

Draft Environmental Impact Statement

**Meat Science Laboratory
University of Wisconsin-Madison
DFD Project Number 13I2Y**



Prepared for:

**Wisconsin Department of Administration
Division of Facilities Development**

November 2015

UW-Madison Meat Science Laboratory Draft Environmental Impact Statement

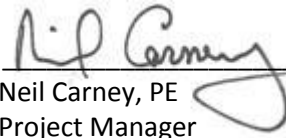
**University of Wisconsin - Madison
DFD Project Number 13I2Y**

This report prepared by:



Mitchell C. Banach
Environmental Scientist

This report reviewed by:



Neil Carney, PE
Project Manager



5201 E. Terrace Drive, Suite 200
Madison, WI 53718
608.443.1200 • Fax: 608.299.2184
www.AyresAssociates.com

Contents

	<u>Page No.</u>
Acronyms and Abbreviations	v
Abstract.....	viii
EIS Schedule	x
List of Preparers and Contributors.....	xi
Summary	xii
Project Description	xii
Potential Impacts.....	xiii
Physical and Biological Environment.....	xiii
Social and Cultural Environment	xv
Economic Environment	xvi
Transportation and Parking.....	xvii
Utilities.....	xviii
Historical/Archaeological	xviii
Alternatives Considered	xviii
No Action Alternative	xix
Renovation/Expansion of the existing Meat Science and Muscle Biology Lab Building	xix
EIS Process	xix
Scoping Meeting.....	xix
Draft EIS Comment Period.....	xx
Final EIS Comment Period	xx
Record of Decision.....	xx
List of Agencies, Groups, and Individuals Contacted Regarding this Project	xxi
I. Description of Proposed Action.....	1
Project Location	1
Project Description and Space Utilization	1
Project Budget and Schedule.....	2
History, Background, Purpose, and Need.....	4
History and Background	4
Purpose and Need for Proposed Action	4
Engineering Design and Type of Materials	5
Structural	6
Interior.....	7

	<u>Page No.</u>
Mechanical and Special Systems	8
Utilities.....	8
Permits and Approvals Required	10
Division of Facilities Development Sustainable Facilities Standards	10
II. Description of Existing Environment	11
Physical and Chemical Environment.....	11
Climate.....	11
Air Quality	11
Geology and Subsurface Conditions.....	12
Topography and Soils	12
Water Resources	12
Environmental Contamination	15
Noise.....	17
Biological Environment.....	17
Vegetation	17
Fish and Wildlife	18
Threatened and Endangered Resources	18
Social and Cultural Environment	18
City Zoning.....	18
Parks and Recreation.....	18
Existing and Future Land Use	19
Surrounding Neighborhood.....	19
City Population	20
UW-Madison Student Population and Profile	20
Housing.....	20
Historical/Archaeological Environment.....	20
Economic Environment.....	21
Employment	21
Income	21
UW-Madison Effect on Local Economy	21
Parking and Transportation.....	22
Public, Private and Campus Utilities.....	23
III. Probable Adverse and Beneficial Impacts of the Proposed Action on the Environment.....	25

	<u>Page No.</u>
Physical Environment	25
Climate and Air Quality.....	25
Energy.....	26
Sustainability	26
Surface and Subsurface Conditions.....	27
Water Resources	27
Flood Hazards	27
Noise.....	28
Lighting	28
Environmental and Chemical Hazards.....	29
Biological Environment.....	29
Social and Cultural Environment	30
Recreation and Green Space	30
Cultural Environment	30
Education and Research	30
Housing.....	31
Neighborhood Compatibility and Site Aesthetics	31
Historical/Archaeological Environment.....	31
Economic Environment	31
Parking and Transportation	32
Utilities.....	33
Cumulative Impacts	34
IV. Probable Unavoidable Adverse Environmental Impacts.....	36
V. Relationship between Short-Term Uses of the Environment and the Maintenance and Enhancement of the Long-Term Productivity	38
VI. Irreversible or Irretrievable Commitment of Resources	39
VII. Alternatives	40
No Action Alternative	40
Renovation/Expansion of the existing Meat Science and Muscle Biology Lab Building	40
Construction of a New Meat Science Laboratory (selected option)	40
VIII. References.....	41

List of Appendices

Appendix A - Site Location Map, Aerial Photo, Campus Map, and Site Photos

Appendix B - DFD Sustainable Facilities Standards Checklist, and LEED Checklist

Appendix C - Historical Properties Review Submittal

Appendix D - Scoping Letter and Public Notice

Appendix E - Scoping Meeting Minutes and Responses

Appendix F - Draft EIS Public Notice and Distribution List

Appendix G - Draft EIS Public Meeting Minutes and Responses (Reserved)

Appendix H - Site Plan, Floor Plans, and Exterior Elevations

Appendix I - Environmental Database Search Data

Appendix J - Voluntary Expedited Endangered Resources (VEER) Review Request

Appendix K - Additional Project Information

Acronyms and Abbreviations

AIA	American Institute of Architects
AP	Accredited Professional
ASF	assigned square feet
ASLA	American Society of Landscape Architects
ASM	Associated Students of Madison
AST	Aboveground Storage Tank
BRRTS	Bureau of Remediation and Redevelopment Tracking System
BSL-2	Biosafety Level 2
DATCP	Department of Agriculture, Trade and Consumer Protection
DEIS	Draft Environmental Impact Statement
DFD	Division of Facilities Development
DOA	Department of Administration
E	east
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
F	Fahrenheit
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FP&M	Facilities, Planning, and Management
gpm	gallons per minute
GSF	gross square feet
HERCP	horizontal elliptical reinforced concrete pipe
HVAC	high-voltage alternating current
HW	hazardous waste
ID	identifier
IECC	International Energy Conservation Code
Inc.	Incorporation
LED	Light Emitting Diode
LEED	Leadership in Energy and Environmental Design
LLC	Limited Liability Company
LUST	Leaking Underground Storage Tank
MERV	Minimum Efficiency Reporting Value

msl	mean sea level
MVA	million-volt-amperes
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
NE	northeast
NRCS	Natural Resources Conservation Services
NW	northwest
OSHA	Occupational Safety and Health Administration
OTIE	Oneida Total Integrated Enterprises
PAHs	polycyclic aromatic hydrocarbons
PE	Professional Engineer
PMS	Payments for Municipal Services
psig	pounds per square inch gauge
PTO	permit to operate
RCRA	Resource Conservation and Recovery Act of 1976
RH	relative humidity
ROD	Record of Decision
S	south
SE	southeast
SHPO	State Historic Preservation Office
SHWIMS	solid and hazardous waste information system
SOTW	solid and hazardous waste information system on the web
TSS	Total Suspended Solids
USACE	United States Army Corps of Engineers
USGS	United States Geologic Survey
USPS	United States Postal Service
UST	Underground Storage Tank
UW	University of Wisconsin
UW-Madison	University of Wisconsin-Madison
UWSA	University of Wisconsin System Administration
VOCs	volatile organic compounds
VEER	Voluntary Expedited Endangered Resources Review
WALMS	Wisconsin Asbestos and Lead Abatement Management System
WARF	Wisconsin Alumni Research Foundation
WDNR	Wisconsin Department of Natural Resources

WDOA	Wisconsin Department of Administration
WEPA	Wisconsin Environmental Policy Act
WHI	Wisconsin Architecture and History Inventory
WRAPP	Wisconsin Resources Application for Project Permits

**MEAT SCIENCE LABORATORY
DRAFT ENVIRONMENTAL IMPACT STATEMENT
UNIVERSITY OF WISCONSIN-MADISON
STATE PROJECT NO. 1312Y**

Sponsored by the Wisconsin Department of Administration (DOA), Division of Facilities Development (DFD), UW System Administration (UWSA), and the University of Wisconsin – Madison (UW-Madison).

For further information about this document, contact:

Russ Van Gilder, Project Manager
Department of Administration
Division of Facilities Development
101 E. Wilson Street, PO Box 7866
Madison, WI 53707

Abstract

A project is proposed on the University of Wisconsin-Madison (UW-Madison) campus which will construct a new Meat Science Laboratory between Observatory and Linden Drives on the University of Wisconsin – Madison campus. The new building will contain research laboratories, classrooms, teaching laboratories and specialized animal and meat processing spaces, including an abattoir, carcass chilling and cooling facilities and a meat processing area. The project also includes demolition of the existing Seeds Building at 1930 Linden Drive, to clear the site for the new Meat Science Lab.

The Meat Science program has evolved into pre-eminence at UW – Madison through the engagement of outstanding faculty and research. However, the existing Meat Science and Muscle Biology building was built in several phases, has undersized spaces for current instructional and research functions, does not exhibit the highest industry standards, lacks necessary infrastructure and, generally, is not the model for teaching, research and commercial facilities envisioned by the department.

The mission of the program is to (1) train the next generation of meat industry leaders with cutting edge insightfulness and technologies, (2) support innovative research interests through interdisciplinary collaborative efforts and (3) provide outreach education to promote the production of wholesome meat products for the consuming public and the economic development of the meat industry.

The project will create a 2-story 67,540 gross square foot, state-of-the-art facility for teaching, research and industry outreach. Training capabilities will be enhanced by the new facility. In addition to more traditional teaching spaces, demonstration labs with companion refrigerated demonstration labs will be separated by glass and enable the instructor to interact with students through advanced audio-visual systems. Meat industry professionals will use the facility to provide education on meat processing and food safety. In addition to training meat industry representatives and State inspectors, outreach programs will engage youth and consumer programs.

The project will be designed as a sustainable and energy efficient facility following DFD sustainability requirements and will be designed to achieve a minimum of LEED® Silver Certification, while striving for a Gold rating. Cost of the project is estimated at \$42,877,000 and will be funded using \$22,877,000 as General Fund Supported Borrowing (state tax dollars) and \$20,000,000 as private gift funding. Design of

the project is expected to conclude in the spring of 2016. Construction is targeted to start in August 2016 with building occupancy planned for July 2018.

Ayres Associates was retained on behalf of the University of Wisconsin System Administration (UWSA) to prepare an Environmental Impact Statement (EIS) for the project. The EIS is to be prepared in accordance with the Wisconsin Environmental Policy Act (WEPA), Wisconsin Statutes 1.11, and UWSA guidelines. The project manager is the state Department of Administration's DFD. As part of the EIS process, a scoping meeting for the project was held October 19, 2015, on the UW-Madison Campus. The Draft EIS was made available on November 19, 2015, for an expedited 20-day public review period, and a Draft EIS public meeting will be held on December 9, 2015, at 7:00 PM CDT in Conference Room 132 of the Wisconsin Alumni Research Foundation (WARF) Building on the UW-Madison campus. The Draft EIS has been made available for review at the UW-Madison Helen C. White Library and the Central Madison Public Library and online at:

<http://www.ayresprojectinfo.com/UWMadison-MeatScienceLab-EIS>

Please send any comments to:

Neil Carney, PE
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718

Draft EIS public meeting minutes and comments received during the public comment period will be included in the Final EIS document. Appendix G in this report is reserved for public comment information.

Following the Draft EIS public comment period, comments will be reviewed by the design team and a Final EIS will be prepared to evaluate the environmental impact of the project and the amendments made to the project since completion of the Draft EIS. The Final EIS document is anticipated to be released in mid-January 2016 with a Final EIS public hearing to be held 30-days after release of the Final EIS document. Comments received during the Final EIS public hearing and comment period will then be evaluated and used to develop a Record of Decision (ROD). The UWSA will provide a conclusion on the findings of the Final EIS and circulate the ROD to key individuals and agencies involved in the EIS process. It is anticipated that the ROD will be issued in March 2016.

EIS Schedule

**UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y**

Event/Task	Target Completion Date
<i>Scoping Phase</i>	
Mail invitations to Scoping Meeting	October 5, 2015
Public notice publication date (scoping)	October 5, 2015
Public Scoping Meeting	October 19, 2015
<i>Draft EIS Phase</i>	
Public notice publication date (Draft EIS)	November 19, 2015
UW-Madison last day of fall semester classes	December 15, 2015
Release Draft EIS (start of 20-day comment period)**	November 19, 2015
Draft EIS public meeting	December 9, 2015
Complete 20-day comment period (Draft EIS)	December 9, 2015
Board of Regents Review and Approval	December 10-11, 2015
<i>Final EIS Phase</i>	
UW-Madison spring semester classes begin	January 19, 2016
Public notice publication date (Final EIS)	January 19, 2016
Release Final EIS (start of 30-day comment period)	January 19, 2016
Final EIS public hearing/end of 30-day comment period	February 18, 2016
Record of Decision Phase	March 2016

**Expedited 20-day public review period for DEIS was approved by DFD, UWSA, and UW-Madison during the EIS Kick-off Meeting.

List of Preparers and Contributors

PREPARERS

Mitchell C. Banach
Environmental Scientist
Ayres Associates
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

Ben Peotter, PE
Environmental Engineer
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718

Neil Carney, PE
Project Manager
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718

REVIEWERS

Russ Van Gilder, Project Manager
Department of Administration
Division of Facilities Development
101 E. Wilson Street
Madison, WI 53702

Jeff Kosloske
Senior Architect
UW System Administration
780 Regent Street, Suite 239
Madison, WI 53715-2635

CONTRIBUTORS

Gary Brown, PLA, FASLA
Director, Campus Planning & Landscape Architecture
University of Wisconsin – Madison
610 Walnut Street, Suite 919
Madison, WI 53726

Alex Roe
Associate VP for Capital Planning and Budget
UW System Administration
780 Regent Street, Suite 239
Madison, WI 53715-2635

Michael Gordon, AIA, LEED AP
Project Architect
Potter Lawson
749 University Row #300
Madison, WI 53705

Summary

The University of Wisconsin System is proposing to construct a new Meat Science Laboratory to support the current programmatic needs of UW-Madison's Meat Science program. The University of Wisconsin System Administration (UWSA), determined that this is a new construction project requiring preparation of an Environmental Impact Statement (EIS) to comply with the Wisconsin Environmental Policy Act (Wis. Stats. 1.11) and UW System guidelines adopted from Regent Resolution 2508, November 6, 1981 and Regent Resolution 8015, October 8, 1999. The Wisconsin Department of Administration (DOA) Division of Facilities Development (DFD) retained Ayres Associates in September 2015 to prepare the EIS for the proposed action.

Project Description

The project site is bounded by Observatory Drive on the north, Linden Drive on the south, the existing UW surface parking lot #62 on the west, and to the east, the existing Poultry Research Laboratory and the Army ROTC facility at 1910 Linden Drive. The existing Seeds facility at 1930 Linden Drive will be removed and the program is being relocated in another existing UW-Madison owned facility remodeled for their needs. The existing UW surface parking lot #43 will also be removed with replacement parking in a new future parking structure planned for west of the project site on the eastern half of surface parking lot #62.

The project will create a 2-story, 67,540 gross square foot (GSF), 37,308 assignable square foot (ASF), state-of-the-art facility for teaching, research, and industry outreach. Training capabilities will be enhanced by the new facility. In addition to more traditional teaching spaces, demonstration labs with companion refrigerated demonstration labs will be separated by glass and enable the instructor to interact with students through advanced audio-visual systems. Meat industry professionals will use the facility to provide education on meat processing and food safety. In addition to training meat industry representatives and State inspectors, outreach programs will engage youth and consumer programs.

The new building will have the equipment to enable staff and students to raise, lower, and transport animal carcass portions through all the stages of meat processing. It will facilitate the humane movement of animals and avoid risks to the staff and students during the transport. Instructional labs will allow students to work side-by-side with researchers. The meat processing areas will be designed to meet USDA meat and poultry inspection requirements and provide a setting for the training of inspectors for the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP).

New research capabilities will be supported with a cutting edge facility. The research lab suite will have biochemistry, general research and molecular biology labs, and support rooms such as walk-in coolers and freezers and an instrument lab. In addition, there will be sensory booths to test meat preparation results on volunteers. Pilot labs will allow meat product companies to develop new processes and products using state of the art equipment in small and cost-effective batches.

A completely isolated Biosafety Level 2 (BSL-2) lab will provide opportunities to engage meat companies to test methods for the elimination of pathogens under commercial conditions. Equipment companies can intentionally contaminate equipment and test sanitation methods. In addition, UW researches can conduct advanced food investigation.

The Meat Science program serves to teach and conduct research in the evolving subject of meat science, food safety and the humane treatment of agricultural animals, as well as economic aspects of the meat

industry as the supplier of meat for human consumption. Discovery from research is expected to lead to new markets and new higher levels of economic value for agricultural animals. Currently, the primary economic value of agricultural animals raised for the food supply lies in the edible meat, but with evolving research and discovery, the future value may lie in cellular/molecular level non-edible parts of the animal.

The new facility will be used by students, faculty, researchers, and industry collaborators involved in these endeavors. Meat Science Program outreach activities engage others across the state such as 4-H groups. The Meat Science staff has developed a strong relationship with the prepared meat industry. The meat industry advises on the program, requests research, and utilizes the resources as a test environment for new products and equipment. The proposed BSL-2 laboratory will add another dimension to this relationship.

A campus map indicating project location is included in Appendix A.

Potential Impacts

Physical and Biological Environment

The proposed Meat Science Laboratory will not have a significant adverse impact on air quality beyond the short-term emissions from demolition and construction activities and equipment. Ventilation procedures are incorporated into the design, including proper filtration and management of any air handling from laboratory areas to comply with air quality standards from this facility.

The Meat Science Laboratory will be connected to the existing University and City utilities along Observatory Drive and Linden Drive. Although the new facility will result in an increase in utility consumption at the project site, the energy loads will not adversely impact the capacity of the existing utility systems. The design for the Meat Science Laboratory incorporates sustainable design principles that are sensible and feasible, especially those with an emphasis on energy efficiency. DFD Sustainable Facilities Standards have been incorporated into the design where possible. The ultimate goal is to meet the requirement of Wisconsin Executive Order 63, which states that new State buildings are to be designed to use 10 percent less energy than commercial code (2009 International Energy Conservation Code). The project as designed meets LEED certified levels with potential increase if budget allows (See Appendix B for Sustainable Facilities Standards Checklist and LEED/DFD Sustainable Guidelines from 35% Design Report).

The proposed action will have no major impact on site soils beyond possible erosion of exposed soils during construction. Some grading and excavation of soils will need to occur to accommodate minor grade changes associated with the new site development. A construction site erosion control plan will be prepared to mitigate potential erosion effects during construction.

The existing impervious area within the project limits is approximately 47,000 square feet, with nearly the entire site as impervious area with surface lot #43, driveways, and the Seed Building occupying the site. The impervious area of the proposed project is currently estimated at 48,000 square feet. Changes in impervious area along Linden Drive are associated with a new primary entrance, sidewalks, and walkways where currently this is unused turf grass on the south side of the Seed Building. UW Madison requires that erosion control and stormwater management follow the UW-Madison Erosion Control and Stormwater Management Guidelines, which are based on requirements by the City of Madison. These include compliance with WDNR requirements, along with using the City of Madison Ordinance Chapter 37 as guideline for stormwater management design, and limiting runoff from newly developed or

redeveloped projects to no greater than that occurred under native conditions. Other requirements include WNDR NR 151 runoff management that notes post-construction runoff limits for total suspended solids (TSS) of 40% removal for redevelopment sites and 80% removal for in-fill development that occurs after October 1, 2012. Despite the classification as a redevelopment, UW-Madison is expected to meet the 80% TSS removal goal, which this project does with the installation of a proposed on-site underground stormwater vault located at the southeast portion of the site.

There will be short-term noise impacts during the construction period. There may be some localized long-term noise increase from changes in delivery vehicle traffic patterns and new ventilation system changes to the project site; however, this increase should be consistent with current noise levels of a University setting, current traffic patterns and the adjacent Linden Drive and Observatory Drive which are both heavily traveled by vehicular traffic. The site design comply with UW Design Guide and UW Technical Guidelines which set forth principals approved in the Campus Master Plan that emphasize pedestrian connections and vehicular circulation within the campus.

Lighting at the project site will be changed due to site use, going from parking with light poles to site lighting from interior lit features that are visible through windows. This light perspective would be more visible compared to current light levels; however, outdoor lighting will be designed to minimize light pollution. Exterior light fixtures will be provided with full cutoff and additional shielding to minimize light trespass to adjacent areas. As per the Campus Master Plan, these “cutoff” fixtures direct light only to needed areas while reducing light pollution and spillover to other areas. Cutoff and motion-detection fixtures will also be used in other locations where feasible. LED lights and occupancy sensors are being integrated into indoor areas of the building.

Based on the environmental database search, there are no known historical recognized environmental concerns or potential environmental concerns associated with this project. The Seed Building which currently occupies the project site is not considered an historic property nor is it in an historic district.

This project will result in an overall decrease of approximately 1,000 square feet in green space compared to current conditions. This greenspace consists primarily of turf grass and planters in parking lot islands on the site. Despite the loss of vegetation square footage, the post development greenspace and landscaping will be well thought out and integrate into the pedestrian and vehicular traffic patterns of the building, softening exterior walls through the use of trees and bushes and providing integrated landscaping into walkways and outdoor seating areas.

There will be a short-term impact on flora and fauna in the area when construction begins including removal of approximately eight existing trees within the project limits. These include five trees in surface lot #43 and three adjacent to the new building. Six existing trees will remain, including a 30” diameter and 36” diameter tree along the northwest corner of the new building. The loss of trees and other flora within the project site boundaries will be mitigated with new plantings after project completion.

Short-term impacts to fauna may include temporary displacement of local birds and small mammals that may reside in few trees at the project site. The tentative project start date is August 2016. A portion of the original habitat will be restored to these urban dwellers upon replanting of the project site. The threatened, endangered, and special concern species identified by the WDNR during the Natural Heritage Inventory review are not anticipated within areas directly or indirectly impacted by the project.

Social and Cultural Environment

A small amount of green space will be lost as a result of this project. Three vegetated parking lot islands and the grassed area along the southern edge of the site will be removed at the start of project construction. The preliminary landscape plan for the project includes deciduous shade trees, ornamental trees, and shrub/groundcover planting beds. The total area of green space will be decreased by approximately 1,000 square feet following completion of project. A new subsurface stormwater management device will be installed to address reduction in peak discharge from the site. Several green space amenities will be added to the site that will positively impact the social environment, including benches, bike racks, trash receptacles, concrete walkways, and paved patio areas.

Students, faculty, staff, and visitors of the Meat Science Laboratory will benefit from the new laboratory space, lecture hall, demonstration facility and research space. This will provide state-of-the-art facility for teaching, research and industry outreach. Training capabilities will be enhanced by the new facility and provide long-term benefits offered by the project. The new facility that meets current building, HVAC, food, and refrigeration codes will allow UW-Madison to continue to attract and maintain high quality faculty, staff, and students in this field. New building features and teaching labs will allow for more industry outreach and teaching opportunities, providing positive impacts as a result. Additionally, an increase in pedestrian and visitor traffic is anticipated with the proposed Bucky's Butchery and addition of tours of the facility.

An important component of the building development is the BSL-2 process and lab area. This portion of the building is completely separated from the rest of the building, with separate access, egress, and mechanical systems. It is designed to serve as a pilot processing area to conduct research involving all emerging science related meat and food safety procedures that would not be allowed in a USDA inspected space. The type of research conducted here could have significant social and economic benefits due to the pilot research that typically cannot be conducted at laboratory facilities, leading to breakthroughs in meat and food handling processes or procedures.

While part of the current Meat Science and Muscle Biology Lab building, a new component to the site is live animal delivery as part of the meat processing procedures conducted at the site. These deliveries are discussed further in the Transportation and Parking section, but animals will be brought into the building through the use of delivery livestock vehicles and off-loaded at select delivery bays along the building exterior. A majority of the space on the ground floor is dedicated to the harvest process of live animals and poultry, and processing these into consumable meat products in a teaching setting. Harvest by-products will be managed and handled in accordance with USDA procedures, and removed via separate delivery entrance to appropriate rendering or disposal facilities off-site.

Temporary adverse social impacts are primarily due to demolition, construction noise and vibrations, and short-term rerouting of pedestrian traffic. These impacts should be short-term, minor nuisances to students, faculty, and workers in the area. Increases in noise levels are required to comply with campus noise standards along with requirements comparing post-development with predevelopment conditions. Academic receptors of noise are located adjacent to the project site, but the nearest residential receptors are located south of Campus Drive along University Avenue, which shouldn't have any impact compared to predevelopment HVAC noise conditions. There are several noise-reducing features incorporated into the proposed building design, including ceiling insulation and variable-speed fans and electronically commutated motors (ECM) for refrigeration equipment. The backup generator to be installed will be an additional source of noise; however, the generator will only be run during brief routine tests and during power outages so associated noise impacts will be short-term. Systems such as

HVAC will be installed with silencers or other noise canceling devices to mitigate any noise release, and will comply with campus and City of Madison noise standards.

The new facility will be consistent with campus architectural standards and other campus master planning efforts. The architectural appearance is designed to fit into the agriculture neighborhood of the campus, and will present an image suitable for leading a meat science program. The Meat Science Laboratory will be bounded by other university buildings to the north (the Natatorium), east (Poultry Research Laboratory, 1910 Linden Drive), south (U.S. Dairy Forage Research Center and Veterinary Medicine), and surface parking lot (Lot #62) to the west. The project site is currently comprised of surface parking lot #43 and the Seed Building. Construction of the Meat Science Laboratory will improve the aesthetics of this area, and thus the campus as a whole, through appropriate landscape design and architectural appeal.

Secondary effects of the project implementation include the demolition of the Seed Building, and the subsequent relocation of the Seeds Program into the expanded space in the existing Meat Science Building. The existing Seeds Processing and Storage Laboratory supports millions of dollars in federal funding each year from USDA, Department of Energy, and National Science Foundation among others. The current condition of the Seed Building is suboptimal for many reasons such as its age, infrastructure, security, and inherent health and safety issues. Additionally, the cold room for seed storage is very inefficient and prone to break downs, resulting in long-life seeds losing viability significantly faster than is typical which results in lost research time and funding. Once completed, the infrastructure within the Meat Science Laboratory will support the functional needs of the College of Agriculture and Life Science (CALS) program. Additionally, along with the Babcock Dairy renovation, this building will be one of the first to result in improved appearance in this dated area of campus, likely helping to facilitate further redevelopment and advancement.

Economic Environment

The project is not expected to create new staff positions to support the Meat Science Laboratory after completion. During the short-term, there will be an increase in employment and expenditures (materials, fuels, lodging, meals, etc.) associated with the construction of the project. A study by C3 Statistical Solutions, Inc. published in January 2011 indicates that every \$10 million in spending on new nonresidential construction projects in the State of Wisconsin creates 170 jobs - 91 project specific construction jobs plus 24 service sector jobs. Additionally, another 55 jobs will emerge as a result of the subsequent spending associated with the induced effects of the project. Accordingly, implementation of this project could generate up to 761 project related jobs at the \$44.8 million budget. There will also be a positive short-term impact to the local retail community resulting from purchase of food, lodging, fuel, equipment, and supplies during the construction phase. A study on the economic effects of new nonresidential construction projects by C3 Statistical Solutions suggests that the economic multiplier of initial construction cost spending is approximately 1.92. Thus, this proposed \$44.9 million construction project can be expected to contribute up to \$86.2 million to the local, regional, and national economy in the short-term.

The addition of a public meat sale location and observation area, along with outreach on the availability of the product, will positively impact revenue for the facility. While the existing Meat Science building makes the butcher products available, the space isn't conducive to larger volume of public sale. With the development of a new glass viewing area and retail shop, the economic impacts of Bucky's Butchery is expected to increase due to additional outreach on this public commodity along with added retail hours compared to existing building operations.

The proposed action will require a commitment of \$42.88 million for the Meat Science Laboratory project. The project is being funded with \$22.9 million in GFSB funds and \$20 million in gift funds. An increase in University annual operating costs is anticipated due to the project since it will increase the site area, building size, and mechanical utilities that will require operation and maintenance. Preliminary annual energy costs are estimated at \$198,216 using campus chilled water and steam according to the KJWW Energy Modeling and Life Cycle Cost Study, with an additional \$99,877 per year for the laboratory refrigeration systems. The estimated increase in annual custodial and maintenance costs is \$179,300. The increase in annual energy costs may be partially offset by the demolition of the existing Seed Building.

The Wisconsin DOA provides annual payments to local municipalities under the Payments for Municipal Services (PMS) program. In addition to paying established user fees for water, sewer, electricity, and solid waste collection/disposal, the DOA makes an annual payment to compensate for police, fire and solid waste handling services. The payment is based on a prorated portion of the state building and land value compared to the total building and land value (including state property) in the municipality. UW-Madison contributed approximately \$7,131,241 to the City of Madison in 2013 (new data unavailable at time of this writing). As a result of the project, this amount will increase based on the value of the new building.

Transportation and Parking

Currently, the UW-Madison campus has 18 parking garages, 83 parking lots, and 10 UW-Arboretum lots. The northern one-third of the project site is occupied by one of these on-campus parking lots, surface parking lot #43, which accommodates 58 parking stalls for UW-Madison as 8-hour meters and reserved stalls for baselot permit holders. This total net loss of 58 parking spaces represents a very small portion of the approximately 13,000 available campus parking spaces and should not have a significant impact on the availability of parking spaces on campus. Due to the short term nature of the parking from the meters, they are key parking spaces for visitors and will need to be replaced in the same general vicinity to mitigate the loss of parking per campus Transportation Department staff. This loss of campus parking spaces will result in a loss of revenue for UW Parking Services.

Traffic patterns will have some short-term impacts as a result of the project. There is likely to be temporary slowdowns or increased vehicular congestion resulting from contractor vehicle and machinery movement at the project site during construction. In the long-term, traffic patterns will remain as they currently exist along Linden Drive and Observatory Drive, with some minor reductions due to the removal of surface lot #43. Long-term impacts include increased traffic at the proposed project location due to delivery vehicles entering and leaving the site. Access to surface lot #62 will be impacted with the removal of the access point from the west side of the project site (east side of Lot #62).

Delivery access will remain in place post-development along the driveway along the east side of the site. The current driveway along the west side of the Seed Building will be removed and replaced with walkways and landscaped features. The delivery system includes live animal transfers, supply delivery, waste removal, and processed food removal. The existing Meat Science building currently does not have separate intake and export loading docks, which allows potential intermingling of deliveries and outgoing waste. As part of the design of the new building, delivery access is now segregated to provide direct routing to various intake and waste streams to prevent any cross contamination or intermingling of materials. Additionally, the BSL-2 has a completely separate access and egress due to the nature of laboratory work conducted at that location.

The project will support alternative transportation through the installation of 11 bicycle stalls and through its proximity to the city bus line. Additional bike storage is available across the street at the Natatorium. City bus routes through campus use both Observatory Drive and Linden Drive, and will remain unchanged by this project. This is important due to the strong working relationship between Madison Metro and UW-Madison, and the \$1.7 million value placed on contracts to operate the UW routes.

During construction, there will be impacts to pedestrians caused by construction vehicles and perimeter fencing. The volume of pedestrian traffic on Observatory Drive will be routed to the north side of Observatory Drive and to the south side of Linden Drive. Appropriate safety fencing and barricades will be provided to secure the entire construction site. As part of the public nature of some of the building amenities such as tours and Bucky's Butchery, the building is anticipated to see an increase in both pedestrian foot traffic and visitor/client vehicular traffic. This would be a direct impact as a result of the project. Visitor parking will be provided in Lot 62 and its future replacement parking structure.

Utilities

The Meat Science Laboratory will be served by existing utilities that will be upgraded and utilized to serve the project site. Both beneficial (long-term) and adverse (short-term) impacts will occur as a result of the utility installation. Installation of new utility lines will result in construction impacts that may impact student, faculty and staff access to the surrounding buildings, campus streets and pedestrian walkways adjacent to the project site. Additionally, interconnection to existing utilities may result in temporary interruption of services. Another potential impact may include the disruption of sidewalks as a result of utility extensions/construction. These disturbances, however, would be short term and any areas disturbed through these activities will be restored upon completion.

Beneficial impacts include improved reliability in the area through upgraded utilities that will be installed as a direct result of this project.

Historical/Archaeological

There are no known historical or archaeological sites on the project site. The Wisconsin Architecture & History Inventory (WHI) Database was accessed on August 20, 2015, to search for properties of interest with addresses on Linden Drive and Observatory Drive. Locally designated historical or archaeological properties were not identified during the database search. A Request for UW System Administration Review and Comment on a University Undertaking was submitted UW System Administration on October 27, 2015. The response received on October 27, 2015, from UWSA indicated concurrence that no historic properties will be affected by the proposed action. Refer to Appendix C for the UWSA Historical review request and response.

Alternatives Considered

New construction, renovation and/or expansion of the existing Meat Science and Muscle Biology Lab building, and a "no action" alternative were considered for the Meat Science Laboratory project. After detailed analysis and consideration, the construction of a new Meat Science Laboratory was determined to be the preferred alternative. The initial alternatives are discussed in the following paragraphs.

No Action Alternative

A no action alternative was determined not to be a viable alternative since it would not address the needs of the university's Meat Science program. This alternative continues to not meet the needs for staff and students within the academic program, and continues to show the deficiencies of the building as it currently resides. Improvements implemented for the building in the mid-2000's were intended to bring the building refrigeration and other systems up to code, and weren't intended to provide long-term upgrades and improvements to the building. As such, in the near future, the building and its systems would require additional investment to stay in compliance with food, building, and operational code and statutes.

Renovation/Expansion of the existing Meat Science and Muscle Biology Lab Building

Renovation and expansion of the existing facilities was determined not to be a viable alternative. Deficiencies of the existing building include small site footprint with no room for expansion, old and dated cooler and lab systems that were installed in the mid-2000's as a temporary solution to state code requirements, a loud and inefficient HVAC system, leaking and poorly insulated building envelope, insufficient room sizes, and poor building layout/design. Most of these deficiencies are intrinsic to the building design and cannot be corrected. Renovation of the facility could be undertaken to eliminate some of the deficiencies would be too costly and time consuming and still wouldn't meet the needs of the program. Ultimately, the space cannot be expanded to provide the amount of space necessary to support the current needs of the Meat Science and Muscle Biology program.

Construction of a New Meat Science Laboratory (Selected Option)

The construction of a new Meat Science Laboratory was determined to be the only feasible option. The project will include the construction of a two-story 67,540 GSF (37,308 ASF) building that will house a meat laboratory, lecture/demonstration suite, teaching and research laboratories, faculty offices and support spaces. Alternative design options were developed and evaluated as part of the process, but were revised and modified due to space, programming, and budgetary considerations.

EIS Process

The UWSA has developed a structured process to address requirements of the 1971 Wisconsin Environmental Policy Act. This process, adopted in Board of Regents resolutions in November 1981 and amended in October 1999, requires that the EIS process include a scoping meeting phase, a 45-day public review of the draft EIS (DEIS)/public meeting phase, and a 30-day final EIS (FEIS) public review/public hearing phase. Following the FEIS phase, the UWSA will issue a Record of Decision (ROD) for the project. This process is being followed in preparing the EIS for the Meat Science Laboratory project. Key phases of the process are described in the following paragraphs.

Scoping Meeting

The purpose of a Scoping Meeting is to present the project proposal and encourage early identification of potential environmental issues associated with a proposed action. The scoping process for this EIS included the following elements:

- Preparing a distribution list that includes groups and individuals with possible interest in the project (the distribution list is in Appendix F). This list includes federal, state, and local agencies

potentially affected by the proposed project and/or responsible for assessing the potential impacts of the project, university representatives, and neighborhood associations.

- Preparing a Scoping Letter describing the proposed project, scoping process, EIS schedule, opportunities for public comment, and soliciting comments for the project scoping. The Scoping Letter and public notice are included in Appendix D.
- Electronic mailing of the Scoping Letter to the parties on the distribution list on October 5, 2015, and publishing a legal notice in the *Wisconsin State Journal* on October 5, 2015.
- Conducting the Scoping Meeting on October 19, 2015, at 5:30 PM CDT in Conference Room 132 of the WARF Building on the UW-Madison campus to describe the EIS process and the project scope, and to obtain public comments. Five individuals from the project team were in attendance, with no public attendees present at the meeting. Minutes of the Scoping Meeting are included in Appendix E.

Draft EIS Comment Period

The Draft EIS was made available on November 19, 2015, for an expedited 20-day public review period. A Draft EIS public meeting will be held on December 9, 2015, in Conference Room 132 of the WARF Building on the UW-Madison campus. A legal notice of the comment period and meeting was published in the *Badger Herald* and in the *Wisconsin State Journal* on November 19, 2015. The Draft EIS was made available for review at the UW-Madison Helen C. White Library, at the Central Branch of the Madison Public Library, and online at:

<http://www.ayresprojectinfo.com/UWMadison-MeatScienceLab-EIS>

Draft EIS public meeting minutes and comments received during the public comment period will be included in the Final EIS document. Appendix G in this report is reserved for public comment information.

Final EIS Comment Period

Following the Draft EIS public comment period, comments will be reviewed by the design team and a Final EIS will be prepared to evaluate the environmental impact of the project and the amendments made to the project since completion of the Draft EIS. The Final EIS document is anticipated to be released in mid-January 2016 with a Final EIS public hearing to be held 30-days after release of the Final EIS document. Comments received during the Final EIS public hearing and comment period will then be evaluated and used to develop a Record of Decision (ROD). The UWSA will provide a conclusion on the findings of the Final EIS and circulate the ROD to key individuals and agencies involved in the EIS process. It is anticipated that the ROD will be issued in March 2016.

Record of Decision

Following the Final EIS comment period, the UWSA will consider comments received and issue a Record of Decision (ROD) for the project. The ROD is anticipated to be issued in March 2016. The ROD will be circulated to key individuals and agencies involved in the EIS process.

List of Agencies, Groups, and Individuals Contacted Regarding this Project

A complete list of individuals or agencies involved in the scoping and DEIS process can be found on the distribution list in Appendix F. A Draft EIS report, in the listed format, was provided to every individual/agency on the distribution list.

I. Description of Proposed Action

Project Location

The project site is located in the Southwest ¼ of the Southwest ¼ of Section 15, Township 7 North, Range 9 East, in the City of Madison, Dane County, Wisconsin, on the University of Wisconsin – Madison (UW-Madison) campus. The project site is bounded by Observatory Drive on the north, Linden Drive on the south, the existing UW surface parking lot #62 on the west and, to the east, the existing Poultry Research Laboratory and the Army ROTC facility at 1910 Linden Drive. The existing Seed Building at 1930 Linden Drive will be demolished. The new Meat Science Laboratory footprint will encompass what is currently the Seed Building and surface parking lot #43. The land area within the project limits is approximately 1.2 acres.

The project site is within the Madison city limits on property owned by the UW Board of Regents. Site location figures, including a U.S. Geological Survey quadrangle map, campus map, and an aerial image are included in Appendix A, Figures 1 to 3, respectively. Site photographs are also included in Appendix A.

Project Description and Space Utilization

The project will create a 2-story, 67,540-gross-square-foot (GSF), state-of-the-art facility for teaching, research and industry outreach. Training capabilities will be enhanced by the new facility. In addition to more traditional teaching spaces, demonstration labs with companion refrigerated demonstration labs will be separated by glass and enable the instructor to interact with students through advanced audio-visual systems. Meat industry professionals will use the facility to provide education on meat processing and food safety. In addition to training meat industry representatives and State inspectors, outreach programs will engage youth and consumer programs.

The new building will have the equipment to enable staff and students to raise, lower and transport animal carcass portions through all the stages of meat processing. It will facilitate the humane movement of animals and avoid risks to the staff and students during the transport. Instructional labs will allow students to work side-by-side with researchers. The meat processing areas will be designed to meet USDA meat and poultry inspection requirements and provide a setting for the training of inspectors for the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP).

New research capabilities will be supported with a cutting edge facility. The research lab suite will have biochemistry, general research and molecular biology labs, and support rooms such as walk-in coolers and freezers and an instrument lab. In addition, there will be sensory booths to test meat preparation results on volunteers. Pilot labs will allow meat product companies to develop new processes and products using state of the art equipment in small and cost-effective batches.

Part of the outreach and economic aspect of the building design will be the integration of a viewing area and butcher shop to be known as Bucky's Butchery. This will allow for additional traffic to the facility, tours, and observation of the butchery process along with an expanded shop/sale area available to the public.

An isolated Biosafety Level 2 (BSL-2) lab will provide opportunities to engage meat companies to test methods for the elimination of pathogens under commercial conditions. Equipment companies can intentionally contaminate equipment and test sanitation methods. In addition, UW researches can conduct advanced food investigation.

The Meat Science program serves to teach and conduct research in the evolving subject of meat science, food safety and the humane treatment of agricultural animals, as well as economic aspects of the meat industry as the supplier of meat for human consumption. Discovery from research is expected to lead to new markets and new higher levels of economic value for agricultural animals. Currently, the primary economic value of agricultural animals raised for the food supply lies in the edible meat, but with evolving research and discovery, the future value may lie in cellular/molecular level non-edible parts of the animal.

The new facility will be used by students, faculty, researchers, and industry collaborators involved in these endeavors. Meat Science Program outreach activities engage others across the state such as 4-H groups. The Meat Science staff has developed a strong relationship with the prepared meat industry. The meat industry advises on the program, requests research, and utilizes the resources as a test environment for new products and equipment. The proposed BSL-2 laboratory will add another dimension to this relationship.

The Meat Science Laboratory will be designed as a high performance building following DFD sustainability requirements and to meet the equivalency of LEED® (Leadership in Energy and Environmental Design) Certified, while striving for Silver. The current predicted LEED® score is 49/110. This score qualifies the building for a LEED® Certified. A score of 50/110 would achieve LEED® Silver level certification.

Preliminary project drawings and renderings for the Meat Science Laboratory are included in Appendix H.

Project Budget and Schedule

The project was enumerated as part of the 2013-2015 Capital Budget process. The budget for the project is estimated at \$42,877,000 and will be funded using \$22,877,000 of general fund supported borrowing (state tax dollars) and \$20,000,000 of private gift funding. Below is the estimated budget breakdown for the project.

Estimated Project Budget Summary

Construction	\$28,958,000
A/E Fees	\$2,409,000
DFD Management Fee	\$1,251,000
Contingency	\$2,317,000
Equipment	\$7,337,000
Other Fees	\$605,000
Estimated Total Project Costs	\$42,877,000

Impact on Annual State Operating Budget

There will be an estimated \$576,000 annual increase in utility, maintenance, and custodial costs once the project is complete. This anticipated utility increase is being minimized through building efficiencies that will be achieved through the proposed sustainable design features. Although it is indicated that three custodial and one maintenance staff person would be needed for this project, no new staff are proposed to be hired based on current project discussions.

Cost Type	Estimated Cost
Utilities	\$157,000
Custodial (3.0 FTE)	\$107,000
Maintenance (1.0 FTE)	\$312,000
Totals	\$576,000

Source: 2013-15 Biennium Major Project Request, Meat Science Laboratory (UW System)

Impact on Fees

Per the 2013-15 Biennium Major Project Request, there is no fee impact associated with this project.

Project Schedule Summary

Design of the project will conclude by May 2016 with project construction anticipated to begin in August 2016 with substantial completion by March 2018. Occupancy of the Meat Science Laboratory is anticipated for July 2018. The overall project schedule is as follows:

Event/Task	Approximate Completion Date
35% Design Report	September 10, 2015
Scoping Meeting	October 19, 2015
Draft EIS Public Meeting	December 9, 2015
Board of Regents Review and Approval	December 10-11, 2015
Final EIS Public Hearing	February 18, 2015
Bid Opening	May 2016
Start Construction	August 2016
Substantial Completion	March 2018
Building Occupancy	July 2018

A sequencing schedule will be available following contractor bid award in May 2016.

History, Background, Purpose, and Need

The following History, Background, Purpose, and Need section includes combined information from the *2013-15 Biennium Major Project Request* and the May 2015 *Scope of Services, Environmental Impact Statement (EIS)* with input provided from the project team including Potter Lawson, UW-Madison representatives, the State of Wisconsin WDOA DFD, and the University of Wisconsin System.

History and Background

UW-Madison was founded when Wisconsin achieved statehood in 1848 and is the official state university of Wisconsin. It was the first public university established in Wisconsin and remains the oldest and largest public university in the state. UW-Madison is organized into 20 schools and colleges, including the UW-Madison College of Agricultural and Life Sciences, which was originally founded in 1938 as the Department of Animal and Dairy Husbandry. The Department was renamed Meat and Animals Science in 1962 and merged with the Department of Poultry Science in 1996 to become the Department of Animal Sciences.

The existing 25,747 ASF/30,190 GSF Meat Science and Muscle Biology Laboratory was constructed in the 1930's for faculty of the Animal Husbandry Department, with additions in 1959 and 1969. In the 1940s, a Meat Science program was created at the UW-Madison and subsequent faculty recruitment and research resulted in the emergence of a preeminent program in Meat Science. The mission of the program is to (1) train the next generation of meat industry leaders with cutting edge insightfulness and technologies, (2) support innovative research interests through interdisciplinary collaborative efforts and (3) provide outreach education to promote the production of wholesome meat products for the consuming public and the economic development of the meat industry.

Since its construction, the building has had little in the way of capital improvements. Work has been done to keep the laboratory operational. In 2008, the refrigeration systems, cold storage rooms, and ventilation systems of the meat production instructional laboratories were replaced in order to meet current state codes and standards. This project was intended as a short-term fix (seven years +/-), rather than a long-term solution. Prior to this project state inspectors had condemned one of the coolers and a freezer. In 2002, a planning effort was undertaken for a new Meat Science and Muscle Biology building, but was never implemented.

Purpose and Need for Proposed Action

The Meat Science program has evolved into pre-eminence at UW-Madison through the engagement of outstanding faculty and research. However, the existing Meat Science and Muscle Biology building was built in several phases, has undersized spaces for current instructional and research functions, does not exhibit the highest industry standards, lacks necessary infrastructure and, generally, is not the model for teaching, research and commercial facilities envisioned by the department.

Users of the current building attempt to function with pre-1950 abattoir, fabrication, meat processing, kitchen and sensory evaluation areas. These facilities no longer meet federal or Wisconsin DATCP meat handling and processing standards, but to date, state inspectors have

allowed continued use of the facility, in consideration of the importance of the program. Problems include product flow and people movement deficiencies such as cooked meat products moving back through raw meat and meat product areas and people having to walk from livestock chutes through clean meat fabrication areas in order to access the harvest demonstration laboratory. Other deficiencies include the lack of refrigeration in the fabrication and processed meat manufacturing areas and the inability to properly clean and sanitize the demonstration facilities, such as raw and cooked products being moved from the fabrication laboratory to the meat-processing laboratory in a dumb waiter that cannot be cleaned or sanitized. The project will build a facility in which proper air circulation and humidity controls are in place to prevent condensation from accumulating, a condition that has been shown to be a source of product contamination with environmental pathogens.

The project will prevent work place injuries by having a facility design and equipment that limit the need for excessive physical capabilities, such as strength or height, of the staff or students. Such improvements will preclude the need to lower and raise 200-pound (lb) carcass portions by hand, move carcass viscera (200 lbs) in barrels with a hand truck, and lift meat into head-high hoppers. The project will enable the humane movement of animals without risk to staff and students who now need to trail the animal from within the chute. Cold rooms will provide the required air exchanges for human occupancy.

The new building will provide research capabilities that do not now exist. A BSL-2 suite will allow opportunities to partner with state and national meat companies to test methods for elimination of pathogens under full commercial conditions. Companies continually struggle against pathogen introduction into their commercial processes. Therefore, they will never study a pathogen in their plant. This facility will allow their microbiologists to bring a troublesome pathogen into an isolated laboratory where killing methods can be tested. Also, equipment companies can intentionally inoculate equipment with a pathogen and validate that certain sanitation methods are effective. In addition to the isolatable lab, there will be laboratories, known as pilot labs, where conventional meat processing will occur. These labs will allow meat product designers to develop new processes and products using state of the art equipment in small, cost-effective batches.

Training capabilities will be enhanced by the new building. The demonstration lab will feature a lecture hall with a refrigerated demonstration zone located behind a large glass wall. The professor will be able to interact with students and students will be able to enter the refrigerated zone. Companies will be able to study the component steps ranging from sausage batter preparation through smoking to final product appearance. DATCP has expressed an interest in using this facility to train their inspectors. Current training methods require that inspectors travel to numerous locations to observe and receive hand-on training in the full range of livestock and poultry harvest and processing. This facility would provide a single site at which the full range of training could occur. Since food safety regulations are continually updated, the proximity of this facility to DATCP facilitates a high-quality training program for inspectors.

Engineering Design and Type of Materials

The building plan concept was largely formed by the anticipated pedestrian access, service vehicle needs and overall campus master planning criteria. An early preference was to have the building entrance face Observatory Drive to strengthen the image and visibility of the program.

A separate and less noticeable entrance to the BSL-2 lab suite is located on the west face. The varied service vehicle needs were primarily located on the east side of the site so that a service drive could be established to share with future College of Agricultural and Life Sciences buildings planned for the area immediately east of the Meat Science site.

The organization of the building floor plans evolved in a continuous improvement process over a several month period to arrive at the current layout. The first floor plan is organized to separate the meat lab, public and BSL-2 areas. The meat lab organizational concept was based on separated delivery entrances for livestock, clean materials, general delivery and trash and the BSL-2 service entrance. The product flow in the meat lab required a specific sequence of spaces with anterooms to accommodate transition between different levels of cleanliness.

The architectural appearance of the building is designed to fit into the agriculture neighborhood of the campus and as well as within the context and goals of the campus masterplan. The building fronts Observatory Drive and is designed to be inviting to the general campus population and to project an image suitable for a leading meat science program. The exterior design, building materials and detailing have been developed and reviewed by the DFD and UW-Madison Design Review Board for visual preferences, technical criteria, and sustainable design and life cycle value.

Structural

The new building will consist of a two-story portion (approximately 23,000 GSF), a one-story portion (approximately 42,000 GSF), and a partial basement (3,300 GSF). The building story heights will be 13 feet for the basement, 22 feet for the first floor, and 16 feet for the second floor. A mixed concrete/steel frame superstructure will be supported on spread footings.

The elevated floors will be designed for a superimposed dead load of 30 pounds per square foot (psf) and 150 psf live load. One story concrete roof slabs will be designed for 100 psf (includes snow drifting and hanging loads in the meat lab). The steel framed metal deck roof will be designed for a 30 psf snow load.

Based on the structural performance characteristics required for laboratories and floor systems meeting USDA requirements, a structural concrete frame system is recommended. A concrete flat slab with drops has been selected below the second floor. This system offers economy, floor vibration control, program planning, easy to clean surfaces per USDA, and utility accommodations for the proposed laboratory planning module. The second floor roof will be a steel framed structure.

The primary exterior wall materials will be brick masonry. Other exterior wall materials will include stone, architectural precast concrete, and metal panels. The exterior walls will typically be non-bearing, insulated screen wall construction with 3" rigid insulation and concrete block backup. A fluid-applied membrane air barrier (vapor retarding) system will be applied to the backup. Penetrations, changes in substrate, and window and door openings shall be sealed with 40-mil thick, rubberized asphalt, self-adhering membrane flashing. Stone veneer walls will utilize 1-1/4 in. thick granite panels anchored to concrete masonry back-up. Architectural precast concrete panels will be used in the recessed delivery areas. All will be part of the typical screen wall construction. The mechanical equipment spaces will be clad in pre-formed Kynar finished

metal panels with rigid insulation, on steel studs. Screen walls around mechanical equipment will utilize the same metal panels mounted on steel framework.

Interior

A variety of ceilings will be utilized on the project, based on design requirements. A metal ceiling capable of resisting wash-downs will be used in USDA inspected areas. Suspended lay-in acoustical panel ceiling systems with exposed support grid will be used in lecture, offices and other administrative spaces. Metal panel ceilings, drywall, or painted exposed structure will be used in areas requiring an upgraded appearance. Suspended ceilings in spaces with substantial differences between the elevations of the ceiling and structure above will have batt insulation over the ceiling or some other treatment to reduce noise transfer between spaces. Washable, mylar or similar, acoustical ceiling tiles will be used in the research and teaching laboratories on the second floor.

Refrigerated rooms, coolers, freezers and blast freezers which are integrated and fully equipped shall be provided as shown on the floor plans and with cooling capabilities shown on the Environmental Room Schedule. Insulated panels may vary from 6" to 12" depending on the design temperatures. Panel finishes shall be coatings to meet USDA standards. Ceilings shall be pre-engineered, self-supported and capable of supporting a maintenance person. Industrial cold storage door types will vary in operation. Internal coolers will be connected to a central refrigeration system (see Refrigeration narrative). Cooler and freezer doors shall be stainless steel. Freezer doors shall have electric frost protection. All doors shall have closures. Overhead doors should be one piece and not sectional and should not be used where product could be transported below open door.

Non-load bearing concrete masonry units (CMU) will be used as interior partitions in the non-refrigerated Meat Lab areas and shall be smooth, solid surface, and washable. These walls should be extended to 6 in. above the ceilings in most areas. Walls in some USDA-inspected spaces will have metal panels with special durable coating. Stairways, elevators, toilet rooms and vertical shaft walls shall also be constructed of concrete block to the underside of the structure. Walls on the second floor and in public spaces on the first floor shall be furred-out with metal studs and 5/8" gypsum wallboard.

Non-load bearing partitions within lab, large group instruction, and office areas will be gypsum board assemblies. Drywall partitions between rooms on the first floor will be insulated and extend to 6 inches above finish ceilings. On second floor, partitions will extend to the bottom of the roof structure above and will be insulated and sealed to provide appropriate acoustical separation. Gypsum board bulkheads and ceilings will be used in public spaces.

A variety of flooring materials will be utilized depending on the type of area in the building. Flooring types include epoxy terrazzo in the lobby, resilient vinyl tile in laboratory area cold rooms and freezers, and carpeting in offices. A heavy duty cementitious urethane mortar floor systems will also be used.

Mechanical and Special Systems

The building will have multiple air handling units and systems to serve the different portions of the facility. One variable volume air handling unit will serve the BSL-2 lab suite with 100% outside air. This unit will be a modular indoor air handling unit. The unit will consist of a runaround preheat coil, pumped heating coil, chilled water coil, unit mounted humidifier, and parallel supply fans each sized for 50% of the airflow. Two variable volume air handling units each will serve the Research Lab suite and office space throughout the facility. The units' discharge and return ductwork will be manifold together with isolation dampers to isolate the units so if one unit is shut off for maintenance the other unit can continue to serve the spaces to provide some airflow to the building to maintain pressure relationships within the lab areas. One single zone variable volume air handling unit will serve the USDA space including Abattoir and Animal Holding Area with 100% outside air. This unit will be a modular indoor air handling unit.

The smoke house oven and drying oven within the Cooking Room 75N will require exhaust flues with a wash-down system. The exhaust flue will be routed to the roof and require automatic wash down after use to prevent buildup of flammable substances within the flue. Grease exhaust fans and associated grease exhaust ductwork will be required to serve Cooking Room 1181A, Cooking 1027, and Teaching Lab 2133's Type 1 Exhaust Hoods. The duct will be welded black steel with a two hour fire wrap insulation. It is anticipated the exhaust hood and fan will include variable speed controls to reduce exhaust rates during periods of minimal cooking activities.

All freezers will require an in-soil heating system to prevent permafrost under the freezers. Permafrost can cause heaving of the soil under the freezer after continuous freezer operation for extended periods of time. The in-soil heating system will include PEX piping installed in the soil below the freezer insulation to maintain the soil temperature above freezing. The in-soil heating system will be extended from the condenser water system. The refrigeration system compressors will include a heat recovery system to capture the waste heat from the refrigeration process and reuse that waste heat within the building. Uses of the waste heat include in-soil heating and outside air preheat. Domestic water pre-heating will be further evaluated to determine feasibility.

An emergency standby generator will provide power for life safety emergency and optional standby loads. The generator will be diesel powered. The diesel fuel tank will be double walled with a base design of 12 hours generator run time at full load. The generator size is presently 150kW.

Utilities

Campus utilities are located near the footprint of the new building and are being upgraded as part of a current project. These include steam, chilled water, power and signal lines. An existing electrical primary duct bank traverses the east to west sides of the project and is located near the foundation under the north edge of the building. The project will maintain the existing utility lines while not interfering with the existing property lines to the east and west.

Steam and Chilled Water: The building will use high pressure steam at 170 pounds per square inch gage (psig), generated by the campus physical plant. A 3" high pressure steam main and 2" pumped condensate main will be extended from steam pit 19-9 which is located on the northwest corner of the project site and routed to the building in steam box conduit.

Existing chilled water service crosses the south side of the project site along Linden Drive. This utility service provides chilled water from the UW central plants. The new line will be direct buried ductile iron and follow current UW-Madison construction standards for this type of utility.

Electricity: Below-ground electric lines run through the north, south and east and west sections of the site. There are no existing overhead lines within the site. Existing lighting feeds will be removed as needed for the construction. The proposed electric feed will utilize the existing electric manhole at the northeast corner of the site and the electric duct bank will be constructed to the west and will enter the building at the northwest corner.

Domestic Water: Water lines are currently part of the campus utilities system, and a web of connections across the campus serves most of the campus buildings. Existing water lines are located along the north and south sections of the site. A new combined water service to the water main will be connected at the northwest corner of the proposed building.

Sanitary Sewer: An existing sanitary sewer is present near the southwest portion of the site, and a line runs north-south at the east side of the site, collecting flows from the buildings to the east. Both connections will be utilized for sanitary flows from the proposed building. The connection to the east will include a 4" sanitary sewer with a sampling manhole prior to connecting in to the sanitary sewer main.

Storm Sewer: Under proposed conditions, stormwater runoff will continue to follow existing drainage patterns and efforts will be made to make minor improvements with natural landscape features, with the exception of the proposed on-site, underground stormwater vault to be located at the southeastern portion of the site. While still in final discussions with the design team, it is anticipated that the roof discharge will be tied into the storm sewer, while at-grade site runoff from parking and vegetated areas will be routed to the underground stormwater vault to remove TSS along with grease and oil separation prior to discharging to the storm sewer. The underground stormwater vault will be a heavy duty stormwater solution that will not only meet the stormwater management goals of the site, but will be engineered for the appropriate loading situations of the typical delivery trucks to this facility. Stormwater is ultimately discharged to Lake Mendota.

Natural Gas: Gas service is not in the immediate vicinity. MG&E will extend a gas line to the new building for no cost. MG&E will be constructing a new gas line from their gas main to the east of the project site and will take the gas service to the proposed building edge.

IT/Telecommunications: Backbone cabling from the existing Animal Science building to the building will consist of one (1) 100-pair Category 3 ARMM copper voice cable and one (1) 24-strand OS2 single mode fiber optic data cable. Backbone cabling from the service entrance location to Technology rooms will consist of a minimum of one (1) 25-pair Category 3 UTP copper voice cable, one (1) 24-strand OS2 single mode fiber optic data cable, and one (1) .500 hardline coaxial copper CATV cable.

Permits and Approvals Required

The following is a list of permits that will need to be obtained for the project. This does not represent an exhaustive list of all the permits needed for project construction. Other permits may need to be obtained as the project progresses.

- City of Madison – Engineering Drawings, Fire Prevention Plans, and Stormwater Management Plan Review
- Wisconsin Department of Natural Resources – Water Resources Application for Project Permits (WRAPP – formerly Notice of Intent)
- Wisconsin Department of Safety and Professional Services – exterior plumbing permit and plan review
- Permits/approvals as required by the Wisconsin Division of Facilities Development – UW-Madison

Division of Facilities Development Sustainable Facilities Standards

The DFD is committed to sustainable design in an effort to promote economic and environmental benefits of energy and conservation. All new projects are required to meet these standards (WDOA, February 2010). Sustainable features that will be incorporated into the Meat Science Laboratory project include the following:

- Bicycle storage and staff changing rooms
- No new parking associated with project
- Reduction in water use (20%) in addition to water efficient landscaping
- Zero use of CFC-based refrigerants
- Occupancy sensors in rooms, lobbies, and corridors, as well as dimming features on LED lighting
- Optimized energy performance (14% more efficient building)
- Low flow fixtures in lavatories
- Carbon Dioxide (CO₂) control demand ventilation in high occupancy spaces
- Air handling units will be equipped with variable frequency drives
- Use of reflective surfaces and shading trees

The current predicted LEED® score is 49/110. This score is sufficient to obtain LEED® Certified status. Silver LEED® Certified status may be obtained with a score of 50 or higher. The project design team is continuing to work on additional sustainable design strategies.

II. Description of Existing Environment

Physical and Chemical Environment

Climate

Dane County climate is typically continental – warm, humid summers and cold, snowy winters. About two-thirds of the annual precipitation falls during the growing season. It is normally adequate for vegetation, although drought is occasionally reported. The climate is most favorable for dairy farming and agriculture. The primary crops are corn, small grains, hay, and vegetables. The rapid succession of storms moving from west to east and southwest to northeast accounts for much of the climatic activity.

The most frequent air masses are of polar origin. Occasional outbreaks of arctic air affect the area during the winter months. Although northward moving tropical air masses contribute considerable cloudiness and precipitation, the true Gulf air mass does not reach this area in winter and only occasionally at other seasons. Summers are pleasant, with only occasional periods of extreme heat or high humidity.

The average annual temperature in the County is 46°F. Temperature extremes range from an all-time high of 107° F, which was observed on July 14, 1936, to a record low of -37°F, which occurred on January 30, 1951. Winter temperatures (December to February) average near 20°F, and summer temperatures (June to August) average in the upper 60s. Daily temperatures average below 32°F about 120 days of the year and above 40°F about 210 days of the year. The average seasonal snowfall is 50 inches.

Average seasonal precipitation is 33 inches. There are no dry and wet seasons, but about 60% of the annual precipitation falls in the five months of May through September. Cold season precipitation is lighter but lasts longer. Soil moisture is usually adequate in the first part of the growing season. During July, August, and September, the crops depend on current rainfall, which is mostly from thunderstorms, and tends to be erratic and variable. Average occurrence of thunderstorms is just under seven days per month during this period. The ground is covered with 1 inch or more of snow about 60% of the time, from December through February in an average winter. The soil is usually frozen from the first of December through most of March, with an average frost penetration of 25 to 30 inches. The growing season averages 175 days.

Air Quality

Chapter NR 400 of the Wisconsin Administrative Code regulates air pollution. Contaminants regulated by this chapter include the "criteria pollutants": particulate matter, sulfur dioxide, organic compounds, nitrous oxides, carbon monoxide, and lead. There is regulation of hazardous air contaminants and visible emissions. As of June 1, 2014, all counties in Wisconsin are attaining the National ambient Air Quality Standards (NAAQS) for particle pollution. Due to this change, all counties now have more stringent air pollution regulations placed on businesses and industries of the Madison area and throughout Wisconsin.

The median 2014 air quality index (40 out of 500) in Madison is considered a “good” value with low levels of health concern with respect to the most hazardous air pollutants. This index value

indicates air pollution in the Madison area is at a satisfactory level and poses little to no health risk. In 365 days of air quality data from the EPA in 2014, the Madison, WI geographic area had 265 days of good air quality, 99 days of moderate air quality, and one day of poor air quality for susceptible groups in 2014, with no unhealthy or very unhealthy days. Air Quality Data is provided in Appendix I.

Geology and Subsurface Conditions

The City of Madison sits just east of the “driftless area” which is characterized by many valleys and ridges and encompasses the west side of the state of Wisconsin. Madison is within the Yahara River valley where deep glacial deposits dammed large valleys forming a chain of large lakes and wetlands. The Yahara River Valley is primarily glacial ground moraine, with extensive areas of peat and marsh deposits. Streams in the Madison area are typically flatter and more sluggish than those in the “driftless area”.

The surface geology the project site is comprised primarily of Cambrian sandstone with some dolomite and shale. The sandstone and dolomite rocks were deposited in shallow seas on an uneven and arched surface of igneous and metamorphic rocks of Precambrian age. Geologic beds in Dane County dip gently south, southeast, and southwest which creates the southward-plunging arch, “Wisconsin Arch”, in the Madison area (United States Department of the Interior, 1965).

Some of the sandstones are shaley, silty, and dolomitic, and some contain interlayered shale, siltstone, and dolomite. Most of the sandstone units are medium to fine grained. Pleistocene drainage has eroded some of these sandstones within the Yahara River valley.

Topography and Soils

The natural topography of the project site is relatively flat with a predominant elevation of 860 feet above mean sea level (ft msl) but dips gently to the north to an elevation of approximately 857 ft msl.

Soils in the project area are mapped by the United States Department of Agriculture Natural Resource Conservation Service (NRCS) soil survey maps as Colwood silt loam with 0 to 2 percent slopes. The Colwood series consists of very deep, poorly drained or very poorly drained soils formed in stratified silty and loamy glaciolacustrine deposits or outwash. These soils are encountered on lake plains, outwash plains, moraines and deltas. A copy of the Custom Soil Resource Report for Dane County, Wisconsin is provided in Appendix I.

A geotechnical investigation was completed and consisted of four soil borings on the project site. Well-cemented sandstone bedrock was encountered at 10 to 12 feet below ground surface.

Water Resources

Stormwater & Erosion Control Requirements

Existing stormwater at the project site is conveyed via overland sheet flow to Observatory Drive to the north and Linden Drive to the south. Stormwater is then conveyed along curb and gutter to storm sewer inlets. One catch basin on the east side of the existing building also conveys

stormwater south to a main line in Linden Drive. The storm sewer system ultimately discharges to Lake Mendota, located 800 to 1,100 feet north of the project site.

The university's "Innovating Stormwater Management" document, written in 2004, discusses that excessive stormwater runoff during wet weather periods has caused the surrounding Yahara Lakes to become eutrophic. Stormwater runoff during these wet periods also causes flooding of Lake Mendota. This occurs since downstream water bodies are not able to accept excess water that drains into Lake Mendota from its increasingly impervious watershed. Excessive stormwater runoff due to flooding creates significant damage to the shoreline land property in Madison causing thousands of dollars in damage. Finally, sediment eroded from construction sites and disturbed pervious surfaces and carried off of impervious surfaces is another problem that arises from excessive stormwater runoff.

Currently, stormwater is routed via pipes and overland channel ditches to Lake Mendota, Lake Monona, or Willow Creek, which eventually flows into Lake Mendota. Over the past several years the WDNR and surrounding communities have adopted new regulations and standards involving managing the quantity and quality of stormwater drainage. New standards in order to combat the detrimental effects of excessive stormwater runoff include the following: retention of soil particles on construction sites, temperature control of runoff from sites, control of oil and grease water pollution, and water-discharge volumes not exceeding predevelopment rates for storm events.

UW-Madison struggles to renew the campus built environment while also enabling the intense redevelopment and growth it is currently experiencing. There are a total of 50 potential building sites with a capacity of 4.7 million gross square feet of new space which, if not managed properly, could add to the existing stormwater runoff problems. The state is imposing building design standards for new development and redevelopment projects to manage stormwater (Polluted Runoff Rules, s. NR 151.12) that help control total suspended solids, peak discharge, and infiltration.

Per Wisconsin State Statute 13.47(17), State facilities such as UW-Madison are not subject to local ordinances with the exception of local zoning regulations or land use provisions. The University's stormwater management plan is compliant with state and local code in that they all describe requirements for erosion and sediment control from redevelopment and maintaining peak runoff rates comparable to predevelopment conditions.

As required under NR 151, any land disturbance over 1 acre requires a Water Resources Application for Project Permits (WRAPP). This form notifies the WDNR on the intent of project site area disturbance and describes an erosion control plan to limit off-site erosion during construction activities. Additionally, the stormwater management plan must have long-term measures to minimize total suspended solids (TSS) discharge off-site and to maintain peak discharge from the site from a 2-year, 24-hour storm event to pre-development conditions. According to NR 151.12(5) (b) 2c, peak discharge requirements only apply to construction activities and not post-construction sites since the bare soil conditions from construction has a much higher runoff potential than post-development conditions. During construction, erosion control measures must retain all soil particles greater than 20 microns (40 percent reduction) based on average annual rainfall when compared to no runoff controls. Best management

practices are to retain 5 micron soil particles (80 percent reduction) based on the average annual rainfall as compared to no runoff controls.

UW-Madison has made strong commitments to the environment and open spaces in its Comprehensive Master Plan (University of Wisconsin-Madison, 2005). The Campus Planning Committee adopted a policy that ensures that “the amount of runoff from newly developed and redeveloped areas be no greater than the amount that occurred under native conditions.”

Groundwater

A geotechnical investigation with four soil borings advanced on the project site indicates that groundwater (the water table) is present at 12 to 13 feet below ground surface. Groundwater is likely to flow north toward Lake Mendota. Groundwater data contained on the WDNR GIS Registry for the nearby UW-Madison Walnut Street Heating Plant, located approximately ¼-mile west-southwest of the project site, indicates that the water table is located at a depth of 11 to 13 feet below ground surface and flows northeast toward Lake Mendota.

Regional groundwater in the project area is located in the sandstone aquifer, which makes up the most important aquifer in the Rock-Fox River basin, and shallow groundwater occurs within the glacial materials that overlie the bedrock.

Madison's water system consists of 22 wells, 30 reservoirs, and 840 miles of interconnected pipes. The City of Madison water supply is obtained from various aquifers, depending on the location within the city. The University of Wisconsin-Madison receives its drinking water from municipal wells 6*, 14, 19, and 27* (* indicating that this well typically operates during higher demand summer months). Wells 14 and 19 were drilled in 1960 and 1970 respectively. Well 19 is the primary water supplier for the UW-Madison campus and has a pumping capacity of 2,175 gallons per minute (gpm). The well is constructed to a depth of 718 feet where the predominant lithology is sandstone with minor amounts of shale beds and carbonate beds.

Three distinct aquifers are encountered from unit well 19. One of these aquifers is the lower bedrock aquifer which comprises of the Mount Simon Formation and the lower part of the Eau Claire Formation. Precambrian-age bedrock forms the base of this aquifer while the shale layer in the Eau Claire Formation acts as the upper confining unit. Another aquifer this well draws from is the upper bedrock aquifer which consists of the upper part of the Eau Claire Formation above the shale confining unit within the Wonewoc Formation and Tunnel City Group. Finally, there is a sand and gravel aquifer which is an upper unconsolidated aquifer that occurs in relatively shallow sand and gravel deposits. This final unlithified unit is very thin and does not contribute much in terms groundwater volumes compared to the two other units.

Surface Water

Surface water tributaries or water bodies do not exist within the project area. Most of the surface water runoff from the site eventually discharges to local water bodies through the municipal storm sewer. The project site is located entirely within the Six Mile and Pheasant Branch Creeks watershed, which measures 76,513 acres and is part of the Rock River Basin, which covers over 3,700 square miles in the south-central part of Wisconsin. The Rock River Basin is part of the larger Mississippi River Basin.

Lake Mendota is located approximately 1,050 feet north of the project site and covers 9,842 acres. Lake Monona is located approximately 1.3 miles southeast of the project site and covers 3,274 acres, with Lake Wingra located approximately 1.2 miles to the south. Recreational use of these lakes is very high, with boaters, wind surfers, fishermen, and swimmers using the lake area. The lakes contain sport fish species, including bluegill, lake sturgeon, largemouth and smallmouth bass, muskellunge, northern pike, and walleye. A copy of a WDNR Surface Water Data Viewer Map is provided in Appendix I.

Floodplain

The proposed project site is a nearly level plot of approximately 1.2 acres. The lowest elevation on the site is approximately 860 feet above msl, which is above the Federal Emergency Management Agency's (FEMA) delineated 100-year and 500-year floodplains. The nearest floodplain is located along the shore of Lake Mendota, approximately 1,050 feet north of the project site and 670 feet west of the project site (Appendix I).

Wetlands

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." A wetland has to have a dominance of hydrophytic vegetation, hydric soils, and wetland hydrology. All three of these criteria must be met for an area to be delineated as a wetland.

Mapped wetlands are not present on the project site or located within 600 feet. However, wetland indicator soils (Colwood silt loam and Virgil silt loam) are mapped on the subject property according to the WDNR Surface Water Data Viewer (Appendix I).

Environmental Contamination

Standard environmental databases were reviewed for potential environmental concerns within the project site. Findings of the review are discussed in the following paragraphs and environmental database information is included in Appendix I.

BRRTS

The Wisconsin Department of Natural Resources Bureau of Remediation and Redevelopment Tracking System (BRRTS) database for the subject property and surrounding area was searched on August 21, 2015. There are no open or closed remediation sites on the project site or any adjoining properties.

The nearest remediation site with an "open" regulatory status is the UW Madison Biotron Laboratory site (BRRTS # 02-13-561431; 2115 Observatory Drive), which is located approximately 0.15 miles west of the project site. The BRRTS record for the case indicates that chlorinated solvents are present in groundwater at this location; however, there are no indications of off-site contamination at this time. Additionally, given the documented northeast groundwater flow direction in the area and the presence of a channel of Lake Mendota between this site and the project site, impacts to the project site are unlikely.

The next nearest remediation site with an “open” regulatory status is Erickson Freedom Station (BRRS # 03-13-284909; 2216 University Avenue), which is located approximately 0.36 miles southwest of the project site. The BRRS record for the case indicates that soil and groundwater are contaminated with gasoline, including free product. A closure request has been submitted but there is a request for additional information to complete the closure request. Although this site is has an “open” status, impacts to the project site are unlikely based on distance from the project site.

Additional remediation sites identified in the vicinity are unlikely to impact the project site based on their “closed” regulatory status and lack of documented impacts to the project site or other nearby properties. Documents associated with these listings are located in Appendix I.

[SHWIMS](#)

The Solid and Hazardous Waste Information System (SHWIMS) on the Web (SOTW) provides access to information on sites, and facilities operating at sites, that are regulated by the Wisconsin DNR Waste Management program. Activities that occur at facilities include landfill operation, waste transportation, hazardous waste generation, wood burning, waste processing, sharps collection and many more. SHWIMS was searched for generators of hazardous/toxic waste on August 21, 2015. The search was conducted for streets adjoining the project site. The search revealed one site in proximity to the project site.

- UW Madison Dairy Forage – This site is located at 1925 Linden Drive, on the property adjoining the project site to the south. The facility is listed as an active infectious waste generator and inactive small quantity generator of hazardous waste including non-listed ignitable wastes.

There were no hazardous waste activities identified at the project site, and nearby sites do not appear to pose an environmental risk to the project site. Documents associated with these listings are located in Appendix I.

[EPA Envirofacts Multisystem](#)

Envirofacts is a single point of access to select U.S. EPA environmental data. This website provides access to several EPA databases to provide users with information about environmental activities that may affect air, water, and land anywhere in the United States. This multi-system database was searched for sites listed as Superfund sites and generators or handlers of hazardous/toxic waste on August 21, 2015. The following sites were found in proximity to the project site:

- US Dairy Forage Research Center, 1925 Linden Drive: This site is located on the property adjoining to the south of the project site and is identified as a former hazardous waste generator with no violations listed.

Documents associated with these listings are located in Appendix I.

DATCP Registered Tanks

The Wisconsin DATCP storage tank database was searched for sites with registered aboveground storage tanks (ASTs) and/or underground storage tanks (USTs) on August 21, 2015. There were no registered storage tanks found to be associated with the project site. Two registered USTs were found in proximity to the project site:

- US Dairy Forage Research Center, 1925 Linden Drive: This site adjoins the project site to the south. A 550-gallon diesel fuel UST was closed/removed as of October 28, 1992.
- UW Madison Grounds Department, 1915 Linden Drive: This site is located approximately 0.10 miles east-southeast of the project site. A 10,000-gallon diesel fuel AST was installed in 2003 and closed/removed as of July 15, 2005.

There are no documented releases of petroleum associated with these registered storage tanks. Documents associated with all of the above listings are located in Appendix I.

WALMS Database Search

The Wisconsin Asbestos and Lead Abatement Management System (WALMS) database was searched for information about potential hazardous materials present in the existing Seeds building at 1930 Linden Drive. Entries from 2007 in the WALMS database indicate that the building contains asbestos-containing materials including pipe insulation, window glazing and transite, and black countertops, fire doors and duct connectors are also assumed to contain asbestos. However, available information indicates that the asbestos survey was limited to non-destructive testing of materials and additional asbestos-containing materials may be present in the building. Several varieties of lead-bearing paint were also identified on the exterior of the building on doors, windows and walls. Documents associated with the above listing are located in Appendix I.

Other

On the south side of the Seeds building, what appeared to be a monitoring well was observed. The design team is still awaiting response from the UW or DFD on the origin of this item and any on-going issues it may present.

Noise

Ambient noise conditions at the project site are consistent with noise levels typically experienced within a university campus but is not as noisy or busy as areas along busier streets nearby, such as University Avenue to the south.

Biological Environment

Vegetation

Vegetation on the project site is limited to three deciduous trees located on the north side of the existing Seeds facility, at the end of parking rows. Additional woody shrubs adjoin the south wall of the building. Green space on the site is minimal, and additional greenspace with smaller deciduous trees is located adjacent to the sidewalk along Observatory Drive.

Fish and Wildlife

No fisheries resources are on the proposed project site or immediately adjacent to it. Lake Mendota is located 800 to 1,100 feet north of the project site. Fish species that can be found in this water body include bluegill, lake sturgeon, largemouth bass, muskellunge, northern pike, smallmouth bass, tiger muskellunge, and walleye. Several stakeholders, including the Clean Lakes Alliance, WDNR, and UW-Madison, continue to work on projects that focus on gauging water quality and habitat assessment, including improvement and restoration projects.

Threatened and Endangered Resources

A Voluntary Expedited Endangered Resources (VEER) review request (ERR Log # 15-745) was submitted to the WDNR on September 30, 2015, for information regarding threatened, endangered, and special concern species that may be in the proposed project area and/or surrounding area. A response was received from the WDNR on October 1, 2015. Due to the lack of any suitable habitat, no required, recommended, or follow-up actions are required to address potential threatened or endangered species at the project site. The VEER request to the WDNR response cover letter is included as Appendix J.

Social and Cultural Environment

City Zoning

The project site is located within the Campus Institutional special district of City of Madison, as is the majority of the UW-Madison campus. However, any projects within the C-I district, without an approved campus master plan, requires a conditional use review by the City of Madison Plan Commission. That process is underway with the city at this time.

Parks and Recreation

The project site is located adjacent to an area that is used for parks and recreation on the UW Madison campus. To the north are fields adjacent to the Natatorium that includes volleyball, turf fields for recreational sports, and tennis courts. These are intended for student use on campus.

The University of Wisconsin – Madison is located on an isthmus between four lakes and its adjacency to downtown Madison provides a variety of recreational opportunities. Lakes, streams, parks, beaches, forested areas and hiking and bike trails are readily available, and the natural beauty and surroundings of the City provide an excellent atmosphere for outdoor activities in all seasons. Among the cultural attractions featured in downtown Madison are theatres, art galleries, numerous cultural events, fitness clubs, parks, and a wide variety of restaurants and shopping opportunities.

The City of Madison has over 240 parks on over 5,400 acres which contain Lake Mendota and Lake Monona. The Parks and Recreation department provides a variety of youth recreational programs, as well as numerous athletics programs for all age group. The city also maintains an aquatic center, four public golf courses, and seven dog parks. UW-Madison maintains private recreational fitness facilities that are reserved for over 60,000 students and University

employees. The University also maintains over 2,000 acres of open space, including the UW-Arboretum and Lakeshore Nature Preserve (Department of Public Works, 2012).

The Lakeshore Nature Preserve, Henry Vilas Park and James Madison Park are some of the most commonly used parks in the UW-Madison area. The Lakeshore Nature Preserve gives guests access to a scenic bike path along the lake and group campfire areas for camaraderie. Henry Vilas Park is on the north shore of Lake Wingra and is adjacent to Henry Vilas Zoo, a free public zoo. Henry Vilas offers an open swimming area that can be easily accessed along the Wingra Creek Path bike route.

Existing and Future Land Use

The existing Seed Building is located within the Animal and Plant Science Neighborhood of the College of Agricultural and Life Sciences campus, and was constructed in the 1940s with 15,495 square feet of floor space. Although the three wings on the north side of the building were designed and built as temporary structures, they continued to be used until the building was recently vacated for the Meat Science Laboratory project. The Seeds Building was used for drying and storing seeds in conditions that prolonged their viability for research in the fields of agronomy, horticulture, genetics, plant pathology and entomology. Areas of the building were devoted to wet labs, dry labs, seed processing rooms, a grinding room, cold storage and offices. Surface parking lot #43 is located on the north side of the project site and continues to be utilized while the Seeds Building is vacant.

Proposed land use outlined in the 2005 Campus Master Plan indicates that the project site is academic, including related parking and open space. The decision to site the proposed Meat Science Laboratory at the former location of the Seed Building was made subsequent to the 2005 Campus Master Plan process. There are no future land uses planned for the site other than academic facilities.

Surrounding Neighborhood

The UW-Madison main campus is located adjacent to residential and commercial areas to the east, west and south with Lake Mendota to the north. It is located in the central portion of the City of Madison. UW-Madison has been part of the Madison community since 1848 when “the establishment of a state university, at or near the seat of government...” was enacted in the Wisconsin Constitution (Heg, 1883). The campus originally covered 50 acres and has is currently approximately 936 acres along the southern shore of Lake Mendota.

The project site is located in the Animal and Plant Sciences neighborhood on the west side of the UW-Madison campus, north of Linden Drive, south of Observatory Drive, east of Easterday Lane and west of Elm Drive. Existing land use surrounding the site includes the Poultry Research Laboratory and Army ROTC building to the east, surface parking lot #62 to the west, the Gymnasium-Natatorium, athletic fields, and DeJope Residence Hall to the north, and the US Dairy Forage Research Center and Veterinary Medicine buildings to the south.

City Population

According to 2014 U.S. Census Bureau estimates, the City of Madison has a population of 245,691, with 2012 estimates of 583,869 living in the metropolitan statistical area of Madison. This area includes Dane, Columbia, and Iowa Counties.

UW-Madison Student Population and Profile

According to the UW-Madison 2014-2015 Data Digest, the Campus supported 29,302 (68%) undergraduate students, 9,445 (22%) graduate students, 1,987 (4.6%) special students and 2,459 (5.4%) clinical doctorate students during the Fall 2014 semester. There were 5,311 international students and 6,277 minority students. Additionally, approximately 71.5% of the incoming freshmen that were admitted were Wisconsin Residents in fall 2014. The gender profile of the university undergraduate students was 51.1 percent female and 48.9 percent male, and approximately 95.1 percent of the undergraduate student body was enrolled full time.

Out of the 3,525 students enrolled in the College of Agriculture and Life Sciences in Fall 2014, 187 students (5.3%) were Animal Sciences majors.

Housing

The development, maintenance, and redevelopment of housing plays a major role in shaping a community's physical character, transportation investments, public infrastructure investments, and the need and location of schools and community facilities. Three basic forces generally shape the type and distribution of housing units and livability patterns which include supply, demand, and community neighborhoods. The housing supply includes the number and type of housing units, tenure, number of vacancies, housing values and rental rates, construction costs, subsidized and special needs demands, and the condition of the existing stock. Housing demand includes lifestyle choices, rate of population growth or decline, household formation patterns, and community income and economic factors. Lastly, a sense of community includes location desirability, land use consistency, land use transitions, design and density, access, mix of use, and regulation and permitting requirements.

According to information available on City-Data.com, there are 92,353 total housing units in the City of Madison, 96% of which are occupied. Approximately 52% of these units are renter occupied, while the remaining 48% are owner occupied. According to the College Board's Annual Survey of Colleges, 25% of UW-Madison undergraduate students live in a college-owned, operated, or affiliated housing and the rest live off of campus within the downtown area or adjacent neighborhoods. According to the University's website, UW-Madison has 19 residence halls housing 17,400 students.

Historical/Archaeological Environment

There are no known historical or archaeological sites on the project site. The Wisconsin Architecture & History Inventory (WHI) Database was accessed on August 20, 2015, to search for properties of interest with addresses on Linden Drive and Observatory Drive. Locally designated historical or archaeological properties were not identified during the database search. A Request for UW System Administration Review and Comment on a University Undertaking was submitted UW System

Administration on October 27, 2015. On October 27, 2015, a response from the UWSA indicated concurrence that no historic properties will be affected by the proposed action. Refer to Appendix C for the UWSA review request and response.

Economic Environment

Employment

According to the 2008-2012 US Census Bureau American Community Survey 5 year estimation, Dane County has a labor force (ages 16-64 years old) of approximately 82.0% +/-0.4. According to the Department of Workforce Development, the July 2014 unemployment rate for Dane County was 4.0% percent.

Income

According to the US Census Bureau data (State and County QuickFacts) from 2009 to 2013, the median household income for City of Madison is \$53,464 compared to the Wisconsin median income of \$52,413. The median household income for Dane County is \$61,721.

UW-Madison Effect on Local Economy

The total Fiscal Year 2014-2015 budget for UW-Madison per the UW System Administration “Red Book” budgetary allocations is \$2,922,656,172, including \$538,978,366 (18.4 percent of the budget) for instructional costs, \$56,549,216 for institutional support, and \$173,467,343 for academic support. Other categories include \$156,722,270 for auxiliary enterprises, \$219,718,441 for student services, \$186,591,515 for physical plant operation, and \$987,250,031 for research. Other budgetary categories include public service, hospitals, farm operations, financial aid, and debt service on academic buildings (Redbook-Book I-Exhibit I). Much of this budget directly impacts the local and regional economy as it draws personnel and support to adequately operate the campus.

Current 2015-2016 full time undergraduate tuition rates at UW-Madison range from \$5,208 per semester for resident students to \$14,833 per semester for nonresident students (non-reciprocity states). Costs for graduate students vary based on the program. Residence Hall costs range from \$7,314 to \$9,252 per semester depending on the Hall and room type. Other costs such as segregated fees, textbook rentals, and application fees are applicable, and are not included in tuition fees.

Educational services, health care, social assistance, and public administration sectors make up approximately 28.5 percent of all employment in Dane County according to the 2009-2013 US Census Bureau American Community Survey 5 year estimation. If employment in these service sectors was removed or decreased, the effects would be noticeable city-wide and even county-wide. The Madison community places a high value on the presence of major institutions, such as UW-Madison, UW Health, Edgewood College, Madison Area Technical College, and Herzing University Madison.

UW-Madison had 16,040 budgeted faculty and staff positions in 2013-14 (Fact Book 13-14, University of Wisconsin System) and had over \$1.21 billion budgeted for salaries and wages in 2014-15 (2014-15 Budget Redbook). UW-Madison, along with affiliated organizations and connected startup companies, contributes \$15 billion per year to the Wisconsin economy, while supporting

193,310 Wisconsin jobs and generating \$847.5 million in state tax revenue (NorthStar Consulting Group, 2015).

The Wisconsin DOA provides annual payments to local municipalities under the Payments for Municipal Services (PMS) program. In addition to paying established user fees for water, sewer, electricity, and solid waste collection/disposal, the DOA makes an annual payment to compensate for police and fire services. The payment is based on a prorated portion of the state building and land value compared to the total building and land value (including state property) in the municipality. UW-Madison contributed approximately \$7,131,241 to the City of Madison in 2013.

Parking and Transportation

Based on traffic flow maps published by the City of Madison in 2013, the following average daily weekday traffic volume occurs on major roadways near the project site:

- Campus Drive (south) – 41,600
- Walnut Street (west) – 6,300
- Lake Mendota Drive (west/northwest) – 1,300

There is no traffic flow data available for Linden Drive, Observatory Drive or other nearby streets within the College of Agricultural and Life Sciences neighborhood.

Surface parking lot #43 on the project site requires meter payment or UW Annual Baselot permit from 7 AM to 4:30 PM Monday-Friday and is free thereafter, features 8-hour meters and motorcycle parking, and has a capacity of 58. Surface parking lot #62 (north of Veterinary building) to the west holds the same charging hours, features permitted parking with no time limit and has a capacity of 419. Several other commuter and residential parking lots are available across campus. In total, UW-Madison currently has approximately 18 parking garages, 83 parking lots, and 10 UW-Arboretum lots. Bicycle parking is available at almost all buildings on campus, and there are twelve locations with bike lockers or cages.

The Madison Metro bus system travels through the UW-Madison campus along most of the major streets, including University Avenue and North Lake Street. Routes 80 and 84 provide daytime and nighttime service, traveling along Observatory Drive with stops at the intersection with Elm Drive to the east and at the natatorium north of the project site, respectively. Route 81 provides nighttime services and travels both Observatory Drive and Linden Drive, with the nearest stop at the intersection of Observatory Drive and Elm Drive to the east. There are no bus stops on or adjoining the project site.

UW-Madison has policies in place to provide incentives to use alternative transportation means. The campus continues to work with neighborhoods and the City of Madison to reduce commuter travel and minimize parking conflicts. Since 2003, the UW Transportation Services entered into an agreement with Madison Metro for a bus pass program to provide free ridership to students. The costs are covered under UW Transportation Services and Associated Students of Madison (ASM). In addition, the campus has worked with Nelson\Nygaard Consulting Associates to establish more effective bus routes to accommodate students. According to the Fiscal Year 2015-16 Budget on the UW-Madison Transportation Services website, 7% of all transportation services expenses go towards the campus bus, while 10% go towards UW employee bus passes. The remainder of the expenses

are salaries and wages (23%), supplies and services (25%), and capital, depreciation and interest (35%). The total annual cost of the bus service is almost \$1.5 million.

The Bicycle Program provides a variety of services to faculty, staff, and students including renting bike lockers and bikes, providing information on bike safety, free bike parking, and the Bicycle Commuter Act which can provide shower facilities and bicycle gear. Additionally, Madison Metro offers bike racks on their buses so that biking can be integrated with public transportation.

Public, Private and Campus Utilities

Domestic Water: Water service in the general area of the project site is provided by the City of Madison. According to the 2005 UW-Madison Utility Master Plan Status Report, approximately 28 miles of pipe exist throughout UW-Madison campus with 25 manholes, 144 hydrants, and 907 water valves. The water utility in the vicinity of the project site runs along Observatory Drive, and the portion that serves the existing Seeds Building travels south and crosses Linden Drive. A hydrant is present on Observatory Drive adjacent to the project site.

Sanitary Sewer: Sanitary sewer service in the general area of the project site is provided by the UW-Madison and is not City owned. According to the 2005 UW-Madison Utility Master Plan Status Report, approximately 19 miles of pipe exist throughout UW-Madison campus with 476 manholes, 12 pump stations, with pipe sizes ranging from 4" to 24". Existing sanitary sewers run along Observatory Drive, and the portion serving the existing Seeds Building runs south and crosses Linden Drive.

Storm Sewer: The storm sewer is owned by UW-Madison and is not City owned. According to the 2005 UW-Madison Utility Master Plan Status Report, approximately 23 miles of pipe exist throughout UW-Madison campus with 777 manholes and pipe sizes ranging from 3" to 68". The storm sewer system serves building roof drains, area drains, and catch basins with pipe types such as vitrified clay, reinforced concrete, ductile iron, and PVC. The project site is within the 790 acres of campus that drain to Lake Mendota where the other 230 acres drain to Lake Monona. Storm sewer in the vicinity of the project site is present along both Linden Drive and Observatory Drive.

Natural Gas: There is no natural gas utility in the vicinity of the project site within Linden Drive or Observatory Drive on either side of the site, according to Madison Gas and Electric. The closest line is to the east on Linden drive that services the Stock Pavilion, and runs along sidewalk area to the north side of the Dairy Cattle Center.

Steam and Chilled Water: High and low pressure steam as well as chilled water is provided in order to allow heating, kitchen processes, and domestic hot water to be available throughout the UW-Madison campus. Over 25 miles of piping is used for steam transport on campus. Steam system types break down as follows: 70% walkable tunnel, 28% box conduit, and 2% direct buried according to the 2005 UW-Madison Utility Master Plan Status Report. Likewise, chilled water systems (over 8 miles of piping) are represented on campus are 15% walkable tunnel and 85% direct buried.

Electrical: The entire campus primary electrical distribution system can be traced back to seven different substations. The total capacity of these substations is 208.7-million-volt-amperes (MVA) and provides electricity for approximately 20,900 homes. The systems the electrical wires are within are ductbank and manhole systems that combined, accommodate approximately 175 miles (~230,000 circuit feet) of wire with four wires per circuit. Electrical utility is present along

Observatory Drive with a vault in the grassy area between the project site and sidewalk on the south side of Observatory Drive. Electrical utility is also present under Linden Drive and near the east boundary of the project site. A substation is located adjacent to the southwest corner of the project site.

IT/Telecommunications: A fiber optic communications line is located under Linden Drive.

Utility Maps from the 2005 UW-Madison Utility Master Plan Status presentation are included in Appendix K.

III. Probable Adverse and Beneficial Impacts of the Proposed Action on the Environment

Physical Environment

Climate and Air Quality

As of June 1, 2014, all counties in Wisconsin must attain and maintain the NAAQS for particle pollution, and all businesses and industries throughout Wisconsin are subject to more stringent air pollution regulations and controls on emission sources.

The project activities will not threaten air quality and do not require an air permit for construction or operation of the Meat Science Lab. Other than short-term emissions from construction equipment, there will be no long-term adverse impacts resulting from this project. Emissions increases are expected, though, as a general result of the growth of the University.

Air quality inside and in the vicinity of the proposed building has been evaluated with regard to diesel exhaust from the loading dock area, as well as building exhausts from meat processing areas and the backup generator. Wind tunnel tests of exhaust dispersion were performed by Ambient Air Technologies, LLC and documented in a July 2015 report to determine the acceptability of the building design for exhausts and outside air intakes. The following excerpt is from the Executive Summary of the report:

“The wind tunnel testing showed that stacks for the teaching and research laboratories would provide acceptable exhaust plume dispersion with stacks 15 feet tall if they are aligned with the west wing of the Meat Lab and have minimum flows of 4,000 cubic feet per minute (cfm) per stack. If they are located 30 feet east, the requirements change to require stack heights of 17 feet or more and flows of at least 7,000 cfm per stack.

The BSL-2 exhaust stacks were found to provide acceptable plume dispersion with stacks 10 feet tall if the minimum exhaust flow is 6,000 cfm per stack. If the stack heights are increased to 22 feet or more, the minimum exhaust flow required reduces to 3,000 cfm.

The meat processing exhausts and kitchen exhausts were found to provide acceptable dispersion with their current design configurations. The diesel emergency generator flue as designed and extending at least 10 feet above the roof of the west wing of the penthouse was found to provide odor-free operation.

Exhausts from diesel delivery vehicles were found to potentially cause odors at all of the Meat Lab outside air intakes. Treatment of intake air is recommended pending operational experience demonstrating its need. Provision should be made in the design to add intake air treatment, if required, after occupation. If the outside air intakes are not installed on the east wall of the penthouse, the diesel odor issue will be significantly mitigated, and the potential need for treatment of intake air will be restricted to outside air intakes on the south penthouse wall.

Brief testing showed the impact of Meat Lab exhausts on the planned Veterinary Medicine Laboratory Expansion to be negligible. Exhausts from buildings neighboring the Meat Lab were

shown to have negligible impact on the Meat Lab outside air intakes and associated pedestrian locations.”

Energy

The Meat Science Laboratory will be connected to the existing University and City utilities. An increase in energy use is anticipated as the project site is currently partially occupied by a parking lot and meat refrigeration systems in particular increase energy demand. Estimates of the combined energy usage for the Meat Science Laboratory have been calculated as part of an Energy Modeling and Life Cycle Cost Study by KJWW in June 2015. The option of utilizing campus utilities (Option 1) was compared to the option of installing and operating a geothermal heating system (Option 2) as well as a baseline building meeting minimum codes. Although Option 2 has the lowest annual operating cost and the most energy savings (38.5% over code minimum), the high first cost and life cycle cost of a geothermal system is not economical over its lifetime use. The preferred and more economical option of using campus utilities with the current design does reduce energy costs by nearly 14% over a code minimum building. The energy loads are not expected to adversely impact the existing utility systems.

Sustainability

The DFD's goal for every new construction project is to design a high performance structure that would result in 10% greater energy efficiency than the State of Wisconsin building code, per Executive Order 63. The 2009 International Energy Conservation Code (IECC) as adopted by the State is currently in effect. The preferred option for energy will result in nearly a 14% greater energy efficiency over code minimum. When possible, design of the Meat Science Laboratory will incorporate DFD Sustainable Facilities Standards that are sensible and valid, especially those with an emphasis on energy efficiency, to optimize the energy efficiency of the building. Therefore, a variety of energy conservation strategies are being built into the design and include the following:

- Bicycle storage and staff changing rooms
- No new parking associated with project
- Reduction in water use (20%) in addition to water efficient landscaping
- Zero use of CFC-based refrigerants
- Occupancy sensors in rooms, lobbies, and corridors, as well as dimming features on LED lighting
- Optimized energy performance (14% more efficient building)
- Low flow fixtures in lavatories
- Carbon Dioxide (CO₂) control demand ventilation in high occupancy spaces
- Air handling units will be equipped with variable frequency drives
- Use of reflective surfaces and shading trees

The current predicted LEED® score is 49/110. This score is sufficient to obtain LEED® Certified status. Silver LEED® Certified status may be obtained with a score of 50 or higher. The project

design team is continuing to work on additional sustainable design strategies. These include management of on-site stormwater. While the roof drains are connected directly to the storm sewer, water that comes in contact with parking areas and soil areas on the ground surface are routed to subsurface on-site treatment tank to remove TSS along with oil and grease separation before being discharged to the storm sewer. These help to meet sustainable practice stormwater management goals at the site.

Surface and Subsurface Conditions

During construction, there is a potential for erosion of exposed soils, which can be interpreted as a short-term adverse impact. The short term potential erosion effects will be controlled and minimized according to erosion control practices outlined in the WRAPP submitted for the site and Wis. Stats. 144.266 for construction activity. An erosion control plan will be submitted as part of a stormwater construction management plan. Planned erosion control measures include storm inlet protection, a silt fence around the perimeter of the site, and gravel tracking pads which prevent sediment from being tracked onto public or private roadways. Any disturbed area that remains inactive for greater than seven days shall be stabilized with temporary methods such as seeding, soil treatment, erosion matting or mulch.

The proposed action will have a major long term effect on site soils as a large portion of soil will be removed prior to construction as part of the basement excavation. Preliminary estimates indicate approximately 2,000 cubic yards of soil will be excavated for the partial basement. Excavated soils will be disposed of off-site at a location approved by the DFD.

Water Resources

There is no surface water present on the project site and there are no anticipated effects on groundwater quality. Stormwater is therefore the primary concern for protection of water resources (stormwater from the site ultimately discharges to Lake Mendota).

A stormwater pollution prevention plan is being developed for the construction site during this project and will incorporate best management practices. This plan will follow the WDNR, University, and City stormwater requirements. Stormwater management designs typically follow NR151 and have a goal of 40 percent total suspended solids (TSS) removal for a redeveloped site. For this project, stormwater management design will provide approximately 80 percent TSS removal by following current DFD requirements.

Once construction is complete, the Meat Science Lab will not be subject to stormwater permitting under NR151, and there are no significant effects anticipated. The completed project site will have roughly the same amount of impervious surface area as the existing site conditions. Stormwater runoff will continue to follow existing drainage patterns and efforts will be made to make minor improvements with natural landscape features, with the exception of an on-site underground stormwater vault to be located at the southeastern portion of the site. Roof discharge and site runoff will generally be directed south to the stormwater vault.

Flood Hazards

The 100-year and 500-year floodplain boundary is located approximately 1,050 feet north of the project site along the shore of Lake Mendota and 670 feet west of the project site, along an

unnamed channel. The elevation of the 100-year floodplain in this area is 853 feet above msl. The proposed elevation of the first level of the Meat Science Laboratory is approximately 860 feet above msl, or 7 feet above the 100-year flood elevation. However, the proposed elevation of the basement level of the Meat Science Laboratory is approximately 847 feet above msl, or 6 feet below the 100-year flood elevation. These elevations suggest that the proposed building will not be susceptible to flood hazards. However, the basement will require engineered dewatering due to groundwater, which is indicated by site-specific geotechnical data to be 12 to 13 feet below ground surface, which is at or exceeds the elevation of the basement floor. A permanent substructure sump or dewatering engineered design will be incorporated into the building construction.

Noise

There will be short-term noise impacts during the construction period. The project site is located in the City of Madison and the project needs to comply with the City of Madison noise ordinance with standard hours of construction operation between 7:00 AM and 7:00 PM. For those times when construction is outside the standard work hours of 7:00 AM to 7:00 PM, a noise ordinance variance would need to be requested from the City of Madison.

There may be some localized long-term noise increase from changes in student traffic patterns and access as the Meat Science Laboratory will attract additional building usage not currently present on the project site, including delivery or waste-hauling trucks which will provide services to the building; however, this increase should be consistent with the current noise levels of a University setting.

There are several noise-reducing features incorporated into the proposed building design, including ceiling insulation and variable-speed fans and electronically commutated motors (ECM) for refrigeration equipment. The backup generator to be installed will be an additional source of noise; however, the generator will only be run during brief routine tests and during power outages so associated noise impacts will be short-term. Systems such as HVAC will be installed with silencers or other noise canceling devices to mitigate any noise release, and will comply with campus and City of Madison noise standards.

The nearest noise receptors include students, faculty and visitors of surrounding buildings, the nearest being the Poultry Research building, located approximately 40 feet to the east. All other surrounding buildings have a much larger setback and are separated by a street or parking lot, with the nearest public residential receptors located to the south of Campus Drive along old University Avenue. The nearest residential receptor is the Dejope Residence Hall to the north located approximately 400 feet to the north with direct line of sight across the Near East (recreation) Fields. Noise impacts would be most acutely heard during construction activities.

Lighting

There is no significant anticipated effect from lighting at the proposed facility, and the use of the latest energy-reducing technology will serve to increase efficiency and reduce unwanted light pollution over the interior and exterior lights at the current Seeds Building. The design plans include “cutoff” fixtures for outdoor lighting that direct light only to needed areas while reducing light pollution and spillover to other areas. Other cutoff and motion-detection or dimming fixtures will be used in other locations whenever possible to reduce energy

consumption and light pollution. Interior lighting will be designed to meet the lighting requirement standards of the Illuminating Engineering Society of North America, and interior stairwells will be lit per code.

Exterior lighting will be specified with LED light engines. The campus standard pole light is Kim Archetype, however wall mounted full cut-off fixtures have been specified for the west side of the building for budgetary reasons. Full cut-off LED wall lighting will be used for the loading dock areas with recessed downlights in canopy areas.

Environmental and Chemical Hazards

Based on the environmental database searches, no historical dumping or hazardous materials have been reported in the boundaries of the project site. Based on current information, the presence of potentially hazardous materials in surface or subsurface soils is not anticipated. Registered sites with known contamination in soils and/or groundwater, which are up-gradient from the proposed project site, are not anticipated to impact this project site due to the nature of contamination and separation distance from the site.

Site development provides state of the art laboratory facilities that allow for highly regulated experiments with meat processing and food contamination that require specialized access to chemicals and biological hazards. These processes will be conducted in BSL-2 lab which is completely segregated from the rest of the Meat Science Laboratory. Chemicals and hazards will be managed in accordance with USDA and other regulatory body guidance.

Biological Environment

There are no significant long-term biological impacts anticipated because of the project. There will be a short-term impact on flora and fauna in the area when construction begins due to the removal of nine trees and several shrubs located within the project limits. These trees are concentrated on the narrow green space on the north and west sides of the project site, while the shrubs are located on the south side of the existing building. However, six existing deciduous trees within project limits will remain during the project, and these are also the largest trees within project limits. The planting plan for the Meat Science Laboratory includes the addition of 1 overstory deciduous tree, 17 ornamental trees, 69 deciduous shrubs and 8 evergreen shrubs as well as ornamental grasses. The new landscaping will create a net gain in vegetation despite a minor loss in pervious area.

Short term impacts to fauna may include temporary displacement of local birds and small mammals that may reside in the project site trees and shrubs; however, a portion of the original habitat area will be available to these urban dwellers during the project, which does overlap with the nesting season. Adverse impacts to fish and invertebrates within Lake Mendota and Lake Monona are not anticipated to result from this project. Lake Mendota, the closest lake, is located at least 800 feet from the project site. Best management and appropriate erosion control practices, as recommended by the WDNR, will be followed during project construction in order to prevent impacts to these biological environments.

An Endangered Resources Review, including applicable Natural Heritage Inventory data, was completed by WDNR on October 1, 2015. The review identified 0 species with required actions, 0 species with recommended actions, and 14 species with no follow-up actions.

WDNR indicated that there is lack of suitable habitat for all identified species within the project boundary. Although some of the identified plant species may be capable of growing within the project boundary, the habitat is not suitable because the existing green space consists of maintained landscaping. A copy of the VEER Request is provided in Appendix J.

Social and Cultural Environment

Recreation and Green Space

This project will not adversely impact the campus recreation and green space because the current project site is comprised primarily of Seed Building and a surface parking lot with minimal green space that is not used for recreation. Minor greenspace lost is mitigated with additional public spaces such as improved walkways, improved entrance and gathering space on the north side of the building including a plaza area and landscaped features.

Cultural Environment

Short-term adverse social impacts are expected due to construction noise, dust, and vibrations. These adverse construction-related impacts will be short-term, and experienced by students, faculty, and staff in the buildings that are immediately adjacent to the project site

Construction-related impacts will also be felt by students, faculty, staff, or visitors who use Linden Drive due to the partial restriction of the road. However, Observatory Drive will provide access to nearby buildings along with Elm Drive and Easterday Lane.

Education and Research

Students, faculty, staff, and visitors of the Meat Science Laboratory will benefit from the new laboratory space, lecture hall, demonstration facility and research space. This will provide state-of-the-art facility for teaching, research and industry outreach. Training capabilities will be enhanced by the new facility and provide long-term benefits offered by the project. The new facility that meets current building, HVAC, food, and refrigeration codes will allow UW-Madison to continue to attract and maintain high quality faculty, staff, and students in this field. New building features and teaching labs will allow for more industry outreach and teaching opportunities, providing positive impacts as a result. Additionally, an increase in pedestrian and visitor traffic is anticipated with the proposed Bucky's Butchery and addition of tours of the facility.

An important component of the building development is the BSL-2 process and lab area. This portion of the building is completely separated from the rest of the building, with separate access, egress, and mechanical systems. It is designed to serve as a pilot processing area to conduct research involving all emerging science related meat and food safety procedures that would not be allowed in a USDA inspected space. The type of research conducted here could have significant social and economic benefits due to the pilot research that typically cannot be

conducted at laboratory facilities, leading to breakthroughs in meat and food handling processes or procedures.

Housing

The nearest housing in the vicinity of the project site is Dejope Residence Hall, located approximately 400 feet to the north, followed by Bradley and Phillips Residence Halls. This project will have no impact on the number or availability of housing units. Willow Drive, which provides access to the residence halls from the north side of Observatory Drive, will not be restricted during the project.

Neighborhood Compatibility and Site Aesthetics

The new building will be consistent with campus architectural standards and current master planning efforts. The architectural style of the new building will be considered a beneficial effect of the project, as the north portion of the existing Seeds Building is constructed of steel structures that were intended to be temporary and do not the current campus aesthetic.

The new building and landscaping will enhance the aesthetic appearance of the campus, and can be viewed residents of the Dejope residence hall to the north. As opposed to the one-story former Seeds building, the proposed two-story building will change the view from adjacent buildings and will change the overall neighborhood view from Linden Drive and Observatory Drive. However, there are several taller buildings in the vicinity, and the view from neighboring buildings is not anticipated to be adversely affected.

Historical/Archaeological Environment

There are no known historical or archaeological sites on the project site. Therefore, there will be no adverse or beneficial effects to the historical or archaeological environment.

Economic Environment

Employment

Although it is indicated that three custodial and one maintenance staff person would be needed (as indicated in 2013-15 Biennium Major Project Request) for this project once completed, no new staff is proposed to be hired. Thus, there will be no beneficial or adverse effect from direct employment. Existing staff in the Meat Science Program will staff the new facility when completed.

However, during the short-term, there will be an increase in employment and expenditures (materials, fuels, lodging, meals, etc.) associated with the construction of the project. A study by C3 Statistical Solutions, Inc. published in January 2011 indicates that every \$10 million in spending on new nonresidential construction projects in the State of Wisconsin creates 170 jobs, including 91 project specific construction jobs, 24 service sector jobs, and 55 jobs created as a result of the subsequent spending associated with the induced effects of the project. Accordingly, implementation of Phase I of this project could generate 728 jobs at the \$42,877,000 budget. There will also be a positive impact to the local retail community resulting from purchase of food, lodging, fuel, equipment, and supplies during the construction phase.

Income and Spending

The proposed action will require a commitment of \$42.88 million for the Meat Science Laboratory project. The project is being funded with \$22.9 million in GFSB funds and \$20 million in gift funds.

The DOA provides annual payments to local municipalities under the PMS program. In addition to paying established user fees for water, sewer, electricity, and solid waste collection/disposal, the DOA makes an annual payment to compensate for police, fire and solid waste handling services. The payment is based on a prorated portion of the state building and land value compared to the total building and land value (including state property) in the municipality. UW-Madison contributed approximately \$7,131,241 to the City of Madison in 2013. As a result of the project, this amount will increase based on the value of the Meat Science Laboratory.

A study by C3 Statistical Solutions, Inc. published in January 2011 indicates that every \$10 million in spending on new nonresidential construction projects in the State of Wisconsin creates 170 jobs 91 project specific construction jobs plus 24 service sector jobs. Additionally, another 55 jobs will emerge as a result of the subsequent spending associated with the induced effects of the project. Accordingly, implementation of this project could generate up to 761 project related jobs at the \$44.8 million budget. There will also be a positive short-term impact to the local retail community resulting from purchase of food, lodging, fuel, equipment, and supplies during the construction phase. A study on the economic effects of new nonresidential construction projects by C3 Statistical Solutions suggests that the economic multiplier of initial construction cost spending is approximately 1.92. Thus, this proposed \$44.9 million construction project can be expected to contribute up to \$86.2 million to the local, regional, and national economy in the short-term.

This project may potentially provide an increase in program revenue as a result of additional marketing and outreach and expanded hours related to the Bucky's Butchery operation which anticipates to increase sales compared to the current Meat Science building operation. The amount of these revenue increase has not been estimated or quantified to date.

Loss of metered parking revenue is an adverse economic condition associated with the project development. Surface parking lot #43 has 58 metered and reserved stalls. At 100% occupancy (8-hours per day), 5 days per week, 52 weeks per year, the total theoretical revenue for the \$1.50 per hour meters would be \$180,960. Alternatively, fully subscribed baselot permit costs of \$838 per year (2015-16 rate) equates to \$48,604 in either spots that need to be fulfilled by other lots, or potentially lost revenue depending on overall parking stall subscription.

Parking and Transportation

Currently, the UW-Madison campus has 18 parking garages, 83 parking lots, and 10 UW-Arboretum lots. The northern one-third of the project site is occupied by one of these on-campus parking lots, surface parking lot #43, which accommodates 58 parking stalls for UW-Madison as 8-hour meters and reserved stalls for baselot permit holders. This total net loss of 58 parking spaces represents a very small portion of the approximately 13,000 available campus parking spaces and should not have a significant impact on the availability of parking spaces on campus. Due to the short term nature of the parking from the meters, they are key parking

spaces for visitors and will need to be replaced in the same general vicinity to mitigate the loss of parking per campus Transportation Department staff. This loss of campus parking spaces will result in a loss of revenue for UW Parking Services.

Traffic patterns will have some short-term impacts as a result of the project. There is likely to be temporary slowdowns or increased vehicular congestion resulting from contractor vehicle and machinery movement at the project site during construction. In the long-term, traffic patterns will remain as they currently exist along Linden Drive and Observatory Drive, with some minor reductions due to the removal of surface parking lot #43. Access to surface lot #62 will be impacted with the removal of the access point from the west side of the project.

Delivery access remains in place post-development along the driveway along the east side of the site, the current driveway along the west side of the Seed Building will be removed and replaced with walkways and landscaped features. The delivery system includes live animal transfers, supply delivery, waste removal, and processed food removal. The existing Meat Science building currently does not have separate intake and export loading docks, which allows potential intermingling of deliveries and outgoing waste. As part of the design of the new building, delivery access is now segregated to provide direct routing to various intake and waste streams to prevent any cross contamination or intermingling of materials. Additionally, the BSL-2 has a completely separate access and egress due to the nature of laboratory work conducted at that location. In relation to existing conditions at the site, the proposed Meat Science Laboratory will have higher throughput of delivery vehicles entering and leaving the site.

The project will support alternative transportation through the installation of 11 bicycle stalls and through its proximity to the city bus line. Additional bike storage is available across the street at the Natatorium. City bus routes through campus use both Observatory Drive and Linden Drive, and will remain unchanged by this project. This is important due to the strong working relationship between Madison Metro and UW-Madison, and the \$1.7 million value placed on contracts to operate the UW routes.

During construction, there will be impacts to pedestrians caused by construction vehicles and perimeter fencing. The volume of pedestrian traffic on Observatory Drive will be routed to the north side of Observatory Drive and to the south side of Linden Drive. Appropriate safety fencing and barricades will be provided to secure the entire construction site. As part of the public nature of some of the building amenities such as tours and Bucky's Butchery, the building is anticipated to see an increase in both pedestrian foot traffic and vehicular traffic. This would be a direct impact as a result of the project.

Utilities

The Meat Science Laboratory will be served by existing utilities that will be upgraded and utilized to serve the project site. Both beneficial (long-term) and adverse (short-term) impacts will occur as a result of the utility installation. Installation of new utility lines will result in construction impacts that may impact student, faculty and staff access to the surrounding buildings, campus streets and pedestrian walkways adjacent to the project site. Additionally, interconnection to existing utilities may result in temporary interruption of services. Another potential impact may include the disruption of sidewalks as a result of utility

extensions/construction. These disturbances, however, would be short term and any areas disturbed through these activities will be restored upon completion.

Beneficial impacts include improved reliability in the area through upgraded utilities that will be installed as a direct result of this project. Although overall campus utility costs are expected to increase as a result of this new construction, the new structures will be designed to be as energy efficient as possible. The ultimate goal is to meet the requirement of Wisconsin Executive Order 63, which states that new State buildings are to be designed to use 10 percent less energy than commercial code (2009 International Energy Conservation Code).

Preliminary annual energy costs are estimated at \$198,216 using campus chilled water and steam according to the KJWW Energy Modeling and Life Cycle Cost Study, with an additional \$99,877 per year for the laboratory refrigeration systems. The estimated increase in annual custodial and maintenance costs is \$179,300. Budgeted costs for utilities, custodian, and maintenance cost in the project request budget was \$576,000. The increase in annual energy costs may be partially offset by the demolition of the existing Seed Building.

Cumulative Impacts

Cumulative impacts are defined as impacts on the environment that are a result of the incremental impact of a proposed action when considered relative to past, present, and reasonably foreseeable future actions. Collectively, repeated projects of this type can result in both adverse and beneficial impacts on the environment. In July 2005, UW-Madison adopted a Campus Master Plan to be used as a guide for both short-term and long-term growth and development opportunities within the campus. The master plan, developed for a 20-year time horizon, established site design guidelines, architectural standards and included conceptual plans for future development projects to address campus image and identity, building needs, vehicular circulation and parking, pedestrian and bicycle circulation, open space, service routes and access, utilities, and phasing. Adherence to the guidelines of this master plan should help to minimize adverse effects and maximize beneficial impacts to the campus and local environment.

In the context of development at UW-Madison, construction of the proposed Meat Science Laboratory will continue to complete important component of the University's Animal and Plant Sciences Neighborhood Development Plan, which calls for the increased density for these technologically advanced research and academic buildings. Recently completed or currently on-going projects in various stages of development that were also envisioned in the west campus area in vicinity of the Animal and Plant Sciences or CALS neighborhood include the following:

- UW-Hospital Ramp 75 Expansion – on-going
- Lake Mendota Shoreline Restoration – completed October 2013
- West Campus Cogeneration Facility Chiller Addition – on-going
- Babcock Dairy Plant Expansion – On-going
- School of Nursing – completed summer 2014
- DeJope Residence Hall – completed spring 2012
- Wisconsin Energy Institute – completed Fall 2011

Separate EISs or EIAs were or are being completed for each of these projects prior to construction. Future actions may also require preparation of EIA/EISs.

Collectively, the proposed action as well as recently completed and anticipated future projects will have similar impacts. The cumulative impacts of these projects include increased energy consumption, financial commitment to construction and long-term maintenance and operation of new facilities, potential decreases in campus parking or shifting of parking locations, pedestrian and traffic re-routing, and other construction nuisances including noise and dust. The cumulative impact of building sites that are basically fully impermeable will have an impact on stormwater management on campus. While this specific project is already significantly impermeable, cumulative impacts of replacing grass areas with more impervious surfaces will increase the quantity of stormwater runoff. While this can be mitigated through the use of stormwater management techniques to decrease TSS and peak runoff, the overall volume would still increase compared to original pre-development conditions.

Other than financial commitment, most of the impacts are short-term and are not expected to have long-term adverse impacts. Many of these projects have impacts on parking capacity, replacing surface parking with high density research and academic buildings. This in turn necessitates new capital investment in parking ramps or equivalents to maintain the parking status quo on campus, or to develop a cumulative approach to parking through park-and-ride, mass transit, or bicycling that can be implemented on a broader basis on campus.

The primary cumulative beneficial impact of this action, as well as recently completed and proposed projects, is the development of the UW-Madison campus in an orderly and planned process to accomplish the goals of the Master Plan, which is currently in the process of being updated. Collectively, these projects will serve to enhance the campus image, enhance the academic experience, modernize campus facilities, improve energy efficiency, create cohesive campus neighborhoods, improve pedestrian and vehicular traffic flow and continue to make UW-Madison an attractive campus for students, faculty, and staff.

IV. Probable Unavoidable Adverse Environmental Impacts

Adverse, unavoidable short-term impacts include noise, dust, and traffic impacts from materials delivery and project implementation. 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, including construction activities being scheduled to avoid or be minimized during campus exam times, if possible, but these adverse effects will likely not be completely eliminated.

During project construction, there will be interference to pedestrian and vehicular traffic caused by construction vehicles. Access to the site by construction vehicles will likely be from both Linden Drive and Observatory Drive depending on construction sequencing. Appropriate safety fencing and barricades will be provided to secure the construction site and maximize safety of students, faculty, staff, and residents. Pedestrian traffic will be rerouted to the north side of Observatory Drive with a temporary sidewalk closure to be a slight inconvenience to pedestrians; however, it is a short-term impact that is necessary to ensure public safety. At this time, vehicular traffic rerouting in the project vicinity is not anticipated. Long-term adverse impacts include increased traffic at the proposed project location due to delivery vehicles entering and leaving the site.

In order to alleviate these impacts, all operations, equipment, apparatus, and storage of materials will be confined to the immediate area of work to the greatest possible extent. The contractor shall ascertain, observe, and comply with all rules and regulations in effect on the project site, including but not limited to parking and traffic regulations, use of walks, security restrictions, hours of allowable ingress and egress and traffic within or to the project site. Work will be conducted during normal working hours from 7:00 A.M. to 7:00 P.M. daily, Monday through Friday. In accordance with the Department of Administration's air quality management practice, all contractors will reduce or limit emissions and particulate matter that adversely affect air quality. Damaged property will be repaired or replaced in order to return it to its original condition and damaged lawns will be replaced with sod. All necessary precautions will be taken to protect the property as well as adjacent property, including trees, shrubs, buildings, sanitary and storm sewers, water piping, gas piping, electric conduit or cable, etc., from any and all damage which may result due to work on this project. Repair work outside of the property line will be conducted in accordance with the requirements of the authority having jurisdiction. Any property damaged by failure to provide proper and adequate protection will be returned to its original state.

There will be a short-term impact on flora and fauna in the area when construction begins including removal of approximately nine existing trees within the project limits. These include five trees in surface parking lot #43 and three adjacent to the new building. Six existing trees will remain, including a 30" diameter and 36" diameter tree along the northwest corner of the new building. The loss of trees and other flora within the project site boundaries will be mitigated with new plantings after project completion. The planting plan for the Meat Science Laboratory includes the addition of 1 overstory deciduous tree, 17 ornamental trees, 69 deciduous shrubs, and 8 evergreen shrubs as well as ornamental grasses. The new landscaping will create a net gain in vegetation despite a minor loss in previous area.

This project will result in the temporary loss of 58 parking spaces until a new parking structure is built to the west and replace these spaces lost with this project. This loss represents a very small portion of the available campus parking and should not have a significant impact on the availability of parking spaces on campus. This loss of campus parking spaces will result in a loss of revenue for UW Parking Services; however, some of the revenue may be recovered due to an increase the number of people visiting campus once the Meat Science Laboratory is complete, along with other completed parking projects on campus, such as the nearby Ramp 75.

Preliminary calculations indicate that there will be an overall increase in impervious area within the project limits of 1,000 square feet. Stormwater management design include a subsurface detention system and follow NR151 and have a goal of 40 percent TSS removal for a redeveloped site.

The construction of the Meat Science Laboratory will change the view from adjacent buildings and will change the overall neighborhood view from Observatory and Linden Drives. In particular, the new building will impact the view to the north toward Lake Mendota from Campus Drive and buildings to the south such as Veterinary Medicine and U.S. Dairy Forage Research Center. However, the building height and architectural features fit into the surrounding buildings and neighborhood. Therefore, the impact on the view from neighboring buildings will not be a significant adverse impact. Additionally, the architectural style and landscape design of the project should result in an aesthetically pleasing view that is consistent with the Campus Master Plan and the Agriculture and CALS neighborhood.

V. Relationship between Short-Term Uses of the Environment and the Maintenance and Enhancement of the Long-Term Productivity

There will be short-term impacts to the environment during construction, which include increased noise levels, consumption of fuels and other building products, and temporary slow-downs and possible short-term rerouting of pedestrian and vehicle traffic. These impacts will not exist in the long-term when the project is complete.

A small amount of green space will be lost as a result of this project. The vegetated parking lot islands and the grassed areas along the existing building perimeter will be lost at the start of project construction. The preliminary landscape plans include deciduous shade trees, ornamental trees, and shrub/groundcover planting beds; however, the total area of green space will be decreased by approximately 1,000 square feet following completion. However, there will be an overall increase in the amount of vegetation when compared to the existing site conditions. Several green space amenities will be added to the site, including benches, bike racks, trash receptacles, concrete walkways, and paved patio areas.

The long-term goals of the University include creating a technologically advanced agricultural science research and academic district consolidated in this area. The Meat Science Laboratory is an essential element of this long-term goal and will provide the research, food science, and meat processing space needed by the Department. The new building will serve to retain and attract more students and faculty to the UW-Madison campus in a competitive environment.

VI. Irreversible or Irretrievable Commitment of Resources

The project will require an initial financial commitment of \$42.88 million for construction. After project completion, the Meat Science Laboratory will also incur on-going annual operating and maintenance expenses. Initial estimates in the project request for utilities, custodial, and maintenance costs was \$576,000. Preliminary annual energy costs are estimated at \$198,216 using campus chilled water and steam according to the KJWW Energy Modeling and Life Cycle Cost Study, with an additional \$99,877 per year for the laboratory refrigeration systems. The estimated increase in annual custodial and maintenance costs is \$179,300. This impact will be offset somewhat by a reduction in future utility demand due to the demolition of the Seed Building. The proposed action will require a commitment of \$42.88 million for the Meat Science Laboratory project. The project is being funded with \$22.9 million in GFSB funds and \$20 million in gift funds

Construction of the project will require an irretrievable commitment of building and furnishing materials. The construction process will consume energy and materials. Potential irretrievable materials include fuel, wood, brick, glass, steel, sand, gravel, and asphalt. These resources are not scarce; thus, depletion is not a major concern.

The action of constructing the Meat Science Laboratory is reversible as the new structure could be deconstructed and the land could be restored to a pre-developmental setting.

There will be a long-term commitment of energy resources to operate and maintain the Meat Science Laboratory. However, long-term consumption of fuel, natural gas, and other resources will not impact or overload local supplies. The structures will be designed to be sustainable and energy efficient. This commitment of resources is justified by the benefits of the proposed action.

VII. Alternatives

New construction, renovation and/or expansion of the existing Meat Science and Muscle Biology Lab Building, and a “no action” alternative were considered for the Meat Science Laboratory project. After detailed analysis and consideration, the construction of a new Meat Science Laboratory was determined to be the preferred alternative. The initial alternatives are discussed in the following paragraphs. Preliminary plan sheets of the project are in Appendix H.

No Action Alternative

A no action alternative was determined not to be a viable alternative since it would not address the needs of the university’s Meat Science program. This alternative continues to not meet the needs for staff and students within the academic program, and continues to show the deficiencies of the building as it currently resides. The improvements to the building in the mid-2000’s were intended to bring the building refrigeration and other systems up to code, and weren’t intended to provide long-term upgrades and improvements to the building. As such, in the near future, the building and its systems would require additional investment to stay in compliance with food, building, and operational code and statutes.

Renovation/Expansion of the existing Meat Science and Muscle Biology Lab Building

Renovation and expansion of the existing facilities was determined not to be a viable alternative. Deficiencies of the existing building include small site footprint with no room for expansion, old and dated cooler and lab systems that were installed in the mid-2000’s as a temporary solution to state code requirements, a loud and inefficient HVAC system, leaking and poorly insulated building envelope, insufficient room sizes, and poor building layout/design. Most of these deficiencies are intrinsic to the building design and cannot be corrected. Renovation of the facility could be undertaken to eliminate some of the deficiencies would be too costly and time consuming and still wouldn’t meet the needs of the program. Ultimately, the space cannot be expanded to provide the amount of space necessary to support the current needs of the Meat Science and Muscle Biology program.

Construction of a New Meat Science Laboratory (selected option)

The construction of a new Meat Science Laboratory was determined to be the only feasible option. The project will include the construction of a two-story 67,540 GSF (37,308 ASF) building that will house a meat laboratory, lecture/demonstration suite, teaching and research laboratories, faculty offices and support spaces. Alternative design options were developed and evaluated as part of the process, but were revised and modified due to space, programming, and budgetary considerations.

VIII. References

Ambient Air Technologies, LLC. Meat Science Laboratory Environmental Wind Tunnel Testing Exhaust Plume Dispersion Study. July 2015.

City of Madison Website. <http://www.cityofmadison.com>

Department of Public Works. City of Madison Park Division. City of Madison 2012-2017 Park and Open Space Plan. City of Madison: n.p., 2012. Print. Legislative File ID No. 25928.

Heg, J. E., ed. "Wisconsin and her institutions: University of Wisconsin: History" in The blue book of the state of Wisconsin 1883 Madison, 1883; p. 393

NorthStar Economics, Inc. The University of Wisconsin-Madison's \$12.4 Billion Impact on the Wisconsin Economy. Rep. N.p.: U of Wisconsin Madison, March 2011.

Potter Lawson. Design Report Appendix, Meat Science Laboratory. September 10, 2015.

United States Department of the Interior. Geology and Ground-Water Resources of Dane County, Wisconsin. 1965. <http://pubs.usgs.gov/wsp/1779u/report.pdf>.

University of Wisconsin-Madison. Campus Master Plan – Executive Summary. UW-Madison, Facilities, Planning and Management, 2005. <http://uc.wisc.edu/masterplan/images/exec-sum-FINAL.pdf>

United States Environmental Protection Agency Envirofacts Website. <http://www.epa.gov/enviro/>

University of Wisconsin – Madison. Campus Transportation System Evaluation. February 2013.

University of Wisconsin System. 2015-2016 Biennium – Operating Budget and Fee Schedules.

University of Wisconsin System. Factbook 13-14. November 2014.

University of Wisconsin System. 2013-15 Biennial Capital Budget Request.

The Weather Channel website. Monthly Averages for Madison, WI. Accessed: September 2015.

Web Soil Survey, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Wisconsin Department of Administration. Division of State Facilities – Sustainable Facilities Standards. May 24, 2012.

Wisconsin Department of Agriculture, Trade and Consumer Protection –Storage Tank Database. http://dvmwapps.wi.gov/ER_Tanks/ER-EN-TankSearch.htm

Wisconsin Department of Natural Resources Remediation and Redevelopment Sites Map Website. <http://dnrmapping.wi.gov/sl/?Viewer=RR%20Sites>

Wisconsin Department of Natural Resources Surface Water data Viewer Website. <http://dnrmapping.wi.gov/sl/?Viewer=SWDV>

Wisconsin Department of Natural Resources - Solid and Hazardous Waste Information Management System online database. <http://dnr.wi.gov/sotw/Welcome.do>

Appendix A
Site Location Map, Aerial Photo, Campus Map,
and Site Photos



Source: USGS 7.5-Minute Series Topographic Quadrangle, Madison West, WI, 2013



Figure 1 – Location Map
Meat Science Lab (DFD Project #1312Y)
1930 Linden Drive
Madison, WI

AYRES
ASSOCIATES

19-0588.00



Figure 2
Campus Location Map

Environmental Impact Statement
University of Wisconsin – Madison
Meat Science Laboratory
DFD Project No. 13I2Y

AYRES
ASSOCIATES



Figure 3

Aerial View of Project Site

**Environmental Impact Statement
University of Wisconsin – Madison
Meat Science Laboratory
DFD Project No. 1312Y**

**AYRES
ASSOCIATES**

Sheet 1



Looking southwest over Seed Building and Lot 43 on project site.



Looking south at Lot 43 and Seed building from northwest corner of project site.



Looking southeast and west side of Seed Building.



Looking southwest at east side of Seed Building.

Sheet 2



Looking northwest at the south side of the Seed Building on Linden Drive.



Looking northeast at the west side of the Seed Building and adjacent substation.



Looking south at the north side between wings of the Seed Building.



Looking northwest across Observatory Drive at Gymnasium Natatorium.

Sheet 3



Looking north across Observatory Drive at Dejepe Residence Hall.



Looking east along Observatory Drive at adjacent Poultry Building.



Looking south at US Dairy Forage Research Center across Linden Drive.



Looking southwest across adjacent Lot 62 with Veterinary Medicine building in the background.

Appendix B
DFD Sustainable Facilities Standards Checklist,
and LEED Checklist

A. SUSTAINABLE FACILITIES STANDARDS CHECKLIST

Project
Project No.
Project Stage
Checklist Author

Meat Science Laboratory, UW - Madison
13i2Y
Preliminary Design (35%) Phase
Potter Lawson

September 10, 2015

Applicable?	Requirements	Primary Responsibility	Remarks Note any: Reason if Unknown or Not Applicable, Any goals beyond Min. Req'ts., Other comments
1. Portfolio Management & Assessment of Need			
Yes	** Portfolio Management & Assessment of Need	A	
2. Program Development			
Yes	** Program Development	A	
3. Integrated Design			
Yes	** Integrated Design	D, DSF	
4. Sustainable Site Requirements			
Yes	SS W1/P1 * Construction Site Erosion & Sedimentation Control	D/C	
Yes	SS C1 Site Selection	A	
Yes	SS C2 Development Density & Community Connectivity	A	
Yes	SS C3 Brownfield Redevelopment	A	Asbestos in existing building to be demolished.
Yes	SS C4.1 Alternative Transportation Public Transportation Access	A	Multiple bus lines within 1/4 mile
Yes	SS C4.2 * Alternative Transportation Bicycle Storage & Changing Rooms	D	
No	SS C4.3 * Alternative Transportation Low Emitting & Fuel Efficient Vehicles	D	No new parking associated with project.
Yes	SS C4.4 Alternative Transportation Parking Capacity	A	
No	SS C5.1 Site Development, Protect or Restore Habitat	A/D	
No	SS C5.2 Reduced Site Disturbance Development Footprint	A/D	
Yes	SS C6.1 Permanent Stormwater Management (Discharge Rate & Vol - DNR 151)	D	
Yes	SS C6.2 * Permanent Stormwater Management (Quality Treatment - DNR 151)	D	
No	SS C7.1 Heat Island Effect: Non-Roof	D	
	SS C7.2 LEED Credit Not Used		
	SS C8 Light Pollution Reduction	D	
5. Water Efficiency Requirements			
	WE C1.1 Incorporated into WE C1.2		
Yes	WE C1.2 Water Efficient Landscaping No Potable Use or No Irrigation	D	
	WE C2 LEED Credit Not Used		
Yes	WE C3.1 Water Use Reduction, 20% Reduction	D	
	WE C3.2 LEED Credit Not Used		
6. Energy & Atmosphere Requirements			
Yes	EA P1 * Commissioning	D, C	DSF Level 2 commissioning by third party CxP
Yes	EA P2 Minimum Energy Performance	D	
Yes	EA P3 * CFC Reduction in HVAC&R Equipment	D	
Yes	EA C1 * Optimize Energy Performance for Projects > \$2 million	D	
No	EA C2 * Renewable Energy	D	
	EA C3 Incorporated into EA P1		
	EA C4 LEED Credit Not Used		
?	EA C5 * Measurement & Verification	D, O	UW responsibility
Yes	EA C6 Green Power	A, O	
DSF Requirement / LEED Credit Comparison		Primary Responsibility	
Same as LEED 2.1 or 2.2 Credit		A	Agency - Planning, Budget Analyst
* DSF variation of LEED 2.1 or 2.2 Credit		D	Architect/Engineer
** DSF only Standard		DSF	Division of State Facilities
LEED Credit Not Used, Incorporated into another Standard or not supported		C	Contractor
		O	Agency - Operation & Maintenance

13i2Y		Meat Science Laboratory, UW - Madison		September 10, 2015	
Applicable?	Requirements			Primary Responsibility	Remarks Note any: Reason if Unknown or Not Applicable, Any goals beyond Min. Req'ts., Other comments
7. Materials & Resources Requirements					
Yes	MR P1	Storage & Collection of Recyclables		D	
No	MR C1.1	Building Reuse		A	Existing Seed Building to be entirely demolished.
	MR C1.2	Incorporated into MR C1.1			
	MR C1.3	LEED Credit Not Used			
Yes	MR C2.1	Construction Waste Management		C	
	MR C2.2	Incorporated into MR C2.1			
No	MR C3.1	Resource Reuse		D	
	MR C3.2	Incorporated into MR C3.1			
Yes	MR C4.1	Recycled Content		D	
	MR C4.2	Incorporated into MR C4.1			
Yes	MR C5.1	Local/Regional Materials		D	
	MR C5.2	LEED Credit Not Used			
No	MR C6	Rapidly Renewable Materials		D	
Yes	MR C7	* Certified Wood		D	
Yes	MR W1	** Durable Buildings		D	
8. Indoor Environmental Quality Requirements					
Yes	EQ P1	Minimum IAQ Performance		D	
Yes	EQ P2	* Environmental Tobacco Smoke (ETS) Control		O	
	EQ C1	LEED Credit Not Used			
	EQ C2	LEED Credit Not Used			
Yes	EQ C3.1	Construction IAQ Management Plan During Construction		C	
Yes	EQ C3.2	Construction IAQ Management Plan Before Occupancy		C	
Yes	EQ C4.1	Low-Emitting Materials Adhesives & Sealants		D	
Yes	EQ C4.2	Low-Emitting Materials Paints		D	
Yes	EQ C4.3	Low-Emitting Materials Carpet		D	
Yes	EQ C4.4	Low-Emitting Materials Composite Wood		D	
Yes	EQ C5	Indoor Chemical & Pollutant Source Control		D	
	EQ C6.1	LEED Credit Not Used			
	EQ C6.2	LEED Credit Not Used			
	EQ C7.1	LEED Credit Not Used			
	EQ C7.2	LEED Credit Not Used			
No	EQ C8.1	* Daylight & Views		D	Daylight not desired in many rooms.
	EQ C8.2	LEED Credit Not Used			
9. Operation & Maintenance Requirements					
		** Operation & Maintenance		O	
10. Purchasing of Furniture, Fixtures and Equipment Requirements					
		** Purchasing of Furniture, Fixtures and Equipment		A	
11. Accountability, Verification, and Reporting Requirements					
	AR 1	** Accountability for Sustainability		DSF	
	AR 2	** Verification during Project Design		DSF	
	AR 3	** Verification during Project Construction		DSF	
	AR 4	** Verification following Construction		DSF	
	AR 5	** Reporting on Construction Results		DSF	
LEED Goals					
		Seeking LEED Certification		A	
Yes	LEED EB	(Agency Operations Equal to LEED Existing Building)		A	
DSF Requirement / LEED Credit Comparison				Primary Responsibility	
Same as LEED 2.1 or 2.2 Credit				A	Agency - Planning, Budget Analyst
* DSF variation of LEED 2.1 or 2.2 Credit				D	Architect/Engineer
* DSF variation of LEED 2.1 or 2.2 Credit				DSF	Division of State Facilities
** DSF only Standard				C	Contractor
LEED Credit Not Used, Incorporated into another Standard or not supported				O	Agency - Operation & Maintenance

B. LEED / DFD SUSTAINABLE GUIDELINES

Potter Lawson													
LEED™ 2009 / v.3 Rating System Scorecard - With DFD Sustainable Guidelines Incorporated											LEED-NC		
Meat Science Laboratory, UW Madison											DFD No. 1312Y PLI No. 2014.21.00		
Revised 09/10/2015													
Credit Number	DFD SFG #	Description	Y	?	N	Possible Points	Phase C or D	Strategy/Comments	Arch. UW DFD	Mech. Elec. Plum. Civil	Land.	Contr. Cx P	En.Mod.
Project Total Points			49	14	46	110							
Sustainable Sites													
Prereq 1	SS W1	Construction Activity Pollution Prevention	Y			-	C	Typical civil design and specifications will meet requirement (NR 216 or COMM 61.115, NR 151)					P
1	SS C1	Site Selection	1			1	D	Building site meets this requirement.	P				
2	SS C2	Development Density & Community Connectivity	5			5	D	Option 2, Community Connectivity - .5 mile from community services.	P				
3	SS C3	Brownfield Redevelopment		1		1	D	Because asbestos is present in the existing buildings being demolished, we may be able to claim this credit.	P				
4.1	SS C4.1	Alternative Transportation Public transportation access	6			6	D	Building site is within .25 mile proximity to two municipal bus lines. Appears to be multiple bus lines around the site. This may be an innovation credit for ridership.	P				
4.2	SS C4.2	Alternative Transportation Bicycle Storage & Changing Rooms	1			1	D	Secure Bike racks/storage for 5% of all building users at peak, showers for .05% FTE. If showers are not located in this building, the building users must have access to showers within 200 yards. Proximity to Natorium.	P				
4.3	SS C4.3	Alternative Transportation Low Emitting & Fuel Efficient Vehicles			3	3	D	Providing parking for low emitting vehicles. There is no new parking associated with the project. The designation of stalls in Lot 36 as low emitting has been done for earlier projects. UW will not permit additional stalls to be so designated. This number of stalls must be 5% of total stalls in Lot 36.	P				
4.4	SS C4.4	Alternative Transportation: Parking capacity	2			2	D	Option 1: parking < zoning min. Madison min. = 1/classrm. plus 1/5 maximum students attending at one time. This project will eliminate auto parking.	P				
5.1	SS C5.1	Site Development Protect or Restore Habitat			1	1	C	LEED requires 50% of total site (minus building footprint), or 20% of total site to be planted with native vegetation. This will depend on the final site plan and amount of green roof to attain 20%. There can be no monoculture plantings (lawn area) within this designated space. Not possible.	S			P	
5.2	SS C5.2	Site Development Maximize Open Space			1	1	D	This requires a minimum of 20% open space. Since we will be meeting SS C2 Development Density.				P	
6.1	SS C6.1	Stormwater Design: Quantity Control		1		1	D	Existing site is more than 50% impervious.				P	
6.2	SS C6.2	Stormwater Design Quality control	1			1	D	Treat 90% of average rainfall to remove 80% of the Total Suspended Solids. This credit will require engineered soils to filter out the TSS. This is a cost that must be identified for the project, and kept within the project budget.				P	
7.1	SS C7.1	Heat Island Effect Non-roof			1	1	D	Use light reflecting materials or provide shade within 5 years for at least 50% of sites non roof impervious surfaces.	S			P	
7.2**	NA	Heat Island Effect Roof			1	1	D	Requires use of light colored roof material or green roof. White roofs are not used by the DFD. Alternative is 50% green roof.	P				
8	SS C8	Light Pollution Reduction			1	1	D	Interior: 50% reduction 11 pm - 5 am. Exterior: to achieve typically requires bollards at sidewalks near project perimeter.			P		
Subtotal			16	2	8	26							
Water Efficiency													
Prereq 1	NA	Water Use Reduction	Y			-	D	Design system to use 20% less water than a base line for the building (Not including irrigation). Baseline must be determined.	A	UW DFD	M	E	P
1	WEC1.2	Water Efficient Landscaping	4			4	D	50% reduction = 2 points. No potable water use for exterior site irrigation = 4 points. A rain water collection system could be used to achieve this credit.				P	
2**	NA	Innovative Wastewater Technologies			2	2	D	Reduce or treat 50% of potable water for sewage conveyance. Low flow fixtures are not enough to attain this credit due to the base line LEED uses, this will require a rain collection tank and greywater reuse, potentially from different sources.				P	
3**	WE C3.1	Water Use Reduction 30% Reduction (DSF only requires 20% reduction)			2	2	4	D	Plumbing design to use less water than baseline. Typically laboratory sinks are considered Process water and not counted in this baseline. 30% = 2 points, 35% = 3 points, 40% = 4 points.			P	
Subtotal			4	2	4	10							
Energy and Atmosphere													
Prereq 1	EA P1	Fundamental Commissioning of the Building Energy Systems	Y			-	C		S	S			P
Prereq 2	EA P2	Minimum Energy Performance	Y			-	D	Demonstrate 10% improvement compared to a baseline building.					P
Prereq 3	EA P3	Fundamental Refrigerant Management	Y			-	D	Zero use of CFC based refrigerants. Achieved based on equipment selection		P			P
1	EA C1	Optimize Energy Performance	2	4	13	19	D	We are currently assuming a 14% more efficient building over Appendix G. Preliminary energy indicated only 13% better, but architectural upgrades have not been included.					P
2	EA C2	On-Site Renewable Energy			7	7	D	Project has the option to use PV or solar collection to reach the 1% overall building energy threshold to receive this point.					P
3	EA C3	Enhanced Commissioning	2			2	C	DFD will contract with a third party commissioning agent. Points assume they will provide enhanced level.					P
4**	NA	Enhanced Refrigerant Management			2	2	D	This will require a review of the mechanical system, and the large refrigeration units. Did not achieve this at WEI and is doubtful here.		P			
5	EA C5	Measurement and Verification			3	3	D	Provide for the ongoing accountability of building energy consumption over time. UW has been interested in pursuing this credit on previous projects. UW responsible for verification.	S				P
6	EA C6	Green Power	2			2	C	Requires that 35% of power supply be from "green" sources. Renewable sources as defined by Wisconsin Statute 196.374. UW will commit to buy/allocate for this facility, after receiving estimated usage from A/E.	P				
Subtotal			6	6	23	35							
Materials and Resources													
Prereq 1	MR P1	Storage and Collection of Recyclables	Y			-	D		P	S			
1.1	MR C1.1	Building Reuse Maintain Existing Walls, Floors & Roof			3	3	C	NA - Maintain the use of Existing Walls, Floors & Roof. 55% = 1 point, 75% = 2 points, 95% = 3 points					
1.2	NA	Building Reuse Interior, Nonstructural Elements			1	1	C	NA - Maintain 50% of Interior, Nonstructural Elements					
2	MR C2.1	Construction Waste Management	2			2	C	Divert construction waste from landfills. 50% = 1 point, 75% = 2				P	
3	MR C3.1	Materials Reuse, 5%			2	2	C	Use salvaged, refurbished or reused Mat. 5% = 1 point, 10% = 2					
4	MR C4.1	Recycled Content, (post-consumer + 1/2 pre-consumer)	2			2	C	At least 10% of material cost for project must meet recycled content. 10% = 1 point, 20% = 2 points	S			P	
5	MR C5.1	Regional Materials, (Extracted, Processed & Manufactured Regionally)	2			2	C	Materials that are extracted, harvested or recovered, and manufactured within 500 miles of the project. 10% = 1 point, 20% = 2 points				P	
6	MR C6	Rapidly Renewable Materials			1	1	C	Utilizing rapidly renewable materials to a total of 2.5% for the total building material cost.	S			P	
7	MR C7	Certified Wood	1			1	C	50% of wood based products from certified forests. See Sustainable Facilities Guidelines for certified wood providers.	S			P	
NA	MR W1	Durable Building Materials	Y					Develop & Implement a Bldg. durability plan in accordance with the CSA S478-95 (R2001) Guidelines on Building Durability	P				
Subtotal			7	0	7	14							

Potter Lawson																												
LEED™ 2009 / v.3 Rating System Scorecard - With DFD Sustainable Guidelines Incorporated												LEED-NC																
Meat Science Laboratory, UW Madison												DFD No. 1312Y PLI No. 2014.21.00																
Revised 09/10/2015																												
Credit Number	DFD SFG #	Description	Y	?	N	Possible Points	Phase C or D	Strategy/Comments	Arch.	UW/DFD	Mech.	Elec.	Plum.	Civil	Land.	Contr.	CX	EM										
Indoor Environmental Quality																												
Prereq 1	EQ P1	Minimum IAQ Performance	Y			-	D	Meet sections 4 through 7 of ASHrae 62.1-2007				P																
Prereq 2	EQ P2	Environmental Tobacco Smoke (ETS) Control	Y			-	D	Prohibit smoking in the building and 25' from all entrances and outdoor air intakes and operable windows. SFG do not require 25' separation.		P																		
1**	NA	Outdoor Air Delivery Monitoring	1			1	D	Install a permanent carbon dioxide monitoring system that affords operational adjustments. Monitor CO2 in densely occupied spaces (25 people per 1000 SF). Monitor direct outdoor air flow in non densely occupied spaces. Did not achieve this at WEI.			P																	
2**	NA	Increased Ventilation		1		1	D	Increase outdoor air ventilation rates to all occupied spaces by at least 30% above minimum rates required by ASHRAE 62.1 -2007.			P																	
3.1	EQ C3.1	Construction IAQ Management Plan, During Construction	1			1	C	Contractor to provide IAQ plan.			P					P												
3.2	EQ C3.2	Construction IAQ Management Plan, Before Occupancy			1	1	C	Building flush-out with approved filtration media, maintain at least 60 degrees and relative humidity no higher than 60%. May require a 21 to 30 day flushout, this must be accounted for in project schedule.			P					P												
4.1	EQ C4.1	Low-Emitting Materials, Adhesives and Sealants	1			1	C	All adhesives and sealants interior of the weatherproofing system and applied on site must meet VOC requirements.	S							P												
4.2	EQ C4.2	Low-Emitting Materials, Paints and Coatings	1			1	C	All paints and coatings inside of the weatherproofing system and applied on site must meet VOC requirements.	S							P												
4.3	EQ C4.3	Low-Emitting Materials, Flooring Systems	1			1	C	Carpet and hard surface flooring must meet these guidelines. Must meet FloorScore standard.	S							P												
4.4	EQ C4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products	1			1	C	Composite wood and agrifiber products must contain no added urea-formaldehyde resins. This includes all plywood, particleboard and door cores.	S							P												
5	EQ C5	Indoor Chemical and Pollutant Source Control	1			1	D	Separate ventilation for specific areas. Must use grates for 10' at each public entrance.	P	P						S												
6.1**	NA	Controllability of Systems Lighting	1			1	D	Individual control of lighting for 90% of building occupants. Will require task lighting at all open office configurations.				P																
6.2**	NA	Controllability of Systems Thermal Comfort			1	1	D	Providing Thermal Control in an open lab layout and meat processing areas may not be possible. Provide individual comfort controls for a minimum of 50% of occupants.			P																	
7.1**	NA	Thermal Comfort: Design	1			1	D	Meet ASHRAE standard 55-2004.			P																	
7.2**	NA	Thermal Comfort Verification	1			1	D	Provide a permanent monitoring system to ensure building performance. Conduct a thermal comfort survey of building occupants and agree to develop a plan to provide corrective action.		P	S																	
8.1	EQ C8.1	Daylight and Views Daylight 75% of Spaces			1	1	D	Achieve daylighting (as defined by LEED reference guide) in a minimum of 75% of all regularly occupied interior spaces. (Comply with DFS daylighting standards) We must achieve a minimum of 25 footcandles under clear sky conditions on September 21st, at 9:00 am and 3:00 pm. From our previous daylighting studies, we were only achieving around 10-15 footcandles in a large portion of the interior open office areas. This must be re-evaluated under the LEED specified conditions, and cross-referenced with the actual areas that achieved the minimum 25 footcandles.		P																		
8.2**	NA	Daylight and Views View for 90% of Spaces			1	1	D	Line of sight, between 30° and 90° A.F.F. to glazing for 90% of occupants.	P																			
Subtotal			10	1	4	15																						
Innovation and Design Process																												
1.1	NA	Innovation/Exemplary performance in Design	1			1	D	30%+ recycled content, or 95%+ construction waste recycling									P											
1.2	NA	Innovation/Exemplary performance in Design		1		1	C	30% regional materials									P											
1.3	NA	Innovation/Exemplary performance in Design	1			1	C	Alternate transportation, bus ridership.	P																			
1.4	NA	Innovation in Design		1		1	C	Owner provided initiative.		P																		
1.5	NA	Innovation in Design		1		1	C	Owner provided initiative.		P																		
2	NA	LEED Accredited Professional	1			1	C	Numerous LEED accredited professionals.	P																			
Subtotal			3	3	0	6																						
Regional Priority																												
Zip Code		53706 - Qualifying Credits						MRc1.1, SSc4.1, SSc4.2, SSc4.4, SSc6.1, SSc7.2																				
1.1	NA	RP MRc1.1 - Building Reuse Maintain exist. walls, floors, roof.			1	1	D																					
1.2	NA	RP SSc4.1 - Alternative Transportation Public transportation access.	1			1	D																					
1.3	NA	RP SSc4.2 - Alternative Transportation Bicycle storage and changing rooms	1			1	D																					
1.4	NA	RP SSc4.4 - Alternative Transportation Parking capacity.	1			1	D																					
	NA	RP SSc6.1 - Stormwater Design Quantity control			1	1	D																					
1.5	NA	RP SSc7.2 - Heat Island Effect - Roof			1	1	D																					
Subtotal			3	0	0	4		Only 4 points are possible in Regional Priority																				
Project Total			49	14	46	110																						
<table border="1"> <thead> <tr> <th colspan="2">LEED Scoring Levels</th> </tr> </thead> <tbody> <tr> <td>Certified</td> <td>40-49</td> </tr> <tr> <td>Silver</td> <td>50-59</td> </tr> <tr> <td>Gold</td> <td>60-79</td> </tr> <tr> <td>Platinum</td> <td>80+</td> </tr> </tbody> </table>																			LEED Scoring Levels		Certified	40-49	Silver	50-59	Gold	60-79	Platinum	80+
LEED Scoring Levels																												
Certified	40-49																											
Silver	50-59																											
Gold	60-79																											
Platinum	80+																											
<table border="1"> <thead> <tr> <th colspan="2">COLOR CODE</th> </tr> </thead> <tbody> <tr> <td>Credit can likely be attained</td> <td></td> </tr> <tr> <td>Credit requires additional review or cost consideration</td> <td></td> </tr> <tr> <td>Credit not attainable</td> <td></td> </tr> </tbody> </table>																			COLOR CODE		Credit can likely be attained		Credit requires additional review or cost consideration		Credit not attainable			
COLOR CODE																												
Credit can likely be attained																												
Credit requires additional review or cost consideration																												
Credit not attainable																												
<table border="1"> <thead> <tr> <th colspan="2">RESPONSIBILITY CODE</th> </tr> </thead> <tbody> <tr> <td>P - Primary Party Responsible for Submittal</td> <td></td> </tr> <tr> <td>S - Secondary Party Responsible for Submittal</td> <td></td> </tr> </tbody> </table>																			RESPONSIBILITY CODE		P - Primary Party Responsible for Submittal		S - Secondary Party Responsible for Submittal					
RESPONSIBILITY CODE																												
P - Primary Party Responsible for Submittal																												
S - Secondary Party Responsible for Submittal																												
<table border="1"> <thead> <tr> <th colspan="2">DFD - Sustainable Facilities Guidelines requirement</th> </tr> </thead> <tbody> <tr> <td>** - not used in the Sustainable Facilities Guidelines</td> <td></td> </tr> </tbody> </table>																			DFD - Sustainable Facilities Guidelines requirement		** - not used in the Sustainable Facilities Guidelines							
DFD - Sustainable Facilities Guidelines requirement																												
** - not used in the Sustainable Facilities Guidelines																												

G. ENERGY MODELING AND LIFE CYCLE COST STUDY



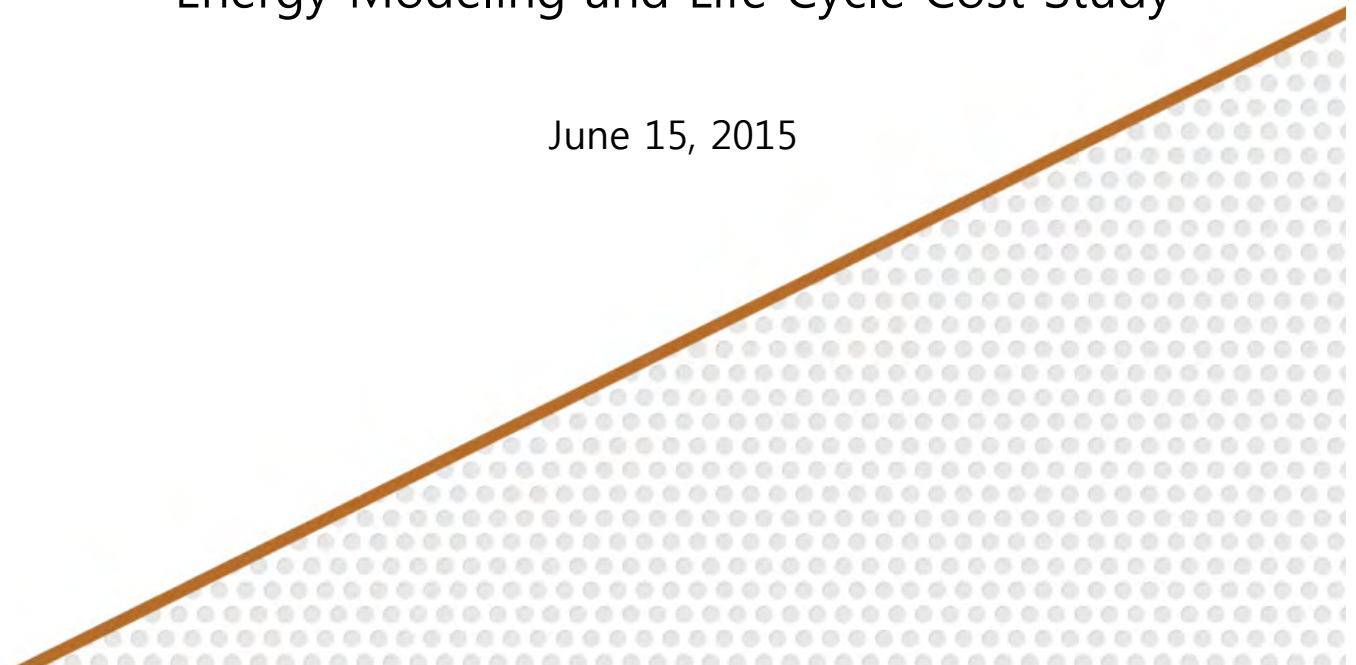
University of Wisconsin Meat Science Laboratory

DFD #13I2Y

KJWW # 14.0746.00

Energy Modeling and Life Cycle Cost Study

June 15, 2015



A. EXECUTIVE SUMMARY

This report presents the energy modeling and life cycle cost analysis that was performed for the University of Wisconsin-Madison Meat Science Laboratory. Three systems were modeled, analyzed, and compared including a baseline code minimum model, a model of the proposed building connected to campus utilities, and a model of the proposed building utilizing geothermal in addition to campus steam. Refer to Section B of this report for detailed descriptions of the three system analyzed.

This study compares the two options to the code minimum building and includes an opinion of probable construction cost and life cycle costs for the two options. These costs include any building or site related work associated with each option. Annual maintenance costs have been calculated similarly for each option. The life cycle cost analysis was completed for a twenty-five year period per DFD Guidelines.

Table 1 shows a more detailed breakdown of the annual costs and shows the total first costs and life cycle costs of each option. As seen in Table 1, Option 2 (Hybrid Geothermal) has the lowest annual cost, but has the highest total life cycle cost. The minimal operating cost difference between Option 1 and Option 2 is due to the low chilled water cost associated with the Campus Utilities compared to the high electrical demand cost and additional maintenance cost associated with the Geothermal Option. The higher life cycle cost of Option 2 is due to substantial first cost increase due to the geothermal borefield. A detailed life cycle cost analysis of each of the options can be found in Appendix C and Appendix D. Based on the results shown in Table one we recommend Option 1 is selected for the project.

Table 1 - Overall Cost Summary

	Annual Energy Costs (\$/yr)	Annual Maintenance Cost (\$/yr)	Total Annual Costs (\$/yr)	Total First Cost (\$)	25 Year Life Cycle Costs (\$)	Simple Payback Years
Baseline: Code Minimum	\$225,948	\$754	\$226,702	NA	NA	NA
Option 1: Campus Utilities	\$197,462	\$754	\$198,216	\$4,505,550	\$8,616,929	NA
Option 2: Hybrid Central Plant Geothermal	\$193,492	\$4,097	\$197,589	\$5,537,650	\$9,561,387	Exceeds life of system

Meat Science Laboratory Energy Modeling and Life Cycle Cost Study

DFD # 13I2Y

KJWW # 14.0746.00

June 15, 2015

Page 1 of 30



Appendix C
Historical Properties Review Submittal

REQUEST FOR UWSA REVIEW AND COMMENT ON A UNIVERSITY UNDERTAKING

Complete this form for each project in a campus building that is on the UWSA inventory. Provide project details and submit one copy for each action for which review is requested and send to the **UWSA Historic Preservation Officer: Maura Donnelly** <mdonnelly@uwsa.edu>. Attach supporting material providing detail of the proposed scope of work such as a work order, Small Project Request, AAPR, etc. Include drawings or photos of existing conditions. Complete only the areas highlighted in yellow. The Agency Historic Preservation Officer will do the rest.

I. GENERAL INFORMATION

- ☒ **This is a new submittal.**
- ☐ **This is supplemental information related to another project:** _____
- a. Institution/Campus: University of Wisconsin-Madison
- b. Institution Contact Person: Gary A. Brown, PLA, FASLA
- c. Phone: (608) 263-3023 Fax: 608-265-3139
- d. Return Address: 610 Walnut Street, Madison, WI Zip Code: 53726
- e. Email Address: gbrown@fpm.wisc.edu Project Number: 1312Y
- f. Project Name: Meat Science Laboratory
- g. Building Name: _____
Project Street Address To be determined (project site address is 1935 Observatory Drive – new building may have a new street address)
- h. County: Dane City: Madison Zip Code: 53706
- i. Project Location: Township: 7N Range: 9 ☒ E ☐ W Section: 15 Quarter Section: SW SW
- j. Project Narrative Description – Attach information as necessary.
- k. Area of Potential Effect (APE). Attach Copy of U.S.G.S. 7.5 Minute Topographic Quadrangle Showing APE.

II. IDENTIFICATION OF HISTORIC PROPERTIES

- ☒ Historic Properties are not located within the project APE. Attach supporting materials.
- ☐ Historic Properties are located within the project APE. Attach supporting materials.

III. FINDINGS

- ☒ No historic properties will be affected (i.e., none is present or there are historic properties present but the project will have no effect upon them). Attached necessary documentation.
- ☐ The proposed undertaking will have an effect on one or more historic properties located within the project APE. Attach necessary documentation, as described.

Authorized Signature: _____



Date: 10/27/2015

Type or Print Name: Gary A. Brown, PLA, FASLA

IV. AGENCY HISTORIC PRESERVATION OFFICER COMMENTS

- ☒ Agree with the finding in Section III above.
- ☐ The proposed undertaking will result in an adverse effect to one or more historic properties and will require SHPO review.
- ☐ Requires negotiation with the institution to resolve the adverse effects.
- ☐ Object to the finding for reasons indicated in attached memo.
- ☐ Cannot review until information is sent as follows: _____

Authorized Signature: _____



Date: 10/27/2015

UW System HPO Maura A. Donnelly

Site Location Map



Source: USGS 7.5-Minute Series Topographic Quadrangle, Madison West, WI, 2013



Figure 1 – Location Map
Meat Science Lab (DFD Project #1312Y)
1930 Linden Drive
Madison, WI
August 2015

AYRES
ASSOCIATES

19-0588.00

Aerial View of Project Site



Figure 2

**Aerial View of Project
Site**

**Environmental Impact Statement
University of Wisconsin – Madison
Meat Science Laboratory
DFD Project No. 13I2Y
October 2015**

**AYRES
ASSOCIATES**

Identification of Inventoried Properties

Project Title
Meat Science Laboratory
University of Wisconsin – Madison
DFD Project #13I2Y

This project will construct a new Meat Science Laboratory between Observatory and Linden Drives on the University of Wisconsin – Madison campus. The new building will contain research laboratories, classrooms, teaching laboratories and specialized animal and meat processing spaces, including an abattoir, carcass chilling and cooling facilities and a meat processing area. The project site is bounded by Observatory Drive on the north, Linden Drive on the south, the existing UW parking lot #62 on the west and the existing Poultry Research Laboratory and the Army ROTC facility at 1910 Linden Drive. The existing Seeds facility at 1930 Linden Drive will be removed and the program is being relocated in another existing building on campus. The existing UW parking lot #43 will also be removed with replacement parking in a new future parking structure planned for west of the project site on the eastern half of parking lot #62.

The project will create a 2-story 67,540 gross square foot facility for teaching, research and industry outreach. Training capabilities will be enhanced by the new facility. In addition to more traditional teaching spaces, demonstration labs with companion refrigerated demonstration labs will be separated by glass and enable the instructor to interact with students through advanced audio-visual systems. Meat industry professionals will use the facility to provide education on meat processing and food safety. In addition to training meat industry representatives and State inspectors, outreach programs will engage youth and consumer programs. An isolated Biosafety Level 2 lab will provide opportunities to engage meat companies to test methods for the elimination of pathogens under commercial conditions. Equipment companies can intentionally contaminate equipment and test sanitation methods. In addition, UW researches can conduct advanced food investigation.


The budget for the project is estimated at \$42,877,000 and will be funded using \$22,877,000 of general fund supported borrowing and \$20,000,000 of private gift funding. Project bidding for the project is planned for May 2016 with a construction start in August 2016 and building occupancy in July 2018.

A search of the Wisconsin Architecture and History inventory website (<http://www.wisconsinhistory.org>) was conducted on August 20, 2015 for any registered sites located within a 0.25-mile radius, in Madison, Dane County, Wisconsin. No registered sites exist on the project site, but nearby UW-Madison Dairy Barn located at 1915 Linden Drive is listed on the Architecture and History Inventory.

The following properties are located within 0.25-miles of the project site and are not located within the project's Area of Potential Effect (APE):

- Linden Drive, Madison, WI
 - UW-Madison - Agriculture Hall - 1450 Linden Dr.
 - Henry Mall Historic District - 420, 425, 440, 445, 460 and 465 Henry Mall
 - UW-Madison - Stock Pavilion - 1675 Linden Dr.

- Observatory Drive, Madison, WI
 - Washburn Observatory and Observatory Director's Residence - 1401 and 1225 Observatory Dr.
 - Hiram Smith Hall and Annex - 1545 Observatory Dr.
 - Bascom Hill Historic District
 - Horticulture and Agricultural Physics and Soil Science Building - 1525 Observatory Dr.
 - Agricultural Heating station - 1535 Observatory Dr.,
 - Observatory Hill Mound Group



WISCONSIN
HISTORICAL
SOCIETY

Support UsMembershipDONATE

BROWSE

Search within

SEARCH?

EVENTS

STORE

Contact Us

X Search: linden

X Explore Our Collections

X Online Collections

X National or State Register of Historic Places

X Dane

X Madison

Not finding what you are looking for? See tips for [how to use this page](#)

Use the links below to narrow your search results.

Refine by Architectural Style

English Revival (1)

Neo-Classical/Beaux Arts (2)

Other Styles (2)

Renaissance (1)

Refine by Historic Use

Educational (3)

Landscape (1)

Research Facility (2)


Refine by Property Type

Building (3)

District (1)

Results 1-4 of 4 Sort by: Relevance

1



NATIONAL OR STATE REGISTERS RECORD


1915 Linden Drive

Community: Madison

County: Dane

Historic Name: University of Wisconsin Dairy Barn

Reference Number: 02000600



NATIONAL OR STATE REGISTERS RECORD


1450 Linden Dr., University of Wisconsin campus

Community: Madison

County: Dane

Historic Name: Agriculture Hall

Reference Number: 85000571



NATIONAL OR STATE REGISTERS RECORD


420, 425, 440, 445, 460 and 465 Henry Mall and 1450 Linden Dr., University of Wisconsin campus

Community: Madison

County: Dane

Historic Name: Henry Mall Historic District

Reference Number: 91001986



NATIONAL OR STATE REGISTERS RECORD

1675 Linden Dr., University of Wisconsin Campus

Community: Madison

County: Dane

Historic Name: Stock Pavilion

Reference Number: 85001504

1

Have Questions?

If you didn't find the material you searched for, our Library Reference Staff can help.

Call our reference desk at 608-264-6535 or email us at:

feedback@wisconsinhistory.org

DIVISIONS

Library-Archives

Museums and Historic Sites

Historic Preservation-Public History

Administrative Services

GENERAL INFORMATION

About the Society

Media Room

Hours

Staff Directory

Employment

Privacy Policy

SELECTED PROGRAMS

National History Day

Wisconsin Historical Images

Office of School Services

Wisconsin Historical Society Press

State Historic Preservation Officer (SHPO)

SERVICES FOR

Educators

Government Agencies

Journalists

Legislators

Local Historians

CONNECT WITH US

 Facebook

 Flickr


 Twitter

 ENewsletters

 YouTube

 Tumblr

 Pinterest



WISCONSIN
HISTORICAL
SOCIETY

Support UsMembershipDONATE

BROWSE

Search within

SEARCH

?

EVENTS

STORE

Contact Us

X Search: observatory

X Explore Our Collections

X Online Collections

X National or State Register of Historic Places

X Dane

X Madison

Not finding what you are looking for? See tips for [how to use this page](#)

Use the links below to narrow your search results.

Refine by Architectural Style

Early Gothic Revival (1)

Italianate (1)

Neo-Classical/Beaux Arts (1)

Other Styles (1)

Queen Anne (1)

Romanesque Revival (3)

Refine by Historic Use

Educational (4)

Industry/Processing/Extraction (1)

Landscape (1)

Recreational/Social (1)

Research Facility (3)

Religious/Funeral (1)

Residential (1)

Refine by Property Type

Building (5)


District (1)

Site (1)

Results 1-7 of 7

Sort by: Relevance

1



NATIONAL OR STATE REGISTERS RECORD


1401 and 1225 Observatory Dr., Univ. of WI

Community: Madison

County: Dane

Historic Name: Washburn Observatory and Observatory Director's Residence

Reference Number: 85000575



NATIONAL OR STATE REGISTERS RECORD


1545 Observatory Dr., University of Wisconsin campus

Community: Madison

County: Dane

Historic Name: Hiram Smith Hall and Annex

Reference Number: 85000573



NATIONAL OR STATE REGISTERS RECORD


Bounded by Observatory Dr., University Ave., and N. Park, Langdon, and State Sts.

Community: Madison

County: Dane

Historic Name: Bascom Hill Historic District

Reference Number: 74000065



NATIONAL OR STATE REGISTERS RECORD


1525 Observatory Dr., University of Wisconsin campus

Community: Madison

County: Dane

Historic Name: Horticulture and Agricultural Physics and Soil Science Building

Reference Number: 85000574



NATIONAL OR STATE REGISTERS RECORD


1535 Observatory Dr., University of Wisconsin campus

Community: Madison

County: Dane

Historic Name: Agricultural Heating station

Reference Number: 85000570



NATIONAL OR STATE REGISTERS RECORD


1450 Linden Dr., University of Wisconsin campus

Community: Madison

County: Dane

Historic Name: Agriculture Hall

Reference Number: 85000571



NATIONAL OR STATE REGISTERS RECORD

Address Restricted

Community: Madison

County: Dane

Historic Name: Observatory Hill Mound Group

Reference Number: 04000255

1

Have Questions?

If you didn't find the material you searched for, our Library Reference Staff can help.

Call our reference desk at 608-264-6535 or email us at:

http://www.wisconsinhistory.org/...Dxm:All,Dxp:3,N:1160-4294961456-4294963781&dsCompoundDimensionSearch=N:1160-4294961456-4294963781,D:observatory,Dxm:All,Dxp:3&fromsearch=true[8/20/2015 11:25:39 AM]

Appendix D
Scoping Letter and Public Notice

October 5, 2015

Re: Environmental Impact Statement (EIS) – Scoping Process
Meat Science Laboratory
DFD Project No. 13I2Y
University of Wisconsin – Madison
Madison, Wisconsin

Potentially Interested Party:

The University of Wisconsin - Madison (UW-Madison) is proposing to construct a new Meat Science Laboratory to support the current needs of UW-Madison's Meat Science Program. In accordance with the Wisconsin Environmental Policy Act (WEPA) Wisconsin Statutes 1.11 and UW System guidelines, new major construction with potentially significant environmental effects requires preparation of an Environmental Impact Statement (EIS). The State of Wisconsin Department of Administration, Division of Facilities Development (DFD), retained Ayres Associates to prepare an EIS for the Meat Science Laboratory. An initial requirement for the EIS is the scoping process. The scoping process provides an opportunity, in the early stages of the EIS, to identify potential adverse or beneficial impacts to the physical, biological, social, cultural, and economic environments as a result of the proposed project. A letter of invitation to affected and/or potentially interested parties and a published notice in the local news media announces the beginning of the scoping process and public meeting. This letter presents a brief summary of the proposed project, project timeline, and an opportunity to provide comment(s).

Proposed Action

The Meat Science program has evolved into pre-eminence at the UW-Madison through the engagement of faculty and research. However, the existing Meat Science and Muscle Biology building was built in several phases, has undersized spaces for current instructional and research functions, does not exhibit the highest industry standards, lacks necessary infrastructure and, generally, is not the model for teaching, research, and commercial facilities envisioned by the University.

The Meat Science program serves to teach and conduct research in the evolving subject of meat science, food safety and the humane treatment of agricultural animals, as well as economic aspects of the meat industry as the supplier of meat for human consumption. Discovery from research is expected to lead to new markets and new higher levels of economic value for agricultural animals. Currently, the primary economic value of agricultural animals raised for the food supply lies in the edible meat, but with evolving research and discovery, the future value may lie in cellular/molecular level non-edible parts of the animal.

This project will construct a new Meat Science Laboratory between Observatory and Linden Drives on the UW-Madison campus. The new building will contain research laboratories, classrooms, teaching laboratories and specialized animal and meat processing spaces, including an abattoir, carcass chilling and cooling facilities, and a meat processing area. The project site is bounded by

Observatory Drive on the north, Linden Drive on the south, the existing UW surface parking lot #62 on the west, and to the east the existing Poultry Research Laboratory and the Army ROTC facility at 1910 Linden Drive. The existing Seeds Building at 1930 Linden Drive will be removed and the program is being relocated to another existing UW-Madison owned facility remodeled for their needs. The existing surface parking lot #43 will also be removed with replacement parking in a new future parking structure planned for west of the project site on the eastern half of parking lot #62. An aerial view and a campus map indicating the project location is included as Attachments 1 and 2, respectively.

The project will create a 2-story 67,540-gross-square-foot (GSF) facility for teaching, research, and industry outreach. Training capabilities will be enhanced by the new facility. In addition to more traditional teaching spaces, demonstration labs with companion refrigerated demonstration labs will be separated by glass and enable the instructor to interact with students through advanced audio-visual systems. Meat industry professionals will use the facility to provide education on meat processing and food safety. In addition to training meat industry representatives and State inspectors, outreach programs will engage youth and consumer programs. An isolated Biosafety Level 2 (BSL-2) lab will provide opportunities to engage meat companies to test methods for the elimination of pathogens under commercial conditions. Equipment companies can intentionally contaminate equipment and test sanitation methods. In addition, UW researchers can conduct advanced food investigation.

The budget for the project is estimated at \$42,877,000 and will be funded using \$22,877,000 of general fund supported borrowing (state tax dollars) and \$20,000,000 of private gift funding. Project bidding is planned for May 2016 with construction starting in August 2016 and building occupancy planned for July 2018.

EIS Schedule

The draft and final EIS will evaluate potential environmental impacts in accordance with WEPA guidelines and address any issues identified during the scoping process and draft and final EIS comment periods. The preliminary schedule for the EIS process is as follows (all dates, except the Scoping Meeting, are tentative):

Scoping Meeting	October 19, 2015
Draft EIS public comment period	November 19 to December 9, 2015 (20 days)
Draft EIS Public Meeting	December 9, 2015
Final EIS public comment period	January 19 to February 18, 2016 (30 days)
Final EIS Public Hearing	February 18, 2016
Record of Decision	March 2016

The Record of Decision represents the conclusion of EIS process and includes the final recommendation by the University of Wisconsin System that the FEIS meets the requirements of WEPA.

Scoping Meeting

Because you or your agency might be interested in or have input regarding potential environmental impacts associated with this project, we would like to invite you to a Scoping Meeting on Monday, October 19, 2015, at 5:30 PM in Conference Room 132 of the Wisconsin Alumni Research Foundation

(WARF) Building, located at 610 Walnut Street, Madison, Wisconsin 53726, on the UW-Madison campus. Parking is available free of charge after 4:30 PM in adjacent parking Lot #64. Oral and written comments may be submitted at the meeting or written comments (form attached) can be mailed or e-mailed by October 19, 2015, to the following contact for inclusion into the Draft EIS document:

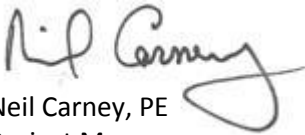
Neil Carney, PE
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718
CarneyN@AyresAssociates.com

EIS information will also be available on Ayres Associates project website at:

<http://www.ayresprojectinfo.com/UWMadison-MeatScienceLab-EIS>

If you are interested in this project, we welcome comments, suggestions, or other input you might have in person at the Scoping Meeting or in writing. There will also be other opportunities for public input on this project during the Draft and Final EIS comment periods and public meetings.

Ayres Associates Inc

A handwritten signature in dark ink, appearing to read "Neil Carney", with a stylized flourish at the end.

Neil Carney, PE
Project Manager

NC:sm

Enclosure

COMMENT FORM

Environmental Impact Statement - Scoping Process
Meat Science Laboratory
UW-Madison
Madison, Wisconsin
DFD Project #1312Y

I have the following comments regarding this project and items to be considered as part of the scoping process:

[Please write comment here. Attach additional pages if necessary.]

Please complete the following information and sign if submitting comments:

Name: _____

Title/Representing: _____

Address: _____

Telephone Number: _____

E-mail Address (optional): _____

Signature: _____

☐

I am interested in continuing my involvement in the public participation components of this project. Please continue to send me project notices.

☐

I am NOT interested in continuing my involvement in the public participation of this project. Please do NOT continue to send me project notices.

Please return this form by October 19, 2015, to:

Neil Carney, PE
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718



Attachment 1

Aerial View of Project Site

Environmental Impact Statement
University of Wisconsin – Madison
Meat Science Laboratory
DFD Project No. 13I2Y
October 2015

AYRES
ASSOCIATES



Attachment 2
Campus Location Map

Environmental Impact Statement
University of Wisconsin – Madison
Meat Science Laboratory
DFD Project No. 13I2Y
October 2015

AYRES
ASSOCIATES

Appendix E
Scoping Meeting Minutes and Responses

MEETING MINUTES

Meeting Location: Conference Room 132, WARF
Building, UW-Madison Campus

Project No.: 19-0588.00

Date/Time: Monday, October 19, 2015,
5:30 PM CDT

Re: Environmental Impact Statement (EIS)
Scoping Meeting, UW-Madison
Meat Science Laboratory
DFD Project No. 13I2Y

Notes By: Neil Carney, Ayres Associates

Attendees: WI DOA/DFD: Russ Van Gilder
UW-Madison: Gary Brown, Stuart LaRose
Potter Lawson: Robert Mangas
Ayres Associates: Neil Carney

The meeting was called to order at 5:33 PM CDT. An audio recording was captured for the meeting. Five individuals attended the meeting including two representatives from UW-Madison Facilities Planning and Management, one from Wisconsin Department of Administration (WDOA) Division of Facilities Development (DFD), one representative from Potter Lawson, and one representative from Ayres Associates. Neil Carney (Ayres Associates) facilitated the meeting using a PowerPoint presentation. See attached meeting sign-in sheet (Attachment A) and PowerPoint presentation (Attachment B).

Presentation

Introduction

Mr. Carney introduced himself to the attendees and made note of the sign-in sheet and written comment forms located at the back of the room. Mr. Carney indicated that a public notice for the meeting was published in the Wisconsin State Journal on October 5, 2015. Affidavits of publication from the noted newspaper is included in Attachment C. Mr. Carney also indicated that the public notice and comment forms were posted to the Ayres Associates project website, and scoping letters were sent by mail and email to faculty, staff, and organizations with potential interest in the project. Mr. Carney indicated that the meeting was being recorded and that meeting minutes will be developed as part of the project record. The EIS team members and architect's team were then introduced.

After this introduction, Mr. Carney indicated that the purpose of the scoping meeting presentation is to describe the EIS process, describe the proposed project, obtain public input on potential issues and concerns, and share any comments that are received with the design team. Comments received during the Scoping Period will be incorporated into the Draft EIS.

WEPA Process

Mr. Carney presented the history and background of the WEPA process and the purpose of the EIS report. He then listed the major steps of EIS development and corresponding milestone schedule. Mr. Carney indicated that the distribution of the Draft EIS (DEIS) is scheduled to occur on November 19,

2015, and 20-day comment period will end with a DEIS public meeting on December 9, 2015. The DEIS will have an expedited review period due to the project schedule. The Final EIS (FEIS) will have a 30-day comment period with a tentatively scheduled final public hearing on February 18, 2016. The Record of Decision is tentatively scheduled for finalization on March 18, 2016. Mr. Carney indicated that the DEIS document will be made available on the Ayres Associates project website, at the UW-Madison Helen C. White Library, and at the Central Branch of the Madison Public Library.

Project Need and Description

Mr. Carney gave a brief description of the project location using a campus map, aerial imagery, and photographs showing different aspects of the project site. He indicated the relative location is the northwest side of the campus, closer to UW Hospital and Clinics. The project site is bounded by Observatory Drive on the north, Linden Drive on the south, the existing UW parking lot #62 to the west and the existing Poultry Research Laboratory and Army ROTC facility to the east. The existing Seeds facility will be demolished and its function relocated into an alternate existing building on campus. The existing UW parking lot #43 will also be removed with replacement parking in a new future parking structure planned to the west of the project site on the eastern half of parking lot #62.

The existing Meat Science and Muscle Biology building is outdated having been built in several phases beginning in the 1930s. The building has undersized spaces for current instructional and research need, and is not easily accessible by trucks which provide crucial services. The facility does not exhibit the highest UW standards for the highest level of education, research, collaboration, and innovation. Also, livestock odors have been a concern to neighboring buildings.

The new 2-story building will measure 67,540-gross-square-feet and will include major instructional areas for a meat science lab, lecture/demonstration suite, Biosafety Level 2 (BSL-2) laboratory suites, teaching and research labs, and faculty offices and support spaces. The ground floor is dedicated to harvesting live animals in an instructional setting, and processing the meat into consumable products.

An isolated BSL-2 Lab will service as a pilot processing area to conduct research involving meat and food safety procedures according to strictest regulatory standards and will be fully encapsulated inside the building with a separate access and exit location.

Teaching and viewing will be on the first floor with direct access to cold demonstration lab with separated areas for delivery of livestock, feed materials, general deliveries, trash disposal, and BSL-2 materials.

Project Schedule

Mr. Carney gave a brief description of the project schedule. Bid opening for construction in June 2016 and the start of construction August 2016. He stated that substantial completion is anticipated in March 2018 and building occupancy July 2018.

Mr. Carney then turned the floor over to Bob Mangas, project architect, from Potter Lawson. Mr. Mangas presented and described slides of the overall site plan with footprint of the design plan with the interior floor plan and layout. The attached PowerPoint presentation includes slides used by Mr. Mangas to guide his presentation.

Scoping Comment Period

Mr. Carney opened the meeting for comments. No comments were presented at the meeting. Comments received prior to the meeting are included in Attachment D.

Closing Comments

Mr. Carney stated that the comment period for the Scoping Process closes at the end of the meeting. He further reviewed the schedule for issuing the Draft and Final EIS and the Record of Decision. The meeting was adjourned at approximately 5:51 PM.

Attachments

Attachment A – Meeting Sign-in Sheet
Attachment B – PowerPoint Presentation
Attachment C – Scoping Notice Proof of Publication
Attachment D – Scoping Period Comments

Attachment A
Meeting Sign-in Sheet

**Attendance Log
Environmental Impact Statement
Scoping Meeting**

**Meat Science Laboratory
UW-Madison
DFD Project #1312Y**

**Monday, October 19, 2015 – 5:30 PM
Conference Room 132, WARF Building, UW-Madison Campus**

Name	Representing	Address	Phone	Email
Neil Carney	Ayres Associates	5201 E. Terrace Dr. #200, Madison, WI	608-443-1200	carney.n@ayresassociates.com
Robert Mangas	Potter Lawson	749 University Row "	608 274-2741	robertm@potterlawson.com
Stu LaRose	UW FPM	WANE Bldg.	608 263-3000	slarose@fpm.wisc.edu
Russ VanGilder	DFD	101 E. WILSON ST. MADISON	608-266-1412	Russ.VANGILDER@WISCONSIN.GOV
Gary Brown	UW FPM	610 Walnut St. Madison	608-263-3023	gbrown@fpm.wisc.edu

Attachment B
PowerPoint Presentation

UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

University of Wisconsin-Madison

Meat Science Laboratory
DFD Project No. 13I2Y

Environmental Impact Statement – Scoping Meeting
October 19, 2015



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

2

Meeting Agenda

- **Introduction**
- WEPA Process
- Project Description/Schedule
- Scoping Comment Period
- Closing Comments



**UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting**

3

Introduction

- Attendance sheet, written comment sheets
- Public notice in the Wisconsin State Journal on Monday, October 5, 2015
- Public notice and comment forms posted on Ayres project website
- Additional notifications sent via mail and email to faculty, staff, and organizations with potential interest in the project
- Meeting will be recorded and minutes developed
- EIS Team Members and Design Team



**UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting**

4

EIS Team Members

- State of Wisconsin - DOA/DFD
 - Russ Van Gilder - Project Manager
- UW – Madison
 - Gary Brown - Director, Campus Planning & WEPA Coordinator
 - Stuart LaRose - Capital Planning & Development, Architect Advisor
 - Doug Sabatke - Assistant Dean, College of Agricultural & Life Sciences
- EIS Consultant: Ayres Associates
 - Neil E. Carney, PE - Project Manager
 - Mitchell Banach - Lead Author

A/E Design Team

- Potter Lawson Architects
 - Michael Gordon - Lead Architect
 - Robert Mangas – Project Architect



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

5

Introduction (continued)

- Scoping Meeting Purpose
 - Describe Wisconsin Environmental Policy Act (WEPA) and Environmental Impact Statement (EIS) Process
 - Describe proposed project
 - Obtain public input on potential issues and concerns
 - Share comments with design team for consideration in design process
 - Incorporate comments and design team input into Draft EIS



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

6

Meeting Agenda

- Introduction
- **WEPA Process**
- Project Description/Schedule
- Scoping Comment Period
- Closing Comments



**UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting**

7

Wisconsin Environmental Policy Act (WEPA) Process

- WEPA – 1971 and UW Board of Regents Resolutions (1981, 1999)
- Purpose – Evaluate potential environmental impacts of project and allow the public an opportunity for input
- Major steps in process:
 - UWSA/Campus determines the need for an EIS
 - Scoping Letter and Public Notice – October 5, 2015
 - Scoping Meeting – October 19, 2015 (tonight)
 - Prepare Draft EIS report
 - Draft EIS submittal with expedited 20-day comment period (November 19, 2015 to December 9, 2015)
 - Draft EIS public meeting – December 9, 2015



**UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting**

8

WEPA Process (Continued)

- Prepare Final EIS Report
- Final EIS 30-day comment period (January 19 to February 18, 2016)
- Final EIS Public Hearing – February 18, 2016
- Record of Decision – March 18, 2016

Draft and Final EIS will be available at:

- UW-Madison Helen C. White Library
- Madison Public Library: Central Library
- Download from website:

www.ayresprojectinfo.com/UWMadison-MeatScienceLab-EIS



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

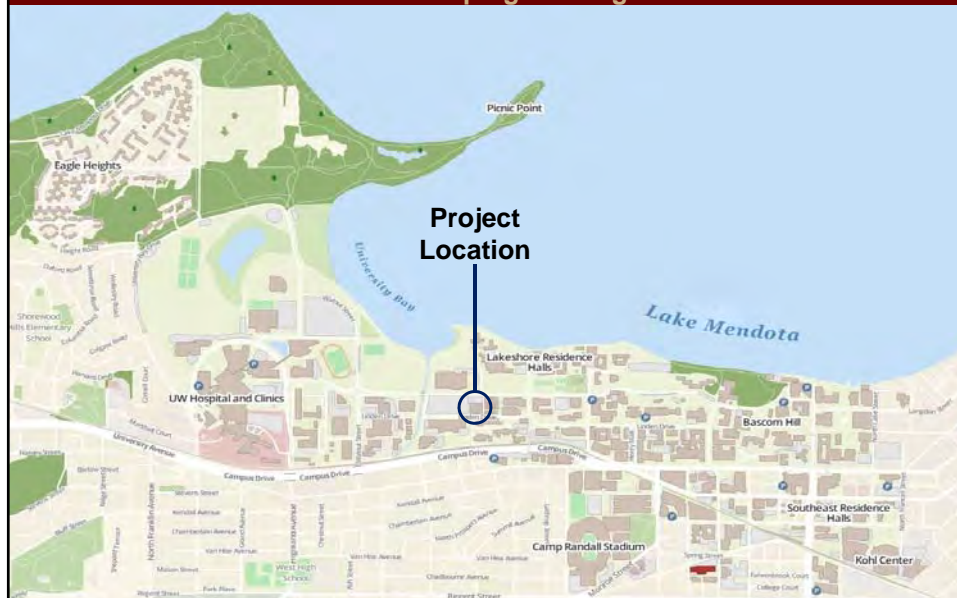
9

Meeting Agenda

- Introduction
- WEPA Process
- **Project Description/Schedule**
- Scoping Comment Period
- Closing Comments



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

11



AYRES
ASSOCIATES



Potter
Lawson
ARCHITECTS

UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

12



Project Site – Looking Southwest
Surface Lot #43 is Visible

AYRES
ASSOCIATES



Potter
Lawson
ARCHITECTS

UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

13



Project Site – Looking Northwest



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

14



Gymnasium-Natatorium – Looking Northwest
From Project Site Across Observatory Drive



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

15



Poultry Research Laboratory – Looking East
From Project Site



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

16



US Dairy Forage Research Center – Looking South
From Project Site



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

17



Surface Lot #62 – Looking Southwest
From Project Site



UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

18

Project Need

- The existing Meat Science and Muscle Biology is outdated having been built in several phases beginning in the 1930s
- Building has undersized spaces for current instructional and research needs
- Facility is not easily accessible by trucks which provide crucial services
- Facility does not exhibit the highest industry standards:
 - Inhibits its potential for highest level of education
 - Inhibits industry research, collaboration, and innovation
 - Odors from livestock at the current facility have been a concern



**UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting**

19

General Project Description

- New two-story building will measure 67,540 gross square feet (GSF)
 - Existing Seeds Building will be demolished
 - New facility will be state-of-the-art
 - Building footprint will extend over existing Surface Lot #43
- Major instructional areas will include
 - Meat science lab
 - Lecture/demonstration suite
 - Biosafety Level 2 (BSL-2) laboratory suites
 - Teaching and research laboratories
 - Faculty offices and support spaces
- Majority of the ground floor is dedicated to the harvesting live animals and poultry in an instructional setting, and processing the meat into consumable products



**UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting**

20

General Project Description (continued)

- Biosafety Level 2 (BSL-2) Process and Lab Area
 - Designed to serve as a pilot processing area to conduct research involving meat and food safety procedures according to strictest regulatory standards (State of Wisconsin and USDA standards)
 - Completely separated from the remainder of the building
 - Separate access/egress and mechanical systems
- Teaching areas on first floor include viewing and direct access to cold demonstration lab
- Organization concept based on separated areas for delivery of livestock, clean materials, general deliveries, trash disposal, and BSL2 materials
- Optimized handling of animals and materials



Proposed Project Schedule

- Bid Opening for Construction – June 2016
- Start Construction– August 2016
- Substantial Completion – March 2018
- Building Occupancy – July 2018



Project Description

Presented by:
Robert Mangas – Project Architect
Potter Lawson



UW-Madison Meat Science Laboratory
DFD Project No. 1312Y
EIS – Scoping Meeting

23

SITE PLAN



AYRES
ASSOCIATES



Potter
Lawson
ARCHITECTS

UW-Madison Meat Science Laboratory
DFD Project No. 1312Y
EIS – Scoping Meeting

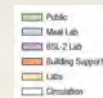
24



Ground Floor Plan



Second Floor Plan



AYRES
ASSOCIATES



Potter
Lawson
ARCHITECTS

UW-Madison Meat Science Laboratory
DFD Project No. 1312Y
EIS – Scoping Meeting

25



AERIAL VIEW FROM NORTHEAST
MEAT SCIENCE LABORATORY – 2014.21.00
September 10, 2015

AYRES
ASSOCIATES



**Potter
Lawson**
ARCHITECTS

UW-Madison Meat Science Laboratory
DFD Project No. 1312Y
EIS – Scoping Meeting

26



AERIAL VIEW FROM SOUTHEAST – GRAY OPTION
MEAT SCIENCE LABORATORY – 2014.21.00
July 21, 2015

AYRES
ASSOCIATES

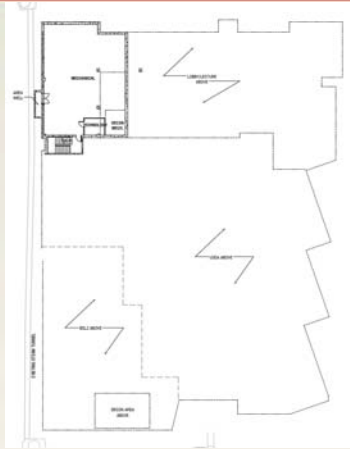


**Potter
Lawson**
ARCHITECTS

UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

27

Basement



AYRES
ASSOCIATES



**Potter
Lawson**
ARCHITECTS & DESIGN

UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

28

1st Floor



AYRES
ASSOCIATES

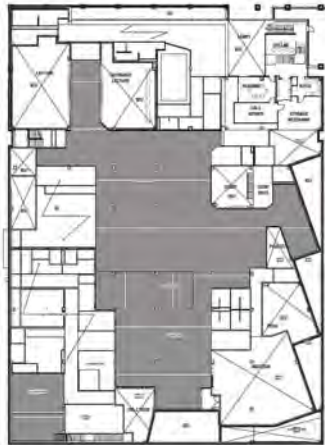


**Potter
Lawson**
ARCHITECTS & DESIGN

UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

29

Mezzanine



AYRES
ASSOCIATES



**Potter
Lawson**
ARCHITECTS

UW-Madison Meat Science Laboratory
DFD Project No. 13I2Y
EIS – Scoping Meeting

30

2nd Floor



AYRES
ASSOCIATES



**Potter
Lawson**
ARCHITECTS

Meeting Agenda

- Introduction
- WEPA Process
- Project Description/Schedule
- **Scoping Comment Period**
- Closing Comments



Scoping Comment Period

- Meeting is Now Open for Comments (Oral/Written)
 - Please state name, entity representing, and comment
 - Speak clearly for microphone
 - Turn in written comment sheets



Meeting Agenda

- Introduction
- WEPA Process
- Project Need/Alternatives/Description
- Scoping Comment Period
- **Closing Comments**



- Scoping Phase
 - Comment period closes tonight – October 19, 2015
- Draft EIS Phase
 - Comment period – November 19, 2015 to December 9, 2015 – Expedited (20 Days)
 - Public Meeting – December 9, 2015
- Final EIS Phase
 - Comment Period – January 19, 2016 to February 18, 2016 (30 Days)
 - Public Hearing – February 18, 2016
- Record of Decision (ROD) – March 18, 2016



THANK YOU FOR ATTENDING



Attachment C
Scoping Notice Proof of Publication

Capital Newspapers Proof of Publication Affidavit

Ad #: 2362607 Price: \$130.69 Ad ID: meat science lab

Retain this portion for your records.

Please do not remit payment until you receive your advertising invoice.

Mail to:

AYRES ASSOCIATES
Neil Carney
5201 E TERRACE DR. STE 200
MADISON, WI 53718-8362

STATE OF WISCONSIN

Dane County



ss.

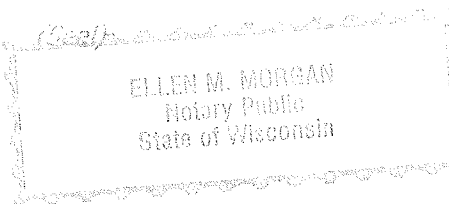
PWSJ

ARLENE STAFF

being duly sworn, doth depose and say that
he (she) is an authorized representative of
Capital Newspapers, publishers of

Wisconsin State Journal

a newspaper, at Madison, the seat of government of said State,
and that an advertisement of which the annexed is a true
copy, taken from said paper, was published therein on
October 5th, 2015



(Signed)

(Title)

Arlene Staff
Principal Clerk

Subscribed and sworn to before me on

Oct. 7, 2015

Ellen M. Morgan

Notary Public, Dane County, Wisconsin

My Commission expires July 31st, 2017

NOTICE
Public Scoping Meeting
Environmental Impact Statement
Meat Science Laboratory
University of Wisconsin - Madison
DFD Project #13127

Capital Newspapers Proof of Publication Affidavit

An Environmental Impact Statement (EIS) scoping meeting to present the proposed UW-Madison Meat Science Laboratory project will be held at 5:30 p.m. on Monday, October 19, 2015, in Conference Room 132 of the Wisconsin Alumni Research Foundation (WARF) Building located at 610 Walnut Street, Madison, Wisconsin 53726 on the UW-Madison campus. Parking is available free of charge after 4:30 p.m. in adjacent parking Lot #64. A description of the project will be presented, and all persons will be afforded a reasonable opportunity to identify both orally and in writing any support, issues, or concerns they believe should be addressed during the EIS process for this proposed project. The EIS will be prepared in accordance with the Wisconsin Environmental Policy Act (WPEA), Wisconsin Statutes 1.11, and University of Wisconsin System Administration (UWSA) guidelines. The project manager is the state Department of Administration's Division of Facilities Development (DFD). Ayres Associates has been retained to prepare an Environmental Impact Statement (EIS) on behalf of UW-Madison.

This project will construct a new Meat Science Laboratory between Observatory and Linden Drives on the University of Wisconsin - Madison campus. The new building will contain research laboratories, classrooms, teaching laboratories and specialized animal and meat processing spaces, including an abattoir, carcass chilling and cooling facilities and a meat processing area. The project site is bounded by Observatory Drive on the north, Linden Drive on the south, the existing UW parking lot #62 on the west and the existing Poultry Research Laboratory and the Army ROTC facility at 1910 Linden Drive. The existing Seeds facility at 1930 Linden Drive will be removed and the program is being relocated in another existing building on campus. The existing UW parking lot #43 will also be removed with replacement parking in a new future parking structure planned for west of the project site on the eastern half of parking lot #62.

The project will create a 2-story 67,540 gross square foot facility for teaching, research and industry outreach. Training capabilities will be enhanced by the new facility. In addition to more traditional teaching spaces, demonstration labs with companion refrigerated demonstration labs will be separated by glass and enable the instructor to interact with students through advanced audio-visual systems. Meat industry professionals will use the facility to provide education on meat processing and food safety. In addition to training meat industry representatives and State inspectors, outreach programs will engage youth and consumer programs. An isolated Biosafety Level 2 lab will provide opportunities to engage meat companies to test methods for the elimination of pathogens under commercial conditions. Equipment companies can intentionally contaminate equipment and test sanitation methods. In addition, UW researchers can conduct advanced food investigation. The budget for the project is estimated at \$42,877,000 and will be funded using \$22,877,000 of general fund supported borrowing and \$20,000,000 of private gift funding. Project bidding for the project is planned for May 2016 with a construction start in August 2016 and building occupancy in July 2018.

An initial requirement of the EIS is the scoping process, with the intent of identifying at an early stage any potential impacts of the project on the physical, biological, social, historic, and economic environments. Impacts that are identified during this process will be incorporated into a Draft EIS which will be made available to the public for an expedited 20-day review period and circulated to appropriate federal, state, local agencies and interested parties.

If you are interested in this project or have any information relevant to it, we welcome your comments, suggestions, or other input. For consideration in the Draft EIS, please submit your comments at the meeting or in writing by October 19, 2015 to:

Neil Carney, PE
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718
CarneyN@AyresAssociates.com
Comment forms can also be obtained via the project website at:
<http://www.ayresprojectinfo.com/UWMadison-MeatScienceLab-EIS>

PUB. WSJ: October 5, 2015

#2362607 WNXALP

rice: \$130.69

Ad ID: meat science lab

Retain this portion for your records.

Please do not remit payment until you receive your advertising invoice.

S

R. STE 200

3-8362

SIN

inty }

SS.

PWSJ

ARLENE STAFF

being duly sworn, doth depose and say that he (she) is an authorized representative of Capital Newspapers, publishers of

Wisconsin State Journal

a newspaper, at Madison, the seat of government of said State, and that an advertisement of which the annexed is a true copy, taken from said paper, was published therein on October 5th, 2015

(Signed)

(Title)

Principal Clerk

Subscribed and sworn to before me on

Oct. 7, 2015

Eileen M Morgan

Notary Public, Dane County, Wisconsin

My Commission expires July 31st, 2017

Attachment D
Scoping Period Comments

Carney, Neil

From: govgeneralreply@wisconsin.gov
Sent: Monday, October 05, 2015 7:06 AM
To: Carney, Neil
Subject: Message from Governor Scott Walker
Attachments: OriginalMessage.txt

Thank you for your e-mail message. I welcome you expressing your views and concerns to me, and I commend you for participating in your state government. I take into account the views of all of the citizens of Wisconsin, and I will keep your specific comments in mind during my service as your Governor.

If you would like more information about my positions on issues, or would like to read my public statements on issues, I encourage you to explore my website: www.walker.wi.gov. I like to respond individually to every letter and telephone call I receive; however, I cannot respond to each e-mail individually due to the volume. If your request is time sensitive, please call my office at (608) 266-1212. You may also write to me via conventional mail at Governor Scott Walker: PO Box 7863, Madison, WI 53707.

Once again, thank you for contacting me. Please feel free to contact me again if I can ever be of assistance to you.

Sincerely,

Scott Walker
Governor

Carney, Neil

From: Lisa Mandell <lisa_mandell@fws.gov>
Sent: Tuesday, October 06, 2015 12:11 PM
To: Carney, Neil
Subject: FW: UW-Madison - Meat Science Laboratory - EIS Scoping Process
Attachments: image001.jpg; 13I2Y - Meat Science Lab EIS - Scoping Letter.pdf

Assuming that a review of potential effects to threatened and endangered species, migratory birds, wetlands, and other environmental resources will be part of your analysis. The Fish and Wildlife Service does not have any comments at this stage. You may send future requests for coordination directly to me, or to the general mailbox (GreenBay@fws.gov) if you prefer.

--

Lisa Mandell
Deputy Field Supervisor
U.S. Fish and Wildlife Service
Twin Cities Ecological Services Field Office
4101 American Blvd. East
Bloomington, Minnesota 55425
612-725-3548 x2201
Serving Minnesota and Wisconsin

----- Forwarded message -----

From: Carney, Neil <CarneyN@ayresassociates.com>
Date: Mon, Oct 5, 2015 at 7:06 AM
Subject: UW-Madison - Meat Science Laboratory - EIS Scoping Process
To: "Carney, Neil" <CarneyN@ayresassociates.com>

Potentially Interested Party:

The University of Wisconsin - Madison (UW-Madison) is proposing to construct a new Meat Science Laboratory to support the current needs of UW-Madison's Meat Science Program. In accordance with the Wisconsin Environmental Policy Act (WEPA) Wisconsin Statutes 1.11 and UW System guidelines, new major construction with potentially significant environmental effects requires preparation of an Environmental Impact Statement (EIS). The State of Wisconsin Department of Administration, Division of Facilities Development (DFD), retained Ayres Associates to prepare an EIS for the Meat Science Laboratory. An initial requirement for the EIS is the scoping process. The scoping process provides an opportunity, in the early stages of the EIS, to identify potential adverse or beneficial impacts to the physical, biological, social, cultural, and economic environments as a result of the proposed project. Because you or your agency might be interested in, or have input regarding, potential environmental impacts associated with this project, we would like to invite you to a Scoping Meeting on Monday, October 19, 2015, at 5:30 PM in Conference Room 132 of the Wisconsin Alumni Research Foundation (WARF) Building, located at 610 Walnut Street, Madison, Wisconsin 53726, on the UW-Madison campus. Parking is available free of charge after 4:30 PM in adjacent parking Lot #64.

Carney, Neil

From: Barta, Andrew H - DNR <Andrew.Barta@wisconsin.gov>
Sent: Monday, October 19, 2015 2:27 PM
To: Carney, Neil
Subject: EIS Scoping, Meat Science Laboratory

Neil

This is in response to request for initial scoping comments regarding the above referenced project. The Department has reviewed the information submitted and can provide the following comments at this time:

New construction resulting in ground disturbing activities over 1 acre could require a WPDES permit from DNR Stormwater staff. For more information regarding these requirements contact:

Eric Rortvedt
eric.rortvedt@wisconsin.gov
608-275-5612

Demolition or remodeling of old buildings has the potential to introduce new sources of asbestos exposure. For more information regarding asbestos requirements contact:

Tom Roushar
thomas.roushar@wisconsin.gov
608-273-5603

If you have any other questions or comments, please don't hesitate to contact me, I'll be glad to help any way I can. Thank you for the opportunity to review and provide comment on this upcoming project.

Andy

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Andy Barta

Environmental Analysis and Sustainability
Wisconsin Department of Natural Resources
3911 Fish Hatchery Rd
Fitchburg WI 53711
Phone: (608) 275-3308
Cell Phone: (608) 235-2955
Fax: (608) 275-3338
Andrew.Barta@Wisconsin.gov



dnr.wi.gov

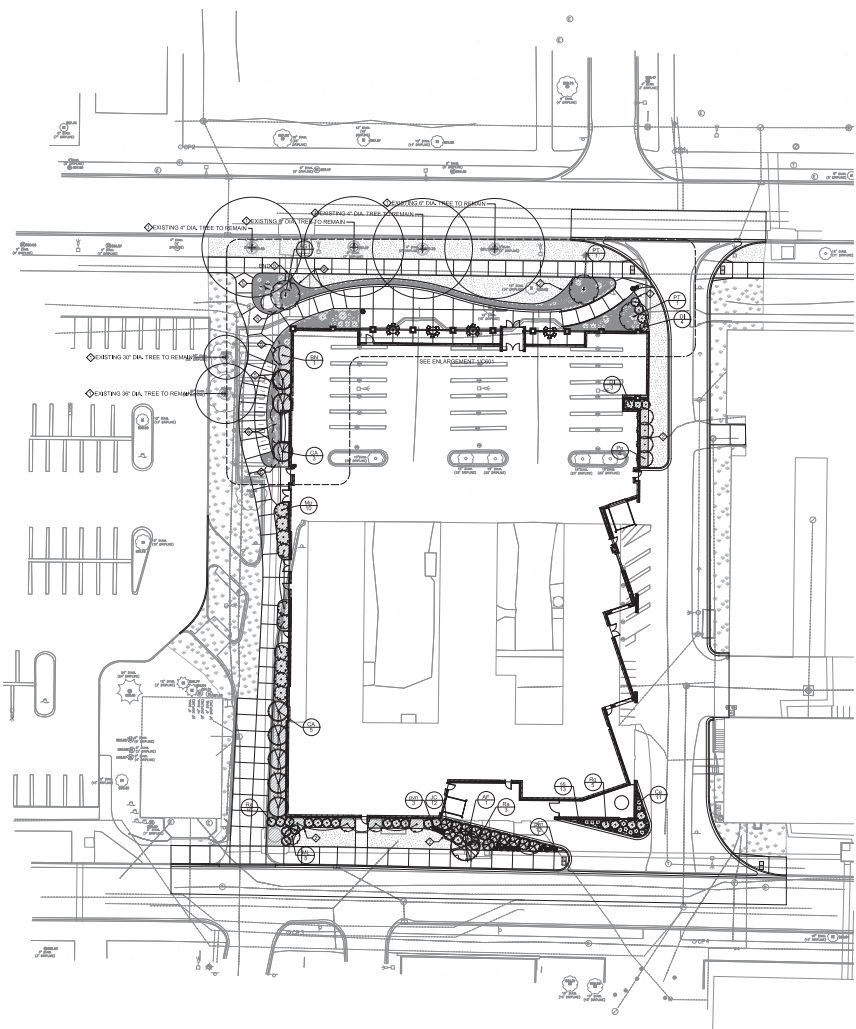


Appendix F
Draft EIS Public Notice and Distribution List

WEPA Compliance Document Distribution List												
Meat Science Laboratory EIS												
University of Wisconsin - Madison												
DFD Project #1312Y												
Contact Name	Organization	Address Line 1	Address Line 2	City	State	Zip	E-mail Address	Scoping	DEIS	FEIS	ROD	
University of Wisconsin System												
Alex Roe	UWSA, Associate VP, Capital Planning & Budget	780 Regent Street	Suite 245	Madison	WI	53715	aroe@uwsa.edu	M/E	E			
Jeff Kosloske	UW System Administration	780 Regent Street	Suite 239	Madison	WI	53715	jkosloske@uwsa.edu	M/E	E			
Maura Donnelly	UW System Administration	780 Regent Street	Suite 239	Madison	WI	53715	mdonnelly@uwsa.edu	M/E	M/E			
University of Wisconsin - Madison												
Gary Brown	UW-Madison, Director - Campus Planning & WEPA Coordinator	610 Walnut St	WARF Building - Room 919	Madison	WI	53726	gbrown@fpm.wisc.edu	M/E	M/E			
Stuart Larose	UW-Madison, Capital Planning & Development, Architect Advisor	610 Walnut St	WARF Building - Room 957A	Madison	WI	53726	slarose@fpm.wisc.edu	M/E	M/E			
Doug Sabatke	UW-Madison, Assistant Dean, College of Agricultural & Life Sciences	1450 Linden Drive	Room 140	Madison	WI	53706	doug.sabatke@wisc.edu	M/E	M/E			
Rob Kennedy	UW-Madison, Senior Transportation Planner	610 Walnut St	WARF Building - Room 142	Madison	WI	53726	rkennedy@fpm.wisc.edu	M/E	E			
Jeff Sindelar	UW-Madison, Associate Professor, Meat Science	1805 Linden Drive	Room 278 Meat Sci & Muscle Biology Lab	Madison	WI	53706	jsindelar@wisc.edu	M/E	E			
John Horn	UW-Madison, Director, Recreational Sports	715 W. Dayton St	Rm 275 South East Recr Facility	Madison	WI	53715	horn1@recsports.wisc.edu	E	E			
Mike Kinderman	UW-Madison, Assoc. Director, UW Housing	625 Babcock Dr	Room 9b Slichter Hall	Madison	WI	53706	mike.kinderman@housing.wisc.edu	E	E			
Mark Markel	UW-Madison, Dean, School of Veterinary Medicine	2015 Linden Dr		Madison	WI	53706	mark.markel@wisc.edu	E	E			
Federal Government Agencies												
Pete Fasbender	US Fish & Wildlife Service	2661 Scott Tower Drive		New Franklin	WI	54229	greenbay@fws.gov	M/E	E			
Lisa Mandell	US Fish & Wildlife Service	4101 American Blvd. East		Bloomington	MN	55425	lisa_mandell@fws.gov	ND	E			
State Government Agencies												
Russ Van Gilder	Dept. of Administration, Division of Facilities Development - Project Manager	101 E Wilson Street	PO Box 7866	Madison	WI	53707-7866	Russ.VanGilder@wisconsin.gov	M/E	M/E			
Russ Anderson	Wisconsin Department of Natural Resources	3911 Fish Hatchery Rd		Fitchburg	WI	53711	russell.anderson@wisconsin.gov	M/E	E			
Eric Heggelund	Wisconsin Department of Natural Resources	3911 Fish Hatchery Rd		Fitchburg	WI	53711	Eric.Heggelund@wisconsin.gov	M/E	E			
Andrew Barta	Wisconsin Department of Natural Resources	3911 Fish Hatchery Rd		Fitchburg	WI	53711	Andrew.Barta@wisconsin.gov	ND	E			
City of Madison												
Tim Parks	City of Madison Planning Division	Suite LL 100	Municipal Building	Madison	WI	53703	planning@cityofmadison.com	E	E			
Shiva Bidar-Sielaff	Alder - District 5	2704 Kendall Ave		Madison	WI	53705	district5@cityofmadison.com	E	E			
University of Wisconsin -Madison Student Representatives												
Madison Laning	Associated Students of Madison	333 East Campus Mall	Student Activity Center, Room 4301	Madison	WI	53715-1380	chair@asm.wisc.edu	E	E			
State Elected Officials												
Office of the Governor	State of Wisconsin	115 East State Street		Madison	WI	53702	govgeneral@wisconsin.gov	M/E	M/E			
State Senator Fred Risser	State of Wisconsin - Senate District 26	State Capitol	Room 130 South	Madison	WI	53707-7882	Sen.Risser@legis.wisconsin.gov	E	E			
State Representative Terese Berceau	State of Wisconsin - Assembly District 77	State Capitol	Room 104 North	Madison	WI	53708	Rep.Berceau@legis.wisconsin.gov	E	E			
Local/Regional Agency Contacts												
Designers												
Michael Gordon	Potter Lawson Architects	749 University Row	Suite 300	Madison	WI	53705	mikeg@potterlawson.com	M/E	E			
Neighborhood Associations and Local Organizations												
Doug Carlson	Co-Chair, Joint West Campus Area Committee & Vilas Neighborhood rep.	1050 Regent Street, Suite L3		Madison	WI	53715	dcarlson5dc@aim.com	E	E			
Tobin McGilligan	Joint West Campus Area Committee, ASM representative	522 N Pinckney St #26		Madison	WI	53703	mcgilligan2@wisc.edu	E	E			
Daniel O'Callaghan	Joint West Campus Area Committee, Regent Neighborhood rep.	1 South Pinckney Street, Suite 700		Madison	WI	53703	daocallaghan@michaelbest.com	E	E			
Local Libraries												
Helen C. White Library	UW-Madison Libraries	600 N. Park St		Madison	WI	53706		M	M			
Madison Public Library: Central Library		201 W Mifflin St		Madison	WI	53703		M	M			
M = mailed a hard copy; E = electronically mailed; M*= Mailed notice of availability; ND = not distributed												

Appendix G
Draft EIS Public Meeting Minutes and Responses
(Reserved)

Appendix H
Site Plan, Floor Plans, and Exterior Elevations



1 SITE PLANTING PLAN
C600 SCALE: 1" = 20'-0"

[illegible]

LEGEND





- 1 BARK MULCH NEW BED/BASE OF TREE OR RE-MULCH EXISTING BED/BASE OF TREE
- 2 SHOVEL CUT EDGE
- 3 BULBS, PLANT IN CLUSTERS SPACED RANDOMLY THROUGHOUT THE PLANTING BED INDICATED. PLACE THREE BULBS PER HOLE.
- 4 BULBS, PLANT IN A SWEEP OF A SINGLE SPECIES IN AREA INDICATED. PLACE ONE BULB PER HOLE AND SPACE HOLES APPROXIMATELY 6 INCHES O.C.
- 5 DECORATIVE STONE

- NEW SODDED LAWN
NEW SEEDED LAWN OR LAWN REPAIR
BARK MULCH / PLANTING BED
DECORATIVE STONE
ACCENT BOULDER

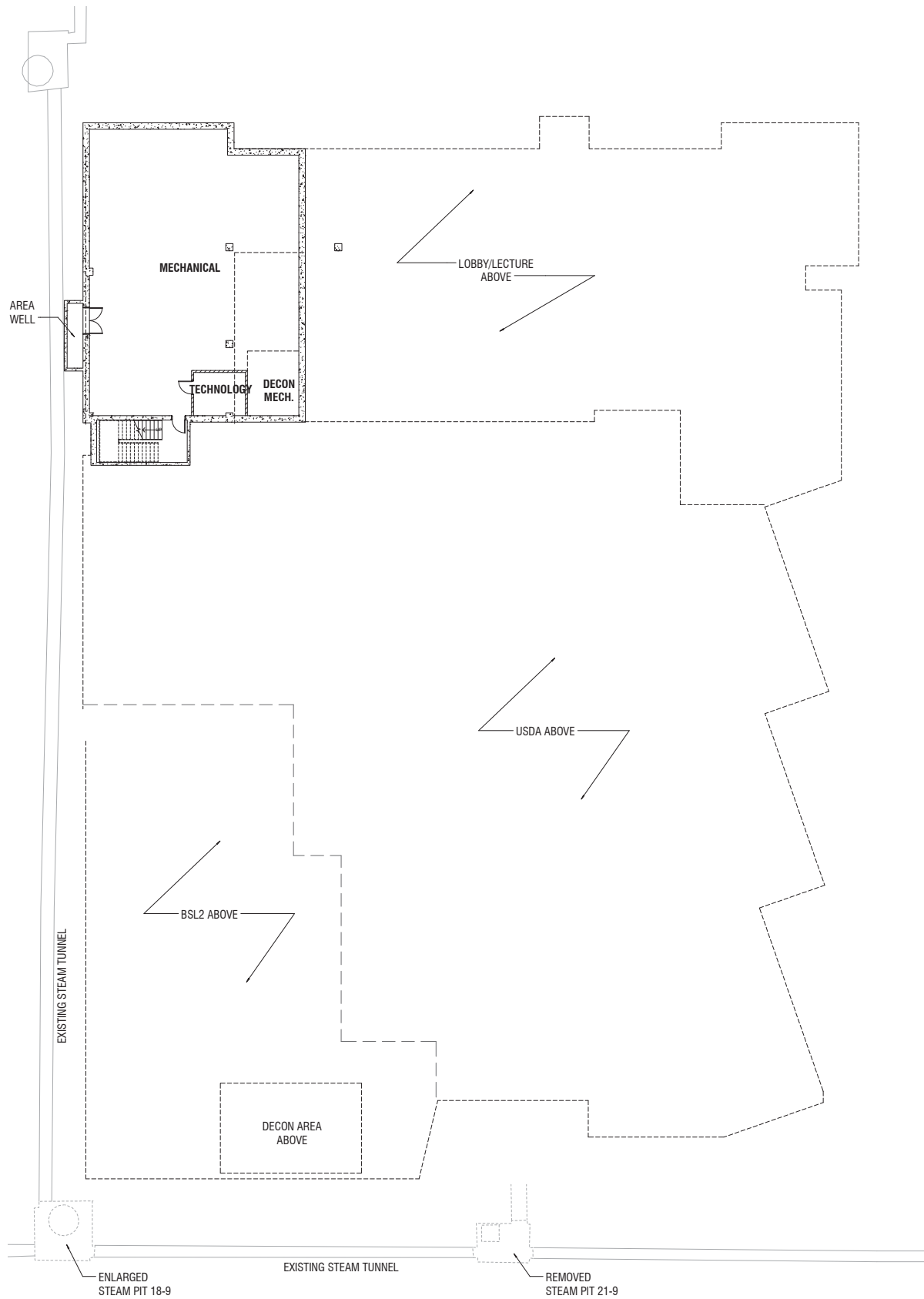
NOTES

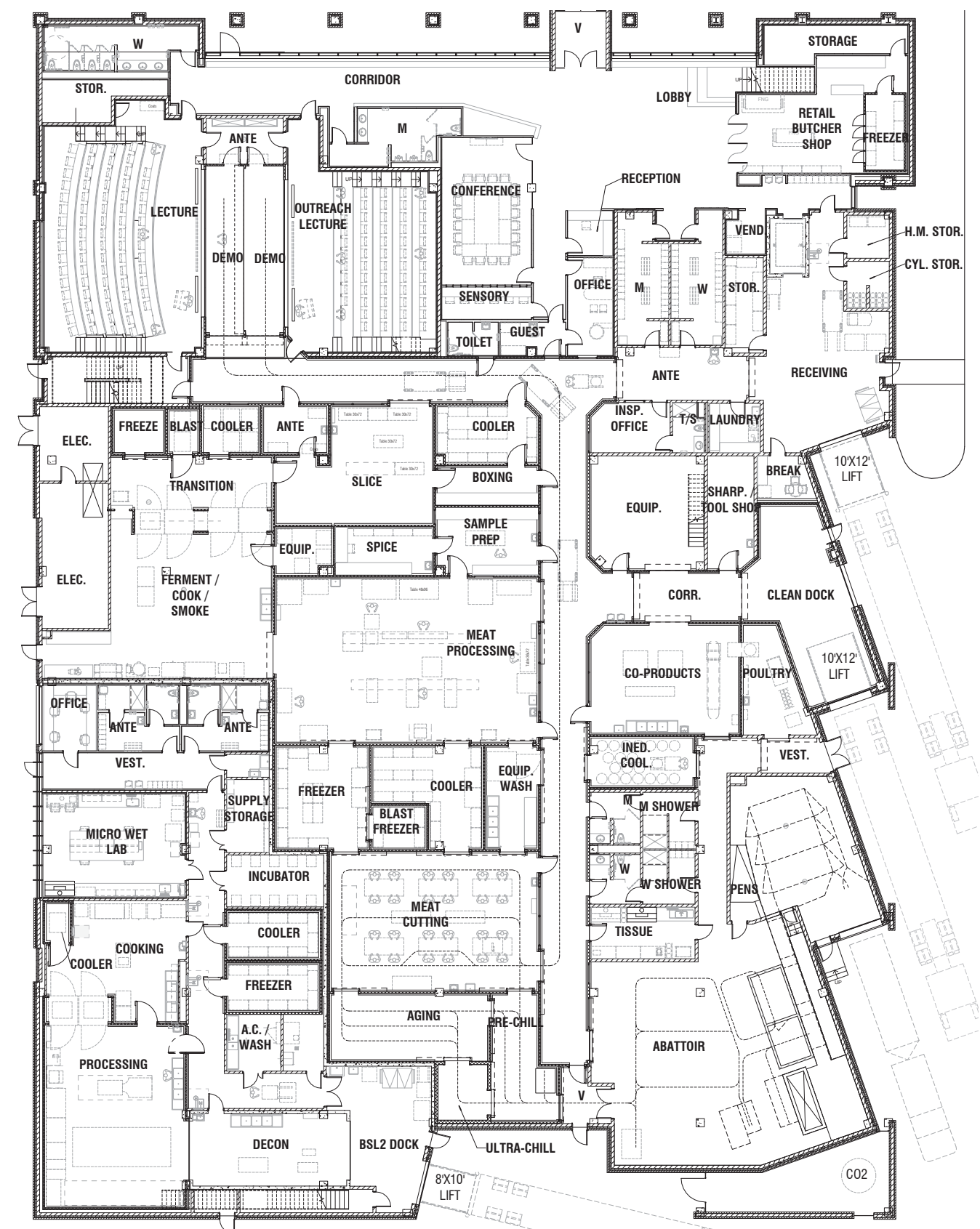
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE VERITY SURVEY INFORMATION AND SITE CONDITIONS WITH THE CITY OF CHICAGO. IF ANY DISCREPANCIES, CONTRACTOR SHALL CONTACT DIGGERS HOTLINE AND UHAWINDSON TO LOCATE ANY EXISTING UTILITY LINES. IF THE CONTRACTOR'S CONSTRUCTION, ANY DAMAGE CAUSED TO EXISTING UTILITY, EITHER PLANT OR NOT, SHALL BE REPAID AND PAID FOR AT THE CONTRACTOR'S EXPENSE.
2. CONTRACTOR SHALL PROTECT BENCHMARKS.
3. ALL TREES SHOWN TO BE RETAINED WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED WITH PROTECTION FENCING, ALL TREE PROTECTION SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION. SEE SPECIFICATION 311 3.16, "SELECTIVE TREE AND SHRUB REMOVAL" AND "REMOVING TREE FOR PROTECTION REQUIREMENTS."
4. ALL WRAPPINGS, WIRE BASKETS, BURLAP, AND OTHER MISCELLANEOUS MATERIAL, SHALL BE COMPLETELY REMOVED FROM THE CURB AND TREE ROOT BALLS PRIOR TO INSTALLATION.
5. ALL LAWN AREAS DESTROYED BY CONSTRUCTION ACTIVITIES SHALL BE RE-GOODED AT NO COST TO OWNER.
6. CONTRACTOR IS RESPONSIBLE FOR WATERING AND MAINTAINING THE LAWN PRIOR TO THE END OF SPECIFICATION 29.97.00 FOR MORE INFORMATION.

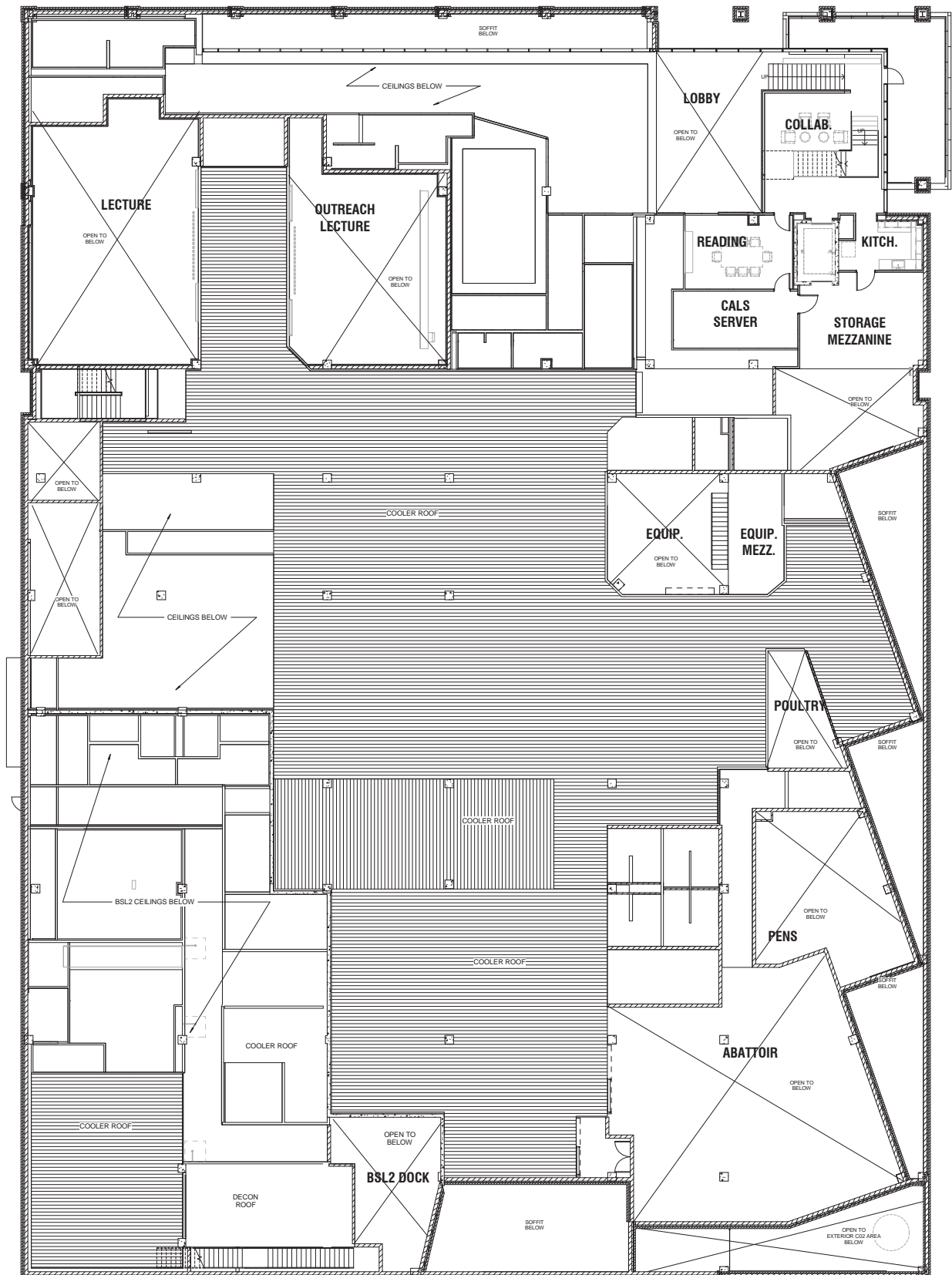


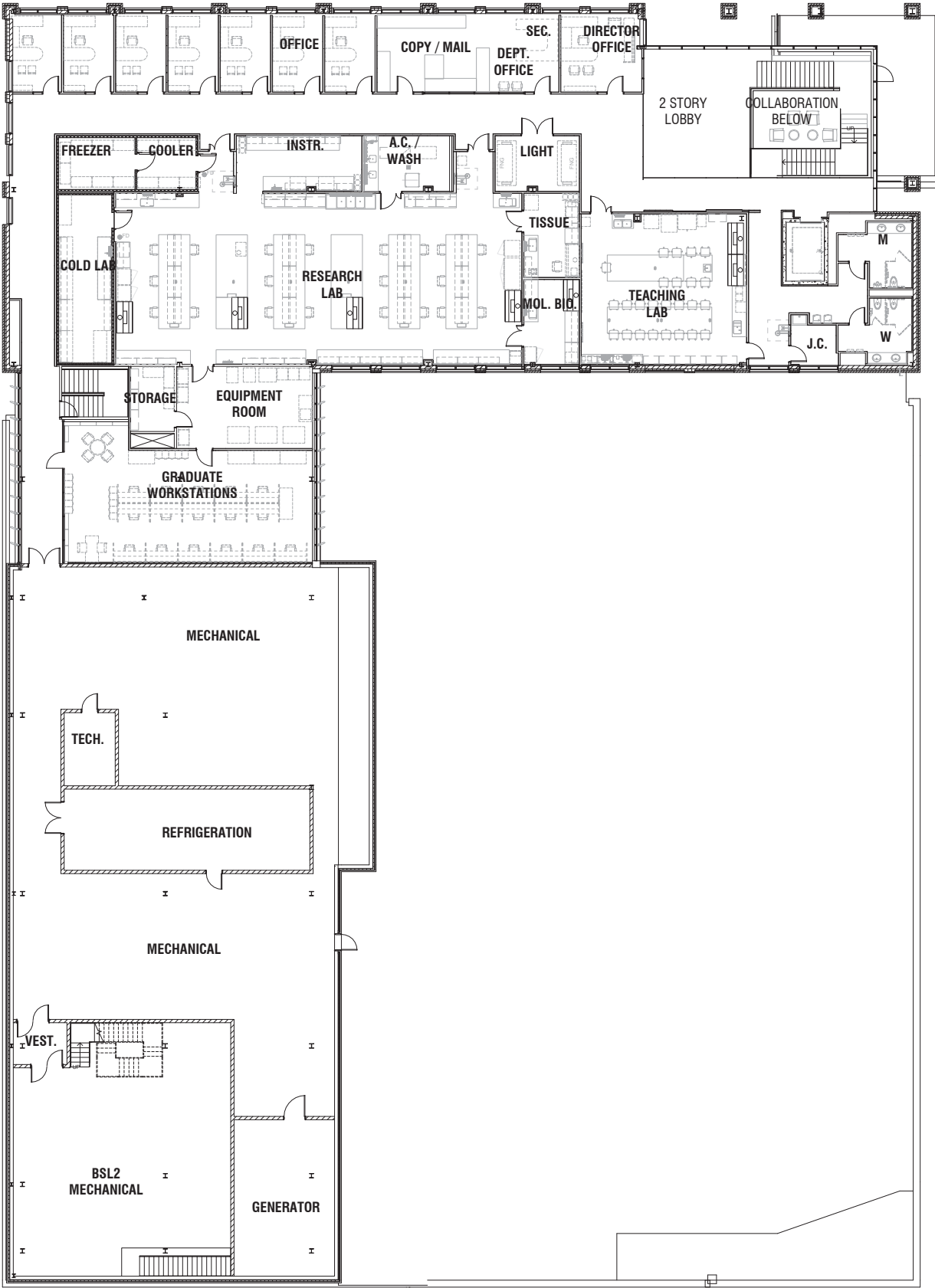
 <p>POTTER LAWSON Success by Design</p> <p>PC2 Project #12 2014-21.00</p> <p>Consolidated</p>  <p>PRELIMINARY NOT FOR CONSTRUCTION</p>	
 <p>State of Wisconsin Department of Administration Division of Facilities Development</p>	 <p>University of Wisconsin - Madison Madison, Wisconsin</p>
<p>Meat Science Laboratory University of Wisconsin - Madison Madison, Wisconsin</p>	<p>Meat Science Laboratory University of Wisconsin - Madison Madison, Wisconsin</p>
<p>Project Name: _____</p> <p>Project No: _____</p> <p>Project Date: _____</p> <p>Project Status: _____</p> <p>Project Type: _____</p> <p>Project Location: _____</p> <p>Project Description: _____</p> <p>Project Owner: _____</p> <p>Project Manager: _____</p> <p>Project Engineer: _____</p> <p>Project Architect: _____</p> <p>Project Consultant: _____</p> <p>Project Contractor: _____</p> <p>Project Subcontractor: _____</p> <p>Project Supplier: _____</p> <p>Project Distributor: _____</p> <p>Project Installer: _____</p> <p>Project Maintainer: _____</p> <p>Project Operator: _____</p> <p>Project User: _____</p> <p>Project Viewer: _____</p> <p>Project Printer: _____</p> <p>Project Scanner: _____</p> <p>Project Copier: _____</p> <p>Project Fax: _____</p> <p>Project Mail: _____</p> <p>Project Phone: _____</p> <p>Project Email: _____</p> <p>Project Website: _____</p> <p>Project Social Media: _____</p> <p>Project Mobile App: _____</p> <p>Project Cloud Storage: _____</p> <p>Project Backup: _____</p> <p>Project Recovery: _____</p> <p>Project Migration: _____</p> <p>Project Upgrade: _____</p> <p>Project Patch: _____</p> <p>Project Support: _____</p> <p>Project Training: _____</p> <p>Project Documentation: _____</p> <p>Project Compliance: _____</p> <p>Project Security: _____</p> <p>Project Privacy: _____</p> <p>Project Accessibility: _____</p> <p>Project Sustainability: _____</p> <p>Project Innovation: _____</p> <p>Project Research: _____</p> <p>Project Development: _____</p> <p>Project Testing: _____</p> <p>Project Deployment: _____</p> <p>Project Monitoring: _____</p> <p>Project Evaluation: _____</p> <p>Project Review: _____</p> <p>Project Feedback: _____</p> <p>Project Improvement: _____</p> <p>Project Optimization: _____</p> <p>Project Automation: _____</p> <p>Project Integration: _____</p> <p>Project Interoperability: _____</p> <p>Project Scalability: _____</p> <p>Project Flexibility: _____</p> <p>Project Portability: _____</p> <p>Project Reliability: _____</p> <p>Project Availability: _____</p> <p>Project Performance: _____</p> <p>Project Efficiency: _____</p> <p>Project Effectiveness: _____</p> <p>Project Impact: _____</p> <p>Project Value: _____</p> <p>Project Benefit: _____</p> <p>Project Risk: _____</p> <p>Project Opportunity: _____</p> <p>Project Challenge: _____</p> <p>Project Solution: _____</p> <p>Project Strategy: _____</p> <p>Project Plan: _____</p> <p>Project Policy: _____</p> <p>Project Procedure: _____</p> <p>Project Standard: _____</p> <p>Project Specification: _____</p> <p>Project Requirement: _____</p> <p>Project Constraint: _____</p> <p>Project Assumption: _____</p> <p>Project Dependency: _____</p> <p>Project Relationship: _____</p> <p>Project Interaction: _____</p> <p>Project Communication: _____</p> <p>Project Collaboration: _____</p> <p>Project Partnership: _____</p> <p>Project Alliance: _____</p> <p>Project Consortium: _____</p> <p>Project Network: _____</p> <p>Project Community: _____</p> <p>Project Ecosystem: _____</p> <p>Project Environment: _____</p> <p>Project Context: _____</p> <p>Project Situation: _____</p> <p>Project Scenario: _____</p> <p>Project Case: _____</p> <p>Project Example: _____</p> <p>Project Illustration: _____</p> <p>Project Demonstration: _____</p> <p>Project Proof: _____</p> <p>Project Evidence: _____</p> <p>Project Data: _____</p> <p>Project Information: _____</p> <p>Project Knowledge: _____</p> <p>Project Wisdom: _____</p> <p>Project Understanding: _____</p> <p>Project Insight: _____</p> <p>Project Awareness: _____</p> <p>Project Perception: _____</p> <p>Project Sensation: _____</p> <p>Project Feeling: _____</p> <p>Project Emotion: _____</p> <p>Project Thought: _____</p> <p>Project Idea: _____</p> <p>Project Concept: _____</p> <p>Project Theory: _____</p> <p>Project Hypothesis: _____</p> <p>Project Model: _____</p> <p>Project Framework: _____</p> <p>Project Structure: _____</p> <p>Project Organization: _____</p> <p>Project System: _____</p> <p>Project Process: _____</p> <p>Project Method: _____</p> <p>Project Technique: _____</p> <p>Project Approach: _____</p> <p>Project Strategy: _____</p> <p>Project Plan: _____</p> <p>Project Policy: _____</p> <p>Project Procedure: _____</p> <p>Project Standard: _____</p> <p>Project Specification: _____</p> <p>Project Requirement: _____</p> <p>Project Constraint: _____</p> <p>Project Assumption: _____</p> <p>Project Dependency: _____</p> <p>Project Relationship: _____</p> <p>Project Interaction: _____</p> <p>Project Communication: _____</p> <p>Project Collaboration: _____</p> <p>Project Partnership: _____</p> <p>Project Alliance: _____</p> <p>Project Consortium: _____</p> <p>Project Network: _____</p> <p>Project Community: _____</p> <p>Project Ecosystem: _____</p> <p>Project Environment: _____</p> <p>Project Context: _____</p> <p>Project Situation: _____</p> <p>Project Scenario: _____</p> <p>Project Case: _____</p> <p>Project Example: _____</p> <p>Project Illustration: _____</p> <p>Project Demonstration: _____</p> <p>Project Proof: _____</p> <p>Project Evidence: _____</p> <p>Project Data: _____</p> <p>Project Information: _____</p> <p>Project Knowledge: _____</p> <p>Project Wisdom: _____</p> <p>Project Understanding: _____</p> <p>Project Insight: _____</p> <p>Project Awareness: _____</p> <p>Project Perception: _____</p> <p>Project Sensation: _____</p> <p>Project Feeling: _____</p> <p>Project Emotion: _____</p> <p>Project Thought: _____</p> <p>Project Idea: _____</p> <p>Project Concept: _____</p> <p>Project Theory: _____</p> <p>Project Hypothesis: _____</p> <p>Project Model: _____</p> <p>Project Framework: _____</p> <p>Project Structure: _____</p> <p>Project Organization: _____</p> <p>Project System: _____</p> <p>Project Process: _____</p> <p>Project Method: _____</p> <p>Project Technique: _____</p> <p>Project Approach: _____</p> <p>Project Strategy: _____</p> <p>Project Plan: _____</p> <p>Project Policy: _____</p> <p>Project Procedure: _____</p> <p>Project Standard: _____</p> <p>Project Specification: _____</p> <p>Project Requirement: _____</p> <p>Project Constraint: _____</p> <p>Project Assumption: _____</p> <p>Project Dependency: _____</p> <p>Project Relationship: _____</p> <p>Project Interaction: _____</p> <p>Project Communication: _____</p> <p>Project Collaboration: _____</p> <p>Project Partnership: _____</p> <p>Project Alliance: _____</p> <p>Project Consortium: _____</p> <p>Project Network: _____</p> <p>Project Community: _____</p> <p>Project Ecosystem: _____</p> <p>Project Environment: _____</p> <p>Project Context: _____</p> <p>Project Situation: _____</p> <p>Project Scenario: _____</p> <p>Project Case: _____</p> <p>Project Example: _____</p> <p>Project Illustration: _____</p> <p>Project Demonstration: _____</p> <p>Project Proof: _____</p> <p>Project Evidence: _____</p> <p>Project Data: _____</p> <p>Project Information: _____</p> <p>Project Knowledge: _____</p> <p>Project Wisdom: _____</p> <p>Project Understanding: _____</p> <p>Project Insight: _____</p> <p>Project Awareness: _____</p> <p>Project Perception: _____</p> <p>Project Sensation: _____</p> <p>Project Feeling: _____</p> <p>Project Emotion: _____</p> <p>Project Thought: _____</p> <p>Project Idea: _____</p> <p>Project Concept: _____</p> <p>Project Theory: _____</p> <p>Project Hypothesis: _____</p> <p>Project Model: _____</p> <p>Project Framework: _____</p> <p>Project Structure: _____</p> <p>Project Organization: _____</p> <p>Project System: _____</p> <p>Project Process: _____</p> <p>Project Method: _____</p> <p>Project Technique: _____</p> <p>Project Approach: _____</p> <p>Project Strategy: _____</p> <p>Project Plan: _____</p> <p>Project Policy: _____</p> <p>Project Procedure: _____</p> <p>Project Standard: _____</p> <p>Project Specification: _____</p> <p>Project Requirement: _____</p> <p>Project Constraint: _____</p> <p>Project Assumption: _____</p> <p>Project Dependency: _____</p> <p>Project Relationship: _____</p> <p>Project Interaction: _____</p> <p>Project Communication: _____</p> <p>Project Collaboration: _____</p> <p>Project Partnership: _____</p> <p>Project Alliance: _____</p> <p>Project Consortium: _____</p> <p>Project Network: _____</p> <p>Project Community: _____</p> <p>Project Ecosystem: _____</p> <p>Project Environment: _____</p> <p>Project Context: _____</p> <p>Project Situation: _____</p> <p>Project Scenario: _____</p> <p>Project Case: _____</p> <p>Project Example: _____</p> <p>Project Illustration: _____</p> <p>Project Demonstration: _____</p> <p>Project Proof: _____</p> <p>Project Evidence: _____</p> <p>Project Data: _____</p> <p>Project Information: _____</p> <p>Project Knowledge: _____</p> <p>Project Wisdom: _____</p> <p>Project Understanding: _____</p> <p>Project Insight: _____</p> <p>Project Awareness: _____</p> <p>Project Perception: _____</p> <p>Project Sensation: _____</p> <p>Project Feeling: _____</p> <p>Project Emotion: _____</p> <p>Project Thought: _____</p> <p>Project Idea: _____</p> <p>Project Concept: _____</p> <p>Project Theory: _____</p> <p>Project Hypothesis: _____</p> <p>Project Model: _____</p> <p>Project Framework: _____</p> <p>Project Structure: _____</p> <p>Project Organization: _____</p> <p>Project System: _____</p> <p>Project Process: _____</p> <p>Project Method: _____</p> <p>Project Technique: _____</p> <p>Project Approach: _____</p> <p>Project Strategy: _____</p> <p>Project Plan: _____</p> <p>Project Policy: _____</p> <p>Project Procedure: _____</p> <p>Project Standard: _____</p> <p>Project Specification: _____</p> <p>Project Requirement: _____</p> <p>Project Constraint: _____</p> <p>Project Assumption: _____</p> <p>Project Dependency: _____</p> <p>Project Relationship: _____</p> <p>Project Interaction: _____</p> <p>Project Communication: _____</p> <p>Project Collaboration: _____</p> <p>Project Partnership: _____</p> <p>Project Alliance: _____</p> <p>Project Consortium: _____</p> <p>Project Network: _____</p> <p>Project Community: _____</p> <p>Project Ecosystem: _____</p> <p>Project Environment: _____</p> <p>Project Context: _____</p> <p>Project Situation: _____</p> <p>Project Scenario: _____</p> <p>Project Case: _____</p> <p>Project Example: _____</p> <p>Project Illustration: _____</p> <p>Project Demonstration: _____</p> <p>Project Proof: _____</p> <p>Project Evidence: _____</p> <p>Project Data: _____</p> <p>Project Information: _____</p> <p>Project Knowledge: _____</p> <p>Project Wisdom: _____</p> <p>Project Understanding: _____</p> <p>Project Insight: _____</p> <p>Project Awareness: _____</p> <p>Project Perception: _____</p> <p>Project Sensation: _____</p> <p>Project Feeling: _____</p> <p>Project Emotion: _____</p> <p>Project Thought: _____</p> <p>Project Idea: _____</p> <p>Project Concept: _____</p> <p>Project Theory: _____</p> <p>Project Hypothesis: _____</p> <p>Project Model: _____</p> <p>Project Framework: _____</p> <p>Project Structure: _____</p> <p>Project Organization: _____</p> <p>Project System: _____</p> <p>Project Process: _____</p> <p>Project Method: _____</p> <p>Project Technique: _____</p> <p>Project Approach: _____</p> <p>Project Strategy: _____</p> <p>Project Plan: _____</p> <p>Project Policy: _____</p> <p>Project Procedure: _____</p> <p>Project Standard: _____</p> <p>Project Specification: _____</p> <p>Project Requirement: _____</p> <p>Project Constraint: _____</p> <p>Project Assumption: _____</p> <p>Project Dependency: _____</p> <p>Project Relationship: _____</p> <p>Project Interaction: _____</p> <p>Project Communication: _____</p> <p>Project Collaboration: _____</p> <p>Project Partnership: _____</p> <p>Project Alliance: _____</p> <p>Project Consortium: _____</p> <p>Project Network: _____</p> <p>Project Community: _____</p> <p>Project Ecosystem: _____</p> <p></p>	

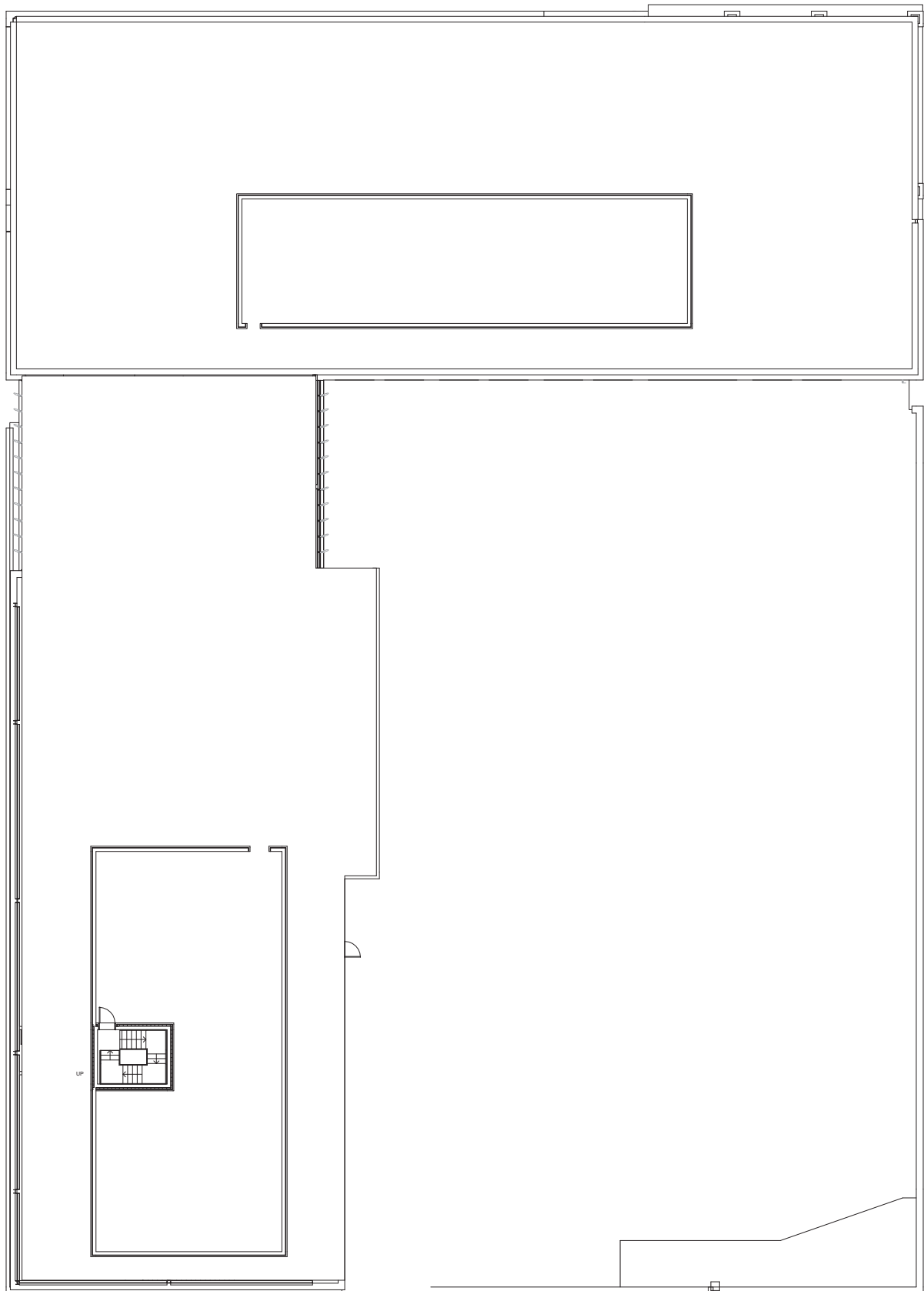
B. FLOOR PLANS

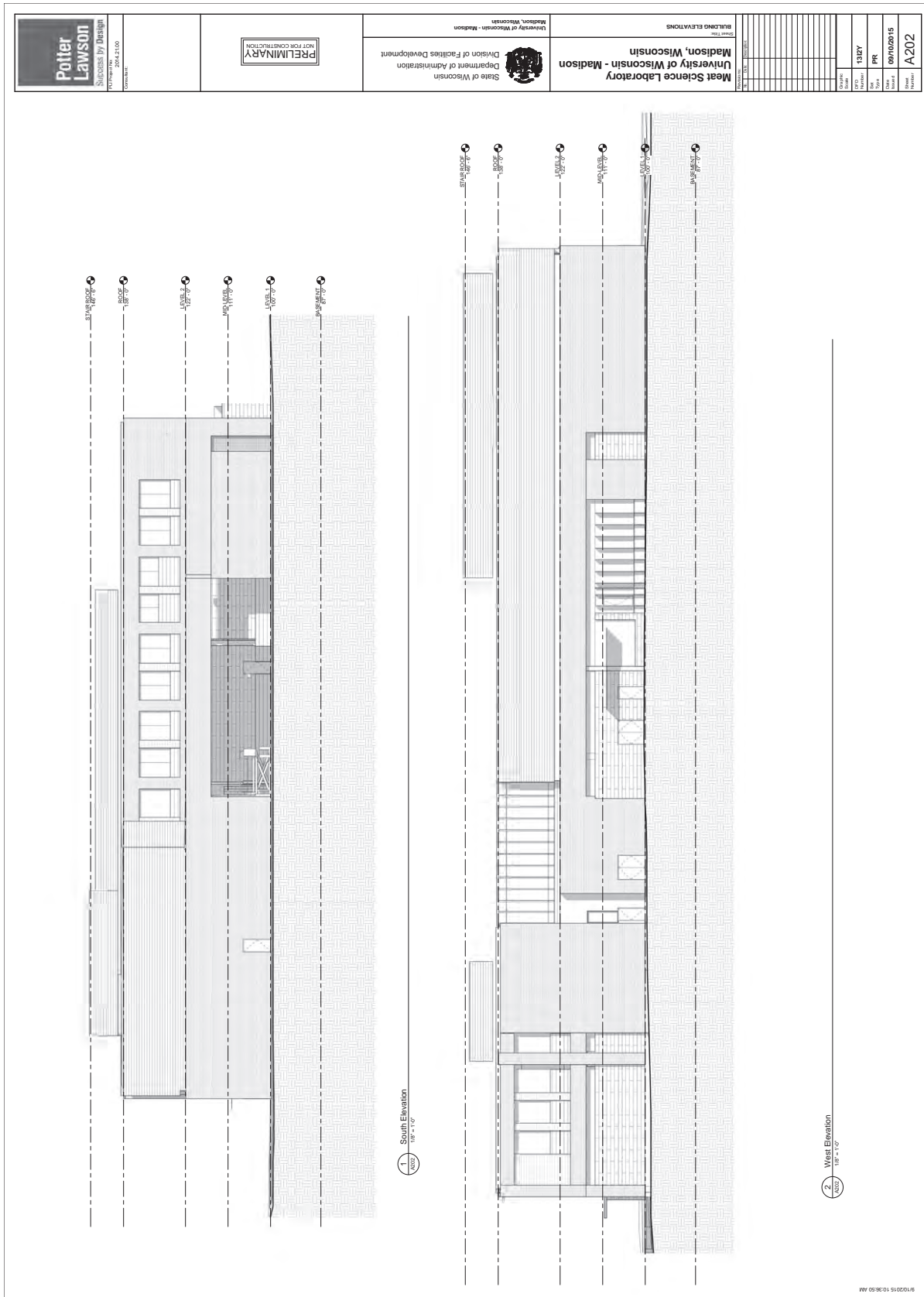




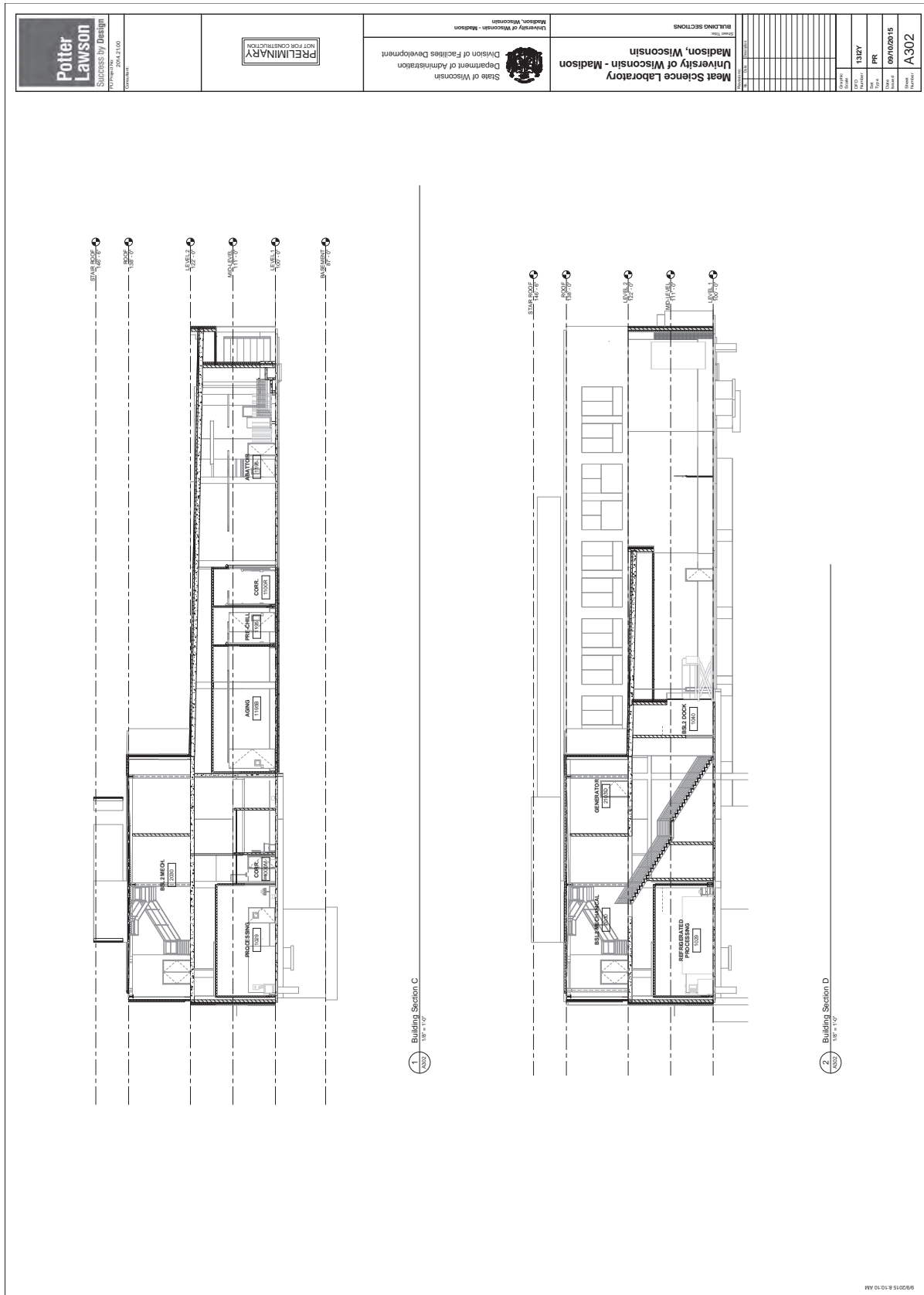


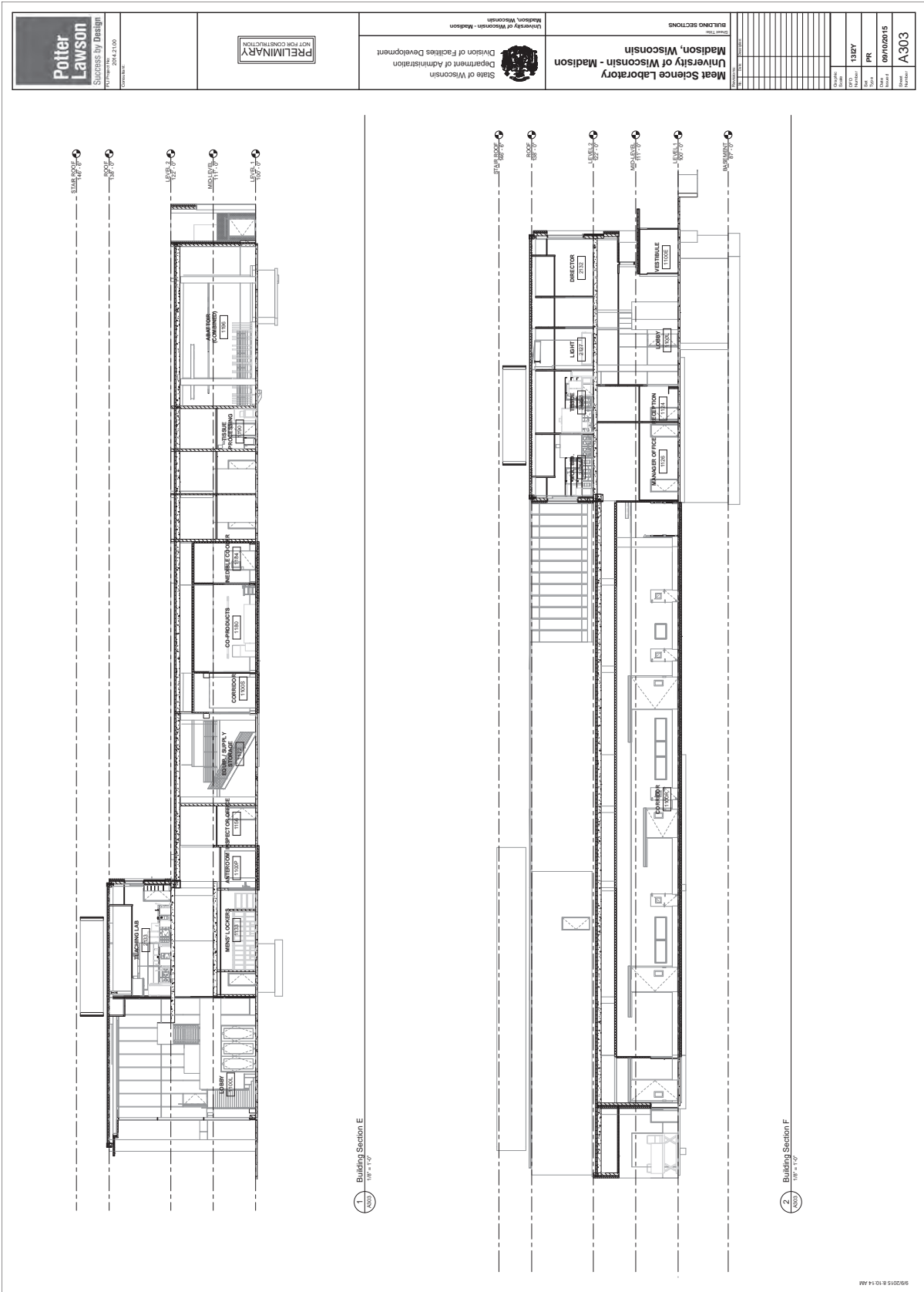


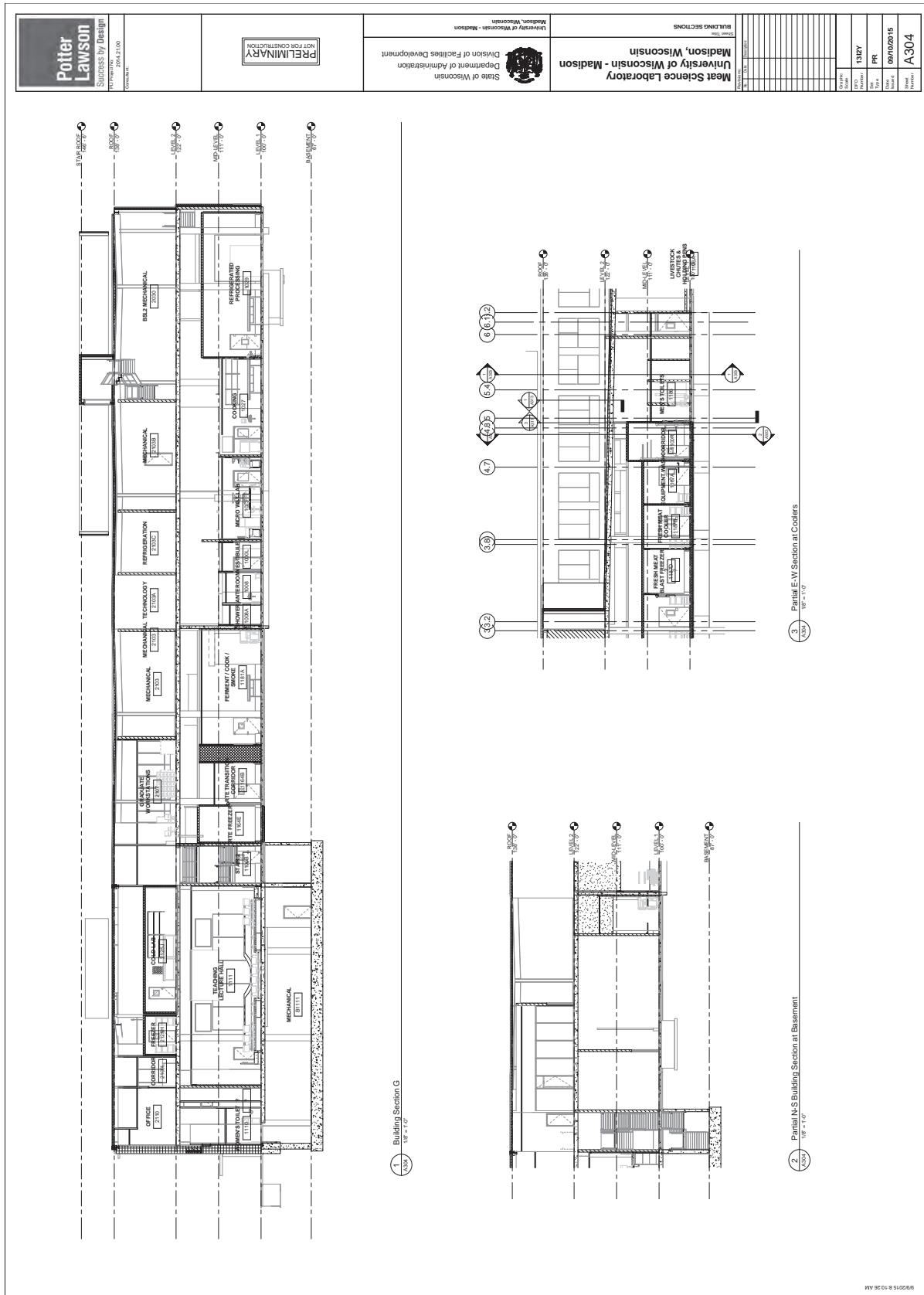












E. 3D VIEWS



PERSPECTIVE VIEW FROM NORTHEAST



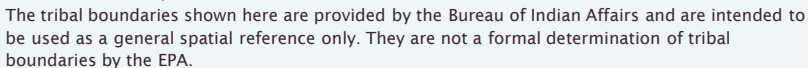
AERIAL VIEW FROM NORTHEAST
MEAT SCIENCE LABORATORY - 2014.21.00
September 10, 2015

Appendix I
Environmental Database Search Data

National Summary

Data courtesy of: Forest County Potawatomi Community, Wisconsin Department of Natural Resources

More Maps



 Action Day

[Action Day Programs](#) | [Air Quality Health Advisory](#) | [Current Air Quality Data](#)

[American Lung Association \(ALA\) of Wisconsin](#)
[Wisconsin Air Quality Health Advisory E-mail](#)
[Wisconsin DNR - About the Air Program - Staff Contacts](#)
[Wisconsin DNR - Environmental Protection - Air Management Program](#)
[Wisconsin DNR Air Quality Advisories & Special Notices](#)
[Wisconsin Department of Natural Resources \(DNR\)](#)

- Fires and Your Health
- Fires: Current Conditions
- Health
- Health Providers
- Healthy Heart
- Links to International Air Quality Sites
- Kids
- Movies
- NAQ Conferences
- NOAA
- Older Adults
- Ozone
- Ozone in 2014 Story Map

- Particle Pollution (PM2.5, PM10)
- PM in 2014 Story Map
- List of Partners
- For Partners
- Publications
- Publicaciones (En Español)
- Smoke Advisories
- Students
- Teachers
- UV Index
- Visibility Cameras
- Weathercasters
- What You Can Do

Health Message: None

1

Health Message: None

Good

Yesterday's Maps and Data

[Air Quality Maps Archives](#) (by region)

We are improving our website to help you find what you’re looking for. During this transition some URLs may change. [Learn more...](#)



United States Environmental Protection Agency

LEARN THE ISSUES

SCIENCE & TECHNOLOGY

LAWS & REGULATIONS

ABOUT EPA

Advanced Search

A–Z Index

SEARCH

AirData

Contact Us Share

You are here: [EPA Home](#) » [AirData](#) » [Reports](#) » AQI Report

Air Quality Index Report

This report provides Air Quality Index annual summary information, including maximum AQI values and the count of days in each AQI category. [Read more](#) about what's in this report.

1. Year
2014
2. Geographic Area
Select a State ...
-- or --
Madison, WI
-- or --
Select a County ...
3. Group Results by
City (defined as CBSA)
County

Geographic Area: Madison, WI

Summary: by CBSA

Year: 2014

[About this report](#)

The following data links are active for the next 10 minutes, after which you must resubmit your query.

[Download PDF \(printable page\)](#)

[Download CSV \(spreadsheet\)](#)

To sort a column in the table below, click on the column heading.

CBSA	# Days with AQI	# Days Good	# Days Moderate	# Days USG	# Days Unhealthy	# Days Very Unhealthy	AQI Max	AQI 90th %ile	AQI Median	# Days CO	# Days NO2	# Days O3	# Days SO2	# Days PM2.5	# Days PM10

Madison, WI	365	265	99	1	.	.	112	62	40	.	.	138	.	226	1
-------------	-----	-----	----	---	---	---	-----	----	----	---	---	-----	---	-----	---

AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state agencies. However, some values may be absent due to incomplete reporting, and some values may change due to quality assurance activities. The AQS database is updated daily by state, local, and tribal organizations who own and submit the data. Please contact the appropriate [air quality monitoring agency](#) to report any data problems.

Readers are cautioned not to rank order geographic areas based on AirData reports. Air pollution levels measured at a particular monitoring site are not necessarily representative of the air quality for an entire county or urban area.





United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Dane County, Wisconsin**



August 24, 2015

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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

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

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	7
Soil Map.....	8
Legend.....	9
Map Unit Legend.....	10
Map Unit Descriptions.....	10
Dane County, Wisconsin.....	12
Co—Colwood silt loam, 0 to 2 percent slopes.....	12
References	14

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


Custom Soil Resource Report Soil Map




Custom Soil Resource Report


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)


Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot


 Closed Depression

 Gravel Pit

 Gravelly Spot


 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip


 Sodic Spot

 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 12, Sep 18, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 16, 2013—Aug 29, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Dane County, Wisconsin (WI025)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Co	Colwood silt loam, 0 to 2 percent slopes	1.3	100.0%
Totals for Area of Interest		1.3	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Dane County, Wisconsin

Co—Colwood silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tjx2
Elevation: 570 to 1,020 feet
Mean annual precipitation: 31 to 37 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 194 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Colwood and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Colwood

Setting

Landform: Lakebeds (relict)
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy glaciolacustrine deposits over stratified silt and fine sand
glaciolacustrine deposits

Typical profile

Ap - 0 to 10 inches: silt loam
Bg - 10 to 24 inches: sandy clay loam
2Cg - 24 to 79 inches: stratified very fine sand to silt

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum in profile: 20 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Other vegetative classification: High AWC, high water table (G095BY007WI)

Minor Components

Pella

Percent of map unit: 8 percent

Landform: Depressions, drainageways, ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Palms

Percent of map unit: 7 percent

Landform: Depressions on interdrumlins

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

References

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

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

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

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

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

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

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

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

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

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

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

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

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

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

Custom Soil Resource Report

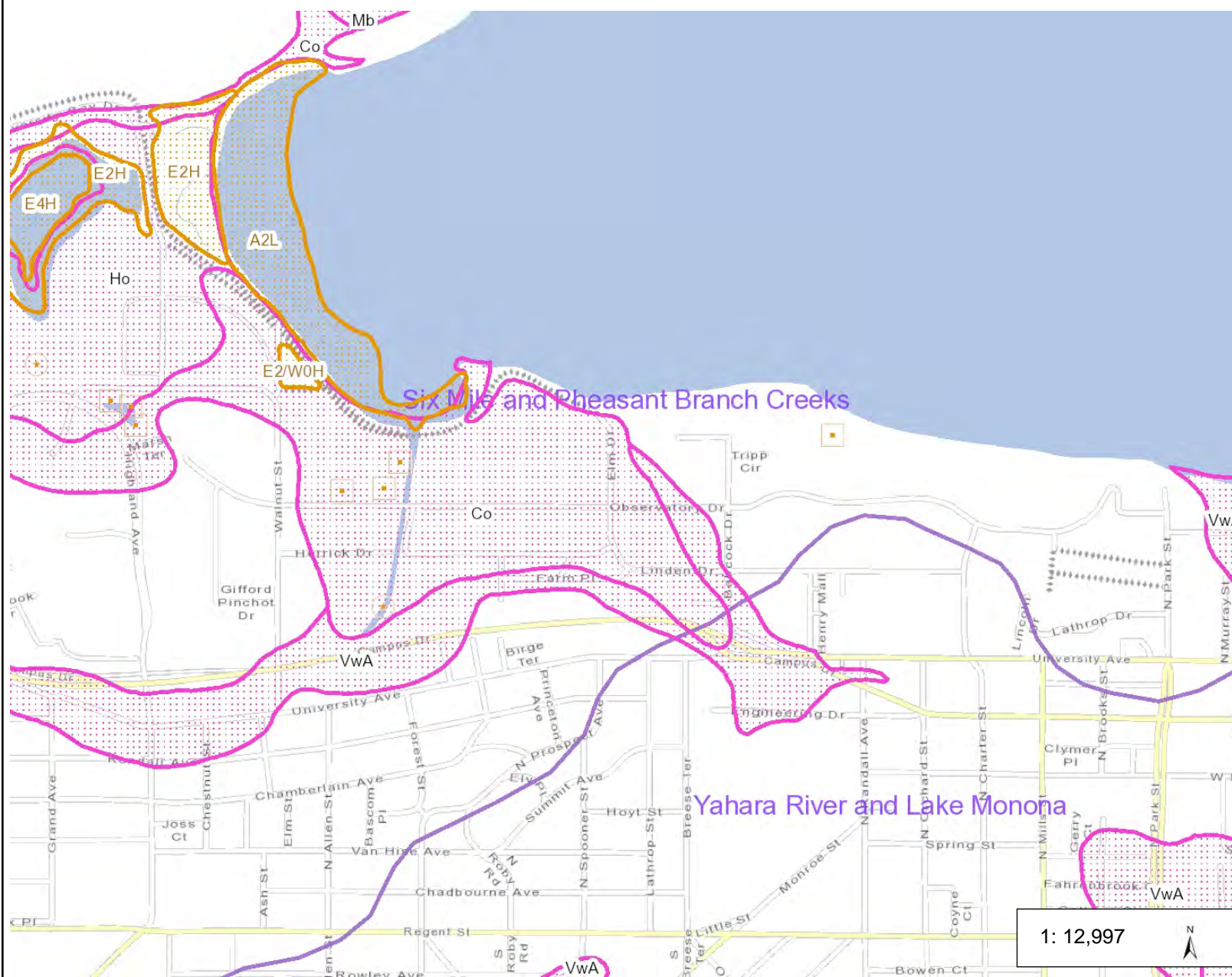
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

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

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



Surface Water Data Viewer Map



Legend

Wetland Class Points

- Dammed pond
- Excavated pond
- Filled excavated pond
- Filled/draind wetland
- Wetland too small to delineate

Filled Points

Wetland Class Areas

- Wetland
- Upland
- Filled Areas
- NRCS Wetspots
- Wetland Indicators
- Watersheds
- Rivers and Streams
- Open Water

1: 12,997



0.4 0 0.21 0.4 Miles

NAD_1983_HARN_Wisconsin_TM
© Latitude Geographics Group Ltd.

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/org/legal/>

Notes

NOTES TO USERS

is for use in administering the National Flood Insurance Program. It does not identify areas subject to flooding, particularly from local drainage of small size. The community map repository should be consulted for updated or additional flood hazard information.

more detailed information in areas where **Base Flood Elevations (BFEs)** have been determined, users are encouraged to consult the Flood Insurance Data and/or Summary of Elevation Elevation Tables contained in the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users are aware that BFEs shown on the FIRM represent rounded whole-foot values. These BFEs are intended for flood insurance rating purposes only and are not to be used as the sole source of flood elevation information. Accordingly, additional data presented in the FIS Report should be utilized in conjunction with the purposes of construction and/or floodplain management.

not in Special Flood Hazard Areas may be protected by **flood control**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study for information on flood control structures for this jurisdiction.

as of the floodways were computed at cross sections and interpolated cross sections. The floodways were based on hydraulic considerations with requirements of the National Flood Insurance Program. Floodway widths pertinent floodway data are provided in the Flood Insurance Study Report section.

sections used in the preparation of this map was Universal Transverse Mercator (UTM) zone 16. The horizontal datum was NAD 83. GRS80 spheroid is in datum, spherical projection or UTM zones used in the production of adjacent jurisdictions may result in slight positional differences in map across jurisdiction boundaries. These differences do not affect the accuracy of the map.

ations on this map are referenced to the North American Vertical Datum of 1988. Flood elevations must be compared to structure and ground elevations to the same vertical datum. For information regarding conversion of the National Geodetic Vertical Datum of 1929 and the North American Datum of 1983, visit the National Geodetic Survey website at <http://nads.noaa.gov> or contact the National Geodetic Survey at the following:

Information Services
NGS-12
Geodetic Survey
#9202
1601 West Highway
Annapolis, Maryland 20705-5002
or 202-335-5000

current elevation, description, and/or location information for **bench marks** on this map, please contact the Information Services Branch of the National Flood Insurance Program at (301) 715-3242 or visit its website at <http://www.nfip.gov>.

information shown on this FIRM was provided by Dane County Land Use Office and Fly Dane Partnership. The aerial photography was acquired in 2005 to create a 1:200 scale digital orthophotos with 1-foot ground resolution and resampled to a 1-meter ground resolution.

updated topographic information, this map reflects more detailed and stream channel configurations and floodplain delineations than shown on the previous FIRM for this jurisdiction. As a result, the Flood Insurance Study Report for multiple streams in the Flood Insurance Study Report which contains authoritative hydraulic data may reflect actual distances that differ from what is shown on the map. Also, the floodplain relationships for unreviewed streams may differ from what is shown on the map.

limits shown on this map are based on the best data available at the time of publication. Because changes due to alterations or dis-annexations may have occurred since this map was published, map users should contact appropriate officials to verify current corporate limit locations.

refer to the separately printed **Map Index** for an overview map of the entire community showing the layout of map panels, community map repository addressing of Communities table containing National Flood Insurance Program map sheets as well as a listing of the panels on which each community is located.

FEMA Map Service Center at 1-800-368-5646 for information on the products associated with this FIRM. Available products may include revised Letters of Map Change, a Flood Insurance Study Report, and/or other products of this map. The FEMA Map Service Center may also be reached by email at fema@fema.gov or by website at <http://www.fema.gov>.

For questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA (1-877-368-2627) or visit the FEMA website at <http://www.fema.gov>.



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 7 NORTH, RANGE 9 EAST.

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD.
The 1% annual chance flood (100-year flood) also known as the base flood, is the flood with a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Areas are subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard are shown on this map as follows: ZONE X, ZONE AE, ZONE AH, ZONE AD, ZONE AR, ZONE AN, ZONE V, ZONE VE. The base flood elevation is the water elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevation determined.
- ZONE AE** Base Flood Elevation determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of zoning). Base Flood Elevation determined.
- ZONE AD** Flood depths of 1 to 3 feet (usually areas of zoning). Base Flood Elevation determined.
- ZONE AR** Special Flood Hazard areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently determined to be obsolete. All indicates that the former flood control system is being removed and protection from the 1% annual chance flood is being provided.
- ZONE AN** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction. No Base Flood Elevation determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action). No Base Flood Elevation determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action). Base Flood Elevation determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be maintained so that the 1% annual chance flood can be carried without substantial increase in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood, areas of 0.2% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas of 0.2% annual chance flood with drainage areas less than 1 square mile.

OTHER AREAS

ZONE B Areas determined to be outside the 0.2% annual chance floodplain.

ZONE C Areas in which flood heights are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OWAs)

CBRS areas and OWAs are normally located within or adjacent to Special Flood Hazard Areas.

1% Annual Chance Floodplain Boundary

0.2% Annual Chance Floodplain Boundary

Floodway Boundary

Zone D Boundary

CBRS and OWA Boundary

Boundary between Special Flood Hazard Areas of different base flood elevations, flood depths or flood velocities

Base Flood Elevation line and value; elevation in feet

Base Flood Elevation value where uniform within zone; elevation in feet

Referenced to the North American Vertical Datum of 1988

Transverse line

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) system throughout.

3000-foot scale, Wisconsin State Plane South Zone (FIPS 5003) Lambert Conformal Conic projection.

100-meter Universal Transverse Mercator grid values, zone 16N.

Bench mark (see explanation in Notes to Users section of this panel).

Water hole.

MAP REPOSITORIES

Refer to Map Repository for or Map Index.

EFFECTIVE DATE OF COMMUNITY FLOOD INSURANCE RATE MAP

June 11, 2005

EFFECTIVE DATE OF REVISIONS TO THIS PANEL

January 2, 2008 - To update community limits, to change Base Flood Elevations and Special Flood Hazard Areas.

To update map limits, to add roads and right-of-way lines, to reflect updated geographic information, and to incorporate newly available letters of Map Change.

This community map revision history prior to incorporation of this panel is in the Community Map Revision History section of the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance broker or call the National Flood Insurance Program at 1-800-638-6632.

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0408G

FIRM
FLOOD INSURANCE RATE MAP

DANE COUNTY, WISCONSIN AND INCORPORATED AREAS

PANEL 408 OF 850
(SEE MAP INDEX FOR FIRM PANEL LIST)

CONTAINS:
COMMUNITY NUMBER PANEL
MADISON, CITY OF 55008 0408
SHOREWOOD HILLS, VILLAGE OF 55056 0408

Notice to User: The **Map Number** shown should be used when placing map on **Community Number** shown above should be used on insurance applications for the community.

MAP NUMBER
55025C0
MAP REVISION
JANUARY 02
Federal Emergency Management Agency



Legend

- Open Site (ongoing cleanup)
- Open Site Boundary
- Closed Site (completed cleanup)
- Closed Site Boundary
- Groundwater Contamination
- Soil Contamination
- Groundwater and Soil Contamination
- Contamination From Another Property
- Dryclean Environmental Response Fund (DERF)
- Green Space Grant (2004-2009)
- Ready for Reuse
- Site Assessment Grant (2001-2009)
- State Funded Response
- Sustainable Urban Development Zone (SUDZ)
- General Liability Clarification Letters
- Superfund NPL
- Voluntary Party Liability Exemption
- Rivers and Streams
- Open Water

Notes

0.3 0 0.13 0.3 Miles

NAD_1983_HARN_Wisconsin_TM

© Latitude Geographics Group Ltd.

1:7,920



DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/org/legal/>

Note: Not all sites are mapped.

Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

Click the Location Name below to view the Location Details page for this Activity. Other Activities, if present, may be viewed from that page.

[BOTW Home](#) > [Basic Search](#) > [Search Results](#) > 03-13-000258 Activity Details

03-13-000258 UW BIOTRON						
CLOSED LUST						
Location Name (Click Location Name to View Location Details)				County		WDNR Region
UW MADISON BIOTRON LABORATORY				DANE		STH CNTRL
Address				Municipality		
2115 OBSERVATORY DR				MADISON		
Public Land Survey System			Latitude	Google Maps	RR Sites Map	
SW 1/4 of the SW 1/4 of Sec 15, T07N, R09E			43.0760332	CLICK TO VIEW	CLICK TO VIEW	
Additional Location Description			Longitude	Facility ID	Size (Acres)	
NONE			-89.4232169	113179660	UNKNOWN	
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			1989-07-12	1992-10-30	1992-10-30	
Characteristics						
PECFA Tracked?	EPA NPL Site?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	No	No	No	No	No	No
Actions						
Place Cursor Over Action Code to View Description						
Date	Code	Name	Comment			
1984-07-13	2	RP Letter Sent				
1989-07-12	1	Notification				
1992-10-30	11	Activity Closed				
Impacts						
Type			Comment			
Soil Contamination			SOIL CONTAMINATION			
Substances						
Substance		Type	Amount Released	Units		
Petroleum - Unknown Type (FUEL OIL)		Petroleum				
Who						
Click name of Project Manager or File Contact to compose email						
Role		Name/Address				
Responsible Party		U W MADISON - BIOTRON 2115 OBSERVATORY DR MADISON, WI 53706				
Project Manager		WENDELL WOJNER 3911 FISH HATCHERY RD FITCHBURG,				

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the [disclaimers page](#) for more information.





Release 2.4.6 | 08/17/2015 | [Release Notes](#)

Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment


BRRTS on the Web

Click the Location Name below to view the Location Details page for this Activity. Other Activities, if present, may be viewed from that page.

[BOTW Home](#) > [Basic Search](#) > [Search Results](#) > 04-13-046986 Activity Details

04-13-046986 LAKE MENDOTA - UNIVERSITY AVE & BIOTRON

CLOSED SPILL

Location Name (Click Location Name to View Location Details)				County		WDNR Region		
LAKE MENDOTA - UNIVERSITY AVE & BIO				DANE		STH CNTRL		
Address				Municipality				
LAKE MENDOTA - UNIVERSITY AVE				MADISON				
Public Land Survey System			Latitude		Google Maps		RR Sites Map	
Additional Location Description			Longitude		Facility ID		Size (Acres)	
NONE					NONE		UNKNOWN	
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action			
DNR RR			1992-04-07	1992-04-30	1992-04-30			
Comments								
OLD SPILL ID: 920407-08 HISTORIC SPILL. FURTHER ACTION MAY NOT BE NECESSARY. PLEASE CONTACT DNR SPILL COORDINATOR IN SC REGION FOR FILE INFORMATION.								
Characteristics								
PECFA Tracked?	EPA NPL Site?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? 		
No	No	No	No	No	No	No		
Actions								
Place Cursor Over Action Code to View Description								
Date	Code	Name	Comment					
1992-04-07	1	Spill Incident Occurred	Auto populated via migration process					
1992-04-07	5	Spill Reported to DNR						
1992-04-30	11	Spill Closed						
Impacts								
Type			Comment					
Surface Water Contamination			WILLOW CR & LAKE MENDOTA					
Spill Information								
Incident Date	Reported Date	Investigator	Source					
04/07/1992	04/07/1992	T LAWHERN	Public Prop/Residence (Fed/St/Cnty/City/Twn Ofcs/Bldgs/Grnd)					
Cause: PENDING								
Comment: NONE								
Spiller Actions								
Action			Comment					

No Action Taken		NO RP FOUND	
Substances			
Substance	Type	Amount Released	Units
Paints, Inks and Dyes	Industrial Chem		
Who			
Click name of Project Manager or File Contact to compose email			
Role	Name/Address		
Project Manager	TED AMMAN 3911 FISH HATCHERY RD FITCHBURG,		

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the [disclaimers page](#) for more information.



The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621 

Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

Click the Location Name below to view the Location Details page for this Activity. Other Activities, if present, may be viewed from that page.

[BOTW Home](#) > [Basic Search](#) > [Search Results](#) > 02-13-561431 Activity Details

02-13-561431 UW MADISON BIOTRON

[OPEN ERP](#)

Location Name (Click Location Name to View Location Details)				County	WDNR Region	
UW MADISON BIOTRON LABORATORY				DANE	STH CNTRL	
Address				Municipality		
2115 OBSERVATORY DR				MADISON		
Public Land Survey System			Latitude	Google Maps	RR Sites Map	
SW 1/4 of the SW 1/4 of Sec 15, T07N, R09E			43.0760331	CLICK TO VIEW	CLICK TO VIEW	
Additional Location Description			Longitude	Facility ID	Size (Acres)	
NONE			-89.4225251	113179660	UNKNOWN	
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2013-11-13		2015-07-28	
Characteristics						
PECFA Tracked?	EPA NPL Site?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? 
No	No	No	No	No	No	No
Actions						
Place Cursor Over Action Code to View Description						
Date	Code	Name	Comment			
2013-11-13	1	Notification				
2014-01-07	2	RP Letter Sent				
2014-04-09	99	Miscellaneous	MEETING WITH UW TO DISCUSS INVESTIGATION			
2015-02-03	195	Semi-Annual/PECFA Cost Reporting Requirement Met	Period: 7/1/2014 - 12/31/2014			
Click 195 Action Name above to view the NR700 report						
2015-07-28	195	Semi-Annual/PECFA Cost Reporting Requirement Met	Period: 1/1/2015 - 6/30/2015			
Click 195 Action Name above to view the NR700 report						
2015-08-03	43	Status Report Received	SITE STATUS UPDATE REVISION 1			
Substances						
Substance			Type	Amount Released	Units	
Chlorinated Solvents			VOC			
Who						
Click name of Project Manager or File Contact to compose email						
Role	Name/Address					
Consultant	SCS ENGINEERS 2830 DAIRY DR MADISON, WI 53718					
Responsible Party	UNIVERSITY OF WISCONSIN REGENTS PO BOX 7866 MADISON, WI 53706					

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the [disclaimers page](#) for more information.



The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621 

Release 2.4.6 | 08/17/2015 | [Release Notes](#)

WDNR SHWIMS on the Web

Navigation: [SOTW Home](#) >> [Basic Search](#) >> Search Results

[HELP](#) | [DOWNLOAD](#)

10 Facilities Found Searching For:

Address contains LINDEN
Facility in State of WI
Dane County

Sorted by Facility Name

Facility Status	Facility Name Address Municipality State Zip	FID	County	Region
UNKNOWN	CZ TRUCKING CO 6591 LINDEN CIR WINDSOR, WI 53598	998321940	DANE	SOUTH CENTRAL
OPERATING	MICROBIAL SCIENCES BLDG 1550 LINDEN DRIVE MADISON, WI 53706	113375900	DANE	SOUTH CENTRAL
OPERATING	THYSEE PRINTING SERVICE 103 LINDEN COURT MADISON, WI 53704	113065590	DANE	SOUTH CENTRAL
OPERATING	UW DEPT OF ENTOMOLOGY 1630 LINDEN DRIVE RUSSELL LABS MADISON, WI 53706	113367540	DANE	SOUTH CENTRAL
OPERATING	UW MADISON AHABS 1656 LINDEN DRIVE MADISON, WI 53706	113355550	DANE	SOUTH CENTRAL
OPERATING	UW MADISON BOCK LABORATORIES 1525 LINDEN DR MADISON, WI 53706	113321230	DANE	SOUTH CENTRAL
OPERATING	UW MADISON DAIRY CATTLE CENTER 1815 LINDEN DR MADISON, WI 53706	113320790	DANE	SOUTH CENTRAL
UNKNOWN	UW MADISON DAIRY FORAGE 1925 LINDEN DR MADISON, WI 53706	113237190	DANE	SOUTH CENTRAL
OPERATING	UW MADISON NUTRITIONAL SCIENCES BLDG 1415 LINDEN DR MADISON, WI 53706	113320900	DANE	SOUTH CENTRAL
OPERATING	UW MADISON SCHOOL OF VETERINARY MEDICINE 2015 LINDEN DR MADISON, WI 53706	113323320	DANE	SOUTH CENTRAL



The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621



WDNR SHWIMS on the Web

Navigation: [SOTW Home](#) >> [Basic Search](#) >> Search Results

[HELP](#) | [DOWNLOAD](#)

3 Facilities Found Searching For:

Address contains OBSERVATORY
Facility in State of WI
Dane County

Sorted by Facility Name

Facility Status	Facility Name AddressMunicipalityStateZip	FID	County	Region
OPERATING	UW DEPT OF KINESIOLOGY 2000 OBSERVATORY DR NATATORIUM MADISON, WI 53706	113367430	DANE	SOUTH CENTRAL
OPERATING	UW MADISON ANIMAL SCIENCE BLDG 1675 OBSERVATORY DR MADISON, WI 53706	113321120	DANE	SOUTH CENTRAL
OPERATING	UW MADISON BIOTRON LABORATORY 2115 OBSERVATORY DR MADISON, WI 53706	113179660	DANE	SOUTH CENTRAL



The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621



Wisconsin Department of Natural Resources

WDNR SHWIMS on the Web

Navigation: [SOTW Home](#) >> [Basic Search](#) >> [Search Results](#) >> Location Detail

UW MADISON DAIRY FORAGE
Facility Name

HELP				
General Information				
Facility Name			County	WDNR Region
UW MADISON DAIRY FORAGE			DANE	SOUTH CENTRAL REGION
Facility Status	FID	EPA ID	SIC Code	NAICS Code
UNKNOWN	113237190	WI5120590539	9999	NONE
Physical Address Find on Google Maps (U.S. Only)		Municipality	State	Zip
1925 LINDEN DR		MADISON	WI	53706
Mailing Address		City	State	Zip
1925 LINDEN DR W		MADISON	WI	53706
Facility Owner Type	Public Land Survey System Desc.		Latitude and Longitude	
FEDERAL	NOT AVAILABLE		NOT AVAILABLE	

Facility Owner(s)	
UW MADISON DAIRY FORAGE 1815 N UNIVERSITY ST PEORIA, IL 616043999	

Waste Management Activities at this Location		
Activity Type Click to view details	Activity Status	License No.
INFECTIOUS WASTE GENERATOR-OTHER	ACTIVE	N/A
HW GENERATOR - SMALL	INACTIVE	N/A

Other Activities at this Location	
Activity Number and Name Click to view details on ADRIS SOTW	Type/Status
09-13-292155 U S DAIRY FORAGE RESEARCH CENTER	NO ACTION REQUIRED



The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621



Wisconsin Department of Natural Resources

WDNR SHWIMS on the Web

202 HW Generator - Small
SHWIMS on the Web - Waste Activity Details

General Information					
Activity Code and Name			Activity Status	License Number	License Status
202 HW Generator - Small			INACTIVE	N/A	N/A
Original Approval Date	Original License Date	Planned Closure Date	Closure Ltr. Received Date	Actual Closure Date	Status Changed Date
-	-	-	-	-	-

Activity Contact(s)		
Contact Name	Contact Mailing Address	Contact Phone
DONALD TYLER AREA SAFETY MGR	1815 N UNIVERSITY ST PEORIA, IL 616043999	309-685-4011

Wastes Handled in this Activity
D001 NON-LISTED IGNITABLE WASTES,



The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621



Envirofacts

Contact Us

You are here: EPA Home » Envirofacts » Search Results

Search Results

- Home
- Multisystem Search
- Topic Searches
- System Data Searches
- About the Data
- Data Downloads
- Widgets
- Services
- Mobile
- Other Datasets

<< Return

Location Address: linden
City Name: madison
County Name: dane
State Abbreviation: wi

API Link for Report Data: *(Copy and paste the link below to view the data from this report)*

Envirofacts Links

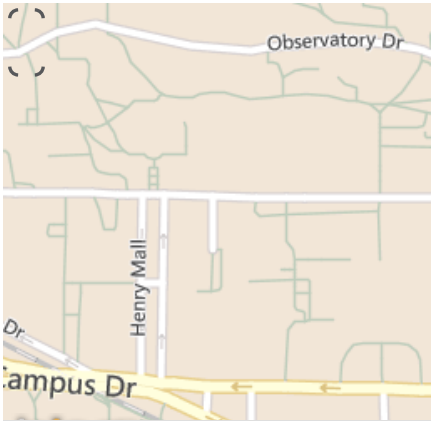
- EF Overview
- Search
- Model
- Data Update
- Multisystem Search User Guide
- Contact Us

Report an Error

- Info
- AIR
- TOXICS
- WASTE
- RADIATION
- WATER

**Zoom or pan map to change location.*





FACILITY INFORMATION	AFS	ACRES	BR	CERCLIS	GHG	PCS/ICIS	RAD Info	RCRA Info	TRI	TSCA
⬇	⬇	⬇	⬇	⬇	⬇	⬇	⬇	⬇	⬇	⬇

LIST OF EPA-REGULATED FACILITIES IN ENVIROFACTS

Copy

CSV

Excel

PDF

Print

Showing 1 to 1 of 1 entries

Display

10

facilities in the table

Search:

First

Previous

1

Next

Last

FACILITY INFORMATION	AFS	ACRES	BR	CERCLIS	GHG	PCS/ICIS	RAD Info	RCRA Info	TRI	TSCA
<div>⌵</div> <div>US DAIRY FORAGE RESEARCH CTR</div> <div>1925 LINDEN DR W MADISON, WI 53706</div> <div>Latitude: 43.07512 Longitude: -89.41801</div> <div> <div>Summary Report</div> <div>Facility Report</div> <div>Compliance Report</div> </div>	<div>⌵</div>	<div>⌵</div>	<div>⌵</div>	<div>⌵</div>	<div>⌵</div>	<div>⌵</div>	<div>⌵</div>	<div>⌵</div>	<div>⌵</div>	<div>⌵</div>

Showing 1 to 1 of 1 entries

Display

10

facilities in the table

Search:

First

Previous

1

Next

Last

Go To Top Of The Page

Total Number of Facilities Retrieved: 1

 [News Feeds](#)

 [Podcasts](#)


 [EPA Mobile](#)

 [News by E-mail](#)

 [Widgets](#)

[EPA Home](#) | [Privacy and Security Notice](#) |





United States Environmental Protection Agency

ALL EPA

THIS AREA

Advanced Search

LEARN THE ISSUES

SCIENCE & TECHNOLOGY

LAWS & REGULATIONS

ABOUT EPA

SEARCH

Envirofacts

Contact Us

Share

You are here: [EPA Home](#) » [Envirofacts](#) » Search Results

Search Results

Home

Multisystem Search

Topic Searches

System Data Searches

About the Data

Data Downloads

Widgets

Services

Mobile

Other Datasets

<< Return

Location Address: observatory

City Name: madison

County Name: dane

State Abbreviation: wi

No Results found.

Total Number of Facilities Retrieved: 0

Envirofacts Links

• EF Overview

• Search


• Model


• Data Update


• Multisystem Search User Guide


• Contact Us


Report an Error

News Feeds

Podcasts

EPA Mobile

News by E-mail


Widgets

[EPA Home](#)

[Privacy and Security Notice](#)

[Contact Us](#)

Last updated on 8/21/2015



http://iaspub.epa.gov/...aics_type=Equal+to&naics_to=&chem_name=&chem_search=Beginning+With&cas_num=&page_no=1&output_sql_switch=FALSE&report=1&database_type=Multisystem[8/21/2015 3:24:04 PM]

[Menu](#)

Detailed Facility Report

Facility Summary

US DAIRY FORAGE RESEARCH CTR
1925 LINDEN DR W, MADISON, WI 53706 ⓘ

Facility Information (FRS)

FRS ID: 110005420491
EPA Region: 05
Latitude: 43.07512
Longitude: -89.41801
Locational Data Source: FRS
Industry:
Indian Country: N

Regulatory Interests

Clean Air Act: No Information
Clean Water Act: No Information
Resource Conservation and Recovery Act: Inactive () Other (WI5120590539)
Safe Drinking Water Act: No Information

Also Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): No Information

Enforcement and Compliance Summary ⚠

Statute	Insp (5 Years)	Date of Last Inspection	Current Compliance Status	Qtrs in NC (of 12)	Qtrs in Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
RCRA			No Violation	0	0					

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		I10005420491					N	43.07512	-89.41801
RCR	RCRA	WI5120590539	Other	Inactive ()			N	43.075481	-89.415901

Facility Address

System	Statute	Identifier	Facility Name	Facility Address
FRS		I10005420491	US DAIRY FORAGE RESEARCH CTR	1925 LINDEN DR W, MADISON, WI 53706
RCR	RCRA	WI5120590539	US DAIRY FORAGE RESEARCH CTR	1925 LINDEN DR W, MADISON, WI 53706

Facility SIC Codes

System	Identifier	SIC Code	SIC Desc
No data records returned			

Facility NAICS Codes

System	Identifier	NAICS Code	NAICS Desc
No data records returned			

Facility Tribe Information

Tribal Name	EPA Tribal ID	Distance to Tribe (miles)
Ho-Chunk Nation Reservation	101	7.71

Enforcement and Compliance

Compliance Monitoring History (5 years)

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
No data records returned						

Entries in italics are not considered inspections in official counts.

Compliance Summary Data

Statute	Source ID	Current SNC/HPV	Description	Current As Of	Qtrs in NC (of 12)
RCRA	WI5120590539	No		08/15/2015	0

Three Year Compliance Status by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12
	RCRA (Source ID: WI5120590539)	10/01-12/31 2012	01/01-03/31 2013	04/01-06/30 2013	07/01-09/30 2013	10/01-12/31 2013	01/01-03/31 2014	04/01-06/30 2014	07/01-09/30 2014	10/01-12/31 2014	01/01-03/31 2015	04/01-06/30 2015	07/01-09/30 2015
RCRA Facility-Level Status													

Informal Enforcement Actions (5 Years)

Statute	Source ID	Type of Action	Lead Agency	Date
No data records returned				

Formal Enforcement Actions (5 Years)

Statute	Source ID	Type of Action	Lead Agency	Date	Penalty	Penalty Description
No data records returned						

ICIS Case History (5 years)

Primary Law/Section	Case No.	Case Type	Lead Agency	Case Name	Issued/Filed Date	Settlement Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
No data records returned										

Environmental Conditions

Water Quality

Permit ID	Combined Sewer System?	Number of CSO Outfalls	Watershed (HUC 8)	Watershed Name (HUC 8)	Watershed (HUC 12)	Watershed Name (HUC 12)	Receiving Waters	Impaired Waters	Impaired Class	Causes of Impairment(s) by Group(s)	Watershed with ESA-listed Aquatic Species?
No data records returned											

Waterbody Designated Uses

REACH Code	Waterbody Name	Exceptional Use	Recreational Use	Aquatic Life Use	Shellfish Use	Beach Closure Within Last Year	Beach Closure Within Last Two Years
No data records returned							

Air Quality

Non-Attainment Area?	Pollutant(s)
No	Ozone
No	Lead
No	Particulate Matter

Pollutants

TRI History of Reported Chemicals Released in Pounds per Year at Site

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Releases
No data records returned								

TRI Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
No data records returned

Demographic Profile

Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

Radius of Area:	3	Land Area:	53%	Households in Area:	38,088
Center latitude:	43.075481	Water Area:	47%	Housing Units in Area:	40,390
Center Longitude:	-89.415901	Population Density:	5,889/sq.mi.	Households on Public Assistance:	414
Total Persons:	87,881	Percent Minority:	23%	Persons Below Poverty Level:	35,661
Race Breakdown		Persons (%)		Age Breakdown	
White:		70,277 (79.97%)		Child 5 years and younger:	
African-American:		4,370 (4.97%)		Minors 17 years and younger:	
Hispanic-Origin:		5,373 (6.11%)		Adults 18 years and older:	
Asian/Pacific Islander:		8,425 (9.59%)		Seniors 65 years and older:	
American Indian:		350 (.4%)			
Other/Multiracial:		4,460 (5.08%)			
Education Level (Persons 25 & older)		Persons (%)		Income Breakdown	
Less than 9th Grade:		885 (2.13%)		Less than \$15,000:	
9th through 12th Grade:		1,135 (2.73%)		\$15,000 - \$25,000:	
High School Diploma:		4,514 (10.87%)		\$25,000 - \$50,000:	
Some College/2-yr:		7,492 (18.04%)		\$50,000 - \$75,000:	
B.S./B.A. or More:		27,503 (66.23%)		Greater than \$75,000:	
				Households (%)	
				Less than \$15,000:	
				\$15,000 - \$25,000:	
				\$25,000 - \$50,000:	
				\$50,000 - \$75,000:	
				Greater than \$75,000:	

Petroleum Programs Home	Search Instructions	Search by Tank ID	Search by Site, Owner, or Tank Characteristics
---	-------------------------------------	-----------------------------------	--

Tank List

Searching for:

Street address = linden
County Code = 13
Municipality = MADISON

Number of matching records: 5

Type	ID	Facility ID	Address	Status	Contents	Size (gals)	Cust ID	Owner
County: DANE, FDID: 1301 - Madison, Municipality: CITY OF MADISON								
1. UST	273014	50798	1450 LINDEN DR	Closed/Removed	Diesel	110	375828	UW SYSTEM ENVIRONMENT HEALTH & SAFETY
2. UST	273537	139770	1925 LINDEN DR W	Closed/Removed	Diesel	550	375766	USDA - ARS-MWA-DFRC-FARM
3. AST	974767	656686	1915 LINDEN DR	Closed/Removed	Diesel	10000	375828	UW SYSTEM ENVIRONMENT HEALTH & SAFETY
4. AST	1167963	687098	1550 LINDEN DRIVE	In Use	Diesel	1500	647292	WISCONSIN DEPT OF ADMINISTRATION
5. AST	1344574	718053	1300 LINDEN DRIVE	In Use	Diesel	250	375828	UW SYSTEM ENVIRONMENT HEALTH & SAFETY

Disclaimer: Tank Status does not reflect that the tank is code complying.

[Close this response window](#)



Petroleum Programs Home	Search Instructions	Search by Tank ID	Search by Site, Owner, or Tank Characteristics
---	-------------------------------------	-----------------------------------	--

Tank List

Searching for:

Street address = observatory
County Code = 13
Municipality = MADISON

Number of matching records: 1

Type	ID	Facility ID	Address	Status	Contents	Size (gals)	Cust ID	Owner
County: DANE, FDID: 1301 - Madison, Municipality: CITY OF MADISON								
1. UST	273076	648276	2115 OBSERVATORY DR	Closed/Removed	Fuel Oil	1000	375828	UW SYSTEM ENVIRONMENT HEALTH & SAFETY

Disclaimer: Tank Status does not reflect that the tank is code complying.

[Close this response window](#)



This document was last revised: February 2010

Wisconsin Department of Safety and Professional Services

Search Instructions	Search by Site, Owner, or Tank Characteristics	Search by Tank ID
-------------------------------------	--	-----------------------------------

Tank Detail

Site and Owner					
Site Info		County & Municipality		Owner	
Facility ID: 139770 US DAIRY FORAGE RESEARCH CTR 1925 LINDEN DR W MADISON Landowner Type: Other Governmnt Site Anniversary Date: Dispensers have Sumps: Unknown		13 - DANE City of MADISON Fire Dept ID: 1301 - Madison		ID: 375766 USDA - ARS-MWA-DFRC-FARM 1925 LINDEN DR MADISON WI 53706	
Underground Storage Tank - ID: 273537, Wang ID: 130103065, Closed/Removed as of 10/28/1992					
Install Date:		Capacity in Gallons:		550	Contents: Diesel
Tank Occupancy:	Government Fleet	Marketer:	N	CAS Number:	
Federally Regulated:	Y	Spill Protection:	Required - Not Installed	Overfill Protection:	Required - Not Installed
Overfill Prot Type:	null	Containment Sump Installed:	Unknown		
Corrosion Protect Type:		Date of Lining:		Lining Inspected Date:	
Leak Detection:	Unknown	Cath Test Date:		Cath Expire Date:	
Leak Test Meth:		Leak Expire Date:		Leak Test Date:	
Construction Material:	Fiberglass or Poly	Wall Size:	Single	Underground Piping:	Y
Close Order Date:		Close Order By:			
Piping - Closed/Removed					
Flex Connectors:		UST mainfolded:		Related Tank ID:	
Type:		Aboveground Piping:		Aboveground Pipe Construction:	
Construction Material:	Unknown	Corrosion Protect Type:		Leak Detection:	Unknown
Cath Test Date:		Cath Expire Date:		Leak Test Meth:	
Leak Test Date:		Leak Expire Date:		Pipe Wall Size:	Single
Catastrophic Leak Detection:		Cat Leak Test Date:		Piping System Type:	Unknown
Inspections Click here for login page					
Trans ID	Type	Status	Date Fiscal Yr		
** No inspections for this tank **					

[Close this response window](#)

Search Instructions	Search by Site, Owner, or Tank Characteristics	Search by Tank ID
-------------------------------------	--	-----------------------------------

Tank Detail

Site and Owner		
Site Info	County & Municipality	Owner
Facility ID: 656686 UW MADISON GROUNDS DEPT 1915 LINDEN DR MADISON Landowner Type: Private	13 - DANE City of MADISON Fire Dept ID: 1301 - Madison	ID: 375828 UW SYSTEM ENVIRONMENT HEALTH & SAFETY 30 N MURRAY ST MADISON WI 53715
Site Anniversary Date: Dispensers have Sumps: Unknown		

Aboveground Storage Tank - ID: 974767, Wang ID: null, Closed/Removed as of 07/15/2005

Install Date:	12/03/2003	Capacity in Gallons:	10000	Contents:	Diesel
Tank Occupancy:	Government Fleet	Marketer:	N	CAS Number:	
Federally Regulated:		Spill Protection:	Required - Installed	Overfill Protection:	Required - Installed
Overfill Prot Type:	null	Containment Sump Installed:	Unknown		
Corrosion Protect Type:	Not Applicable	Date of Lining:		Lining Inspected Date:	
Leak Detection:	Interstitial Monitor	Cath Test Date:		Cath Expire Date:	
Leak Test Meth:		Leak Expire Date:		Leak Test Date:	
Construction Material:	Bare Steel	Wall Size:	Double	Underground Piping:	
Close Order Date:		Close Order By:			

Piping -					
Flex Connectors:		UST mainfolded:		Related Tank ID:	
Type:		Aboveground Piping:	Y	Aboveground Pipe Construction:	Steel
Construction Material:		Corrosion Protect Type:		Leak Detection:	null
Cath Test Date:		Cath Expire Date:		Leak Test Meth:	
Leak Test Date:		Leak Expire Date:		Pipe Wall Size:	
Catastrophic Leak Detection:		Cat Leak Test Date:		Piping System Type:	

Inspections [Click here for login page](#)

Trans ID	Type Status	Date Fiscal Yr
** No inspections for this tank **		

[Close this response window](#)

Building Information - SEED BUILDING

[Export to Excel](#)[Home](#)

Agency	UNIVERSITY OF WISCONSIN
Institution	MADISON CAMPUS
Building	0119 - SEED BUILDING

DFD Project Number	06B2K	Initial Building Number	0119
Addition Number			

Building Address	1930 LINDEN DRIVE		
City	MADISON	County	DANE
State	WI	Zip Code	53706
Present Use	SEED BUILDING	Past Use	
Contact Name	WILLIAM TRACY	Contact Phone	608-262-1376

Inspectors Name	JEREMY R. NOEGEL	Inspector Number	AI-105450
Company Name	EMC	Phone	920-648-6343
Address	W7748 COUNTY HIGHWAY V	City	LAKE MILLS
State	WI	Zip Code	53551
Inspection Date	10/19/2007	Data Entry Complete	12/31/2007

Approx. Construction Date	1936	Number of Floors	1
Gross Sq. Feet	17,744	Net Sq. Feet	
Exterior Finish	BRICK/METAL	Roof Type	BUILT P FLAT

Building Summary

[Export to Excel](#)[Home](#)

Agency	UNIVERSITY OF WISCONSIN
Institution	MADISON CAMPUS
Building	0119 - SEED BUILDING
Inspection Date: 10/19/2007 Data Entry Complete: 12/31/2007 Last Revision Date: 12/31/2007	

Building Summary - Asbestos

Building Log First Comment	(November 20, 2007) The non-destructive nature of this survey limited the identification and quantification of suspect ACM to readily accessible materials. Therefore, hidden materials suspect to contain asbestos may not be identified by this survey.
----------------------------	---

[Click Here to See if Additional Comments Available](#)

ACM Materials		
HM Code	Description	ACM/Assumed ACM
MFD	FIRE DOOR (ASSUMED)	Assumed ACM
MPG	WINDOW PANE GLAZING	ACM
MTL	COUNTERTOP (BLACK) (ASSUMED)	Assumed ACM
MTP	TRANSITE	ACM
TA5	AIRCELL PIPE INSULATION (0-5")	ACM
TC5	CARDBOARD PIPE INSULATION (0-5")	ACM
TC5F	FITTINGS ON CARDBOARD PIPE INSULATION (0-5")	ACM
TFC	FLEXIBLE DUCT CONNECTOR (ASSUMED)	Assumed ACM
TM5	MAGNESIA PIPE INSULATION (0-5")	ACM

Non-ACM Materials		
HM Code	Description	Non-ACM
MDW	DRYWALL & JOINT COMPOUNT	Non-ACM
TF5F	FITTINGS ON FIBERGLASS PIPE INSULATION (0-5")	Non-ACM

Floor Summary of ACM				
Floor #	HM Code	Description	Quantity	Units
No Floor Entered	TM5	MAGNESIA PIPE INSULATION (0-5")	1	LF
1	MPG	WINDOW PANE GLAZING	43	LF
	TC5	CARDBOARD PIPE INSULATION (0-5")	222	LF
	TA5	AIRCELL PIPE INSULATION (0-5")	466	LF
	TM5	MAGNESIA PIPE INSULATION (0-5")	91	LF
	MFD	FIRE DOOR (ASSUMED)	13	EA
	TC5F	FITTINGS ON CARDBOARD PIPE INSULATION (0-5")	12	EA
	MTL	COUNTERTOP (BLACK) (ASSUMED)	10	SF
	MTP	TRANSITE	2600	SF
	TFC	FLEXIBLE DUCT CONNECTOR (ASSUMED)	3	EA

Lead Based Testing Inventory - SEED BUILDING								Export to Excel	Home
A: UNIVERSITY OF WISCONSIN - I: MADISON CAMPUS - B: 0119 - SEED BUILDING Inspection Date: 10/19/2007 Data Entry Complete: 12/31/2007 Last Revision Date: 12/31/2007									
Sample Number	Room	Bldg. Component	Color	Condition	Substrate	XRF Result (mg/cm2)	Lab Chip Results (%)	LBP/Non-LBP	Comments
04	W002 -	Door	GRAY	Good	Metal	0	N/A	Non-LBP	
05	W001 -	Door	SILVER	Good	Metal	0	N/A	Non-LBP	
06	W001 -	Walls	SILVER	Good	Wood	0	N/A	Non-LBP	
07	E001 -	Walls	GRAY	Good	Wood	0	N/A	Non-LBP	
08	E001 -	Door	CREAM	Good	Metal	0	N/A	Non-LBP	
09	003 -	Door	SILVER	Good	Metal	0	N/A	Non-LBP	
10	E002 -	Door	SILVER	Good	Metal	0	N/A	Non-LBP	
11	E002 -	Walls	GRAY	Good	Wood	0	N/A	Non-LBP	
12	E002 -	Floors	GRAY	Good	Wood	0	N/A	Non-LBP	
13	E002 -	Floors	GRAY	Good	Wood	0	N/A	Non-LBP	
14	E002 -	Floors	GRAY	Good	Wood	0	N/A	Non-LBP	
A: UNIVERSITY OF WISCONSIN - I: MADISON CAMPUS - B: 0119 - SEED BUILDING Inspection Date: 10/19/2007 Data Entry Complete: 12/31/2007 Last Revision Date: 12/31/2007									
Sample Number	Room	Bldg. Component	Color	Condition	Substrate	XRF Result (mg/cm2)	Lab Chip Results (%)	LBP/Non-LBP	Comments
15	004 -	Ceilings	GRAY	Good	Wood	0	N/A	Non-LBP	
16	004 -	Ceilings	GRAY	Good	Wood	0	N/A	Non-LBP	
17	004 -	Ceilings	BROWN	Good	Metal	0	N/A	Non-LBP	
18	EXTERIOR	Doors - Exterior	WHITE	Poor	Metal	5.1	N/A	LBP	EXT. E002
19	EXTERIOR	Windows	WHITE	Poor	Metal	6.2	N/A	LBP	EXT. E002
20	EXTERIOR	Walls	WHITE	Poor	Metal	5.2	N/A	LBP	EXT. E002
21	EXTERIOR	Walls	WHITE	Poor	Metal	6.6	N/A	LBP	EXT. E001
22	EXTERIOR	Windows	WHITE	Poor	Metal	3.9	N/A	LBP	EXT. E001
23	EXTERIOR	Doors - Exterior	WHITE	Poor	Metal	5.6	N/A	LBP	EXT. W003
24	EXTERIOR	Doors - Exterior	WHITE	Poor	Metal	2.0	N/A	LBP	EXT. W003
25	EXTERIOR	Windows - Exterior	BROWN	Poor	Metal	3.3	N/A	LBP	EXT. 001
A: UNIVERSITY OF WISCONSIN - I: MADISON CAMPUS - B: 0119 - SEED BUILDING Inspection Date: 10/19/2007 Data Entry Complete: 12/31/2007 Last Revision Date: 12/31/2007									
Sample Number	Room	Bldg. Component	Color	Condition	Substrate	XRF Result (mg/cm2)	Lab Chip Results (%)	LBP/Non-LBP	Comments
26	EXTERIOR	Walls	WHITE	Poor	Metal	5.8	N/A	LBP	EXT. W002

Appendix J
Voluntary Expedited Endangered Resources (VEER)
Review Request

Voluntary Expedited Endangered Resources Review Request

Form 1700-047E (R 6/15)

Page 1 of 3

Voluntary Expedited Endangered Resources (VEER) Reviews are a voluntary service offered to customers in a guaranteed turnaround time of 7 working days. You may still use the regular Endangered Resources (ER) Review Request process established in NR 29, Wis. Adm. Code, at a lower cost. The turnaround time for regular ER Reviews varies depending on workload and staffing.

Notice: Pursuant to s. 23.27(3)(b), Wis. Stats., this form must be completed and submitted to the Department of Natural Resources (DNR) to request an Endangered Resources (VEER) Review of a proposed land development, management, planning or similar type of project. A VEER Review provides the requester with information from Wisconsin's Natural Heritage Inventory (NHI) database and other sources on rare plants and animals, high quality natural communities, and other endangered resources that may be impacted by the proposed project. The VEER Review will also include specific recommendations to help projects comply with Wisconsin's Endangered Species Law (s. 29.604, Wis. Stats.) and other laws and regulations protecting endangered resources. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.).

Instructions: Before completing this form, please read the information on Page 3 regarding VEER Review service availability, processing, and fees. The following materials are required to process this request. Send all materials to the address above.

- ☒ Completed, signed form
- ☒ Map(s) delineating the project area, preferably a topographic map and digital orthophoto (aerial photo)
- ☒ Photographs that clearly show the project area, including natural features and vegetation present on site
- ☒ Additional relevant information and reports (e.g., detailed project and habitat descriptions, wetland delineation, site plans)
- ☒ Minimum fee of \$420 due upon application, which covers up to three hours of time to complete the VEER Review. Make checks payable to the ER Review Program. Upon completion of the VEER Review, the requester will be invoiced for any additional time (in excess of the initial three hours) required to complete the VEER Review (see Page 3).

Section 1: Requester Information (VEER Review, correspondence and invoice will be sent to this person)

Name Neil Carney		Organization Ayres Associates	
Mailing Address 5201 E. Terrace Drive, Suite 200		City Madison	State WI
Telephone Number (608) 443-1200		FAX Number (608) 299-2184	ZIP Code 53718
Email Address CarneyN@AyresAssociates.com			
Preferred contact method: <input checked="" type="radio"/> Email <input type="radio"/> FAX			

Section 2: Landowner Information (if different than Section 1)

Name Russ Van Gilder		Organization University of Wisconsin Regents c/o WI DOA-DFD	
Mailing Address PO Box 7866		City Madison	State WI
Telephone Number (608) 266-1412		FAX Number	ZIP Code 53707
Email Address Russ.VanGilder@Wisconsin.gov			

Section 3: Project Information

Project Name Meat Science Laboratory (DFD Project #1312Y)	Project Address (if applicable) 1930 Linden Drive, Madison, WI
--	---

Project Types: ☐ Residential ☐ Commercial ☐ Industrial ☒ Other: Academic

Please see information on page 3 regarding projects that are not eligible for VEER Review service.

Start Date (on-site disturbance) July 2016	End Date (on-site disturbance) July 2018	Total Acreage 1.1
---	---	----------------------

County Dane	<input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of: Madison
----------------	--

Township	Range	Direction	Section	Quarter Section	Quarter-Quarter Section	Additional Comments on TRS Location (attach additional information if necessary)
07 N	09	<input checked="" type="checkbox"/> E <input type="checkbox"/> W	15	<input type="checkbox"/> NW <input type="checkbox"/> NE <input checked="" type="checkbox"/> SW <input type="checkbox"/> SE	<input type="checkbox"/> NW <input type="checkbox"/> NE <input checked="" type="checkbox"/> SW <input type="checkbox"/> SE	
N		<input type="checkbox"/> E <input type="checkbox"/> W		<input type="checkbox"/> NW <input type="checkbox"/> NE <input type="checkbox"/> SW <input type="checkbox"/> SE	<input type="checkbox"/> NW <input type="checkbox"/> NE <input type="checkbox"/> SW <input type="checkbox"/> SE	

Provide a detailed description of the proposed project and associated disturbance, including acres to be disturbed. Attach additional pages as needed.

See attached description.

Voluntary Expedited Endangered Resources Review Request

Form 1700-047E (R 6/15)

Page 2 of 3

Section 3: Project Information, *continued*

Provide a detailed description of the habitat types and current land use within the project area (e.g., 50% in active agriculture-currently corn, 20% floodplain forest, 15% industrial area, 10% hardwood swamp dominated by black ash, 5% fallow field - in active agriculture until one year ago). Attach additional pages as needed.

100% developed with building and asphalt parking lot; minimal landscaping

List all wetlands and waterbodies (e.g., rivers, intermittent streams, lakes, marshes) within one mile of the project area. List any known or suspected impacts of the proposed project to these wetlands and waterbodies. Indicate the location(s) of any point source discharge(s) into wetlands or waterbodies.

Lake Mendota lies approximately 0.2 miles north of the project site, with a small channel approximately 0.1 miles west of the project site. The project site is located within an area of wetland indicator soils, but is not located within a mapped area of Wisconsin Wetland Inventory. There are no point source discharges associated with the project site. A map from the WDNR Surface Water Data Viewer is attached.

List any reports that have been prepared to describe habitat that may be impacted by the proposed project (e.g., wetland delineation, habitat assessments, and rare species surveys). Attach copies if available.

There have been no such reports prepared for the project. There are no anticipated impacts to wildlife habitat, wetlands or water bodies.

List any other project reports or correspondence concerning endangered resources. Include endangered resources reviews conducted by this or another agency (list log # and/or date issued) for this or a different phase of or alternative to the proposed project. Attach copies if available.

Not applicable. There are no other project reports or correspondence concerning endangered resources for this project.

Section 4: Related Permits, Licenses or Regulatory Approvals

Permit, License or Approval	Issuing Agency, Program or Municipality	Contact Person	Status
Not applicable			<input type="checkbox"/> will be applying for <input type="checkbox"/> have applied for <input type="checkbox"/> have received
			<input type="checkbox"/> will be applying for <input type="checkbox"/> have applied for <input type="checkbox"/> have received
			<input type="checkbox"/> will be applying for <input type="checkbox"/> have applied for <input type="checkbox"/> have received

Section 5: Terms and Conditions

The requested VEER Review may contain NHI data and information (including specific locations of endangered resources) which are considered sensitive and are not subject to Wisconsin's Open Records Law (per s. 23.27, Wis. Stats.). The information contained in the VEER Review is solely for planning and implementation of the proposed project. As such, the information contained in the VEER Review shall only be shared with individuals who need this information to carry out specific roles in the planning and implementation of the proposed project. The requester must agree to not reproduce or disseminate the VEER Review or the specific locations of endangered resources contained in the VEER Review to any other parties or individuals without prior written permission from the DNR Bureau of Natural Heritage Conservation. (Contact the Endangered Resources Review Program at 608-264-6057 if you have any questions about sharing information contained in the VEER Review.)

Section 6: Certification by Requester

I have read and understand the information on Page 3 regarding VEER Review service availability, processing, and fees. I understand that the submitted project may not be eligible for a VEER Review, and that the DNR will contact me within 2 working days to inform me if a VEER Review can be completed for this project. I am submitting with this form the minimum fee for the first 3 hours of staff time required to process this request. I also agree to pay, within 30 days of receipt of an invoice, the amount indicated on the invoice which covers any additional time (in excess of the initial three hours) required to complete the VEER Review. I am the owner, authorized representative of the owner, or utility representative of the property for which I am requesting a Voluntary Expedited Endangered Resources (VEER) Review. I accept the terms and conditions outlined in Section 5 (above). To the best of my knowledge, the information I have provided is complete and accurate.

NOTE: If submitting this request electronically, please type your name on the signature line. Your typed name, along with the email message generated from electronic submittal of this form, will be used as an electronic signature which is the legal equivalent to an actual signature.


Signature of Requester

9-30-2015
Date Signed

Neil E. Carney, PE
Printed Name



State of Wisconsin / DEPARTMENT OF NATURAL RESOURCES

Scott Walker, Governor
Cathy Stepp, Secretary

101 S. Webster St.
Box 7921
Madison, WI 53707-7921
Telephone 608-266-2621
FAX 608-267-3579
TTY 608-267-6897

October 1, 2015

Neil Carney
5201 E. Terrace Drive, Suite 200
Madison, WI 53718

SUBJECT: Endangered Resources Review (ERR Log # 15-745)
Proposed Meat Science Laboratory (DFD Project # 1312Y), Dane County, WI (07N 09E 15)

Dear Neil Carney,

The Bureau of Natural Heritage Conservation has reviewed the proposed project described in the Endangered Resources (ER) Review Request received September 30, 2015. The complete ER Review for this proposed project is attached and follow-up actions are summarized below:

Required Actions: 0 species

Recommended Actions: 0 species

No Follow-Up Actions: 14 species

This ER Review may contain Natural Heritage Inventory data (<http://dnr.wi.gov/topic/NHI>), including specific locations of endangered resources, which are considered sensitive and are not subject to Wisconsin's Open Records Law. As a result, information contained in this ER Review may be shared only with individuals who need this information in order to carry out specific roles in the planning and implementation of the proposed project. **Specific locations of endangered resources may not be released or reproduced in any publicly disseminated documents.**

The attached ER Review is for informational purposes and only addresses endangered resources issues. **This ER Review does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.**

Please contact me at (608) 264 - 6057 or via email at karen.bednar@wisconsin.gov if you have any questions about this ER Review.

Sincerely,

Karen Bednar
Endangered Resources Review Program

cc:

Appendix K
Additional Project Information

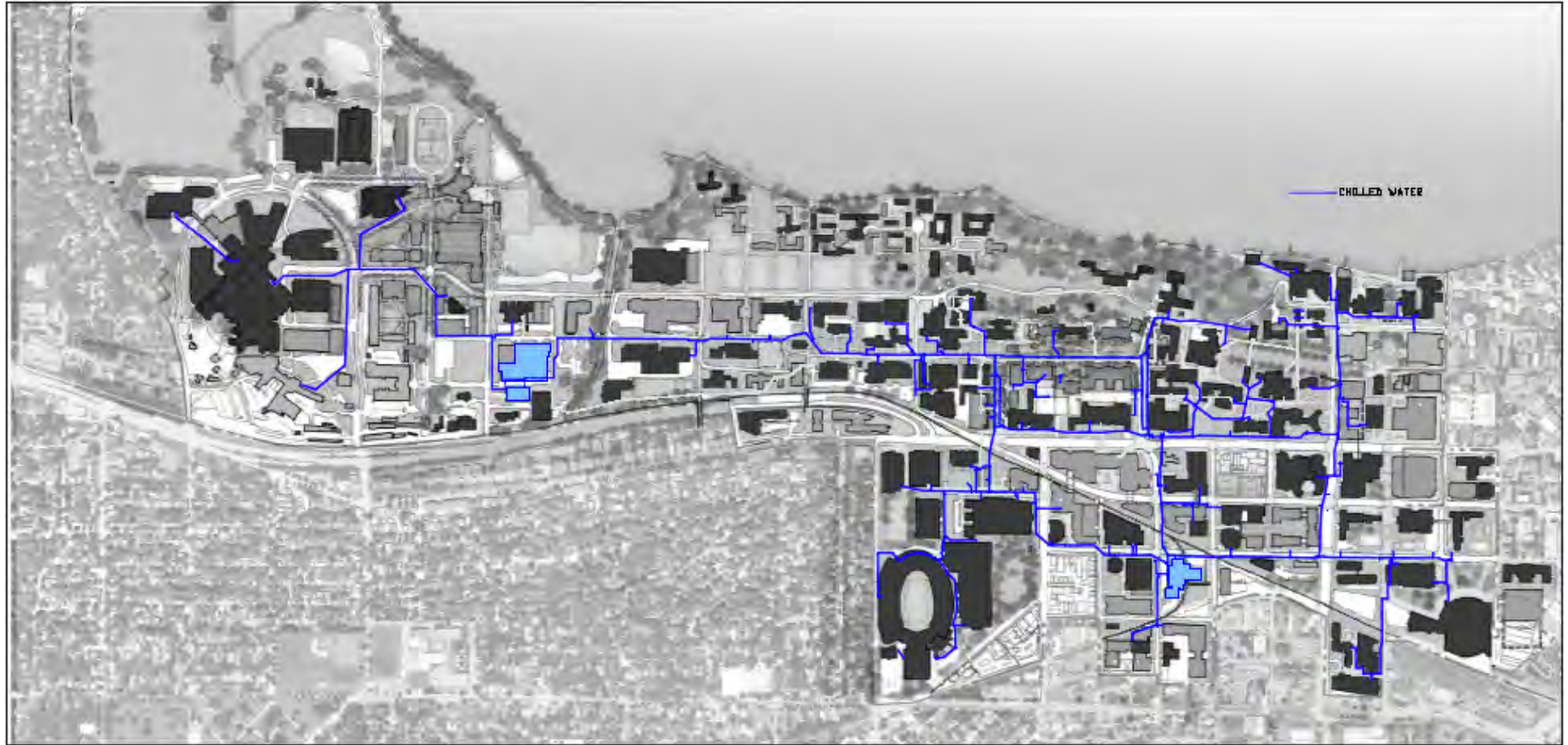
Existing Campus Utility Services

Steam and Condensate Piping Distribution Map



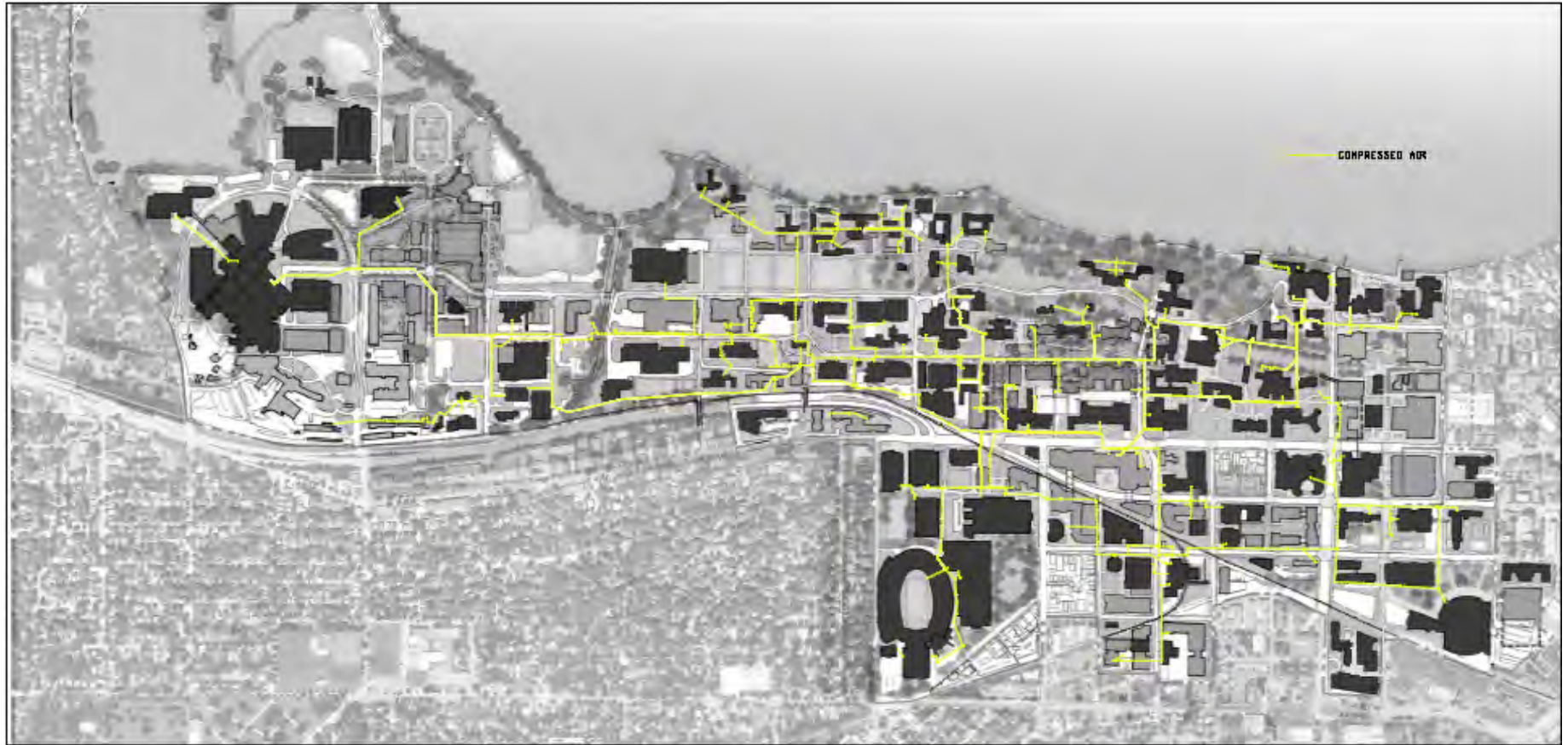
Existing Campus Utility Services

Chilled Water Piping Distribution Map



Existing Campus Utility Services

Compressed Air Piping Distribution Map



Existing Campus Utility Services

Additional piping
in Eagle Heights

Water Distribution Map



Additional piping
in Eagle Heights

Sanitary Sewer Distribution Map



Additional piping
in Eagle Heights

Storm Sewer Distribution Map



Existing Campus Utility Services

Composite Utility Distribution

