pre-crisis norms. Redevelopment strategies within the Clark Avenue Corridor will benefit from consideration of the following:

**A Need for Employment Generating Redevelopment Opportunities:** Considering the higher unemployment rates and higher poverty rates of the workforce residing in the corridor, redevelopment opportunities should strive to increase job opportunities for corridor-area residents.

**Importance of Entrepreneurial Access to Local Residents:** Increasing the opportunities for local residents to engage in entrepreneurship would be a valuable way to increase employment and economic opportunity in the Clark Avenue Corridor area. Recent trends suggest that incumbent firms have remained better off, with higher rates of employment and job growth.

**Employment Growth Concentrated within Lower-Wage Industry Sectors:** As depicted, the greatest employment growth is projected to occur within industries which, traditionally, offer relatively lower wages (e.g., Healthcare and Social Assistance, Retail, and Accommodation and Food Services). This is also likely to intensify the issue of housing affordability and retail spending constraints within the region.

## REAL ESTATE MARKET ANALYSIS



## Methodology

The primary objective within this task is to gain an understanding of local supply, demand, occupancy, and pricing factors for a broad range of land uses within the Clark Avenue Corridor and surrounding area, including residential, office (medical and professional), and retail/service.

Using a variety of primary and secondary resources, 4ward Planning examined the competitive supply within the primary market area (existing and proposed) for each of the desired land uses and identified prospective opportunities and challenges for each of these land uses within the study area.

Based on the preceding quantitative and qualitative analyses, 4ward Planning conducted a supply/demand analysis, identifying prospective areas of unmet demand for housing, office, and retail product within the primary market area which could, potentially, be accommodated within the Clark Avenue Corridor study area. The methodology for determining the demand for specific land uses can be found at the beginning of each respective section.



## Residential Trends and Supply/Demand Analysis

ECONOMIC AND REAL ESTATE ANALYSIS FOR SUSTAINABLE LAND USE OUTCOMES™



## Key Findings: Housing

### Predominately single-family and duplex

Single-family residential structures account for 47 percent of housing units within the Clark Avenue Corridor, a share lower than the City of Cleveland (51 percent) and Cuyahoga County (65 percent). The corridor also contains the lowest percentage of multi-family housing stock with five or more units, relative to the other geographies.

### Old housing stock in need of replacement

Nearly eight out of 10 housing units within the Corridor were built prior to 1940, exceeding the rate for Cleveland and Cuyahoga County. Further, less than four percent of all units were built from 1980 onward. The Clark Avenue Corridor could benefit from redevelopment opportunities that focus on replacing and upgrading the existing housing supply.

### Nearly half of all households are cost-burdened, particularly renters and low-income

Based on 2012 ACS data, approximately 45 percent of households within the Clark Avenue Corridor ZIP Codes spent more than 30 percent of their monthly income on housing and are considered "cost-burdened," according to HUD. By tenure, 51 percent of renters and 36 percent of homeowners are cost-burdened. In all study geographies, renters and low-income households were more likely to be cost-burdened.

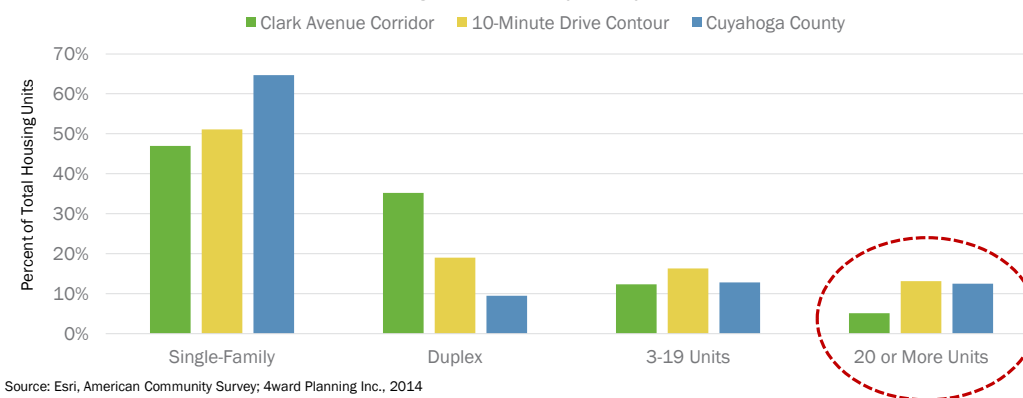
### Growing housing demand

In addition to recent residential permit activity increases as the housing market begins to recover, the demand for housing within the Clark Avenue Corridor and surrounding area will grow. 4ward Planning estimates that within the corridor over 600 units could be accommodated over the next five years, even under a flat-growth scenario.

## Housing Unit Structure

According to 2008-2012 ACS data, single-family residential structures account for nearly half of all housing units (47 percent) within the Clark Avenue Corridor, a share slightly lower than the 10-minute drive contour (51 percent), but much lower than Cuyahoga County at approximately two-thirds (65 percent). While the corridor leads the other geographies in duplexes as a percentage of total housing units, the 10-minute drive contour and Cuyahoga County have over twice the amount of multi-family complexes with 20 or more units. Going forward, the Clark Avenue Corridor could benefit from the increased density and economic activity that multi-family redevelopment would likely bring to the area.

Housing Comparison by Unit Type, 2012



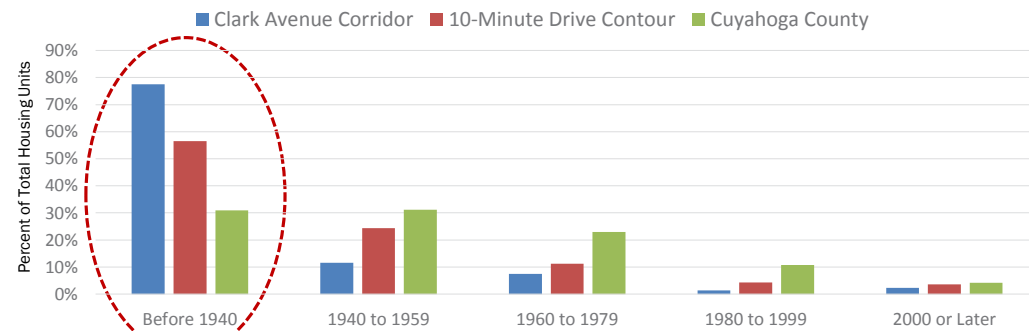
Source: Esri, American Community Survey; 4ward Planning Inc., 2014

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## Age of Housing Stock

Highlighted below, the Clark Avenue Corridor is characterized by a significantly older housing stock relative to the 10-minute drive contour and Cuyahoga County. According to the American Community Survey, more than three-quarters of all housing units within the corridor were built before 1940. Further, the corridor contains the lowest percentage of units built from 1980 onward (3.6 percent), with the 10-minute drive contour more than doubling (7.9 percent) and the County more than quadrupling (15 percent) the corridor's newer housing stock. Upgrading the housing stock of the Clark Avenue Corridor could present valuable redevelopment opportunities.

Housing Comparison by Year Structure Built, 2012

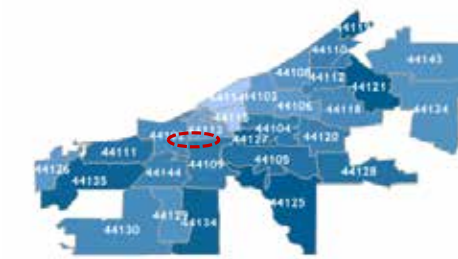


Source: Esri, American Community Survey; 4ward Planning Inc., 2014.

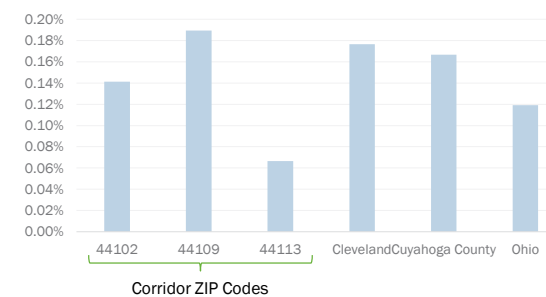
## Foreclosures

According to August 2014 data provided by RealtyTrac, foreclosed homes represented one out of every 707 homes within ZIP Code 44102, one out of every 528 homes within ZIP Code 44109, and one out of every 1,506 homes within ZIP Code 44113, compared to one out of every 566 and 600 homes within Cleveland and Cuyahoga County, respectively. The rate of foreclosures has declined in all corridor ZIP Codes on a year-to-year basis. A positive trend. Further, two of the three ZIP Codes outperform the City and County.

Cleveland Foreclosures by ZIP Code, August 2014



Comparison of Foreclosures by Area, August 2014

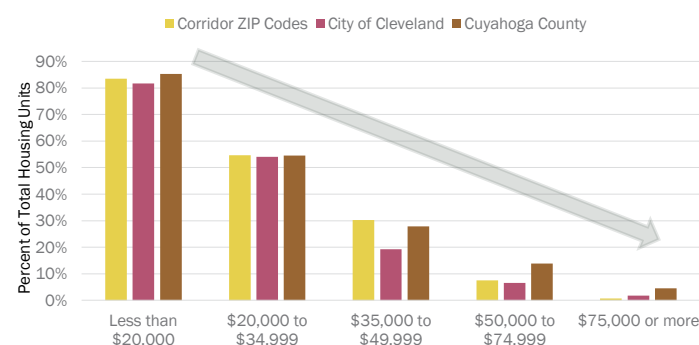


Source: RealtyTrac, 4ward Planning Inc., 2014

## Housing Cost Burden

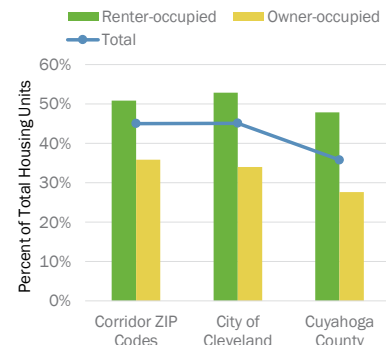
According to the US Department of Housing and Urban Development (HUD), households that expend more than 30 percent of their income for housing are considered cost-burdened and may have difficulty affording necessities such as food, clothing, transportation, and medical care. Illustrated below, all three geographies exhibit high rates of cost-burdened households, particularly among renters and low-income households. This indicates a lack of affordable housing options within the study areas. By HUD's standard, approximately 45 percent of households within the Clark Avenue Corridor's ZIP Codes and the City of Cleveland are considered cost-burdened, a higher rate than Cuyahoga County.

Cost-Burdened Households by Income, 2012



Source: American Community Survey; 4ward Planning Inc., 2014

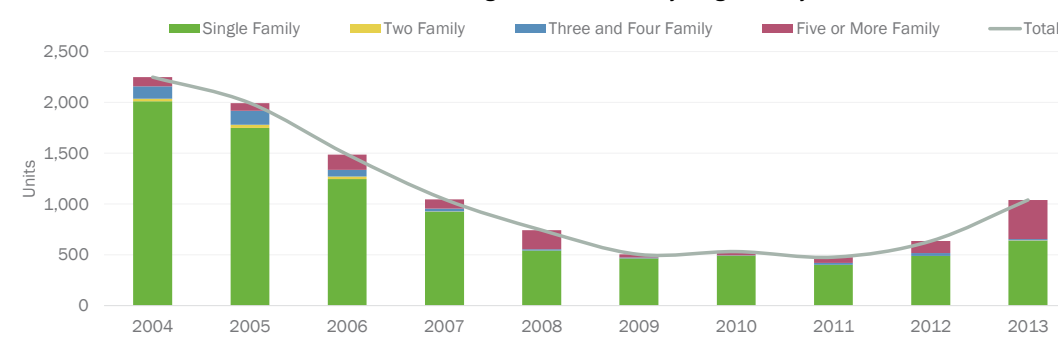
Cost-Burdened Households by Tenure, 2012



## Residential Permit Activity

Residential building permit activity in Cuyahoga County began to trend downward in 2004. In the aftermath of the financial crisis and subsequent economic downturn, permit activity was generally subdued between 2009 and 2011, relative to historic levels. The past two years have demonstrated an uptick in the rate of activity. Consistent with growing demand and demographic changes, the last few years have seen a notable increase in multi-family permit activity compared to previous years, especially for buildings with five or more units (composing nearly 40 percent of units permitted in 2013). Housing permit activity can function as an indicator of confidence in the real estate market, suggesting that Cuyahoga County, including the Clark Avenue Corridor, may experience continued growth in housing demand over the coming years.

Residential Building Permit Trends: Cuyahoga County



Source: U.S. Bureau of the Census Building Permit Estimates

## Estimating Housing Supply and Demand

### Key Assumptions Underpinning the Weak Growth Scenario for 10-Minute Drive Contour

#### Net Household Formation Increases by 0.5 Percent per Annum from 2014 to 2019

This assumption is based on increased in-migration from the metropolitan area and increased immigration, in response to local area job growth. A zero growth assumption is also utilized in the analysis for comparison.

#### Number Employed within the 10-Minute Drive Contour Increases from 168,511 in 2014 to 177,107 by 2019

This estimate is based on a modest average annual growth rate of one percent over 2014 base employment.

#### 80 Percent of Those Working in the Study Area Live Elsewhere

Nearly eight out of every 10 of people working in the 10-minute drive contour do not also live there.

#### Five Percent of Those Working in the Study Area but Living Elsewhere Represent Pent-Up Demand

Based on existing market trends, a conservative assumption is that five in one hundred workers would trade their commute if there were adequate housing choice in the study area.

#### Seven Percent of the Study Area's Current Housing Stock is Physically Obsolescent and Unmarketable

Nearly 60 percent of the study area's housing stock was built before 1940, increasing the incidence of physical obsolescence.

#### 1.25 Percent of the Study Area's Remaining Housing Stock Becomes Obsolescent Annually

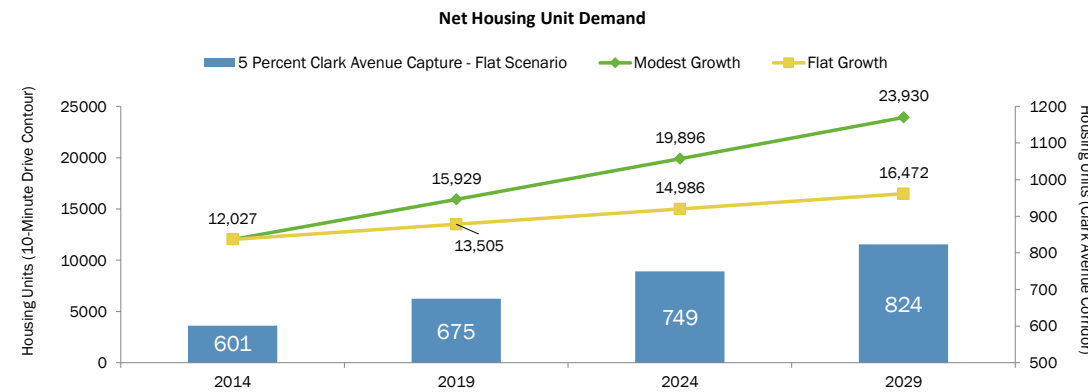
All housing stock gradually wears out over time and, on average, 1.25 out of every 100 units becomes obsolescent, annually.

#### Study Area Will Maintain an Annual Housing Vacancy Rate of Approximately 15 Percent

The study area's annual vacancy rate will remain relatively high, based on existing and projected conditions.

## Projected Growth Scenarios

Within the 10-minute drive contour, housing demand is expected to rise considerably over the next 15 years, even under a flat household growth scenario. If the Clark Avenue Corridor was able to capture five percent of the projected 10-minute drive contour demand, this would result in a demand for 675 units over the next five years, and over 800 units through 2029. While it is likely that Clark Avenue will not see such a quantity of units built, it would be reasonable to conclude the corridor could accommodate an increase in its housing supply, particularly to offset obsolescent and aging units as well as fulfilling demand from workers who would trade their commute for housing closer to their place of employment.



Source: 4ward Planning Inc 2014

## Takeaway: Housing Trends and Residential Supply/Demand

Based on modest as well as flat household growth estimates, there will be demand for thousands of new housing units within the 10-minute drive contour over the coming years. The preceding analysis forecasts that based on a five percent capture rate, the Clark Avenue Corridor, will be able to support demand for over 800 units over the next 15 years, even under a zero growth scenario.

However, the demand scenarios presented may not result in *effective* demand if affordability is not adequately considered. All geographies examined demonstrate a statistically significant negative relationship between household income and the likelihood of being cost-burdened, suggesting that low-income households within and around the corridor may continue to struggle with housing affordability. Further, more than half of all renters in the corridor zip codes and City of Cleveland are cost-burdened, a relevant trend considering that much of the future demand for housing is likely to be for rental units.

With more than three-quarters of the existing housing units over 70 years old, redevelopment efforts within the corridor that expand the existing housing supply could help to replace the current stock of obsolescent housing.

Crucially, the Clark Avenue Corridor must increase the supply of affordable housing, going forward, in order to prevent displacement of lower-income households and accommodate the growing number of elderly households unable to afford market-rate rents and home prices. Multiple price points should be accommodated as well, to foster a mixed-income community that can take advantage of opportunities provided from both existing residents and professionals working in and around the Corridor.

## Office Trends and Supply/Demand Analysis

ECONOMIC AND REAL ESTATE ANALYSIS FOR SUSTAINABLE LAND USE OUTCOMES™



## Key Findings: Office

### Weak, but potentially improving, office market

Office asking rents within Cleveland have risen substantially in recent years, potentially reflecting a tightening market. However, average asking sale price for office space remains lower than comparison geographies.



### Three industry sectors represent 85 percent of new employment

Much of the estimated growth in employment (7,500 new jobs in the top 10 industries) in the 10-minute drive contour, through 2020, is estimated to come from the Professional Services, Healthcare, and Administration and Support industries.



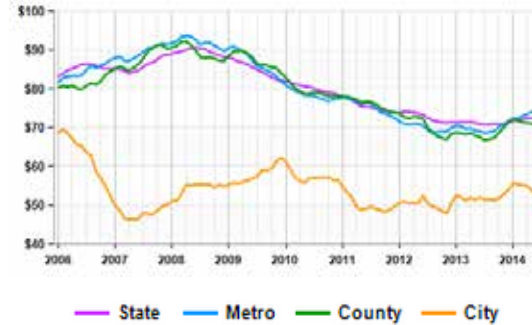
### Less than 30,000 square feet of new office space

As a result of projected employment growth in the 10-minute drive contour, the anticipated increase in office space demand through the end of the decade is approximately 550,000 square feet. Assuming the Clark Avenue Corridor will capture five percent of the office demand projected for the 10-minute drive contour, only approximately 27,500 square feet of office space could be accommodated within the corridor.

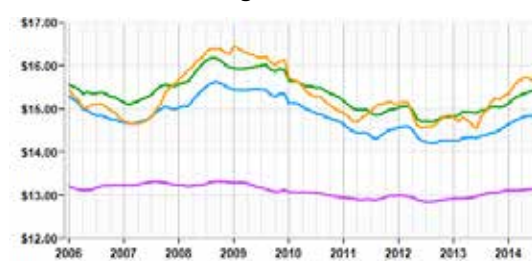


## Office Asking Price and Rents: Cleveland Market

Office Asking Price Trends: Cleveland



Office Asking Rent Trends: Cleveland



According to data provided by Loopnet, as of August 2014, the average asking sale price for office space within Cleveland was lowest relative to the comparison geographies, highlighted to the left. However, office asking rents within the City of Cleveland have risen substantially in recent years, surpassing Cuyahoga County and increasing 5.6 percent on a year-over-year basis, potentially reflecting a tightening market.

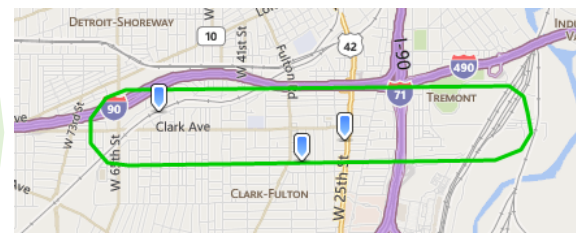
Sales	Aug 14	vs. 3 mo. prior	Y-O-Y
State	\$72.27	-0.5%	+2.0%
Metro	\$73.62	-0.6%	+6.9%
County	\$69.85	-1.8%	+4.1%
City	\$51.79	-3.8%	+0.4%

Leases	Aug 14	vs. 3 mo. prior	Y-O-Y
State	\$13.16	+0.1%	+0.9%
Metro	\$14.78	-0.4%	+2.7%
County	\$15.41	+0.2%	+2.9%
City	\$15.78	+0.3%	+5.6%

Source: Loopnet

## Office Market: Clark Avenue Corridor

As of September 2014, three office properties, totaling six spaces, and a 120,000-square-foot building were available for lease within the corridor. This includes office space at the busy intersection of Clark Avenue and West 25<sup>th</sup> Street. The asking rents for available office space ranged from \$6.00 per square foot per year to \$11.47, both lower than the City average. There were no office properties for sale within the Clark Avenue Corridor as of September 2014.



Source: Loopnet

## Estimating Office Demand

### Projecting 2020 Primary Jobs

To determine projected office space demand, primary jobs in the 10-minute drive contour submarket were projected through 2020, based on 2014 employment data provided by Esri and industry growth rates provided by the Ohio Department of Job and Family Services. Jobs were aggregated into industry sectors.

### Estimating the Number of Office Workers

A National Center for Real Estate Research study has estimated the percentage of employees in various industry sectors that typically work in an office environment. Using these percentages, we were able to estimate the number of employees in the market area who would likely work in an office.

### Determining Office Space Demand

Assuming a space requirement of 125 square feet per employee, the total demand for office space was estimated based on projected office workers for each year through 2020.

## Projected Office Jobs: 10-Minute Drive Contour

The tables below show the projected jobs and office workers, respectively, aggregated by industry sector.

Total Employment Per Industry								
	2014	2015	2016	2017	2018	2019	2020	Change
Public Administration	22,391	22,384	22,378	22,371	22,364	22,357	22,351	-40
Professional, Scientific & Tech Services	22,156	22,599	23,051	23,512	23,982	24,462	24,951	2,795
Manufacturing	19,631	19,611	19,592	19,572	19,553	19,533	19,514	-17
Admin & Support, Waste Mgmt & Remediation Services	17,103	17,428	17,759	18,097	18,440	18,791	19,148	2,045
Educational Services	11,204	11,260	11,316	11,373	11,430	11,487	11,544	340
Healthcare & Social Assistance	10,147	10,401	10,661	10,927	11,200	11,480	11,767	1,620
Accommodation & Food Services	9,614	9,681	9,749	9,817	9,886	9,955	10,025	411
Finance & Insurance	8,516	8,542	8,567	8,593	8,619	8,645	8,670	154
Retail Trade	8,482	8,524	8,567	8,610	8,653	8,696	8,740	258
Wholesale Trade	8,173	8,181	8,189	8,198	8,206	8,214	8,222	49
<b>Total Primary Jobs, Top Ten Industries</b>	<b>137,417</b>	<b>138,612</b>	<b>139,829</b>	<b>141,069</b>	<b>142,333</b>	<b>143,620</b>	<b>144,932</b>	<b>7,515</b>

Source: Esri, 4ward Planning Inc., 2014

Estimated Average Office Workers by Industry								
	2014	2015	2016	2017	2018	2019	2020	Change
Public Administration	9,864	9,861	9,858	9,855	9,852	9,849	9,846	-18
Professional, Scientific & Tech Services	19,737	20,132	20,535	20,945	21,364	21,792	22,227	2,490
Manufacturing	5,856	5,850	5,844	5,839	5,833	5,827	5,821	-35
Admin & Support, Waste Mgmt & Remediation Services	6,011	6,126	6,242	6,361	6,481	6,605	6,730	719
Educational Services	6,354	6,386	6,418	6,450	6,482	6,515	6,547	193
Healthcare & Social Assistance	4,867	4,988	5,113	5,241	5,372	5,506	5,644	777
Accommodation & Food Services	714	719	724	729	734	739	745	31
Finance & Insurance	8,205	8,230	8,254	8,279	8,304	8,329	8,354	149
Retail Trade	1,950	1,960	1,970	1,980	1,990	2,000	2,010	59
Wholesale Trade	4,639	4,644	4,648	4,653	4,658	4,662	4,667	28
<b>Total Primary Jobs, Top Ten Industries</b>	<b>68,198</b>	<b>68,895</b>	<b>69,606</b>	<b>70,331</b>	<b>71,070</b>	<b>71,823</b>	<b>72,590</b>	<b>4,393</b>

Source: National Association of Realtors, Esri, 4ward Planning Inc., 2014

## Projected Office Space Demand: 10-Minute Drive Contour

The tables on the previous page show an estimated increase of approximately 7,500 jobs and 4,400 new office workers in the top 10 industries, through 2020, within the 10-minute drive contour. Much of the likely growth in office workers will come from the Professional Services, Healthcare, and Administration and Support industries. The table below illustrates the corresponding projected office-space demand, aggregated by industry sector, and based on projected office workers and the assumption of an estimated 125 square foot-per-worker requirement. As shown, the anticipated increase in office space demand through the end of the decade is approximately 550,000 square feet. Under the assumption that the Clark Avenue Corridor will capture five percent of the office demand projected for the 10-minute drive contour, approximately 27,500 square feet of office space could be accommodated within the corridor through the end of the decade.

Estimated Total Office Space Per Industry, Sq Ft. (000s)								
	2014	2015	2016	2017	2018	2019	2020	Change
Public Administration	1,233	1,233	1,232	1,232	1,231	1,231	1,231	-2
Professional, Scientific & Tech Services	2,467	2,517	2,567	2,618	2,671	2,724	2,778	311
Manufacturing	732	731	731	730	729	728	728	-4
Admin & Support & Waste Mgmt & Remediation Services	751	766	780	795	810	826	841	90
Educational Services	794	798	802	806	810	814	818	24
Healthcare & Social Assistance	608	624	639	655	671	688	705	97
Accommodation & Food Services	89	90	91	91	92	92	93	4
Finance & Insurance	1,026	1,029	1,032	1,035	1,038	1,041	1,044	19
Retail Trade	244	245	246	247	249	250	251	7
Wholesale Trade	580	580	581	582	582	583	583	3
<b>Total Primary Jobs, Top Ten Industries</b>	<b>8,525</b>	<b>8,612</b>	<b>8,701</b>	<b>8,791</b>	<b>8,884</b>	<b>8,978</b>	<b>9,074</b>	<b>549</b>

Source: NCRER, Esri, 4ward Planning Inc., 2014

## Takeaway: Office Market Analysis and Supply/Demand

As the regional economy will continue to experience employment growth in the Healthcare industry, the demand for office space, and particularly medical office space, is also very likely to rise, attributable to an aging population and the rapid expansion of outpatient healthcare services. However, much of Cuyahoga County's projected employment growth is within industries not requiring traditional office space (e.g. nursing, psychiatric, and home health aides; food and beverage workers; construction workers).

Consequently, while there will be demand for new office space within the Clark Avenue Corridor in the next five to 10 years, much or all of this space could potentially be met by the existing inventory of currently available office space for sale or lease within the area.

Local stakeholders may need to work with property owners of physically and/or economically obsolescent office buildings (primarily Class B and C office space) to adaptively reuse buildings for land uses that are in higher demand – medical office space and multi-family residential, being the two strongest. Real estate firms Marcus and Millichap and Cushman and Wakefield both point out that growing demand for housing within Cleveland has accelerated the rate of office-to-residential conversions, with more conversions anticipated in the future. The Clark Avenue Corridor might consider such conversions to supply housing to surrounding professionals, particularly in the growing healthcare industry.

## Retail Trends and Supply/Demand Analysis



## Key Findings: Retail

### Retail market experiencing growth

The asking sale price for retail properties in Cleveland has increased by 10 percent in the last year, vastly higher than the surrounding comparison geographies, and the retail lease market has demonstrated year-over-year growth.

### Most comparison shopping demand can be met outside the corridor

With more than 2.3 million square feet of gross leasable area within a 10-minute drive of the site, including the nearby Steelyard Commons, there is little demand for large-format, comparison retail (e.g. Walmart, Target, etc.) along the Clark Avenue Corridor.

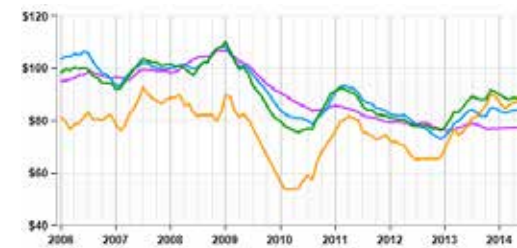
### Certain retail categories remain undersupplied

In 2024, the 10-minute drive contour will continue to be slightly undersupplied in most retail goods and services. Retail subcategories with sufficient demand to support the development of new, small-scale neighborhood retail include: grocery stores, restaurants, health and personal care stores, and general merchandise stores, as well as other niche opportunities related to the growing Hispanic population.



## Retail Asking Price and Rents: Cleveland Market

Retail Asking Price Trends: Cleveland



Over the past year, the Cleveland asking sale price for retail properties has increased by 10 percent, vastly higher than the surrounding comparison geographies. Additionally, the Cleveland retail lease market has demonstrated year-over-year growth, in contrast to the metro, county, and state.

Sales	Aug 14	vs. 3 mo. prior	Y-O-Y
State	\$77.20	-0.2%	-1.7%
Metro	\$83.28	-1.0%	+0.4%
County	\$88.83	+0.3%	+0.4%
City	\$89.84	+2.9%	+10.0%

Retail Asking Rent Trends: Cleveland



Leases	Aug 14	vs. 3 mo. prior	Y-O-Y
State	\$10.74	-0.1%	-1.6%
Metro	\$11.52	-0.6%	-1.8%
County	\$12.01	-1.7%	-2.7%
City	\$12.22	-1.2%	+0.4%

Source: Loopnet

## Retail- and Commercially-Zoned Land Market: Clark Avenue Corridor

As of September 2014, there were two retail properties available for sale within the Clark Avenue Corridor, both as free-standing buildings.

Retail For Sale



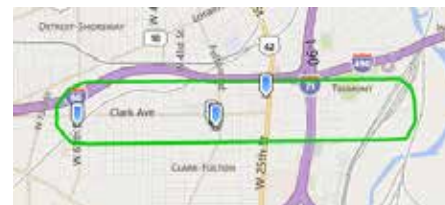
The single retail space available for lease within the Clark Avenue Corridor, as of September 2014, was located at the intersection of Clark and West 25<sup>th</sup>, as ground-floor retail.

Retail for Lease



Within the Clark Avenue Corridor, land is the most available form of property, representing half of all properties for sale. Prices range from \$352,113 and \$1,555,479 per acre.

Land for Sale or Lease



Source: Loopnet

## Major Shopping Centers

While the Clark Avenue Corridor does not contain any major shopping destinations within its boundaries, very nearby is the Steelyard Commons with approximately 900,000 square feet of Gross Leasable Area (GLA). Anchored by a Walmart Supercenter, Target, Home Depot, and Burlington Coat Factory, Steelyard Commons has much retail to offer residents within the Clark Avenue Corridor and its surrounding area. Additionally, with another approximately 1.4 million square feet of GLA in major shopping centers within the 10-minute drive contour, retail development within the Clark Avenue Corridor would best function as highly localized destinations for nearby residents, including grocery stores and eating and drinking establishments.



Key anchors:



## Key Steps for Analyzing Retail Gap/Leakage

4ward Planning utilized various residential and commercial data sources to conduct a retail gap/leakage analysis for the 10-minute drive contour market area. Esri retail marketplace data was the primary source of information on existing retail demand and sales for the PMA (the 10-minute drive contour).

Retail demand assumptions were formulated based on observed shopping habits and industry trends. There is, typically, a higher propensity for convenience retail (groceries, beer, wine, and liquor stores, and certain specialty stores, etc.) to be met locally. Those retail categories with higher price points or those more suited to comparison shopping (furniture, electronics, books, clothing, etc.) are more likely to have a greater capture rate outside of the market area, or even online. The assumptions for each retail type are noted on the next slide.

Information on local retailers was collected from a combination of proprietary and public data sources, including the Directory of Major Malls, LoopNet, BizStats, and Google Maps. Retail metrics for average sales per square foot and size by category was adapted from data provided by BizStats to reflect currently observed neighborhood-retail supply trends. Retail metric assumptions are presented on the next page.

## Retail Metric Assumptions

Retail Category	Avg. Sales/SF	Average Size	Est. Percent Capture	Example Retailer
Furniture & Home Furnishings Stores				
Furniture Stores	\$200	12,200	30%	Haverty Furniture
Home Furnishings Stores	\$200	12,200	60%	Ethan Allen, Pier1 Imports
Electronics & Appliance Stores	\$650	12,700	40%	Best Buy, Radio Shack
Bldg Materials, Garden Equip. & Supply Stores				
Bldg Material & Supplies Dealers	\$280	110,000	80%	Home Depot, Lowes
Lawn & Garden Equip & Supply Stores	\$280	110,000	80%	Home Depot, Lowes
Food & Beverage Stores				
Grocery Stores	\$400	45,000	70%	Safeway
Specialty Food Stores	\$600	30,000	70%	Whole Foods
Beer, Wine & Liquor Stores	\$400	8,000	70%	
Health & Personal Care Stores	\$1,000	17,000	90%	CVS, Walgreens
Clothing & Clothing Accessories Stores				
Clothing Stores	\$400	20,000	60%	Gap, J. Crew
Shoe Stores	\$300	6,700	65%	Foot Locker
Jewelry, Luggage & Leather Goods Stores	\$2,000	28,000	45%	Belk, Tiffany & Co.
Sporting Goods, Hobby, Book & Music Stores				
Sporting Goods/Hobby/Musical Instr Stores	\$220	50,000	60%	Sport Chalet
Book, Periodical & Music Stores	\$250	13,000	20%	Barnes & Noble
General Merchandise Stores				
Department Stores Excluding Leased Depts.	\$300	44,000	60%	
Other General Merchandise Stores	\$300	80,000	70%	Target, Big Lots
Miscellaneous Store Retailers				
Florists	\$220	4,000	30%	Local florist
Office Supplies, Stationery & Gift Stores	\$220	15,000	50%	Michael's
Used Merchandise Stores	\$220	15,000	80%	Goodwill
Other Miscellaneous Store Retailers	\$220	20,000	60%	Petsmart
Food Services & Drinking Places				
Full-Service Restaurants	\$530	6,000	75%	Cheesecake Factory, Benihana
Limited-Service Eating Places	\$550	3,400	80%	Chipotle Mexican Grill
Special Food Services	\$550	4,000	75%	Catering Companies
Drinking Places - Alcoholic Beverages	\$500	2,500	80%	Bars and taverns

Source: BizStats; 4ward Planning, 2014

## Retail Store Capture Estimates by 2024: 10-Minute Drive Contour

By 2024, under a flat-growth assumption, the 10-minute drive contour will continue to be slightly undersupplied in most retail goods and services. Retail subcategories with sufficient demand to support the development of new retail stores are highlighted in the table to the right.

	Retail Gap	Supportable SF	Store Equivalent
Furniture Stores	\$16,993,212	25,490	2.1
Home Furnishings Stores	\$10,084,320	30,253	2.5
Electronics & Appliance Stores	\$43,310,335	26,653	2.1
Bldg Material & Supplies Dealers	\$33,985,900	97,103	0.9
Lawn & Garden Equip & Supply Stores	\$6,693,838	19,125	0.2
Grocery Stores	\$211,917,903	370,856	8.2
Specialty Food Stores	\$7,920,109	9,240	0.3
Beer, Wine & Liquor Stores	\$10,489,514	23,601	3.0
Health & Personal Care Stores	\$130,978,438	117,881	6.9
Clothing Stores	\$54,600,992	81,901	4.1
Shoe Stores	\$9,846,033	21,333	3.2
Jewelry, Luggage & Leather Goods Stores	\$10,923,878	2,458	0.1
Sporting Goods/Hobby/Musical Instr Stores	\$28,042,467	76,479	1.5
Book, Periodical & Music Stores	\$8,541,715	6,833	0.5
Department Stores Excluding Leased Depts.	\$106,556,157	213,112	4.8
Other General Merchandise Stores	\$171,383,164	399,894	5.0
Florists	\$1,801,756	2,457	0.6
Office Supplies, Stationery & Gift Stores	\$8,184,957	18,602	1.2
Used Merchandise Stores	\$5,901,702	21,461	1.4
Other Miscellaneous Store Retailers	\$20,379,009	55,579	2.8
Full-Service Restaurants	\$66,712,849	94,405	15.7
Limited-Service Eating Places	\$75,802,982	110,259	32.4
Special Food Services	\$8,235,948	11,231	2.8
Drinking Places - Alcoholic Beverages	\$5,023,833	8,038	3.2
	\$1,054,311,014	1,844,245	106

Sources: Esri; BizStats.com; 4ward Planning Inc. 2014



The **Retail Gap** represents the difference between Retail Potential and Retail Sales. Positive values demonstrate that retail sales are lower than local demand, indicating that local households are leaving the trade area to purchase some retail goods and services.

## Takeaway: Retail Trends

Though it can generally be described as adequately retailed, the 10-minute drive contour will likely experience increased retail demand over the next 10 years to serve demographic shifts and future development. With nearly 2.3 million square feet of GLA within the 10-minute drive contour market area, including the nearby 900,000 square feet Steelyard Commons anchored by a Walmart Supercenter, retail development within the Clark Avenue Corridor likely warrants a cautious approach.

In addition to Steelyard Commons as a retail competitor, BLS consumer expenditure data suggest that senior households, growing in and around the corridor, typically spend less on certain retail categories (e.g. clothing, furniture, home and garden) than younger households, due to lifestyle needs, health care costs, and fixed-income streams. Further, beyond the impact of significant demographic shifts, the growing prominence of on-line shopping and the lingering effects of the economic downturn remain obstacles to retail development.

However, more localized retail functions are recommended, including a small-scale grocery store (e.g. Trader Joe's or an ethnic grocer), particularly one that would offer healthy, affordable food options. The large and growing Hispanic population could also provide niche opportunities for neighborhood retail development in a variety of categories. Additional retail options for the corridor could include health clubs, coffee shops, cafes and restaurants, and other neighborhood-centered services such as dry cleaners.

Additionally, retail that encourages an increase in neighborhood walkability would be a valuable redevelopment strategy.



## IMPROVEMENT-TO-LAND VALUE ANALYSIS

ECONOMIC AND REAL ESTATE ANALYSIS FOR SUSTAINABLE LAND USE OUTCOMES™



### Methodology: Improvement-to-Land Value Analysis

The improvement-to-land value (ILV) ratio analysis is a technique used to identify prospective redevelopment opportunities within a given locality. The technique's underlying assumption is that the value of an improvement (e.g., a house or commercial building) when compared to the value of the underlying land parcel should yield a ratio greater than one-to-one and, typically, a ratio greater than two-to-one (for example, a house assessed at \$200,000 and the land on which it sits assessed at \$100,000). ILV ratios can and do vary, based on factors such as area real estate market values, the degree of urbanization, and property assessment techniques. However, as a general rule, properties which exhibit ILV ratios of one-to-one or less typically reflect economic and/or physical obsolescence (e.g., candidate redevelopment properties).

Utilizing geographic information system (GIS) mapping technology (ArcGIS 10.2) and parcel data provided by the Stockyard, Clark-Fulton & Brooklyn Centre Community Development office, 4ward Planning identified properties in the Clark Avenue Corridor study area exhibiting relatively low ILV ratios. The parcel data, current as of October 6, 2014, includes data from the Fiscal Office for the total value of each parcel (land value plus improvement value) as well as the building value. Land value was calculated by subtracting building value from total value. As per the Stockyard, Clark-Fulton & Brooklyn Centre Community Development office, it should be noted that the Fiscal Office's values are typically lower than actual fair market value. However, without full appraisals, it is the only way to measure value.

### Methodology: Improvement-to-Land Value Analysis

Parcels were then grouped according to land-use category (more detailed information is provided on page four) and the ILV ratio statistical median was calculated for each category. Properties exhibiting particularly low ILV ratios (e.g., properties where ILV values are less than half of the median ILV value of their land-use category) were identified as potential redevelopment sites. All acreages were calculated in GIS.

It should be noted that while ILV ratio statistical medians are typically calculated for entire assessment jurisdictions, data were only provided for parcels along the Clark Avenue Corridor, thus limiting this analysis. ILV ratios of parcels in the study area are only considered relative to other parcels in the study area, meaning that it is unknown if these parcels exhibit particularly high or low ILV ratios as compared to parcels outside of the study area.

### Methodology: Improvement-to-Land Value Analysis

Parcel data included specific land use categories that were grouped into broad categories for analysis (in particular, mixed-use, commercial, and industrial). The land use sub-categories were grouped by the consultant as follows:

"NOT ASSESSED" includes those parcels in the following land use sub-categories: "Null," "6250," "7050," Animal clinic or hospital, Charitable exemptions, (hospitals, home for aged, etc.), Churches, Commercial parking lot assoc. with other use, Exempt property (CMHA), Exempt property owned by board of education, Exempt property owned by college (private), Exempt property owned by municipality, Land bank, "Missing," and Public worship

MIXED-USE: General retail with walk up apartments, General retail with walk up offices

INDUSTRIAL: Auto repair garage; Contract and construction service facilities; Franchise auto service center; Industrial vacant land; Manufacturing and assembly, light; Other industrial structures; Salvage yard, scrap metals, etc.

COMMERCIAL: Commercial parking lot; Commercial vacant land; Commercial warehouse (gen-under 75,000 sf); Commercial warehouse (loft type); Commercial warehouse (under 75,000 sq. ft.); Discount stores and junior department stores; Franchise food stores; Franchise food with counter service only; Full service bank; Full service gas station; Funeral homes; Lodge halls; Medical clinics and offices; Nightclub restaurant; Office buildings 1 and 2 stories; Other commercial housing; Other commercial structures; Restaurant, cafeteria; Savings and loan; Service station with kiosk (retail); Small (under 7,500 sf) detached retail stores; Small shops (machine, tool and die, etc.); Strip center retail (4 or more, > 7,500 sq. ft.); Supermarkets; Other retail structures; Used car sales (lot with trailer)

APARTMENT: all apartment classes

MULTI-FAMILY: Three family dwelling, Two family dwelling

OTHER RESIDENTIAL: Other residential structures, Residential vacant land

## Clark Avenue Corridor: Land Use



Composition of Land Use in Clark Avenue Corridor Study Area

Land Use Category	Acres
Commercial	57.26
Not Assessed	43.86
Industrial	34.14
Single Family Dwelling	31.24
Multi-family Residential	30.79
Other Residential	9.7
Mixed-use	7.29
Apartments	4.98
Utility Service Facility	0.39

A land use map for the study area based on the categories described on page four is shown above. The greatest amount of land in the study area is categorized as commercial, although the share of residential land is greatest when all residential categories are combined. The second greatest amount of land in the study area is not assessed (for example, parks and exempt land), which is followed by industrial land. There are a few mixed-use parcels in the study area, comprised of ground floor retail with apartments and/or offices on higher floors.

Source: Stockyard, Clark-Fulton & Brooklyn Centre; 4ward Planning Inc., 2014

## Improvement-to-Land Value: Mixed-use



There are 67 mixed-use parcels in the Clark Avenue Corridor study area comprising 7.3 acres. One parcel has zero land value. As this results in a division by zero error, this parcel is excluded from the analysis.

The median ILV ratio of mixed-use parcels in the study area is 3.71, making the target ILV ratio for mixed-use 1.85. Based on this measure, 13 mixed-use parcels exhibit low ILV ratios (below 1.85) for a total of 1.5 acres.

Source: Stockyard, Clark-Fulton & Brooklyn Centre; 4ward Planning Inc., 2014

## Improvement-to-Land Value: Commercial



There are 161 commercial parcels in the Clark Avenue Corridor study area comprising 57.3 acres. Five parcels have zero land value. As this results in a division by zero error, all parcels with zero land assessment value are excluded from the analysis.

The median ILV ratio of commercial parcels in the study area is 0.99, making the target ILV ratio for mixed-use 0.50. Based on this measure, 68 commercial parcels exhibit low ILV ratios for a total of 16.0 acres.

The five commercial parcels with zero assessed land value include "franchise food with counter service only," "commercial warehouse," "commercial vacant land," and two parcels of "commercial parking lot associated with other use."

Source: Stockyard, Clark-Fulton & Brooklyn Centre; 4ward Planning Inc., 2014

## Improvement-to-Land Value: Industrial



There are 55 industrial parcels in the Clark Avenue Corridor study area comprising a total of 34.1 acres. The median ILV ratio for these industrial parcels is 0.57, making the threshold ILV ratio for industrial parcels 0.29. Based on this measure, 24 industrial parcels exhibit low ILV ratios for a total of 12.6 acres.

All of the industrial parcels considered to have low ILV ratios have zero improvement value, potentially meaning that these parcels are vacant. However, only one of these parcels is classified as "industrial land vacant." The method of property assessment may also explain this result, and should be examined before redevelopment actions are taken.

Further details on all low-ILV parcels are provided in the appendix.

Source: Stockyard, Clark-Fulton & Brooklyn Centre; 4ward Planning Inc., 2014

## Improvement-to-Land Value: Summary

There are almost 100 acres of commercial, industrial, and mixed-use land within the Clark Avenue Corridor study area. Of this land, about one-third (30 acres) has low improvement-to-land value ratios and provides prospective redevelopment opportunities. Industrial land has the highest percentage of low ILV land, which may be a result of assessment methods or may mean that the market is not supportive of industrial land in the study area.

For both commercial and industrial land, the low-ILV parcel share is higher than the share of low-ILV acres, suggesting that the parcels with low ILV ratios tend to be smaller.

Summary of Underutilized Land in the Clark Avenue Corridor Study Area

	Commercial	Mixed-Use	Industrial	Total
<b>Parcels (count)</b>	<b>161</b>	<b>67</b>	<b>55</b>	<b>283</b>
Underutilized parcels (count)	68	13	24	105
Underutilized parcels (share)	42.2%	19.4%	43.6%	37.1%
<b>Acres (total)</b>	<b>57.3</b>	<b>7.3</b>	<b>34.1</b>	<b>98.7</b>
Underutilized acres (total)	16.0	1.5	12.6	30.1
Underutilized acres (share)	27.9%	20.5%	37.0%	30.5%

## Takeaway: Improvement-to-Land Value Analysis

Underutilized sites provide prospective opportunities for accommodating redevelopment and infill, bringing new and expanded commercial and industrial opportunities to the study area. Large private industry employers (e.g., manufacturers, back-office call centers, distribution warehouse operators) are likely to target areas with concentrations of large contiguous vacant and/or underutilized land. Specific locations with large low-ILV parcels or clusters of low-ILV are highlighted below.



There is a cluster of low-ILV commercial parcels near the intersection of West 25<sup>th</sup> Street and Clark Avenue. The majority of this land is characteristic of commercial vacant and commercial warehouse. Additionally, there are several contiguous parcels of light manufacturing and assembly at the intersection of Clark Avenue and Twinkie Lane.

There are clusters of low-ILV parcels on Clark Avenue between Fulton Road and West 40<sup>th</sup> Street. The industrial cluster is composed of light manufacturing and assembly, and industrial vacant space. The commercial cluster on the north side of Clark Avenue is characterized as "commercial structures," while the commercial parcels to the south of Saint Mary's Cemetery are commercial warehouse.

At the east end of the study area close to Tremont Park are several large low-ILV parcels. They are characteristic of vacant commercial, and the industrial parcel is classified as "contract and construction service facilities."

Source: Stockyard, Clark-Fulton & Brooklyn Centre; 4ward Planning Inc., 2014

## Improvement-to-Land Value Analysis Appendix



ECONOMIC AND REAL ESTATE ANALYSIS FOR SUSTAINABLE LAND USE OUTCOMES™

## Low ILV Parcels: Mixed-use

Address or Parcel PIN	Land Use	Building Value (\$)	Land Value (\$)	ILV Ratio	Acres
007-28-176	General retail with walk up apartments	0	1,100	0	0.02
1201 CLARK AVE	General retail with walk up apartments	32,200	36,900	0.87	0.12
3204 CLARK AVE	General retail with walk up apartments	0	17,300	0	0.13
4206 CLARK AVE	General retail with walk up apartments	21,300	15,600	1.37	0.12
4319 CLARK AVE	General retail with walk up apartments	0	2,900	0	0.05
4321 CLARK AVE	General retail with walk up apartments	0	3,500	0	0.07
4323 CLARK AVE	General retail with walk up apartments	21,000	13,700	1.53	0.10
4418 CLARK AVE	General retail with walk up apartments	9,800	31,900	0.31	0.25
4805 CLARK AVE	General retail with walk up apartments	0	10,500	0	0.11
5007 CLARK AVE	General retail with walk up apartments	20,000	15,000	1.33	0.11
5011 CLARK AVE	General retail with walk up apartments	20,700	15,000	1.38	0.11
5311 CLARK AVE	General retail with walk up apartments	26,700	21,800	1.22	0.17
5801 CLARK AVE	General retail with walk up apartments	22,400	13,300	1.68	0.10



# financial feasibility analysis

## Overview – Financial Feasibility Analysis

Pertaining to the market analysis earlier performed by 4ward Planning (September 2014 through November 2014), a financial feasibility analysis was conducted on sites or site areas identified by members of the client stakeholder group and include the following: **Vacant Brewery Building – 6605 Clark Avenue; Small Trail Head Building – 1095 Clark Avenue; La Villa Hispania District – West 25<sup>th</sup> Street to Fulton Road**

The objective of performing financial feasibility analysis is to identify the likelihood that a private investor alone or partnered with a public entity, could reasonably undertake redevelopment/development activities while earning a market rate of return commensurate with project risk.



## Overview (continued)

Relatedly, a financial feasibility analysis is also performed so as to identify any financial gaps (financial investment contributed by a third party or parties, in addition to the private investor's contributed equity and debt, in order that a market return may achieved for the project risk assumed).

The following pages contain the methodology employed, assumptions made, disclaimers, and key findings pertaining to the financial analysis.

The specific land-use modeled for each site or site areas include the following:

- **Vacant Brewery Building:** Small scale professional service office space (inclusive of business incubator shared service space), meeting venue/social gathering space and, in an assumed second phase, multi-family rental units.
- **Small Trail Head Building:** Small café and bicycle service shop
- **La Villa Hispania District:** Mixed-use residential development, with a limited amount of ground floor service retail, restaurant and medical office space.

It should be noted that all of the financial modeling is done from the perspective of the developer and owner of the real estate and not from the perspective of the business operators – an important distinction for purposes of this analysis.

## Methodology: Financial Feasibility Analysis

4ward Planning employed quantitative and qualitative analyses to inform its creation and use of development and operating pro forma.

Following are key development and operating pro forma inputs utilized and/or measured:

### Development Pro Forma

Acquisition Costs  
Demolition Costs  
Infrastructure & Site Costs  
Hard & Soft Construction Costs  
Construction Cost per Parking Space  
Dwelling Units per Acre  
Developer Fee

### Operating Pro Forma

Rent per SF  
Annual Vacancy Rate  
Operating Expenses per SF  
Net Operating Income  
Return on Equity  
Internal Rate of Return  
Capitalization Rate

## Assumptions: Financial Feasibility Analysis

4ward Planning assumed constant values for the following pro forma inputs, for practicality sake:

Multi-family Rental (New & Reuse)	Retail (New & Reuse)	Soft Costs and Residential Fit Out
Efficiency Rate: 90%	Efficiency Rate: 90%	Architectural Fee Percentage (HC): 7.5%
Avg. Unit Size (gross square footage): 800	Parking Spaces per 1,000 SF: 3	General Contractor Fee Percentage (HC): 15.0%
Parking Spaces per Unit: 1.25	New Construction Hard Costs/SF: Shell: \$98	Estimated Residential FF&E Cost per SF: \$0
Gut & Renovate Hard Costs/SF: Rental: \$100	New Construction TI Costs/S.F.: \$20	<b>Parking</b>
New Construction Hard Costs/SF: Low-Rise: \$120	Reuse Construction Hard Costs/SF: Shell: \$20	SF per Space: Structured: 400
New Construction Hard Costs/SF: Mid-Rise: \$135	Reuse Construction TI Costs/S.F.: \$20	SF per Space: Surface: 300
Average Rent per SF/Month: \$1.75	Annual Rent/SF (NNN)*: \$15	Construction Costs/Space: Structured: \$16,000
Annual Vacancy Rate: Rental: 5.00%	Vacancy Rate: Annual Average: 5.00%	Construction Costs/Space: Surface, New: \$3,500
Operating Expenses/SF (excludes taxes): \$5.00	Operating Expenses/SF(excludes taxes): \$5.00	Construction Costs/Space: Surface, Existing: \$2,000
<b>Office (New &amp; Reuse)</b>	<b>Meeting Venue (New &amp; Reuse)</b>	<b>Investor Requirements</b>
Efficiency Rate: 90%	Efficiency Rate: 95%	Sales Cost: 5.00%
Parking Spaces per 1,000 SF: 3.0	Parking Spaces per 1,000 SF: 3.00	Hold Period (years): 15
New Construction Hard Costs/SF: Shell: \$125	Construction Hard Costs/SF: Meeting Venue (New): \$200	Investment Return Goal: Unleveraged IRR: 10%
New Construction TI Costs/S.F.: \$20	Construction Hard Costs/SF: Meeting Venue (Reuse): \$75	Investment Return Goal: Unleveraged Avg. Annual ROE: 8%
Reuse Construction Hard Costs/SF: Shell: \$75	Annual Rent/SF (NNN): \$10.00	Developer Fee at: 5%
Reuse Construction TI Costs/S.F.: \$10	Vacancy Rate: Annual Average: 0.00%	<b>Inflation Factor</b> : 2.20%
Annual Rent/SF (NNN): \$15.00	Operating Expenses/SF(excludes taxes): \$5.00	
Vacancy Rate: Annual Average: 5.00%		
Operating Expenses/SF(excludes taxes): \$5.00		

\*Retail rent shown is for new construction. Retail rent value used for rehabbed Trail Head building is \$8.00 per square foot, based on its location.

Pro forma inputs are informed by the earlier completed market analysis, interviews with developers and brokers, and commonly accepted industry standards.

# financial feasibility analysis

## Assumptions: Financial Feasibility Analysis

4ward Planning assumed constant values for the following operating pro forma inputs, for practicality sake:

### Operating Metrics

Monthly Residential Rent: <sup>1</sup>	\$ 1.75/s.f.	
Annual Retail Rent: <sup>2</sup>	\$15.00/s.f.	
Annual Office Rent: <sup>3</sup>	\$15.00/s.f.	
Annual Vacancy Factor (residential):		3.0%
Annual Vacancy Factor (commercial):	5.0%	
Operating Expenses (residential)	\$ 5.00/s.f.	
Operating Expenses (commercial)	\$ 5.00/s.f.	
Capitalization Rate (residential)	6.0%	
Capitalization Rate (retail)	7.5%	
Capitalization Rate (office)	9.0%	
Real Property Taxes:	\$ 2.50/s.f.	
Inflation (annually):	2.2%	

Pro forma inputs are informed by the preceding market analysis, interviews with developers and brokers, and commonly accepted industry standards.

<sup>1</sup>We assumed residential rents would be higher than existing area rents for newly built product, with higher end amenities.

<sup>2</sup>Retail rent shown is for new construction. Retail rent value used for rehabbed Trail Head building is \$8.00 per square foot, based on its location.

<sup>3</sup>Office rent shown is for new construction. Office rent value used for rehabbed Brewery building is \$10.00 per square foot, based on its location.

## Disclaimer: Financial Feasibility Analysis

It should be noted that the financial analysis performed assumed current market conditions and future trends identified within the earlier performed market analysis. As market conditions and trends are subject to change – due to a number of factors, including macro level events (read: national and worldwide events), changes in consumer preferences and demographic shifts – this financial analysis should not be considered valid for an indefinite period of time. Indeed, the further out in time from the performance of this analysis, the less confidence one should place in its findings.

The reader should also consider that, dependent upon the investment return requirements of a private investor (developer), their tolerance for risk, as well as their sophistication within the real of real estate development, some or all of the herein identified assumptions may not hold.

## Land-Uses: Financial Feasibility Analysis

Site Uses	Brewery <sup>1</sup>	La Villa Hispania	Trail Head Building	Totals
<b>Total Square Footage</b>	<b>35,280</b>	<b>NA</b>	<b>2,250</b>	<b>NA</b>
MF Rental Units	14	150	0	164
Retail S.F.	0	15,000	2,250	17,250
Professional Office S.F.	13,520	0	0	13,520
Medical Office S.F.	0	5,000	0	5,000
Meeting Venue S.F.	10,000	0	0	10,000

- The adaptive reuse of the Brewery assumes two distinct phases. Phase I assumes only commercial uses, with 6,760 s.f. of low cost office space and shared services, and 5,000 s.f. of meeting venue space. Phase II assumes 6,760 s.f. and 5,000 s.f. of additional office and meeting venue space, respectively, along with the development of 14 one- and two-bedroom apartment units.
- The above redevelopment within the La Villa Hispania District is based on a first phase scenario. It is assumed that should a Phase I be successful, a Phase II scenario will be implemented, given the area's ability to absorb additional development.

## Methodology: Financial Feasibility Analysis

Site Name	Lead Entity	Influence on Corridor	Total Project Cost	Years to Complete
Brewery <sup>1</sup>	Non-Profit or Public	Modest	\$5.74MM	4 to 8
La Villa Hispania District	Private Developer	High	\$25.67MM	4 to 8
Trail Head Building	Non-Profit	Modest	\$66K	1 to 2

<sup>1</sup>The Brewery total cost figure includes both Phases I and II.

# financial feasibility analysis

## Project Summary: Brewery Building

This project's chance of success relies on its close access to an Interstate highway, area commercial businesses (which might look to take advantage of low-cost meeting space) and the architectural appeal of an old brick factory.

The likely sponsor from inception is a non-profit entity, capable of leveraging public and NGO funding (e.g., low cost loans, tax credits, façade grants, etc.). Because of the scale of investment required to rehab and fit out the building, and the, likely, low rents achieved during the early years of operation, it is not likely that a private sector developer would look to take on a project such as the Brewery building. However, as the building leases up and demonstrates profitability, and assuming the surrounding area also continues to improve its economic fortunes, it is, likely, that a private investor would be willing to acquire the property from the non-profit which nurtured the project.

The location of the project and its scale (under \$10 million) is likely to have only a modest influence over the investment activities along the rest of the Clark Avenue corridor.

## Project Summary: La Villa Hispania District

This relatively large scale redevelopment project has opportunity to change the economic direction of the entire Clark Avenue corridor, given its location and scale. While the financial analysis performed on this prospective redevelopment area assumes only a Phase I scenario, it is clear from both the size of the land area and earlier identified market viable uses (particularly the growing demand for multi-family rental housing and medical office space) that subsequent phases of redevelopment are highly likely to follow.

The likely sponsor from inception is private development entity having solid experience working at the scale of a La Villa Hispania neighborhood, as well as familiar with the complexities of mixed-use development. It is recommended that the private developer partner with one or more local non-profit developers, early on, so as to establish both good will within the community, as well as to leverage the strengths of each development entity.

The various opportunities for infill, substantial rehabilitation and new development along a corridor which is well served by public transit (bus) and is home to a number of racial and ethnic groups increases the likelihood that federal and state funding agencies will look favorably upon this project's funding applications.

The location of the project and its scale (over \$25 million) is likely to have a large influence of the investment activities along the rest of the Clark Avenue corridor.

## Project Summary: Trail Head Building

The location and size of the subject building is not likely to have more than modest direct influence over the corridor's economic fortunes. However, indirectly, the rehabilitated building and a successful business or two catering to both tow path trail users and local area residents can help introduce the corridor to area residents who might otherwise not come to the area.

The project's relatively small scale (estimated to be less than \$75,000 for rehabilitation) and, likely, low asking rent over the first five to ten years of operation warrants a non-profit organization serving as the initial project sponsor. Further, given the relatively high risk nature of restoring the business and establishing service uses such as a café or bike repair shop, securing conventional bank funding would be extremely challenging for all but the most credit worthy of private citizens. Whereas, a non-profit could avail themselves of grant funding not available to private entities, in addition to securing private lending.

As a means of generating buzz for the rehabbed facility and its operating business, it is highly recommended that programmed events take place, periodically, at or near to the building. In this way, word of mouth advertising will be quick to take hold.

