WORK PLAN

I. Project Title and Project Purpose Statement

Project Title: “A Sense of Place”

Description Summary. The proposed project will serve as a culturally appropriate model program for creating behavioral change that: can be replicated in other settings; and has been developed to be a standard for bridging collaborative partnerships between marginalized families of color and key neighborhood and community stakeholders; and both benefits the environment and produces public health results.

Hence, in partnership with Our Kitchen Table (OKT), urban public schools (Gerald R. Ford Academic Center and Martin Luther King Leadership Academy) and Well House, the Grand Rapids African American Health Institute (GRAAHI), a research-based organization, proposes to create a school enrichment/environmental stewardship program. This program will provide middle school students with educational context and outdoor, place-based activities about lead contamination in soil, food security and environmental health and diet related disparities.

Students will explore environmental and public health topics in a fun, interactive format for the purposes of becoming junior soil-sampling investigators; establishing diverse, school snack-food gardens and snack menus; and becoming more familiar with their neighborhood as an edible landscape. Enrichment project activities will reinforce the message. For example, students will collect soil samples at homes of school families that are interested in learning about growing food and environmental contamination (lead and arsenic). Students will also collect soil samples at residential sites maintained by Well House, a neighborhood-based housing program. School-age children residing at Well House tend to attend the neighborhood-based feeder schools, Martin Luther King Leadership Academy and Gerald R. Ford Academic Center.

GRAAHI continuously searches for ways to enhance it presence in urban Grand Rapid neighborhoods, particularly those with families that have high needs, by collaborating with neighborhood- and community-based partners that (1) serve similar diverse populations; (2) support research relevant to neighborhood perception and existing conditions and (3) promote GRAAHI’s core focus on education, research and advocacy.

Project Location - The school enrichment program will be based at Gerald R. Ford Academic Center and Martin Luther King Jr. Leadership Academy and surrounding neighborhoods located in southeast Grand Rapids, Michigan (zip code 49507).

Project activities will be related to the following **federal environmental statutes**:

- Toxic Substance Control Act;
- Safe Drinking Water Act;
- Clean Air Act; and
- Federal Insecticide, Fungicide and Rodenticide Act

Project activities will also support EPA's Strategic Plan Goal 3: "Cleaning Up Communities and Advancing Sustainable Development" and EPA's Cross Cutting Fundamental Strategy, "Working for Environmental Justice and Children's Health." Likewise, this project will also support EPA's themes of "Making a Visible Difference in Communities Across the Country" and "Addressing Climate Change and Improving Air Quality."

Project Partnership: The following collaborative partners have been identified and recruited to support the success of the proposed project:

Our Kitchen Table (OKT). OKT reaches southeast Grand Rapids families to create a network of residential and school-based food growers who have learned the importance of growing healthy food for their families, the local food system and the neighborhood environment. OKT's efforts are geared toward families in need that are challenged with diet-related and environmental health illnesses impacting school-age or younger children and pregnant women. Along with conducting a food growing educational program, OKT offers soil testing and counseling services to participants.

Gerald R. Ford Academic Center and Martin Luther King, Jr Leadership Academy (Grand Rapids Public schools). These schools are within the Grand Rapids Public School district (GRPS). GRPS is designated as a Community Eligible Option District (CEO). As such, GRPS participates in a four-year CEO designation that allows it to serve school meals to all students at no charge regardless of income. The designation is determined by the number of the district's enrolled children that are identified as receiving SNAP (food stamp) benefits via data provided by the State of Michigan. Based on data shared by GRPS for the academic year 2011/2012, 86% of the district's student population were considered high need. These schools are within the 49507 zip code and are the primary feeder schools for elementary children residing at Well House. OKT has assisted the schools with initiating an outdoor/indoor food gardening program that is connected to the schools' academic strategy.

Well House. Well House. Founded in 1978 as a hospitality house where people experiencing homelessness could stay for an undetermined amount of time, Well House continued as a shelter until 2012. Since then, Well House adopted a Housing First model, making safe and affordable housing available to people who disproportionately fall through the cracks of the current shelter system. Because people experiencing homelessness often do not have eating healthy as a top

priority, Well House grows food with tenants and neighbors. (Its neighborhood is generally referred to as a food desert area.) Well House is located in the South East part of Grand Rapids, in what is predominantly a low income neighborhood, represented mostly by African American and Latino residents.

Joshua Tree Internal Medicine, Inc. Twenty-eight percent of the patients at his internal medicine practice have state-funded health insurance. Forty-seven percent are women of color with school-aged children. Joshua Tree will assist with developing workshop series focused on improving personal and family wellness and health management. Information learned from this workshop series will influence the format for hosting school-based and neighborhood health education activities.

All partners have previously worked together in varying capacities and have a vested interest in improving the environmental and overall health of the community.

II. Environmental and/or Public Health Information about the Affected Community:

The local environmental and/or public health issues this proposed project will address are:

- Childhood lead poisoning
- Obesity
- Childhood diabetes
- Asthma

The affected community is disproportionately impacted by environmental harm and public health risk as characterized by the following:

PAST DATA:

Like many other Midwestern cities, Grand Rapids has experienced a significant migration to suburban areas in the past ten years. This shifting demographic leaves many that remain in the city's older, economically distressed inner city areas at high risk for environmental health and diet related disparities (and other ill effects that impact disadvantage economically distressed inner-city urban neighborhoods). According to the 2000 U.S. Census, more than 75% of the residents residing in zip code 49507 are Black/African American; 20% are Latinos; and 5% other races.

African Americans and Latinos are known to be at greater risk for environmental and diet-related illness. Some 65% of households in this zip code had annual incomes below $25,000 in 1999. Low-income status is another strong predictor of risk for environmental and food security challenges. According to the 2000 U.S. Census, of 39,422 occupied housing units in this zip code, nearly two-thirds (64%) were constructed before 1950. More than one-in-four occupied

dwellings in this zip code are pre-1950 rental units, a segment of the housing stock at particularly high risk for lead poisoning and asthma related symptoms.

According to 2004 Michigan Department of Community Health Data, this zip code was among the state's highest in childhood lead poisoning cases, accounting for some 183 of the Michigan's 3,126 elevated blood lead cases (blood lead levels 10 μg/dL or greater) that year. These represent 5.9% of the state's lead poisonings from an area with only 1.4% of the state's population. A 2003 *Grand Rapids Times* article reported "Grand Rapids neighborhoods, including neighborhoods particularly located on the southeast side of the city, have the highest prevalence of childhood lead poisoning." Included in this target area are five city blocks reported as among those with the most lead poisoned children in the state of Michigan.

To supplement data provided by Census and epidemiological sources, Our Kitchen Table (a partner organization) conducted a door-to-door community survey of 450 households in these southeast Grand Rapids neighborhoods in August and September 2005 and July through September 2006. Residents were asked to share their perceptions of community symptoms related to health and environmental issues and describe how they were currently addressing those challenges. Among the survey's key findings:

- Lead poisoning was noted as important health concerns for children and adults;
- Residents said hunger is a major family issue;
- Neighborhood youth lack engagement in spite of a community center located nearby;
- Many households were without one or more utilities (e.g., gas, electricity, phone or water) because of shut-offs for non-payment;
- Children have no outdoor play space;
- Most households were concerned about debris throughout the community and their inability to afford city trash bags; and
- Residents fear the impact of gentrification (new housing developments).

Grand Rapids government agencies primarily take a reactive approach to cases of environmental health and diet-related disparities such as waiting for a physician's report or lab result of a child with an elevated blood lead and/or glucose level before taking action. For example, in the case of childhood lead poisoning, the Kent County Health Department offers home visits for education and case management only after a child's blood lead level reaches or exceeds 10μg/dL. Environmental investigations do not begin until a child's blood lead level reaches or exceeds 15μg/dL. Even then, after-the-fact efforts to achieve the elimination of lead hazards are successful only some of the time. The challenge of lowering elevated levels of lead in the blood is considerable. Other than Grand Rapids' HUD-funded Lead Hazard Control Program, no significant strategies proactively prevent poisonings by identifying and eliminating lead exposure sources in children's environments.

RECENT DATA:

Local environmental health data compiled by the Kent County Health Department and the Children's Environmental Health Initiative's Environmental Work Indicator Group (CEH-EWIG have color-coded maps showing the correlation between old housing stock (an indicator of lead-based paint) and the distribution of elevated blood lead levels in children living in Kent County. This data demonstrates multiple different geographical scales, including at the neighborhood level. The absence of lead-based paint on the current building site is not in itself evidence that the soil is free of lead contamination. The house may have been remediated for lead, but not the surrounding soil or the soil may have been contaminated by a source that is no longer on the property (e.g. an old building that was demolished). Therefore, the soil needs to be tested for lead in order to generate new data that will help prioritize where gardens should be established and optimize the environmental health benefits of fresh food.

Land use research—viewing old land use map at the local public library—revealed that the area's soil may also be contaminated with arsenic because the land once supported orchards. Pesticides used on these orchards both contained lead and arsenic.

In addition to childhood lead poisoning data, by CDHII-EWIG also has data and maps on other key environmental health issues and chronic diseases, including asthma, radon, carbon monoxide, mercury, outdoor air pollution, childhood diabetes and cardiovascular diseases.

Hence, this places the environmental health story into a whole systems approach to food, health and well-being.

III. Organization's Historical Connection to the Affected Community

The Grand Rapids African American Health Institute is a community based organization that has worked over the past 11 years to reduce disparities in health. The Institute was born out of the GR Urban League in response to the disparities disproportionately impacting minorities and the urban core. In 2010, the Institute engaged in a strategic partnership with local food justice organization, Our Kitchen Table, to expand its reach in addressing the underlying causes of those disparities. OKT has been engaged with environmental justice issues as they pertain to food justice since its 2003 inception. As environmental factors directly affect food availability and other health related factors, this partnership has been instrumental in improving individual and community health in Grand Rapids.

GRAAHI has completed several health awareness campaigns in the urban core in topic areas such as lead poisoning, kidney disease, hypertension, asthma triggers and diabetes. In 2006, the organization surveyed more than 500 families residing in the city to assess environment and

physical health trends. The organization works with local senior centers to provide monthly seminars on health impacting topics. “Place-based” topics are often presented by local experts. GRAAHI releases a biennial report on minority health which has a section devoted to the environment and its affect on overall health.

The Institute prides itself on being responsive to needs and desires of the community. To this end, the organization works with the community to develop projects. The organization has a programmatic committee that is populated by local community members and provides community level direction as to what is truly desired by the residents we seek to service. In addition to this, GRAAHI is also responsive to its board, which includes two positions reserved for at-large community members.

The Institute has established relationships with more than 26 churches in the urban core and more than 15 community based organizations; the Institute is also closely tied to the government agencies providing core services. Through these partnerships, GRAAHI has established itself as the leading authority on the health of African Americans and those living in the urban core. The expertise of the organization is frequently sought when addressing issues involving improving the well being of African Americans.

IV. Project Description

The proposed project seeks to achieve the following results as a community improvement output: The proposed project will serve as a model program for creating behavioral change that benefits the environment, can be replicated in other settings and has been developed to be a standard for advancing and strengthening the field of practice of environmental education. Likewise, the proposed project also has been developed as a strategy that values community engagement in culturally appropriate ways and results in transference of learning tools that are popularized in ways that can be sustained by community residents and local leaders. The proposed project meets the definition of environmental education in that the enrichment educational and training activities involve Grand Rapids-based elementary students to do critical thinking, problem solving and create decision making action steps to address environmental challenges in urban neighborhoods. Likewise, any and every participant involved in the proposed project will (1) become publicly aware and knowledgeable about environmental issues; (2) gain skills necessary to make informed environmental decisions; and (3) take responsible actions. Last, project development is based on objective and scientifically-sound information based on epidemiological data provided by the local health department and the Michigan Community Health department, as well as aggregated data provided by Our Kitchen Table.

Which people within the community will benefit from the proposed project? Middle school students attending urban public schools located in southeast Grand Rapids, Michigan and southeast area neighborhood residents.

Partner Relationship and Commitment

The Grand Rapids African American Health Institute will provide data collection management and interpretation; facilitates health education related to diet-related illnesses; and provides necessary marketing and PR opportunities.

Our Kitchen Table will provide project management including oversight of project staffing; enrichment and community engagement; capacity building neighborhood activities; and report writing. Also, OKT will facilitate environmental education curriculum related to land use, soil testing, composting, water quality and air quality at school and neighborhood sites.

Gerald R. Ford Academic Center and Martin Luther King Jr Leadership Academy (Grand Rapid Public schools) will provide classroom and food garden space, recruit participants, and written and verbal communication to parents/caretakers.

Well House will develop a food-based media literacy curriculum and provide food garden coaches for both schools.

Joshua Tree Internal Medicine Inc. will develop a five-part workshop series entitled *Creating a Wellness Portfolio* with the help of a local healthcare provider, the office biller, and a diabetes educator. Along with disseminating information about the 2010 Affordable Healthcare Act's key provisions, this series will educate about state-funded health insurance plans and supplemental approaches to health maintenance while promoting healthy nutrition with school-based families and neighborhood residents. Throughout the course of the workshops, participants will become familiar with public policy related to food and environmental statues, new modalities of healthcare and the local food system. Based on information gleaned throughout the workshops. participants will compile an individual and family wellness portfolio tailored to their lifestyle and needs.

Collaborative Problem-Solving Model:

The project entitled *A Sense of Place* will recruit and enroll middle school students attending neighborhood-based Grand Rapids Public schools: Gerald R. Ford Academic Center and Martin Luther King Jr Leadership Academy. The schools were selected for two primary reasons; 1) 100% of the student population is enrolled in the federal free and reduced school meals program and 2) the schools are located in a neighborhood "hot spot."

Hot spots are recognized as food deserts, sites of persistent and growing environmental health disparities and historically known to be contaminated—with lead due to the built environment, arsenic, a once common pesticide, and brownfield designation. High-risk middle school students will be targeted for participation. This project defines high risk as students residing in a household where the parent is single, earns a low wage or is unemployed. Other risk factors for inclusion include diabetes, obesity, lead poisoning and/or asthma.

The pilot project will establish a school enrichment program that includes student participation in a student-led food garden council. Through the school enrichment program, students will establish, maintain and monitor an indoor/outdoor snack food garden and design a school-based snack menu. Student gardens will reflect diverse diets, health status and varying beliefs about food availability in neighborhoods. Students will also learn about the history of food and land use to explore foods that are grown and differ based on culture and place of origin. In addition to growing food at the school, students will be offered support with establishing a container food garden at their residence and menu planning.

As students learn to design and grow snack gardens, the school enrichment program will provide supplemental information on lead, asthma, environmental hazards, safe cleaning and environmental remediation guidelines (green infrastructure) and other relevant information via a series of workshops and hands-on demonstration activities. The goal is to develop students that can act as peer educators for their community. This approach will expand each student's understanding of environmental and public health issues in the context of their neighborhood by drawing a clear distinction between available and missing resources. Students will become informed about land use practices in the school service area as well as water and air quality and hazardous environmental impacts caused by the built environment, brownfields and superfund sites and local public health policy.

Students will take part in data collection activities such as food assessments and soil and water sampling. In an effort to support what is learned at school, students' families will be informed about available community-based resources to help with environmental remediation options via the school newsletter and bi-annual school-based parent information meetings.

The school enrichment programing will occur during the established academic calendar with onsite programming offered during the fall and spring semesters. The pilot project will be offered one evening a week directly after school for 60 to 90 minutes. In addition, a summer school enrichment program will be offered to project participants and their family members when school is not in session. No programming will be offered during scheduled school breaks and closures.

To document their participation, students will maintain a photo journal/visual scrap book of their experiences. As a part of the enrichment program's final activities, students will participate in planning a gallery showing based on their photo journals. In collaboration with a local gallery, students will present their photos along with key information they learned about environmental and public health challenges that exist in the school and the surrounding neighborhood.

Any student interested in establishing a home-based snack garden will be supported via OKT's food growing initiative. Upon receipt of parental consent, OKT's lead garden coach and biochemist will visit the student's home to do a visual assessment and collect soil samples for testing. Based on the results of soil samples, recommendations will be made for placement of an outdoor container food garden. Students and their family members will be provided with two to four ten-gallon buckets, soil(compost), seedlings, garden tools, watering can and a food garden coach to assist with urban food gardening for a six months. After six months, assistance will be providing on a callback basis as the need arises.

Students and their family members will also have the option of learning about urban foraging, how to harvest fruit and nuts from neighborhood trees. Last, meatless recipes, cast-iron skillets and slow cookers will be provided to these participants to support consumption of a home-based, healthy snack menu.

V. Organizational Capacity and Programmatic Capability

The Grand Rapids African American Health Institute has the necessary infrastructure in place to provide appropriate grant management. The organization outsources its accounting to Fusion Business services, a local non-profit that specializes in non-profit account management. The Institute has utilized the services of Fusion for the past two years, with the organization performing necessary financial services for all grants operational within that time period. The organization undergoes independent audits annually.

While GRAAHI has not previously received grant funding from the EPA, the organization has successfully managed grants from the State of Michigan, W.K. Kellogg Foundation, Grand Rapids Community Foundation, Pfizer, Eli Lilly and Spectrum Health Systems. As with other grants of this magnitude, the Institute will assign the grant to a compliance officer, who will be responsible for ensuring that deadlines are met. The compliance officer will also be responsible for adherence to timelines and management of grant partners.

It should be noted that a partner agency, OKT, has received previous EPA funding and will assist in ensuring grant requirements are met.

VI. Qualifications of the Project Manager

Principle Investigator Qualifications

Lisa Oliver-King, MPH, is the founding executive director of Our Kitchen Table (OKT). She has worked 20+ years in the public sector. Her undeniable commitment to public health and human rights has led her to dedicate her career to championing at-risk, disadvantaged and marginalized community residents. Her commitment stems from ensuring those most impacted are visible, have voice and can influence public policy decisions that impact quality of life. Mrs. Oliver-King has proven success in mobilizing and organizing community women (particularly those receiving public assistance for child care, healthcare, housing, transportation, education) to participate in purposeful action to build sustainable neighborhoods. Her education and expertise includes skills related to community organizing, civic engagement/capacity building, health promotion and risk reduction, advocacy, health information management, community-based focus group facilitation and environmental/environmental justice work.

Ms. King's most notable professional accomplishment is the thriving OKT organization. OKT is an organization that provides services and opportunities to mothers and caregivers of at-risk children or children with environmental health issues. Participants reside in targeted communities and seek to design and influence lead awareness education strategies informed by the insights and lived experiences of community residents. OKT's members understand that targeted community members are often left out of the decision making process, yet are disproportionately impacted. Likewise, OKT understands the staff and funding limitations of the community's environmental and public health resources. OKT members have a healthy vision of themselves and where they live and a sense of their own power. They take seriously their responsibility to support the community in every way possible. In past projects, community members have overwhelmingly supported and participated in OKT's work.

While Lisa Oliver-King will serve as the grant PI, Ms. Shannon Wilson will serve in a co-PI role. Ms. Wilson is the executive director of the Grand Rapids African American Health Institute (GRAAHI). Ms. Wilson has more than 10 years of experience in public health and non-profit management. She earned her Masters of Public Health in Hospital and Molecular epidemiology from the University of Michigan and has previously worked as a health disparities epidemiologist for the State of Michigan and as a scientific project coordinator for the Center's for Disease Control and Prevention. Ms. Wilson has devoted her career to the reduction of disparities, with a particular interest in the social and environmental factors that lead to differences in health outcomes. She will work collaboratively with Ms. King to ensure that all aspects of the grant are carried out and deadlines met.

The implementation and delivery of project activities will also be supported by expertise from **Well House**. **Camilla Voelker, Urban Gardener** is an environmental studies graduate from Western Michigan University. Prior to joining **Well House**, she has been affiliated with the Land Conservancy of West Michigan, Blandford Nature Center and WWOOF USA. **Jeff Smith,**

Urban Gardener/Food Justice Educator is a long-time community activist and proponent of media literacy, founder of the Grand Rapids Initiative for Information Democracy (GRIID). He has been growing food for 30 years and doing food justice work for the past 10. He is bi-lingual and has worked as a human rights monitor in Latin America. He is the lead urban grower at **Well House**.

VII. Past Performance in Reporting on Outputs and Outcomes

The Grand Rapids African American Health Institute has had previous experience reporting outputs and outcomes. Over the past three years, the Institute has been engaged in a W. K. Kellogg funded project ($389,000) designed to build an equity index and increase organizational capacity. To this end, the project has both an internal evaluator (hired by GRAAHI) and an external evaluator. Project outcomes are tracked via a spreadsheet and reviewed on a quarterly basis internally; the organization also tracks process outcomes via a detailed work plan. All outcomes are presented to the W.K. Kellogg foundation on an annual basis via an annual report. GRAAHI also maintains quarterly communication with a W.K. Kellogg project officer to ensure that the project is running smoothly.

The organization is a part of several other large scale grants (Federal Healthy Start Initiative, SAMHSA funded Youth Prevention Coalition, etc) however, while most contracts are in excess of $100,000, GRAAHI does not serve as the fiduciary for these grants.

VIII. Expenditure of Awarded Funds

The Grand Rapids African American Health Institute has a grant management officer on staff and also employs the expertise of Fusion Business services for all financial transactions and accounting. The Institute has a finance committee that meets monthly to review all expenditures, awards, contracts and grants to ensure compliance with agreed upon terms. The finance committee is made up of the Board Treasurer, as well as several community members with financial and or law backgrounds. The Institute goes through an annual audit, and works tirelessly to ensure that a high degree of financial integrity.

The Institute will meet quarterly with all partners to review financial obligations.

IX. Quality Assurance Project Plan (QAPP) Information

The proposed project will involve the use of existing environmental data and collecting new data. This approach will increase public awareness and knowledge about environmental issues and provide participants with skills necessary to make informed decisions and develop action steps. Likewise, the proposed project will be a model that can be replicated in other settings as a standard for reaching diverse populations—minority, challenged income, homeless and youth community members.