U.S. Department of Housing and Urban Development 451 Seventh Street, SW Washington, DC 20410 www.hud.gov espanol.hud.gov

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

Project Information

Project Name: Piety-Hill-II

HEROS Number: 90000010372367

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

RE Preparer: Kim Siegel

State / Local Identifier: Michigan / Detroit

Certifying Officer: Julie Schneider, Director

Grant Recipient (if different than Responsible Ent ity):

Point of Contact:

Consultant (if applicabl ASTI Environmental **e):**

Point of Contact: Christopher Yelonek

Project Location: 8840 2nd Ave, Detroit, MI 48202

Additional Location Information:

Multiple Sites: 111, 121, 619, 650, 669, and 679 Gladstone Avenue; 101, 130, 646, 656, 667, 668, 676, and 803 Blaine Street; and 8840 2nd Avenue, Detroit, Wayne County, Michigan 48202.

Direct Comments to:

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

The proposed project seeks to acquire, construct new duplex buildings on vacant lots and rehabilitate an extant apartment building in the Piety Hill neighborhood of Detroit, Michigan. The proposed project is to occur at 111, 121, 619, 650, 669, and 679 Gladstone Avenue; 101, 130, 646, 656, 667, 668, 676, and 803 Blaine Street; and 8840 2nd Avenue, Detroit, Michigan. Kingston Apartments is proposed to be renovated with two additional affordable units are planned in the Garden level. The proposed project also plans to develop duplexes on vacant parcels with 32 units of 1,750 Square Feet, plus porches and yards. The 32 units will be at 50% and 80% AMI levels. The 11 existing units at Kingston Place are at 40-50% AMI, totaling 43 family units. This rental project will improve and preserve 11 units of very-low-income housing and add new, historic-designed duplexes all at affordable rent levels. The 32 new units of family housing will bring 80-90 new residents to the Piety Hill neighborhood. The new construction portion of the proposed project will add on-site parking. Whereas the portion of the Subject Property at 8840 2nd Avenue will retain its off-site parking. The existing structure is a three-story structure with lift for accessibility. Apartments are on 1st and 2nd Floors with commercial space of 2,000 SF in the Garden Level. There is a tenant common area and lounge in the building and a small outside seating area will be constructed. The duplexes are also three-level with basement, 1st and 2nd Floors. The project is mixed income and targets units to families earning up to 80% of Area Household Median Income and represent families with more economic means than many residents in our neighborhood, where the median income is closer to 50 or 60% Area Median Income. CDC provides social, educational, and economic development services to their tenants of their properties to surround them with positive opportunities and support as needed. CDC operates a blended management style balancing the tenant needs with landlord responsibilities. This review is for \$1,300,000 in HOME 2022, \$90,000 in CDBG 2020, \$1,420,624.23 in CDBG 2022, and \$430,724.77 in CDBG 2023. This review is valid for up to five years.

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

In the City of Detroit's attempt to remove blight throughout the city, there has been a decreasing amount of housing stock, too. The Piety Hill neighborhood has seen its reduction in housing stock as evident with the vacant lots proposed to be redeveloped. Additionally, the Piety Hill neighborhood has seen a decrease in household growth between 2000 and 2010. The decline in household growth and housing stock has contributed to a higher demand in affordable housing in the Piety Hill neighborhood, particularly for neighborhoods near downtown Detroit, along Woodward Avenue. The proposed project is intending to bring an increase of housing stock to the Piety Hill neighborhood, particularly affordable housing. Additionally, the proposed project is largely an infill development project, creating a denser neighborhood, similar to its historical character.

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

The Piety Hill Neighborhood has several vacant lots scattered throughout the neighborhood, creating an image of neighborhood decline. Most of the Piety Hill Neighborhood is residential with some small spaces for commercial use. As detailed in the market study (Tab Attachment 1), within the project market area (PMA), household growth between 2000 and 2010 was negative, but the rate of contraction forecasted to decelerate through 2026. Strong demand is evident for comparable rental housing offering similarly positioned units. Ongoing demolition and obsolescence of existing rental housing in the area will fuel demand for the subject in the long term. The City of Detroit continues to seek redevelopment of extant vacant lots in residential neighborhoods throughout the city to provide more housing.

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

Tab1-Piety Hill MAP Market Study New-REHAB 2-21.pdfB3-20210514 Piety Hill 2 Drawings.pdfB2-20210514 KINGSTON.pdfB1-Piety Hill 2 Attachment 1 Executive Summary 2021.pdfA2-SFM.pdfA1-6-11563 SLM.pdf

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	Funding Amount
B20MC260006	Community Planning and Development (CPD)	Community Development Block Grants (CDBG) (Entitlement)	\$90,000.00

B22MC260006	Community Planning and	Community Development Block	\$1,420,642.23
	Development (CPD)	Grants (CDBG) (Entitlement)	
B23MC260006	Community Planning and	Community Development Block	\$430,724.77
	Development (CPD)	Grants (CDBG) (Entitlement)	
M22MC260202	Community Planning and	HOME Program	\$1,300,000.00
	Development (CPD)		

Estimated Total HUD Funded, \$3,470,000.00 Assisted or Insured Amount:

Estimated Total Project Cost [24 CFR 58.2 (a) \$9,828,800.00 **(5)]:**

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 ORD	DERS, AND REGULATIO	ONS LISTED AT 24 CFR §50.4 & § 58.6		
Airport Hazards Clear Zones and Accident Potential Zones; 24 CFR Part 51 Subpart D	□ Yes ☑ No	Coleman A. Young International Airport is 3.75 miles away and Windsor International Airport is 9.26 miles away from the Subject Property. The Subject Property are outside of the airport clear zones for both airports. This portion of the report is in compliance with this statute. See Appendix P.		
Coastal Barrier Resources Act Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	□ Yes ☑ No	The Subject Property are inland properties in Wayne County, Michigan. There are no coastal barrier resources on the Subject Property. See Appendix Q.		
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	All the Subject Property are located in Zone X, the zone of minimal chance of flooding in FEMA flood map 26163C0125E, effective February 2, 2012. No flood insurance in required. See Appendix D.		
STATUTES, EXECUTIVE ORE	STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.5			
Air Quality Clean Air Act, as amended,	□ Yes ☑ No	Detroit, Wayne County, Michigan is located in an ozone Attainment/Maintenance area with		

particularly section 176(c) & (d); 40		concentrations over National Ambient
CFR Parts 6, 51, 93		Air Quality Standards. The Michigan
		Department of Environment, Great
		Lakes, and Energy has determined that
		the emission levels for the proposed
		project in the Piety Hill neighborhood
		are expected to be below the de
		minimis levels for general conformity
		See Annendix I
Coastal Zone Management Act		The Subject Property are inland
Coastal Zone Management Act		neoportios within Dotroit Wayno
coastar zone Management Act,		County Michigan The Subject Property
sections 307(c) & (d)		county, Michigan. The Subject Property
		are not located within a Coastal
		Management Zone. See Appendix F.
Contamination and Toxic	⊻ Yes ∟ No	A Phase I ESA dated May 14, 2021,
Substances		Limited Phase II ESA investigations
24 CFR 50.3(i) & 58.5(i)(2)]		conducted in August 2021 and
		November 2022, and a Response
		Activity Plan dated April 14, 2023 were
		completed. Based on the sampling
		conducted, soil at the site is impacted
		by arsenic, hexavalent chromium, iron,
		mercury, selenium, trichloroethene
		(TCE), Benzo(a)pyrene, fluoranthene,
		naphthalene, and phenanthrene at
		concentrations exceeding the applicable
		Michigan Department of Environment,
		Great Lakes, and Energy (EGLE) Part 201
		generic residential cleanup criteria
		(GRCC) and/or the residential
		volatilization to indoor air pathway
		(VIAP) screening levels. The source of
		the contamination is unknown. Based
		on the environmental investigations
		conducted at the Subject Property, a
		volatilization to indoor air concern is
		present for the proposed building at 676
		Blaine Street. In addition. exceeding the
		GRCC for DC and/or the SSVIAC in the fill
		samples collected from the parcels at
		656 Blaine Street, 121 Gladstone Street.
		619 Gladstone Street, and 650
		Gladstone Street Remedial actions will
		he conducted on these narcels to
		address the notential for unaccentable
		risk as part of the redevelopment of the
	1	

	site. To mitigate the potential for
	exposure via the VIAP, the proposed
	building at 676 Blaine Street will have a
	vapor mitigation system - sub-sub
	depressurization system (SSDS)
	installed Following installation of the
	SSDS a sample of the system exhaust
	will be collected from the system prior
	to the system commissioning. The
	to the system commissioning. The
	results of this sample will be used to
	calculate if an air emission Permit-to-
	Install is required for any of the systems.
	To mitigate the potential for exposure
	via the direct contact pathway and/or
	the VIAP, all fill materials including fill
	and non-natural materials, identified
	visually, will be excavated from the
	Subject Property at 656 Blaine Street,
	121 Gladstone Street, 619 Gladstone
	Street, and 650 Gladstone Street, and
	disposed off-site. Following excavation,
	confirmation of remediation sampling
	will be completed in general accordance
	with the guidance provided in the
	Sampling Strategies and Statistics
	Training Materials for Part 201 Cleanup
	Criteria to address the direct contact
	pathway. Overall, the proposed project
	is seeking Due Care Compliance from
	EGLE. The remedial activities on the site.
	located at 619, 121, and 650 Gladstone
	Avenue: along with 656 and 676 Blaine
	Street have been approved by EGLE in
	five separate letters, all dated
	November 20, 2023 (Appendix N) The
	nroperty is in Wayne County, Michigan
	which is in Zone 3 is low notential risk
	for indoor radon levels. The proposed
	new construction will not undergo
	radon testing based on the location of
	the properties in a low rick county
	Achieves Containing Material (ACM)
	Aspestos Containing Material (ACM)
	inspection: Based on the inspection
	conducted by ASTI between August 11
	and September 1, 2021, no ACMS were
1 1	identified on the site. Presumed

		Asbestos-Containing Materials Several
		materials were identified as potential
		ACMs However due to the destructive
		nature of sampling required these
		nature of sampling required, these
		materials were not sampled at this time.
		The following PACMs were identified
		during the site inspection. 12 Bathtub
		Undercoats, 10 Fire Door Sets, and
		Roofing material. If these materials are
		further defined as ACM's they should be
		abated in accordance with federal, state
		and local regulations and a closeout
		report provided to the City of Detroit
		Lead-Based Paint (LBP) Inspection: Six of
		743 samples taken were positive for LBP
		at 8840 Second Avenue. During the
		Inspection, ASTI found three areas of
		deteriorated lead-based paint. Eight of
		145 dust wipe samples test results at
		8840 Second Avenue exceeded federal.
		state and local standards. Bare soil test
		results revealed that the lead
		concontrations in the soil do not exceed
		Concentrations in the solido not exceed
		HOD and EPA standards. The LBP will be
		abated in accordance with federal, state
		and local regulations and a closeout
		report provided to the City of Detroit.
Endangered Species Act	🗆 Yes 🗹 No	There are three endangered and four
Endangered Species Act of 1973,		threatened species in Wayne County.
particularly section 7; 50 CFR Part		The Eastern Massasauga rattlesnake,
402		the Eastern Prairie Fringed Orchid.
		Indiana Bat, Northern Long-eared Bat
		Northern Riffleshell Dining Ployer and
		the Red Knot are species that are at
		laget threater encodes with hebitate in
		least threaten species with habitats in
		Wayne County, Michigan. Kingston
		Apartments is the only extant building
		on the Subject Property and is planned
		to be a rehabilitation of the property.
		The remainder of the Subject Property
		are vacant lots that were previously
		developed, prior to demolition of the
		buildings. No critical habitats are
		expected to be affected through the
		nronosed project The U.S. Fish and
		Wildlife Convice has determined that
		whome service has determined that

		there is no effect on any critical habitats of endangered and threatened species in Wayne County through the proposed project. See Appendix H.
Explosive and Flammable Hazards	🗆 Yes 🗹 No	A one-mile search radius around the
Above-Ground Tanks)[24 CEP Dart		Subject Property for Above ground
E1 Subpart C		Storago Tanks (ASTs) containing
SI Suppart C		Storage Tanks (ASTS) containing
		explosive and flammable materials using
		the EDR Radius Map Report dated
		March 23, 2023. There are four active
		ASTs within one mile of the Subject
		Property. The first AST is located at
		3011 West Grand Boulevard, with a
		capacity of 500 gallons for diesel fuel.
		The AST has an Acceptable Separation
		Distance for Thermal Radiation for
		People (ASDPPU) of 207.20 feet and 803
		Blaine Street, the southernmost parcel
		of the Subject Property is approximately
		3 281 feet away At 3044 West Grand
		Boulevard are two 3 000-gallon diesel
		ASTs, which have an ASDPPII of 437.00
		foot oach and 202 Plaine Street the
		reet each, and ous blame street, the
		Southernmost parcel of the Subject
		Property is approximately 3,863 feet
		away. Finally, at 899 West Baltimore
		Street is a 1,150-gallon Liquid Petroleum
		Gas AST, which has an ASDPPU of
		293.15 feet, an ASD for blast over
		Pressure of 229.39 feet, and 803 Blaine
		Street, the southernmost parcel of the
		Subject Property is approximately 4,854
		feet away. The Subject Property is
		located at distances that exceeded the
		minimum ASD for each AST. Therefore,
		the proposed project is in compliance
		with this regulation. See Appendix O.
Farmlands Protection	□ Yes ☑ No	The soil of the Subject Property consists
Farmland Protection Policy Act of		of Shebeon-Urban Land-Avoca complex.
1981, particularly sections 1504/b)		0 to 4 percent slopes. All the Subject
and 1541.7 CER Part 658		Property are within the City of Detroit
		Michigan and have been previously
		dovolopod Although the vesent late are
		net surrently developed the late have
		not currently developed, the lots have
		been developed historically. There is no

		prime farmland on the Subject Property. See Appendix K.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	□ Yes ☑ No	All the Subject Property are located in Zone X, which represents minimal risk outside the 1-percent and 2-percent annual chance floodplains in FEMA flood map 26163C0125E, effective February 2, 2012. The Subject Property are outside of any flood zones. See Appendix D.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	☑ Yes □ No	This section contains sensitive information relating to this project. For that reason, documentation is withheld from the public environmental review record.
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 Subject Property are located within 1,000 feet of the John C. Lodge Freeway, Woodward Avenue, and Clairmont Avenue, which are considered busy roads due to their size along with traffic volumes. The Subject Property are within proximity of two airports. Coleman A. Young International Airport is approximately 3.75 miles distant. Whereas Windsor International Airport is approximately 9.26 miles distant. Both airports are within 15 miles (the MSHDA / HUD civil airport distance criterion) of the Subject Property. Based on the noise contour maps for the airports, the Subject Property lots are not within a distance of concern. The noise levels for the roadways were projected to decibel (dB) levels in 2031 is found to be in the normally unacceptable range for Noise Assessment Location (NAL) #1 at 68 dB, located at 803 Blaine Street of the Subject Property. While NALs #2 and #3 are found to be within the Acceptable range. See Appendix M. The HUD Sound Transmission Classification Assessment Tool (STraCAT) was used to determine the noise attenuation for the proposed project at NAL #1, which represents the highest noise impact on

		the proposed project. The STraCAT		
		calculations are based on the proposed		
		building materials to be used in the new		
		construction. Based on the noise levels		
		at NAL #1, the required Sound		
		Transmission Class (STC) rating of 26.		
		Based on the STraCAT calculations, the		
		north aka facade elevation of the		
		proposed new construction at 803		
		Blaine Street has the lowest STC rating		
		of 32.71 and the highest STC rating of		
		35.94 at the east side elevation. Since all		
		other NALs were found to be within the		
		Acceptable range and the other sites of		
		the Subject Property are at least		
		approximately 473 feet away, with the		
		nearest site to 803 Blaine Street, being		
		676 Blaine Street. With mitigation of the		
		incorporation of the proposed building		
		materials to be included in the new		
		construction portion of the proposed		
		project, the project is in compliance		
		with this statute. See Appendix M.		
Sole Source Aquiters	L Yes ⊻ No	There are no sole source aquifers		
Safe Drinking Water Act of 1974, as		Nichigan See Appendix C		
amended, particularly section		Michigan. See Appendix G.		
Metlands Protection		There are no wetlands present on the		
Executive Order 11990 particularly		Subject Property according to the		
sections 2 and 5		National Wetlands Inventory Manner		
		See Appendix E.		
Wild and Scenic Rivers Act	□ Yes ☑ No	Wayne County, Michigan does not		
Wild and Scenic Rivers Act of 1968,		contain any wild and scenic rivers. There		
particularly section 7(b) and (c)		are no natural rivers in Wayne County.		
		See Appendix I.		
HUD HC	USING ENVIRONMEN	ITAL STANDARDS		
ENVIRONMENTAL JUSTICE				
Environmental Justice	🗆 Yes 🗹 No	Within a one-mile radius of the Subject		
Executive Order 12898		Property, the selected variables by the		
		EPA, found pollution levels to be above		
		the state average. The population		
		surrounding the Subject Property		
		consists of 86 percent of persons of		
		color, 60 percent are low-income		
		households, 1 percent are linguistically		

isolated, 15 percent hold less than a
high school education, 5 percent are
under five years of age, and 14 percent
are over the age of 64 years. The
proposed project seeks to rehabilitate
an extant apartment building and
construct new duplex residential
dwellings on 16 vacant lots. The persons
living in the apartment building will be
temporarily relocated during
renovations and are to return to the
apartment building after construction
activities are complete. No persons are
to be displaced by the proposed project.
The proposed project on the Subject
Property is not anticipated to have an
adverse effect on the surrounding
population of the project sites in the
City of Detroit. See Appendix L.

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	Impact	Impact Evaluation	Mitigation
Assessment Factor	Code		
		LAND DEVELOPMENT	
Conformance with	2	The proposed project is in conformance	
Plans / Compatible		with current zoning of the City of Detroit.	
Land Use and Zoning		The Kingston Apartments building is zoned	
/ Scale and Urban		B2-Local Business and Residential District.	
Design		The vacant lots are zoned as R5-Medium	
		Density Residential District. The proposed	
		project will not alter the zoning or land use	
		of the Subject Property. The urban design	
		and scale of the proposed project is seeking	
		to construct duplexes on the vacant lots	
		similar in design to the surrounding extant	
		buildings. The Kingston Apartments	

Environmental	Impact	t Impact Evaluation Mitigat	
Assessment Factor	Code		
		building is proposed to be only an interior rehabilitation of the extant building. Therefore, the Kingston Apartments building will not be altered in scale and urban design	
Soil Suitability / Slope/ Erosion / Drainage and Storm Water Runoff	2	According to the Detroit, Michigan Quadrangle 7.5-minute Topographic map, the site falls into the 628 feet elevation. The soil composition of the Subject Property is Urbanland with variable soil texture and non-hydric soil. Kingston Apartments is an extant building proposed to undergo interior rehabilitation only. The vacant lots historically had been residential properties with relatively flat topography. The topography of the regional area declines to the south. The EGLE/DEQ GeoWebFace describes the quaternary geology of the area as lacustrine clay and silt. There are no anticipated adverse effect concerning soil suitability, erosion,	
		drainage, or storm water runoff.	
Hazards and Nuisances including Site Safety and Site- Generated Noise	2	The proposed project is not adversely affected by on-site or off-site hazards or nuisances. Kingston Apartments is proposed to have key fob entry, camera, and buzzer entry system installed as part of the rehabilitation. The proposed new construction will have key fob entry to all buildings. The Subject Property were at one Noise Assessment Location (NAL) to be in Normally Unacceptable range. Noise attenuation measures will be incorporated to bring the inter noise levels to the acceptable range. No adverse effects are anticipated.	
	1	SOCIOECONOMIC	
Employment and Income Patterns	1	There will be a temporary increase in employment in the area due to the construction activities of the proposed project. There are no anticipated changes to employment and income patterns in the area after construction has been completed.	

Environmental	Impact	t Impact Evaluation Mitigatio	
Assessment Factor	Code		
Demographic Character Changes / Displacement	1	The proposed project is not anticipated to significantly change the demographics of the general area. It will provide needed affordable housing to residents of the area. The project aims to assist low-income	
		affordable studio, one-bedroom, two- bedroom, and duplex units. The proposed project is planned to rehabilitate an extant building, where residents are to be temporary relocated on a daytime basis	
		during rehabilitation. The new construction is proposed to occur on vacant lots. The project involves new construction on 16	
		vacant sites and the rehabilitation of a vacant apartment building, no displacement will occur. The proposed project is anticipated to increase urban	
		density that decreased due to the decline in housing stock in the Piety Hill neighborhood.	
Environmental Justice EA Factor	2	Within a one-mile radius of the Subject Property, the selected variables by the EPA, found pollution levels to be above the state	
		average. The population surrounding the Subject Property consists of 86 percent of	
		persons of color, 60 percent are low- income households, 1 percent are linguistically isolated, 15 percent hold less	
		than a high school education, 5 percent are under five years of age, and 14 percent are	
		over the age of 64 years. The proposed project seeks to rehabilitate an extant apartment building and construct new	
		duplex residential dwellings on 16 vacant lots. The persons living in the apartment building will be temporarily relocated	
		during renovations and are to return to the apartment building after construction	
		activities are complete. No persons are to be displaced by the proposed project. The proposed project on the Subject Property is	
		not anticipated to have an adverse effect on the surrounding population of the	

Environmental	Impact	ct Impact Evaluation Mitig			
Assessment Factor	Code				
		project sites in the City of Detroit. See			
		Appendix L.			
COMMUNITY FACILITIES AND SERVICES					
Educational and	2	The area is served by the Detroit Public			
Cultural Facilities		Schools Community District. This project			
(Access and Capacity)		will not impact the capacity of any of these			
		schools. For in neighborhood schools'			
		students would be served by the Detroit			
		Public Schools Community District.			
		Thirkell Elementary-Middle School at 7724			
		14th Street, offers educational services for			
		grades from kindergarten to the Eighth			
		Grade, which is approximately 5,188 feet			
		from the Subject Property's most central			
		location at 656 Blaine Street. Northern			
		Senior High School at 2200 West Grand			
		Boulevard, offers education services for			
		grades Ninth through Twelfth, which is			
		approximately 1.63 miles from the most			
		central location of the Subject Property.			
		Regular education students in grades K-8			
		who reside more than 3/4 of a mile from			
		their heighborhood school and attend their			
		heighborhood school will receive yellow			
		bus transportation from a designated			
		Student Transportation Regular education			
		students in grades 9-12 are provided City of			
		Detroit Department of Transportation hus			
		passes, provided that they attend their			
		neighborhood school and live more than			
		1.5 miles away. Special education students			
		will receive transportation services			
		required by their Individualized Education			
		Plan. The proposed project is anticipated to			
		increase in urban density, but it is not			
		anticipated to have an adverse impact on			
		local schools. See Appendix R. There are			
		several opportunities for potential future			
		residents to seek cultural engagement. The			
		Motown Museum at 2648 West Grand			
		Boulevard is approximately 5,269 feet from			
		the most central location of the Subject			
		Property. The Ford Piquette Avenue Plant			

Environmental	Impact	Impact Evaluation	Mitigation
Assessment Factor	Code		_
		Museum at 461 Piquette Avenue is	
		approximately 1.10 miles from the Subject	
		Properties most central location. The	
		nearest branch of the Detroit Public Library	
		is the Duffield Branch at 2507 West Grand	
		Boulevard, which is approximately 1.13	
		miles from the Subject Property's most	
		central location. The Detroit Historical	
		Museum at 5401 Woodward Avenue is	
		approximately 1.51 miles from the Subject	
		Property's most central location. Finally,	
		the Detroit Institute of Arts at 5200	
		Woodward Avenue is approximately 1.56	
		miles from the Subject Property's most	
		central location. No cultural facilities are	
		anticipated to be adversely impacted by	
		the proposed project. See Appendix R.	
Commercial Facilities	1	The nearest commercial corridor to the	
(Access and		Subject Property is on Woodward Avenue,	
Proximity)		from Owen Street to Kenilworth Street,	
		featuring a grocery store, a gas station, and	
		restaurants, which is approximately 1,639	
		feet from 656 Blaine Street, the Subject	
		Property's most central location. Another	
		commercial corridor to the Subject	
		Property, is on Woodward Avenue, from	
		Euclid Street to Marston Street, featuring	
		two grocery stores, a pharmacy, and two	
		restaurants, which is approximately 1,645	
		feet from the Subject Property's most	
		central location. Finally, the largest	
		commercial corridor to the Subject	
		Property is on West Grand Boulevard from	
		John C. Lodge Service Drive East to	
		Woodward Avenue, featuring retail, fitness	
		center, restaurants, and a bank, which is	
		approximately 3,912 feet from the Subject	
		Property's most central location. The	
		project could be beneficial to local	
		businesses, as there will be an increase in	
		nousenoias requiring goods and services.	
		ho advarsaly impacted by the processed	
		be adversely impacted by the proposed	
		project. See Appenaix K.	

Environmental	Impact	t Impact Evaluation Mitigati	
Assessment Factor	Code		
Assessment Factor Health Care / Social Services (Access and Capacity)	Code 1	The Subject Property are served by a full range of health care professionals. The nearest hospital to the Subject Property is Henry Ford Hospital at 2799 West Grand Boulevard is approximately 3,659 feet away from 656 Blaine Street, the most central location of the Subject Property. The nearest pharmacy to the Subject Property is A&M Pharmacy at 8282 Woodward Avenue, which is approximately 2,070 feet from the Subject Property's most central location. No health care facilities are anticipated to be negatively affected by the proposed project. No social services are anticipated increase in demand for social services because of the proposed project. The increase in affordable housing through a local non-profit may help reduce the demand for social services. However, if potential future residents require additional social service, the Neighborhood Service Organization at 8600 Woodward Avenue, offers community based and holistic social service programs to vulnerable persons, which is approximately 1,248 feet from the most central location	
Solid Waste Disposal and Recycling (Feasibility and Capacity)	2	Solid waste disposal will be taken care of via a professional service under contract for Kingston Apartments and through the City of Detroit: Department of Public Works - Solid Waste for the proposed construction.	
Waste Water and Sanitary Sewers (Feasibility and Capacity)	2	Kingston Apartments is connected to the municipal water supply. The Detroit Water and Sewage Department provides service to the Project area. No adverse effect is anticipated.	
Water Supply (Feasibility and Capacity)	2	Kingston Apartments is connected to the municipal water supply. The Detroit Water and Sewage Department provides service to the Project area. The Subject Property at	

Environmental	Impact	t Impact Evaluation Mitigat	
Assessment Factor	Code		_
		8840 2nd Avenue is planned to retain the	
		existing water pipes, which are 2 inches in	
		diameter for the domestic water. All other	
		Subject Property sites are planned to install	
		new water pipes. No adverse impacts on	
		the water supply are anticipated.	
Public Safety - Police	2	The Detroit Police Department covers the	
Fire and Emergency	2	project location with the Third Police	
Medical		Precinct at 2875 West Grand Boulevard	
Wealean		which is 3 816 feet away from 656 Blaine	
		Street the most central location of the	
		Subject Property The Detroit Fire	
		Department provides fire department and	
		emergency medical services to the	
		residents of the project area. The pearest	
		fire station is Detroit Fire Engine 39 and	
		Medic 1 at 8700 14th Street which is 4 901	
		feet away from the most central location of	
		the Subject Property. No public safety	
		services are anticipated to be negatively	
		affected by the proposed project	
Darks Open Space	2	There are soveral expertunities for	
and Pocreation	2	notential future residents to partake in	
(Access and Canacity)		recreation near the Subject Property. The	
(Access and capacity)		nearest nark to the Subject Property. The	
		Voigt Park at 795 Longfellow Street which	
		is approximately 1 876 feet form 656 Blaine	
		Street the Subject Property's most central	
		location Bennet Playground at 111 Smith	
		Street features a basketball court a	
		comfort station fitness equipment nicnic	
		shelters play area a swimming pool and a	
		walking nath which is annrovimately 3 726	
		feet from the Subject Property's most	
		central location Gordon Park Play Area at	
		1935 Atkinson Street, features fitness	
		equinment a play area nichic area and a	
		walking nath which is annrovimately 4 279	
		feet from the Subject Property's location	
		The Joseph Walker Williams Recreation	
		Center at 8431 Rosa Parks Roulevard	
		featuring horseshoe nits nichic shelters	
		reationing norseshoe pits, picific sherters,	
		picnic areas, play area, and a swimming	

Environmental	Impact	t Impact Evaluation Mitigatio	
Assessment Factor	Code		
		from the Subject Property's most central	
		location. Griffin Park at 1955 Delaware	
		Street, features a basketball court, picnic	
		shelters, picnic areas, and a play area,	
		which is 4,726 feet from the Subject	
		Property's most central location. No parks,	
		open spaces, and recreation facilities are	
		anticipated to be adversely impacted by	
		the proposed project. See Appendix R.	
Transportation and	2	The Subject Property is served by the	
Accessibility (Access		Detroit Department of Transportation	
and Capacity)		(DDOT) and the SMART bus systems. The	
		nearest DDOT routes to the Subject	
		Property are routes 4 and 23. The nearest	
		bus stop to the Subject Property's most	
		central location at 656 Blaine Street is stop	
		#1015 Woodward and Blaine for route 4,	
		which is approximately 1,148 feet away.	
		The nearest bus stop serviced by route 23,	
		to the Subject Property is stop #7587 Lodge	
		Service Drive and Gladstone Avenue, is	
		approximately 1,175 feet from the most	
		central location. The nearest SMART bus	
		routes operating near the Subject Property	
		are routes 445, 450/460, 461/462, and 851.	
		The nearest bus stop to the Subject	
		Property serviced by most of the SMART	
		routes is stop #1644, which is	
		approximately 4,158 feet from the Subject	
		the DDOT and SMART routes aparating	
		the DDOT and SWART routes operating	
		read the subject Property, potential future	
		navigate the City of Detroit along with the	
		Detroit Metro area. The notential increase	
		in urban density through the proposed	
		project may be beneficial to transit	
		agencies, which may increase the demand	
		and funding for public transit. The nearest	
		major roadways to the Subject Property are	
		Woodward Avenue / M-1. John C. Lodge	
		Freeway / M-10, and Walter P. Chrysler	
		Freeway / I-75. The previously mentioned	
		major roadways connect the Subject	

Environmental	Impact	ct Impact Evaluation Mitiga			
Assessment Factor	Code				
		Property to the rest of the State of			
		Michigan. The proposed project is not			
		anticipated to have an adverse impact on			
		traffic on major roadways. See Appendix R.			
		NATURAL FEATURES			
Unique Natural	2	There are no unique natural or water			
Features /Water		features in the project area. The project			
Resources		area is located in a former streetcar suburb			
		of the City of Detroit along Woodward			
		Avenue that has been developed. The			
		nearest open body of water is the Detroit			
		River at 4.07 miles away from 803 Blaine			
		Street, the southernmost Subject Property.			
		No unique natural and water features will			
		be affected by the proposed project.			
Vegetation / Wildlife	2	No vegetation or wildlife are expected to			
(Introduction,		be adversely impacted by the proposed			
Modification,		project.			
Removal, Disruption,					
etc.)					
Other Factors 1					
Other Factors 2					
CLIMATE AND ENERGY					
Climate Change	2	The Subject Property is located in Wayne			
		County, Michigan. Wayne County is			
		classified to have a relatively high risk index			
		for climate related disasters by FEMA. The			
		expected annual loss for Wayne County is			
		relatively high, the County's social			
		vulnerability is very high, and the			
		community resilience is rated to be			
		relatively moderate. The climate related			
		disasters with a very high risk index to			
		occur in Wayne County are cold waves,			
		lighting, riverine flooding, strong winds,			
		and tornadoes. The climate related			
		disasters with a relatively high risk index to			
		occur in Wayne County are heat waves and			
		winter weather. The proposed project is			
		designed to protect potential future			
		residents from most climate related			
		disasters with a high risk index. The			
		proposed project is not designed to protect			

Environmental	Impact	Impact Evaluation Mitigat	
Assessment Factor	Code		
		potential future residents from riverine flooding, however, flooding is not considered to be a significant risk for the Subject Property, since it is located in Zone X, the area of minimal flood hazard as seen in FEMA flood map 26163C0125E, effective February 2, 2012. The daily average maximum temperature in the City of Detroit is predicted to be at 65.1 degrees Fahrenheit with higher emissions in 2053 and 63.8 degrees with lower emissions in 2053. The daily average maximum temperatures predictions of 2053 are anticipated to increase, when compared to 58.6 degrees of the 1961-1990 observed average. The proposed project is not anticipated to place potential future residents at risk of climate related disasters, nor is it anticipated to exacerbate warming climate conditions. See Appendix	
Energy Efficiency	2	K. The Subject Property is located within Piety Hill, a former streetcar neighborhood of Detroit, which was originally designed to be a walkable neighborhood. The Subject Property is nearby small commercial corridors and serviced by public transit. Additionally, the new construction portion of the prosed project are new duplex residential dwellings, which creates a greater energy efficiency when compared to single-family residential dwellings. The proposed project is anticipated to allow potential future residents to lower carbon footprint lifestyles. See Appendix R. The extant building electrical and gas utilities are provided by DTE. The heat source of the extant building is natural gas. The Piety Hill neighborhood electrical and gas utilities are provided by DTE. No adverse effect is anticipated from the proposed project concerning energy consumption.	

Supporting documentation

 R6-Community Report - Wayne County_Michigan_National Risk Index.pdf

 R7-Climate_Graph.pdf

 R5-MI_Highland_Park_20230706_TM_geo.pdf

 R4-SMART_Map.pdf

 R3-DDOT-SystemMap2.pdf

 R2-6-11563_EA_Factors.pdf

 R1-Detroit_zmap9.pdf

 L-6-11563_ejscreen_report(1).pdf

 K-6-11563_Soil_Report(1).pdf

Additional Studies Performed:

Phase I Environmental Site Assessment: Central Detroit Christian Kingston, 14 Vacant Parcels and 1 Apartment Building, Detroit, Michigan. For Central Detroit Christian. ASTI Environmental. September 25, 2020. A Feasibility Analysis for Piety Hill II: 1620 Gladstone, Detroit, Michigan. For Michigan State Housing Development Authority. Market Analyst Professionals. March 5, 2021. Noise Assessment: Central Detroit Christian Kingston, 14 Vacant Parcels and 1 Apartment Building, Detroit, Michigan. For Piety Hill II Limited Dividend Housing Association Limited Partnership. ASTI Environmental. May 13, 2021. Phase I Environmental Site Assessment: Kingston Place Apartments, 14 Vacant Parcels and 1 Apartment Building Along Blaine Street, Gladstone, and Second Avenues, Detroit, Michigan. For Piety Hill 2 LDHA LP. ASTI Environmental. May 14, 2021. Asbestos-Containing Materials Inspection: Piety Hill II, 8840 Second Avenue, Detroit, Michigan. For Central Detroit Christian CDC. ASTI Environmental. September 21, 2021. Lead-Based Paint Inspection and Risk Assessment: Piety Hill II, 8840 Second Avenue, Detroit, Michigan. For Central Detroit Christian CDC. ASTI Environmental. September 21, 2021. Limited Phase II Environmental Site Assessment Kingston Place Apartments 15 Vacant Parcels and 1 Apartment Building Along Blaine Street and Gladstone and Second Avenues, Detroit, Michigan. For Piety Hill 2 Limited Dividend Housing Association Limited Partnership. ASTI Environmental. September 24, 2021. Phase I Environmental Site Assessment: Piety Hill II, 14 Vacant Parcels and One Apartment Building, Blaine Street and Gladstone and Second Avenues, Detroit, Michigan. For Piety Hill II LDHA, LP, ASTI Environmental. April 13, 2023. Response Activity Plan to Comply with Section 20107a(1)(b) of 1994 PA 451, Part 201, as amended: Piety Hill II, 8840 Second Avenue; 121, 619, & 650 Gladstone Avenue; and 656 & 676 Blaine Street. For Piety Hill II Limited Dividend Housing Association Limited Partnership. ASTI Environmental. April 14, 2023.

Field Inspection [Optional]: Date and completed by:

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

See the attached PDF for a list of sources used in preparation of the Piety Hill II EA.

Piety Hill II Sources.pdf

List of Permits Obtained:

Public Outreach [24 CFR 58.43]:

Public outreach will be conducted by the Responsible Entity at a later date.

Cumulative Impact Analysis [24 CFR 58.32]:

The cumulative impact of the proposed project is to help generate more housing stock within the City of Detroit, Michigan. Assist with the City of Detroit's ongoing goal of redeveloping vacant lots through the city. The proposed new construction will provide affordable housing to the Piety Hill neighborhood, which is within two miles of the New Center and Midtown neighborhoods of Detroit. The interior of the Kingston Apartments building is proposed to undergo rehabilitation to create more accessible apartments for renters and modernized apartments. Once the proposed project is completed, the City of Detroit will have 28 more housing units on 14 lots and a more accessible, modernized Kingston Apartments building. Overall, the cost of housing can help contribute to lowering the cost of housing in the City of Detroit by providing more affordable housing stock.

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

Several other sites were considered for the proposed project. However, CDC was able to acquire key parcels in the most concentrated geographic area in the Piety Hill neighborhood.

No Action Alternative [24 CFR 58.40(e)]

The no action alternative is not preferred. By pursuing the no action alternative, it would prevent the interior rehabilitation of the Kingston Apartments building and the redevelopment of the vacant lots. There is a high demand for affordable housing in the City of Detroit, including Piety Hill which is closely located to New Center and Midtown neighborhoods. By not redeveloping the vacant lots, the ongoing goal of the City of Detroit to rebuild housing in neighborhoods that had experienced demolition of housing stock would be curtailed and much needed affordable housing would not be provided in the area.

Summary of Findings and Conclusions:

The proposed low-income housing construction will not adversely impact the City Detroit or neighborhoods surrounding the site. The activity is compatible with the surrounding neighborhood and zoning and will have minimal impact on existing resources or services in the area. The proposed project will create access for lowincome families to live in the Piety Hill neighborhood.

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,	Mitigation Measure or Condition	Comments	Mitigation	Complete
Authority, or		on	Plan	
Factor		Completed		
		Measures		
Historic	The scope of work is submitted	N/A		
Preservation	to the Preservation Specialist for			
	review and approval			
	* Any changes to the scope of			
	work for the project shall be			
	submitted to the Preservation			
	Specialist for review and			
	approval prior to the start of any			
	work			
	* Photos of the completed work			
	are submitted to the			
	Preservation Specialist			
Contamination	Compliance can be achieved	N/A		
and Toxic	through the EGLE approved			
Substances	Response Activity Plans for the			
	proposed project to reach a			
Nutri		NI (A		
NOISE	The incorporation of the	N/A		
Abatement	proposed building materials into			
and Control	the new construction portion of			
	the proposed project to bring			
	interior noise levels down to an			
	building materials for the new			
	construction are included in the			
	STraCAT calculations			
	STRACAT Calculations.			

24 CFR Part	Completion of radon	N/A	
50.3(i) &	assessments of the proposed		
58.5(i)(2)	new construction sites.		

Project Mitigation Plan

See attached mitigation plan for detailed information about how the above measures and conditions will be carried out and monitored.

Piety Hill II_HRD Model Mitigation Plan_Template-Revised.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		24 CFR Part 51 Subpart D
prevent incompatible development		
around civil airports and military airfields.		

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

✓ No

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

Yes

Screen Summary

Compliance Determination

Coleman A. Young International Airport is 3.75 miles away and Windsor International Airport is 9.26 miles away from the Subject Property. The Subject Property are outside of the airport clear zones for both airports. This portion of the report is in compliance with this statute. See Appendix P.

Supporting documentation

P-6-11563_ALM.pdf

Are formal compliance steps or mitigation required?

Yes

Coastal Barrier Resources

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

1. Is the project located in a CBRS Unit?

✓ No

Document and upload map and documentation below.

Yes

Compliance Determination

The Subject Property are inland properties in Wayne County, Michigan. There are no coastal barrier resources on the Subject Property. See Appendix Q.

Supporting documentation

Q-Coastal Barrier Resource Map.pdf

Are formal compliance steps or mitigation required?

Yes

Flood Insurance

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

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

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

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

All the Subject Property are located in Zone X, the zone of minimal chance of flooding in FEMA flood map 26163C0125E, effective February 2, 2012. No flood insurance in required. See Appendix D.

Supporting documentation

D-FIRMETTE_803_Blaine.pdf

Are formal compliance steps or mitigation required?

Yes

Air Quality

General requirements	Legislation	Regulation
The Clean Air Act is administered	Clean Air Act (42 USC 7401 et	40 CFR Parts 6, 51
by the U.S. Environmental	seq.) as amended particularly	and 93
Protection Agency (EPA), which	Section 176(c) and (d) (42 USC	
sets national standards on	7506(c) and (d))	
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.		

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 (<u>40 CFR 93.153</u>) or screening levels for the non-attainment or maintenance level pollutants indicated above

Ozone 0.07 ppb (parts per million)

Provide your source used to determine levels here:

US EPA Green Book 8-Hour Ozone (2015) Designated Area/State Information with Design Values

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

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

Enter the estimate emission levels:

Ozone ppb (parts per million)

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

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

Screen Summary

Compliance Determination

Detroit, Wayne County, Michigan is located in an ozone Attainment/Maintenance area with concentrations over National Ambient Air Quality Standards. The Michigan Department of Environment, Great Lakes, and Energy has determined that the emission levels for the proposed project in the Piety Hill neighborhood are expected to be below the de minimis levels for general conformity. See Appendix J.

Supporting documentation

<u>J3-General Conformity_Piety Hill_1121.pdf</u> <u>J2-2023_naaqs-ambient-status-map.pdf</u>

Are formal compliance steps or mitigation required?

Yes

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	Coastal Zone Management Act (16 USC 1451-1464), particularly section 307(c) and (d) (16 USC 1456(c) and (d))	15 CFR Part 930
Plans.		

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

The Subject Property are inland properties within Detroit, Wayne County, Michigan. The Subject Property are not located within a Coastal Management Zone. See Appendix F.

Supporting documentation

F-Coastal Zone Boundary Maps Grosse Point Detroit.pdf

Are formal compliance steps or mitigation required?

Yes

Contamination and Toxic Substances

General requirements	Legislation	Regulations
It is HUD policy that all properties that are being		24 CFR 58.5(i)(2)
proposed for use in HUD programs be free of		24 CFR 50.3(i)
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.		

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

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

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

No

✓ Yes

3. Mitigation

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

Can adverse environmental impacts be mitigated?

Adverse environmental impacts cannot feasibly be mitigated.

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

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

Compliance can be achieved through the EGLE approved Response Activity Plans for the proposed project to reach a DDCC.

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

Complete removal

✓ Risk-based corrective action (RBCA)

Screen Summary

Compliance Determination

A Phase I ESA dated May 14, 2021, Limited Phase II ESA investigations conducted in August 2021 and November 2022, and a Response Activity Plan dated April 14, 2023 were completed. Based on the sampling conducted, soil at the site is impacted by arsenic, hexavalent chromium, iron, mercury, selenium, trichloroethene (TCE), Benzo(a)pyrene, fluoranthene, naphthalene, and phenanthrene at concentrations exceeding the applicable Michigan Department of Environment, Great Lakes, and Energy (EGLE) Part 201 generic residential cleanup criteria (GRCC) and/or the residential volatilization to indoor air pathway (VIAP) screening levels. The source of the contamination is unknown. Based on the environmental investigations conducted at the Subject Property, a volatilization to indoor air concern is present for the proposed building at 676 Blaine Street. In addition, exceeding the GRCC for DC and/or the SSVIAC in the fill samples collected from the parcels at 656 Blaine Street, 121 Gladstone Street, 619 Gladstone Street, and 650 Gladstone Street. Remedial actions will be conducted on these parcels to address the potential for unacceptable risk as part of the redevelopment of the site. To mitigate the potential for exposure via the VIAP, the proposed building at 676 Blaine Street will have a vapor mitigation system - sub-sub depressurization system (SSDS) installed. Following installation of the SSDS, a sample of the system exhaust will be collected from the system prior to the system commissioning. The results of this sample will be used to calculate if an air emission

Permit-to-Install is required for any of the systems. To mitigate the potential for exposure via the direct contact pathway and/or the VIAP, all fill materials including fill and non-natural materials, identified visually, will be excavated from the Subject Property at 656 Blaine Street, 121 Gladstone Street, 619 Gladstone Street, and 650 Gladstone Street, and disposed off-site. Following excavation, confirmation of remediation sampling will be completed in general accordance with the guidance provided in the Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria to address the direct contact pathway. Overall, the proposed project is seeking Due Care Compliance from EGLE. The remedial activities on the site, located at 619, 121, and 650 Gladstone Avenue; along with 656 and 676 Blaine Street have been approved by EGLE in five separate letters, all dated November 20, 2023 (Appendix N). The property is in Wayne County, Michigan which is in Zone 3 is low potential risk for indoor radon levels. The proposed new construction will not undergo radon testing based on the location of the properties in a low-risk county. Asbestos Containing Material (ACM) inspection: Based on the inspection conducted by ASTI between August 11 and September 1, 2021, no ACMS were identified on the site. Presumed Asbestos-Containing Materials Several materials were identified as potential ACMs. However, due to the destructive nature of sampling required, these materials were not sampled at this time. The following PACMs were identified during the site inspection. 12 Bathtub Undercoats, 10 Fire Door Sets, and Roofing material. If these materials are further defined as ACM's they should be abated in accordance with federal, state and local regulations and a closeout report provided to the City of Detroit. Lead-Based Paint (LBP) Inspection: Six of 743 samples taken were positive for LBP at 8840 Second Avenue. During the Inspection, ASTI found three areas of deteriorated lead-based paint. Eight of 145 dust wipe samples test results at 8840 Second Avenue exceeded federal, state and local standards. Bare soil test results revealed that the lead concentrations in the soil do not exceed HUD and EPA standards. The LBP will be abated in accordance with federal, state and local regulations and a closeout report provided to the City of Detroit.

Supporting documentation

Tab11-ResAP 656 Blaine.pdfTab14-Kingston Apartments Phase I.pdfTab12-ResAP 676 Blaine.pdfTab10-ResAP 650G ladstone.pdfTab8-ResAP 121 Gladstone.pdfTab9-ASTI.pdfTab13-9-11563 Installation Plan Piety - FINAL.pdfTab6-Piety Hill II LBPandRA Report_FINAL.pdfTab5-Piety Hill II ACM Inspection Report_FINAL.pdfTab4-3-11563 LPhase II ESA - FINAL.pdfTab3-2-11563 Phase I ESA FINAL.pdf

Tab2-11563 Phase I ESA - FINAL secured.pdf N6-ResAP Approval Letter_676 Blaine.pdf N5-ResAP Approval Letter_656 Blaine.pdf N4-ResAP Approval Letter_650 Gladstone.pdf N3-ResAP Approval Letter_121 Gladstone.pdf N2-ResAP Approval Letter_619 Gladstone.pdf N1-Michigan Radon Map.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)	The Endangered	50 CFR Part
mandates that federal agencies ensure that	Species Act of 1973	402
actions that they authorize, fund, or carry out	(16 U.S.C. 1531 et	
shall not jeopardize the continued existence of	seq.); particularly	
federally listed plants and animals or result in	section 7 (16 USC	
the adverse modification or destruction of	1536).	
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").		

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

Explain your determination:

Based on the Threatened and Endangered Species survey conducted by ASTI and reported to the U.S. Fish and Wildlife Service (FWS), the FWS has determined that the proposed project is not anticipated to adversely impact any listed species.

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

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

Screen Summary

Compliance Determination

There are three endangered and four threatened species in Wayne County. The Eastern Massasauga rattlesnake, the Eastern Prairie Fringed Orchid, Indiana Bat,
Northern Long-eared Bat, Northern Riffleshell, Piping Plover, and the Red Knot are species that are at least threaten species with habitats in Wayne County, Michigan. Kingston Apartments is the only extant building on the Subject Property and is planned to be a rehabilitation of the property. The remainder of the Subject Property are vacant lots that were previously developed, prior to demolition of the buildings. No critical habitats are expected to be affected through the proposed project. The U.S. Fish and Wildlife Service has determined that there is no effect on any critical habitats of endangered and threatened species in Wayne County through the proposed project. See Appendix H.

Supporting documentation

H3-NE Documentation Letter Michigan Federal Endangered Species Determination.pdf H2-2023 Endangered Species List.pdf H1-Michigan Endangered Species 2018.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Explosive and Flammable Hazards

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

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

A one-mile search radius around the Subject Property for Above-ground Storage Tanks (ASTs) containing explosive and flammable materials using the EDR Radius Map Report dated March 23, 2023. There are four active ASTs within one mile of the Subject Property. The first AST is located at 3011 West Grand Boulevard, with a capacity of 500 gallons for diesel fuel. The AST has an Acceptable Separation Distance for Thermal Radiation for People (ASDPPU) of 207.20 feet and 803 Blaine Street, the southernmost parcel of the Subject Property is approximately 3,281 feet away. At 3044 West Grand Boulevard are two 3,000-gallon diesel ASTs, which have an ASDPPU of 437.09 feet each, and 803 Blaine Street, the southernmost parcel of the Subject Property is approximately 3,863 feet away. Finally, at 899 West Baltimore Street is a 1,150-gallon Liquid Petroleum Gas AST, which has an ASDPPU of 293.15 feet, an ASD for blast over Pressure of 229.39 feet, and 803 Blaine Street, the southernmost parcel of the Subject Property is approximately 4,854 feet away. The Subject Property is located at distances that exceeded the minimum ASD for each AST. Therefore, the proposed project is in compliance with this regulation. See Appendix O.

Supporting documentation

O4-899_W_Baltimore_St_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf O3-3044_W_Grand_Blvd_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf O2-3011_W_Grand_Blvd_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf O1-6-11563_ASD.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Farmlands Protection

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

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

✓ No

3. Does "important farmland," including prime farmland, unique farmland, or farmland of statewide or local importance regulated under the Farmland Protection Policy Act, occur on the project site?

- Utilize USDA Natural Resources Conservation Service's (NRCS) Web Soil Survey
 <u>http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm</u>
- Check with your city or county's planning department and ask them to document if the project is on land regulated by the FPPA (zoning important farmland as non-agricultural does not exempt it from FPPA requirements)
- Contact NRCS at the local USDA service center <u>http://offices.sc.egov.usda.gov/locator/app?agency=nrcs</u> or your NRCS state soil scientist <u>https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/contact/states/</u> for assistance

✓ No

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

Yes

Screen Summary

Compliance Determination

The soil of the Subject Property consists of Shebeon-Urban Land-Avoca complex, 0 to 4 percent slopes. All the Subject Property are within the City of Detroit, Michigan and have been previously developed. Although, the vacant lots are not currently developed, the lots have been developed historically. There is no prime farmland on the Subject Property. See Appendix K.

Supporting documentation

K-6-11563_Soil_Report.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Floodplain Management

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

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:

D-FIRMETTE_803_Blaine(1).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

All the Subject Property are located in Zone X, which represents minimal risk outside the 1-percent and 2-percent annual chance floodplains in FEMA flood map 26163C0125E, effective February 2, 2012. The Subject Property are outside of any flood zones. See Appendix D.

Supporting documentation

D-FIRMETTE_803_Blaine(2).pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Historic Preservation

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

This section contains sensitive information relating to this project. For that reason, documentation is withheld from the public environmental review record.

Noise Abatement and Control

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

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: 68

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: 68

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: 68

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:

The incorporation of the proposed building materials into the new construction portion of the proposed project to bring interior noise levels down to an acceptable range. The proposed building materials for the new construction are included in the STraCAT calculations.

Based on the response, the review is in compliance with this section. Document and upload drawings, specifications, and other materials as needed to describe the project's noise mitigation measures below.

No mitigation is necessary.

Screen Summary

Compliance Determination

The Subject Property are located within 1,000 feet of the John C. Lodge Freeway, Woodward Avenue, and Clairmont Avenue, which are considered busy roads due to their size along with traffic volumes. The Subject Property are within proximity of two airports. Coleman A. Young International Airport is approximately 3.75 miles distant. Whereas Windsor International Airport is approximately 9.26 miles distant. Both airports are within 15 miles (the MSHDA / HUD civil airport distance criterion) of the Subject Property. Based on the noise contour maps for the airports, the Subject Property lots are not within a distance of concern. The noise levels for the roadways were projected to decibel (dB) levels in 2031 is found to be in the normally unacceptable range for Noise Assessment Location (NAL) #1 at 68 dB, located at 803 Blaine Street of the Subject Property. While NALs #2 and #3 are found to be within the

Acceptable range. See Appendix M. The HUD Sound Transmission Classification Assessment Tool (STraCAT) was used to determine the noise attenuation for the proposed project at NAL #1, which represents the highest noise impact on the proposed project. The STraCAT calculations are based on the proposed building materials to be used in the new construction. Based on the noise levels at NAL #1, the required Sound Transmission Class (STC) rating of 26. Based on the STraCAT calculations, the north aka facade elevation of the proposed new construction at 803 Blaine Street has the lowest STC rating of 32.71 and the highest STC rating of 35.94 at the east side elevation. Since all other NALs were found to be within the Acceptable range and the other sites of the Subject Property are at least approximately 473 feet away, with the nearest site to 803 Blaine Street, being 676 Blaine Street. With mitigation of the incorporation of the proposed building materials to be included in the new construction portion of the proposed project, the project is in compliance with this statute. See Appendix M.

Supporting documentation

M2-803 blaine StraCat results.pdf M1-Noise Assessment - Final.pdf

Are formal compliance steps or mitigation required?

✓ Yes

No

Sole Source Aquifers

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

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. See Appendix G.

Supporting documentation

<u>G-Sole Source Aquifers Map.pdf</u>

Are formal compliance steps or mitigation required?

Yes

✓ No

Wetlands Protection

General requirements	Legislation	Regulation
Executive Order 11990 discourages direct or	Executive Order	24 CFR 55.20 can be
indirect support of new construction impacting	11990	used for general
wetlands wherever there is a practicable		guidance regarding
alternative. The Fish and Wildlife Service's		the 8 Step Process.
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.		

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

There are no wetlands present on the Subject Property according to the National Wetlands Inventory Mapper. See Appendix E.

Supporting documentation

<u>E-NWI_6-11563.pdf</u>

Are formal compliance steps or mitigation required?

Yes

✓ No

Wild and Scenic Rivers Act

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

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, Michigan does not contain any wild and scenic rivers. There are no natural rivers in Wayne County. See Appendix I.

Supporting documentation

I-Michigan Wild and Scenic Rivers.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Environmental Justice

General requirements	Legislation	Regulation
Determine if the project	Executive Order 12898	
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.		

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

Within a one-mile radius of the Subject Property, the selected variables by the EPA, found pollution levels to be above the state average. The population surrounding the Subject Property consists of 86 percent of persons of color, 60 percent are low-income households, 1 percent are linguistically isolated, 15 percent hold less than a high school education, 5 percent are under five years of age, and 14 percent are over the age of 64 years. The proposed project seeks to rehabilitate an extant apartment building and construct new duplex residential dwellings on 16 vacant lots. The persons living in the apartment building will be temporarily relocated during renovations and are to return to the apartment building after construction activities are complete. No persons are to be displaced by the proposed project. The proposed project on the Subject Property is not anticipated to have an adverse effect on the surrounding population of the project sites in the City of Detroit. See Appendix L.

Supporting documentation

L-6-11563_ejscreen_report.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No



U.S. Department of Housing and Urban Development 451 Seventh Street, SW Washington, DC 20410 www.hud.gov espanol.hud.gov

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

Project Information

Project Name: Piety-Hill-II

HEROS Number: 90000010372367

Project Location: 8840 2nd Ave, Detroit, MI 48202

Additional Location Information:

Multiple Sites: 111, 121, 619, 650, 669, and 679 Gladstone Avenue; 101, 130, 646, 656, 667, 668, 676, and 803 Blaine Street; and 8840 2nd Avenue, Detroit, Wayne County, Michigan 48202.

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

The proposed project seeks to acquire, construct new duplex buildings on vacant lots and rehabilitate an extant apartment building in the Piety Hill neighborhood of Detroit, Michigan. The proposed project is to occur at 111, 121, 619, 650, 669, and 679 Gladstone Avenue; 101, 130, 646, 656, 667, 668, 676, and 803 Blaine Street; and 8840 2nd Avenue, Detroit, Michigan. Kingston Apartments is proposed to be renovated with two additional affordable units are planned in the Garden level. The proposed project also plans to develop duplexes on vacant parcels with 32 units of 1,750 Square Feet, plus porches and yards. The 32 units will be at 50% and 80% AMI levels. The 11 existing units at Kingston Place are at 40-50% AMI, totaling 43 family units. This rental project will improve and preserve 11 units of very-low-income housing and add new, historic-designed duplexes all at affordable rent levels. The 32 new units of family housing will bring 80-90 new residents to the Piety Hill neighborhood. The new construction portion of the proposed project will add on-site parking. Whereas the portion of the Subject Property at 8840 2nd Avenue will retain its off-site parking. The existing structure is a three-story structure with lift for accessibility. Apartments are on 1st and 2nd Floors with commercial space of 2,000 SF in the Garden Level. There is a tenant common area and lounge in the building and a small outside seating area will be constructed. The duplexes are also three-level with basement, 1st and 2nd Floors. The project is mixed income and targets units to families earning up to 80% of Area Household Median Income and represent families with more economic means than many residents in our neighborhood, where the median income is closer to 50 or 60% Area Median Income. CDC provides social, educational, and economic development services to their tenants of their properties to surround them with positive opportunities and support as needed. CDC operates a blended management style balancing the tenant needs with landlord responsibilities. This review is for \$1,300,000 in HOME 2022, \$90,000 in CDBG 2020, \$1,420,624.23 in CDBG 2022, and \$430,724.77 in CDBG 2023. This review is valid for up to five years.

Funding Information

Piety-Hill-II

Grant Number	HUD Program	Program Name	
B20MC260006	Community Planning and	Community Development Block	\$90,000.00
	Development (CPD)	Grants (CDBG) (Entitlement)	
B22MC260006	Community Planning and	Community Development Block	\$1,420,642.23
	Development (CPD)	Grants (CDBG) (Entitlement)	
B23MC260006	Community Planning and	Community Development Block	\$430,724.77
	Development (CPD)	Grants (CDBG) (Entitlement)	
M22MC260202	Community Planning and	HOME Program	\$1,300,000.00
	Development (CPD)		

Estimated Total HUD Funded Amount: \$3,470,000.00

Estimated Total Project Cost [24 CFR 58.2 (a) (5)]: \$9,828,800.00

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
Historic Preservation	The scope of work is submitted to the Preservation
	Specialist for review and approval
	* Any changes to the scope of work for the project
	shall be submitted to the Preservation
	Specialist for review and approval prior to the start
	of any work
	* Photos of the completed work are submitted to the
	Preservation Specialist
Contamination and Toxic Substances	Compliance can be achieved through the EGLE
	approved Response Activity Plans for the proposed
	project to reach a DDCC.
Noise Abatement and Control	The incorporation of the proposed building materials
	into the new construction portion of the proposed
	project to bring interior noise levels down to an
	acceptable range. The proposed building materials
	for the new construction are included in the STraCAT
	calculations.
24 CFR Part 50.3(i) & 58.5(i)(2)	Completion of radon assessments of the proposed
	new construction sites.

Project Mitigation Plan

See attached mitigation plan for detailed information about how the above measures and conditions will be carried out and monitored.

Piety_Hill_II_HRD Model Mitigation Plan_Template-Revised.pdf

Piety-Hill-II

Detroit, MI

Determ	ination:		
x	Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 150	08.13] The project will not result	
	in a significant impact on the quality of human environment		
	Finding of Significant Impact		
Prepare	r Signature:	Date: 2/23/2024	
Name / Title/ Organization: Kim Siggely/ / DETROIT			
Certifyi	ng Officer Signature:	Date:	
Name/Title: Julie Schneider, Director, Housing and Revitalization Department			

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environment Review Record (ERR) for the activity / project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Piety Hill II ASTI Environmental December 20, 2023

Response Activity or Continuing Obligation	Required Activities	Party Responsible for Completing Activity	Timing of Activity	Required Follow- up or Reporting
Noise Attenuation	A. Incorporate building materials to be used as noise attenuation measures as described in the STraCAT calculations and the architectural drawings. The materials to be included are 2x6" wood studs, 16" o.c., 5 ½" fiberglass insulation, 5/8" fire-shield gypsum board on one side, 5/8" fire-shield gypsum board on the other side, Anderson 100 single hung sash windows, and double Anderson 100 single hung windows.	General Contractor	During Construction	Architectural drawings
Historic Preservation	 A. Any changes to the scope of work that was submitted August 31, 2023, are to be submitted to the Preservation Specialist for review and approval prior to the start of any work. B. Photographs of the completed project are to be submitted to the Preservation Specialist. C. In the event, human remains are discovered, all work must be halted, and the Preservation Specialist is to be contacted immediately to coordinate further guidance to proceed. 	General Contractor	Prior to Construction, During Construction, and After Construction Completion	Site Plans, architectural drawings, and photographs
Remediation Activities	 A. Installation of vapor mitigation sub-sub depressurization system at 676 Blaine Street. B. Collect samples prior to commissioning vapor mitigation system at 676 Blaine Street to determine if an air emission permit-to-install is required. C. Removal of contaminated fill materials and disposed in a licensed landfill from the sites at 656 Blaine Street, 121 Gladstone Street, 619 Gladstone Street, and 650 Gladstone Street. 	Licensed Abatement Contractor General Contractor	Prior to Construction and During Construction	System specifications Documentation of remediation activities

Piety Hill II ASTI Environmental December 20, 2023

	_				
	D.	Remediation sampling of the cavities at 656 Blaine Street, 121 Gladstone Street, 619 Gladstone Street,			
		and 650 Gladstone Street. Additional excavation is			
		to be conducted if needed, based on remediation			
		sampling until the samples confirm the level of			
		contamination is below GRCC.			
	E.	Notify all construction and utility workers			
		performing activities at the Subject Property of the			
		extent of contamination, including risks of			
		exposure.			
	F.	Have all construction plans and activities at the			
		Subject Property be reviewed by an environmental			
		specialist.			
	G.	Obtain Documentation of Due Care Compliance			
		from EGLE.			
Lead Based Paint	Α.	HEPA wash of all lead dust hazards at 8840 Second	Liconcod		
		Avenue.	Abatamant	Prior to	Lead based paint
	В.	Removal and replacement of deteriorated lead	Contractor	Construction	closeout report
		based paint at 8840 Second Avenue.	contractor		
	Α.	No ACMs have been identified at 8840 Second			
		Avenue. however the following presumed ACMs			
		are still present on site and include:			
Asbestos-Containing Materials		Material: Bathtub Undercoat; Location: Unit			
		Bathrooms; Estimated Quantity: 12;			
		Material: Fire Door Sets; Location: Throughout;	Licensed	Prior to	Asbestos closeout
		Estimated Quantity: 10 Sets;	Abatement	Construction	report, if
		Material: Roofing; Location: Roof; Estimated	Contractor		applicable
		Quantity: Not Quantified.			
		These materials should be considered ACMs until			
		tested and proven otherwise prior to disturbance			

Piety Hill II ASTI Environmental December 20, 2023

Any of the above materials that are further defined		
as ACMs, should be removed with Class II removal		
techniques and disposed of in accordance with		
disposal requirements.		



Created for: Central Detroit Christian CDC Created by: RMH, October 19, 2021, ASTI Project 6-11563 Site Location Map



14 Parcels and 1 Apartment Building along Gladstone and Blaine Streets and 2nd Ave.

Client: CDC Kingston ASTI Project 11-11563, JRN, March 23, 2023 Detroit, MI





Created for: Central Detroit Christian CDC Created by: RMH, October 19, 2021, ASTI Project 6-11563 Airport Location Map



Created for: Central Detroit Christian CDC Created by: RMH, October 19, 2021, ASTI Project 6-11563 Airport Location Map



National Flood Hazard Layer FIRMette



Legend



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

Attainment Status for the National Ambient Air Quality Standards

Π



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.



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

Close-Up Maps of Partial County Nonattainment Areas

Sulfur Dioxide Nonattainment Areas



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



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



GRETCHEN WHITMER GOVERNOR LANSING

November 18, 2021

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

Via Email Only

Dear Ms. Czapek:

Subject: Piety Hill Construction and Rehabilitation Project, 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 Piety Hill construction and rehabilitation project, proposed to be completed with federal grant monies, including the development of 16 new duplexes on vacant properties in Detroit. In addition, they will be rehabilitating the current structure located at 8840 Second Avenue in Detroit. The new construction will provide 32 new units of housing. Project construction is expected to commence late in the first quarter 2022 and will be completed in approximately 15 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.

Ms. Ashleigh Czapek Page 2 November 18, 2021

The size, scope, and duration of the Piety Hill construction and rehabilitation 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,

Brenne Brkaski

Environmental Quality Analyst Air Quality Division

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



Attainment Status for the National Ambient Air Quality Standards

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

Ontonagon

Gogebic

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

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Dioxide (NO2)
- Particulate Matter (PM10 & PM2.5)

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

Areas of the state that were previously classified as nonattainment but have since reduced their concentration levels below the NAAQS can be redesignated to attainment and are called **attainment/maintenance areas**. These areas are also commonly referred to as "attainment" after reclassification, however the state must continue monitoring and submitting documentation for up to 20 years after the redesignated. There are several maintenance areas throughout the state for lead, ozone, and particulate matter.

*For readability purposes the map only includes the most recently reclassified ozone maintenance area in southeast Michigan. For more information, please consult the Michigan.gov/AIR webpage or contact the division directly.



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

Close-Up Maps of Partial County Nonattainment Areas

Sulfur Dioxide Nonattainment Areas

St. Clair County

Clyde Kenockee Fort Gratiot Aussey Emmett Port Port Huron Huron Kimball Wales Riley Berlin arvsvi Memphis 19 Columbus Armada Armada Richmond St. Clair St Cla Richmon China East Ray Lenox Chin New Haven Macomb Marine Ita Cottrellvi 40 Chesterfield New Baltin Macomb Clay ANAS Mt Clemen Wall



Ozone Moderate Nonattainment Areas

Allegan County



Muskegon County



MICHIGAN DEPARTMENT OF



GRETCHEN WHITMER

GOVERNOR

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

LANSING



PHILLIP D. ROOS DIRECTOR

November 20, 2023

VIA EMAIL

Lisa Johanon Piety Hill II LDHA LP 8840 Second Avenue Detroit, Michigan 48202

Dear Lisa Johanon:

SUBJECT: Notice of Approval of Response Activity Plan to Comply with 20107a(1)(b) Piety Hill II 121 Gladstone Avenue, Detroit, Wayne County, Michigan Property Tax ID Numbers: 02001339 Facility/Site ID Number: 82008743

The Department of Environment, Great Lakes, and Energy (EGLE), Remediation and Redevelopment Division (RRD), has reviewed the Response Activity Plan to comply with Section 20107a(1)(b) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The Response Activity Plan outlines the response activities to be undertaken at the property identified as 121 Gladstone Avenue, Detroit, Wayne County, Michigan. It was submitted by Brian Earl, ASTI Environmental on the behalf of Lisa Johanon, Piety Hill II LDHA LP, and was received by EGLE on November 20, 2023.

The Response Activity Plan was submitted pursuant to Section 20114b of the NREPA and based upon representations and information contained in the submittal, the Response Activity Plan is approved.

This approval is specific to Section 8.0 of the Response Activity Plan to comply with Section 20107a(1)(b) of the NREPA to address unacceptable exposures via the direct contact and volatilization to indoor air pathways and is based upon the representations and information contained in the submittal; therefore, EGLE expresses no opinion as to whether other conditions that may exist will be adequately addressed by the response activities that are proposed in the plan.

The owner and operator of this property may also have responsibility under applicable state and federal laws, including but not limited to, Part 201, Environmental Remediation; Part 111, Hazardous Waste Management; Part 211, Underground Storage Tank Regulations; Part 213, Leaking Underground Storage Tanks; Part 615, Supervisor of Wells, of the NREPA; and the Michigan Fire Prevention Code, 1941 PA 207, as amended.

This approval is pursuant to the applicable requirements of the NREPA. The Michigan State Housing Development Authority may have additional site selection requirements beyond the NREPA statutory obligations for site characterization and remedial actions or response activities necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, or to the environment.

If you should have further questions or concerns, please contact Jay Eichberger, RRD, Brownfield Assessment and Redevelopment Section, at 616-446-4043 or by email at EichbergerJ@Michigan.gov.

Sincerely,

arrie Ly

Carrie Geyer, Manager Brownfield Assessment and Redevelopment Section Remediation and Redevelopment Division GeyerC1@Michigan.gov

cc: Brian Earl, ASTI Environmental John Heiss, Heiss Consulting Paul Owens, EGLE Martha Thompson, EGLE Jarrett McFeters, EGLE



GRETCHEN WHITMER

GOVERNOR

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

LANSING



PHILLIP D. ROOS DIRECTOR

November 20, 2023

VIA EMAIL

Lisa Johanon Piety Hill II LDHA LP 8840 Second Avenue Detroit, Michigan 48202

Dear Lisa Johanon:

SUBJECT: Notice of Approval of Response Activity Plan to Comply with 20107a(1)(b) Piety Hill II 619 Gladstone Avenue, Detroit, Wayne County, Michigan Property Tax ID Numbers: 04002221 Facility/Site ID Number: 82008743

The Department of Environment, Great Lakes, and Energy (EGLE), Remediation and Redevelopment Division (RRD), has reviewed the Response Activity Plan to comply with Section 20107a(1)(b) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The Response Activity Plan outlines the response activities to be undertaken at the property identified as 619 Gladstone Avenue, Detroit, Wayne County, Michigan. It was submitted by Brian Earl, ASTI Environmental on the behalf of Lisa Johanon, Piety Hill II LDHA LP, and was received by EGLE on November 20, 2023.

The Response Activity Plan was submitted pursuant to Section 20114b of the NREPA and based upon representations and information contained in the submittal, the Response Activity Plan is approved.

This approval is specific to Section 8.0 of the Response Activity Plan to comply with Section 20107a(1)(b) of the NREPA to address unacceptable exposures via the direct contact and volatilization to indoor air pathways and is based upon the representations and information contained in the submittal; therefore, EGLE expresses no opinion as to whether other conditions that may exist will be adequately addressed by the response activities that are proposed in the plan.

The owner and operator of this property may also have responsibility under applicable state and federal laws, including but not limited to, Part 201, Environmental Remediation; Part 111, Hazardous Waste Management; Part 211, Underground Storage Tank Regulations; Part 213, Leaking Underground Storage Tanks; Part 615, Supervisor of Wells, of the NREPA; and the Michigan Fire Prevention Code, 1941 PA 207, as amended.

This approval is pursuant to the applicable requirements of the NREPA. The Michigan State Housing Development Authority may have additional site selection requirements beyond the NREPA statutory obligations for site characterization and remedial actions or response activities necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, or to the environment.

If you should have further questions or concerns, please contact Jay Eichberger, RRD, Brownfield Assessment and Redevelopment Section, at 616-446-4043 or by email at EichbergerJ@Michigan.gov.

Sincerely,

arrie Ly

Carrie Geyer, Manager Brownfield Assessment and Redevelopment Section Remediation and Redevelopment Division GeyerC1@Michigan.gov

cc: Brian Earl, ASTI Environmental John Heiss, Heiss Consulting Paul Owens, EGLE Martha Thompson, EGLE Jarrett McFeters, EGLE



GRETCHEN WHITMER

GOVERNOR

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

LANSING



PHILLIP D. ROOS DIRECTOR

November 20, 2023

VIA EMAIL

Lisa Johanon Piety Hill II LDHA LP 8840 Second Avenue Detroit, Michigan 48202

Dear Lisa Johanon:

SUBJECT: Notice of Approval of Response Activity Plan to Comply with 20107a(1)(b) Piety Hill II 676 Blaine Street, Detroit, Wayne County, Michigan Property Tax ID Numbers: 04002213 Facility/Site ID Number: 82008743

The Department of Environment, Great Lakes, and Energy (EGLE), Remediation and Redevelopment Division (RRD), has reviewed the Response Activity Plan to comply with Section 20107a(1)(b) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The Response Activity Plan outlines the response activities to be undertaken at the property identified as 676 Blaine Street, Detroit, Wayne County, Michigan. It was submitted by Brian Earl, ASTI Environmental on the behalf of Lisa Johanon, Piety Hill II LDHA LP, and was received by EGLE on November 20, 2023.

The Response Activity Plan was submitted pursuant to Section 20114b of the NREPA and based upon representations and information contained in the submittal, the Response Activity Plan is approved.

This approval is specific to Section 8.0 of the Response Activity Plan to comply with Section 20107a(1)(b) of the NREPA to address unacceptable exposures via the direct contact and volatilization to indoor air pathways and is based upon the representations and information contained in the submittal; therefore, EGLE expresses no opinion as to whether other conditions that may exist will be adequately addressed by the response activities that are proposed in the plan.

The owner and operator of this property may also have responsibility under applicable state and federal laws, including but not limited to, Part 201, Environmental Remediation; Part 111, Hazardous Waste Management; Part 211, Underground Storage Tank Regulations; Part 213, Leaking Underground Storage Tanks; Part 615, Supervisor of Wells, of the NREPA; and the Michigan Fire Prevention Code, 1941 PA 207, as amended.

This approval is pursuant to the applicable requirements of the NREPA. The Michigan State Housing Development Authority may have additional site selection requirements beyond the NREPA statutory obligations for site characterization and remedial actions or response activities necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, or to the environment.

If you should have further questions or concerns, please contact Jay Eichberger, RRD, Brownfield Assessment and Redevelopment Section, at 616-446-4043 or by email at EichbergerJ@Michigan.gov.

Sincerely,

arrie Ly

Carrie Geyer, Manager Brownfield Assessment and Redevelopment Section Remediation and Redevelopment Division GeyerC1@Michigan.gov

cc: Brian Earl, ASTI Environmental John Heiss, Heiss Consulting Paul Owens, EGLE Martha Thompson, EGLE Jarrett McFeters, EGLE



GRETCHEN WHITMER

GOVERNOR

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

LANSING



PHILLIP D. ROOS DIRECTOR

November 20, 2023

VIA EMAIL

Lisa Johanon Piety Hill II LDHA LP 8840 Second Avenue Detroit, Michigan 48202

Dear Lisa Johanon:

SUBJECT: Notice of Approval of Response Activity Plan to Comply with 20107a(1)(b) Piety Hill II 656 Blaine Street, Detroit, Wayne County, Michigan Property Tax ID Numbers: 04002215 Facility/Site ID Number: 82008743

The Department of Environment, Great Lakes, and Energy (EGLE), Remediation and Redevelopment Division (RRD), has reviewed the Response Activity Plan to comply with Section 20107a(1)(b) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The Response Activity Plan outlines the response activities to be undertaken at the property identified as 656 Blaine Street, Detroit, Wayne County, Michigan. It was submitted by Brian Earl, ASTI Environmental on the behalf of Lisa Johanon, Piety Hill II LDHA LP, and was received by EGLE on November 20, 2023.

The Response Activity Plan was submitted pursuant to Section 20114b of the NREPA and based upon representations and information contained in the submittal, the Response Activity Plan is approved.

This approval is specific to Section 8.0 of the Response Activity Plan to comply with Section 20107a(1)(b) of the NREPA to address unacceptable exposures via the direct contact and volatilization to indoor air pathways and is based upon the representations and information contained in the submittal; therefore, EGLE expresses no opinion as to whether other conditions that may exist will be adequately addressed by the response activities that are proposed in the plan.

The owner and operator of this property may also have responsibility under applicable state and federal laws, including but not limited to, Part 201, Environmental Remediation; Part 111, Hazardous Waste Management; Part 211, Underground Storage Tank Regulations; Part 213, Leaking Underground Storage Tanks; Part 615, Supervisor of Wells, of the NREPA; and the Michigan Fire Prevention Code, 1941 PA 207, as amended.

This approval is pursuant to the applicable requirements of the NREPA. The Michigan State Housing Development Authority may have additional site selection requirements beyond the NREPA statutory obligations for site characterization and remedial actions or response activities necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, or to the environment.

If you should have further questions or concerns, please contact Jay Eichberger, RRD, Brownfield Assessment and Redevelopment Section, at 616-446-4043 or by email at EichbergerJ@Michigan.gov.

Sincerely,

arrie Ly

Carrie Geyer, Manager Brownfield Assessment and Redevelopment Section Remediation and Redevelopment Division GeyerC1@Michigan.gov

cc: Brian Earl, ASTI Environmental John Heiss, Heiss Consulting Paul Owens, EGLE Martha Thompson, EGLE Jarrett McFeters, EGLE



GRETCHEN WHITMER

GOVERNOR

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

LANSING



PHILLIP D. ROOS DIRECTOR

November 20, 2023

VIA EMAIL

Lisa Johanon Piety Hill II LDHA LP 8840 Second Avenue Detroit, Michigan 48202

Dear Lisa Johanon:

SUBJECT: Notice of Approval of Response Activity Plan to Comply with 20107a(1)(b) Piety Hill II 650 Gladstone Avenue, Detroit, Wayne County, Michigan Property Tax ID Numbers: 04002288 Facility/Site ID Number: 82008743

The Department of Environment, Great Lakes, and Energy (EGLE), Remediation and Redevelopment Division (RRD), has reviewed the Response Activity Plan to comply with Section 20107a(1)(b) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The Response Activity Plan outlines the response activities to be undertaken at the property identified as 650 Gladstone Avenue, Detroit, Wayne County, Michigan. It was submitted by Brian Earl, ASTI Environmental on the behalf of Lisa Johanon, Piety Hill II LDHA LP, and was received by EGLE on November 20, 2023.

The Response Activity Plan was submitted pursuant to Section 20114b of the NREPA and based upon representations and information contained in the submittal, the Response Activity Plan is approved.

This approval is specific to Section 8.0 of the Response Activity Plan to comply with Section 20107a(1)(b) of the NREPA to address unacceptable exposures via the direct contact and volatilization to indoor air pathways and is based upon the representations and information contained in the submittal; therefore, EGLE expresses no opinion as to whether other conditions that may exist will be adequately addressed by the response activities that are proposed in the plan.

The owner and operator of this property may also have responsibility under applicable state and federal laws, including but not limited to, Part 201, Environmental Remediation; Part 111, Hazardous Waste Management; Part 211, Underground Storage Tank Regulations; Part 213, Leaking Underground Storage Tanks; Part 615, Supervisor of Wells, of the NREPA; and the Michigan Fire Prevention Code, 1941 PA 207, as amended.

This approval is pursuant to the applicable requirements of the NREPA. The Michigan State Housing Development Authority may have additional site selection requirements beyond the NREPA statutory obligations for site characterization and remedial actions or response activities necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, or to the environment.

If you should have further questions or concerns, please contact Jay Eichberger, RRD, Brownfield Assessment and Redevelopment Section, at 616-446-4043 or by email at EichbergerJ@Michigan.gov.

Sincerely,

arrie Ly

Carrie Geyer, Manager Brownfield Assessment and Redevelopment Section Remediation and Redevelopment Division GeyerC1@Michigan.gov

cc: Brian Earl, ASTI Environmental John Heiss, Heiss Consulting Paul Owens, EGLE Martha Thompson, EGLE Jarrett McFeters, EGLE

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.

OUGHTO

BARAGA

IRON

MARQUETTE

MENOM INEE

DICKIN-

SON

ONTONAGON

GOGEBIC

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.





Percentage of Elevated Radon Test Results by County





800-662-9278 | Michigan.gov/radon

U.S. Fish & Wildlife Service ECOS

ECOS / Species Reports

/ Listed species with spatial current range believed to or known to occur in MI

Listed species with spatial current range believed to or known to occur in Michigan

Notes:

- This report includes species only if they have a **Spatial Current Range** in ECOS.
- As of 02/13/2015 the data in this report has been updated to use a different set of information. Results are based on where the species is believed to or known to occur. The FWS feels utilizing this data set is a better representation of species occurrence. Note: there may be other federally listed species that are not currently known or expected to occur in this state but are covered by the ESA wherever they are found; Thus if new surveys detected them in this state they are still covered by the ESA. The FWS is using the best information available on this date to generate this list.
- This report shows listed species or populations believed to or known to occur in MI
- This list does not include experimental populations and similarity of appearance listings.
- Click on the highlighted scientific names below to view a Species Profile.

Listed Species

		Sort by group:		
				CSV
Show All 🗸 entri	ies		Search:	
26 Species Listing	gs			
Scientific Name	Common Name	Where Listed	Region 1	ESA Listing Status ()
Birds				

Scientific Name	Common Name	Where Listed	Region ()	ESA Listing Status Đ	
<u>Charadrius</u> <u>melodus</u>	Piping Plover	[Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.)	3	Endangered	
<u>Calidris</u> <u>canutus rufa</u>	Red knot	Wherever found	5	Threatened	
<u>Grus</u> americana	Whooping crane	U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY)	2	Experimental Population, Non-Essential	
Clams					
<u>Pleurobema</u> <u>clava</u>	Clubshell	Wherever found; Except where listed as Experimental Populations	5	Endangered	
<u>Epioblasma</u> <u>rangiana</u>	Northern riffleshell	Wherever found	5	Endangered	
<u>Villosa fabalis</u>	Rayed Bean	Wherever found	3	Endangered	
<u>Obovaria</u> <u>subrotunda</u>	Round hickorynut	Wherever found	4	Threatened	
<u>Epioblasma</u> <u>triquetra</u>	Snuffbox mussel	Wherever found	3	Endangered	

Ferns and Allies

Scientific Name	Common Name	Where Listed	Region 1	ESA Listing Status O
<u>Asplenium</u> <u>scolopendrium</u> <u>var.</u> americanum	American hart's-tongue fern	Wherever found	5	Threatened
Flowering Plants				
<u>Iris lacustris</u>	Dwarf lake iris	Wherever found	3	Threatened
<u>Platanthera</u> leucophaea	Eastern prairie fringed orchid	Wherever found	3	Threatened
<u>Solidago</u> <u>houghtonii</u>	Houghton's goldenrod	Wherever found	3	Threatened
<u>Hymenoxys</u> <u>herbacea</u>	Lakeside daisy	Wherever found	3	Threatened
<u>Mimulus</u> <u>michiganensis</u>	Michigan monkey- flower	Wherever found	3	Endangered
<u>Cirsium</u> pitcheri	Pitcher's thistle	Wherever found	3	Threatened
Insects				
<u>Somatochlora</u> <u>hineana</u>	Hine's emerald dragonfly	Wherever found	3	Endangered
<u>Brychius</u> <u>hungerfordi</u>	Hungerford's crawling water Beetle	Wherever found	3	Endangered
<u>Lycaeides</u> <u>melissa</u> <u>samuelis</u>	Karner blue butterfly	Wherever found	3	Endangered

Scientific Name	Common Name	Where Listed	Region ()	ESA Listing Status O
<u>Neonympha</u> <u>mitchellii</u> <u>mitchellii</u>	Mitchell's satyr Butterfly	Wherever found	3	Endangered
<u>Oarisma</u> poweshiek	Poweshiek skipperling	Wherever found	3	Endangered
Mammals				
<u>Lynx</u> <u>canadensis</u>	Canada Lynx	Wherever Found in Contiguous U.S.	6	Threatened
<u>Canis lupus</u>	Gray wolf	U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.	6	Endangered
<u>Myotis sodalis</u>	Indiana bat	Wherever found	3	Endangered
<u>Myotis</u> <u>septentrionalis</u>	Northern Long-Eared Bat	Wherever found	3	Endangered
Reptiles				
<u>Nerodia</u> <u>erythrogaster</u> <u>neglecta</u>	Copperbelly water snake	Indiana north of 40 degrees north latitude, Michigan, Ohio	3	Threatened

Scientific Name	Common Name	Where Listed	Region 0	ESA Listing Status ()
<u>Sistrurus</u> <u>catenatus</u>	Eastern Massasauga (=rattlesnake)	Wherever found	3	Threatened
Showing 1 to 26 of	26 entries		Previou	s 1 Next



Acceptable Separation Distance Map

Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > ASD Calculator

899 West Baltimore Street

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/ft² - hr - people and 10,000 BTU/ft² - 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: 🗌
ls 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?	1150
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)	293.15
ASD for Thermal Radiation for Buildings (ASDBPU)	53.64
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-tooluser-guide/)
- ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)

Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > ASD Calculator

3044 West Grand Boulevard

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/ft² - hr - people and 10,000 BTU/ft² - 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?	3000
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	
Calculate Acceptable Separation Distance	
Diked Area (sqft)	

ASD for Rlast Over Pressure (ASDROP)

ASD for Thermal Radiation for People (ASDPPU)	437.09
ASD for Thermal Radiation for Buildings (ASDBPU)	83.56
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-tooluser-guide/)
- ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)

Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > ASD Calculator

3011 West Grand Boulevard

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/ft² - hr - people and 10,000 BTU/ft² - 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:
ls the container diked?	Yes: 🗆 No: 🗹
What is the volume (gal) of the container?	500
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	
Calculate Acceptable Separation Distance	
Diked Area (sqft)	

ASD for Rlast Over Pressure (ASDROP)

ASD for Thermal Radiation for People (ASDPPU)	207.20
ASD for Thermal Radiation for Buildings (ASDBPU)	36.50
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-tooluser-guide/)
- ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)



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

6-11563 Piety Hill II



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

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

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map	9
Legend	10
Map Unit Legend	11
Map Unit Descriptions	11
Wayne County, Michigan	. 13
ShbuaB—Shebeon-Urban land complex, 0 to 4 percent slopes	13
ShbubB—Shebeon-Urban land-Avoca complex, 0 to 4 percent slopes	14
References	18

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.




	MAP L	EGEND		MAP INFORMATION
Area of In Soils	terest (AOI) Area of Interest (AOI)	0	Spoil Area Stony Spot Very Stony Spot	The soil surveys that comprise your AOI were mapped at 1:12,000.
⊂ ■ Special ⊚	Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Point Features Blowout	₩ ₩ Water Feat	Wet Spot Other Special Line Features tures Streams and Canals	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.
⊠ * *	Borrow Pit Clay Spot Closed Depression Gravel Pit Gravelly Spot	Transporta	ation Rails Interstate Highways US Routes Major Roads	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)
© ⊘ ⊘	Landfill Lava Flow Marsh or swamp Mine or Quarry Miscellaneous Water Perennial Water	Backgrour	Local Roads nd Aerial Photography	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.
↓ + :: •	Rock Outcrop Saline Spot Sandy Spot Severely Eroded Spot			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.
\$ \$	Slide or Slip Sodic Spot			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
ShbuaB	Shebeon-Urban land complex, 0 to 4 percent slopes	2.2	5.4%
ShbubB	Shebeon-Urban land-Avoca complex, 0 to 4 percent slopes	38.7	94.6%
Totals for Area of Interest		40.9	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

ShbuaB—Shebeon-Urban land complex, 0 to 4 percent slopes

Map Unit Setting

National map unit symbol: 2v13s Elevation: 580 to 670 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

Shebeon, 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 Shebeon, Human Transported Surface

Setting

Landform: Wave-worked till plains, water-lain moraines Down-slope shape: Linear Across-slope shape: Linear, convex Parent material: Loamy human-transported material over loamy lodgment till

Typical profile

 A *u* - 0 to 9 inches: sandy loam C *u* - 9 to 12 inches: loam Bwb - 12 to 27 inches: loam BC - 27 to 31 inches: clay loam C - 31 to 55 inches: clay loam Cd - 55 to 80 inches: loam

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: 51 to 65 inches to densic material
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 33 to 47 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline (0.1 to 1.5 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 8 Hydrologic Soil Group: C Ecological site: F099XY007MI - Lake Plain Flats 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

Parkhill, human transported surface

Percent of map unit: 5 percent Landform: Wave-worked till plains, water-lain moraines Microfeatures of landform position: Open depressions Down-slope shape: Linear, concave Across-slope shape: Linear, convex Hydric soil rating: No

Midtown

Percent of map unit: 3 percent Landform: Water-lain moraines, wave-worked till plains Down-slope shape: Linear Across-slope shape: Convex, linear Hydric soil rating: No

Avoca, human transported surface

Percent of map unit: 2 percent Landform: Wave-worked till plains, water-lain moraines Down-slope shape: Linear Across-slope shape: Linear, convex Hydric soil rating: No

ShbubB—Shebeon-Urban land-Avoca complex, 0 to 4 percent slopes

Map Unit Setting

National map unit symbol: 2v13q Elevation: 570 to 670 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

Shebeon, human transported surface, and similar soils: 40 percent Urban land: 35 percent Avoca, human transported surface, and similar soils: 15 percent Minor components: 10 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Shebeon, Human Transported Surface

Setting

Landform: Wave-worked till plains, water-lain moraines Down-slope shape: Linear Across-slope shape: Linear, convex Parent material: Loamy human-transported material over loamy lodgment till

Typical profile

 A *u* - 0 to 9 inches: sandy loam C *u* - 9 to 12 inches: loam Bwb - 12 to 27 inches: loam BC - 27 to 31 inches: clay loam C - 31 to 55 inches: clay loam Cd - 55 to 80 inches: loam

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: 51 to 65 inches to densic material
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 33 to 47 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 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 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 8 Hydrologic Soil Group: C Ecological site: F099XY007MI - Lake Plain Flats 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

Description of Avoca, Human Transported Surface

Setting

Landform: Wave-worked till plains, water-lain moraines Down-slope shape: Linear Across-slope shape: Linear, convex Parent material: Sandy and loamy human-transported material over sandy glaciolacustrine deposits over loamy lodgment till

Typical profile

 A *u* - 0 to 9 inches: sandy loam C *u* - 9 to 12 inches: sandy loam *Ab* - 12 to 18 inches: sand *Bwb* - 18 to 31 inches: sand 2Cg - 31 to 49 inches: clay loam 2Cd - 49 to 80 inches: loam

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: 37 to 64 inches to densic material
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 19 to 46 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 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 5.2 inches)

Interpretive groups

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

Minor Components

Parkhill, human transported surface

Percent of map unit: 5 percent Landform: Wave-worked till plains, water-lain moraines Microfeatures of landform position: Open depressions Down-slope shape: Linear, concave Across-slope shape: Linear, convex Hydric soil rating: No

Midtown

Percent of map unit: 3 percent Landform: Wave-worked till plains, water-lain moraines Down-slope shape: Linear Across-slope shape: Convex, linear *Hydric soil rating:* No

Belleville, human transported surface

Percent of map unit: 2 percent Landform: Wave-worked till plains, water-lain moraines Microfeatures of landform position: Open depressions Down-slope shape: Linear, concave Across-slope shape: Linear, convex Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/ nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ home/?cid=nrcs142p2 053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/ detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/ nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/? cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf



Coleman A. Young Municipal Center 2 Woodward Avenue. Suite 908 Detroit, Michigan 48226 Phone: 313.224.6380 Fax: 313.224.1629 www.detroitmi.gov

August 19, 2022

Christopher Yelonek P.O. Box 2160 Brighton, MI 48116-2160

RE: Section 106 Review of a CDBG-Funded Project Located at 111, 121, 650, 669, and 679 Gladstone Avenue; 101, 122, 130, 646, 656, 668, 676, 667, and 803 Blaine Street; 8840 2nd Avenue in the City of Detroit, Wayne County, Michigan

Dear Mr. Yelonek,

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

Based on the information submitted to this office on 3/29/2021, we have determined that Historic Properties are located within in the Area of Potential Effects (APE) for this project. The St. John C.M.E. Church Local Historic District, NRHP listed Temple Beth El and Peoples Community Church, and NRHP eligible Taylor Avenue district are within the area of potential effect for the Piety Hill II new duplex construction and rehabilitation activities. Therefore, per Stipulation V.B of the Programmatic Agreement (PA), the project shall be carried out in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Additionally, Per Stipulation VI of the Programmatic Agreement (PA), the proposed undertaking qualified for review by the state archaeologist. On 7/26/22, a technical report, completed by Commonwealth Heritage Group, was submitted to SHPO to determine whether archaeological resources or human remains are present at the project location. This report concluded:

"Since no archaeological sites were documented as a result of the background research or field investigation, and Project activities are planned to be conducted primarily in previously disturbed soils, the likelihood of encountering intact significant archaeological resources in the 121 and 619 Gladstone Street parts of the APE is low. Because the likelihood of encountering significant intact archaeological resources in the parts of the APE suggested to have the greatest likelihood of intact cultural resources is low, Commonwealth recommends no additional archaeological investigation in the APE. In addition, because Dr. Jackson and the City of Detroit Housing and Revitalization Department established Phase I archaeological testing of the 121 and 619 Gladstone Street lots as representative of the archaeological sensitivity of all lots included in the Piety Hill Project, it might be assumed that, based on the established test area, further archaeological investigation of the remaining lots included in the Project is not warranted."



Coleman A. Young Municipal Center 2 Woodward Avenue. Suite 908 Detroit, Michigan 48226 Phone: 313.224.6380 Fax: 313.224.1629 www.detroitmi.gov

Based on the information provided for SHPO review, it is the opinion of the State Historic Preservation Officer (SHPO) that **no historic properties are affected** within the underground area of potential effects of this undertaking.

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

- The scope of work is submitted to the Preservation Specialist for review and approval
- Any changes to the scope of work for the project shall be submitted to the Preservation Specialist for review and approval prior to the start of any work
- Photos of the completed work are submitted to the Preservation Specialist

Additionally, if during ground disturbing activities, human remains are discovered, work must be halted, and the Preservation Specialist should be contacted immediately to coordinate further guidance on how to proceed. Refer to the Piety Hill Unanticipated Discoveries Plan for additional information.

Please note that the Section 106 Review process will not be complete until the above-mentioned conditions are met. If you have any questions, you may contact the Preservation Specialist at <u>Ciavattonet@detroitmi.gov</u>.

Sincerely,

iarallon

Tiffany Ciavattone Preservation Specialist City of Detroit Housing & Revitalization Department

CC: Penny Dwoinen Kim Siegel Larry Cade Noise Assessment Central Detroit Christian Kingston 14 Vacant Parcels and 1 Apartment Building Detroit, Michigan

Piety Hill II Limited Dividend Housing Association Limited Partnership

May 13, 2021

ASTI Environmental





Noise Assessment Central Detroit Christian Kingston 14 Vacant Parcels and 1 Apartment Building Detroit, Michigan

May 13, 2021

Report Prepared For:

Piety Hill II LDHA LP 8840 Second Ave. Detroit, MI, 48202

Report Prepared By:

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

ASTI Project No. 2-11563

Report Prepared by:

Report Reviewed by:

Ashleigh Czapek Associate I

(h)

Pamela Chapman, PE, EP Phase I Group Leader



TABLE OF CONTENTS

<u>Section</u> Title Pa Table o	<u>n</u> age of Con	tents	<u>Page</u> i ii
1.0	Introd	uction	1
2.0	Evalu	ation of Noise Sources	3
	2.1	Airports	3
	2.2	Busy Roadways	3
	2.3	Railroads	4
	2.4	Non-Transportation Sources	4
3.0	Calcu	lations	5
4.0	Concl	usions	6
5.0	Refer	ences	7

ATTACHMENTS

Α	NAL	Location	Map	
---	-----	----------	-----	--

- B Airport Noise Contour MapC AADT Information
- **D** Day-Night Level Electronic Assessment

Piety Hill II LDHA LP proposes the new construction and rehabilitation utilizing funding provided from the Michigan State Housing Development Authority (MSHDA) of 14 vacant parcels and one apartment building in 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.
- 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

Three NALs (NAL #1, #2 & #3) were selected on the Subject Property for this analysis based on proximity to noise sources. A map with the Subject Property boundaries and NAL locations is included as Attachment A.

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

NAL #1

Noise Source with Applicable Distance	Name	Distance to NAL
Airport(s)	Coleman A Young International Airport	3.75 miles
	Windsor International Airport	9.26 miles
Busy Road(s)	John C. Lodge Freeway (M-10)	655 feet
Railroad(s)	None	NA
Non-Transportation	None	NA

NAL #2

Noise Source with Applicable Distance	Name	Distance to NAL
Airport(s)	Coleman A Young International Airport	3.75 miles
	Windsor International Airport	9.26 miles
Busy Road(s)	Woodward Avenue	527 feet
Railroad(s)	None	NA
Non-Transportation	None	NA

NAL #3

Noise Source with Applicable Distance	Name	Distance to NAL
Airport(s)	Coleman A Young International Airport	3.75 miles
	Windsor International Airport	9.26 miles
Busy Road(s)	Clairmount Avenue	697 feet
	Woodward Avenue	835 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 3.75 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 9.26 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:

- John C Lodge Freeway
- Woodward Avenue
- Clairmount Avenue

John C. Lodge Freeway is an 8-lane highway with a center median. The speed limit is 55mph near the Subject Property. The roadway is an approximate effective distance of 655 feet from the northwestern corner of 803 Blaine Street (NAL #1).

Woodward Ave. is a 6-lane road with a center turn lane. The speed limit is 30mph near the Subject Property. The roadway is an approximate effective distance of 527 feet from the northeast corner of 101 Blaine Street on the Subject Property (NAL #2).

Clairmount Ave. is a 2-lane road and the speed limit is 30mph near the Subject Property. The roadway is an approximate effective distance of 697 feet from the northeast corner of 8840 Second avenue on the Subject Property (NAL #3).

Traffic counts for the roadways were obtained through MDOT. Projections were done through 2031. A growth rate of 1% per year compounded was judged appropriate as traffic

levels are expected to remain relatively stable or increase slightly. Traffic projections are included in Attachment C.

2.3 Railroads Not applicable.

Non-Transportation Sources 2.4

Not applicable.

3.0 CALCULATIONS

Noise DNL calculator worksheets for the NALs are provided in Attachment D.

Using the HUD DNL calculator, the noise level at NAL #1, as predicted in 2031, is calculated to be 68 dB and within the Normally Unacceptable range.

Using the HUD DNL calculator, the noise level at NAL #2, as predicted in 2031, is calculated to be 57 dB and within the Acceptable range.

Using the HUD DNL calculator, the noise level at NAL #3, as predicted in 2031, is calculated to be 56 dB and within the Acceptable range.

4.0 CONCLUSIONS

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

NAL #	Combined Source DNL (dB)	Category
1	68	Normally Unacceptable
2	57	Acceptable
3	56	Acceptable

5.0 REFERENCES

- 24 CFR Part 51 Subpart B
- The Noise Guidebook, U.S. Department of Housing and Urban Development,
- U.S. DOT
- 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



EGEND
 Property Line
 Noise Asessment Location

14 Parcels and 1 Apartment Building along Gladstone and Blaine Streets and 2nd Ave.

Client: CDC Kingston ASTI Project 2-11563, JRN, May 12, 2021 Detroit, MI Environmental Noise Assessment Location Map

 (\square)

ATTACHMENT B

Airport Noise Contour Maps





ATTACHMENT C

AADT Information

Auto and Heavy Truck 10-year ADT Projections

Woodward Avenue Cars % Change Trucks % Change 18293 1590.72 2016 2017 14830 -18.9 1289.6 -18.9 2018 14830 0.0 1289.6 0.0 2019 14756 1283.12 -0.5 -0.5 2020 1025.2 11790 -20.1 -20.1 -9.9 Avg % change: Avg % change: -9.88 Avg % change (Last 5-yr Trend): -9.9 Avg % change (Last 5-yr Trend): -9.88 % Change/Year Assumption 1 %/Year Change Assumption 1

2031 Projections

	Cars	Trucks
2020	11790	1025
2021	11908	1035
2022	12027	1046
2023	12147	1056
2024	12269	1067
2025	12391	1077
2026	12515	1088
2027	12640	1099
2028	12767	1110
2029	12894	1121
2030	13023	1132
2031	13154	1144

Predicted 2031 Auto ADT	Predicted 2031 Truck ADT	
13154	1144	

Auto and Heavy Truck 10-year ADT Projections John C. Lodge Freeway (M-10)

	Cars	% Change	Trucks	% Change
2016	121930		15070	
2017	104665	-14.2	12936.11	-14.2
2018	106797	2.0	13199.67	2.0
2019	102662	-3.9	12688.61	-3.9
2020	66448	-35.3	8212.71	-35.3
	Avg % change:	-12.8	Avg % change:	-12.82
	Avg % change (Last 5-yr Trend):	-12.8	Avg % change (Last 5-yr Trend):	-12.82
	% Change/Year Assumption	1	%/Year Change Assumption	1

2031 Projections

	Cars	Trucks
2020	66448	8213
2021	67113	8295
2022	67784	8378
2023	68462	8462
2024	69146	8546
2025	69838	8632
2026	70536	8718
2027	71242	8805
2028	71954	8893
2029	72674	8982
2030	73400	9072
2031	74134	9163

Predicted 2031 Auto ADT	Predicted 2031 Truck ADT	
74134	9163	

Auto and Heavy Truck 10-year ADT Projections

Clairmount Avenue Cars % Change Trucks % Change 5226 454.4 2016 2017 428.32 4926 -5.7 -5.7 2018 4926 0.0 428.32 0.0 2019 5934 20.5 516 20.5 2020 5067 440.64 -14.6 -14.6 0.03 Avg % change: Avg % change: 0.0 Avg % change (Last 5-yr Trend): 0.0 Avg % change (Last 5-yr Trend): 0.03 % Change/Year Assumption 1 %/Year Change Assumption 1

2031 Projections

	Cars	Trucks
2020	5067	441
2021	5118	445
2022	5169	449
2023	5221	454
2024	5273	459
2025	5326	463
2026	5379	468
2027	5433	472
2028	5487	477
2029	5542	482
2030	5598	487
2031	5653	492

Predicted 2031 Auto ADT	Predicted 2031 Truck ADT	
5653	492	

ATTACHMENT D

Day-Night Level Electronic Assessments

Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > DNL Calculator

DNL Calculator

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

Guidelines

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

DNL Calculator

Site ID	2-11563
Record Date	05/13/2021
User's Name	ASTI Environmental NAL 1

Road # 1 Name:	John C Lodge Freeway (M-10)

Road #1

Vehicle Type	Cars 🗹	Medium Trucks 🗹	Heavy Trucks 🗹
Effective Distance	655	655	655
Distance to Stop Sign			
Average Speed	55	55	55
Average Daily Trips (ADT)	74134	1666	7497
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	60	53	67
Calculate Road #1 DNL	68	Reset	

Add Road Source Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	⊖Yes No
Combined DNL for all Road and Rail sources	68
Combined DNL including Airport	N/A
Site DNL with Loud Impulse Sound	

Calculate Reset
Mitigation Options

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

- No Action Alternative: Cancel the project at this location
- Other Reasonable Alternatives: Choose an alternate site
- Mitigation
 - Contact your Field or Regional Environmental Officer (/programs/environmentalreview/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-levelassessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-levelassessment-tool-flowcharts/) Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > DNL Calculator

DNL Calculator

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

Guidelines

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

DNL Calculator

Site ID	2-11563
Record Date	05/13/2021
User's Name	ASTI Environmental NAL 2

Road # 1 Name:	Woodward Avenue

Road #1

Vehicle Type	Cars 🗹	Medium Trucks 🗹	Heavy Trucks 🗹
Effective Distance	527	527	527
Distance to Stop Sign			
Average Speed	30	30	30
Average Daily Trips (ADT)	13154	572	572
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	48	45	56
Calculate Road #1 DNL	57	Reset	

Add Road Source Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	⊖Yes ● No
Combined DNL for all Road and Rail sources	57
Combined DNL including Airport	N/A
Site DNL with Loud Impulse Sound	

Calculate Reset

Mitigation Options

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

- No Action Alternative: Cancel the project at this location
- Other Reasonable Alternatives: Choose an alternate site
- Mitigation
 - Contact your Field or Regional Environmental Officer (/programs/environmentalreview/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-levelassessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-levelassessment-tool-flowcharts/) Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > DNL Calculator

DNL Calculator

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

Guidelines

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

DNL Calculator

Site ID	2-11563
Record Date	05/13/2021
User's Name	ASTI Environmental NAL 3

Road # 1 Name:	Clairmount Avenue

Road #1

Vehicle Type	Cars 🗹	Medium Trucks 🗹	Heavy Trucks 🗹
Effective Distance	697	697	697
Distance to Stop Sign			
Average Speed	30	30	30
Average Daily Trips (ADT)	5653	246	246
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	43	39	51
Calculate Road #1 DNL	52	Reset	

Road # 2 Name:	Woodward Avenue

Road #2

Vehicle Type	Cars 🗹	Medium Trucks 🗹	Heavy Trucks 🗹
Effective Distance	835	835	835
Distance to Stop Sign			
Average Speed	30	30	30
Average Daily Trips (ADT)	13154	572	572
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	45	42	53
Calculate Road #2 DNL	54	Reset	

Add Road Source Add Rail Source		
Airport Noise Level		
Loud Impulse Sounds?	⊖Yes No	
Combined DNL for all Road and Rail sources	56	
Combined DNL including Airport	N/A	
Site DNL with Loud Impulse Sound		
Calculate Reset		

Mitigation Options

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

- No Action Alternative: Cancel the project at this location
- Other Reasonable Alternatives: Choose an alternate site
- Mitigation
 - Contact your Field or Regional Environmental Officer (/programs/environmentalreview/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-levelassessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-levelassessment-tool-flowcharts/)

ASTI ENVIRONMENTAL

Environmental Investigation, Remediation, Compliance and Restoration Projects Throughout The Great Lakes Since 1985.

OUR SERVICES INCLUDE:

- ASBESTOS, LEAD, MOLD, AND RADON ASSESSMENTS
- BROWNFIELD/GREYFIELD REDEVELOPMENT ASSISTANCE
- DEVELOPMENT INCENTIVES AND GRANT MANAGEMENT
- ECOLOGICAL ASSESSMENTS AND RESTORATION
- ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS
- ENVIRONMENTAL OPPORTUNITIES ASSESSMENT
- GIS MAPPING
- HAZARD MITIGATION PLANNING
- MINING AND RECLAMATION ASSISTANCE
- REMEDIATION IMPLEMENTATION, OPERATION AND MAINTENANCE
- PHASE I ESA AND ENVIRONMENTAL DUE DILIGENCE ASSESSMENTS
- REGULATORY COMPLIANCE AND PERMITTING
- SOIL AND GROUNDWATER ASSESSMENTS
- SOIL AND GROUNDWATER REMEDIATION
- STORAGE TANK COMPLIANCE AND CLOSURE
- THREATENED AND ENDANGERED SPECIES SURVEYS
- WATERSHED AND STORMWATER MANAGEMENT PROGRAMS
- WETLAND DELINEATION, PERMITTING, MITIGATION AND BANKING



Home (/) > SIraCAI

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 nearparallel 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 requirements. <u>Required attenuation values generated by STraCAT for NALs above 75 dB DNL should therefore be considered tentative pending approval by HUD or the RE.</u>

Part I - Description

Project	
CDC Piety Hill	
Sponsor/Developer	
Central Detroit Christian	
Location	
803 Blaine Street - east unit east wall	
Prepared by	
Terry Fields, Berardi Par	
Noise Level	
68	
Date	
12/11/2023	
Primary Source(s)	
Airports, Roads	

Part II - Wall Components

.c.; 5 1/2" glass fib	er insulation; 5/8"		20
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		1041	30
er my Own			
		1,041 Sq. Fee	et 38
Quantity	Sq Ft/Unit	STC	
0	0		
3	15	28	
1	25	28	
	er my Own Quantity 0 3 1	er my Own Quantity Sq Ft/Unit 0 0 3 15 1 25	Per my Own I,041 Sq. Fee Quantity Sq Ft/Unit STC 0 0 1 3 15 28 1 25 28

Wall Statistics			
Stat		Value	
Area:		1041 ft ²	
Wall STC:		38	
Aperture Statistic	s		
Aperture	Count	Area	% of wall
Windows:	4	70 ft ²	6.72%
Doors:	0	0 ft ²	0%
Evaluation Criteri	a		
Criteria			Value
Noise source sound	d level (dB):		68
Combined STC for v	wall assembly:		35.94
Required STC rating	2. 2.		26
Does wall assembly	meet requirements?		Yes
			Print

Project	
CDC Piety Hill	
Sponsor/Developer	
Central Detroit Christian	
Location	
803 Blaine Street - east unit north wall	
Prepared by	
Terry Fields, Berardi Par	
Noise Level	
68	
Date	
12/11/2023	
Primary Source(s)	
Airports, Roads	

Part II - Wall Components

Wall Construction De	etail		Area	STC		
2"x6" wood studs; 16" fire-shield gypsum boa board other side	o.c.; 5 1/2" glass fib ard one side; 5/8" f	fiber insulation; 5/8" 308 3" fire-shield gypsum				
Add new wall						
			308 Sq. Feet	38		
Window Constructio Detail	n Quantity	Sq Ft/Unit	STC			
	0	0				
anderson 100 series single hung	0	0 36	28			
anderson 100 series single hung Add new window	0	0 36	28			
anderson 100 series single hung Add new window Door Construction Detail	0 2 Quantity	0 36 Sq Ft/Unit	28 STC			

rurtin Acourto			
Wall Statistics			
Stat		Value	
Area:		308 ft ²	
Wall STC:		38	
Aperture Statistics	5		
Aperture	Count	Area	% of wall
Windows:	2	72 ft ²	23.38%
Doors:	1	21 ft ²	6.82%
Evaluation Criteria	3		
Criteria			Value
Noise source sound	l level (dB):		68
Combined STC for v	vall assembly:		32.71
Required STC rating	5:		26
Does wall assembly	meet requirements?		Yes
			Print

Project	
CDC Piety Hill	
Sponsor/Developer	
Central Detroit Christian	
Location	
803 Blaine Street - east unit south wall	
Prepared by	
Terry Fields, Berardi Par	
Noise Level	
68	
Date	
12/11/2023	
Primary Source(s)	
Airports, Roads	

Part II - Wall Components

wall construction De	lall		Area	510
2"x6" wood studs; 16"o fire-shield gypsum boa board other side	o.c.; 5 1/2" glass fib ard one side; 5/8" fi	er insulation; 5/8" re-shield gypsum	305	38
Add new wall				
			305 Sq. Feet	38
Window Construction	1 Quantity	Sa Et/Unit	STC	
Detail	Quantity	Sq Ft/Onit	SIC	
	0	0		
anderson 100 series single hung	1	14	28	
anderson 100 series single hung	1	36	28	
Add new window				
Door Construction				
Detail	Quantity	Sq Ft/Unit	STC	
	1	21	31	
Anderson straight line				

Part III - Results

Wall Statistics			
Stat		Value	
Area:		305 ft ²	
Wall STC:		38	
Aperture Statistics			
Aperture	Count	Area	% of wall
Windows:	2	50 ft ²	16.39%
Doors:	1	21 ft ²	6.89%
Evaluation Criteria			
Criteria			Value
Noise source sound	level (dB):		68
Combined STC for w	all assembly:		33.6
Required STC rating:			26
Does wall assembly	meet requirements?		Yes
			Print

יטוניד ווףט

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 ¹/₂" 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.

100 SERIES PRODUCT PERFORMANCE



PERFORMANCE STANDARDS

The Window and Door Manufacturers Association (WDMA), the American Architectural Manufacturers Association (AAMA) and the Canadian Standards Association (CSA) jointly release the North American Fenestration Standard/Specification for Windows, Doors and Skylights (NAFS-11) where "-11" refers to the most recent publication year of 2011. NAFS is also referred to as AAMA/WDMA/CSA 101/I.S.2/A440, which is how the International Code Council (ICC) lists this standard in the 2012, 2015 and 2018 International Residential Code (IRC) and International Building Code (IBC) as the means to indicate the window, door or skylights design pressure rating used to determine compliance to the job site design pressure requirements.

A product only achieves a "Performance Grade" or "PG" rating when it complies with all of the NAFS performance requirements such as ease of operation, air infiltration resistance, resistance to water penetration and resistance to forced entry, etc. A "Design Pressure Rating" or "DP" rating only depicts the design and structural load performance.

Performance Classes

The NAFS Standard/Specification defines requirements for four performance classes. Performance classes are designated R, LC, CW and AW. This classification system provides for several levels of performance. Product selection is always based on the performance and building code requirements of the particular project.

Elements of Performance Grade (PG) Designations

In order to qualify for a given performance grade (PG), test specimens need to pass all required performance tests for the following, in addition to all required auxiliary (durability) and applicable material/component tests (not shown here) for the applicable product type and desired performance class:

(a) **Operating force (if applicable):** Maximum operating force varies by product type and performance class.

(b) Air leakage resistance: Tested in accordance with ASTM E283 at a test pressure of 1.57 psf. Allowable air infiltration for R, LC and CW class designations is 0.3 cubic feet per minute per square foot of frame (cfm/ft²).

(c) Water penetration resistance: Tested in accordance with ASTM E547 with the specified test pressure applied per NAFS-11. Test consists of four cycles. Each cycle consists of five minutes with pressure applied and one minute with the pressure released, during which the water spray is continuously applied. Water spray shall be uniformly applied at a constant rate of 5 U.S. gal/ft² · hr. (d) Uniform load deflection test: Tested in accordance with ASTM E330 for both positive and negative pressure (pressure defined by NAFS-11) with the load maintained for a period of 10 seconds. The test specimen shall be evaluated for deflection during each load for permanent damage after each load and for any effects on the normal operation of the specimen. Starting with the 2008 version of NAFS, design pressure (DP) will only represent the "uniform load deflection test."

(e) Uniform load structural test: Tested in accordance with ASTM E330 for both positive and negative pressure (pressure defined by NAFS-11) with the load maintained for a period of 10 seconds. After loads are removed, there shall be no permanent deformation in excess of 0.4% of its span and no damage to the unit, which would make it inoperable.

(f) Forced-entry resistance (if applicable): Tested in accordance with ASTM F588 (windows), F476 (swinging doors) and F842 (sliding doors) at a performance level 10 rating.

Performance Grades (PG) and Corresponding Test Pressures (psf)

					-	-					
Performance Class/ Performance Grade		Air Infiltration Test Pressure		Maximum Allowable Air Infiltration/ Exfiltration Rate		Water Penetration Resistance Test Pressure		Design	gn Pressure Structural Pressu		iral Test sure
R	LC	Ра	psf	L/s·m ²	cfm/ft ²	Ра	psf	Ра	psf	Ра	psf
15	-	75	1.57	1.5	0.30	140	2.92	720	15.04	1080	22.56
20	-	75	1.57	1.5	0.30	150	3.13	960	20.05	1440	30.08
25	25	75	1.57	1.5	0.30	180	3.76	1200	25.06	1800	37.59
30	30	75	1.57	1.5	0.30	220	4.59	1440	30.08	2160	45.11
35	35	75	1.57	1.5	0.30	260	5.43	1680	35.09	2520	52.63
40	40	75	1.57	1.5	0.30	290	6.06	1920	40.10	2880	60.15
45	45	75	1.57	1.5	0.30	330	6.89	2160	45.11	3240	67.67
50	50	75	1.57	1.5	0.30	360	7.52	2400	50.13	3600	75.19
55	55	75	1.57	1.5	0.30	400	8.35	2640	55.14	3960	82.71
60	60	75	1.57	1.5	0.30	440	9.19	2880	60.15	4320	90.23
65	65	75	1.57	1.5	0.30	470	9.82	3120	65.16	4680	97.74
70	70	75	1.57	1.5	0.30	510	10.65	3360	70.18	5040	105.26
75	75	75	1.57	1.5	0.30	540	11.28	3600	75.19	5400	112.78
80	80	75	1.57	1.5	0.30	580	12.11	3840	80.20	5760	120.30
85	85	75	1.57	1.5	0.30	580	12.11	4080	85.21	6120	127.82
90	90	75	1.57	1.5	0.30	580	12.11	4320	90.23	6480	135.34
95	95	75	1.57	1.5	0.30	580	12.11	4560	95.24	6840	142.86
100	100	75	1.57	1.5	0.30	580	12.11	4800	100.25	7200	150.38

HALLMARK CERTIFICATION

The Window and Door Manufacturers Association (WDMA)-sponsored Hallmark Certification Program provides manufacturers with certification to the AAMA/WDMA/CSA 101/I.S.2/A440-11 Standard and is designed to provide builders, architects, specifiers and consumers with an easily recognizable means of identifying products that have been manufactured and tested in accordance with NAFS (AAMA/WDMA/CSA 101/I.S.2/A440) industry standards and other applicable performance standards. Conformance is determined by periodic in-plant inspections by a third-party administrator. Inspections include auditing licensee quality control procedures and processes, and a review to confirm products are manufactured in accordance with the appropriate performance standards. Periodic testing of representative product constructions and components by an independent testing laboratory is also required. When all of the program requirements are met, the licensee is authorized to use the WDMA Hallmark registered logo on their certification label as a means of identifying products and their performance ratings.

Products successfully obtaining Hallmark Certification will be labeled with a three-part code, which includes performance class, performance grade and size tested. In addition to this mandatory requirement, you are allowed to list the design pressure on a separate line.

WINDOW & DOOR WANUFACTURERS ASSOCIATION WDDMAA Hallmark Certified www.wdma.com	Andersen Corporation 100 SERIES CASEMENT WINDOW Manufacturer stipulates certification as indicated below.
STANDARD	RATING
AAMA/WDMA/CSA 101/I.S.2/A440-11	Class LC^{(1)} – PG40^{(2)} – Size Tested 71.5 x 71.5 in.^{(3)} DP+40/-45^{(4)}
AAMA/WDMA/CSA 101/I.S.2/A440-08	Class LC^{(1)} – PG40^{(2)} – Size Tested 71.5 x 71.5 in. $^{(3)}$ DP+40/-45 $^{(4)}$

- (1) Performance Class
- (2) Performance Grade
- (3) Size Tested
- (4) Design Pressure

In the example above, the performance class is LC, the performance grade (PG) is 40 pounds per square foot (psf) and the size tested is 71.5" x 71.5". What this means to the specifier is, based on the performance grade chart, the laboratory-tested air infiltration was less than 0.3 cfm/ft² (test pressure is always 1.57 psf and the allowable airflow is 0.3 cfm/ft²), the product tested successfully resisted a laboratory water penetration test at a test pressure of 6.0 psf, the product tested successfully withstood a laboratory positive test pressure of 60 psf and a laboratory negative test pressure of 67 psf, and the product tested passed the laboratory requirements for operational force and forced-entry resistance. Based on this test, all products of the same design that are smaller than the tested size can be labeled with this product performance rating.

IMPORTANT

Building codes prescribe design pressure based on a variety of criteria (i.e., windspeed zone, building height, building type, job site exposure, etc.). Design pressures derived from Performance Grade (PG) test requirements should be used to determine compliance to building code required design pressures. <u>Structural test pressures</u>, which are tested at <u>1.5 times the design pressure</u>, should **not** be used for determining design pressure code compliance. In the example above, a PG 40 performance grade rating, which passes a 40 psf design pressure, should be used for determining code compliance, not the structural test pressure of 60 psf.

If you need further details about how Andersen* products perform to this standard, contact your Andersen supplier.

If you need further information about the AAMA/WDMA/CSA 101/I.S.2/A440-11 standard or the Hallmark Certification Program, please contact: WDMA, 2001 K Street NW, 3rd Floor North, Washington, D.C. 20006. Phone: 202-367-1157 Website: **wdma.com**

Where designated, Andersen products are tested, certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use.

100 SERIES PRODUCT PERFORMANCE



Performance Grade and Air Infiltration Ratings – 100 Series Windows and Patio Doors (*Does not include windows with flush fin frame. See chart below.*) For current performance information, please visit andersenwindows.com.

Andersen [®] Product	AAMA/WDMA/CSA 101/I.S.2/A440 Performance Grade (PG)	+/- Corresponding Design	Air Infiltration CFM/FT ²	
Casement Windows			Grimyrr	
Single and Twin (venting(stationan))	Class C_PG40 Size Tested 71 5" x 71 5"	40/45	< 0.2	
Single and Twin (Vending/ stationary)	Class C_PG50 Size Tested 71.5" x 71.5"	50/50t	< 0.2	
Disture With Flanking Cocoments	Class I C-PG40 Size Tested 143 5" x 71 5"	40/40	< 0.2	
Picture With Flanking Casements PG Ungrade	Class I C.P.G.50 Size Tested 1/3.5" x 65.5"	50/50t	< 0.2	
Auring Windows	01253 20-1 030 3/20 103120 145.5 X 05.5	30/ 30	× 0.2	
Awing windows	Class 1 C-DC/10 Size Tested //7 5" x 95 5"	40/45	< 0.2	
Single and Twin (venting/stationary)		40/45	< 0.2	
Single and Iwin, PG Upgrade (venting/stationary)		40/45	< 0.2	
Picture Over Awning		40/43	< 0.2	
Picture Over Awning, PG Upgrade	Class LC-PG50 Size lested 47.5" X 95.5"	50/50	< 0.2	
Single-Hung Windows		00/00		
Arch Single-Hung	Class LC-PG30 Size Tested 41.5" x 95.0"	30/30	< 0.2	
Arch Single-Hung, PG Upgrade	Class LC-PG50 Size Tested 41.5" x 83.0"	50/50†	< 0.2	
Single-Hung	Class LC-PG30 Size Tested 47.5" x 89.5"	30/30	< 0.2	
Single-Hung, PG Upgrade	Class LC-PG50 Size Tested 47.5" x 77.5"	50/50 ⁺	< 0.2	
Twin and Triple Single-Hung	Class LC-PG30 Size Tested 143.5" x 71.5"	30/30	< 0.2	
Twin and Triple Single-Hung, PG Upgrade	Class LC-PG50 Size Tested 143.5" x 65.5"	50/50 ⁺	< 0.2	
Transom Over Single-Hung	Class LC-PG30 Size Tested 47.5" x 95.5"	30/30	< 0.2	
Transom Over Single-Hung, PG Upgrade	Class LC-PG50 Size Tested 47.5" x 95.5"	50/50 ⁺	< 0.2	
Picture With Flanking Single-Hungs	Class LC-PG30 Size Tested 143.5" x 71.5"	30/30	< 0.2	
Picture With Flanking Single-Hungs, PG Upgrade	Class LC-PG50 Size Tested 143.5" x 59.5"	50/50†	< 0.2	
Gliding Windows				
Gliding - Active-Stationary or Stationary-Active	Class LC-PG30 Size Tested 71.5" x 71.5"	30/30	< 0.2	
Gliding, PG Upgrade (active-stationary or stationary-active)	Class LC-PG50 Size Tested 71.5" x 59.5"	50/50 ⁺	< 0.2	
Picture over Gliding (active-stationary or stationary-active)	Class LC-PG30 Size Tested 59.5" x 83.5"	30/30	< 0.2	
Gliding – Active-Stationary-Active	Class LC-PG30 Size Tested 143.5" x 71.5"	30/30	< 0.2	
Gliding, PG Upgrade (active-stationary or stationary-active)	Class LC-PG50 Size Tested 101.5" x 59.5"	50/50 [†]	< 0.2	
Picture over Gliding (active-stationary or stationary-active)	Class LC-PG30 Size Tested 107.5" x 83.5"	30/30	< 0.2	
Picture, Transom & Specialty Windows				
Picture, Transom, Specialty Windows	Class LC-PG40 Size Tested 95.5" x 84.3"	40/40	< 0.2	
Picture, Transom, Specialty Windows, PG Upgrade	Class LC-PG50 Size Tested 95.5" x 71.5"	50/50†	< 0.2	
Gliding Patio Doors	Class LC-PG30 Size Tested 95.3" x 95.5"	30/30	< 0.2	
Patio Door Sidelights	Class LC-PG30 Size Tested 47.3" x 95.3"	30/30	< 0.2	
	Class C_PG30 Size Tested 05.3" x 23.3"	30/30	< 0.2	

• "Performance Grade (PG)" ratings may vary from tested performance rating for larger or smaller units of a particular type. •This data is accurate as of April 2023. Due to ongoing product changes, updated test results, or new industry standards, this data may change over time. •Where designated, Andersen products are certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use. • PG upgrades are not available for windows with insert or flush fin frames. Contact your Andersen supplier for more information. †Available for select sizes. Contact your Andersen supplier.

Performance Grade and Air Infiltration Ratings – 100 Series Windows with Flush Fin Frame

For current performance information, please visit **andersenwindows.com**.

Andersen [°] Product	AAMA/WDMA/CSA 101/I.S.2/A440 Performance Grade (PG)	+/- Corresponding Design Pressure (DP)	Air Infiltration CFM/FT ²
Casement Windows			
Single and Twin (venting/stationary)	Class LC-PG40 Size Tested 71.5" x 71.5"	40/45	< 0.2
Awning Windows			
Single and Twin (venting/stationary)	Class LC-PG40 Size Tested 47.5" x 95.5"	40/45	< 0.2
Picture Over Awning	Class LC-PG40 Size Tested 47.5" x 95.5"	40/45	< 0.2
Single-Hung Windows			
Single-Hung	Class LC-PG30 Size Tested 47.5" x 89.5"	30/30	< 0.2
Twin and Triple Single-Hung	Class LC-PG30 Size Tested 143.5" x 71.5"	30/30	< 0.2
Gliding Windows			
Gliding – Active-Stationary or Stationary-Active	Class LC-PG30 Size Tested 71.5" x 71.5"	30/30	< 0.2
Gliding - Active-Stationary-Active	Class LC-PG30 Size Tested 143.5" x 71.5"	30/30	< 0.2
Picture, Transom & Specialty Windows	Class LC-PG40 Size Tested 95.5" x 84.3"	40/40	< 0.2

• "Performance Grade (PG)" ratings may vary from tested performance rating for larger or smaller units of a particular type.This data is accurate as of April 2023. Due to ongoing product changes, updated test results, or new industry standards, this data may change over time. • Where designated, Andersen products are certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use. Contact your Andersen supplier for more information

ENTRY DOORS PRODUCT PERFORMANCE



PREFORMANCE STANDARDS

The Window and Door Manufacturers Association (WDMA), the American Architectural Manufacturers Association (AAMA) and the Canadian Standards Association (CSA) jointly release the North American Fenestration Standard/Specification for Windows, Doors and Skylights (NAFS-11) where "-11" refers to the most recent publication year of 2011. NAFS is also referred to as AAMA/WDMA/CSA 101/I.S.2/A440, which is how the International Code Council (ICC) lists this standard in the 2012 and 2015 International Residential Code (IRC) and International Building Code (IBC) as the means to indicate the window, door or skylights design pressure rating used to determine compliance to the jobsite design pressure requirements.

A product only achieves a "Performance Grade" or "PG" rating when it complies with all of the NAFS performance requirements such as ease of operation, air infiltration resistance, resistance to water penetration and resistance to forced entry, etc.. A "Design Pressure Rating" or "DP" rating only depicts the design and structural load performance.

Performance Classes

The NAFS Standard/Specification defines requirements for four performance classes. Performance classes are designated R, LC, CW, and AW. This classification system provides for several levels of performance. Product selection is always based on the performance and building code requirements of the particular project.

Elements of Performance Grade (PG) Designations

In order to qualify for a given performance grade (PG), test specimens need to pass all required performance tests for the following, in addition to all required auxiliary (durability) and applicable material/component tests (not shown here) for the applicable product type and desired performance class:

(a) **Operating force (if applicable):** Maximum operating force vary by product type and performance class.

(b) Air leakage resistance: Tested in accordance with ASTM E283 at a test pressure of 1.57 psf. Allowable air infiltration for R, LC and CW class designations is 0.3 cubic feet per minute per square foot of frame (cfm/ft²).

(c) Water penetration resistance: Tested in accordance with ASTM E547 with the specified test pressure applied per NAFS-11. Test consists of four cycles. Each cycle consists of five minutes with pressure applied and one minute with the pressure released, during which the water spray is continuously applied. Water spray shall be uniformly applied at a constant rate of 5 U.S. gal/ft² · hr. (d) Uniform load deflection test: Tested in accordance with ASTM E330 for both positive and negative pressure (pressure defined by NAFS-11) with the load maintained for a period of 10 seconds. The test specimen shall be evaluated for deflection during each load, for permanent damage after each load and for any effects on the normal operation of the specimen. Starting with the 2008 version of NAFS, design pressure (DP) will only represent the "uniform load deflection test".

(e) Uniform load structural test: Tested in accordance with ASTM E330 for both positive and negative pressure (pressure defined by NAFS-11) with the load maintained for a period of 10 seconds. After loads are removed there shall be no permanent deformation in excess of 0.4% of its span and no damage to the unit, which would make it inoperable.

(f) Forced-entry resistance (if applicable): Tested in accordance with ASTM F588 (windows), F476 (swinging doors) and F842 (sliding doors) at a performance level 10 rating.

Performance Grades (PG) & Corresponding Test Pressures (psf)

Performance Class/ Performance Grade		Air Infiltration Test Pressure		Maximum Allowable Air Infiltration/ Exfiltration Rate		Water Penetration Resistance Test Pressure		Design Pressure		e Structual Te Pressure	
R	LC	Ра	psf	L/s·m ²	cfm/ft ²	Pa	psf	Ра	psf	Pa	psf
15	-	75	1.57	1.5	0.30	140	2.92	720	15.04	1080	22.56
20	-	75	1.57	1.5	0.30	150	3.13	960	20.05	1440	30.08
25	25	75	1.57	1.5	0.30	180	3.76	1200	25.06	1800	37.59
30	30	75	1.57	1.5	0.30	220	4.59	1440	30.08	2160	45.11
35	35	75	1.57	1.5	0.30	260	5.43	1680	35.09	2520	52.63
40	40	75	1.57	1.5	0.30	290	6.06	1920	40.10	2880	60.15
45	45	75	1.57	1.5	0.30	330	6.89	2160	45.11	3240	67.67
50	50	75	1.57	1.5	0.30	360	7.52	2400	50.13	3600	75.19
55	55	75	1.57	1.5	0.30	400	8.35	2640	55.14	3960	82.71
60	60	75	1.57	1.5	0.30	440	9.19	2880	60.15	4320	90.23
65	65	75	1.57	1.5	0.30	470	9.82	3120	65.16	4680	97.74
70	70	75	1.57	1.5	0.30	510	10.65	3360	70.18	5040	105.26
75	75	75	1.57	1.5	0.30	540	11.28	3600	75.19	5400	112.78
80	80	75	1.57	1.5	0.30	580	12.11	3840	80.20	5760	120.30
85	85	75	1.57	1.5	0.30	580	12.11	4080	85.21	6120	127.82
90	90	75	1.57	1.5	0.30	580	12.11	4320	90.23	6480	135.34
95	95	75	1.57	1.5	0.30	580	12.11	4560	95.24	6840	142.86
100	100	75	1.57	1.5	0.30	580	12.11	4800	100.25	7200	150.38

HALLMARK CERTIFICATION

The Window and Door Manufacturers Association (WDMA) sponsored Hallmark Certification Program provides manufacturers with certification to the AAMA/WDMA/CSA 101/I.S.2/A440-11 Standard and is designed to provide builders, architects, specifiers and consumers with an easily recognizable means of identifying products that have been manufactured and tested in accordance with NAFS (AAMA/WDMA/CSA 101/I.S.2/A440) industry standards and other applicable performance standards. Conformance is determined by periodic in-plant inspections by a third-party administrator. Inspections include auditing licensee quality control procedures and processes, and a review to confirm products are manufactured in accordance with the appropriate performance standards. Periodic testing of representative product constructions and components by an independent testing laboratory is also required. When all of the program requirements are met, the licensee is authorized to use the WDMA Hallmark registered logo on their Certification Label as a means of identifying products and their performance ratings.

Products successfully obtaining Hallmark Certification will be labeled with a 3-part code, which includes performance class, performance grade and size tested. In addition to this mandatory requirement you are allowed to list the design pressure on a separate line.

WINDOW & DOOR MANUFACTURERS ASSOCIATION WDDMA Hallmark Certified www.wdma.com	Andersen Corporation A-SERIES CASEMENT WINDOW Manufacturer stipulates certification as indicated below.
STANDARD	RATING
AAMA/WDMA/CSA 101/I.S.2/A440-11	CLASS LC ⁽¹⁾ – PG50 ⁽²⁾ – SIZE TESTED 35.3 X 71.3 in. ⁽³⁾ DP+50/-50 ⁽⁴⁾
AAMA/WDMA/CSA 101/I.S.2/A440-08	CLASS LC ⁽¹⁾ – PG50 ⁽²⁾ – SIZE TESTED 35.3 X 71.3 in. ⁽³⁾ DP+50/-50 ⁽⁴⁾

- (1) Performance Class
- (2) Performance Grade
- (3) Size Tested
- (4) Design Pressure

In the example above, the performance class is LC, the performance grade (PG) is 50 pounds per square foot (psf) and the size tested is 35.3" x 71.3". What this means to the specifier is, based on the performance grade chart, the laboratory tested air infiltration was less than 0.3 cfm/ft² (test pressure is always 1.57 psf and the allowable airflow is 0.3 cfm/ft²), the product tested successfully resisted a laboratory water penetration test at a test pressure of 7.5 psf, the product tested successfully withstood a laboratory positive test pressure of 75 psf, a laboratory negative test pressure of 75 psf and the product tested passed the laboratory requirements for operational force and forced entry resistance. Based on this test, all products smaller in both width and height can be labeled with this product performance rating.

IMPORTANT

Building codes prescribe design pressure based on a variety of criteria (i.e. windspeed zone, building height, building type, jobsite exposure, etc.). Design pressures derived from Performance Grade (PG) test requirements should be used to determine compliance to building code required design pressures. <u>Structural test pressures</u>, which are tested at <u>1.5 times the design pressure</u>, should **not** be used for determining design pressure code compliance. In the example above, a PG 50 performance grade rating, which passes a 50 psf design pressure, should be used for determining code compliance, not the structural test pressure of 75 psf.

If you need further details about how Andersen $^{\odot}$ products perform to this standard, contact your Andersen supplier.

If you need further information about the AAMA/WDMA/CSA 101/I.S.2/A440-11 standard or the Hallmark Certification Program please contact: WDMA, 330 N. Wabash Avenue Suite 2000, Chicago, IL 60611 Phone: 312-321-6802 Web: wdma.com

Where designated, Andersen products are tested, certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use.

ENTRY DOORS PRODUCT PERFORMANCE



Performance Grade, Air Infiltration and Sound Transmission Ratings - Residential Entranceways

For current performance information please visit **andersenwindows.com**.

	AAMA/WDMA/CSA 101/IS2/A440	+/- Corresponding	Sound Transmission	Outdoor/Indoor Transmission	Air Infiltration		
Andersen [®] Product	Performance Grade (PG)	Design Pressure (DP)	Class (STC)	Class (OITC)	CFM/FT ²		
Residential Springline [™] Inswing Entry Door*							
Single Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Single Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Two-Panel Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Two-Panel Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Residential Springline [™] Outswing Entry Door*							
Single Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Single Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Two-Panel Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Two-Panel Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Residential Arch Inswing Entry Doors*							
Single Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Single Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Two-Panel Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Two-Panel Active **	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Residential Arch Outswing Entry Doors*							
Single Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Single Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Two-Panel Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Two-Panel Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Residential Rectangular Inswing Entry Door*							
Single Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Single Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Single Active (latch & deadbolt)	Class LC-PG25 Size Tested 74" x 95"	25/25	30	25	< 0.2		
Two-Panel Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Two-Panel Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	30	25	< 0.2		
Two-Panel Active (latch & deadbolt)	Class LC-PG25 Size Tested 74" x 95"	25/25	30	25	< 0.2		
Residential Rectangular Outswing Entry Door*							
Single Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Single Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Single Active (latch & deadbolt)	Class LC-PG25 Size Tested 74" x 95"	25/25	31	25	< 0.2		
Two-Panel Stationary	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Two-Panel Active**	Class LC-PG30 Size Tested 86" x 95"	30/35	31	25	< 0.2		
Two-Panel Active (latch & deadbolt)	Class LC-PG25 Size Tested 74" x 95"	25/25	31	25	< 0.2		
Residential Inswing Entry Door Sidelights	Class LC-PG35 Size Tested 28" x 95"	30/35	†	t	< 0.2		
Residential Outswing Entry Doors Sidelights	Class LC-PG35 Size Tested 28" x 95"	30/35	†	t	< 0.2		

This data is accurate as of January 2018. Due to ongoing product changes, updated test results, or new industry standards, this data may change over time.
 *Sound Transmission Class (STC) and Outdoor/Indoor Transmission Class (OITC) for full light panel style.
 **Tested with standard multi-point hardware.

ENTRY DOORS PRODUCT PERFORMANCE



Performance Grade, Air Infiltration and Sound Transmission Ratings - Commercial Entranceways

For current performance information please visit **andersenwindows.com**.

Andersen* Product	ASTM E330-02	Structural Rating (DP)	Sound Transmission Class (STC)	Outdoor/Indoor Transmission Class (OITC)	Air Infiltration CFM/FT ²	
Commercial Rectangular Outswing Entry Door*						
Single Stationary	+/- 35 Size Tested 45" x 95"	DP35	27	24	< 0.2	
Two-Panel Stationary	+/- 35 Size Tested 74" x 95"	DP35	27	22	< 0.2	
Commercial Outswing Entry Door Sidelights*	+/- 35 Size Tested 45" x 95"	DP35	27	24	< 0.2	
Commercial Rectangular Outswing Entry Door*						
Single Active (latch & deadbolt)	+/- 35 Size Tested 45" x 95"	DP35	27	24	†	
Two-Panel Active (latch & deadbolt)	+/- 35 Size Tested 74" x 95"	DP35	27	22	t	
Two-Panel Active (panic hardware)	+/- 35 Size Tested 74" x 95"	DP35	27	22	t	

"Performance Grade (PG)" ratings may vary from tested performance rating for larger or smaller units of a particular type.
 "Sound Transmission Class (STC)" & "Outdoor/Indoor Transmission Class (OITC)" ratings are for individual units based on independent tests and represent entire unit.
 This data is accurate as of January 2018. Due to ongoing product changes, updated test results, or new industry standards, this data may change over time.
 Where designated, Andersen products are certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use.
 Contact your Andersen supplier for more information.
 Sound Termonicing (Outdoor/Indoor Transmission Class (OITC)) for full light appel at the

*Sound Transmission Class (STC) and Outdoor/Indoor Transmission Class (OITC) for full light panel style.

†Data not available.





U.S. Fish and Wildlife Service National Wetlands Inventory

8840 2nd Avenue, Detroit, MI



September 30, 2021

Wetlands



Estuarine and Marine Deepwater

Estuarine and Marine Wetland

- Freshwater Forested/Shrub Wetland
 - Freshwater Pond

Freshwater Emergent Wetland

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.

Michigan





GIS Mapping

Logo & Sign Standards

NATIONWIDE RIVERS INVENTORY CONTACT US PRIVACY NOTICE Q & A SEARCH ENGINE SITE MAP						
Designated Rivers	National System	River Management	Resources			
About WSR Act State Listings Profile Pages	WSR Table Study Rivers Stewardship WSR Legislation	Council Agencies Management Plans River Mgt. Society	Q & A Search Bibliography Publications GIS Mapping			



EJSCREEN Report (Version 2020)



1 mile Ring Centered at 42.379921,-83.083297, MICHIGAN, EPA Region 5

Approximate Population: 14,821

Input Area (sq. miles): 3.14

8840 2nd Ave, Detroit, MI

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	90	89	78
EJ Index for Ozone	89	88	77
EJ Index for NATA [*] Diesel PM	94	91	83
EJ Index for NATA [*] Air Toxics Cancer Risk	92	89	77
EJ Index for NATA [*] Respiratory Hazard Index	91	88	74
EJ Index for Traffic Proximity and Volume	97	97	94
EJ Index for Lead Paint Indicator	92	92	91
EJ Index for Superfund Proximity	86	85	75
EJ Index for RMP Proximity	94	89	84
EJ Index for Hazardous Waste Proximity	95	90	85
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 Centered at 42.379921,-83.083297, MICHIGAN, EPA Region 5

Approximate Population: 14,821 Input Area (sq. miles): 3.14 8840 2nd Ave, Detroit, MI



112,201	
0 0.02 0.04	0
0 0.03 0.07	Ó
Source: Esri, Maxar, GeoEye, Earthstar Geograph DS, USDA, USGS, AeroGRID, IGN, and the GIS I Sources: Esri, HERE, Garmin, FAO, NO/ OpenStreetMap contributors, and the GIS User Corr	Source: DS, US Source: OpenSt

Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	1

🐥 8840 2nd Ave, Detroit, MI

0.08 mi

0.13 km

USGS



EJSCREEN Report (Version 2020)



1 mile Ring Centered at 42.379921,-83.083297, MICHIGAN, EPA Region 5

Approximate Population: 14,821

Input Area (sq. miles): 3.14

8840 2nd Ave, Detroit, MI

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 μ g/m ³)	9.58	8.11	96	8.4	93	8.55	83
Ozone (ppb)	43.8	43.1	56	43.8	37	42.9	59
NATA [*] Diesel PM (µg/m ³)	0.807	0.338	99	0.446	90-95th	0.478	80-90th
NATA [*] Cancer Risk (lifetime risk per million)	33	24	98	26	80-90th	32	50-60th
NATA [*] Respiratory Hazard Index	0.39	0.29	98	0.34	70-80th	0.44	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	3100	650	95	530	97	750	94
Lead Paint Indicator (% Pre-1960 Housing)	0.79	0.38	86	0.38	87	0.28	92
Superfund Proximity (site count/km distance)	0.051	0.15	40	0.13	43	0.13	43
RMP Proximity (facility count/km distance)	1	0.53	84	0.83	73	0.74	77
Hazardous Waste Proximity (facility count/km distance)	4	1.2	94	2.4	81	5	80
Wastewater Discharge Indicator	N/A	1.7	N/A	2.4	N/A	9.4	N/A
(toxicity-weighted concentration/m distance)							
Demographic Indicators							
Demographic Index	73%	29%	93	28%	94	36%	92
People of Color Population	86%	25%	92	25%	93	39%	87
Low Income Population	60%	33%	87	30%	89	33%	88
Linguistically Isolated Population	1%	2%	70	2%	65	4%	50
Population With Less Than High School Education	15%	9%	79	10%	77	13%	67
Population Under 5 years of age	5%	6%	43	6%	39	6%	38
Population over 64 years of age	14%	16%	39	16%	44	15%	49

* 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: <u>www.epa.gov/environmentaljustice</u>

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