U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov
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Environmental Assessment
Determinations and Compliance Findings
for HUD-assisted Projects
24 CFR Part 58

Project Information

Project Name: Meyers-Senior-Center

HEROS Number: 900000010341182

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

RE Preparer: Kim Siegel

State / Local Identifier: Detroit, Michigan

Certifying Officer: Julie Schneider, Director

Grant Recipient (if different than Responsible Ent ity):

Point of Contact:

Consultant (if applicabl e):

Point of Contact:

Project Location: Meyers Road, Detroit, MI 48235

Additional Location Information:
17440, 17370 & 17334 Meyers Road

Direct Comments to:

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:
Located in Northwest Detroit, Meyers Senior Apartments is a 105-unit independent senior (55+) living community located on the former Lewis College of Business at 17400 & 17370 Meyers Road, Detroit, Michigan 48235 and vacant home at 17334 Meyers Road, Detroit, Michigan 48285. As part of this development, the two former college buildings will be renovated and repurposed with competitive 9 percent LIHTC's to house eight studio apartments and twenty-four one-bedroom apartments. The extant structure at 17334 Meyers Road will be demolished. A new, four-story building will be constructed adjacent to the renovated buildings on the corner of Meyers Road and Santa Maria Avenue using MSHDA / Detroit financing sources and 4 percent LIHTC equity. This new building will house 62 one-bedroom units and 11 two bedroom units. Seniors will enjoy modern, in-unit amenities such as LVT flooring, garbage disposals, ceiling fans, and brand-new appliances. Residents will also have access to a fully equipped fitness center, community space for socialization, and a business center with computers. Funding for the proposed project comes from LIHC TDC equity, MSHDA HOME, and City of Detroit HOME funds. This project is valid for five years. This review is for $372,671.46 in HOME 2019 and $127,328.54 in HOME 2020.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:
The proposed project is intended to address Michigan's growing senior population, the housing shortage in the City of Detroit, long waiting lists for senior apartments, and the blight reduction in Detroit. The State of Michigan is the twelfth oldest state in the union, with a median age of 39.8 years. Occupancy rates for Northwest Detroit for senior apartments are 98.5 percent, based on a survey of twenty senior only rental developments. Subsidized senior-only rental developments reported occupancy rates 99.4 percent. There are limited options for subsidized rental developments for seniors in Northwest Detroit.

Existing Conditions and Trends [24 CFR 58.40(a)]:
According to the market study conducted for the project by Shaw Research and Consulting, LLC, dated March 25, 2020, and updated January 30, 2021, the senior population in the State of Michigan is expected to increase over time. Senior-only apartment rentals are in high demand as evidenced with the long waiting lists for and the high occupancy rates at senior-only rental developments in Northwestern Detroit. There are limited affordable housing options for seniors in Northwestern Detroit. The subject property is an appealing location for seniors since the Detroit Medical Center's Sinai-Grace Hospital is only 0.75 miles away in Northwestern Detroit. The market study did not identify any market related concerns. The current rental housing market conditions are overall healthy and indicative of demand for affordable housing supply such as the subject property. All the data demonstrates an ongoing need for affordable housing over the foreseeable term.

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
B19MW260006	Community Planning and Development (CPD)	HOME Program
B20MW260006	Community Planning and Development (CPD)	HOME Program

Estimated Total HUD Funded, Assisted or Insured Amount: $500,000.00

This project anticipates the use of funds or assistance from another federal agency in addition to HUD in the form of:

Estimated Total Project Cost [24 CFR 58.2 (a)(5)]: $29,103,572.00

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)

STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.6		
Airport Hazards Clear Zones and Accident Potential Zones; 24 CFR Part 51 Subpart D	☐ Yes ☑ No	The property is not located in a FAA-designated Airport Runway Clear Zone or Accidental Potential Zone. The Coleman A. Young International Airport (DET) is approximately 7.7 miles from the property and Windsor International Airport is 14.2 miles away (Attachment A).
Coastal Barrier Resources Act Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	☐ Yes ☑ No	The property is not located in the Coastal Barrier Resource Area in Wayne County. No coastal barriers will be impacted by the proposed project (Attachment B).
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	☐ Yes ☑ No	According to the attached FEMA FIRMette Map 26163C0100E, effective on February 2, 2012, the property is in Zone X, which represents minimal risk outside the 1-percent and 2-percent-annual-chance floodplains. Flood insurance is not necessary (Attachment C).
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.5		
Air Quality Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	☐ Yes ☑ No	The entire State of Michigan is designated as "attainment" for carbon monoxide, nitrogen dioxide, sulfur dioxide, PM10, and lead except for small locations in Wayne and Saint Clair Counties with sulfur dioxide non-attainment areas and portions of the state are in nonattainment for ozone. Wayne County is a non-attainment county for ozone. The project was submitted to the EGLE Air Quality Division, and a response was received on September 27, 2021, indicating that the project is in conformance with the state implementation plan and does not require a detailed conformity analysis (Attachment D).
Coastal Zone Management Act Coastal Zone Management Act, sections 307(c) & (d)	☐ Yes ☑ No	This project does not involve any property or parcel located within the Coastal Zone Management Area for Wayne County. This project does not require formal consultation with the

		State of Michigan Coastal Zone Management Program (Attachment E).
Contamination and Toxic Substances 24 CFR 50.3(i) & 58.5(i)(2)]	☑ Yes ☐ No	Radon - The property is in Wayne County, which is within Zone 3 of the EPA Radon Map for risk of indoor radon levels; Zone 3 is low potential risk for indoor radon levels (Attachment F). Phase I Environmental Site Assessment - The Phase I ESA was conducted on December 31, 2020. The report did not identify any Recognized Environmental Conditions (REC's) associated with the site (Attachment F). Asbestos - Asbestos inspections were conducted at 17370 and 17400 Meyers. The scope of work included sampling of suspect ACM's in general conformance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61 Subpart M. The structures inspected consists of two academic buildings that are two-story and of masonry construction with flat roofs. Based on the inspection conducted by ASTI between September 21-22, 2021, the following ACMs were identified in floor tile and calk. During completion of the inspection, several materials were identified as potential ACMs, however, due to the destructive nature of sampling required; these materials were not sampled at this time and should be considered as presumed asbestos-containing materials (PACMs) until they can be sampled. The following PACMs were identified during the site inspection: 17344 was inaccessible due to safety issues, roofs, fire doors and frames of 17370 and 17400 Meyers. During completion of the inspection, several materials were identified as potential ACMs, however, due to the destructive nature of sampling required; these materials were not sampled at this time and should be considered as presumed asbestos-containing materials

		(PACMs) until they can be sampled. The asbestos will be abated and a closeout report completed prior to occupancy. 17344 was inaccessible due to safety concerns. The site will be tested for asbestos after closing on the project. If asbestos are present above criteria, they will be abated and a closeout report generated for the site prior to occupancy (Attachment F). Lead - Lead-Based Paint inspections were conducted at 17370 and 17400 Meyers. 37 of the 659 measurements were positive for LBP. 77 of the 115 dust wipes exceeded the State of Michigan, HUD and Environmental Protection Agency (EPA) standards. The soil tests revealed that lead concentrations in soil do not exceed the HUD & EPA standards. The lead will be abated and a closeout report completed prior to occupancy. 17344 was inaccessible due to safety concerns. (Attachment F).
Endangered Species Act Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	☐ Yes ☑ No	This project involves activities which may disturb natural vegetation or critical habitat. There are trees at the subject property that are planned to be cut down, that are not a critical habitat for endangered the Indiana Bat and the Northern Long Eared Bat species. Therefore, this project may affect a listed or proposed endangered or threatened species. Consultation with the U.S. Fish and Wildlife Service or the State of Michigan Department of Natural Resources is not required. A letter from the U.S. Fish and Wildlife Service dated October 12, 2021, determined that the project will have no effect on any of the endangered species known to have habitats within Wayne County (Attachment G).
Explosive and Flammable Hazards Above-Ground Tanks)[24 CFR Part 51 Subpart C	☐ Yes ☑ No	The project is located at an Acceptable Separation Distance (ASD) from any above-ground explosive or flammable fuels or chemicals containers according

		to 24 CFR 51C. A one-mile radius around the Property was searched for ASTs containing hazardous materials and one above-ground explosive or flammable fuels or chemicals containers. The sight container is at Grace Hospital 6071 West Outer Drive, Detroit, Michigan 48235 at 0.649 mile (3,426.72 feet) away from the project site. The container is not pressurized or diked. The volume of the container is 5,000 gallons. The project site is within ASD for both people and buildings at 540.74 and 105.81 respectively (Attachment H).
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	☐ Yes ☑ No	This project does not include any prime or unique farmland. The property is located within an ''urbanized area'' and, therefore, are not subject to the statutory or regulatory requirements identified above, per 7 CFR 658.2(a) (Attachment I).
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	☐ Yes ☑ No	According to the attached FEMA FIRMette Map 26163C0100E, effective on February 2, 2012, the property is in Zone X, which represents minimal risk outside the 1-percent and 2-percent-annual-chance floodplains. Floodplain management is not required (Attachment C).
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	☑ Yes ☐ No	Due to the ground disturbing nature of the new construction, the project was submitted to the City of Detroit for review, per the programmatic agreement between the City of Detroit and the State Historic Preservation Office (SHPO). The City has reviewed the Section 106 application and forwarded the application to SHPO for further comment. SHPO has reviewed the project and determined that no historic properties will be affected by the project in a letter dated February 15, 2022. * Although, there is no evidence of archaeological sites on the Subject Property, if any artifacts or bones are discovered during ground discovered

		during ground disturbing activities, that the work will be halted, with the immediate consultation with the Preservation Specialist for further guidance on how to proceed. * If the scope of work changes in any way, the SHPO must be contacted immediately.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	☑ Yes ☐ No	The property is near John C. Lodge Freeway (M-10), Meyers Road, and West McNichols, which are considered busy roads due to its size and traffic volume. The site is also within proximity of two airports. Coleman A. Young International Airport (DET) is approximately 7.7 miles distant and is within 15 miles (the MSHDA/HUD civil airport distance criterion) of the development. Based on the Noise Contour Map for the airport, the site is not within a distance of concern. Windsor International Airport (YQG) is approximately 14.2 miles distant and is within 15 miles (the MSHDA/HUD civil airport distance criterion) of the development. Based on the Noise Contour Map for the airport, the site is not considered to represent a noise concern to the property. The noise for the roadway was projected to levels in 2030 and was found to be in the normally unacceptable range at 72.3 dB (Attachment K). 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 building materials included 29,040 square feet of wall construction with a Sound Transmission Class (STC) rating of 50, wall construction of 29,040 square feet of 2''x6'' wood studs, 16'' o.c. 5 1/2'' glass fiber insulation, 5/8'' fire-shielded gypsum board one side, 5/8'' fire-shielded gypsum board for the other side with a STC of 38, V1 Series

		Single hung / gliding window with nailing flange and J Channel of double strength, insulated glass of 5/8'' with a STC rating of 30, 24 square feet for each solid door with a STC of 35, 1748 square feet of 3/8x6/8 fiber-classic/smooth-star full lite flush glazed balcony doors, 47 square feet of a rolling 24 galvanized steel garage door with an STC of 28, and 73 square feet of hollow metal doors with a STC of 35. The noise attenuation necessary to bring the levels to below 45 dB with the combined attenuation for the wall components was found to be 35.01 dB. The wall components will bring noise levels to acceptable interior standards of below 45 dB. No further attenuation is needed for the site (Attachment K).
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	☐ Yes ☑ No	There are no sole source aquifers located in Detroit or Wayne County, Michigan (Attachment L).
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	☐ Yes ☑ No	No wetlands are present on the property according to the National Wetlands Inventory Map (Attachment M).
Wild and Scenic Rivers Act Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	☐ Yes ☑ No	Wayne County does not have any Wild and Scenic Rivers. There are no Michigan Natural Rivers in Wayne County (Attachment N).
HUD HOUSING ENVIRONMENTAL STANDARDS		
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	☐ Yes ☑ No	This project entails the adoptive reuse of two, two-story structures and demolition/new construction of a multi-family building into affordable senior apartment community. This project is intended to improve the present environment of low-income senior citizens in Detroit. The project will not have a disproportionately high adverse effect on human health or environment of minority populations and/or low-income populations (Attachment O).

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
LAND DEVELOPMENT			
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The project is in line with the existing zoning and compatible with the surrounding neighborhood which is a combination of single-family dwellings, multi-family buildings, and commercial structures. The parcel is currently zoned as R3 - Low Density Residential District. The project is not anticipated to have any significant impact on the surrounding urban environment, and it will be compatible with surrounding land uses. The surrounding land is zoned multi-family, single-family and commercial. The project will rehabilitate two vacant buildings, demolish a vacant house, and construct a four-story apartment building. Because the project is removing blight as part of the City of Detroit's goal to eliminate blight, the project may be potentially beneficial.	
Soil Suitability / Slope/ Erosion / Drainage and Storm Water Runoff	2	Based on the USDA Soil Survey of Wayne County, the general soil lithology of the area is the Wasepi-Gilford-Boyer association and generally consists of very poorly to well drained soils that have a moderately course to course textured subsoil. Since the subject property has been previously developed, no adverse effect is anticipated. According to the Royal Oak Quadrangle 7.5-minute Topographic map has a 665 feet elevation and the region generally slopes to the south. The	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		property is relatively flat with an 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. The subject property has an urban land soil of variable texture. The soil is considered to be non-hydric. Since the subject property has been previously developed, no adverse effect is anticipated.	
Hazards and Nuisances including Site Safety and Site-Generated Noise	1	The project is not adversely affected by on-site or off-site hazards or nuisances. There will be adequate on-site parking for residents, and lighting. The property will also have security cameras monitoring walkways and parking areas and a key fob entry system.	
SOCIOECONOMIC			
Employment and Income Patterns	1	The area is already served by electrical and gas utilities provided by DTE Energy. There is adequate capacity to serve the new construction building.	
Demographic Character Changes / Displacement	2	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 will provide permanent jobs for the on-site management staff. The project could be beneficial to local businesses because there will be an increase in households requiring goods and services.	
Environmental Justice EA Factor	2	The project will not change the demographics of the general area. It will provide much needed affordable housing and supportive housing to residents of the area. The project aims to assist low-income senior citizens by providing affordable one-bedroom units. The project involves the demolition of a vacant structure and the renovation of two extant two-story structures that are currently vacant. No displacement will occur.	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
COMMUNITY FACILITIES AND SERVICES			
Educational and Cultural Facilities (Access and Capacity)	2	The area is served by the Detroit Public Schools Community District. As this project is for senior citizens it will not impact the capacity of any of the neighborhood schools	
Commercial Facilities (Access and Proximity)	2	The project area has commercial corridors on West McNichols Road two blocks to the south and on Wyoming Avenue seven blocks to the east. No commercial facilities will be negatively impacted by this project.	
Health Care / Social Services (Access and Capacity)	2	The project area is served by a full range of health care professionals. Detroit Medical Center Sinai Grace Hospital is approximately .75 mile from the project site. No health care services will be negatively impacted by this project.	
Solid Waste Disposal and Recycling (Feasibility and Capacity)	1	No social services will be negatively impacted by the project activities. There is not likely to be an increase in the demand for social services as a result of the project activities. Affordable housing options could potentially reduce the number of people requiring social services.	
Waste Water and Sanitary Sewers (Feasibility and Capacity)	2	The project will be connected to the municipal sanitary sewer service. Service already exists for the property. The Detroit Water and Sewage Department provides service to the project area.	
Water Supply (Feasibility and Capacity)	2	The project will be connected to the municipal water service. Service already exists for the property. The Detroit Water and Sewage Department provides service to the project area.	
Public Safety - Police, Fire and Emergency Medical	2	The Detroit Police Department covers the city with the 12th Precinct covering the project location. The precinct offices are located at 1441 W 7 Mile Detroit, MI 48203, within three miles of the property. No police services will be negatively impacted by the proposed project. The Detroit Fire Department provides fire department services to the city along with basic first responder medical assistance	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		from paramedics. No fire services will be negatively impacted by the proposed project. The Emergency Medical Services Division of the Detroit Fire Department provides Emergency Medical Services to residents in the project area. No emergency medical services will be negatively impacted by the proposed project.	
Parks, Open Space and Recreation (Access and Capacity)	2	The proposed project is located near open spaces including parks. Within approximately a half-mile of the property there is Couzens- Outer Drive Park. No open spaces will be negatively impacted by the proposed project. The project is in Detroit's West Side near Winship; there are many options for recreation available. The project is located within a few miles of Rouge Park, Frisbee-Pembroke Park, Palmer Park, Couzens-Outer Drive Park, O'Hair Park, and the Detroit Golf Club. No recreation facilities will be negatively impacted by the proposed project.	
Transportation and Accessibility (Access and Capacity)	2	Bus service in the city is provided by the Detroit Department of Transportation. The nearest bus stop is at Meyers Road and Curtis Street. The City of Detroit is divided by a number of main expressways that also provide access to the rest of the state. The nearest major roadways near the project area are Woodward Avenue (M-1), the John C. Lodge Freeway (M-10), M-39 Southfield Freeway, and I-75 Expressway.	
NATURAL FEATURES			
Unique Natural Features /Water Resources	2	The project location does not contain any unique natural features or agricultural lands. The City of Detroit is an urban city with few unique natural features or agricultural lands. Groundwater will not be affected by the proposed construction project. The city provides municipal water service to the project area. There are no sole source aquifers in the State of Michigan. The Michigan EGLE provides	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		information regarding source waters for different areas in the state, according to this map Detroit's source water is likely from the Great Lakes connecting channels. No water resources will be impacted by the proposed project.	
Vegetation / Wildlife (Introduction, Modification, Removal, Disruption, etc.)	2	No vegetation or wildlife is expected to be impacted by the proposed project.	
Other Factors 1			
Other Factors 2			
Other Factors 2			
CLIMATE AND ENERGY			
Climate Change	2	The proposed project is anticipated to increase urban density along Meyers Road in the City of Detroit, thereby reducing the need extensive infrastructure services sprawling over great distances. The property is 723 feet from the 32 DDOT bus line on McNichols Road, a grocery store is 691 feet from the property, and is 0.75 miles from DMC Sinai Grace Hospital, all of which will help reduce the carbon footprint of potential future residents of the proposed project. Additionally, two extant building are proposed to undergo adoptive reuse which will overall reduce the carbon footprint of the proposed project.	
Climate Change	2	The proposed project is anticipated to increase urban density along Meyers Road in the City of Detroit, thereby reducing the need extensive infrastructure services sprawling over great distances. The property is 723 feet from the 32 DDOT bus line on McNichols Road, a grocery store is 691 feet from the property, and is 0.75 miles from DMC Sinai Grace Hospital, all of which will help reduce the carbon footprint of potential future residents of the proposed project. Additionally, two extant building are proposed to undergo adoptive	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		reuse which will overall reduce the carbon footprint of the proposed project.	
Energy Efficiency	2	The proposed project is anticipated to increase urban density which is expected to increase energy usage. However, the proposed project is to rehabilitate two former school buildings into and new construction of apartments, which are anticipated to require less energy for HVAC equipment. Otherwise, the proposed project is not anticipated to have an adverse impact on energy resources within the City of Detroit.	
Energy Efficiency	2	The proposed project is anticipated to increase urban density which is expected to increase energy usage. However, the proposed project is to rehabilitate two former school buildings into and new construction of apartments, which are anticipated to require less energy for HVAC equipment. Otherwise, the proposed project is not anticipated to have an adverse impact on energy resources within the City of Detroit.	

Supporting documentation
Attachment P - EA Factors Maps.pdf

Additional Studies Performed:

Field Inspection [Optional]: Date and completed by:

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:
1. Michael Hambacher, Archeologist, Michigan State Historic Preservation Office, 300 North Washington Square, Lansing MI 48913, 517-243-9513. 2. 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 3. U.S. Fish & Wildlife Service, National Wetlands

Inventory, Wetlands Mapper; http://www.fws.gov/wetlands/data/mapper.html 4. 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 5. 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 6. Michigan Department of Environmental Quality, Air Quality Division, http://www.michigan.gov/deq/0,1607,7-135-3310_30151_31129---,00.html 7. US EPA Map of Radon Zones, Kent County, Michigan, http://www.epa.gov/radon/states/michigan.html 8. Tiffany Ciavattone, Preservation Specialist, City of Detroit, 2 Woodward Ave., Detroit, Michigan 48226, 313-224-1339 9. City of Detroit, Zoning Map: Buildings, Safety Engineering, and Environmental Department, Section 59, https://detroitmi.gov/departments/buildings-safety-engineering-and-environmentaldepartment/ bseed-divisions/zoning-special-land-use/zoning-map-index.

List of Permits Obtained:

Public Outreach [24 CFR 58.43]:

All historical, local and federal contacts on the 2023 Interest Parties List were sent a copy of the Notice of Intent to Request for Release of Funds to use HUD funding for the project and were asked to comment on the project.

Cumulative Impact Analysis [24 CFR 58.32]:

The proposed low-income housing project will not adversely impact the City Detroit or neighborhoods surrounding the site. The activity is compatible with the surrounding neighborhood and land use and will have minimal impact on existing resources or services in the area.

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

No other sites were considered for this project.

No Action Alternative [24 CFR 58.40(e)]

The No Action Alternative is to not renovate the two extant, two-story structures into housing. This alternative is not preferred as it fails to provide additional housing to meet the need for affordable housing for senior citizens in the City of Detroit. Additionally, the No Action Alternative allows the structures to remain as blight, which interferes with the City of Detroit's goal to eliminate blight from the city.

Summary of Findings and Conclusions:

The proposed low-income housing construction will improve the conditions in the City Detroit or neighborhoods surrounding the site. The project will create affordable living for seniors in the City. The activity is compatible with the surrounding neighborhood and zoning 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	Condition - No Historic Properties are present; however, the City of Detroit Preservation Specialist should be notified if any artifacts or bones are discovered during ground disturbing activities.	N/A	The project will follow the mitigation measures outlined in the approved Mitigation Plan.	
Noise Abatement and Control	Condition - Noise attenuation measures will be incorporated into the buildings.	N/A	The project will follow the mitigation measures outlined in the approved Mitigation Plan.	
Toxic/Hazardous Substances/ Radioactive	Condition - Asbestos-Containing Material will be abated prior to occupancy.	N/A	The project will follow	

Materials, Contamination, Chemical or Gases - Asbestos			the mitigation measures outlined in the approved Mitigation Plan.	
Toxic/Hazardous Substances/ Radioactive Materials, Contamination, Chemical or Gases - Asbestos	Condition - Lead-Based Paint will be abated prior to occupancy.	N/A	The project will follow the mitigation measures outlined in the approved Mitigation Plan.	

Project Mitigation Plan

The project review is an Environmental Assessment and the mitigation measures will be carried out by the Developer's environmental consultant. The progress will be monitored by the consultant and the City of Detroit's Housing & Revitalization Department's (HRD) Construction and Environmental Review teams. Mitigation measures are expected to be completed. Attached is a copy of the Mitigation Plan, which outlines in detail who is responsible for which activity, when the activity will be carried out and documentation that the City of Detroit's HRD Environmental Review Team should receive when the measure is completed.

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

The property is not located in a FAA-designated Airport Runway Clear Zone or Accidental Potential Zone. The Coleman A. Young International Airport (DET) is approximately 7.7 miles from the property and Windsor International Airport is 14.2 miles away (Attachment A).

Supporting documentation

Attachment A - RCZ 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

The property is not located in the Coastal Barrier Resource Area in Wayne County. No coastal barriers will be impacted by the proposed project (Attachment B).

Supporting documentation

Attachment B - 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:

Attachment C - Floodplain Map.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

According to the attached FEMA FIRMette Map 26163C0100E, effective on February 2, 2012, the property is in Zone X, which represents minimal risk outside the 1-percent and 2-percent-annual-chance floodplains. Flood insurance is not necessary (Attachment C).

Supporting documentation

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

Sulfur dioxide 100.00 ppb (parts per billion)

Provide your source used to determine levels here:
The source used to determine the level of ozone is the EPA's National Ambient Air Quality Standards table. Since the project is outside of the ozone transport region, the project is in the "other" category.

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:

Sulfur dioxide 0.00 ppb (parts per billion)

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, nitrogen dioxide, sulfur dioxide, PM10, and lead except for small locations in Wayne and Saint Clair Counties with sulfur dioxide non-attainment areas and portions of the state are in nonattainment for ozone. Wayne County is a non-attainment county for ozone. The project was submitted to the EGLE Air Quality Division, and a response

was received on September 27, 2021, indicating that the project is in conformance with the state implementation plan and does not require a detailed conformity analysis (Attachment D).

Supporting documentation

Attachment D - Non-Attainment Map.pdf
Attachment D - EGLE Letter.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

This project does not involve any property or parcel located within the Coastal Zone Management Area for Wayne County. This project does not require formal consultation with the State of Michigan Coastal Zone Management Program (Attachment E).

Supporting documentation

Attachment E - Coastal Zone 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

Explain:
The Phase I ESA was conducted on December 31, 2020. The report did not identify any Recognized Environmental Conditions (REC's) associated with the site.

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

Yes

<u>Screen Summary</u>
Compliance Determination

Radon - The property is in Wayne County, which is within Zone 3 of the EPA Radon Map for risk of indoor radon levels; Zone 3 is low potential risk for indoor radon levels (Attachment F). Phase I Environmental Site Assessment - The Phase I ESA was conducted on December 31, 2020. The report did not identify any Recognized Environmental Conditions (REC's) associated with the site (Attachment F). Asbestos - Asbestos inspections were conducted at 17370 and 17400 Meyers. The scope of work included sampling of suspect ACM's in general conformance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61 Subpart M. The structures inspected consists of two academic buildings that are two-story and of masonry construction with flat roofs. Based on the inspection conducted by ASTI between September 21-22, 2021, the following ACMs were identified in floor tile and calk. During completion of the inspection, several materials were identified as potential ACMs, however, due to the destructive nature of sampling required; these materials were not sampled at this time and should be considered as presumed asbestos-containing materials (PACMs) until they can be sampled. The following PACMs were identified during the site inspection: 17344 was inaccessible due to safety issues, roofs, fire doors and frames of 17370 and 17400 Meyers. During completion of the inspection, several materials were identified as potential ACMs, however, due to the destructive nature of sampling required; these materials were not sampled at this time and should be considered as presumed asbestos-containing materials (PACMs) until they can be sampled. The asbestos will be abated and a closeout report completed prior to occupancy. 17344 was inaccessible due to safety concerns. The site will be tested for asbestos after closing on the project. If asbestos are present above criteria, they will be abated and a closeout report generated for the site prior to occupancy (Attachment F). Lead - Lead-Based Paint inspections were conducted at 17370 and 17400 Meyers. 37 of the 659 measurements were positive for LBP. 77 of the 115 dust wipes exceeded the State of Michigan, HUD and Environmental Protection Agency (EPA) standards. The soil tests revealed that lead concentrations in soil do not exceed the HUD & EPA standards. The lead will be abated and a closeout report completed prior to occupancy. 17344 was inaccessible due to safety concerns. (Attachment F).

Supporting documentation

Attachment F - Radon Map.pdf
ATD16E~1.PDF
Attachment F - Lead-Based Paint Report.pdf
Attachment F - Asbestos Report.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 *et seq*.); particularly section 7 (16 USC 1536).	50 CFR Part 402

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

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

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.

2. Are federally listed species or designated critical habitats present in the action area?

No, the project will have No Effect due to the absence of federally listed species and designated critical habitat

✓ Yes, there are federally listed species or designated critical habitats present in the action area.

3. What effects, if any, will your project have on federally listed species or designated critical habitat?

✓ No Effect: Based on the specifics of both the project and any federally listed species in the action area, you have determined that the project will have absolutely no effect on listed species or critical habitat. in the action area.

Document and upload all documents used to make your determination below. Documentation should include a species list and explanation of your conclusion, and may require maps, photographs, and surveys as appropriate

May Affect, Not Likely to Adversely Affect: Any effects that the project may have on federally listed species or critical habitats would be beneficial, discountable, or insignificant.

Likely to Adversely Affect: The project may have negative effects on one or more listed species or critical habitat.

6. For the project to be brought into compliance with this section, all adverse impacts must be mitigated. 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. If negative effects cannot be mitigated, cancel the project using the button at the bottom of this screen.

Mitigation as follows will be implemented:

✓ No mitigation is necessary.

Explain why mitigation will not be made here:

The trees that will be cut down are not critical habitat for the Indiana Bat and the Northern Long Eared Bat species.

<u>Screen Summary</u>
Compliance Determination

This project involves activities which may disturb natural vegetation or critical habitat. There are trees at the subject property that are planned to be cut down, that are not a critical habitat for endangered the Indiana Bat and the Northern Long Eared Bat species. Therefore, this project may affect a listed or proposed endangered or threatened species. Consultation with the U.S. Fish and Wildlife Service or the State of Michigan Department of Natural Resources is not required. A letter from the U.S. Fish and Wildlife Service dated October 12, 2021, determined that the project will have no effect on any of the endangered species known to have habitats within Wayne County (Attachment G).

Supporting documentation

Attachment G - T and E Species Review.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

✓ Yes

4. Based on the analysis, is the proposed HUD-assisted project located at or beyond the required separation distance from all covered tanks?

✓ Yes

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

No

Screen Summary

Compliance Determination

The project is located at an Acceptable Separation Distance (ASD) from any above-ground explosive or flammable fuels or chemicals containers according to 24 CFR 51C. A one-mile radius around the Property was searched for ASTs containing hazardous materials and one above-ground explosive or flammable fuels or chemicals containers. The sight container is at Grace Hospital 6071 West Outer Drive, Detroit, Michigan 48235 at 0.649 mile (3,426.72 feet) away from the project site. The container is not pressurized or diked. The volume of the container is 5,000 gallons. The project site is within ASD for both people and buildings at 540.74 and 105.81 respectively (Attachment H).

Supporting documentation

Attachment H - Explosives Worksheet and 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.)	7 CFR Part 658

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

2. Does your project meet one of the following exemptions?

- Construction limited to on-farm structures needed for farm operations.
- Construction limited to new minor secondary (accessory) structures such as a garage or storage shed
- Project on land already in or committed to urban development or used for water storage. (7 CFR 658.2(a))

✓ Yes

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

No

Screen Summary

Compliance Determination

This project does not include any prime or unique farmland. The property is located within an ''urbanized area'' and, therefore, are not subject to the statutory or regulatory requirements identified above, per 7 CFR 658.2(a) (Attachment I).

Supporting documentation

Attachment I - Soil USDA 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:

Attachment C - Floodplain Map.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 attached FEMA FIRMette Map 26163C0100E, effective on February 2, 2012, the property is in Zone X, which represents minimal risk outside the 1-percent and 2-percent-annual-chance floodplains. Floodplain management is not required (Attachment C).

Supporting documentation

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" https://www.govinfo.gov/content/pkg/CFR-2012-title36-vol3/pdf/CFR-2012-title36-vol3-part800.pdf

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

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

✓ Lac du Flambeau Band of Lake Superior Chippewa Completed

- ✓ Forest County Potawatomi Community of Wisconsin Completed
- ✓ Hannahville Indian Community Completed
- ✓ Little Traverse Bay Bands of Odawa Indians Completed
- ✓ Menominee Indian Tribe of Wisconsin Completed
- ✓ Miami Tribe of Oklahoma Completed
- ✓ Pokagon Band of Potawatomi Indian Completed
- ✓ Sault Ste. Marie Tribe of Chippewa Indians Completed
- ✓ Seneca-Cayuga Nation Completed

✓ Other Consulting Parties

- ✓ City of Detroit Preservation Specialist Completed

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 as amended, dated December 21, 2022, 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).

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:
See attached report.

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.

Address / Location / District	National Register Status	SHPO Concurrence	Sensitive Information

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:

A Phase I Archeological investigation was performed as the project is larger than 0.50 acres (see below).

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

Based on the response, the review is in compliance with this section. Document and upload concurrence(s) or objection(s) below.

Document reason for finding:

✓ No historic properties present.

Historic properties present, but project will have no effect upon them.

No Adverse Effect

Adverse Effect

Screen Summary

Compliance Determination

Due to the ground disturbing nature of the new construction, the project was submitted to the City of Detroit for review, per the programmatic agreement between the City of Detroit and the State Historic Preservation Office (SHPO). The City has reviewed the Section 106 application and forwarded the application to SHPO for further comment. SHPO has reviewed the project and determined that no historic properties will be affected by the project in a letter dated February 15, 2022. * Although, there is no evidence of archaeological sites on the Subject Property, if any artifacts or bones are discovered during ground discovered during ground disturbing activities, that the work will be halted, with the immediate consultation with the Preservation Specialist for further guidance on how to proceed. * If the scope of work changes in any way, the SHPO must be contacted immediately.

Supporting documentation

Attachment J - Section 106 Letter.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

NOTE: For major or substantial rehabilitation in Normally Unacceptable zones, HUD encourages mitigation to reduce levels to acceptable compliance standards. For major rehabilitation in Unacceptable zones, HUD strongly encourages mitigation to reduce levels to acceptable compliance standards. See 24 CFR 51 Subpart B for further details.

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))

Indicate noise level here: 72.3

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

Is your project in a largely undeveloped area?

✓ No

Indicate noise level here: 72.3

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: 72.3

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:
Noise attenuation measures will be incorporated into the project; therefore, formal mitigation is not required.

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

Screen Summary
Compliance Determination
The property is near John C. Lodge Freeway (M-10), Meyers Road, and West McNichols, which are considered busy roads due to its size and traffic volume. The site is also within proximity of two airports. Coleman A. Young International Airport (DET) is approximately 7.7 miles distant and is within 15 miles (the MSHDA/HUD civil airport distance criterion) of the development. Based on the Noise Contour Map for the airport, the site is not within a distance of concern. Windsor International Airport (YQG) is approximately 14.2 miles distant and is within 15 miles (the MSHDA/HUD civil airport distance criterion) of the development. Based on the Noise Contour Map for the airport, the site is not considered to represent a noise concern to the property. The noise for the roadway was projected to levels in 2030 and was found to be in the normally unacceptable range at 72.3 dB (Attachment K). 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 building materials included 29,040 square feet of wall construction with a Sound

Transmission Class (STC) rating of 50, wall construction of 29,040 square feet of 2''x6'' wood studs, 16'' o.c. 5 1/2'' glass fiber insulation, 5/8'' fire-shielded gypsum board one side, 5/8'' fire-shielded gypsum board for the other side with a STC of 38, V1 Series Single hung / gliding window with nailing flange and J Channel of double strength, insulated glass of 5/8'' with a STC rating of 30, 24 square feet for each solid door with a STC of 35, 1748 square feet of 3/8x6/8 fiber-classic/smooth-star full lite flush glazed balcony doors, 47 square feet of a rolling 24 galvanized steel garage door with an STC of 28, and 73 square feet of hollow metal doors with a STC of 35. The noise attenuation necessary to bring the levels to below 45 dB with the combined attenuation for the wall components was found to be 35.01 dB. The wall components will bring noise levels to acceptable interior standards of below 45 dB. No further attenuation is needed for the site (Attachment K).

Supporting documentation

Attachment K - Noise Assessment.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 located in Detroit or Wayne County, Michigan (Attachment L).

Supporting documentation

Attachment L - Sole Source Aquifer.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.

<u>Screen Summary</u>
Compliance Determination

No wetlands are present on the property according to the National Wetlands Inventory Map (Attachment M).

Supporting documentation

Attachment M - Wetland Map.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

Wayne County does not have any Wild and Scenic Rivers. There are no Michigan Natural Rivers in Wayne County (Attachment N).

Supporting documentation

Attachment N - Wild and Scenic Rivers Map.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 entails the adoptive reuse of two, two-story structures and demolition/new construction of a multi-family building into affordable senior apartment community. This project is intended to improve the present environment of low-income senior citizens in Detroit. The project will not have a disproportionately high adverse effect on human health or environment of minority populations and/or low-income populations (Attachment O).

Supporting documentation

Attachment O - EJ Screen.pdf

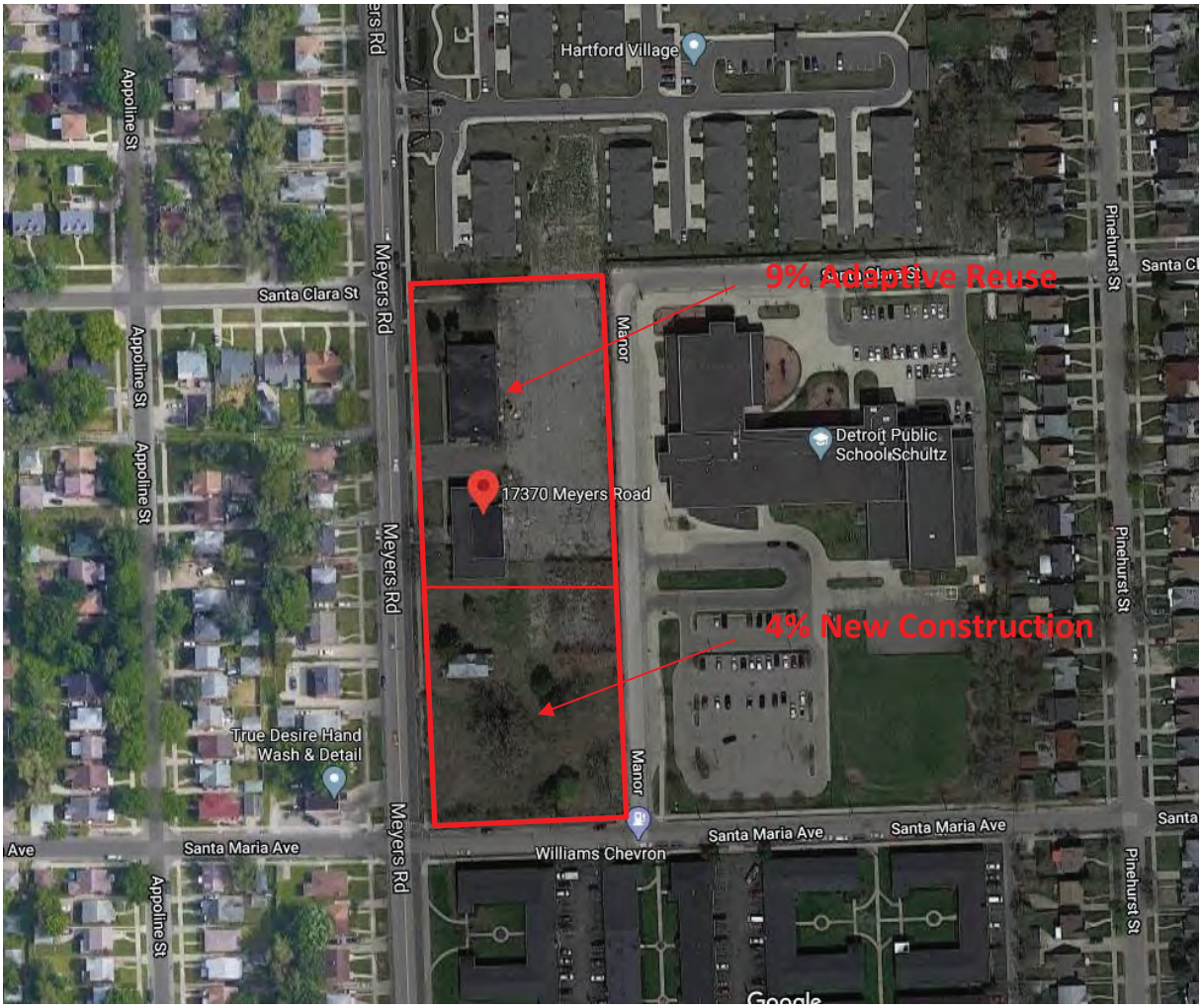
Are formal compliance steps or mitigation required?

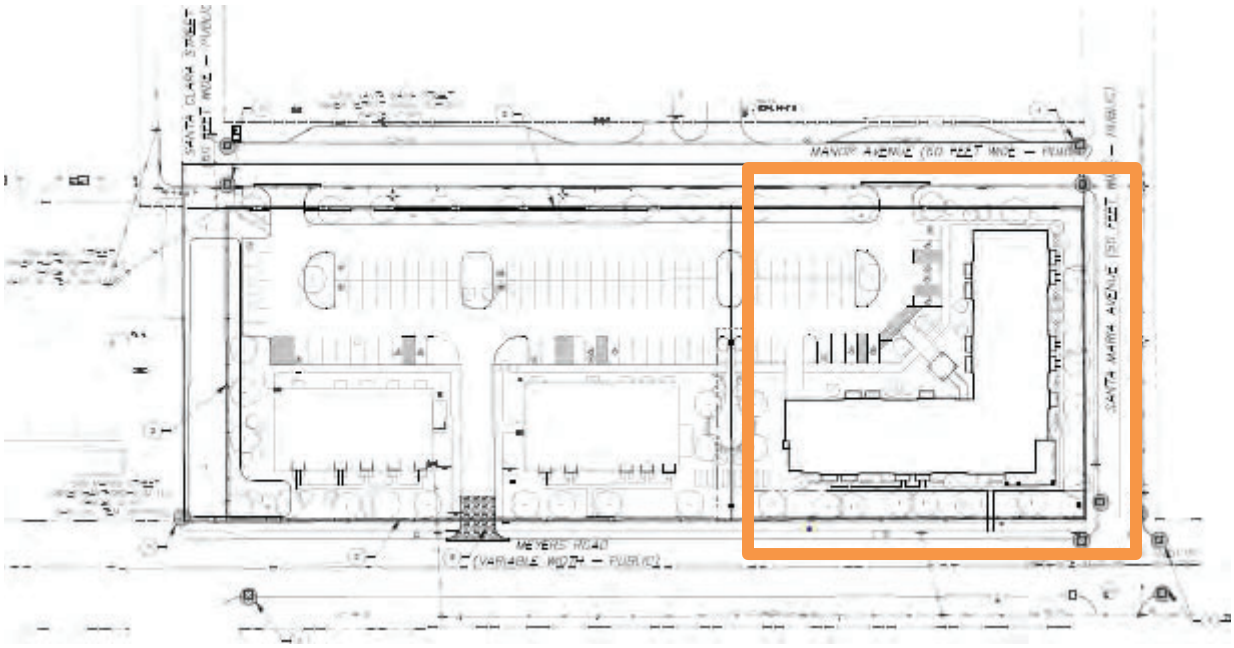
Yes

✓ No

MEYERS SENIOR APARTMENTS II

17370 MEYERS ROAD | DETROIT | WAYNE COUNTY | MICHIGAN | 48235





Located in Northwest Detroit, Meyers Senior Apartments is a 105-unit independent senior (55+) living community located on the former Lewis College of Business. As part of this development, the two former college buildings will be renovated and repurposed with competitive 9% LIHTC's to house 8 studio apartments and 24 one-bedroom apartments. A new, 4-story building will be constructed adjacent to the renovated buildings on the corner of Meyers Road and Santa Maria Avenue using MSHDA/Detroit financing sources and 4% LIHTC equity. This new building will house 62 one-bedroom units and 11 two-bedroom units.

Seniors will enjoy modern, in-unit amenities such as LVT flooring, garbage disposals, ceiling fans, and brand-new appliances. Residents will also have access to a fully equipped fitness center, community space for socialization, and a business center with computers. The building and site will be designed to offer seniors all the comforts of home.

Wallick Communities has partnered with Presbyterian Villages of Michigan ("PVM") in this endeavor as Co-Developers and Co-Owners. PVM will also serve as manager of the property, as they have local expertise and management scale to benefit the proposed development.

Project Location:
https://www.google.com/maps/place/17370+Meyers+Rd,+Detroit,+MI+48235/@42.4195726,-83.1720297,825m/data=!3m1!1e3!4m13!1m7!3m6!1s0x8824cbf96ff55e29:0xecb4d99186d8074e!2s17370+Meyers+Rd,+Detroit,+MI+48235!3b1!8m2!3d42.4195687!4d-83.169841!3m4!1s0x8824cbf96ff55e29:0xecb4d99186d8074e!8m2!3d42.4195687!4d-83.169841?hl=en

4 % New Construction (73 Units)

Competitive Summary:

- Competitive Pool: MSHDA HOME & Mortgage Restructuring Funds (MRF)
- Project Type: New Construction
- Population Type: Senior 55+
- Building Type: 4-Story Congregate
- # of Buildings: One
- # of Units: 73
    - 1 Bedroom Standard Units: 62
    - 2 Bedroom Standard Units: 11

Project Element	Total Project
Development Cost	$11,395,486
Development Cost per Unit:	$156,103/unit
Construction Contract (6%,2%,6% w/o 5% contingency)	$8,070,065 ($110,549/unit)
Total Developer Fee	$1,461,000
Deferred Developer Fee	$123,891
HOME/TCAP Request	$250,000 / $121,502
HOME/TCAP Request/Unit	$5,089/unit

Project Ownership Structure:

General Partner(s):

Presbyterian Villages of Michigan (PVM) and Wallick Communities will be Co-Developers and Co-General partners of Meyers Senior Apartments II and will hold a combined 0.01% ownership interest in the project. Of the 0.01% ownership interest,

- PVM, through the affiliated entity Meyers Senior II GP, LLC, will be the 51% Administrative Member
- Wallick, through the affiliated entity WAM Meyers Senior II, LLC, will be the 49% Managing Member.

Limited Partner:

It is currently anticipated that City Real Estate Advisors ("CREA"), will be the 99.99% Limited Partner, who will provide the LIHTC equity investment into the project.

Financing Summary:

4% LIHTC Equity (CREA):

As previously mentioned, City Real Estate Advisors ("CREA") is the proposed LIHTC Investor. CREA has been a long-time partner to Wallick and has an extensive amount of experience with MSHDA. Additionally, CREA has been involved with the project concept and financial structuring for the past several months. The current LIHTC Equity projections provide for the following assumptions:

- **4% LIHTC Equity: $5,294,239**
  - Annual Allocation: $557,344
  - Total Allocation: $5,573,443
  - LP % Ownership: 99.99%
  - Net Equity Pricing: $0.9500

Construction and Permanent Financing (MSHDA):

MSHDA will provide both the construction and permanent financing to the project. Below is a summary of the construction and permanent financing MSHDA has provided:

- **Construction Loan: $5,925,653**
  - Interest Rate: 3.95 (fixed)
  - Term: 21 Months
  - Amortization: Interest Only

- **Permanent Loan:** **$4,315,462**
  - Interest Rate: 3.95% (fixed)
  - Term: 40 years
  - Amortization: 40 years
  - Loan Fees: 2%
  - Legal Fees: $0
  - Other Conditions: All project reserves must be held with MSHDA

In addition to the LIHTC equity and the construction/permanent financing, the financial structure for Meyers Senior Apartments II currently anticipates the following additional sources:

- **HOME/ TCAP:** **$371,502**
  - Loan Type: HOME Funds & Tax Credit Assistance Program Funds
  - Lender/Recipient: MSHDA/Meyers Senior Apartments II LDHA, LP
  - Interest Rate: 3.00% (fixed)
  - Term: 40 years
  - Amortization: N/A
  - Repayment Type: Repayable from Surplus Cash Flow, if available

- **Subordinate Loan:** **$1,250,000**
  - Loan Type: HOME Funds
  - Lender: City of Detroit
  - Interest Rate: 3.00% (fixed)
  - Term: 40 years
  - Amortization: N/A
  - Repayment Type: Repayable from Surplus Cash Flow, if available
  - Other Conditions: (i) Project must commit to a minimum affordability period of 20-years

- **Deferred Developer Fee:** **$123,891**

- **Required MSHDA DCR** 1.20 at stabilization, $\geq$1.0 for 20-year compliance period

- **Project Guarantees:**
  - Wallick will provide for the 100% of the following guarantees that may be required by the project lenders and LIHTC investors:
    - The construction loan
    - Obtaining the permanent loan and any financing shortfalls,
  - Wallick will split the following guarantees with PVM on a pro-rata basis on percentage of ownership (Wallick-49%, PVM-51%):
    - Operating deficit guarantee
  - PVM will provide for 100% of the following guarantees:
    - Tax credit lease up delivery and tax credit compliance
  - Wallick and PVM will equally share the repurchase obligations to the investor members

Project Summary:

Meyers Senior Apartments II (4%) is a proposed 73-unit, new construction opportunity that will provide a quality affordable option to seniors (55+) within the City of Detroit, MI.

- To meet MSHDA standards for threshold and scoring purposes, the project will incorporate the following:
  - 1,000 square feet of accessible community space
  - Units with "visitability" design features
  - 3 units will be set aside to meet the Low HOME funding requirements
  - 8 units will be set aside to meet the High HOME funding requirements
  - Remaining 62 units will be set aside at 60% AMI
- Rents are set at LIHTC Max for the 50% LIHTC set aside, which a preliminary market assessment by VSI deems achievable.
- Rents at 60% AMI are slightly below the MAX but are deemed achievable by VSI.

# of BDRMs	# of Units	# of Baths	Square Footage	Rent Restriction	Income Restriction	Gross Rent	Utility Allowance	Net Rent
1	2*	1	630	50%	50%	$736	$80	$656
1	53	1	630	60%	60%	$835	$80	$755
1	7**	1	630	60%	60%	$764	$80	$684
2	1*	1.5	840	50%	50%	$883	$101	$782
2	9	1.5	840	60%	60%	$1,001	$101	$900
2	1**	1.5	840	60%	60%	$977	$101	$876

*Low HOME
**High HOME

Unit Amenities:

- Appliances: refrigerator, range, garbage disposal
- Central HVAC
- Ceiling Fans
- Carpet and Vinyl Flooring
- Window Blinds
- Walk-In Closets
- Pull Cords

Community Amenities

- Kitchenette
- On-site laundry
- On-site management
- Fitness Center
- Community Porch
- Numerous Seating Areas
- Controlled Access/ Security Cameras

Proposed NOI is as follows:

- 1% Revenue Inflator Year 1 thru 5 and 2% Year 6 thru remainder / Expense inflators are based upon MSHDA Standards
- 7% Vacancy Year 1 thru 5 and 6% Year 6 thru remainder
- The project has been granted a PILOT from the City of Detroit that will be calculated as follows: 4% of Gross Rent Potential – Vacancy and Collection Loss - Utilities
- $4,936 PUPA Operating Expense Load including $322 PUPA for the PILOT, $500 PUPA for owner paid utilities and $4,114 Managed Expense PUPA for all other expenses excluding real estate taxes, utilities and annual R4R deposit
- $250 PUPA annual deposit to the R4R as required by MSHDA
- 1 FT Office and 1 FT Maintenance Professional budget (5-Days/week for entire site)

Project Cash Flow:

- Deferred Developer Fee estimated to be fully repaid in Year 4

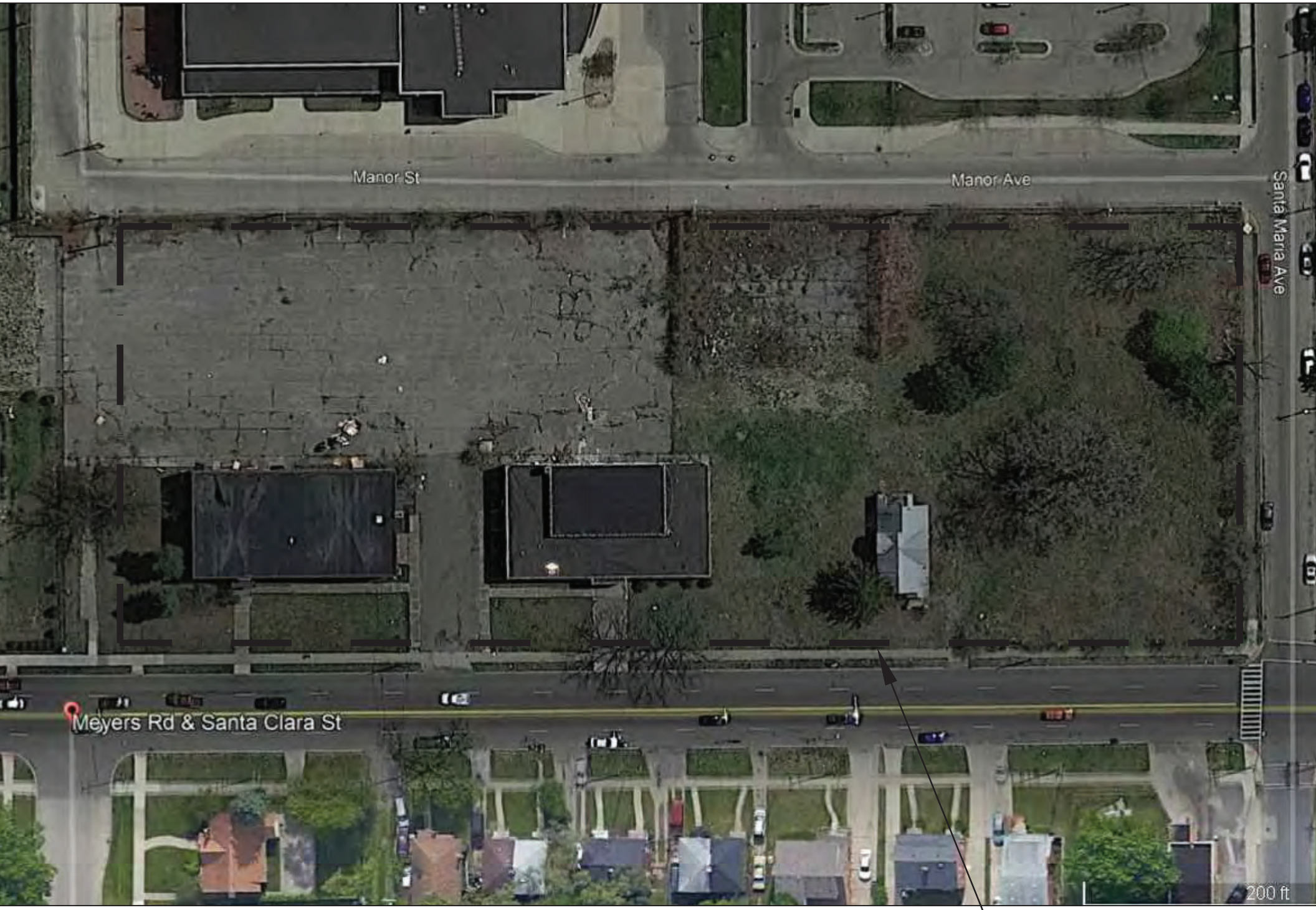
Project Contact List:

Contact	Organization	Title	Email	Phone
Joe Hall	Wallick Communities	Vice President, Development	jhall@wallick.com	614.552.5676
Tyler Ponder	Wallick Communities	Development Manager	tponder@wallick.com	614.552.5649
Brennon Davis	Wallick Communities	Development Associate	bdavis@wallick.com	614.699.3251
Kevin Petru	Presbyterian Villages of Michigan	Director of Real Estate Development	kpetru@pvm.org	248.281.2055

In regards to Exhibit 3. Site Information, please find the following as attachments:

1. A site plan package including Existing Conditions, Soil and Sediment Control Plan, Demolition Plan, Site Plan, Grading Plan, Utility Plan, and Site Details.

2. A letter dated May 3, 2021 from Jayda Philson, City of Detroit Zoning Manager, noting Site Plan approval, dimensional variance approval, variance extension, and future lot split acknowledgement.



DEVELOPMENT SITE BOU

EXISTING SITE AERIAL

ING AND GRADING NOTES

TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS AND RESPONSIBILITIES.

AVING CONTRACTOR SHALL BE REQUIRED TO COORDINATE THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, SPRINKLERS, ETC. IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO THE PAVEMENT MATERIALS. ENSURE THAT ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED AND THAT THE TRENCHES ARE PROPERLY BACKFILLED AND COMPACTED.

OINTS SHALL BE PLACED AT ALL LOCATIONS WHERE AN EXISTING ASPHALT PAVEMENT SURFACE IS BEING DISTURBED BY REMOVALS AND/OR THE INSTALLATION OF NEW ASPHALT PAVEMENT.

VEMENT AREAS SHOULD BE CLEARED AND GRUBBED BY REMOVING SURFACE VEGETATION, TOPSOIL, DEBRIS AND OTHER DELETERIOUS MATERIALS.

LACEMENT OF THE FINAL ASPHALT LIFT SHALL BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED, OR AS APPROVED BY THE OWNER. A BOND COAT OF SS-1H EMULSION APPLIED (AT A RATE OF 0.10 GALLONS/S.Y.D.) BETWEEN THE LEVELING AND WEARING COURSE WHEN 48 HOURS HAVE ELAPSED BETWEEN PLACEMENTS.

NAL SUB-GRADE SHALL BE THOROUGHLY PROOF-ROLLED UNDER THE OBSERVATION OF THE SOILS ENGINEER.

OSED AGGREGATE BASE SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND THE PAVEMENT EDGE/BACK OF CURB.

ENCHES WITHIN A ONE ON ONE SLOPE OF PAVEMENT SHALL BE BACKFILLED WITH SAND (MDOT CLASS II MINIMUM) AND MECHANICALLY COMPACTED IN NOT MORE THAN 9" LAYER TO 95% MAXIMUM DRY DENSITY PER PROCTER COMPACTION TEST ASTM D-1557.

OZEN MATERIAL SHALL BE PERMITTED AS BACKFILL UNDER ANY ROADWAY, DRIVEWAY OR PARKING AREA.

TO THE START OF ANY FILLING, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ALL OTHER UNACCEPTABLE SOIL FROM THE FILL AREAS, AND PROPERLY BACKFILL WITH ACCEPTABLE SOIL.

ER FREE SIGNAGE SHALL BE PLACED IN FRONT OF EVERY DESIGNATED BARRIER FREE STALL. THE CONTRACTOR SHALL COORDINATE STANDARD AND VAN ACCESSIBILITY SIGNAGE AS INDICATED ON THE PLANS.

ARRIER FREE RAMPS TO BE A.D.A. COMPLIANT.

RAL GRADING REQUIREMENTS ARE AS FOLLOWS:

H GRADE AT EXISTING BUILDING SHALL MATCH BRICK LEDGES, DOORWAYS OR BASEMENT WINDOWS

TAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING (± 2%)

WALK CROSS SLOPE ±2% UNLESS OTHERWISE NOTED (EXCLUDING RAMPS)

EMENT SLOPES (1.0% MINIMUM, 4.0% MAXIMUM) UNIFORMLY BETWEEN FINISH GRADE ON PLANS

N AREAS ± 1% MINIMUM TO 25% (BERMS) MAXIMUM

ROPOSED GRADES ARE AT THE GUTTER UNLESS OTHERWISE NOTED. SEE DETAILS FOR FACE OF CURB, TOP OF CURB AND ASPHALT ADJUSTMENTS.

R TO ARCHITECTURAL PLANS TO COORDINATE ALL:

ER SUPPLY, METERING, SPRINKLER AND FDC PIPING, DESIGN AND COORDINATION

DING SEWER, BUILDING DRAIN DESIGN AND CONNECTIONS TO CLEAN OUTS AND ROOF CONNECTORS

ELECTRIC AND COMMUNICATION SERVICES AND LIGHTING DETAILS AND COORDINATION.

BUILDING ACCESS WALKS AND ENTRY DETAILS, INCLUDING SUPPORTED SLABS

WORK TO CONSTRUCT THE BUILDING AND ALL ITEMS CONNECTED TO IT

R TO THE PLACEMENT OF ANY BASE ASPHALT OR LEVELING COURSE, THE CURBS SHALL BE PARTIALLY BACKFILLED AND THE SUB-GRADE SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF THE SOILS ENGINEER.

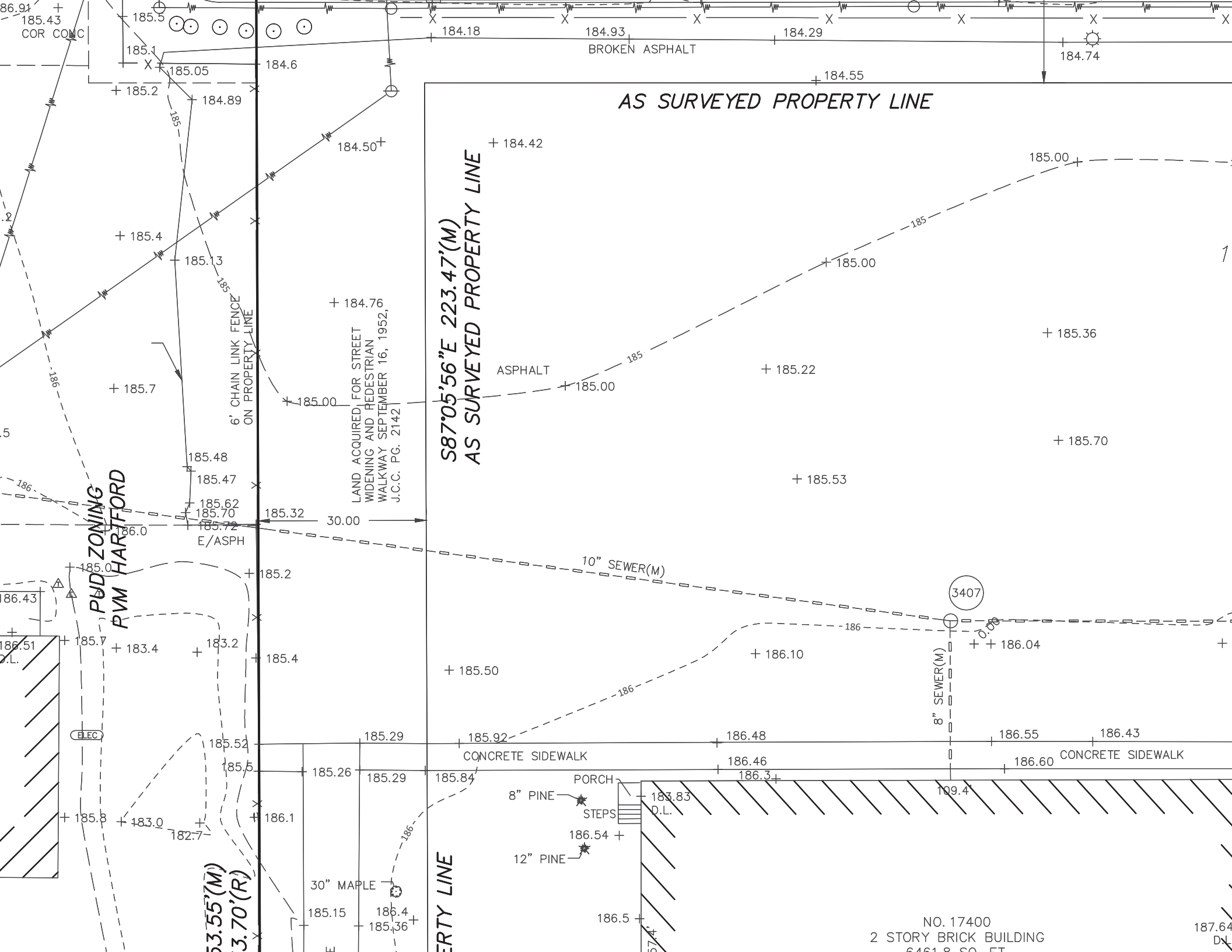
DEWALK AND PATHWAYS IN ANY PUBLIC R.O.W. SHALL BE INSPECTED BY THE AGENCY WITH JURISDICTION.

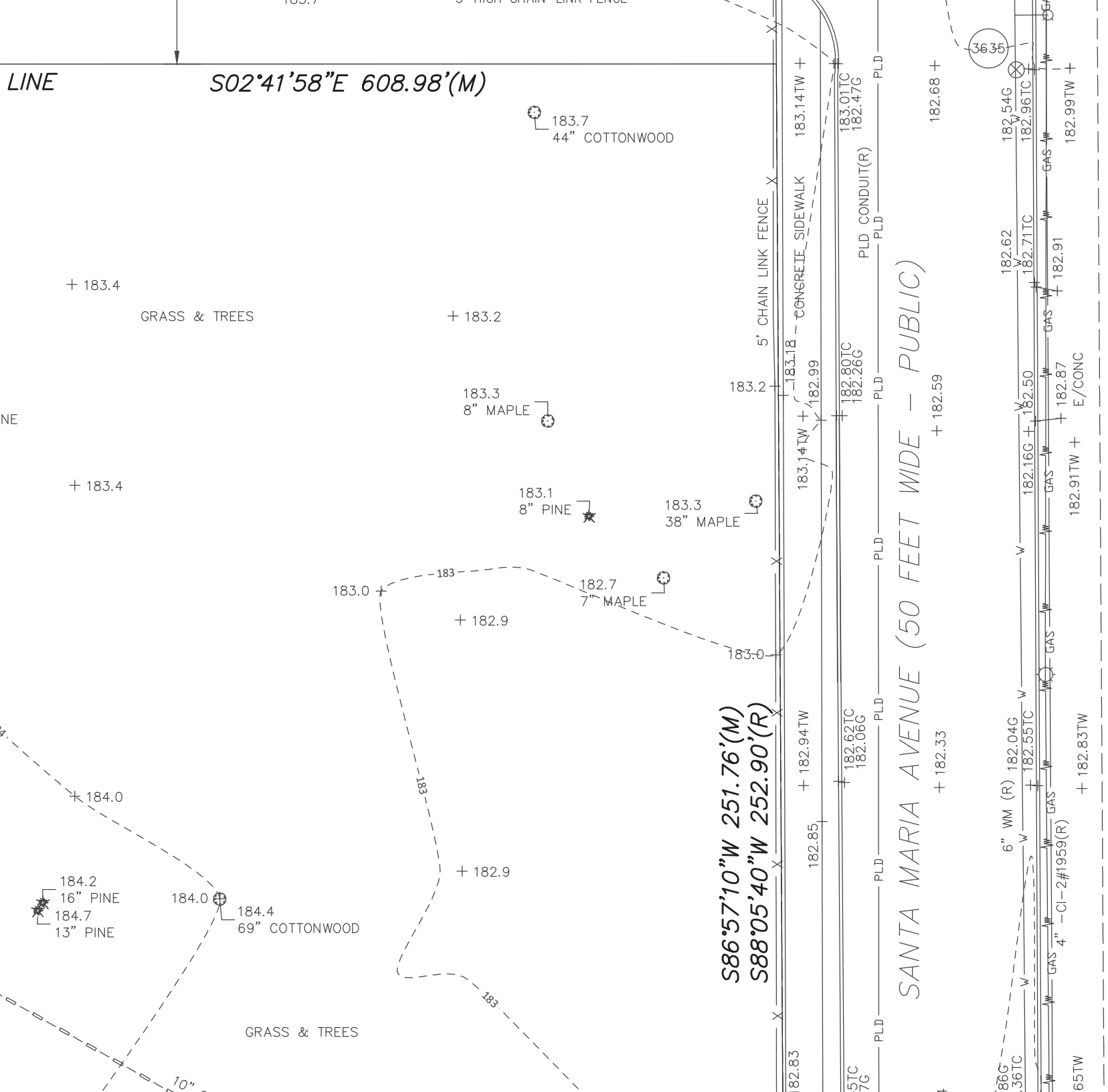
EXISTING	PROPOSED		EXISTING	PROPOSED
⊗	⊗	GUY WIRE ANCHOR	<	
○	●	UTILITY FLAG	PHONE	

DEMOLITIO

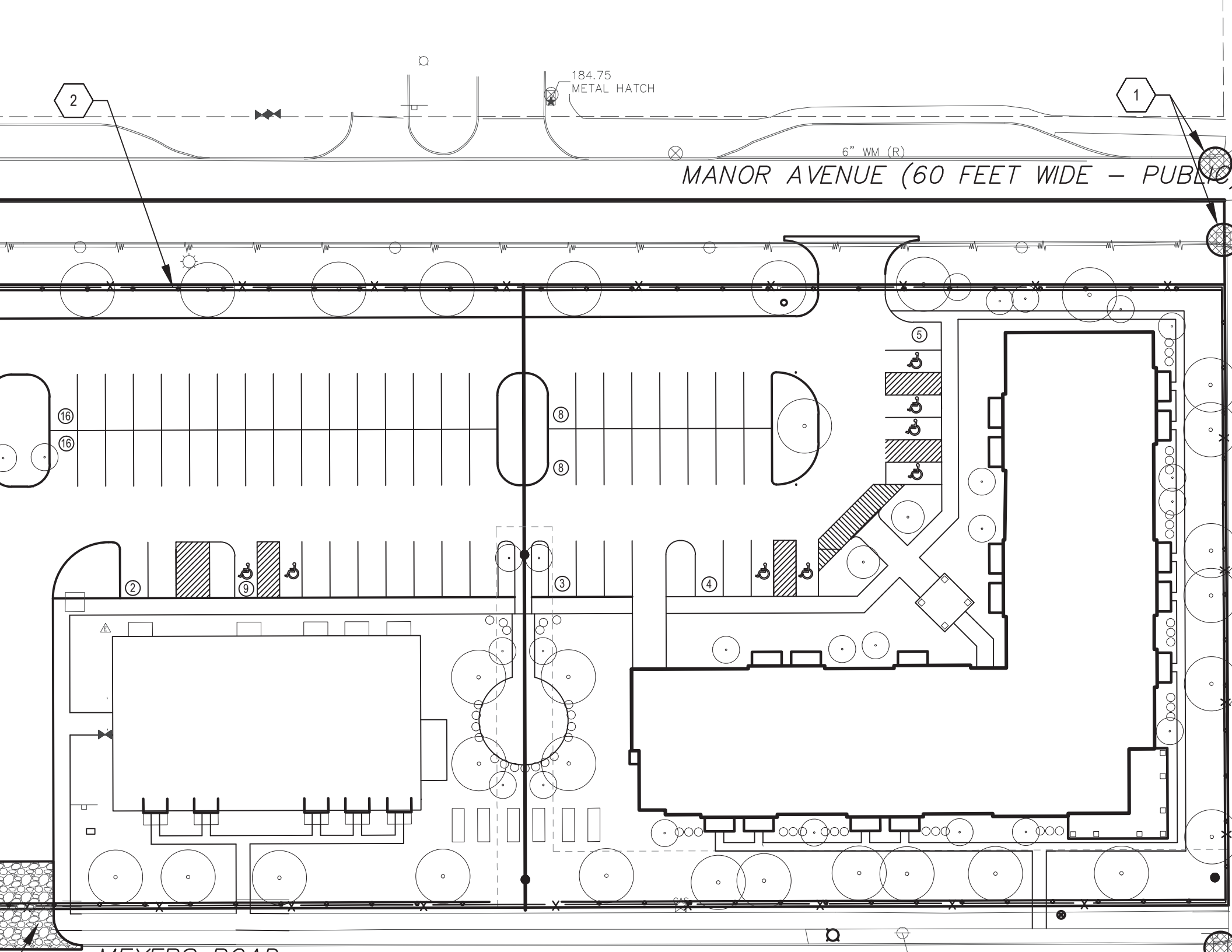
REMOVE UTILITY STRUC

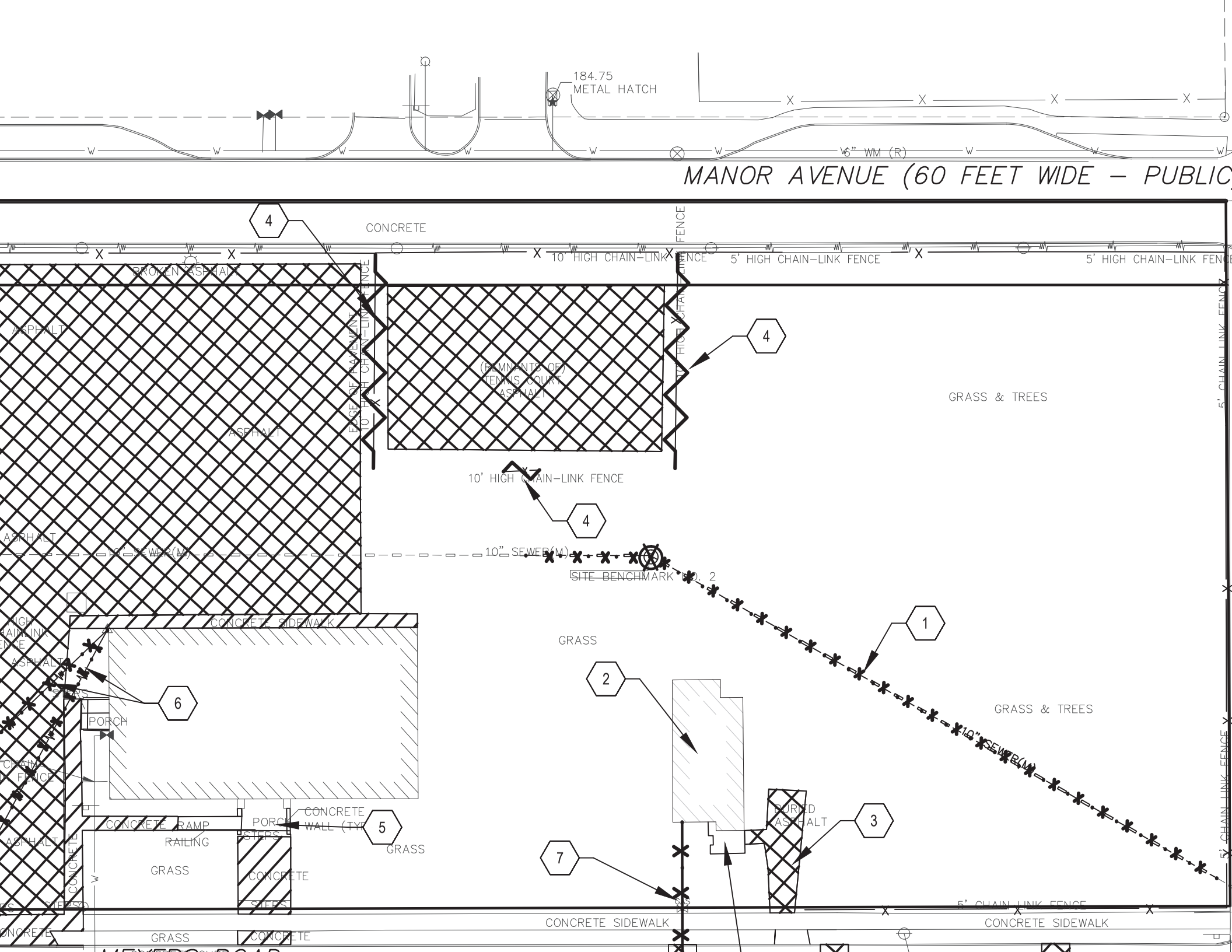
REMOVE UTILITY PIPE

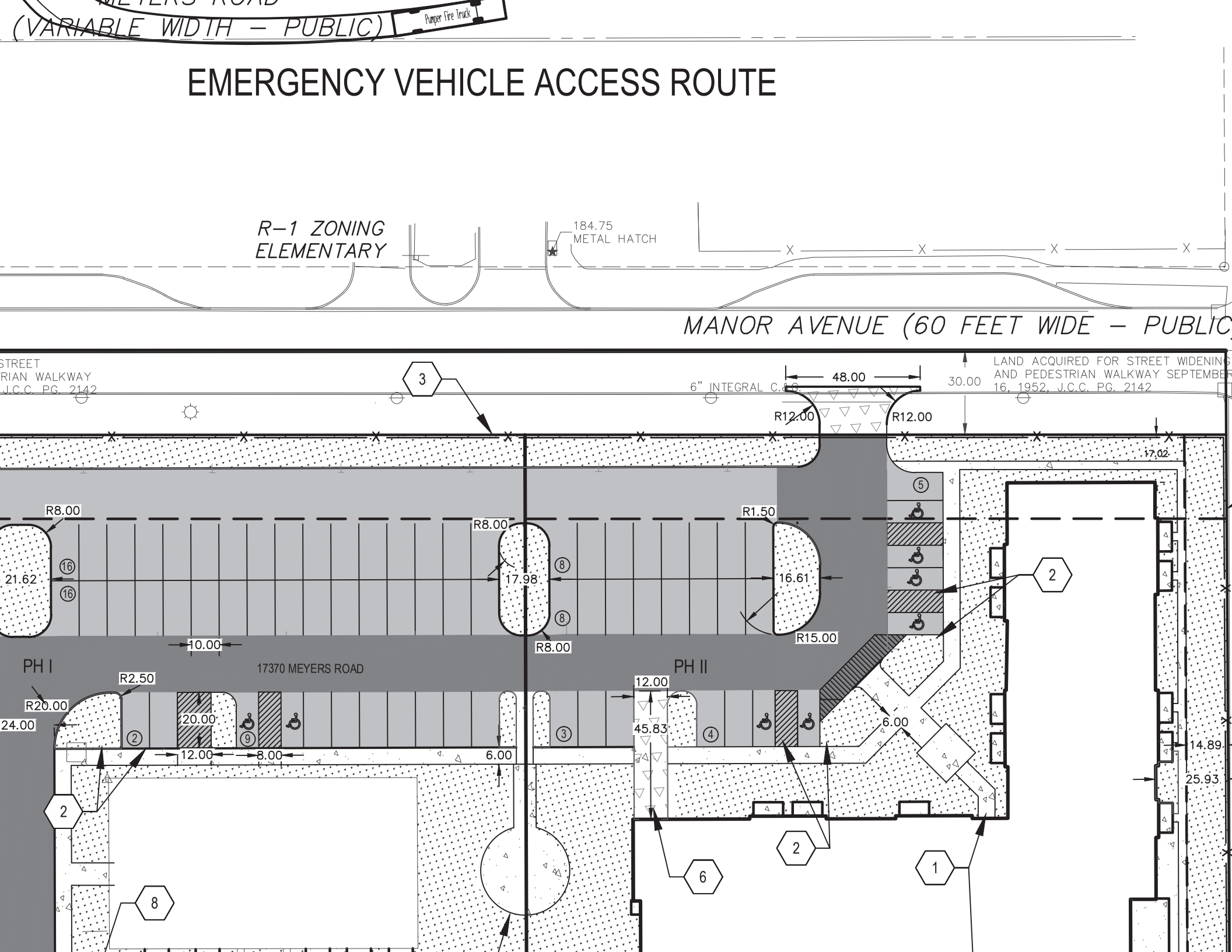

AS SURVEYED PROPERTY LINE
S87°05'56"E 223.47'(M)
AS SURVEYED PROPERTY LINE
6' CHAIN LINK FENCE ON PROPERTY LINE
LAND ACQUIRED FOR STREET WIDENING AND PEDESTRIAN WALKWAY SEPTEMBER 16, 1952, J.C.C. PG. 2142
PUD ZONING
PVM HARTFORD
BROKEN ASPHALT
COR CONC
ASPHALT
E/ASPH
30.00
10" SEWER(M)
8" SEWER(M)
CONCRETE SIDEWALK
CONCRETE SIDEWALK
PORCH
STEPS
8" PINE
12" PINE
30" MAPLE
ELEC
3407
NO. 17400
2 STORY BRICK BUILDING
6461.8 SQ. FT.
53.55'(M)
3.70'(R)
PERTY LINE



STRUCTURE	TYPE
3267	CATCH BASIN
3292	COMBINED MANHO
3304	GATE VALVE
3305	CATCH BASIN
3316	CATCH BASIN
3319	PUBLIC LIGHTING MAN
3361	CATCH BASIN
3362	CATCH BASIN
3376	COMBINED MANHO
3378	CATCH BASIN
3407	COMBINED MANHO
3463	CATCH BASIN
3464	COMBINED MANHO
3500	CATCH BASIN
3600	CATCH BASIN
3635	GATE VALVE
5047	GATE VALVE / WATER M
5079	CATCH BASIN
5080	PUBLIC LIGHTING MAN


184.75
METAL HATCH
6" WM (R)
MANOR AVENUE (60 FEET WIDE – PUBLIC)
1
2
2
3
4
5
8
8
9
16
16


184.75
METAL HATCH
6" WM (R)
MANOR AVENUE (60 FEET WIDE – PUBLIC
CONCRETE
10' HIGH CHAIN-LINK FENCE
5' HIGH CHAIN-LINK FENCE
BROKEN ASPHALT
ASPHALT
(REMNANTS OF)
TENNIS COURT
ASPHALT
GRASS & TREES
10' HIGH CHAIN-LINK FENCE
10" SEWER(M)
SITE BENCHMARK NO. 2
CONCRETE SIDEWALK
GRASS
PORCH
CONCRETE RAMP
RAILING
CONCRETE
WALL (TYP)
STEPS
GRASS
CURBED
ASPHALT
5' CHAIN LINK FENCE
CONCRETE SIDEWALK
1
2
3
4
5
6
7


(VARIABLE WIDTH – PUBLIC)
Pumper Fire Truck
EMERGENCY VEHICLE ACCESS ROUTE
R–1 ZONING
ELEMENTARY
184.75
METAL HATCH
MANOR AVENUE (60 FEET WIDE – PUBLIC
STREET
RIAN WALKWAY
J.C.C. PG. 2142
6" INTEGRAL C.&G.
48.00
30.00
LAND ACQUIRED FOR STREET WIDENING
AND PEDESTRIAN WALKWAY SEPTEMBER
16, 1952, J.C.C. PG. 2142
R12.00
R12.00
17.02
R8.00
R8.00
R1.50
21.62
17.98
16.61
R15.00
R8.00
10.00
PH I
17370 MEYERS ROAD
PH II
R2.50
R20.00
24.00
20.00
12.00
45.83
6.00
12.00
8.00
6.00
14.89
25.93
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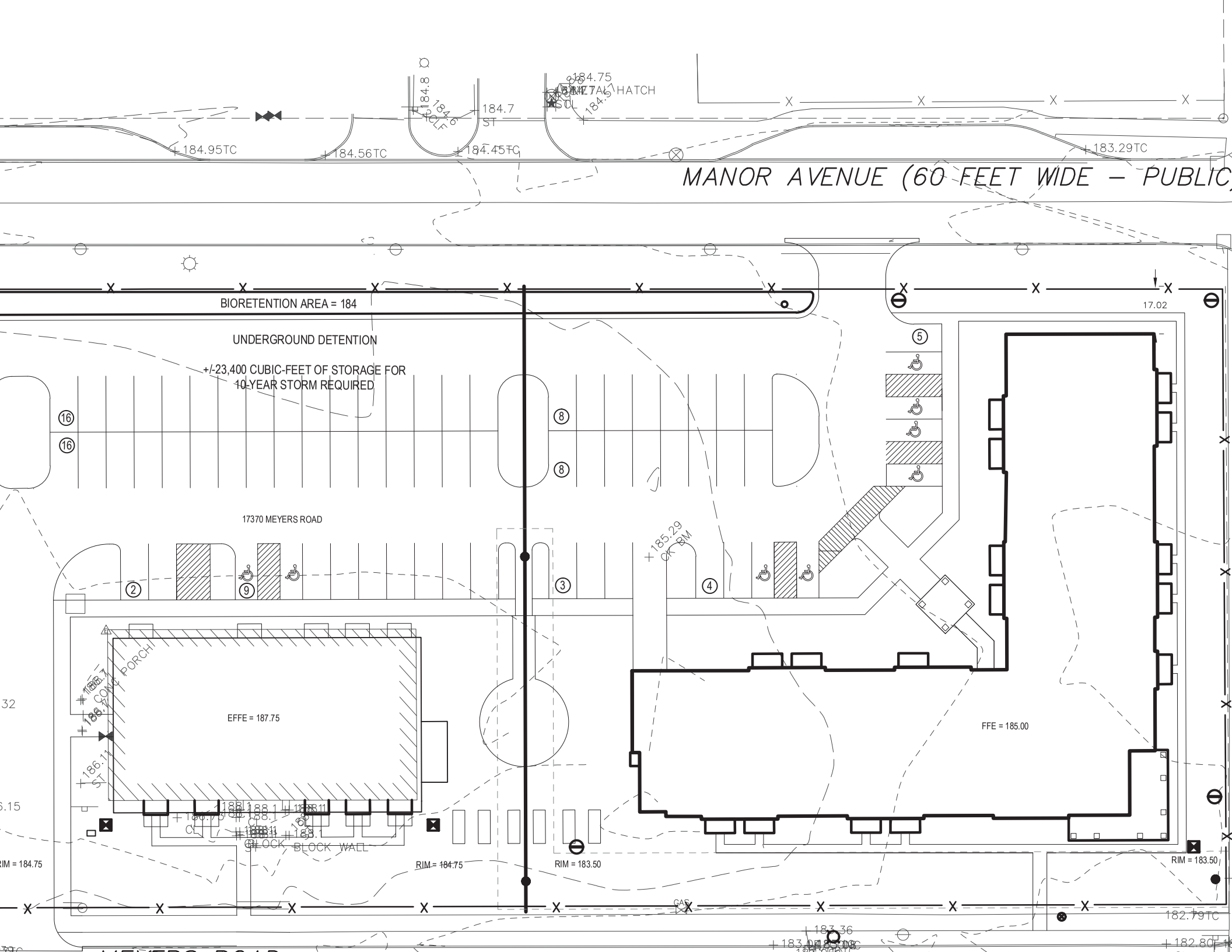
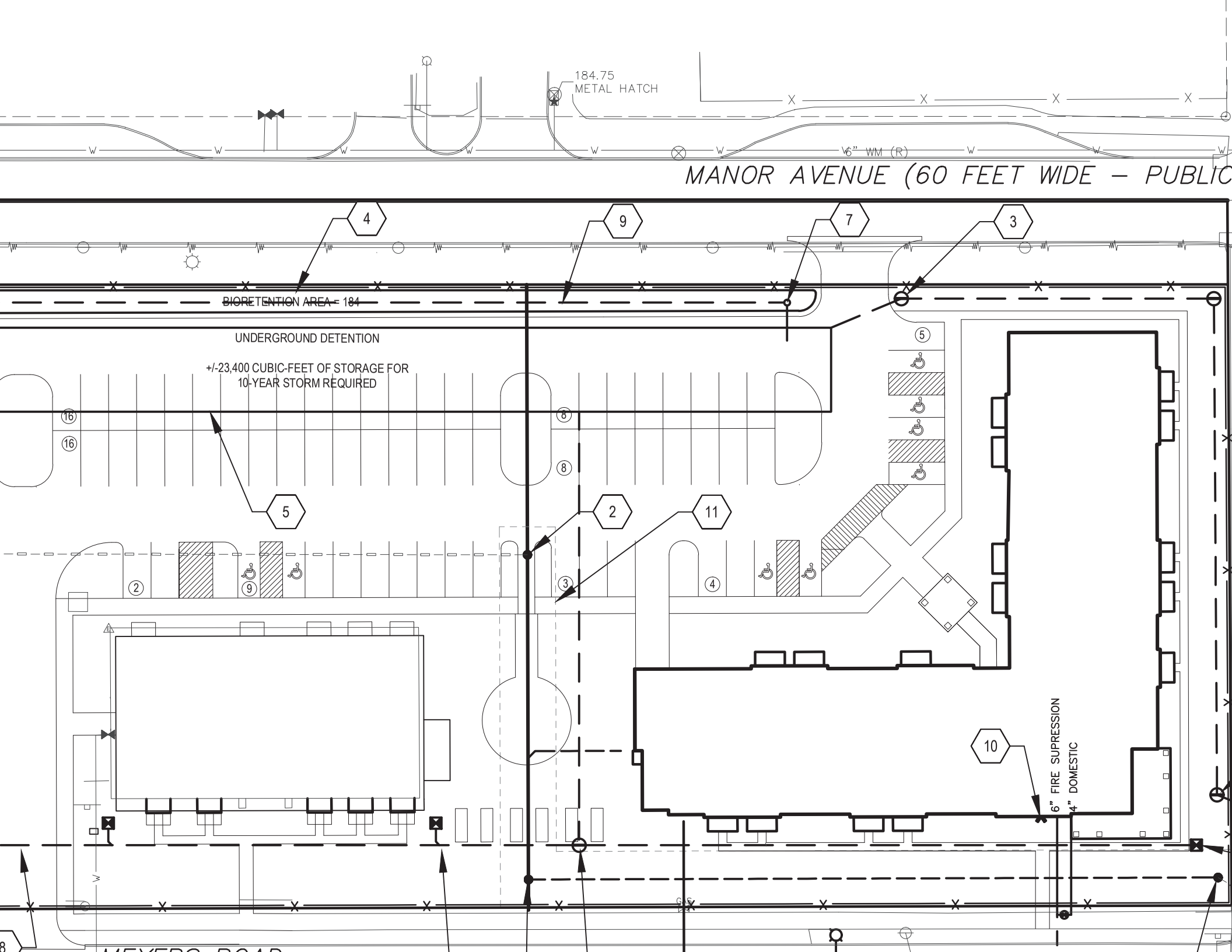
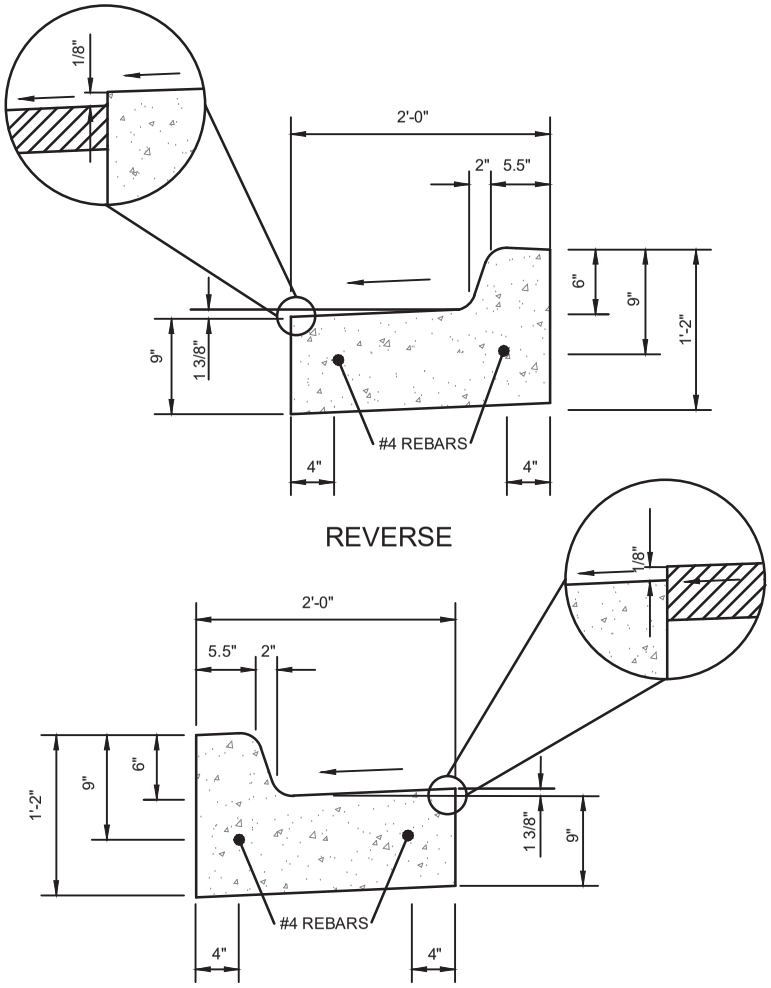

MANOR AVENUE (60 FEET WIDE – PUBLIC)
BIORETENTION AREA = 184
UNDERGROUND DETENTION
+/-23,400 CUBIC-FEET OF STORAGE FOR
10-YEAR STORM REQUIRED
17370 MEYERS ROAD
EFFE = 187.75
FFE = 185.00
CONC PORCH
BLOCK WALL
RIM = 184.75
RIM = 184.75
RIM = 183.50
RIM = 183.50
184.95TC
184.56TC
184.45TC
183.29TC
182.79TC
182.80
184.7
ST
184.75
HATCH
185.29
CK BM
186.11
ST
17.02
GAS

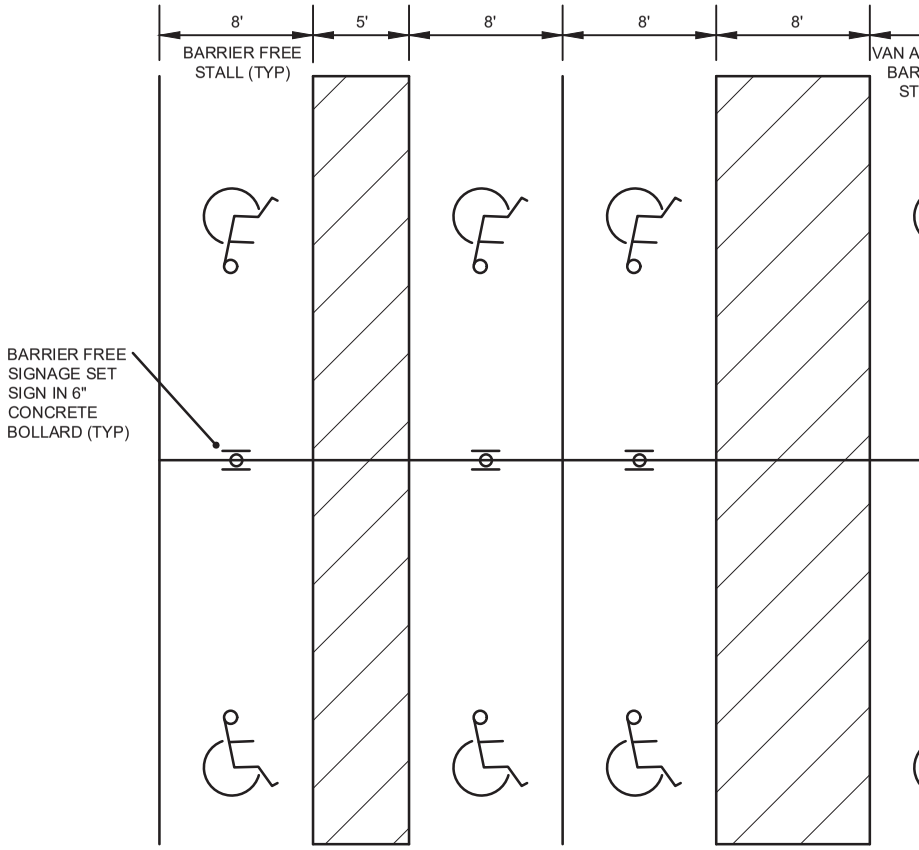

184.75
METAL HATCH
6" WM (R)
MANOR AVENUE (60 FEET WIDE – PUBLIC
BIORETENTION AREA = 184
UNDERGROUND DETENTION
+/-23,400 CUBIC-FEET OF STORAGE FOR
10-YEAR STORM REQUIRED
6" FIRE SUPRESSION
4" DOMESTIC
MEYERS ROAD



NOTE:
1. USE MDOT 35P CONCRETE UNLESS OTHERWISE NOTED.
2. REFER TO PLANS FOR LOCATIONS OF STANDARD AND REVERSE CURB.
3. CONTRACTOR SHALL SMOOTHLY TRANSITION BETWEEN STANDARD AND REVERSE CURB.

CONCRETE CURB & GUTTER

N.T.S.



NOTE:
1. PAINT SHALL BE LIFE LINE YELLOW LY-1 FOR STANDARD SPACES.
2. PAINT SHALL BE B-1052 FOR BARRIER FREE SPACES,.
3. ALL STRIPING SHALL BE FOUR INCHES (4") IN WIDTH PAINTED HIGHWAY YELLOW OR BLUE SUPPLEMENTAL SPECS.
4. ALL STRIPING SHALL BE APPLIED IN TWO (2) COATS.

BARRIER FREE PAVEMENT

N.T.S.

SPACING 6' MAX.

FENCE POSTS DRIVEN

DEPARTMENT OF
Buildings, Safety Engineering & Environmental

Coleman A. Young Municipal Center
2 Woodward Avenue, Fourth Floor
Detroit, Michigan, 48226

Phone 313-224-2733 TTY:711
Fax 313-224-1467
www.detroitmi.gov

May 3, 2021

To whom it may concern,

On March 31, 2020, the City of Detroit Buildings, Safety Engineering & Environmental Department approved with conditions the Site Plan, inclusive of both the 4% and 9% elements, for Meyers Senior Apartments located at 17370 Meyers Road, Detroit, MI 48235.

The noted condition of a rear setback dimension variance was requested and approved by the City of Detroit Board of Zoning Appeals on August 6, 2020 (Case No. 17-20).

Further, we recognize that a variance approval extension was granted, now set to not expire before October 31, 2021.

We understand that, because the Meyers Senior Apartments development is comprised of both 4% and 9% LIHTCs, a future lot split will be required. The lot split process is administered through the City of Detroit's Office of the Assessor.

https://detroitmi.gov/departments/office-chief-financial-officer/ocfo-divisions/office-assessor

Given the previously provided and approved Site Plan, we do not anticipate any concerns regarding the proposed future lot split to distinguish the 4% and 9% portions of the entire Meyers Senior Apartments development.

Regards,

Jayda Philson

Jayda Philson

Zoning Manager

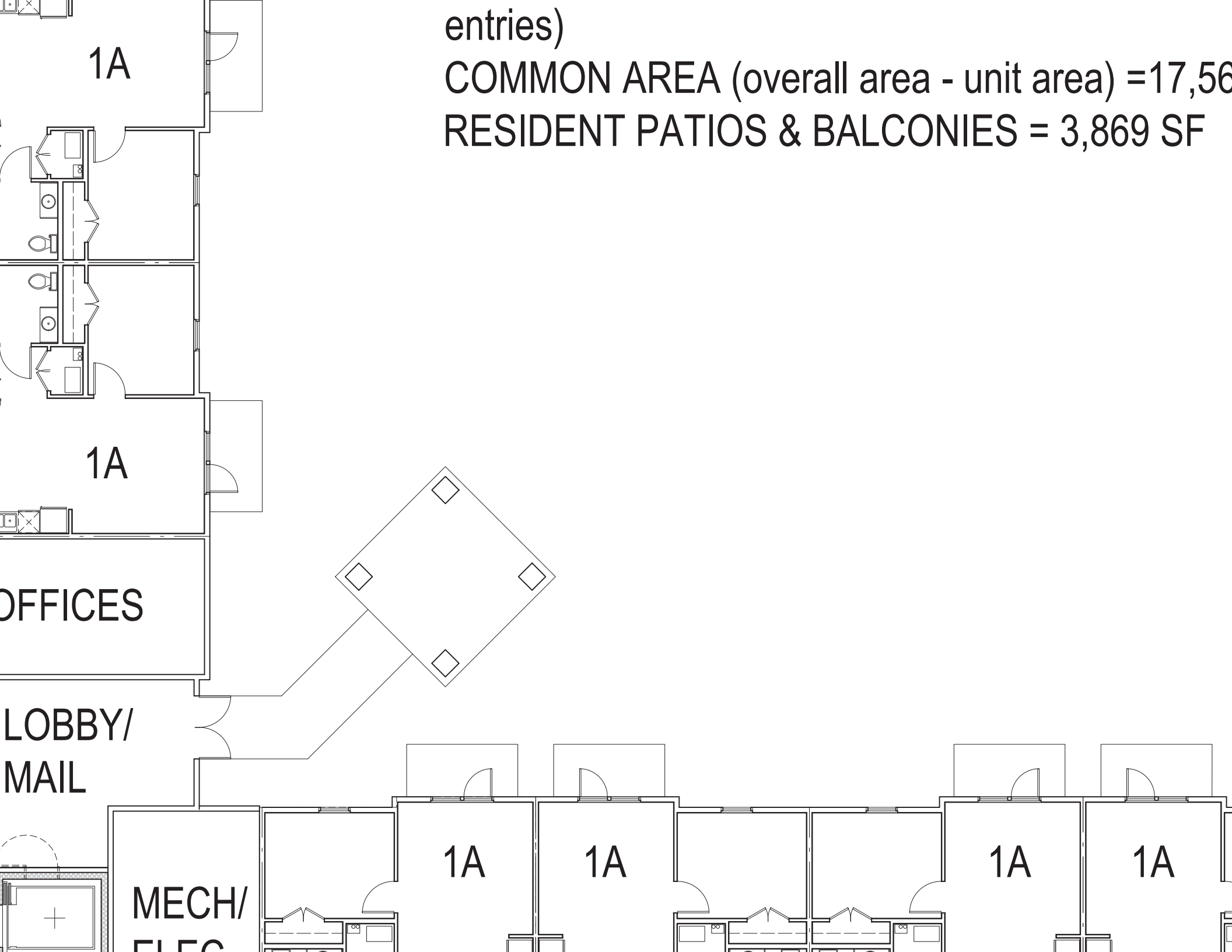
SPR2020-00016


CEMENT BOARD
PANEL
CEMENT BOARD P
HORIZONTAL LAP

entries)

COMMON AREA (overall area - unit area) =17,56

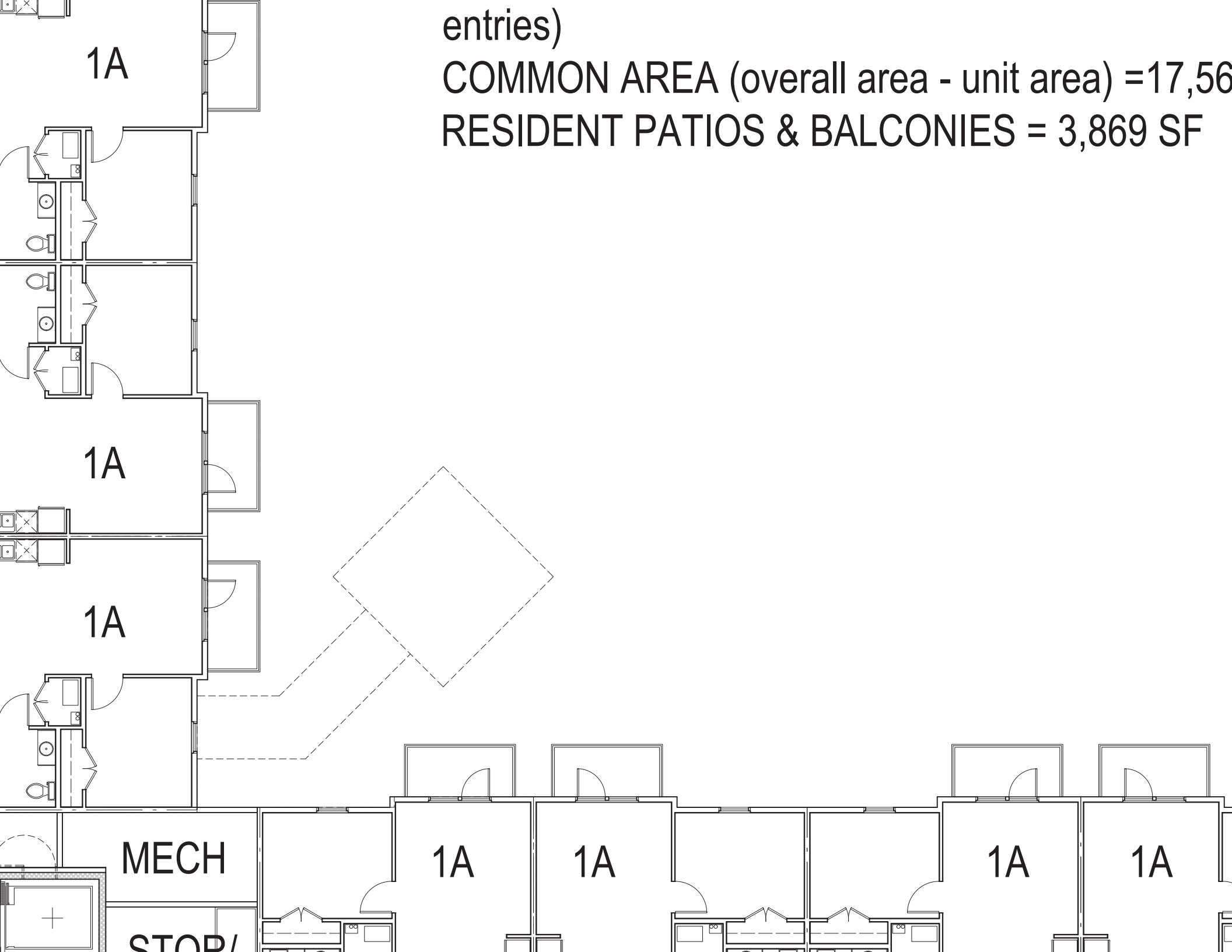
RESIDENT PATIOS & BALCONIES = 3,869 SF

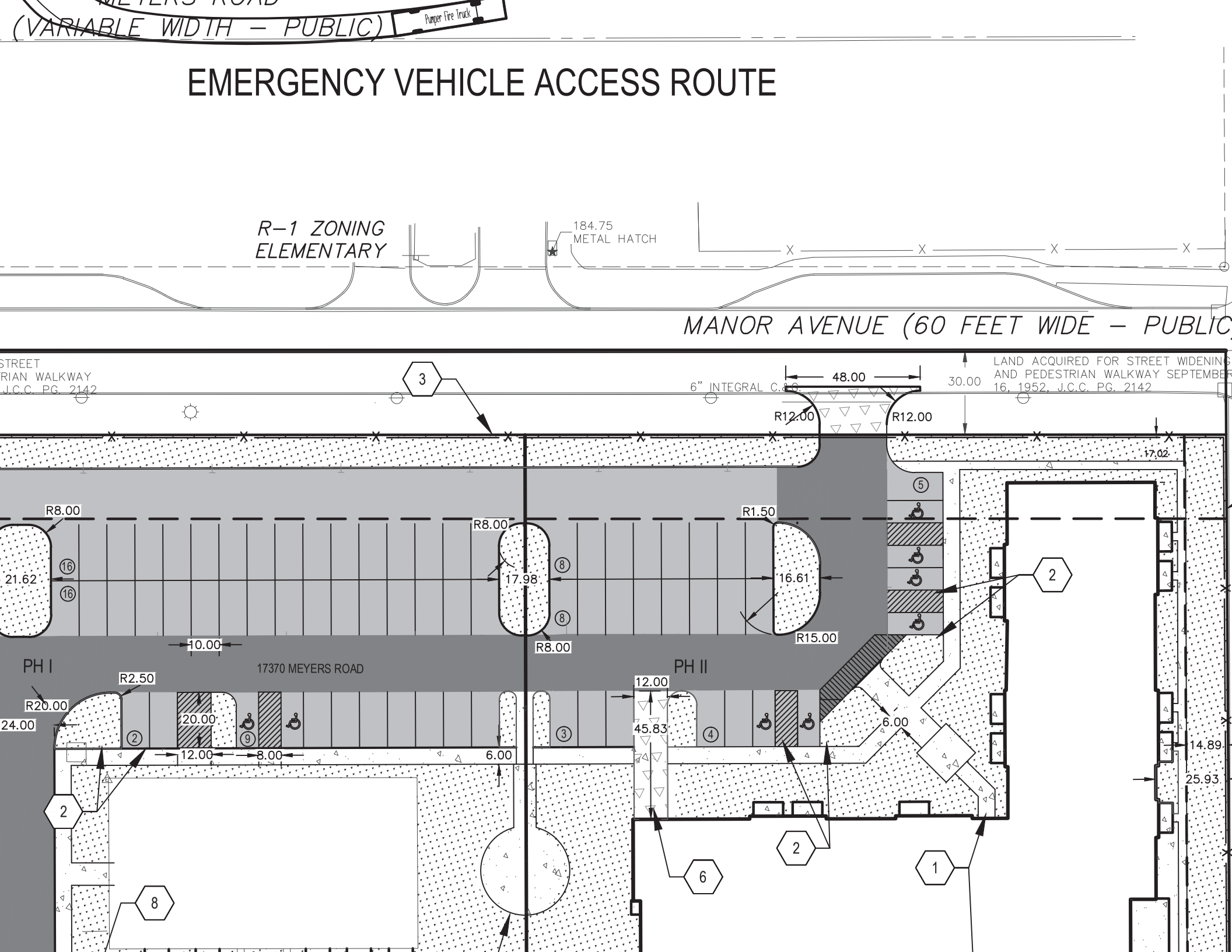


entries)

COMMON AREA (overall area - unit area) =17,56

RESIDENT PATIOS & BALCONIES = 3,869 SF




(VARIABLE WIDTH – PUBLIC)
Pumper Fire Truck
EMERGENCY VEHICLE ACCESS ROUTE
R–1 ZONING
ELEMENTARY
184.75
METAL HATCH
MANOR AVENUE (60 FEET WIDE – PUBLIC
STREET
RIAN WALKWAY
J.C.C. PG. 2142
6" INTEGRAL C.&G.
48.00
30.00
LAND ACQUIRED FOR STREET WIDENING
AND PEDESTRIAN WALKWAY SEPTEMBER
16, 1952, J.C.C. PG. 2142
R12.00
R12.00
17.02
R8.00
R8.00
R1.50
21.62
17.98
16.61
R15.00
R8.00
10.00
PH I
17370 MEYERS ROAD
PH II
R2.50
R20.00
24.00
20.00
12.00
45.83
6.00
12.00
8.00
6.00
14.89
25.93
1
2
3
4
5
6
8
9
16


1-BED
644 NSF
702 GSF
727 NSF
790 GSF
1-BED
621 NSF
677 GSF
1-BED
637 NSF
693 GSF
STUDIO
454 NSF
520 GSF
EL.
COM
300


ED
NSF
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FITNESS
358 NSF
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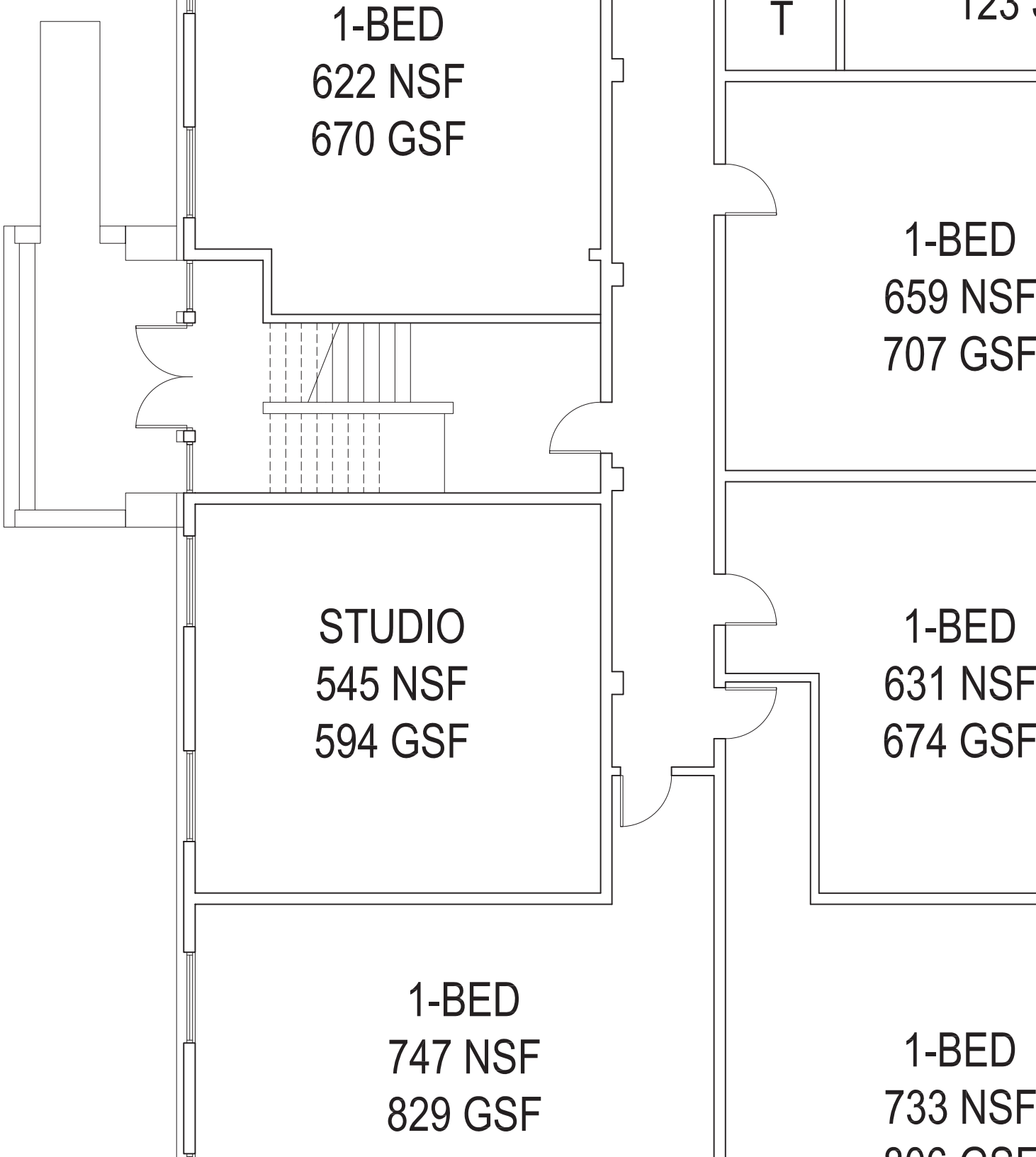
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1-BED
659 NSF
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594 GSF
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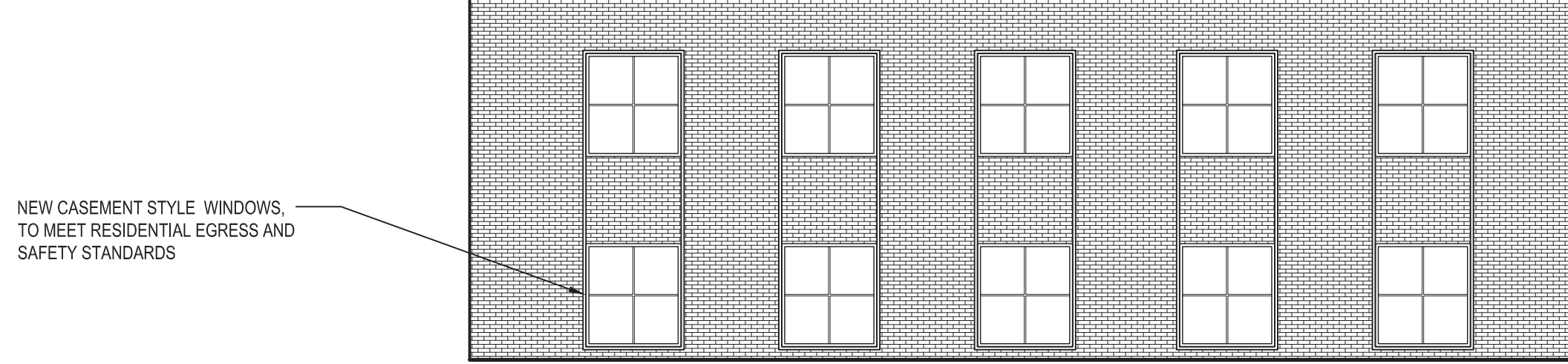
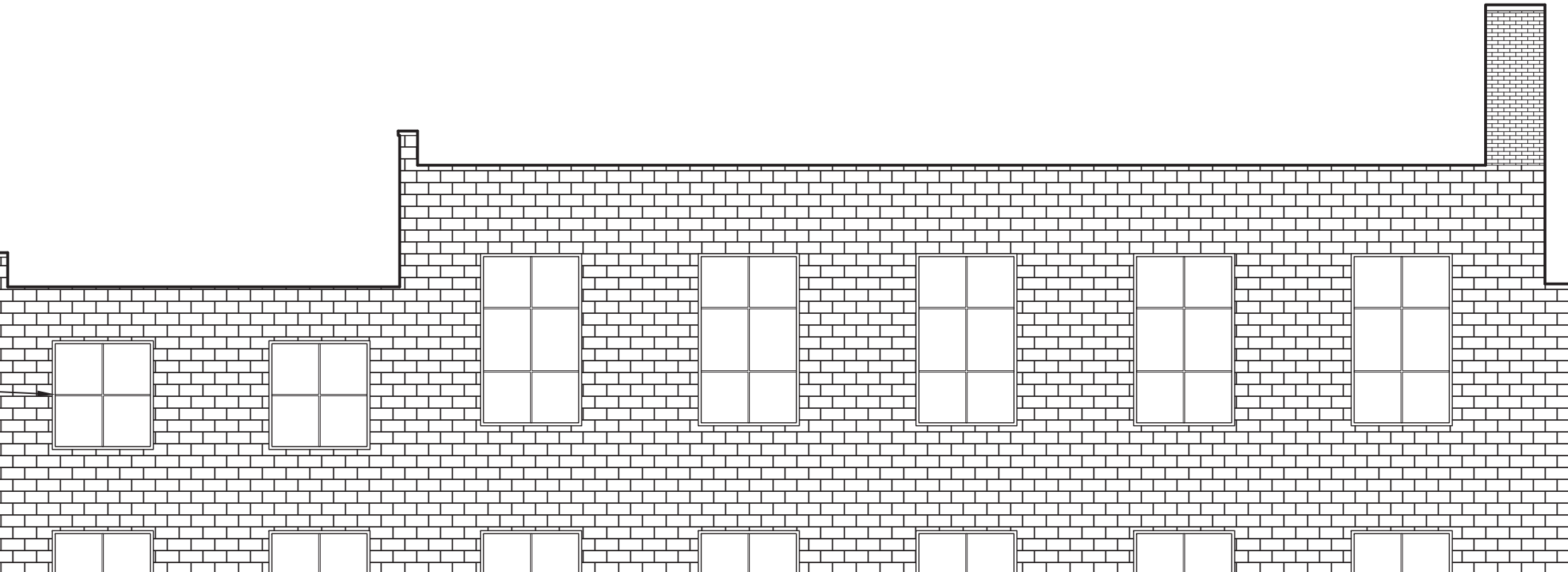
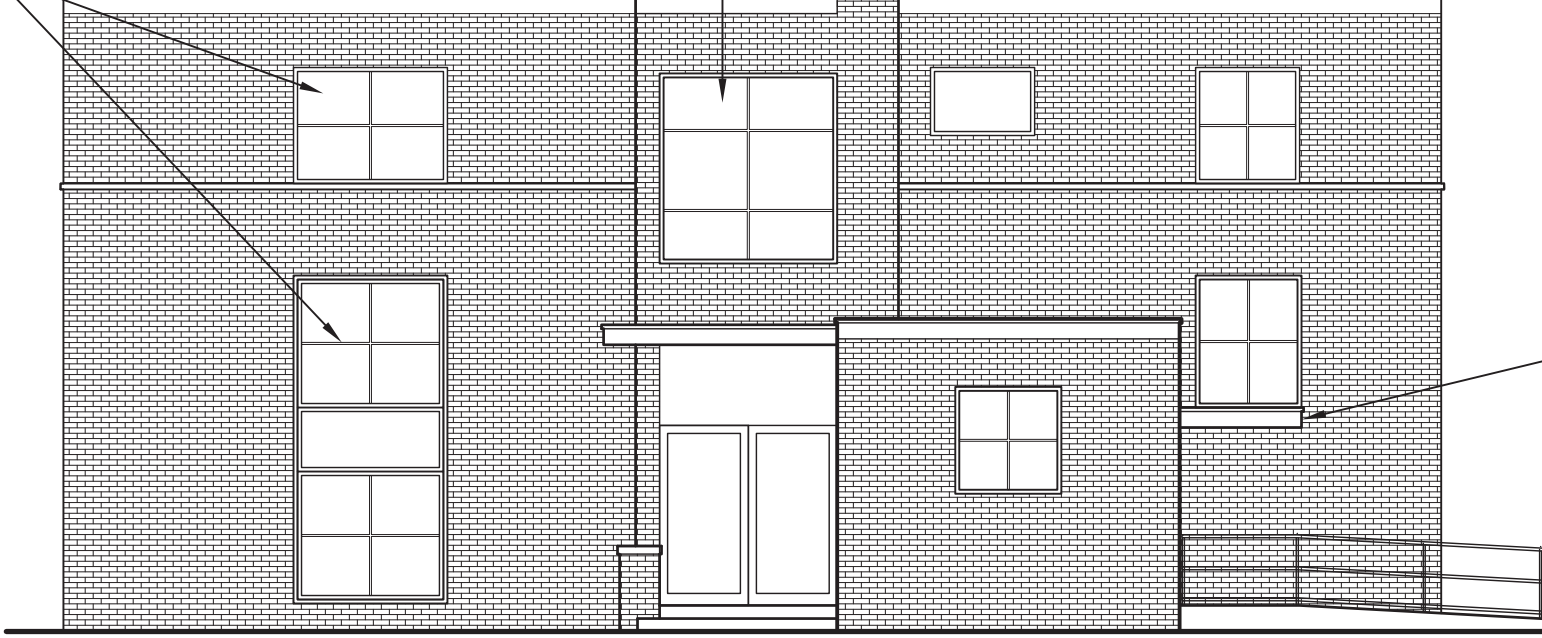


SOUTH ELEVATION - BUILDING 'B'

SCALE: 1/8"=1'-0"



TO MEET RESIDENTIAL EGRESS AND
SAFETY STANDARDS



SOUTH ELEVATION - BUILDING 'A'

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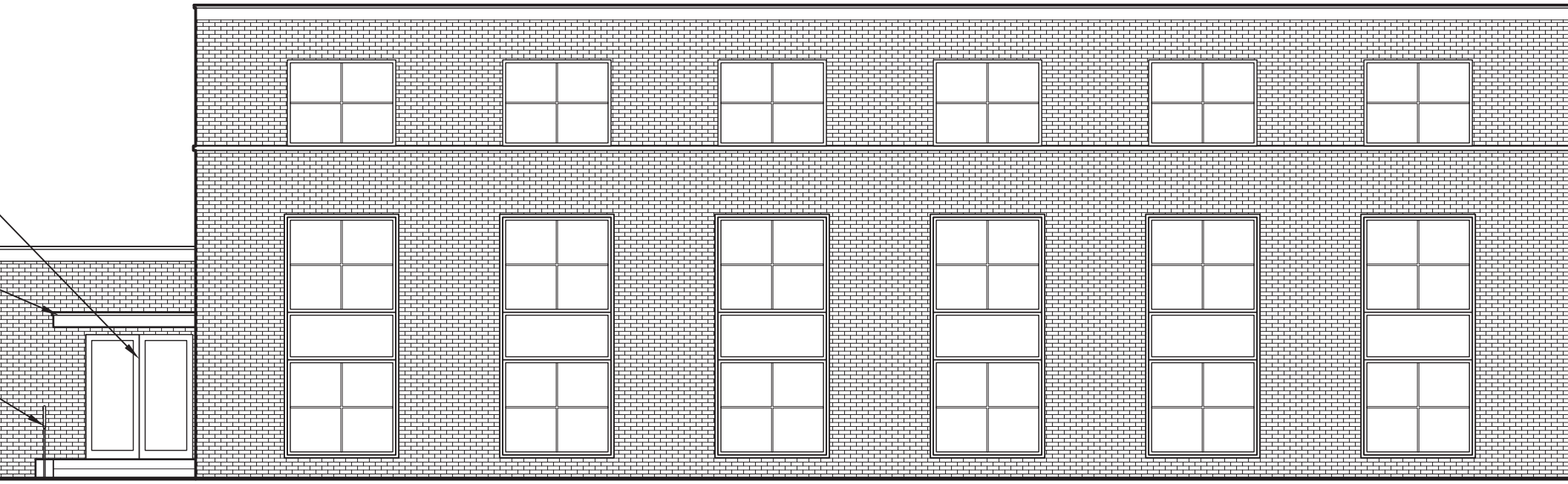
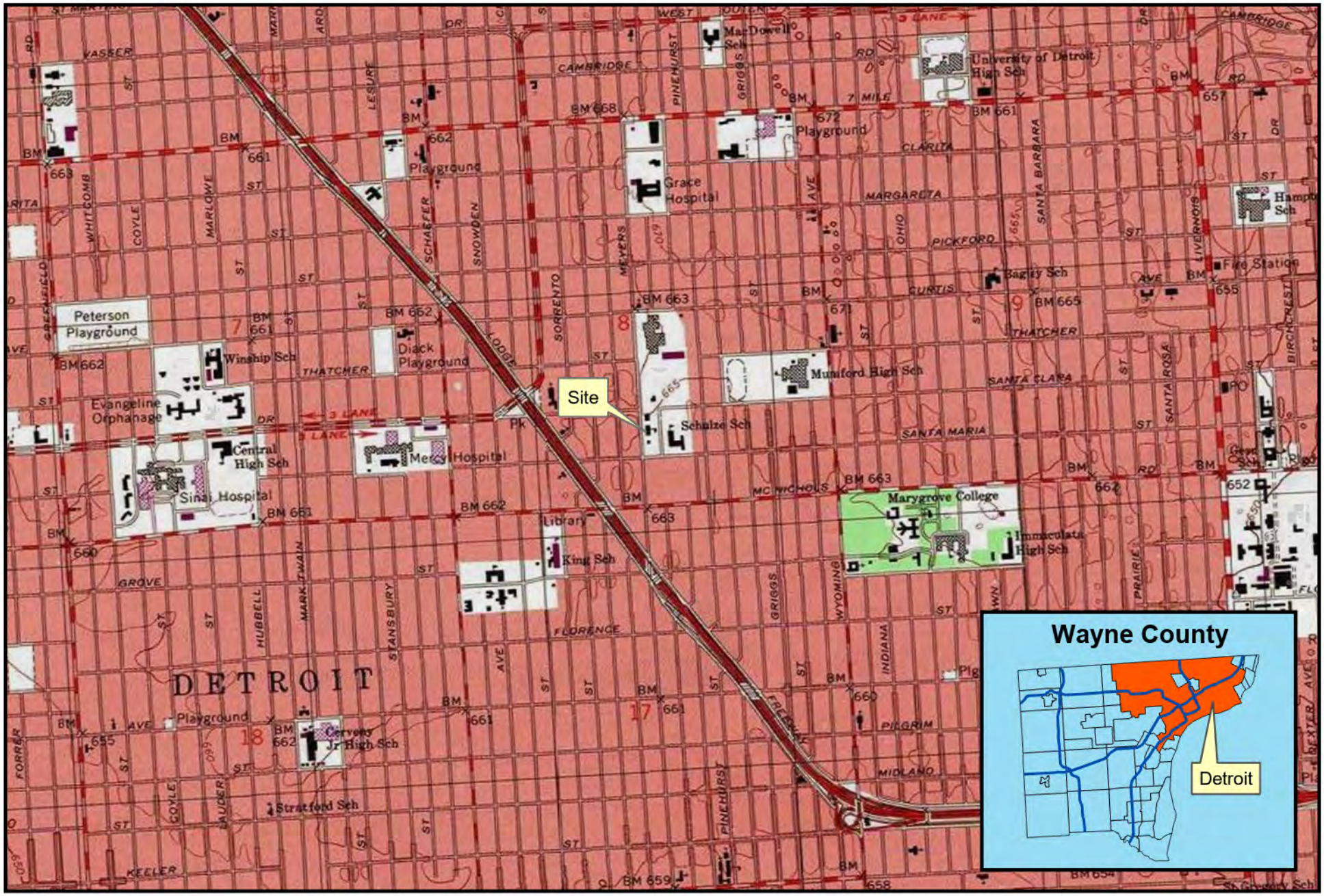




17370 Meyers

Detroit, MI

2,000 1,000 0 2,000 Feet

N

ASTI Environmental

Client: Wallick Companies
Created by: RMH, September 30, 2021, ASTI Project 2-11382

Site Location Map

Service Layer Credits: MiSAIL_2020_6in_Clip_webMerc:

17370 Meyers

Detroit, MI

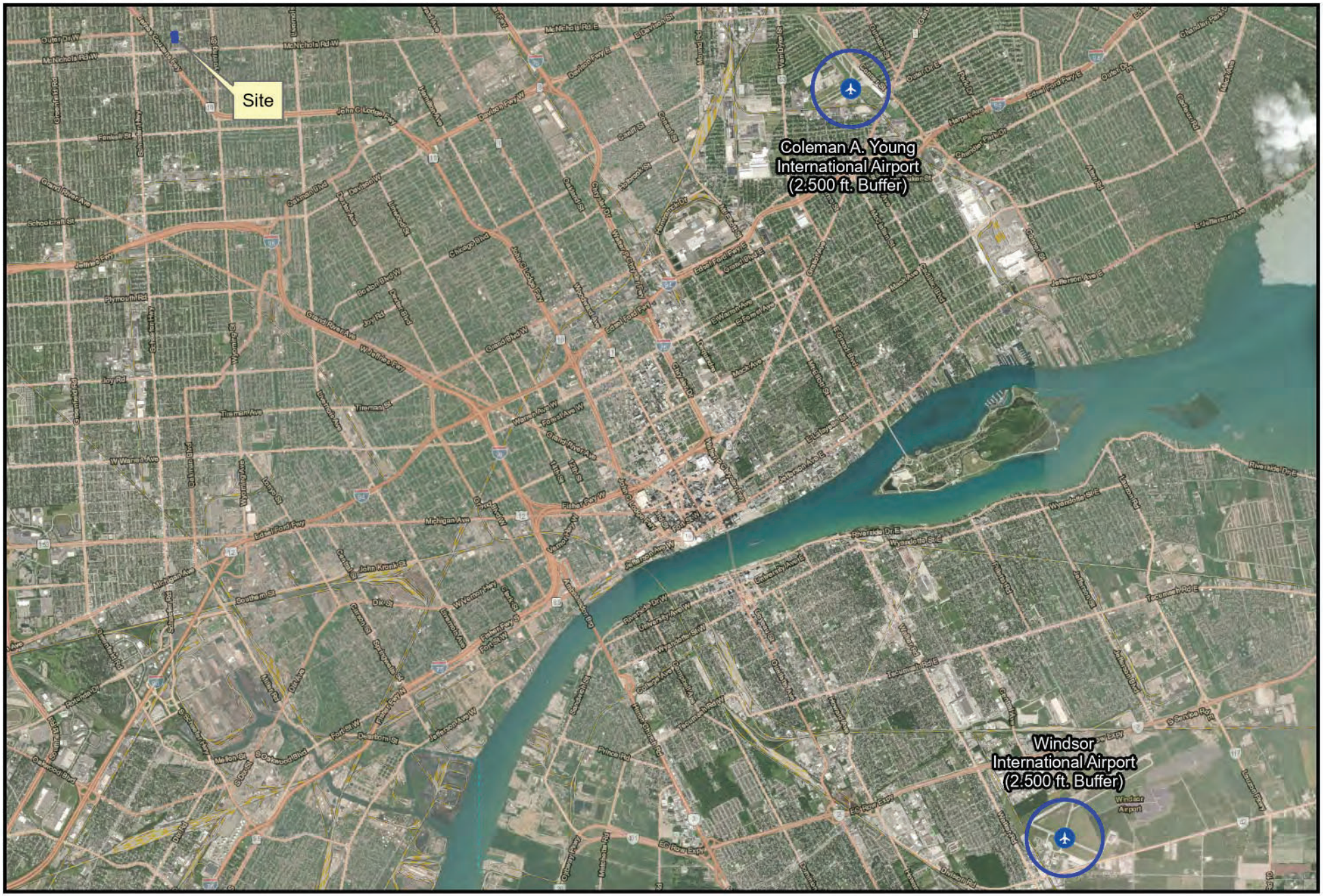
0 37.5 75 150 Feet

N

ASTI Environmental

Client: Wallick Companies
Created by: RMH, October 18, 2021, ASTI Project 2-11382

Area of Potential Effects Map



17370 Meyers Dr.

Detroit, MI

0 1.25 2.5 5 Miles

N

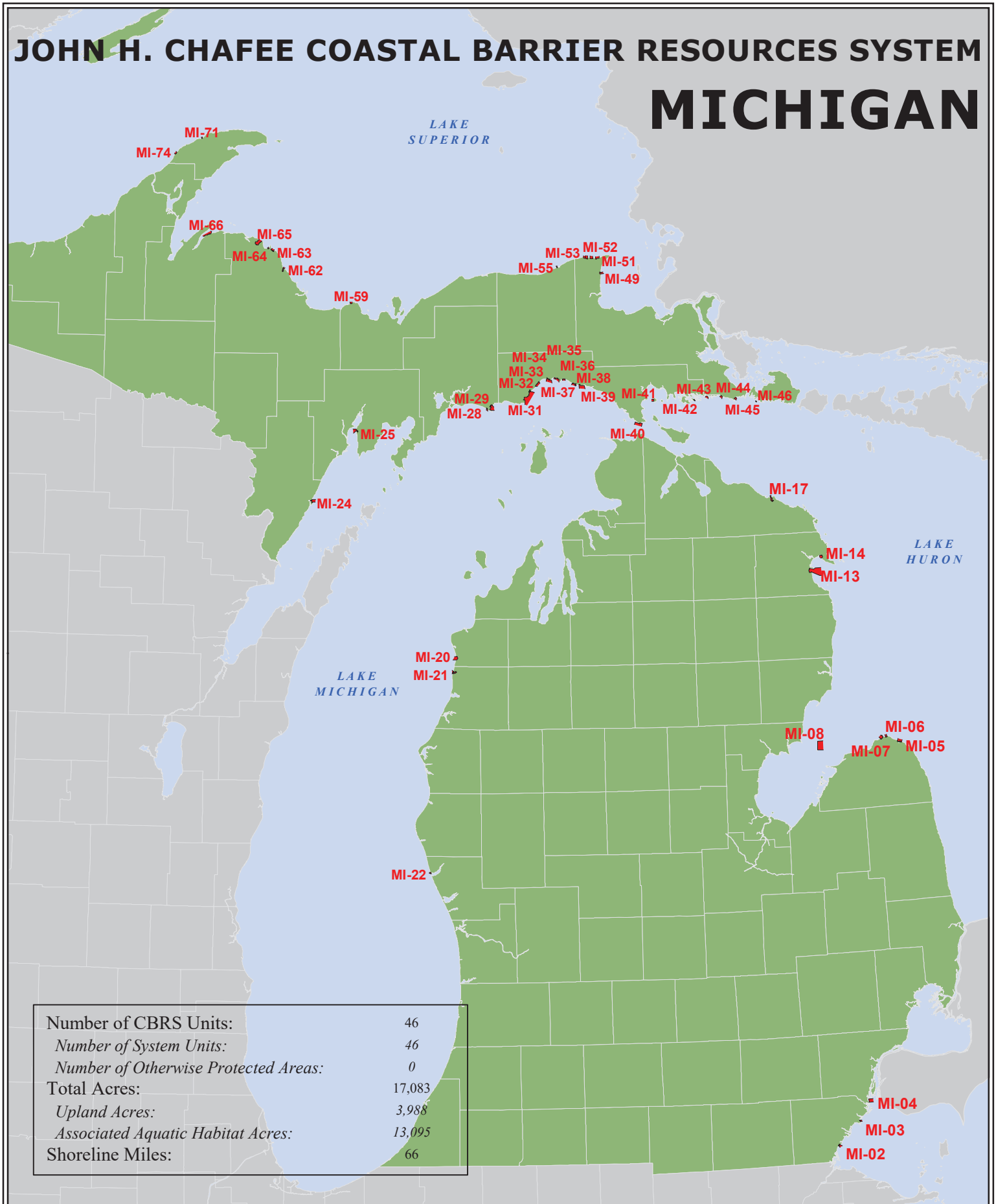
ASTI Environmental

Client: Wallick Companies
Created by: RMH, September 10, 2021, ASTI Project 3-11382

Airport Location Map

JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

MICHIGAN



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

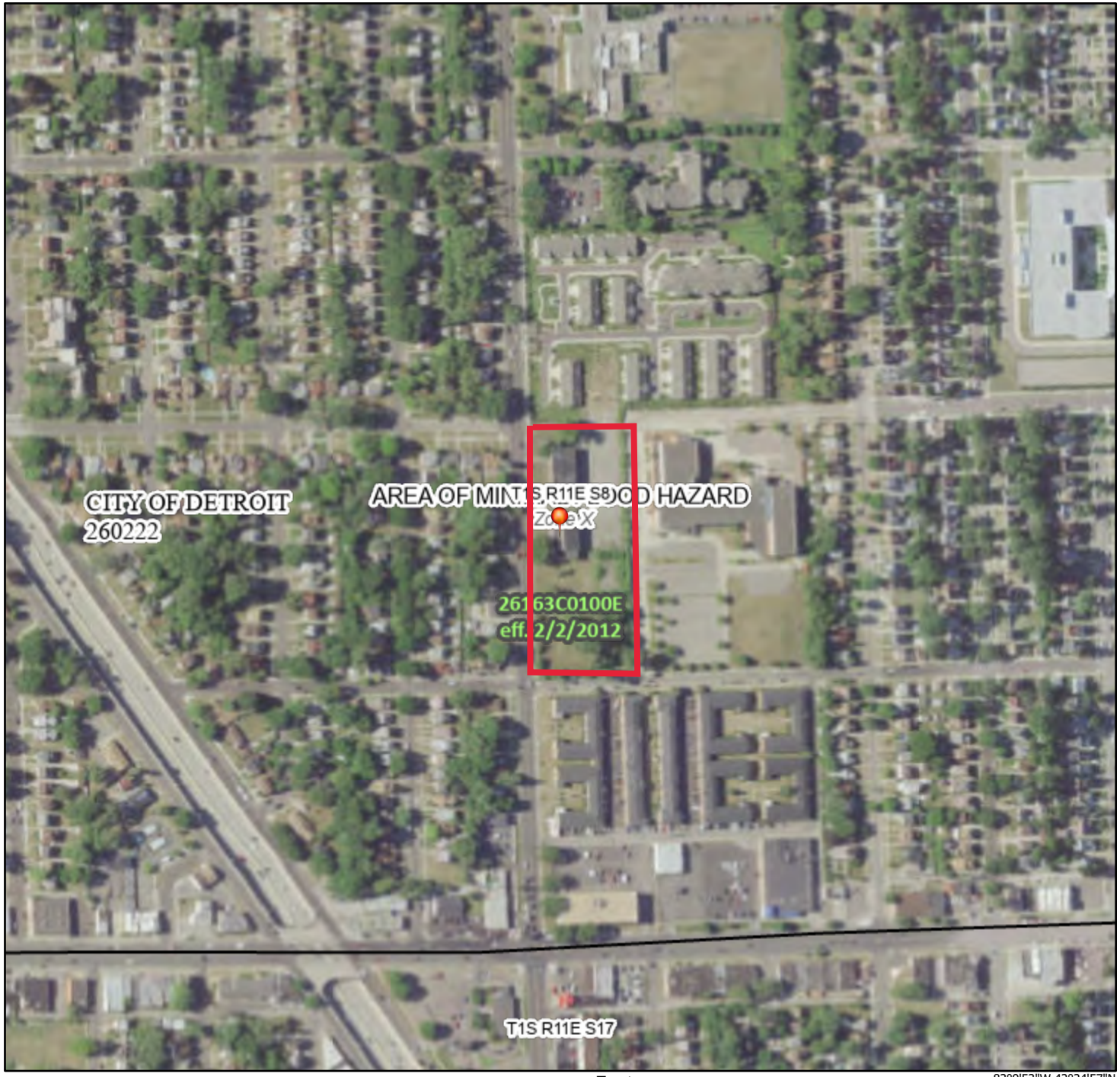
Boundaries of the John H. Chafee Coastal Barrier Resources System (CBRS) shown on this map were transferred from the official CBRS maps for this area and are depicted on this map (in red) for informational purposes only. The official CBRS maps are enacted by Congress via the Coastal Barrier Resources 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.

Map Date: March 14, 2016

National Flood Hazard Layer FIRMette

FEMA

83°10'30"W 42°25'24"N



83°9'53"W 42°24'57"N

Feet 1:6,000

0 250 500 1,000 1,500 2,000

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

Legend

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

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 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 *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS

- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- B 20.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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 9/3/2021 at 2:02 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.

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

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

September 27, 2021

Ms. Ashleigh Czapek
ASTI Environmental
10448 Citation Drive
Brighton, Michigan 48116

Via Email Only

Dear Ms. Czapek:

Subject: Meyers Senior Apartments, 17370 Meyers Road, Detroit, MI

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 ozone standard; 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 Meyers Senior Apartments project, proposed to be completed with federal grant monies, including the adaptive reuse and construction of a new, four-story building providing 73 units of senior housing. The apartment building, parking lot, and any associated greenspace will be constructed at 17370 Meyers Road in Detroit, Michigan. Project construction is expected to commence in June 2022 and will be completed in approximately 14 months.

In reviewing the *"Air Quality and Greenhouse Gas Study: Uptown Orange Apartments in Orange, California,"* dated December 2012, prepared for KTGY 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.

The size, scope, and duration of the Meyers Senior Apartments reuse and construction project proposed for completion in Wayne County 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.

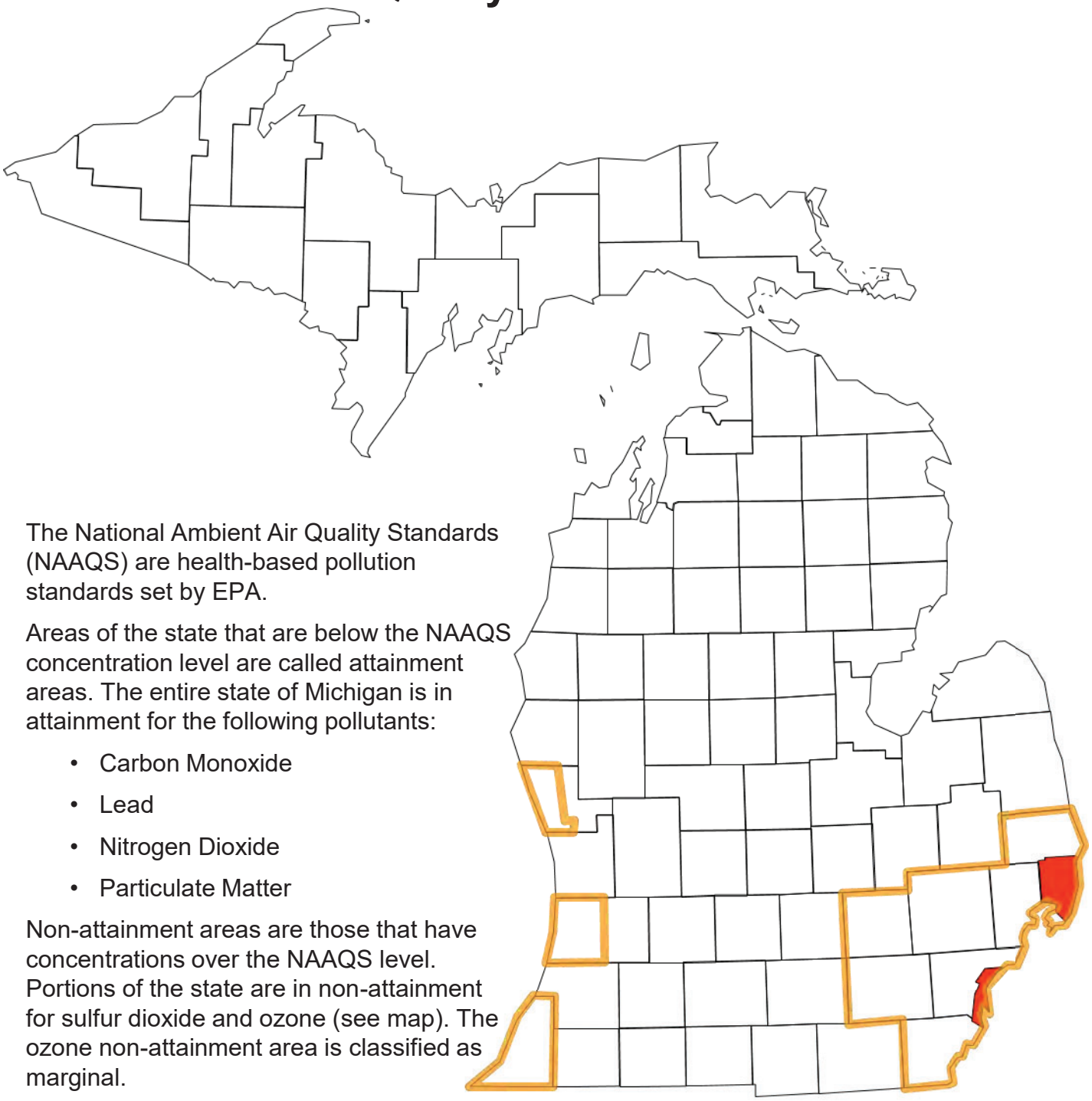
Sincerely,

Breanna Bukowski

Breanna Bukowski
Environmental Quality Analyst
Air Quality Division

cc: Mr. Michael Leslie, USEPA Region 5
Ms. Mary Weidel, U.S. Department of Housing and Urban Development
Mr. Mike Vollick, Michigan State Housing Development Authority
Ms. Penny Dwoinen, City of Detroit

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
- Lead
- Nitrogen Dioxide
- Particulate Matter

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

LEGEND

Sulfur Dioxide Nonattainment Area

Ozone Nonattainment Area

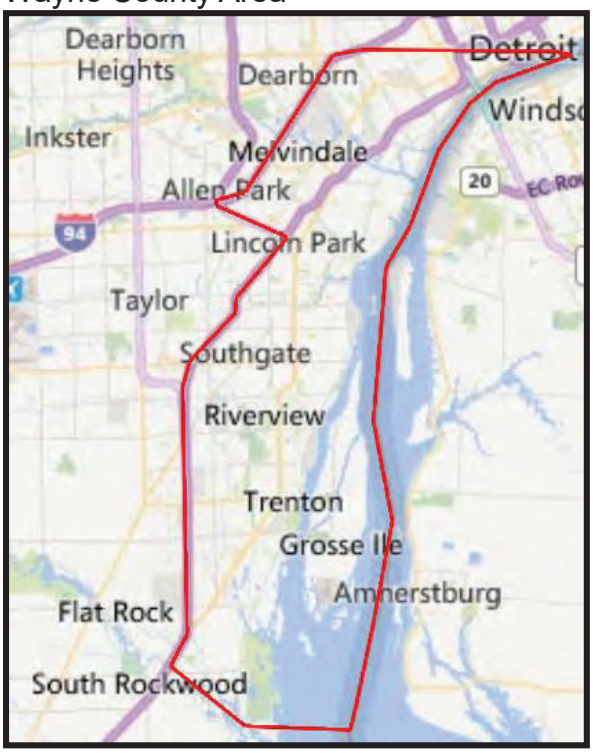
See Page 2 for close-up maps of partial county nonattainment areas

Updated July 23, 2019
Prepared by MDEQ, Air Quality Division, State Implementation Plan Unit

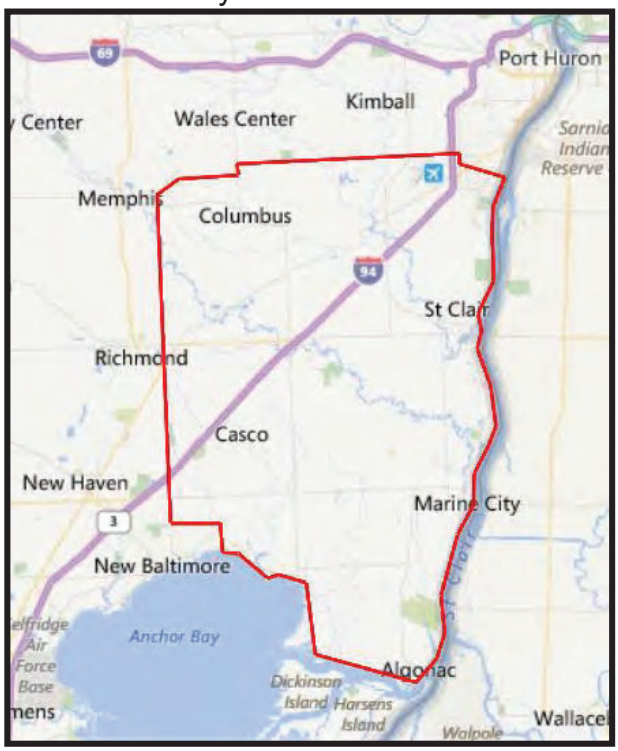
Close-Up Maps of Partial County Nonattainment Areas

Sulfur Dioxide Nonattainment Areas

Wayne County Area

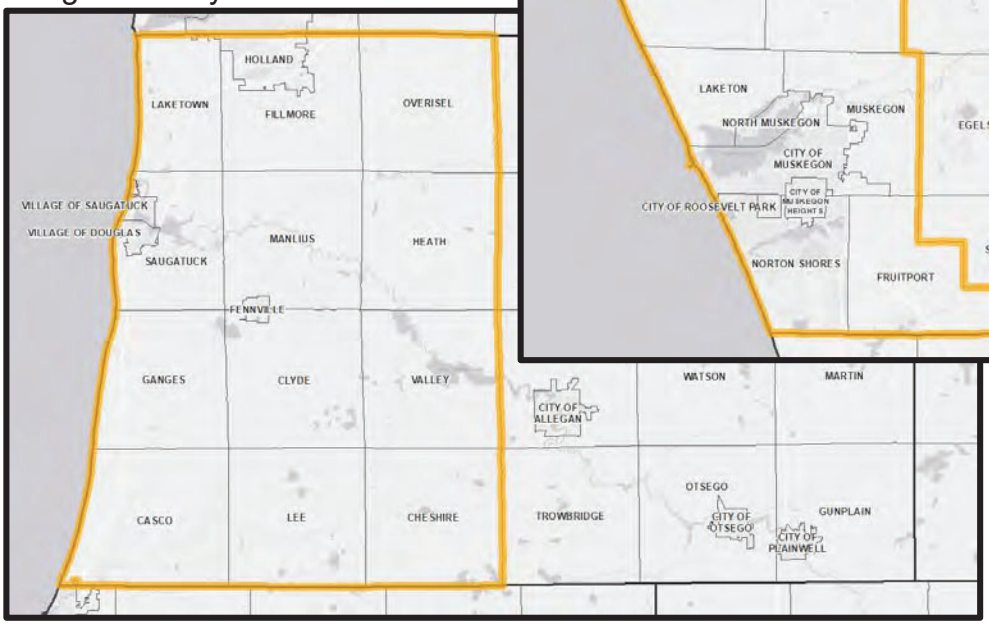


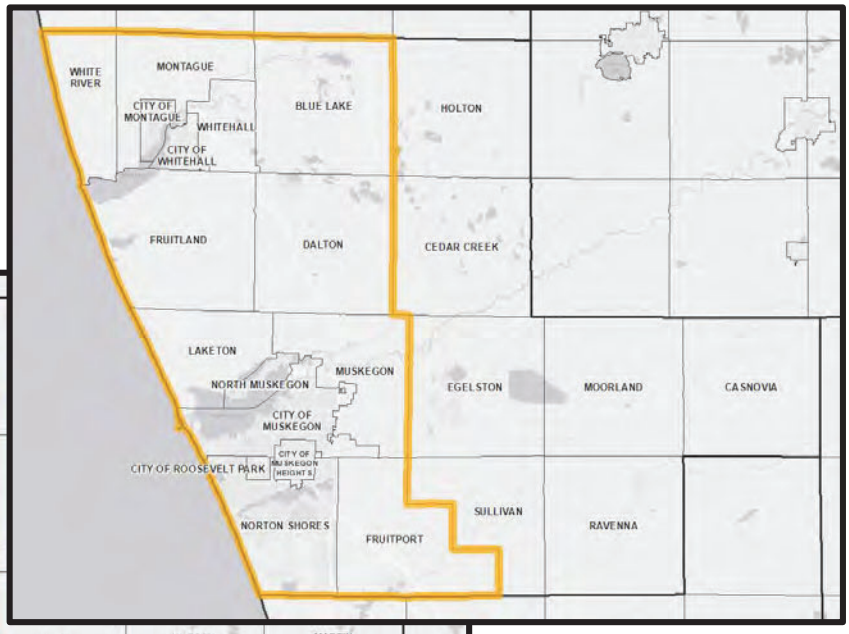
St. Clair County Area



Ozone Nonattainment Areas

Allegan County Area





Muskegon County Area

Updated July 23, 2019

Prepared by MDEQ, Air Quality Division, State Implementation Plan Unit

Wayne County
Grosse Point Township, Grosse Point Woods, Grosse Point Farms
Grosse Point, Grosse Point Park, and Detroit, T1S R14E
Detroit, T1S R14E, T2S R13E, andT2S R12E
River Rouge, T2S R11E

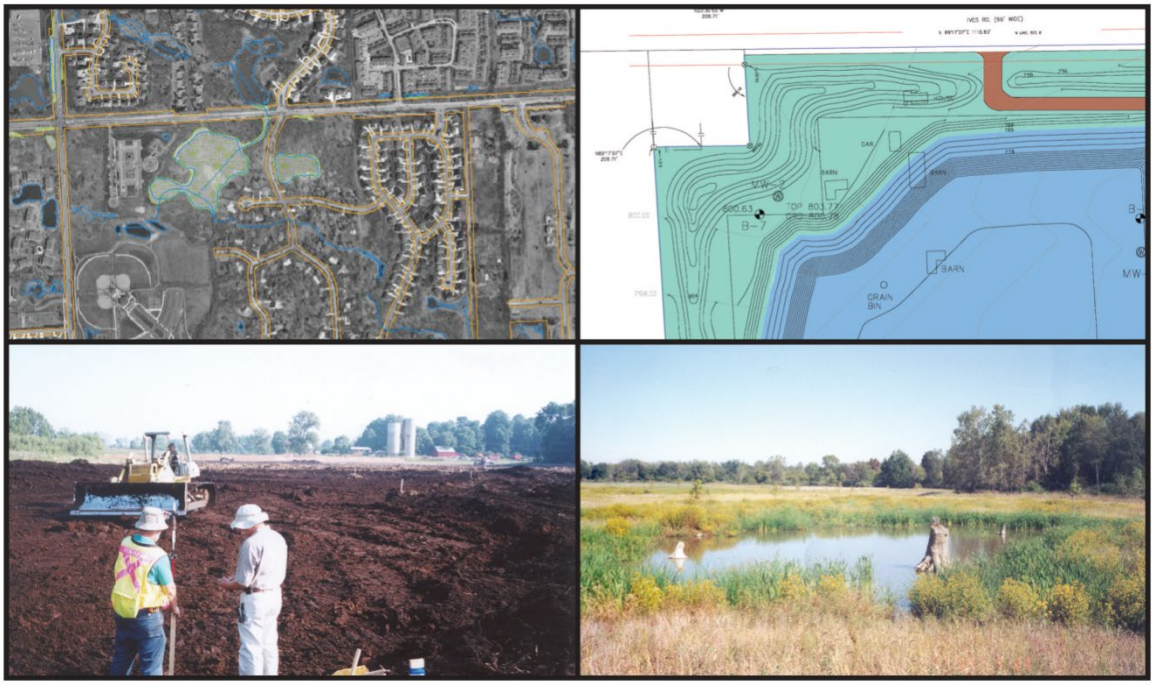
The heavy red line is the ***Coastal Zone Management Boundary***
The red hatched area is the ***Coastal Zone Management Area***.

Asbestos-Containing Materials Inspection
Meyers Senior Apartments
17370-17400 Meyers Road
Detroit, Michigan 48235

Wallick Companies

November 29, 2021

ASTI ENVIRONMENTAL



ASTI ENVIRONMENTAL

Asbestos-Containing Materials Inspection
Meyers Senior Apartments
17370-17400 Meyers Road
Detroit, Michigan 48235

November 29, 2021

Report Prepared For:

Wallick Companies

Report Prepared By:

ASTI Environmental
10448 Citation Drive, Suite 100
Brighton, Michigan 48116
1-800-395-ASTI

ASTI Project No. 1-11382

Report Prepared by:

Jelaine D. Tinsley, EP
Asbestos Inspector (A16395)

Report Reviewed by:

David A. Amir, EP
Director-Site Redevelopment Services

TABLE OF CONTENTS

Executive Summary

ASTI Environmental (ASTI) was retained by Wallick Companies to conduct an asbestos-containing material (ACM) inspection of the building located at 17370 - 17400 Meyers Road Detroit, Michigan (Subject Property). ASTI's scope of work included sampling of suspect ACMs in general conformance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61 Subpart M.

The structures inspected consists of two academic buildings that are two-story and of masonry construction with flat roofs. Based on the inspection conducted by ASTI between September 21-22, 2021, the following ACMs were identified on the Subject Property:

MATERIAL	LOCATION	ESTIMATED QUANTITY
17370 Meyers Road		
9”x9” Floor tile – Brown beneath carpet	Rooms B7, B8, B10, B14, 3, 5, and 6	2,750 ft^2
9”x9” Floor tile – Brown with white & orange streaks	Rooms B11, 7, 8, 10, 30, and 32	3,500 ft^2
9”x9” Floor tile – Green	Rooms B12, B13	1,300 ft^2
9”x9” Floor tile – Red	Rooms 10, 11, 11A	600 ft^2
17400 Meyers Road		
9”x9” Floor tile – Grey	Room B4	600 ft^2
9”x9” Floor tile – Green with orange & white streaks	Rooms B5, B6, B7, B10, 4, 10, 30, and maintenance room	3,500 ft^2
9”x9” Floor tile – Tan	Rooms B10 upper	750 ft^2
Caulk - Grey	Exterior overhang	100 lf 25 ft^2

Presumed Asbestos-Containing Materials

During completion of the inspection, several materials were identified as potential ACMs, however, due to the destructive nature of sampling required; these materials were not sampled at this time and should be considered as presumed asbestos-containing materials (PACMs) until they can be sampled. The following PACMs were identified during the site inspection.

Presumed Asbestos-Containing Materials Summary

MATERIAL	LOCATION	ESTIMATED QUANTITY
Roofing system	17370 & 17400 Meyers Road Roofs	13,200 ft^2
Fire Doors and Frames	Throughout 17370 & 17400 Meyers Road	Eight sets

1.0 INTRODUCTION

ASTI Environmental (ASTI) was retained by Wallick Companies to conduct an asbestos-containing material (ACM) inspection at 17370 - 17400 Meyers Road, Detroit, Michigan (Subject Property). Refer to the attached Site Location Map for the approximate location of the Subject Property. The information and opinions rendered in this report are prepared for the benefit of Wallick Companies; ASTI acknowledges that said parties may rely upon the contents and conclusions presented in this report. The services provided by ASTI in completing this assessment have been provided in a manner consistent with the normal standards of the profession. No other warranties, expressed or implied are made.

2.0 LIMITATION AND EXCEPTIONS

ASTI's scope of work included sampling of suspect homogeneous ACMs in general conformance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61 Subpart M and ASTM E2356-10 Standard Practice for Comprehensive Building Asbestos Surveys. Suspect materials not identified within this report may be encountered in inaccessible wall cavities, chases, floor cavities, etc. during demolition activities. These materials must be presumed to be ACM until they can be sampled and analyzed for asbestos content. ASTI inspected several holes located in the concrete block walls to examine for insulation. No insulation was encountered in these locations. If additional materials are found during renovation / demolition activities, these materials must be presumed to be ACMs until sampled and analyzed for asbestos content.

3.0 SUBJECT PROPERTY DESCRIPTION

Building Descriptions						
#	Building Type	Primary Use	Functional Spaces	# Present	Built Date	Stories
1	Academic (17400 Meyers Rd.)	Vacant	Classrooms, offices, library, mechanical room, storage areas, restroom	1	1958	2
2	Academic (17370 Meyers Rd.)	Vacant	Classrooms, offices auditorium, mechanical room, restroom, storage areas, restroom	1	1950	2

Building Construction			
#	Square Footage	Primary Construction	Interior Finishes
1	11,440	Poured concrete foundation, brick exterior, metal frames, concrete block, rubber membrane roof	Carpet, paint, resilient floor tiles, ceiling tiles, cove base, concrete block walls
2	13,640	Poured concrete foundation, brick exterior, metal frames, concrete block, rubber membrane roof	Carpet, paint, resilient floor tiles, ceiling tiles, cove base, concrete block walls

4.0 ASBESTOS-CONTAINING MATERIALS INSPECTION

Ms. Jelaine D. Tinsley (Asbestos Inspector No. A16395) and Mr. John Schuitema (Asbestos Inspector No. A51781) of ASTI's Site Redevelopment Services Group conducted the ACM inspection of 17370-17400 Meyers Road in Detroit, Michigan. A copy of Ms. Tinsley's and Mr. Schuitema's resumes and asbestos accreditations are provided as Appendix A:

4.1 Previous Asbestos-Containing Materials Inspections

ASTI is not aware of any previous ACM inspections of the Subject Property.

4.2 Asbestos Inspection Methodology

ASTI's scope of work included sampling of suspect ACMs in accordance with the AHERA and NESHAP protocols. The inspection included a visual inspection of the building in order to identify homogeneous areas of suspect surfacing materials, thermal system insulation, and miscellaneous materials, as well as the sampling of suspect friable and non-friable materials. The following definitions from 40 CFR Part 763 are provided below.

> Asbestos-Containing Material (ACM): *any material or product which contains more than one percent asbestos.*
>
> Surfacing Materials (SM): *material that is troweled-on, sprayed-on or otherwise applied to surfaces for acoustical, fireproofing or other purposes.*
>
> Thermal System Insulation (TSI): *material applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior components to prevent heat loss or gain, or water condensation or for other purposes.*
>
> Miscellaneous Materials (MM): *interior building material on structural components, structural members or fixtures such as floors and ceilings and does not include surfacing material or thermal system insulation.*
>
> Friable: *material that when dry, may be crumbled pulverized or reduced to powder by hand pressure, and includes previously non-friable material after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized or reduced to powder by hand pressure.*
>
> Non-friable: *material which when dry may not be crumbled, pulverized or reduced to powder by hand pressure.*

Homogeneous areas (HAs): *an area of surfacing material, thermal system insulation, or miscellaneous material that is uniform in color and texture.*

4.3 Sample Collection

Samples were collected by physically removing a small piece of suspect material and placing it in a marked plastic bag. Samples were collected using wet methods, as appropriate. The sample collection tool was cleaned prior to each use to avoid cross-contamination of samples. ASTI sampled a variety of materials for asbestos testing. The material types sampled are listed below.

- Grout
- Pipe insulation
- 12” x 12” Floor tile and associated mastic (various types)
- Glue Pod
- 12” x 12” Glued Ceiling tile
- 4” Cove base and associated mastic (various types)
- Textured ceiling paint
- Caulk (various types)
- Drywall and joint compound
- 9”x9” Floor tile and associated mastic (various types)
- Fire Door material
- Brick mortar
- Stair tread
- Carpet mastic
- Plaster
- 6” Cove base and associated mastic
- Paper insulation
- Block mortar

ASTI collected 138 bulk samples from the suspect ACMs. A total of 229 sample layers were analyzed. The bulk samples were transmitted under chain-of-custody protocol to Apex Research Laboratory in Whitmore Lake, Michigan for asbestos analysis using polarized light microscopy with dispersion staining (PLM/DS) in accordance with the US Environmental Protection Agency’s (US EPA’s) “Interim Method for the Determination of Asbestos in Bulk Building Materials” (EPA 600/R-93/116, June 1993). Sample results are presented in the attached Tables 1 and 2.

4.4 Laboratory Analytical Results

Building materials identified to contain greater than 1% asbestos are defined as ACMs. Review of the asbestos test results revealed that the following ACMs were identified on the Subject Property:

HA	Material/Description	Location	Asbestos Result
17370 Meyers Road			
12	9”x9” Floor tile – Brown beneath carpet	Rooms B7, B8, B10, B14, 3, 5, and 6	10% Chrysotile
18	9”x9” Floor tile – Brown with white & orange streaks	Rooms B11, 7, 8, 10, 30, and 32	10% Chrysotile
19	9”x9” Floor tile – Green	Rooms B12, B13	10% Chrysotile
30	9”x9” Floor tile – Red	Rooms 10, 11, 11A	10% Chrysotile
17400 Meyers Road			
11	9”x9” Floor tile – Grey	Room B4	10% Chrysotile
12	9”x9” Floor tile – Green with orange & white streaks	Rooms B5, B6, B7, B10, 4, 10, 30, and maintenance room	10% Chrysotile
13	9”x9” Floor tile – Tan	Room B10 upper	2% Chrysotile
30	Caulk - Grey	Exterior overhang	5% Chrysotile

A comprehensive list of sampled materials with analytical results is provided as Table 1 (17370 Meyers Rd) and Table 2 (17400 Meyers Rd) . A copy of the laboratory data sheets, along with the chain-of-custodies are included in Appendix B.

Asbestos-Containing Material Quantities

MATERIAL	LOCATION	ESTIMATED QUANTITY
17370 Meyers Road		
9”x9” Floor tile – Brown beneath carpet	Rooms B7, B8, B10, B14, 3, 5, and 6	2,750 ft^2
9”x9” Floor tile – Brown with white & orange streaks	Rooms B11, 7, 8, 10, 30, and 32	3,500 ft^2
9”x9” Floor tile – Green	Rooms B12, B13	1,300 ft^2
9”x9” Floor tile – Red	Rooms 10, 11, 11A	600 ft^2

MATERIAL	LOCATION	ESTIMATED QUANTITY
17400 Meyers Road		
9”x9” Floor tile – Grey	Room B4	600 ft^2
9”x9” Floor tile – Green with orange & white streaks	Rooms B5, B6, B7, B10, 4, 10, 30, and maintenance room	3,500 ft^2
9”x9” Floor tile – Tan	Room B10 upper	750 ft^2
Caulk - Grey	Exterior overhang	100 lf 25 ft^2

4.5 Presumed Asbestos-Containing Materials

During completion of the inspection, two materials were identified as potential ACMs, however, due to the destructive nature of sampling required; these materials were not sampled at this time and should be considered as presumed asbestos-containing materials (PACMs) until they can be sampled. The following PACMs were identified during the site inspection.

Presumed Asbestos-Containing Materials Summary

MATERIAL	LOCATION	ESTIMATED QUANTITY
Roofing system	17370 & 17400 Meyers Road Roofs	13,200 ft^2
Fire Doors and Frames	Throughout 17370 & 17400 Meyers Road	Eight sets

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the inspection completed at the Subject Property, ACMs were identified in the buildings. A summary of the ACMs identified, along with ASTI's recommendations are as follows.

Based on the inspection conducted by ASTI between September 21-22, 2021 the following ACMs were identified on the Subject Property.

MATERIAL	LOCATION	ESTIMATED QUANTITY
17370 Meyers Road		
9"x9" Floor tile – Brown beneath carpet	Rooms B7, B8, B10, B14, 3, 5, and 6	2,750 ft^2
9"x9" Floor tile – Brown with white & orange streaks	Rooms B11, 7, 8, 10, 30, and 32	3,500 ft^2
9"x9" Floor tile – Green	Rooms B12, B13	1,300 ft^2
9"x9" Floor tile – Red	Rooms 10, 11, 11A	600 ft^2
17400 Meyers Road		
9"x9" Floor tile – Grey	Room B4	600 ft^2
9"x9" Floor tile – Green with orange & white streaks	Rooms B5, B6, B7, B10, 4, 10, 30, and maintenance room	3,500 ft^2
9"x9" Floor tile – Tan	Room B10 upper	750 ft^2
Caulk - Grey	Exterior overhang	100 lf 25 ft^2

According to classification guidelines set forth in NESHAP, the flooring samples and exterior caulk are classified as Category I non-friable ACMs. These materials in their current condition represent minimal risk of fiber release. If renovation or demolition would disturb these materials, ASTI recommends the ACMs be removed by a licensed abatement contractor prior to disturbance.

Presumed Asbestos-Containing Materials

During completion of the inspection, several materials were identified as potential ACMs, however, due to the destructive nature of sampling required; these materials were not sampled at this time and should be considered as presumed asbestos-containing materials (PACMs) until they can be sampled. The following PACMs were identified during the site inspection.

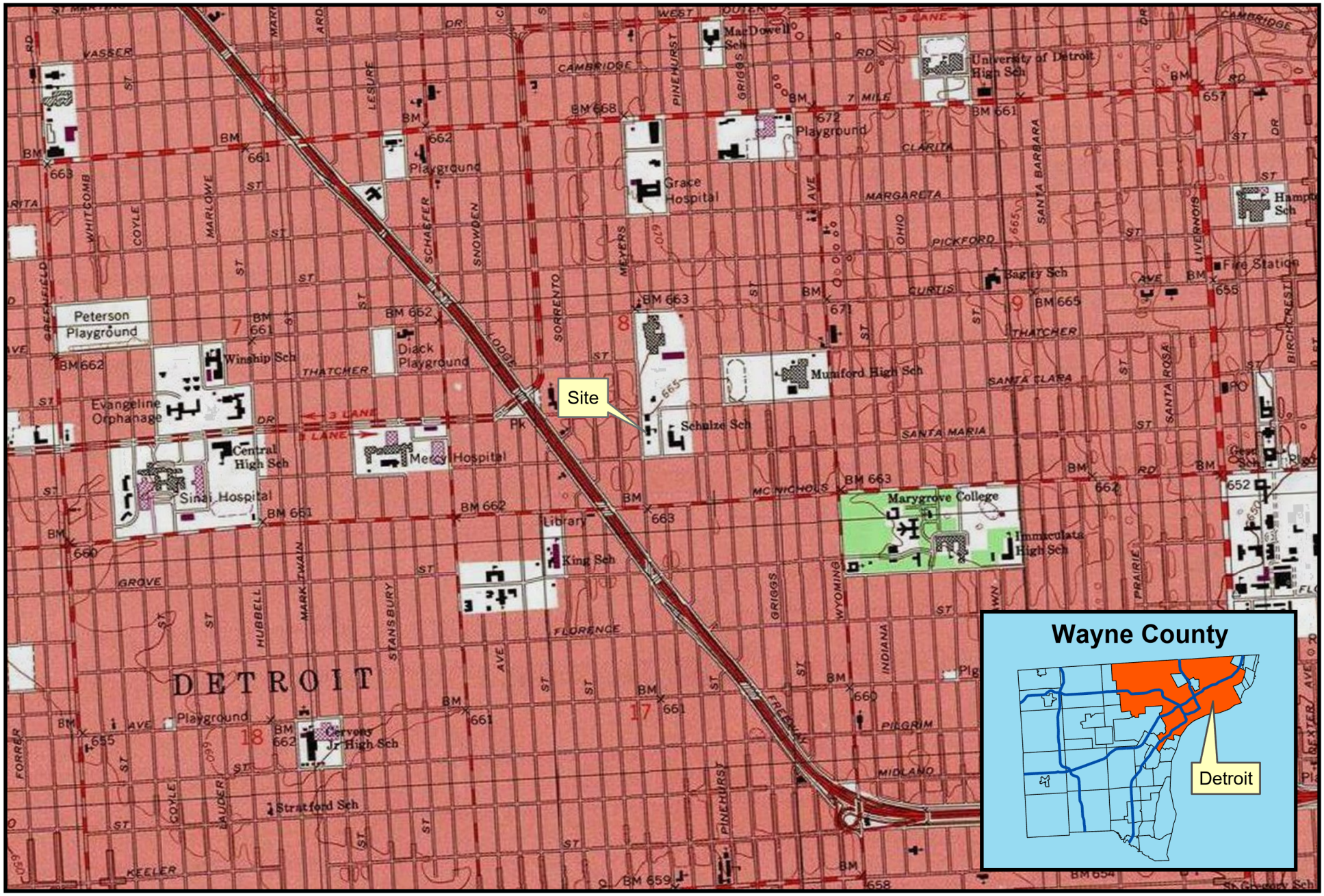
Presumed Asbestos-Containing Materials Summary

MATERIAL	LOCATION	ESTIMATED QUANTITY
Roofing system	17370 & 17400 Meyers Road Roofs	13,200 ft^2
Fire Doors and Frames	Throughout 17370 & 17400 Meyers Road	Eight sets

According to classification guidelines set forth in NESHAP, the roofing is classified as a Category I non-friable ACM. The roofing appeared to be in good condition and in its current condition represents minimal risk of fiber release However, as demolition or renovation would disturb this material; ASTI recommends additional testing of the roofing materials prior to disturbance or assume the roofing is an ACM and be removed by a licensed abatement contractor.

According to classification guidelines set forth in NESHAP, the fire door sets are assumed to contain asbestos and are classified as Category II non-friable ACMs. Until testing of these materials is completed, they should be treated as Category II non-friable ACMs.

Figures



17370 Meyers

Detroit, MI

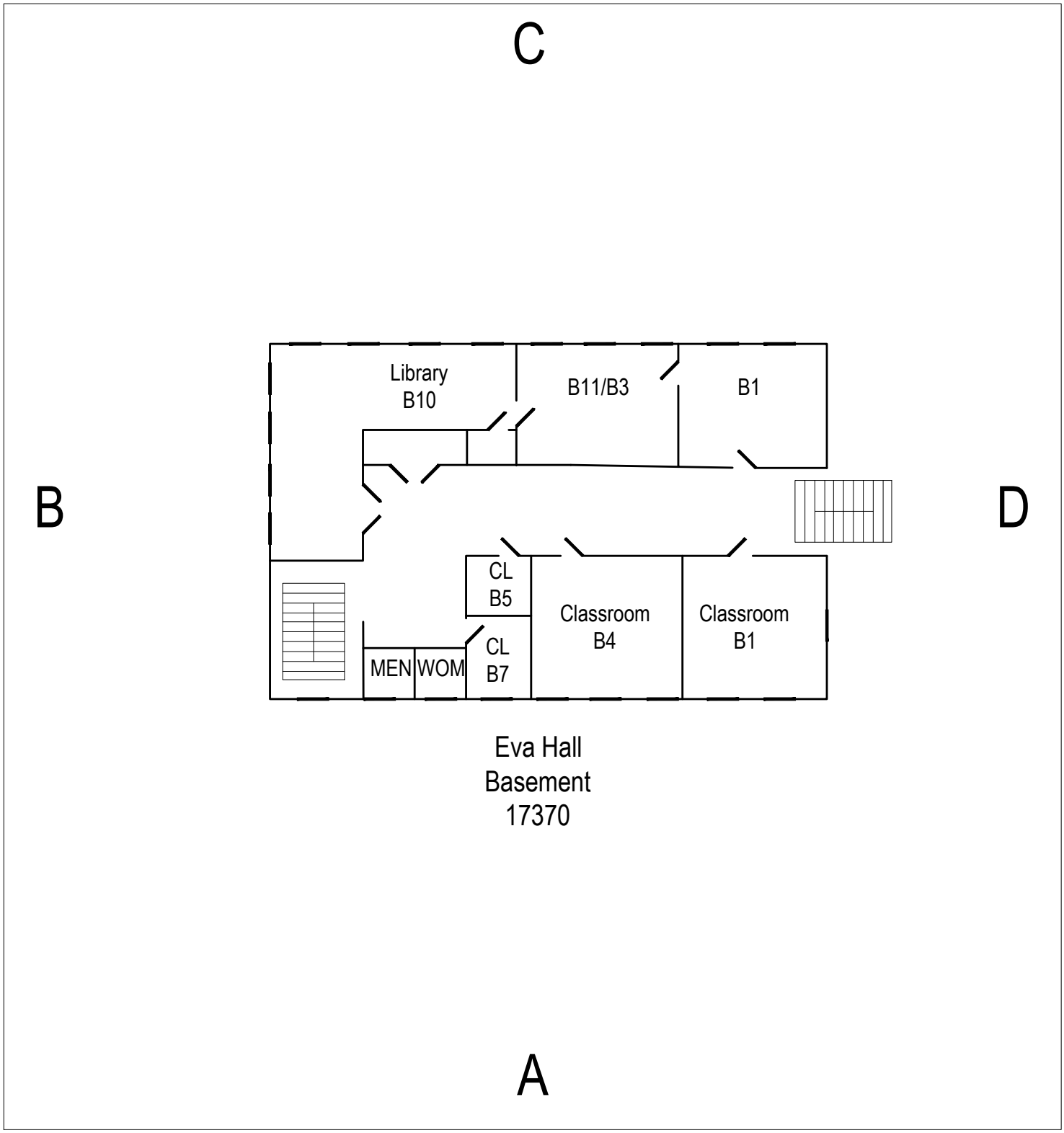
2,000 1,000 0 2,000 Feet

N

ASTI Environmental

Client: Wallick Companies
Created by: RMH, November 30, 2020, ASTI Project 1-11382

Site Location Map



Eva Hall
Basement
17370

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GRAPHIC SCALE

0 – NTS –

1 inch = NTS ft.
Paper Size = (8.5x11)

LEGEND

N

Meyers Senior Apartments

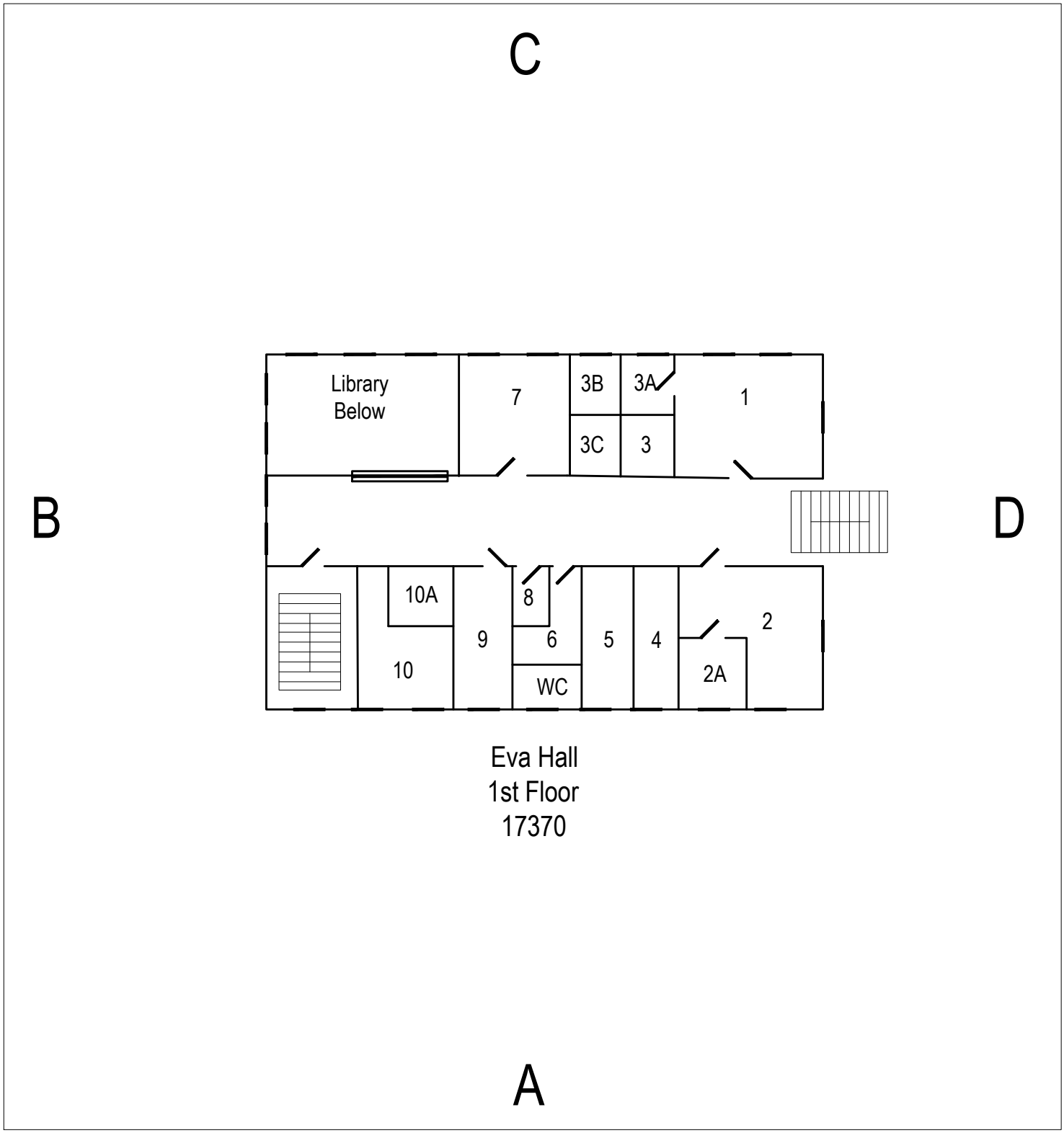
17370 Meyers, Detroit, MI

ASTI Environmental

Client: Wallick Companies

ASTI Project 3-11382, JRN, November 14, 2021

Floor Plan - Basement



GRAPHIC SCALE

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1 inch = NTS ft.
Paper Size = (8.5x11)

LEGEND

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Meyers Senior Apartments

17370 Meyers, Detroit, MI

ASTI Environmental

Client: Wallick Companies

Floor Plan-1st Floor

ASTI Project 3-11382, JRN, November 14, 2021

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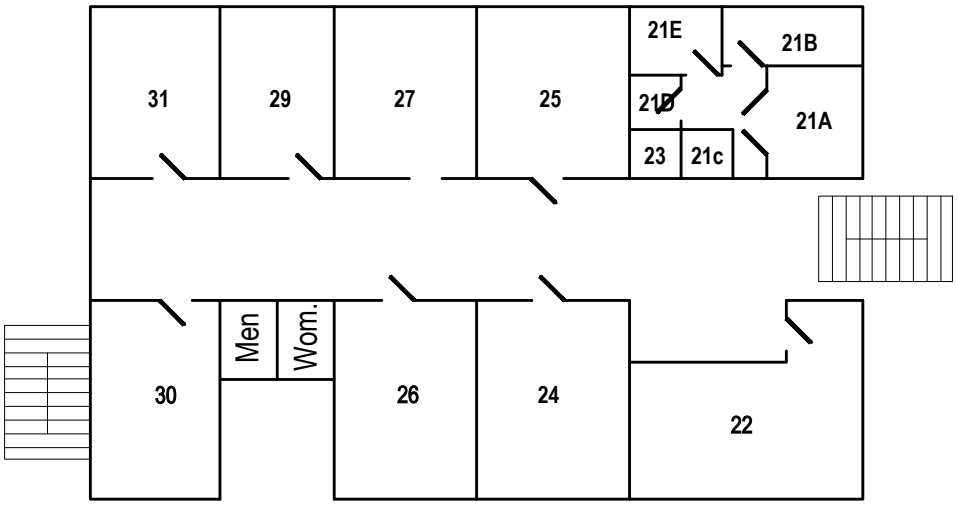
B

D

A



Eva Hall
Second Floor
17370

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GRAPHIC SCALE

0 – NTS –

1 inch = NTS ft.
Paper Size = (8.5x11)

LECEND

N

Meyers Senior Apartments

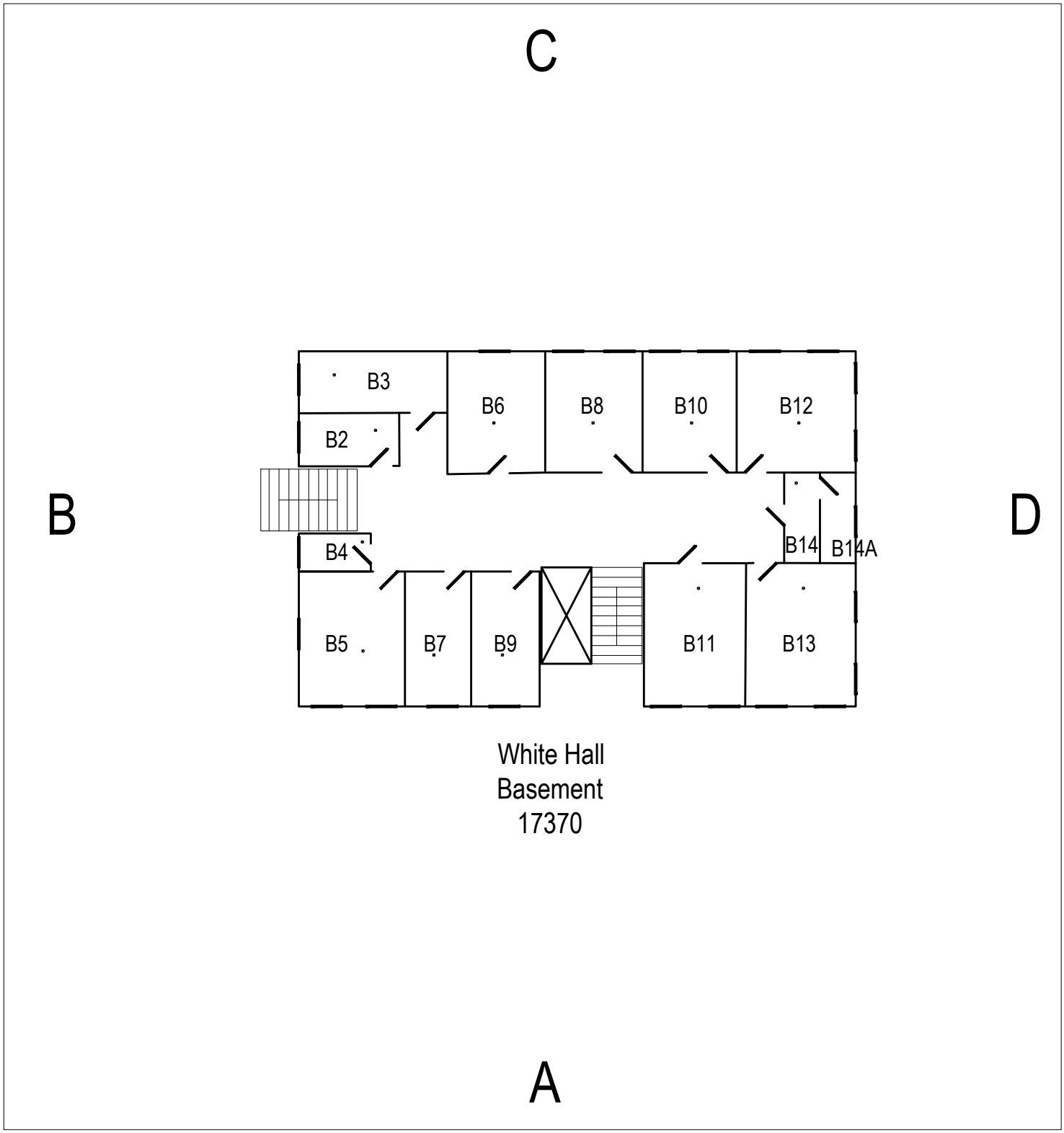
17370 Meyers, Detroit, MI

ASTI Environmental

Client: Wallick Companies

ASTI Project 3-11382, JRN, November 14, 2021

Floor Plan - 2nd Floor



GRAPHIC SCALE

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Paper Size = (8.5x11)

LEGEND

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Meyers Senior Apartments

17400 Meyers, Detroit, MI

ASTI Environmental

Client: Wallick Companies

Floor Plan - Basement

ASTI Project 3-11382, JRN, November 15, 2021

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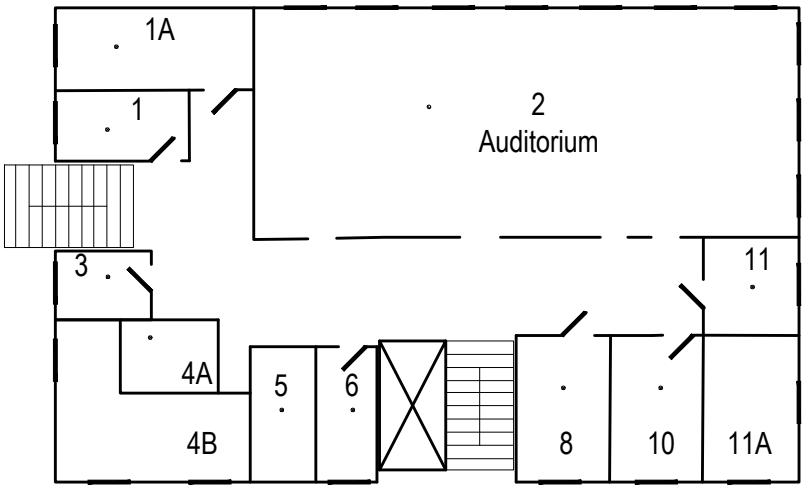

White Hall
Second Floor
17400

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GRAPHIC SCALE

0 – NTS –

1 inch = NTS ft.
Paper Size = (8.5x11)

LEGEND

N

Meyers Senior Apartments

17400 Meyers, Detroit, MI

ASTI Environmental

Client: Wallick Companies

Floor Plan - 2nd Floor

ASTI Project 3-11382, JRN, November 15, 2021

Tables

Table 1
Asbestos Sample Results
17370 Meyers Road
Detroit, Michigan
ASTI Project No: 3-11382

ASTI Sample ID	Material/Description	Sample Location	Asbestos Result
1A	Tile Grout-Light Grey	Room B2	NAD
1B	Tile Grout-Light Grey	Room B4	NAD
2A	Pipe Insulation-White	Room B3	NAD
2B	Pipe Insulation-White	Room B3	NAD
2C	Pipe Insulation-White	Room B3	NA
3A	12"x12" Floor Tile-White	Room B5	NAD
	Glue	Room B5	NAD
3B	12"x12" Floor Tile-White	Room B5	NAD
	Glue	Room B5	NAD
4A	Glue Pods-Brown	Behind Chalkboard Room B5	NAD
4B	Glue Pods-Brown	Behind Chalkboard Room B5	NAD
5A	Caulk-Brown	Windows In Room B5	NAD
5B	Caulk-Brown	Windows In Room B7	NAD
6A	12"x12" Floor Tile-Grey w/White/Grey Specks	Room B6	NAD
	Glue	Room B6	NAD
6B	12"x12" Floor Tile-Grey w/White/Grey Specks	Room B6	NAD
	Glue	Room B6	NAD
7A	12"x12" Ceiling Tile-White	Room B6	NAD
	Brown Glue Pod	Room B6	NAD
7B	12"x12" Ceiling Tile-White	Hallway	NAD
	Brown Glue Pod	Hallway	NAD
8A	4" Cove Base-Grey	Room B6	NAD
	Glue	Room B6	NAD
8B	4" Cove Base-Grey	Room B6	NAD
	Glue	Room B6	NAD
9A	Textured Ceiling Paint-White	Room B6	NAD
9B	Textured Ceiling Paint-White	Room B6	NAD
9C	Textured Ceiling Paint-White	Room B11	NAD
9D	Textured Ceiling Paint-White	2nd Floor Hall	NAD
9E	Textured Ceiling Paint-White	2nd Floor Hall	NAD
9F	Textured Ceiling Paint-White	2nd Floor Hall	NAD
9G	Textured Ceiling Paint-White	2nd Floor Hall	NAD
10A	Texture-Orange Peel-White	Room B6	NAD
10B	Texture-Orange Peel-White	Room B6	NAD
10C	Texture-Orange Peel-White	Room B6	NAD
11A	Drywall-White	Room B6	NAD
	Joint Compound	Room B6	NAD
11B	Drywall-White	Room B6	NAD
	Joint Compound	Room B6	NAD
12A	Glue - Yellow	Room B7	NAD
	9"x9" Floor Tile-Brown-Under Carpet	**Room B7**	**10% Chrysotile**
	Mastic	Room B7	NAD
12B	Glue - Yellow	Room B7	NAD
	9"x9" Floor Tile-Brown-Under Carpet	**Room B7**	**NA**
	Mastic	Room B7	NAD
13A	4" Cove Base-Black	B Floor Hallway	NAD
	Glue	B Floor Hallway	NAD
13B	4" Cove Base-Black	B Floor Hallway	NAD
	Glue	B Floor Hallway	NAD

F = Friable
NF = Non Friable
NA=Not Analyzed

LF = Linear Feet
SF = Square Feet
NQ=Not Quantified

Shaded = Positive for asbestos
NAD = No Asbestos Detected
PC=Point Counted

Table 1
Asbestos Sample Results
17370 Meyers Road
Detroit, Michigan
ASTI Project No: 3-11382

ASTI Sample ID	Material/Description	Sample Location	Asbestos Result
14A	12"x12" Floor Tile-Red	B Floor Hallway	NAD
	Mastic	B Floor Hallway	NAD
14B	12"x12" Floor Tile-Red	B Floor Hallway	NAD
	Mastic	B Floor Hallway	NAD
15A	12"x12" Floor Tile-Off White	B Floor Hallway	NAD
	Mastic	B Floor Hallway	NAD
15B	12"x12" Floor Tile-Off White	B Floor Hallway	NAD
	Mastic	B Floor Hallway	NAD
16A	4" Cove Base-Brown	Room B7	NAD
	Glue	Room B7	NAD
16B	4" Cove Base-Brown	Room B7	NAD
	Glue	Room B7	NAD
17A	Fire Door Insulation-White	B Floor Elevator Door	NAD
17B	Fire Door Insulation-White	B Floor Elevator Door	NAD
17C	Fire Door Insulation-White	Upper Floor Elevator Door	NAD
18A	**9"x9" Floor Tile-Brown w/White & Orange Streaks**	**Room B11**	**10% Chrysotile**
	Mastic	Room B11	NAD
18B	**9"x9" Floor Tile-Brown w/White & Orange Streaks**	**Room B11**	**NA**
	Mastic	Room B11	NAD
19A	**9"x9" Floor Tile - Green**	**Room B12**	**10% Chrysotile**
	Mastic	Room B12	NAD
19B	**9"x9" Floor Tile - Green**	**Room B12**	**NA**
	Mastic	Room B12	NAD
20A	Brick Mortar-Grey	West Exterior	NAD
20B	Brick Mortar-Grey	West Exterior	NAD
21A	Window Caulk-Grey	West Exterior	NAD
21B	Window Caulk-Grey	West Exterior	NAD
22A	Stair Tread-Brown	North Stairway	NAD
22B	Stair Tread-Brown	North Stairway	NAD
23A	Carpet Mastic/Glue Yellow	Room 1	NAD
	Carpet Mastic Black	Room 1	NAD
23B	Carpet Mastic/Glue Yellow	Room 1	NAD
	Carpet Mastic Black	Room 1	NAD
24A	Plaster-White/Finish Coat	Room 1	NAD
	Plaster/Base Coat Grey	Room 1	NAD
24B	Plaster-White/Finish Coat	Room 1	NAD
	Plaster/Base Coat Grey	Room 1	NAD
24C	Plaster-White/Finish Coat	Room 1	NAD
	Plaster/Base Coat Grey	Room 1	NAD
24D	Plaster-White/Finish Coat	Room B1	NAD
	Plaster/Base Coat Grey	Room B1	NAD
24E	Plaster-White/Finish Coat	Room B1	NAD
	Plaster/Base Coat Grey	Room B1	NAD
24F	Plaster-White/Finish Coat	Room B1	NAD
	Plaster/Base Coat Grey	Room B1	NAD
24G	Plaster-White/Finish Coat	Room 1	NAD
	Plaster/Base Coat Grey	Room 1	NAD
25A	6" Cove Base-Black	Room 1	NAD
	Glue	Room 1	NAD
25B	6" Cove Base-Black	Room 1	NAD
	Glue	Room 1	NAD
26A	Paper Insulation-Brown & Silver	Room 1 Above Ceiling	NAD
26B	Paper Insulation-Brown & Silver	Room 1 Above Ceiling	NAD
27A	4" Cove Base-Cream	Room 2	NAD
	Glue	Room 2	NAD
27B	4" Cove Base-Cream	Room 2	NAD
	Glue	Room 2	NAD

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Table 1
Asbestos Sample Results
17370 Meyers Road
Detroit, Michigan
ASTI Project No: 3-11382

ASTI Sample ID	Material/Description	Sample Location	Asbestos Result
28A	4" Cove Base-Red	Room 2	NAD
	Glue	Room 2	NAD
28B	4" Cove Base-Red	Room 2	NAD
	Glue	Room 2	NAD
29A	Tile Grout-Grey	Room 4A Restroom	NAD
29B	Tile Grout-Grey	Room 4A Restroom	NAD
30A	Glue - Yellow	Room 10	NAD
	9"x9" Floor Tile-Red	**Room 10**	**10% Chrysotile**
	Mastic	Room 10	NAD
30B	Glue - Yellow	Room 10	NAD
	9"x9" Floor Tile-Red	**Room 10**	**NA**
	Mastic	Room 10	NAD
31A	Block Mortar-Grey	South Stairwell	NAD
31B	Block Mortar-Grey	South Stairwell	NAD
26C	Paper Insulation-Brown & Silver	Room 1 Above Ceiling	NAD

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NAD = No Asbestos Detected
PC=Point Counted

Table 2
Asbestos Sample Results
17400 Meyers Road
Detroit, Michigan
ASTI Project No: 3-11382

ASTI Sample ID	Material/Description	Sample Location	Asbestos Result
1A	Ceiling Tile-White	Hallway Near B2	NAD
	Glue Pod	Hallway Near B2	NAD
1B	Ceiling Tile-White	Hallway Near B2	NAD
	Glue Pod	Hallway Near B2	NAD
2A	Pipe Insulation-Yellow & White	Hallway	NAD
2B	Pipe Insulation-Yellow & White	Hallway	NAD
2C	Pipe Insulation-Yellow & White	Hallway	NAD
3A	Plaster-White Finish Coat	Room B1	NAD
	Plaster Base Coat Grey	Room B1	NAD
	Drywall	Room B1	NAD
3B	Plaster-White Finish Coat	Room B1	NAD
	Plaster Base Coat Grey	Room B1	NAD
	Drywall	Room B1	NAD
3C	Plaster-White Finish Coat	Room B1	NAD
	Plaster Base Coat Grey	Room B1	NAD
	Drywall	Room B1	NAD
3D	Plaster-White Finish Coat	Room 31	NAD
	Plaster Base Coat Grey	Room 31	NAD
	Drywall	Room 31	NAD
3E	Plaster-White Finish Coat	Room 31	NAD
	Plaster Base Coat Grey	Room 31	NAD
	Drywall	Room 31	NAD
4A	12"x12"1 Floor Tile-Tan	Hallway	NAD
	Mastic	Hallway	NAD
4B	12"x12" Floor Tile-Tan	Hallway	NAD
	Mastic	Hallway	NAD
5A	4" Cove Base-Brown	Room B1 A	NAD
	Glue	Room B1 A	NAD
5B	4" Cove Base-Brown	Room B1 B	NAD
	Glue	Room B1 B	NAD
6A	Drywall-White	Room B1 A	NAD
	Joint Compound	Room B1 A	NAD
6B	Drywall-White	Room B1 B	NAD
	Joint Compound	Room B1 B	NAD
7A	Caulk-White	Room B1 A	NAD
7B	Caulk-White	Room B1 A	NAD
8A	4" Cove Base-Tan	Room B2	NAD
	Glue	Room B2	NAD
8B	4" Cove Base-Tan	Room B2	NAD
	Glue	Room B2	NAD
9A	Window Caulk-Brown	Room B2	NAD
9B	Window Caulk-Brown	Room B2	NAD
10A	Pipe Insulation-White Over Brown	B Hallway	NAD
10B	Pipe Insulation-White Over Brown	B Hallway	NAD
10C	Pipe Insulation-White Over Brown	B Hallway	NAD

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PC=Point Counted

Table 2
Asbestos Sample Results
17400 Meyers Road
Detroit, Michigan
ASTI Project No: 3-11382

ASTI Sample ID	Material/Description	Sample Location	Asbestos Result
11A	Glue-Yellow	Room B4	NAD
	9"x9" Floor Tile-Grey	**Room B4**	**10% Chrysotile**
	Mastic	Room B4	NAD
	Glue-Yellow	Room B4	NAD
	Filler	Room B4	NAD
	Glue-Yellow	Room B4	NAD
11B	Glue-Yellow	Room B4	NAD
	9"x9" Floor Tile-Grey	**Room B4**	**NA**
	Mastic	Room B4	NAD
	Glue-Yellow	Room B4	NAD
	Filler	Room B4	NAD
	Glue-Yellow	Room B4	NAD
12A	**9"x9" Floor Tile-Green w/Orange & White Streaks**	**Room B10**	**10% Chrysotile**
	Mastic	Room B10	NAD
12B	**9"x9" Floor Tile-Green w/Orange & White Streaks**	**Room B6**	**NA**
	Mastic	Room B6	NAD
13A	**9"x9" Floor Tile-Tan**	**Room B10**	**2% Chrysotile**
	Glue	Room B10	NAD
13B	**9"x9" Floor Tile-Tan**	**Room B10**	**NA**
	Glue	Room B10	NAD
14A	4" Cove Base-Green	B7 Closet	NAD
	Glue	B7 Closet	NAD
14B	4" Cove Base-Green	B7 Closet	NAD
	Glue	B7 Closet	NAD
15A	4" Cove Base-Maroon	Room 1	NAD
	Glue	Room 1	NAD
15B	4" Cove Base-Maroon	Room 1	NAD
	Glue	Room 1	NAD
16A	12"x12" Floor Tile-Tan	Room 1	NAD
	Mastic	Room 1	NAD
16B	12"x12" Floor Tile-Tan	Room 1	NAD
	Mastic	Room 1	NAD
17A	4" Cove Base-Blue	Room 3	NAD
	Glue	Room 3	NAD
17B	4" Cove Base-Blue	Room 3	NAD
	Glue	Room 3	NAD
18A	12"x12" Floor Tile-White	Room 3	NAD
	Glue	Room 3	NAD
18B	12"x12" Floor Tile-White	Room 3	NAD
	Glue	Room 3	NAD
19A	Textured Wall-White	Room 9	NAD
19B	Textured Wall-White	Room 9	NAD
20A	Tile Grout-White	Room 9	NAD
20B	Tile Grout-White	Room 9	NAD
21A	**9"x9" Floor Tile-Green w/Orange & White Streaks**	**Room 10**	**2% Chrysotile**
	Glue	Room 10	NAD
21B	**9"x9" Floor Tile-Green w/Orange & White Streaks**	**Room 10**	**NA**
	Glue	Room 10	NAD
22A	Stair Tread-Tan	North Stairwell	NAD
	Glue	North Stairwell	NAD
22B	Stair Tread-Tan	North Stairwell	NAD
	Glue	North Stairwell	NAD
23A	Block Mortar-Grey	Room 1	NAD
23B	Block Mortar-Grey	Room 29	NAD
24A	Tile Grout-Dark Grey	Room 28	NAD
24B	Tile Grout-Dark Grey	Room 28	NAD

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PC=Point Counted

Table 2
Asbestos Sample Results
17400 Meyers Road
Detroit, Michigan
ASTI Project No: 3-11382

ASTI Sample ID	Material/Description	Sample Location	Asbestos Result
25A	Caulk-Beige	Room 28	NAD
25B	Caulk-Beige	Room 28	NAD
26A	4" Cove Base-Cream	Room 21	NAD
	Glue	Room 21	NAD
26B	4" Cove Base-Cream	Room 21 E	NAD
	Glue	Room 21 E	NAD
27A	12"x12" Floor Tile-Cream w/Blue Diamond	Room 21D	NAD
	Glue	Room 21D	NAD
27B	12"x12" Floor Tile-Cream w/Blue Diamond	Room 21D	NAD
	Glue	Room 21D	NAD
28A	Stair Tread-Brown	South Stairwell	NAD
	Glue	South Stairwell	NAD
28B	Stair Tread-Brown	South Stairwell	NAD
	Glue	South Stairwell	NAD
29A	Brick Mortar-Grey	South Exterior	NAD
29B	Brick Mortar-Grey	East Exterior	NAD
30A	**Caulk-Grey**	**Overhang**	**5% Chrysotile**
30B	**Caulk-Grey**	**Overhang**	**NA**
19C	Textured Wall-White	Room 9	NAD

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SF = Square Feet
NQ=Not Quantified

Shaded = Positive for asbestos
NAD = No Asbestos Detected
PC=Point Counted

Appendix A

Resume and Accreditation of
Ms. Jelaine Tinsley
And
Mr. John Schuitema

ASTI ENVIRONMENTAL

JELAINE D. TINSLEY

Environmental Professional

PROFILE

Certifications/Licenses
NIOSH 582-Equivalent Course Sampling and Analysis of Airborne Asbestos Fibers
OSHA 29 CFR 1910.120 HAZWOPER 40-Hour and 8-Hour Refresher (2020)
Asbestos Inspector-Michigan (License No. A16395)
Asbestos Inspector-Illinois (License No. 100-19756)
Asbestos Inspector-Indiana (License No. 19A007625)
Asbestos Hazard Evaluation Specialist-Ohio (License No.ES36108)
Asbestos Inspector / Management Planner-Kentucky (License No. 66369)
Asbestos Project Designer-Michigan (License No. A16395)
Certified Confined Space Entrant and Attendant
American Red Cross First Aide and Adult CPR Certified
ASTM Certification in RBCA Applied at Petroleum Release Sites
Bituminous Testing Technician
Michigan Provisional Teaching Certificate

Education
Western Michigan University, B.S., Earth Science and Education

Experience History
Environmental Professional, ASTI ENVIRONMENTAL
Project Manager, Yeoman Group
Project Manager, A&F Environmental
Environmental Consultant, DLZ Corporation
Environmental Consultant, AKT Peerless
Geologist, ATC Associates
Geologist, NUS Corporation
Teacher, Detroit Public Schools
Staff Scientist, CTI and Associates, Inc.

Professional Memberships and Service
Michigan Association of Environmental Professionals (MAEP)
Commercial Real Estate Women Detroit (CREW)

Professional Background
Ms. Tinsley has more than 32 years experience in the environmental industry in a variety of areas including Phase I environmental site assessments (ESAs), Phase II ESAs, baseline environmental assessments (BEAs), subsurface investigations (soil and groundwater testing), soil and groundwater evaluations, asbestos and mold inspections, abatement oversight, and specification development. Ms. Tinsley has also coordinated numerous hazardous material and pre-demolition surveys which included evaluations of asbestos, mold, radon and universal wastes for municipal, commercial, and industrial facilities.

Years Experience:

7 --- ASTI ENVIRONMENTAL
25 --- other firms

ENVIRONMENTAL DUE DILIGENCE AND SITE INVESTIGATION PROJECTS

Environmental Site Assessments
Completed numerous site assessments for a variety of projects (vacant land, agricultural, residential, commercial, and industrial) to determine the environmental condition of sites for real estate transactions. Projects involved both surface and subsurface evaluations of sites for a variety of hazardous substances. Responsibilities included the preparation and/or review of ASTM Phase I and Phase II ESAs, Baseline Environmental Assessments (BEAs), and Due Care Plans. Ms. Tinsley has experience working in Michigan, Illinois, Indiana, Ohio, Kentucky, Tennessee, Georgia, Alabama, Mississippi, and Florida. Ms. Tinsley also has performed listing site evaluations for a dedicated contactor to the US EPA. Ms. Tinsley is also knowledgeable with All Appropriate Inquiries (AAI) per 40 CFR Part 312 and meets the requirements of an Environmental Professional per AAI.

Customer Training
Provided training for financial institutions on the types of properties that should have environmental evaluations.

Vapor Intrusion Evaluation, Jackson, Michigan
Conducted vapor intrusion studies at commercial properties to assess potential vapor migration. Scope of work included coordination of vapor intrusion points, vapor sample collection, and coordination of chemical testing.

CONSTRUCTION TESTING

Conducted construction material analysis which included soil proctors, soil sieve analysis, asphalt extractions, and concrete stress testing.

ASBESTOS INSPECTIONS AND ABATEMENT COORDINATION/OVERSIGHT

Responsible for asbestos program management including coordination and technical lead for hazardous material surveys and asbestos and mold related testing activities.

Asbestos Inspections, City of Detroit Neighborhood Redevelopment Project
Inspector of asbestos hazards at over 300 residential and commercial properties. Collected samples of suspect ACM for laboratory analysis. Provided report to the City of Detroit with findings and compliance requirements.

Asbestos Inspections, City of Inkster Neighborhood Redevelopment Project
Conducted asbestos inspections at over 100 residential and commercial properties. Collected samples of suspect ACM for laboratory analysis. Provided report to the City of Inkster with findings and compliance requirements.

Large Hotel Detroit, Michigan
Inspected the hotel property as part of a team. Collected samples, reviewed laboratory analysis, and provided client a report of methods and findings. Performed oversight of ACM abatement.

Medical Complex Kalamazoo, Michigan
Responsible for coordination of field activities for the ACM abatement of the complex. Conducted schedule and strategy meetings.

Hotel, Detroit, Michigan
Inspected the hotel property. Collected samples, reviewed laboratory analysis, and provided client a report of methods and findings.

Former Coal Power Plant
Conducted a thorough asbestos inspection of an inactive multi-building coal power plant in Detroit, Michigan. Collected samples, and performed thorough photo documentation and quantification of all ACMs in the power plant and supporting buildings.

UNDERGROUND STORAGE TANKS AND PETROLEUM REMEDIATION PROJECT

Commercial Development Royal Oak, Michigan
Coordinated the remediation of a former gasoline service station, during site development for a commercial company. Work included Phase I ESA and Phase II site investigation to evaluate USTs and hoists onsite, as well as coordinating a GPR survey for additional USTs on site, a BEA, and a Due Care Plan. Assisted with the development bid specifications for site remediation activities including UST and hoist removal, soil remediation, and asbestos abatement. Coordinated the removal of five (5) USTs, one in-ground hoist, and 300,000 cubic yards of petroleum-impacted soils.

ASTI ENVIRONMENTAL
810-225-2800 | asti-env.com

State of Michigan

Department of Labor and Economic Opportunity

Michigan Occupational Safety & Health Administration - Asbestos Program

Asbestos Inspector

Jelaine D. Tinsley
9584 Cooley Lake Road
White Lake, MI 48386

Accreditation Number
A16395

Expiration Date
09/26/2022

DOB: **07/07/1962**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered.

154439

ASTI ENVIRONMENTAL

JOHN F. SCHUITEMA

Environmental Field Technician

PROFILE

Certifications
Asbestos Inspector (A51781)
Michigan Lead Inspector/Risk Assessor (P-07409)
ICC Property Maintenance Inspector
ICC Zoning Inspector
40-Hour OSHA HAZWOPER Training
8-Hour OSHA HAZWOPER Refresher

Education
Lead Inspector/Risk Assessor Training
Asbestos Awareness Training
Lead Awareness Training
Asbestos Inspector Training

Experience History
Field Technician, ASTI Environmental
Government

Professional Background
Mr. Schuitema has experience in the field with soil sampling, lead dust sampling, asbestos surveys, air monitoring, hazardous materials surveys, and lead inspections. Mr. Schuitema has assisted with Phase II investigations, property condition assessments, mold sampling, indoor air quality assessments, moisture operation and maintenance plans, and performed health and safety related building inspections.

Years' Experience:

3 --- ASTI ENVIRONMENTAL
3 --- Government

ENVIRONMENTAL DUE DILIGENCE AND SITE INVESTIGATION PROJECTS

Environmental Site Assessments
Completed numerous site assessments for a variety of projects (vacant land, agricultural, residential, commercial, and industrial), to determine the environmental condition of sites for real estate transactions. Projects involved both surface and subsurface evaluations of sites for a variety of hazardous substances.

ASBESTOS AND LEAD INSPECTION AND RISK ASSESSMENTS

Responsible for asbestos inspections and lead inspections and risk assessments on commercial, multi-family, and single-family properties.

Lead Based Paint Inspections and Risk Assessments, Flint Housing Commission
Inspection of lead hazards throughout Flint's public housing complexes, dust wipe sample collection for laboratory analysis, XRF sampling, and writing the report to the Flint Housing Commission with findings and compliance requirements.

Large Apartment Complex in Flint, Michigan
Conducted asbestos inspections of over 100 residential units. Collected samples of suspect ACM for laboratory analysis. Provided report to the City of Flint with findings and compliance requirements.

INDOOR AIR QUALITY AND MOLD

Conducted mold assessments and verification sampling on municipal buildings, schools, and private facilities in the State of Michigan. Assessment scopes included mold identification and moisture infiltration, abatement scope design, and post abatement visual inspection and clearance sampling.

Conducted visual and indoor air quality clearance samples for multiple residential homes following ACM removal, prior to demolition, throughout the State of Michigan.

Highrise Apartment Building Detroit, Michigan
Monitored indoor air quality during removal of asbestos containing materials. Provided clearance air sampling upon completion.

Multiple School Buildings Detroit, Michigan
Performed visual inspection, tape lift samples, air sampling, and moisture readings to evaluate potential mold growth. Completed clearance inspection and sampling after remediation and provided the client with a report of methods and findings.

PROPERTY CONDTION ASSESSMENTS

Completed inspections of commercial, industrial, and residential properties in the State of Michigan. Identified physical deficiencies, material defects, and deferred maintenance. Reported findings, including cost estimates for repairs and replacements deemed necessary.

STORM WATER INSPECTIONS

Performed inspections of construction sites to determine compliance with state storm water regulations. Reported deficiencies and recommend remedies.

Large Apartment Complex Howell, Michigan
Conducted weekly inspections during construction to ensure compliance with construction storm water regulations. Provided weekly report with findings, deficiencies, and remedy options to the client and County.

WASTEWATER OPERATIONS

Super Fund Site, St. Joseph, Michigan
Performed monthly maintenance and sampling to insure proper operation and compliance with applicable regulations. Maintained air striper and CatOx system for removal of VOCs from contaminated groundwater.

AIR MONITORING

Former McLouth Steel Site, Trenton, Michigan
Operated outdoor air monitoring and sampling stations to ensure chemicals of concern and fugitive dust did not leave the property. Performed real time air monitoring during demolition activities.

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State of Michigan
Department of Labor and Economic Opportunity
Michigan Occupational Safety & Health Administration - Asbestos Program
Asbestos Inspector
John F. Schuitema
6790 Hinchey Road
Pinckney, MI 48169
Accreditation Number
A51781
Expiration Date
02/27/2022
DOB: 06/17/1981
This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.
Accreditation card is not valid if altered.
151348

Appendix B

Results of Asbestos Sample Analysis and Chain of Custody

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project : Meyers Senior South Building
Project # :3-11382

Report To:
Mr. David Amir
ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 21-96257
Date Collected: 09/21/21
Date Received: 09/28/21
Date Analyzed: 09/29/21
Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 01 Cust. #: 1A Material: Tile Grout-Light Grey Location: Room B2 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 02 Cust. #: 1B Material: Tile Grout-Light Grey Location: Room B4 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 03 Cust. #: 2A Material: Pipe Insulation-White Location: Room B3 Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 10% Fiberglass - 70% Other - 20%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 04 Cust. #: 2B Material: Pipe Insulation-White Location: Room B3 Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 10% Fiberglass - 65% Other - 25%
Lab ID #: 96257 - 05 Cust. #: 2C Material: Pipe Insulation-White Location: Room B3 Appearance: Layer: of	Asbestos Present: NO SAMPLE RECEIVED	
Lab ID #: 96257 - 06 Cust. #: 3A Material: 12x12 Floor Tile-White Location: Room B5 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 06a Cust. #: 3A Material: Glue Location: Room B5 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 07 Cust. #: 3B Material: 12x12 Floor Tile-White Location: Room B5 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 07a Cust. #: 3B Material: Glue Location: Room B5 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 08 Cust. #: 4A Material: Glue Pods-Brown Location: Behind Chalkboard Room B5 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 09 Cust. #: 4B Material: Glue Pods-Brown Location: Behind Chalkboard Room B5 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 10 Cust. #: 5A Material: Caulk-Brown Location: Windows In Room B5 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 11 Cust. #: 5B Material: Caulk-Brown Location: Windows In Room B7 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 12 Cust. #: 6A Material: 12x12 FT-Grey w/White/Grey Specks Location: Room B6 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 12a Cust. #: 6A Material: Glue Location: Room B6 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 13 Cust. #: 6B Material: 12x12 FT-Grey w/White/Grey Specks Location: Room B6 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 13a Cust. #: 6B Material: Glue Location: Room B6 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 14 Cust. #: 7A Material: 12x12 Ceiling Tile-White Location: Room B6 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 80% Other - 20%

For Layered Samples, each component will be analyzed and reported separately.

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 14a Cust. #: 7A Material: Brown Glue Pod Location: Room B6 Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 15 Cust. #: 7B Material: 12x12 Ceiling Tile-White Location: Hallway Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 96257 - 15a Cust. #: 7B Material: Brown Glue Pod Location: Hallway Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 16 Cust. #: 8A Material: 4" Cove Base-Grey Location: Room B6 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 16a Cust. #: 8A Material: Glue Location: Room B6 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 17 Cust. #: 8B Material: 4" Cove Base-Grey Location: Room B6 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 17a Cust. #: 8B Material: Glue Location: Room B6 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 18 Cust. #: 9A Material: Textured Ceiling Paint-White Location: Room B6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 96257 - 19 Cust. #: 9B Material: Textured Ceiling Paint-White Location: Room B6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 20 Cust. #: 9C Material: Textured Ceiling Paint-White Location: Room B11 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 21 Cust. #: 9D Material: Textured Ceiling Paint-White Location: 2nd Floor Hall Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 22 Cust. #: 9E Material: Textured Ceiling Paint-White Location: 2nd Floor Hall Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 23 Cust. #: 9F Material: Textured Ceiling Paint-White Location: 2nd Floor Hall Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 24 Cust. #: 9G Material: Textured Ceiling Paint-White Location: 2nd Floor Hall Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 25 Cust. #: 10A Material: Texture-Orange Peel-White Location: Room B6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 26 Cust. #: 10B Material: Texture-Orange Peel-White Location: Room B6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 27 Cust. #: 10C Material: Texture-Orange Peel-White Location: Room B6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 28 Cust. #: 11A Material: Drywall-White Location: Room B6 Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project : Meyers Senior South Building
Project # :3-11382

Report To:
Mr. David Amir
ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 21-96257
Date Collected: 09/21/21
Date Received: 09/28/21
Date Analyzed: 09/29/21
Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 28a Cust. #: 11A Material: Joint Compound Location: Room B6 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 29 Cust. #: 11B Material: Drywall-White Location: Room B6 Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 96257 - 29a Cust. #: 11B Material: Joint Compound Location: Room B6 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 30 Cust. #: 12A Material: Yellow Glue Location: Room B7 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 30a Cust. #: 12A Material: 9x9 FT-Brown-Under Carpet Location: Room B7 Appearance: brown,fibrous,homogenous Layer: 2 of 3	Asbestos Present: **YES** Chrysotile - 10%	Other - 90%
Lab ID #: 96257 - 30b Cust. #: 12A Material: Mastic Location: Room B7 Appearance: black,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 31 Cust. #: 12B Material: Yellow Glue Location: Room B7 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 31a Cust. #: 12B Material: 9x9 FT-Brown-Under Carpet Location: Room B7 Appearance: Layer: 2 of 3	Asbestos Present: NOT ANALYZED	
Lab ID #: 96257 - 31b Cust. #: 12B Material: Mastic Location: Room B7 Appearance: black,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 32 Cust. #: 13A Material: 4" Cove Base-Black Location: B Floor Hallway Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 32a Cust. #: 13A Material: Glue Location: B Floor Hallway Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 33 Cust. #: 13B Material: 4" Cove Base-Black Location: B Floor Hallway Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 33a Cust. #: 13B Material: Glue Location: B Floor Hallway Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 34 Cust. #: 14A Material: 12x12 Floor Tile-Red Location: B Floor Hallway Appearance: red,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 34a Cust. #: 14A Material: Mastic Location: B Floor Hallway Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 35 Cust. #: 14B Material: 12x12 Floor Tile-Red Location: B Floor Hallway Appearance: red,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 35a Cust. #: 14B Material: Mastic Location: B Floor Hallway Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 36 Cust. #: 15A Material: 12x12 Floor Tile-Off White Location: B Floor Hallway Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 36a Cust. #: 15A Material: Mastic Location: B Floor Hallway Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 37 Cust. #: 15B Material: 12x12 Floor Tile-Off White Location: B Floor Hallway Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 37a Cust. #: 15B Material: Mastic Location: B Floor Hallway Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 38 Cust. #: 16A Material: 4" Cove Base-Brown Location: Room B7 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 38a Cust. #: 16A Material: Glue Location: Room B7 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 39 Cust. #: 16B Material: 4" Cove Base-Brown Location: Room B7 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 39a Cust. #: 16B Material: Glue Location: Room B7 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 40 Cust. #: 17A Material: Fire Door Insulation-White Location: B Floor Elevator Door Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 2% Other - 98%
Lab ID #: 96257 - 41 Cust. #: 17B Material: Fire Door Insulation-White Location: B Floor Elevator Door Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 42 Cust. #: 17C Material: Fire Door Insulation-White Location: Upper Floor Elevator Door Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 1% Other - 99%
Lab ID #: 96257 - 43 Cust. #: 18A Material: FT-9x9-Brown w/White & Orange Streaks Location: Room B11 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **YES** Chrysotile - 10%	Other - 90%
Lab ID #: 96257 - 43a Cust. #: 18A Material: Mastic Location: Room B11 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 44 Cust. #: 18B Material: FT-9x9-Brown w/White & Orange Streaks Location: Room B11 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 96257 - 44a Cust. #: 18B Material: Mastic Location: Room B11 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 45 Cust. #: 19A Material: 9x9 Floor Tile - Green Location: Room B12 Appearance: green,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **YES** Chrysotile - 10%	Other - 90%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 45a Cust. #: 19A Material: Mastic Location: Room B12 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 46 Cust. #: 19B Material: 9x9 Floor Tile - Green Location: Room B12 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 96257 - 46a Cust. #: 19B Material: Mastic Location: Room B12 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 47 Cust. #: 20A Material: Brick Mortar-Grey Location: West Exterior Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 48 Cust. #: 20B Material: Brick Mortar-Grey Location: West Exterior Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 49 Cust. #: 21A Material: Window Caulk-Grey Location: West Exterior Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 50 Cust. #: 21B Material: Window Caulk-Grey Location: West Exterior Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 51 Cust. #: 22A Material: Stair Tread-Brown Location: North Stairway Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 52 Cust. #: 22B Material: Stair Tread-Brown Location: North Stairway Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 53 Cust. #: 23A Material: Carpet Mastic/Glue Yellow Location: Room 1 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 96257 - 53a Cust. #: 23A Material: Carpet Mastic Black Location: Room 1 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 96257 - 54 Cust. #: 23B Material: Carpet Mastic/Glue Yellow Location: Room 1 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project : Meyers Senior South Building
Project # :3-11382

Report To:
Mr. David Amir
ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 21-96257
Date Collected: 09/21/21
Date Received: 09/28/21
Date Analyzed: 09/29/21
Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 54a Cust. #: 23B Material: Carpet Mastic Black Location: Room 1 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 55 Cust. #: 24A Material: Plaster-White/Finish Coat Location: Room 1 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 55a Cust. #: 24A Material: Plaster/Base Coat Grey Location: Room 1 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%

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Date Analyzed: 09/29/21
Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 56 Cust. #: 24B Material: Plaster-White/Finish Coat Location: Room 1 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 56a Cust. #: 24B Material: Plaster/Base Coat Grey Location: Room 1 Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%
Lab ID #: 96257 - 57 Cust. #: 24C Material: Plaster-White/Finish Coat Location: Room 1 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Date Analyzed: 09/29/21
Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 57a Cust. #: 24C Material: Plaster/Base Coat Grey Location: Room 1 Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%
Lab ID #: 96257 - 58 Cust. #: 24D Material: Plaster-White/Finish Coat Location: Room B1 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 58a Cust. #: 24D Material: Plaster/Base Coat Grey Location: Room B1 Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%

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Date Analyzed: 09/29/21
Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 59 Cust. #: 24E Material: Plaster-White/Finish Coat Location: Room B1 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 59a Cust. #: 24E Material: Plaster/Base Coat Grey Location: Room B1 Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%
Lab ID #: 96257 - 60 Cust. #: 24F Material: Plaster-White/Finish Coat Location: Room B1 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Date Analyzed: 09/29/21
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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 60a Cust. #: 24F Material: Plaster/Base Coat Grey Location: Room B1 Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%
Lab ID #: 96257 - 61 Cust. #: 24G Material: Plaster-White/Finish Coat Location: Room 1 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 61a Cust. #: 24G Material: Plaster/Base Coat Grey Location: Room 1 Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%

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Date Analyzed: 09/29/21
Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 62 Cust. #: 25A Material: 6" Cove Base-Black Location: Room 1 Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 62a Cust. #: 25A Material: Glue Location: Room 1 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 63 Cust. #: 25B Material: 6" Cove Base-Black Location: Room 1 Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 63a Cust. #: 25B Material: Glue Location: Room 1 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 64 Cust. #: 26A Material: Paper Insulation-Brown & Silver Location: Room 1 Above Ceiling Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 96257 - 65 Cust. #: 26B Material: Paper Insulation-Brown & Silver Location: Room 1 Above Ceiling Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 50% Other - 50%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 66 Cust. #: 27A Material: 4" Cove Base-Cream Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 66a Cust. #: 27A Material: Glue Location: Room 2 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 67 Cust. #: 27B Material: 4" Cove Base-Cream Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 67a Cust. #: 27B Material: Glue Location: Room 2 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 68 Cust. #: 28A Material: 4" Cove Base-Red Location: Room 2 Appearance: red,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 68a Cust. #: 28A Material: Glue Location: Room 2 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 69 Cust. #: 28B Material: 4" Cove Base-Red Location: Room 2 Appearance: red,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 69a Cust. #: 28B Material: Glue Location: Room 2 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 70 Cust. #: 29A Material: Tile Grout-Grey Location: Room 4A Restroom Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 09/29/21
Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 71 Cust. #: 29B Material: Tile Grout-Grey Location: Room 4A Restroom Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 72 Cust. #: 30A Material: Yellow Glue Location: Room 10 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 72a Cust. #: 30A Material: 9x9 Floor Tile-Red Location: Room 10 Appearance: red,fibrous,homogenous Layer: 2 of 3	Asbestos Present: **YES** Chrysotile - 10%	Other - 90%

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Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 72b Cust. #: 30A Material: Mastic Location: Room 10 Appearance: black,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 96257 - 73 Cust. #: 30B Material: Yellow Glue Location: Room 10 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 73a Cust. #: 30B Material: 9x9 Floor Tile-Red Location: Room 10 Appearance: Layer: 2 of 3	Asbestos Present: NOT ANALYZED	

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Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 73b Cust. #: 30B Material: Mastic Location: Room 10 Appearance: black,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 74 Cust. #: 31A Material: Block Mortar-Grey Location: South Stairwell Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96257 - 75 Cust. #: 31B Material: Block Mortar-Grey Location: South Stairwell Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Date Reported: 09/29/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96257 - 73 Cust. #: 26C Material: Paper Insulation-Brown & Silver Location: Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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96257

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Customer Name: ASTI
Address: 10448 Citation Dr.
City, St., Zip: Brighton, MI, 48169
Phone: 810-225-2800 Fax:
Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Date of Survey: 9/21-9/22/2021
Project: Meyers Senior South Building
Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com
Circle analyses required, indicate type and quantity

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Rush 24 hour
48 hour 72 hour
Other: TTP yes / no
Samples received after 3pm logged in next morning
(Test Till Positive)

Asbestos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO____ Air ____ Paint ____ Bulk____
Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402____ EPA Level II ____ Other ___

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	1A	Tile Grout - Light Gray - Room	B2		
	1B	" " Room	B4		
	2A	Pipe insulation - white -	Room B3		
	2B	↓ ↓			
	2C	↓ ↓			
	3A	12x12 Floor Tile - white - Room B	5		
	3B	" "			
	4A	Glue Pads - Brown - Behind ChalkBoard		Room B	5
	4B	"	"		
	5A	Caulk - Brown - windows in Room	B5		
	5B	↓ ↓	B7		
	6A	12x12 Floor tile - Gray w/ white + Gray		Specks -	Room B6

Relinquished By: ____
Date: 9/24/21
Received By: ____
Time/Date: ____
Relinquished By: ____
Date: ____
Received By: ____
Time/Date: ____

RECEIVED SEP 28 2021 APEX RESEARCH

Revision R4 Date: May/2017

96257

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APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Customer Name: ASTI
Address: 10448 Citation Dr.
City, St., Zip: Brighton, MI, 48169
Phone: 810-225-2800 Fax:

Date of Survey: 9/21-9/22/2021
Project: Meyers Senior South Building
Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Rush | 24 hour
48 hour | 72 hour
Other: | TTP yes / no (Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO ____ Air ____ Paint ____ Bulk ____
Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	6B	12x12 Floor tile - Gray w/ White & Gray Streaks -		Room B6	
	7A	12x12 Ceiling Tile - White w/ Brown Glue -		Room B6	
	7B	" "		Hallway	
	8A	4" Cove base - Gray - Room	B6		
	8B	" "			
	9A	Textured Ceiling Paint - White -	Room	B6	
	9B			B6	
	9C			B11	
	9D			2nd floor Hall	
	9E			2nd floor Hall	
	9F			2nd floor Hall	
	9G			2nd floor Hall	

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Email: damir@asti-env.com jschuitema@asti-env.com
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48 hour 72 hour
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Asbestos: Bulk X Wipe Point Count PCM
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO Air Paint Bulk
Mold: Bulk Air/Zefon/AlergencoD BioSIS Tape
TEM: Bulk/NOB NIOSH 7402 EPA Level II Other

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	10A	Texture - orange Peel - white -	Room B	6	
	10B	↓	↓		
	10C	↓	↓		
	11A	Drywall + Joint compound - white -	Room B	6	
	11B	" "			
	12A	9x9 Floor tile - Brown - under	Carpet -	Room B7	
	12B	"	"		
	13A	4" Cove base - Black - B floor	Hallway		
	13B	" "			
	14A	12x12 Floor tile - Red - B-floor	Hallway		
	14B	" "			
	15A	12x12 floor tile - Off-white -	B-Floor	Hallway	

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Project: Meyers Senior South Building

Address: 10448 Citation Dr.

Project # 3-11382

City, St., Zip: Brighton, MI, 48169

Contact Person: Dave Amir

Phone: 810-225-2800 Fax:

Email: damir@asti-env.com jschuitema@asti-env.com

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Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____

TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	15B	12x12 Floor Tile - off-white - B-	Floor Hallway		
	16A	4" Coucbase - Brown - Room	B7		
	16B	" "			
	17A	Fire Door Insulation - White - B	floor Elevator Door		
	17B	↓ ↓	"	"	
	17C		upper floor Elevator	Door	
	18A	Floor Tile - 9x9 - Brown w/ white & orange	Streaks -	Room B11	
	18B	"	"		
	19A	9x9 Floor tile - Green - Room	B 12		
	19B	" "			
	20A	Brick mortar - Gray - West Exterior			
	20B	" "			

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Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com
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Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	21 A	Window Caulk - Gray - West Exterior			
	21 B	" "			
	22 A	Stair Tread - Brown - North	Stairway		
	22 B	" "			
	23 A	Carpet Mastic - Yellow w/ Black	- Room	1	
	23 B	" "			
	24 A	Plaster - White over Gray -	Room	1	
	24 B	↓ ↓	↓	↓	
	24 C				
	24 D		Room	B 1	
	24 E		↓	↓	
	24 F				

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Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com

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Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	24 G	Plaster – white over Gray –	Room	1	
	25 A	6" Cove base – Black –	Room	1	
	25 B	" "			
	26 A	Paper insulation – Brown + Silver –	Room 1	Above Ceiling	
	26 B	"	"		
	27 A	4" Cove base – Cream –	Room 2		
	27 B	" "			
	28 A	4" Cove base – Red –	Room 2		
	28 B	" "			
	29 A	Tile Grout – Gray –	Room 4A	Restroom	
	29 B	" "			
	30 A	9x9 floor tile – Red –	Room 10		

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Date of Survey: 9/21-9/22/2021
Project: Meyers Senior South Building
Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO ____ Air ____ Paint ____ Bulk ____
Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

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Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	30 B	9x9 floor tile - Red - Room	10		
	31 A	Block mortar - Grey - South	Stairwell		
	31 B	" "			

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project : Meyers Senior North Building
Project # :3-11382

Report To:
Mr. David Amir
ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 21-96256
Date Collected: 09/21/21
Date Received: 09/28/21
Date Analyzed: 09/29/21
Date Reported: 09/30/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 01 Cust. #: 1A Material: Ceiling Tile-White Location: Hallway Near B2 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 96256 - 01a Cust. #: 1A Material: Glue Pod Location: Hallway Near B2 Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 02 Cust. #: 1B Material: Ceiling Tile-White Location: Hallway Near B2 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 80% Other - 20%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 40 CFR - Part 763 and/or EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples as submitted and to insure the integrity of the results, may only be reproduced in full. This certificate must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

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Project : Meyers Senior North Building
Project # :3-11382

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Brighton, MI 48116

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Date Collected: 09/21/21
Date Received: 09/28/21
Date Analyzed: 09/29/21
Date Reported: 09/30/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 02a Cust. #: 1B Material: Glue Pod Location: Hallway Near B2 Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 03 Cust. #: 2A Material: Pipe Insulation-Yellow & White Location: Hallway Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 10% Fiberglass - 60% Other - 30%
Lab ID #: 96256 - 04 Cust. #: 2B Material: Pipe Insulation-Yellow & White Location: Hallway Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 15% Fiberglass - 60% Other - 25%

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Date Reported: 09/30/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 05 Cust. #: 2C Material: Pipe Insulation-Yellow & White Location: Hallway Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 15% Fiberglass - 60% Other - 25%
Lab ID #: 96256 - 06 Cust. #: 3A Material: Plaster-White Finish Coat Location: Room B1 Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 06a Cust. #: 3A Material: Plaster Base Coat Grey Location: Room B1 Appearance: grey,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%

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Date Reported: 09/30/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 06b Cust. #: 3A Material: Drywall Location: Room B1 Appearance: white,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 96256 - 07 Cust. #: 3B Material: Plaster-White Finish Coat Location: Room B1 Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 07a Cust. #: 3B Material: Plaster Base Coat Grey Location: Room B1 Appearance: grey,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 07b Cust. #: 3B Material: Drywall Location: Room B1 Appearance: white,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 96256 - 08 Cust. #: 3C Material: Plaster-White Finish Coat Location: Room B1 Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 08a Cust. #: 3C Material: Plaster Base Coat Grey Location: Room B1 Appearance: grey,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 08b Cust. #: 3C Material: Drywall Location: Room B1 Appearance: white,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 96256 - 09 Cust. #: 3D Material: Plaster-White Finish Coat Location: Room 31 Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 09a Cust. #: 3D Material: Plaster Base Coat Grey Location: Room 31 Appearance: grey,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 10% Other - 89%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 09b Cust. #: 3D Material: Drywall Location: Room 31 Appearance: white,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 96256 - 10 Cust. #: 3E Material: Plaster-White Finish Coat Location: Room 31 Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 10a Cust. #: 3E Material: Plaster Base Coat Grey Location: Room 31 Appearance: grey,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Vermiculite - 15% Other - 84%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 10b Cust. #: 3E Material: Drywall Location: Room 31 Appearance: white,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 96256 - 11 Cust. #: 4A Material: 12x12 Floor Tile-Tan Location: Hallway Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 11a Cust. #: 4A Material: Mastic Location: Hallway Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Brighton, MI 48116

ARI Report # 21-96256
Date Collected: 09/21/21
Date Received: 09/28/21
Date Analyzed: 09/29/21
Date Reported: 09/30/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 12 Cust. #: 4B Material: 12x12 Floor Tile-Tan Location: Hallway Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 12a Cust. #: 4B Material: Mastic Location: Hallway Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 13 Cust. #: 5A Material: 4" Cove Base-Brown Location: Room B1 A Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project : Meyers Senior North Building
Project # :3-11382

Report To:
Mr. David Amir
ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 21-96256
Date Collected: 09/21/21
Date Received: 09/28/21
Date Analyzed: 09/29/21
Date Reported: 09/30/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 13a Cust. #: 5A Material: Glue Location: Room B1 A Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 14 Cust. #: 5B Material: 4" Cove Base-Brown Location: Room B1 B Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 14a Cust. #: 5B Material: Glue Location: Room B1 B Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 15 Cust. #: 6A Material: Drywall-White Location: Room B1 A Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 96256 - 15a Cust. #: 6A Material: Joint Compound Location: Room B1 A Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 16 Cust. #: 6B Material: Drywall-White Location: Room B1 B Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 16a Cust. #: 6B Material: Joint Compound Location: Room B1 B Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 17 Cust. #: 7A Material: Caulk-White Location: Room B1 A Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 18 Cust. #: 7B Material: Caulk-White Location: Room B1 A Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 19 Cust. #: 8A Material: Cave Base 4"-Tan Location: Room B2 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 19a Cust. #: 8A Material: Glue Location: Room B2 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 20 Cust. #: 8B Material: Cave Base 4"-Tan Location: Room B2 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 20a Cust. #: 8B Material: Glue Location: Room B2 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 21 Cust. #: 9A Material: Window Caulk-Brown Location: Room B2 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 22 Cust. #: 9B Material: Window Caulk-Brown Location: Room B2 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 23 Cust. #: 10A Material: Pipe Insulation-White Over Brown Location: B Hallway Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 85% Other - 15%
Lab ID #: 96256 - 24 Cust. #: 10B Material: Pipe Insulation-White Over Brown Location: B Hallway Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 85% Other - 15%
Lab ID #: 96256 - 25 Cust. #: 10C Material: Pipe Insulation-White Over Brown Location: B Hallway Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 85% Other - 15%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 26 Cust. #: 11A Material: Yellow Glue Location: Room B4 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 6	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 26a Cust. #: 11A Material: 9x9 Floor Tile-Grey Location: Room B4 Appearance: grey,fibrous,homogenous Layer: 2 of 6	Asbestos Present: **YES** Chrysotile - 10%	Other - 90%
Lab ID #: 96256 - 26b Cust. #: 11A Material: Mastic Location: Room B4 Appearance: black,nonfibrous,homogenous Layer: 3 of 6	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 26c Cust. #: 11A Material: Yellow Glue Location: Room B4 Appearance: yellow,nonfibrous,homogenous Layer: 4 of 6	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 26d Cust. #: 11A Material: Filler Location: Room B4 Appearance: grey,nonfibrous,homogenous Layer: 5 of 6	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 96256 - 26e Cust. #: 11A Material: Yellow Glue Location: Room B4 Appearance: yellow,nonfibrous,homogenous Layer: 6 of 6	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 27 Cust. #: 11B Material: Yellow Glue Location: Room B4 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 6	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 27a Cust. #: 11B Material: 9x9 Floor Tile-Grey Location: Room B4 Appearance: Layer: 2 of 6	Asbestos Present: NOT ANALYZED	
Lab ID #: 96256 - 27b Cust. #: 11B Material: Mastic Location: Room B4 Appearance: black,nonfibrous,homogenous Layer: 3 of 6	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 27c Cust. #: 11B Material: Yellow Glue Location: Room B4 Appearance: yellow,nonfibrous,homogenous Layer: 4 of 6	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 27d Cust. #: 11B Material: Filler Location: Room B4 Appearance: grey,fibrous,homogenous Layer: 5 of 6	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 96256 - 27e Cust. #: 11B Material: Yellow Glue Location: Room B4 Appearance: yellow,nonfibrous,homogenous Layer: 6 of 6	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 28 Cust. #: 12A Material: 9x9 FT-Green w/Orange & White Streaks Location: Room B10 Appearance: grey,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **YES** Chrysotile - 10%	Other - 90%
Lab ID #: 96256 - 28a Cust. #: 12A Material: Mastic Location: Room B10 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 29 Cust. #: 12B Material: 9x9 FT-Green w/Orange & White Streaks Location: Room B6 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 29a Cust. #: 12B Material: Mastic Location: Room B6 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 96256 - 30 Cust. #: 13A Material: 9x9 Floor Tile-Tan Location: Room B10 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **YES** Chrysotile - 2%	Other - 98%
Lab ID #: 96256 - 30a Cust. #: 13A Material: Glue Location: Room B10 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 31 Cust. #: 13B Material: 9x9 Floor Tile-Tan Location: Room B10 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 96256 - 31a Cust. #: 13B Material: Glue Location: Room B10 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 32 Cust. #: 14A Material: 4" Cove Base-Green Location: B7 Closet Appearance: green,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 32a Cust. #: 14A Material: Glue Location: B7 Closet Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 33 Cust. #: 14B Material: 4" Cove Base-Green Location: B7 Closet Appearance: green,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 33a Cust. #: 14B Material: Glue Location: B7 Closet Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 34 Cust. #: 15A Material: 4" Cove Base-Maroon Location: Room 1 Appearance: maroon,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 34a Cust. #: 15A Material: Glue Location: Room 1 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 35 Cust. #: 15B Material: 4" Cove Base-Maroon Location: Room 1 Appearance: maroon,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project : Meyers Senior North Building
Project # :3-11382

Report To:
Mr. David Amir
ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 21-96256
Date Collected: 09/21/21
Date Received: 09/28/21
Date Analyzed: 09/29/21
Date Reported: 09/30/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 35a Cust. #: 15B Material: Glue Location: Room 1 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 36 Cust. #: 16A Material: 12x12 Floor Tile-Tan Location: Room 1 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 36a Cust. #: 16A Material: Mastic Location: Room 1 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Date Reported: 09/30/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 37 Cust. #: 16B Material: 12x12 Floor Tile-Tan Location: Room 1 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 37a Cust. #: 16B Material: Mastic Location: Room 1 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 38 Cust. #: 17A Material: 4" Cove Base-Blue Location: Room 3 Appearance: blue,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 38a Cust. #: 17A Material: Glue Location: Room 3 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 39 Cust. #: 17B Material: 4" Cove Base-Blue Location: Room 3 Appearance: blue,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 39a Cust. #: 17B Material: Glue Location: Room 3 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 40 Cust. #: 18A Material: 12x12 Floor Tile-White Location: Room 3 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 40a Cust. #: 18A Material: Glue Location: Room 3 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 41 Cust. #: 18B Material: 12x12 Floor Tile-White Location: Room 3 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 41a Cust. #: 18B Material: Glue Location: Room 3 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 42 Cust. #: 19A Material: Textured Wall-White Location: Room 9 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 43 Cust. #: 19B Material: Textured Wall-White Location: Room 9 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 44 Cust. #: 20A Material: Tile Grout-White Location: Room 9 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 45 Cust. #: 20B Material: Tile Grout-White Location: Room 9 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 46 Cust. #: 21A Material: 9x9 FT-Green w/Orange & White Streaks Location: Room 10 Appearance: beige,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **YES** Chrysotile - 2%	Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 46a Cust. #: 21A Material: Glue Location: Room 10 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 47 Cust. #: 21B Material: 9x9 FT-Green w/Orange & White Streaks Location: Room 10 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 96256 - 47a Cust. #: 21B Material: Glue Location: Room 10 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 48 Cust. #: 22A Material: Stair Tread-Tan Location: North Stairwell Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 48a Cust. #: 22A Material: Glue Location: North Stairwell Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 49 Cust. #: 22B Material: Stair Tread-Tan Location: North Stairwell Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 49a Cust. #: 22B Material: Glue Location: North Stairwell Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 50 Cust. #: 23A Material: Block Mortar-Grey Location: Room 1 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 51 Cust. #: 23B Material: Block Mortar-Grey Location: Room 29 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 52 Cust. #: 24A Material: Tile Grout-Dark Grey Location: Room 28 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 53 Cust. #: 24B Material: Tile Grout-Dark Grey Location: Room 28 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 54 Cust. #: 25A Material: Caulk-Beige Location: Room 28 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 55 Cust. #: 25B Material: Caulk-Beige Location: Room 28 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 56 Cust. #: 26A Material: 4" Cove Base-Cream Location: Room 21 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 56a Cust. #: 26A Material: Glue Location: Room 21 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 57 Cust. #: 26B Material: 4" Cove Base-Cream Location: Room 21 E Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 57a Cust. #: 26B Material: Glue Location: Room 21 E Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 58 Cust. #: 27A Material: FT-12x12-Cream w/Blue Diamond Location: Room 21D Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 58a Cust. #: 27A Material: Glue Location: Room 21D Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 59 Cust. #: 27B Material: FT-12x12-Cream w/Blue Diamond Location: Room 21D Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 59a Cust. #: 27B Material: Glue Location: Room 21D Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 60 Cust. #: 28A Material: Stair Tread-Brown Location: South Stairwell Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 60a Cust. #: 28A Material: Glue Location: South Stairwell Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 61 Cust. #: 28B Material: Stair Tread-Brown Location: South Stairwell Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 61a Cust. #: 28B Material: Glue Location: South Stairwell Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 62 Cust. #: 29A Material: Brick Mortar-Grey Location: South Exterior Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 96256 - 63 Cust. #: 29B Material: Brick Mortar-Grey Location: East Exterior Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

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Date Reported: 09/30/21

Sample Information	Asbestos Type/Percent	Non-Asbestos Material
Lab ID #: 96256 - 64 Cust. #: 30A Material: Caulk-Grey Location: Overhang Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **YES** Chrysotile - 5%	Other - 95%
Lab ID #: 96256 - 65 Cust. #: 30B Material: Caulk-Grey Location: Overhang Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 96256 - 66 Cust. #: 19C Material: Textured Wall-White Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 1% Other - 99%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 40 CFR - Part 763 and/or EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples as submitted and to insure the integrity of the results, may only be reproduced in full. This certificate must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

Apex # **96256**

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Date of Survey: 9/21-9/22/2021

Customer Name: ASTI
Address: 10448 Citation Dr.
City, St., Zip: Brighton, MI, 48169
Phone: 810-225-2800 Fax:

Project: Meyers Senior North Buildings
Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Circle analyses required, indicate type and quantity

Rush 24 hour
48 hour 72 hour
Other: TTP yes / no (Test Till Positive)
Samples received after 3pm logged in next morning

Asbestos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO ____ Air ____ Paint ____ Bulk ____
Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	1A	Ceiling tile - white - Hallway Near	B2		
	1B	" "			
	2A	Pipe insulation - Yellow & white - Hallway			
	2B	↓ ↓			
	2C	↓ ↓			
	3A	Plaster - White over Gray - Room	B1		
	3B	↓ ↓ ↓	↓		
	3C	↓ ↓			
	3D	Room	31		
	3E	↓ ↓ ↓	↓		
	4A	12x12 Floor Tile - Tan - Hallway			
	4B	↓ ↓			

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Customer Name: ASTI
Address: 10448 Citation Dr.
City, St., Zip: Brighton, MI, 48169
Phone: 810-225-2800 Fax:

Date of Survey: 9/21-9/22/2021
Project: Meyers Senior North Building
Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com

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Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

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Rush 24 hour
48 hour 72 hour
Other: TTP yes / no (Test Till Positive)
Samples received after 3pm logged in next morning

Asbestos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO ____ Air ____ Paint ____ Bulk ____
Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	5A	4" Cove Base - Brown - Room	B1 A		
	5B	" " Room	B1 B		
	6A	Drywall + Joint Compound - White -	Room B1 A		
	6B	" "	Room	B1 B	
	7A	Caulk - white - Room B1 A			
	7B	" "			
	8A	Cove Base 4" - Tan - Room	B2		
	8B	" "			
	9A	Window Caulk - Brown - Room	B2		
	9B	" "			
	10A	Pipe insulation - White over Brown -	B	Hallway	
	10B	"	"		

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Phone: 810-225-2800 Fax:

Date of Survey: 9/21-9/22/2021
Project: Meyers Senior North Building
Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com

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Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Rush 24 hour
48 hour 72 hour
Other:
TTP yes / no (Test Till Positive)
Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO ____ Air ____ Paint ____ Bulk ____
Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	10C	Pipe insulation - White over Brown	- B Hallway		
	11A	9x9 Floor Tile - Gray - Room	B 4		
	11B	" "			
	12A	9x9 Floor tile - Green w/ orange + white Streaks -			Room B 10
	12B	"	"		Room B 6
	13A	9x9 Floor Tile - Tan - Room	B 10		
	13B	" "			
	14A	4" Cove base - Green - B7 Closet			
	14B	" "			
	15A	4" Cove base - Maroon - Room I			
	15B	" "			
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Phone: 810-225-2800 Fax:

Date of Survey: 9/21-9/22/2021
Project: Meyers Senior North Building
Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com

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Email:

Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Circle analyses required, indicate type and quantity

Rush 24 hour
48 hour 72 hour
Other: TTP yes / no
Samples received after 3pm logged in next morning
(Test Till Positive)

Asbestos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO ____ Air ____ Paint ____ Bulk ____
Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	16A	12x12 Floor tile - Tan -	Room 1		
	16B	" "			
	17A	4" Cove base - Blue - Room 3			
	17B	" "			
	18A	12x12 Floor tile - White - Room	3		
	18B	" "			
	19A	Textured wall - White - Room 9			
	19B	" "			
	20A	Tile Grout - White - Room 9			
	20B	" "			
	21A	9x9 Floor tile - Cream w/ orange & white streakes -			Room 10
	21B		"		

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Phone: 810-225-2800 Fax:
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Date of Survey: 9/21-9/22/2021
Project: Meyers Senior North Building
Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com
Circle analyses required, indicate type and quantity

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Email:

Rush 24 hour
48 hour 72 hour
Other: TTP yes / no (Test Till Positive)
Samples received after 3pm logged in next morning

Asbestos: Bulk ✓ Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO ____ Air ____ Paint ____ Bulk ____
Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	22A	Stair Tread - Tan - North Stairwell			
	22B	" "			
	23A	Block mortar - Gray Room 1			
	23B	" " Room 29			
	24A	Tile Grout - Dark Gray - Room 28			
	24B	" "			
	25A	Caulk - Beige - Room 28			
	25B	" "			
	26A	4" Coovbase - Cream - Room 21			
	26B	4" Coovbase - Cream - Room 21 E			
	27A	Floor Tile - 12x12 - Cream w/ Blue diamond - Room 21 D			
	27B	RECEIVED "		"	

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Customer Name: ASTI
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City, St., Zip: Brighton, MI, 48169
Phone: 810-225-2800 Fax: _____

Date of Survey: 9/21-9/22/2021
Project: Meyers Senior North Building
Project # 3-11382
Contact Person: Dave Amir
Email: damir@asti-env.com jschuitema@asti-env.com

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Email: ____

Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Circle analyses required, indicate type and quantity

Rush 24 hour
48 hour (72 hour)
Other: _____ TTP (yes) / no (Test Till Positive)
Samples received after 3pm logged in next morning

Asbestos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Wipe **ASTM E1792?** circle YES or NO ____ Air ____ Paint ____ Bulk ____
Mold: Bulk ____ Air/Zefon/AlergencoD ____ BioSIS ____ Tape ____
TEM: Bulk/NOB ____ NIOSH 7402 ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
	28A	Stair Tread - Brown - South Stairwell			
	28B	" "			
	29A	Brick Mortar - Gray - South	Exterior		
	29B	" " East	Exterior		
	30A	Caulk - Gray - Over hang			
	30B	" "			

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Appendix C

Photos

PHOTO LOG

17370-17400 Meyers Road, Detroit, Michigan

	**Photo 1.** A view of the front of 17400 Meyers Road
	**Photo 2.** A view of the asbestos-containing floor tile beneath carpet
	**Photo 3.** A view of the asbestos-containing 9”x9” floor tile

ASTI Project No. 3-11382
September 21-22, 2021
Photographed By Jelaine Tinsley

PHOTO LOG

17370-17400 Meyers Road, Detroit, Michigan

	**Photo 4.** A view of the asbestos-containing caulk on overhang
	**Photo 5.** A view of the asbestos-containing caulk on overhang
	**Photo 6.** A view of presumed asbestos-containing fire doors

ASTI Project No. 3-11382
September 21-22, 2021
Photographed By Jelaine Tinsley

PHOTO LOG

17370-17400 Meyers Road, Detroit, Michigan

	**Photo 7.** A view of the front of 17370 Meyers Road
	**Photo 8.** A view of the asbestos-containing 9”x9” floor tile beneath carpet
	**Photo 9.** A view of the asbestos-containing 9”x9” floor tile

ASTI Project No. 3-11382
September 21-22, 2021
Photographed By Jelaine Tinsley

PHOTO LOG

17370-17400 Meyers Road, Detroit, Michigan

	**Photo 10.** A view of the asbestos-containing 9”x9” green floor tile beneath carpet
	**Photo 11.** A view of the asbestos-containing 9”x9” red floor tile beneath carpet+

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- **ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS**
- **ENVIRONMENTAL OPPORTUNITIES ASSESSMENT**
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- **HAZARD MITIGATION PLANNING**
- **MINING AND RECLAMATION ASSISTANCE**
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Detroit/Grand Rapids/Brighton

Phone: 1-800-395-2784
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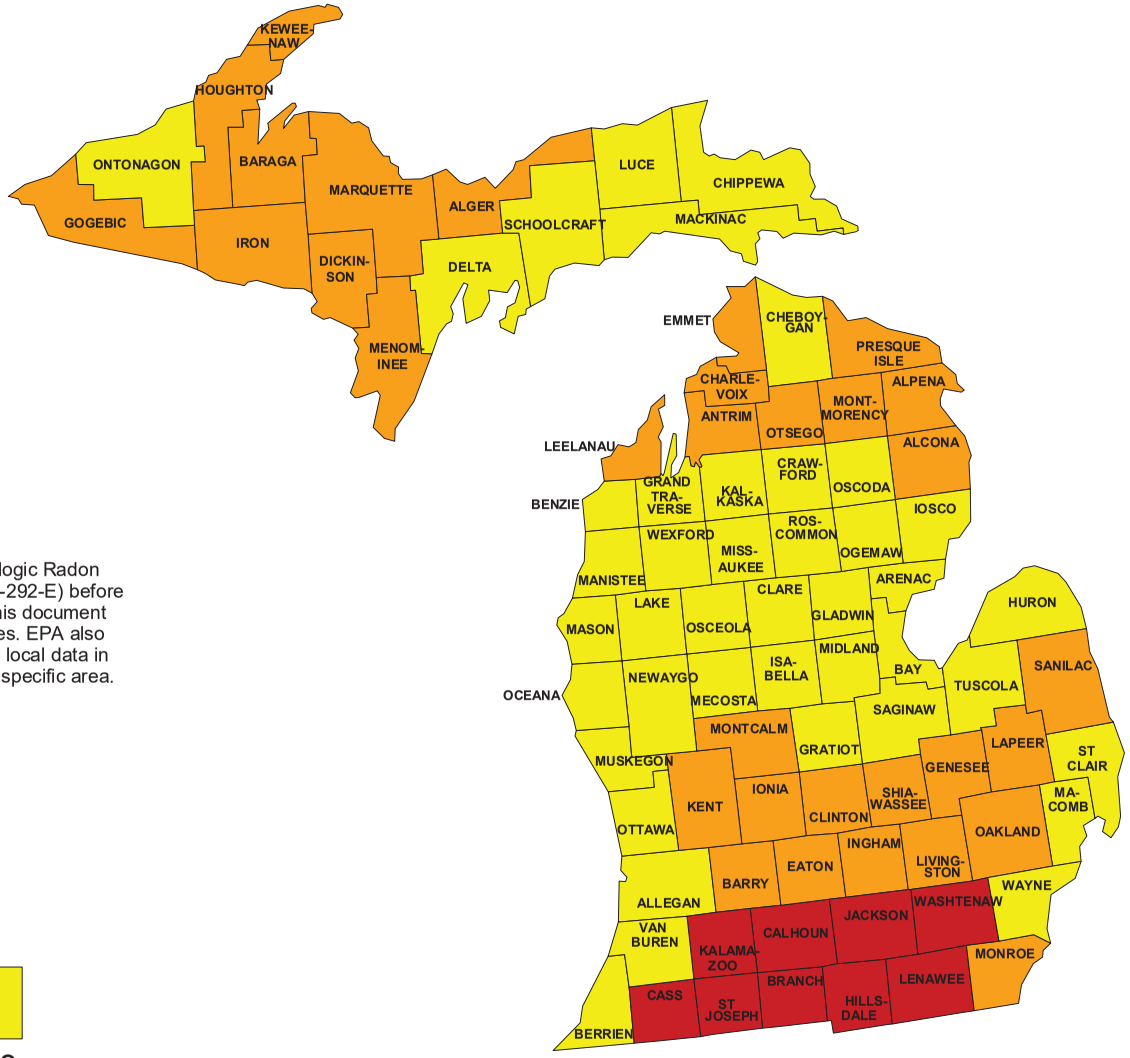
MICHIGAN - EPA Map of Radon Zones

http://www.epa.gov/radon/zonemap.html

The purpose of this map is to assist National, State and local organizations to target their resources and to implement radon-resistant building codes.

This map is not intended to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones.

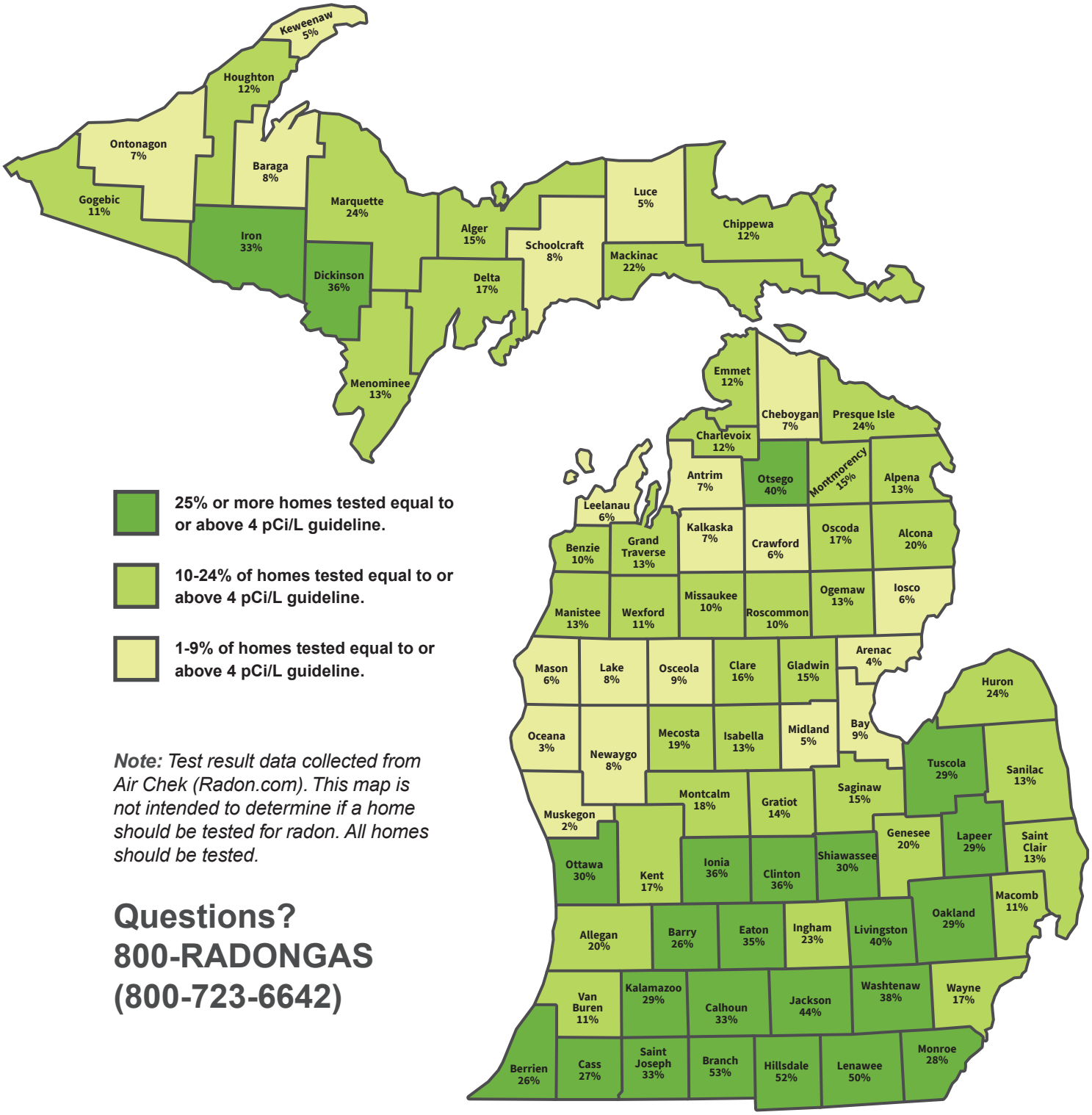
All homes should be tested, regardless of zone designation.



IMPORTANT: Consult the publication entitled "Preliminary Geologic Radon Potential Assessment of Michigan" (USGS Open-file Report 93-292-E) before using this map. http://energy.cr.usgs.gov/radon/grpinfo.html This document contains information on radon potential variations within counties. EPA also recommends that this map be supplemented with any available local data in order to further understand and predict the radon potential of a specific area.

Zone 1 Zone 2 Zone 3

Percentage of Elevated Radon Test Results by County



25% or more homes tested equal to or above 4 pCi/L guideline.

10-24% of homes tested equal to or above 4 pCi/L guideline.

1-9% of homes tested equal to or above 4 pCi/L guideline.

Note: *Test result data collected from Air Chek (Radon.com). This map is not intended to determine if a home should be tested for radon. All homes should be tested.*

Questions?
800-RADONGAS
(800-723-6642)

EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

800-662-9278 | Michigan.gov/radon

12/2019

Michigan
Federally-listed Endangered and Threatened Species

Updated October 2018

SPECIES	STATUS	COUNTIES	HABITAT
MAMMALS			
Canada lynx *(Lynx canadensis)*	Threatened	**Current distribution:** A Canada lynx was recently documented in the Upper Peninsula. The counties listed here have the highest potential for Lynx presence: Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, Schoolcraft.	Northern forests
Gray wolf *Canis lupus*	Endangered	Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, Schoolcraft	Northern forested areas
Indiana bat *(Myotis sodalis)*	Endangered	Allegan, Barry, Bay, Benzie, Berrien, Branch, Calhoun, Cass, Clinton, Eaton, Genesee, Gratiot, Hillsdale, Ingham, Ionia, Jackson, Kalamazoo, Kent, Lapeer, Leelanau, Lenawee, Livingston, Macomb, Manistee, Mason, Monroe, Montcalm, Muskegon, Oakland, Oceana, Ottawa, Saginaw, St. Joseph, Sanilac, Shiawassee, St. Clair, Tuscola, Van Buren, Washtenaw, and Wayne	Summer habitat includes small to medium river and stream corridors with well developed riparian woods; woodlots within 1 to 3 miles of small to medium rivers and streams; and upland forests. Caves and mines as hibernacula.
Northern long-eared bat *Myotis septentrionalis*	Threatened	Statewide	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during spring and summer.
BIRDS			
Kirtland's warbler *Setophaga kirtlandii*	Endangered	Alcona, Alger, Antrim, Baraga, Chippewa, Clare, Crawford, Delta, Grand Traverse, Iosco, Kalkaska, Luce, Marquette, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon, Schoolcraft	Breeding in young jack pine
Piping plover *(Chradrius melodus)*	Endangered	Alger, Alpena, Benzie, Berrien, Charlevoix, Cheboygan, Chippewa, Delta, Emmet, Leelanau, Luce, Mackinac, Manistee, Mason, Muskegon, Presque Isle, Schoolcraft	Beaches along shorelines of the Great Lakes
Piping plover *(Chradrius melodus)*	Critical Habitat	Alger, Benzie, Charlevoix, Cheboygan, Chippewa, Emmet, Iosco, Leelanau, Luce, Mackinac, Mason, Muskegon, Presque Isle, Schoolcraft	Beaches along shorelines of the Great Lakes

SPECIES	STATUS	COUNTIES	HABITAT
Rufa Red knot *(Calidris canutus rufa)*	Threatened	**Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30 for the following counties:** Alcona, Alger, Allegan, Alpena, Antrim, Arenac, Baraga, Bay, Benzie, Berrien, Charlevoix, Cheboygan, Chippewa, Delta, Emmet, Gogebic, Grand Traverse, Houghton, Huron, Iosco, Keweenaw, Leelanau, Luce, Mackinac, Macomb, Manistee, Marquette, Mason, Menominee, Monroe, Muskegon, Oceana, Ontonagon, Ottawa, Presque Isle, Sanilac, Schoolcraft, St. Clair, Tuscola, Van Buren, Wayne **Only actions that occur in large wetland complexes during the Red knot migratory window of MAY 1 - SEPTEMBER 30 for the following counties:** Midland, Saginaw, Shiawassee	Coastal areas and large wetland complexes
Whooping crane ** (*Grus americanus*)	Non-essential experimental population	Allegan, Barry, Berrien, Jackson, Kent, Lenawee, Macomb, Oceana, Ottawa	Open wetlands and lakeshores
REPTILES			
Copperbelly water snake *(Nerodia erythrogaster neglecta)*	Threatened	Branch, Calhoun, Cass, Eaton, Hillsdale, St. Joseph	Wooded and permanently wet areas such as oxbows, sloughs, brushy ditches and floodplain woods
Eastern massasauga (*Sistrurus catenatus*)	Threatened	Alcona, Allegan, Alpena, Antrim, Arenac, Barry, Berrien, Branch, Calhoun, Cass, Cheboygan, Clare, Clinton, Crawford, Eaton, Emmett, Genesee, Grand Traverse, Hillsdale, Huron, Ingham, Ionia, Iosco, Jackson, Kalamazoo, Kalkaska, Kent, Lake, Lapeer, Lenawee, Livingston, Mackinac, Macomb, Manistee, Mason, Missaukee, Montcalm, Montmorency, Muskegon, Newaygo, Oakland, Oscoda, Presque Isle, Saginaw, St. Joseph, Shiawassee, Van Buren, Washtenaw, Wayne	Graminoid dominated plant communities (fens, sedge meadows, peatlands, wet prairies) open woodlands and shrublands
INSECTS			
Hine's emerald dragonfly *(Somatochlora hineana)*	Endangered	Alcona, Alpena, Mackinac, Menominee, Presque Isle	Spring fed wetlands, wet meadows and marshes; calcareous streams & associated wetlands overlying dolomite bedrock
Hungerford's crawling water beetle *(Brychius hungerfordi)*	Endangered	Charlevoix, Cheboygan, Crawford, Emmet, Montmorency, Oscoda, Otsego, Presque Isle	Cool riffles of clean, slightly alkaline streams; known to occur in five streams in northern Michigan.
Karner blue butterfly *(Lycaeides melissa samuelis)*	Endangered	Allegan, Ionia, Kent, Lake, Mason, Mecosta, Monroe, Montcalm, Muskegon, Newaygo, Oceana	Pine barrens and oak savannas on sandy soils and containing wild lupines *(Lupinus perennis)*, the only known food plant of larvae.
Mitchell's satyr *(Neonympha mitchellii mitchellii)*	Endangered	Barry, Berrien, Branch, Cass, Jackson, Kalamazoo, St. Joseph, Van Buren, Washtenaw	Fens; wetlands characterized by calcareous soils which are fed by carbonate-rich water from seeps and springs

SPECIES	STATUS	COUNTIES	HABITAT
Poweshiek skipperling (*Oarisma poweshiek*)	Endangered Critical Habitat	Hillsdale, Jackson, Lenawee, Livingston, Oakland, and Washtenaw Maps of proposed critical habitat in Michigan at www.fws.gov/midwest/endangered/insects/posk/fCHmaps/poskchMI.pdf	Wet prairie and fens
MUSSELS			
Clubshell *(Pleurobema clava)*	Endangered	Hillsdale	Found in coarse sand and gravel areas of runs and riffles within streams and small rivers
Northern riffleshell *(Epioblasma torulosa rangiana)*	Endangered	Monroe, Sanilac, Wayne	Large streams and small rivers in firm sand of riffle areas; also occurs in Lake Erie
Rayed Bean (*Villosa fabalis*)	Endangered	Oakland, St. Clair	Belle, Black, Clinton and Pine Rivers
Snuffbox (*Epioblasma triquetra*)	Endangered	Gratiot, Ionia, Kent, Livingston, Oakland, St. Clair, Washtenaw	Small to medium-sized creeks in areas with a swift current and some larger rivers
PLANTS			
American hart's tongue fern *(Asplenium scolopendrium* var. *americanun = Phyllitis japonica* ssp. *a.)*	Threatened	Chippewa, Mackinac	Cool limestone sinkholes in mature hardwood forest
Dwarf lake iris *(Iris lacustris)*	Threatened	Alpena, Charlevoix, Cheboygan, Chippewa, Delta, Emmet, Mackinac, Menominee, Presque Isle, Schoolcraft	Partially shaded sandy-gravelly soils on lakeshores
Eastern prairie fringed orchid *(Plantathera leucophaea)*	Threatened	Bay, Cheboygan, Clinton, Eaton, Genesee, Gratiot, Huron, Livingston, Monroe, Saginaw, St. Clair, St. Joseph, Tuscola, Washtenaw, Wayne	Mesic to wet prairies and meadows
Houghton's goldenrod *(Solidago houghtonii)*	Threatened	Charlevoix, Cheboygan, Chippewa, Crawford, Emmet, Kalkaska, Mackinac, Presque Isle, Schoolcraft	Sandy flats along Great Lakes shores
Lakeside daisy *(Hymenoxy acaulis var. glabra)*	Threatened	Mackinac	Dry, rocky prairie grassland underlain by limestone
Michigan monkey-flower *(Mimulus michiganesis)*	Endangered	Benzie, Charlevoix, Cheboygan, Emmet, Leelanau, Mackinac	Soils saturated with cold flowing spring water; found along seepages, streams and lakeshores
Pitcher's thistle *(Cirsium pitcheri)*	Threatened	Alcona, Alger, Allegan, Alpena, Antrim, Arenac, Benzie, Berrien, Charlevoix, Cheboygan, Chippewa, Delta, Emmet, Grand Traverse, Huron, Iosco, Leelanau, Mackinac, Manistee, Mason, Muskegon, Oceana, Ottawa, Presque Isle, Schoolcraft, Van Buren	Stabilized dunes and blowout areas

SPECIES	STATUS	COUNTIES	HABITAT
Small whorled pogonia *(Isotria medeoloides*)	Threatened	Berrien	Dry woodland; upland sites in mixed forests (second or third growth stage)

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/

IPaC Record Locator: 394-106484999 October 12, 2021

Subject: Consistency letter for 'Meyers Senior Apartments - 17370 Meyers, Detroit, MI' for threatened and endangered species that may occur in your proposed project location consistent with the Michigan Endangered Species Determination Key (Michigan DKey)

Dear Dianne Martin:

The U.S. Fish and Wildlife Service (Service) received on **October 12, 2021** your effect determination(s) for the 'Meyers Senior Apartments - 17370 Meyers, Detroit, MI' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Michigan DKey, you determined the proposed Action will have "No Effect" on the following species.

Species	**Listing Status**	**Determination**
Eastern Massasauga (=rattlesnake) (*Sistrurus catenatus*)	Threatened	No effect
Eastern Prairie Fringed Orchid (*Platanthera leucophaea*)	Threatened	No effect
Indiana Bat (*Myotis sodalis*)	Endangered	No effect
Northern Long-eared Bat (*Myotis septentrionalis*)	Threatened	No effect
Northern Riffleshell (*Epioblasma torulosa rangiana*)	Endangered	No effect
Piping Plover (*Charadrius melodus*)	Endangered	No effect
Red Knot (*Calidris canutus rufa*)	Threatened	No effect

Your agency has met consultation requirements for these species by informing the Service of the "No Effect" determinations. Please email a copy of this letter to MIFO_Dkey@fws.gov for our record keeping (include "No Effect for Project Name" in the subject line).

For non-Federal representatives: Please note that when a project requires consultation under section 7 of the Act, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal

representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. If the Federal agency concurs with your determination, the project as proposed has completed section 7 consultation. All documents and supporting correspondence should be provided to the Federal agency for their records.
Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

The Service recommends that you contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

Bald and Golden Eagles:
Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the “taking” of bald and golden eagles and defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” The Eagle Act’s implementing regulations define disturb as “…to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

If the Action may impact bald or golden eagles, additional coordination with the Service under the Eagle Act may be required. For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit https://www.fws.gov/midwest/eagle/. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) in order to assist landowners in avoiding the disturbance of bald eagles. The full Guidelines are available at http://www.fws.gov/midwest/eagle/pdf/NationalBaldEagleManagementGuidelines.pdf.

If you have further questions regarding potential impacts to eagles, please contact Chris Mensing, Chris_Mensing@fws.gov or 517-351-2555.

Wetland impacts:
Section 404 of the Clean Water Act of 1977 (CWA) regulates the discharge of dredged or fill material into waters (including wetlands) of the United States. Regulations require that activities permitted under the CWA (including wetland permits issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE)) not jeopardize the continued existence of species listed as endangered or threatened. Permits issued by the U.S. Army Corps of Engineers

must also consider effects to listed species pursuant to section 7 of the Endangered Species Act. The Service provides comments to the agencies that may include permit conditions to help avoid or minimize impacts to wildlife resources including listed species. For this project, we consider the conservation measures you agreed to in the determination key and/or as part of your proposed action to be non-discretionary. If you apply for a wetland permit, these conservation measures should be explicitly incorporated as permit conditions. Include a copy of this letter in your wetland permit application to streamline the threatened and endangered species review process.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Meyers Senior Apartments - 17370 Meyers, Detroit, MI

2. Description

The following description was provided for the project 'Meyers Senior Apartments - 17370 Meyers, Detroit, MI':

> Senior apartments will be refurbished and some new units will be constructed within this approximately 3.5 acre site.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.419444999999996,-83.1696417409683,14z

Qualification Interview

1. This determination key is intended to assist the user in the evaluating the effects of their actions on Federally listed species in Michigan. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, purposeful take for scientific purposes or to enhance the survival of a species, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Click yes to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

   Yes

2. Is the action the approval of a long-term (i.e., in effect greater than 10 years) permit, plan, or other action?

   No

3. Is the action being funded, authorized, or carried out by a Federal agency?

   Yes

4. Does the action involve the installation or operation of wind turbines?

   No

5. Does the action involve purposeful take of a listed animal?

   No

6. Does the action involve a new communication tower?

   No

7. Does the activity involve aerial or other large-scale application of any chemical (including insecticide, herbicide, etc.)?

   No

8. Will your action permanently affect local hydrology by impacting 1/2 acre or more of wetland; or by increasing or decreasing groundwater or surfacewater elevations?

   No

9. Will your action temporarily affect local hydrology by impacting 1/2 acre or more of wetland; or by increasing or decreasing groundwater or surfacewater elevations?

   No

10. Will your project have any direct impacts to a stream or river (e.g., Horizontal Directional Drilling (HDD), hydrostatic testing, stream/road crossings, new storm-water outfall discharge, dams, other in-stream work, etc.)?

    No

11. Does your project have the potential to indirectly impact the stream/river or the riparian zone (e.g., cut and fill, horizontal directional drilling, hydrostatic testing, construction, vegetation removal, discharge, etc.)?

    No

12. Will your action disturb the ground or existing vegetation? This includes any off road vehicle access, soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application, vegetation management (including removal or maintenance using equipment or chemicals), cultivation, development, etc.

    Yes

13. Does your action area occur entirely within an already developed area with no natural habitat or trees present? For the purposes of this question, "already developed areas" are already paved, covered by existing structures, manicured lawns, industrial sites, or cultivated cropland, AND do not contain trees that could be roosting habitat. Be aware that listed species may occur in areas with natural, or semi-natural, vegetation immediately adjacent to existing utilities (e.g. roadways, railways) or within utility rights-of-way such as overhead transmission line corridors, and can utilize suitable trees, bridges, or culverts for roosting even in urban dominated landscapes (so these are NOT considered "already developed areas" for the purposes of this question).

    Yes

14. Does the action have potential indirect effects to listed species or the habitats they depend on (e.g., water discharge into adjacent habitat or waterbody, changes in groundwater elevation, introduction of an exotic plant species)?

    No

15. [Hidden Semantic] Does the action area intersect the Indiana bat AOI?

    Automatically answered
    Yes

16. Federally listed bats infrequently use anthropogenic structures for roosting, such as buildings, barns, sheds, and bat boxes. Are bats known to be roosting in a structure that occurs within your action area?

    No

17. [Hidden Semantic] Does the action intersect the Eastern massasauga rattlesnake area of influence?

    Automatically answered
    Yes

18. [Semantic] Does the action area intersect the northern riffelshell area of influence?

    Automatically answered
    Yes

19. [Hidden Semantic] Does the action area intersect the piping plover area of influence?

    Automatically answered
    Yes

20. [Hidden Semantic] Does the action area intersect the rufa red knot area of influence?

    Automatically answered
    Yes

21. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?

    Automatically answered
    Yes

22. [Hidden Semantic] Does the action area intersect the Indiana bat area of influence?

    Automatically answered
    Yes

23. [Hidden Semantic] Does this project intersect the northern long-eared bat area of influence?

    Automatically answered
    Yes

Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft^2 - hr - people and 10,000 BTU/ft^2 - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD- Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Sitting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	**Yes:** ☑ **No:** ☐
Is the container under pressure?	**Yes:** ☐ **No:** ☑
Does the container hold a cryogenic liquified gas?	**Yes:** ☐ **No:** ☐
Is the container diked?	**Yes:** ☐ **No:** ☑
What is the volume (gal) of the container?	5000
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	
Calculate Acceptable Separation Distance	
Diked Area (sqft)	
ASD for Blast Over Pressure (ASDBOP)	
ASD for Thermal Radiation for People (ASDPPU)	540.74
ASD for Thermal Radiation for Buildings (ASDBPU)	105.81
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options **(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)**

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us (https://www.hudexchange.info/contact-us/)** form.

Related Information

- **ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)**

- **ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)**

17370 Meyers Dr.

Detroit, MI

0 250 500 1,000 Feet

N

ASTI Environmental

Client: Wallick Companies
Created by: RMH, September 10, 2021, ASTI Project 3-11382

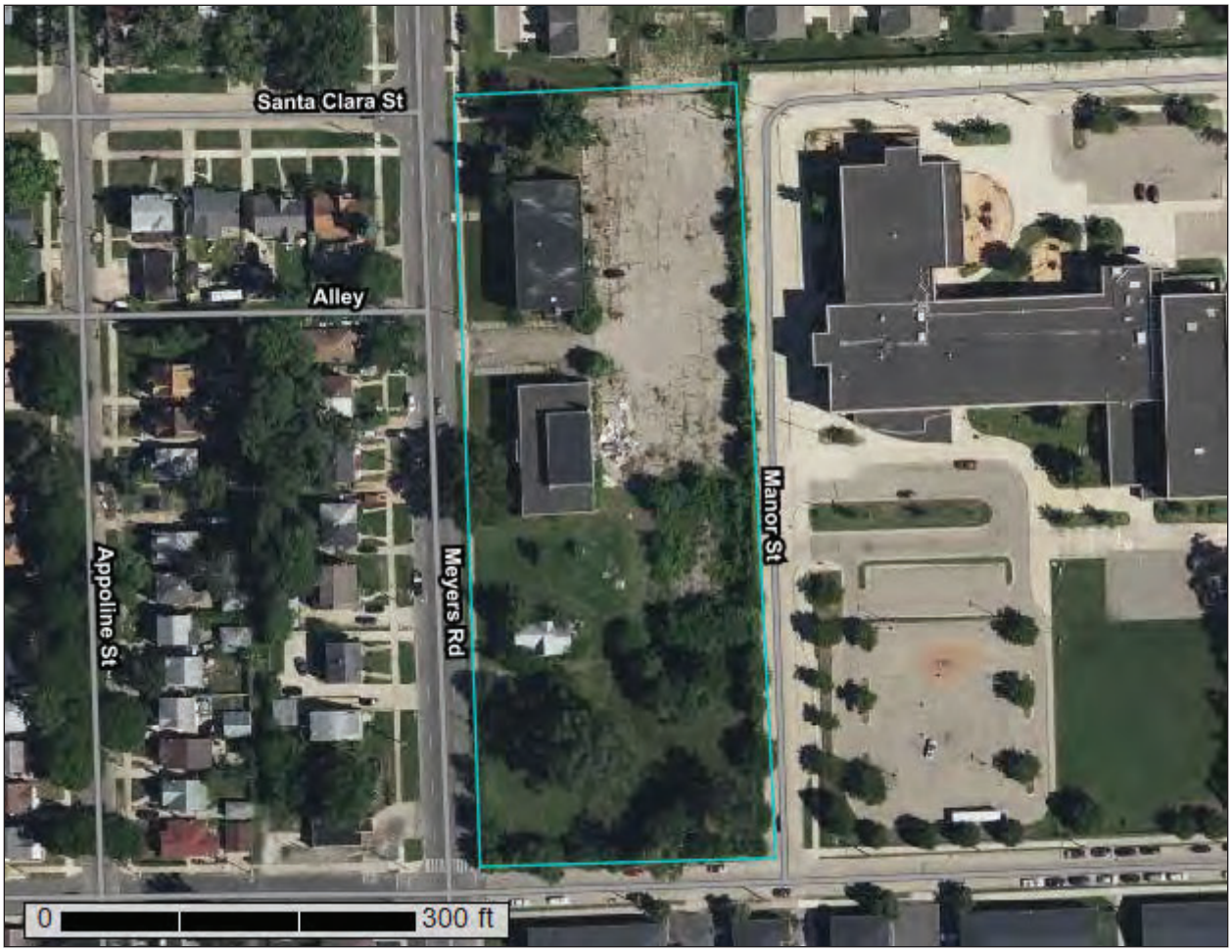
Acceptable Separation Distance Map

United States Department of Agriculture

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



December 16, 2021

Preface

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).

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.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

Contents

How Soil Surveys Are Made

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

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

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

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

Map Scale: 1:1,180 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

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
BrmuaB	Brems-Urban land complex, 0 to 4 percent slopes	3.6	99.6%
FrtaaB	Fortress family, 0 to 6 percent slopes	0.0	0.4%
Totals for Area of Interest		**3.7**	**100.0%**

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,

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

BrmuaB—Brems-Urban land complex, 0 to 4 percent slopes

Map Unit Setting

National map unit symbol: 2tx6s
Elevation: 570 to 710 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

Brems, human transported surface, and similar soils: 55 percent
Urban land: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brems, Human Transported Surface

Setting

Landform: Deltas, nearshore zones (relict), raised beaches, water-lain moraines
Down-slope shape: Linear
Across-slope shape: Convex, linear
Parent material: Sandy human-transported material over sandy glaciolacustrine deposits

Typical profile

^Au - 0 to 9 inches: loamy sand
^Cu - 9 to 12 inches: sand
Ab - 12 to 19 inches: loamy sand
Bwb - 19 to 42 inches: sand
C - 42 to 80 inches: sand

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (1.42 to 14.17 in/hr)
Depth to water table: About 36 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline (0.1 to 1.5 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: A
Ecological site: F099XY003MI - Warm Moist Sandy Depression
Hydric soil rating: No

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

Minor Components

Plainfield, human transported surface

Percent of map unit: 7 percent
Landform: Deltas, raised beaches, water-lain moraines, nearshore zones (relict)
Microfeatures of landform position: Rises
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Tedrow, human transported surface

Percent of map unit: 3 percent
Landform: Raised beaches, water-lain moraines, deltas, nearshore zones (relict)
Microfeatures of landform position: Open depressions
Down-slope shape: Linear, concave
Across-slope shape: Convex, linear
Hydric soil rating: No

FrtaaB—Fortress family, 0 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2tx7w
Elevation: 570 to 710 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

Fortress family and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fortress Family

Setting

Landform: Nearshore zones (relict), water-lain moraines
Down-slope shape: Linear
Across-slope shape: Convex, linear
Parent material: Sandy human-transported material

Typical profile

^Au - 0 to 9 inches: loamy sand
^Cu - 9 to 80 inches: gravelly-artifactual sand

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (1.42 to 14.17 in/hr)
Depth to water table: About 36 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 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 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: A
Ecological site: F099XY003MI - Warm Moist Sandy Depression
Hydric soil rating: No

Minor Components

Urban land

Percent of map unit: 5 percent
Hydric soil rating: No

Riverfront

Percent of map unit: 4 percent
Landform: Nearshore zones (relict), water-lain moraines
Down-slope shape: Linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Riverfront, steep

Percent of map unit: 1 percent
Landform: Nearshore zones (relict), water-lain moraines
Down-slope shape: Linear
Across-slope shape: Convex, linear
Hydric soil rating: No

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STATE OF MICHIGAN
MICHIGAN STRATEGIC FUND
STATE HISTORIC PRESERVATION OFFICE

GRETCHEN WHITMER
GOVERNOR

QUENTIN L. MESSER, JR.
PRESIDENT

February 15, 2022

TIFFANY CIAVATTONE
HISTORIC PRESERVATION SPECIALIST
CITY OF DETROIT
HOUSING AND REVITALIZATION DEPARTMENT
2300 CADILLAC TOWER
DETROIT MI 48226

RE: ER22-295 Meyers Senior Apartments Conversion and New Construction, 17370 Meyers Road, Sec. 8, T1S, R11E, Detroit, Wayne County (HUD)

Dear Ms. Ciavattone:

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" (November 9, 2016), as amended (May 4, 2020), we have reviewed the above-cited undertaking at the location noted above. Based on the information provided for our review, it is the opinion of the State Historic Preservation Officer (SHPO) that **no historic properties are affected** within the area of potential effects of this undertaking.

This letter evidences HUD's compliance with 36 CFR § 800.4 "Identification of historic properties," and the fulfillment of HUD's responsibility to notify the SHPO, as a consulting party in the Section 106 process, under 36 CFR § 800.4(d)(1) "No historic properties affected." **If the scope of work changes in any way, or if artifacts or bones are discovered, please notify this office immediately.**

We remind you that federal agency officials or their delegated authorities are required to involve the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties per 36 CFR § 800.2(d). The National Historic Preservation Act also requires that federal agencies consult with any Indian tribe and/or Tribal Historic Preservation Officer (THPO) that attach religious and cultural significance to historic properties that may be affected by the agency's undertakings per 36 CFR § 800.2(c)(2)(ii).

The State Historic Preservation Office is not the office of record for this undertaking. You are therefore asked to maintain a copy of this letter with your environmental review record for this undertaking.

If you have any questions, please contact Brian Grennell, Cultural Resource Management Coordinator, at 517-335-2721 or by email at GrennellB@michigan.gov. **Please reference our project number in all communication with this office regarding this undertaking.** Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,

Brian G. Grennell
Cultural Resource Management Coordinator

MJH:BGG

Copy: Penny Dwoinen, Detroit Housing & Revitalization Department
Karen Averell, Wallick Companies
Christopher Yelonek, ASTI Environmental

Noise Assessment
Meyers Senior Apartments
17370 Meyers Road
Detroit, Michigan

Wallick Companies

January 20, 2020

ASTI ENVIRONMENTAL

ASTI ENVIRONMENTAL

Noise Assessment
Meyers Senior Apartments
17370 Meyers Road
Detroit, Michigan

January 20, 2020

Report Prepared For:

Wallick Companies
160 W. Main Street
New Albany, Ohio 43054

Report Prepared By:

ASTI Environmental
10448 Citation Drive, Suite 100
Brighton, Michigan 48116
800-395-ASTI

ASTI Project No. 11382

Report Prepared by:

Ashleigh Czapek
Associate I

Report Reviewed by:

Pamela Chapman, PE, EP
Phase I Group Leader

ASTI ENVIRONMENTAL

TABLE OF CONTENTS

1.0 INTRODUCTION

Wallick Companies proposes the new construction utilizing funding provided from the Michigan State Housing Development Authority (MSHDA) of the Meyers Senior Apartments at 17370 Meyers Road, Detroit, Michigan, referred to herein as “Subject Property”.

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.

This evaluation was conducted per guidelines set forth in 24 CFR 51B. This noise analysis evaluates the Subject Property’s exposure to three major sources of noise: aircraft, roadways, and railways. If identified, additional non-transportation noise sources such as loud impulse sounds from nearby industry are also evaluated.

The following three sources of transportation noise and their applicable search distances are outlined below when evaluating noise at a site.

1. Aircraft - All military and FAA-regulated civil airfields within 15 miles of the Subject Property.
2. Roadways - Major roadways and limited access highways/freeways within 1,000 feet of the Subject Property utilizing a 10-year projection. Roadways considered are generally based on number of lanes, speed limit, presence of stop signs or lights, overall traffic counts, and/or number of medium or heavy trucks.
3. Railroad - All active railroads within 3,000 feet of the Subject Property.

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 as follow.

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

One NAL (NAL #1) was selected on the Subject Property for this analysis based on proximity to noise sources. A map with the Subject Property boundaries and NAL location is included as Attachment A.

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

NAL #1

Noise Source with Applicable Distance	**Name**	**Distance to NAL**
Airport(s)	Coleman A Young International Airport	7.7 miles
	Windsor International Airport	14.2 miles
Busy Road(s)	Meyers Road	75 feet
	W. McNichols	765 feet
	John C. Lodge Freeway	930 feet
Railroad(s)	None	NA
Non-Transportation	None	NA

2.0 EVALUATION OF NOISE SOURCES

2.1 Airports

Coleman A. Young International Airport is approximately 7.7 miles distant. Based on the Noise Contour Map for the airport (Attachment B), the site is not within a distance of concern.

Windsor International Airport is approximately 14.2 miles distant. Based on the Noise Contour Map for the airport (Attachment B), the site is not within a distance of concern.

Other small airfields were identified within 15 miles, but these airfields have no commercial traffic and are not likely FAA-regulated. They are not considered to represent a noise concern.

2.2 Busy Roadways

The major roadways are:

- Meyers Road
- W. McNichols
- John C. Lodge Freeway

Meyers Road is a 4-lane road and the speed limit is 30 mph near the Subject Property. The roadway is an approximate effective distance of 75 feet from the southwest corner of the southernmost proposed building (NAL #1).

W. McNichols Road is a 4-lane road and the speed limit is 35 mph near the Subject Property. The roadway is an approximate effective distance of 765 feet from the southwest corner of the southernmost proposed building (NAL #1).

John C. Lodge Freeway is a 6-lane northwest (NW) and southeast (SE) freeway and the speed limit is 55 mph near the Subject Property. The roadway is an approximate effective distance of 930 feet from the southwest corner of the southernmost proposed building (NAL #1).

Traffic counts for the roadways were obtained through MDOT. Projections were done through 2030. 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 Attachment C.

2.3 Railroads

Not applicable.

2.4 Non-Transportation Sources

Not applicable.

3.0 CALCULATIONS

A Noise DNL calculator worksheet for the NAL is provided in Attachment D.

Using the HUD DNL calculator, the noise level at NAL #1, as predicted in 2030, is calculated to be 72.3 dB and within the Normally Unacceptable range.

4.0 CONCLUSIONS

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

NAL #	Combined Source DNL (dB)	Category
1	72.3	Normally Unacceptable

5.0 REFERENCES

- 24 CFR Part 51 Subpart B
- The Noise Guidebook, U.S. Department of Housing and Urban Development,
- https://mdot.ms2soft.com/
- https://www.hudexchange.info/programs/environmental-review/dnl-calculator/

HUD ATTENUATION GUIDANCE

https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/

All sites whose environmental or community noise exposure exceeds the day night average sound level (DNL) of 65 decibels (dB) are considered noise-impacted areas. For new construction that is proposed in high noise areas, grantees shall incorporate noise attenuation features to the extent required by HUD environmental criteria and standards contained in Subpart B (Noise Abatement and Control) of 24 CFR Part 51. The interior standard is 45 dB.

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.

Locations with day-night average noise levels above 75 dB have “Unacceptable” noise exposure. For new construction, noise attenuation measures in these locations require the approval of the Assistant Secretary for Community Planning and Development (for projects reviewed under Part 50) or the Responsible Entity’s Certifying Officer (for projects reviewed under Part 58). The acceptance of such locations normally requires an environmental impact statement.

The environmental review record should contain **one** of the following:

- Documentation the proposed action is not within 1000 feet of a major roadway, 3,000 feet of a railroad, or 15 miles of a military or FAA-regulated civil airfield.
- If within those distances, documentation showing the noise level is *Acceptable* (at or below 65 DNL).
- If within those distances, documentation showing that there’s an effective noise barrier (i.e., that provides sufficient protection).

- Documentation showing the noise generated by the noise source(s) is *Normally Unacceptable (66 – 75 DNL)* and identifying noise attenuation requirements that will bring the interior noise level to 45 DNL and/or exterior noise level to 65 DNL.

ATTACHMENT A

NAL Location Map

Service Layer Credits: World Imagery: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

17370 Meyers

Detroit, MI

0 37.5 75 150 Feet

N

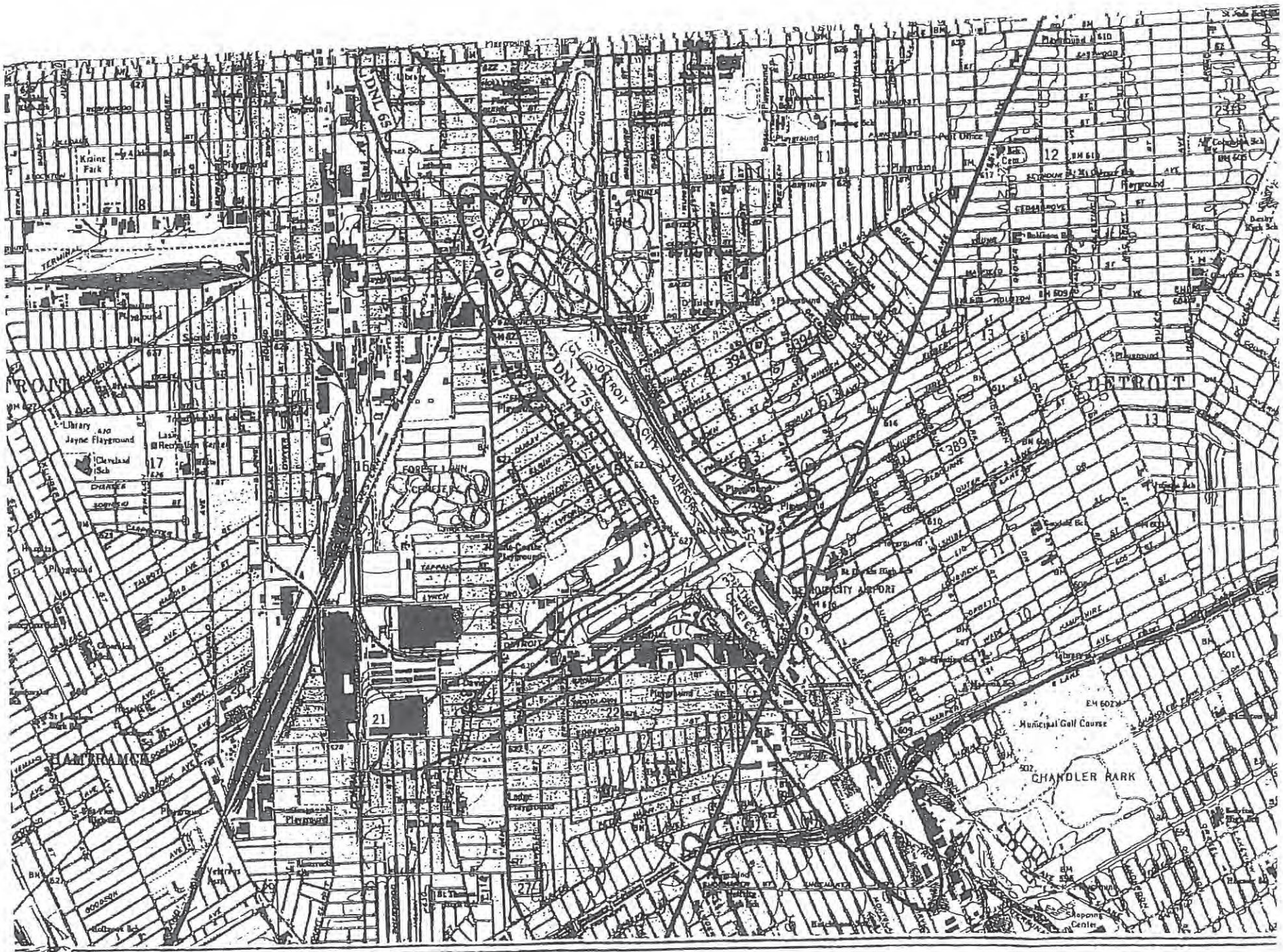
ASTI Environmental

Client: Wallick Companies
Created by: RMH, January 21, 2020, ASTI Project 11382

Noise Assessment Location Map

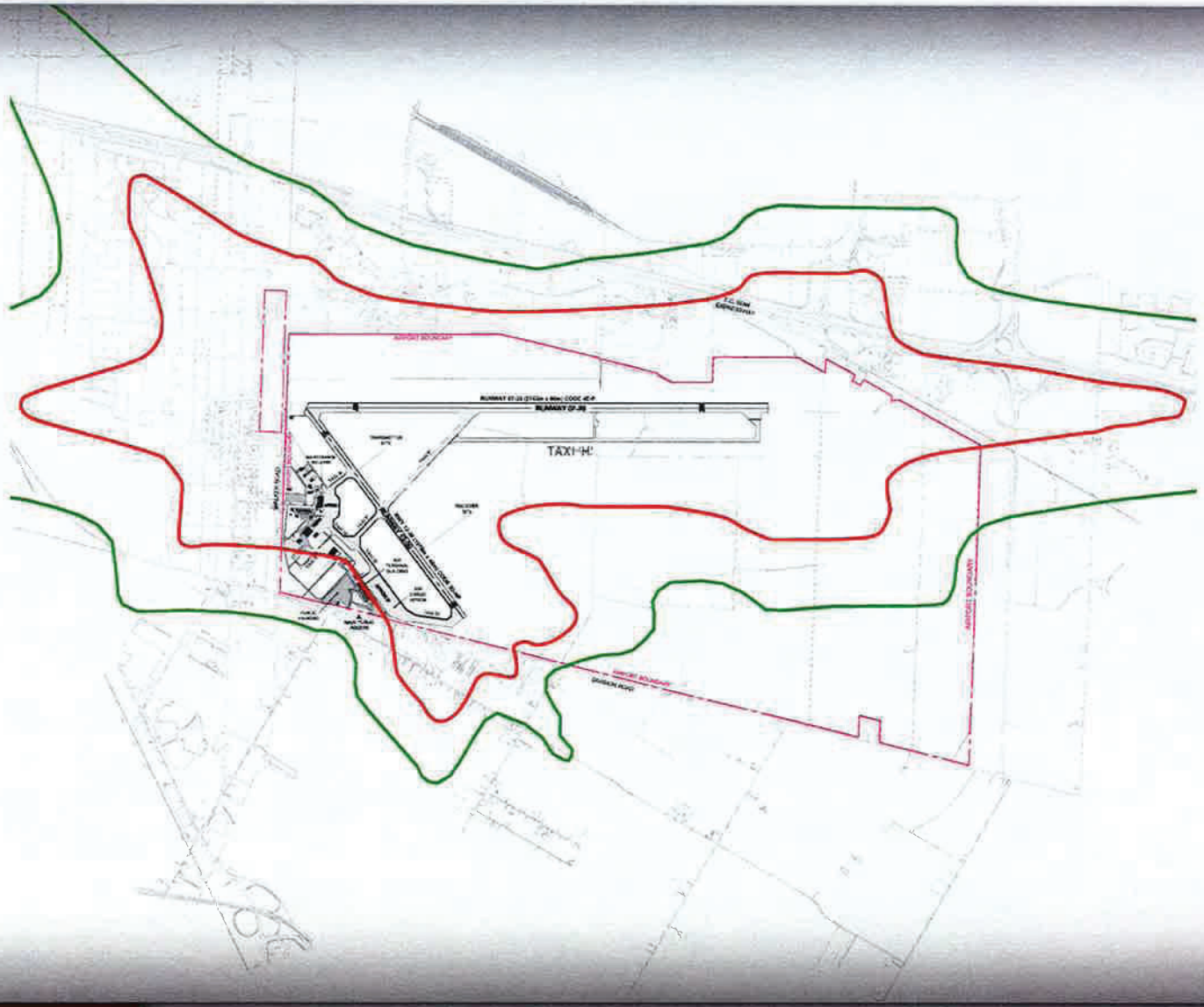
ATTACHMENT B

Airport Noise Contour Maps



CITY OF DETROIT
AIRPORT DEPARTMENT

1996 BASE
NOISE EXPOSURE CONTOURS



WINDSOR AIRPORT MASTER PLAN

FIGURE 3-4 - AIRPORT NOISE EXPOSURE FORECAST CONTOURS

30 NEF (NOISE EXPOSURE FORECAST)

25 NEF

Notes

1. Conceptual Layout
2. All dimensions approximate
3. Noise Exposure Forecast provided by Windsor Airport Management

YQG YOUR QUICK GATEWAY
WINDSOR INTERNATIONAL AIRPORT

DILLON CONSULTING

Base data provided by City of Windsor Official Plan
Map created by EDH
Map checked by EGL

File Location: \\20dillon.dillon.ca\toronto data\PROJECTS\DRAFT\09\092665 Windsor Airport Master Plan

Map Projection: n/aTAXI 'H'

Project #: 09-2665
Status: n/a
Date: December 2010

N E S W

ATTACHMENT C

AADT Information

Auto and Heavy Truck 10-year ADT Projections

Meyers Rd

	Cars	% Change	Trucks	% Change
2016	6393		555.92	
2017	11808	84.7	1026.8	84.7
2018	11808	0.0	1026.8	0.0
	Avg % change:	42.4	Avg % change:	42.35
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2030 Projections

	Cars	Trucks
2018	11808	1027
2019	11926	1037
2020	12046	1047
2021	12166	1058
2022	12288	1068
2023	12411	1079
2024	12535	1090
2025	12660	1101
2026	12787	1112
2027	12914	1123
2028	13044	1134
2029	13174	1146
2030	13306	1157

Predicted 2030 Auto ADT	Predicted 2030 Truck ADT
13306	1157

Auto and Heavy Truck 10-year ADT Projections

W. MicNichols

	Cars	% Change	Trucks	% Change
2016	10893		947.2	
2017	11496	5.5	999.68	5.5
2018	11496	0.0	999.68	0.0
2019	11217	-2.4	975.36	-2.4
	Avg % change:	1.0	Avg % change:	1.04
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2030 Projections

	Cars	Trucks
2019	11217	975
2020	11329	985
2021	11442	995
2022	11557	1005
2023	11672	1015
2024	11789	1025
2025	11907	1035
2026	12026	1046
2027	12146	1056
2028	12267	1067
2029	12390	1077
2030	12514	1088

Predicted 2030 Auto ADT	Predicted 2030 Truck ADT
12514	1088

Auto and Heavy Truck 10-year ADT Projections

John C Lodge Fwy

	Cars	% Change	Trucks	% Change
2014	84756		10475.52	
2015	75205	-11.3	9295	-11.3
2016	77608	3.2	9592	3.2
2017	83779	8.0	10354.74	8.0
2018	80299	-4.2	9924.64	-4.2
	Avg % change:	-1.1	Avg % change:	-1.07
	Avg % change (Last 5-yr Trend):	-1.1	Avg % change (Last 5-yr Trend):	-1.07
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2030 Projections

	Cars	Trucks
2018	80299	9925
2019	81102	10024
2020	81913	10124
2021	82733	10225
2022	83560	10328
2023	84395	10431
2024	85239	10535
2025	86092	10641
2026	86953	10747
2027	87822	10854
2028	88700	10963
2029	89587	11073
2030	90483	11183

Predicted 2030 Auto ADT	Predicted 2030 Truck ADT
90483	11183

ATTACHMENT D

Day-Night Level Electronic Assessments

DNL Calculator

WARNING: HUD recommends the use of Microsoft Internet Explorer for performing noise calculations. The HUD Noise Calculator has an error when using Google Chrome unless the cache is cleared before each use of the calculator. HUD is aware of the problem and working to fix it in the programming of the 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

Site ID	11382
Record Date	01/20/2020
User's Name	ASTI Environmental NAL1

Road # 1 Name:	**Meyers Rd.**

Road #1

Vehicle Type	Cars ☑	Medium Trucks ☑	Heavy Trucks ☑
Effective Distance	75	75	75
Distance to Stop Sign			
Average Speed	30	30	30
Average Daily Trips (ADT)	13306	579	578
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	61.5677	57.954	69.7183
Calculate Road #1 DNL	70.6114	Reset	

Road # 2 Name: **W. McNichols**

Road #2

Vehicle Type	Cars ☑	Medium Trucks ☑	Heavy Trucks ☑
Effective Distance	765	765	765
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	12514	544	544
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	47.5111	43.8931	54.326
Calculate Road #2 DNL	55.4859	Reset	

Road # 3 Name: **John C. Lodge Fwy**

Road # 3 Name:	John C. Lodge Fwy

Road #3

Vehicle Type	Cars ☑	Medium Trucks ☑	Heavy Trucks ☑
Effective Distance	930	930	930
Distance to Stop Sign			
Average Speed	55	55	55
Average Daily Trips (ADT)	93533	2033	9149
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	58.9003	52.2721	66.1186
Calculate Road #3 DNL	67.0498	Reset	

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○ Yes ◉ No
Combined DNL for all Road and Rail sources	**72.3435**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate

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/)

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 facades, 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 requirementsRequired 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

Meyers Senior Apartment

Sponsor/Developer

Wallick Communities

Location

Detroit, MI

Prepared by

WH

Noise Level

73

Date

11/10/2021

Primary Source(s)

Part II - Wall Components

Part II - Wall Components

Wall Construction Detail	Area	STC
2"x6" wood studs; 16"o.c.; 5 1/2" glass fiber insulation; 5/8" fire-shield gypsum board one side; 5/8" fire-shield gypsum board other side	29040	**38**

Add new wall

	29,040 Sq. Feet	**38**

Window Construction Detail	Quantity	Sq Ft/Unit	STC
Windows	1	2872	30

Add new window

Door Construction Detail	Quantity	Sq Ft/Unit	STC
Hollow Metal Doors	1	73	35
Glass Doors	1	1885	29
Garage Door	1	47	28

Add new door

Part III - Results

Part III - Results

Wall Statistics

Stat	Value
Area:	29040 ft^2
Wall STC:	38

Aperture Statistics

Aperture	Count	Area	% of wall
Windows:	1	**ft^2**	**9.89%**
Doors:	3	**ft^2**	**6.9%**

Evaluation Criteria

Criteria	Value
Noise source sound level (dB):	**73**
Combined STC for wall assembly:	**35.01**
Required STC rating:	**31**
Does wall assembly meet requirements?	**Yes**

Print

Part 4 - Tips

Part 4 – Tips

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.

STC (Sound Transmission Class)

STC Definition and Options

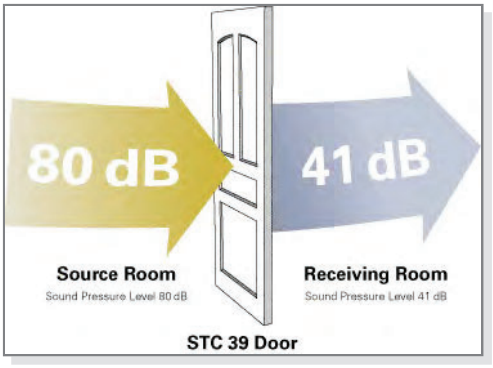
STC ratings are single number indicating the sound insulation value of a door or window (including partitions and floor-ceiling assemblies.) A door's ability to reduce noise is called its sound transmission loss (TL) effectiveness.

TL is a value given in decibels (dB) which is determined by measuring sound pressure levels at a certain frequency in the source and receiving rooms.

See image using STC 39 as a sample -->

These values are fitted to a curve in a method defined by the ASTM E413 Classification Standard for Rating Sound Insulation. The higher the STC value, the better the rating and the better the performance.

STC Rating	Performance	Description
50-60	Excellent	Loud sounds heard faintly or not at all
40-50	Very Good	Loud speech heard faintly
35-40	Good	Loud speech heard but hardly intelligible
30-35	Fair	Loud speech understood fairly well
25-30	Poor	Normal speech understood easily and distinctly
20-25	Very Poor	Low speech audible



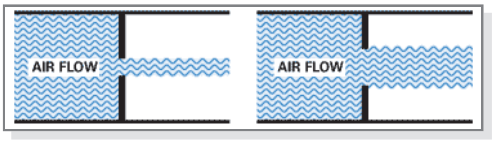


Figure 1

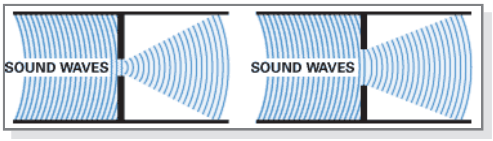


Figure 2

Haley offers architectural doors with the following STC ratings, sub components, and gasketing:

STC 32- *Standard Particle Board Assembly- (1LD1 Core) APC Bond to Core.*

STC 32- *Lumber Core Assembly- ALC Bond to Core.*

STC 33- *36 lbs to 40 lbs Core- (1LD2 Core) APC Bond to Core, No Lead, Standard Stiles and Rails.*

STC 35- *44 lbs to 45 lbs Commercial Density Core- Bond to Core, No Lead, Standard Stiles and Rails.*

Any unsealed gaps and clearances in door assemblies effectively cancel out the noise reduction benefits of STC rated doors. For example, ⅛" clearances around the edges reduce the effective rating of an STC-52 door to STC-21!

Gasketing's importance derives from a fundamental property of sound: Sound waves travel through any opening with very little loss. While the amount of air flowing through a gap increases in proportion with the size of the gap ***(see Figure 1)*** *the size of the gap in a sound barrier does not matter* ***(see Figure 2.)*** *A tiny hole transmits almost as much sound as a much larger gap.*

STC 40- *SLM Stiles and Rails*
1 lb Lead
1/2" Particle Board Sound Board
Soundboard
1/2" Particle Board Sound Board
1 lb Lead
Pemko 2005V Threshold, 234V Sweep with Two sets of S88 Gasket.

STC 41- *SLM Stiles and Rails*
1 lb Lead
1/2" Particle Board Sound Board
Soundboard
1/2" Particle Board Sound Board
1 lb Lead
Pemko 2005V Threshold, 234V Sweep with Two sets of S88 Gasket and One Additional set of 319R Seal.

HOME

Corporate/Sales Offices:

6291 Orangethorpe Ave
Buena Park, CA 90620-1377

Ph: 800-854-5951
FAX: 714-994-6971
Email: hb@haleybros.com

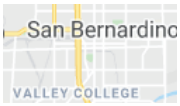
Manufacturing Plant/Will Call:

1592 E San Bernardino Ave
San Bernardino, CA 92408

Ph: 909-796-6969

Receiving/Will Call Hours: M-F
7:00AM-12:00PM

(48 hour notice required to schedule Will Calls. Will Call orders not picked up on confirmed date will be subject to rescheduling.)



Intertek | Architectural Testing

E6297.02-113-11-R0
ACOUSTICAL PERFORMANCE TEST REPORT
ASTM E90

Rendered to:

THERMA-TRU CORPORATION

Series/Model: 3/0 x 6/8 Fiber-Classic/Smooth-Star, Full Lite Flush Glazed

Type: Side-Hinged Single Door System

Summary of Test Results				
Data File No.	**Test Description**	**STC**	**OITC**	**EWNR**
E6297.01B1	5/8" IG (1/8" tempered, 3/8" air space, 1/8" tempered), sealed with duct tape on both sides, (inoperable)	29	27	31
E6297.01B	5/8" IG (1/8" tempered, 3/8" air space, 1/8" tempered), (operable)	29	26	31

Reference should be made to Intertek-ATI Report No. E6297.02-113-11 for complete test specimen description. This page alone is not a complete report. Flanking limit tests and reference specimen tests are available upon request.

Intertek | Architectural Testing

Acoustical Performance Test Report

THERMA-TRU CORPORATION
118 Industrial Drive
Edgerton, Ohio 43517

Report No	E6297.02-113-11
Test Date	04/21/15
Report Date	05/22/15

Project Scope

Architectural Testing, Inc., an Intertek company ("Intertek-ATI"), was contracted to conduct a sound transmission loss test. The complete test data is included as Appendix B of this report. The client provided the test specimen.

Test Methods

Testing for this project was conducted in accordance with the following standards. The equipment listed in the attachments meets the requirements of the following standards.

ASTM E90-09, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements*
ASTM E413-10, *Classification for Rating Sound Insulation*
ASTM E1332-10a, *Standard Classification for Rating Outdoor-Indoor Sound Attenuation*
ASTM E2235-04 (2012), *Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods*

Test Procedure

All measurements were conducted in the HT test chambers at Intertek-ATI located in York, Pennsylvania. The sensitivity of the microphones was checked before measurements were conducted.

The transmission loss values were obtained for a single direction of measurement. Two background noise sound pressure level and twenty-five sound absorption measurements were conducted at each of five microphone positions.

Two sound pressure levels were made simultaneously in the receive and source rooms at each of five microphone positions.

The air temperature and relative humidity conditions were monitored and recorded during all measurements.

Specimen Installation
A sound transmission loss test was initially performed on a filler wall.

The specimen plug was removed from the filler wall assembly. The specimen was placed on a foam isolation pad in the test opening. Duct seal was used to seal the perimeter of the specimen to the test opening on both sides. The interior side of the specimen frame, when installed, was approximately 1/4" from being flush with the receive room side of the filler wall. A stethoscope was used to check for any abnormal air leaks around the test specimen prior to testing. Operable portions of the test specimen, if any, were cycled at least five times prior to testing.

Test Calculations
Transmission loss (TL) at each 1/3 octave frequency is the average source room sound pressure level minus the average receive room sound pressure level, plus, 10 times the log of the specimen area divided by the sound absorption of the receive room with the sample in place.

STC Rating
To obtain the Sound Transmission Class (STC), read the TL of the contour curve at 500 Hz. The sum of the deficiencies below the contour curve may not exceed 32. The maximum deficiency at any one frequency may not exceed 8.

OITC Rating
The Outdoor-Indoor Transmission Class (OITC) is calculated by subtracting the logarithmic summation of the TL values from the logarithmic summation of the A-weighted transportation noise spectrum stated in ASTM E1332.

Specimen Descriptions

		Frame
Size		82" by 37-5/8"
Thickness		4-1/2"
	Corners	Butted
	Fasteners	Screws
	Seal Method	Sealant
Material		Wood
	Reinforcement	N/A
	Thermal Break Material	N/A

N/A-Not Applicable

Specimen Descriptions (Continued)

Leaf Materials

Layers (outside to inside)	Layer Description (material and thickness)
1	0.080" Fiberglass skin
2	1.5" Foam core
3	0.080" Fiberglass skin

Comments

The daylight opening size was 21" by 63". The stiles were constructed with 1-1/2" by 1-1/4" wood. The rails were constructed with 1-1/2" by 1" composite material.

Measured Overall Insulation Glass Unit Thickness	0.715"
Spacer Type	Reinforced butyl

	Exterior Sheet	Gap	Interior Sheet
Measured Thickness	0.120"	0.475"	0.120"
Muntin Pattern	N/A	N/A	N/A
Material	Tempered	Air*	Tempered
Laminate Material	N/A	N/A	PVB

Glazing Method	Channel
Glazing Material	Silicone
Glazing Bead Material	N/A

** - Stated per Client/Manufacturer, N/A-Not Applicable*

Specimen Descriptions (Continued)

	Type	Quantity	Location
Weatherstrip			
	1-1/4" Foam-filled leaf gasket	1 Row	Head jambs
	Dual bulb triple fin door sweep	1	Bottom rail
Hardware			
	Hinge	3	Hinge stile
	Lockset	1	Lock stile
Drainage			
	No drainage		

Comments

The client did not supply a report drawing of the test specimen. Intertek-ATI will store samples of test specimens for four years.

Intertek-ATI will service this report for the entire test record retention period. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained by Intertek-ATI for the entire test record retention period. The test record retention period ends four years after the test date.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen tested. This report is intended to help in the client's quality assurance program, but it does not represent a continuous or exhaustive evaluation of the specimen tested or of other products or materials that were not evaluated. The statements and data provided herein do not constitute approval, disapproval, certification, or acceptance of performance or materials.

This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For INTERTEK-ATI:

Digitally Signed by: Daniel P. Platts

Daniel P. Platts
Senior Technician - Acoustical Testing

Digitally Signed by: Todd D. Kister

Todd D. Kister
Laboratory Supervisor – Acoustical Testing

DPP:jmcs

Attachments (pages): This report is complete only when all attachments listed are included.
- Appendix-A: Equipment description (1)
- Appendix-B: Complete test results (4)
- Appendix-C: Photographs (1)

Revision Log

Rev. #	Date	Page(s)	Revision(s)
R0	05/22/15	N/A	Original Report Issue

Appendix A

Instrumentation:

Instrument	Manufacturer	Model	Description	ATI Number	Date of Calibration
Data Acquisition Unit	National Instruments	PXI-1033	Data Acquisition card	65127	04/14 *
Source Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64902	12/14
Source Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64903	12/14
Source Room Microphone	PCB Electronics	378B20	Microphone and Preamplifier	65103	05/14
Source Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64905	12/14
Source Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64906	12/14
Receive Room Microphone	PBC Piezotronics	378B20	Microphone and Preamplifier	64907	11/14
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64908	11/14
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64909	11/14
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64910	11/14
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64911	11/14
Receive Room Environmental Indicator	Vaisala	HMW92	Temperature Humidity Sensor	64286	06/14
Source Room Environmental Indicator	Vaisala	HMW60Y	Temperature and Humidity Sensor	Y002653	06/14
Microphone Calibrator	Larson Davis	CAL200	Calibrator	65327	09/14

**- Note: The calibration frequency for this equipment is every two years per the manufacturer's recommendation.*

Test Chamber:

	Volume	Description
Receive Room	234 m^3 (8291.3 ft^3)	Rotating vane and stationary diffusers Temperature and humidity controlled Isolation pads under the floor
Source Room	206.6 m^3 (7296.3 ft^3)	Stationary diffusers only Temperature and humidity controlled

	Maximum Size	Description
TL Test Opening	4.27 m (14 ft) wide by 3.05 m (10 ft) high	Vibration break between source and receive rooms

N/A-Non Applicable

Appendix B

Complete Test Results

Intertek | Architectural Testing

ACCREDITED TL-144

AIRBORNE SOUND TRANSMISSION LOSS

ASTM E 90

Test Date	04/21/15					
Data File No.	E6297.01B1					
Client	Therma-Tru Corporation					
Description	Series/Model: 3/0 x 6/8 Fiber-Classic/Smooth-Star full lite flush glazed, side-hinged single door system with 5/8" IG (1/8" tempered, 3/8" air space, 1/8" tempered), sealed with duct tape on both sides (inoperable)					
Specimen Area	1.99 m²	Receive Temp.	22.6 °C		Source Temp.	22.1 °C
Technician	Daniel P. Platts	Receive Humidity	49%		Source Humidity	48%

Freq (Hz)	**Background SPL** (dB)	**Absorption** (m²)	**Source SPL** (dB)	**Receive SPL** (dB)	**Specimen TL** (dB)	**95% Confidence Limit**	**Number of Deficiencies**
80	41.6	4.2	105	78	25.0	2.02	-
100	36.3	4.7	106	78	25.7	2.00	-
125	39.4	4.6	106	77	25.7	1.11	0
160	41.9	4.6	107	79	24.4	1.27	0
200	40.4	4.5	106	78	24.0	0.73	0
250	35.8	4.9	106	79	23.4	0.33	0
315	28.4	5.5	102	79	19.1	0.54	6
400	24.3	5.8	101	72	24.5	0.36	4
500	20.4	5.8	101	68	28.5	0.50	0
630	17.9	5.5	102	66	30.9	0.36	0
800	16.4	5.8	101	65	32.2	0.26	0
1000	12.9	6.0	100	66	29.6	0.32	2
1250	10.8	6.7	98	61	32.2	0.24	1
1600	8.3	7.0	101	65	30.9	0.37	2
2000	6.7	7.5	100	69	25.5	0.29	8
2500	6.4	8.5	98	58	34.2	0.14	0
3150	6.5	10.2	98	53	38.5	0.27	0
4000	7.2	12.7	97	56	33.7	0.37	0
5000	7.7	16.3	95	48	38.4	0.30	-

STC Rating	**29**	*(Sound Transmission Class)*
Deficiencies	23	*(Sum of Deficiencies)*
OITC Rating	**27**	*(Outdoor-Indoor Transmission Class)*
EWNR Rating	**31**	*(Exterior Wall Noise Reduction)*

Notes:

1) Receive Room levels less than 5 dB above the Background levels are highlighted in yellow.
2) Specimen TL levels listed in red indicate the lower limit of the transmission loss.
3) Specimen TL levels listed in green indicate that there has been a filler wall correction applied

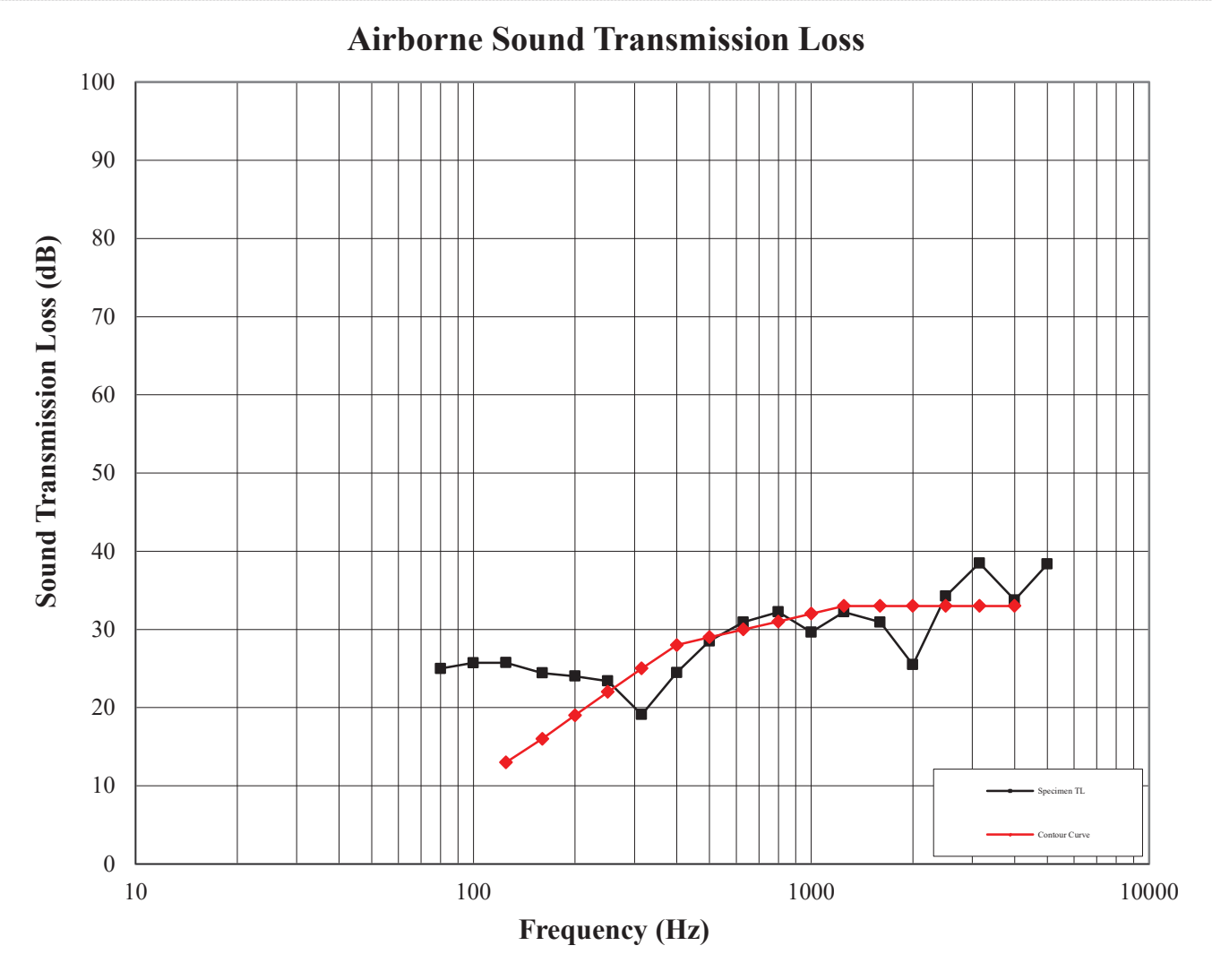
Intertek | Architectural Testing

ACCREDITED TL-144

AIRBORNE SOUND TRANSMISSION LOSS

ASTM E 90

Test Date	04/21/15					
Data File No.	E6297.01B1					
Client	Therma-Tru Corporation					
Description	Series/Model: 3/0 x 6/8 Fiber-Classic/Smooth-Star full lite flush glazed, side-hinged single door system with 5/8" IG (1/8" tempered, 3/8" air space, 1/8" tempered), sealed with duct tape on both sides (inoperable)					
Specimen Area	1.99 m²	Receive Temp.	22.6 °C		Source Temp.	22.1 °C
Technician	Daniel P. Platts	Receive Humidity	49%		Source Humidity	48%



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ACCREDITED TL-144

AIRBORNE SOUND TRANSMISSION LOSS

ASTM E 90

Test Date	04/21/15
Data File No.	E6297.01B
Client	Therma-Tru Corporation
Description	Series/Model: 3/0 x 6/8 Fiber-Classic/Smooth-Star, full lite flush glazed, side-hinged single door system with 5/8" IG (1/8" tempered, 3/8" air space, 1/8" tempered) (operable)

Specimen Area	1.99 m²	Receive Temp.	22.6 °C	Source Temp.	22.1 °C
Technician	Daniel P. Platts	Receive Humidity	49%	Source Humidity	48%

Freq (Hz)	**Background SPL** (dB)	**Absorption** (m²)	**Source SPL** (dB)	**Receive SPL** (dB)	**Specimen TL** (dB)	**95% Confidence Limit**	**Number of Deficiencies**
80	41.2	5.0	105	79	23.7	1.88	-
100	36.7	4.9	106	78	25.0	1.71	-
125	38.7	4.4	106	78	24.9	1.37	0
160	41.9	4.4	107	79	24.3	1.42	0
200	40.1	4.3	106	79	24.0	0.66	0
250	35.6	4.9	107	79	23.5	0.39	0
315	28.0	5.4	102	79	19.0	0.53	6
400	24.6	5.7	101	73	24.3	0.32	4
500	20.4	5.8	101	68	28.2	0.47	1
630	17.4	5.6	102	67	30.4	0.37	0
800	15.7	5.7	101	66	30.8	0.24	0
1000	11.9	6.1	100	68	27.5	0.32	4
1250	12.8	6.8	98	63	29.8	0.26	3
1600	7.8	7.2	101	67	29.1	0.36	4
2000	6.5	7.6	100	69	25.0	0.30	8
2500	6.4	8.5	98	60	32.3	0.14	1
3150	6.5	10.2	98	56	35.3	0.24	0
4000	7.2	12.4	98	57	32.9	0.37	0
5000	7.8	15.8	95	51	35.7	0.32	-

STC Rating	**29**	*(Sound Transmission Class)*
Deficiencies	31	*(Sum of Deficiencies)*
OITC Rating	**26**	*(Outdoor-Indoor Transmission Class)*
EWNR Rating	**31**	*(Exterior Wall Noise Reduction)*

Notes:

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Intertek | Architectural Testing

ACCREDITED TL-144

AIRBORNE SOUND TRANSMISSION LOSS

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Data File No.	E6297.01B					
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Description	Series/Model: 3/0 x 6/8 Fiber-Classic/Smooth-Star, full lite flush glazed, side-hinged single door system with 5/8" IG (1/8" tempered, 3/8" air space, 1/8" tempered) (operable)					
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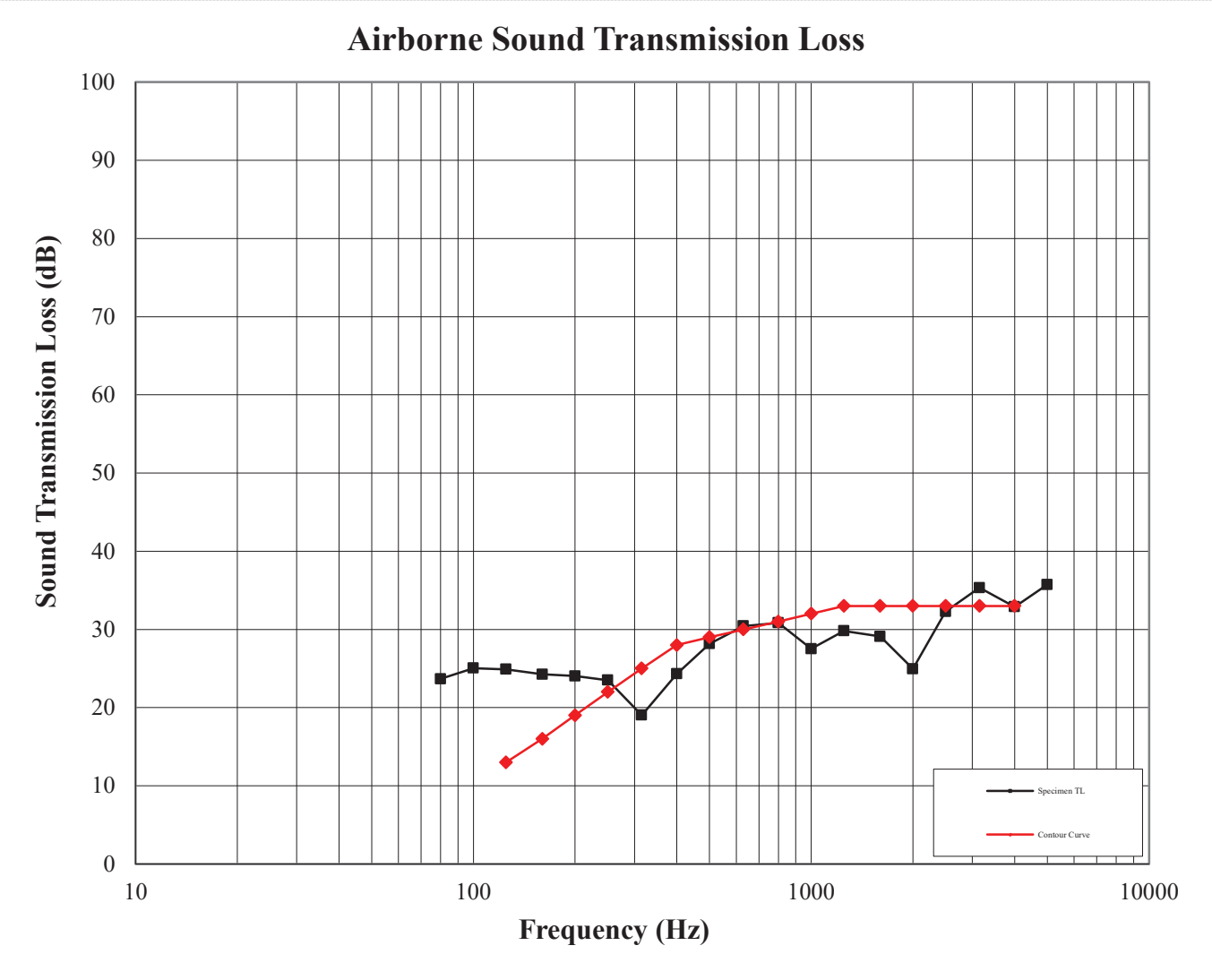


Appendix C

Photographs

Receive Room View of Installed Specimen

Source Room View of Installed Specimen

Silver Line WINDOWS & DOORS

Silver Line® Product Performance Sound Transmission Ratings

Silver Line® Product Series	Silver Line Product Type	IG	Glass Type	Sound Transmission Class (STC)	Outdoor/Indoor Transmission Class (OITC)
V3 SERIES					
V3 Series Casement, Awning, Picture & Specialty Windows with Nailing Flange, with Nailing Flange & J-Channel, and with Insert Frame (FORMERLY 70 SERIES NEW CONSTRUCTION OR REPLACEMENT CASEMENT)	Casement Window	3/4"	SS	27	23
			DS	28	22
			3mm/4mm	33	26
			Laminated DS-DS/060/DS	35	30
	Awning Window	3/4"	SS	27	23
			DS	28	22
			3mm/4mm	33	26
			Laminated DS-DS/060/DS	35	30
	Picture & Specialty Windows	3/4"	SS	-	-
			DS	27	23
			3mm/4mm	31	26
			Laminated DS-DS/060/DS	34	29
V3 Series Double-Hung Window with Nailing Flange and Nailing Flange & J-Channel (FORMERLY 3000/39000 SERIES NEW CONSTRUCTION DOUBLE-HUNG)	Double-Hung Window	3/4"	SS	27	22
			DS	27	22
			3mm/4mm	30	26
			Laminated DS/060/DS-DS	33	28
V3 Series Double-Hung/Gliding Window with Insert Frame (FORMERLY 8600 SERIES REPLACEMENT DOUBLE-HUNG AND 8700 SERIES REPLACEMENT SLIDER)	Double-Hung Window	3/4"	SS	27	22
			DS	27	22
			3mm/4mm	30	26
			Laminated DS/060/DS-DS	33	28
	Gliding Window	3/4"	SS	27	22
			DS	27	22
			3mm/4mm	30	26
			Laminated DS-DS/060/DS	33	28
V3 Series Gliding Patio Door (FORMERLY 5800 SERIES PATIO DOORS)	Patio Door	3/4"	SS	-	-
			DS	27	22
			Laminated DS-DS/060/DS	33	28
V1 SERIES					
V1 Series Single-Hung/Gliding Window with Nailing Flange (FORMERLY 2200 SERIES NEW CONSTRUCTION SINGLE-HUNG)	Single-Hung & Gliding Windows	5/8"	SS	28	-
			DS	30	-
			3mm/4mm	32	26
			Laminated DS-SS/060/SS	34	29
V1 Series Single-Hung/Gliding Window with Nailing Flange & J-Channel (FORMERLY 2900/4900 SERIES NEW CONSTRUCTION SINGLE-HUNG)	Single-Hung & Gliding Windows	5/8"	SS	28	-
			DS	30	-
			3mm/4mm	32	26
			Laminated DS-SS/060/SS	34	29

Data is current as of October 2018 and is subject to change.
Due to ongoing product changes, updated test results or new industry standards or requirements, this data may change over time.

Silver Line WINDOWS & DOORS

Silver Line® Product Performance Sound Transmission Ratings

Silver Line® Product Series	Silver Line Product Type	IG	Glass Type	Sound Transmission Class (STC)	Outdoor/Indoor Transmission Class (OITC)
V1 Series Single-Hung Window with Insert Frame (FORMERLY 2000 SERIES REPLACEMENT SINGLE-HUNG)	Single-Hung & Gliding Windows	5/8"	SS	28	-
			DS	30	-
			3mm/4mm	32	26
			Laminated DS-SS/060/SS	34	29
V1 Series Double-Hung Window with Insert Frame (FORMERLY 1200 SERIES REPLACEMENT DOUBLE-HUNG)	Double-Hung Window	5/8"	SS	27	-
			DS	28	-
			3mm/4mm	32	26
			Laminated DS-SS/060/SS	34	29
V1 Series Gliding Patio Door (FORMERLY 5500/5700 SERIES PATIO DOOR)	Patio Door	3/4"	SS	-	-
			DS	29	24
			Laminated DS-DS/060/DS	32	28

KEY

SS = Single Strength

DS = Double Strength

"Sound Transmission Class (STC)" and "Outdoor/Indoor Transmission Class (OITC)" ratings are for individual units based on independent tests and represent entire unit.
This data is accurate as of October 2018. Due to ongoing product changes, updated test results or new industry standards or requirements, this data may change over time.
Silver Line reserves the right to change specifications, product details and other information at any time without prior notification.

The Genuine. The Original.

Overhead Door Company of The Meadowlands & NYC

24 HR Emergency 1-201-273-7425

SCHEDULE SERVICE

SCHEDULE ESTIMATE

Rolling Steel Doors - Stormtite™ AP Model 627

Our rolling steel doors (also known as roll-up steel doors, roll-up overhead doors, coiling doors, and folding garage doors) are designed for durability, serviceability, and good looks. Each of our rolling service doors is computer-designed to your specifications, then solidly constructed to promote easy installation, trouble-free operation, and long life.

Advanced Performance Insulated Rolling Doors

The **Stormtite™ AP Model 627** is engineered to supply advanced performance in industrial and general commercial applications where thermal performance, climate control, and security are primary concerns.

This door system presents the most advanced thermal performance values published by any major US manufacturer of insulated rolling steel doors, with an R-value of 10.9, U-value of 0.09, and a tested installed U-factor of 0.84. The superior construction of this rolling service door and the advanced design of the perimeter seals offer superior door protection against air leakage. The sound performance of the

Stormtite™ AP Model 627 furnishes a through curtain Sound Transmission Class (STC) rating of 28 and an installed system rating of 21.

The Stormtite™ AP door system's advanced performance answers the demand for more reliability, durability, security, flexibility and thermal efficiency.

Features

Curtain
24 ga. galvanized steel front and back
Max. standard width: 30' (9144 mm)
Max. standard height: 19' (8534 mm)

Slat profile
Flat, insulated, type FIT-265

Insulation
Foamed-in-place, CFC and HCFC-free polyurethane
R-value 10.9 (1.91 W/Msq)*; U-factor 0.84

Finish
Gray, tan, white or brown

Hood
24 ga. galvanized steel

Sound Transmission Class rating
Through curtain 28; Installed system 21

Flame Spread & Smoke Index
Class A or 1

Wind load
20 psf

Standard mounting
Face of wall

Operation
Chain hoist

Standard springs
20,000 cycle

Advanced Perimeter Protection
Bottom weatherseal, interior and exterior EPDM triple-finned guide brush weatherseals, interior hood baffle, and lintel seal

Guides
3-angle structural steel; black powder coated

Bottom bar
Black powder coated steel with vinyl weatherseal

Lock
Chain keeper

Warranty
24-month limited on door
3 year limited on door and operator system (when purchased together)

Request an Estimate

To learn more about other options, check out our commercial doors and choose the right commercial door and dock for your facility. Spend some time looking at the sectional doors, rolling steel doors, other industrial doors and the accessories like commercial door operators that you can find at the Overhead Door Company of The Meadowlands & NYC (Division of Loading Dock, Inc.). You will appreciate not only our amazing selection but also the level of customer service and care you receive from our team of overhead door experts. You can also read other entries in our blog.

For more information, please give us a call at 973-471-4060 or email us at: info@dockndoor.com

We service Northern New Jersey, Manhattan, New York City, Brooklyn, Queens, Staten Island, Bronx, Westchester and Rockland.

A Division of Loading Dock, Inc.

Follow Us

Request an Estimate

Schedule Service

Contact Us

First Name*

Last Name*

Company

Job Title

Phone

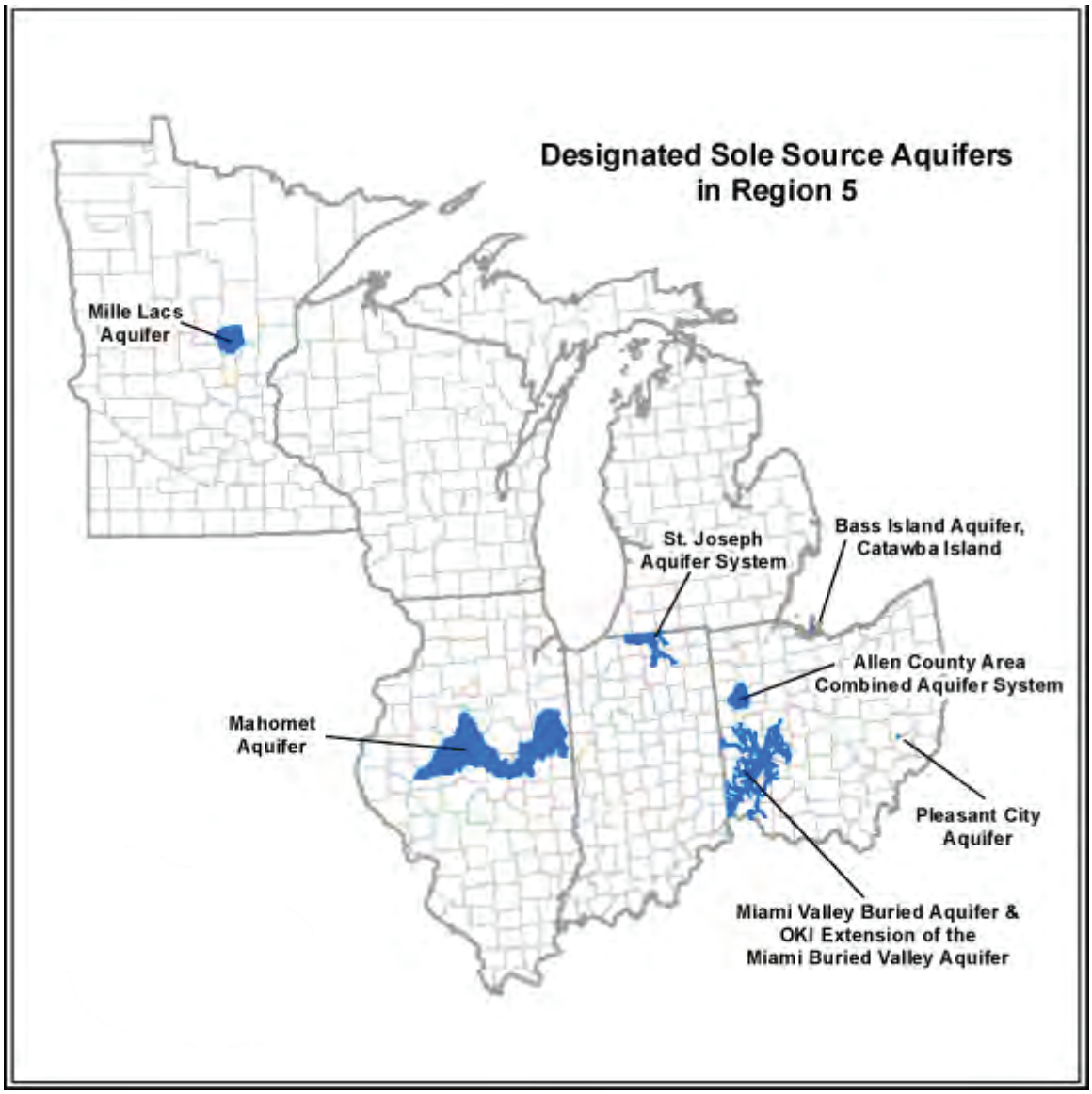
Email*

Message

Job Site Address

Submit

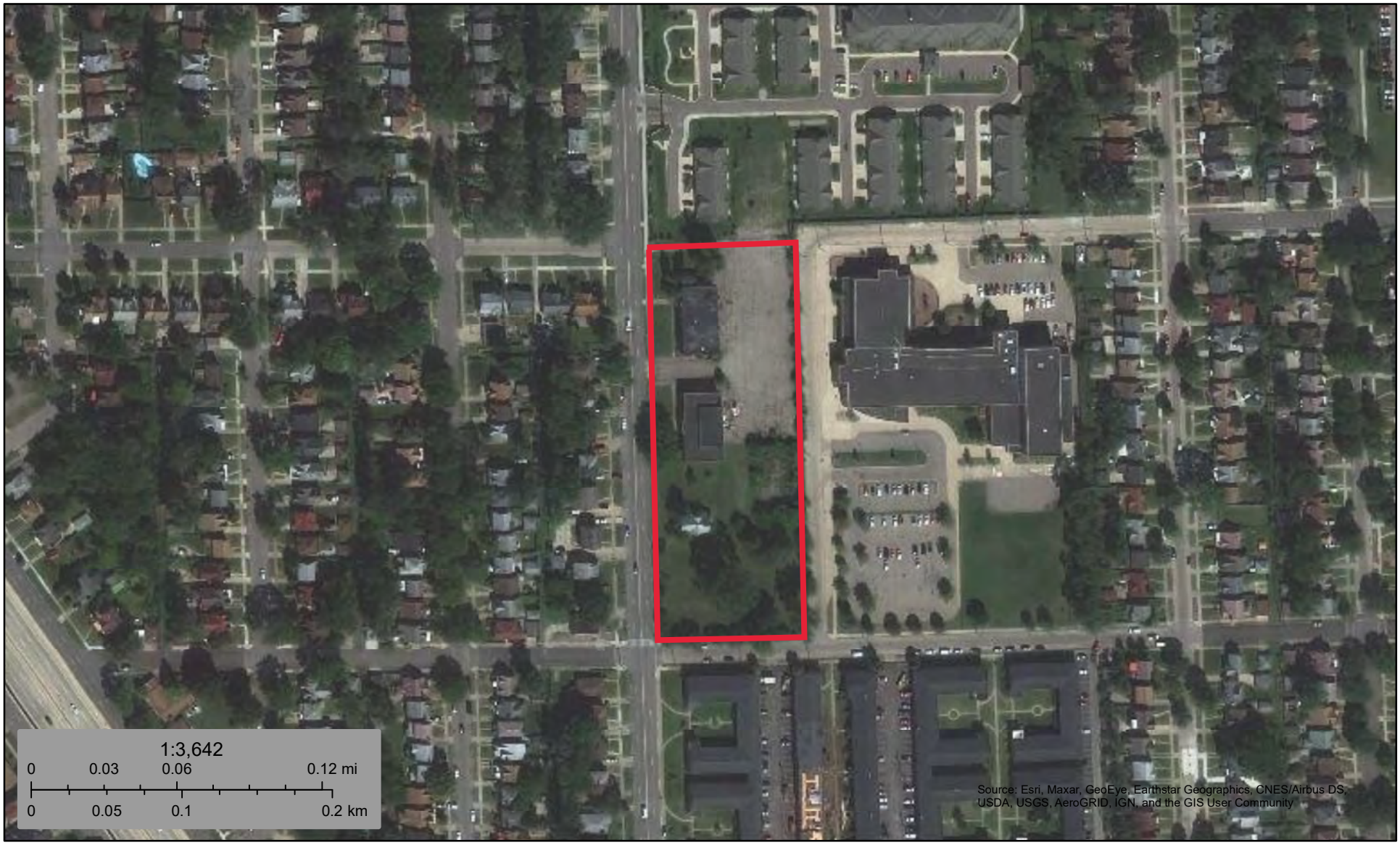
973-471-4060


Designated Sole Source Aquifers
in Region 5
Mille Lacs
Aquifer
St. Joseph
Aquifer System
Bass Island Aquifer,
Catawba Island
Allen County Area
Combined Aquifer System
Mahomet
Aquifer
Pleasant City
Aquifer
Miami Valley Buried Aquifer &
OKI Extension of the
Miami Buried Valley Aquifer

U.S. Fish and Wildlife Service

National Wetlands Inventory

Meyers Senior



September 3, 2021

Wetlands

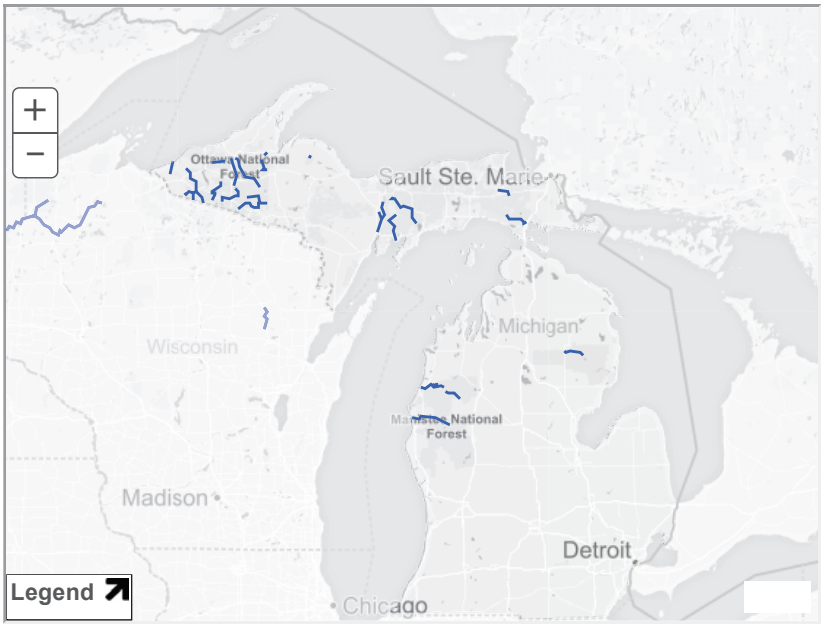
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

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.



+ View larger map

Choose A State Go

Choose A River Go

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

- 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

EJSCREEN Report (Version 2020)

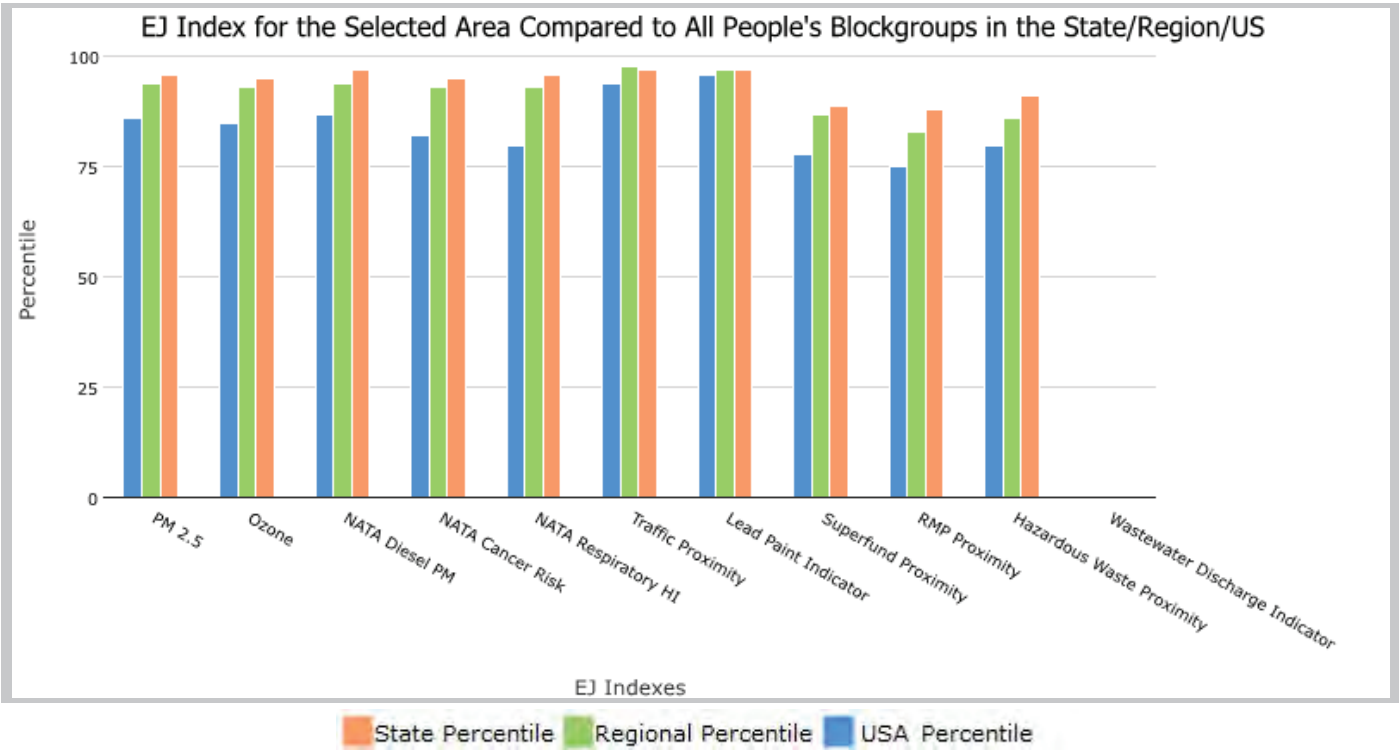
1 mile Ring around the Corridor, MICHIGAN, EPA Region 5

Approximate Population: 29,920

Input Area (sq. miles): 3.49

Meyers Senior

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	96	94	86
EJ Index for Ozone	95	93	85
EJ Index for NATA* Diesel PM	97	94	87
EJ Index for NATA* Air Toxics Cancer Risk	95	93	82
EJ Index for NATA* Respiratory Hazard Index	96	93	80
EJ Index for Traffic Proximity and Volume	97	98	94
EJ Index for Lead Paint Indicator	97	97	96
EJ Index for Superfund Proximity	89	87	78
EJ Index for RMP Proximity	88	83	75
EJ Index for Hazardous Waste Proximity	91	86	80
EJ Index for Wastewater Discharge Indicator	N/A	N/A	N/A



This report shows the values for environmental and demographic indicators and EJSCREEN 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 EJSCREEN documentation for discussion of these issues before using reports.

EJSCREEN Report (Version 2020)

1 mile Ring around the Corridor, MICHIGAN, EPA Region 5

Approximate Population: 29,920

Input Area (sq. miles): 3.49

Meyers Senior

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

EJSCREEN Report (Version 2020)

1 mile Ring around the Corridor, MICHIGAN, EPA Region 5

Approximate Population: 29,920

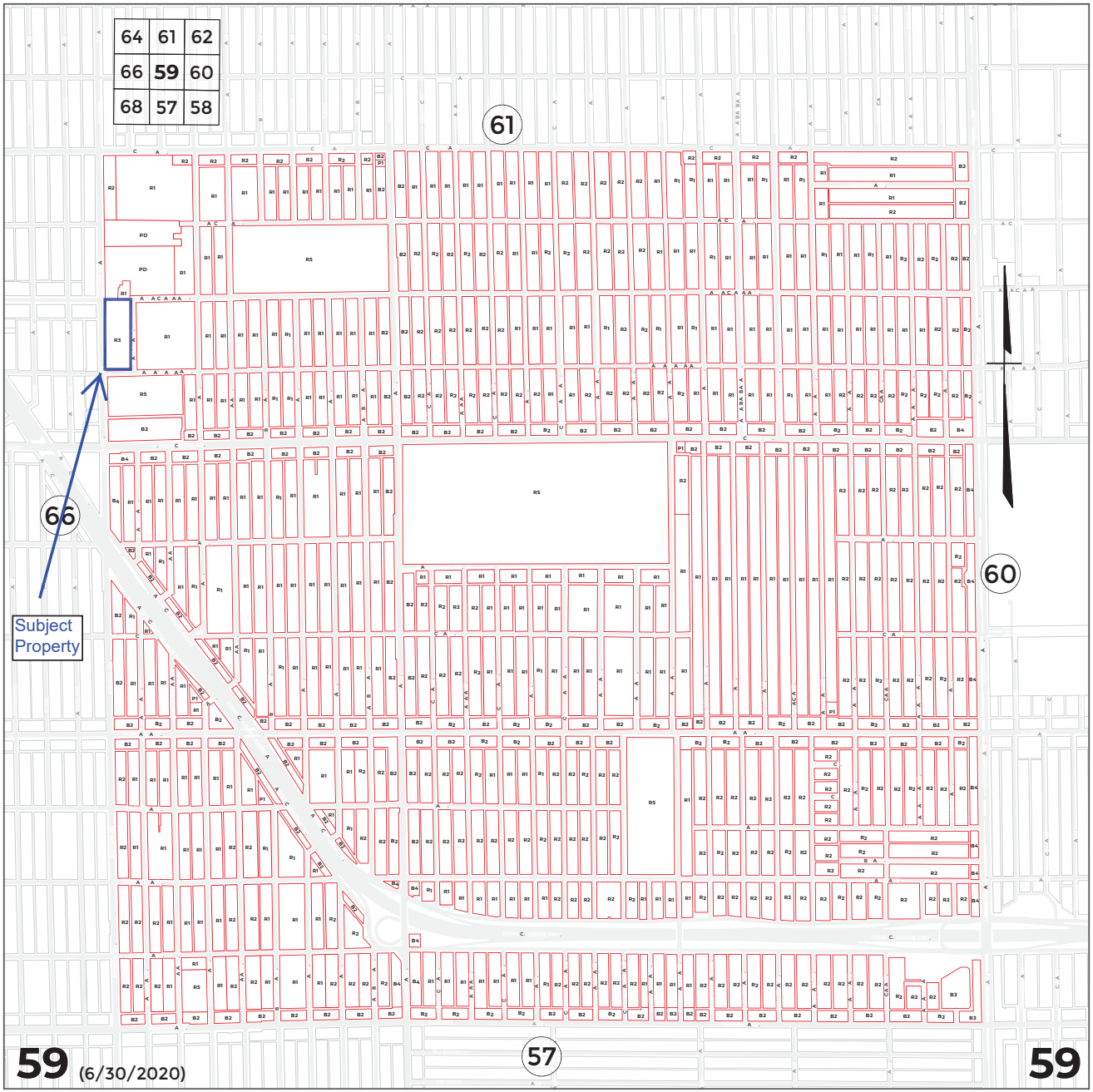
Input Area (sq. miles): 3.49

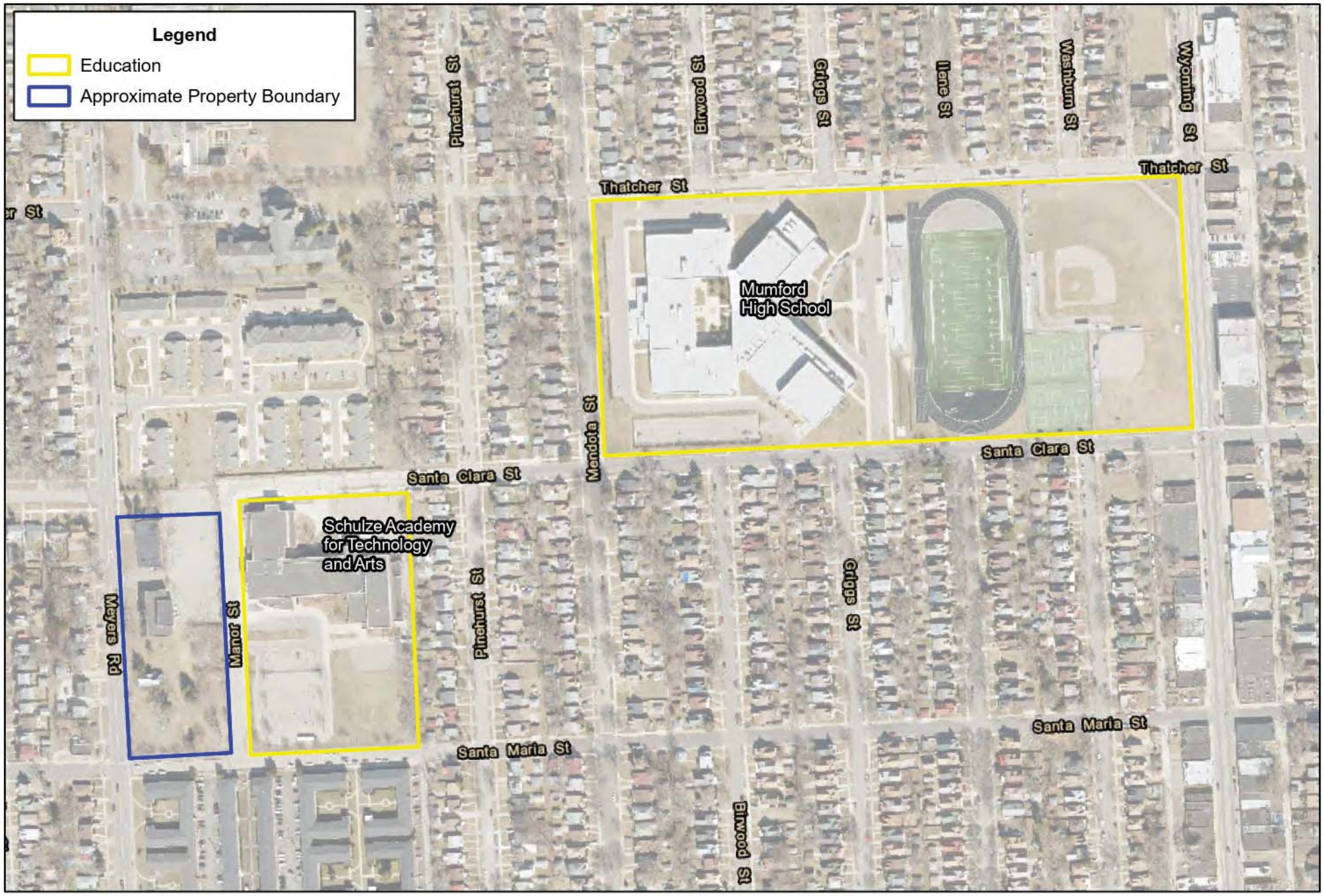
Meyers Senior

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	9.58	8.11	96	8.4	93	8.55	83
Ozone (ppb)	42.9	43.1	31	43.8	24	42.9	51
NATA* Diesel PM (µg/m^3)	0.676	0.338	94	0.446	80-90th	0.478	80-90th
NATA* Cancer Risk (lifetime risk per million)	29	24	86	26	70-80th	32	<50th
NATA* Respiratory Hazard Index	0.37	0.29	93	0.34	70-80th	0.44	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	2200	650	93	530	95	750	91
Lead Paint Indicator (% Pre-1960 Housing)	0.9	0.38	95	0.38	95	0.28	97
Superfund Proximity (site count/km distance)	0.043	0.15	28	0.13	35	0.13	37
RMP Proximity (facility count/km distance)	0.22	0.53	52	0.83	37	0.74	41
Hazardous Waste Proximity (facility count/km distance)	1.4	1.2	70	2.4	54	5	58
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	N/A	1.7	N/A	2.4	N/A	9.4	N/A
Demographic Indicators							
Demographic Index	77%	29%	94	28%	95	36%	94
People of Color Population	99%	25%	97	25%	98	39%	97
Low Income Population	54%	33%	83	30%	85	33%	84
Linguistically Isolated Population	0%	2%	63	2%	59	4%	45
Population With Less Than High School Education	12%	9%	70	10%	69	13%	60
Population Under 5 years of age	7%	6%	65	6%	61	6%	59
Population over 64 years of age	16%	16%	54	16%	59	15%	62

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice


64 61 62
66 59 60
68 57 58
61
66
60
57
Subject Property
59 (6/30/2020)
59



17370 Meyers

Detroit, MI

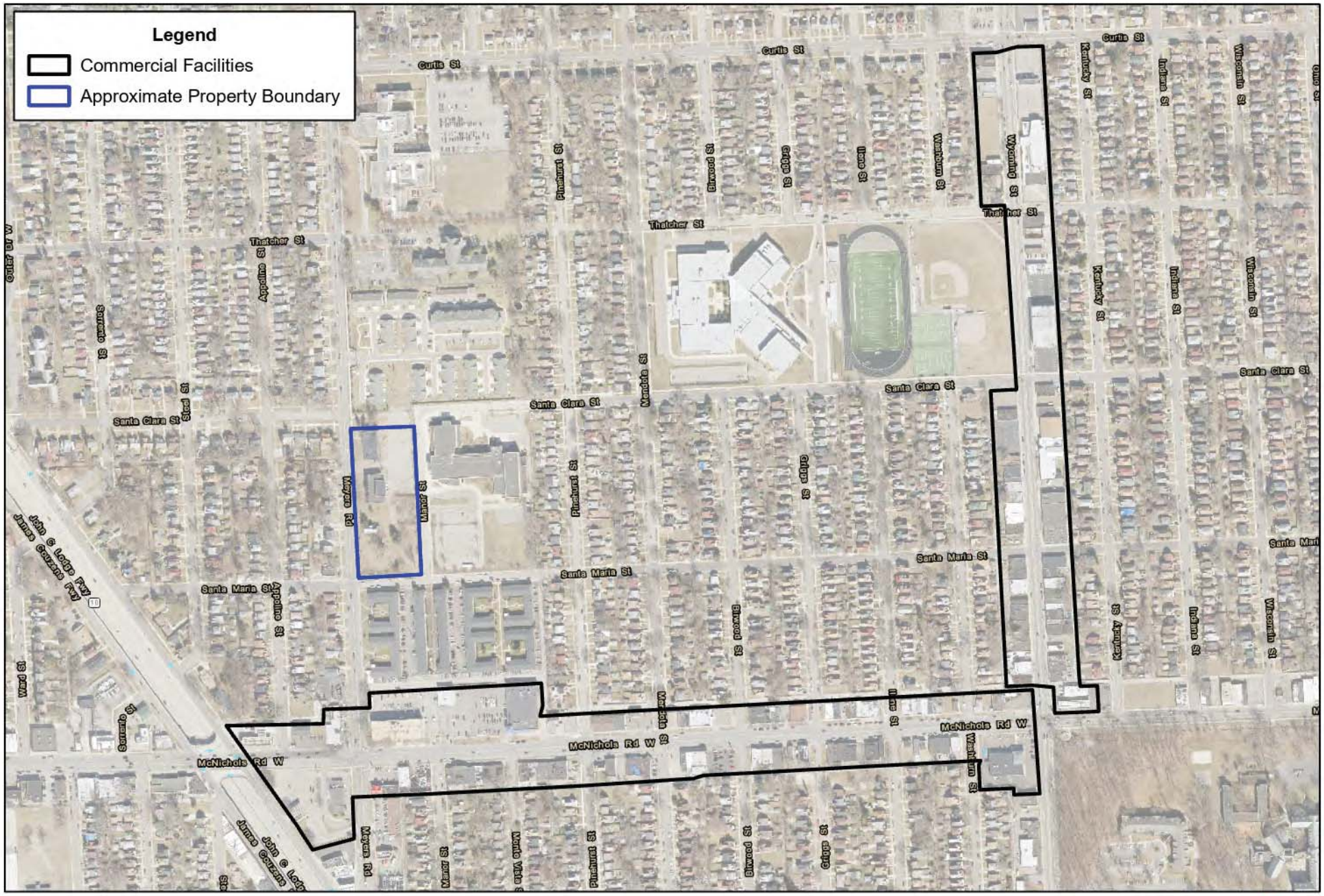
300 150 0 300 Feet

N

ASTI Environmental

Client: Wallick Companies
Created by: RMH, February 1, 2023, ASTI Project 2-11382

EA Factors - Education



17370 Meyers

Detroit, MI

300 150 0 300 Feet

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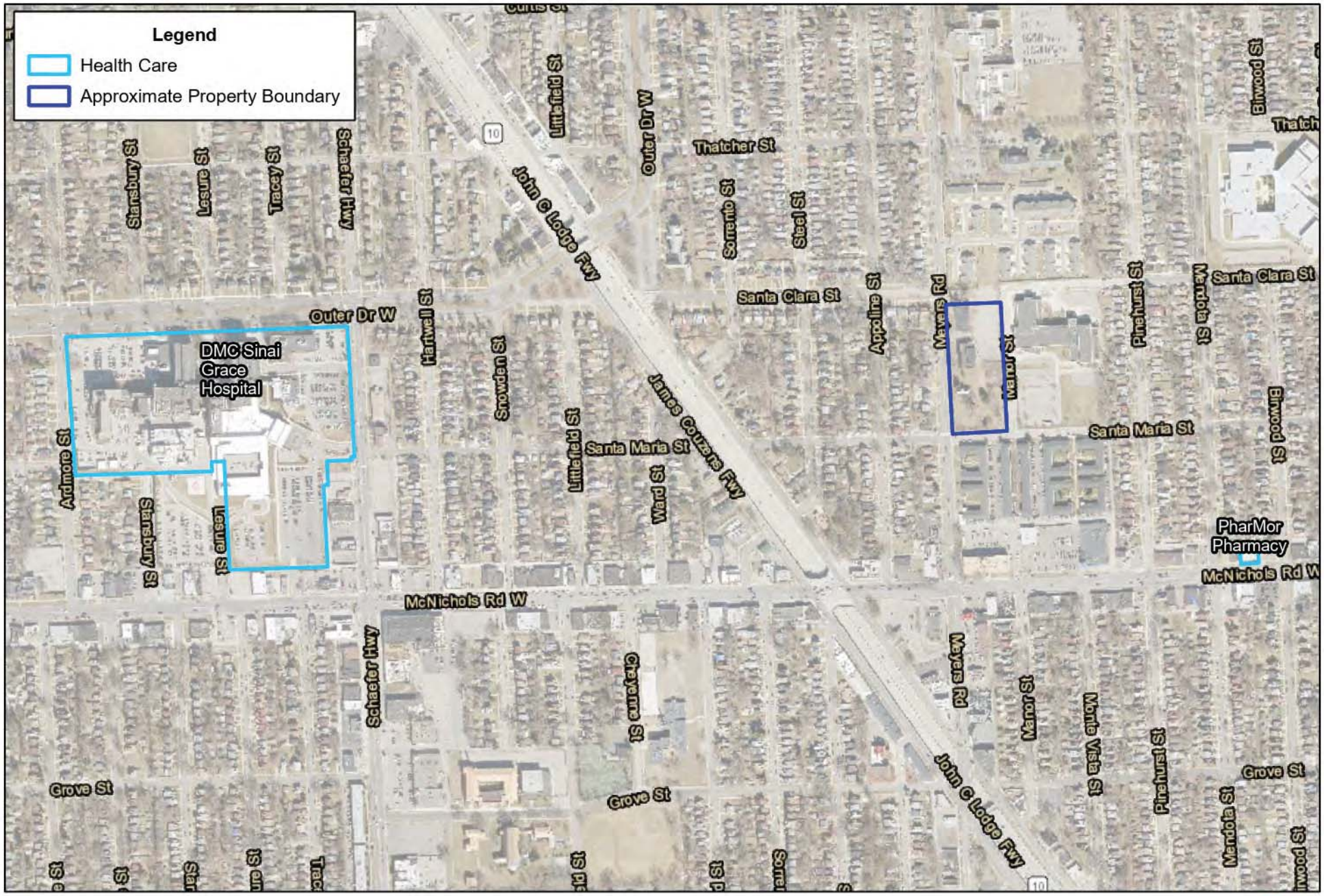
ASTI Environmental

Client: Wallick Companies
Created by: RMH, February 1, 2023, ASTI Project 2-11382

EA Factors - Commercial Facilities



17370 Meyers

Detroit, MI

500 250 0 500 Feet

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ASTI Environmental

Client: Wallick Companies
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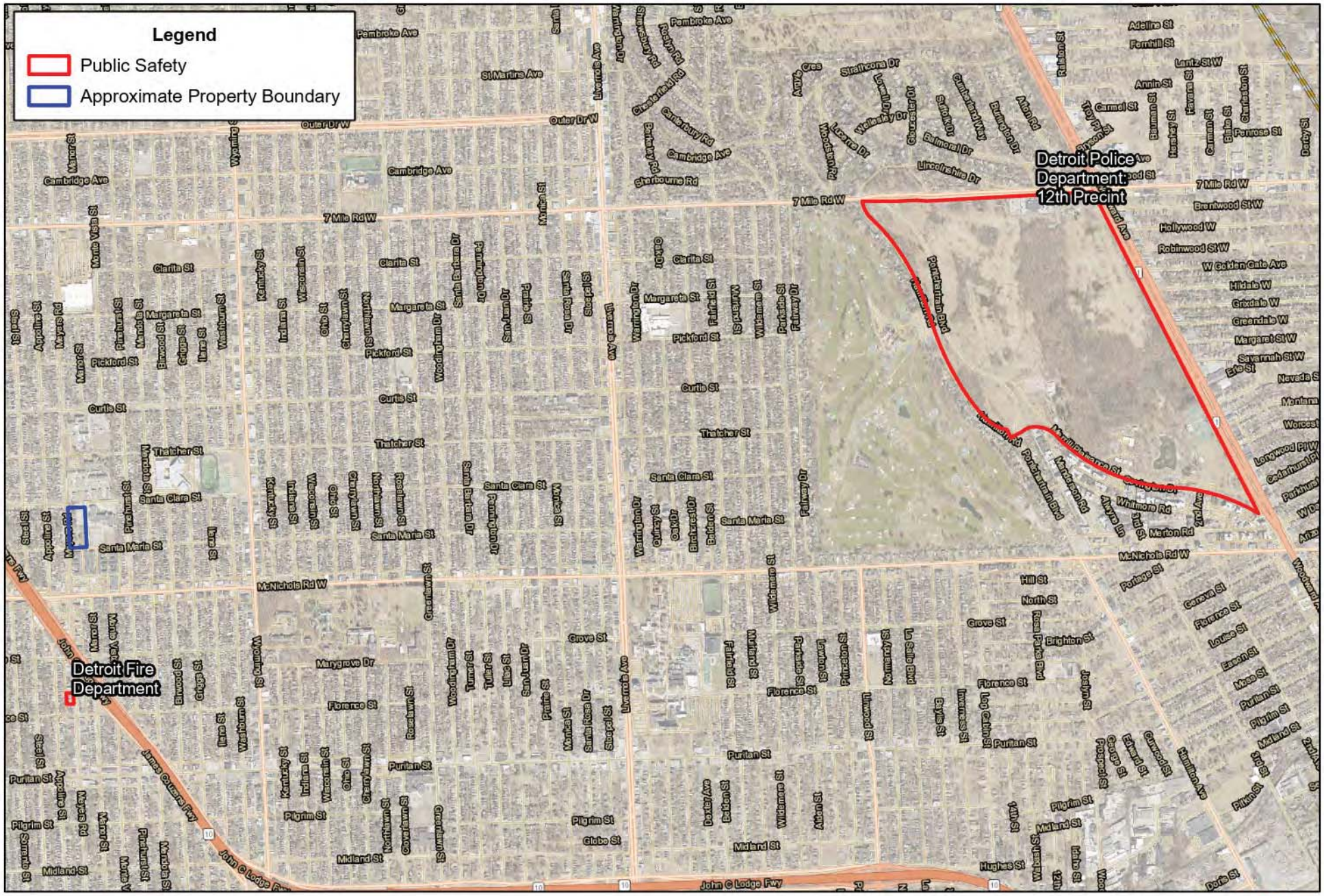
EA Factors - Healthcare



17370 Meyers

Detroit, MI

2,000 1,000 0 2,000 Feet

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ASTI Environmental

Client: Wallick Companies
Created by: RMH, February 1, 2023, ASTI Project 2-11382

Public Safety

17370 Meyers

Detroit, MI

2,000 1,000 0 2,000 Feet

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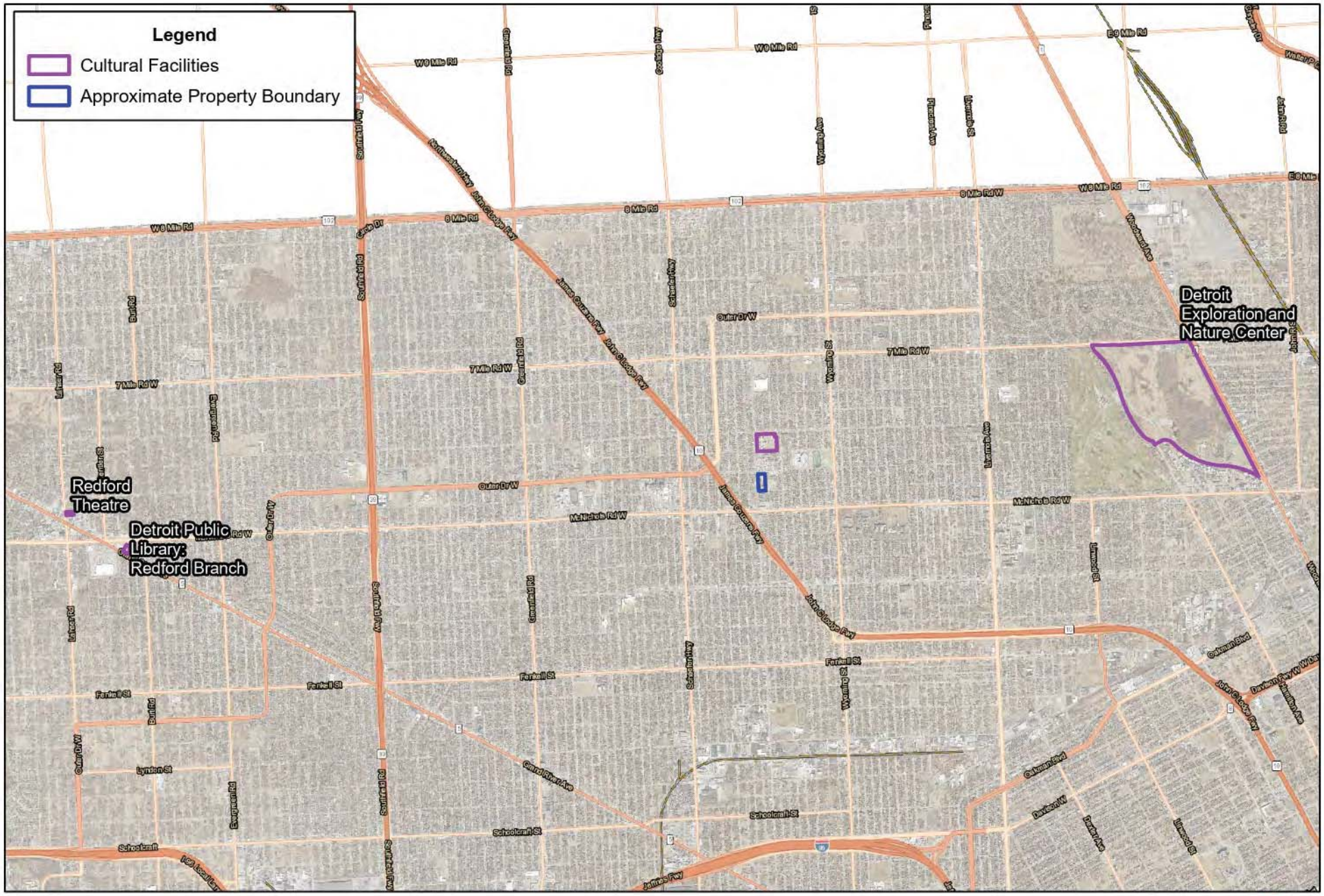
ASTI Environmental

Client: Wallick Companies
Created by: RMH, February 1, 2023, ASTI Project 2-11382

EA Factors - Parks



17370 Meyers

Detroit, MI

Feet

N

Client: Wallick Companies
Created by: RMH, February 1, 2023, ASTI Project 2-11382

EA Factors - Cultural Facilities

DDOT System Map

Last Revised: November 15, 2021

Map Key

- ConnectTen Route
- Primary Route
- Neighborhood Route

- Hospital/Clinic
- Point of Interest
- School
- University/College

Major Transfer Points/Ends of Multiple Routes

Fairgrounds — Transfer to multiple SMART routes

White background = End/beginning of route
Gray background = Route makes a stop here, but continues on

Schematic Map, Not To Scale

Routes

ConnectTen	Primary	Neighborhood
1 Vernor	16 Dexter *	12 Conant
2 Michigan	17 Eight Mile *	13 Conner
3 Grand River *	18 Fenkell	15 Chicago/Davison
4 Woodward *	19 Fort	23 Hamilton/John R
5 Van Dyke/Lafayette *	27 Joy	29 Linwood
6 Gratiot *	30 Livernois	39 Puritan
7 Sower Mile *	31 Mack	40 Russell
8 Warren *	32 McNichols	41 Schaefer
9 Jefferson	38 Plymouth	42 Mid-City Loop
10 Greenfield *	60 Evergreen	43 Schoolcraft
		46 Southfield #
		52 Chene
		54 Wyoming
		67 Cadillac/Harper
		68 Chalmers

* Denotes 24/7 route.
\# Denotes part-time route.

Subject Property

Contact DDOT

313.933.1300
detroitmi.gov/ddot

Detroit MetroLift
(ADA Paratransit Service): 313.208.7363

TDD & TTY Hearing-Impaired Schedule Information: 7-1-1

The Detroit Department of Transportation (DDOT) operates its programs without regard to race, color, and national origin in accordance with Title VI of the Civil Rights Act. Persons who believe they have been aggrieved by any unlawful discriminatory practice under Title VI may file a complaint with DDOT.

For more information on DDOT's civil rights program, our obligations and procedures for filing a complaint, call Customer Service at (313) 933-1300; email DDOTtitle6@detroitmi.gov; visit our administrative office at 100 Mack, Detroit, MI 48201 or website at www.detroitmi.gov/ddot.

Schedules are available in braille, large-print and multiple languages. Contact DDOT Customer Service to request accessible-format materials.

Downtown Map

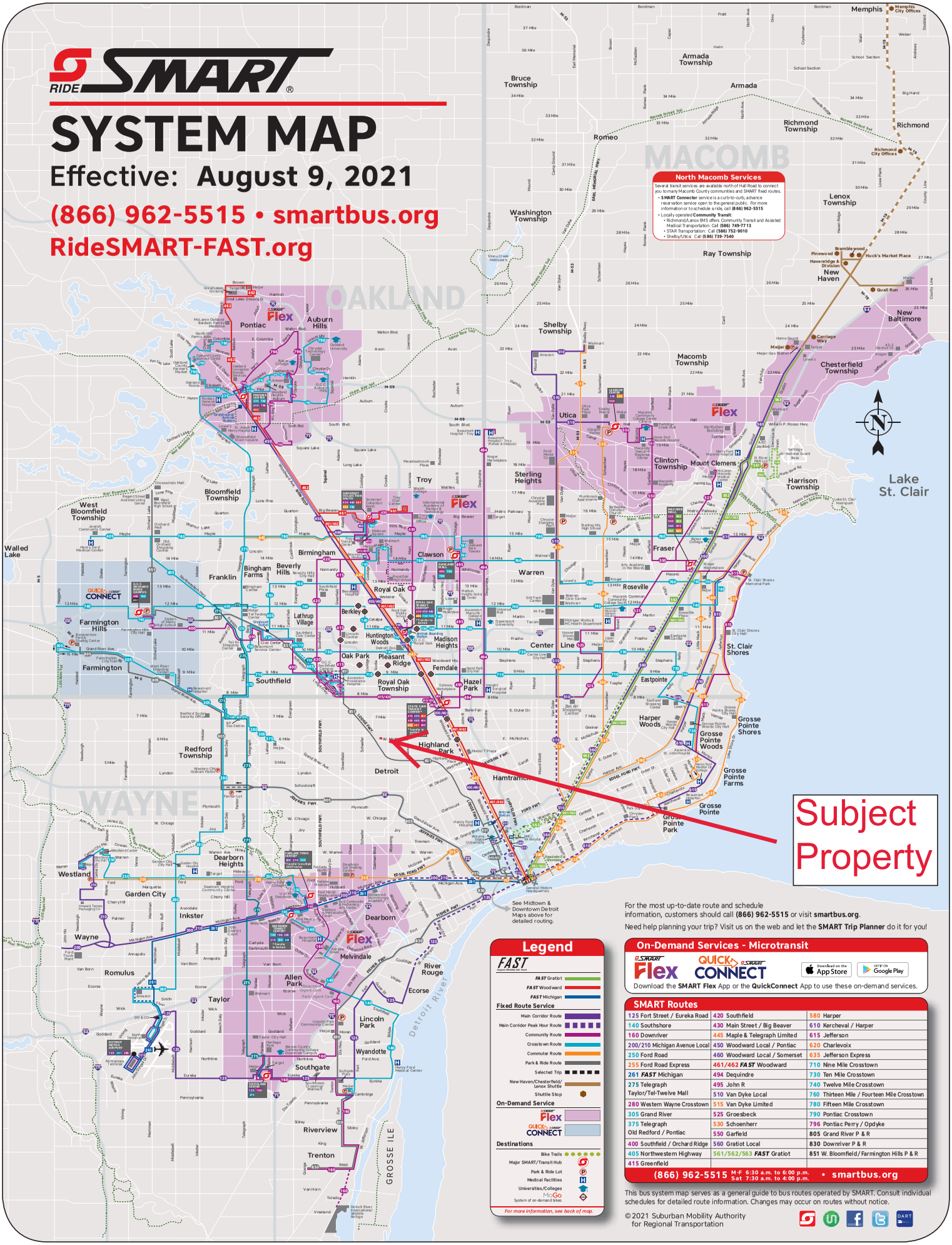
RIDE SMART®

SYSTEM MAP

Effective: August 9, 2021

(866) 962-5515 • smartbus.org

RideSMART-FAST.org



North Macomb Services

Several transit services are available north of Hall Road to connect you to many Macomb County communities and SMART fixed routes.

- **SMART Connector** service is a curb-to-curb, advance reservation service open to the general public. For more information or to schedule a ride, call **(866) 962-5515**
- Locally operated **Community Transit**:
  - Richmond/Lenox BMS offers Community Transit and Assisted Medical Transportation: Call **(586) 749-7713**
  - STAR Transportation: Call **(586) 752-9010**
  - Shelby/Utica: Call **(586) 739-7540**

For the most up-to-date route and schedule information, customers should call **(866) 962-5515** or visit **smartbus.org**.

Need help planning your trip? Visit us on the web and let the **SMART Trip Planner** do it for you!

Legend

FAST Express Affordable Safe Transit

- **FAST** Gratiot
- **FAST** Woodward
- **FAST** Michigan

Fixed Route Service

- Main Corridor Route
- Main Corridor Peak Hour Route
- Community Route
- Crosstown Route
- Commuter Route
- Park & Ride Route
- Selected Trip
- New Haven/Chesterfield/Lenox Shuttle
- Shuttle Stop

On-Demand Service

- SMART Flex
- QUICK CONNECT

Destinations

- Bike Trails
- Major SMART/Transit Hub
- Park & Ride Lot
- Medical Facilities
- Universities/Colleges
- MyGo System of on-demand bikes

For more information, see back of map.

On-Demand Services - Microtransit

SMART Flex · QUICK CONNECT · SMART

Download on the App Store · GET IT ON Google Play

Download the **SMART Flex** App or the **QuickConnect** App to use these on-demand services.

SMART Routes

125 Fort Street / Eureka Road	420 Southfield	580 Harper
140 Southshore	430 Main Street / Big Beaver	610 Kercheval / Harper
160 Downriver	445 Maple & Telegraph Limited	615 Jefferson
200/210 Michigan Avenue Local	450 Woodward Local / Pontiac	620 Charlevoix
250 Ford Road	460 Woodward Local / Somerset	635 Jefferson Express
255 Ford Road Express	461/462 **FAST** Woodward	710 Nine Mile Crosstown
261 **FAST** Michigan	494 Dequindre	730 Ten Mile Crosstown
275 Telegraph	495 John R	740 Twelve Mile Crosstown
Taylor/Tel-Twelve Mall	510 Van Dyke Local	760 Thirteen Mile / Fourteen Mile Crosstown
280 Western Wayne Crosstown	515 Van Dyke Limited	780 Fifteen Mile Crosstown
305 Grand River	525 Groesbeck	790 Pontiac Crosstown
375 Telegraph	530 Schoenherr	796 Pontiac Perry / Opdyke
Old Redford / Pontiac	550 Garfield	805 Grand River P & R
400 Southfield / Orchard Ridge	560 Gratiot Local	830 Downriver P & R
405 Northwestern Highway	561/562/563 **FAST** Gratiot	851 W. Bloomfield/Farmington Hills P & R
415 Greenfield		

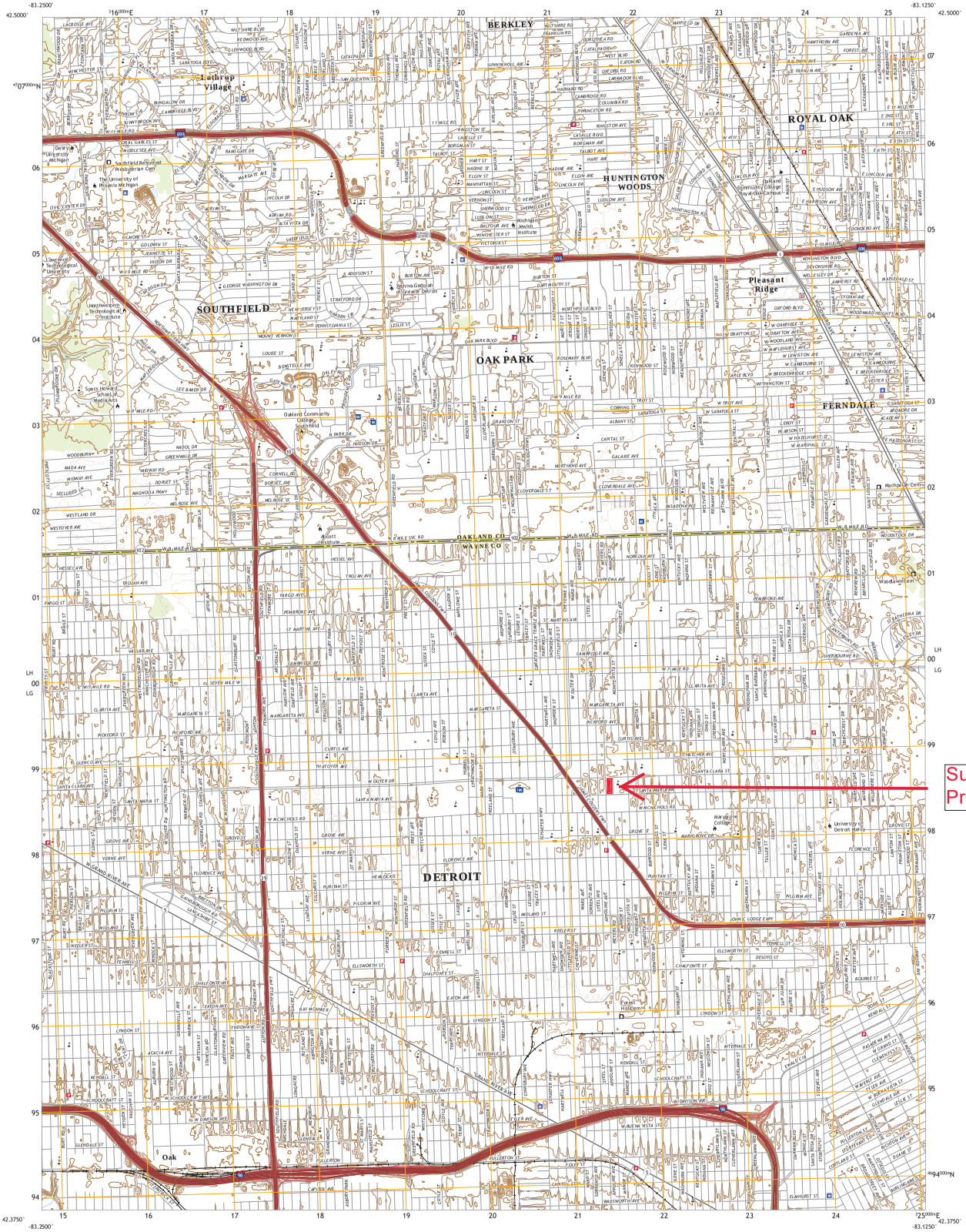
(866) 962-5515 M-F 6:30 a.m. to 6:00 p.m. Sat 7:30 a.m. to 4:00 p.m. • **smartbus.org**

This bus system map serves as a general guide to bus routes operated by SMART. Consult individual schedules for detailed route information. Changes may occur on routes without notice.

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

ROYAL OAK QUADRANGLE
MICHIGAN
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 17T
This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, August 2016 - October 2016
Roads.....U.S. Census Bureau, 2016
Names.....GNIS, 1980 - 2019
Hydrography.....National Hydrography Dataset, 2006 - 2019
Contours.....National Elevation Dataset, 2019
Boundaries.....Multiple sources; see metadata file 2007 - 2018
Public Land Survey System.....BLM, 2018
Wetlands.....FWS National Wetlands Inventory 2005

UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 5 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.18

QUADRANGLE LOCATION

ADJOINING QUADRANGLES
1 Pontiac South
2 Birmingham
3 Warren
4 Redford
5 High Land Park
6 Inkster
7 Dearborn
8 Detroit

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

ROYAL OAK, MI
2019

MSN 7047619819
NGA REF NO. USGS X2K8839

Meyers Senior ASTI
Environmental
April 19, 2023

Response Activity or Continuing Obligation	Required Activities	Party Responsible for Completing Activity	Timing of Activity	Required Follow-up or Reporting
Asbestos Containing Materials Removal	A. Several style of floor titles and caulk were identified as Asbestos Containing Materials (ACMs) in the two former school buildings. B. The roofs, fire doors, and fire door frames are presumed to be ACMs in the two former school buildings. C. Prior to any work that would disturb the ACMs and presumed ACMs, the materials are to be removed by a licensed Asbestos abatement specialist.	General Contractor, Licensed Abatement Specialist, and Consultant.	Prior to Construction.	Clearance inspection following an abatement and ACM closeout Report.
Lead-Based Paint Removal	A. Seventy-two lead-based paint (LBP) hazards were identified at the two former school buildings. B. Fifty-six deteriorated LBP hazards were identified at the two former school buildings. C. Seventy-seven lead dust hazards were identified at the two former school buildings. D. For the deteriorated LBP hazards: 1) Remove and replace components, 2) LBP encapsulation using a HUD/EPA approved paint stabilizer of the LBP hazard. 3) Strip the painted surface bare to substrate, stabilize the surface, and repaint it. E. Clean all floors, windowsills, and window toughs found to have elevated levels of lead dust using a HEPA cleaning method. Following cleaning, collect clearance samples in accordance with HUD requirements.	General Contractor, Consultant.	During Construction.	Collect dust samples to demonstrate compliance with EPA and HUD standards.
Section 106 – Conditional No Adverse Effect Requirements	A. If there is a change in the scope of work, those changes will be required to undergo additional	General Contractor.	Prior to Construction.	

	Section 106 Review prior to the execution of any work. B. In the unlikely event, if bones or artifacts are discovered during ground disturbing activities, all work will be halted, and immediate consultation with the Preservation Specialist will be conducted.	General Contractor.	At any time.	
Noise Analysis – Unacceptable Noise	Appropriate construction materials will be incorporated in the building to mitigate noise levels within the acceptable range.	Architect, Construction, Crew, Foremen, and Developer.	During Construction.	Building specs .