

BROWNFIELD HEALTH INDICATOR TOOL: CATEGORY OVERVIEW

An Assessment tool to help identify redevelopment and public health priorities.

WHAT IS THE BROWNFIELD HEALTH INDICATOR TOOL?

The Brownfield Health Indicator Tool is a comprehensive set of health indicators specific to brownfield use, reuse, and redevelopment projects in Minnesota. The Tool was developed in partnership between the Minnesota Department of Health and Minnesota Brownfields to improve understanding of the connection between public health and brownfields. Brownfield redevelopment has the potential to impact a wide range of health determinants, including social cohesion, access to community services, air quality, recreational opportunities, healthy housing, and more.

WHY USE THE TOOL?

The Tool can be customized to scope and assess specific project priorities related to brownfield redevelopment and public health, providing means to:

- identify potential community health risks;
- assess the project's proposed benefits;
- engage with project stakeholders; and
- prioritize long-term redevelopment and health co-benefits.

WHO CAN USE THE TOOL?

The Tool provides a framework of health indicators to aid brownfield redevelopment project influencers - planners, developers, land owners, Health Impact Assessment (HIA) practitioners, and other professionals - in making informed decisions about brownfield redevelopment.

HOW DOES THE TOOL WORK?

The Tool is organized by six categories:

- CC: Context & Connectivity**
- CI: Community Institutions**
- ES: Economic Stability**
- ER: Environmental Resilience**
- HS: Health & Safety**
- SE: Social Cohesion & Engagement**

Each category encompasses category-specific considerations to assist with identifying how a proposed brownfield redevelopment project could impact health. Designed for use as a self-guided tool, brownfield project influencers are encouraged to leverage the tool's framework as a complimentary process to support project scoping and assessment activities. The findings from this work can then help set the tone for stakeholder engagement, ultimately helping to prioritize and inform long-term project and health co-benefit strategies. Click on the next tab, "Indicator Categories," to start exploring the categories that are most relevant to your project and uncover potential project strategies that connect brownfield redevelopment and public health.

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An assessment tool to help identify redevelopment and public health priorities.

Get started: Review the six health indicator categories and corresponding sub-topics below to determine the areas of most interest to the project. Once you've determine the areas of most important, navigate to the in-depth assessment sheets by either clicking on the provided link or using the bottom worksheet tabs.

CC
click here

CONTEXT & CONNECTIVITY

CC 1: Access to Goods & Services
Promoting access or proximity to retail, employment, or related services

CC 2: Incompatible Uses
Placement of sensitive uses (e.g., child care, schools, etc.) near potentially conflicting uses (e.g., interstates, industrial uses)

CC 3: Mixed Use & Density
Proximal location of a variety of uses and/or an increase in density

CC 4: Parks, Open Space, & Recreation
Parks, open space or recreation

CC 5: Transportation
Transportation safety, active transportation, mode of travel, traffic volume, etc.

CI
click here

COMMUNITY INSTITUTIONS

CI 1: Community Services
Health care or community services, such as libraries, public art, and other cultural and civic services

CI 2: Education
Education systems, resources, or facilities

CI 3: Housing
Location, quality, density, or affordability of housing

ES
click here

ECONOMIC STABILITY

ES 1: Economic Redevelopment
Clean up of contamination, redevelopment, or economic development in the community

ES 2: Jobs, Wages, & Benefits
Increased access to or provision of employment, living wages and employment benefits

ER
click here

ENVIRONMENTAL RESILIENCE

ER 1: Air Quality
Improving outdoor and indoor air quality and reducing air pollutants

ER 2: Environmental Quality
Conservation of energy or natural resources, preservation of natural habitats, and water contamination or quality

ER 3: Sustainable Building Design
Sustainable architecture and engineering design, including design, construction and operation of facilities and infrastructure

HS
click here

HEALTH & SAFETY

HS 1: Active Living
Promotion of recreation and active travel, including parks, pedestrian and bicycle infrastructure, etc.

HS 2: Crime & Safety
Changes in crime levels and safety (real or perceived)

HS 3: Emotional Well-being
Emotional or mental stress, mental health, etc.

HS 4: Food Systems
Retail food sales, restaurants, or agriculture that addresses access to food

SE
click here

SOCIAL COHESION & ENGAGEMENT

SE 1: Equity
Equitable treatment of disadvantaged populations and equitable processes that influence displacement of residents, change in wealth or income, or property values or rent

SE 2: Planning Process
Process of developing the plan, such as engagement of the public and stakeholders

SE 3: Social Capital
Strengthening relationships in the community, reducing inequality, integration, and community engagement or empowerment

CC	CONTEXT & CONNECTIVITY BROWNFIELD HEALTH INDICATOR TOOL	IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? <i>(YES/NO)</i>	NOTES/ COMMENTS
CC 1: ACCESS TO GOODS & SERVICES			
CC 1.1:	How might the plan affect the concentration of destinations in the study area? Will the plan create an activity node?		
CC 1.2:	Does the plan provide spaces for civic, social, and community engagement, such as libraries, performing arts, theatre, museums, concerts, or festivals for personal and educational fulfillment? <i>(Also listed in CI 1 & SE 3)</i>		
CC 1.3:	Will the plan create new retail and service spaces? What types? <i>(Also listed in ES 1)</i>		
CC 1.4:	Will the plan promote economic development by increasing the ease of travel between the site and other businesses within a quarter mile, half mile, and two mile distance from its borders, and to residences within two miles? <i>(Also listed in ES 1)</i>		
CC 1.5:	Are food markets, such as a grocery store, bakery, or greengrocer, sited within a half-mile of most residences and workplaces? <i>(Also listed in HS 4)</i>		
CC 1.6:	Does the plan promote access to healthy food through community gardens/agriculture? <i>(Also listed in HS 4 & SE 3)</i>		
CC 1.7:	Does the plan locate housing where it is accessible to resident needs, such as retail, parks, and schools? <i>(Also listed in CI 3)</i>		
CC 1.8:	How might levels of physical activity be influenced by the directness and convenience of walking and cycling routes to and within the site, and to nearby destinations? <i>(Also listed in HS 1)</i>		

CC	CONTEXT & CONNECTIVITY BROWNFIELD HEALTH INDICATOR TOOL	IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? (YES/NO)	NOTES/ COMMENTS
CC 2: INCOMPATIBLE USES			
CC 2.1:	Are industrial uses located and codified so as to function seamlessly in the urban fabric and not create nuisances or health hazards? <i>(Also listed in ER 2)</i>		
CC 2.2:	Does the plan mitigate noise, air contaminants, and other emissions, for example by locating sensitive uses, such as schools, daycare centers, senior centers, residences and hospitals away from high volume roads or stationary pollution sources? <i>(Also listed in ER 2 & HS 3)</i>		
CC 2.3:	Does the plan limit density of fast food outlets, such as chain and non-sit down establishments, especially near schools, parks, child care centers and other locations children frequent? <i>(Also listed in HS 4)</i>		
CC 2.4:	Does the plan require that developers establish requirements and methods for contacting adjacent property owners and alerting them to pending construction including time, duration, expected noise levels, and types of machinery to be used? <i>(Also listed in SE 2)</i>		
CC 2.5:	Does the plan prohibit or limit retail establishments associated with adverse health outcomes such as liquor stores?		
CC 3: MIXED USE & DENSITY			
CC 3.1:	Will the plan mix or locate commercial, office/ institutional, goods and services, health-related services, recreational spaces, and residential development within walking distance of each other?		
CC 3.2:	Does the plan include live-work buildings and more cohesive mixed-use neighborhoods (i.e. residential and commercial)? <i>(Also listed in CI 3)</i>		
CC 3.3:	Does the plan include a mix of residential and commercial uses that are open at different times of day to encourage constant activity and "eyes on the street"? <i>(Also listed in HS 2 & SE 3)</i>		

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CC 4: PARKS, OPEN SPACE, & RECREATION			
CC 4.1:	Does the plan address existing contamination of recreation facilities, such as parks, beaches, etc.? <i>(Also listed in ER 2)</i>		
CC 4.2:	What are the needs for additional park/recreation and open space in the community? <i>(Also listed in HS 1 & SE 2)</i>		
CC 4.3:	Does the plan increase access to park resources (e.g., local parks, regional parks, beaches, trails, etc.) by developing new parks or creating accessible paths to existing parks? <i>(Also listed in HS 1)</i>		
CC 4.4:	Does the plan include provisions for acquiring, designing, and/or maintaining parks and greenspace? <i>(Also listed in HS 1)</i>		
CC 5: TRANSPORTATION			
CC 5.1:	Is the project designed with a residential density at or above 25 dwelling units per net residential acre (or at or above 40 dwelling units per net residential acre for projects < 1/2 mile from regional mass transit stops including rail, ferry, or bus service)? <i>(Also listed in CI 3)</i>		
CC 5.2:	Does the plan increase residents' and workers' access to services (including groceries, employment, and medical care) by improving the directness, safety, attractiveness and convenience of travel routes to and within the site? <i>(Also listed in HS 1)</i>		
CC 5.3:	What proportion of residents and/or workers are within 1/2 mile walking distance to transit? <i>(Also listed in HS 1)</i>		
CC 5.4:	Do the proposed plans support integration of current and future quality transit services and active-living transportation routes to provide safe access to jobs, stores, and homes? <i>(Also listed in HS 1)</i>		
CC 5.5:	Do sidewalk construction specifications meet minimum walkability and accessibility standards or incorporate universal design in order to provide senior and handicapped access? <i>(Also listed in HS 1)</i>		
CC 5.6:	Does the plan propose sidewalks to be placed along all new and existing streets? <i>(Also listed in HS 1)</i>		

CC	CONTEXT & CONNECTIVITY BROWNFIELD HEALTH INDICATOR TOOL	IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? (YES/NO)	NOTES/ COMMENTS
CC 5.7:	Does the plan include design specifications for safe, quality pedestrian and bicycle amenities that encourage walking and biking for commuting/recreation, both inside and outside the redevelopment area? <i>(Also listed in HS 1)</i>		
CC 5.8:	What is the area's current score on the Pedestrian Environmental Quality Index? How will the plan change the score? <i>(Also listed in HS 1)</i>		
CC 5.9:	Does the plan encourage use of bike lanes and multi-use trails and improve bicyclist safety through design strategies such as bike lane design, bicycle parking, on-street facilities, and shared use paths? <i>(Also listed in HS 1)</i>		
CC 5.10:	Is there a plan for maintenance of sidewalks and walking and biking paths to ensure they remain clear and unobstructed? <i>(Also listed in HS 1)</i>		
CC 5.11:	Are streets within and around the site designed with short blocks length and frequent and direct connections to existing streets to promote pedestrian travel? <i>(Also listed in HS 1)</i>		
CC 5.12:	Does the plan integrate sidewalk, trail and transit design and create a seamless transition between the sidewalk, trail and transit systems to allow users of one system to easily access the second? <i>(Also listed in HS 1)</i>		
CC 5.13:	Does the plan include comprehensive traffic demand management to promote more trips by bicycle, foot, or transit by providing incentives and programs to make those modes of transportation more accessible and well known? <i>(Also listed in HS 1)</i>		
CC 5.14:	Will the plan establish a bicycle library or other bike sharing program for residents who may not own bicycles? <i>(Also listed in HS 1)</i>		
CC 5.15:	Are there sufficient crosswalks in the project area? <i>(Also listed in HS 1)</i>		
CC 5.16:	What are the potential effects of the project on vehicle trips, vehicle miles traveled, traffic volume, and mode split?		
CC 5.17:	What is the current impact of heavy truck traffic? How will it change during and after clean-up and redevelopment? <i>(Also listed in HS 2)</i>		
CC 5.18:	Does the site design plan minimize high-volume driveway access across the sidewalk? <i>(Also listed in HS 2)</i>		
CC 5.19:	Do street design specifications address speed limit, traffic signals, street width, and traffic calming measures, such as speed bumps, pedestrian islands, and buffers between pedestrian and motor vehicle travel? <i>(Also listed in HS 2)</i>		
CC 5.20:	Does the project identify areas where pedestrian injuries have occurred and where there are potential future safety conflicts, and target pedestrian environment improvements to those areas? <i>(Also listed in HS 2)</i>		

CI COMMUNITY INSTITUTIONS BROWNFIELD HEALTH INDICATOR TOOL		IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? (YES/NO)	NOTES/ COMMENTS
CI 1: COMMUNITY SERVICES			
CI 1.1:	Does the plan provide spaces for civic, social, and community engagement, such as libraries, performing arts, theatre, museums, concerts, or festivals for personal and educational fulfillment? <i>(Also listed in CC 1 & SE 3)</i>		
CC 1.2:	Does the plan integrate public art and performance spaces? <i>(Also listed in SE 3)</i>		
CI 2: EDUCATION			
CI 2.1:	Will the plan affect the ability of existing schools to meet the perceived needs of the local community?		
CI 2.2:	Will the project create new demand for childcare, k-12 public schools, or after school programs? Will existing or proposed facilities meet the projected needs of the community (e.g., quality, affordability, accessibility and demand)? <i>(Also listed in SE 3)</i>		
CI 2.3:	Will the project provide any resources for k-12 public schools?		
CI 2.4:	Will the project contribute to social integration in area k-12 public schools? <i>(Also listed in SE 3)</i>		

CI COMMUNITY INSTITUTIONS

BROWNFIELD HEALTH INDICATOR TOOL

IS THIS A PRIORITY
ISSUE THAT SHOULD BE
ADDRESSED?
(YES/NO)

NOTES/
COMMENTS

CI 3: HOUSING

CI 3.1:	Does the plan promote healthy air quality and noise levels within housing units through proper ventilation and noise control design measures (e.g., EPA's Indoor airPLUS construction specifications) that reduce exposure from highway traffic? <i>(Also listed in ER 1 & HS 3)</i>		
CI 3.2:	Does the design of the redevelopment promote and protect health via materials choices, ventilation systems, and site location and orientation? <i>(Also listed in ER 1)</i>		
CI 3.3:	Does the plan incorporate design specifications for acoustic mitigations sufficient to protect health and sleep? <i>(Also listed in ER 3 & HS 3)</i>		
CI 3.4:	Will site redevelopment impact property values in the surrounding neighborhoods? <i>(Also listed in SE 1)</i>		
CI 3.5:	Will the plan contribute to excessive rent burdens for new or existing area residents? <i>(Also listed in SE 1)</i>		
CI 3.6:	Will the project impact property values for household wealth, affordable housing, and city services?? <i>(Also listed in SE 1)</i>		
CI 3.7:	Will the site contribute to displacement of existing area residents, either directly or indirectly? <i>(Also listed in SE 1)</i>		
CI 3.8:	Does the plan create policies that help long-time residents stay in their homes, help qualified homeowners with financial needs make repairs to their homes, and execute programs that help cleanup neighborhoods? <i>(Also listed in SE 1)</i>		
CI 3.9:	Does the plan locate housing where it is accessible to resident needs, such as retail, parks, and schools? <i>(Also listed in CC 1)</i>		
CI 3.10:	What are the affordable housing needs in the area, by levels of affordability, by size and by tenure, and how will the project help to meet that need? <i>(Also listed in SE 1)</i>		
CI 3.11:	Does the plan integrate affordable and market-rate housing, minimizing difference between nature and quality of units? <i>(Also listed in SE 1)</i>		
CI 3.12:	Do unit sizes, lot sizes and FAR (floor area ratio) proposals in the plan allow for a complete range of housing prices and terms, relative to area household types, sizes, and incomes, and total housing demand? <i>(Also listed in SE 1)</i>		

CI	COMMUNITY INSTITUTIONS BROWNFIELD HEALTH INDICATOR TOOL	IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? <i>(YES/NO)</i>	NOTES/ COMMENTS
CI 3.13:	Has the plan explored adopting tax assessment policies, such as deferred tax payment plans, to reduce impact of increasing property tax assessment on lower income households; or creating rehabilitation funds for improvements to properties in need of maintenance and renovation? <i>(Also listed in SE 1)</i>		
CI 3.14:	Is the project designed with a residential density at or above 25 dwelling units per net residential acre (or at or above 40 dwelling units per net residential acre for projects < 1/2 mile from regional mass transit stops including rail, ferry, or bus service)? <i>(Also listed in CC 5)</i>		
CI 3.15:	Does the project anticipate the needs of long term maintenance and upkeep of the housing?		
CI 3.16:	Will housing design and capacity impact social cohesion in the area? <i>(Also listed in SE 3)</i>		
CI 3.17:	Will the redevelopment affect the degree of residential segregation in the area? <i>(Also listed in SE 3)</i>		
CI 3.18:	Does the plan include live-work buildings and more cohesive mixed-use neighborhoods (i.e. residential and commercial)? <i>(Also listed in CC 3)</i>		

ES ECONOMIC STABILITY BROWNFIELD HEALTH INDICATOR TOOL		IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? (YES/NO)	NOTES/ COMMENTS
ES 1: ECONOMIC REDEVELOPMENT			
ES 1.1:	Will the plan create new retail and service spaces? What types? <i>(Also listed in CC 1)</i>		
ES 1.2:	Will the plan promote economic development by increasing the ease of travel between the site and other businesses within a quarter mile, half mile, and two mile distance from its borders, and to residences within two miles? <i>(Also listed in CC 1)</i>		
ES 1.3:	Does the project promote productive reuse of previously contaminated sites? <i>(Also listed in ER 2)</i>		
ES 1.4:	Does the property's brownfield status restrict future/ potential land (re)uses? <i>(Also listed in ER 2)</i>		
ES 1.5:	How will residual contamination (during and after cleanup) affect the community? <i>(Also listed in ER 2 & SE 3)</i>		
ES 1.6:	How will cleanup affect site air quality? <i>(Also listed in ER 1)</i>		
ES 1.7:	How will the site cleanup and redevelopment impact the health and well being of the community, including rates of chronic conditions (e.g, obesity, heart disease and diabetes)? <i>(Also listed in HS 1 & SE 3)</i>		
ES 1.8:	How will cleanup affect noise? <i>(Also listed in HS 3)</i>		
ES 1.9:	How will the duration of cleanup and resulting redevelopment impact residents' mental health (e.g., stress, depression, anxiety) and quality of life, either positively or negatively? <i>(Also listed in HS 3)</i>		
ES 1.10:	Does the plan promote demolishing vacant buildings slated for new construction and develop interim infill to promote identity, and encourage future investment? <i>(Also listed in SE 3)</i>		
ES 1.11:	How can cleanup activities facilitate or impair community revitalization efforts? <i>(Also listed in SE 3)</i>		
ES 1.12:	How will the cleanup impair or facilitate business gentrification in the area? <i>(Also listed in SE 1)</i>		
ES 1.13:	How can gentrification be managed to maximize benefits and minimize impacts for the community (aka, community revitalization or equitable development)? <i>(Also listed in SE 1)</i>		

ES ECONOMIC STABILITY BROWNFIELD HEALTH INDICATOR TOOL		IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? <i>(YES/NO)</i>	NOTES/ COMMENTS
ES 2: JOBS, WAGES, & BENEFITS			
ES 2.1:	Does the plan promote, support or incentivize locally-owned businesses and entrepreneurship? <i>(Also listed in SE 3)</i>		
ES 2.2:	Does the plan increase equality in income and wealth? <i>(Also listed in SE 1)</i>		
ES 2.3:	What is the current rate of employment for surrounding residents? <i>(Also listed in SE 1)</i>		
ES 2.4:	What types (number, type, and location) of jobs will the clean-up and redevelopment create, both during construction/buildout (temporary) and after (permanent)? <i>(Also listed in SE 1)</i>		
ES 2.5:	What are the possible wages, terms and core benefits (e.g. paid sick leave) of project-related jobs, relative to area median income and local cost of living? <i>(Also listed in SE 1)</i>		
ES 2.6:	Will the project promote local hiring or training initiatives so that employment opportunities created by the redevelopment plan benefit the local residents? <i>(Also listed in SE 1)</i>		
ES 2.7:	Does the project include a workforce development plan that targets youth and underemployed populations to be able to take advantage of jobs created? <i>(Also listed in SE 1)</i>		
ES 2.8:	Will the project strengthen or diversify the neighborhood economy? <i>(Also listed in SE 3)</i>		

ER ENVIRONMENTAL RESILIENCE BROWNFIELD HEALTH INDICATOR TOOL		IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? (YES/NO)	NOTES/ COMMENTS
ER 1: AIR QUALITY			
ER 1.1:	Does the plan include provisions to limit smoking and exposure to environmental tobacco smoke (ETS)?		
ER 1.2:	Does the plan promote healthy air quality and noise levels within housing units through proper ventilation and noise control design measures (e.g., EPA's Indoor airPLUS construction specifications) that reduce exposure from highway traffic? <i>(Also listed in CI 1 & HS 3)</i>		
ER 1.3:	Does the design of the redevelopment promote and protect health via materials choices, ventilation systems, and site location and orientation? <i>(Also listed in CI 3)</i>		
ER 1.4:	How will cleanup affect site air quality? <i>(Also listed in ES 1)</i>		
ER 2: ENVIRONMENTAL QUALITY			
ER 2.1:	Does the project promote productive reuse of previously contaminated sites? <i>(Also listed in ES 1)</i>		
ER 2.2:	Does the property's brownfield status restrict future/ potential land (re)uses? <i>(Also listed in ES 1)</i>		
ER 2.3:	How will residual contamination (during and after cleanup) affect the community? <i>(Also listed in ES 1 & SE 3)</i>		
ER 2.4:	Are industrial uses located and codified so as to function seamlessly in the urban fabric and not create nuisances or health hazards? <i>(Also listed in CC 2)</i>		
ER 2.5:	Does the plan mitigate noise, air contaminants, and other emissions, for example by locating sensitive uses, such as schools, daycare centers, senior centers, residences and hospitals away from high volume roads or stationary pollution sources? <i>(Also listed in CC 2 & HS 3)</i>		
ER 2.6:	Does the project incorporate energy and resource efficient measures to reduce consumption of energy and natural resources (e.g., water)?		
ER 2.7:	Does the project restore, preserve, and protect healthy natural habitats?		
ER 2.8:	Will the project negatively impact water quality on the site and in connecting water bodies (e.g., increase urban runoff)?		

ER	ENVIRONMENTAL RESILIENCE BROWNFIELD HEALTH INDICATOR TOOL	IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? <i>(YES/NO)</i>	NOTES/ COMMENTS
ER 2.9:	Does the plan include a stormwater component that utilizes best management practices, such as compact development with narrower streets, reduced parking requirements, and vegetated buffers along large swaths of pervious surfaces?		
ER 2.10:	Does the plan include specifications for tree planting, rooftop gardens or other natural elements, as well as, their maintenance and conservation? <i>(Also listed in HS 3)</i>		
ER 2.11:	Will the project support clean-fuel or electric vehicles through charging stations, acquisition of clean vehicles for maintenance or shuttle services, etc.?		
ER 2.12:	Does the plan incorporate designs and performance criteria for development of Complete Streets and green infrastructure? <i>(Also listed in HS 1)</i>		
ER 2.13:	Does the plan address existing contamination of recreation facilities, such as parks, beaches, etc.? <i>(Also listed in CC 4)</i>		
ER 3: SUSTAINABLE BUILDING DESIGN			
ER 3.1:	Does the plan incorporate design specifications for acoustic mitigations sufficient to protect health and sleep? <i>(Also listed in CI 3 & HS 3)</i>		
ER 3.2:	Does the plan's site and building design create an appealing and functional human environment? <i>(Also listed in HS 3)</i>		
ER 3.3:	Does the plan ensure that fencing and landscaping does not create barriers to pedestrian mobility? <i>(Also listed in HS 1)</i>		
ER 3.4:	Does the plan incorporate design specifications to reduce risk of illness or injury? <i>(Also listed in HS 2)</i>		

HS HEALTH & SAFETY BROWNFIELD HEALTH INDICATOR TOOL		IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? (YES/NO)	NOTES/ COMMENTS
HS 1: ACTIVE LIVING			
HS 1.1:	Does the plan ensure that fencing and landscaping does not create barriers to pedestrian mobility? <i>(Also listed in ER 3)</i>		
HS 1.2:	How will the site cleanup and redevelopment impact the health and well being of the community, including rates of chronic conditions (e.g, obesity, heart disease and diabetes)? <i>(Also listed in ES 1 & SE 3)</i>		
HS 1.3:	What are the needs for additional park/recreation and open space in the community? <i>(Also listed in CC 4 & SE 2)</i>		
HS 1.4:	Does the plan increase access to park resources (e.g., local parks, regional parks, beaches, trails, etc.) by developing new parks or creating accessible paths to existing parks? <i>(Also listed in CC 4)</i>		
HS 1.5:	Does the plan include provisions for acquiring, designing, and/or maintaining parks and greenspace? <i>(Also listed in CC 4)</i>		
HS 1.6:	Does the plan incorporate designs and performance criteria for development of Complete Streets and green infrastructure? <i>(Also listed in ER 2)</i>		
HS 1.7:	Does the plan increase residents' and workers' access to services (including groceries, employment, and medical care) by improving the directness, safety, attractiveness and convenience of travel routes to and within the site? <i>(Also listed in CC 5)</i>		
HS 1.8:	What proportion of residents and/or workers are within 1/2 mile walking distance to transit? <i>(Also listed in CC 5)</i>		
HS 1.9:	Do the proposed plans support integration of current and future quality transit services and active-living transportation routes to provide safe access to jobs, stores, and homes? <i>(Also listed in CC 5)</i>		
HS 1.10:	Do sidewalk construction specifications meet minimum walkability and accessibility standards or incorporate universal design in order to provide senior and handicapped access? <i>(Also listed in CC 5)</i>		
HS 1.11:	Does the plan propose sidewalks to be placed along all new and existing streets? <i>(Also listed in CC 5)</i>		
HS 1.12:	Does the plan include design specifications for safe, quality pedestrian and bicycle amenities that encourage walking and biking for commuting/recreation, both inside and outside the redevelopment area? <i>(Also listed in CC 1)</i>		

HS	HEALTH & SAFETY BROWNFIELD HEALTH INDICATOR TOOL	IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? <i>(YES/NO)</i>	NOTES/ COMMENTS
HS 1.13:	What is the area's current score on the Pedestrian Environmental Quality Index? How will the plan change the score? <i>(Also listed in CC 5)</i>		
HS 1.14:	Does the plan encourage use of bike lanes and multi-use trails and improve bicyclist safety through design strategies such as bike lane design, bicycle parking, on-street facilities, and shared use paths? <i>(Also listed in CC 5)</i>		
HS 1.15:	Is there a plan for maintenance of sidewalks and walking and biking paths to ensure they remain clear and unobstructed? <i>(Also listed in CC 5)</i>		
HS 1.16:	Are streets within and around the site designed with short blocks length and frequent and direct connections to existing streets to promote pedestrian travel? <i>(Also listed in CC 5)</i>		
HS 1.17:	Does the plan integrate sidewalk, trail and transit design and create a seamless transition between the sidewalk, trail and transit systems to allow users of one system to easily access the second? <i>(Also listed in CC 5)</i>		
HS 1.18:	Does the plan include comprehensive traffic demand management to promote more trips by bicycle, foot, or transit by providing incentives and programs to make those modes of transportation more accessible and well known? <i>(Also listed in CC 5)</i>		
HS 1.19:	How might levels of physical activity be influenced by the directness and convenience of walking and cycling routes to and within the site, and to nearby destinations? <i>(Also listed in CC 1)</i>		
HS 1.20:	Will the plan establish a bicycle library or other bike sharing program for residents who may not own bicycles? <i>(Also listed in CC 5)</i>		
HS 1.21:	Are there sufficient crosswalks in the project area? <i>(Also listed in CC 5)</i>		

HS HEALTH & SAFETY BROWNFIELD HEALTH INDICATOR TOOL		IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? <i>(YES/NO)</i>	NOTES/ COMMENTS
HS 2: CRIME & SAFETY			
HS 2.1:	Does the plan incorporate design specifications to reduce risk of illness or injury? <i>(Also listed in ER 3)</i>		
HS 2.2:	Are there concerns about personal safety in the study area or surrounding neighborhoods?		
HS 2.3:	How does the project promote social cohesion and influence safety (real and perceived) in the project area and surrounding context? <i>(Also listed in SE 3)</i>		
HS 2.4:	Does the plan provide adequate and pedestrian scaled lighting for all public areas, residential streets, and public streets to reduce real and perceived crime?		
HS 2.5:	What safety precautions are being employed for vulnerable populations (disabled, seniors)? <i>(Also listed in SE 1)</i>		
HS 2.6:	Does the plan incorporate principles of Crime Prevention Through Environmental Design (CPTED)?		
HS 2.7:	Does the project require durable, vandal-resistant materials so maintenance is minimal?		
HS 2.8:	Does the plan include a mix of residential and commercial uses that are open at different times of day to encourage constant activity and "eyes on the street"? <i>(Also listed in CC 3 & SE 3)</i>		
HS 2.9:	What is the current impact of heavy truck traffic? How will it change during and after clean-up and redevelopment? <i>(Also listed in CC 5)</i>		
HS 2.10:	Does the site design plan minimize high-volume driveway access across the sidewalk? <i>(Also listed in CC 5)</i>		
HS 2.11:	Do street design specifications address speed limit, traffic signals, street width, and traffic calming measures, such as speed bumps, pedestrian islands, and buffers between pedestrian and motor vehicle travel? <i>(Also listed in CC 5)</i>		
HS 2.12:	Does the project identify areas where pedestrian injuries have occurred and where there are potential future safety conflicts, and target pedestrian environment improvements to those areas? <i>(Also listed in CC 5)</i>		

HS HEALTH & SAFETY BROWNFIELD HEALTH INDICATOR TOOL		IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? (YES/NO)	NOTES/ COMMENTS
HS 3: EMOTIONAL WELL-BEING			
HS 3.1:	Does the plan promote healthy air quality and noise levels within housing units through proper ventilation and noise control design measures (e.g., EPA's Indoor airPLUS construction specifications) that reduce exposure from highway traffic? <i>(Also listed in CI 3 & ER 1)</i>		
HS 3.2:	Does the plan incorporate design specifications for acoustic mitigations sufficient to protect health and sleep? <i>(Also listed in CI 3 & ER 3)</i>		
HS 3.3:	Does the plan's site and building design create an appealing and functional human environment? <i>(Also listed in ER 3)</i>		
HS 3.4:	How will cleanup affect noise? <i>(Also listed in ES 1)</i>		
HS 3.5:	How will the duration of cleanup and resulting redevelopment impact residents' mental health (e.g., stress, depression, anxiety) and quality of life, either positively or negatively? <i>(Also listed in ES 1)</i>		
HS 3.6:	Does the plan mitigate noise, air contaminants, and other emissions, for example by locating sensitive uses, such as schools, daycare centers, senior centers, residences and hospitals away from high volume roads or stationary pollution sources? <i>(Also listed in CC 2 & ER 2)</i>		
HS 3.7:	Does the plan include specifications for tree planting, rooftop gardens or other natural elements, as well as, their maintenance and conservation? <i>(Also listed in ER 2)</i>		
HS 4: FOOD SYSTEMS			
HS 4.1:	Does the plan allow for an expedited permit review process for all retail businesses providing a minimum of 10% shelf space for fresh produce? <i>(Also listed in SE 2)</i>		
HS 4.2:	Are food markets, such as a grocery store, bakery, or greengrocer, sited within a half-mile of most residences and workplaces? <i>(Also listed in CC 1)</i>		
HS 4.3:	Does the plan accommodate or promote temporary food sellers, such as produce stands, farmers' markets, and food trucks?		
HS 4.4:	Does the plan promote access to healthy food through community gardens/agriculture? <i>(Also listed in CC 1 & SE 3)</i>		
HS 4.5:	Does the plan limit density of fast food outlets, such as chain and non-sit down establishments, especially near schools, parks, child care centers and other locations children frequent? <i>(Also listed in CC 2)</i>		

SE		SOCIAL COHESION & ENGAGEMENT	IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? (YES/NO)	NOTES/ COMMENTS
BROWNFIELD HEALTH INDICATOR TOOL				
SE 1: EQUITY				
SE 1.1:	What safety precautions are being employed for vulnerable populations (disabled, seniors)? <i>(Also listed in HS 2)</i>			
SE 1.2:	Will site redevelopment impact property values in the surrounding neighborhoods? <i>(Also listed in CI 3)</i>			
SE 1.3:	Will the plan contribute to excessive rent burdens for new or existing area residents? <i>(Also listed in CI 3)</i>			
SE 1.4:	Will the project impact property values for household wealth, affordable housing, and city services? <i>(Also listed in CI 3)</i>			
SE 1.5:	How will the cleanup impair or facilitate business gentrification in the area? <i>(Also listed in ES 1)</i>			
SE 1.6:	Will the site contribute to displacement of existing area residents, either directly or indirectly? <i>(Also listed in CI 3)</i>			
SE 1.7:	How can gentrification be managed to maximize benefits and minimize impacts for the community (aka, community revitalization or equitable development)? <i>(Also listed in ES 1)</i>			
SE 1.8:	Does the plan create policies that help long-time residents stay in their homes, help qualified homeowners with financial needs make repairs to their homes, and execute programs that help cleanup neighborhoods? <i>(Also listed in CI 3)</i>			
SE 1.9:	Does the plan increase equality in income and wealth? <i>(Also listed in ES 2)</i>			
SE 1.10:	What are the affordable housing needs in the area, by levels of affordability, by size and by tenure, and how will the project help to meet that need? <i>(Also listed in CI 3)</i>			
SE 1.11:	Does the plan integrate affordable and market-rate housing, minimizing difference between nature and quality of units? <i>(Also listed in CI 3)</i>			
SE 1.12:	Do unit sizes, lot sizes and FAR (floor area ratio) proposals in the plan allow for a complete range of housing prices and terms, relative to area household types, sizes, and incomes, and total housing demand? <i>(Also listed in CI 3)</i>			
SE 1.13:	Has the plan explored adopting tax assessment policies, such as deferred tax payment plans, to reduce impact of increasing property tax assessment on lower income households; or creating rehabilitation funds for improvements to properties in need of maintenance and renovation? <i>(Also listed in CI 3)</i>			
SE 1.14:	What is the current rate of employment for surrounding residents? <i>(Also listed in ES 2)</i>			

SE	SOCIAL COHESION & ENGAGEMENT BROWNFIELD HEALTH INDICATOR TOOL	IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? <i>(YES/NO)</i>	NOTES/ COMMENTS
SE 1.15:	What types (number, type, and location) of jobs will the clean-up and redevelopment create, both during construction/buildout (temporary) and after (permanent)? <i>(Also listed in ES 2)</i>		
SE 1.16:	What are the possible wages, terms and core benefits (e.g. paid sick leave) of project-related jobs, relative to area median income and local cost of living? <i>(Also listed in ES 2)</i>		
SE 1.17:	Will the project promote local hiring or training initiatives so that employment opportunities created by the redevelopment plan benefit the local residents? <i>(Also listed in ES 2)</i>		
SE 1.18:	Does the project include a workforce development plan that targets youth and underemployed populations to be able to take advantage of jobs created? <i>(Also listed in ES 2)</i>		
SE 2: PLANNING PROCESS			
SE 2.1:	Does the plan allow for an expedited permit review process for all retail businesses providing a minimum of 10% shelf space for fresh produce? <i>(Also listed in HS 4)</i>		
SE 2.2:	Does the plan require that developers establish requirements and methods for contacting adjacent property owners and alerting them to pending construction including time, duration, expected noise levels, and types of machinery to be used? <i>(Also listed in CC 2)</i>		
SE 2.3:	What are the needs for additional park/recreation and open space in the community? <i>(Also listed in CC4 & HS 1)</i>		
SE 2.4:	How does the plan development process engage or communicate with area residents? (e.g., utilizing existing websites to share local news)		
SE 2.5:	Did the plan assure equitable and democratic participation in the planning process?		
SE 2.6:	Who was/is participating in the public process and who was/is not?		
SE 2.7:	Did the planning and implementation process for the redevelopment meaningfully respond to the needs/concerns of all area residents?		
SE 2.8:	As designed, will the project meet the identified needs of the community?		
SE 2.9:	What efforts been made to assess the needs of nonparticipants?		

SE	SOCIAL COHESION & ENGAGEMENT BROWNFIELD HEALTH INDICATOR TOOL	IS THIS A PRIORITY ISSUE THAT SHOULD BE ADDRESSED? (YES/NO)	NOTES/ COMMENTS
SE 3: SOCIAL CAPITAL			
SE 3.1:	Will the project create new demand for childcare, k-12 public schools, or after school programs? Will existing or proposed facilities meet the projected needs of the community (e.g., quality, affordability, accessibility and demand)? <i>(Also listed in CI 2)</i>		
SE 3.2:	Does the plan provide spaces for civic, social, and community engagement, such as libraries, performing arts, theatre, museums, concerts, or festivals for personal and educational fulfillment? <i>(Also listed in CC 1 & CI 1)</i>		
SE 3.3:	Will the project contribute to social integration for k-12 public schools? <i>(Also listed in CI 2)</i>		
SE 3.4:	Does the plan integrate public art and performance spaces? <i>(Also listed in CI 1)</i>		
SE 3.5:	How does the project promote social cohesion and influence safety (real and perceived) in the project area and surrounding context? <i>(Also listed in HS 2)</i>		
SE 3.6:	How will residual contamination (during and after cleanup) affect the community? <i>(Also listed in ES 1 & ER 2)</i>		
SE 3.7:	How will the site cleanup and redevelopment impact the health and well being of the community, including rates of chronic conditions (e.g, obesity, heart disease and diabetes)? <i>(Also listed in ES 1 & HS 1)</i>		
SE 3.8:	Does the plan promote demolishing vacant buildings slated for new construction and develop interim infill to promote identity, and encourage future investment? <i>(Also listed in ES 1)</i>		
SE 3.9:	How can cleanup activities facilitate or impair community revitalization efforts? <i>(Also listed in ES 1)</i>		
SE 3.10:	Will the project strengthen or diversify the neighborhood economy? <i>(Also listed in ES 2)</i>		
SE 3.11:	Does the plan promote, support or incentivize locally-owned businesses and entrepreneurship? <i>(Also listed in ES 2)</i>		
SE 3.12:	Does the plan promote access to healthy food through community gardens/agriculture? <i>(Also listed in CC 1 & HS 4)</i>		
SE 3.13:	Will housing design and capacity impact social cohesion in the area? <i>(Also listed in CI 3)</i>		
SE 3.14:	Will the redevelopment affect the degree of residential segregation in the area? <i>(Also listed in CI 3)</i>		
SE 3.15:	Does the plan include a mix of residential and commercial uses that are open at different times of day to encourage constant activity and "eyes on the street"? <i>(Also listed in CC 3 & HS 2)</i>		