

**Environmental Assessment  
Determinations and Compliance Findings  
for HUD-assisted Projects  
24 CFR Part 58**

**Project Information**

**Project Name:** MLK-on-2nd

**HEROS Number:** 900000010276803

**Responsible Entity (RE):** DETROIT, PLANNING AND DEVELOPMENT DEPARTMENT  
DETROIT MI, 48226

**RE Preparer:** Kim Siegel

**State / Local Identifier:** Detroit, Michigan

**Certifying Officer:** Julie Schneider

**Grant Recipient (if different than Responsible Entity):** MLK on 2nd LDHA LLC

**Point of Contact:** Kathryn Thoits

**Consultant (if applicable):** PM Environmental

**Point of Contact:** Carey Kratz

**Project Location:** 3515 2nd Avenue, Detroit, MI 48201

**Additional Location Information:**

The Project is situated at the northwest corner of Martin Luther King Jr. Boulevard and 2nd Avenue, approximately one-third mile west of Woodward Avenue and one-

third mile east of the Lodge Freeway (M-10). A Property Vicinity Map and A Site Plan are provided as Attachment 1.

**Direct Comments to:**

**Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:**

The Property is currently vacant land in Midtown Detroit and is located at the northwest corner of Martin Luther King Jr. Boulevard and 2nd Avenue, approximately one-third mile west of Woodward Avenue and one-third mile east of the Lodge Freeway (M-10). The total gross area of the Project will be 0.35 acres, which includes the proposed apartment building and parking lot. The Project will consist of the construction of a 29,185 square foot building with a 787 square foot retail space on the first floor and 33 affordable apartment units spread over the four floors. The building will be L-shaped and the Project units consist entirely of one-bedroom units targeting single and small family households at 30 percent, 40 percent, and 60 percent Area Mean Income (AMI). In addition, it is anticipated that five units will contain project-based rental assistance. The Project will utilize \$1,271,713 in HOME Funds, five project-based vouchers, \$751,520 in 9% LIHTC as well as a permanent mortgage and deferred developer fee.

**Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:**

Considering the 18 LIHTC developments within the Primary Market Area (PMA),<sup>13</sup> were 98 percent occupied or better and nine reported a waiting list - demonstrating strong market conditions for affordable rental options throughout Detroit's Midtown area. Most areas throughout the City of Detroit have experienced sharply declining demographic patterns over the past several decades, and are expected to continue to decrease over the next five years - albeit at a much slower pace. However, the Midtown area of the city has demonstrated solid growth since 2010. In comparison to overall household trends, the number of renter units within the PMA increased at a similar rate since 2010 - growing by 14 percent (approximately 1,325 rental units) between 2010 and 2021. Further, this figure is anticipated to increase by an additional five percent (nearly 575 units) between 2021 and 2026. From a market standpoint and despite the current pandemic, it is evident that demand is present for the development of additional affordable rental units within the Midtown Detroit area. Even considering the current residential development occurring throughout the market, the subsequent development of office space (3.1 million square feet are currently being developed throughout the downtown and midtown areas) will undoubtedly bring a vast number of jobs to the downtown area (with varying incomes). However, based on prevailing rental rates and income levels, the rent structure is crucial for the long-term viability of any new rental development. In comparison to other nearby properties, the proposed rents appear appropriate and achievable. As such, the Project should prove successful and will not have a long-term adverse effect on the local rental market - either affordable or market rate.

**Existing Conditions and Trends [24 CFR 58.40(a)]:**

Based on Census figures and ESRI forecasts, overall demographic patterns throughout the Midtown area of Detroit have improved notably since 2010. As such, while most areas of the city have experienced strong declines, the MLK on 2nd PMA has exhibited solid growth over the past decade. As such, the overall population within the PMA is estimated to have increased by ten percent between 2010 and 2021, representing a gain of more than 2,150 residents during this time. Furthermore, it is projected an additional increase of three percent is anticipated for the PMA over the next five years (a gain of nearly 850 persons between 2021 and 2026). In comparison, the population for Detroit as a whole decreased by eight percent since 2010, with an additional one percent decline anticipated through 2026. Occupancy rates for rental housing appear mostly positive at the current time throughout the Midtown Detroit rental market. The proposed rental rates are reasonably competitive with other tax credit properties within the PMA, and are also extremely affordable relative to overall market rate averages. Rents can be considered as achievable in light of overall market rate averages and other project and market characteristics. As such, the proposed targeting and rental structure is competitively positioned, and can be considered as appropriate and achievable for the Midtown PMA. The proposed rental rates are reasonably competitive with other tax credit properties within the PMA, and are also extremely affordable relative to overall market rate averages. Rents can be considered as achievable in light of overall market rate averages and other project and market characteristics. As such, the proposed targeting and rental structure is competitively positioned, and can be considered as appropriate and achievable for the Midtown PMA.

**Maps, photographs, and other documentation of project location and description:**

**Determination:**

✓	Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.13] The project will not result in a significant impact on the quality of human environment
	Finding of Significant Impact

**Approval Documents:**

**7015.15 certified by Certifying Officer  
on:**

**7015.16 certified by Authorizing Officer  
on:**

**Funding Information**

Grant / Project Identification Number	HUD Program	Program Name
M1001	Public Housing	Project-Based Voucher Program
M20MC260202	Community Planning and Development (CPD)	HOME Program
M21MC260202	Community Planning and Development (CPD)	HOME Program

**Estimated Total HUD Funded, Assisted or Insured Amount:** \$1,271,713.00

**Estimated Total Project Cost [24 CFR 58.2 (a) (5)]:** \$9,572,051.00

**Compliance with 24 CFR §50.4, §58.5 and §58.6 Laws and Authorities**

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §50.4, §58.5, and §58.6	Are formal compliance steps or mitigation required?	Compliance determination (See Appendix A for source determinations)
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 &amp; § 58.6</b>		
<b>Airport Hazards</b> Clear Zones and Accident Potential Zones; 24 CFR Part 51 Subpart D	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Coleman A. Young is located approximately 4.80 miles northeast of the Property. Windsor International Airport is located approximately 4.7 miles northeast. Windsor Airport is located approximately 6.60 miles southeast of the Property. Oakland Troy Airport (Y47) is approximately 15 miles northwest of the Property. No military airfields are in Wayne County/and or the nearby vicinity. The Project site is not within an Airport Runway Clear Zone. The Project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport and is in compliance with Airport Hazards requirements. Attachment 3
<b>Coastal Barrier Resources Act</b> Coastal Barrier Resources Act, as amended by the Coastal Barrier	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Review of the U.S. Fish and Wildlife Service online Coastal Barrier Resources System Mapper and the John H. Chafee

<p>Improvement Act of 1990 [16 USC 3501]</p>		<p>Coastal Barrier Resource System Michigan Map indicates that the Property is not located within a designated coastal zone boundary. Therefore, this Project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act. Attachment 4.</p>
<p><b>Flood Insurance</b> Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>The Property is located in FEMA Flood Map 26163C0280E dated 2/2/2012 and is within Zone X (unshaded), defined as an area of minimal risk outside the 100-year (1% annual chance) and 500-year (0.2% annual chance) floodplain. The Project is in compliance with flood insurance requirements. Attachment 5</p>
<p><b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 &amp; § 58.5</b></p>		
<p><b>Air Quality</b> Clean Air Act, as amended, particularly section 176(c) &amp; (d); 40 CFR Parts 6, 51, 93</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>The entire State of Michigan is designated as "attainment for carbon monoxide, lead, nitrogen dioxide, and particulate matter (PM10). Wayne County is within a larger area in southeast Michigan for ozone nonattainment and is not within a sulfur dioxide nonattainment area. The Project was reviewed by Michigan Environment, Great Lakes, and Energy (EGLE) for conformance with the State Implementation Plan (SIP). EGLE determined the Project should not exceed the de minimis levels included in the federal general conformity requirements and therefore, does not require a detailed conformity analysis. This Project does not exceed de minimis emissions levels or the screening level established by the state or air quality management district for the pollutant(s) identified above. The Project is in compliance with the Clean Air Act. Measures to control fugitive dust will be utilized to ensure that construction projects do not result in erosion and formation of dust. The Best Management Practices (BMPs)</p>

		employed will comply with the City's site plan approval process and will be effective in controlling construction related fugitive dust. Attachment 6
<b>Coastal Zone Management Act</b> Coastal Zone Management Act, sections 307(c) & (d)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Review of the Wayne County Coastal Zone Management Boundary and Coastal Zone Management Area Map documents the Property is not located within a designated Coastal Zone Management area. The Project is in compliance with the Coastal Zone Management Act. Attachment 7
<b>Contamination and Toxic Substances</b> 24 CFR 50.3(i) & 58.5(i)(2)]	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The Property is located within Wayne County, which is within Zone 3 of the EPA Radon Map with low potential risk of indoor radon levels. The Property is not located within one of the 24 counties designated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) as a county where 25% or more homes tested equal to or above 4 picocuries/liter (pCi/L) of radon exposure. Therefore, no additional investigation is necessary regarding radon (Attachment 8). No high pressure buried gas lines (4" diameter or greater and 400 psi or higher) are located within 1,000 feet of the Property. Site contamination was evaluated as follows: ASTM Phase I ESA, ASTM Phase II ESA, Remediation or clean-up plan, ASTM Vapor Encroachment Screening. On-site or nearby toxic, hazardous, or radioactive substances were found that could affect the health and safety of project occupants or conflict with the intended use of the Property. The adverse environmental impacts can be eliminated through the use of engineering controls and removal of contaminated material. Surface covers consisting of a minimum of six inches of concrete pavement will be installed using poured slab methods or a minimum of 18 inches of landscaping

		<p>underlain by a demarcation barrier (i.e., brown/black landscape fabric), and the proposed building foundations will be installed and maintained to prevent contact with the underlying contaminated soils. All existing soils requiring excavation to install surface cover will be characterized and transported for disposal at a licensed disposal facility. A vapor barrier and active sub-slab depressurization system (SSDS) will be installed to prevent soil gas vapors from migrating into the occupied space and/or accumulating beneath the proposed building. A Response Activity Plan (ResAP) to comply with 7a(1)(b) submitted under Section 20114b, Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended was completed and approved by EGLE on August 26, 2022.</p>
<p><b>Endangered Species Act</b> Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>The U.S. Fish and Wildlife Service provided information on locations of threatened and endangered species for the Project. Species listed for Wayne County include Indiana Bat, Northern Long-eared Bat, Piping Plover, Red Knot, Eastern Massasauga, Northern Riffleshell, Monarch Butterfly, and Eastern Prairie Fringed Orchid. None of the state-listed threatened or endangered species were observed at the Property. No federally listed threatened or endangered species or unique features are present at the Project and no Critical Habitats are present. The project is not located near a body of water and does not contain wetlands or floodplains. The Property and/or general area have been developed since at least the 1900s. Given this, this Project will have No Effect on listed species due to the nature of the activities involved in the</p>

		Project. This Project is in compliance with the Endangered Species Act. Attachment 9
<b>Explosive and Flammable Hazards</b> Above-Ground Tanks)[24 CFR Part 51 Subpart C	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Review of reasonably ascertainable standard and other historical sources, and site observations, have not identified the current and historical presence of ASTs/55-gallon drum storage on the property. Based on the Project description, the Project includes no activities that would require further evaluation under this section. However, in accordance with HUD's Guidebook entitled "Siting of HUD-Assisted Projects Near Hazardous Facilities" (hereafter "Guidebook"), PM searched a one-mile radius around the Property for ASTs containing flammable materials. PM did not identify any sites within a one-mile radius of the property. The Project is in compliance with explosive and flammable hazard requirements. Attachment 10
<b>Farmlands Protection</b> Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Review of the USDA Web Soil Survey indicates this Project does not affect any prime or unique farmland. The Property is located within an "urbanized" area. Therefore, the Project is not subject to the statutory or regulatory requirements. This Project does not include any activities that could potentially convert agricultural land to a non-agricultural use. The project is in compliance with the Farmland Protection Policy Act Attachment 11
<b>Floodplain Management</b> Executive Order 11988, particularly section 2(a); 24 CFR Part 55	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	According to the Federal Emergency Management Agency (FEMA) floodplain map, dated February 2, 2012 (Panel Number 26163C0280E), the Property is not located within the 100-year flood zone. Furthermore, topographical features present in the Property area are not representative of a flood plain. Furthermore, topographical features present in the Property area are not representative of a flood plain. The



		proposed Project is not located in a FEMA-designated Special Flood Hazard Area. The Project is in compliance with Executive Order 11988. Attachment 5
<b>Historic Preservation</b> National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Review of the National Park Service (NPS) National Register of Historic Places, the Michigan State Historic Preservation Office (SHPO), and locally designated resources located in the City of Detroit and Wayne County, documents the subject property is not listed in the National Register of Historic Places nor is the property located within an historic district of the City of Detroit or Wayne County. A Section 106 application was subjected to the City of Detroit to determine if the Project will adversely impact the subject property area or area of potential effect (APE). A final determination letter dated April 29, 2022 was received indicating a Conditional No Adverse Effect determination, as long as the following conditions are met: * The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 4/11/2022, and, * Any changes to the scope of work for the project shall be submitted to the Preservation Specialist for review and approval prior to the start of any work. * Photos of the completed work are submitted to the Preservation Specialist Attachment 12
<b>Noise Abatement and Control</b> Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The Project is within applicable HUD distance criterion to 2nd Avenue, 3rd Avenue, MLK Jr. Boulevard, and Cass Avenue. Two Noise Assessment Locations or (NALs) were used for noise analysis: NAL #1 is located at the southwestern corner of the proposed building and NAL #2 is located at the southeastern corner of the proposed building. Using the HUD DNL calculator, the combined noise level, as predicted for operations in 2031, at NAL #1 was 69

		<p>dB. Using the HUD DNL calculator, the combined noise level, as predicted for operations in 2031, at NAL #2 was 70 dB. The HUD Sound Transmission Classification Assessment Tool (STraCAT) was used to determine the noise attenuation for the building walls to bring the noise levels within acceptable levels for interiors. The noise attenuation necessary to bring the levels to below 45 dB was found to be between 28 dB while the actual combined attenuation for the wall components was found to be 31.2 dB. The wall components attenuate noise levels to acceptable interior standards. The Project is in compliance with HUD's Noise regulation without mitigation. Attachment 13</p>
<p><b>Sole Source Aquifers</b> Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>There are no sole source aquifers in the City of Detroit or Wayne County. The Project is in compliance with Sole Source Aquifer requirements. Attachment 14</p>
<p><b>Wetlands Protection</b> Executive Order 11990, particularly sections 2 and 5</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Areas potentially associated with wetlands were not observed on the Property during the site reconnaissance. In addition, review of the National Wetlands Inventory (NWI) Map from the U.S. Fish and Wildlife Service and the EGLE Wetlands Map Viewer did not identify any wetlands on the Property. The Project is in compliance with Executive Order 11990. Attachment 15</p>
<p><b>Wild and Scenic Rivers Act</b> Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>The National Wild and Scenic Rivers System map (maintained and managed by the Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, and U.S. Forest Service) were reviewed to determine if the Property is within a designated wild and scenic river area. There are no wild and scenic rivers located within the City of Detroit or Wayne County. This Project is not within proximity of a NWSRS river.</p>

		The project is in compliance with the Wild and Scenic Rivers Act. Attachment 16
<b>HUD HOUSING ENVIRONMENTAL STANDARDS</b>		
<b>ENVIRONMENTAL JUSTICE</b>		
<b>Environmental Justice</b> Executive Order 12898	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	This Project will not have a disproportionately high adverse effect on human health or environment of minority populations and/or low-income populations. The buildings will serve low-income residents. The development is in the City of Detroit, which is made up of 87% ethnic minorities. New facilities and residences are intended to enhance the quality of life for new and existing residents and the community. No persons will be displaced due to this Project. No adverse environmental impacts were identified in the project's total environmental review. The project is in compliance with Executive Order 12898. Attachment 17

**Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]**

**Impact Codes:** An impact code from the following list has been used to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement.

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
<b>LAND DEVELOPMENT</b>			
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The Project is not anticipated to impact urban design and will be compatible with surrounding land uses. This development is compatible with the City's goals for residential development and will have a positive impact on the area within which it	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
<b>LAND DEVELOPMENT</b>			
		exists. The site is situated within Census Tract 5204 of Wayne County, with current zoning as SD2 (Special Development District - Mixed Use), which allows for multi-family development with proper conditional approval. The proposed development activities are anticipated to help revitalize the area immediately surrounding the Project.	
Soil Suitability / Slope/ Erosion / Drainage and Storm Water Runoff	2	According to the NRCS website, site soils consist of urban land-Riverfront-type soils with minimal slopes. The soil is suitable for new construction based on the Wayne County Soil Survey. (Attachment 11) A topographic survey completed for the Project indicates that elevations on the property range from 615 to 617 feet above mean sea level. The Property is relatively flat, and no drainage or slope issues are anticipated. There was no visual evidence of slides or slumps on the Property. The Project is not located near an erosion sensitive area and will not create slopes. The proposed grading work at the site will allow for very little erosion. The Project will be connected to the municipal storm water service. Service already exists for the area. The sanitary and storm sewers in the Project area are combined. No significant increase in storm water flow is expected.	
Hazards and Nuisances including Site Safety and Site-Generated Noise	2	Noise intensive construction activities will be limited to the days and hours specified under the City's noise ordinance. These days and hours shall also apply to any servicing of equipment and to the delivery and removal of materials to and from the site. All construction equipment shall be equipped with mufflers and sound control devices (i.e., intake silencers and noise shrouds) no less effective than those provided on the original equipment and no equipment shall have an un-muffled exhaust. Stationary equipment shall be placed to maintain the greatest	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
<b>LAND DEVELOPMENT</b>			
		possible distance from sensitive uses. The Property is located within Wayne County, which is within Zone 3 of the EPA Radon Map with low potential risk of indoor radon levels. The Property is not located within one of the 24 counties designated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) as a county where 25% or more homes tested equal to or above 4 picocuries/liter (pCi/L) of radon exposure.(Attachments 8A and 8B). There will be sufficient on-site parking and lighting for residents and visitors. (Attachment 2)	
Energy Efficiency	2	The area is already served by electrical and gas utilities provided by DTE. There is adequate capacity to serve the new building. The Project will incorporate energy efficient appliances, building/construction materials, and lighting/fixtures. The Project will be certified in accordance with Enterprise Green Environmental Criteria.	
<b>SOCIOECONOMIC</b>			
Employment and Income Patterns	1	There will be a temporary increase in jobs related to the construction of the Project. Other than construction related changes, the Project will not result in a change to employment and income patterns in the area. The Project could be beneficial to local businesses though because there will be an increase in households requiring goods and services.	
Demographic Character Changes / Displacement	2	The Project will not change the demographics of the general area. Extremely strong market indicators show a positive demographic growth for the this area. The Project involves new construction on a vacant site, no displacement will take place.	
<b>COMMUNITY FACILITIES AND SERVICES</b>			
Educational and Cultural Facilities (Access and Capacity)	2	The Property is within the Detroit City School District. As such, schools within the Property's assignment zone includes Burton International Academy (roughly 3/4 mile	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
<b>LAND DEVELOPMENT</b>			
		<p>away)and Detroit School of Arts High School (less than 1/2 mile away). However, several additional schools can be found within the area, including Spain Elementary-Middle School, Cass Tech High School, and Detroit Edison Academy Charter School. Furthermore, secondary educational opportunities are available at Wayne State University, located approximately 3/4 mile north of the Property. The Project is not expected to have any negative impact on educational facilities in the area. Several museums and cultural attractions can be found within one mile of the Property including the Detroit Institute of Arts, Detroit Science Center, and the Charles Wright Museum of African-American History. The Project is not expected to have any negative impact on cultural facilities in the area. Attachment 18</p>	
Commercial Facilities (Access and Proximity)	1	<p>A diverse variety of retail and commercial opportunities can be found a relatively short distance of the Property. Woodward Avenue, Martin Luther King Jr. Boulevard/Mack Avenue, and Warren Avenue contain the greatest amount of retail locally, although opportunities can be found along other secondary streets throughout the area (most notably along Cass Avenue, which is one block east of 2nd Avenue). The nearest grocery store is Grocer Farm Market (just one block to the south along 2nd Avenue), while Whole Foods Market is less than 1/2 mile to the east along Mack Avenue. Further, several smaller markets and neighborhood convenience stores can be found throughout the nearby neighborhood. Overall, Woodward Avenue is within walking distance of the Property, offering various dining and retail and professional opportunities. No commercial facilities will be negatively affected because of the Project activities. Attachment 18</p>	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
<b>LAND DEVELOPMENT</b>			
Health Care / Social Services (Access and Capacity)	2	<p>Numerous medical facilities can be found within close proximity to the Property. The main campus for the Detroit Medical Center (DMC) is situated roughly 1/2 mile east of the Property just east of Woodward Avenue along the north side of Mack Avenue - the DMC complex contains Detroit Receiving Hospital, Harper University Hospital, Children's Hospital of Michigan, Hutzel Women's Hospital, and DMC Heart Hospital. In addition to the Woodward Corridor Family Medical Center (directly south of the site) and the Cass Clinic (a free clinic roughly two blocks away), several medical buildings and offices are situated surrounding the DMC medical complex as well as throughout the area - many of which are less than one mile of the Property. No health care facilities will be negatively affected. Social services throughout Detroit are available to residents through a variety of non-profits, government agencies, and other entities throughout Wayne County. There is also a variety of youth programs that are available to residents in the Project area. No social services will be negatively affected.</p> <p>Attachment 18</p>	
Solid Waste Disposal and Recycling (Feasibility and Capacity)	2	<p>Solid waste generated during construction activities will be removed by a private contractor. Solid waste generated by occupants of the development will be removed by the municipal waste hauler. No contracts for waste removal are in place currently. The Project will not significantly impact solid waste management facilities and services.</p>	
Waste Water and Sanitary Sewers (Feasibility and Capacity)	2	<p>The Project will be connected to the City of Detroit Water and Sewerage Department (DWSD) for sanitary sewer service. A minor increase in wastewater flow is expected. The existing municipal wastewater system will meet the increased demand. City of Detroit, Water and Sewerage Department</p>	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
<b>LAND DEVELOPMENT</b>			
Water Supply (Feasibility and Capacity)	2	The Project will not adversely impact the current capacity of the city water system. There is sufficient water capacity for the Project, as well as additional development in the area. The Project will be connected to the City of Detroit water system. Water mains were likely installed sometime in the late 1800s and water is supplied to the area via 6-inch and 1--inch water mains under MLK Jr. Boulevard and 2nd Avenue.	
Public Safety - Police, Fire and Emergency Medical	2	The Project will have no adverse effect in the need for police, fire, or emergency medical services due to the additional inhabitants. The Detroit Police Department covers 139 square miles of Detroit and has 2,200 officers. The subject property is located approximately 1.0 mile east of the 8th Precinct Detroit Police Station. The Detroit Fire Department's average response time is approximately 7 minutes to anywhere in the coverage area. There are currently 46 firehouses in the City of Detroit. The Property is located within the coverage area and fire hydrants are located within the area. The closest fire station offers medical services and is located one minute north at 477 West Alexandrine Street (Ladder 20 Squad 2 Medic 6).The Project will have no adverse effect in the need for police, fire or medical emergency medical services due to the Project. City of Detroit Fire Department (313) 596-2920	
Parks, Open Space and Recreation (Access and Capacity)	2	The Detroit Parks and Recreation Department maintains 309 parks and 11 recreation centers. Many classes are offered at the recreation's centers and outdoor plazas for youth, seniors, and adults. Two community centers are located within 1.5 miles of the Project area. Numerous parks and playgrounds are in the general vicinity including Cass Park, Redmond Plaza, and Tolan Park. This Project is not expected to	



Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
<b>LAND DEVELOPMENT</b>			
		have any impact on parks, open space or recreation. Attachment 18	
Transportation and Accessibility (Access and Capacity)	2	Public transportation is provided by the Detroit Department of Transportation (DDOT) and provides access throughout Detroit. A public bus stop is located just three feet from the Property on the corner of 2nd Avenue and Martin Luther King Jr Boulevard. The People Mover is an elevated monorail transportation system that travels in a loop throughout the downtown area. Additional transportation along a limited portion of Woodward Avenue is provided by the Q-Line. Train services are provided by Amtrak and nearby stations are found in Ann Arbor, Birmingham, Dearborn, Detroit, Pontiac, and Royal Oak. The additional residents are not expected to have any adverse effect on transportation. The additional residents are not expected to have any adverse effect on transportation.	
<b>NATURAL FEATURES</b>			
Unique Natural Features /Water Resources	2	The City of Detroit is a highly urbanized area. Construction activities will be limited to the Property and none of the surrounding properties will be affected. Additionally, there are no unique natural features on the Property. The Project will not have an adverse effect on any unique natural features within Detroit.	
Vegetation / Wildlife (Introduction, Modification, Removal, Disruption, etc.)	2	The Project is not anticipated to impact unique natural habitats, ecosystems, or any threatened and endangered wildlife. The location of the Project does not support any critical habitats and is within a highly urbanized location. Attachment 9	
Other Factors			

**Supporting documentation**

[6B SIP Compliance Letter\(1\).pdf](#)

[6A Air Quality Map\(1\).pdf](#)

[17 ejscreen\\_report\(1\).pdf](#)

[8B Radon 2.pdf](#)

[8A Radon 1.pdf](#)

[18 Area Amenities Map and Key.pdf](#)

[11 Soil Survey\(1\).pdf](#)

[9 Endangered Species List\(1\).pdf](#)

**Additional Studies Performed:**

A Rental Housing Market Feasibility Analysis for the MLK on 2nd Apartments, Shaw Research and Consulting, January 22, 2021.

**Field Inspection [Optional]:** Date and completed

by:

David Balash

5/5/2022 12:00:00 AM

**List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:**

1. Federal Emergency Management Agency-Map Service for Flood Rate Insurance Maps  
<https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>
2. U.S. Fish & Wildlife Service, National Wetlands Inventory, Wetlands Mapper. <http://www.fws.gov/wetlands/data/mapper.html>
3. U.S. Fish & Wildlife Service, Endangered Species, Michigan County Distribution of Federally Listed Threatened, Endangered, Proposed, and Candidate Species, <http://www.fws.gov/midwest/endangered/lists/michigan-cty.html>
4. Michigan Department of Environmental Quality, Michigan Coastal Zone Boundary Maps, [http://www.michigan.gov/deq/0,4561,7-135-3313\\_3677\\_3696-90802--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3677_3696-90802--,00.html)
5. Michigan Department of Environmental Quality, Air Quality Division, [http://www.michigan.gov/deq/0,1607,7-135-3310\\_30151\\_31129---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3310_30151_31129---,00.html)
6. US EPA Map of Radon Zones, Wayne County, Michigan, <http://www.epa.gov/radon/states/michigan.html>
7. Detroit Public Schools Community District, <https://www.detroitk12.org/domain/167>
8. Detroit Police Department, Precincts and Neighborhood Police Officers, <https://detroitmi.gov/departments/police-department/precincts-and-neighborhood-police-officers>
9. Detroit Fire Department, <https://detroitmi.gov/departments/detroit-fire-department>
10. Detroit EMS, <https://detroitmi.gov/departments/detroit-fire-department/emergency-medical-services>
11. Detroit Parks & Recreation, <https://detroitmi.gov/departments/parks-recreation>
12. Detroit Social Services, <https://detroitmi.gov/government/mayors-office/office-immigrant-affairs/social-services>
13. Michigan Department of Environment, Great Lakes, and Energy

**List of Permits Obtained:****Public Outreach [24 CFR 58.43]:**

City of Detroit discussed the project during the District 6 Community Meeting February 17, 2022 (Zoom meeting). Additionally, the project will be published in the Detroit Free Press and Detroit News for public comment.

**Cumulative Impact Analysis [24 CFR 58.32]:**

This Project is compatible with the City's goals for residential development and will have a positive impact on the area within which it exists. The Project activities are anticipated to help revitalize the area immediately surrounding the Project. The EA process determined that there are no adverse effects to human health or the environment once proposed mitigation measures are complete. The Project will have an overall positive impact in providing affordable housing in the City of Detroit.

**Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]**

A Sponsor partner already owned this property so it was the only location selected for use. The only alternative to the proposed Project would be not building the additional units of housing and thus not being able to further support lower income populations in the city.

**No Action Alternative [24 CFR 58.40(e)]**

The No Action Alternative is to not construct MLK on 2nd. This alternative is not preferred as it fails to provide additional affordable housing.

**Summary of Findings and Conclusions:**

The Project will not adversely impact the City of Detroit or neighborhoods surrounding the site. The activity is compatible with the existing uses of the area and will have minimal impact on existing resources or services in the area.

**Mitigation Measures and Conditions [CFR 1505.2(c)]:**

Summarized below are all mitigation measures adopted by the Responsible Entity to reduce, avoid or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure or Condition	Comments on Completed Measures	Mitigation Plan	Complete
Historic Preservation	<p>This project has been given a Conditional No Adverse Effect determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long at the following conditions are met:</p> <ul style="list-style-type: none"> <li>* The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 4/11/2022, and,</li> <li>* Any changes to the scope of work for the project shall be submitted to the Preservation Specialist for review and approval prior to the start of any work.</li> <li>* Photos of the completed work are submitted to the Preservation Specialist</li> </ul>	N/A	See attached Mitigation Plan.	
Contamination and Toxic Substances	<p>Site contamination was evaluated as follows: ASTM Phase I ESA, ASTM Phase II ESA, Remediation or clean-up plan, ASTM Vapor Encroachment Screening. On-site or nearby toxic, hazardous, or radioactive substances were found that could affect the health and safety of project occupants or conflict with the intended use of the property. The adverse environmental impacts can be eliminated through the use of engineering controls and removal of contaminated material. Surface covers consisting of a minimum of six inches of concrete pavement will be</p>	N/A	See attached Mitigation Plan.	

	<p>installed using poured slab methods or a minimum of 18 inches of landscaping underlain by a demarcation barrier (i.e., brown/black landscape fabric), and the proposed building foundations will be installed and maintained to prevent contact with the underlying contaminated soils. All existing soils requiring excavation to install surface cover will be characterized and transported for disposal at a licensed disposal facility. A vapor barrier and active sub-slab depressurization system (SSDS) will be installed to prevent soil gas vapors from migrating into the occupied space and/or accumulating beneath the proposed building. A Response Activity Plan (ResAP) to comply with 7a(1)(b) submitted under Section 20114b, Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended was completed and approved by EGLE on August 26, 2022.</p>			
Noise Abatement and Control	<p>Appropriate construction materials will be incorporated in the building to mitigate noise levels within the acceptable range.</p>	N/A	See attached Mitigation Plan.	

**Project Mitigation Plan**

Contamination and Toxic Substances The developer's construction team and environmental consultant will be responsible for implementation and monitoring of the response activities. Photo and written forms of documentation will be presented. It is anticipated the response activities associated with the soil and demarcation will begin as soon as initial construction activities are initiated and will take up to two to three months for completion. The SSDS system will be installed during building construction, which will take several months. Once building construction is complete, the SSDS will be tested for one year after start-up to ensure that it is operating correctly. Once all response activities are complete, documentation will be provided to EGLE. The owner with coordinating of the environmental consultant will develop an Operation, Maintenance, and Monitoring (OM and M Plan). The attached SSD Systems Design and Spec report provides detailed information regarding implementation and monitoring. Historic Preservation The developer/ownership team will be responsible for ensuring the work is conducted in accordance with the specifications submitted to the Preservation Specialist on 4/11/2022, will inform the Preservation Specialist of any changes to the specifications submitted, and will provide photos of the completed work as required in the Section 106 Concurrence Letter dated April 29, 2022.

[MLK on 2nd Mitigation Plan.pdf](#)

**Supporting documentation on completed measures**

## APPENDIX A: Related Federal Laws and Authorities

### Airport Hazards

General policy	Legislation	Regulation
It is HUD's policy to apply standards to prevent incompatible development around civil airports and military airfields.		24 CFR Part 51 Subpart D

1. To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?

✓ No

Based on the response, the review is in compliance with this section. Document and upload the map showing that the site is not within the applicable distances to a military or civilian airport below

Yes

### Screen Summary

#### Compliance Determination

Coleman A. Young is located approximately 4.80 miles northeast of the Property. Windsor International Airport is located approximately 4.7 miles northeast. Windsor Airport is located approximately 6.60 miles southeast of the Property. Oakland Troy Airport (Y47) is approximately 15 miles northwest of the Property. No military airfields are in Wayne County/and or the nearby vicinity. The Project site is not within an Airport Runway Clear Zone. The Project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport and is in compliance with Airport Hazards requirements. Attachment 3

#### Supporting documentation

[3 Airport Map.pdf](#)

Are formal compliance steps or mitigation required?

Yes

✓ No





## Coastal Barrier Resources

General requirements	Legislation	Regulation
HUD financial assistance may not be used for most activities in units of the Coastal Barrier Resources System (CBRS). See 16 USC 3504 for limitations on federal expenditures affecting the CBRS.	Coastal Barrier Resources Act (CBRA) of 1982, as amended by the Coastal Barrier Improvement Act of 1990 (16 USC 3501)	

**1. Is the project located in a CBRS Unit?**

No

Document and upload map and documentation below.

Yes

### Compliance Determination

Review of the U.S. Fish and Wildlife Service online Coastal Barrier Resources System Mapper and the John H. Chafee Coastal Barrier Resource System Michigan Map indicates that the Property is not located within a designated coastal zone boundary. Therefore, this Project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act. Attachment 4.

### Supporting documentation

[4B John H Chafee CBRS Map.pdf](#)

[4A USFW Coastal Barrier Map.pdf](#)

### Are formal compliance steps or mitigation required?

Yes

No

## Flood Insurance

General requirements	Legislation	Regulation
Certain types of federal financial assistance may not be used in floodplains unless the community participates in National Flood Insurance Program and flood insurance is both obtained and maintained.	Flood Disaster Protection Act of 1973 as amended (42 USC 4001-4128)	24 CFR 50.4(b)(1) and 24 CFR 58.6(a) and (b); 24 CFR 55.1(b).

**1. Does this project involve financial assistance for construction, rehabilitation, or acquisition of a mobile home, building, or insurable personal property?**

No. This project does not require flood insurance or is excepted from flood insurance.

Yes

**2. Upload a FEMA/FIRM map showing the site here:**

[5 FEMA FIRMette.pdf](#)

The Federal Emergency Management Agency (FEMA) designates floodplains. The [FEMA Map Service Center](#) provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs). For projects in areas not mapped by FEMA, use the best available information to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site. Provide FEMA/FIRM floodplain zone designation, panel number, and date within your documentation.

**Is the structure, part of the structure, or insurable property located in a FEMA-designated Special Flood Hazard Area?**

No

Based on the response, the review is in compliance with this section.

Yes

**4. While flood insurance is not mandatory for this project, HUD strongly recommends that all insurable structures maintain flood insurance under the National Flood Insurance Program (NFIP). Will flood insurance be required as a mitigation measure or condition?**

Yes

✓ No

**Screen Summary****Compliance Determination**

The Property is located in FEMA Flood Map 26163C0280E dated 2/2/2012 and is within Zone X (unshaded), defined as an area of minimal risk outside the 100-year (1% annual chance) and 500-year (0.2% annual chance) floodplain. The Project is in compliance with flood insurance requirements. Attachment 5

**Supporting documentation**

[5 FEMA FIRMette\(1\).pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

✓ No

## Air Quality

General requirements	Legislation	Regulation
The Clean Air Act is administered by the U.S. Environmental Protection Agency (EPA), which sets national standards on ambient pollutants. In addition, the Clean Air Act is administered by States, which must develop State Implementation Plans (SIPs) to regulate their state air quality. Projects funded by HUD must demonstrate that they conform to the appropriate SIP.	Clean Air Act (42 USC 7401 et seq.) as amended particularly Section 176(c) and (d) (42 USC 7506(c) and (d))	40 CFR Parts 6, 51 and 93

**1. Does your project include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units?**

Yes

No

### Air Quality Attainment Status of Project's County or Air Quality Management District

**2. Is your project's air quality management district or county in non-attainment or maintenance status for any criteria pollutants?**

No, project's county or air quality management district is in attainment status for all criteria pollutants.

Yes, project's management district or county is in non-attainment or maintenance status for the following criteria pollutants (check all that apply):

Carbon Monoxide

Lead

Nitrogen dioxide

Sulfur dioxide

- ✓ Ozone
- Particulate Matter, <2.5 microns
- Particulate Matter, <10 microns

**3. What are the *de minimis* emissions levels (40 CFR 93.153) or screening levels for the non-attainment or maintenance level pollutants indicated above**

Ozone 0.01 ppb (parts per million)

**Provide your source used to determine levels here:**

EGLE Ozone Nonattainment Webpage

**4. Determine the estimated emissions levels of your project. Will your project exceed any of the *de minimis* or threshold emissions levels of non-attainment and maintenance level pollutants or exceed the screening levels established by the state or air quality management district?**

- ✓ No, the project will not exceed *de minimis* or threshold emissions levels or screening levels.

**Enter the estimate emission levels:**

Ozone 0.00 ppb (parts per million)

Based on the response, the review is in compliance with this section.

Yes, the project exceeds *de minimis* emissions levels or screening levels.

**Screen Summary**

**Compliance Determination**

The entire State of Michigan is designated as "attainment for carbon monoxide, lead, nitrogen dioxide, and particulate matter (PM10). Wayne County is within a larger area in southeast Michigan for ozone nonattainment and is not within a sulfur dioxide nonattainment area. The Project was reviewed by Michigan Environment, Great Lakes, and Energy (EGLE) for conformance with the State Implementation Plan (SIP). EGLE determined the Project should not exceed the *de minimis* levels included in the federal general conformity requirements and therefore, does not require a detailed

conformity analysis. This Project does not exceed de minimis emissions levels or the screening level established by the state or air quality management district for the pollutant(s) identified above. The Project is in compliance with the Clean Air Act. Measures to control fugitive dust will be utilized to ensure that construction projects do not result in erosion and formation of dust. The Best Management Practices (BMPs) employed will comply with the City's site plan approval process and will be effective in controlling construction related fugitive dust. Attachment 6

**Supporting documentation**

[6B SIP Compliance Letter.pdf](#)

[6A Air Quality Map.pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

✓ No

## Coastal Zone Management Act

General requirements	Legislation	Regulation
Federal assistance to applicant agencies for activities affecting any coastal use or resource is granted only when such activities are consistent with federally approved State Coastal Zone Management Act Plans.	Coastal Zone Management Act (16 USC 1451-1464), particularly section 307(c) and (d) (16 USC 1456(c) and (d))	15 CFR Part 930

**1. Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal Management Plan?**

Yes

No

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

### Screen Summary

#### **Compliance Determination**

Review of the Wayne County Coastal Zone Management Boundary and Coastal Zone Management Area Map documents the Property is not located within a designated Coastal Zone Management area. The Project is in compliance with the Coastal Zone Management Act. Attachment 7

#### **Supporting documentation**

[7 Coastal Zone Boundary Map.pdf](#)

#### **Are formal compliance steps or mitigation required?**

Yes

No

## Contamination and Toxic Substances

General requirements	Legislation	Regulations
It is HUD policy that all properties that are being proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of the occupants or conflict with the intended utilization of the property.		24 CFR 58.5(i)(2) 24 CFR 50.3(i)

**1. How was site contamination evaluated? Select all that apply. Document and upload documentation and reports and evaluation explanation of site contamination below.**

- American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment (ESA)
- ASTM Phase II ESA
- Remediation or clean-up plan
- ASTM Vapor Encroachment Screening
- None of the Above

**2. Were any on-site or nearby toxic, hazardous, or radioactive substances found that could affect the health and safety of project occupants or conflict with the intended use of the property? (Were any recognized environmental conditions or RECs identified in a Phase I ESA and confirmed in a Phase II ESA?)**

No

- Yes

**3. Mitigation**

Document and upload the mitigation needed according to the requirements of the appropriate federal, state, tribal, or local oversight agency. If the adverse environmental effects cannot be mitigated, then HUD assistance may not be used for the project at this site.

**Can adverse environmental impacts be mitigated?**

Adverse environmental impacts cannot feasibly be mitigated.



- ✓ Yes, adverse environmental impacts can be eliminated through mitigation. Document and upload all mitigation requirements below.

**4. Describe how compliance was achieved in the text box below. Include any of the following that apply: State Voluntary Clean-up Program, a No Further Action letter, use of engineering controls, or use of institutional controls.**

Site contamination was evaluated as follows: ASTM Phase I ESA, ASTM Phase II ESA, Remediation or clean-up plan, ASTM Vapor Encroachment Screening. On-site or nearby toxic, hazardous, or radioactive substances were found that could affect the health and safety of project occupants or conflict with the intended use of the property. The adverse environmental impacts can be eliminated through the use of engineering controls and removal of contaminated material. Surface covers consisting of a minimum of six inches of concrete pavement will be installed using poured slab methods or a minimum of 18 inches of landscaping underlain by a demarcation barrier (i.e., brown/black landscape fabric), and the proposed building foundations will be installed and maintained to prevent contact with the underlying contaminated soils. All existing soils requiring excavation to install surface cover will be characterized and transported for disposal at a licensed disposal facility. A vapor barrier and active sub-slab depressurization system (SSDS) will be installed to prevent soil gas vapors from migrating into the occupied space and/or accumulating beneath the proposed building. A Response Activity Plan (ResAP) to comply with 7a(1)(b) submitted under Section 20114b, Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended was completed and approved by EGLE on August 26, 2022.

**If a remediation plan or clean-up program was necessary, which standard does it follow?**

Complete removal

- ✓ Risk-based corrective action (RBCA)

**Screen Summary**

**Compliance Determination**

The Property is located within Wayne County, which is within Zone 3 of the EPA Radon Map with low potential risk of indoor radon levels. The Property is not located within one of the 24 counties designated by the Michigan Department of Environment, Great

Lakes, and Energy (EGLE) as a county where 25% or more homes tested equal to or above 4 picocuries/liter (pCi/L) of radon exposure. Therefore, no additional investigation is necessary regarding radon (Attachment 8). No high pressure buried gas lines (4" diameter or greater and 400 psi or higher) are located within 1,000 feet of the Property. Site contamination was evaluated as follows: ASTM Phase I ESA, ASTM Phase II ESA, Remediation or clean-up plan, ASTM Vapor Encroachment Screening. On-site or nearby toxic, hazardous, or radioactive substances were found that could affect the health and safety of project occupants or conflict with the intended use of the Property. The adverse environmental impacts can be eliminated through the use of engineering controls and removal of contaminated material. Surface covers consisting of a minimum of six inches of concrete pavement will be installed using poured slab methods or a minimum of 18 inches of landscaping underlain by a demarcation barrier (i.e., brown/black landscape fabric), and the proposed building foundations will be installed and maintained to prevent contact with the underlying contaminated soils. All existing soils requiring excavation to install surface cover will be characterized and transported for disposal at a licensed disposal facility. A vapor barrier and active sub-slab depressurization system (SSDS) will be installed to prevent soil gas vapors from migrating into the occupied space and/or accumulating beneath the proposed building. A Response Activity Plan (ResAP) to comply with 7a(1)(b) submitted under Section 20114b, Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended was completed and approved by EGLE on August 26, 2022.

**Supporting documentation**

[8F MLK on 2nd Ave Detroit MI 2022 SSD Systems Design and Specs Ereport August 2022.pdf](#)

[8G EGLE Notice of Approval of Response Activity Plan August 26 2022.PDF](#)

[8E MLK on 2nd 3515 2nd Ave Detroit RAP August 2022.pdf](#)

[8D Proposed MLK on 2nd 3515 2nd Ave Detroit MI MSHDA BEA Ereport June 2022.pdf](#)

[8C Proposed MLK on 2nd 3515 2nd Ave Detroit MI MSHDA PI ESA Ereport June 2022.pdf](#)

[8B Radon EGLE.pdf](#)

[8A Radon EPA.pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

No

## Endangered Species

General requirements	ESA Legislation	Regulations
Section 7 of the Endangered Species Act (ESA) mandates that federal agencies ensure that actions that they authorize, fund, or carry out shall not jeopardize the continued existence of federally listed plants and animals or result in the adverse modification or destruction of designated critical habitat. Where their actions may affect resources protected by the ESA, agencies must consult with the Fish and Wildlife Service and/or the National Marine Fisheries Service (“FWS” and “NMFS” or “the Services”).	The Endangered Species Act of 1973 (16 U.S.C. 1531 <i>et seq.</i> ); particularly section 7 (16 USC 1536).	50 CFR Part 402

### 1. Does the project involve any activities that have the potential to affect species or habitats?

- ✓ No, the project will have No Effect due to the nature of the activities involved in the project.

This selection is only appropriate if none of the activities involved in the project have potential to affect species or habitats. Examples of actions without potential to affect listed species may include: purchasing existing buildings, completing interior renovations to existing buildings, and replacing exterior paint or siding on existing buildings.

Based on the response, the review is in compliance with this section.

No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office

Yes, the activities involved in the project have the potential to affect species and/or habitats.

### Screen Summary

#### Compliance Determination

The U.S. Fish and Wildlife Service provided information on locations of threatened and endangered species for the Project. Species listed for Wayne County include Indiana Bat, Northern Long-eared Bat, Piping Plover, Red Knot, Eastern Massasauga, Northern Riffleshell, Monarch Butterfly, and Eastern Prairie Fringed Orchid. None of the state-listed threatened or endangered species were observed at the Property. No

federally listed threatened or endangered species or unique features are present at the Project and no Critical Habitats are present. The project is not located near a body of water and does not contain wetlands or floodplains. The Property and/or general area have been developed since at least the 1900s. Given this, this Project will have No Effect on listed species due to the nature of the activities involved in the Project. This Project is in compliance with the Endangered Species Act. Attachment 9

**Supporting documentation**

[9 Endangered Species List.pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

✓ No

## Explosive and Flammable Hazards

General requirements	Legislation	Regulation
HUD-assisted projects must meet Acceptable Separation Distance (ASD) requirements to protect them from explosive and flammable hazards.	N/A	24 CFR Part 51 Subpart C

**1. Is the proposed HUD-assisted project itself the development of a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?**

No

Yes

**2. Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?**

No

Yes

**3. Within 1 mile of the project site, are there any current or planned stationary aboveground storage containers that are covered by 24 CFR 51C? Containers that are NOT covered under the regulation include:**

- Containers 100 gallons or less in capacity, containing common liquid industrial fuels OR

- Containers of liquified petroleum gas (LPG) or propane with a water volume capacity of 1,000 gallons or less that meet the requirements of the 2017 or later version of National Fire Protection Association (NFPA) Code 58.

If all containers within the search area fit the above criteria, answer "No." For any other type of aboveground storage container within the search area that holds one of the flammable or explosive materials listed in Appendix I of 24 CFR part 51 subpart C, answer "Yes."

No

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Yes

**Screen Summary****Compliance Determination**

Review of reasonably ascertainable standard and other historical sources, and site observations, have not identified the current and historical presence of ASTs/55-gallon drum storage on the property. Based on the Project description, the Project includes no activities that would require further evaluation under this section. However, in accordance with HUD's Guidebook entitled "Siting of HUD-Assisted Projects Near Hazardous Facilities" (hereafter "Guidebook"), PM searched a one-mile radius around the Property for ASTs containing flammable materials. PM did not identify any sites within a one-mile radius of the property. The Project is in compliance with explosive and flammable hazard requirements. Attachment 10

**Supporting documentation**

[10 AST Map.pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

✓ No

## Farmlands Protection

General requirements	Legislation	Regulation
The Farmland Protection Policy Act (FPPA) discourages federal activities that would convert farmland to nonagricultural purposes.	Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.)	<a href="#">7 CFR Part 658</a>

**1. Does your project include any activities, including new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?**

Yes

No

If your project includes new construction, acquisition of undeveloped land or conversion, explain how you determined that agricultural land would not be converted:

Review of the USDA Web Soil Survey indicates this Project does not affect any prime or unique farmland. The Property is located within an "urbanized" area. Therefore, the Project is not subject to the statutory or regulatory requirements. This Project does not include any activities that could potentially convert agricultural land to a non-agricultural use.

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

### Screen Summary

#### **Compliance Determination**

Review of the USDA Web Soil Survey indicates this Project does not affect any prime or unique farmland. The Property is located within an "urbanized" area. Therefore, the Project is not subject to the statutory or regulatory requirements. This Project does not include any activities that could potentially convert agricultural land to a non-agricultural use. The project is in compliance with the Farmland Protection Policy Act Attachment 11

#### **Supporting documentation**

[11 Soil Survey.pdf](#)

#### **Are formal compliance steps or mitigation required?**

Yes

✓ No



## Floodplain Management

General Requirements	Legislation	Regulation
Executive Order 11988, Floodplain Management, requires federal activities to avoid impacts to floodplains and to avoid direct and indirect support of floodplain development to the extent practicable.	Executive Order 11988	24 CFR 55

**1. Do any of the following exemptions apply? Select the applicable citation? [only one selection possible]**

55.12(c)(3)

55.12(c)(4)

55.12(c)(5)

55.12(c)(6)

55.12(c)(7)

55.12(c)(8)

55.12(c)(9)

55.12(c)(10)

55.12(c)(11)

None of the above

**2. Upload a FEMA/FIRM map showing the site here:**

[5 FEMA FIRMette.pdf](#)

The Federal Emergency Management Agency (FEMA) designates floodplains. The FEMA Map Service Center provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs). For projects in areas not mapped by FEMA, use **the best available information** to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site.

**Does your project occur in a floodplain?**

No

Based on the response, the review is in compliance with this section.

Yes

**Screen Summary****Compliance Determination**

According to the Federal Emergency Management Agency (FEMA) floodplain map, dated February 2, 2012 (Panel Number 26163C0280E), the Property is not located within the 100-year flood zone. Furthermore, topographical features present in the Property area are not representative of a flood plain. Furthermore, topographical features present in the Property area are not representative of a flood plain. The proposed Project is not located in a FEMA-designated Special Flood Hazard Area. The Project is in compliance with Executive Order 11988. Attachment 5

**Supporting documentation**

[5 FEMA FIRMette\(2\).pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

✓ No

## Historic Preservation

General requirements	Legislation	Regulation
Regulations under Section 106 of the National Historic Preservation Act (NHPA) require a consultative process to identify historic properties, assess project impacts on them, and avoid, minimize, or mitigate adverse effects	Section 106 of the National Historic Preservation Act (16 U.S.C. 470f)	36 CFR 800 "Protection of Historic Properties" <a href="https://www.govinfo.gov/content/pkg/CFR-2012-title36-vol3/pdf/CFR-2012-title36-vol3-part800.pdf">https://www.govinfo.gov/content/pkg/CFR-2012-title36-vol3/pdf/CFR-2012-title36-vol3-part800.pdf</a>

### **Threshold**

#### **Is Section 106 review required for your project?**

No, because the project consists solely of activities listed as exempt in a Programmatic Agreement (PA ). (See the PA Database to find applicable PAs.)

No, because the project consists solely of activities included in a No Potential to Cause Effects memo or other determination [36 CFR 800.3(a)(1)].

- ✓ Yes, because the project includes activities with potential to cause effects (direct or indirect).

### **Step 1 – Initiate Consultation**

#### **Select all consulting parties below (check all that apply):**

- ✓ State Historic Preservation Offer (SHPO) Completed

- ✓ Advisory Council on Historic Preservation Not Required

Indian Tribes, including Tribal Historic Preservation Officers (THPOs) or Native Hawaiian Organizations (NHOs)

Other Consulting Parties

**Describe the process of selecting consulting parties and initiating consultation here:**

Under the authority of the National Historic Preservation Act (NHPA) of 1966, as amended, and the "Programmatic Agreement between the Michigan State Historic Preservation Office and the City of Detroit, Michigan" dated November 9, 2016, the City of Detroit has reviewed the Project.

Document and upload all correspondence, notices and notes (including comments and objections received below).

**Was the Section 106 Lender Delegation Memo used for Section 106 consultation?**

Yes

No

**Step 2 – Identify and Evaluate Historic Properties**

- 1. Define the Area of Potential Effect (APE), either by entering the address(es) or uploading a map depicting the APE below:**

An APE Map is provided in Attachment 12A.

**In the chart below, list historic properties identified and evaluated in the APE. Every historic property that may be affected by the project should be included in the chart.**

Upload the documentation (survey forms, Register nominations, concurrence(s) and/or objection(s), notes, and photos) that justify your National Register Status determination below.

<b>Address / Location / District</b>	<b>National Register Status</b>	<b>SHPO Concurrence</b>	<b>Sensitive Information</b>
3351 and 3533 2nd Avenue	Not Eligible	Yes	✓ Not Sensitive
3444 2nd Avenue	Not Eligible	Yes	✓ Not Sensitive
3445 2nd Avenue	Not Eligible	Yes	✓ Not Sensitive
3470 2nd Avenue	Not Eligible	Yes	✓ Not Sensitive
3500 2nd Avenue	Not Eligible	Yes	✓ Not Sensitive
3525 and 3527 2nd Avenue	Not Eligible	Yes	✓ Not Sensitive
470 MLK Jr. Boulevard	Not Eligible	Yes	✓ Not Sensitive
495 Brainard Street and 3564 2nd Avenue	Not Eligible	Yes	✓ Not Sensitive
676 MLK Jr. Boulevard	Not Eligible	Yes	✓ Not Sensitive

**Additional Notes:**

**2. Was a survey of historic buildings and/or archeological sites done as part of the project?**

✓ Yes

Document and upload surveys and report(s) below.

For Archeological surveys, refer to HP Fact Sheet #6, Guidance on Archeological Investigations in HUD Projects.

Additional Notes:

No

***Step 3 –Assess Effects of the Project on Historic Properties***

Only properties that are listed on or eligible for the National Register of Historic Places receive further consideration under Section 106. Assess the effect(s) of the project by applying the Criteria of Adverse Effect. (36 CFR 800.5)] Consider direct and indirect effects as applicable as per guidance on direct and indirect effects.

**Choose one of the findings below - No Historic Properties Affected, No Adverse Effect, or Adverse Effect; and seek concurrence from consulting parties.**

No Historic Properties Affected

✓ No Adverse Effect

Based on the response, the review is in compliance with this section.

**Document reason for finding:**

Review of the National Park Service (NPS) National Register of Historic Places, the Michigan State Historic Preservation Office (SHPO), and locally designated resources located in the City of Detroit and Wayne County, documents the subject property is not listed in the National Register of

Historic Places nor is the property located within an historic district of the City of Detroit or Wayne County. A Section 106 application was subjected to the City of Detroit to determine if the Project will adversely impact the subject property area or area of potential effect (APE). A final determination letter dated April 29, 2022 was received indicating a Conditional No Adverse Effect determination.

**Does the No Adverse Effect finding contain conditions?**

Yes (check all that apply)

Avoidance

Modification of project

Other

Describe conditions here:

This project has been given a Conditional No Adverse Effect determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long as the following conditions are met:

- \* The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 4/11/2022, and,
- \* Any changes to the scope of work for the project shall be submitted to the Preservation Specialist for review and approval prior to the start of any work.
- \* Photos of the completed work are submitted to the Preservation Specialist

No

Adverse Effect

**Screen Summary**

**Compliance Determination**

Review of the National Park Service (NPS) National Register of Historic Places, the Michigan State Historic Preservation Office (SHPO), and locally designated resources

located in the City of Detroit and Wayne County, documents the subject property is not listed in the National Register of Historic Places nor is the property located within an historic district of the City of Detroit or Wayne County. A Section 106 application was submitted to the City of Detroit to determine if the Project will adversely impact the subject property area or area of potential effect (APE). A final determination letter dated April 29, 2022 was received indicating a Conditional No Adverse Effect determination, as long as the following conditions are met: \* The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 4/11/2022, and, \* Any changes to the scope of work for the project shall be submitted to the Preservation Specialist for review and approval prior to the start of any work. \* Photos of the completed work are submitted to the Preservation Specialist Attachment 12

**Supporting documentation**

[12B MLK on 2nd CNAE Section 106 Letter.pdf](#)

[12A Section 106 Application.pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

No

## Noise Abatement and Control

General requirements	Legislation	Regulation
HUD's noise regulations protect residential properties from excessive noise exposure. HUD encourages mitigation as appropriate.	Noise Control Act of 1972  General Services Administration Federal Management Circular 75-2: "Compatible Land Uses at Federal Airfields"	Title 24 CFR 51 Subpart B

**1. What activities does your project involve? Check all that apply:**

- New construction for residential use

NOTE: HUD assistance to new construction projects is generally prohibited if they are located in an Unacceptable zone, and HUD discourages assistance for new construction projects in Normally Unacceptable zones. See 24 CFR 51.101(a)(3) for further details.

Rehabilitation of an existing residential property

A research demonstration project which does not result in new construction or reconstruction

An interstate land sales registration

Any timely emergency assistance under disaster assistance provision or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster

None of the above

**4. Complete the Preliminary Screening to identify potential noise generators in the vicinity (1000' from a major road, 3000' from a railroad, or 15 miles from an airport).**

**Indicate the findings of the Preliminary Screening below:**

There are no noise generators found within the threshold distances above.



- ✓ Noise generators were found within the threshold distances.

5. **Complete the Preliminary Screening to identify potential noise generators in the**

Acceptable: (65 decibels or less; the ceiling may be shifted to 70 decibels in circumstances described in §24 CFR 51.105(a))

- ✓ Normally Unacceptable: (Above 65 decibels but not exceeding 75 decibels; the floor may be shifted to 70 decibels in circumstances described in §24 CFR 51.105(a))

**Is your project in a largely undeveloped area?**

- ✓ No

Indicate noise level here: 70

Document and upload noise analysis, including noise level and data used to complete the analysis below.

Yes

Unacceptable: (Above 75 decibels)

HUD strongly encourages conversion of noise-exposed sites to land uses compatible with high noise levels.

Check here to affirm that you have considered converting this property to a non-residential use compatible with high noise levels.

Indicate noise level here: 70

Document and upload noise analysis, including noise level and data used to complete the analysis below.

6. HUD strongly encourages mitigation be used to eliminate adverse noise impacts. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation. This information will be automatically included in the Mitigation summary for the environmental review.

Mitigation as follows will be implemented:

- ✓ No mitigation is necessary.

**Explain why mitigation will not be made here:**

The HUD Sound Transmission Classification Assessment Tool (STraCAT) was used to determine the noise attenuation for the building walls to bring the noise levels within acceptable levels for interiors. The noise attenuation necessary to bring the levels to below 45 dB was found to be between 28 dB while the actual combined attenuation for the wall components was found to be 31.2 dB. The wall components attenuate noise levels to acceptable interior standards. The Project is in compliance with HUD's Noise regulation without mitigation. Attachment 13

Based on the response, the review is in compliance with this section.

**Screen Summary**

**Compliance Determination**

The Project is within applicable HUD distance criterion to 2nd Avenue, 3rd Avenue, MLK Jr. Boulevard, and Cass Avenue. Two Noise Assessment Locations or (NALs) were used for noise analysis: NAL #1 is located at the southwestern corner of the proposed building and NAL #2 is located at the southeastern corner of the proposed building. Using the HUD DNL calculator, the combined noise level, as predicted for operations in 2031, at NAL #1 was 69 dB. Using the HUD DNL calculator, the combined noise level, as predicted for operations in 2031, at NAL #2 was 70 dB. The HUD Sound Transmission Classification Assessment Tool (STraCAT) was used to determine the noise attenuation for the building walls to bring the noise levels within acceptable levels for interiors. The noise attenuation necessary to bring the levels to below 45 dB was found to be between 28 dB while the actual combined attenuation for the wall components was found to be 31.2 dB. The wall components attenuate noise levels to acceptable interior standards. The Project is in compliance with HUD's Noise regulation without mitigation. Attachment 13

**Supporting documentation**

[13B Noise StraCAT.pdf](#)

[13A Noise Ereport.pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

No

## Sole Source Aquifers

General requirements	Legislation	Regulation
The Safe Drinking Water Act of 1974 protects drinking water systems which are the sole or principal drinking water source for an area and which, if contaminated, would create a significant hazard to public health.	Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300f et seq., and 21 U.S.C. 349)	40 CFR Part 149

1. Does the project consist solely of acquisition, leasing, or rehabilitation of an existing building(s)?

Yes

No

2. Is the project located on a sole source aquifer (SSA)?

A sole source aquifer is defined as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. This includes streamflow source areas, which are upstream areas of losing streams that flow into the recharge area.

No

Based on the response, the review is in compliance with this section. Document and upload documentation used to make your determination, such as a map of your project (or jurisdiction, if appropriate) in relation to the nearest SSA and its source area, below.

Yes

### Screen Summary

#### Compliance Determination

There are no sole source aquifers in the City of Detroit or Wayne County. The Project is in compliance with Sole Source Aquifer requirements. Attachment 14

#### Supporting documentation

[14 Sole Source Aquifer Map.pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

✓ No

## Wetlands Protection

General requirements	Legislation	Regulation
Executive Order 11990 discourages direct or indirect support of new construction impacting wetlands wherever there is a practicable alternative. The Fish and Wildlife Service's National Wetlands Inventory can be used as a primary screening tool, but observed or known wetlands not indicated on NWI maps must also be processed. Off-site impacts that result in draining, impounding, or destroying wetlands must also be processed.	Executive Order 11990	24 CFR 55.20 can be used for general guidance regarding the 8 Step Process.

**1. Does this project involve new construction as defined in Executive Order 11990, expansion of a building's footprint, or ground disturbance? The term "new construction" shall include draining, dredging, channelizing, filling, diking, impounding, and related activities and any structures or facilities begun or authorized after the effective date of the Order**

No

Yes

**2. Will the new construction or other ground disturbance impact an on- or off-site wetland? The term "wetlands" means those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.**

**"Wetlands under E.O. 11990 include isolated and non-jurisdictional wetlands."**

No, a wetland will not be impacted in terms of E.O. 11990's definition of new construction.

Based on the response, the review is in compliance with this section. Document and upload a map or any other relevant documentation below which explains your determination

Yes, there is a wetland that be impacted in terms of E.O. 11990's definition of new construction.

### Screen Summary

#### Compliance Determination

Areas potentially associated with wetlands were not observed on the Property during the site reconnaissance. In addition, review of the National Wetlands Inventory (NWI) Map from the U.S. Fish and Wildlife Service and the EGLE Wetlands Map Viewer did not identify any wetlands on the Property. The Project is in compliance with Executive Order 11990. Attachment 15

**Supporting documentation**

[15B Wetlands Map NWI.pdf](#)

[15A Wetlands Map EGLE.pdf](#)

**Are formal compliance steps or mitigation required?**

Yes

✓ No

## Wild and Scenic Rivers Act

General requirements	Legislation	Regulation
The Wild and Scenic Rivers Act provides federal protection for certain free-flowing, wild, scenic and recreational rivers designated as components or potential components of the National Wild and Scenic Rivers System (NWSRS) from the effects of construction or development.	The Wild and Scenic Rivers Act (16 U.S.C. 1271-1287), particularly section 7(b) and (c) (16 U.S.C. 1278(b) and (c))	36 CFR Part 297

### 1. Is your project within proximity of a NWSRS river?

No

Yes, the project is in proximity of a Designated Wild and Scenic River or Study Wild and Scenic River.

Yes, the project is in proximity of a Nationwide Rivers Inventory (NRI) River.

### Screen Summary

#### **Compliance Determination**

The National Wild and Scenic Rivers System map (maintained and managed by the Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, and U.S. Forest Service) were reviewed to determine if the Property is within a designated wild and scenic river area. There are no wild and scenic rivers located within the City of Detroit or Wayne County. This Project is not within proximity of a NWSRS river. The project is in compliance with the Wild and Scenic Rivers Act. Attachment 16

#### **Supporting documentation**

[16 Wild and Scenic Rivers.pdf](#)

#### **Are formal compliance steps or mitigation required?**

Yes

No



## Environmental Justice

General requirements	Legislation	Regulation
Determine if the project creates adverse environmental impacts upon a low-income or minority community. If it does, engage the community in meaningful participation about mitigating the impacts or move the project.	Executive Order 12898	

**HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.**

**1. Were any adverse environmental impacts identified in any other compliance review portion of this project's total environmental review?**

Yes

No

Based on the response, the review is in compliance with this section.

### Screen Summary

#### **Compliance Determination**

This Project will not have a disproportionately high adverse effect on human health or environment of minority populations and/or low-income populations. The buildings will serve low-income residents. The development is in the City of Detroit, which is made up of 87% ethnic minorities. New facilities and residences are intended to enhance the quality of life for new and existing residents and the community. No persons will be displaced due to this Project. No adverse environmental impacts were identified in the project's total environmental review. The project is in compliance with Executive Order 12898. Attachment 17

#### **Supporting documentation**

[17 ejscreen\\_report.pdf](#)

**Are formal compliance steps or mitigation required?**

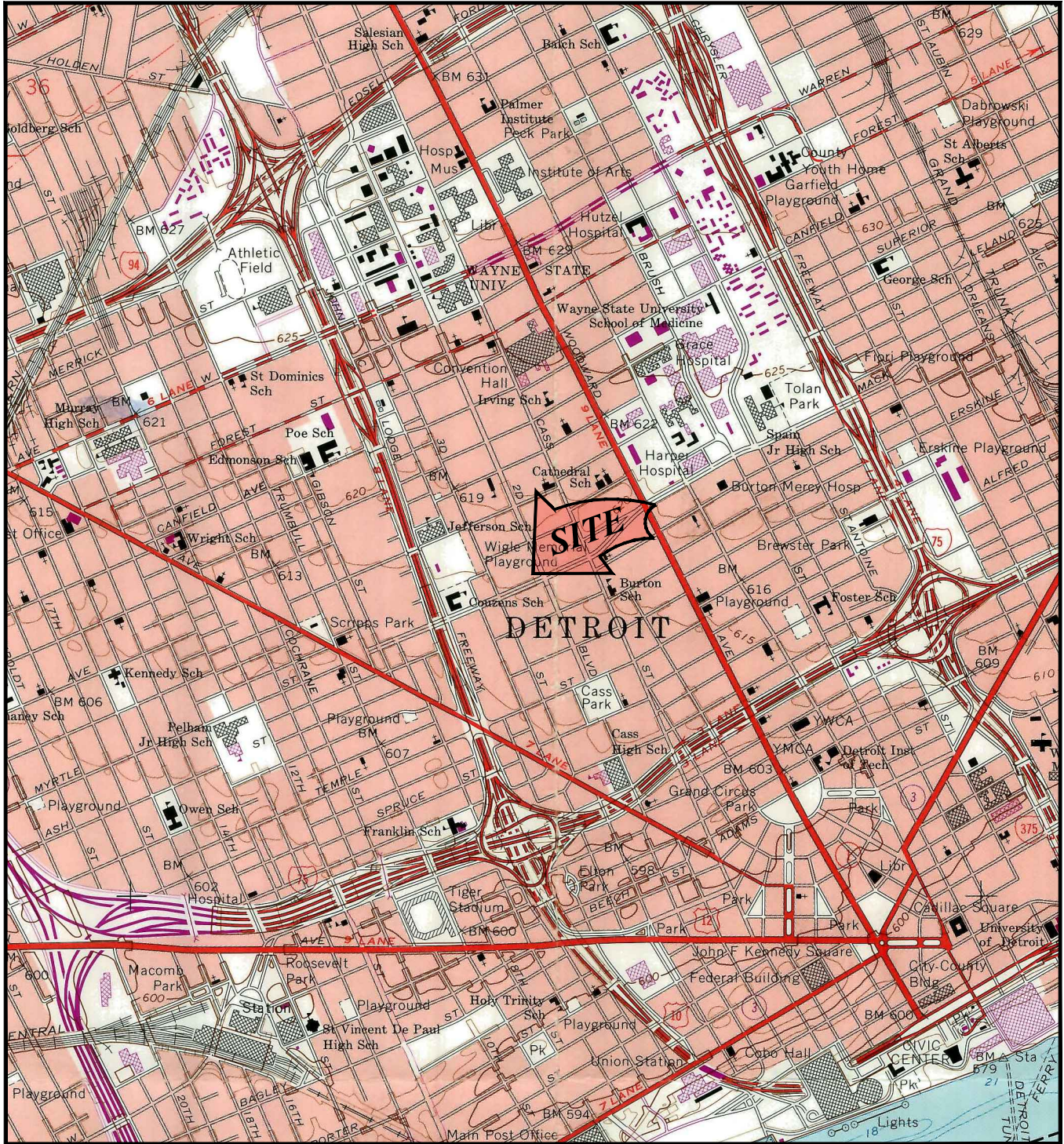
Yes

MLK-on-2nd

Detroit, MI

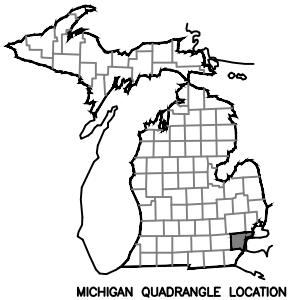
900000010276803

✓ No



DETROIT

SITE



MICHIGAN QUADRANGLE LOCATION

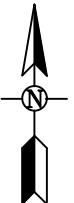
# WAYNE COUNTY

FIGURE 1

PROPERTY VICINITY MAP

UNITED STATES GEOLOGICAL SURVEY, 7.5 MINUTE SERIES

DETROIT, MI QUADRANGLE, 1968. PHOTO REVISED 1973 AND 1980.



PROJ: VACANT LAND  
3515 2ND AVENUE  
DETROIT, MI

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE

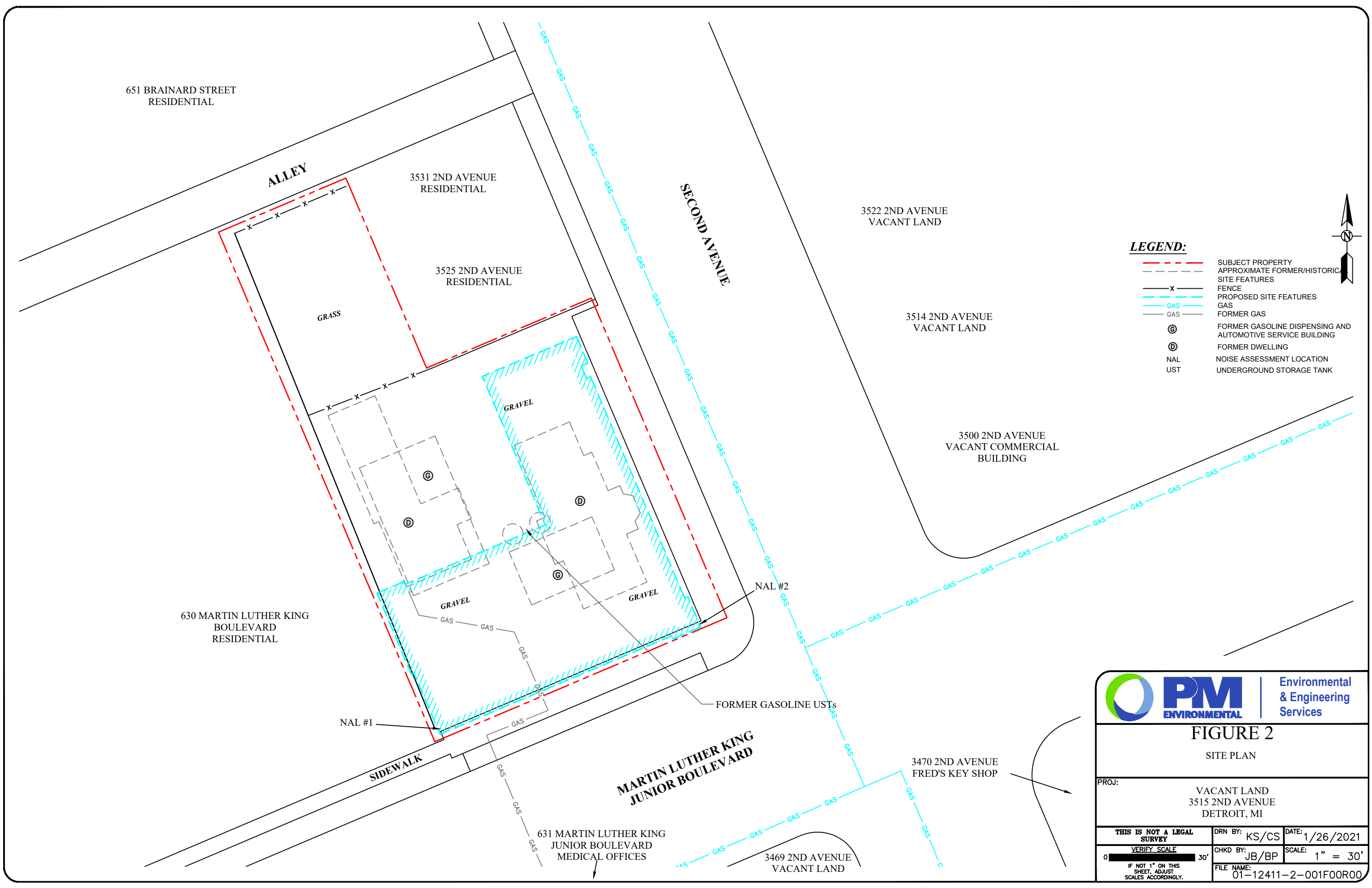
0 2,000'

IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: KS/CS DATE: 1/26/2021

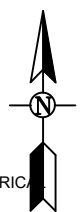
CHKD BY: JB/BP SCALE: 1" = 2,000'

FILE NAME: 01-12411-2-001F00R00



**LEGEND:**

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORIC
- SITE FEATURES
- x- FENCE
- PROPOSED SITE FEATURES
- GAS
- FORMER GAS
- ⊙ FORMER GASOLINE DISPENSING AND AUTOMOTIVE SERVICE BUILDING
- ⊙ FORMER DWELLING
- NAL NOISE ASSESSMENT LOCATION
- UST UNDERGROUND STORAGE TANK



**FIGURE 2**  
SITE PLAN

PROJ: VACANT LAND  
3515 2ND AVENUE  
DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: KS/CS	DATE: 1/26/2021
VERIFY SCALE	CHKD BY: JB/BP	SCALE: 1" = 30'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		
FILE NAME: 01-12411-2-001F00R00		

**PROJECT: SECOND STREET APARTMENTS**  
**CLIENT: FADI NASSAR**  
**LOCATION: 3515 SECOND STREET, DETROIT**

**Scope of Work:**  
 This building will be mixed use on the first floor, with retail along Martin Luther King Jr. Blvd. The remainder of the building will be dedicated to residential units. Parking for both retail and residents will be provided on site and on street parking along the property on Second Street. The first floor will hold offices, mechanical/utility room, community room and 2 ADA public restrooms. The building will be equipped with an elevator and two egress staircases.

**Legal Description:**  
 LAND SITUATED IN THE CITY OF DETROIT, COUNTY OF WAYNE, STATE OF MICHIGAN, DESCRIBED AS:

3515 2ND AVE - TAX NUMBER: 040000689-90  
 LOT 18 AND THE SOUTH 120 FEET OF LOT 17, BLOCK 90, CASS FARMS SUBDIVISION AS RECORDED IN LIBER 1 PAGE 175

SHEET INDEX	
ARCHITECTURAL	
COVER SHEET	ASP.1
NEIGHBORHOOD SITE PLAN	ASP.2
LANDSCAPE PLAN	LP.1
FIRST FLOOR PLAN	A.1.1
SECOND FLOOR PLAN	A.1.2
THIRD FLOOR PLAN	A.1.3
FOURTH FLOOR PLAN	A.1.4
ROOF TOP FLOOR PLAN	A.1.5
ENLARGED UNIT FLOOR PLAN	A.1.6
EXTERIOR ELEVATIONS	A.2.1
EXTERIOR ELEVATIONS	A.2.2
PHOTOMETRIC PLAN	1

**SURVEY**

ALTA/TOPOGRAPHIC SURVEY	1
<b>CIVIL</b>	
STORMWATER MANAGEMENT	1

**PROPERTY INFO:**  
 AREA: 15,500± SF OR 0.35± ACRES

**BUILDING**  
 FLOORS: 4  
 HEIGHT: 58'-0"  
 BUILDING FOOTPRINT: 7,126 SF  
 BUILDING SIZE: 28,777 SF

**APARTMENT UNITS: (33) 1 BEDROOM UNITS**

**USE: MIXED USE - FIRST FLOOR RETAIL & RESIDENTIAL**  
**SECOND TO FOURTH FLOOR RESIDENTIAL**

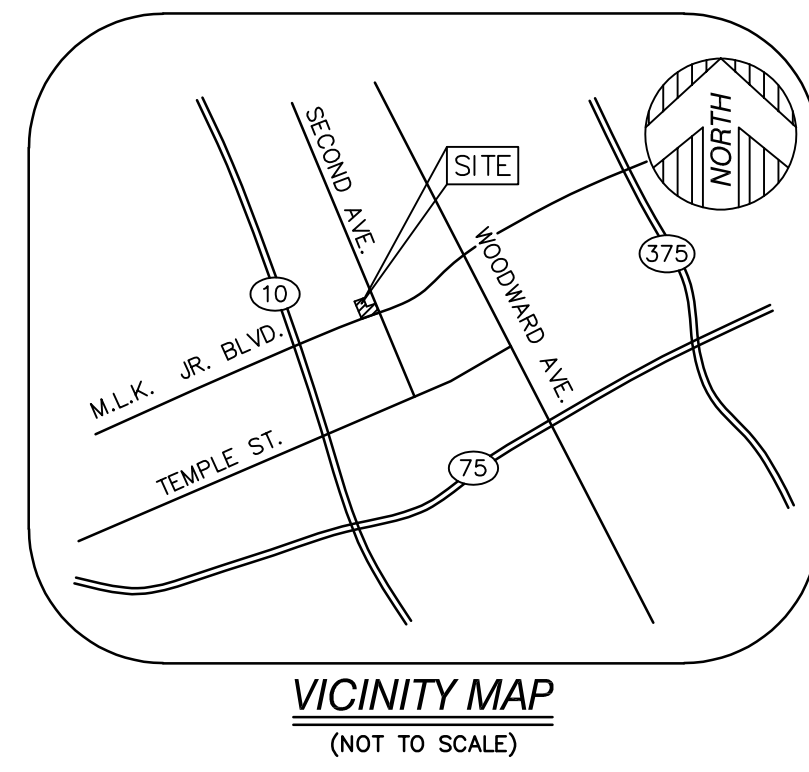
**SETBACKS**  
 FRONT: 0 FEET  
 PROPOSED FRONT: 0 FEET  
 REAR: 10 FEET  
 PROPOSED REAR: 10' & 135' FEET  
 SIDE: 0 FEET  
 PROPOSED SIDE: 0 FEET & 1.3 FEET

**LOT COVERAGE**  
 7,126/15,500 = 46%

**ZONING DESIGNATION**  
 SD2 - SPECIAL DEVELOPMENT DISTRICT, MIXED-USE

**RESIDENTIAL DENSITY**  
 33 UNITS/0.35 ACRES = 94.3 UNITS PER ACRE

**RECREATIONAL SPACE REQUIREMENT**  
 0.07RSR = 0.07X28,777 = 2,015 SF  
 PROVIDED  
 SITE = 469 SF  
 ROOF TOP GARDEN = 1,551 SF  
 TOTAL = 2,020 SF



**FAR**  
 BUILDABLE LAND AREA: 14,500 SF  
 GROSS FLOOR AREA: 28,777 SF  
 28,777/14,500 = 1.98

**PARKING**  
 Apartments 0.75 per dwelling unit (Bus stop within 0.5 miles of site.)  
 Retail: (1 per 200 SF gross floor area) x 0.75 (Bus stop within 0.5 miles of site.) (Sec. 50-14-49)

**Required:**  
 Apartments: 0.75 X 33 = 25 Spaces  
 Retail: (911 SF /200)x0.75 = 4 Spaces  
**TOTAL: 29 SPACES**

**PROVIDED:**  
 On site: 20 Spaces  
 On street: 6 Spaces  
**TOTAL: 26 Spaces**

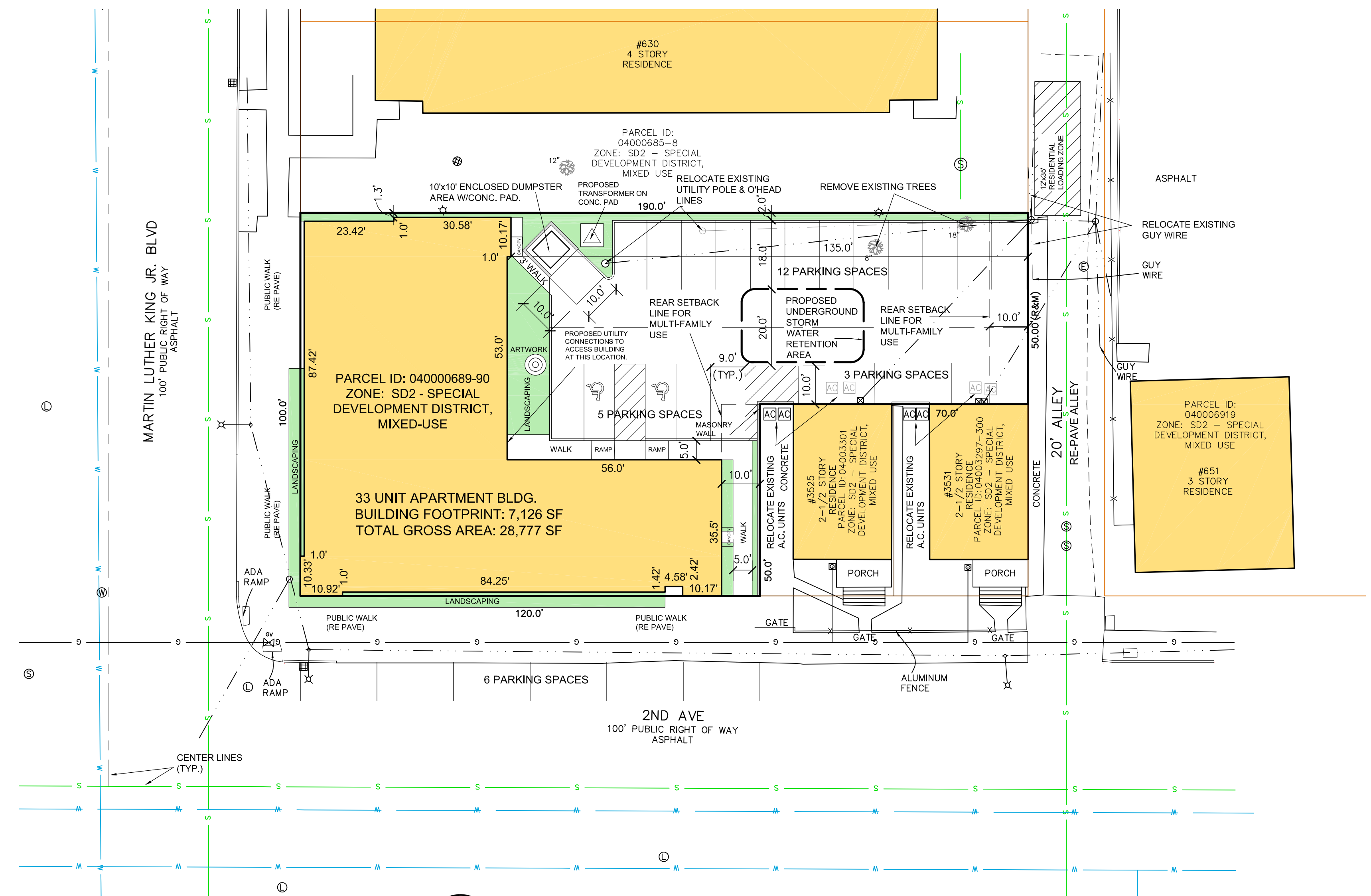
**DEFICIT of 3 spaces**

**Loading Zones**  
 Retail = 911 Sf = No Loading Zone Required  
 Residential = 12'x35'

**NOTE:**  
 ALL PROPOSED UTILITIES ARE TO BE PROPERLY LOCATED BY A CIVIL ENGINEER FOR BUILDING PERMITS.

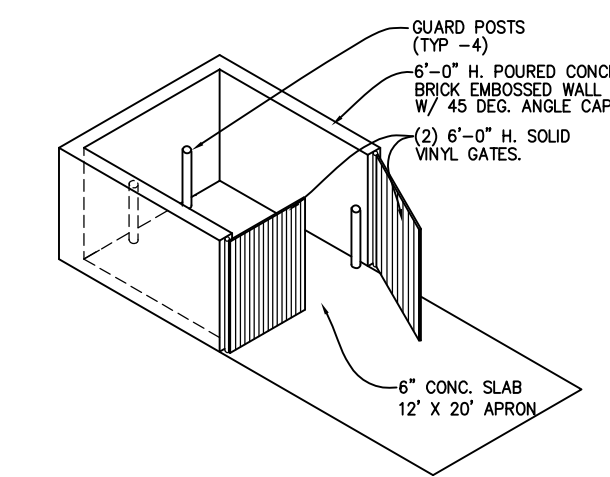


**CONCEPT RENDERING**

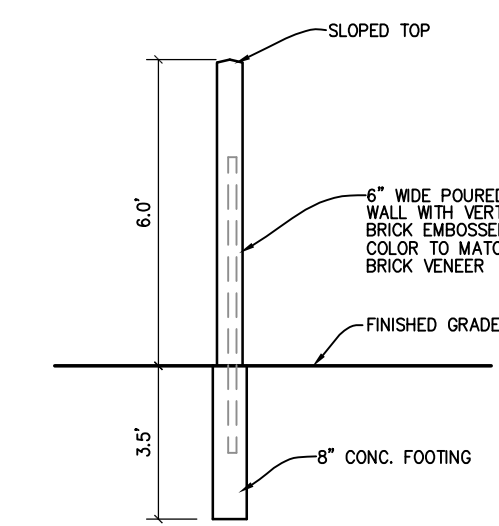


**CONCEPT SITE PLAN**

SCALE: 1"=20'-0"



**DUMPSTER DETAIL**  
 NOT TO SCALE

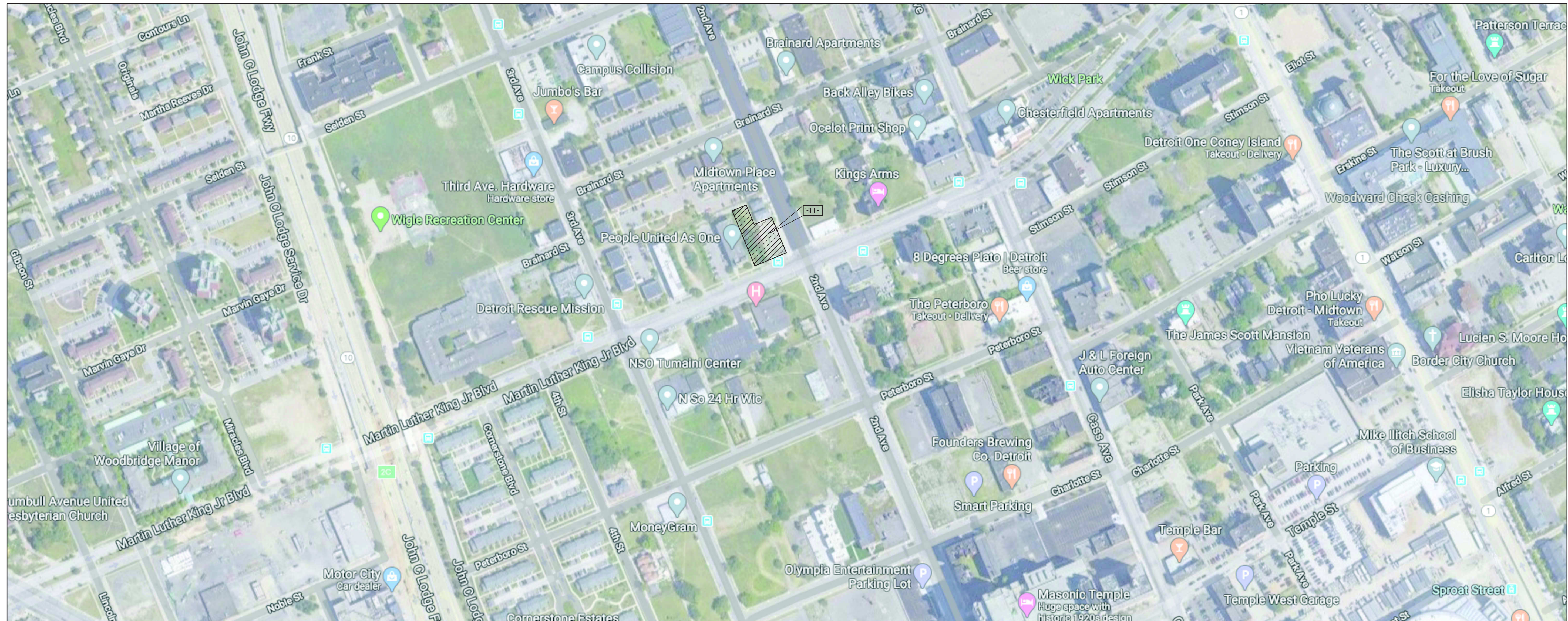


**CONCRETE WALL DETAIL**  
 NOT TO SCALE

**LEGEND**

●	FOUND MONUMENT (AS NOTED)
⊕	ELECTRIC METER
⊖	ELECTRIC MANHOLE
⊙	ELECTRIC PANEL
○	UTILITY POLE
○	GAS METER
○	GAS VALVE
○	LIGHT POLE WITH STREET LAMP
○	WATER VALVE
○	WATER GATE MANHOLE
○	FIRE HYDRANT
○	TRAFFIC SIGNAL
○	PUBLIC LIGHTING MANHOLE
○	SEWER MANHOLE
○	ROUND CATCH BASIN
○	SQUARE CATCH BASIN
○	AIR CONDITIONING UNIT
○	LIGHTPOST/LAMP POST
○	DECIDUOUS TREE (AS NOTED)
—	PARCEL BOUNDARY LINE
—	PLATTED LOT LINE
—	ADJOINER PARCEL LINE
—	BUILDING
—	CONCRETE CURB
—	EDGE OF CONCRETE (CONC.)
X	FENCE (AS NOTED)
—	OVERHEAD UTILITY LINE
—	GAS LINE
—	SEWER LINE
—	WATER LINE
■	BUILDING AREA

CLIENT:	FADI NASSAR
PROJECT:	SECOND STREET APARTMENTS
LOCATION:	3515 SECOND ST., DETROIT, MICHIGAN
AREA:	SITE AREA: 15,500± SF OR 0.35± ACRES
PROFESSIONAL ARCHITECTS	KEM-TEC & ASSOCIATES
PROFESSIONAL ENGINEERS	
PROFESSIONAL SURVEYORS	
ADDRESS:	22555 GRATIOT AVENUE
PHONE:	(586) 772-2222
PHONE:	(586) 772-4048
FAX:	(586) 772-4048
APPLICANT:	FADI NASSAR
ADDRESS:	PO BOX 2477
ADDRESS:	BIRMINGHAM, MI 48012
PHONE:	(248) 787-7070
DRAWN BY:	BO/ML
SCALE:	1" = 20'-0"
DATE:	08/18/20
PROJECT NO:	20-01425
SHEET NO:	ASP.1
REVISION:	#1 11-04-20
DATE:	BY
M.L.	UTILITY NOTE
DESCRIPTION:	



**CONCEPT SITE PLAN**  
NOT TO SCALE

REVISION	DATE	BY	DESCRIPTION

CLIENT: **FADI NASSAR**  
**SECOND STREET APARTMENTS**  
 3515 SECOND ST., DETROIT, MICHIGAN  
 SITE AREA: 15,500± SF OR 0.35± ACRES

**NEIGHBORHOOD  
SITE PLAN**

PROFESSIONAL ARCHITECTS  
 PROFESSIONAL ENGINEERS  
 PROFESSIONAL SURVEYORS  
**KEM-TEC & ASSOCIATES**  
 22550 GRATIOT AVENUE  
 (586) 772-2222 PHONE  
 (586) 772-4048 FAX



APPLICANT: **FADI NASSAR**  
 PO BOX 2477  
 BIRMINGHAM, MI 48012  
 PHONE: (248) 787-7070

DRAWN BY: M.L.  
 SCALE: NOT TO SCALE  
 DATE: 09/18/20  
 PROJECT NO: 20-01425

**LANDSCAPING NOTES**

- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL MATERIALS AND PLANTS SHOWN ON THE PLAN WHETHER OR NOT INCLUDED IN THE "PLANT LIST".
- ALL NURSERY STOCK TO BE WELL BRANCHED, HEALTHY, FULL, VIGOROUS, PRE INOCULATED, AND FERTILIZED. DECIDUOUS TREES TO BE FREE OF FRESH SCARS AND BRANCHES TO BE A HEIGHT OF 5' ABOVE ROOTBALL. TRUNKS SHALL BE WRAPPED, IF NECESSARY, TO PREVENT SUN SCALD AND INSECT DAMAGE. THE LANDSCAPER SHALL REMOVE SAID WRAP AT THE PROPER TIME AS PART OF HIS CONTRACT.
- ALL NURSERY STOCK SHALL BE GUARANTEED.
- TOPSOIL, 4" THICK, SHALL BE PROVIDED AND GRADED BY THE LANDSCAPE CONTRACTOR AND SUBJECT TO APPROVAL BY THE OWNER.
- ALTERNATIVES MAY ONLY BE USED IN THE EVENT OF UNAVAILABILITY OF THE SELECTED SPECIES WITHIN A REASONABLE DISTANCE OR DUE TO SEASON. PROOF MAY BE REQUESTED BY THE ENGINEER.
- EVERGREEN TREES SHALL NOT BE PLANTED DURING JUNE, JULY, OR AUGUST.
- MULCH SHALL NOT CONTAIN ANY FARM WASTE AND SHALL BE INDICATED ON PLAN FOR EACH AREA.
- A CHEMICAL WEED PREVENTATIVE BARRIER SHALL BE APPLIED IN ALL NON-GRASS AREAS WHICH DO NOT HAVE POLYETHYLENE FILM MULCH INDICATED.
- REMOVE ALL TWINE, WIRE, AND BURLAP FROM SHRUB AND TREE EARTH BALLS AND FROM TREE TRUNKS.
- LAWN TREES TO BE MULCHED WITH A 2' WIDE BY MINIMUM 6" DEEP SHREDDED BARK RING.
- SHRUB BEDS TO BE MULCHED WITH 3" OF SHREDDED WOOD BARK.
- ALL SOD AND SEED TO BE KENTUCKY BLUE BLEND.

**EXAMINATION OF SITE**

- THE CONTRACTOR SHALL VISIT THE JOB SITE BEFORE HE SUBMITS HIS BID TO TO BECOME FAMILIAR WITH THE ACTUAL JOB CONDITIONS AND TO CHECK FOR ANY INTERFERENCE BETWEEN THE WORK AND THAT OF OTHER TRADES AND/OR ANY APPARENT VIOLATIONS OF LOCAL OR STATE CODES, LAWS, ORDINANCES, AND REGULATIONS. IF ANY INTERFERENCE OR VIOLATIONS APPEAR AND DEPARTURE FROM THE DESIGN INTENT OF THE CONTRACT DOCUMENT S IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER BEFORE ENTERING INTO THE CONTRACT WITH THE OWNER. FAILURE TO PROVIDE THE ARCHITECT/ENGINEER WITH THE AFOREMENTIONED NOTIFICATION WILL RESULT IN THE CONTRACTOR BEING HELD RESPONSIBLE TO COMPLETE ALL WORK TO MEET THE INTENT OF THE CONTRACT DRAWINGS WITH NO ADDITIONAL EXPENSE ("EXTRAS") BEING INCURRED BY THE OWNER.

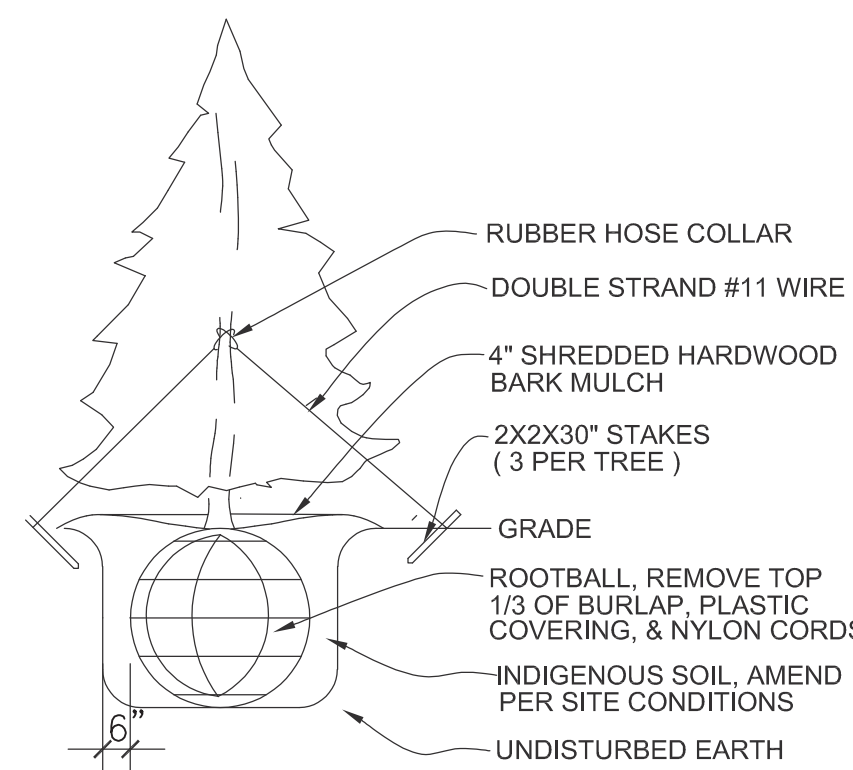
**CLEANING**

- PREMISES SHALL BE CLEANED UPON COMPLETION OF THE WORK.
- UPON COMPLETION OF THE WORK, THOROUGHLY CLEAN ALL SYSTEMS AND TEST TO INSURE THAT THE SYSTEMS PERFORM TO THEIR REQUIREMENTS.

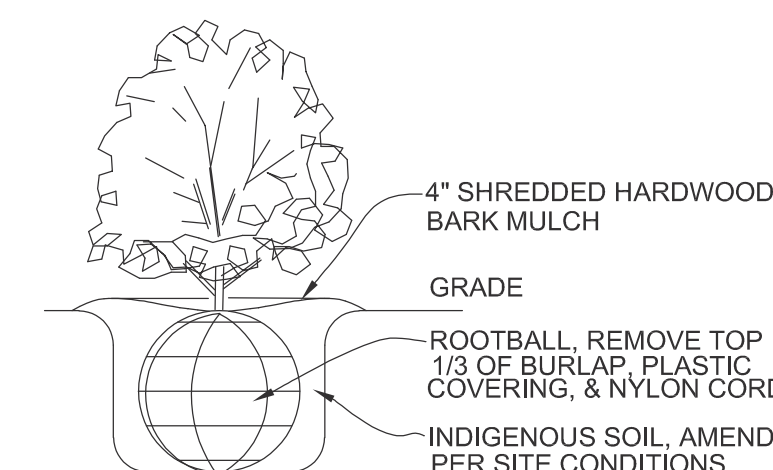
**MAINTENANCE**

- THE PROPERTY OWNER WILL TAKE CARE OF THE LANDSCAPING. A LANDSCAPING MAINTENANCE PLAN WILL BE DEVELOPED AS PER ENTERPRISE GREEN COMMUNITIES' REQUIREMENTS PER THE BUILDING AND OPERATIONS MANUAL AND WILL BE PROVIDED AT A LATER DATE.

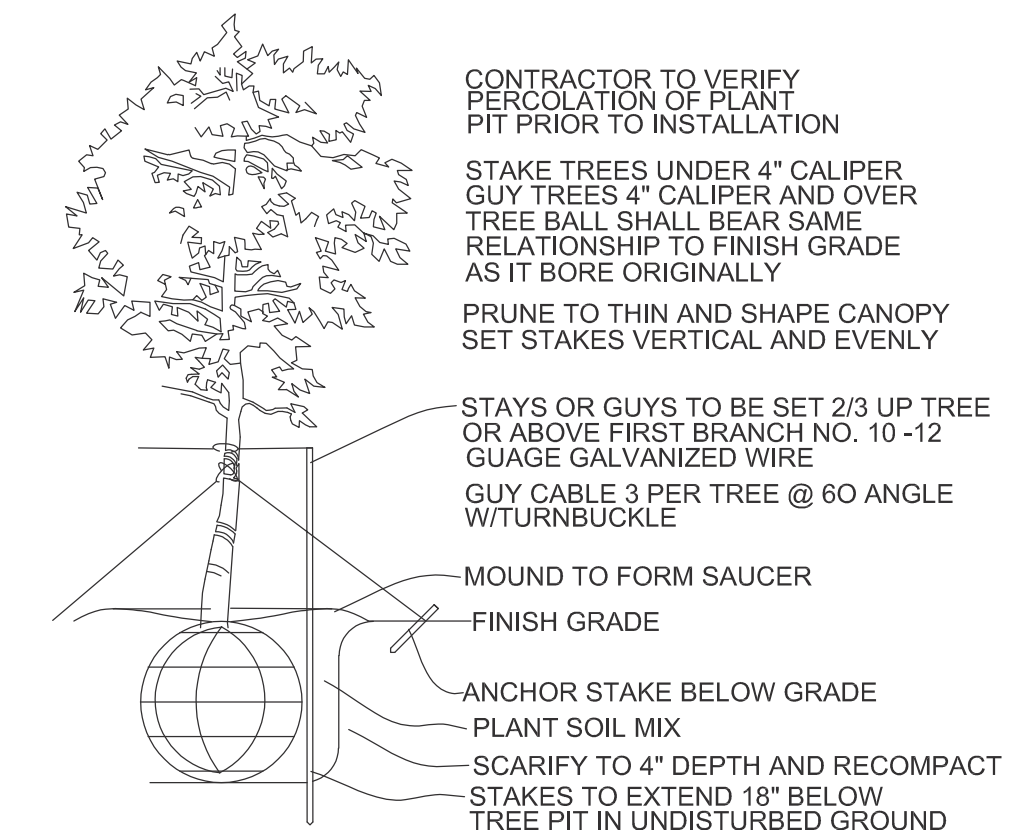
LANDSCAPING SCHEDULE				
SYM.	QUANTITY	COMMON NAME	BOTANICAL NAME	SIZE
"A"	55	GREEN VELVET BOXWOOD	BUXUS X "GREEN VELVET"	18"
"B"	11	AMERICAN ARBORVITAE	TSUGA CANADENSIS	4'-5'



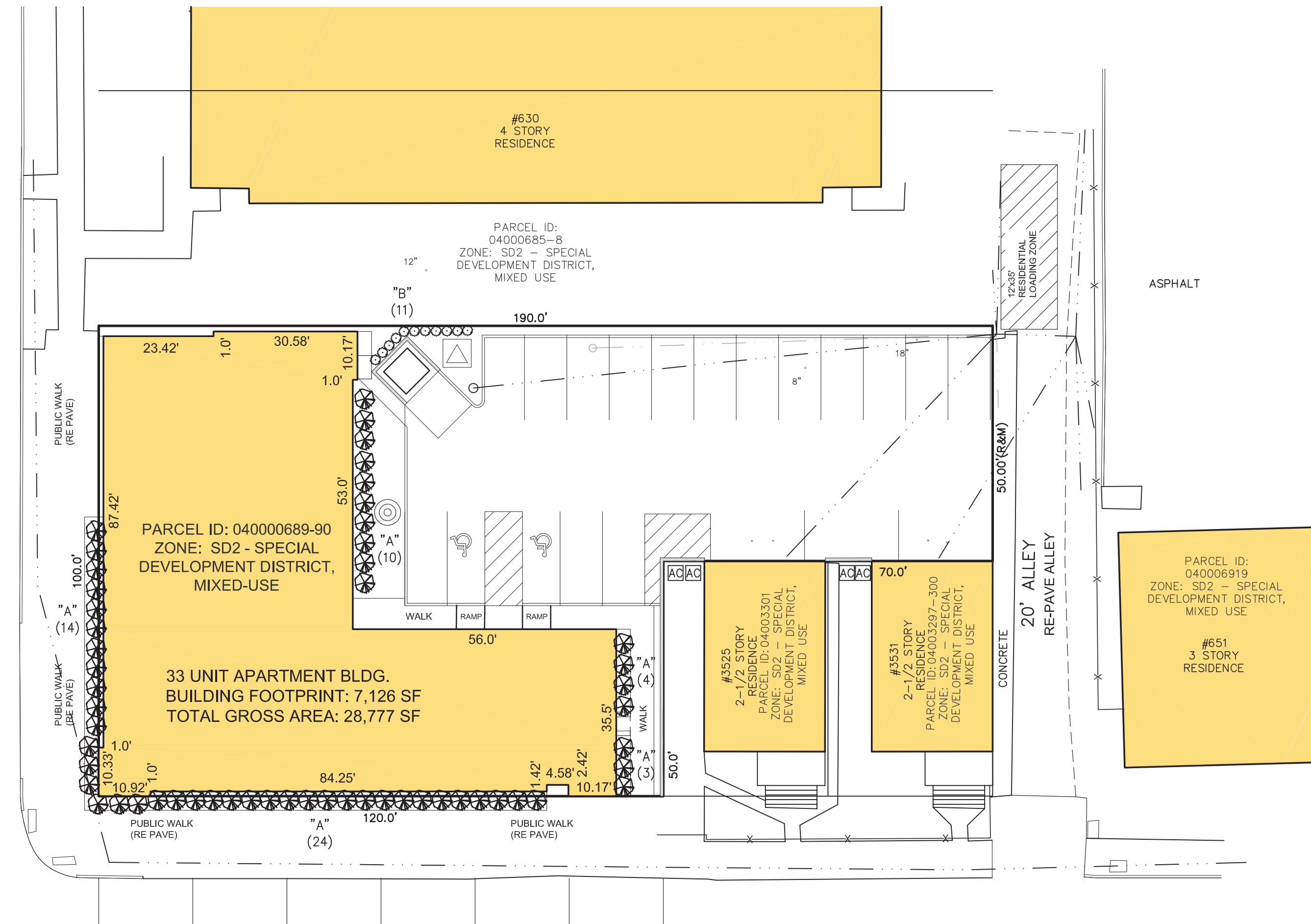
**EVERGREEN TREE PLANTING DETAIL**  
NOT TO SCALE



**SHRUB PLANTING DETAIL**  
NOT TO SCALE



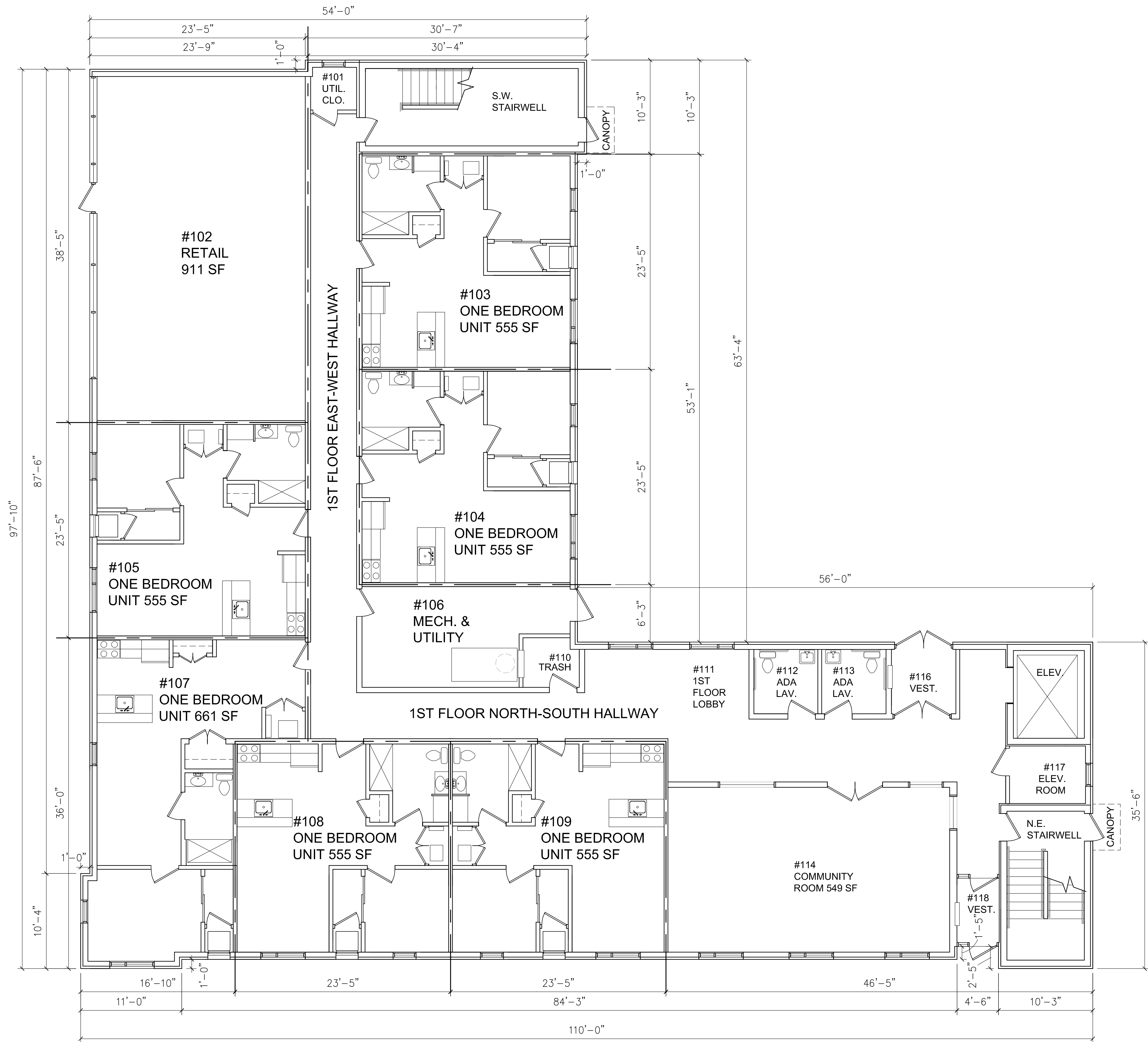
**DECIDUOUS TREE PLANTING DETAIL**  
NOT TO SCALE



**CONCEPT SITE PLAN**

SCALE: 1"=20'-0"

CLIENT:	FADI NASSAR
PROJECT:	SECOND STREET APARTMENTS
ADDRESS:	3515 SECOND ST., DETROIT, MICHIGAN
AREA:	SITE AREA: 15,500± SF OR 0.35± ACRES
PROFESSIONAL ARCHITECTS	KEM-TEC & ASSOCIATES
PROFESSIONAL ENGINEERS	
PROFESSIONAL SURVEYORS	
22556 GRATIOT AVENUE	
BIRMINGHAM, MI 48012	
PHONE: (586) 772-2222	
FAX: (586) 772-4048	
APPLICANT:	FADI NASSAR
ADDRESS:	PO BOX 2477
	BIRMINGHAM, MI 48012
	PHONE: (248) 787-7070
DRAWN BY:	M.L.L.
SCALE:	1" = 20'-0"
DATE:	08/18/20
PROJECT NO.:	20-01425
SHEET NO.:	LP.1
REVISION:	DATE BY DESCRIPTION



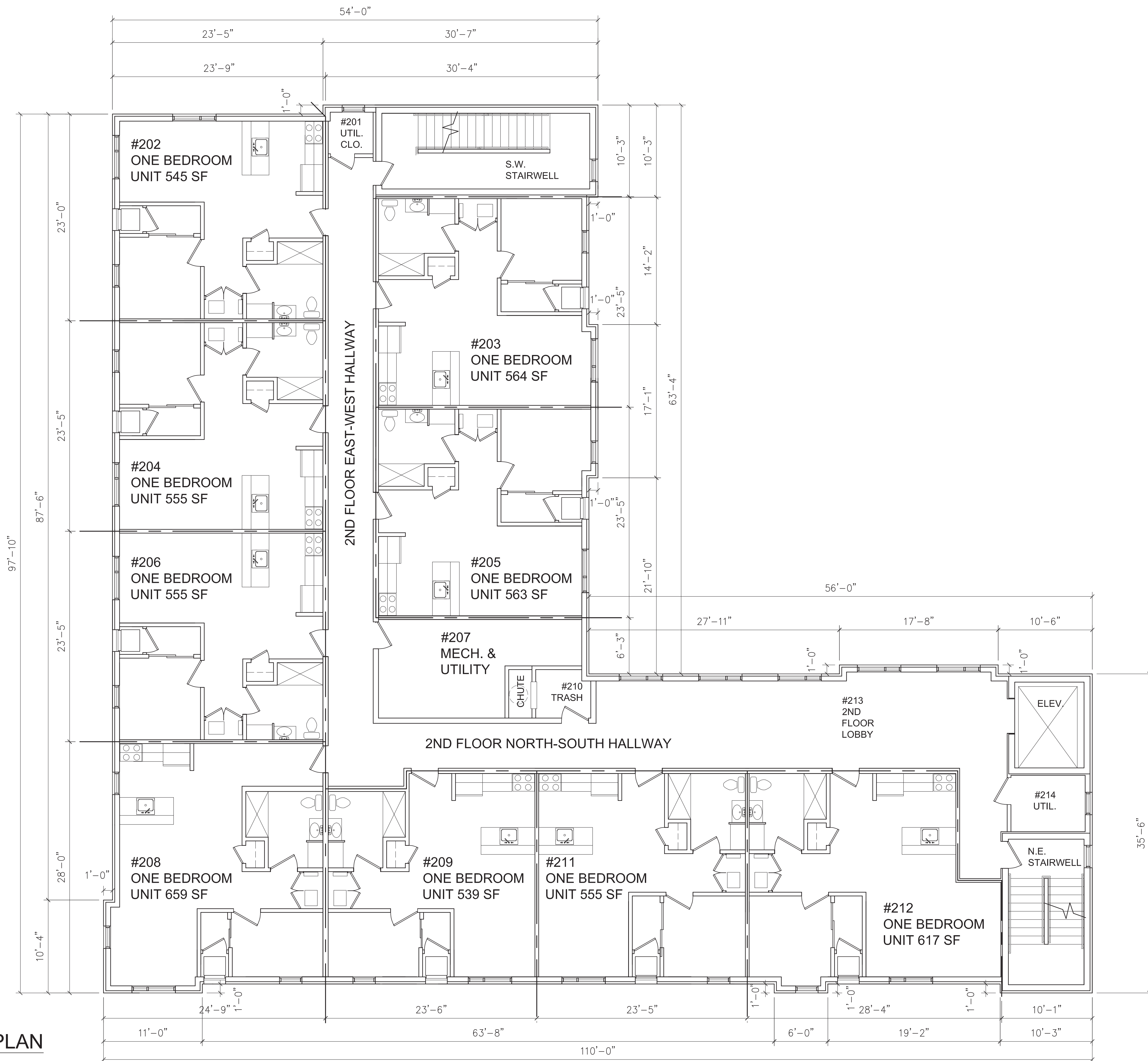
**FIRST FLOOR PLAN**  
 SCALE: 3/16"=1'-0" 7,126 SF

BO/ML:	APPLICANT:	<b>FADI NASSAR</b> PO BOX 2477 BIRMINGHAM, MI 48012 PHONE: (248) 787-7070		PROFESSIONAL ARCHITECTS PROFESSIONAL ENGINEERS PROFESSIONAL SURVEYORS 22556 GRATIOT AVENUE DETROIT, MI 48219 (586) 772-2222 PHONE (586) 772-4048 FAX	<b>FIRST FLOOR PLAN</b>	CLIENT: <b>FADI NASSAR</b> <b>SECOND STREET APARTMENTS</b> 3515 SECOND ST., DETROIT, MICHIGAN SITE AREA: 15,500± SF OR 0.35± ACRES	REVISION	DATE	BY	DESCRIPTION
SCALE: 3/16" = 1'-0"	#						11-04-19	M.L.	COMMUNITY SPACE REDESIGN	
DATE: 08/18/20										
PROJECT NO: 20-01425										
SHEET NO: <b>A.1.1</b>										





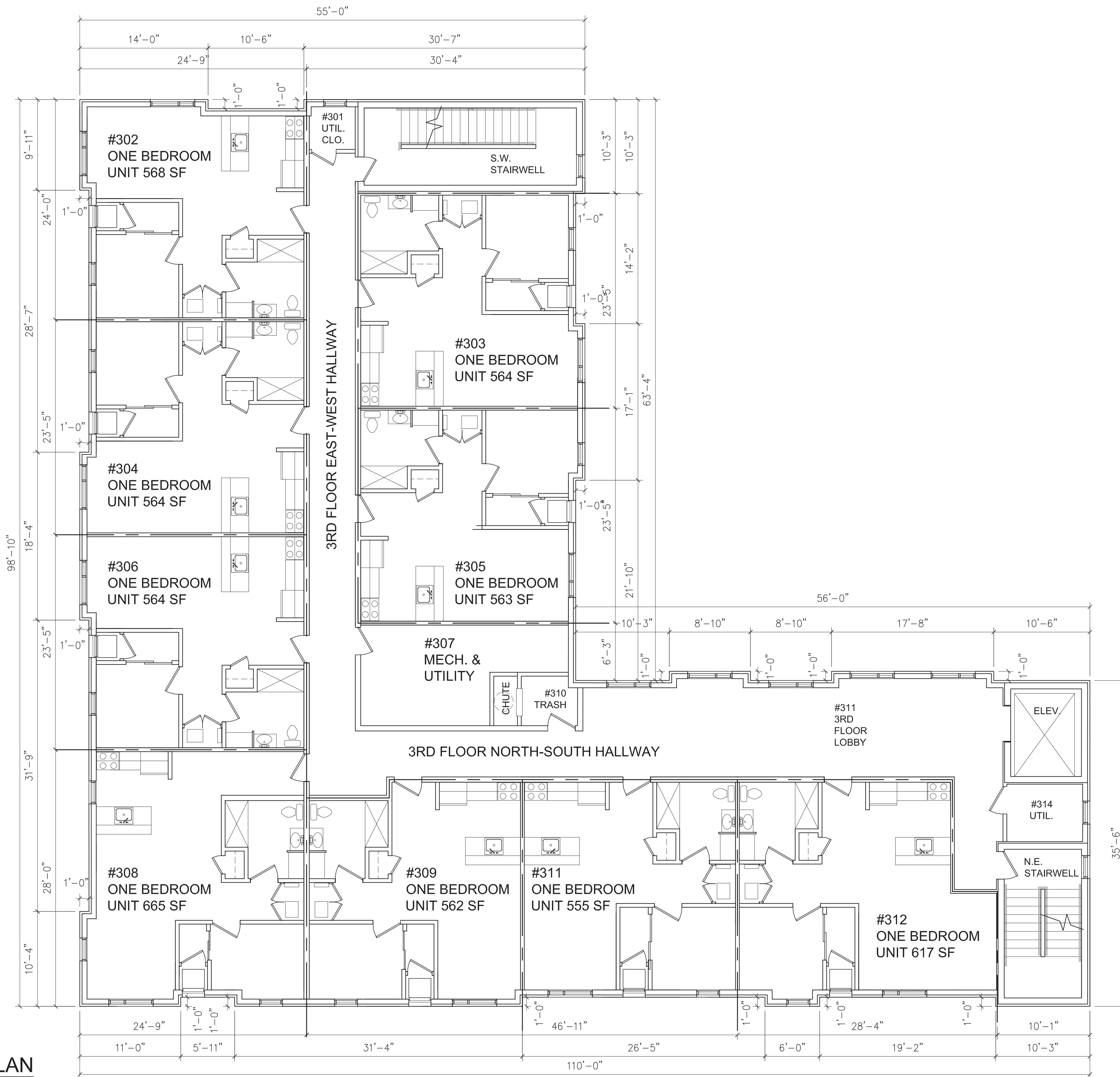
**SECOND FLOOR PLAN**  
SCALE: 3/16"=1'-0" 7,174 SF



BO/MLL	APPLICANT:	<b>FADI NASSAR</b> PO BOX 2477 BIRMINGHAM, MI 48012 PHONE: (248) 787-7070	<b>KEM-TEC &amp; ASSOCIATES</b> PROFESSIONAL ARCHITECTS PROFESSIONAL ENGINEERS PROFESSIONAL SURVEYORS 22556 GRATIOT AVENUE GRATIOT, MICHIGAN (586) 772-2222 PHONE (586) 772-4048 FAX	<b>SECOND FLOOR PLAN</b>	CLIENT: <b>FADI NASSAR</b> <b>SECOND STREET APARTMENTS</b> 3515 SECOND ST., DETROIT, MICHIGAN SITE AREA: 15,500± SF OR 0.35± ACRES	REVISION	DATE	BY	DESCRIPTION
SCALE: 3/16" = 1'-0"	DATE: 08/18/20					PROJECT NO: 20-01425			
SHEET NO: <b>A.1.2</b>									



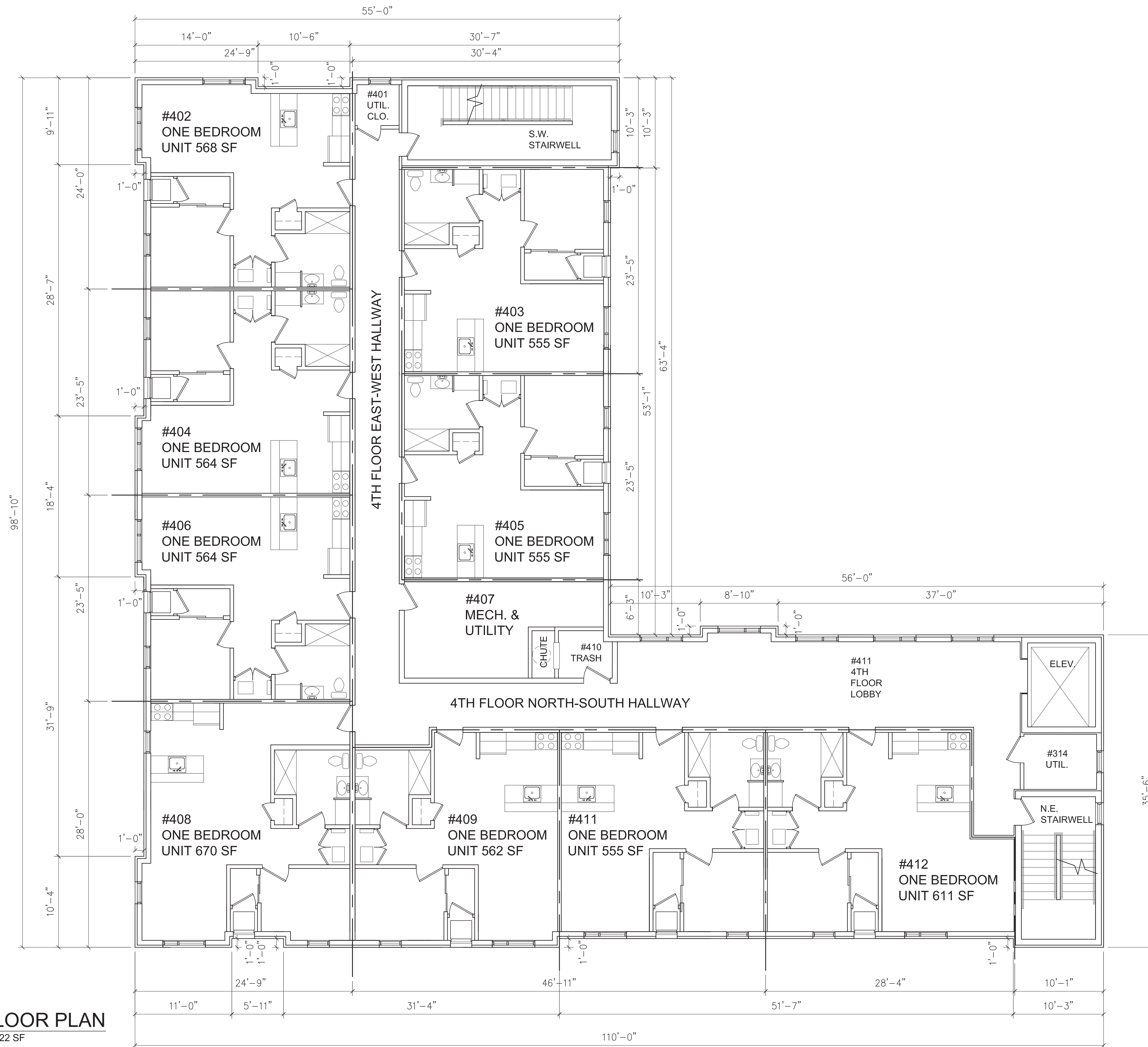
**THIRD FLOOR PLAN**  
SCALE: 3/16"=1'-0" 7,255 SF



CLIENT: <b>FADI NASSAR</b> <b>SECOND STREET APARTMENTS</b> 3515 SECOND ST., DETROIT, MICHIGAN SITE AREA: 15,500± SF OR 0.35± ACRES	
<b>THIRD FLOOR PLAN</b>	
PROFESSIONAL ARCHITECTS PROFESSIONAL ENGINEERS PROFESSIONAL SURVEYORS <b>KEM-TEC &amp; ASSOCIATES</b> 22556 GRATIOT AVENUE BIRMINGHAM, MI 48012 (586) 772-2222 PHONE (586) 772-4048 FAX	
APPLICANT: <b>FADI NASSAR</b> PO BOX 2477 BIRMINGHAM, MI 48012 PHONE: (248) 787-7070	
BO/M.L. SCALE: 3/16" = 1'-0" DATE: 08/18/20 PROJECT NO: 20-01425	REVISION DATE BY DESCRIPTION
SHEET NO: <b>A.1.3</b>	



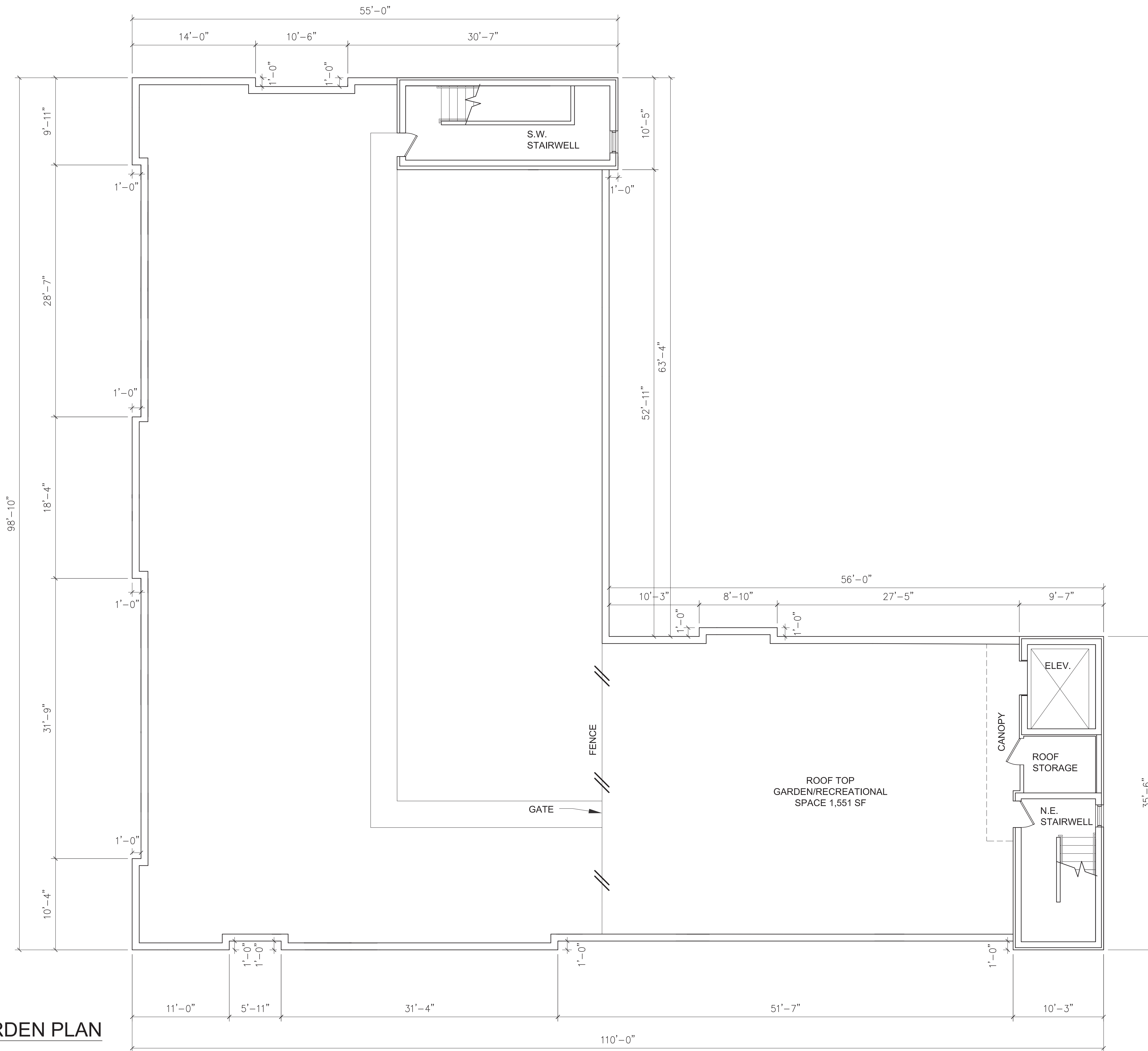
**FOURTH FLOOR PLAN**  
SCALE: 3/16"=1'-0" 7,222 SF



BO/ML:	APPLICANT:	<b>FADI NASSAR</b> FADI NASSAR PO BOX 2477 BIRMINGHAM, MI 48012 PHONE: (248) 787-7070	<b>KEM-TEC &amp; ASSOCIATES</b> PROFESSIONAL ARCHITECTS PROFESSIONAL ENGINEERS PROFESSIONAL SURVEYORS 22556 GRATIOT AVENUE FARMINGTON HILLS, MI 48334 (586) 772-2222 PHONE (586) 772-4048 FAX	<b>FOURTH FLOOR PLAN</b>	CLIENT: <b>FADI NASSAR</b> <b>SECOND STREET APARTMENTS</b> 3515 SECOND ST., DETROIT, MICHIGAN SITE AREA: 15,500± SF OR 0.35± ACRES		
SCALE: 3/16" = 1'-0"	REVISION:					BY:	DESCRIPTION:
DATE: 08/18/20							
PROJECT NO: 20-01425							
SHEET NO: A.1.4							



**ROOF GARDEN PLAN**  
SCALE: 3/16"=1'-0"



BO/ML:  
SCALE: 3/16" = 1'-0"  
DATE: 08/18/20  
PROJECT NO: 20-01425

APPLICANT:  
**FADI NASSAR**  
PO BOX 2477  
BIRMINGHAM, MI 48012  
PHONE: (248) 787-7070



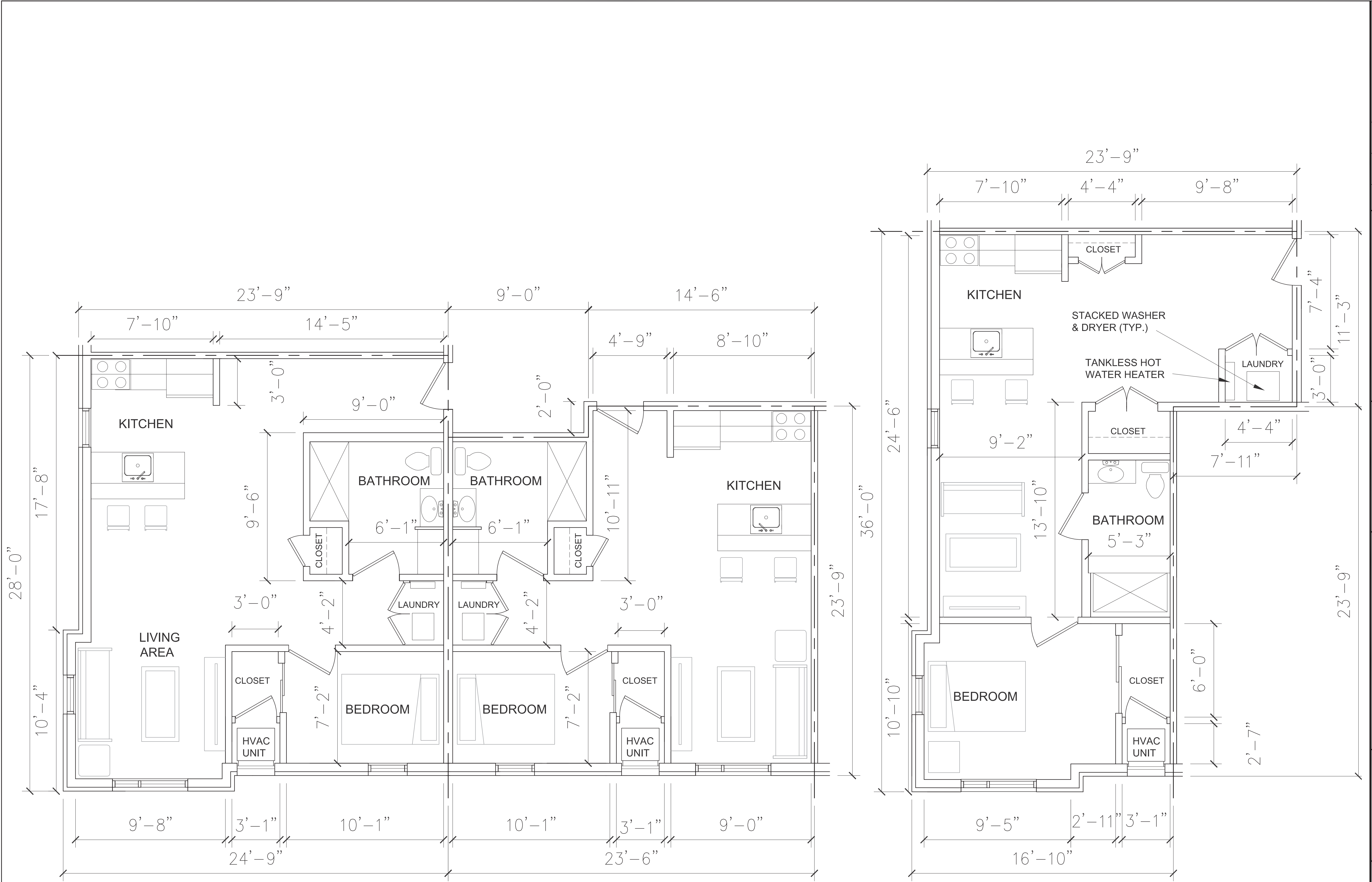
PROFESSIONAL ARCHITECTS  
PROFESSIONAL ENGINEERS  
PROFESSIONAL SURVEYORS  
22556 GRATIOT AVENUE  
PO BOX 2477  
(586) 772-2222 PHONE  
(586) 772-4048 FAX

**ROOF TOP GARDEN/  
RECREATIONAL SPACE  
FLOOR PLAN**

CLIENT:  
**FADI NASSAR**  
**SECOND STREET APARTMENTS**  
3515 SECOND ST., DETROIT, MICHIGAN  
SITE AREA: 15,500± SF OR 0.35± ACRES

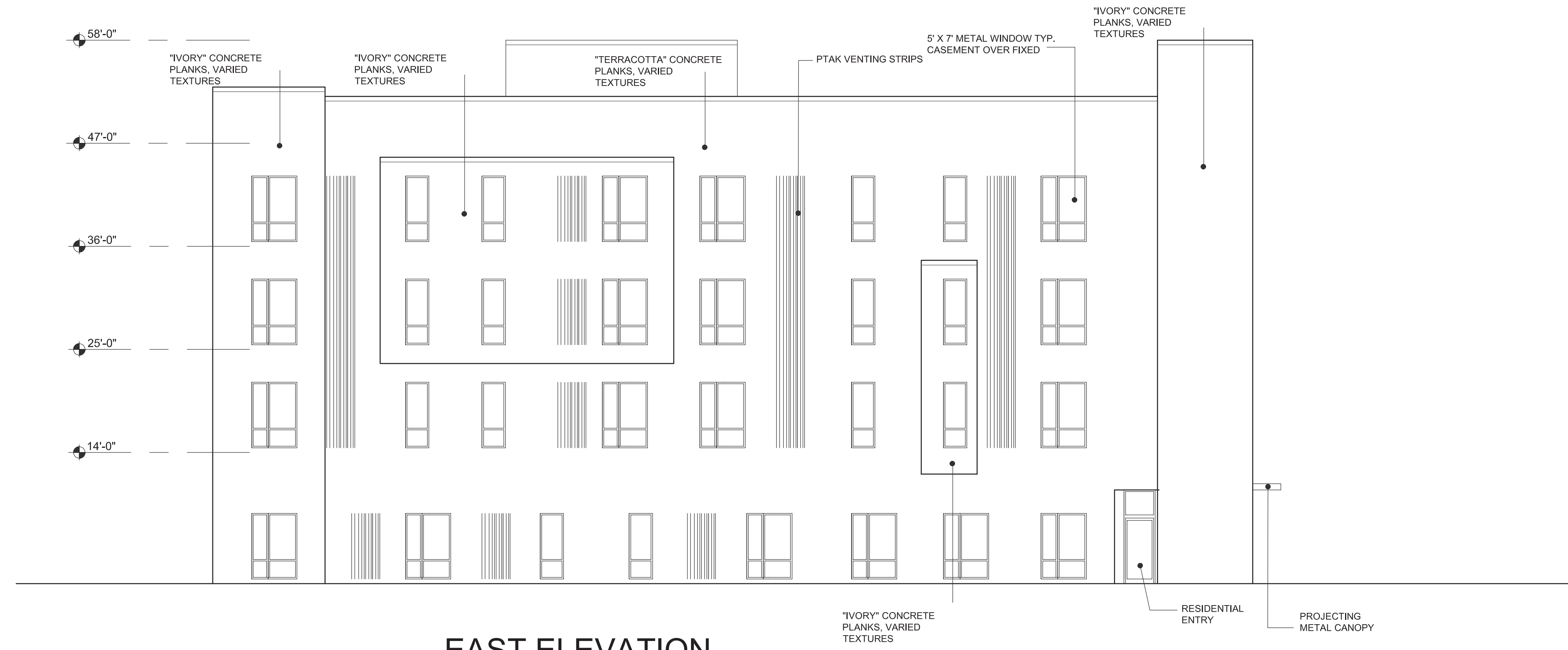
REVISION	DATE	BY	DESCRIPTION

SHEET NO:  
**A.1.5**

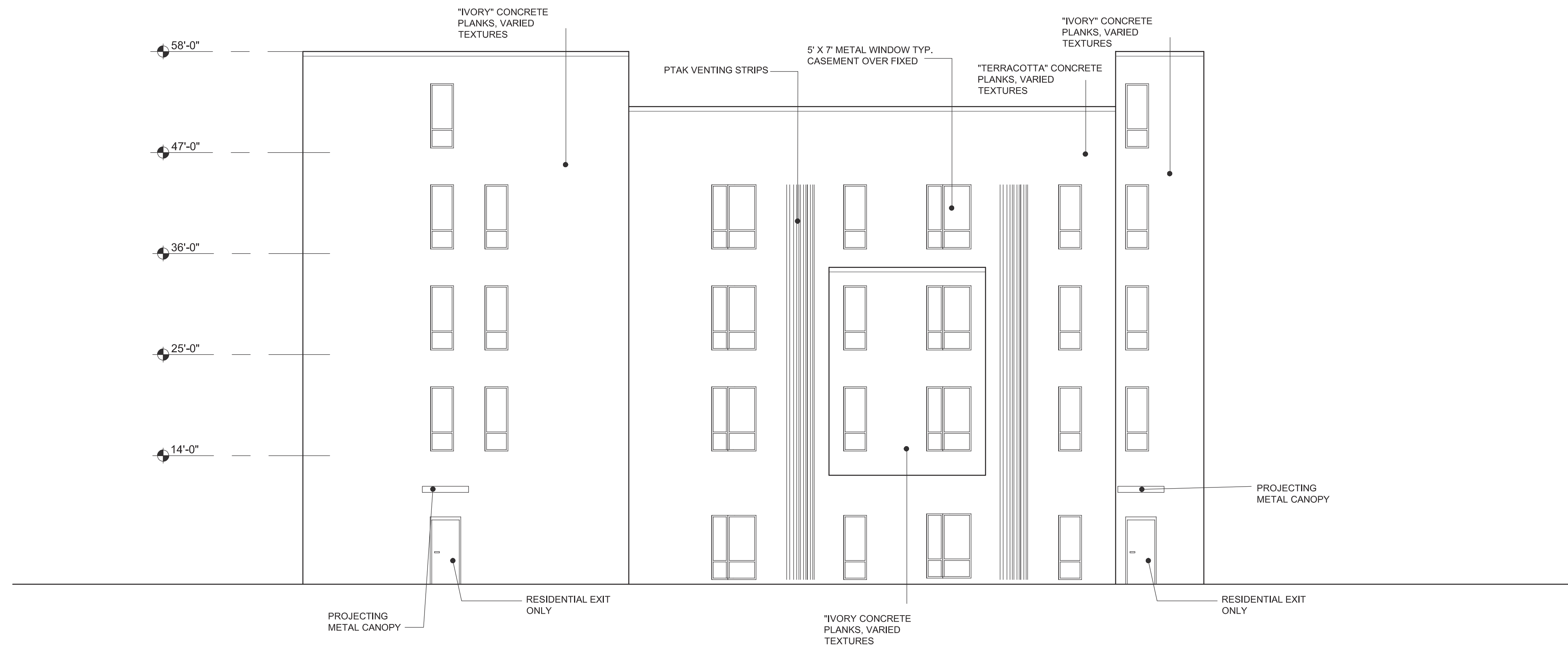


**ENLARGED UNIT PLANS**  
SCALE: 3/8"=1'-0"

BO/ML:	APPLICANT:	<b>FADI NASSAR</b> PO BOX 2477 BIRMINGHAM, MI 48012 PHONE: (248) 787-7070	<b>KEM-TEC</b> & ASSOCIATES 	CLIENT: <b>FADI NASSAR</b> <b>SECOND STREET APARTMENTS</b> 3515 SECOND ST., DETROIT, MICHIGAN SITE AREA: 15,500± SF OR 0.35± ACRES	REVISION	DATE	BY	DESCRIPTION
SCALE: 3/8" = 1'-0"	PROJECT NO: 20-01425							
DATE: 08/18/20								
SHEET NO: <b>A.16</b>								



**EAST ELEVATION**  
SCALE: 1/8"=1'-0"



**NORTH ELEVATION**  
SCALE: 1/8"=1'-0"

REVISION	DATE	BY	DESCRIPTION

CLIENT: **FADI NASSAR**  
**SECOND STREET APARTMENTS**  
 3515 SECOND ST., DETROIT, MICHIGAN  
 SITE AREA: 15,500± SF OR 0.35± ACRES

**ELEVATIONS**

PROFESSIONAL ARCHITECTS  
 PROFESSIONAL ENGINEERS  
 PROFESSIONAL SURVEYORS  
**KEM-TEC & ASSOCIATES**  
 22556 GRATIOT AVENUE  
 CLARKSTON, MI 48012  
 (586) 772-2222 PHONE  
 (586) 772-4048 FAX



APPLICANT: **FADI NASSAR**  
 PO BOX 2477  
 BIRMINGHAM, MI 48012  
 PHONE: (248) 787-7070

BO/MLL	SCALE: 1/8" = 1'-0"
DATE: 08/18/20	PROJECT NO: 20-01425



REVISION	DATE	BY	DESCRIPTION

CLIENT: **FADI NASSAR**  
**SECOND STREET APARTMENTS**  
 3515 SECOND ST., DETROIT, MICHIGAN  
 SITE AREA: 15,500± SF OR 0.35± ACRES

**ELEVATIONS**

PROFESSIONAL ARCHITECTS  
 PROFESSIONAL ENGINEERS  
 PROFESSIONAL SURVEYORS  
 22556 GRATIOT AVENUE  
 FARMINGTON HILLS, MI 48334  
 (586) 772-4048 PHONE  
 (586) 772-4048 FAX



APPLICANT: **FADI NASSAR**  
 PO BOX 2477  
 BIRMINGHAM, MI 48012  
 PHONE: (248) 787-7070

BO/MLL	SCALE: 1/8" = 1'-0"
DATE: 08/18/20	PROJECT NO: 20-01425

### D-Series Size 1 LED Wall Luminaire

**Specifications**  
Width: 13.5" Height: 12.5" Depth: 3.5" Weight: 1.5 lbs

**Back Box (BBW, ELCW)**  
Width: 13.5" Height: 12.5" Depth: 3.5" Weight: 1.5 lbs

**Introduction**  
The D-Series Wall Luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance. With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

**Ordering Information**  
EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTYD

Code	LED	Color	Temp	Beam	Mount	Finish
DSXW1	LED	20C	1000	40K	T3M	MVOLT

**Accessories**

One Lithonia Way • Corvallis, Georgia 30631 • Phone: 800-305-5238 • www.lithonia.com  
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### D-Series Size 0 LED Area Luminaire

**Specifications**  
Length: 20" Width: 13" Height: 3" Weight: 1.5 lbs

**Introduction**  
The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

**Ordering Information**  
EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAR2 PIRHN DDBXK

Code	LED	Color	Temp	Beam	Mount	Finish
DSX0	LED	P6	40K	T3M	MVOLT	SPA

**Accessories**

One Lithonia Way • Corvallis, Georgia 30631 • Phone: 800-305-5238 • www.lithonia.com  
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**Ordering Note**  
FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

**Drawing Note**  
THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

**Mounting Height Note**  
MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

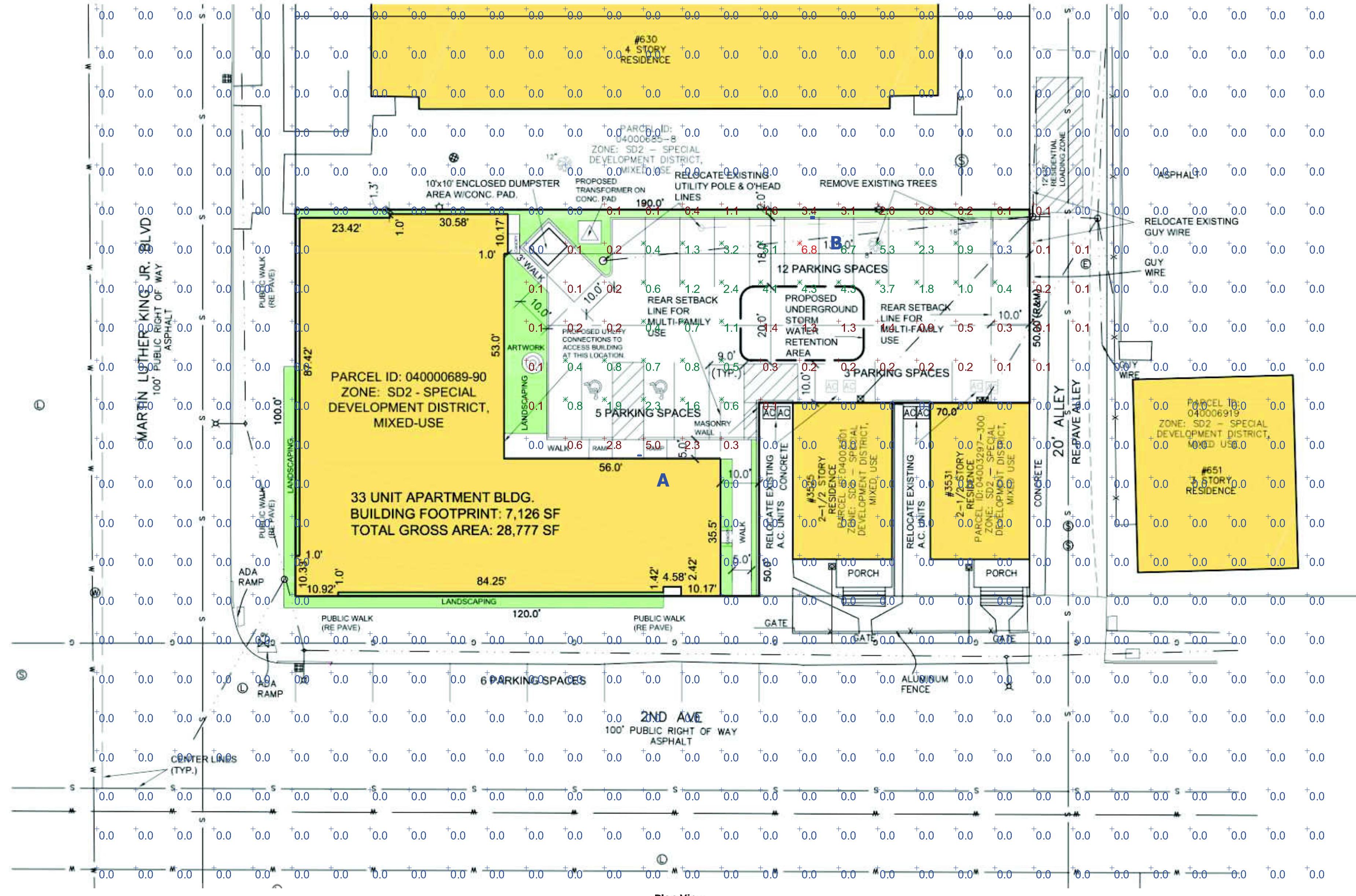
**General Note**  
1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.  
2. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 5' - 0" ABOVE GRADE

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.

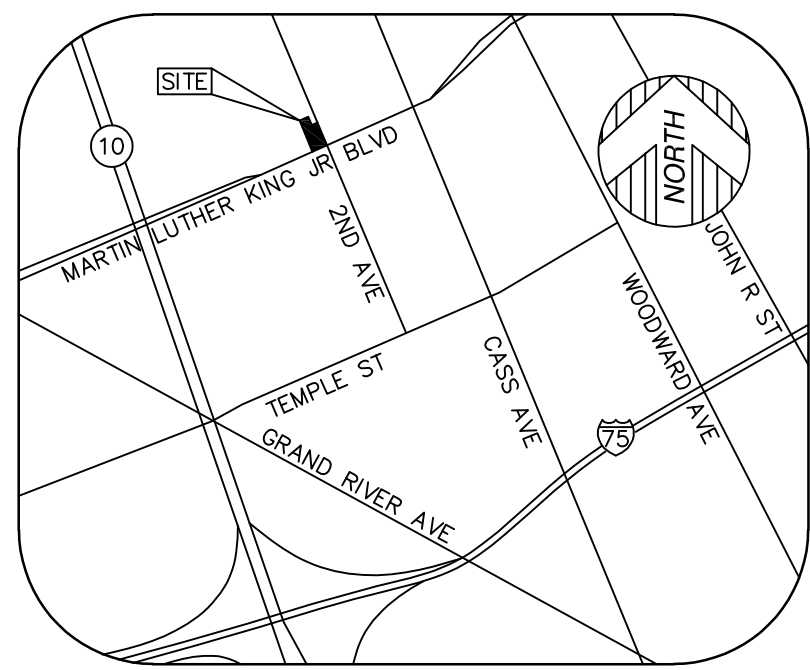
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Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
PARKING	✳	2.1 fc	6.8 fc	0.3 fc	22.7:1	7.0:1	0.3:1
SITE	+	0.2 fc	6.8 fc	0.0 fc	N/A	N/A	0.0:1

Schedule										
Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Mounting Height
✳	A	1	DSXW1 LED 20C 350 40K TFTM MVOLT	DSXW1 LED WITH (2) 10 LED LIGHT ENGINES, TYPE TFTM OPTIC, 4000K, @ 350mA.	LED	1	3019	0.9	23.3	12'
+	B	1	DSX0 LED P4 40K BLC MVOLT	DSX0 LED P4 40K BLC MVOLT	LED	1	8656	0.9	92	20'





VICINITY MAP  
(NOT TO SCALE)

**PARKING**

NO MARKED PARKING ON SITE.

**PARCEL AREA**

15,500± SQUARE FEET = 0.35± ACRES

**BASIS OF BEARING**

NORTH 30°00'00" WEST, BEING THE WESTERLY RIGHT OF WAY LINE OF 2ND AVE., AS PLATTED.

**BENCHMARK**

**SITE BENCHMARK #1**  
NORTHEAST BOLT ON POLE.  
ELEVATION = 615.84' (NAVD 88)

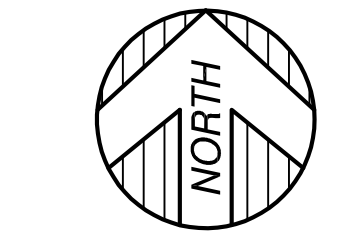
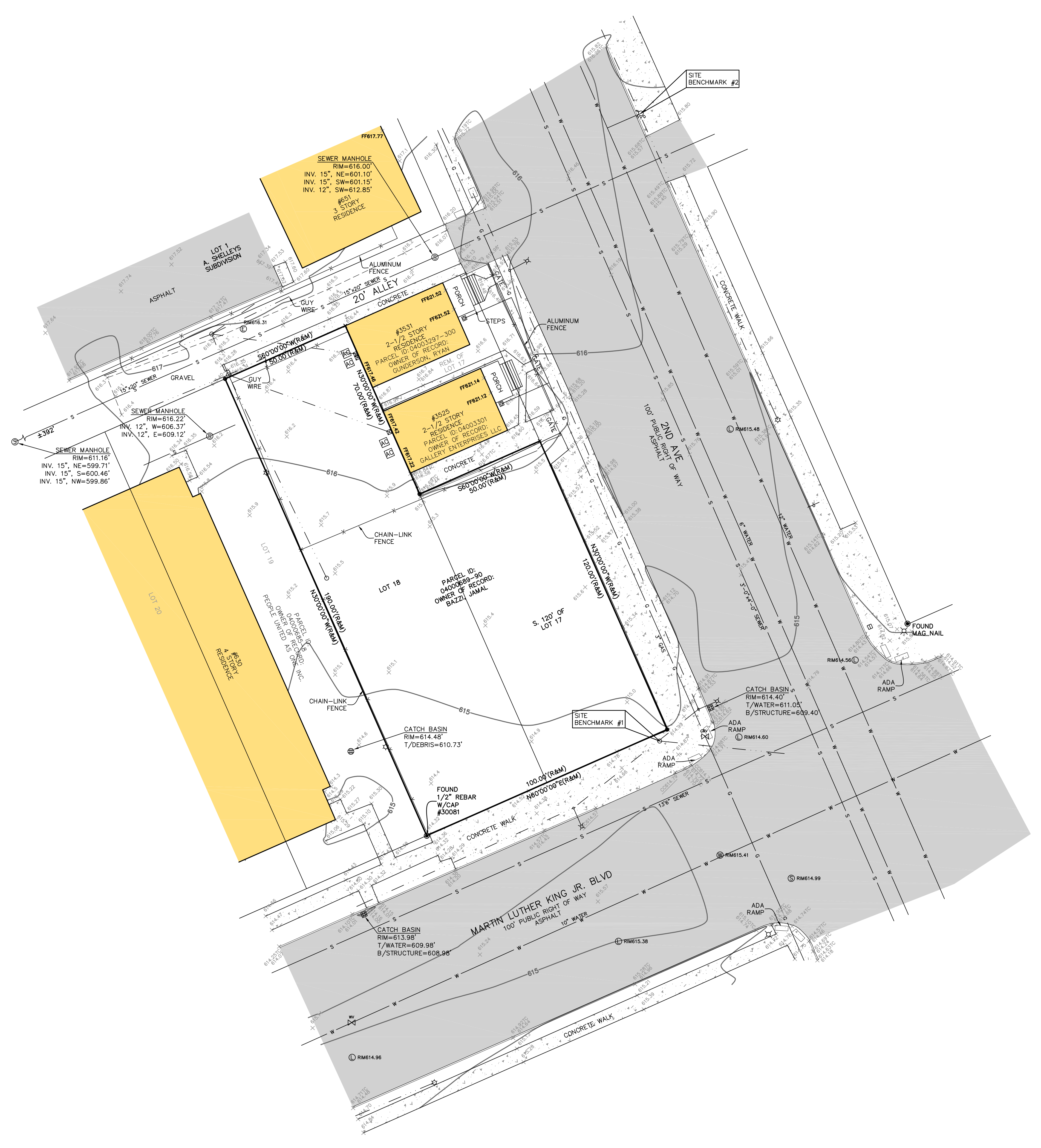
**SITE BENCHMARK #2**  
BOLT ON NORTH SIDE OF FLANGE ON HYDRANT.  
ELEVATION = 617.15' (NAVD 88)

**SURVEYOR'S NOTE**

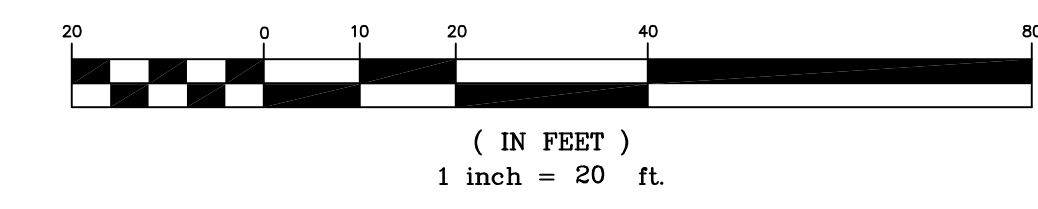
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

**LEGEND**

●	SET 1/2" REBAR WITH CAP P.S. 47976
x	SET PAINT DOT
(R&M)	FOUND MONUMENT (AS NOTED)
(R)	RECORD AND MEASURED DIMENSION
(M)	RECORD DIMENSION
0.00	MEASURED DIMENSION
○	GROUND ELEVATION
⊗	ELECTRIC METER
⊕	ELECTRIC MANHOLE
⊖	ELECTRIC PANEL
○	UTILITY POLE
○	GAS METER
○	GAS VALVE
○	LIGHT POLE WITH STREET LAMP
○	WATER GATE MANHOLE
○	WATER VALVE
○	FIRE HYDRANT
○	TRAFFIC SIGNAL
○	PUBLIC LIGHTING MANHOLE
○	SEWER MANHOLE
○	ROUND CATCH BASIN
○	SQUARE CATCH BASIN
○	AIR CONDITIONING UNIT
○	LIGHTPOST/LAMP POST
○	DECIDUOUS TREE (AS NOTED)
---	PARCEL BOUNDARY LINE
---	PLATTED LOT LINE
---	ADJOINER PARCEL LINE
---	BUILDING
---	CONCRETE CURB
---	EDGE OF CONCRETE (CONC.)
x	FENCE (AS NOTED)
---	OVERHEAD UTILITY LINE
---	GAS LINE
---	SEWER LINE
---	WATER LINE
---	MINOR CONTOUR LINE
---	MAJOR CONTOUR LINE
■	BUILDING AREA
■	ASPHALT
■	CONCRETE



GRAPHIC SCALE



**PROPERTY DESCRIPTION**

THE LAND SITUATED IN THE CITY OF DETROIT, COUNTY OF WAYNE, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:  
  
THE SOUTH 120 FEET OF LOT 17 AND ALL OF LOT 18, BLOCK 90, CASS FARM SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 1, PAGES 175, 176 AND 177 OF PLATS, WAYNE COUNTY RECORDS.

**TITLE REPORT NOTE**

- ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT No. 704140, DATED MAY 06, 2020, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.
- TERMS AND CONDITIONS OF BOARD OF ZONING APPEALS DECISION AND ORDER, RECORDED ON SEPTEMBER 23, 2010 IN LIBER 48759, PAGE 38, WAYNE COUNTY RECORDS. (SEE DOCUMENT FOR TERMS AND CONDITIONS)
  - TERMS AND CONDITIONS OF RESOLUTION RECORDED IN LIBER 20767, PAGE 342, WAYNE COUNTY RECORDS. (SEE DOCUMENT FOR TERMS AND CONDITIONS)
  - TERMS AND CONDITIONS AS DISCLOSED IN INSTRUMENT RECORDED IN LIBER 20043, PAGE 119, WAYNE COUNTY RECORDS. (SEE DOCUMENT FOR TERMS AND CONDITIONS)

**ZONING REGULATIONS**

- SD2- SPECIAL DEVELOPMENT DISTRICT (ALL OTHER USES, OTHER THAN MIXED)
- FRONT SETBACK.
    - A MINIMUM FRONT SETBACK IS NOT REQUIRED.
    - THE MAXIMUM FRONT SETBACK ALLOWED SHALL BE THE AVERAGE OF THE FRONT SETBACK OF THE BUILDINGS LOCATED ON EACH SIDE OF THE SUBJECT BUILDING OR 20 FEET, WHICHEVER IS LESS. PARKING IN FRONT OF A NEIGHBORING BUILDING DOES NOT COUNT AS A FRONT SETBACK.
    - OFF-STREET PARKING SHALL BE PROHIBITED IN THE FRONT SETBACK.
  - REAR SETBACK.
    - IF AN ALLEY IS TO THE REAR OF A SINGLE-STORY BUILDING, A MINIMUM REAR SETBACK IS NOT REQUIRED. IF NO ALLEY IS PRESENT, SINGLE-STORY BUILDINGS SHALL HAVE A MINIMUM REAR SETBACK OF TEN FEET.
    - WHERE A SINGLE- OR TWO-FAMILY DWELLING IS LOCATED TO THE REAR, MULTIPLE-STORY BUILDINGS SHALL HAVE A REAR SETBACK OF TEN FEET IF AN ALLEY IS TO THE REAR OF THE BUILDING AND 20 FEET IF ONE IS NOT PRESENT.
    - MULTIPLE-FAMILY DWELLINGS SHALL HAVE A REAR SETBACK OF TEN FEET IF AN ALLEY IS PRESENT AND 20 FEET IF ONE IS NOT PRESENT.
  - SIDE SETBACK. NO MINIMUM SIDE SETBACK IS REQUIRED EXCEPT WHERE A BUILDING IS ADJACENT TO LAND ZONED R1, R2, R3, OR R4, WHERE ADJACENT TO LAND ZONED R1, R2, R3, OR R4, THE SIDE SETBACK SHALL BE CALCULATED USING FORMULA A.
  - OFF-STREET PARKING LOCATION. PARKING SHALL BE PROHIBITED BETWEEN THE STREET AND FRONT FACADE OF THE BUILDING.
  - MAXIMUM HEIGHT. MAXIMUM HEIGHT SHALL BE 45 FEET FOR NON-MIXED-USE. WHERE A LOT FRONTS ON A RIGHT-OF-WAY WHICH IS MORE THAN 60 FEET WIDE AND WHERE THE OUTERMOST POINT OF THE PROPOSED MIXED-USE BUILDING IS AT LEAST 40 FEET FROM ALL R1, R2, AND R3 DISTRICTS, THE MAXIMUM HEIGHT MAY BE INCREASED ONE FOOT FOR EACH ONE FOOT OF RIGHT-OF-WAY WIDTH GREATER THAN 60 FEET. THE MIXED-USE BUILDING MUST NOT EXCEED 80 FEET IN HEIGHT.

NOTE: ALL ZONING INFORMATION IS TAKEN FROM THE CITY OF DETROIT WEBSITE. ALL ZONING INFORMATION MUST BE VERIFIED FOR COMPLETENESS WITH CURRENT ZONING REGULATIONS.

**FLOOD NOTE**

SUBJECT PARCEL LIES WITHIN:  
OTHER AREA (ZONE X). AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.  
  
AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26163C0280E DATED 2/2/2012, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

**SURVEYOR'S CERTIFICATION**

TO MHT HOUSING, INC., MLK ON 2ND LIMITED DIVIDEND HOUSING ASSOCIATION, LLC, CIGNAIRE TITLE SERVICES, LLC, AND OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY:  
  
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDED ITEMS 1, 2, 3, 4, 5, 6A, 6B, 7A, 7B1, 8, 9, AND 11 OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON 08/05/20.

DATE OF PLAT OR MAP: 08/07/20

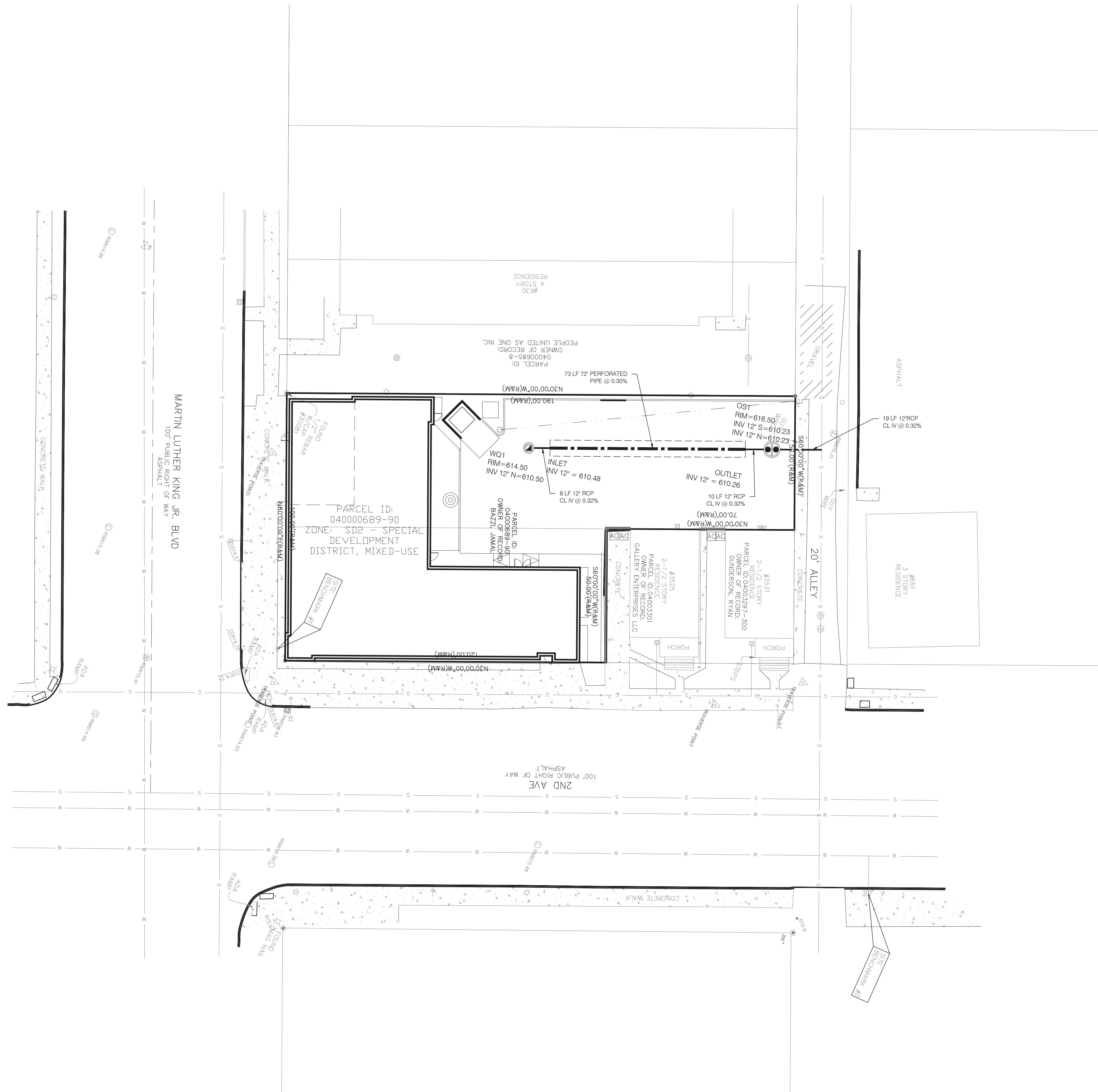
**DRAFT**

ANTHONY T. SYCKO, JR., P.S.  
PROFESSIONAL SURVEYOR  
MICHIGAN LICENSE NO. 47976  
22556 GRATIOT AVE., EASTPOINTE, MI 48021  
TSycko@kemtec-survey.com

ALTA / NSPS LAND TITLE SURVEY  
PREPARED FOR: FADI NASSAR  
3515 2ND AVE DETROIT MICHIGAN  
TOWN 2 SOUTH, RANGE 12 EAST

DATE	BY	REVISION	DESCRIPTION
08/06/20	MRJ		
08/07/20	ATS		
AUGUST 07, 2020	JDM	1	ADDED SEWER MANHOLE
8/28/20	JDM		

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**UTILITY NOTES**

1. ALL CONSTRUCTION PROCEDURES AND MATERIALS SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF CITY OF DETROIT A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED BY CITY OF DETROIT AND HELD PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR MUST CONTACT MISS DIG (811) AT LEAST THREE WORKING DAYS PRIOR TO THE START OF CONSTRUCTION FOR UNDERGROUND UTILITY LOCATIONS. ALL UTILITIES SHALL BE STAKED BEFORE CONSTRUCTION BEGINS.
3. ALL WATER MAIN EASEMENTS SHALL BE PROVIDED PRIOR TO CONSTRUCTION AND ACCEPTANCE OF THE WATER DISTRIBUTION SYSTEM.
4. WATER MAINS SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF 6 FEET BELOW FINISHED GRADES, INCLUDING OPEN DRAINAGE COURSES.
5. ALL TRENCHES UNDER OR WITHIN A 1:1 RATIO OF EXISTING OR PROPOSED PAVEMENT OR DRIVEWAYS, SHALL BE BACKFILLED WITH COMPACTED CLASS II SAND TO GRADE (95% MAXIMUM UNIT DENSITY).
6. WHERE TWO UTILITIES CROSS, PROVIDE CLASS II BACKFILL MATERIAL IN SIX (6) INCH COMPACTED LAYERS TO TOP HIGHEST UTILITY.
7. WHERE WATER MAINS DIP UNDER OTHER UTILITIES, THE SECTIONS WHICH ARE DEEPER THAN NORMAL SHALL BE CONSTRUCTED WITH 11-1/4" VERTICAL BENDS, 22 1/2" OR 45" BENDS MUST BE RODDED AND PROPERLY ANCHORED.
8. ALL PRECAST CONCRETE GATE WELL SECTIONS SHALL BE IN ACCORDANCE WITH A.S.T.M. C478, STANDARD SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS. WALL THICKNESS SHALL BE AS SHOWN ON THESE DETAILS. ALL JOINTS FOR PRECAST CONCRETE GATE WELL SECTIONS SHALL BE "MODIFIED GROOVE TONGUE" WITH GASKET MANUFACTURED TO CONFORM WITH A.S.T.M. C443, STANDARD SPECIFICATION FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE USING RUBBER GASKETS.
9. CONTRACTOR SHALL INSTALL VALVES, TAPPING SLEEVES, AND GATE WELL STRUCTURES IN STRICT COMPLIANCE WITH MEASUREMENTS PROVIDED ON SHEET 1 (2'-0" BETWEEN GATE WELL WELL AND CENTERLINE OF OPERATING NUT) TO ALLOW PROPER OPERATION OF VALVE THROUGH GATE WELL OPENING.
10. ALL CROSS-CONNECTION CONTROL DEVICES SHALL BE INSTALLED AS REQUIRED BY THE PLYMOUTH TOWNSHIP PLUMBING INSPECTOR AND IN ACCORDANCE WITH THE STANDARDS OF THE WAYNE COUNTY COUNTY DRAIN COMMISSIONER OPERATION AND MAINTENANCE DIVISION AND THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF DRINKING WATER AND RADIOLOGICAL PROTECTION.
11. ALL WATER SERVICE CONNECTIONS TWO (2) INCHES AND SMALLER SHALL BE MADE BY CITY OF DETROIT, DEPARTMENT OF PUBLIC SERVICES AFTER WATER MAIN ACCEPTANCE AND APPLICABLE PERMITS ARE OBTAINED.
12. ALL FITTINGS AND BENDS SHOULD BE BLOCKED IN ACCORDANCE WITH THRUST BLOCK DETAILS, UNLESS ALTERNATE THRUST RESTRAINT SYSTEM, AS INDICATED PLANS AND SPECIFICATIONS, IS APPROVED BY CITY OF DETROIT DEPARTMENT OF PUBLIC SERVICES.

**STORMWATER DETENTION CALCULATIONS**

Drainage Areas less than 5 acres shall manage a 10 year, 24-hour storm for flood control per the City of Detroit Stormwater Management Design Manual.

Area of Site (A) = 0.35 ac  $Q_R = 0.15 \text{ cfs/ac}$   $C = 0.85$   $T = 10 \text{ yrs}$   
 $D_{10} = 30.9(Q_R / C)^{-0.979} = 168.80 \text{ min}$   
 $I = (38.41647 \times T^{0.3082}) / (12.3258 + D)^{0.8405} = 0.78 \text{ in/hr}$   
 $V_R = (60.5 \times D_{10} \times C \times A \times I) - (60 \times D_{10} \times Q_R \times A)$   
 $= (60.5 \times 168.80 \text{ min} \times 0.85 \times 0.35 \text{ ac} \times 0.78 \text{ in/hr}) - (60 \times 168.80 \text{ min} \times 0.15 \text{ cfs/ac} \times 0.35 \text{ ac})$   
 $= 1,838 \text{ CF}$

**EXTENDED DETENTION VOLUME**

$VED = 6,897 \times C \times A = 6,897 \times 0.85 \times 0.35 \text{ ac} = 2,052 \text{ CF}$   
 Extended Detention Required = 2,052 CF

Extended Detention Volume > Required Detention Volume,  
 Therefore use VED for Total Detention Volume  
 Total Detention Volume = 2,052 CF

Water Quality Retention Volume = 1 inch over entire developed site  
 $(15,500 \text{ SF}) \times (1/12) \text{ FT} = 1,292 \text{ CF}$   
 Total Retention Storage Required = 1,292 CF

**DETAILS OF ORIFICE OUTLET**

$Q = 0.15 \text{ cfs/ac} \times 0.35 \text{ ac} = 0.0525 \text{ cfs}$   $H = 6 \text{ FT}$   
 $\text{Orifice Area} = A_o = Q / (0.62 \times (2 \times 32.2 \times H)^{0.5}) = 0.00430 \text{ SF} = 0.6192 \text{ IN}^2$   
 $\text{Orifice Diameter} = 2 \times (A_o / \pi)^{0.5} = 0.89" \text{ dia (Use 1")}$

**DETAILS OF UNDERGROUND BASIN**

Proposed pipe size = 6 dia = 72"  
 Pipe area = 28.27 SF  
 Provided length of pipe = 73 LF  
 Pipe Volume =  $(28.27 \text{ SF})(73 \text{ LF}) = 2,063 \text{ CF}$   
 Total Detention / Retention Storage Provided = 2,063 CF

**UTILITY LEGEND**

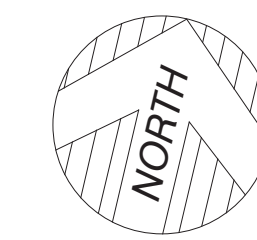
- PROPOSED STORMWATER PIPING
- PROPOSED CATCH BASIN STRUCTURE
- PROPOSED MANHOLE STRUCTURE / WATER QUALITY UNIT
- PROPOSED SANITARY LINE
- PROPOSED WATER LINE

**UTILITY QUANTITIES**

72" RCP CLIV STORM PIPE	73 LF
12" RCP CLIV STORM PIPE	37 LF
WATER QUALITY STRUCTURE	1
OUTLET STRUCTURE	1



Know what's below.  
 Call before you dig.



THE LOCATION OF ALL UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE BASED ON RECORDS PROVIDED BY THE UTILITY OWNERS AND VISIBLE EVIDENCE OBTAINED IN THE FIELD. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED TO THE COMPLETENESS OR ACCURACY THEREOF.

**STORM MANAGEMENT PLAN**  
 SCALE: 1" = 20'





NO.	DATE	BY	DESCRIPTION
1	05/29/2020	GAE	SPA SUBMISSION

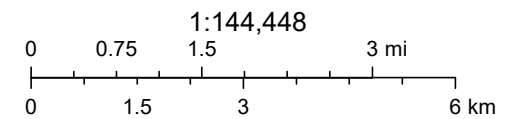
DATE:	05/29/2020
SCALE:	1" = 20'
PROJECT NO.:	18-00000
DATE:	MAY 29, 2020
DESIGNED BY:	GAE
CHECKED BY:	GAE

# Airport Map



August 25, 2022

-  Project Buffer
-  Airport Points
-  Airport Map
-  Airport Polygons

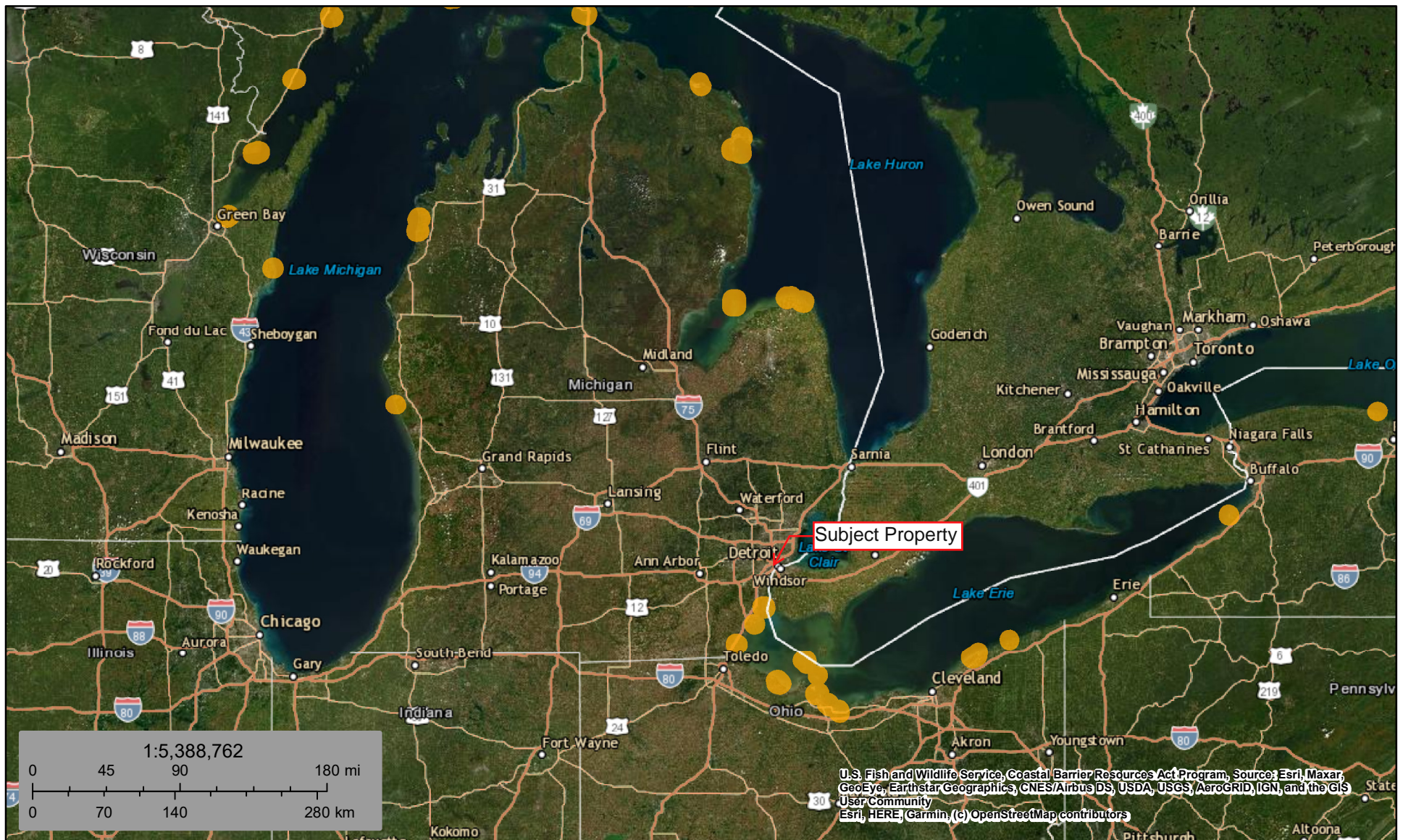


City of Windsor, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA,



# U.S. Fish and Wildlife Service Coastal Barrier Resources System

## CBRS



March 29, 2022

● CBRS Units

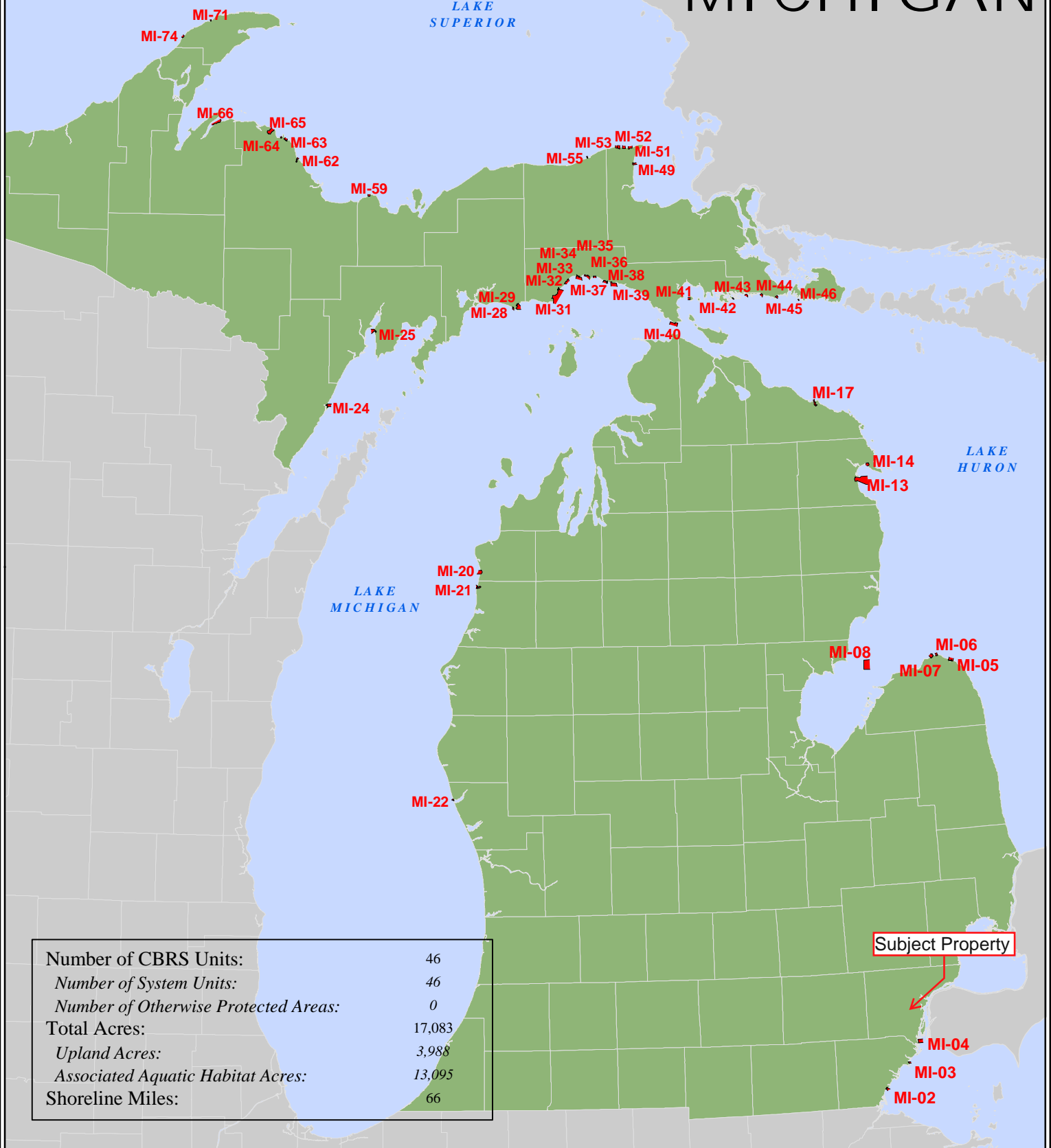
This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at <https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps>. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward

# JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

## MI CH I G A N



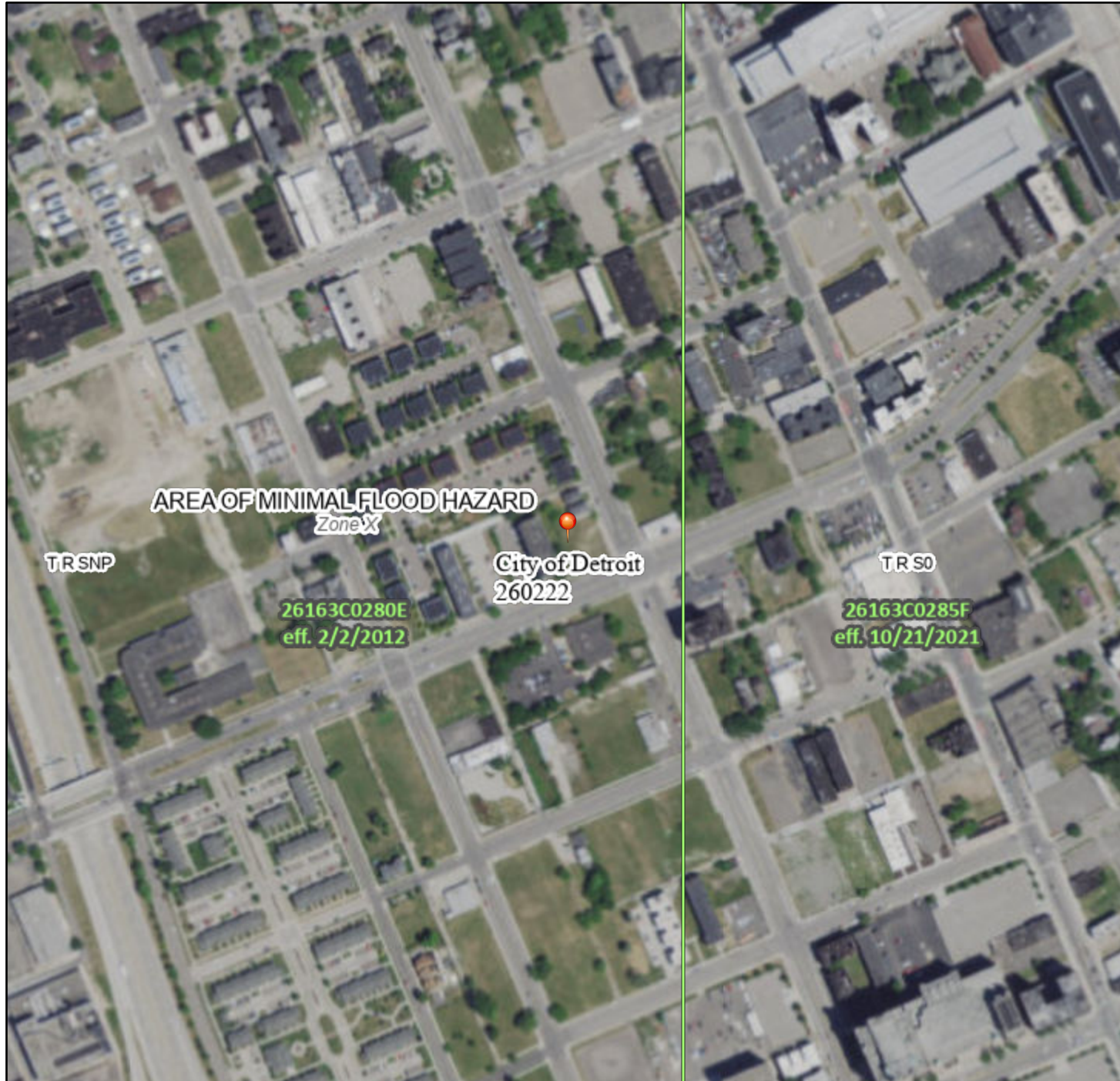
Number of CBRS Units:	46
Number of System Units:	46
Number of Otherwise Protected Areas:	0
Total Acres:	17,083
Upland Acres:	3,988
Associated Aquatic Habitat Acres:	13,095
Shoreline Miles:	66

Boundaries of the John H. Chafee Coastal Barrier Resources System (CBRS) shown on this map were transferred from the official CBRS maps for this area and are depicted on this map (in red) for informational purposes only. The official CBRS maps are enacted by Congress via the Coastal Barrier Resources Act, as amended, and are maintained by the U.S. Fish and Wildlife Service. The official CBRS maps are available for download at <http://www.fws.gov/CBRA>.

# National Flood Hazard Layer FIRMMette



























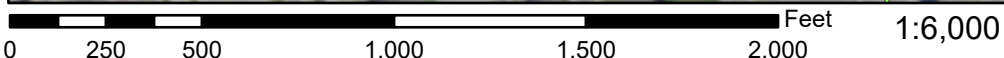
83°48'W 42°20'56"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- |   |  |  |
|---|--|--|
| <b>SPECIAL FLOOD HAZARD AREAS</b>   |   | Without Base Flood Elevation (BFE)<br><i>Zone A, V, A99</i>  |
|   |   | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i><br>Regulatory Floodway  |
| <b>OTHER AREAS OF FLOOD HAZARD</b>  |   | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i> |
|   |   | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>  |
|   |   | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>  |
|   |   | Area with Flood Risk due to Levee <i>Zone D</i>  |
| <b>OTHER AREAS</b>  |   | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>   |
|   |   | Effective LOMRs  |
| <b>GENERAL STRUCTURES</b>   |   | Area of Undetermined Flood Hazard <i>Zone D</i>  |
|   |   | Channel, Culvert, or Storm Sewer   |
| <b>OTHER FEATURES</b>   |   | Levee, Dike, or Floodwall  |
|   |   | 20.2 Cross Sections with 1% Annual Chance  |
| <b>MAP PANELS</b>   |   | 17.5 Water Surface Elevation   |
|   |   | 8 Coastal Transect   |
|   |   | Base Flood Elevation Line (BFE)  |
|   |   | Limit of Study   |
|   |   | Jurisdiction Boundary  |
|   |   | Coastal Transect Baseline  |
|   |   | Profile Baseline   |
|   |    | Hydrographic Feature   |
|   |   | Digital Data Available   |
|   |   | No Digital Data Available  |
|  | Unmapped   |  |
|  | The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location. |  |



83°3'30"W 42°20'29"N

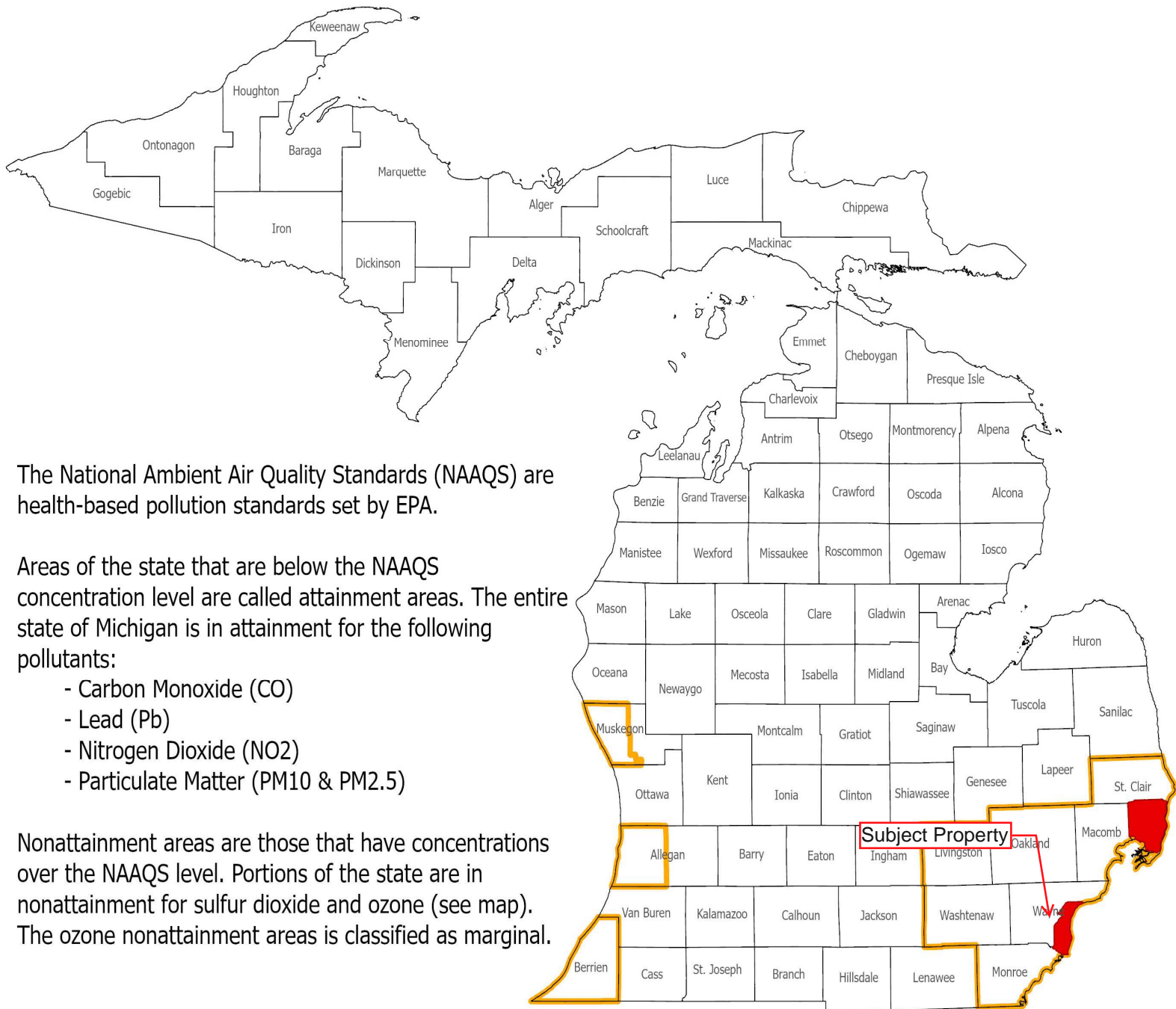
Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **8/25/2022 at 8:52 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# Attainment Status for the National Ambient Air Quality Standards



The National Ambient Air Quality Standards (NAAQS) are health-based pollution standards set by EPA.

Areas of the state that are below the NAAQS concentration level are called attainment areas. The entire state of Michigan is in attainment for the following pollutants:

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Dioxide (NO<sub>2</sub>)
- Particulate Matter (PM<sub>10</sub> & PM<sub>2.5</sub>)

Nonattainment areas are those that have concentrations over the NAAQS level. Portions of the state are in nonattainment for sulfur dioxide and ozone (see map). The ozone nonattainment areas is classified as marginal.

## LEGEND

- Sulfur Dioxide Nonattainment Area
- Ozone Nonattainment Area

*See Page 2 for close-up maps of partial county nonattainment areas.*

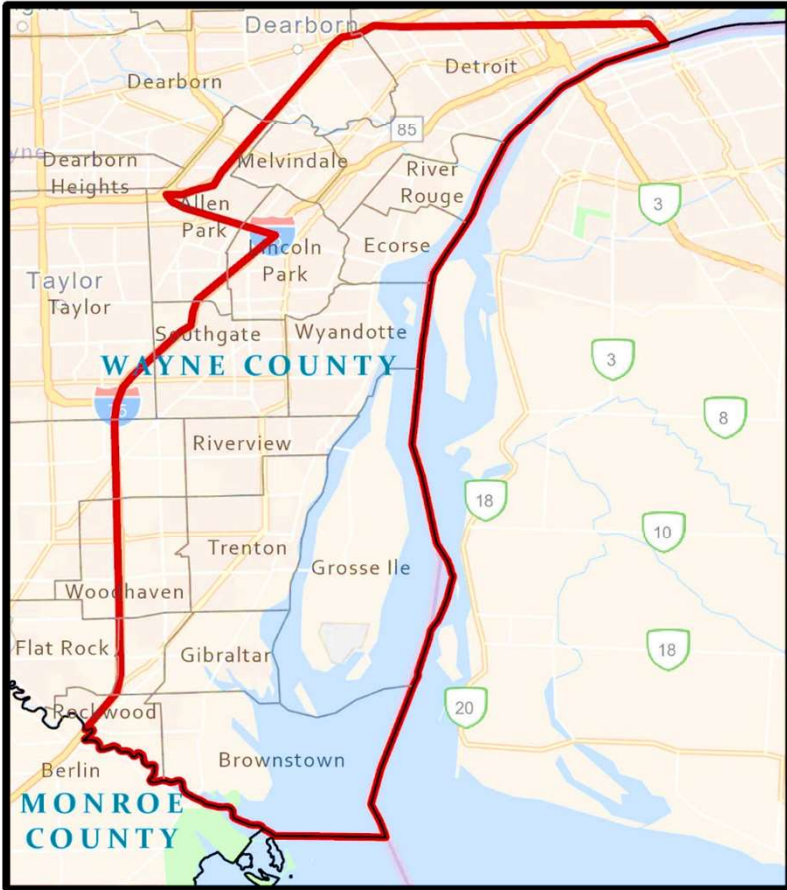
*Updated February 5, 2021*

*Prepared by EGLE, Air Quality Division, State Implementation Plan Development Unit*

# Close-Up Maps of Partial County Nonattainment Areas

## Sulfur Dioxide Nonattainment Areas

Wayne County Area



St. Clair County Area

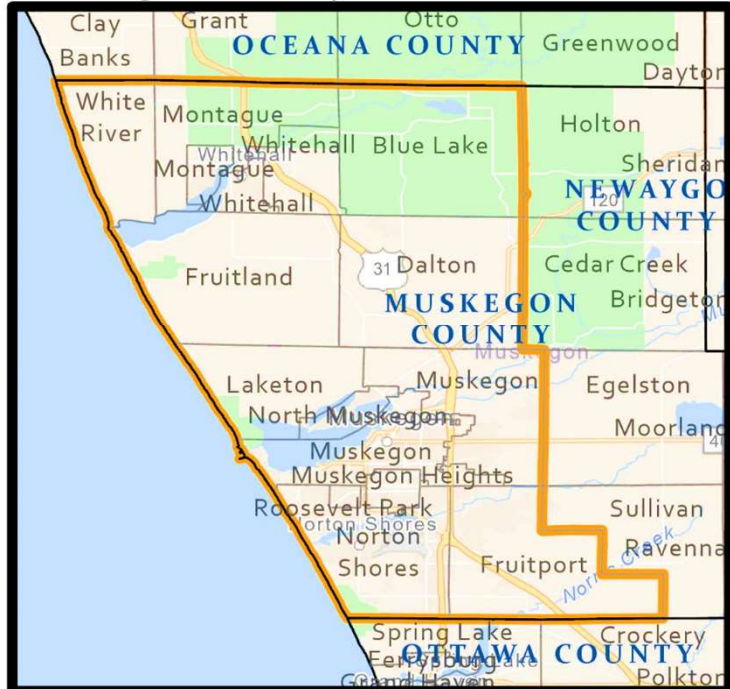


## Ozone Nonattainment Areas

Allegan County Area



Muskegon County Area







GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING



LIESL EICHLER CLARK  
DIRECTOR

April 1, 2022

Ms. Lindsey Sorensen, Director of Research Group  
PM Environmental, Inc.  
560 5<sup>th</sup> Street, N.W., Suite 301  
Grand Rapids, Michigan 49504

**Via email only**

Dear Ms. Sorensen:

Subject: MLK on 2<sup>nd</sup> Project - Detroit, Michigan

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) has reviewed the federal regulations related to general conformity of projects with state implementation plans (SIP) for air quality. In particular, 40 Code of Federal Regulations (CFR) Section 93.150 et seq, which states that any federally funded project in a nonattainment or maintenance area must conform to the Clean Air Act requirements including the State's SIP if they may constitute a significant new source of air pollution.

On August 3, 2018, Wayne County was designated nonattainment for the 2015 National Ambient Air Quality Standard (NAAQS) for ozone, and thus, general conformity must be evaluated when completing construction projects of a given size and scope. EGLE is currently working to complete the required SIP submittal for this area; therefore, an alternative evaluation was completed to assess conformity. Specifically, EGLE considered the following information from the United States Environmental Protection Agency's (USEPA) general conformity guidance, which states, "historical analysis of similar actions can be used in cases where the proposed projects are similar in size and scope to previous projects."

EGLE has reviewed the MLK on 2<sup>nd</sup> project proposed to be completed with federal grant monies, including the construction of a four-story mixed-use apartment building in the City of Detroit. The property will feature 33 affordable apartment units and will also include roughly 1,000 square feet of commercial space facing Martin Luther King Jr. Boulevard. Construction for this project will begin in 2023 and will take place at 3515 Second Avenue in the city of Detroit. The renovations are expected to begin in early spring of 2023 with an anticipated completion date of fall 2023.

In reviewing the *"Air Quality and Greenhouse Gas Study: Uptown Orange Apartments in Orange, California,"* dated December 2012, prepared for KTG Y Group, Inc., by UltraSystems Environmental, Inc., it was determined that emission levels for the project were below the de minimis levels for general conformity. The Uptown Orange Apartments project and related parking structure construction was estimated to take 33 months to complete, would encompass an area of 5.57 acres, and included two four-story residential units with a total of 334 apartments, and two parking structures with a total of 494 and 679 parking stalls, respectively.

Ms. Lindsey Sorensen

April 1, 2022

Page 2

The size, scope, and duration of the MLK on 2<sup>nd</sup> project proposed is much smaller in scale than the Uptown Orange Apartments project described above and should not exceed the de minimis levels included in the federal general conformity requirements. Therefore, it does not require a detailed conformity analysis.

If you have any further questions regarding this matter, please contact me at 517-648-6314; BukowskiB@Michigan.gov; or EGLE, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

Sincerely,

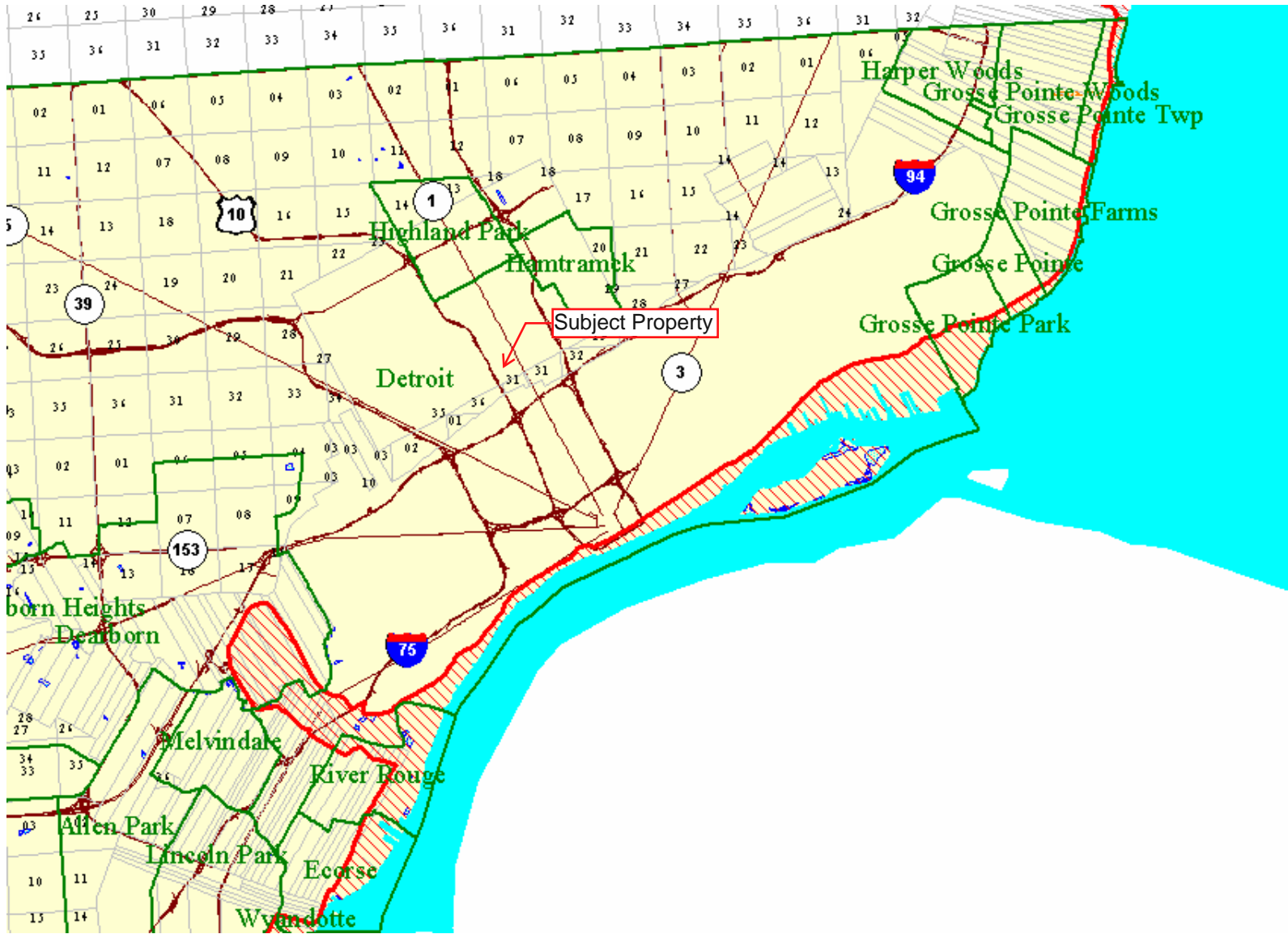
A handwritten signature in blue ink that reads "Breanna Bukowski". The signature is written in a cursive, flowing style.

Breanna Bukowski  
Environmental Quality Analyst

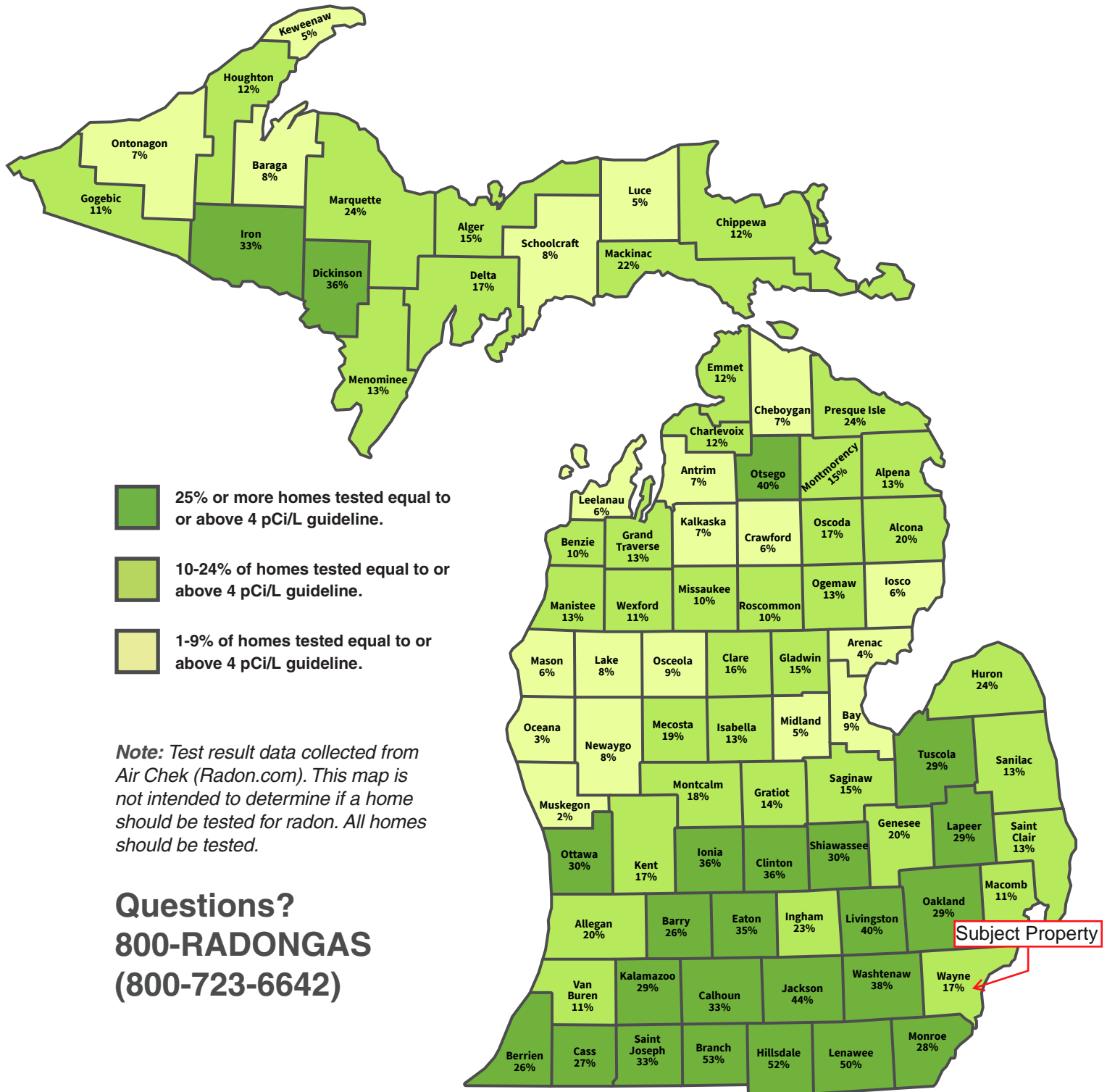
cc: Mr. Michael Leslie, USEPA Region 5  
Ms. Carey Kratz, PM Environmental  
Ms. Katie Thoits, MHT Housing, Inc.

Wayne County  
Grosse Pointe Township, Grosse Pointe Woods, Grosse Pointe Farms  
Grosse Pointe, Grosse Pointe Park, and Detroit, T1S R14E  
Detroit, T1S R14E, T2S R13E, and T2S R12E  
River Rouge, T2S R11E

The heavy red line is the **Coastal Zone Management Boundary**  
The red hatched area is the **Coastal Zone Management Area**.



# Percentage of Elevated Radon Test Results by County





GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
WARREN DISTRICT OFFICE

**EGLE**  
LIESL EICHLER CLARK  
DIRECTOR

August 26, 2022

MKL on 2<sup>nd</sup> Limited Dividend Housing Association, LLC  
c/o T. Van Fox, President  
32500 Telegraph Road, Suite 102  
Bingham Farms, Michigan 48025

Dear T. Van Fox:

**SUBJECT:** Notice of Approval of Response Activity Plan to Comply with 7a(1)(b) for: MLK on 2<sup>nd</sup> Avenue, 3515 2<sup>nd</sup> Avenue, Detroit, Wayne County, Michigan  
Tax ID No. 01000689-90; Site ID No. 82008721

The Michigan Department of Environment, Great Lake, and Energy (EGLE), Remediation and Redevelopment Division (RRD), has reviewed the Response Activity Plan to Comply with 7a(1)(b) for response activities to be undertaken at the property identified as MLK on 2<sup>nd</sup> Avenue, 3515 2<sup>nd</sup> Avenue, Detroit, Wayne County. The ResAP was submitted by PM Environmental on behalf of MLK on 2<sup>nd</sup> Limited Dividend Housing Association, LLC on August 16, 2022, pursuant to Section 20114b(3) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). Based upon representations and information contained in the submittal, the response activities to mitigate unacceptable exposures as proposed in the Response Activity Plan to Comply with 7a(1)(b) are approved.

This approval of the Response Activity Plan to Comply with 7a(1)(b) is for the undertaking of response activities to mitigate unacceptable exposures as identified in Section 8.0 of the response activity plan, dated August 12, 2022, and is based upon the representations and information contained in this submittal.

EGLE expresses no opinion as to whether other conditions that may exist will be adequately addressed by the proposed response activities. Notwithstanding this approval, if environmental contamination is found to exist that is not addressed by the Response Activity Plan and you are otherwise liable for the contamination, additional response activities may be necessary.

If you should have further questions or concerns, please contact Jeanne Schlaufman, EGLE, RRD, Warren District Office, at email [SchlaufmanJ1@Michigan.gov](mailto:SchlaufmanJ1@Michigan.gov).

Sincerely,

Paul Owens, District Supervisor  
Warren District Office  
Remediation and Redevelopment Division

cc: Adam Patton, PM Environmental, Inc.  
Beth Vens, EGLE  
Jeanne Schlaufman, EGLE



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Michigan Ecological Services Field Office  
2651 Coolidge Road Suite 101  
East Lansing, MI 48823-6360  
Phone: (517) 351-2555 Fax: (517) 351-1443  
<http://www.fws.gov/midwest/EastLansing/>

In Reply Refer To:  
Project Code: 2022-0025691  
Project Name: 2nd Avenue

March 29, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

### **Official Species List**

The attached species list identifies any Federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement section 7 of the Endangered Species Act), the accuracy of this species list should be verified after 90 days. You may verify the list by visiting the IPaC website (<https://ipac.ecosphere.fws.gov/>) at regular intervals during project planning and implementation. To update an Official Species List in IPaC: from the My Projects page, find the project, expand the row, and click Project Home. In the What's Next box on the Project Home page, there is a Request Updated List button to update your species list. Be sure to select an "official" species list for all projects.

### **Consultation requirements and next steps**

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize Federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-Federal representative) must consult with the Fish and Wildlife Service if they determine their project may affect listed species or critical habitat.

There are two approaches to evaluating the effects of a project on listed species.

Approach 1. Use the All-species Michigan determination key in IPaC. This tool can assist you in

making determinations for listed species for some projects. In many cases, the determination key will provide an automated concurrence that completes all or significant parts of the consultation process. Therefore, we strongly recommend screening your project with the **All-Species Michigan Determination Key (Dkey)**. For additional information on using IPaC and available Determination Keys, visit [https://www.fws.gov/midwest/EastLansing/te/pdf/MIFO\\_IPAC\\_instructions\\_v1\\_Jan2021.pdf](https://www.fws.gov/midwest/EastLansing/te/pdf/MIFO_IPAC_instructions_v1_Jan2021.pdf). Please carefully review your Dkey output letter to determine whether additional steps are needed to complete the consultation process.

Approach 2. Evaluate the effects to listed species on your own without utilizing a determination key. Once you obtain your official species list, you are not required to continue in IPaC, although in most cases using a determination key should expedite your review. If the project is a Federal action, you should review our section 7 step-by-step instructions before making your determinations: <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. If you evaluate the details of your project and conclude “no effect,” document your findings, and your listed species review is complete; you do not need our concurrence on “no effect” determinations. If you cannot conclude “no effect,” you should coordinate/consult with the Michigan Ecological Services Field Office. The preferred method for submitting your project description and effects determination (if concurrence is needed) is electronically to [EastLansing@fws.gov](mailto:EastLansing@fws.gov). Please include a copy of this official species list with your request.

For all **wind energy projects** and **projects that include installing communications towers that use guy wires**, please contact this field office directly for assistance, even if no Federally listed plants, animals or critical habitat are present within your proposed project area or may be affected by your proposed project.

### **Migratory Birds**

Please see the “Migratory Birds” section below for important information regarding incorporating migratory birds into your project planning. Our Migratory Bird Program has developed recommendations, best practices, and other tools to help project proponents voluntarily reduce impacts to birds and their habitats. The Bald and Golden Eagle Protection Act prohibits the take and disturbance of eagles without a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <https://www.fws.gov/midwest/eagle/permits/index.html> to help you avoid impacting eagles or determine if a permit may be necessary.

Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/administrative-orders/executive-orders.php>.

We appreciate your consideration of threatened and endangered species during your project planning. Please include a copy of this letter with any request for consultation or correspondence

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about your project that you submit to our office.

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-



## **Official Species List**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Michigan Ecological Services Field Office**

2651 Coolidge Road Suite 101

East Lansing, MI 48823-6360

(517) 351-2555

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## Project Summary

Project Code: 2022-0025691  
Event Code: None  
Project Name: 2nd Avenue  
Project Type: Federal Grant / Loan Related  
Project Description: Redevelopment  
Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.3451041,-83.06348054105686,14z>



Counties: Wayne County, Michigan

## Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/4UUW6IFGGJCD3KW3T2B4ARHZAQ/documents/generated/5663.pdf">https://ipac.ecosphere.fws.gov/project/4UUW6IFGGJCD3KW3T2B4ARHZAQ/documents/generated/5663.pdf</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/4UUW6IFGGJCD3KW3T2B4ARHZAQ/documents/generated/5664.pdf">https://ipac.ecosphere.fws.gov/project/4UUW6IFGGJCD3KW3T2B4ARHZAQ/documents/generated/5664.pdf</a>	Threatened

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## Birds

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.) There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a>	Endangered
Red Knot <i>Calidris canutus rufa</i> There is <b>proposed</b> critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a>	Threatened

## Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>For all Projects: Project is within EMR Range</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/2202">https://ecos.fws.gov/ecp/species/2202</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/4UUW6IFGGJCD3KW3T2B4ARHZAQ/documents/generated/5280.pdf">https://ipac.ecosphere.fws.gov/project/4UUW6IFGGJCD3KW3T2B4ARHZAQ/documents/generated/5280.pdf</a>	Threatened

## Clams

NAME	STATUS
Northern Riffleshell <i>Epioblasma torulosa rangiana</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/527">https://ecos.fws.gov/ecp/species/527</a>	Endangered

## Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/601">https://ecos.fws.gov/ecp/species/601</a>	Threatened

## **Critical habitats**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# **USFWS National Wildlife Refuge Lands And Fish Hatcheries**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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## Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Dec 1 to Aug 31

## Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the

FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

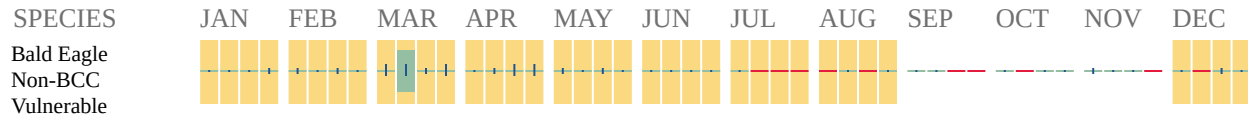
### No Data (—)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

## Migratory Birds FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

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Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

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## **IPaC User Contact Information**

Agency: PM Environmental

Name: Lindsey Sorensen

Address: 560 5th Street NW, Suite 301

City: Grand Rapids

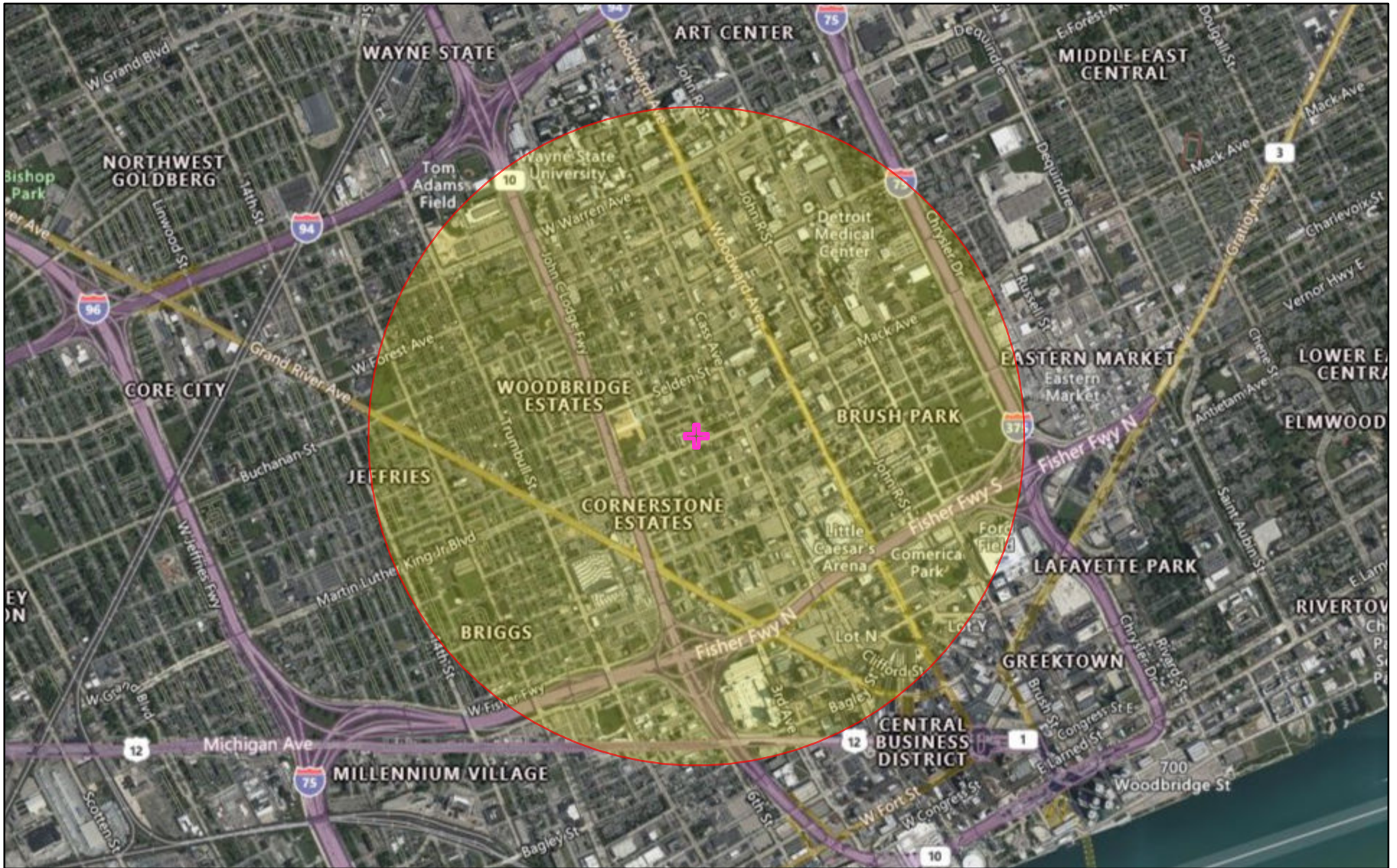
State: MI

Zip: 49504

Email: [sorensen@pmenv.com](mailto:sorensen@pmenv.com)

Phone: 6162221777

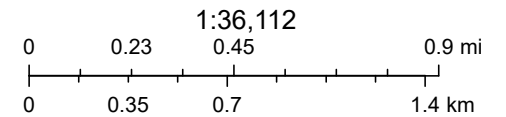
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March 29, 2022

 Project Buffer

 Search Result (point)





United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Wayne County, Michigan**



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

## Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

## Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

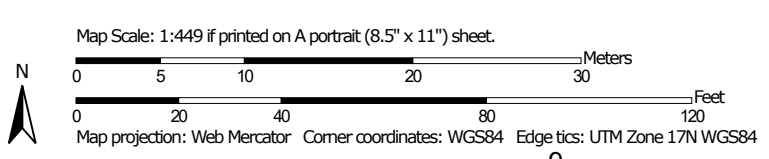
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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map




Soil Map may not be valid at this scale.



### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

**Special Point Features**






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Wayne County, Michigan  
 Survey Area Data: Version 7, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 5, 2020—Aug 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
UrbarB	Urban land-Riverfront complex, dense substratum, 0 to 4 percent slopes	0.5	100.0%
<b>Totals for Area of Interest</b>		<b>0.5</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

## Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Wayne County, Michigan

### UrbarB—Urban land-Riverfront complex, dense substratum, 0 to 4 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2whsx  
*Elevation:* 560 to 720 feet  
*Mean annual precipitation:* 28 to 38 inches  
*Mean annual air temperature:* 45 to 52 degrees F  
*Frost-free period:* 135 to 210 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Urban land:* 80 percent  
*Riverfront, dense substratum, and similar soils:* 19 percent  
*Minor components:* 1 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Urban Land

##### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* 0 inches to manufactured layer  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 8  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

#### Description of Riverfront, Dense Substratum

##### Setting

*Landform:* Deltas, water-lain moraines, wave-worked till plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex, linear  
*Parent material:* Loamy human-transported material over clayey lodgment till

##### Typical profile

*^Au - 0 to 6 inches:* sandy loam  
*^Cu1 - 6 to 16 inches:* very artificial sandy loam  
*^Cu2 - 16 to 46 inches:* gravelly-artificial loam  
*^Cu3 - 46 to 68 inches:* very artificial loam  
*2Cd - 68 to 80 inches:* clay

##### Properties and qualities

*Slope:* 0 to 4 percent  
*Depth to restrictive feature:* 56 to 78 inches to densic material  
*Drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)

## Custom Soil Resource Report

*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 28 percent  
*Gypsum, maximum content:* 1 percent  
*Maximum salinity:* Nonsaline (0.1 to 1.5 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Low (about 4.9 inches)

### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 8  
*Hydrologic Soil Group:* B  
*Ecological site:* F099XY007MI - Lake Plain Flats  
*Hydric soil rating:* No

### **Minor Components**

#### **Riverfront, dense substratum, steep**

*Percent of map unit:* 1 percent  
*Landform:* Deltas, water-lain moraines, wave-worked till plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex, linear  
*Hydric soil rating:* No

# **Soil Information for All Uses**

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## **Suitabilities and Limitations for Use**

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

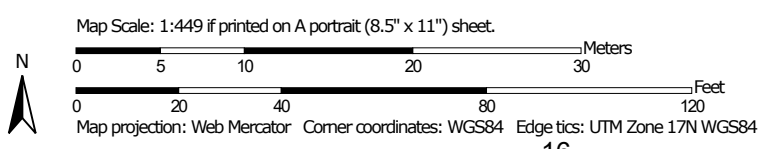
## **Land Classifications**

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

## **Farmland Classification**

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.


# Custom Soil Resource Report Map—Farmland Classification



# Custom Soil Resource Report









## MAP LEGEND








### Area of Interest (AOI)






 Area of Interest (AOI)








### Soils



#### Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60







































-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available

#### Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

# Custom Soil Resource Report

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season		Not prime farmland		Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		All areas are prime farmland		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance
	Farmland of statewide importance, if drained		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Prime farmland if irrigated		Farmland of statewide importance, if drained
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if warm enough		Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
	Farmland of statewide importance, if irrigated				Farmland of statewide importance, if thawed		Prime farmland if irrigated and drained		Farmland of statewide importance, if irrigated
					Farmland of local importance		Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season		
					Farmland of local importance, if irrigated				



# Custom Soil Resource Report

<p> Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season</p>	<p> Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium</p>	<p> Farmland of unique importance</p> <p> Not rated or not available</p>	<p>The soil surveys that comprise your AOI were mapped at 1:12,000.</p>
<p> Farmland of statewide importance, if irrigated and drained</p>	<p> Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season</p>	<p><b>Water Features</b></p> <p> Streams and Canals</p>	<p>Warning: Soil Map may not be valid at this scale.</p> <p>Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.</p>
<p> Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season</p>	<p> Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season</p>	<p><b>Transportation</b></p> <p> Rails</p> <p> Interstate Highways</p> <p> US Routes</p> <p> Major Roads</p> <p> Local Roads</p>	
<p> Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer</p>	<p> Farmland of statewide importance, if warm enough</p>	<p><b>Background</b></p> <p> Aerial Photography</p>	<p>Please rely on the bar scale on each map sheet for map measurements.</p>
<p> Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60</p>	<p> Farmland of statewide importance, if thawed</p>		<p>Source of Map: Natural Resources Conservation Service          Web Soil Survey URL:          Coordinate System: Web Mercator (EPSG:3857)</p>
	<p> Farmland of local importance</p>		<p>Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.</p>
	<p> Farmland of local importance, if irrigated</p>		<p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p>
			<p>Soil Survey Area: Wayne County, Michigan          Survey Area Data: Version 7, Sep 7, 2021</p>
			<p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p>
			<p>Date(s) aerial images were photographed: Aug 5, 2020—Aug 12, 2020</p>
			<p>The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</p>

**Table—Farmland Classification**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
UrbarB	Urban land-Riverfront complex, dense substratum, 0 to 4 percent slopes	Not prime farmland	0.5	100.0%
<b>Totals for Area of Interest</b>			<b>0.5</b>	<b>100.0%</b>

**Rating Options—Farmland Classification**

*Aggregation Method:* No Aggregation Necessary

*Tie-break Rule:* Lower

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Detroit, Michigan 48226

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April 29, 2022

Penny Dwoinen  
City of Detroit Housing & Revitalization Department  
Coleman A. Young Municipal Center  
2 Woodward Avenue, Suite 908  
Detroit, MI 48226

**RE: Section 106 Review of a CDBG-Funded Project Located at 3515 2nd in the City of Detroit, Wayne County, Michigan**

Dear Mrs. Dwoinen,

Under the authority of the National Historic Preservation Act (NHPA) of 1966, as amended, and the “Programmatic Agreement between the Michigan State Historic Preservation Office and the City of Detroit, Michigan...,” dated November 9, 2016, the City of Detroit has reviewed the above-cited project and has determined it to be an undertaking as defined by 36 CFR 800.16(y).

Based on the information submitted to this office on 4/11/2022, we have determined a Historic Property is located within in the Area of Potential Effects (APE) for this project. The apartment buildings at 676 Martin Luther King Junior Boulevard, 3444 2nd Ave and 600 Brainard, and the residence at 486 Peterboro are eligible for listing on the National Register of Historic Places. Therefore, per Stipulation V.B of the Programmatic Agreement (PA), the project shall be carried out in accordance with the *Secretary of the Interior’s Standards for Rehabilitation*.

This project has been given a **Conditional No Adverse Effect** determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long at the following conditions are met:

- The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 4/11/2022, and,
- Any changes to the scope of work for the project shall be submitted to the Preservation Specialist for review and approval prior to the start of any work.
- Photos of the completed work are submitted to the Preservation Specialist

Please note that the Section 106 Review process will not be complete until the above-mentioned conditions are met. If you have any questions, you may contact the Preservation Specialist at [Ciavatonet@detroitmi.gov](mailto:Ciavatonet@detroitmi.gov).

Sincerely,



**Housing and Revitalization  
Department**

---

Coleman A. Young Municipal Center  
2 Woodward Avenue, Suite 908  
Detroit, Michigan 48226

Phone: 313.224.6380  
Fax: 313.224.1629  
[www.detroitmi.gov](http://www.detroitmi.gov)

Tiffany Ciavattone  
Preservation Specialist  
City of Detroit  
Housing & Revitalization Department



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INCENTIVES CONSULTING

## DESKTOP NOISE ASSESSMENT

### **Vacant Land**

3515 2<sup>nd</sup> Avenue | Detroit, Michigan  
PM Project Number 01-12411-2-0001

*Prepared for:*

**MLK on 2<sup>nd</sup> Limited Dividend Housing Association LLC**  
32600 Telegraph Road, Suite 102  
Bingham Farms, Michigan 48025

*Prepared by:*

**PM Environmental, Inc.**  
4080 West Eleven Mile Road  
Berkley, Michigan 48072

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**Corporate Headquarters**  
Lansing, Michigan  
3340 Ranger Road, Lansing, MI 48906  
f: 877.884.6775  
t: 517.321.3331

**Michigan Locations**  
Berkley      Bay City  
Grand Rapids      Chesterfield  
Lansing      Oak Park

January 28, 2021

Ms. Kathryn Thoits  
MLK on 2nd Limited Dividend Housing Association LLC  
32600 Telegraph Road, Suite 102  
Bingham Farms, Michigan 48025

**Re: Desktop Noise Assessment of the Vacant Land  
Located at 3515 2<sup>nd</sup> Avenue, Detroit, Michigan  
PM Environmental, Inc. Project No. 01-12411-2-0001**

Dear Ms. Thoits:

PM Environmental, Inc. (PM) has completed the Desktop Noise Assessment of the above referenced property. This Desktop Noise Assessment was conducted in general accordance with the US Department of Housing and Urban Development (HUD) Noise Abatement and Control standards contained in 24 CFR 51B. This report was also prepared in general accordance with the Michigan State Housing Development Authority (MSHDA) requirements.

The purpose of the Desktop Noise Assessment was to gather sufficient information to develop an independent professional opinion regarding possible noise concerns associated with the subject property through designated Noise Assessment Locations (NALs) on the subject property.

The Desktop Noise Assessment for the above referenced property represents the product of PM's professional expertise and judgment in the environmental consulting industry, and it is reasonable for **MHT HOUSING INC., MLK ON 2<sup>nd</sup> LIMITED DIVIDEND HOUSING ASSOCIATION LLC, AND THE MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY**, to rely on PM's Desktop Noise Assessment report.

If you have any questions related to this report please do not hesitate to contact our office at 248.336.9988.

Sincerely,  
**PM ENVIRONMENTAL, INC.**

Benjamin Prowse  
Staff Consultant

Carey Kratz, EP  
Regional Manager – Due Diligence

Peter S. Bosanic, P.E., EP  
Principal



**TABLE OF CONTENTS**

1.0 Introduction ..... 1  
2.0 Evaluation of Noise Sources ..... 2  
    2.1: Airports ..... 2  
    2.2: Major Roadways ..... 2  
    2.3: Railroads..... 3  
3.0 Calculations ..... 3  
4.0 Conclusions ..... 3  
5.0 References..... 3

**APPENDICES**

- Appendix A: NAL Location Map
- Appendix B: Airport Noise Contour Map
- Appendix C: Noise Source Information
- Appendix D: Day-Night Level Electronic Assessments

**1.0 INTRODUCTION**

PM Environmental, Inc. (PM) was retained to conduct a Desktop Noise Assessment of Vacant Land located 3515 2<sup>nd</sup> Avenue, Detroit, Wayne County, Michigan (hereafter referred to as the “subject property”). This Desktop Noise Assessment was conducted in general accordance with the US Department of Housing and Urban Development (HUD) Noise Abatement and Control standards contained in 24 CFR 51B. This report was also prepared in general accordance with the Michigan State Housing Development Authority (MSHDA) requirements.

**THIS REPORT WAS PREPARED FOR THE EXCLUSIVE USE OF MHT HOUSING INC., MLK ON 2<sup>nd</sup> LIMITED DIVIDEND HOUSING ASSOCIATION LLC, AND THE MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY, EACH OF WHOM MAY RELY ON THE REPORT’S CONTENTS.**

The proposed development/ utilizes a state source of funding. This assessment was conducted to provide the noise level and associated noise category at each designated Noise Assessment Location (NAL) at the subject property. This assessment does not include an evaluation of noise attenuation but general guidance is provided at the end of this assessment.

MSHDA requires that a noise assessment be completed properties that are located within 1,000 feet of a major roadway, 3,000 feet of a railroad, or 15 miles of a military or FAA-regulated airports.

The noise level calculated at a NAL is known as the day-night average sound level or DNL. A calculated DNL can fall within three categories:

1. Acceptable: DNL not exceeding 65 decibels (dB)
2. Normally Unacceptable: DNL above the 65 dB threshold but not exceeding 75 dB
3. Unacceptable: DNL above 75 dB

Two NALs (NAL #1 and NAL #2) on the subject property were used for this analysis based on proximity to noise sources. A map with the subject property boundaries, buildings, and NALs is included as Appendix A.

The following is a summary of the applicable noise sources identified at each NAL.

**NAL #1**

Noise Source with Applicable Distance	Name	Distance to NAL
Airports	Coleman A. Young	4.7 miles
	Windsor	6.60 miles
	Oakland Troy	15 miles
Busy Roads	2 <sup>nd</sup> Avenue	160 feet
	3 <sup>rd</sup> Avenue	500 feet
	MLK Jr. Boulevard	50 feet
	Cass Avenue	815 feet

**NAL #2**

<b>Noise Source with Applicable Distance</b>	<b>Name</b>	<b>Distance to NAL</b>
Airports	Coleman A. Young	4.7 miles
	Windsor	6.60 miles
	Oakland Troy	15.0 miles
Busy Roads	2 <sup>nd</sup> Avenue	60 feet
	3 <sup>rd</sup> Avenue	600 feet
	MLK Jr. Boulevard	50 feet
	Cass Avenue	715 feet

The noise sources identified within the table are further discussed below.

**2.0 EVALUATION OF NOISE SOURCES**

**2.1: Airports**

Coleman A. Young International Airport is located approximately 4.7 miles northeast of the subject property. Based on the Noise Contour Map for the airport (Appendix B), the site is not within a distance of concern.

Windsor Airport is located approximately 6.60 miles southeast of the subject property. Based on the Noise Contour Map for the airport (Appendix B), the site is not within a distance of concern.

Oakland Troy Airport (Y47) is approximately 15 miles northwest of the subject property. Based on the Noise Contour Map for the airport (Appendix B), the site is not within a distance of concern.

**2.2: Major Roadways**

The major roadways near the site are:

- 2<sup>nd</sup> Avenue
- 3<sup>rd</sup> Avenue
- MLK Jr. Boulevard
- Cass Avenue

2<sup>nd</sup> and 3<sup>rd</sup> Avenue are two-lanes roads with speed limits of 30 miles per hour (mph) near the subject property. There are no stop signs within 600 feet of the subject property. Traffic counts were obtained through the Michigan Department of Transportation (MDOT). Projections were done through 2031. A growth rate of 1% per year compounded was judged appropriate as traffic levels are expected to remain relatively stable. Traffic projections are included in Appendix C.

Cass Avenue is a two-lane road with a speed limit of 25 mph near the subject property. There are no stop signs within 600 feet of the subject property. Traffic counts were obtained through the MDOT. Projections were done through 2031. A growth rate of 1% per year compounded was judged appropriate as traffic levels are expected to remain relatively stable. Traffic projections are included in Appendix C.

MLK Jr. Boulevard has three-lane northbound and southbound sections and the speed limit is 25 mph near the subject property. There are no stop signs within 600 feet of the subject property. Traffic counts were obtained through the MDOT. Projections were done through 2031. A growth rate of 1% per year compounded was judged appropriate as traffic levels are expected to remain relatively stable. Traffic projections are included in Appendix C.

### **2.3: Railroads**

No railroad tracks were identified within 3,000 feet of the subject property.

## **3.0 CALCULATIONS**

Using the HUD DNL calculator, the combined noise level, as predicted for operations in 2031, at NAL #1 is 69 dB. This result is Normally Unacceptable.

Using the HUD DNL calculator, the combined noise level, as predicted for operations in 2031, at NAL #1 is 70 dB. This result is Normally Unacceptable.

Noise DNL calculator worksheets for each NAL are provided in Appendix D.

## **4.0 CONCLUSIONS**

The following is a summary of the findings of this assessment.

<b>NAL #</b>	<b>Combined Source DNL (dB)</b>	<b>Category</b>
1 (southwestern corner of proposed building)	69	Normally Unacceptable
2 (southeastern corner of proposed building)	70	Normally Unacceptable

### **HUD ATTENUATION GUIDANCE**

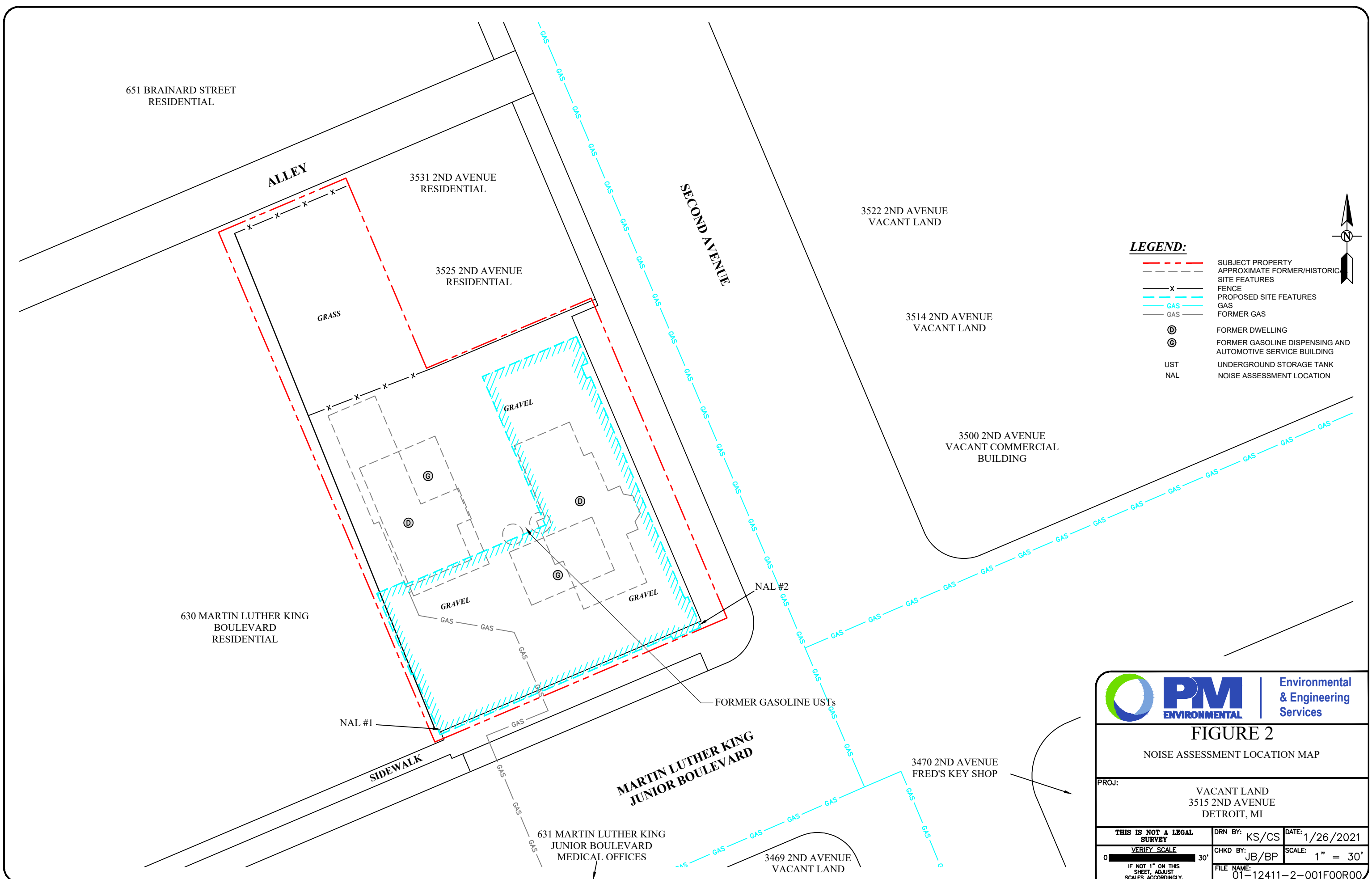
The "Normally Unacceptable" noise zone includes community noise levels from above 65 dB to 75 dB. Approvals in this noise zone require a minimum of 5 dB additional sound attenuation for buildings having noise-sensitive uses if the day-night average sound level is greater than 65 dB but does not exceed 70 dB, or a minimum of 10 dB of additional sound attenuation if the day-night average sound level is greater than 70 dB but does not exceed 75 dB (HUD generally gives a 1 dB variance up to 76 dB). If an award is received, the project architect will need to provide a HUD Figure 19 and/or a Sound Transmission Classification Assessment Tool (STraCAT) analysis in accordance with MSHDA requirements. The interior standard is 45 dB.

## **5.0 REFERENCES**

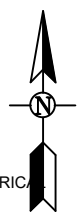
- 24 CFR Part 51 Subpart B
- The Noise Guidebook, U.S. Department of Housing and Urban Development
- [https://www.michigan.gov/mdot/0,4616,7-151-11151\\_11033-22141--,00.html](https://www.michigan.gov/mdot/0,4616,7-151-11151_11033-22141--,00.html)
- <https://www.hudexchange.info/programs/environmental-review/dnl-calculator/>

# Appendix A





- LEGEND:**
- SUBJECT PROPERTY
  - APPROXIMATE FORMER/HISTORIC SITE FEATURES
  - x— FENCE
  - PROPOSED SITE FEATURES
  - GAS
  - FORMER GAS
  - Ⓧ FORMER DWELLING
  - Ⓞ FORMER GASOLINE DISPENSING AND AUTOMOTIVE SERVICE BUILDING
  - UST UNDERGROUND STORAGE TANK
  - NAL NOISE ASSESSMENT LOCATION



**FIGURE 2**  
NOISE ASSESSMENT LOCATION MAP

PROJ: VACANT LAND 3515 2ND AVENUE DETROIT, MI		
THIS IS NOT A LEGAL SURVEY	DRN BY: KS/CS	DATE: 1/26/2021
VERIFY SCALE	CHKD BY: JB/BP	SCALE: 1" = 30'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		
FILE NAME: 01-12411-2-001F00R00		

# Appendix B

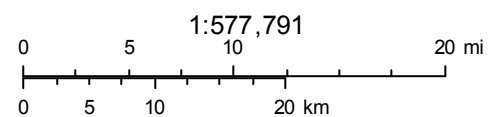


# Airport Map ArcGIS Web Map



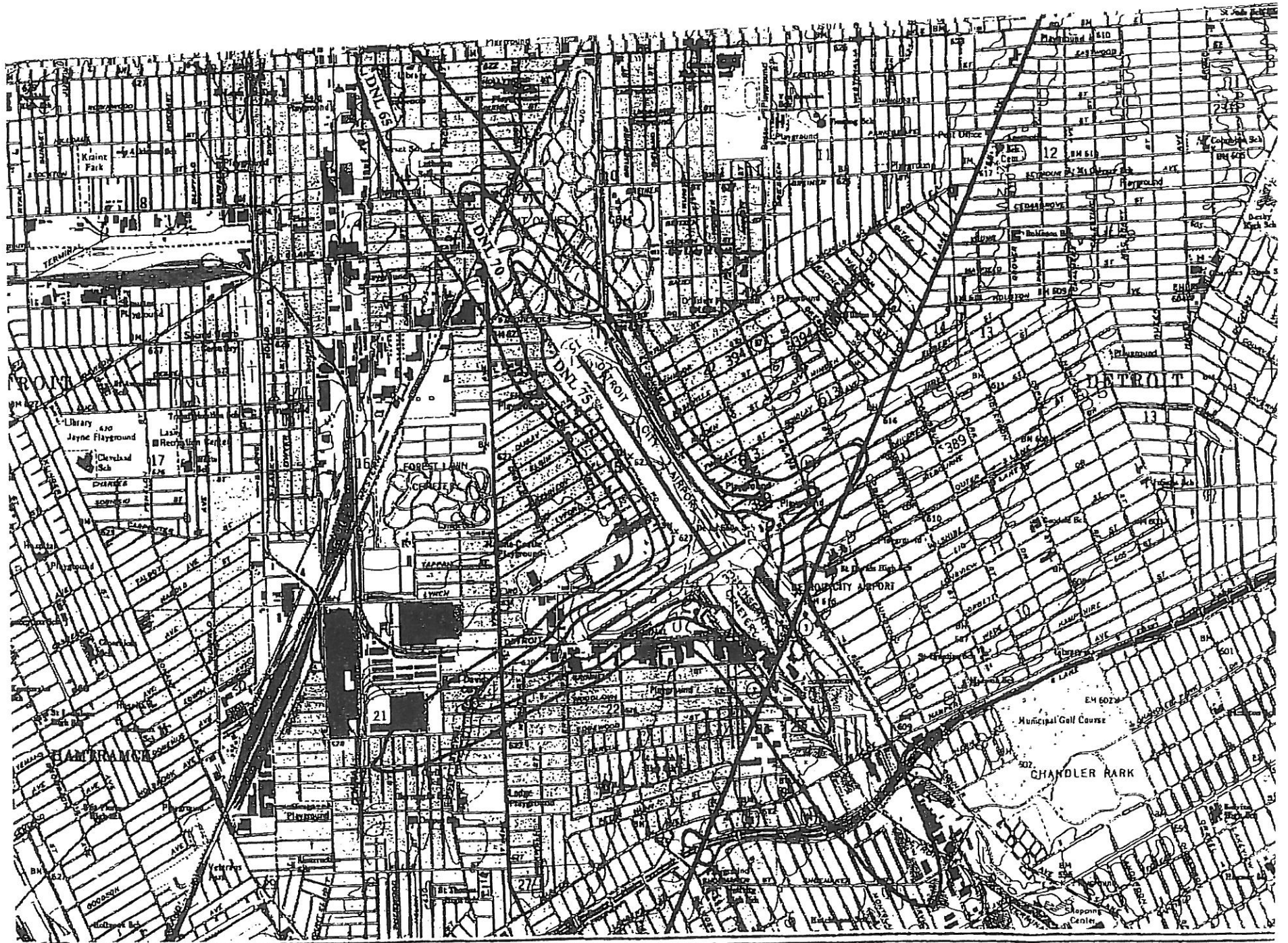
December 29, 2020

 Airports Allowing Jets



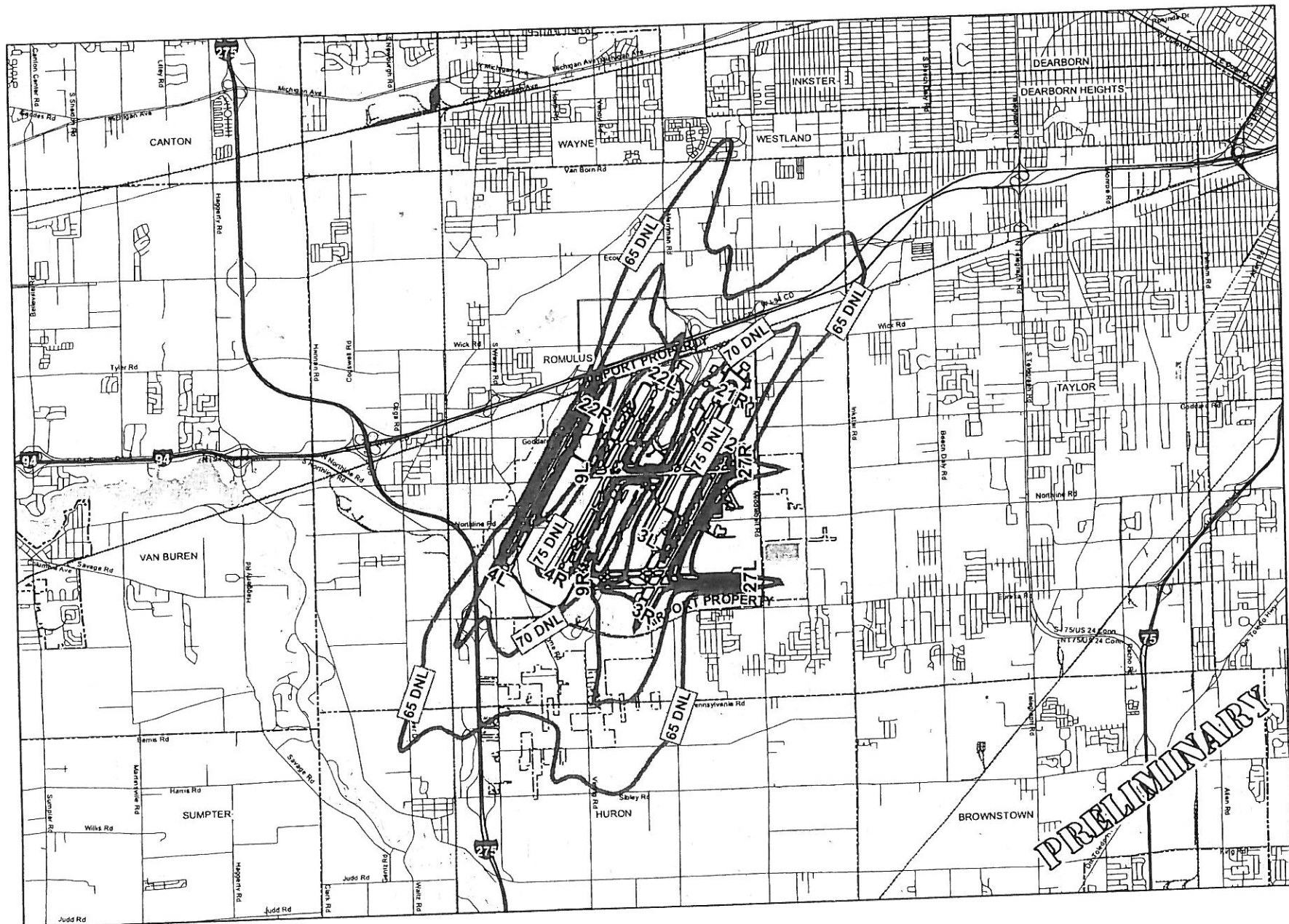
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community





CITY OF DETROIT  
 AIRPORT DEPARTMENT

1996 BAS  
 NOISE EXPOSURE CONTOURS



Existing (2004) Noise Contour

Source: Michigan Department of Natural Resources, SEMCOG

DETROIT METROPOLITAN WAYNE COUNTY AIRPORT

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# KVLL Oakland/Troy Airport

Troy, Michigan, USA



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## FAA INFORMATION EFFECTIVE 01 FEBRUARY 2018

[Loc](#) | [Ops](#) | [Rwys](#) | [IFR](#) | [FBO](#) | [Links](#)  
[Com](#) | [Nav](#) | [Svcs](#) | [Stats](#) | [Notes](#)

### Location

FAA Identifier: VLL  
 Lat/Long: 42-32-34.6000N / 083-10-40.4000W  
 42-32.576667N / 083-10.673333W  
 42.5429444 / -83.1778889  
 (estimated)  
 Elevation: 727.2 ft. / 221.7 m (surveyed)  
 Variation: 06W (1995)  
 From city: 2 miles E of TROY, MI  
 Time zone: UTC -5 (UTC -4 during Daylight Saving Time)  
 Zip code: 48084

### Airport Operations

Airport use: Open to the public  
 Control tower: no  
 ARTCC: CLEVELAND CENTER  
 FSS: LANSING FLIGHT SERVICE STATION  
 NOTAMs facility: VLL (NOTAM-D service available)  
 Attendance: 0800-1800  
 Pattern altitude: 1727.2 ft. MSL  
 Wind indicator: lighted  
 Segmented circle: no  
 Lights: ACTVT MIRL RY 09/27 & PAPI RYS 09 & 27 - CTAF.  
 Beacon: white-green (lighted land airport)  
 Operates sunset to sunrise.  
 Landing fee: yes

### Airport Communications

CTAF/UNICOM: 123.05  
 WX AWOS-3: 119.475 (248-288-4649)  
 DETROIT APPROACH: 126.85  
 DETROIT DEPARTURE: 126.85  
 WX ASOS at DET (11 nm SE): PHONE 313-371-9696

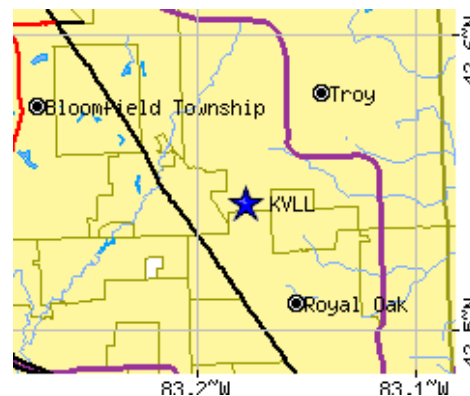
**Sweepstakes**

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Road maps at: [MapQuest](#) [Bing](#) [Google](#)

### Aerial photo

WARNING: Photo may not be current or correct

WX ASOS at PTK (13 nm NW): 125.025 (248-886-8551)

### Nearby radio navigation aids

VOR radial/distance	VOR name	Freq	Var
<a href="#">PSI</a> r124/18.3	PONTIAC VORTAC	111.00	03W
<a href="#">SVM</a> r069/20.1	SALEM VORTAC	114.30	03W
<a href="#">DXO</a> r029/21.5	DETROIT VOR/DME	113.40	06W
<a href="#">YQG</a> r325/23.4	WINDSOR VOR/DME	113.80	06W
<a href="#">CRL</a> r026/32.2	CARLETON VOR/DME	115.70	03W
<a href="#">FNT</a> r141/35.7	FLINT VORTAC	116.90	06W

NDB name	Hdg/Dist	Freq	Var	ID
<a href="#">MADDS</a>	313/4.7	338	05W	DE - . . .
<a href="#">CARGL</a>	324/14.9	230	05W	VQ . . . - - - . -
<a href="#">GROSSE ILE</a>	005/26.5	419	07W	RYS . - . - - - . . . .

### Airport Services

- Fuel available: 100LL JET-A
- Parking: tiedowns
- Airframe service: NONE
- Powerplant service: NONE

### Runway Information

#### Runway 9/27

Dimensions: 3549 x 60 ft. / 1082 x 18 m

Surface: asphalt, in fair condition

Runway edge lights: medium intensity

#### RUNWAY 9

Latitude: 42-32.575973N

Longitude: 083-11.068925W

Elevation: 727.0 ft.

Gradient: 0.7% DOWN

Traffic pattern: left

Runway heading: 096 magnetic, 090 true

Markings: nonprecision, in good condition  
 Visual slope indicator: 2-light PAPI on right (3.75 degrees glide path)

Runway end identifier lights: no

Touchdown point: yes, no lights

Obstructions: 19 ft. trees, 542 ft. from runway, 18:1 slope to clear

#### RUNWAY 27

Latitude: 42-32.578848N

Longitude: 083-10.278788W

Elevation: 701.0 ft.

Gradient: 0.7% UP

Traffic pattern: left

Runway heading: 276 magnetic, 270 true

Markings: nonprecision, in good condition

Visual slope indicator: 2-light PAPI on left (3.75 degrees glide path)

Runway end identifier lights: no

Touchdown point: yes, no lights

Obstructions: 17 ft. bldg, lighted, 540 ft. from runway, 20:1 slope to clear

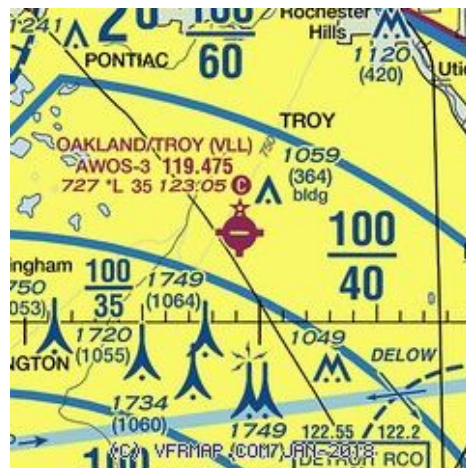
### Airport Ownership and Management from official FAA records



Photo by Jeff Schuster  
 Photo taken 29-Jun-2014  
 looking west.

Do you have a better or more recent aerial photo of Oakland/Troy Airport that you would like to share? If so, please [send us your photo](#).

### Sectional chart



### Airport distance calculator

Flying to Oakland/Troy Airport? Find the distance to fly.

From  to KVLL

### Sunrise and sunset

Times for 27-Feb-2018

	Local (UTC-5)	Zulu (UTC)
Morning civil twilight	06:44	11:44
Sunrise	07:13	12:13
Sunset	18:18	23:18
Evening civil twilight	18:47	23:47

### Current date and time

Zulu (UTC)	27-Feb-2018 21:13:29
Local (UTC-5)	27-Feb-2018 16:13:29

### METAR

**KVLL** 272055Z AUTO 22013G19KT 10SM CLR 15/M02 A3013 RMK AO2 T01511018  
**KDET** 272053Z 25016G21KT 10SM CLR 11nm SE 14/M01 A3012 RMK AO2 SLP201 T01441006 56031  
**KPTK** 272053Z 20012G18KT 10SM 13nm NW FEW070 SCT250 14/M01 A3009

Ownership: Publicly-owned

Owner: OAKLAND COUNTY  
6500 HIGHLAND ROAD  
WATERFORD, MI 48327  
Phone 248-666-3900  
ARPT PHONE 248-288-6100

Manager: KARL W RANDALL  
6500 HIGHLAND RD  
WATERFORD, MI 48327  
Phone 248-666-3900

RMK AO2 SLP192 T01441011  
56029

**KMTC**  
17nm E 272056Z 23015G22KT 10SM  
FEW065 SCT230 15/M01 A3011  
RMK SLP204 WND DATA ESTMD  
ALSTG/SLP ESTMD 56027 \$

**CYQG**  
19nm SE **72000Z** 21016G23KT 15SM  
BKN260 13/02 A3014 RMK CI6  
SLP213

**KDTW**  
20nm S 272053Z 23020G27KT 10SM  
BKN250 16/00 A3013 RMK AO2 PK  
WND 22030/2036 SLP208  
T01560000 56031

**TAF**

**KDET**  
11nm SE 271720Z 2718/2818 22015G25KT  
P6SM FEW250 FM272200 20011KT  
P6SM SCT250 FM281300 19008KT  
P6SM OVC050 FM281500 21008KT  
4SM -RA BR BKN015 OVC025

**KPTK**  
13nm NW 271720Z 2718/2818 22015G25KT  
P6SM FEW250 FM272200 20011KT  
P6SM SCT250 FM281300 19008KT  
P6SM OVC050 FM281500 21008KT  
4SM -RA BR BKN015 OVC025

**KMTC**  
17nm E 271700Z 2717/2823 20009KT 9999  
FEW200 QNH2989INS BECMG  
2814/2815 20009KT 9999 BKN015  
QNH2979INS BECMG 2820/2821  
23006KT 9999 OVC008  
QNH2979INS TX12/2719Z  
TNM02/2809Z

**CYQG**  
19nm SE 271738Z 2718/2818 20015KT  
P6SM FEW250 FM272000  
21015G25KT P6SM SCT070  
FM280200 20012KT P6SM SKC  
FM280800 20012KT P6SM BKN120  
FM281200 21008G18KT P6SM  
FEW020 SCT120 SCT200 FM281700  
23011KT P6SM -SHRA BKN012  
BKN130 BKN190 RMK NXT FCST BY  
280000Z

**KDTW**  
20nm S 271720Z 2718/2824 22015G25KT  
P6SM FEW250 FM272200 20011KT  
P6SM SCT250 FM281300 19008KT  
P6SM OVC050 FM281500 21008KT  
4SM -RA BR BKN015 OVC025

**NOTAMs**

[Click for the latest NOTAMs](#)  
NOTAMs are issued by the DoD/FAA and will open in a separate window not controlled by AirNav.

**Airport Operational Statistics**

Aircraft based on the field: 103      Aircraft operations: avg 82/day \*  
Single engine airplanes: 92      50% transient general aviation  
Multi engine airplanes: 5      50% local general aviation  
Helicopters: 5      \* for 12-month period ending 31 December 2014  
Ultralights: 1

**Additional Remarks**

- DEER AND BIRDS ON & INVOF ARPT.
- RY 09 +3 FT BERM 316 FT FM THLD.
- NO TGL OR PRACTICE TFC PATTERNS.
- FOR CD CTC DETROIT APCH AT 800-499-8181.

**Instrument Procedures**

NOTE: All procedures below are presented as PDF files. If you need a reader for these files, you should [download](#) the free Adobe Reader.

**NOT FOR NAVIGATION.** Please procure official charts for flight.  
FAA instrument procedures published for use between 1 February 2018 at 0901Z and 1 March 2018 at 0900Z.

**STARs - Standard Terminal Arrivals**

- CRUXX SIX [download](#) (248KB)
- LLEEO TWO [download](#) (321KB)
- SPRTN THREE [download](#) (158KB)
- SWWAN TWO [download](#) (149KB)

**IAPs - Instrument Approach Procedures**


- RNAV (GPS) RWY 09 [download](#) (164KB)
- NOTE: Special Take-Off Minimums/Departure Procedures apply [download](#) (125KB)

Other nearby airports with instrument procedures:

- [KDET](#) - Coleman A Young Municipal Airport (11 nm SE)
- [KPTK](#) - Oakland County International Airport (13 nm NW)
- [KMTC](#) - Selfridge Air National Guard Base (16 nm E)
- [1D2](#) - Canton-Plymouth-Mettetal Airport (17 nm SW)
- [57D](#) - Ray Community Airport (17 nm NE)
- [D98](#) - Romeo State Airport (18 nm NE)
- [Y47](#) - Oakland Southwest Airport (20 nm W)

## FBO, Fuel Providers, and Aircraft Ground Support

Business Name	Contact	Services / Description	Fuel Prices	Comments
<a href="#">JDS Pump-N-Go</a>	248-288-6100 <a href="#">[email]</a>	Aviation fuel, Aircraft parking (ramp or tiedown), Hangar leasing / sales  <a href="#">More info about JDS Pump-N-Go</a> no information available	Avfuel 100LL Jet A SS \$5.06 \$4.35 Updated 27-Feb-2018	not yet rated <a href="#">write</a>
24HRFUEL.com	248-655-1474	If you are affiliated with 24HRFUEL.com and would like to show here your services, contact info, web link, logo, and more, <a href="#">click here</a>	100LL Jet A SS \$4.89 \$3.49 Updated 21-Feb-2018	not yet rated 2 <a href="#">read</a> <a href="#">write</a>

SS=[Self service](#)  


### Would you like to see your business listed on this page?

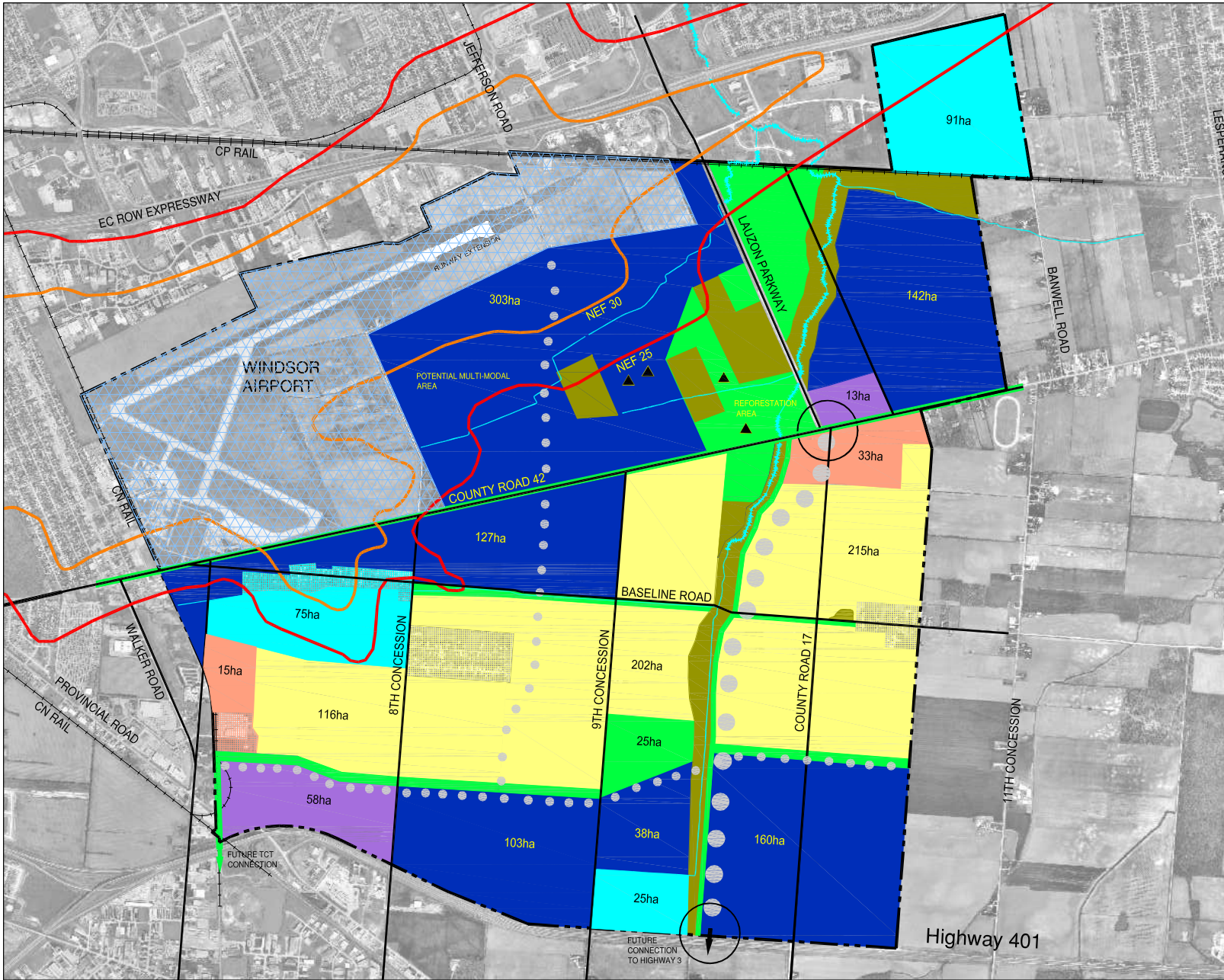
If your business provides an interesting product or service to pilots, flight crews, aircraft, or users of the Oakland/Troy Airport, you should consider listing it here. To start the listing process, click on the button below



### Other Pages about Oakland/Troy Airport

-  [Page from the Michigan Airport Directory \(PDF\)](#)
-  [Oakland/Troy Airport Website](#)





- LEGEND:**
- Residential
  - Commercial
  - Mixed Use
  - Industrial
  - Business Park
  - Natural Heritage/EPA
  - Open Space
  - Airport Lands
  - Future Roads (potential location\*)
  - Potential Interchange
  - Natural Corridor Linkage Opportunities
- \* Final location to be determined through the Class EA process.

**LAND USE:**

Residential	550ha
Mixed Use	50ha
Commercial	70ha
Business Park	190ha
Industrial	875ha
Airport	420ha

Stantec Consulting Limited

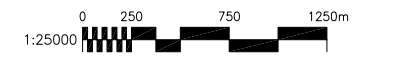
N6A 5J7  
 Tel. (519)645-2007  
 Fax. (519)645-6575  
 www.stantec.com

CITY OF WINDSOR

**WINDSOR ANNEXED AREA  
MASTER PLAN STUDY**

CONCEPT 1

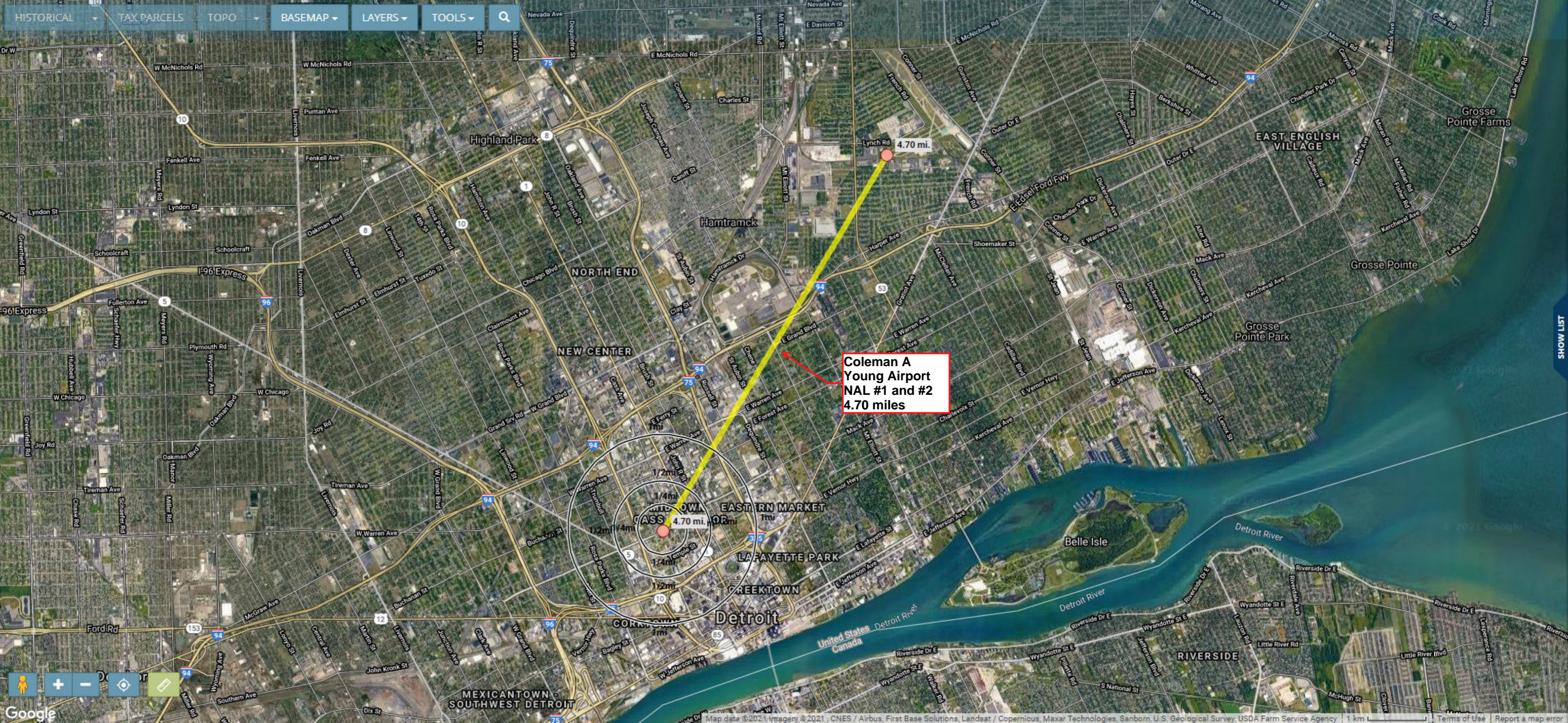
September 2006 614-01073CP1.dwg



# Appendix C

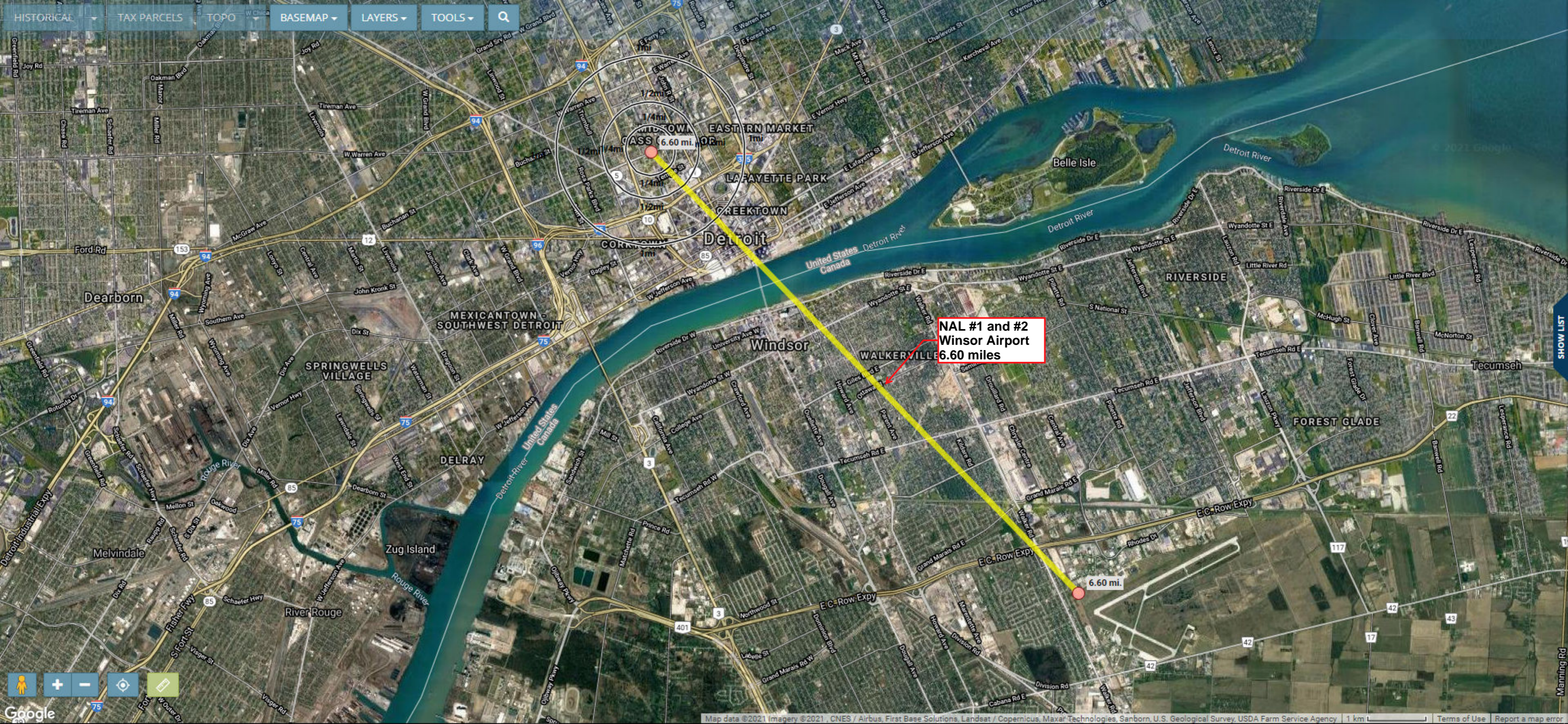






**Coleman A  
Young Airport  
NAL #1 and #2  
4.7 miles**

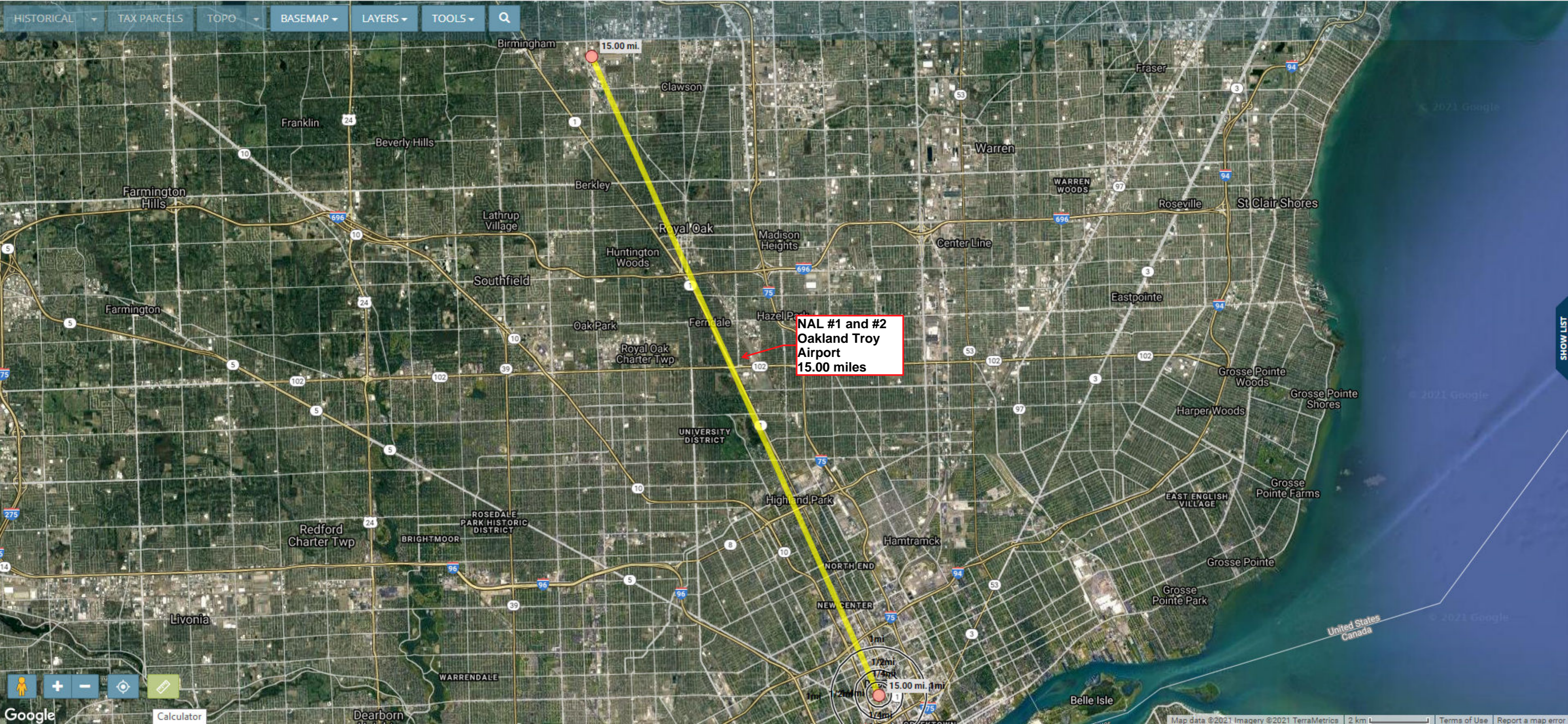
SHOW LIST



1/2mi  
1/4mi  
CASS (6.60 mi)  
1/2mi  
1/4mi  
1/2mi  
1/4mi  
EASTERN MARKET  
LA FAYETTE PARK  
CREEKTOWN  
Detroit  
CORINTH

NAL #1 and #2  
Windsor Airport  
6.60 miles

6.60 mi.



NAL #1 and #2  
Oakland Troy  
Airport  
15.00 miles

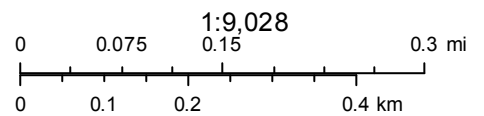
15.00 mi.

15.00 mi. 1mi 1/2mi 1/4mi

# ArcGIS Web Map



December 29, 2020



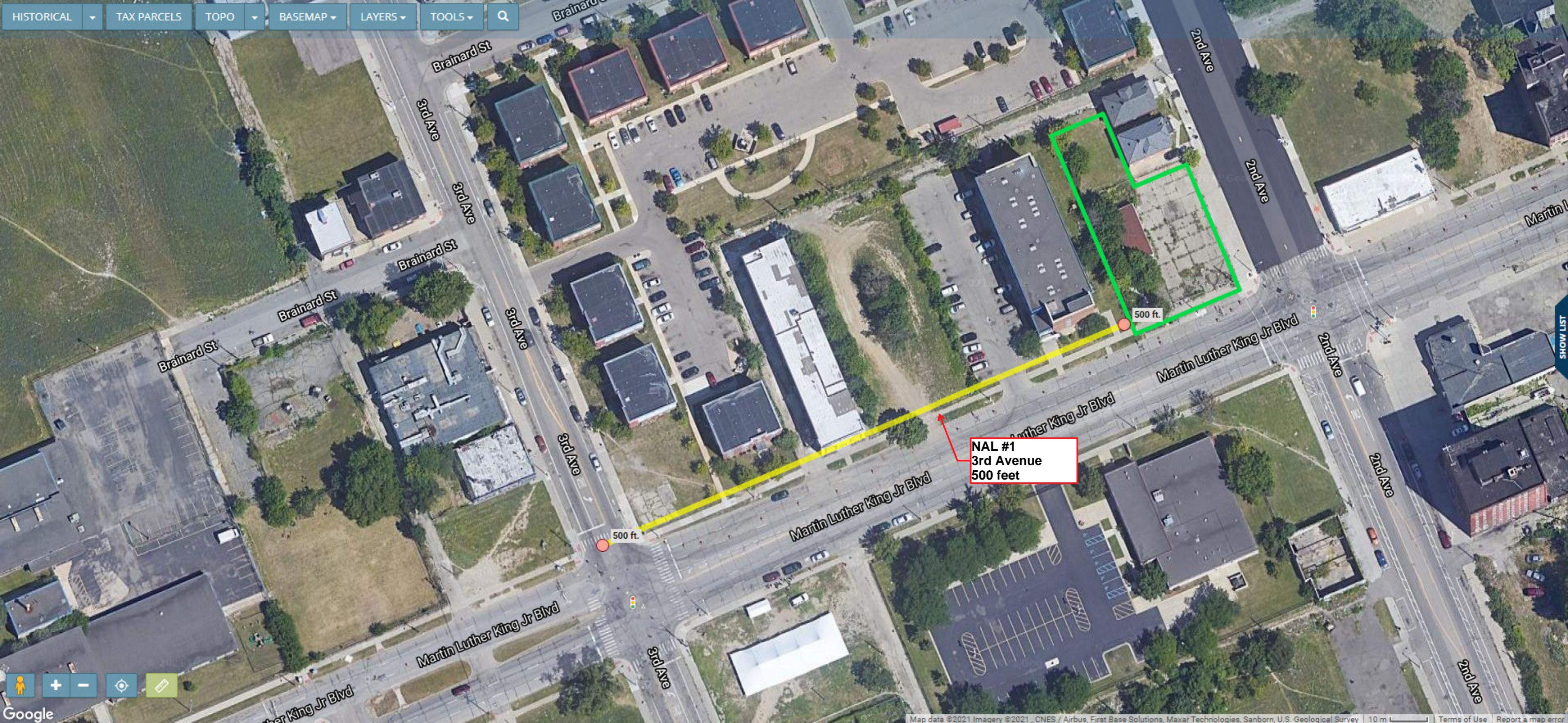
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



NAL #1  
2nd Avenue  
160 feet

160 ft.

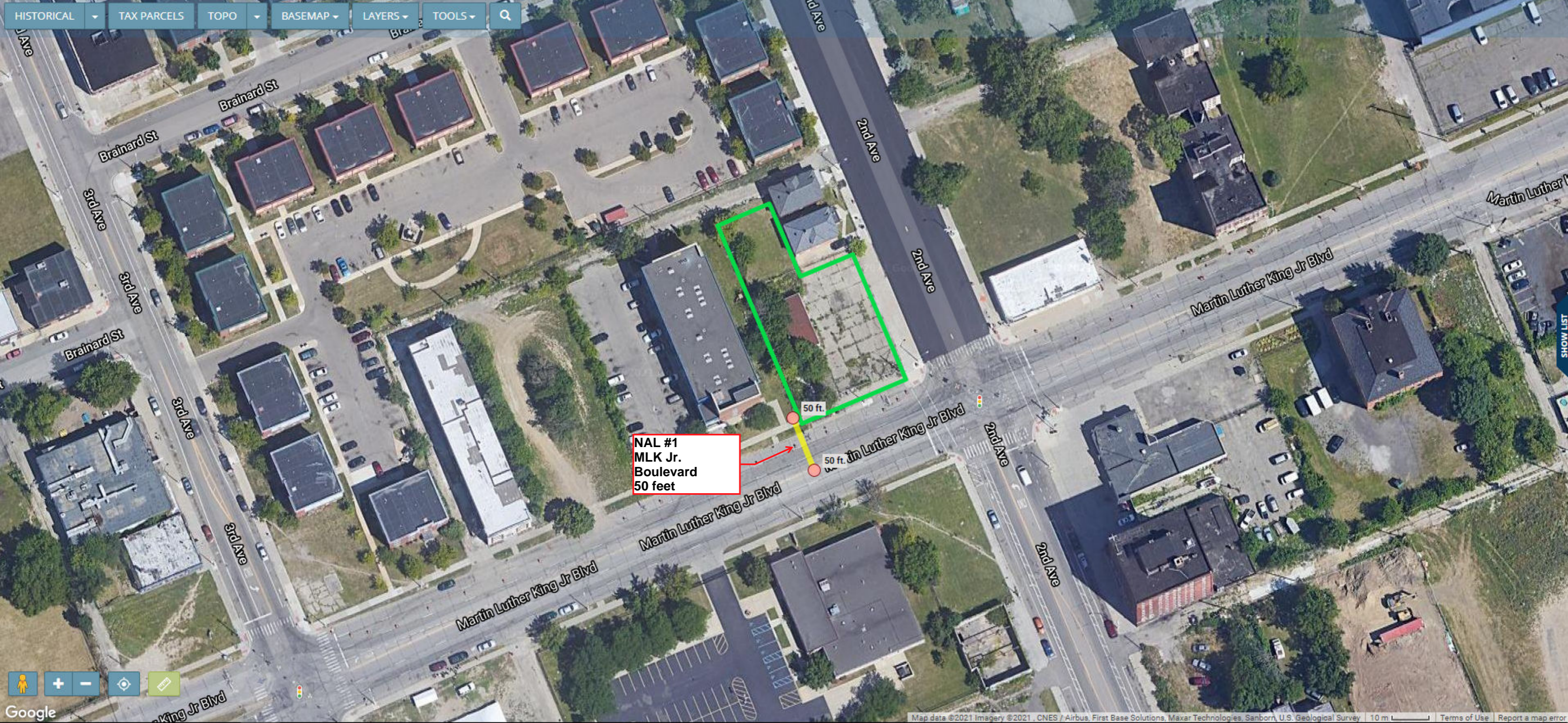
160 ft.



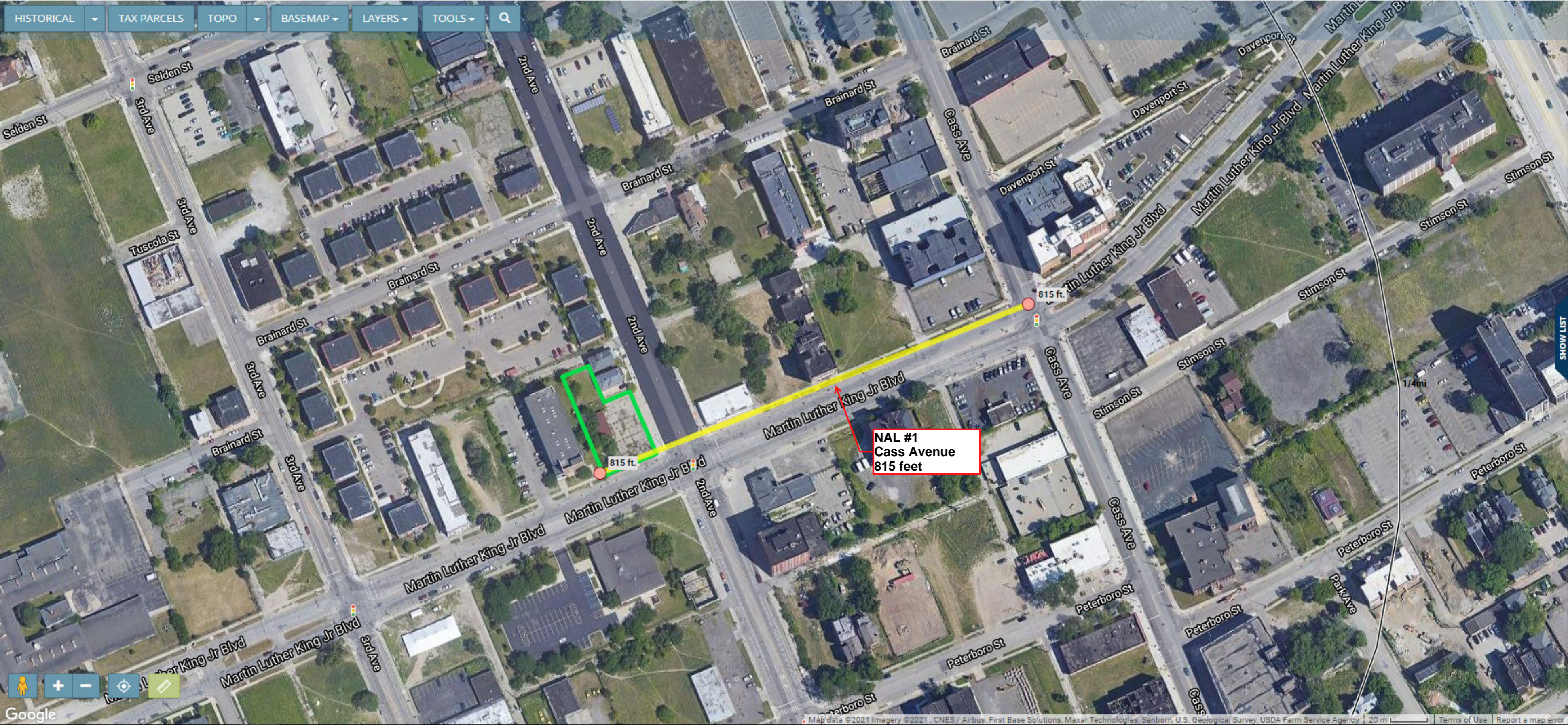
NAL #1  
3rd Avenue  
500 feet

500 ft.

500 ft.



NAL #1  
MLK Jr.  
Boulevard  
50 feet



NAL #1  
Cass Avenue  
815 feet

815 ft.

815 ft.

1/4mi

SHOW LIST

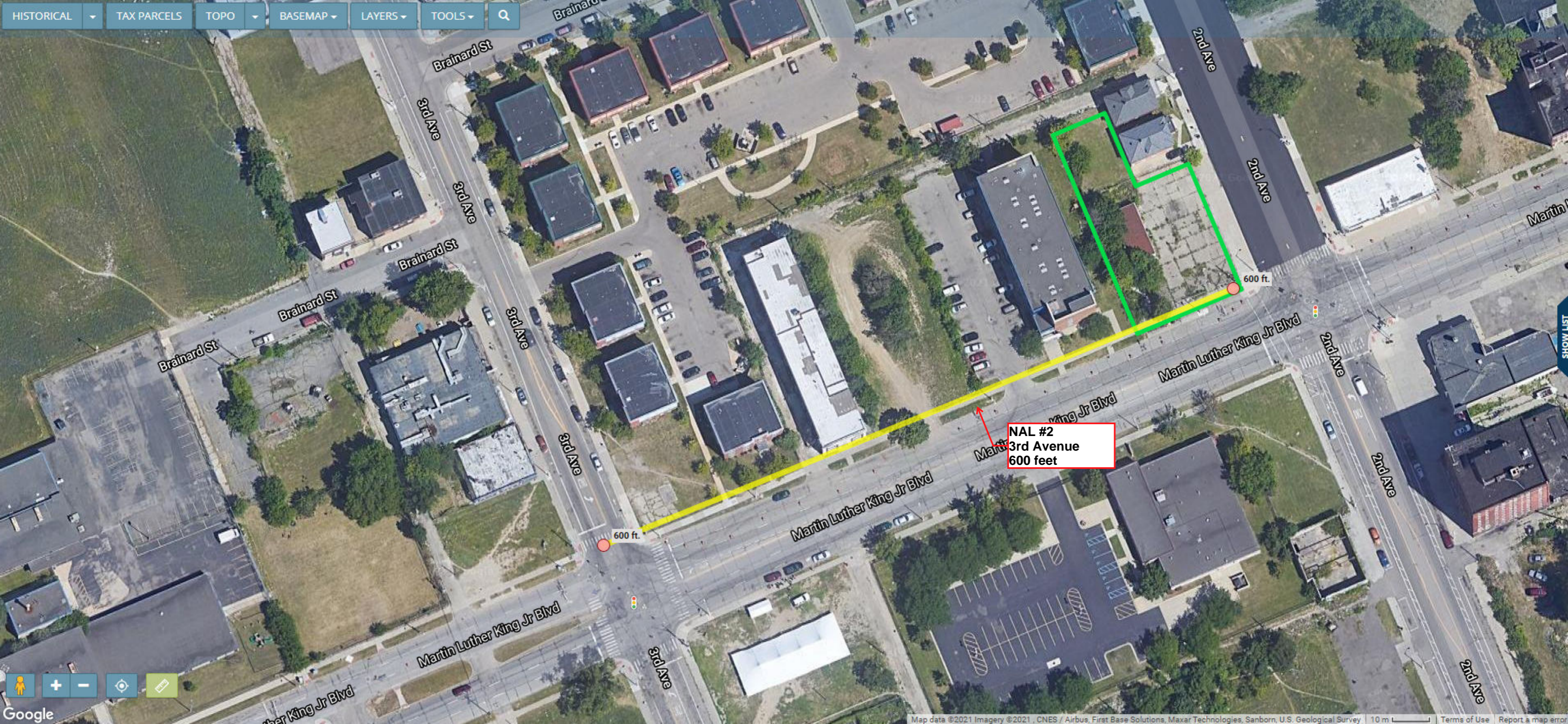




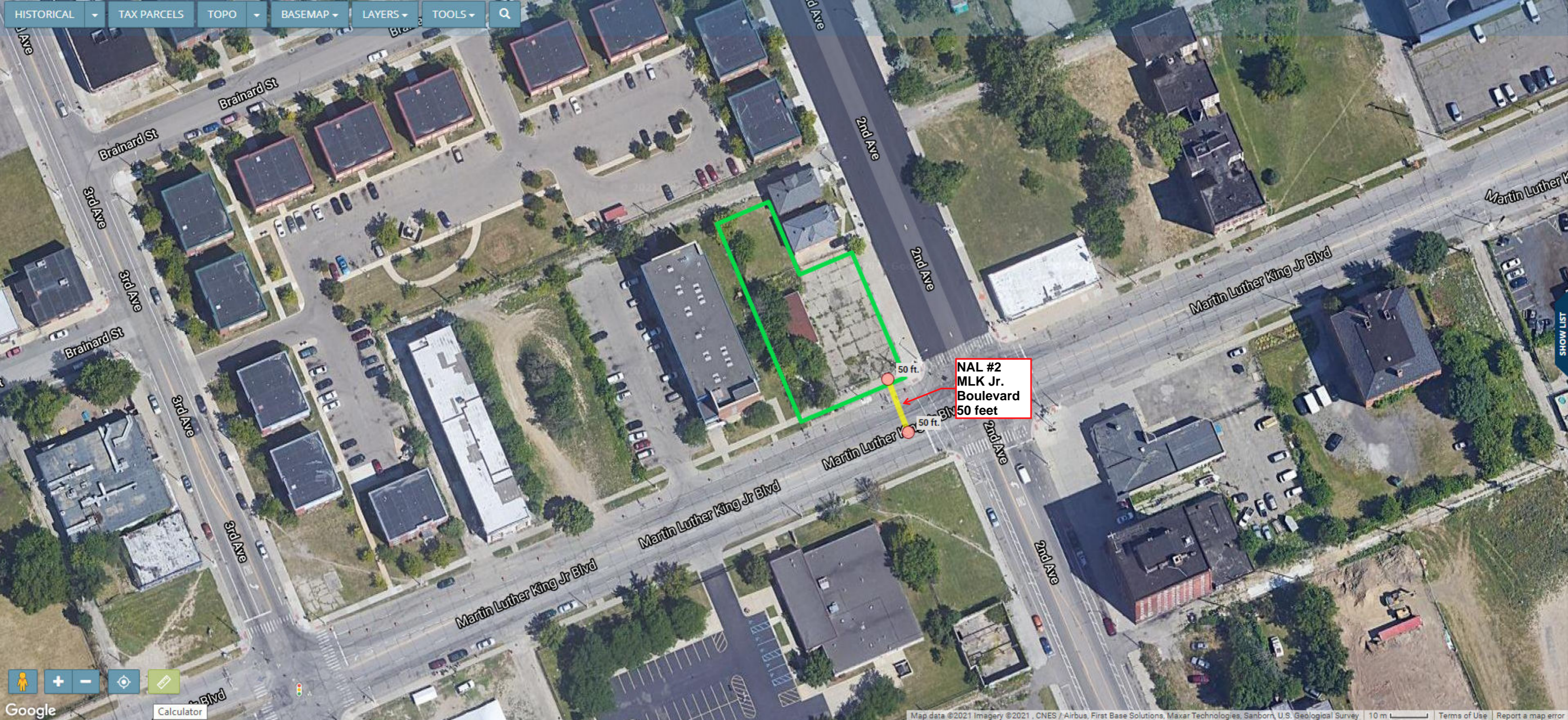
NAL #2  
2nd Avenue  
60 feet

60 ft.

60 ft.



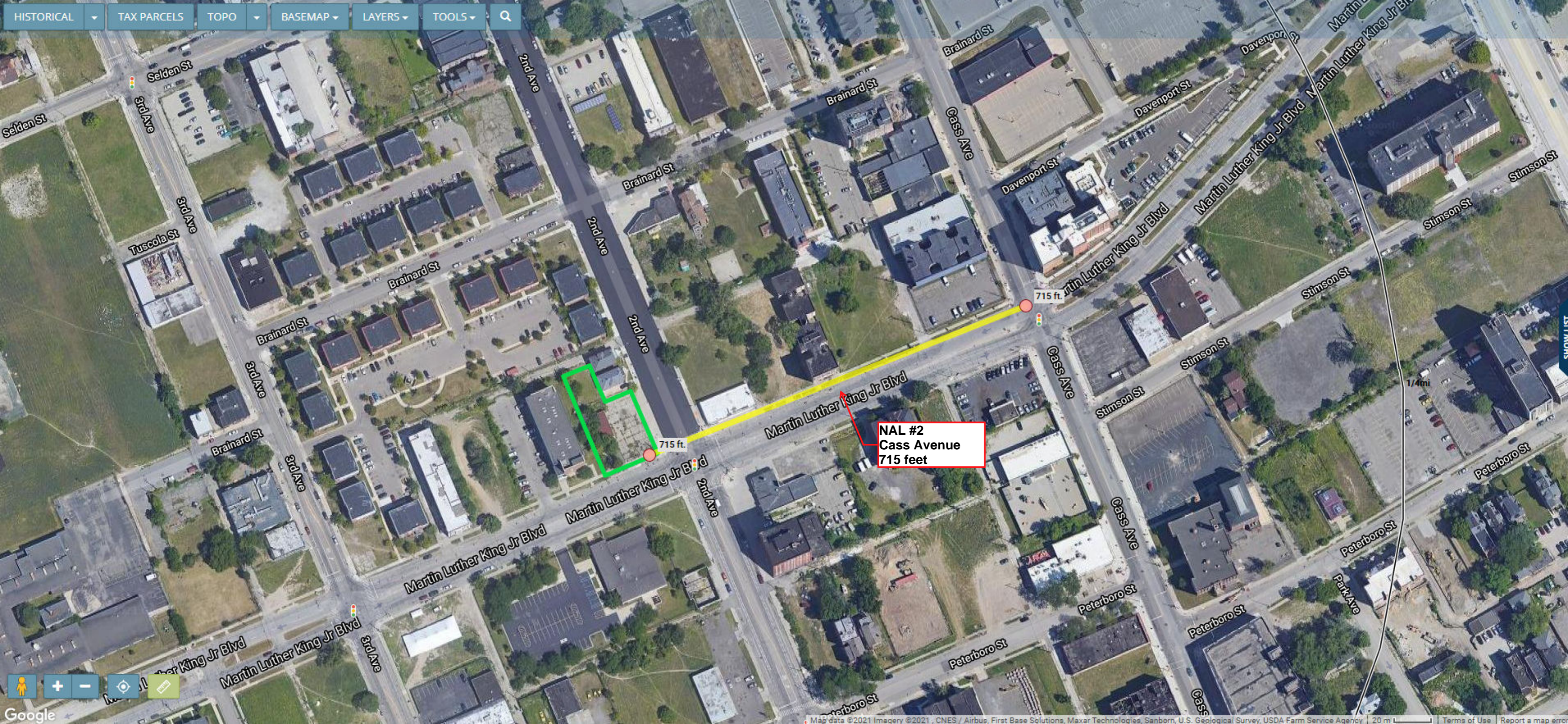
NAL #2  
3rd Avenue  
600 feet



NAL #2  
MLK Jr.  
Boulevard  
50 feet

50 ft.

50 ft.



NAL #2  
Cass Avenue  
715 feet

715 ft.

715 ft.

1/4mi

**Auto and Heavy Truck 10-year ADT Projections**

*2nd Avenue*

	<b>Cars</b>	<b>% Change</b>	<b>Trucks</b>	<b>% Change</b>
2018	4139	#REF!	331.12	#REF!
2019	4118	-0.5	329.44	-0.5
	<b>Avg % change:</b>	<b>#REF!</b>	<b>Avg % change:</b>	<b>#REF!</b>
	<b>Avg % change (Last 5-yr Trend):</b>	<b>#REF!</b>	<b>Avg % change (Last 5-yr Trend):</b>	<b>#REF!</b>
	<b>% Change/Year Assumption</b>	1	<b>%/Year Change Assumption</b>	1

<b>ENTER DATA HERE</b>	
<b>Year</b>	<b>AADT</b>
2018	4139
2019	4118
% auto	92
% truck	8

*2031 Projections*

	<b>Cars</b>	<b>Trucks</b>
2018	4139	103
2019	4118	164
2020	4159	166
2021	4201	167
2022	4243	169
2023	4285	171
2024	4328	172
2025	4371	174
2026	4415	176
2027	4459	178
2028	4504	179
2029	4549	181
2030	4594	183
2031	4640	185

<b>Predicted 2031 Auto ADT</b>	<b>Predicted 2031 Truck ADT</b>
4640	185

**Auto and Heavy Truck 10-year ADT Projections**

3rd Avenue

	Cars	% Change	Trucks	% Change
2018	12003	#REF!	960.24	#REF!
2019	11943	-0.5	955.44	-0.5
	Avg % change:	#REF!	Avg % change:	#REF!
	Avg % change (Last 5-yr Trend):	#REF!	Avg % change (Last 5-yr Trend):	#REF!
	% Change/Year Assumption	1	%/Year Change Assumption	1

ENTER DATA HERE	
Year	AADT
2018	12003
2019	11943
% auto	92
% truck	8

2031 Projections

	Cars	Trucks
2018	12003	300
2019	11943	467
2020	12062	472
2021	12183	476
2022	12305	481
2023	12428	486
2024	12552	491
2025	12678	496
2026	12805	501
2027	12933	506
2028	13062	511
2029	13193	516
2030	13324	521
2031	13458	526

Predicted 2031 Auto ADT	Predicted 2031 Truck ADT
13458	526

**Auto and Heavy Truck 10-year ADT Projections**

*Cass Avenue*

	<b>Cars</b>	<b>% Change</b>	<b>Trucks</b>	<b>% Change</b>
2018	6115	#REF!	489.2	#REF!
2019	6084	-0.5	486.72	-0.5
	<b>Avg % change:</b>	<b>#REF!</b>	<b>Avg % change:</b>	<b>#REF!</b>
	<b>Avg % change (Last 5-yr Trend):</b>	<b>#REF!</b>	<b>Avg % change (Last 5-yr Trend):</b>	<b>#REF!</b>
	<b>% Change/Year Assumption</b>	1	<b>%/Year Change Assumption</b>	1

<b>ENTER DATA HERE</b>	
<b>Year</b>	<b>AADT</b>
2018	6115
2019	6084
% auto	92
% truck	8

*2031 Projections*

	<b>Cars</b>	<b>Trucks</b>
2018	6115	152
2019	6084	237
2020	6145	239
2021	6206	242
2022	6268	244
2023	6331	247
2024	6394	249
2025	6458	252
2026	6523	254
2027	6588	257
2028	6654	259
2029	6721	262
2030	6788	264
2031	6856	267

<b>Predicted 2031 Auto ADT</b>	<b>Predicted 2031 Truck ADT</b>
6856	267

**Auto and Heavy Truck 10-year ADT Projections**

*MLK Jr. Boulevard*

	<b>Cars</b>	<b>% Change</b>	<b>Trucks</b>	<b>% Change</b>
2018	12925	#REF!	1034	#REF!
2019	12860	-0.5	1028.8	-0.5
	<b>Avg % change:</b>	<b>#REF!</b>	<b>Avg % change:</b>	<b>#REF!</b>
	<b>Avg % change (Last 5-yr Trend):</b>	<b>#REF!</b>	<b>Avg % change (Last 5-yr Trend):</b>	<b>#REF!</b>
	<b>% Change/Year Assumption</b>	1	<b>%/Year Change Assumption</b>	1

<b>ENTER DATA HERE</b>	
<b>Year</b>	<b>AADT</b>
2018	12925
2019	12860
% auto	92
% truck	8

*2031 Projections*

	<b>Cars</b>	<b>Trucks</b>
2018	12925	285
2019	12860	489
2020	12989	494
2021	13118	499
2022	13250	504
2023	13382	509
2024	13516	514
2025	13651	519
2026	13788	524
2027	13926	530
2028	14065	535
2029	14205	540
2030	14347	546
2031	14491	551

<b>Predicted 2031 Auto ADT</b>	<b>Predicted 2031 Truck ADT</b>
14491	551



# Appendix D



[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator

## DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

### Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

## DNL Calculator

<b>Site ID</b>	NAL 1
<b>Record Date</b>	1.25.21
<b>User's Name</b>	Southwest Corner

**Road # 1 Name:** 2nd Avenue

**Road #1**

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	160	160	160
Distance to Stop Sign	0	0	0
Average Speed	30	30	30
Average Daily Trips (ADT)	6856	133	133
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	43	36	58
Calculate Road #1 DNL	58	Reset	

**Road # 2 Name:** 3rd Avenue

**Road #2**

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
--------------	--	---	--

Effective Distance	500	500	500
Distance to Stop Sign	0	0	0
Average Speed	30	30	30
Average Daily Trips (ADT)	13458	263	263
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	39	32	53
Calculate Road #2 DNL	54	Reset	

**Road # 3 Name:**

**Road #3**

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	50	5050	50
Distance to Stop Sign	0	0	0
Average Speed	25	25	25
Average Daily Trips (ADT)	14491	275	275
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	52	15	69
Calculate Road #3 DNL	69	Reset	

Road # 4 Name:

#### Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="815"/>	<input type="text" value="815"/>	<input type="text" value="815"/>
Distance to Stop Sign	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="25"/>	<input type="text" value="25"/>
Average Daily Trips (ADT)	<input type="text" value="6856"/>	<input type="text" value="133"/>	<input type="text" value="133"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="2"/>
Vehicle DNL	<input type="text" value="31"/>	<input type="text" value="24"/>	<input type="text" value="47"/>
<input type="button" value="Calculate Road #4 DNL"/>	<input type="text" value="47"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds?

Yes  No

Combined DNL for all  
Road and Rail sources

**69**

Combined DNL including Airport

**N/A**

Site DNL with Loud Impulse Sound

[Calculate](#) [Reset](#)

## Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/ HUD-environmental-staff-contacts/>)
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
  - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

## Tools and Guidance

[Day/Night Noise Level Assessment Tool User Guide](/resource/3822/day-night-noise-level-assessment-tool-user-guide/) (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

[Day/Night Noise Level Assessment Tool Flowcharts](/resource/3823/day-night-noise-level-assessment-tool-flowcharts/) (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator

## DNL Calculator

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- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

## DNL Calculator

<b>Site ID</b>	NAL 2
<b>Record Date</b>	1.25.21
<b>User's Name</b>	Southeast Corner

<b>Road # 1 Name:</b>	2nd Avenue
-----------------------	------------

**Road #1**

<b>Vehicle Type</b>	<b>Cars</b> <input checked="" type="checkbox"/>	<b>Medium Trucks</b> <input checked="" type="checkbox"/>	<b>Heavy Trucks</b> <input checked="" type="checkbox"/>
Effective Distance	60	60	60
Distance to Stop Sign	0	0	0
Average Speed	30	30	30
Average Daily Trips (ADT)	6856	133	133
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	50	43	64
<b>Calculate Road #1 DNL</b>	65	<b>Reset</b>	

<b>Road # 2 Name:</b>	3rd Avenue
-----------------------	------------

**Road #2**

<b>Vehicle Type</b>	<b>Cars</b> <input checked="" type="checkbox"/>	<b>Medium Trucks</b> <input checked="" type="checkbox"/>	<b>Heavy Trucks</b> <input checked="" type="checkbox"/>
---------------------	---	--	---



Effective Distance	000	000	000
Distance to Stop Sign	0	0	0
Average Speed	30	30	30
Average Daily Trips (ADT)	13458	263	263
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	38	30	52
<b>Calculate Road #2 DNL</b>	52	<b>Reset</b>	

**Road # 3 Name:**

**Road #3**

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	50	5050	50
Distance to Stop Sign	0	0	0
Average Speed	25	25	25
Average Daily Trips (ADT)	14491	275	275
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	52	15	69
<b>Calculate Road #3 DNL</b>	69	<b>Reset</b>	

Road # 4 Name:

**Road #4**

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="715"/>	<input type="text" value="715"/>	<input type="text" value="715"/>
Distance to Stop Sign	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="25"/>	<input type="text" value="25"/>
Average Daily Trips (ADT)	<input type="text" value="6856"/>	<input type="text" value="133"/>	<input type="text" value="133"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="2"/>
Vehicle DNL	<input type="text" value="32"/>	<input type="text" value="25"/>	<input type="text" value="48"/>
Calculate Road #4 DNL	<input type="text" value="48"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds?  Yes  No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

[Calculate](#) | [Reset](#)

## Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/ HUD-environmental-staff-contacts/>)
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
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## Tools and Guidance

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[Day/Night Noise Level Assessment Tool Flowcharts](/resource/3823/day-night-noise-level-assessment-tool-flowcharts/) (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

# Sound Transmission Classification Assessment Tool (STraCAT)

## Overview

The Sound Transmission Classification Assessment Tool (STraCAT) is an electronic version of Figures 17 and 19 in The HUD Noise Guidebook. The purpose of this tool is to document sound attenuation performance of wall systems. Based on wall, window, and door Sound Transmission Classification (STC) values, the STraCAT generates a composite STC value for the wall assembly as a whole. Users can enter the calculated noise level related to a specific Noise Assessment Location in front of a building façade and STraCAT will generate a target required attenuation value for the wall assembly in STC. Based on wall materials, the tool will state whether the composite wall assembly STC meets the required attenuation value.

## How to Use This Tool

### Location, Noise Level and Wall Configuration to Be Analyzed

STraCAT is designed to calculate the attenuation provided by the wall assembly for one wall of one unit. If unit exterior square footage and window/door configuration is identical around the structure, a single STraCAT may be sufficient. If units vary, at least one STraCAT should be completed for each different exterior unit wall configuration to document that all will achieve the required attenuation. Additionally, if attenuation is not based on a single worst-case NAL, but there are multiple NALs which require different levels of attenuation around the structure, a STraCAT should be completed for each differing exterior wall configuration associated with each NAL.

Exterior wall configurations associated with an NAL include those with parallel (facing) or near-parallel exposure as well as those with perpendicular exposure. When a façade has parallel or perpendicular exposure to two or more NALs, you should base the required attenuation on the NAL with the highest calculated noise level. For corner units where the unit interior receives exterior noise through two façades, the STraCAT calculation should incorporate the area of wall, window and door materials pertaining to the corner unit's total exterior wall area (i.e., from both walls).

### Information to Be Entered

Users first enter basic project information and the NAL noise level that will be used as the basis for required attenuation. This noise level must be entered in whole numbers. STraCAT users then enter information on wall, window and door component type and area. Again, as noted above, the wall, window and door entries are based on one unit, and one wall (except for corner units as discussed above). The tool sums total wall square footage based on the combined area of walls, doors and windows for the façade being evaluated.

Users may input STC values for materials in one of two ways. The tool includes a dropdown menu of common construction materials with STC values prefilled. If selected construction materials are not included in this dropdown menu, the user may also enter the STC for a given component manually. Verification of the component STC must be included in the ERR. Documentation includes the architect or construction manager's project plans showing wall material specifications. For new construction or for components that will be newly installed in an existing wall, documentation also includes the manufacturer's product specification sheet (cut sheet) documenting the STC rating of selected doors and windows.

### Required STC Rating and Determination of Compliance

Finally, based on project information entered the tool will indicate the required STC rating for the wall assembly being evaluated and whether or not the materials specified will produce a combined rating that meets this requirement. Note that for noise levels above 75 dB DNL, either HUD (for 24 CFR Part 50 reviews) or the Responsible Entity (for 24 CFR Part 58 reviews) must approve the level and type of attenuation, among other processing requirements. Required attenuation values generated by STraCAT for NALs above 75 dB DNL should therefore be considered tentative pending approval by HUD or the RE.

## Part I - Description

### Project

MLK on Second

### Sponsor/Developer

MHT Housing

### Location

48201

### Prepared by

Shelter Design Studio

### Noise Level

70

### Date

3/22/2022



### Primary Source(s)

Major Roads, Railroads

## Part II - Wall Components

Part II - Wall Components

Wall Construction Detail	Area	STC
W1, Burnished Block Veneer, air space, vapor barrier, rigid insulation, 8" c.m.u., air space, insulated 2x6 wall, 1/2" resilient channel, 5/8" gyp. bd.	2190	58
W2, Brick veneer, air space, vapor barrier, 1/2" rigid insulation, 1/2" o.s.b., insulated 2 x 6 stud wall @ 16" o.c., 1/2" resilient channel 5/8" gyp. bd.	6964	43
W3, Insulated metal panel, vapor barrier, 1/2" o.s.b., insulated 2 x 6 wall @ 16" o.c., 1/2" resilient channel, 5/8" gyp. bd.	2253	34
W4, corrugated metal panel, vapor barrier, 1/2" o.s.b., insulated 2 x 6 wall @ 16" o.c., 1/2" resilient channel, 5/8" gyp. bd.	1713	34
W5, vinyl siding, vapor barrier, 1/2" o.s.b., insulated 2 x 6 wall @ 16" o.c., 1/2" resilient channel, 5/8" gyp. bd.	2860	32

Add new wall

**15,980 Sq. Feet**      **36.31**

Window Construction Detail	Quantity	Sq Ft/Unit	STC
Insulated single-hung composite window	230	15	26

Add new window

Door Construction Detail	Quantity	Sq Ft/Unit	STC
6'x6' sliding glass door 3/4" insulating glass (double pane 1/8" each with 1/2" air space) one door opens and one fixed	11	36	28

Add new door

**Wall Statistics**

<b>Stat</b>	<b>Value</b>
Area:	15980 ft <sup>2</sup>
Wall STC:	36.31

**Aperture Statistics**

<b>Aperture</b>	<b>Count</b>	<b>Area</b>	<b>% of wall</b>
Windows:	230	ft <sup>2</sup>	21.59%
Doors:	11	396 ft <sup>2</sup>	2.48%

**Evaluation Criteria**

<b>Criteria</b>	<b>Value</b>
Noise source sound level (dB):	70
Combined STC for wall assembly:	31.2
Required STC rating:	28
Does wall assembly meet requirements?	<b>Yes</b>

[Print](#)

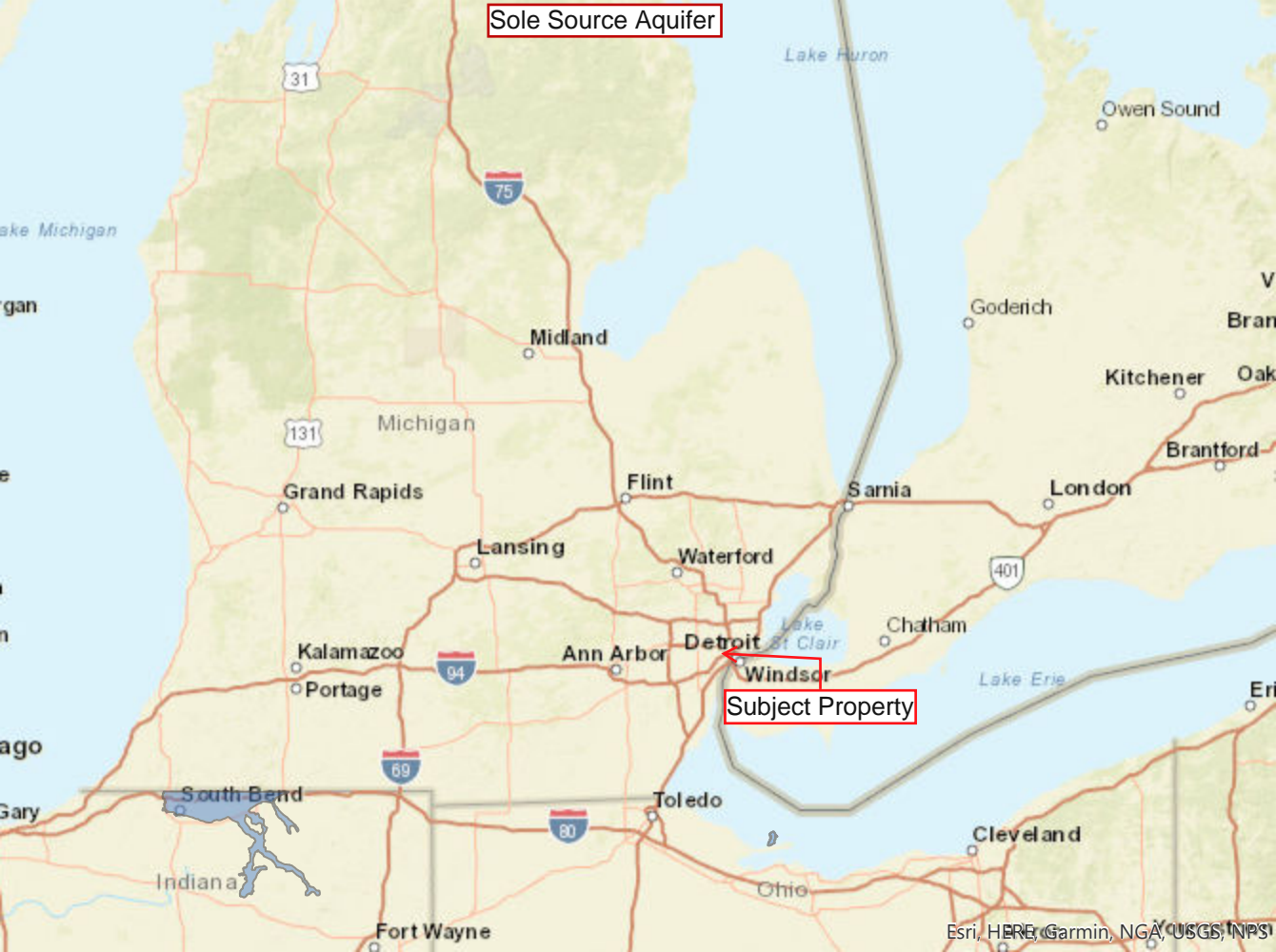
What do you do if the preferred wall design is not sufficient to achieve the required attenuation? Another wall design with more substantial materials will work, but may not be the most cost-effective solution. Try adding some other elements for just a little more attenuation.

For example:

- Staggering the studs in a wall offers approximately 4dB of additional protection.
- Increasing the stud spacing from 16" on center to 24" can increase the STC from 2-5dB.
- Adding a 2" air space can provide 3dB more attenuation.
- Increasing a wall's air space from 3" to 6" can reduce noise levels by an additional 5dB.
- Adding a layer of ½" gypsum board on "Z" furring channels adds 2dB of attenuation.
- Using resilient channels and clips between wall panels and studs can improve the STC from 2-5dB.
- Adding a layer of ½" gypsum board on resilient channels adds 5dB of attenuation.
- Adding acoustical or isolation blankets to a wall's airspace can add 4-10dB of attenuation.
- A 1" rockwool acoustical blanket adds 3dB to the wall's STC.
- Filling the cells of lightweight concrete masonry units with expanded mineral loose-fill insulation adds 2dB to the STC.



Sole Source Aquifer



Subject Property

## Map Legend

Change what items you see on the map by using the checkboxes

### Wetland Data

Wetland (Hydric) Soils

National Wetlands Inventory 2005

Potential Wetland Restoration

Highest Potential - Hydric and Presettlement Wetland Overlay

High Potential - Hydric Soils Only

Moderate Potential -

Presettlement Wetlands Only

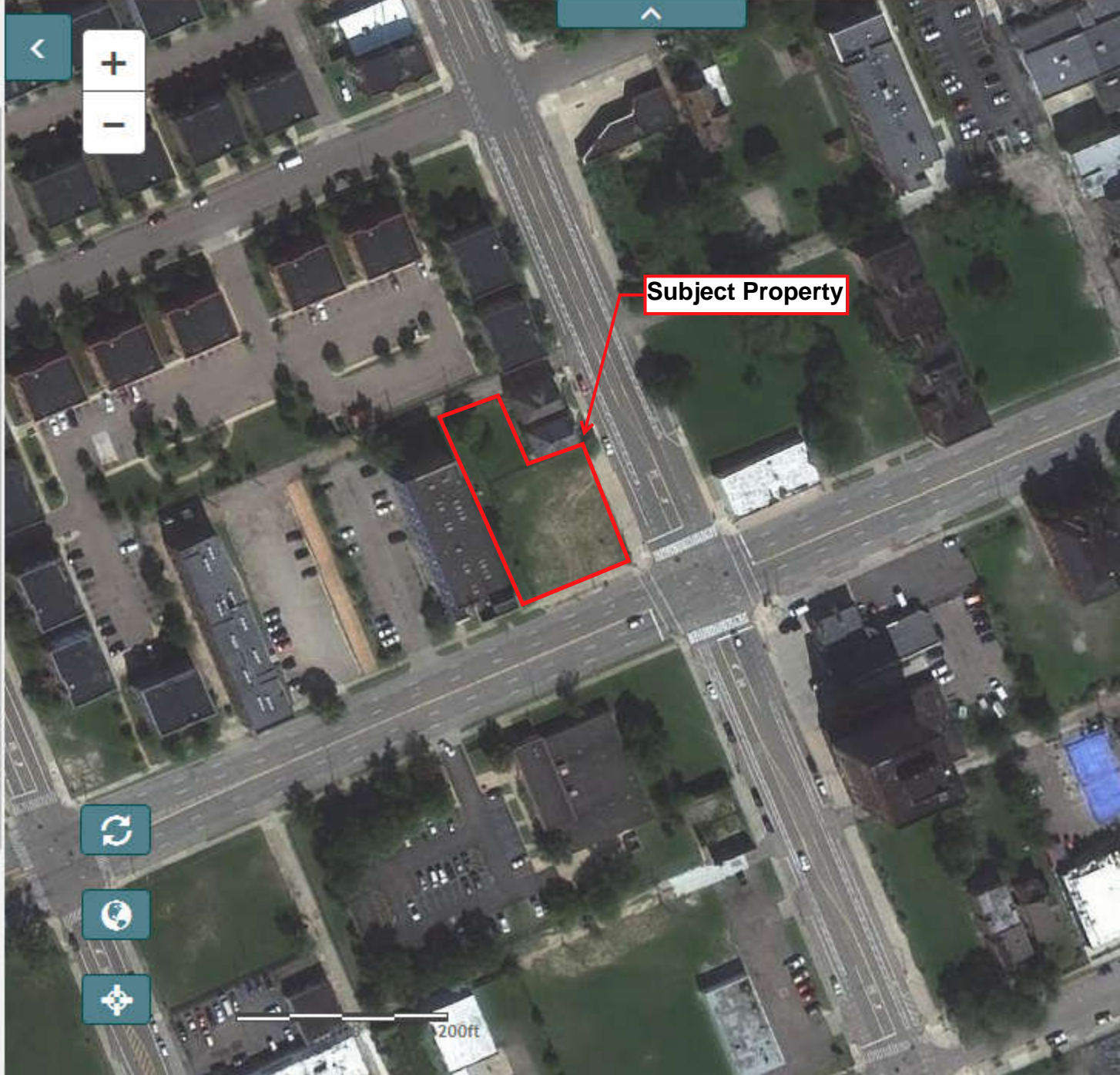
Part 303 Final Wetlands Inventory

Wetlands as identified on NWI and MIRIS maps

Soil areas which include wetland soils

Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils


### Stream Data





December 30, 2020

### Wetlands

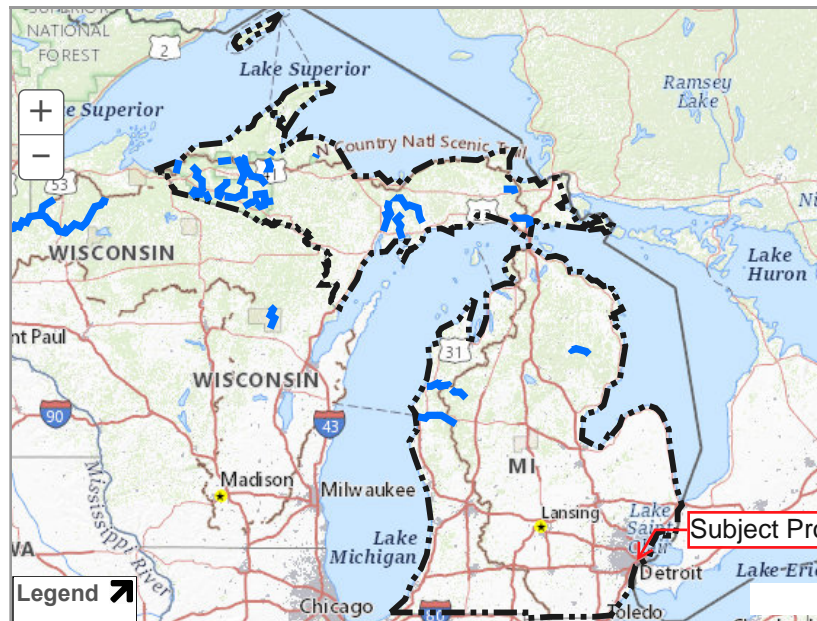
- |   |                                |   |                                   |   |          |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland       |  | Lake     |
|  | Estuarine and Marine Wetland   |  | Freshwater Forested/Shrub Wetland |  | Other    |
|   |                                |  | Freshwater Pond                   |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



## MICHIGAN

Michigan has approximately 51,438 miles of river, of which 656.4 miles are designated as wild & scenic—just a bit more than 1% of the state's river miles.



Choose A State

Choose A River

*Nourished by the fertile soils of the region, rivers of the Midwest explode with life, from great avian migrations to ancient fishes.*

[+ View larger map](#)

- AuSable River
- Bear Creek
- Black River
- Carp River
- Indian River
- Manistee River
- Ontonagon River
- Paint River
- Pere Marquette River
- Pine River
- Presque Isle River
- Sturgeon River (Hiawatha National Forest)
- Sturgeon River (Ottawa National Forest)
- Tahquamenon River (East Branch)
- Whitefish River
- Yellow Dog River

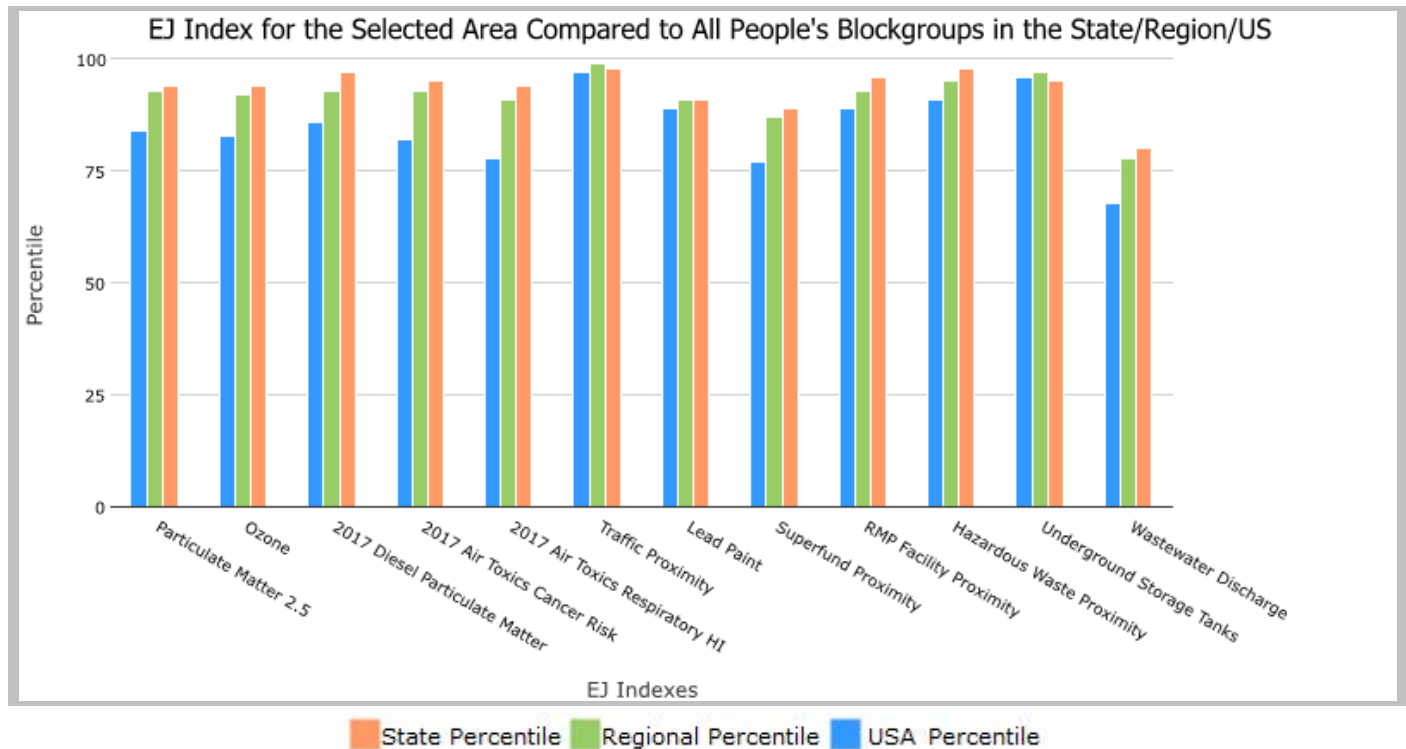
1 mile Ring Centered at 42.345065,-83.063566, MICHIGAN, EPA Region 5

Approximate Population: 21,642

Input Area (sq. miles): 3.14

## EJS Screen

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
<b>Environmental Justice Indexes</b>			
EJ Index for Particulate Matter 2.5	94	93	84
EJ Index for Ozone	94	92	83
EJ Index for 2017 Diesel Particulate Matter*	97	93	86
EJ Index for 2017 Air Toxics Cancer Risk*	95	93	82
EJ Index for 2017 Air Toxics Respiratory HI*	94	91	78
EJ Index for Traffic Proximity	98	99	97
EJ Index for Lead Paint	91	91	89
EJ Index for Superfund Proximity	89	87	77
EJ Index for RMP Facility Proximity	96	93	89
EJ Index for Hazardous Waste Proximity	98	95	91
EJ Index for Underground Storage Tanks	95	97	96
EJ Index for Wastewater Discharge	80	78	68



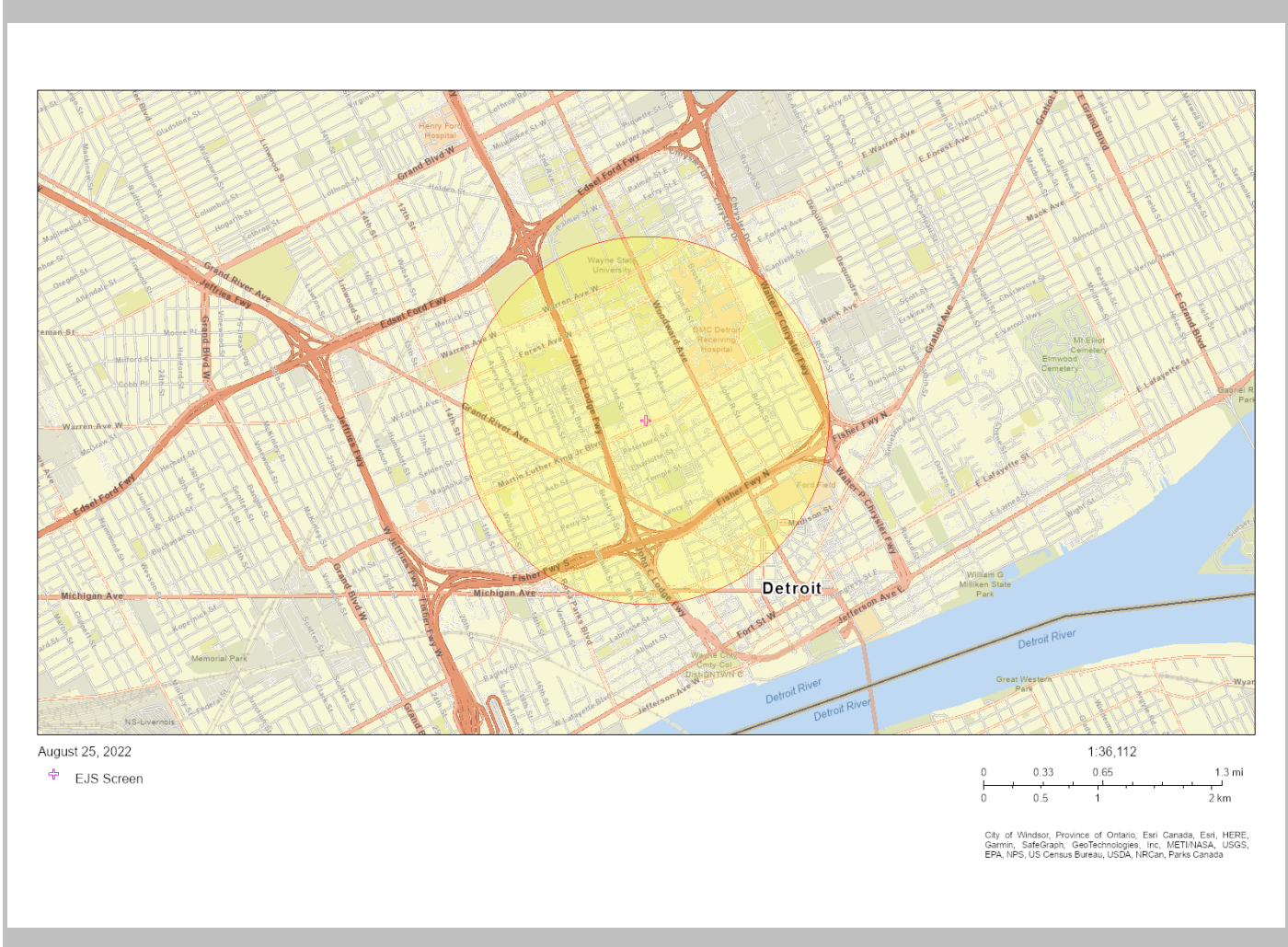
This report shows the values for environmental and demographic indicators and EJSscreen indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSscreen documentation for discussion of these issues before using reports.

1 mile Ring Centered at 42.345065,-83.063566, MICHIGAN, EPA Region 5

Approximate Population: 21,642

Input Area (sq. miles): 3.14

**EJS Screen**



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	3

## EJScreen Report (Version 2.0)

1 mile Ring Centered at 42.345065,-83.063566, MICHIGAN, EPA Region 5

Approximate Population: 21,642

Input Area (sq. miles): 3.14

### EJS Screen

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
<b>Pollution and Sources</b>							
Particulate Matter 2.5 ( $\mu\text{g}/\text{m}^3$ )	10.1	8.75	98	8.96	87	8.74	85
Ozone (ppb)	44.8	43.8	55	43.5	60	42.6	73
2017 Diesel Particulate Matter* ( $\mu\text{g}/\text{m}^3$ )	0.437	0.209	98	0.279	80-90th	0.295	80-90th
2017 Air Toxics Cancer Risk* (lifetime risk per million)	30	23	99	24	95-100th	29	80-90th
2017 Air Toxics Respiratory HI*	0.3	0.25	99	0.3	70-80th	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	5000	830	97	610	98	710	97
Lead Paint (% Pre-1960 Housing)	0.54	0.37	72	0.37	71	0.28	80
Superfund Proximity (site count/km distance)	0.049	0.15	36	0.13	41	0.13	41
RMP Facility Proximity (facility count/km distance)	1.4	0.53	88	0.83	80	0.75	83
Hazardous Waste Proximity (facility count/km distance)	4.7	1.1	97	1.8	90	2.2	86
Underground Storage Tanks (count/km <sup>2</sup> )	27	7.3	93	4.8	96	3.9	97
Wastewater Discharge (toxicity-weighted concentration/m distance)	2.4E-05	0.41	22	9	21	12	22
<b>Socioeconomic Indicators</b>							
Demographic Index	67%	28%	91	28%	92	36%	87
People of Color	67%	25%	89	26%	88	40%	76
Low Income	67%	32%	91	29%	93	31%	93
Unemployment Rate	9%	6%	80	5%	83	5%	82
Linguistically Isolated	2%	2%	74	2%	69	5%	54
Less Than High School Education	15%	9%	82	10%	80	12%	70
Under Age 5	5%	6%	44	6%	40	6%	40
Over Age 64	12%	17%	29	16%	33	16%	37

\*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's 2017 Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

For additional information, see: [www.epa.gov/environmentaljustice](http://www.epa.gov/environmentaljustice)

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

The following identifies select pertinent locations and features within the immediate area and can be found on the following map by the number next to the corresponding description.

*(Please note that the following list is not all-inclusive; additionally, all distances are estimated by paved roadway):*

### ***Retail***

1. Grocery – Whole Foods Market ..... 0.4 miles east
2. Grocery – University Foods ..... 1.1 miles northwest
3. Grocery – Grocer Farm Market ..... 1 block south
4. Grocery – Food Pride Market ..... 1.4 miles northeast
5. Grocery – Save-A-Lot grocery ..... 1.7 miles northwest
6. Pharmacy – Phar-Mor Pharmacy ..... 0.4 miles east
7. Pharmacy – Midtown Pharmacy ..... 0.6 miles northeast
8. Pharmacy – Walgreens ..... 0.7 miles north
9. Pharmacy – Rite Aid ..... 0.8 miles north
10. Convenience Store – Marcus Market ..... 0.5 miles north
11. Convenience Store – Family Dollar ..... 0.5 miles southwest

### ***Medical***

12. Hospital – DMC Campus (shaded green) ..... 0.5 miles northeast
13. Hospital – Dingell VA Medical Center ..... 0.9 miles northeast
14. Clinic – Woodward Corridor Family Medical Center ..... Adjacent to the south
15. Clinic – Cass Free Clinic ..... 0.2 miles north

### ***Education***

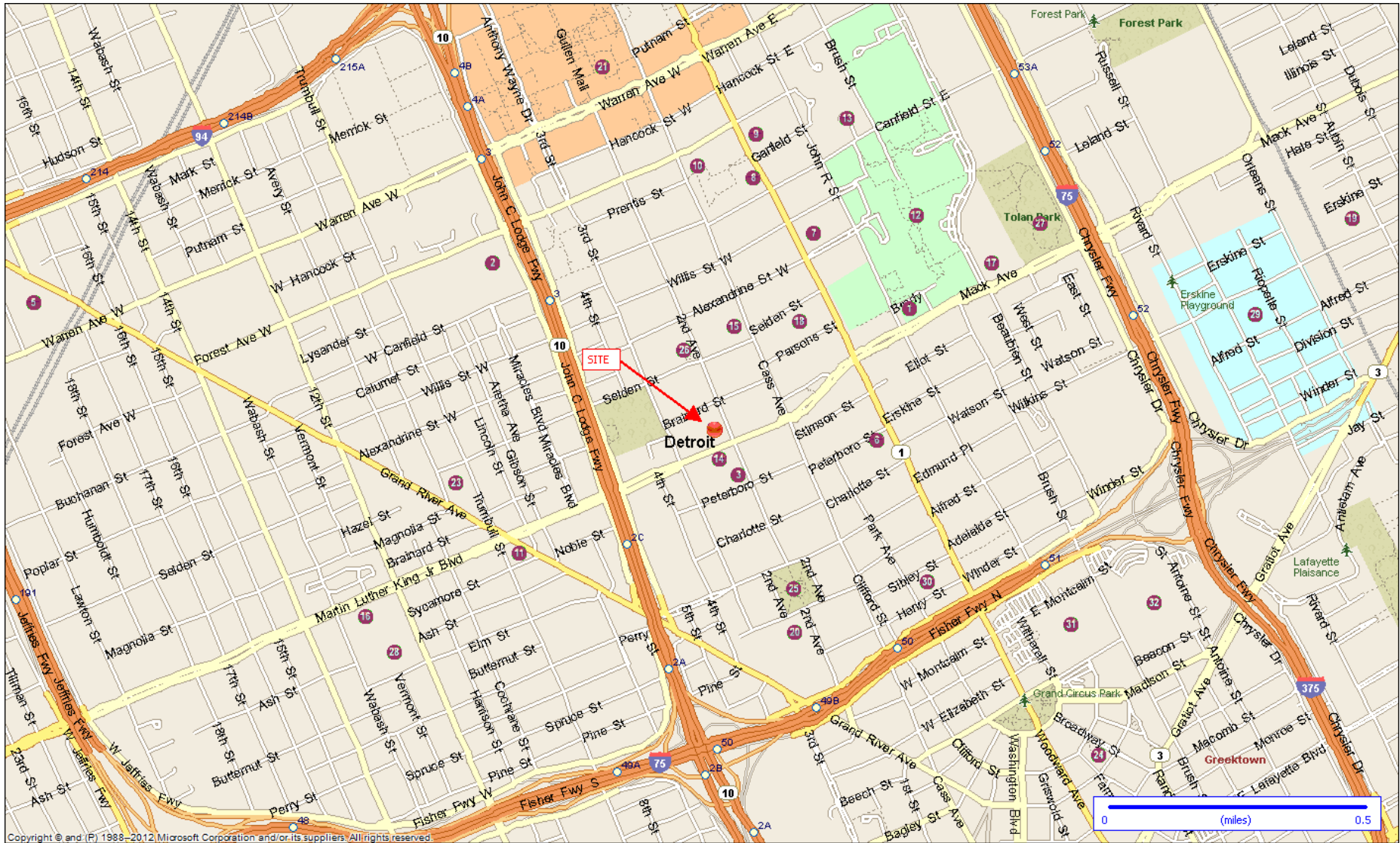
16. School – Burton International Academy ..... 0.8 miles southwest
17. School – Spain Elementary-Middle School ..... 0.7 miles northeast
18. School – Detroit School of Arts High School ..... 0.4 miles northeast
19. School – Detroit Edison Academy Charter ..... 1.7 miles east
20. School – Cass Tech High School ..... 0.5 miles south
21. University – Wayne State University (shaded tan) ..... 0.7 miles north

### ***Parks/Recreation/Other***

22. Library – Detroit Library – Main Facility ..... 1.2 miles north
23. Library – Detroit Library – Douglass Branch ..... 0.6 miles west
24. Recreation Center – Boll Family YMCA ..... 1.3 miles southeast
25. Park – Cass Park ..... 0.3 miles south
26. Park – Redmond Plaza Park ..... 0.1 mile north
27. Park – Tolan Park ..... 0.8 miles northeast
28. Park – Nagel Park ..... 0.8 miles southwest
29. Other – Eastern Market (shaded blue) ..... 1.3 miles east
30. Other – Little Caesar’s Arena ..... 0.6 miles southeast
31. Other – Comerica Park ..... 1.0 mile southeast
32. Other – Ford Field ..... 1.2 miles southeast



Map 7: Local Features/Amenities



Map 8: Local Features/Amenities (Close View)

