DRAFT ENVIRONMENTAL IMPACT ASSESSMENT
NORTHWEST QUADRANT CHILDREN'S CENTER RELOCATION

UNIVERSITY OF WISCONSIN - MILWAUKEE
CLIENT PROJECT NUMBER 11C2L

Prepared for
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Project 120246

Environmental Impact Assessment
Northwest Quadrant Children's Center Relocation
University of Wisconsin - Milwaukee

The material and data in this report were prepared under the supervision and direction of the undersigned.

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Glossary of Acronyms

ASF	Assignable Square Footage
AHI	Architectural History Inventory
ASI	Archaeological Sites Inventory
BAR	Bibliography of Archaeological Reports
BMP	Best Management Practices
BP	Bid Package
BRRTS	Bureau of Remediation and Redevelopment Tracking System
BOR	Board of Regents
CC	Children's Center
CCAMPIS	Child Care Access Means Parents in School Program
CSM	Columbia-St. Mary's
CWSP	College Work Study Program
dB A	Decibel (filter type A)
dB Leq	Decibel (equivalent continuous noise level)
DEIA	Draft Environmental Impact Assessment
DOA/DSF	Department of Administration/Division of State Facilities
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
FEMA	Federal Emergency Management Agency
GSF	Gross Square Footage
IAQ	Indoor Air Quality
IRC	Interdisciplinary Research Center
LEED	Leadership In Energy and Environmental Design
MCTS	Milwaukee Country Transit System
MMSD	Milwaukee Metropolitan Sewerage District
MWW	Milwaukee Water Works
NAA	National AfterSchool Association
NAAQS	National Ambient Air Quality Standards

NAEYC	National Association for the Education of Young Children
NPDES	National Pollutant Discharge Elimination System
NWQ	Northwest Quadrant
PUD	Planned Unit Developments
USACE	United States Army Corps of Engineers
UW	University of Wisconsin
UWM	University of Wisconsin-Milwaukee
UWM-CC	UWM Children's Center
UWSA	University of Wisconsin System Administration
WDNR	Wisconsin Department of Natural Resources
WEPA	Wisconsin Environmental Policy Act
WHPD	Wisconsin Historical Preservation Database
WWI	Wisconsin Wetland Inventory

EXECUTIVE SUMMARY

The Environmental Impact Assessment (EIA) has been prepared by Cornerstone Environmental Group, LLC (Cornerstone) on behalf of the Department of Administration Division of State Facilities (DOA/DSF), University of Wisconsin System Administration (UWSA), and the University of Wisconsin-Milwaukee (UWM) in compliance with the Wisconsin Environmental Policy Act (WEPA) per s. 1.11, Wis. Stats., and ch. NR 150, Wis. Adm. Code. This EIA evaluates the potential environmental impacts associated with construction of a renovation and external upgrades at the Northwest Quadrant (NWQ). This EIA will be used by the State of Wisconsin in making an informed decision in approving an estimated $11,987,000 in funding to design, construct, and realize the intended purpose of the proposed facility. The EIA assesses the potential impacts on the human and natural environment of the proposed action and reasonable alternatives. It is required for compliance with WEPA.

Summary of Project Description

The Wisconsin DOA/DSF retained Cornerstone Environmental Group, LLC (Cornerstone) to prepare an Environmental Impact Assessment (EIA) for renovation of portions of the recently obtained former Columbia – St. Mary's Hospital campus to house the UWM Children's Center. Implementation of this project will utilize a phased approach. The first component involves demolition, limited site work, some mechanical infrastructure and make-ready work. The second component involves renovation of 38,219 assignable square feet (ASF) / 54,980 general square feet (GSF) of existing space in the Northwest Quadrant (NWQ) Building C (1930 E. Hartford Avenue) and Building D (2015 E. Newport Avenue) and redevelopment of a total of 25,280 GSF of outdoor activity space to accommodate relocation of the Children's Center. This program is currently located in the 32,751 ASF / 59,451 GSF Kunkle Building located at 2114 E. Kenwood Blvd. with 26,000 GSF of adjacent outdoor play areas on the campus at University of Wisconsin-Milwaukee. The Center currently serves between 260-300 children from ages 6 weeks to 13 years old.

EIA Process Summary

The University of Wisconsin (UW) System's WEPA compliance process began in March 2012 with authorization to prepare a Type II EIA. The need to prepare an EIA was identified early in the planning phase of the overall project. The information presented in this EIA document will consider the impacts of changing the purpose of the NWQ to house the Children's Center and the process required to make this happen.

Scoping

The WEPA process was initiated on March 15, 2012 by sending electronic and hard-copy letters notifying local, state and federal agencies along with select groups and individuals to notify them of the process. Public comments received were considered in developing the Draft EIA. During this process, issues were analyzed and discussed in accordance with their level of importance. A complete list of contacted parties is found in Appendix B and written comments are included in Appendix C.

Draft EIA

On April 24, 2012, Cornerstone is issuing a Notice of Availability in the *Milwaukee Journal Sentinel* and *Wisconsin State Journal* to announce the release of the draft EIA for public review and comment. The Notice of Availability will also announce the public meeting on the Draft EIA and invite agencies, organizations, and individuals to present oral comments and submit written comments on the adequacy and merits of the EIA. On April 24, 2012, advertisements publicizing the public meeting will also be notified within in *The UMW Post* student newspaper or through other campus media. Copies or access to copies of the Draft EIA will be sent or made available to stakeholders, including federal, state, and local agencies; environmental groups; and public citizens for their review and comment. Copies of the Draft EIA were made available at the Milwaukee Central Library and the Golda Meir Library on the UWM campus. An electronic link along with instructions for downloading the document and appendices was made available on the consultant's website (http://www.cornerstoneeg.com/UW-M_ChildrensCenter.html). Publication of the Notice of Availability initiates the minimum 15-day public comment period, which will be concluded on May 9, 2012. A public meeting will be held on May 9, 2012, at 6:00 p.m. on the campus at UW–Milwaukee NWQ Building D, Skywalk Lounge located at.2015 E. Newport Avenue, Milwaukee, WI. Enter the building via the entrance at the west end of the turn-around. Presentation materials will be made available on the consultant's website following the meeting.

Final EIA

Following completion of the Draft EIA comment period and public meeting, a Final EIA will be prepared along with a determination of need, or lack thereof, for an Environmental Impact Statement (EIS). The report will be updated based upon comments received and with appropriate revised design information that may have been updated either due to the natural design process or as a result of comments or concerns expressed throughout the WEPA process. Comments received during the Draft EIA comment period, both written and oral, will be included in the Final EIA.

Potential Impacts

Potential impacts that could result from construction and operation of the proposed facility, as well as potential impacts resulting from the scenario under the no-action

alternative, were evaluated in the areas of land use, aesthetics, air quality, geology, water resources, floodplains, wetlands, ecological resources, socioeconomic resources, waste management, human health, and noise. These potential impacts were generally compared to the existing project site and buildings and its current operations and operational impacts.

The following sections provide key findings for areas of potential concern related to construction and operation of the proposed facility. Resources and land area subject to indirect or cumulative impacts due to the proposed project, along with other existing or reasonably foreseeable future projects, are considered and include: 1) air quality 2) water resources and related issues such as water consumption and water quality; 3) socioeconomic resources; 4) biological and ecological resources; 5) land use; and 6) traffic and parking. The evaluation section that includes cumulative impacts is detailed in Section 10. Identified impacts related to construction and operation of the proposed facility includes:

Physical Impacts

- Beneficial reuse of resources
- Addition of green space and play areas around building with the removal of parking
- Addition of play areas – natural in design, enclosed
- Renovation of the former MRI docking area
- Stormwater impacts – increase in pervious surfaces

Social / Economic Impacts

- New, safe environment for children
- Allows the Kenwood Interdisciplinary Research Center (IRC) to be constructed
- Increased educational opportunities for the children and the UWM academic community
- Campus connectivity
- Noise from children at play
- Social implications of a Leadership in Energy and Environmental Design (LEED)-certified building
- Allows for space to support future program growth

Traffic and Parking impacts

- Increase in on-site surface parking, available for staff, and an on-site parking ramp available to students Increase in short-term, off-street, drop-off parking
- Increase in safety of arrival area for children and families
- Changes in traffic profile from hospital to academic/child care facility resulting in a net decrease in the number of vehicles accessing the site on an average day but an increase for short time periods 5 days a week

- Short periods of buses idling (less than 5 minutes) during drop-off/pick-up of children

Energy / Utility Impacts

- The NWQ utilities will be tied into the campus steam/cool water system for heating and cooling needs – this is more efficient than individual systems within each building.
- Decrease in energy consumption with sustainable development, LEED Silver Certification for Energy and Atmosphere, Interior Environmental Quality, and Water Efficiency,

Short-term construction impacts

- Increased noise
- Increased air impacts from construction equipment, dust from exterior changes
- Routing of vehicles and pedestrians to assure safety during construction

Cumulative impacts

- Impacts to Children's Center as future improvements are undertaken
- Impacts to neighborhood as future improvements are undertaken

1 INTRODUCTION

1.1 General

The Wisconsin DOA DSF retained Cornerstone to prepare an EIA for the Northwest Quadrant Children's Center, at the UW-Milwaukee campus in Milwaukee, Wisconsin. The EIA is required by UWSA guidelines in compliance with the WEPA, Section 1.11, Wis. Stats. The purpose of the EIA is to assess potential environmental effects of the project relative to the quality of the human environment. The Wisconsin DOA DSF is the project manager and the UW System Board of Regents (BOR) is the project owner.

1.2 Project Description

The NWQ is located adjacent and to the north of the current Kenwood Campus. The NWQ add 11 acres and over 1 million square feet to the campus. The Children's Center project area is located on the southwest corner of the NWQ, in Buildings C and D (Figure 1).

Implementation of the project will be staged. The first component involves demolition of, limited site work, and some mechanical infrastructure work. The second component involves renovation of 38,219 ASF / 54,980 GSF of existing space in Building Buildings C & D of the NWQ and redevelopment of a total of 25,280 GSF of outdoor activity space to accommodate relocation of the Children's Center. This program is currently located in the 32,751 ASF / 59,451 GSF Kunkle Building at 2114 E. Kenwood Boulevard with 26,000 GSF of adjacent outdoor play areas on the campus at UW-Milwaukee. The Center currently serves between 260 – 305 children from ages 6 to 13 years of age, and is licensed by the State of Wisconsin Department of Children and Families, accredited by the National Association for the Education of Young Children (NAEYC) and the National AfterSchool Association (NAA).

The NWQ buildings were formerly the Columbia–St. Mary's Hospital – Columbia Campus. The Children's Center will have frontage on E. Hartford Avenue, but access will be internally through the NWQ, which has access from E. Hartford Avenue, N. Maryland Avenue and E. Newport Avenue with frontage/access on E. Hartford Avenue and access from E. Newport Avenue. The NWQ is being rezoned from planned unit development to institutional to accommodate the intended UW-Milwaukee uses. The proposed project consists of renovating approximately 38,219 ASF / 54,980 GSF on the ground floor of Building C, portions of the ground floor of Building D, and portions of the first floor of Building C in the Northwest Quadrant; substantial improvement of building utility systems and development of an exterior play area. Renovated space will

provide a facility which can be licensed and accredited for a minimum of 294 children that will serve between 278 and 356 enrolled children, ages 6 weeks to 13 years old. The facility will contain classrooms and support spaces including indoor play areas, kitchen/laundry facilities, administrative offices, and a staff area. Adjacent exterior play areas will be developed, including a portion that will be partially covered by an existing building overhang.

Demolition is planned to begin Fall of 2012 followed by the start of construction and site work in January 2013 to achieve targeted substantial completion and occupancy by late summer 2013.

Funding $11,987,846 (Program Revenue Fund 128 – Auxiliary Funds)

Timing

Design Report Approval by BOR/SBC	June 2012
Bid Demolition, Envelope & Site Work (BP-1)	August 2012
Start Construction of BP-1	September 2012
Bid Build-out and Site Work (BP-2)	December 2012
Start Construction of BP-2	January 2013
Substantial Completion / Occupancy	August 2013

1.3 EIA Process

The WEPA compliance process began in March 2012 with authorization to prepare a Type II EIA. A scoping letter to solicit input on potential environmental impacts of the project was sent on March 15, 2012 to selected parties. A copy of the scoping letter along with recipients is located in Appendix B and responses received are contained in Appendix C.

A public notice will be posted in the *Wisconsin State Journal* and *Milwaukee Journal Sentinel* newspapers to request public input prior to finalizing the EIA as well as to provide notification of the Public Meeting. In addition, this included notification in the UW-Milwaukee media services. The EIA is available for public review as of April 24, 2012 and ending May 9, 2012. Copies of the EIA are available at the UW-Milwaukee Golda Meir Library and Milwaukee Central Library and were sent or made available by e-mail or written notification to approximately 50 individual recipients in Appendix B and made available online at http://www.cornerstoneeg.com/UW-M_ChildrensCenter.html. Comments are to be directed to:

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The deadline for verbal or written comments is May 9, 2012. A public meeting to present the project and EIA findings and to take written comments will be held on May 9, 2012, at 6:00 p.m. Skywalk Lobby, NWQ Building D, located at 2015 E. Newport Avenue., Milwaukee, WI. The public meeting will be attended by representatives of the DSF, UW-Milwaukee, UWSA, Cornerstone and interested members of the general public. The meeting will be an "open house" style with presentation boards of relevant figures and impacts. The meeting sign-in sheet, presentation board information, public comments, and other information pertinent to that meeting will be included in the final EIA document.

2 DESCRIPTION OF PROPOSED ACTION

2.1 Title of Proposed Project

Northwest Quadrant Children's Center Relocation
DSF Project # 11C2L

2.2 Location

UNIVERSITY OF WISCONSIN – MILWAUKEE

Northwest of the intersection of Maryland Avenue and Hartford Avenue in Building C, located at 1930 E. Hartford Avenue, and Building D, located at 2015 E. Newport Avenue (Figures 1 and 2).

COUNTY: Milwaukee County, WI

POLITICAL TOWN: City of Milwaukee, Wisconsin

2.3 Project Description

The project consists of renovating a total of 38,219 ASF /54,980 GSF spread over the ground of the floor of NWQ Building C, portions of the ground floor of NWQ Building D and portions of the first floor of NWQ Building C, substantial improvement and building utility systems and the addition of exterior play areas. The renovated space will provide a facility which can be licensed and accredited for a minimum of 294 children, ages 6 weeks to 13 years. The facility will contain classrooms and support spaces including indoor play areas, kitchen/laundry facilities, administrative offices, and a staff area. There will also be adjacent exterior play areas, a portion of which is partially covered by an existing building overhang.

A goal of this project design is to complete a sustainable Children's Center that will provide a safe, healthy environment. To that end, the design team has created criteria to lessen the impact of the project on the environment by reducing energy and water used by the building and its occupants, reducing waste produced during construction and occupancy, reducing water usage, using materials that are nontoxic and are manufactured and brought to the site sustainably, reducing stormwater runoff and improving the quality of stormwater that does leave the site, and creating open space on the site as part of the outdoor play space that will support native species and biodiversity, as well as allow children, their families and members of the campus community to enjoy the landscape. In addition, the stormwater plan will align with UWM's Campus Commitment to be a Net Zero Stormwater site through stormwater quality mitigation and quantity reduction.

An electronic security system will be implemented at all access points to the Children's Center. The fire alarm and detection system will be replaced to meet current code requirements. Both systems will be tied to the METASYS monitoring system serving the whole UWM campus.

Major user requirements include accommodation of indoor and outdoor play space needs, in a physical environment that supports the intended quality of care, as well as conformance of Wisconsin, NAEYC, NAA and MPS childcare standards. The Children's Center will occupy the ground floor of both the NWQ Building C and NWQ Building D and a portion of the first floor of the NWQ Building C. All classrooms are to be located around the perimeter of the building to provide access to daylight. Since portions of the buildings' exterior walls do not have windows, openings will need to be added to ensure that all classrooms have natural daylight.

Classrooms will be clustered by age and fit neatly into separate wings of the buildings. The AfterSchool Program will be housed on the ground floor of Building D with direct access to the north outdoor play area. The Early Infant and Infant classrooms will be located on the ground floor of Building C, which provides immediate at-grade access to the south play area. Toddlers and Preschool classrooms will be on the first floor of Building C, which offers the most opportunities for natural daylight within the classrooms. Each classroom will incorporate the following:

- Entry zone for children to acclimate themselves
- Child-sized bathrooms and/or changing tables
- Ability to create multiple activity areas
- Private or Quiet spaces for children
- Ability to incorporate lofted spaces in infant/ toddler rooms
- Group and independent activity space
- Plentiful daylight
- Warm, indirect lighting
- Safe and secure environment for children
- Space appropriate to group size
- Meet or exceed accreditation and code requirements
- Ample storage

Breakout classroom and activity areas and nap rooms and other support spaces are located near the classrooms. Activity spaces shall include the following as possible:

- Ability to accommodate groups of children playing independently or in groups
- Safe and secure environment for children
- Resilient surfaces that stand up to wear and tear
- Bright and colorful space that engages children
- Ample storage for equipment
- Environment that assists children in age-appropriate motor skill development
- Ceiling height appropriate for play activities

The Children's Center will have two outdoor play areas. The larger of the two will be located at the south side of the NWQ Building C. A second, smaller outdoor play area will wrap the northwest corner of the NWQ Building D. All classrooms will have access to outdoor play areas through shared common entrances. Design criteria for the outdoor play spaces shall include:

- Natural components such as mature trees, plantings, prairie, and gardens
- High visibility for safety and security
- Progression of simple to complex play
- Support spaces (such as restrooms) in close proximity
- Ample storage for equipment
- Mix of covered and open play areas
- Age-appropriate play spaces for all children
- Creates an outward identity for the University of Wisconsin Milwaukee-Children's Center (UWM-CC)

The renovation of the existing former hospital space for use as a Children's Center will begin with a clean slate with a few exceptions. The major building circulation systems such as stairwells and elevators and primary mechanical chases and electrical infrastructure systems will remain. The exterior brick work and the existing window systems will remain. A few new window openings and egress points will be constructed to meet the new program needs. The interior finish on the exterior walls will be removed or refinished as may be required by the new plan. Designated areas will be gutted of all existing construction including mechanical, plumbing and electrical systems.

The main north/south access drive from E. Hartford Avenue, the parking stalls along the west property line, and parking stalls along the south edge of the parking garage will remain. The NWQ's three bay loading dock, located between Building C & D, at the basement level, will also retain access from the Hartford Avenue circulation drive. The existing parking lot and emergency room drop-off lanes south of Building C will be removed and replaced with a play area of approximately 17,113 square feet. The area immediately east and adjacent areas north of Building D will be reconfigured for a play area of approximately 8,167 square feet, for a total outdoor play area of 25,280 gross square feet. The existing ground floor public entry to Building D will also remain as it. The existing MRI dock on the north side of NWQ D building will be renovated into a Tower Room which will be incorporated within the Rocket Gym. New aluminum framed windows will be cut into the existing north and south exterior walls of both buildings to provide daylight for all classrooms and some interior support areas.

Except for existing toilets and lockers on level one, existing janitor closets and electrical rooms, all construction for the Children's Center will be new. New walls and floor coverings will be incorporated to all spaces. Laminate casework with solid surface tops and blacksplashes will be provided in all classrooms.

The design will maintain current egress requirements for upper levels of each building using existing entrances, exits, and stair towers, but will also provide additional egress paths for the occupants of the Children's Center. Systems and alarms will be replaced with new and installed as required by current code. An opening will be created in the existing floor slab to create a new interior stair location between the ground and first floors of Building C.

The #17 "Patient" elevator will be reprogrammed to serve only the Children's Center. The program will allow stops only at ground level and first floor. A key will be required to stop at the basement. The elevator meets all safety requirements and also has advanced safety features such

as infrared door screening. Minor modifications may be required to meet code including control panel height and Braille signage.

The International Exisiting Building Code will regulate the renovation of former hospital space for use as a Children's Center. The existing building occupancy is classified as Medical I-2. The occupancy classification for the Children's Center will be Day Care I-4. Changing from a hospital use to a Child Care use means the change of rules of the IBEC apply. A Change of Occupancy requires compliance with the provisions of a Level 3 Alteration.

UWM is currently pursuing the necessary zoning changes for the NWQ. Request for rezoninig from PUD to Institutional goes before the City of Milwaukee's Zoning, Neighborhood & Development Committee (ZND) on May 15, 2012 with final approval expected from the City of Milwaukee Common Council on May 22, 2012.

2.4 Purpose and Need (Objective, History and Background)

The Kunkle Building (32,751 ASF / 59,451 GSF), located at 2114 East Kenwood Boulevard, is a single-story building built in 1956, and originally served as the Campus Elementary School, a laboratory school program run by the School of Education until 1977. Since 1975, the building has housed the Children's Center. The Children's Center has a full enrollment with a waiting list of prospective students.

In December 2010, the State of Wisconsin purchased the Columbia Hospital of the Columbia-St. Mary's Healthcare System on behalf of UWM. This property, now known as the Northwest Quadrant (NWQ), is located directly northwest of UWM's main Kenwood Campus. As a significant new resource for the University, a long-term planning study was conducted to ensure the property was incorporated into the existing campus in a manner that strengthens the overall fabric of the Kenwood Campus. This planning of the NWQ, which began in 2010, included viable space for growth of the UWM-CC.

During the planning process, it was decided that the capacity of the UWM Children's Center program would be increased to reduce the Center's current waiting list. To address this, current enrollment capacity will be increased by a total of 9.4% with more spots allotted age groups with larger waiting lists. With this growth, the Children's Center will be able to serve a minimum of 294 children at one time. However, due to the fact that not all students are enrolled full time, total enrollment will be approximately 356 children. Additional growth was calculated for 5 to 10 years. Growth during these time periods will not focus solely on the younger children. A concerted effort will be made to retain more of the younger children as they grow as well as attracting new students in these age groups. Deferred shell space within the footprint of the Children's Center will allow for attainment of the 5 and 10 year growth projections.

Table 1
UWM Children's Center
Projected Enrollment Capacity by Age

Capacity				
	Current	**Move In**	**5-yr Projected**	**10-yr Projected**
Young Infant	18	20	22	24
Infant	18	20	22	24
Toddler	48	56	64	72
Preschool	54	72	72	78
Kindergarten	48	48	72	72
School Age	64	78	78	86
Total # of children	250	294	330	356
Total # Children Enrolled	325	356	409	455

In the spring of 2010, the UWM-CC looked at arrival and departure of children/families at peak times of the day for a two week period. The conclusion of this process is that the drop-off and pick-up situation at the current Kunkle facility does not work well for the UWM-CC. Cars must park along Kenwood Boulevard where there is room for approximately 15 short-term parking spaces in a loading zone. While the parking is directly in front of the building, parents may have to exit children onto the street before bringing them to the sidewalk, and contend with heavy car traffic and buses. There is also an adjacent pay lot that parents can use; however, they must stop at a pay station before bringing their children into the Center. Safety for the children and parents, followed by convenient access and circulation are priorities for the UWM-CC.

Project Evaluation History

The UWM Children's Center provides child care services to UWM students, faculty, staff and UWM Alumni Association members. There are also some children from Hartford Elementary School, which is located at the heart of UWM's Kenwood Campus, who attend as part of the AfterSchool Program. The UWM Children's Center is considered a national model for the integration of the education, support, and care of children and their families in an environment which recognizes the importance of all involved: children, parents, and staff alike. The Center is committed to research, development, and demonstration of systems designed to meet these purposes.

The UWM Campus Master Plan, completed in 2010, identified projected growth in academic and research needs that has led to the planned development of a multi-building complex referred to as the Kenwood Interdisciplinary Research Complex (IRC). The Kenwood IRC will be located on the north side of Kenwood Boulevard between Maryland Avenue and Cramer Avenue and will be phased from east to west. The Kunkle Building and the Physics Building were identified as buildings that would need to be demolished in order to fully develop this complex.

The Kunkle Building is located in the area identified as Phase I. Construction of the first building in the Kenwood IRC which is slated to begin in the Fall of 2012. As a result, the Children's Center has an urgent need to find a new home. The ground and first floors of the Building C (1930 E. Hartford Ave.) and the ground floor of the Building D (2015 E. Newport Ave) buildings of the NWQ have been identified as the Children Center's permanent home. The move is anticipated to occur over the August 2013 break.

During the NWQ Space Planning Study (July 2011), three options for the potential location of the Children's Center were identified within the NWQ. These options are discussed below in Section 8. The final choice met many of the very basic concerns of the group including ground level access, off-street drop off potential, available outside space for play areas, access to the campus and students, and large indoor spaces for large-motor skills play rooms.

Estimated Cost and Funding Source

$11,987,846 (Program Revenue Fund 128 – Auxiliary Funds)

Time Schedule

Preliminary Design	February 2012
Design Report	April 2012
Board of Regents and Building Commission Approval	June 2012
Final Design and Bidding	July / August 2012
Start of Construction (BP-1/BP-2)	September 2012 /Jan 2013
Substantial Completion	
Occupancy	September 2013

3 EXISTING ENVIRONMENT

3.1 Physical Environment

3.1.1 Land Use

The project site is on the west end of the newly acquired Northwest Quadrant. The NWQ is an urban site with large areas of impervious areas and is located directly northwest of the existing University of Wisconsin – Milwaukee Kenwood Campus at the intersection of Hartford and Maryland Avenues. The NWQ generally slopes down from east to west along Hartford Avenue and creates grade access on both the ground floor and first floor of the complex. At the east, access to grade occurs on the first floor and wraps around Building A. Grade changes abruptly on the northwest side of the complex where a retaining wall separates the existing surface parking lot from the sloped entry drive that serves the parking structure. Grade on the south side of the complex slopes gently down from east to west without the use of retaining walls. Both Buildings C and D currently have ground floor entries. A circulation drive continues from the parking garage's Newport entry around Buildings C and D to E. Hartford Avenue. The NWQ's three bay loading dock located between Buildings C and D at the basement level is also accessed from E. Hartford Avenue via the circulation drive.

Site work within the NWQ campus is comprised of paved areas for circulation, site walls and stairs that provide access and delineate spaces, stormwater management structures that drain the site and plant material and amenities that add to the site's aesthetic character. In general, most of the NWQ campus's site work was fairly well maintained by the previous owner and the site presents a high-quality image to neighbors and visitors. Exceptions to this are some instances of failing retaining walls and pavement cracking in some vehicular and pedestrian areas.

Landscaping on the NWQ site includes shade trees, ornamental trees, and shrub masses in both at-grade and raised planter beds. Overall the quality and health of plant materials on the site are good. Several instances of erosion due to stormwater are present. Around the NWQ, bark and decomposed granite will serve as planting bed mulch, erosion control around building foundations where roof edges drip, and as buffer strips along sidewalks along perimeter streets. Most of these areas have not been maintained over the last few years and have decomposed and migrated over time. These areas contain potential environmental and pedestrian hazards.

Current site exterior lighting consists of lights on poles, building-mounted fixtures and some ground-mounted decorative landscape lighting. The building-mounted fixtures appear to be in good condition but could be upgraded to increase energy efficiency. The pole-mounted lights are not as well maintained and do not meet UWM standards.

3.1.2 Topography

From an elevation of 696 feet at the northeast side of Building D, the ground slopes to the west to an elevation of 686 feet on the west side of Building D and dips below the building's ground floor level at the western edge of the Building D . Along Hartford Avenue, Building C has two at-grade entrances at 679 feet that are accessed from the old emergency room drop-off. After this point the grade slopes up to the east leaving portions of the Building C below grade. Site elevations are highlighted in Figure 3.

3.1.3 Soils

According to the United States Natural Resource Conservation Service, the soils of eastern portions of Milwaukee County are listed as "Unmapped Soils". This area is a portion of 50,000 acres of Milwaukee remain unmapped (Wisconsin Cooperative Soil Survey, 2011 Work Planning Conference, May 2011).

3.1.4 Utilities

Chilled Water and Steam
Chilled water and steam are currently provided through two chillers and a system of primary/secondary pumping installed in 1993. Plans are underway to connect the chilled water and steam systems to the UWM system.

Domestic Water
Municipal water supply exists through Milwaukee Water Works (MWW) as a part of the Riverside pressure district. The water supply is from Lake Michigan, with treatment at MWW water filtration plants. Water mains are located in East Hartford Avenue, North Maryland Avenue and East Newport Avenue. Available flow data indicated sufficient capacity and pressure for the new building purposes. There are existing domestic water exterior hose bibs: one on the south side of the Children's Center at Ground Level; two on the west side of the Children's Center at Ground Level; and two on the north side of the Children's Center at Ground Level.

Sanitary Sewer
Sanitary service for the buildings on campus was designed to meet the plumbing code at the time of construction. Due to the nature of the facility, the size of the pipes servicing the facility has adequate capacity to serve the NWQ's uses. Once again due to the existing nature of some buildings on the campus, sanitary coverage for individual floors is dense. These areas include patient rooms and the dormitory areas. While in other areas, such as the offices and general usage areas, the coverage is considered acceptable (Figure 4).

Electrical
The electrical installation for the now-NWQ buildings was in compliance with the electrical code at the time of construction and again during the updating of several of the buildings. Current use could be continued for all of the buildings on the campus. Remodeling of buildings would require various changes to be made to meet current codes. Because the distribution voltage within the NWQ campus was changed from 3810 volts to 4160 volts in 1985, none of the 4160-

volt transformers is older than that. The criteria used in the sizing and selection of the equipment components allows for considerable expansion and long life. Transformers are designed for a 20-30 year life at rated temperature (130°C for oil filled and 220°C for dry type transformers) and their life can be doubled for each 10° that the operating temperature is reduced. The security systems are old, partially outdated. TV cabling and electronic strikes remain.

Fire Alarm Systems

The fire alarm system was upgraded in 2000 and consists of fully addressable components on a Johnson Controls IFC 2020 METASYS (NOTIFIER) system and includes a stand-alone engineered smoke control system in some parts of the complex. A smoke alarm panel was continuously monitored 24 hours a day at the security desk and the Milwaukee fire department was called from there. Modifications to the fire alarm system to send alarms to the UW and/or local fire department are being developed by the Campus and the Children's Center project will be required to tie into the upgraded system upon occupancy.

Storm Water

Site stormwater flows to existing catch basins and trench drains which exist in the paved drive lanes and parking areas on the west end of the site. From the drains in the southwest corner of the site, stormwater flows through 8" to 12" laterals to a combined sewer in East Hartford Avenue. From the site drains located around the previous Medical Arts Building, stormwater flows through 8" to 24" laterals to a combined sewer system to the north of the site. Drain tile which exists in some of the site planters, drains to the storm sewers on site. Combined sewers convey both stormwater and waste water and are sized to a capacity to handle a 10-year storm flow.

3.1.5 Surface Water

The project area is part of the Milwaukee River South Watershed, although there are no surface water features within the boundaries or adjacent to the site boundaries (Figure 5). Concerns within the Milwaukee River South watershed as a whole include:

- Water quality impacts and increased runoff quantity from urban land uses, such that many of the rivers and streams are not meeting water quality standards.
- Significant groundwater contamination in areas of the Watershed.
- Direct impacts to drinking water source (Lake Michigan) from nonpoint source pollutants within the watershed such as herbicides, pesticides, concrete waste runoff, pet waste, agricultural runoff, parking lot and road runoff.

As part of the Watershed, the project area does impact the water quality. Limiting impervious surfaces and the use of herbicides and pesticides and following construction Best Management Practices when handling concrete waste runoff are all site applicable methods to help protect water quality.

3.1.6 Wetlands and Flood Plains

The Wisconsin Wetland Inventory (WWI) Map is provided on Figure 6. According to the U.S. Army Corps of Engineers (USACE), wetlands are "those areas that are inundated or saturated by

surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Based on the methods outlined in the 1987 *Corps of Engineers Wetlands Delineation Manual* and its regional supplement, the presence of a wetland is determined based on three hydric criteria – vegetation, soils, and hydrology (USACE, 1987). The boundary of a wetland is where one or more of these hydric characteristics give way to upland features. Following this guidance, in addition to review of WWI maps, soil data, and topographic maps, it has been determined that mapped wetlands are not located within the project site boundaries. According to Federal Emergency Management Agency (FEMA) data, the project site is within Zone X, which is outside of the 100-year and 500-year flood plain (Figure 7).

3.1.7 Air

Chapter NR 400 of the Wisconsin Administrative Code regulates air quality for new construction sites. Contaminants regulated by this chapter include the "criteria pollutants": particulate matter, sulfur dioxide, organic compounds, nitrous oxides, and carbon monoxide. Hazardous air pollutants and visible emissions are also regulated. If an ambient monitor measures criteria pollutant concentrations or dispersion modeling indicates concentrations within the National Ambient Air Quality Standards (NAAQS), the region is designated as an attainment area for that pollutant. Milwaukee County is designated as a "moderate" nonattainment area for ozone and as a nonattainment area for particulate matter less than 2.5 microns in diameters. Milwaukee County has several air monitoring stations, including one on top of the Kunkle Building and one at the DNR office near 2nd and North which monitors the air quality of the county on regular intervals. All monitored pollutant concentrations in the project area are currently within ambient air quality standards. The air quality for the Milwaukee area is good, according to monitoring station data.

The Northwest Quadrant buildings do not currently have any stationary sources of air emissions as part of their current operations. Air quality in the area is impacted by campus heating plant to the east of the project site near N. Downer Avenue and E. Newport Avenue. Area air quality area is mainly influenced by large coal-fired power plants along the Lake Michigan shoreline. Additionally, Milwaukee's air quality is affected by industrial areas in northeastern Illinois and northern Indiana due to prevailing southerly winds during the summer. It is also important to consider UWM's proximity to Lake Michigan as that affects local wind patterns and atmospheric stability. The cooler, more stable air, which inhibits dispersion of pollutants, over the lake in the summer moves inland with a lake breeze and may affect the city's air quality.

3.1.8 Miscellaneous

3.1.8.1 Hazardous Materials

The Wisconsin Department of Safety and Professional Services storage tank database and the Wisconsin Department of Natural Resources Bureau for Remediation and Redevelopment Tracking System (WDNR BRRTS) database were searched for potential environmental hazards within the project area (Figure 8). Several sites near the proposed development were noted in the database, including:

- Columbia St. Mary's Columbia Campus, LUST, activity opened in 1994, soil contamination removed and activity closed in 1997 under NR708.09.
- Columbia St. Mary's Columbia Campus, ERP, activity opened in 1993, soil contamination removed and activity closed in 2007 under NR708.09.
- UW Milwaukee Electrical Substation, LUST, activity opened in 1994, soil contamination removed, activity closed in 1995.
- UW Milwaukee – Mitchell Hall, LUST, activity opened in 1999, soil contamination removed and activity closed in 2001 under NR726.

There are several above-ground fuel storage tanks within the vicinity of the project area listed in the Tank Database though no tanks were identified as existing historically or currently on the project development area. UW-Milwaukee owns several diesel and unleaded fuel tanks, several closed and a few in use currently. There is a three-sided bricked wall that once housed medical gases required for the clinics and hospitals to the northwest of the Children's Center project site. These systems have been purged, capped and removed.

3.1.8.2 Structures

The building now known as Buildings C was constructed in multiple phases, from 1976 through 1993. Building D was initially construction in 1976 as a 6-story medical office building. This included a basement level (along with loading dock), at-grade access at the ground floor, medical office suites on floors 1 through 4 and roof top / 5th floor mechanical penthouse. In 1990, a four floor addition was added to the building plus a new enclosed mechanical penthouse on the roof (9th floor). The original structure of Building D is post tensioned reinforced two-way flat plate concrete slabs supported by reinforced concrete columns. The exterior is brick masonry veneer with decorative elements of brick and concrete. The windows are aluminum frame ribbon windows and clerestory windows within structural bays.

In the former Medical Arts Building (Building D), the ground floor housed the Occupational and Physical Therapy department and supported heavy equipment such as the therapy pool and exercise rooms. Skylights on the north and south side of this level bring light in from above. It is this area of the ground floor that will be occupied by the Children's Center. Part of the Medical Imaging Department was also on this level at the east end and had radiology equipment such as PET, CT and MRI scanners. This area is outside of the Children's Center footprint and will be repurposed by the University for academic and research use.
The first floor of this building was used by the hospital as the main hospital entry from the parking garage and the north turn-around, and housed public functions such as security, information, general administration, the pharmacy, conference rooms, as assorted private offices. Skylights are also used at this level to bring light in from above. The remaining floors were tenant office suites leased by private medical practices affiliated with the hospital.

The former Clinical Building, now Building C, was also built in two phases in 1982. The hospital constructed multiple additions and renovations to the complex, including the Ancillary Addition on the west end of the property. This is now the basement and first floor of the each half of Building C. In 1993, a three-level wing was added to the west of the Ancillary building and a 2-floor addition was added above. The emergency room was relocated to the Ancillary

addition in 1982 and remained in the same location (with modifications) even after the 1993 addition. The structure system for the Ancillary portion is concrete slab on composite metal deck supported by steel beams and steel columns. When the 1993 addition was done, significant structural reinforcement was done to the 1982 portion of the building. The portion built over the Ancillary addition is also concrete slab on composite metal decking, but employees vierendeel girders and joists at the second floor, and steel beams for the remainder. All vertical supports are steel columns. The west end of the 1993 addition employs a different structural system of reinforced concrete flat plate slabs supported by reinforced concrete columns.

The Clinical Building housed the radiation oncology department in the basement level with two double height linear accelerator rooms and a center control room at the far west end. This area is surrounded by 3 to 4 foot thick concrete walls with some lead lining and skylights for natural daylight. The east side of the basement housed support areas such as mechanical rooms, Computer Information Systems department and the offices of Occupational Health and Safety. The west end of the ground floor was occupied by the Messinger Cancer Care Center and had a dedicated entry at grade from the south. The east side of this floor was occupied by the ER with a dedicated under canopy entry to the west, the Gastro-Intestinal department and staff lockers. The first floor was occupied by the oncology department to the west and the cardiology department to the east, including a large exercise room at the southwest corner of cardiology. The ground floor and first floor will become part of the Children's Center footprint. The second floor was mostly mechanical with a small operating suite adjacent and the third floor was originally built as the Birthing Center but was utilized by the Ambulatory Surgery Department at the time the hospital closed.

3.1.8.3 Noise

Current permanent or long-term noise sources near to the project area include pedestrian, bike and vehicular traffic from Hartford Avenue, Oakland Avenue, and Maryland Avenue, and activities or game events happening at Engelmann Field such as soccer games. Temporary or short-term noise sources include construction within the area.

The HVAC design shall be utilizing existing equipment and mechanical rooms and chases which are already integrated in the building design with adequate space for installation, service and maintenance. All air handling units are located in mechanical rooms and will be replaced or upgraded accordingly to meet current code and user requirements.

3.2 Biological Environment

3.2.1 Flora

The existing flora of the project area is limited to landscaping species. The project area is an estimated 7% pervious currently. Most of the wildlife in the area would seek shelter in larger vegetated areas found in residential neighborhoods located to the north and west as well as the Downers Woods area to the northeast of the NWQ.

According to reports from the WDNR, there have been 11 plant species of special concern found in the general area of NWQ. These species of concern include Cooper's Milkvetch (*Astragalus neglectus*), Harbinger-of-spring (*Erigenia bulblosa*), Forked Aster (*Aster furcatus*), Small White

Lady's Slipper (*Cypripedium canididum*), American Sea-rocket(*Cakile lacustris*), Harily Beardtongue (*Penstemon hirsutus*), Marsh Blazing Star (*Liatris spicata*), Seaside sedge (*Carex gracilescens*), Tufted Hairgrass (*Deschampsia cespitosa*), Wafer-ash (*Ptelea trifoliate*). These observations are historical and a lack of suitable habitat currently exists for these species to occur naturally in the project area.

3.2.2 Fauna

The Wisconsin Department of Natural Resources completed an Endangered Resource Review for this project. In their report, included in Appendix C, the project area was identified as being within a Migratory Bird Concentration Site, marked by an area where large numbers of migrating birds often become concentrated due to prevailing winds and /or water barriers. There is potential for all species within this site, both rare and non-rare.

As the site is currently developed, associated fauna typical of urban areas include song birds, mice, squirrels, opossums, and raccoons. The WDNR has identified four species of concern that naturally may have occurred in or nearby the project area. These species include Butler's gartersnake (*Thamnophis butleri*), Striped Shiner (*Luxilus (Notropis chysocephalus*), Greater Redhorse (*Moxostoma valenciennsei*), Longear sunfish (*Lepomis megalotis*).

As with the flora of concern, many of the records of these species are historical. The natural habitats for these species to survive no longer exist within the project area.

3.3 Social and Cultural Environment

Existing social aspects of the area are presented as context to the project and the social profile of potential beneficiaries or impacted parties that could result from project development.

3.3.1 UWM Children's Center

The mission and vision of the UWM Children's Center (UWM-CC) is to incorporate high-quality education programs for children and families, UWM students and the professional child development community into the University's mission of academic drive, diversity, and research. The UWM-CC provides care services for children ranging in age from 6 weeks to 12 years and there are currently over 300 children enrolled at the Center. Currently, the profile of the user groups includes UWM students (50%), faculty (15-20%), staff (5-10%), Student Alumni and Association members (10-15%), and Hartford School families and staff (5-10%). Of these users, 20% are considered low-income by the state of Wisconsin. UWM-CC features 17 classrooms run by 140 staff members, 36 of which are full-time.

In addition to child care services, the UWM-CC is also used for student projects, coursework, research and professional development. The College of Nursing, the College of Health Sciences, and the departments of Speech Pathology, Child Development, Physical Therapy, and Occupational Therapy all use the center for observational and research purposes.

3.3.2 Columbia St. Mary's Hospital Campus

The new UWM Children's Center will be located at the old site of the Columbia St. Mary's (CSM) Hospital, specifically the Clinical Building (NWQ Building C) and the Medical Arts Tower (NWQ Building D). Columbia St. Mary's sold this property once construction was finished on its own new Lake Drive Campus south of UWM's campus. The UW System Board of Regents collectively approved funding in January 2010 to purchase the hospital's 11-acre lot including 1,000,000+ gross square feet in seven red-brick buildings, a 788-car parking garage, and 174 surface stalls. The first unit of the hospital was opened on Maryland Avenue in 1919, and the last unit was closed late 2010. At one time, this location provided close opportunities for UWM College of Nursing students during their clinical rotations, as well as for students within the College of Health Sciences.

The Clinical Building (NWQ Building C) of the CSM complex once housed the radiation department, Computer Information Systems department, the offices of Occupational Health and Safety, the Messinger Cancer Care Center, the Emergency Room, the Gastro-Intestinal department, the oncology and cardiology departments, a large exercise room, a small suite dedicated to surgical procedures, Labor-Delivery-Recovery-Postpartum suites, and the Birthing Center. The Medical Arts Tower (NWQ Building D) once housed heavy equipment such as the therapy pool, exercise/gym rooms, radiology equipment, public and administrative functions, and offices (more information in 3.1.8.2).

3.3.3 City of Milwaukee

Table 2 provides population data for Milwaukee County and the City of Milwaukee. Between 2000 and 2010, the most recent period for which complete U.S. Census Bureau data are available, the City of Milwaukee has seen a decrease in population of 0.4% while Milwaukee County has seen a slight increase of 0.8% over approximately 10 years. The U.S. Census Bureau 2010 estimates population in Milwaukee County at 940,164 and population in the City of Milwaukee at 594,833 (based on the 2010 American Community Survey).

Table 2: Population Data for Milwaukee County, City of Milwaukee

	2000 Population	2010 Population	Percent Change 2000-2010
Milwaukee County	940,164	947,735	0.8
City of Milwaukee	596,974	594,833	-0.4

Source: U.S. Census Bureau March 2012.

According to the Wisconsin DOA Demographic Service Center, Milwaukee County is expected to surpass the one (1) million population mark after 2015. It will remain the state's most populous county for the foreseeable future. Milwaukee County will see a 4.3% population increase between 2000-2025 from 596,974 to 622,739 residents.

From the 2010 U.S. Census data, the latest to be fully released, City of Milwaukee population is split nearly evenly between males and females, with 286,949 males (48.2%) within the city and 307,884 females (51.8%). According to the data, 31% of the population were under 20 years old,

26% between 20 and 34 years in age, 24.6% between 35 and 54 in age, and 12% aged 55 to 69 and 6.4% 70 or older.

Residents in Milwaukee are primarily African American (39.2%) and Caucasian (37%), with the next highest single ethnicities being Hispanic/Latino (17.3%) and Asian (3.5%). American Indian or Alaskan Native, some other race, or two or more races comprise the remaining 3.0% of the overall Milwaukee population (http://factfinder2.census.gov).

3.3.4 UW-Milwaukee

All UW System campuses remain under enrollment management levels set by the BOR to assure a high quality educational experience for students. The Master Plan for UWM projects significant growth in particular programs such as Natural Sciences, Engineering and Health by 2013 due to their potential advance in their respective research fields (Master Plan, 2010).

To support this enrollment, UW-Milwaukee employs 1,600 faculty and instructors and awarded $283 million in financial aid to 23,000 students in 2011. UW-Milwaukee is the most diverse institution within the UW System with 29,768 students representing all 50 states and 80 nations (1,015 international students). UWM also enrolls more Wisconsin residents and student-veterans than any other university in or out of the UW System. The percentage of male to female students is fairly evenly split at 52% female and 47% male. Undergraduate enrollment made up 83% of the total population for Fall 2011, with graduate students making up the remaining 17%. Enrollment grew more than 25% in ten years between Fall 2001 and Fall 2011 from 23,828 students to 29,768 students. The Fall 2011 freshman class has the most diverse student profile in the University's history with 23% of new freshman from underrepresented groups including African American, Hispanic/Latino(a), American Indian, and Asian (UWM Facts, 2011). African American students comprise the largest percentage of the minority population (31.1% in 2010-2011), followed by Hispanic (24.1%), Asian (21.0%), and Native American (2.0%). UWM estimates that there are approximately 140,000 alumni worldwide. Of the 30,502 students enrolled in 2010, 1,725 are listed as evening/weekend students.

3.3.5 Employment and Income

Table 3 provides employment and income data for residents of the City of Milwaukee, Milwaukee County, Wisconsin, and the United States in 2010. The unemployment rate in the City of Milwaukee (11.5% as percent unemployed of civilian labor force) was notably higher than Milwaukee County (9.6%), the state of Wisconsin (8.5%), and the United States (8.9%) in 2010. Milwaukee residents' per capita income was $17,912 compared to $22,420, for Dane County Residents and $25,458 and $26,059 for Wisconsin and United States residents respectively (U.S. Census Bureau, 2010). In addition, the Children's Center currently employs140 staff members, 36 of which are full-time. With future growth in enrollment, that number will increase.

Table 3: Employment and Income Data in 2010

Location	Civilian Labor Force	Number Employed	Number Unemployed	Unemployment Rate (%)	Per Capita Income ($)
City of Milwaukee	275,274	243,600	31,674	11.5	17,912
Milwaukee County	463,595	418,977	44,618	9.6	22,420
Wisconsin	3,082,676	2,821,803	260,873	8.5	25,458
United States	155,917,013	139,033,928	16,883,085	8.9	26,059

Source: Local Area Unemployment Statistics (LAUS) 2010, U.S. Census Bureau 2010

3.3.6 Neighborhoods

The Mariners Neighborhood, Murray Hill Neighborhood, Cambridge Woods Neighborhood, and Historic Water Tower Neighborhood are all active neighborhood groups that border, are close to, or have interest in the UWM Campus. The area immediately surrounding the project location is primarily residential, both student and non-student. North of campus is the Village of Shorewood where some student housing is located, increasing the village's relevancy in campus planning. Due to the heavy presence of residential areas, UWM has an Office of Neighborhood Relations that works closely with the surrounding neighborhoods to improve the residents' quality of life. This office acts as a resource for these neighborhoods to address issues that are directly related to UWM or off-campus student residents, as well as encouraging open lines of communication between all involved parties.

3.3.7 Important social features and buildings located near the project area

Noted below are socially-important areas either directly adjacent to the project site or of significant importance near the project site:

- UWM Student Union: Located at the intersection of E. Kenwood Blvd and N. Maryland Ave, the Union hosts a number of student services, events, information centers, and food options. The Union features the UWM Bookstore, a UW-Credit Union, the 8th Note Coffee House, the LGBT Resource Center, Women's Resource Center, Multicultural Student Lounge, Studio Arts and Crafts Center, and the Union Theatre. Some of the services provided within the Union include University and Neighborhood Housing, Parking and Transit, and Reservation and Event Planning. The mission of the Union is to provide quality programs, services and experiences; and foster the development of an inclusive community.
- Engelmann Hall: Engelmann Hall houses most of the administrative services such as Human Resources and payroll for the University as well as the Center for Urban Initiatives. The Center for Urban Initiatives and Research works with various types and sizes of organizations from non-profits to school districts to strategically help them understand and develop practical visions for the future and measure outcomes to demonstrate impact.
- Engelmann Field: Both the men's and women's Panther soccer teams practice and compete on Engelmann Field, which features state-of-the-art artificial playing

surface and lighting technology. The spectator seating capacity is 2,200 but saw a crowd of 3,256 at the first night game in 2006 against crosstown rival Marquette.

- Sandburg Hall: Over 2700 students live in the four towers that make up Sandburg Residence Hall. The North, South and West towers were built in 1970, while the East tower wasn't constructed and opened until 2000. The towers are located about a 10-minute walk from Lake Michigan and within close proximity to numerous restaurants and businesses on Oakland Avenue. The East tower features more amenities due to its more recent construction including air conditioning and kitchens within the suites. The amenities accessible to all University Housing residents include a fitness center, dining halls, Channel Lounge, computer lab, Flicks Movie Theater, laundry facilities, and service desks.
- Oakland Avenue: From the north edge of UWM's campus at Edgewood Avenue south about one mile lies upwards of 30 bars, restaurants, and businesses offering various services to students and the resident population. A stretch of Oakland Avenue borders the east side of Riverside Park, which surrounds the Milwaukee River and houses the downtown location of the Urban Ecology Center.

3.3.8 Traffic

Traffic surrounding the project area is currently affected by a number of Milwaukee County Transit System (MCTS) and UWM Shuttle bus services, pedestrians, bicycles, and motorized vehicles. The project area is off of Hartford Avenue, which is a main street running east-west through UWM's campus connecting N. Oakland Avenue and N. Downer Avenue. There are four parking lots accessible from Hartford Avenue for public and UWM-affiliated parking unrelated to the project area. The NWQ has a large parking area also off of Hartford Avenue, which is planned for future outdoor play area for the Children's Center. A factor in the acquisition of the Columbia-St. Mary's Complex was the abundant parking, addressing the problem of current insufficient parking for commuter students.

The entrances and, therefore, traffic patterns are unique due to the previous uses of the project area as a hospital. The main entrance was on the north side of the complex and completely separate from the ER drop-off area on the south. This opportunity for improved drop-off/pick-up access made the newly acquired buildings attractive for the relocation of the UWM-CC. Currently, the service drive that provides vehicular access from E. Newport Avenue to E. Hartford Avenue to the west end of the NWQ is a two-way drive that will remain until future development plans and circulation for the whole of NWQ can be assessed.

When the site was an operational hospital, the traffic patterns varied throughout the day and night especially considering there was an emergency room within the facility. Between patients, employees, and service vehicles, the site saw a very high turnover rate. In a 1991 parking and traffic study of the Columbia Hospital, it was determined that there were a total of 4,550 daily trips. The parking garage on the site of the NWQ is still being used by students, but with the current mostly-empty state of the facilities traffic has been greatly decreased.

A study performed on the current UWM-CC site at the Kunkle building showed that peak drop-off and pick-up times were from 7:45 a.m. - 8:45 a.m. and from 5:15 p.m. - 6:00 p.m.,

respectively. It is anticipated that this pattern would continue in the new location of the Children's Center.

3.4 Economic Environment

The revenue sources for the UWM-CC include user fees from billings and MPS-Hartford School (71.1%), segregated fees (20.3%), subsidies from the Child Care Access Means Parents in School (3.8%) and College Work Study (3.5%) programs, and other (1.3%) including the annual fundraiser and the USDA Milk Program. Fees are determined by parent eligibility status as either Student or Faculty/Staff/Alumni/Hartford. Eligible students pay approximately 31% less than the full rate for infant, toddler, and preschool care. By state statute, the minimum ratio of teachers to children increases with the age of the child. For example the infant classrooms have a ratio of 3 children to 1 teacher while Kindergarten classrooms require 1 teacher for 9 children. Correspondingly, the younger the child, the higher the tuition costs associated with care. The Children's Center exceeds the requirement for ratios for both infants (2:1) and kindergarten (8:1). The Children's Center is a not-for-profit institution. All collected tuitions and fees are intended to pay for operational costs and programming costs only.

UWM-CC is a recipient of allocable segregated fees (Fund 128) through the UWM Student Association. "Segregated fees," or "Segregated University Fees (SUF)," are fees in addition to tuition that students are required to pay. These fees cover student services, activities, programs and facilities that support the mission of the UW school system. SUF are state funds which are held by the State Treasury, and are subject to limitations on use. . The UWM-CC receives SUF funding through the SUF because it meets the institutional qualifications for official recognition and is so recognized. In spring 2012, the mandatory segregated fee allocated for the UWM-CC was $13.15/student per semester.

Child Care Access Means Parents in School (CCAMPIS) Program is administered by the U.S. Department of Education and supports the participation of low-income parents in postsecondary education through the provision of campus-based childcare services. In 2011, the CCAMPIS Program granted $148,031 to UWM. These funds are used to support a sliding fee scale, a family resource center, and parenting/life-skills workshops for low income students. Other federal subsidies the UWM-CC receive come from the College Work Study Program (CWSP), also known as the Federal Work Study Program. The CWSP provides funds for part-time employment to help needy students to finance the costs of postsecondary education.

3.5 Archaeological and Historical Environments

Archaeological and other historical resources were reviewed for locations within the project extents. The Wisconsin Historical Preservation Database (WHPD) was accessed and locally designated historical or archaeological properties were reviewed within the project areas. This database includes information from the Archaeological Sites Inventory (ASI), Architectural History Inventory (AHI), and the Bibliography of Archaeological Reports (BAR).

The Wisconsin Architecture and History Inventory identified one area of possible archaeological concern within the area of interest. Downer Woods, 0.3 miles to the northeast of the project area, does include a small area identified as an indigenous camp area. No impacts are anticipated.

The neighborhoods surrounding NWQ are filled with homes that have been included on surveys of potential historically significant buildings, but no direct neighboring homes have been designated as such at this time. Additionally, there are two buildings on the NWQ campus have been identified as "potentially eligible" for being included in the National Register of Historical Sites: the Columbia Hospital School for Nurses and the east-most Columbia Hospital (original portion built in 1919). This original portion of the hospital is located east of the project area on the same block as the project site. Also, Holton Hall, a part of the former Downer College campus, is currently identified on both the State and National Registers (listed as Milwaukee-Downer "quad").

4 PROPOSED ENVIRONMENTAL CHANGE

4.1 Manipulation of Terrestrial Resources

The main site terrestrial manipulation will be from the removal of a parking lot along the southwest area of NWQ Building C, regrading of the site to accommodate the new play areas, and the addition of stormwater storage facilities. In general, grades will not change appreciably across the site and overall runoff will still flow in the same general direction, though localized runoff may be rerouted to new catch basins. The one exception to this is the north play area which is currently significantly below the ground floor. A retaining wall is proposed with infill to provide an accessible play area. There is some potential for a storm water cistern to be located under one or both of the play areas to address project and NWQ site storm water management issues.

The existing vegetation at the site consists of trees, minor turf grass areas, and ornamental shrubs. Some of this vegetation, including grass, shrubs and some designated trees of minor significance are likely to be removed. Additional plantings and landscaping will be part of this project, including the new play areas to the south of Building C and Building D. Design protocol for the new play areas is to include natural areas within the play areas, i.e. prairie grasses and shade trees.

The site is in an urban setting with existing vegetated areas being of a landscaping design with no surface water features. The majority if not the entirety of the natural vegetation has been redeveloped and turf grass restored. As the site is currently in a developed area of campus, the WDNR along with the US Fish and Wildlife Service have both reviewed the project site and neither indicated the presence of any endangered, threatened or special concern species or natural communities, nor any State Natural Areas that would be impacted by the project.

4.2 Manipulation of Aquatic Resources

There are no ponds, lakes, streams, or wetlands identified within the project boundaries. Lake Michigan is located approximately 0.80 miles east of the project site and the Milwaukee River is approximately 0.30 miles west of the project site. These water bodies provide habitat for waterfowl and aquatic wildlife. Due to the proximity of Lake Michigan and the Milwaukee River, WDNR used standard language in their response letter indicating habitat near these bodies of water need to be protected through the use of best management practices (BMPs) and other erosion control measures, but impacts to water flow and aquatic wildlife are not anticipated.

Biological impacts from the project due to stormwater runoff or erosion are not anticipated, though there will be both less total runoff flow from the site as well as the same or less peak flow from runoff from the site (e.g. the same or an improvement over existing conditions). This exceeds the overall campus Stormwater Policy, which is in accordance with and agreed upon by the WDNR, and states that post-development conditions will result in no additional runoff

compared to pre-development site conditions. In fact, it is estimated that the project will decrease impervious area by an estimated 24,000 square feet and subsequently reduce runoff. Stormwater collection structures shall be incorporated within the play area to collect storm water runoff that does not infiltrate the surface, and to prevent stormwater from flowing out of the play areas.

Volume and water quality improvements will be achieved by incorporating a stone stormwater storage area beneath both play areas to capture roof water and site runoff. Existing stormwater collection structures shall be reused as appropriate to the final play area layout and grading. Existing stormwater collection structures that are no longer required shall be completely removed along with the associated storm sewer lateral, and the connection shall be capped at the main per municipal standards. New stormwater collection structures and laterals shall be installed in the play areas per design and code requirements.

During construction, adequate grades will need to be set so that drainage and surface water runoff will be routed to existing reinforced concrete pipe storm sewers or handled in a way compatible with WDNR requirements. Stormwater runoff produced at the site is subject to regulation under Chapter NR 216, Stormwater Discharge. A Storm Water Construction Site General Permit will be obtained in order to comply with state regulatory requirements. Stormwater control plans during and after construction will incorporate BMPs identified by the WDNR in order to comply with requirements of that permit.

As part of the project, an erosion and sediment control plan will be developed in accordance with National Pollutant Discharge Elimination System (NPDES) and coordinated with WDNR staff. Standard engineering controls such as silt fencing, road sweeping, and inlet protection will be implemented to control runoff, erosion, and tracking of soil on to city streets. Impacts resulting from increased runoff during construction are anticipated to be minimal. The standard regulations for construction site erosion control call for the limitation of sediment so that there is a reduction of 80 percent of the sediment load carried in runoff as compared to no employment of erosion control measures.

Spills from construction related activities could cause hazardous materials to be released to the storm sewer system. These may include solvents, oil, grease, gasoline, caulk, paint, or hydraulic fluids. The BMPs implemented to clean up spills include absorbent blankets and storage containers to minimize the potential for overland flow into the storm sewer.

4.3 Structures

The following description is from the Children's Center Programming and Pre-Design Program Statement and Pre-Design Report by HGA Architecture (July 2011).

The UWM Children's Center will occupy 54,980 gross square feet of space divided among two floors and two buildings of the NWQ. The space will be comprised of 33,518 assignable square feet which can be separated into four categories; classrooms, classroom support, gyms and nap rooms and support space. The estimated net-to-gross area ration is 67%. Three additional spaces – the Carpentry Shop, Enrollment Services and Storage – are not a part of the program proper, but it is anticipated that these programmatic elements will be located elsewhere in the NWQ facility. In addition to the interior space, the program calls for 26,000 SF of outdoor play

areas. This space will be located in two areas, a larger play area of roughly 19,500 SF directly to the south of the Children's Center and 6,500 SF to the northwest.

The UWM – CC will use the existing ground floor entrance of the NWQ D building as the facilities main entry point. As this area will serve as the primary drop-off point for children, the existing entrance and surrounding exterior space will need to be redesigned to accommodate this new function. (Editor's note: The entry to the Children's Center has been relocated to an interior space within the NWQ C. The access to this entry will be from the existing turnaround located to the northeast of building NWQ C. Short-term parking for parents during drop off and pick up will be available, too).

In order to make room for the smaller outdoor play area, the truck turnaround will need to be relocated to the west. Since the service drive will be reduced to one way traffic from the loading dock to the Children's Centers drop-off, there will be ample room to accommodate a new turnaround. It should be noted that the loading dock location is not optimal in terms of its proximity to the UWM-CC. However, the loading dock does need to remain operational and is vital to the NWQ complex.

An exterior play area of approximately 19,500 square feet is proposed to the south side of the Ground Level Children's Center, and a separate exterior play area of approximately 6,500 square feet is proposed to the west side of the northwest Ground Level Children's Center. These play areas shall replace approximately 24,000 square feet of existing paved impervious surfaces with generally pervious surface areas. These pervious surface areas shall include turf, planting area and play equipment ground cover.

A new domestic water exterior hose bib shall be added on the west side of the northwest Children's Center wing at Ground Level and shall be used for manual irrigation of turf areas and planting areas.

All new site lighting shall be installed to effectively illuminate the existing driveways, pedestrian walkways, and new exterior play areas per industry standards and UWM standards. A combination of building mounted and pole mounted fixtures shall be utilized.

4.4 LEED Certification and Sustainability Requirements

The LEED analysis was based on the LEED 2009 Building Design and Construction (BD&C) rating system because of the scope of the project and planned timing of design and construction. The project boundary would be all areas being renovated, including exterior play space. The design team expects to earn a LEED Silver Certification – Commercial Interiors, with a Gold rating being very probable for the proposed design for the renovation of Buildings C and D of the NWQ complex, Certification is not currently in place and will be completed approved final submittal (after construction).

A sustainably developed project is one of the goals of UWM and the Children's Center user group. Desired outcomes of this goal include creating a beneficial effect for children, their families and the campus community such as improved satisfaction, health, and learning outcomes through a healthier environment, connection to daylight and views of the outdoors, and

support for active, healthy, and more sustainable lifestyles. Also, The UWM-CC's stormwater quantity reduction and quality mitigation plan responds to UWM's campus commitments to be a Net Zero Stormwater site. The most direct desired outcome of a sustainably developed project is to lessen the impact of the project on the environment by reducing energy, water use, and waste production during construction and after occupancy, as well as sourcing local materials when possible and using ones that are nontoxic and transported sustainably. UWM aims for its sustainability initiatives to help connect campus with the community.

LEED focuses on the following issues: site selection, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and operations and maintenance. The 20% Design LEED-CI Checklist shown in Appendix F details sustainable features being incorporated into design. The proposed project will also meet the State of Wisconsin DSF sustainable guidelines, which are intended to promote the effective use of existing space, conserve natural resources and reduce detrimental effects on the environment, ensure energy efficiency and consider life-cycle costs of indicatives.

Some of the sustainable characteristics of the site being developed include:

Site Selection: Site is a redevelopment of an urban property. The neighborhood offers walkable density, bus route access and support for bicycle facilities. Showers for the Children's Center staff would need to be provided in the staff locker rooms or designated in another locker room area in the building.

Water Efficiency: Strategies to reduce needs for potable water are included in the project budget for high-efficiency water fixtures and high efficiency landscape irrigation with weather station controller.

Energy and Atmosphere: Energy efficient design would be achieved through standard systems and, as a renovation, would need to meet a minimum of 5% better than ASHRAE 90.1-2007 for EA Prerequisite 2. Basic commissioning and a measurement and verification plan are also recommended.

Materials and Resources: Strategies under the Materials and Resources category have generally reached the point of strong penetration in the marketplace and are achievable within the project budget, particularly at the lower levels of multi-level credits. Therefore the project is anticipated to be able to achieve credits for reducing or eliminating landfill use prior to occupancy through construction waste management, and for reducing the use of virgin materials in buildings and the environmental impacts of resource acquisition through materials reuse, recycled content, regional materials, rapidly renewables, and certified wood products. Additionally, the project will reuse the structure and shell of the existing building.

Indoor Environmental Quality: Strategies under the Indoor Environmental Quality category have generally reached the point of strong penetration in the marketplace and are achievable within the project budget, particularly at the lower levels of multi-level credits. Strategies for a healthy indoor environment through Indoor Air Quality (IAQ) measures during construction, nonsmoking policies, using low VOC-emitting materials, controlling indoor

pollutants during occupancy, and offering individual occupants individual control of lighting and thermal conditions in their workspace are anticipated.

Operations and Maintenance: Strategies that support sustainable Operations and Maintenance cannot only provide better health for occupants after construction, but they can achieve LEED Credits in the Innovation in Design category if they are currently offered as credits under LEED for Existing Buildings Operations and Maintenance. The design team can target points through green cleaning, building exterior and hardscape management, integrated pest management, erosion control and landscape management, performance measuring, or sustainable purchasing and solid waste management.

4.5 Socioeconomic

4.5.1 Social

4.5.1.1 Program Growth

Currently, there is a waiting list of approximately 30 potential students for enrollment in the UWM-CC program. To reduce the size of this waiting list, it was decided during the planning process to increase the size of the program by 9.4%. The increase is not evenly distributed, but rather weighted across the age groups to respond to the highest number of waiting children, infants, toddlers, and preschoolers. Including the increase, the UWM-CC will be able to hold a minimum of 294 children at move-in and will have approximately 356 enrolled children, which accounts for part-time and full-time users. See table below, taken from the 15 % Pre-Design Report, provides for details of the projected growth in enrollment.

4.5.1.2 Educational Opportunities

The new design includes more useful observation areas which increases the educational opportunities the UWM-CC provides for university academic programming and research. Not only are observation areas available for parents and staff, they also function as an opportunity for students in various UWM programs such as Architecture, Education, Nursing, Speech Pathology, Physical Therapy, and Occupational Therapy, to observe classroom activity without disturbing the children. Centrally located observation areas in each classroom allow for the teaching staff to observe more efficiently while not interacting with children and allow more UWM students to observe the classrooms without interfering with the program and/or overwhelming children with "too many strangers" in the classrooms.

4.5.1.3 Aesthetics and Green Space

The transformation of the current Building C main entrance drop off along Hartford Avenue into the new UWM-CC main outdoor play area will greatly increase the aesthetics of the neighborhood and urban street edge. Another play area is planned for the area to the west of Building D. These two play areas will provide multiple attributes geared towards different age group requirements. The stretch of Hartford Avenue between Cramer Street and Maryland Avenue is lined with brick buildings, concrete sidewalks, and minimal green space. Also, the majority of the exterior space of the NWQ Complex is dedicated to parking. The proposed

outdoor play areas will include natural components such as mature trees, plantings, prairie, and gardens. UWM's Master Plan has placed a priority in establishing a "working landscape" that embraces, integrates, and embodies design, environmental, and academic values. These new green spaces will also greatly enhance the visual appearance of the existing structures and provide a level of warmth that is currently missing from the complex.

4.5.1.4 Child Safety and Health

Safety for the children is a top priority and traffic patterns were considered when addressing child safety during drop off/pick up times. It was this priority that lead to the change of entry from that proposed in the PreDesign and Program Statement (July 2011) to the internal front door for the Center. For more information on traffic, see section 4.4.4. Additionally, the play area will be completely fenced to provide security to playing children.

4.5.1.5 Pedestrian Circulation

The long term site Master Plan for the NWQ seeks to improve connectivity between the complex and the rest of the UWM Kenwood Campus. One way to forge this connection is through increased pedestrian circulation. Both north-south and east-west circulation paths exist connecting the different parts of campus, but need to be formalized both internally and externally as the complex plan progresses. This includes adding pedestrian crossings on both Hartford Avenue and Maryland Avenue, and connecting the paths to building entrances. Increased pedestrian traffic in the project site emphasizes the need for parents to be alert while dropping their children off and picking them up. These improved paths also will affect the UWM-CC for parents walking to or from the center with their children. Due to the location of the outdoor play areas, increased pedestrian traffic may provide cause for increased security in these areas.

4.5.1.6 Facility Move

The UWM-CC provides daily care for children throughout the year with two one-week breaks in August and December. The current CC site at the Kunkle Building must be fully functional until the last day of operation at that site and the new site at NWQ must be completely functional upon day one after relocation. The details of packing, selecting furniture items to be moved, including playground equipment, will take resources and be inconvenient for staff, students and parents alike. Additionally, there will be some adjustments as families and staff incorporates the new location into their patterns during a day.

4.5.2 Economic

4.5.2.1 Operating Costs

Based on the size, function and demands of the UWM-CC, the estimates of operational costs will increase from current costs. The operational expense assumptions are taken from the UWM master expense assumptions included in the UWM master plan financial model.

Table 4
Current and Project Costs for the UWM – Children's Center

Potential Costs	Description	Current Costs	Projected Costs
Building Lease Rents	Since the University will own the building throughout its life there are no lease rent cost allocations.	$0.00	$300,000.00
Energy / Utilities	Costs include electrical, natural gas, steam and alternate sources of power consumed as applicable to the building	$125,250.00 + $2,505.00 (municipal services)	
Maintenance / Repairs	Costs include personnel in the trades to support the building as needed. Preventative maintenance, facility projections and general allocation of monies for construction	$54,980.00	
Building / Grounds	Costs include grounds and custodial services, garage services and administration	$55,110.00	
Security	Costs support security throughout UWM including University Police, Campus and satellite building security	$27,555.00	
Transportation / Parking	Allocation supports campus transportation and parking for all surface and structured lots, U-Park and U-Pass and special transit programs	$57,615.00	
	Total Operating Costs	**$318,125.00**	**$300,000.00**

The UWM Children's Center is not expecting an increase or any change in fees with the new facility. The fixed cost of operating expenses will remain the same, while the program itself is funded with the increased child capacity and expected enrollment from the waiting list. Since the UWM-CC is partially subsidized by federal initiatives, the demographic profile of the children and parents is important to the funding aspect. The UWM-CC is not expecting to see a change in the relative demographic profile that would affect any of the subsidies they receive.

Maintenance of the Kunkle facility is currently covered by the University. Costs of maintenance service once the UWM-CC moves into the new building will be reallocated to the Children's Center. Funding this service separately and independently will add to the operating costs, but

should be offset but the increase in enrollment and thus, available budget. Also, operating costs should decrease between the old facility and the new facility due to the LEED Silver Certified renovations. Both UWM and the Children's Center have planned for a number of sustainable initiatives to be implemented within the new UWM-CC facility that will reduce operating costs. Examples of these initiatives include more natural lighting, awareness of water usage by the occupants, green power, improvement of indoor air quality, and implementation of stormwater mitigation techniques and structures.

4.5.2.2 Metered Parking Revenue

The proposed site of the main outdoor play area for the UWM-CC is located to the southwest of Building C, where a parking lot is currently in use. There are 14 public-use spots in that parking lot that are metered per hour, 11 hours a day, six days a week. Considering the 2011-2012 UWM parking rate of $0.85/hour for metered spaces, the removal from use of this parking lot will conceptually lose $3,142/month or $37,700/year of revenue for the University if used to the full capacity.

4.5.2.3 Local Private Sector Businesses

The nearest private sector child care service provider is approximately one mile west of the UWM-CC. There are ten additional day care or development & learning centers within a 1.5-mile radius of the UWM-CC, all of various sizes and serving various age groups. Due to the increase in enrollment at the UWM-CC, they will be able to admit children on their waiting list and may take business away from the nearby centers. However, since the majority of parents with children currently enrolled at the UWM-CC are either students or faculty/staff at the University, utilizing the UWM-CC would be more conducive to their schedules and, therefore, respond better to campus and community needs.

4.5.2.4 Overall Impacts of Construction on Economy

Based on a study entitled *The Impact of Construction on the Wisconsin Economy* by C3 Statistical Solutions published in January 2011, every $1 spent directly on construction projects produces an overall economic impact of approximately $1.92. For the proposed Children' Center project, this translates into an economic impact of over $23 million based on a combined project cost of $12 million including construction, design, and equipment. Using a related formula that 17 jobs are created for every $1 million of construction, this project should create approximately 204 jobs split between design, construction, manufacturing and the service industry and direct, indirect and induced jobs.

In addition to construction labor and supervision, there are additional primary jobs for design engineers, architects, designers, and construction quality assurance personnel. This provides short-term impacts from employment of workers in the construction industry in addition to secondary and indirect employment from the various equipment manufacturers and vendors, transportation and material providers. These people provide various goods and services essential to the construction and operations of the project. Additional long-term employment operations will increase from current employment levels within UWM due to expanded space to maintain and operate. Tertiary or induced jobs would include those created or supported through the

spending of wages or salaries on items such as food, housing, transportation and medical services.

4.6 Other

4.6.1 Hazardous Materials

As a former hospital the NWQ buildings do contain a select number of lead-lined rooms. The era of the buildings also allow for the potential presence of lead-paint and asbestos. All remediation will be completed before creation of the new Children's Center begins. The Wisconsin Department of Administration performed a Wisconsin Asbestos and Lead Management System (WALMS) survey immediately after purchase of the building to identify the areas of hazardous materials. They also did radon test specific for child care centers.

4.6.2 Utilities

Prior to construction on the Children's Center, the existing steam and hot water heating utilities will be integrated into the UWM Campus utility distribution and eventually the steam boilers and water chiller systems within the complex will be decommissioned. Within the proposed Children's Center area, all mechanical equipment including ductwork, terminal equipment, hot water piping, pipe insulation, and temperature controls shall be completely demolished and removed. One air handling unit will be removed completely and not replaced. Other air handling units will be renovated or replaced in kind to serve the new use. New and existing HVAC systems and equipment shall be specified and designed utilizing DSF engineering specifications and guidelines to maintain state building construction uniformity. The HVAC systems and equipment shall be designed to satisfy heating, ventilating and air conditioning loads for the building automatically, as seasonal loads and occupancy changes. New systems shall be designed for high efficiency and long term sustainability and typically heating and chilling from centralized utilities are much more energy efficient than individual building systems providing a positive impact from this change.

4.6.3 Noise

Permanent ambient noise levels are not expected to be significantly altered by the project. There are a few factors particular to the nature of the UWM-CC as a Child Care Center that will affect the noise levels in the area. First, there will be increased vehicular traffic during drop-off and pick-up times. Also, there may be a limited number of school buses (loud engines) idling outside for short periods on the north side of NWQ D to pick up children that are bused in and out or to transport children during the day for field trips and for the AfterSchool Program. There is a program in place to ask bus drivers to turn off their buses when stopped rather than idling. The main anticipated source of noise is due to the two proposed outdoor play areas when they are occupied with children. Refer to the "Impacts" Section 8 more information on the effects of a Child Care Center in the proximity of a residential neighborhood.

The most recognizable short-term increase in noise levels will be temporary and a result of construction activities. Noise impacts will occur during the construction period, which will occur during limited hours as required by most campus construction projects. Construction noise is

expected to be of short duration with standard hours of operation between 7:00 a.m. and 7:00 p.m. All construction work will be in compliance with requirements of the University, City of Milwaukee, and other local ordinances. For those times when construction noise is expected outside the standard work hours of 7:00 a.m. to 7:00 p.m., a noise ordinance variance will be requested from the City of Milwaukee. Major construction elements that will produce elevated noise levels include equipment noise and material delivery, saw cutting, breaking up pavement of, excavating, shoring, hauling, grading, landscaping and clearing as noted in Table 4 below. Anticipated noise will most directly impact those individuals working near the project including researchers, students, faculty, staff, and visitors in the adjacent academic, administrative, and research facilities as well as adjacent neighbors.

Additionally, noise impact will be minimized by maintaining equipment mufflers. Finally, during exam times, only "quiet" interior building work is to be performed such as electrical wiring or drywall. No exterior excavation, heavy equipment moving and noisy internal building activities are allowed to respect the importance of exam periods.

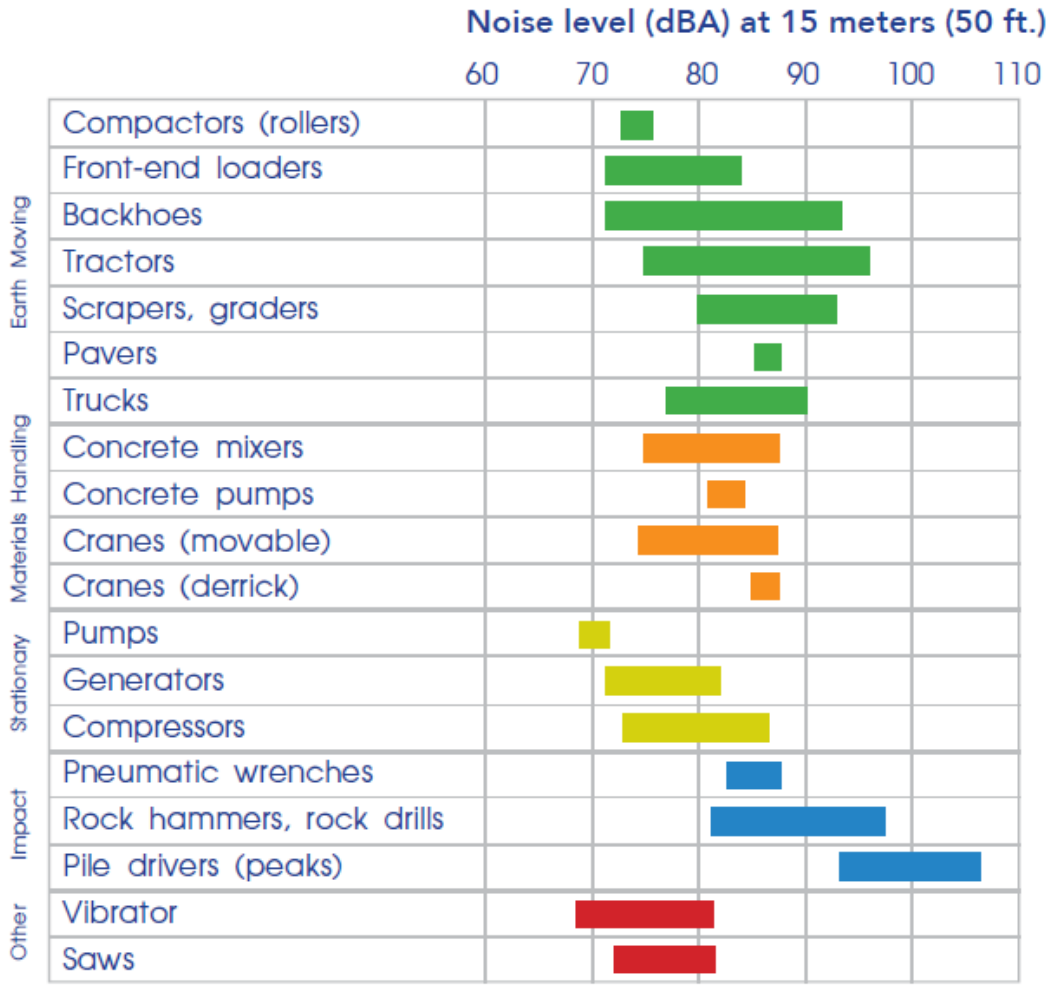
4.6.4 Traffic and Parking

A DESMAN traffic study analyzed the impact of the Children's Center user parking in the NWQ Parking Garage just north of the proposed site. It was assumed approximately 300 children would be at the Center on a typical day. Approximately 30% of those children's parents will be students, 30% will be faculty and 30% will be UWM alumni association members. DESMAN assumed that 75% of the students utilizing the daycare will park at the garage, and none of the staff and UWM alumni will park at the garage. DESMAN also took into account the garage and lot traffic not utilizing the Children's Center at full occupancy. DESMAN estimated a total of 3,228 daily trips in the NWQ. Using all of these assumptions, the report estimates a number of total daily trips will be decreased by 1,322 from the buildings former use as a hospital.

The existing parking lot on the far southwest portion of the NWQ which used to serve the emergency room will be eliminated to make room for a play area. This will result in the permanent removal of 14 parking spaces with one of these being accessible parking. These spaces are currently metered.

Table 5

Construction Noise Levels



Source: U.S. Report to the President and Congress on Noise. February 1972

Contractors for the renovation can coordinate with UWM Parking and Transportation for the purchase of special "K-permits" to park on campus. However, since several project sites are so condensed (Greenhouse, Children's Center, Parking Structure rehab) and there are multiple contractors/projects on-site, the UWM is highly encouraging the contractors to establish a carpool system from local park-and-ride lots. Also, there will not be any job trailers on site (for Greenhouse or Children's Center projects). The UWM Capital Projects and Planning office is working to find suitable space within NWQ for each contractor to set up a construction management office.

4.6.5 Drop-off and Pick-up Location

There are two options for drop-off/pick-up traffic patterns which will both impact the greater UWM and surrounding communities. Both options address bus and car traffic. The current bus traffic for the center is for two groups: 1) children who are picked-up/dropped-off as part of the

AfterSchool Program and 2) field trips, which primarily occur during the summer on an established schedule. The preferred bus drop-off/pick-up location utilizes the existing turn-around on the north side of the NWQ complex, which was designed to accommodate drop-off and pick-up conditions, and is accessed from E. Newport Avenue. This allows for safer conditions for the children, utilizes existing infrastructure and shares the same circulation pattern to the Center's secure entry as other users.

The second alternative is to have buses queue on E. Hartford Avenue just south of the play area and directly across from the existing transit stop for eastbound traffic. Buses situated on Hartford Avenue would greatly effect westbound traffic, possibly stalling it depending upon shuttle/transit/UPark buses arriving and stopping in the eastbound direction. A single-lane with two-way traffic would post a safety issues for pedestrians and drivers. This was seemingly the only option at the time of the Pre-Design report release due to misinformation that the bus companies could not leave the public right-of-way. Since buses can leave the public right-of-way with the property owner's permission, the proposed location of bus drop-off/pick-up is on the north side of the NWQ, where there exists a more conducive traffic flow pattern and a safer entrance for children.

Another traffic pattern issue is related to the parent drop-off/pick-up locations. The original option included in the pre-design report was a shared building entrance on the north side of Building D near the former mobile MRI dock. Upon further analysis, it became clear that there were serious safety concerns for parents and children since the circulation drive would need to be navigated to reach the proposed entrance. The Pre-Design proposed changing the through-traffic flow to one-way along the north side of Building D to help alleviate some of this hazard. However, eve the proposed loading lane was a hazard for Center users as well as students parking the NWQ Parking Garage and walking down the driveway to get to campus. Also, until further study could be done, the campus wanted to maintain the two-way vehicular circulation through the west end of the site.

The proposed and preferred option is to bring the main entrance for the Children's Center inside the NWQ, away from the already congested parking garage traffic and to utilize already established access routes to NWQ (Figure 9). Studies show the majority of parents and students who are eligible to utilize the student-only parking at the NWQ Parking Garage, which features a safe and covered skywalk to the NWQ complex. Faculty/staff users can park in the surface lots all day, bringing their children inside then proceed to their campus office. Alumni parents can park in short-term visitor parking near the turn-around bring their children inside and then leave campus for their work location. Parents who walk, bicycle or use public transportation can access the NWQ through these same entrances as well as from Maryland Avenue or Hartford Avenue entrances.

Using factors such as community response, child and parent, safety, traffic circulation, and user convenience to determine the best solution, the north turn-around is the safest and most convenient option.

4.6.6 Storm water Review and Approvals

Review Times and Approval Process

- Review of Design Documents, Design Team (done, February 2012)
- Update LEED Plan, Design Team (done, February 2012)
- Preliminary Review by DSF (April 2012)
- Preliminary Project Description, Board of Regents and State Building Commission, Agency Requests – DRAFT (April 2012)
- DRAFT Final Report (95%) Bid Package 1 (April 2012)
- DRAFT 10 Design Report, Bid Package 2 (April 2012)
- Final Design Report, A/E Team / Agency (May 2012)
- Project Description, Board of Regents and State Building Commission Agency Requests – Final (May 2012)
- Environmental Impact Assessment public information meeting (May 2012)
- Rezoning of NWQ by City of Milwaukee (May 2012)
- Board of Regents Meeting – Authority to Proceed (June 2012)
- State Building Commission Meeting - Authority to Proceed (June 2012)

5 PROBABLE ADVERSE AND BENEFICIAL IMPACTS

5.1 Physical Impacts

Physical impacts are limited in nature and primarily consist of reworking site features that have previously been disturbed during past construction activities. The most obvious impact will be integration of the two play areas to the outside portions of the complex. These changes will incorporate stormwater management structures as well. The addition of more windows to the building envelope will also impact the environment on the short-term in terms of construction noise and in the long-term by increasing natural light in the classrooms. Short-term noise and dust as well as inconvenience in complex access during construction activities are adverse impacts expected from the site development and are not atypical of other construction activities on campus. After construction site accessibility and circulation will be improved along with the physical appearance of surface features is a beneficial impact.

5.1.1 Land Use Impacts

The beneficial reuse of the Buildings C and D buildings to create the UWM-Childcare Center will not impact the current land use of the site. Due to the switch from a hospital to a campus building, the property does need to be re-zoned from planned unit development to institutional. The limited in-migration of workers required for construction and operation would not impact off-site residential land use as it is assumed that most of those employed during construction already live in the area or will only be staying temporarily at hotels during construction.

The proposed surface demolition activities will have a number of physical short-term environmental impacts, although demolition and construction actions will not threaten water or soil quality provided that typical measures are taken to control erosion. Environmental contamination is not expected to be encountered during soil excavation. These activities present little adverse or beneficial physical impacts to the site as it will be restored to resemble existing topographic conditions.

5.1.2 Vehicular Impacts

During construction, there will be short-term vehicular and pedestrian access limitations due to construction equipment, construction site parking, and materials delivery. Construction vehicles will be routed along E. Hartford Avenue to the access drive along the west side of the complex. Construction traffic on E. Newport Avenue will be minimized. When new fencing and play areas are installed along Hartford Avenue on the south side of the project area, a portion of Hartford Avenue may experience temporary closures. The most apparent impacts would be felt by pedestrians in transit through the area along the north sidewalk, and vehicular and pedestrian access to the adjacent buildings and parking structure. Pedestrian traffic will be routed through the NWQ Complex to avoid the construction area and equipment access routes. Care will be taken to keep this area clear during construction for health and safety purposes.

Construction of the proposed project will result in the long-term *net* loss of 14 stalls and a net increase in bicycle stalls. This net loss in parking is an adverse impact to the parking spaces in this segment of campus, both permitted parking and for those who use this lot. This may result in longer travel times from parking to their destination and possible increased traffic in nearby neighborhoods impacting those residents as well. At a minimum, some users of this lot will need to find alternative parking locations or alternative transportation arrangements to accommodate this change.

Finally, the proposed change in purpose to this portion of the NWQ will impact regular traffic flow in the area, especially during drop-off and pick-up times. There is an expected decrease in the overall amount of traffic on an average day. However, with the proposed drop-off area to the northeast of the Children's Center, traffic could potentially increase during peak drop-off and pick-up times along E. Newport Avenue, something which residents of that area have expressed concern.

5.1.3 Construction Impacts

Construction actions should not threaten water or soil quality provided that typical measures are taken to control erosion. Short-term air impacts are expected from construction vehicle emissions and dust from demolition activities. Contractors are required to follow BMPs for dust control as set forth by the Wisconsin DNR, including sprinkling the ground with water until it is moist, wind breaks and covering exposed ground with stone. Milwaukee's air quality is classified as "good" according to the NAAQS. Environmental concerns are not expected to be encountered during soil excavation and present no adverse or beneficial impacts to the site.

The Children's Center Project as well as coinciding projects in the NWQ will be bringing contractors into the area. The UWM Capital Project and Planning office is highly encouraging the contractors to establish a carpool system from local park-and-ride lots to minimize this traffic impact.

5.1.4 Noise Impacts

Factors impacting the noise levels in the project area include cars and buses idling and the sound of children playing in the two outdoor play areas. According to a report released by the Low Income Investment Fund regarding City Planning and responding to Child Care Facilities, it is rare that Child Care Centers will generate adverse noise impacts due to staggered play times and the supervisory element. According to an article in ACOUSTICS 2006, Carrying out Noise Assessments for Proposed Childcare Facilities, at a distance of 100 feet or less from the central play area, the average noise levels associated with playground usage range from 55 dB L_{eq} to 60 dB L_{eq}. Child Care Center standards state that less than 24 children utilizing an outdoor play area at any one time will have no significant noise impact. Regardless of the number of children, there is no significant noise impact if the play area is more than 100 feet away from any public or private gathering place.

Table 6
Example of the Predicted Noise Levels for Children at Play

Type of Voice	Sound Pressure Level (dBA) at 1 meter	Est. Time Spent at each type of voice (15 min)	Resultant Sound Level (dBA) 15 min average
Casual	53	2.8	46
Normal	58	5	53
Raised	65	5	60
Loud	74	2	65
Shout	82	0.2	63
15 minute Average for 1 Child at 1 meter			68
15 minute average for 12 Children at 1 meter			79
15 minute Average for 12 children at 5 meters			65

From *Carrying out noise assessments for proposed childcare facilities (2006).*

For comparison, below is a table of noise levels for several household items.

Item	dBA
Refrigerator	50
Washing Machine	50 – 75
Air Conditioner	50 – 75
Vacuum Cleaner	60 – 85
Hair Dryer	60 – 95

The project site is adjacent to a residential community and is surrounded by a fence on the west side, a main street on the south side, and bordered by campus-owned buildings to the north and east. Immediately west of the proposed outdoor play area locations begins residential homes. From the edge of the proposed area to the beginning of the homes' backyards is approximately 50 feet. According to the study, the residents of these homes might be affected by the noise emitted by the children playing outside at the UWM-CC until 6:00PM on weekdays only. There is currently a fence bordering the NWQ complex to the west, but further actions can be taken if

the noise is determined to be an issue. Such actions include developing strategic limitations on the use of the outdoor play area in terms of schedule or number of children at one time, so long as changes do not impact licensing or accreditation requirements and outdoor playtime is not unreasonably jeopardized.

5.1.5 Structures

A beneficial physical impact of the project will be the unique academic and childcare spaces and new building features offered by the building layout. The new Children's Center will provide needed additional space so that more children can be accommodated throughout a day. The addition of windows in several areas of the building will increase the natural light available in classrooms which has numerous benefits to the children and teachers. The addition of two outdoor play areas will decrease impervious surfaces on the site as well as offer a more natural, green area than exists currently. See Figures 10 - 16 for renderings and floor plans of proposed Children's Center.

The physical effects of this project have minimal adverse impacts and are anticipated to be limited to short-term construction activities. Short-term noise, traffic and minor air impacts from construction activities are expected to affect the campus for the duration of the construction project. No adverse groundwater, surface water or soil impacts are expected to arise as a result of this project. Surface water runoff is expected to be the same or reduced compared to existing site conditions and therefore a potentially beneficial impact of the project development.

5.2 Biological Impacts

5.2.1 Topography and Erosion Control

Minor topographic changes will result from grading and surface disturbance due to excavation and construction activities. Surface features will change with the addition of the two play areas and removal of 14 parking spaces. However, the changes will result in a net increase in pervious areas. The inclusion of stormwater management features within the landscaping will alter topography with positive impacts. The campus stormwater management plan (see Section 5.1: Manipulation of Terrestrial and Aquatic Resources above) developed by the University and the City of Milwaukee, will provide guidance for developing erosion control and stormwater pollution prevention methods. These practices will be carried out according to standards required by the Wisconsin Department of Natural Resources. Best management practices will be used before and after construction, including silt fencing and erosion matting. Appropriate stormwater management and erosion control measures will be used to control discharge into nearby Lake Michigan.

5.2.2 Air Quality

The changes to the site will have minimal effect on the air quality in the area. The short-term effects are related to construction, while the only detectable long-term effect may be that of idling cars and buses around the drop-off/pick-up zones. Given that the proposed designs provide short-term parking for this purpose and it is typically prohibited to leave your car running while you pick up or drop off your child, the only idling vehicles would be school buses and buses

would be limited to five minutes of idling. Idling vehicles affect air pollution with emissions of oxides of nitrogen, carbon monoxide, volatile organic compounds, and particulate matter. If the central turnaround is used for buses the impact will be limited to individuals utilizing that exit from the complex.

5.3 Socioeconomic Impacts

With a project of this scope, magnitude and duration (especially considering future projects within the NWQ), adverse construction impacts will be unavoidable. Despite staging strategy to maintain building and site access, and to minimize the impacts from construction, they are simply an aspect of the process for long-term building improvements which result in long term beneficial impacts.

Short-term Impacts

- Due to construction traffic and necessary zoning, there may be a loss of parking spaces for short periods of time which would have a negative economic impact for the University. There may also be some traffic routing issues during certain construction periods related to the parking structure, which is available to students while classes are in session. Pedestrian through-access may be affected during these periods, as well.
- Since the complex is currently not fully occupied, there will be no issues with building closures affecting the larger campus community.
- The transition period may pose a problem for some parents and programming depending on the phasing of the transition between buildings.
- For returning children, there may be some time needed for adjustment after being familiar with the old facility to becoming comfortable with the new.
- Beneficial economic impacts are both direct and indirect in nature. Short-term beneficial economic impacts include employment of design, architectural, and construction team members.
- Commitment of financial resources in the amount of $11,978,700 to construct the project is an opportunity cost that cannot be used on other projects.

Long-term Impacts

- The UWM-CC is planned to occupy the ground floors of Buildings C and D, and the first floor of Building C. Currently, the UWM-CC is the largest child care facility within the UW system. Considering the growing rate of student enrollment at the University, and the fact that 50% of children participating in the UWM-CC program have parents who are University students, there is a chance that future expansion is necessary. Sustainable development and the addition of green space on campus boost UWM's social consciousness profile, which can improve community relations and attitude. This project will provide a research tool for developing strategies to measure consumption reductions, behavioral impacts, and pre- and post-development occupant satisfaction and performance.
- The re-designation of the south parking lot will result in a loss of 14 parking spaces, causing an estimated annual loss of revenue totaling $37,700/year for the University.

- Improving observation spaces provides a more conducive environment for UWM students to observe and learn as it pertains to their particular programs. Centrally located observation areas in each classroom allow for the teaching staff to observe classroom staff more efficiently while not directly with children and allow more UWM students to observe the classrooms without interfering with the program and/or overwhelming children with "too many strangers" in the classrooms
- Additional educational opportunities relate to the proposed LEED Certification status of the building as it will provide a great learning opportunity for the children at the UWM-CC, as well as the UWM student body, to better understand the LEED program, sustainable practices and environmental stewardship.
- Studies show that sustainable design, such as natural lighting and views of the outdoors, improves student concentration and short term memory.
- Development of pedestrian circulation, internally and externally, within the complex adds connectivity between the complex and the Kenwood campus (south and east sides)
- Creating a more sensible structure of administrative offices for the UWM-CC will increase communication among administrators and staff, providing a more efficient workspace.
- Improved food preparation areas within the facility can be considered an educational opportunity regarding food and health. Healthy eating is an aspect of sustainable living, which the Center plans to emphasize.
- The LEED Silver, or possibly Gold, Certification of the facility will result in a number of measurable and abstract positive impacts such as child well-being, aesthetics, reduced energy and water consumption, and overall improved quality of life. For details on LEED Certification status, see section 4.4.6.
- An adverse social and economic impact is that the newly renovated UWM-CC could potentially take business away from the numerous child care or development and learning centers within the area as capacity increases and the Center starts adding children from their waiting list that may be attending area centers.
- The expanded space for the UWM-CC is a long-term benefit that meets the needs of the UWM-CC, as well as many students, faculty and alumni who utilize the Center. The expansion also supports the long-term goals of the University.
- Moving the UWM-CC to a new location allows for construction of the first phases of the Kenwood Interdisciplinary Research Complex (IRC) to begin. The first building of the complex is scheduled to begin construction in December 2012. This building will be located on the corner of Maryland Avenue and Kenwood Boulevard (near the current site of the Kunkle Building/UWM-CC).

5.4 Other (archaeological, historical, etc.)

There were no archaeological sites identified within the adjacent vicinity of the project area. However, there were two buildings within the NWQ complex that are listed as “potentially eligible” for inclusion on the National Historical Registry of Historical Buildings. The original

hospital building to the east of the project site (0.12 miles to the east) and the former Nursing School building (0.14 miles to the northeast) are the two buildings of interest.

6 PROBABLE ADVERSE IMPACTS THAT CANNOT BE AVOIDED

Adverse, unavoidable short-term impacts of construction include noise and dust, alternative routing, possible building access and parking lot limitations, and traffic impacts from materials delivery and project implementation. Idling construction vehicles will contribute noise and fumes to the project area. Dust can be a health concern for workers as well as plants when they are totally covered in dust. The fact that the building is currently minimally used will decrease the scope of the adverse impacts.

Dust suppression can be used to minimize the dust that becomes airborne and construction hours will be set to minimize the impact of noise pollution, but these adverse effects will likely not be completely eliminated. Pedestrian traffic through this area will be temporarily detoured in a sequential manner around the construction area - a short-term impact that is necessary for the safety of the public.

An unavoidable impact of the proposed action is the commitment of energy, materials, and financial resources in the amount of $11,987,846. Additionally, there will be annual operating and maintenance expenses (estimated at $318,135, of which approximately $127,755 is for utilities.

Other unavoidable adverse impacts, which will be mitigated to the extent possible through construction methodology or design aspects, include:

- Transition from the current Children's Center to the new Children's Center without disruption of childcare.

- Removal of trees and other minor established turf vegetation located in and around the Building C and Building D buildings. This will be mitigated through the implementation of the landscaping plan that has a larger quantity of tree and shrub plantings as well as larger outdoor play spaces integrated into the design.

- Loss of theoretical annual parking revenue of $37,700 from 14 metered parking stalls. At this time, the parking spaces within this area are used by students, faculty and visitors. Other nearby parking is available No great parking impact is expected due to the low number of spaces concerned.

- Potential increase in the traffic during peak drop-off / pick-up times (7:45 – 8:45 a.m. and 5:15– 6:00 p.m.).

- Traffic changes and changes to pedestrian routes in the short term during construction will result in minor rerouting of bike and pedestrian travel as well as potential short-term closures due to construction or utility tie-ins.

- The neighborhood directly north of the project site may see impacts from increased traffic during peak drop-off and pick-up times as E. Newport Avenue will probably be the main access to the safe child drop off area.

- As much of the construction activities will be internal, the impacts from construction activities should be minimized. There will be some removal of concrete to create the play areas, but these projects will be of a short duration. Construction hours will follow campus regulations and remain from 7:00 a.m. to 7:00 p.m., creating minimal disruption to the neighborhood.

- Construction workers will be on site for several months. Contractors can coordinate with UWM Parking and Transportation for the purchase of special "K-permits" to park on campus. However, since the project sites are so condensed and there are multiple contractors/projects on-site, UWM is highly encouraging the contractors to establish a carpool system from local park-and-ride lots.

7 IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES IF ACTION IS IMPLEMENTED

Many of the resource commitments would be irreversible for the proposed project. Irreversible is defined as resources that are neither renewable nor recoverable for future use. Construction of the proposed facility results in the irreversibly or irretrievably committed resources of construction materials that cannot be recovered or recycled, fuel and other committed construction fluids.

Resources used during construction of the facility would include crushed stone, concrete, sand, lumber, water, diesel fuel, gasoline, hydraulic fluid, natural gas, asphalt, and water. None of these resources are in short supply relative to the size and location of the project. Additionally, reuse or recycling of some of these items such as the sand, metal piping, and asphalt for other purposes is possible, should the facility ever be demolished.

The proposed project would require irretrievable commitment of human and financial resources that would not be available for other endeavors or alternative projects. As a sunk opportunity cost, these cannot be regained; however, the commitment of these resources is consistent with the purpose and need of the proposed action and was deemed better to meet this purpose than the identified alternatives.

8 ALTERNATIVES

Alternatives to the proposed project are described below and were evaluated on their merits and impacts. The design alternative presented here and in the draft design reports was selected as the preferred alternative.

No action/defer the project request.

Due to the other projects around the UWM campus, specifically the development of the Kenwood IRC, would not allow the Children's Center to remain in its current location in the Kunkle Building. The Kenwood IRC requires deconstruction of buildings in the area to provide space for this first building of 74,428 ASF free standing, five-story structure south of Lapham Hall along Maryland Avenue which is anticipated to begin site construction in September 2012. The Children's Center is such an important facility on campus both as a much needed childcare center and as a resource for many UWM higher education programs, that closing the center was not an option. The Center is critical to the University's overall mission and is committed to supporting its relocation and continued participation in the campus community. Deferring the project was also not an option due to the timing of the Kenwood IRC and the efforts to minimize the costs associated with the IRC project. Relocation of the Children's Center is required within the next 24 months. The site fit studies that have been done have identified the current proposed site as the most feasible and beneficial for all concerned.

Different project designs.

The proposed project went through multiple studies and solicited input throughout the design process to adequately identify, address and implement project components while balancing the overall needs and goals of the area. As such, the scope of the project was discussed and what the project should and should not entail was considered. Opponents to the proposed scope of the project wanted less extensive improvements and were concerned about the impacts the project would have. Balancing both sides of the issue and identifying ways to improve construction implementation and reduce impacts were taken into account during the design process.

During the NWQ Space Planning Study (July 2011), three options for the potential location of the Children's Center were identified. Each location met the basic requirements of providing egress to grade, access to windows, and adjacent outdoor play space.

Location A (Figure 18)
Location A was proposed on the first and second floors of the East Wing (NWQ Building A). Outdoor play spaces were envisioned in the two existing courtyards on the south side of the building. The main entry to the Center was to be located at the east end of the building with car drop off on Maryland Avenue.

Location A provides ample room on the first floor with windows and direct access to outdoor play areas with additional space on the second floor. Drop off and entry would likely occur on Maryland Avenue. Securing the Center would require limiting east/west access and prevent the development of a public spine in the complex. The finger-like nature of Building A creates distinct areas on each floor that could prove difficult to manage. This section of the NWQ is not currently sprinklered.

Location B (Figure 19)
Location B proposed the Center location on the ground and first floor of the Building C (former Clinical Building) and Building D (former Medical Arts Building) at the west side of the NWQ. A large outdoor play area would be located at the southwest corner of the site and a second, smaller play area on the northwest side. The test fit established a secure entry on the north side of the medical arts building that allowed child drop-off to occur off of a main street.

Location B provides ground level access and direct connection to the two play areas. The location within the complex provides a dedicated, off-street drop-off for the Children's Center and a secure entry away from other public functions. The current façade of Building D will need to have additional windows added in order to meet the code requirement daylight amounts for child care. The largest drawback to this location is the presence of the NWQ main loading dock at the basement level, which splits the Building C and the Building D. Special care will need to be taken to resolve this issue. This section of the NWQ complex is fully sprinklered.

Location C (Figure 20)
Location C proposed a new, stand-alone building on the north side of the NWQ, between the Building G (parking garage) and the Building F (College of Nursing, now Honors House). The outdoor play area would be located to the south of the new building. Entry and drop-off to the building would be off of Newport Avenue.

Location C would provide a new facility for the Children's Center. As a stand-alone building, all entry would be secured. Drop-off would most likely occur on Newport Avenue, but could also be brought into the site. In either case, the entry would not be dedicated to the Children's Center and would have to accommodate other vehicular traffic. Due to the size of the new building, play areas would be smaller than in Option B. Also, the location of the new building would immediately displace a surface parking lot.

Of the three options at the NWQ, Option B best met the needs of both the Children's Center and the University. While all of the options are viable, Option B's ability to

provide a dedicated drop off and the most outdoor play space made it the most suitable location at the Northwest Quadrant. Rooms located in the Building D will need to have windows added to the existing brick facade to meet code requirements. A dedicated internal elevator will provide secured access to the upper level of the Center. This test fit was the basis for proceeding with the Pre-Design and Program Statement for the Children's Center (July 2011).

9 EVALUATION

9.1 Significant Effects to the Environment

As a result of this action, is it likely that other events or actions will happen which may significantly affect the environment? If so, list and discuss. (Secondary effects)

The introduction of the Children's Center to the NWQ complex will potentially lead to an increase in traffic during peak drop-off and pick-up times. Depending upon the finalized traffic pattern development, traffic may increase along neighborhood streets, most specifically E. Newport Avenue during these times.

Additionally, the bus and children pick up and drop off will relocate air impacts from the existing location at the Kunkle Building to the drop off location near the project site. This may adversely impact to a minor degree air quality at nearby receptors but would be concentrated in short-term durations at higher volume morning and afternoon periods.

9.2 New Environmental Effects

Does the action alter the environment so a new physical, biological, or socioeconomic environment would exist? (New environmental effect)

The development of two outdoor play areas will increase the natural environments around the complex and introduce the sounds of children at play to the environment. Additionally, the inclusion of stormwater management features within the landscaping will provide the infrastructure required to manage stormwater for the whole NWQ complex as redevelopment continues.

The development of this project also provides the ability for the Children's Center to expand enrollment in the future. This creates additional social and economic opportunities for employment, enrollment and for UW-M educational programs to take advantage of.

9.3 Geographically Scarce Resources

Are the existing environmental features that would be affected by the proposed action, scarce, either locally or statewide? If so, list and describe. (Geographically scarce)

No. Environmental features may change to a degree, but proposed on-going use and environment is similar to what currently exists at the site. The project area does not contain any geographically scarce resources or features.

9.4 Precedent Setting from Action

Does the action and its effects require a decision, which would result in influencing future decisions? Describe. Is the decision precedent setting?

The decision to locate the Children's Center within Building C and Building D buildings will have an impact on future redevelopment of the remainder of the NWQ buildings moving forward. The presence of children around the facility will impact future construction activities due to safety concerns. Eventually the additional upper stories of the former hospital will be developed and the infrastructure and upgrades to the building in first floor common areas such as lobbies, stairwells and elevators will contribute to likelihood of future construction activities as the building is renovated to support the 2010 UW-M Master Plan and developing the NWQ concept.

9.5 Highly Controversial Issues

Discuss and describe concerns which indicate a serious controversy? (Highly controversial)

Concerns indicative of serious controversy were not identified during the course of this Environmental Assessment. Comments from neighborhood meetings indicated the following as issues that were important to be resolved in the design or construction phases:

- Safety of children during drop-off and pick-up
- Limit traffic along E. Newport Avenue
- Limit noise and light trespass through the use of lighting design and landscaping
- Availability of parking throughout NWQ
- Construction access should be limited to E. Hartford Avenue and not E. Newport Avenue

9.6 Consistency with Long-Term Plans and Policies

Does the action conflict with official agency plans or with any local, state or national policy, if so, how? (Is the action inconsistent with long-range plans or policies?)

This action does not appear to conflict with official agency plans or any local, state, or national policy. The project is consistent with the UW-Milwaukee Campus Master Plan.

9.7 Cumulative Impacts

While the action itself may be limited in scope, would repeated actions of this type result in major or significant impacts to the environment? (Cumulative impacts)

Cumulative impacts could include combined construction impacts from other nearby projects such as the utility connection project, parking deck repairs and the Greenhouse project, as well as the larger Kenwood IRC development. These combined impacts from construction could include construction traffic, dust, noise and construction worker traffic.

Additionally, the NWQ campus is at the beginning of several years of construction and updates to the buildings. Continual work in one area of campus has the potential to cause long-term impacts to neighbors such as noise from construction vehicles and dust and vibration from demolition work. Since the majority of the work throughout this complex will be internal rather than external impacts are not expected to be inordinate.

This project does provide for increased enrollment in the future. Therefore, it will contribute to future increases in traffic for pick-up and drop-off; social and economic impacts from increased opportunities for employment, enrollment and education; and potential noise increases both in volume and duration in exterior areas from increased children during outdoor activities, depending on the programming of these events.

9.8 Historical, Scientific, Archaeological Impacts

Will the action modify or destroy any historical, scientific, or archaeological site?

No historical, scientific or archaeological sites will be destroyed or modified within this project.

9.9 Future Impacts

Is the action irreversible? Will it commit a resource for the foreseeable future? (Does it foreclose future options?)

The proposed action is irreversible in the sense that it would take considerable construction and financial effort to undo or demolish the main aspects of proposed project construction. Construction of the project components limits extensively what can be constructed on the site in the future. However, as seen through this project itself, there are options to beneficially reuse existing buildings.

9.10 Ethnic or Cultural Impacts

Will action result in direct or indirect impacts on ethnic or cultural groups or alter social patterns?

The project should not result in any direct or indirect impacts on ethnic or cultural groups. Social patterns altered will be primarily related to students, faculty and alumni to make use of the Children's Center. The impacts are not relegated to a specific ethnicity or cultural group and are felt across all social, economic and cultural classes. However, the *UWM Fact, 2011*, did note that the 2011 freshman class was the most diverse student profile in the university's history with 23% of students representing minorities. With 50% of the families enrolled at the Children's Center being UWM students, and the Children's Center initiative that their enrollment reflect that of the campus, this would suggest that the number of minority students within the Children's Center would rise, too. Of the families enrolled at the Children's Center, 20% are considered low-income and / or minorities by the State of Wisconsin. The CCAMPIS Program has provided grants in the past in support of these families. Children's Center staff believes this grant will continue into the future. Additionally, the CWSP provides funds for part-time employment to help needy students finance the costs of college.

9.11 Other

No other impacts are anticipated.

APPENDIX A

FIGURES

APPENDIX B

SCOPING LETTER AND MAILING LIST

APPENDIX C

RESPONSE LETTERS

APPENDIX D

REFERENCES

APPENDIX E

SITE PHOTOGRAPHS

APPENDIX F

LEED WORKSHEET

APPENDIX G
CUMULATIVE PROJECT SCHEDULE