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Exhibit A - SCOPE OF SERVICES
CONTRACT #9170, PROJECT # 17196-51-140
WARNER PARK COMMUNITY & RECREATION CENTER
EXPANSION PROJECT

In this Exhibit A; the word “City” means City of Madison, Wisconsin. The City of Madison will include the City’s Designated Representative and/or Owner’s Representative and/or Commissioning Agent and/or Contractor to provide energy modeling; the word “A/E” means the licensed design professional(s) **TBD**; and the word “General Building Contractor” means the entity which will construct the structure.

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PROJECT OVERVIEW

A. Project Overview

1. This project consists of public engagement and the design and construction of an expansion to the existing Warner Park Community & Recreation Center building located at 1625 Northport Drive, Madison, Wisconsin 53704. The building is located in Warner Park near Northport Drive and the Mallards Ballpark. The existing building is approximately 29,000 square feet over one floor with two mezzanines for mechanical equipment (Building total 32,200 sf).
2. Originally constructed in 1998, the existing building provides community rooms, craft spaces, childcare, gymnasium, game space, and fitness center. The facility leases office space to NewBridge. The programs associated with the NewBridge partnership account for a significant amount of room reservations. The facility also has a full commercial kitchen for events, locker rooms to support the recreation activities, and staff spaces for the Parks Division.

Since the original construction, the need for community recreation and program areas have increased and the building requires an expansion of space. Engberg Anderson completed a Programming and Facility Study in 2017 (Exhibits E and F) to develop programming needs and options for expansion. The study also documents the need for system upgrades, general performance improvements, accessibility and other health and safety compliance modifications, workspace updates, architectural upgrades, leased space improvements, and site improvements.

Recent facility improvements include a roof replacement for the majority of roof areas, a boiler replacement, and installation of photovoltaic panels.

3. Programming needs have shifted during the pandemic and before the expansion project can move forward, the A/E consultant shall facilitate a robust public engagement process to reevaluate the programming needs for the Center. With the information received through public outreach, the A/E consultant will prepare and revise design options and presentation materials to guide the programming and design of the expansion project. It is the current City preference to identify the Second Gymnasium Alternate (also known as the Upper Gym addition) in the Engberg Anderson Study as the preferred expansion option as the basis to begin the public engagement process.
4. This single contract with the A/E shall be for public engagement, programming and pre-design, taking the project through all of the design phases, bidding phase, construction administration phase, and warranty administration phase. It is anticipated that the contract shall take approximately three (3) years from contract signing through the end of the warranty phase. It is also anticipated that the project will be designed and planned so that the Center will remain open and operational during construction with limited disruptions to programming.
5. The preliminary construction budget for the project is approximately \$5M. The Project is scheduled for public engagement and design in 2022 and 2023 and for completion of construction in 2024. The construction contract for the project shall be bid out as a Public Works contract by the City of Madison. Technology equipment (A/V, Security Cameras, WAPS), and interior signage is likely to be bid via City Purchasing, but must be included in the design and construction documents to assure coordination with all other building design scope. The A/E must include all existing and/or proposed furnishing layouts in their design in order to assure coordination with all other building design scope.

PROJECT GENERAL REQUIREMENTS

A. Purpose of the Scope of Services Document

1. This documentation contains minimum policy and technical criteria to be used in the community engagement, programming, design, construction, measurement & verification, and documentation of the Warner Park Community & Recreation Center Expansion Project.
 2. Nothing included in this document shall be a substitute for technical architectural, engineering, and design competence.
 3. This document must be used in conjunction with all current federal, state, local or other applicable codes governing all architectural, engineering, and/or professional design of public buildings.
- B. Communication
1. The A/E should have any ambiguities or conflicts in this document clarified in writing by the City Project Manager prior to beginning work.
 2. All dealings between the City and the A/E with respect to the subject matter of the Agreement shall be with the City's Designated Representative. The City's Designated Representative shall inform the A/E as to groups and staff with which it is to consult, provide prompt evaluation of requests of such groups, examine documents and receive inquiries submitted by the A/E, refer information and requests submitted by the A/E to appropriate officials, departments and bodies and obtain or render decisions promptly with respect thereto so as to avoid delays in the work of the A/E. The designation of the City's Designated Representative thereof shall not limit those with whom the A/E may have contact if consultation with others will be of assistance.
 3. SharePoint: The City will utilize a project SharePoint website from programming through construction and warranty to store project files, communicate design review comments, process work flows, administer construction, etc. The A/E must utilize this project website to communicate with the Owner, third-party consultants, and contractors throughout the life of the project.
- C. Minimum A/E Team Qualifications
1. Architectural Design (including project manager, project architect, and construction administrator, landscape architect): Licensed and 10 years of experience
 2. Structural Design: PE license with 10 years of experience
 3. HVAC Design: PE license with 5 years of experience or WI Designer of Engineered Systems with 10 years of experience
 4. Electrical Design: PE license with 5 years of experience or WI Designer of Engineered Systems with 10 years of experience
 5. Plumbing Design: PE license with 5 years of experience or WI Designer of Engineered Systems with 10 years of experience
 6. Fire Protection Design: PE license with 5 years of experience or WI Designer of Engineered Systems with 10 years of experience (when a complete FP design is required by the design contract).
 7. Lighting Design: PE license and 5 years of experience or WI Designer of Engineered Systems and 10 years of experience or CLD certification and 10 years of experience or 20 years of experience.
 8. Acoustical, Security, A/V and other peripheral consultants shall have appropriate credentials.
 9. Cost Estimating: 3rd party estimating sub-consultant shall be a general building contractor or cost estimator with 5 years of experience in construction projects over \$1,500,000 in the local Madison, Wisconsin area.
- D. Environmental Protection: In addition to building-specific codes, all A/E design must comply with all federal, state, and local environmental laws and regulations.
- E. Accessibility
1. All accessibility related design shall meet current applicable code(s).
 2. Building design elements in the path of travel to all public and all staff work areas shall be accessible and shall be designed to meet or exceed the minimum standards of ADA Accessibility Guidelines.
 3. The project shall include design that accommodates building and site use without special facilities for persons with disabilities. Standard building products set at code prescribed heights and maneuvering clearances to allow easy access to disabled employees and visitors. Building elements designated specifically for use by persons with disabilities shall be avoided.
 4. Absolute versus "maximum or minimum" dimensions shall be clarified on all drawings where applicable.
- F. Occupational Safety and Health Regulations: The construction, operation, and occupation of the facilities must comply with OSHA regulations. The A/E must ensure that facilities can be constructed in a manner compliant with all current OSHA regulations applicable to construction, operation, and occupation of the facilities.

- G. Building Codes: The A/E shall use the latest edition of applicable local, state, and federal building codes throughout design and construction of this project. Current codes being enforced by the City of Madison Building Inspection Unit include but are not limited to the 2015 IBC, IECC, IMC, IFGC, & IEBC.
- H. National Standards: Organizations writing voluntary codes including NFPA, the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), the Sheet Metal and Air Conditioning Contractor's National Association (SMACNA), the Institute of Electrical and Electronics Engineers (IEEE), and the American Society of Mechanical Engineers (ASME), publish standards on health, safety, welfare, and security relevant to this project. This project shall comply with the most current version of these nationally recognized standards to the extent practicable and specified in this document.
- I. State and Local Government Review
1. The A/E must prepare as many documents and presentations as needed for the approval by appropriate committees, commissions, and plan review processes.
 - a. Prepare oral and visual presentations as required for presentations to committees and commissions including but not be limited to Urban Design Commission, Plan Commission, Board of Public Works, Common Council, Landmarks Commission (when applicable) and other committees as necessary.
 - b. Prepare plan review sets as required for the City of Madison Building Inspection Unit, Department of Natural Resources, Department of Commerce, Department of Transportation, Zoning, Fire, City Engineering, Traffic Engineering, and other similar agencies as necessary.
- K. Program Space Standard
1. The minimum space standards to be utilized shall be common industry wide space standards. Sources for comparable space standards and social distancing include but are not limited to AIA, CDC, GSA, OSHA, other regulatory agencies, and various office equipment manufacturers (All Steel, Hermann Miller, etc.).
 2. The City of Madison-Engineering-Facility Management has developed and adopted office space standards that shall be utilized whenever possible. See Exhibit B for more details.
- L. Energy, Sustainable Design: Environmental sensitivity and high performance characteristics are part of the project objectives. The City is particularly interested in integrated design principles and technology that optimize site potential, optimize energy performance, protect and conserve water, enhance indoor environmental quality, reduce environmental impact of materials, and optimize operations and maintenance practices. The result shall be a balance of cost, environmental, societal, and human benefits while meeting the mission and function of the facility. These principles must serve as the basis for planning, programming, design, budgeting, construction, and commissioning of the facilities.
- M. Energy Use Targets
1. The A/E must design all facilities to have an energy target at a minimum of 20% better than ASHRAE 90.1, 2010, 30% better for installations having photovoltaic (PV).
 2. From pre-design through each design phase, the project must demonstrate that it meets the energy target.
 3. For existing remodels with limited or no new enclosure systems, the A/E shall use the energy modeling (provided by City staff) to design a new mechanical system that works in concert with existing enclosure system.
- N. Health and Safety
1. The A/E must take a systems approach to risk management, utilizing codes, regulations, guidelines, and best practices to identify and mitigate facility-created health and safety risks early in the design phases of the of the project life cycle.
 2. If a hazard cannot be eliminated, the associated risk must be reduced to an acceptable level through design, the risk must be reduced to an acceptable level using engineering controls, protective safety features, or devices.
 3. If safety devices do not adequately lower the risk of the hazard, cautions and warnings must be provided using detection and warning systems, as appropriate.
 4. Specific Health and Safety Requirements
 - a. Confined Spaces: The A/E must avoid the creation of confined spaces except where required as part of a system (e.g. tanks, pits).
 - b. Fall Protection: The A/E must consider the inspection operations, and maintenance of the site, facility, and equipment. Access and fall protection, especially to difficult maintenance needs in high

locations, including light fixtures, mechanical equipment, and skylights, must be included in the design.

PUBLIC ENGAGEMENT & PROGRAMMING & PRE-DESIGN

- A. A/E Consultant shall plan, lead, and be responsible for a robust public outreach process with the community and stakeholders during the public engagement portion of the work and throughout design development of the Warner Park Community & Recreation Center Expansion Project. The A/E Consultant scope includes planning, organizing, and facilitating public events, meetings, focus group discussions, community surveys, and other community feedback and information gathering techniques.
- B. A/E shall develop an equitable and inclusive public engagement plan that will be reviewed by the Parks Division before being implemented. A/E shall revise the public engagement plan to include Parks Division review comments. Outreach strategies must recognize the multitude of interests and agendas that will present themselves, including the general public, numerous stakeholder groups and neighborhood associations, City commissions, and regional and City regulatory agencies. The A/E Consultant shall demonstrate how their proposed outreach approach will engage a broad range of project stakeholders with a specific focus on equity and inclusion for underrepresented communities.
- C. The Engineering Division will be completing a Racial Equity and Social Justice Analysis of the Warner Park Community and Recreation Center Expansion Project during these phases of the project. The A/E shall coordinate their public engagement efforts with the Analysis work and assist Engineering Division staff with collecting data and feedback as needed.
- D. The A/E Consultant is responsible for preparing the overall public engagement approach, timeline, content, and presentation materials. The City will assist with District Alder and neighborhood association correspondence, postcard notifications, social media announcements, and posting meeting information and other topics to the City's project website(s).
- E. The public engagement plan shall include at a minimum:
 - 1. (2) Public virtual meetings
 - 2. (2) Public in-person meetings
 - 3. (1-2) Stakeholder group virtual meetings
 - 4. (4-5) Stakeholder group in-person meetings
 - 5. Publicly available comment cards
 - 6. Online survey
- F. The Consultant shall provide public meeting notes and presentation materials for posting to the City's project website(s) after each public engagement event.
- G. The Consultant shall provide materials and content for online engagement including an online survey. The Consultant shall host the online survey using a program that is compatible across numerous platforms to ensure ease of access. The City will promote the online survey on the City's project website(s).
- H. A/E shall provide professional architectural programming services for the Warner Park Community & Recreation Center Expansion Project; the program shall identify functional space needs, detail in writing the function of each space; and review, revise and verify with City staff. See related sections and all RFP project goals in this document for additional information.
- I. Working with the public engagement consultant, the A/E design team shall prepare, develop and refine numerous design options throughout the public engagement process. This includes all plans, details, perspectives and renderings necessary to convey the project design intent.

URBAN PLANNING & DESIGN FOR PUBLIC USE

- A. There a number of urban planning issues that must be considered and addressed by the A/E as part of this project.
 - 1. The A/E shall balance community goals, while also meeting City agency needs, wherever possible. The A/E must consider how the building responds to its site, to the surrounding neighborhood design and plans, and its potential for interactions with the general public. The focus should be on how to maintain and/or improve design and experience for maximum potential public use of the exterior and interior spaces.

2. The A/E must consider access to transit, bike friendly paths and corridors, proximity to neighborhood amenities that meet daily needs of employees and visitors, and maximization of existing infrastructure.
 3. The A/E must understand local plans and conditions, neighborhood context, and local perspectives early in the project's development and design. Collaboration with the City project team, city agencies, and regulatory groups, will be required throughout the design construction phases.
- B. The A/E must consider and address how the project may encourage use of the facility for public, cultural, and/or educational activities. The A/E must consider and address how the facility may support flexible passive or programmed use in gathering spaces, the shaping and orientation of building program to encourage such use, and, where appropriate, the expansion of the building's program to take advantage of site-specific public use opportunities.
1. Interior spaces designed for public use both during and after business hours must have direct and clear way finding from building entrances.
 2. Designs must demonstrate how the interior spaces may allow for several different uses.
 3. Exterior improvements shall be designed in order to provide access, comfort, shade, seating options, and visual interest that encourages passive and programmed public use by building visitors and the general public.
 4. Designs must demonstrate how the exterior spaces immediately adjacent to the building may allow for several different uses. The public spaces shall be furnished to support the intended use as needed.

ART

- A. The A/E shall coordinate with the City's Arts Administrator for all of the following:
1. Identify areas where art can be incorporated into the site, as architectural features, or as permanent rotating art installations.
 2. A/E shall coordinate with the City's Arts Administrator to survey the existing permanent art collection at the Warner Park Community and Recreation Center and determine which items shall be removed, stored, and relocated in the renovated building.
 3. Be prepared to provide design and coordination services for artwork. Coordination services may include, but not be limited to, structural, electrical/lighting, mechanical, plumbing, technology, and civil/landscaping.

CITY GOALS

- A. LEED
1. Meet and exceed City of Madison's policy requiring "green" building certification requirements. See City of Madison [legislative file #07453](#). LEED v4 Silver rating is required as a minimum LEED rating for the Warner Park Community & Recreation Center Expansion Project work. A LEED rating plaque is not required for Warner Park Community & Recreation Center Expansion Project work, but the LEED silver certification shall be achieved.
 2. Provide services to organize and manage the LEED documentation and certification process. Meet and confer with representatives of the Architect, and City to prepare LEED documentation. Include coordination of meetings, document preparation, and assistance to the City in final project specific preparation of the Owners Project Requirements (OPR) report. The A/E shall use the final OPR to establish the Basis of Design (BOD) report. The City of Madison shall register the project with USGBC (U.S. Green Building Council). Registration fees shall be paid by the City. Prepare submittals for credit rulings from the USGBC for interpretation of credit language, principles, and implementation strategies. Credit ruling fees required by USGBC shall be paid by the City. Prepare and submit a LEED Rating Application for the project to the USGBC. Include required calculations and documentation for each LEED credit claimed in accordance with the LEED Rating Plan. Prepare responses and submit additional documentation required by comments or questions received from the USGBC after review of the original submission for LEED certification. Prepare and distribute meeting minutes for meetings related to LEED Documentation services.
 3. Applicable LEED Documentation shall be coordinated and updated at each design phase with LEED checklist submittal and other documentation as applicable.

- B. Waste Management
1. There are two (2) Madison General Ordinances (MGO) that the City of Madison has regarding construction and demolition waste.
 - a. MGO 10.185, Recycling and Reuse of Construction and Demolition Debris, describes the requirements associated with this ordinance including definitions, documentation requirements, and penalties.
 - b. MGO 28.185, Approval of Demolition (Razing, Wrecking) and Removal, describes the requirements associated with applying for and receiving a demolition permit.
 2. All City of Madison, Board of Public Works, contracts being conducted by City Engineering, Facility Management, for construction, remodeling, or demolition shall comply with the above ordinances regardless of project type or size.
- C. Building Operations and Maintenance
1. Systems must be designed for ease of operation and cost-effective maintenance and repair. System accessibility is a critical consideration in building design. The A/E must ensure building systems and elements are physically accessible for cleaning, maintenance, repair, and replacement (e.g. tall spaces must provide methods to clean skylights, replace lamps, maintain fire alarm devices, etc.
 2. The A/E must collaborate with the City operations and maintenance personnel during design to provide for optimal life-cycle performance.
 3. At the conclusion of design, the A/E must provide an electronic document describing intent for all building systems. These instructions must be developed during the design phase and incorporated into the comprehensive training for operations and maintenance personnel.
- D. Life-Cycle Costs
1. This project must be designed to achieve the lowest life-cycle cost. The A/E design must comprehensively define reasonable scope and performance requirements within the authorized budget for design and construction. Consistent with these constraints, building systems and features must be analyzed and selected to achieve lowest life-cycle cost.
 2. Life-cycle costing (LCC) must be used when selecting a system from several alternative systems or components for a project to evaluate the cost effectiveness of systems that use energy and water. LCC must compare initial investment options and operating and salvage costs over the life of the equipment and identifies the least costly alternatives. Examples of building systems to be addressed that affect energy use are the building thermal envelope, passive solar features, fenestration, HVAC, domestic hot water, building automation, and lighting.
 3. The project team – including the A/E - must integrate the LCC analysis into pre-design process, and the analysis must be complete by the design development phase.

Architect Provided Services and Deliverables

A. Deliverables EACH Phase - General Requirements

1. These design services submission requirements have been developed to ensure a rational, well-documented design process and to facilitate reviews by the City project team, tenant agencies, local regulatory agencies, and review boards as the design develops. These requirements are the minimum standards.
2. During development of all pre-design and design phases, the A/E shall meet and review progress documents with the City's Project Manager, City's Project Team, and applicable tenant agency representatives as required. Prepare appropriate presentation materials which may include large color presentation boards, power point presentations, handout sheets, project schedules, and similar project design related materials. To meet all the provisions of this scope document the City and the A/E will develop a schedule of meetings by phase that will be mutually agreed upon.
3. Prior to completion of each phase, the A/E shall meet and confer with regulatory agencies as required to obtain necessary preliminary approvals, final approvals, permits, and the like. This shall include, but not be limited to, Urban Design Commission, Plan Commission, Landmarks Commission, Board of Public Works, Common Council, Zoning, Conditional Use Approvals, Building Inspection Plan Review, WI Department of Safety and Professional Services, Department of Natural Resources, Department of

Transportation, Madison Fire Department, City Engineering, Traffic Engineering, Parking Utility, Madison Metro, and similar agencies or committees.

4. In each phase of work, project documents must be submitted to City in digital format as determined by the City Project Manager. Confirm with the City project manager prior to submission.
5. Design Quality Reviews will be performed by the City of Madison staff and third party consultants at each design, construction document, bidding document, and construction administration phase. The review teams will evaluate each project for applications of best practices, conformance with criteria, building and systems performance, efficient and effective design, cost drivers, risk factors for successful execution, and customer satisfaction, as well as several other indicators of overall project suitability and readiness to move to the next phase in execution. The A/E should plan for City design quality review time after each phase delivery. Refer to Completion Schedule section for understanding of the timeframe for each design phase. -All outstanding phase issues will need to be completed prior to proceeding to the next phase.
6. No design phase is considered completed before all of the City's review comments are resolved in a timely manner. Unless approved by the City, a resolution of a problem shall not take more than one week. Furnish interim documents for review as requested by the City Project Manager. The A/E shall not proceed to future phases without written authorization from the City Project Manager.
7. Provide all project-specific information on plan set. Provide City with proposed general and technical specifications. The City may or may not incorporate consultant-provided specifications in its own specifications for bidding purposes.
8. Consultant shall accommodate pausing or delays of the project (example: bidding delays, budget delays) at no extra charge.
9. At all times, the City reserves the right to make public all information concerning this project and to choose the form, content, method of presentation, by whom presented, and the time of release, and at any time during or after completion of this project.
10. Unilateral deviations from City preferred (or undesired) manufacturers, equipment, and construction methods are not permitted without City approval. The consultant shall adhere to these preferences and thoroughly discuss deviations of those if deviating is of advantage for the specific project.
11. Whenever possible plans and details shall be prepared to be complete and show sufficient detail so as not to require the use of additional materials. All design data shall be included on plans. This includes, but is not limited to lighting calculation data, energy densities, and structural details. All equipment shall be specified by naming specific models that are basis of design.
12. Design shall provide clear distinction between design-build (i.e. pre-cast, light-gauge metal framing) and design-bid-build features. Consultant shall provide all design and details that are not provided by design-build part of contractor's work. Consultant shall perform design changes that are required due to changes in final design after contract award to contractor.
13. The A/E will translate the City provided plans of the existing building to a set of electronic documents. City provided plans will be an approximation of the on-site conditions and dimensions. As such, the A/E is responsible for revising the layout based on as-is conditions.

B. Deliverables EACH Phase - Drawings

1. Drawing Size: All drawings of a single project must be a uniform standard size. Reports, narratives, etc. must be 8.5 x 11 and/or 11 x 17. Drawing sets must be 24 x 36 or 30 x 42 format.
2. Drawing Lettering: Lettering on drawings must be legible when drawings are reduced to half size. This applies to drawings at all phases.
3. Drawing Scale: All drawings are to be created at full scale and plotted at a selected scale. The drawings or views (such as details) should include numeric and graphic scales. The scale selected should be appropriate for high resolution and legibility to include reduced copies (such as half-sized).
4. Seals: The construction documents must bear the seal and signature of the responsible design professional as required by the authority having jurisdiction. On cover sheet provide code certification statement for compliance with specified codes and standards by each discipline with the professional seal and signature. The intent is to formally recognize the responsibility for compliance.
5. Building Information Modeling (Design Development and Construction Document phases only): The City requires the use of interoperable Building Information Models (BIM) on all projects throughout the

project lifecycle. The final BIM model is to be provided during or right after bidding. No progress BIM model submissions are required. BIM models must be delivered in both native and IFC file formats.

6. BIM Standards (Design Development and Construction Document phases only): Building Information Modeling (BIM) based on current Autodesk Revit software. Use actual families for each equipment and insert devices with actual size and clearance spaces. Perform clash detection with all equipment, pipes, ducts etc. The BIM shall be set up such that 2D CAD drawings should be derived from the model.
7. As-is drawings: Prepare selective demolition and design drawings through use of existing City drawing documents and reports (Original Building Set, Shop Drawings, Remodel Set, tenant improvement documents, hazardous material survey(s), and related documents). A/E is responsible for confirmation of dimensions as necessary to complete demolition and design drawings. Using copies of existing plans alone for demolition or design drawings are not acceptable.

C. Deliverables EACH Phase - Specifications

1. The A/E is responsible for providing and assembling all project specifications necessary to reflect the project design intent, City policy requirements, and law. This shall include but not be limited to:
 - a. Incorporating all City supplied specifications (PDF format) into the overall specification document. The A/E will not edit these documents. The A/E will not be required to provide any specifications supplied by the City.
 - b. Providing and editing additional specifications as needed and carefully coordinating the specifications with the drawings to ensure that everything shown on the drawings is specified.
 - i. This shall include editing specifications to incorporate any City furnished design or equipment guidelines.
 - c. No submittal for PD. Provide a specification Table of Contents at SD. Provide draft specification sections at DD (some spec notes are OK, but at a minimum Part 2 – products should be listed and coordinated). Provide complete specs at CD.
2. Format: Specification sections shall be edited and compiled into a single PDF document.
 - a. Specifications should be produced according to the latest edition Construction Specification Institute (CSI) division format.
 - b. Specifications shall have a Table of Contents (TOC) organized by CSI divisions and indicating all sections and section titles used. Each section in the TOC shall be hyperlinked directly to the subject section within the specification.
 - c. Each page shall be numbered and shall incorporate the specification section in the numbering sequence (01 35 14 – 1, etc).
 - d. Each page shall incorporate the City project name, contract number, and project number
 - e. Each page shall also incorporate the appropriate level of release SD-Draft, DD-Draft, CD-Draft, and Bid Set.
 - f. The specification shall be created directly to PDF to keep the integrity of word recognition, linked headings, etc. Printing to PDF or saving a scanned image as PDF will not be accepted.
3. Editing of Specifications:
 - a. The A/E shall thoroughly edit all specifications supplied by the A/E to ensure any specification language that is not applicable to the project has been removed and all necessary language has been added.
 - b. The A/E shall thoroughly review all specifications supplied by the City to ensure any specification language that is not applicable to the project has been removed and all necessary language has been added. The A/E shall work with the City to edit City provided specifications as necessary.

D. Deliverables EACH Phase - Design Narratives and Calculations

1. Format: Typed, bound narratives should be produced for each design discipline and accompany the Pre-Design, Schematic Design, Design Development and Construction Document Submittals.
2. Content: Narratives shall serve to explain the design intent and to document decisions made during the public engagement and design processes. Narratives are to respond to the Owner's Project Requirement (OPR) Document directly. If the design is deviating from the OPR, the design narrative is to explain why

(e.g. the project budget doesn't support a strategy, the owner requested a change to the scope of the project, etc.). Like drawings and specifications, narratives are an important permanent record of the building design. Drawings and specifications are a record of what systems, materials, and components the building contains; narratives should record why they were chosen. The narrative of each submittal may be based on the previous submittal, but it must be revised and expanded at each stage to reflect the current state of the design.

3. Calculations: Some Manual and/or computer based calculations are required to accompany narratives to support technical analysis. Each set of calculations should start with a summary sheet, which shows all assumptions, references applicable codes and standards, and lists the conclusions. Calculations should include engineering sketches as an aid to understanding by reviewers. The calculations for each submittal should be cumulative, so that the final submittal contains all calculations for the project. Calculations submitted at early stages of the project must be revised later to reflect the final design. Calculations must refer to code, paragraph of code used, standards, and text books used for specific portion of calculation. Refer to drawing number where the results of the calculations have been used. A few examples: number and sizes of re-bars used in reinforced concrete members, enclosure R-values, HVAC equipment and duct sizing, ventilation, HVAC loads, etc.
4. Performance Criteria: As part of the development of concepts through construction documents there must be a check of building performance criteria established in pre-design and refined in subsequent phases.
5. Energy Simulation (BY CITY): In addition to the City's requirement of USGBC LEED Silver Rating the City has established additional energy, maintenance, and operational standards to maintain manageable life cycle costs. An energy model will be generated by the City and will be submitted to the design team in the pre-design phase of design and updated at significant milestones (e.g. completion of schematic design, and design development) in the project with the intent to continually explore creative ways to reduce energy use while meeting maintenance/operational goals.
 - a. The design team must provide all necessary documentation for the energy model and be available to support this activity.
 - b. The A/E shall look for opportunities to reduce energy consumption through the use of energy efficient materials/equipment and/or through the use of renewable energy technology during all phases of the design process.

E. Phase I: Public Engagement & Programming & Pre-Design

1. GENERAL – PRIOR TO COMPLETION OF PRE-DESIGN
 - a. See "DELIVERABLES EACH PHASE – GENERAL REQUIREMENTS" above for meeting/presentation/approvals expectations.
 - b. See "PUBLIC ENGAGEMENT & PROGRAMMING & PREDESIGN" above for information on how the public engagement process will inform the programming and pre-design phase.
 - c. Review all pre-design information provided by the City and field-survey existing spaces.
 - d. At the beginning of each project, the City's project team, tenants, and design A/E need to define the functional objectives of a project. A functional objectives matrix, or similar method shall be established by the A/E to confirm goals.
 - e. During the programming phase high impact issues will require formal design team technical discussions to help optimize design solutions. These technical discussions must take place with the appropriate members of the City's project team and others as applicable. The technical discussion agenda can be organized by discipline (systems) and/or by functional objective heading, but should address:
 - i. Functional performance goals
 - ii. Integrated solution options
 - iii. Anticipate potential hurdles and stop blocks
 - iv. Inspections/certification requirements
 - v. Coordinating construction and turnover-phase issues/deliverables
 - f. During the programming effort the A/E shall conduct meetings to develop clear and quantitative goals. The meetings shall be attended by the various disciplines of the design firm, its consultants, the

City's project team and others as applicable. The design goal setting session shall be used to develop consensus of the strategies and technologies to be explored during design. Goals are (not ordered by priority):

- i. Optimize use of fiscal resources to meet design goals
 - ii. Optimize constructability of project and implement cost evaluation at the beginning of the project
 - iii. Optimize energy efficiency
 - iv. Improve sustainability
 - v. Optimize maintainability and longevity of installed equipment
 - vi. Promote occupant productivity and health
 - vii. Promote resource conservation and environmental responsibility
 - viii. ADA compliance
2. DOCUMENT DELIVERABLES – PRE-DESIGN
- a. Comprehensive Report including:
 - i. Documentation of the methodology used
 - ii. An executive summary
 - iii. Value and Goal Statements
 - iv. Relevant Facts
 - v. Data Analysis Conclusions
 - vi. Project phases and general scopes of work
 - b. Program Requirements (including Space Listings by function and size, Relationship Diagrams, Space program documentation, Stacking plans, Preliminary Concept Drawings, and Flow diagrams).
 - i. The Space Program shall provide proposed gross facility square feet areas and space requirements listed by agency uses and general building uses listed by room name. It shall include the number of functional personnel and any special equipment or systems. The space program elements shall include all floors and areas
 - ii. The Space Needs Summary shall include written text documents and graphics for space relationships, analysis of operational functions including human (public and staff) (back of house and public floors), vehicular, and material flow patterns, flexibility and expandability, special equipment and systems, site requirements, security criteria, and communication relationships and adjacencies. Establish quantitative energy targets, comfort criteria (ASHRAE 55), indoor air quality requirements (ASHRAE 62) and include any requirements of access to daylight
 - iii. The Staff Program shall provide definitions for staff adjacencies, connections, control and workflow, which will then help to show staffing levels needed to operate the building. This includes planning of staffing levels needed to deliver the quality of service desired
 - iv. The Program shall develop functional space needs, identify functional adjacencies that meet the quality of service for the customer, detail in writing the function of each space.
 - c. Existing site plan (at least one property around site), describing:
 - i. Site boundaries, approximate topography, existing buildings, setbacks, and easements
 - ii. Climatic conditions including path of sun. Description of flood plain issues related to building location and mechanical and electric equipment
 - iii. Location of on-site and off-site utilities
 - iv. Natural landscape
 - v. Pedestrian and vehicular circulation (include direction of traffic on adjoining streets)
 - vi. Neighboring land uses, existing and planned
 - d. Site plan showing:
 - i. Building location and massing
 - ii. Parking and service area
 - iii. Plans for surrounding area, relation of each concept to those plans, and summary of relevant recommendations
 - e. Floor plans, showing at a minimum:
 - i. Entrances, lobbies, corridors, stairways, elevators, work areas, special spaces, mechanical rooms for major equipment and air handlers, and service spaces (with the principal spaces labeled). Indicate dimensions for critical clearances, such as vehicle access.

- f. Building sections (as necessary), showing:
 - i. Floor-to-floor heights and other critical dimensions
 - ii. Labeling of most important spaces
 - iii. Labeling of floor and roof elevations
- g. Photographs:
 - i. Photographs showing the site and elevations of existing buildings (or landscape, as applicable) surrounding the site
- h. Narrative:
 - i. Site statement, generally describing:
 - 1. Existing site features
 - 2. Climatic conditions
 - 3. Topography and drainage patterns
 - 4. Any existing erosion conditions
 - 5. Wetlands and locations of flood plains
 - 6. Surrounding buildings (style, scale)
 - 7. Circulation patterns around site
 - ii. Site access:
 - 1. Noise/visual considerations
 - 2. Local zoning restrictions
 - 3. Federal Aviation Administration requirements
 - 4. Hazardous waste (report to be supplied by City)
 - 5. Pollution
 - iii. Description of each architectural design scheme, explaining:
 - 1. Organizational concept
 - 2. Expansion potential
 - 3. Building efficiency
 - 4. Energy considerations
 - 5. Advantages and disadvantages
 - iv. Sustainable design considerations:
 - 1. Potential for incorporation of renewable energy systems in the design
 - 2. Potential use of geothermal systems
 - v. Mechanical system and strategy to comply with energy goals
 - vi. Description of structural design scheme considerations for each design scheme as needed for modification of existing structure explaining:
 - 1. Design loads
 - 2. Foundation system
 - 3. Building framing system
 - 4. Lateral load resisting system
 - 5. Advantages and disadvantages
 - vii. Fire protection design considerations
 - viii. Security features
 - ix. Code statement: Provide a brief statement from each design team discipline regarding the code requirements that relate to the site and occupancy use. For example, items such as, but not limited to, classification of construction and occupancy group(s), fire resistance requirements and general egress requirements, etc., would be prepared by the design team fire protection engineer
- i. Project Schedule
 - i. Develop project time schedules for the project indicating the expected progress of the work; include architectural and engineering design, bidding, contract execution and construction.
- j. Pre Design Cost Estimate: This deliverable will be completed after submission of the final pre design submission by the cost estimator (consultant on A/E team). Cost estimate deliverable is to be reviewed concurrently by the City and the A/E.
- k. Submit Deliverables for Public Engagement, Programming and Pre-Design phase for review and action by the City. Once approved, proceed to Schematic Design phase.

F. Phase II: Schematic Design

1. General – Prior To Completion of Schematic Design
 - a. See “DELIVERABLES EACH PHASE – GENERAL REQUIREMENTS” above for meeting/presentation/approvals expectations.
 - b. Utilize owner and stakeholder feedback from the PD phase to begin optimizing the site, elevations, and plans (architectural and mechanical).
 - c. Begin the selection and design process for building materials and mechanical equipment by utilizing Exhibit B - Design Standards and meeting with the appropriate core city design team members.
2. Document Deliverables – Schematic Design
 - a. Site Plan (at least one property around site), describing:
 - i. Site boundaries, approximate topography, existing buildings, setbacks, and easements
 - ii. Building orientation with respect to path of sun
 - iii. Building massing and relationship to massing of surrounding buildings
 - iv. Location of on-site and off-site utilities
 - v. Grading and drainage
 - vi. General landscape design, showing location of major features
 - vii. Pedestrian and vehicular circulation (include direction of traffic on adjoining streets)
 - viii. Parking and service areas
 - ix. Fire protection, water supplies, fire hydrants, and fire apparatus access roads
 - b. Site Narrative:
 - i. Description of site and landscape design final concept
 - ii. Demolition, if required
 - iii. Circulation
 - iv. Parking
 - v. Paving
 - vi. Landscape design
 - vii. Irrigation, if any
 - viii. Utility distribution and collection systems
 - ix. Method for storm water detention or retention
 - x. Landscape maintenance concept
 - xi. Fire protection, water supplies, fire hydrants, and fire apparatus access road
 - xii. Accessibility path for the physically disabled
 - xiii. Summary of site and architectural design and the design’s response to relevant recommendations by City staff
 - c. Architectural Drawings:
 - i. Selective demolition plans at all areas both interior and exterior
 - ii. Floor plans, showing at a minimum work areas, lobbies, corridors, entrances, stairways, elevators, special spaces, and service spaces (with the principal spaces labeled and dimensions for critical clearances indicated)
 - iii. Office areas must show proposed layouts down to the office level of detail verifying the integration between the approved program and the building concept is achievable
 - iv. Proposed interior layouts showing open office plan and enclosed office plan
 - v. Indicate how major mechanical and electrical equipment can be removed/replaced
 - vi. Elevations of major building facades showing fenestration, exterior materials, and cast shadows
 - vii. Elevations of major interior spaces, showing lobby, typical public elevator lobby
 - viii. Building sections showing adequate space for structural, mechanical and electrical, telecommunications, and fire protection systems, mechanical penthouses, floor-to-floor and other critical dimensions, labeling of spaces, labeling of floor and roof elevations
 - ix. Color Renderings providing sufficient detail to convey the architectural intent of the design at exterior, major lobby areas, and major and typical office spaces
 - x. Acoustical calculations including noise transmission through envelope, interior walls, floors (including raised floors), ceilings, and mechanical and electrical equipment

- xi. Dew point locations in building envelope
- xii. Toilet fixture count analysis
- xiii. Illumination, day lighting, and glare analysis
- xiv. Passenger and freight elevator analysis (if applicable)
- xv. Loading dock analysis
- xvi. Energy analysis
- d. Architectural Narrative (architectural program requirements):
 - i. Show in tabular form how the final concept meets the program requirements for each critical function
 - ii. A revised description of any deviation from City standards
 - iii. Description of final concept, explaining expansion potential and building floor efficiency
 - iv. Location and sizes of mechanical equipment rooms for accessibility, maintenance and replacement of equipment (including cooling towers and emergency generators)
 - v. Conveying systems design (passenger and freight elevators)
 - vi. Loading docks
 - vii. Thermal, air leakage, and operational performance and maintainability of the building envelope
 - viii. Design strategy to attain the assigned energy goal
 - ix. Operations and maintenance goals (exterior and interior window washing, relamping, etc.)
 - x. Sustainable design concepts (LEED strategy)
 - xi. Vertical transportation analysis (passenger and freight elevators and escalators)
 - xii. Code analysis (The Code criteria must be reviewed by each design team discipline member to the degree of detail necessary to assure that tasks accomplished in this phase meet all the Code requirements. A Code/Criteria analysis must be prepared by each design team discipline member that documents an investigation of the applicable codes and agency criteria that will govern the design of a specific project. This analysis should alert the City to any conflicts in the project's design criteria so that they can be resolved early. The analysis should also provide a common perspective for the design and review of the project. This analysis is critical in building modernization and repair/alteration projects.)
- e. Structural Drawings:
 - i. Framing and foundation plans showing any required structural modifications to the existing structural system showing column locations, bay sizes, and location of expansion and seismic joints as needed
- f. Structural Narrative:
 - i. Identification of local code requirements
 - ii. Code compliance statement
 - iii. Name of model building code followed (should be most current)
 - iv. Building classification
 - v. Identification of region of seismicity, wind speed, etc.
 - vi. Identification of special requirements
- g. Mechanical Drawings: For the system approved and selected from the relevant concepts, provide the following:
 - i. Demolition plans
 - ii. HVAC Systems including floor plan (Identification of equipment spaces for mechanical equipment and location of mechanical equipment, including size, weight, access to loading docks and freight elevators, and clearance requirements for operation, maintenance, and replacement) and flow diagram(s) (Air flow riser diagrams representing supply, return, outside air, and exhaust systems and water flow riser diagrams of the main mechanical systems in the mechanical room(s) and throughout the building)
- h. Mechanical Narrative:
 - i. A written HVAC narrative describing the selected mechanical systems, estimates of equipment capacities, weights, sizes, and power requirements
 - ii. Building heating and cooling load calculations.
 - iii. Schematic calculations of ventilation and exhaust quantities including ASHRAE 62 and WI SPS 364 methodologies.

- i. Plumbing Drawings: Plumbing systems including floor plan (Proposed building zoning and major piping runs and locations of proposed plumbing fixtures and equipment) and systems schematics and flow diagrams
- j. Plumbing Narrative: Description of proposed plumbing systems, including domestic cold and hot water, sanitary and storm drainage, and irrigation
- k. Electrical Drawings: Plans showing equipment spaces for all electrical equipment to include: panels, switchboards, transformers and other major items such as emergency lighting inverter, PV inverters, etc.
- l. Electrical Narrative: Description of the proposed lighting and lighting control system, PV system and proposed special features of electrical system
- m. Fire Protection Drawings: Plans showing equipment spaces for fire protection systems (e.g., fire pump, fire command center, etc.) and fire protection water supplies, fire hydrant locations, fire apparatus access roads, and fire lanes.
- n. Fire Protection Narrative:
 - i. Description of the building's proposed fire protection systems including the egress system
 - ii. Code compliance analysis (including the design team fire protection engineer must prepare an analysis of the applicable codes and agency criteria that will govern the design of the specific project. For example, items such as, but not limited to classification of construction and occupancy group(s), rating of structural components, fire resistance requirements, interior finish, occupant load calculations, exit calculations, identification of areas to receive automatic sprinkler systems and/or automatic detection systems, smoke control systems, etc. would be prepared by the design team fire protection engineer as necessary to provide a complete fire protection and life safety analysis for the final concept.)
- o. Certification Requirements, including: The architect/engineer (lead designer) must certify that the concept design complies with the program requirements and energy goals, and local regulatory agencies and review boards. In bullet form, identify how proposed design features will support performance expectations of the project. Expectations are shall be identified in the project's design program.
- p. LEED Report:
 - i. Prepare and present to City for review and approval a LEED design report to include the LEED v4 checklist of proposed strategy
 - ii. Identify proposed elements and highlight features on schematic design documents in both graphic and written summary that address the LEED v4 requirements
- q. Specifications (Div-2 through 31): Table of contents identifying specifications to be used on the project.
- r. Life-Cycle Cost Analysis: A/E shall provide applicable design documentation to support City Life-Cycle cost review.
- s. Schematic Design Cost Estimate: This deliverable will be completed after submission of the final schematic design submission by the cost estimator (consultant on A/E team). Cost estimate deliverable is to be reviewed concurrently by the City and the A/E. The cost estimate shall provide the following detail:
 - i. Itemization shall be raw construction costs for material, labor, equipment rentals, etc. (only) by area of occupancy. DO NOT include any markup. Provide a total cost for each area of occupancy.
 - ii. Provide a summary sheet showing all of the following:
 - (1) Each area of occupancy with its construction total from item *i.* above.
 - (2) Provide a line item for the subtotal of all occupancies
 - (3) Provide a line item for Contractor Mark-up on the sub-total
 - (4) Provide a line item for Construction Bond on the sub-total
 - (5) Provide a line item for BPW Contingency (8%) on the sum total of items (2), (3), and (4) above
 - (6) Provide a line item for Design Contingency
 - (7) Provide a line item for Escalation of construction costs (if scheduled construction is 2 or more years out)
 - (8) Provide a Grand Total

- t. Energy Analysis (BY CITY): Final completion of this deliverable will be completed after submission of the final schematic design submission by the City's third party commissioning agent.
- u. Project Schedule: Develop project time schedules for the project indicating the expected progress of the work; include architectural and engineering design, bidding, contract execution and construction.

G. Phase III: Design Development

1. General – Prior To Completion of Design Development
 - a. See “DELIVERABLES EACH PHASE – GENERAL REQUIREMENTS” above for meeting/presentation/approvals expectations.
 - b. This set of submissions shall reflect a more comprehensive project design developed from the selected final schematic design. In DD the A/E and City shall complete the project aspects for the approved Phase 1 project and finalize the selection of all systems with respect to type, size, and other material characteristics. Systems are not only structural, mechanical, fire protection, and electrical, but include all other building components such as the building envelope (wall, window, and roof), interior construction (flooring, ceiling, and partitions), service spaces, elevators, security, signage, furnishings, and so on.
 - c. All Urban Design Commission, Planning Commission, Zoning, and similar approvals (including exterior signage) must be complete prior to proceeding beyond the design development phase.
 - d. A/E shall complete all draft specifications for all sections at the design development phase. Outline specifications are not acceptable. . At a minimum, Part 2 – Products should be coordinated with the project. Mark out all content that does not apply to the project.
2. Document Deliverables – Design Development
 - a. Site Planning and Landscape Design Calculations:
 - i. Site storm drainage combined with building storm drainage and sanitary sewer calculations
 - ii. Storm water detention calculations, if applicable
 - iii. Parking calculations, if applicable
 - iv. Where applicable dewatering (Calculations including calculations modeling dewatering rates during dry and wet season excavation. Calculations must take into account effect of dewatering on adjacent structures and improvements; Calculations must assume a specific shoring system as part of a comprehensive excavation system.)
 - b. Site Planning Narrative:
 - i. Site circulation concept (explaining Reasons for site circulation design and number of site entrances, Reasons and/or calculations for number of parking spaces provided, Reasoning for design of service area(s), including description of number and sizes of trucks that can be accommodated, Proposed scheme for waste removal, Proposed scheme for fire apparatus access and fire lanes)
 - ii. Site utilities distribution concept (provide description of fire protection water supplies, description of fire hydrant locations, drainage design concept
 - iii. Landscape design concept (explaining Reasoning for landscape design, paving, site furnishings, and any water features; reasoning for choice of plant materials; Proposed landscape maintenance plan and water conservation plan; Brief operating description of irrigation system);
 - iv. Site construction description of materials proposed for pavements and utilities
 - v. Code analysis (The code criteria must be reviewed by each design team discipline member to the degree of detail necessary to ensure that tasks accomplished in this phase meet all the code requirements; Identify local zoning and all building code requirements and provide a complete analysis as they pertain to the project)
 - c. Site Planning Drawings:
 - i. Demolition drawings
 - ii. Site layout plan (showing All buildings, roads, walks, parking, and other paved areas including type of pavement; Accessible route from parking areas and from public street to main facility entrance; Fire apparatus and fire lanes)
 - iii. Grading and drainage plan (showing Site grading and storm drainage inlets, including storm water detention features)

- iv. Site utilities plan (showing: sizes and locations of domestic and fire protection water supply lines, sanitary sewer lines, and all other utilities as applicable)
- v. Landscape design plan (showing General areas of planting, paving, site furniture, water features, etc.) and irrigation plan, if applicable
- d. Architectural Calculations:
 - i. Acoustical calculations, including noise transmission through envelope interior walls, floors (including raised floors), and ceilings, and mechanical and electrical equipment
 - ii. Heat transfer through dew point locations in building envelope
 - iii. Toilet fixture count
 - iv. Illumination, day lighting, and glare
 - v. Passenger and freight elevator analysis if applicable
 - vi. Loading dock analysis
 - vii. Energy analysis
- e. Architectural Narrative:
 - i. Building concept (explaining Reasons for building massing, entrance locations, and service locations; Building circulation and arrangement of major spaces; Interior design; Energy conservation design elements; Water conservation considerations; Explain how all these design considerations are combined to provide a well integrated cohesive design concept; Analysis of refuse removal, recycled materials storage and removal, and maintenance requirements)
 - ii. Building construction description, (explaining Structural bay size; Exterior materials, waterproofing, air barriers/vapor retarders, and insulation elements (as possible); Roofing system(s); Exterior glazing system; Interior finishes (including signage and furnishing), with detailed explanation for public spaces)
 - iii. Potential locations for artwork, as a result of collaboration between the artist, A/E, and City Arts Program Administrator
 - iv. Use of recycled materials
 - v. Sustainable design concepts and LEED strategy
 - vi. Review of project for code compliance (Code criteria should be reviewed by each discipline to the degree of detail necessary to assure that tasks accomplished in this phase meet the code requirements)
 - vii. Building maintenance (explaining how unique and tall architectural spaces will be cleaned, have their light fixtures maintained, have interior and exterior glass surfaces cleaned and typical maintenance performed; Proposed scheme for window washing equipment; Consideration and prevention of bird nesting on exterior surfaces; How major mechanical and electrical equipment can be serviced and/or replaced in future years giving the necessary dimension clearances)
 - viii. Describe the project-specific security design
 - ix. Report verifying the current design's compliance with the approved space program. Any deviations must be clearly reported
 - x. Building keying: Report must fully define the keying hierarchy for the entire building incorporating various levels of access, security, and fire egress; Signage Report: Signage system and room numbering system must be integrated with keying system
 - xi. Provide two finish boards for interior areas being modified as part of the Phase 1 project composed of actual material samples and color coded plans, sections, and elevations of major space showing their use
- f. Architectural Drawings:
 - i. Demolition drawings
 - ii. Building floor plans showing spaces individually delineated and labeled; Enlarged layouts of special spaces; Dimensions on floor plans. Indicate locations of passenger/freight elevators and their relationship to main entrances, mechanical spaces, and loading docks
 - iii. Building reflected ceiling plans (showing Enlarged layouts of special spaces; Spaces individually delineated; Materials labeled; Ceiling heights labeled; Lighting fixture types indicated and scheduled

- iv. Building roof plan (showing Drainage design, including minimum roof slope; Dimensions; Membrane and insulation configuration of the roofing system; Mechanical equipment rooms and their relationship to freight elevators)
- v. Elevations (showing Entrances, window arrangements, doors; Exterior materials with major vertical and horizontal joints; Roof levels; Suspended ceiling space; Dimensions)
- vi. Interior elevations (showing: Lobby; Public corridors; Restrooms; Major spaces; Typical public elevator lobby; Typical conference rooms)
- vii. One longitudinal and one transverse section (showing Floor-to-floor dimensions; Stairs and elevators; Typical ceiling heights; General roof construction)
- viii. Proposed room finish schedule submitted on a drawing set (showing floors, bases, walls, and ceilings; renderings)
- ix. Proposed site furniture (showing Site furniture cut sheets or photos and proposed locations)
- x. Diagrams illustrating the ability to access, service, and replace mechanical/electrical equipment showing the pathway with necessary clearance
- xi. Location of accessible pathways and services for the physically disabled
- xii. Design of building signage, including code signs, way-finding and room identification, building directory, exterior building signage, and major interior building identification
- xiii. Design of furnishings (including office, common lobby, conference rooms, etc.)
- g. Structural Design Report Calculations:
 - i. Gravity load and lateral load calculations, with tabulated results showing framing schedules
 - ii. Foundation calculations
 - iii. Calculations showing that the system is not vulnerable to progressive collapse
 - iv. Vibration calculations
- h. Structural Design Narrative:
 - i. Code criteria should be reviewed by each discipline to the degree of detail necessary to ensure that tasks accomplished in this phase meet the code requirements
 - ii. Description of recommended structural concept where existing structure is being modified (including Choice of framing system, lateral load-resisting elements, and proposed foundation design; Verification of adequacy of all assumed dead and live loads)
 - iii. Identify all code requirements and provide a complete analysis as it pertains to this project (including but not limited to required fire-resistance rating of structural elements and Summary of special requirements resulting from applicable local codes)
 - iv. Proposed methods of corrosion protection, if applicable
 - v. Geotechnical engineering report by City, including boring logs (if part of scope of work)
- i. Structural Drawings:
 - i. Framing plans and key details where existing structure is being modified
- j. Mechanical Drawings (HVAC):
 - i. Demolition drawings
 - ii. Floor plan(s) (including Single line piping and ductwork schematic layout; terminal air units; Perimeter terminal units)
 - iii. Quarter-inch scale drawings of mechanical equipment room(s) showing all mechanical equipment, ductwork, and piping, including equipment access and service requirements in plan, elevations, and cross-sections)
 - iv. Roof plan showing all roof-mounted equipment and access to roof
 - v. Show adequate access from mechanical equipment room(s) to elevators and access points to show ability to service equipment
 - vi. Single line schematic flow and riser diagram(s) (including Airflow quantities and balancing devices for all heating/cooling equipment; Water flow quantities and balancing devices for all heating/cooling equipment; Flow/energy measuring devices for water and air systems for all cooling, heating, and terminal equipment)
 - vii. Automatic control diagram(s) (including Control flow diagrams showing all sensors, valves, and analog and digital controllers; and Sequence of operations of all the systems that describes the control sequences during occupied, 24-hour operations, and unoccupied conditions)

- viii. Schedules (major equipment that includes chillers, boilers, pumps, air handling units, and terminal units, cooling towers, air terminals, etc.)
- ix. Air terminal devices and diffusers shown connected to major duct runs and coordinated with reflected ceiling plan
- x. Air balance relationships between spaces, if any.
- k. Mechanical Narrative (HVAC):
 - i. Updates from SD.
 - ii. Updated psychrometric calculations (i.e. Trace System check-sums) for HVAC systems at full and partial loads (partial loads at 50% and 25%, and unoccupied periods)
 - iii. Updated building heating and cooling load calculations
 - iv. Updated, space-by-space calculations of ventilation and exhaust quantities following ASHRAE 62 and WI SPS 364.
- l. Plumbing Drawings:
 - i. Demolition drawings
 - ii. Floor plan(s) including proposed building zoning and major piping runs and Locations of proposed plumbing fixtures and equipment
 - iii. Systems schematics and flow diagrams
- m. Plumbing Narrative:
 - i. Updates from SD.
- n. Fire Protection Drawings:
 - i. Floor plans showing (Equipment spaces for fire protection systems including fire pump and fire command center; Fire protection water supply lines, fire hydrant locations, fire apparatus access roads, and fire lanes; Standpipes and sprinkler risers; Remoteness of exit stairways; Location of firewalls and smoke partitions; Identification of occupancy type of every space and room in building; Calculated occupant loads for every space and room in the building; Location of special fire protection requirements including kitchens, computer rooms, storage)
 - ii. Riser diagrams for sprinkler system
 - iii. Riser diagram for fire alarm system
- o. Fire Protection Narrative:
 - i. Updates from SD.
 - ii. Occupant load and egress calculations
 - iii. Fire protection water supply calculations (Includes water supply flow testing data)
 - iv. Fire pump calculations where applicable
 - v. Smoke control calculations where applicable (e.g., atrium)
 - vi. Stairway pressurization calculations where applicable
 - vii. Calculate sound attenuation through doors and walls for placement and location of fire alarm system audible notification appliances
- p. Electrical Drawings:
 - i. Site plan (Proposed site distribution for power and communications, proposed service entrance and location of transformers, generators, and vaults, etc.)
 - ii. Floor plans (including Proposed major electrical distribution scheme and locations of electrical rooms and closets and communication closets; Proposed major routing of major electrical feeder runs, bus duct, communication backbone systems, and security systems; Plan layouts of electrical rooms, showing locations of major equipment, including size variations by different manufacturers)
 - iii. Single line diagram of the building power distribution system
 - iv. Plan of typical lighting layout
 - v. PV System major components (panels, inverters, etc) shown on drawings and coordinated with structural.
 - vi. Single line diagram of other signal system including: telephones, security, public address, and others
 - vii. Security system site plan (including proposed locations for surveillance cameras, duress alarm sensors, and access controls. If the system is not extensive, these locations may be shown on the

- electrical site plan; Security system floor plans; Proposed locations for access controls, intrusion detection devices, CCTV, and local panels);
- viii. Lightning protection and building grounding
- q. Electrical Narrative
 - i. Lighting calculations for a typical open office plan with system furniture
 - ii. Lighting calculations for a typical one-person private office
 - iii. Load calculations – note what equipment is not final if items are pending/unknown
 - iv. Life-cycle cost analysis of luminaire/lamp system and associated controls
 - v. Power density analysis for lighting of each area
 - vii. Data port counts (will be provided to City IT for City IT to determine type/quantity of switches)
- r. Specifications:
 - i. Updated Table of Contents
 - ii. Specification sections edited for the project and coordinated with City provided Div-00 and 01 with yellow highlights as needed to identify portions that still need updating and/or coordination.
 - iii. All sections, Part 2 – Products, shall be coordinated with City standards and drawing schedules.
- s. Certification Requirements, including: The architect/engineer (lead designer) must certify that the design development complies with the program requirements and energy goals, and local regulatory agencies and review boards. In bullet form, identify how proposed design features will support performance expectations of the project. Expectations are shall be identified in the project’s design program.
- t. LEED Report:
 - i. Prepare and present to City for review and approval a LEED design report to include the LEED checklist of proposed strategy
 - ii. Identify proposed elements and highlight features on design development documents in both graphic and written summary that address the LEED requirement
- u. Life-Cycle Cost Analysis: A/E to provide design documentation to support City’s life-cycle cost analysis.
- v. Energy Analysis (BY CITY): This deliverable will be completed after submission of the final design development submission by the City’s third party commissioning agent.
- w. Design Development Cost Estimate: This deliverable will be completed after submission of the final schematic design submission by the cost estimator (consultant on A/E team). Cost estimate deliverable is to be reviewed concurrently by the City and the A/E.
- x. Project Schedule
 - i. Develop project time schedules for the project indicating the expected progress of the work; include architectural and engineering design, bidding, contract execution and construction.
- y. At the end of the Design Development Phase – and the beginning of the Construction Document Phase – the A/E shall be prepared to submit the City of Madison Parking Lot / Site Plan review. All items required for this submission can be found at the following link <https://www.cityofmadison.com/development-services-center/other-residential/parking-lot-site-plan>

H. Phase IV: Construction Documents

1. General – Prior To Completion of Construction Documents
 - a. See “DELIVERABLES EACH PHASE – GENERAL REQUIREMENTS” above for meeting, presentation, approvals, and expectations.
 - b. This set of submissions shall reflect a complete project design. In CD the A/E and all sub-consultants shall provide all plans, details, and specifications to a level of 95% or better in preparation for the bidding phase. In order to complete this phase of design the:
 - i. A/E shall do all of the following:
 1. Thoroughly scrub all floor plan backgrounds being used are the same version for all disciplines
 2. All floor plan dimensions are complete and not conflicting

3. All details are complete, fully noted/dimensioned and properly linked to other details as necessary
 4. All disciplines have crashed their drawings and details against other disciplines looking for conflicts. All conflicts have been resolved.
 5. All specifications are complete, properly numbered/labeled, all irrelevant information has been removed, and all performance specifications are complete and meet the intent of the design parameters for the system being specified.
 - ii. The City Project Manager shall do all of the following:
 1. Verify all division 00 and 01 specifications are complete and have been provided to the A/E. This includes any co-edited specifications.
 2. Verify the final design intent meets the needs for the project.
2. Document Deliverables – Construction Documents
- a. Site Planning and Landscape Design Calculations:
 - i. Final drainage calculations, including storm water detention
 - ii. Final parking calculations, if applicable
 - iii. Pipe sizing calculations for water and sewer pipes
 - iv. Pavement design calculations
 - b. Site Planning and Landscape Design Drawings, General:
 - i. Demolition plans
 - ii. Site layout plan (Location of all buildings, roads, walks, accessible routes from parking and public street to building entrance, parking and other paved areas, and planted areas; Limits of construction; Locations and sizes of fire protection water supply lines, fire hydrants, fire apparatus access roads, and fire lanes; Location of floodplains and wetlands)
 - iii. Grading and drainage plan (showing Existing and new contours 2 ft. interval minimum in area around buildings; Spot elevations at all entrances and elsewhere as necessary; Elevations for walls, ramps, terraces, plazas, and parking lots; All surface drainage structures; Water retention and conservation)
 - iv. Site utilities plan (showing All utilities, including inlets, manholes, clean-outs, and invert elevations)
 - v. Planting plan, showing (Building outline, circulation, parking, and major utility runs; Size and location of existing vegetation to be preserved including construction protection measures;
 - vi. Location of all new plant material; Erosion control); Planting schedule (showing Quantity of plants, botanical names, planted size, and final size)
 - vii. Irrigation plan, if applicable (Include schematic of irrigation control system)
 - viii. Planting and construction details, profiles, sections, and notes as necessary to fully describe design intent
 - c. Site Planning and Landscape Specifications: Provide completed specification sections for all landscaping and civil disciplines as applicable. Ensure cross references to the City of Madison, Public Works Standard Specifications are complete and correct.
 - d. Architectural Calculations and Compliance Reports:
 - i. Final acoustical calculations, including noise transmissions through Envelope, Interior walls, floors, and ceilings, Mechanical and electrical equipment
 - ii. Final heat transfer through and dew point locations in building envelope
 - iii. Final toilet fixture count
 - iv. Final illumination, day lighting, and glare analysis
 - v. Information as needed to complete City of Madison Building Inspection Review.
 - e. Architectural Drawings:
 - i. Project title sheet, drawing index
 - ii. Demolition plans
 - iii. Floor plans
 - iv. Building sections; vertical zoning for electrical and mechanical utilities must be indicated on sections.
 - v. Roof plans must show slopes, low points, drains and scuppers, equipment, equipment supports, roof accessories, and specialty items.

- vi. Exterior elevations
- vii. Wall sections
- viii. Interior elevations
- ix. Details; all details shall be complete, dimensioned and cross referenced to other details as necessary.
- x. Schedules
- xi. Diagrams illustrating proper clearance for servicing and replacement of equipment
- f. Architectural Specifications Complete: Room finish, ceiling types, floor finish, color, and door schedules must be incorporated on drawings. Schedules will not be permitted in the specifications.
- g. Structural Narrative and Calculations:
 - i. Gravity loads
 - ii. Lateral loads (seismic and wind)
 - iii. Foundations
 - iv. Thermal loads where significant
 - v. Vibration propagation
 - vi. Progressive collapse
 - vii. Supports for nonstructural elements, including mechanical and electrical equipment on the roof and in equipment rooms, louvers, and other penetrations
 - viii. Steel connections
 - ix. Blast analysis
 - x. Provide calculations to meet City of Madison Building Inspection review including roof mounted PV System, parking lot lighting, etc.
- h. Structural Drawings:
 - i. Demolition plans
 - ii. Full set of structural construction drawings where existing structure is being modified (Drawings must be fully dimensioned, noted and detailed for accurate bidding and construction; Load criteria for all floor live loads, roof live load, roof snow load, wind load, earthquake design data, and special loads must be shown on drawings.
 - 1. Live load reduction of the uniformly distributed floor live loads, if used in the design, must be indicated; Basic wind speed (3-second gust), miles per hour (km/hr), wind importance factor and building category, wind exposure, the applicable internal pressure coefficient must be indicated;
 - 2. Seismic design criteria, such as seismic use group, spectral response coefficients SDS and SD1, site class, basic seismic-force-resisting system, design base shear, and analytical procedure must be indicated;
 - 3. Additional information may be required by the local building official; Soil bearing pressure and lateral earth pressure must be indicated; Properties of basic materials must be indicated;
 - 4. Indicate the codes and standards used to develop the project).
 - iii. Structural Schedules for foundations, columns, walls, beams, slabs, and decks, as applicable
 - iv. Structural details: All typical details must be shown on the drawings; Include details for steel connections; Include details for all fire-rated assemblies, indicating Underwriters Laboratories Inc. or other nationally recognized testing laboratory fire resistance directory design numbers; Include details indicating if the assembly is restrained or unrestrained; Include details for anchorage of building system equipment and nonstructural building elements (may be shown on mechanical, electrical, or architectural drawings, as applicable). The anchorage details, if shown on other disciplines, must be referenced on the structural drawings.)
- i. Mechanical Drawings (HVAC):
 - i. Demolition plans
 - ii. Floor plan(s): Double line piping and ductwork layout; Show terminal air units; Perimeter terminal units; Show locations of automatic control sensors for example temperature, relative humidity, CO2, room pressurization.
 - iii. Roof plan showing all roof-mounted equipment and access to roof (Show adequate access from mechanical equipment room(s) to freight elevators

- iv. Mechanical details: Quarter-inch scale drawings of mechanical equipment room(s) showing all mechanical equipment, ductwork, and piping including access and service requirements in plan, elevations, and cross-sections; All valves must be shown. Indicate locations where temperature, pressure, flow, contaminant/combustion gases, or vibration gauges are required, and if remote sensing is required; Mechanical room piping and ductwork layout must be double line; All dampers—both fire dampers and volume control dampers—must be shown. Ductwork ahead of the distribution terminals must be indicated in true size (double line)
- v. Updated single line schematic flow and riser diagram(s): Airflow quantities and balancing devices for all heating/cooling equipment; Water flow quantities and balancing devices for all heating/cooling equipment; Show location of all flow/energy measuring devices for water and air systems for all cooling, heating, and terminal equipment, and their interface with the BAS.
- vi. Updated Automatic control diagrams: Control flow diagrams showing all sensors, valves, and controllers (analog and digital inputs for controllers, front-end equipment, and system architecture); Diagrams to show control signal interfaces, complete with sequence of operation of all heating, ventilating, and cooling systems during occupied, 24-hour, and unoccupied conditions
- vii. Updated Schedules: Provide schedules of equipment that includes chillers, boilers, pumps, air handling units, terminal units, cooling towers, Air terminal devices, etc.
- viii. Updated Air balance relationships between spaces, if any
- ix. Data room cooling systems – evaporators and condensers
- j. Mechanical Narrative and Calculations (HVAC):
 - i. Updates from DD.
 - ii. A final description of any deviation from the HVAC system as approved during DD.
 - iii. Final building heating and cooling load calculations
 - iv. Final system pressure static analysis at peak and minimum block loads for occupied and unoccupied conditions
 - v. Building pressurization analysis for peak and minimum block loads for occupied and unoccupied conditions
 - vi. Acoustical calculations for peak and minimum block loads for occupied conditions
 - vii. Flow and head calculations for pumping systems for peak and minimum block loads for occupied conditions
 - viii. Final selection of equipment, cut sheets of selected equipment
 - ix. Final psychrometric calculations for the selected HVAC systems at full and partial loads
 - x. Final ventilation and exhaust calculations following ASHRAE 62 and WI SPS 364.
 - xi. IT Space load calculations based on data port counts/City IT input about type/quantity of switches. Load calculations used to size data room cooling equipment
 - xii. Information required to complete City of Madison Building Inspection review
- k. Mechanical Specifications: Completed specifications indicating preferred manufacture and model numbers according to Exhibit B and the design team that meets the intent of the mechanical system; all performance based specifications, all BAS required connection information and control points
- l. Plumbing Drawings
 - i. Demolition plans
 - ii. Floor plans: Plumbing layout and fixtures, equipment and piping; large-scale plans should be used where required for clarity
 - iii. Riser diagrams for waste and vent lines
 - iv. Riser diagrams for domestic cold and hot water lines
 - v. Plumbing fixture schedule
- m. Plumbing Narrative and Calculations:
 - i. Updates from DD
 - ii. Hot water heating calculations
 - iii. Water supply calculations, including pressure
 - iv. Roof drainage calculations
 - v. Sanitary waste sizing calculations

- vi. Final water consumption calculations and analysis including make-up water for HVAC systems, domestic water consumption, and water consumption for irrigation
- vii. Information required to complete City of Madison Building Inspection review
- n. Plumbing Specifications: Completed specifications indicating preferred manufacture and model numbers according to Exhibit B and the design team that meets the intent of the plumbing system; all performance based specifications.
- o. Electrical Drawings
 - i. Demolition plans
 - ii. Floor plans: Show lighting, power distribution, and communications raceway distribution, and locations of fire alarm and annunciator panels
 - iii. Single-line diagram of primary and secondary power distribution
 - iv. Include normal power, emergency power, and UPS
 - v. Single-line diagram of fire alarm system
 - vi. Single-line diagram of telecommunications/IT/AV/radio system
 - vii. Circuit layout of lighting control system
 - viii. Details of distribution system
 - ix. Site plan: Indicate service locations, manholes, ductbanks, and site lighting
 - x. Layout of electrical equipment spaces: Show all electrical equipment. Include elevations of substation transformers and disconnect switches
 - xi. Schedules for switchgear, switchboards, motor control centers, panelboards, and unit substations
 - xii. Grounding diagram
 - xiii. Complete phasing plan (if required) for additions and alterations
 - xiv. Security systems site plan
 - xv. Final locations of all security devices and conduit runs
 - xvi. Security system floor plans
 - xvii. Layout of all security systems
 - xviii. Storage areas for electrical equipment/spare parts
- p. Electrical Narrative and Calculations:
 - i. Updates from DD and as needed for City of Madison Building Inspection review
 - ii. Illumination level and lighting power calculations
 - iii. Short circuit calculations
 - iv. Voltage drop calculations
 - v. Overcurrent coordination study
- q. Electrical Specifications: Completed specifications indicating preferred manufacture and model numbers according to Exhibit B and the design team that meets the intent of the plumbing system; all performance based specifications.
- r. Technology Drawings: Complete floor plans showing all IT/AV/telecommunication/radio/security systems (including room locations), major pathways, etc.; complete single line details of all cabling systems, enlarged details as needed for all racks, security systems, AV systems and other related equipment; grounding details; schedules of equipment provided by contractor; etc.
- s. Technology Narrative: Updates from DD
- t. Technology Specifications: Completed specifications indicating preferred manufacture and model numbers according to Exhibit B and the design team that meets the intent of the plumbing system; all performance based specifications. Ensure all equipment by Contractor, Connection by Contractor, Equipment by Owner, and Connection by Owner are properly labeled and scheduled.
- u. Fire Protection Drawings:
 - i. Demolition plans if applicable
 - ii. Full set of fire protection construction drawings: Drawings must be carefully dimensioned, noted, and detailed for accurate bidding and construction
 - iii. Fire protection details: all typical details must be shown on the drawings including Firewalls and smoke partition, Panel and curtain walls, Fire-stopping configurations. Include details of all openings between the exterior walls (including panel, curtain, and spandrel walls) and floor slabs, openings in floors, and shaft enclosures; Mass notification system equipment; Horizontal exits;

- Each required fire door; Stairway pressurization fans; Security door hardware, including operation procedures; Fire pump configuration; Anchorage of underground fire protection water supply lines; Standpipe riser; waterflow switches and tamper switches; Sprinkler floor control valves, sectional valves, and inspector test assembly; Special fire extinguishing systems (e.g., wet chemical); Fire alarm riser; Typical firefighter telephone station; Typical firefighter telephone jack; Electrical closets for fire alarm system panels; Fire alarm telephone panel including voice paging microphone and firefighter telephone system; Visual indicating device control and power detail, typical for floors stating location; Amplifier rack stating location; Typical location of duct smoke detectors; Outdoor fire alarm speaker; Wall-mounted cone fire alarm speaker; Typical terminal cabinet; Lay-in ceiling-mounted fire alarm speaker; Lay-in ceiling-mounted fire alarm combination speaker/strobe; Wall-mounted strobe device; Typical manual fire alarm box installation; Fire alarm system input/output matrix; Graphic annunciator panel; Fire command center showing the locations of each panel to be installed
- v. Fire Protection Narrative and Calculations: For any fire modeling generated results, submit a copy of the input data and all pertinent program material and assumptions required to understand the output and the analysis. A narrative of the input and results must be part of the calculations.
 - i. Final occupant load and egress calculations
 - ii. Final fire protection water supply calculations including water supply flow testing data
 - iii. Final fire pump calculations where applicable
 - iv. Final smoke control calculations where applicable
 - v. Final stairway pressurization calculations
 - vi. Fire modeling
 - vii. Final calculations for calculating sound attenuation through doors and walls for placement and location of fire alarm system audible notification appliances
 - ix. Other information as needed for City of Madison Building Inspection and MFD review.
 - w. Fire Protection Specifications; Completed specifications indicating manufacture and model numbers and performance based specifications.
 - x. Certification Requirements: The A/E (lead designer) must provide certification that the project has been designed and is in compliance with ASHRAE 90.1 and will meet City energy goal requirements. Certification will also indicate that the architectural/engineering design elements have been integrated with the overall project design, and that the building can meet the programmed LEED rating. The A/E certification must be signed and sealed by a principal of the architectural/engineering firm in charge of the project.
 - y. LEED Report:
 - i. Prepare and present to City for review and approval a LEED design report to include the LEED v4 checklist of proposed strategy
 - ii. Identify proposed elements and highlight features on construction documents in both graphic and written summary that address the LEED v4 requirements
 - z. LEED Online submission of design phase credits: The A/E is to submit all design phase credits to LEED Online and coordinate with City staff and other consultants as needed to complete submission (e.g. energy modeling credit). A/E is to respond to GBCI review comments as needed to finalize design credit submission.
 - aa. Specifications (General, ALL Divisions): Completely edited version of each specification section to be used on the project. All sections to be final, no drafts are permitted. All performance information has been provided, no blanks. All unrelated information has been removed. Final version has been exported to PDF to preserve all links from TOC to individual sections.
 - bb. Construction Document Cost Estimate: This deliverable will be completed after submission of the final CD submission by the cost estimator (consultant on A/E team). Cost estimate deliverable is to be reviewed concurrently by the City and the A/E. The cost estimate shall provide the following detail:
 - i. Itemization shall be raw construction costs for material, labor, equipment rentals, etc. (only) by area of occupancy. DO NOT include any markup. Provide a total cost for each area of occupancy.
 - ii. Provide a summary sheet showing all of the following:
 - 1. Each area of occupancy with its construction total from item *a* above.
 - 2. Provide a line item for the subtotal of all occupancies

3. Provide a line item for Contractor Mark-up on the sub-total
 4. Provide a line item for Construction Bond on the sub-total
 5. Provide a line item for BPW Contingency (8%) on the sum total of items *ii*, *iii*, and *iv* above
 6. Provide a line item for Design Contingency
 7. Provide a line item for Escalation of construction costs (if scheduled construction is 2 or more years out)
 8. Provide a Grand Total
- cc. Energy Analysis (BY CITY): This deliverable will be updated by City third party consultant if there are any significant changes in the construction document phase.
- dd. Project Schedule: Develop project time schedules for the project indicating the expected progress of the work; include architectural and engineering design, bidding, contract execution and construction.

I. Phase V: Bidding Phase

1. The A/E, following the City's approval of the PHASE IV CONSTRUCTION DOCUMENTS, and the latest construction estimate; and the City's declaration of its intent to put the project out for bidding, shall assist the City in preparation and assembly of the final standard City contract specifications.
2. The City's contract documents will be prepared by the City Project Manager and shall include statements relating to advertising for bid, instructions to bidders, Small Business Enterprise (SBE) program information, special provisions, proposal, bid bond, agreement, payment bond, performance bond, and Best Value Contracting.
3. The posting of bid documents on the City's preferred internet bid site (BidExpress), bid period, bid opening, building contractor selection, and contract signing will be provided by the City Engineering Division and the Board of Public Works.
4. A/E shall assist the City in preparing the construction documents as Exhibits in searchable PDF format which will be incorporated into the bid documents noted above.
5. A/E shall attend pre-bid conference meeting.
6. A/E shall answer questions during bidding and develop addendums promptly in order to give bidders sufficient time to adjust bids. No design-related addendum shall be submitted past one week before bids are received.
7. Upon receipt and acknowledgment of lowest responsible bidder the A/E will update the bidding set to incorporate all changes that occurred during the bid phase. The revised set must be completed in an expeditious manner.
8. The A/E shall provide electronic digital drawing files, in applicable 3D or 2D format, for the General Building Contractor and its subcontractors to use as may be necessary during design and construction of the project.
9. As the City has a total construction cost limitation for this project, the A/E shall adhere to this limitation. Should the total bid for all work exceed the estimated probable costs of construction by more than eight (8) percent, the City shall have the discretion to require the A/E to revise the design at no additional cost to the City, whether or not the City ultimately decides to complete the project according to the redrafted plans or the original plans.
10. Building Information Model: Provide final BIM Model during or right after bidding.

J. Phase VI: Construction Administration Phase

1. The construction phase will commence with the award of the construction contract and will terminate when the Common Council accepts the construction. A pre-construction meeting held by owner shall be attended by A/E. A separate Sharepoint construction administration orientation must be attended by the A/E team responsible for construction administration activities.
2. All communication and filing shall be completed digitally. The City will receive a set of all design documents in digital form. Digital files shall be in universal format (i.e. PDF) and in the design tool specific file format (i.e. Revit file, Trane trace file).

3. The A/E, and when appropriate to the progress of the project any sub-consultants, shall attend field project meetings. The A/E shall conduct the meetings and shall prepare minutes of the meetings. Such meetings shall be held at regular intervals (bi-weekly minimum) and as required by City.
4. The A/E shall make periodic visits to the site at least every two weeks and more often as necessary to maintain familiarity generally with the progress and quality of the work and to determine in general if the work is proceeding in accordance with the contract documents. The visits will vary in frequency based on the stage of construction and nature of activities at the time of the visit, and will average the equivalent of one visit per two weeks in the early phases of construction, to one visit per week during the more intense construction phases from just after mid-construction through substantial completion. The exact schedule for these visits will be determined once a detailed construction schedule is issued by the awarded general contractor. Refer to Exhibit B – A/E General Design Guidelines – related to this agreement - for more information.
5. A/E shall inspect field installation of critical design features and elements were installed as intended per design. This includes pre-installation meetings, inspection of mockups, and inspection of partial builds during construction.
6. A/E shall review (for conformance with the construction documents) and take other appropriate action upon the general building contractor's submittals such as shop drawings, product data, and samples and make recommendations regarding such to the City's Project Manager.
7. A/E shall work with contractor, owner and other designers to resolve questions, conflicts and unforeseen situations. The A/E shall prepare, reproduce, and distribute supplemental drawings, specifications, and interpretations in response to requests for clarification by general building contractor or the City.
8. A/E shall prepare, reproduce, and distribute drawings and specifications with revisions to describe work to be added, deleted, or modified.
9. Review all change order requests, provide determination to City, and present proposed changes to the board of public works for approval. Such documents shall be prepared in a timely manner.
10. The A/E shall communicate with the City on design and construction related issues and shall not issue documents or give instructions to the contractor without knowledge and approval of the City. Documents received by the A/E from the contractor shall be shared with the City. The City maintains the right to object to instructions or approvals.
11. Based on construction observations at the site and on the general building contractor's applications for payment, the consultant shall assist the City to determine the amount owing to the general building contractor by verifying and approving quantities of work put in place on the general building contractor's application for payment. The A/E shall assist in determining the dates of completion, substantiated by creation and distribution of punch lists.
12. The consultant shall report to the board of public works and other entities on all claims of the City or general building contractor relating to the execution and progress of the work and on all other matters or questions related thereto.
13. A/E shall receive and review written guarantees and related documents assembled by the general building contractor, and shall transmit said data to the City's designated representative who will prepare the final certificate for payment.
14. The A/E shall provide punch list comments via the Sharepoint QMO workflow. The A/E's items will be coordinated with the City's project team and third-party consultants. The purpose is to check conformance of the construction work with the requirements of the contract documents. The A/E is to verify the accuracy and completeness of the responses by the general contractor and to assist with checking construction work to be completed or corrected.
15. The A/E shall review and approve for accuracy and completeness, the general building contractors submission of "record" drawings and operations and maintenance manuals and transmit same to the City prior to certification of the general building contractors application for final payment.
16. At the end of the project the A/E will prepare electronic record drawings based on field observations and contractor's markup.
17. The A/E shall work with the general building contractor, City staff and other consultants as needed to complete the construction phase LEED credit submission near the end of the construction phase. The general building contractor is responsible for uploading most construction phase LEED online credits, but

- will require some supporting documents and calculations from the A/E. The A/E is to review all LEED Online construction phase submittals and assist with responding to GBCI review comments, if needed.
18. Warranty period is considered construction phase for the purpose of the consultant assisting in resolving issues that are design or installation related.

Owner Provided Services and Deliverables

- A. ENHANCED COMMISSIONING AND ENERGY MODEL
- B. SITE SURVEY
- C. HAZARDOUS MATERIALS SURVEY
- D. GEOTECHINCAL REPORT (as needed)
- E. EXPLORATORY DEMOLITION
- F. OTHERS AS APPLICABLE OR REQUIRED

Personnel (City)

- A. A core group of approximately ten City staff will comprise the main design team for the City of Madison. Each staff member represents specific areas of design or construction knowledge and also includes the prime contact for the owner agency. In addition, the owner agency may provide additional staff as needed for design and functionality requirements of specific areas. The A/E may be directed to other City staff regarding specific requirements of the design including but not limited to storm water management, fire protection, safety, facility maintenance, enclosure, and finishes.
- B. Additional consultants may be hired by the City to perform independent verification of various aspects of the design or provide support to the design as needed including but not limited to Energy Analysis, Enhanced Commissioning, Geotechnical Surveying, etc.

Personnel (A/E)

- A. List TBD after selection of A/E.
- B. Employees or sub-consultants of the A/E shall not in any way be construed as employees of the City. Activities to be performed by a Principal, either the A/E, sub-consultant, or both, as described in this Contract including the attachments and exhibits, shall be performed by or under the supervision of the appropriate Principal named above. In the event of the death or disability of the named Principal such as to be unable to participate in the above described activities, or if the named principal leaves the employment of the (Architect / Design Professional / Engineer), or in any other way becomes incapable of performing the above-described activities, the City may accept another as Principal or terminate this Agreement pursuant to the provisions of this Agreement, at its option.

Purchase of Services Contract and Standard Terms and Conditions

- A. Copies of the City of Madison Purchase of Services Contract (Architect) is attached to the RFP as Exhibit D and a copy of the City of Madison Standard Terms and Conditions is attached as Exhibit E.
- B. By submitting a response packet to the RFP and providing a proposal if requested for interview, the A/E acknowledges and accepts all language associated with these two documents without changes or amendments.
- C. DO NOT complete and return a copy of the contract with your RFP documents. This is only supplied for review at this time.

Payment Schedule

- A. The City shall make periodic payment to the A/E in approximate proportion to services performed so that the compensation on the completion of each task described herein shall not exceed the percentage of the contract price shown in the table at the end of this section.

1. The A/E and all sub-consultants shall appropriately plan for all meetings and communications (including but not limited to phone calls, emails and virtual meetings), both internally with the A/E team and externally with the City Design Team (or approving authorities), related to completing sub-tasks within each phase of design. The City will not accept requests for additional time and effort to complete a sub-task when there was no significant change in scope according to this contract.
 - a. If the A/E and any sub-consultant feels that the requirements to complete a sub-task go beyond what was assumed under the original contract the A/E and sub consultant shall meet with the City for resolution prior to continuing work on the sub-task. Invoices for additional time after the fact will not be accepted by the City.
2. No itemized expenses shall be allowed during this contract. All A/E expenses including but not limited to travel, communication, reproductions, delivery, and other project-related expenditures shall be included in the contract price for each phase of work.
3. The City shall be responsible for all reproduction fees related to check sets, bid documents, plan review sets, etc. The A/E shall not include such fees in their proposal for any phase of work.
4. The City shall be responsible for all fees related to plan reviews including but not limited Zoning, Planning Commission, Fire Department and Building Inspection. The A/E shall not include such fees in their proposal for any phase of work.

PHASE	% of Scope	Completion Requirements
Pre-Design – Program Development	5%	Billed upon successful acceptance by City Designated Representative
Schematic Design	15%	Billed upon successful acceptance by City Designated Representative
Design Development	20%	Billed upon successful acceptance by City Designated Representative
Construction Documents	30%	Billed upon successful acceptance by City Designated Representative
Bidding	2%	Billed upon successful acceptance by City Designated Representative
Construction Administration	26%	Billed upon successful acceptance by City Designated Representative
Warranty & LEED Documentation Completion	2%	Billed upon successful acceptance by City Designated Representative

Completion Schedule

- A. The table below lists a preliminary project schedule. Prior to signing the contract the A/E and the City shall collaborate and develop a programming, design and construction project schedule indicating the completion date of each phase or segment of work.
 1. For each phase of the design process the schedule shall include sufficient time for review periods with the City, tenant agencies, committees or commissions, stakeholder groups, regulatory agencies, etc. as may be required for project design approvals and acceptance, or of similar items.
 2. For each phase of the design process the schedule shall include sufficient time for the A/E to make corrections and updates resulting from the review process noted in item A.1. above.
- B. The A/E shall only begin work after final contract execution by the City and upon issuance by the City’s Designated Representative of official notice to proceed.
- C. The A/E shall update and resubmit the project schedule whenever scheduling changes occur.
- D. The A/E shall recognize that it is important to be prepared to advance this schedule as opportunities arise throughout the duration of the A/E scope of work.

Approximate Time Frame	Milestone Description
2022	
April - June	RFQ/RFP process with principal A/E firm
July - August	Complete A/E contract signing
September - November	Complete Public Engagement, Programming and Pre-Design (including owner design review & corrections)
December - February	Complete Public Engagement and Schematic Design (including owner design review & corrections)
2023	
February - April	Complete Design Development (including owner design review & corrections)
April - July	Complete Construction Drawings (including owner design review & corrections)
August	Complete Pre-Bid Verification (including owner review & corrections)
August - November	Construction Bidding and Contract Signing
December	Start Construction and Construction Administration
2024	
September	Construction Complete, Owner Occupancy, begin 1 year warranty phase

Extra Services

- A. Any extra services to be per the Contract for Purchase of Services Agreement. Additional requirements for use in establishing an equitable agreement for extra services is as follows:
1. The rates shall be limited to the usual overhead such as clerical and office support and benefits, insurance, and training.
 2. City may require proof of cost (payroll records, invoices, etc.)
- B. The A/E and all sub-consultants shall appropriately plan for all meetings and communications (including but not limited to phone calls, emails and virtual meetings), both internally with the A/E team and externally with the City Design Team (or approving authorities), related to completing sub-tasks within the scope of the Extra Service. The City will not accept requests for additional time and effort to complete a sub-task when there was no significant change in scope according to the contract amendment.
1. If the A/E and any sub-consultant feels that the requirements to complete a sub-task go beyond what was assumed under the contract amendment the A/E and sub consultant shall meet with the City for resolution prior to continuing work on the sub-task. Invoices for additional time after the fact will not be accepted by the City.
- C. No itemized expenses shall be allowed for any requested extra services. All A/E expenses including but not limited to travel, communication, reproductions, delivery, and other project-related expenditures necessary to complete the extra service shall be included in the contract price for the extra service.
- D. The City shall be responsible for all reproduction fees related to check sets, bid documents, plan review sets, etc. related to the extra service. The A/E shall not include such fees in their proposal for the extra service.
- E. The City shall be responsible for all fees related to plan reviews including but not limited Zoning, Planning Commission, Fire Department and Building Inspection, for the extra service. The A/E shall not include such fees in their proposal for the extra service.
- F. All approved extra services shall be added as new line items to invoicing.

END OF EXHIBIT A



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Engineering Division

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**Exhibit B – GENERAL DESIGN GUIDELINES
CONTRACT #9170, PROJECT #17196-51-140
WARNER PARK COMMUNITY & RECREATION CENTER
EXPANSION PROJECT**

In this Exhibit B; the word “City” means City of Madison, Wisconsin. The City of Madison will include the City’s Designated Representative and/or Owner’s Representative and/or Commissioning Agent and/or Contractor to provide energy modeling; the word “A/E” means the licensed design professional(s) **A/E TBD**; and the word “General Building Contractor” means the entity which will be responsible for the actual construction of the project.

The A/E shall use this Exhibit B as a basis for preparing all plans and specifications, in all phases of the design, as defined in Exhibit A-Scope of Work. Any deviation from the guidelines must be approved by the City Design Team before incorporating them into the plans and specifications.

Exhibit B is organized by the CSI Divisions of Work and consists of general preliminary information intended for the A/E to begin the design process. Only regularly used divisions on City projects have been provided in this document.

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GENERAL GUIDELINES

The information within this General Guidelines Section is not related to any one CSI Division of Work, but is applicable to the overall design process.

- A. The A/E and all sub-consultants shall become familiar with the City of Madison Standard Specification for Public Works Construction (<http://www.cityofmadison.com/business/pw/specs.cfm>) and all City provided Specifications (regardless of CSI Division) as they relate to City policies for Public Works Projects, procedures within SharePoint, and general contract expectations and intent on the part of the City.
- B. The A/E shall incorporate all City provided specifications, regardless of Division, into their specification documents.
- C. Construction Products and Materials: Whenever possible products and materials specified within this Exhibit B are to be used in the design of this project.
- D. The A/E must provide a complete design and thorough specifications for building products, materials, and equipment that meet the City's expectations and the Owners Basis Of Design (BOD).
 1. The A/E will review with the City, the design and specifications as outlined in Exhibits A & B.
 2. The A/E will confirm during construction that the contractors are using the specified products, materials, and equipment or pe-approved alternates.
- E. The A/E shall achieve a minimum LEED Certification of Silver for this project as outlined in Exhibit A under City Goals. The A/E shall use design strategies in multiple divisions to achieve this goal. Refer to the LEED checklist in Appendix B at the end of this exhibit. This checklist is a starting point for all projects. Following the checklist will assist the A/E in achieving the required minimum silver rating with other potential credits that would achieve higher ratings.
- F. Each product shall be evaluated based on its applicable characteristics. Products shall be evaluated for construction, durability, acoustic properties, security, operability/flexibility, and other characteristics that reflect the functional requirements of the product under consideration.
- G. Structural Design: The structural design must be in full compliance with the latest edition of the IBC. Any variance for any reason must be reviewed with the City.
- H. Design Mockups: If it is determined that mock-ups would be helpful during the design phase the A/E shall coordinate with the City Project Manager all procedural requirements necessary to amend Exhibit A-Scope of Work, amendments to the contract proposal, and other related information prior to proceeding with the mockup. All contract amendments must be completely executed prior to proceeding with any design mockups.
- I. Interior Work Space Requirements and Design Goals:
 1. As part of the pre-design planning effort the A/E shall work with the City and applicable agencies to develop the tenant space (City staff utilizing the space) and customer space (non City staff visiting the space) requirements.
 2. Complete an in-depth analysis of the overall workspace requirements. The process must use analytical tools, methods, and technology to structure input from a broad range of the City staff, and integrate experienced insights and recommendations concerning the following:
 - a. Formal and informal amenities for collaborative spaces.
 - b. Space adjacencies, types, and sizes necessary to support the tenant's mission.
 - c. Analysis and documentation of client work patterns and styles.
 - d. Flexibility to adapt to future change.
 3. Mobility of workforce and accommodating technology.
 4. When designing and planning the tenant space, the following factors should be established as the primary criteria for calculating the total space needed:
 - a. The minimum space standards to be utilized shall be common industry wide space standards. Sources for comparable space standards and social distancing include, but are not limited to AIA, CDC, GSA, OSHA, other regulatory agencies, and various office equipment manufacturers (All Steel, Hermann Miller, etc.).
 - i. The City of Madison-Engineering-Facility Management has developed and adopted office space standards that shall be utilized whenever possible for open space cubicles, workstations, and enclosed offices. See Appendix A for standard layouts.
 - ii. Open/enclosed work spaces to be based on standards of supervision and for reasons of confidentiality only.

- iii. Percentage of workforce with job mobility for desk-sharing potential shall be based on the applicable agency's ability to telecommute.
- b. Collaborative spaces, both formal and informal, shall be based on the requirements for the applicable agency and/or public space needs necessary to perform the agency's daily functions.
- 5. General design goals should include:
 - a. A minimum of 24" clear space between bottom of floor (roof) and top of ceiling grid is required on all new construction projects (and whenever possible on renovation projects) to reduce conflict of structural members, piping, ductwork, light fixtures, and other equipment in the ceiling space. Provide more space as needed to reduce conflicts.
 - b. Maximize natural light in open spaces and avoid placing enclosed rooms along the windows.
 - c. Provide adequate speech privacy and consider sound masking if necessary to ensure appropriate acoustics.
 - d. Circulation patterns should be clearly recognizable and wayfinding must be user friendly. Proceeding through the office should be pleasant and intuitive for the users, encouraging informal communication.
 - e. Provide and minimize centrally located resource centers for files, supplies, and equipment.
 - f. Provide adequate, clearly located space for the recycling program.
 - g. Choose workplace components and furnishings as identified in Division 12 below or recommend furnishings that may be unique to the project requirements. Components and furnishings must be easy to move and reconfigure by the occupants, to accommodate change, without skilled labor or technical contract support.
- 6. The A/E must ensure the City's requirements are translated into the design, confirm the workspace requirement are being maintained throughout design development, and are reflected in the final construction documents.

DIVISION 00 – Procurement and Contracting Requirements

- A. The City will provide the specifications listed below to the A/E for inclusion in the project specifications. Additional specifications may be added or deleted during the design process as needed. The A/E shall not write/provide any additional Division 00 specifications without first verifying the need with the City.
 - 1. 00 31 46 Permits
 - 2. 00 43 25 Substitution Request Form (During Bidding)
 - 3. 00 43 43 Wage Rates Form
 - 4. 00 62 7613 Sales Tax Form
- B. The City will be responsible for assembling all final bid documents, posting the bid documents to the City's preferred internet bid site (BidExpress), determining the bidding schedule, conducting the bid opening, reviewing bids, awarding the contract, and contract signing.
- C. The A/E will be responsible for completing & providing to the City all construction document drawings and project specifications as previously outlined in Exhibit A – A/E Scope of Work.
- D. The A/E (including representatives of all sub-consultants) shall assist and advise the City during the bidding process in all of the following:
 - 1. Answer questions/provide clarification via email or phone of the plans and specifications as necessary to bidding contractors.
 - 2. Attend the Pre-Bid Walk Through to answer questions/provide clarification of the plans and specifications as necessary to the bidding contractors.
 - 3. Review all proposed substitutions of materials and equipment. Advise the City as to acceptable substitutions. Modify plans and specifications as necessary to City confirmed lists of accepted substitutions. NOTE: The City has final approval authority on all substitutions.
 - 4. Assist the City in preparing contract addenda based on information generated from items 1 thru 3 above and other corrections to plans and specifications that were completed during the bidding period.
- E. The City will be responsible for posting all addenda on BidExpress.
 - 1. All addenda must be published and posted no less than seven (7) calendar days prior to bid opening to give contractors sufficient time to review addenda items.
 - 2. In the event the City is extending the bid due date the extension addendum must be published and posted to BidExpress no later than 12:00 pm (noon) of the Tuesday prior to the bid opening.

DIVISION 01 – General Requirements

- A. The City may provide any/all of the specifications listed below to the A/E for inclusion in the project specifications.
- B. The A/E and the City shall refine this list as necessary based on the project needs. Editing of the specifications in this list shall be the responsibility of the City.
- C. If the A/E feels any of the listed specifications need editing to meet the intent of the project the A/E shall discuss the proposed edits with the City. The City has final approval on the edits for these specifications.
 - 1. 01 25 13 Product Substitution Procedures
 - 2. 01 26 13 Request for Information (RFI)
 - 3. 01 26 46 Construction Bulletin (CB)
 - 4. 01 26 57 Change Order Request (COR)
 - 5. 01 26 63 Change Order (CO)
 - 6. 01 29 73 Schedule of Values
 - 7. 01 29 76 Progress Payment Procedures
 - 8. 01 31 13 Project Coordination
 - 9. 01 31 19 Project Meetings
 - 10. 01 31 23 Project Management Web Site
 - 11. 01 32 16 Construction Progress Schedules
 - 12. 01 32 19 Submittals Schedule
 - 13. 01 32 23 Survey and Layout Data
 - 14. 01 32 26 Construction Progress Reporting
 - 15. 01 32 33 Photographic Documentation
 - 16. 01 33 23 Submittals
 - 17. 01 41 00 Regulatory Requirements
 - 18. 01 43 39 Mockups
 - 19. 01 43 50 Air Barrier Systems
 - 20. 01 45 16 Field Quality Control Procedures
 - 21. 01 45 29 Testing Laboratory Services
 - 22. 01 50 00 Temporary Facilities and Controls
 - 23. 01 58 13 Temporary Project Signage
 - 24. 01 60 00 Product Requirements
 - 25. 01 71 23 Field Engineering
 - 26. 01 73 29 Cutting and Patching
 - 27. 01 74 13 Progress Cleaning
 - 28. 01 74 19 Construction Waste Management and Disposal
 - 29. 01 76 00 Protecting Installed Construction
 - 30. 01 77 00 Closeout Procedures
 - 31. 01 78 13 Completion and Correction List
 - 32. 01 78 23 Operation and Maintenance Data
 - 33. 01 78 36 Warranties
 - 34. 01 78 39 As-Built Drawings
 - 35. 01 78 43 Spare Parts and Extra Materials
 - 36. 01 79 00 Demonstration and Training
 - 37. 01 81 13 Sustainable Design Requirements – LEED v4.1
 - 38. 01 91 00 Commissioning
 - 39. 01 95 00 Measurement and Verification
- D. The A/E will be responsible for writing additional Division 01 specifications as needed.

DIVISION 02 – Existing Conditions

- A. The City may provide any/all of the specifications listed below to the A/E for inclusion in the project specifications. The A/E and the City shall refine this list as necessary based on the project needs. Editing of the specifications in this list shall be the responsibility of the City.
 - 1. 02 41 16 Structural Demolition
- B. The A/E is responsible for writing any specifications related to this Division of Work

- C. The A/E shall use any existing information (site survey, soil information, hazardous material reports, etc.) generated and provided by the City during the design phase as attachments or references to the specifications.

DIVISION 03 – Concrete

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E shall be responsible for writing all performance specifications for each type/need of concrete being used during the project as necessary. This shall include the most current references to recognized industry standards, testing requirements, etc.
- C. The City is requiring the A/E to incorporate the following City standards into the A/E Division 03 specifications and design standards for:
 - 1. 03 20 00 Concrete Reinforcing
 - a. All rebar shall be plain steel rebar unless otherwise required or specified by code or construction detail.
 - b. Epoxy coated rebar shall only be used in exterior locations where open or cut concrete joints could potentially expose the rebar to corrosion.
- D. The City is requiring the A/E to incorporate the following standards into the A/E Division 03 specifications and design standards as follows:
 - 1. Structural concrete design and specifications must follow the recommendations of the American Concrete Institute (ACI) contained in ACI 301-10 Specifications for Structural Concrete, Current Edition.
 - 2. Cold weather concreting specifications must follow the recommendations of the American Concrete Institute (ACI) contained in ACI 306R-10 Guide to Cold Weather Concreting, Current Edition.
 - 3. Architectural precast concrete design and specifications must follow the recommendations of the Precast Concrete Institute (PCI) contained in PCI publication, Architectural Precast Concrete, Current Edition.

DIVISION 04 – Masonry

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E to incorporate the following standards into the A/E Division 04 specifications and design standards as follows:
 - 1. Concrete masonry design must follow the recommendations of the National Concrete Masonry Association contained in the publication, TEK Manual for Concrete Masonry Design and Construction.
 - 2. Brick masonry design must follow the recommendations of the Brick Institute of America contained in the publication, Technical Notes on Brick Construction.
 - 3. Exterior limestone design must follow the guidelines of the handbook published by the Indiana Limestone Institute of America.
 - 4. Restoration or Preservation of historic masonry must follow the Secretary of the Interior's Standards for the Treatment of Historic Properties and National Park Service Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings.

DIVISION 05 – Metals

- A. The City currently does not have any specifications or design standards for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work
- C. The A/E shall review all materials and methods related to this Division of Work with City Staff throughout the design process.

DIVISION 06 – Woods, Plastics, and Composites

- A. The City currently does not have any specifications or design standards for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work
- C. The A/E shall review all materials and methods related to this Division of Work with City Staff throughout the design process.

- D. Restoration or Preservation of historic wood elements must follow the Secretary of the Interior’s standards for the Treatment of Historic Properties.

DIVISION 07 – Thermal and Moisture Protection

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E incorporate the following standards into the A/E Division 07 specifications and design standards as follows:
 - 1. General calculation of envelope assemblies: Isothermal-Planes Method per ASHRAE simulation (example: THERM).
 - 2. Thermal Performance Goals

	Maximum overall U-Value	Minimum overall R-value	Maximum overall SHGC	Notes
Roof	0.029	35	NA	
Wall	0.05	20	0.39	Clear Solarban 60 basis of design
Wall Basement	0.05	20	NA	
Floor Basement	0.05	20	NA	

- 3. Moisture Control: A/E design of the above-grade building enclosure must be demonstrated early in the Design Development Phase.
 - a. ASHRAE 160, Criteria for Moisture Control Design Analysis in Buildings is an acceptable basis of design.
 - b. Demonstration of the transient hydrothermal behavior of the various multi-layer building components for all critical building enclosure systems must be confirmed through modeling.
 - c. Construction documents must clearly depict all drainage and air passages.
 - d. Detail in three dimensions where practical, indicating critical corner terminations, interface of all differing systems, proper sealant methodologies, etc.
- 4. Below Grade Systems: A/E design of the below-grade enclosure (when applicable) must be demonstrated early in the Design Development Phase.
 - a. Ground Water Control: If necessary, drainage mats and soil filters should be considered to relieve hydrostatic pressure on substructure walls and allow water drainage to the level of existing or new drains. Slope pipes per the specified Board of Public Works Standard Specification requirements. Subsurface drainage should discharge into the storm drain by gravity whenever possible. Cleanouts must be provided at grade to facilitate maintaining the system.
 - b. Waterproofing: Where below grade waterproofing is required the design shall follow the recommendations of the National Roofing Contractors Association (NRCA) Waterproofing Manual. Below-grade waterproofing must be applied to the positive pressure side and must be covered by a protection mat to shield the waterproofing membrane from harmful effects of construction activities, ultraviolet radiation, or aggressive vegetation.
 - c. Water Stops: Water stops must be used at construction joints in below-grade walls, footings and other elements where a waterproof system is required.
 - d. Under slab Insulation: Designs shall include insulation under concrete slabs on grade, where slabs are heated, or where they support refrigerated structures.
- 5. Wall Systems; A/E shall begin addressing wall enclosure system details as necessary early in the Design Development phase.
 - a. Connections and fasteners exposed to weather: No design shall include products constructed of carbon steel in exterior construction, including but not limited to exterior walls, soffits, and roofs, except where protected by appropriate galvanic zinc coating or other equivalent protection approved by the City.
 - b. Do not use vinyl wall coverings as the interior finish of exterior walls. On thermal mass storage walls where water may penetrate the wall, avoid interior finishes made from highly processed organic materials that may promote mold growth.

- c. Air/Moisture Barrier System: An air/moisture barrier is required in all new construction and should be employed wherever possible during remediation of existing exterior envelopes. The air barrier system is:
 - i. A continuous plane of air tightness, herein called the air barrier system, must be installed as part of the building enclosure (both above and below grade) to effectively separate all conditioned air from outdoor and polluted spaces.
 - ii. Continuous in three-dimensions from roof-to-wall-to-foundation.
 - iii. Consists of materials and components that are either individually or collectively sufficient in stiffness and rigidity to resist air pressure differentials across the exterior wall assembly without permanent deformation or failure.
 - iv. Durable and structurally rigid to withstand the construction process.
 - d. The interior and exterior air pressures across an air barrier system that need to be examined include, but are not limited to, pressures caused by wind, stack effect, and mechanical systems. Air barriers may be located at different locations within a wall system, and the placement of the air barrier needs to be indicated by the designer on the drawings. The designer must carefully consider placement of the air barrier when the air barrier material(s) will act both as an air barrier and as a vapor retarder to determine if drying of the system will be inhibited by the location of this material within the assembly. Portions of the air barrier may require regular maintenance and an allowance should be made within the design to accommodate this maintenance.
 - e. The air barrier system must be shown on the drawings as continuous through all section drawings of the enclosure. The air barrier materials and components of each assembly must be clearly identified and labeled as "Air barrier" on construction documents, and detailed at all penetrations, joints, and transitions. The pressure boundary of the air barrier system(s) and the zone(s) to be tested must also be shown on the drawings.
 - f. The air barrier material of each assembly must be joined and sealed to the air barrier material of adjacent assemblies with sufficient flexibility to allow for the relative differential movement and with sufficient strength to resist expected peak air pressure differences.
 - g. Penetrations of the air barrier system must be sealed to the air barrier system in an airtight manner. These penetrations include, but are not limited to: lighting fixtures, wiring, conduit, gas lines, cable services, windows, doors, ducts, fire protection standpipe connections, and plumbing pipes.
 - h. The air barrier system (and all materials and components comprising it) must last the anticipated service life of the enclosure or allow for easy maintenance, repair, and/or replacement.
 - i. Where required in the IBC, elevator hoist ways shall be provided with a means for venting smoke to the outside air in case of fire. Vents shall be permitted to open automatically upon detection of smoke in the elevator lobbies or hoist way, upon power failure, or upon activation of a manual override control.
 - j. Parking garages (attached to or under buildings), other structures connected to the building, including those connected via tunnels, walkways, service conduits, etc., and any storage with contents that can negatively affect indoor air quality must be separated from all other conditioned spaces by an air barrier system. Access to such spaces must be provided by doors in air-tight vestibules or airtight hatches at building access points.
 - k. Boiler rooms not using sealed combustion equipment must be separated from the rest of the building space by an air barrier system and provided with make-up air for combustion.
 - l. Additional equipment and other items required for testing the building's air-tightness are to be included in the design and construction documents for installation by the contractor as specified. This may include: indoor-to-outdoor pressure taps at various locations across the air barrier system, air flow and pressure measuring stations in air conveyance and handling systems, and tight-sealing dampers on all ducts carrying air across the air barrier.
 - m. Air/Moisture Barrier Testing: The specifications shall include provisions for air and moisture testing.
6. Roof Systems: A/E shall begin addressing roof enclosure system details as necessary early in the Design Development phase.
- a. Roofing design must follow the recommendations of the National Roofing Contractors Association as contained in NRCA publication, NRCA Roofing and Waterproofing Manual. The design of metal flashing, trim, and roofing must follow the recommendations of the Sheet Metal and Air Conditioning Contractors' National Association publication-Architectural Sheet Metal Manual. In

- addition, all roof assemblies and rooftop structures must meet the requirements of the International Building Code (IBC).
- i. Whenever possible the City prefers to upgrade to roofing materials and details that will achieve the City standard of a 30 year manufacturer warranty regardless of roofing system type (asphalt, EPDM, etc.).
 - ii. Whenever possible the City prefers to have a minimum roof insulation value of R-50. Where rigid insulation is used layers shall be staggered to reduce thermal breaks.
- b. Access to the Roof: Provide a permanent interior stair to permit access to roof-mounted equipment. In addition provide permanent access to all roof levels to facilitate reoccurring inspections and maintenance.
 - c. Edge Protection: Flat roofs designed for access must include a parapet or perimeter railing at least 42 inches in height. Where parapets and railings are not feasible, personal fall protection anchorage points must be provided. Equipment should be located away from roof edges and oriented with access panel's inboard of the roof edge.
 - d. Roof Mounted Equipment: Must be kept to a minimum and must be housed in penthouses or screened by walls. Penthouses and screen walls should be integrated into the building design and constructed of materials used elsewhere in the building exterior. Some roof-mounted equipment, such as antennae, lightning rods, flagpoles, etc., do not need to be screened, but these elements must be integrated into the building design. Roof-mounted equipment should be elevated as recommended in the NRCA Roofing and Waterproofing Manual and set back from the roof edge to minimize visibility. Critical roof-mounted equipment should be installed in such a way to permit roof system replacement or maintenance without disruption of equipment performance.
 - e. When installing roof top photovoltaic systems, consult with City Engineering, local building, and fire code officials for additional access and safety requirements.
 - f. Provide walkways on the roof along routes to/from and around equipment for maintenance. No building element may be supported by the roofing system except walkways.
 - g. Penetrations through the roof to support equipment are extremely vulnerable to leaks. Flashing details must be studied for appropriate continuation of the waterproof barrier. Do not use pitch pockets as part of the roof design.
 - h. Exterior Soffits: Design exterior soffits to resist displacement and rupture by wind uplift. Design soffits for access to void space where operating equipment is located or maintenance must be performed. Soffits can be considered totally exposed to weather and should therefore be designed to be moisture resistant. Provide expansion and contraction control joints at the edges and within the soffit. Spacing and configuration of control joints should be in accordance with the recommendations of the manufacturer of the soffit material. Operating equipment or distribution systems that may be affected by weather should not be located inside soffits. Where it is necessary to insulate the floors over soffits, the insulation should be attached to the underside of the floor construction so that the soffit void may be ventilated to prevent condensation.
 - i. Rooftop Gardens and Landscaped Roof: The A/E shall explore the option of an "extensive" – sedum in tray style - green roof. If a green roof is pursued a fully adhered ballasted perimeter buffer shall be included. If the green roof option is pursued the EPDM roof may be black. Vegetated roof, rooftop gardens, and landscaped roofs must also be installed and maintained in accordance with the requirements in the ICC, International Fire Code (IFC).
7. Fire Performance and Smoke Development: Interior wall and ceiling finish materials shall comply with the applicable requirements in the International Building Code (IBC) for fire performance and smoke development (i.e., flame spread index and smoke developed index). This shall apply to all materials applied on or over the building interior finish for decorative, acoustical or other purposes.

DIVISION 08 – Openings

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E incorporate the following standards into the A/E Division 08 specifications and design standards as follows:
 1. ADA Compliant Door Actuators; whenever possible the A/E shall specify full-length, 36 inch high-low actuators as manufactured by BEA, Inc., model number LPR36.

- a. Finishes shall be consistent with other related project finishes.
 - b. Mounting locations shall be easily accessible and not within the outward swing radius of any door.
- D. The A/E shall provide in the construction drawings all of the following on the same sheet whenever possible:
 - 1. Door and window schematics clearly labeled and identified with a non-duplicated reference number keyed back to the door and window schedule. Schematics shall show all types and/or annotate modifications to types as needed.
 - 2. Door and window schedules indicating the identification number, rough opening, type, hardware sets by component, finishes, associated details, and any special requirements.
 - 3. A complete hardware schedule indicating the primary preferred hardware type. Allowable alternates shall be listed in the door hardware specifications. Schedule shall list all components (kick plates, hinges, closures, locksets (including electronic), etc.)
- E. Exterior Doors:
 - 1. Vestibules are desired to control air infiltration. All door assemblies installed in the means of egress must meet the requirements of the relevant building code.
 - 2. Entrance doors may be aluminum and/or glass of heavy duty construction.
 - a. Aluminum frames and glazing shall be used at all public entrances
 - b. Aluminum frames must have thermal breaks.
 - 3. Hollow Metal doors and frames must meet the requirements of SDI Grade III with a G-90 galvanic zinc coating. HM entrance doors and frames will be used at service entrances, mechanical rooms and other related back of house locations.
- F. Interior Doors: Interior door types may be hollow metal, aluminum, wood or other metal that is complimentary to its intended use and occupancy. Types, finishes, and hardware shall be approved by City staff during the design process.
- G. Exterior Windows:
 - 1. Aluminum windows must meet the requirements of ANSI/AAMA Standard 101-85.
 - a. The City prefers Kawneer 451 UT, AA 250, AA 425 (Glazing U=0.19; SHGC=0.26; VT=0.6) or equal.
 - b. Only optimal performance classes may be used.
 - c. Aluminum frames must have thermal breaks.
 - 2. Metal windows other than aluminum must meet the requirements and standards of the following:
 - a. National Association of Architectural Metal Manufacturers
 - b. Steel Window Institute
 - c. Restoration or Preservation of historic steel windows must follow the Secretary of the Interior's Standards for the Treatment of Historic Properties and National Park Service Preservation Brief 13: The Repair and Thermal Upgrading of Historic Steel Windows.
 - 3. Window mullions, where applicable, should be located on the floor-planning grid to permit the abutment of interior partitions.
 - 4. Restoration or Preservation of historic wooden windows must follow the Secretary of the Interior's Standards for the Treatment of Historic Properties and National Park Service Preservation Brief 9: The Repair of Historic Wooden Windows.
- H. Interior Windows:
 - 1. Interior windows may be used when programming space dictates for space separation such as observation, borrowing light, etc.
 - 2. Types may be hollow metal, aluminum, wood or other metal that is complimentary to its intended use and occupancy. Types, finishes, and hardware shall be approved by City staff during the design process.
- I. Skylights and Sloped Glazing: Skylight design (when used) must follow the guidelines of AAMA Standard 1600. For the design of sloped glazing, two AAMA publications are available: Glass Design for Sloped Glazing and Structural Design Guidelines for Aluminum Framed Skylights.
 - 1. Skylights and sloped glazing should use low emissivity glass. Placement should be calculated to prevent glare or overheating in the building interior. Condensation gutters and a path for the condensation away from the framing shall be included in the design details of the skylight system.
 - 2. Consideration must be given to cleaning of all sloped glazing and skylights, including access and equipment required for both exterior and interior faces.
 - 3. Skylights must be guarded for fall protection or meet OSHA structural requirements.
- J. Window Cleaning: The facility must have provisions for cleaning the interior and exterior surfaces of all windows, skylights, and other glazed openings. The A/E shall demonstrate that cleaning and maintenance of

interior glazing surfaces can be achieved without extraordinary means and methods. Information on window cleaning shall be included with the architect design narratives for each phase.

- K. Overhead Doors
 - 1. 2", insulated, heavy duty, sectional steel door similar to Overhead Door Thermacore series 592.
 - 2. R-17.5 minimum (U-value of .057).
 - 3. Max air infiltration at 25 mph of 0.08 cfm/ft².
 - 4. Sound Transmission Class 26
 - 5. Glazing in doors to be insulated glass or polycarbonate. Glazing properties similar to other glazing for project.
 - 6. Torsion spring operators, 10,000 cycle springs.
 - 7. Roll-up doors can be considered in specific applications.

DIVISION 09 – Finishes

- A. The City may provide any/all of the specifications listed below to the A/E for inclusion in the project specifications. The A/E and the City shall refine this list as necessary based on the project needs. Editing of the specifications in this list shall be the responsibility of the City.
 - 1. 09 64 00 Engineered Flooring
 - 2. 09 68 13 Carpet Tile
 - 3. 09 83 16 Acoustical Plaster Ceilings
 - 4. 09 90 00 Painting and Coatings
 - 5. 09 91 23 Interior Paint
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The A/E must design, and review with the City, all specifications for building products throughout the design and construction phases to confirm the products are meeting the City's expectations for interior construction.
- D. The A/E shall address performance levels of typical floor, wall, and ceiling finishes, focusing on each product's durability, maintenance, service life, and environmental qualities. Metrics and attributes vary by finish based on performance need.
 - a. Finishes must meet requirements of the most current IBC. Other codes (Example: NFPA Fire Safety Codes) and application specific performance attributes (Examples: Severe traffic area; Raised access flooring) need to be taken into account.
 - b. Durability describes composition/content, thickness, hardness, strength, wear resistance, load limit, and water absorption.
 - c. Maintenance addresses wear layer/sealer, barrier/backing, "clean-ability", stain resistance, microbial resistance, and mold/mildew resistance.
 - d. Service life is described in terms of the length of warranty available.
 - e. Environmental addresses recycled content, renewable resources, local materials, and VOC emissions.
- E. The City is requiring the A/E incorporate the following standards into the A/E Division 09 specifications and design standards as follows:
 - 1. The A/E shall provide in the construction drawings all of the following, on the same sheet whenever possible:
 - a. A complete list of all finishes by component (tile, paint, acoustical tile, etc.).
 - b. Finish types within a component shall be uniquely identified (Paint; P1, P2, P3, etc.) with preferred manufacturer, color, texture, and other required identifiers as necessary.
 - i. Complete product specifications and allowable alternates shall be listed in the finishes specifications.
 - c. A complete finish schedule by room indicating the finish type for each wall, ceiling, floor, base, trim, etc.
 - i. The complete finish schedule shall be located in the architectural drawing set only.
 - ii. The use of keyed finish references on the floor plan and/or graphic symbolization will not be permitted.
 - iii. Where a room may have more than 4 walls, 2 ceiling finishes, etc. sufficient columns shall be provided to accommodate the additional surface identifiers as necessary.
 - iv. For more complicated finish schedules interior elevations may be required.

2. Whenever possible the City prefers the following standards, materials, or manufacturers be used in determining finishes. The A/E shall review any deviation from these standards prior to specifying other products and shall be responsible for final coordination of all finishes and colors with the City.
 - a. Flooring:
 - i. Rubber Flooring; Nora, 2x2, colors and locations as selected by project.
 - ii. Carpet; 2x2 carpet tile or plank style, 100% solution dyed nylon, tufted/textured loop, colors and locations as selected by project.
 - iii. Tile; colors and locations as selected by project.
 - iv. Sealed Concrete (with non-slip additives as appropriate) in maintenance, janitorial, mechanical, shop, and storage rooms. Epoxy coatings with a urethane topcoat (with non-slip additives as appropriate) may be used as an alternate where budget or need allows. Painted floors are not permitted.
 - b. Ceramic Wall Tile; colors and locations as selected by project.
 - c. Paint; colors, types, and locations as selected by project.
 - d. Vinyl Wall Coverings; colors and locations as selected by project. Vinyl wall coverings are not permitted on exterior walls.
 - e. Shower stalls:
 - i. Walls shall be Corian or other City approved solid surface material colors as selected by project.
 - ii. Base shall be one piece, molded terrazzo or other solid surface, material colors as selected by project.
 - f. Acoustical Ceiling Tiles; Sag, impact and scratch resistant surface. 20 year systems warranty. Recycled content greater than or equal to 50%, and recycled in a closed loop process. Light reflectance no less than 85%. Acoustical qualities as follows: Open Plan $NRC \geq 0.95$; Open Plan $CAC = N/A$; Closed Plan $NRC \geq 0.70$; Closed Plan $= \geq 35$.
3. Acoustics, Noise Isolation, and Speech Privacy:
 - a. The standards in this section establish adequate acoustic qualities that can be achieved through standard design practices by the A/E without the use of an Acoustic Design professional. Post-construction commissioning will confirm that the acoustical standards have been met.
 - b. General Criteria for Building Spaces:
 - i. Closed Offices versus Open Plan: For work that does not require acoustic and/or visual privacy, an open plan environment with low or no partitions between workstations is permitted. For work that requires a balance between ongoing, active collaboration, easy workgroup reconfiguration, flexible settings, and minimized unwanted acoustic distraction, an open plan setting with a well-engineered acoustical design is required.
 - a) Key components of such engineered open plan designs are highly absorptive ceilings, suitable height partition panels that both absorb and block sound, suitable levels of background sound (typically provided by electronic sound masking systems), and ready access to acoustically private (closed-office) meeting spaces.
 - b) Closed offices must be provided for workers who routinely require extended periods of concentration, in-office meetings, and/or confidential conversation. Meeting spaces and closed offices that require speech security must be designed in conjunction with a qualified acoustical consultant.
 - ii. Floor and ceiling assemblies separating office spaces must achieve a Noise Isolation Class (NIC) rating of not less than 50 (when furnished) and Field Impact Isolation Class (FIIC) of not less than 50.
 - iii. Where an elevator shaft occurs adjacent to noise-sensitive spaces (NC/RC 35 or lower), the maximum intrusion level of elevator noise must be limited to 5 dB below the maximum NC/RC for the space in all octave bands.
 - iv. The intervening structure (partitions, shaft walls, doors, floor and ceiling assemblies, etc.) must be sufficient to control noise intrusion to no greater than the maximum NC or room criteria (RC) values.
 - v. For construction on suitable slab floors, when properly detailed and constructed, and with all connections caulked airtight with acoustical sealant, the following wall assemblies typically will satisfy the minimum specified NIC requirements, with the spaces furnished typically. Absorptive materials are required in speech-sensitive spaces to control reverberation and echoes. These

wall examples are not the only constructions that will satisfy the performance criteria; they are intended solely to provide guidance on projects:

- a) NIC 53 (teleconference room): Double stud wall, two layers of gypsum board on each side, batt insulation in the stud cavities. Full height (slab to slab).
 - b) NIC 48 (meeting rooms, training facilities): Staggered stud wall, two layers of gypsum board on each side, batt insulation in the stud cavity. Full height (slab to slab).
 - c) NIC 45 (private offices, confidential speech privacy): Single stud wall, two layers of gypsum board each side, batt insulation in the stud cavity. Full height (slab to slab) or 6 inches above a hung gypsum board ceiling.
 - d) NIC 40 (private offices, normal speech privacy): Single stud wall, two layers of gypsum board one side, one layer of gypsum board the other side, batt insulation in stud cavity. Slab to slab (preferred); minimum 6 inches above acoustical tile ceiling (minimum CAC 44).
 - e) NIC 35 (private offices, normal speech privacy, sound masking): Single stud wall, single layer gypsum board each side, batt insulation in stud cavity. Minimum 6 inches above acoustical tile ceiling (minimum CAC 44).
 - f) NIC 31 (private offices, normal speech privacy, low voice level, miscellaneous other spaces): Single stud wall, single layer of gypsum board each side, batt insulation in the stud cavity. Terminates at underside of acoustical tile ceiling (minimum CAC 35).
- vi. See Divisions 22, 23, and 26 for additional noise isolation requirements of MEP related equipment and piping.

DIVISION 10 – Specialties

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The A/E shall work with City Staff for any specialty equipment that may be needed for the project.
 1. Advise on the requirements for comfort changing stations in public restrooms.
 2. Advise on the requirements for lactation rooms.
- D. The City is requiring the A/E incorporate the following standards into the A/E Division 10 specifications and design standards as follows:
 1. Signage:
 - a. General Signage:
 - i. The A/E shall be responsible for designing a clear and coordinated system of interior and exterior signage and way-finding that will allow users to locate their destination as quickly and directly as possible. A standardized system of signage, with interchangeable components, must be provided throughout the facility. Signage details and specifications shall be included in the construction documents bid package.
 - ii. A well-designed site shall use as few signs as possible. Signs should make the site way-finding clear to the first-time user by identifying multiple site entrances, parking, and the main building entrance.
 - iii. Any use of the Official City Logo or City Division Logo shall be sized and located as per City Administrative Procedure (APM) 3-18.
 - iv. Follow all ADA guideline specifics for parameters of design, including location, size, color, tactile qualities, and graphic symbols.
 - b. Building Identification Signage: Design building identification signage that complies with City of Madison Ordinances and has been reviewed/approved by the Urban Design Commission (UDC).
 - i. Building Identification Signage shall include, but not be limited to free standing monument signs, signage fastened to the building, badging/division logos fastened to the building, etched into building features (stone, glazing), and graphics visible through windows.
 - ii. Signage font characteristics and wording shall match existing examples where applicable.
 - iii. Provide appropriate plans and details in the construction documents and coordinate additional trade requirements as needed.
 - iv. Monumental Signage shall be designed as needed on a project by project basis. Design shall include all required foundations, electrical, lighting controls, and other elements necessary for the sign to fully function as intended.
 - c. Traffic Signage and Traffic Marking:

- b. Fire Extinguishers; shall be type, sized, and located as required by code, hanger or enclosure style to be determined during design process.

DIVISION 11 – Equipment

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The A/E shall work with City Staff for any specialty equipment that may be needed for the project.
- D. The City is requiring the A/E to incorporate the following standards into the A/E Division 11 specifications and design standards as follows:
 - 1. The A/E shall indicate Kitchen and Food Service equipment on the floor plans for design coordination with other trades. Coordinate with the City as to which items will be provided by the contract or by the owner. All required rough-ins shall be part of the contract.
 - 2. The A/E shall provide all Audio-Visual (AV), Data, Security, and other related equipment on the Technology floor plans for design coordination with other trades.
 - a. Coordinate with the City as to which items will be provided/installed/connected by the contract or by the owner.
 - b. All required rough-ins shall be part of the contract.
 - c. See Divisions 27 and 28 for additional information.
 - 3. The A/E shall verify all on site custodial equipment needs and provide custodial closets of sufficient size and amenities for storing equipment and supplies. Storage requirements shall include specialty equipment that may be required for cleaning specified finish materials. For example, a “Taski” floor cleaning machine needs storage space for its footprint with power charging capabilities.
 - 4. The A/E shall be responsible for locating and coordinating other equipment needs on a project by project basis.

DIVISION 12 – Furnishings

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E to incorporate the following standards into the A/E Division 12 specifications and design standards as follows:
 - 1. Furniture Plans and Equipment Layouts:
 - a. The A/E shall provide preliminary furniture plans indicating locations of cubicles, desks, conference room tables, and equipment such as printers, copiers, plotters, etc.
 - b. The preliminary furniture plans shall be provided to all sub consultants to properly locate outlets, data ports, path of egress, exit lighting, and other mechanically related items.
 - i. Sub consultants shall show furniture/cubicle locations on their plan sheets as needed to ensure the sub-contractors are aware of critical placements during rough-in.
 - c. The preliminary furniture plans shall be included in the architectural construction documents for the general contractor’s reference of furnishing locations.
 - d. Preliminary plans shall be used by other consultants hired by the City for accurate furniture layouts, takeoffs, and purchase orders.
 - 2. The A/E shall provide furnishing schedules as appropriate in the construction drawings. Furnishings may be combined with other schedules (window treatments in the window schedule) where appropriate.
 - 3. Art: Requirements shall be determined with City Staff during the Pre-design phase and incorporated into the plan set as the design progresses.
 - 4. Window Treatments: Requirements shall be determined with City Staff during the Pre-design phase and incorporated into the plan set as the design progresses.
 - 5. Casework: Requirements shall be determined with City Staff during the Pre-design phase and incorporated into the plan set as the design progresses.
 - 6. Task Lighting: Requirements shall be determined with City Staff during the Pre-design phase and incorporated into the plan set as the design progresses.
 - a. Built-in task lighting shall be designed by A/E, shall be LED whenever possible and shall be reviewed by City Staff for approval of location, type, control, and light output.
 - b. Portable task lighting shall be by owner.

- c. Walk-off Mats: Requirements shall be determined with City Staff during the Pre-design phase and incorporated into the plan set as the design progresses.
 - i. Recessed Grate Type mats are preferred on new installations. Mats shall be removable for cleaning and maintaining the pan, metals shall be non-corrosive.
 - ii. Roll type, portable entrance mats shall be used when recessed matting is not practical. Appropriately locate mats of differing materials for cleaning dirt and wiping moisture.
- 7. General Office Furnishings: The A/E shall use the following City standard office furnishings for designing furnishing and equipment layouts as noted above. These standards shall be reviewed with City Staff prior to preparing furniture layouts.
 - a. Office and cubicle workspace configurations shall comply with City standard designs provided in Appendix A.
 - i. Systems Furniture; Allsteel; typical 6x7 workstations; 50" tackable fabric (Tempest, Full Stream) panel, 15" frosted glass stacker. Flint finish, Fossil Trim.
 - a) A/E shall note that workstations are typically 6x7. Other sizes and configurations may be used based on needs of various staff members. A/E and the City shall identify those needs during the Pre-design phase and incorporate them into the design process.
 - ii. Desking; Allsteel metal desk components including sit-to-stand component. Flint finish, Silver Mesh laminate tops.
 - iii. Storage; Allsteel metal storage components (storage cabinets, bookcases, mobile pedestal files, personal lockers, etc.). Flint finish, standard bevel pulls.
 - iv. Desk Chairs; the City has many standard chairs to select from including the following:
 - a) Herman Miller-Mirra, Frame Graphite, Armpad: Black, Back Finish: Graphite, Seat Material: Graphite AireWeave
 - b) Allsteel-Lyric
 - c) Haworth-Very desk
 - v. Conference Room, Office Side, and Stacking Chairs; the City has many standard chairs to select from including the following:
 - a) Herman Miller-Caper, Molded plastic or Flexnet Seats (depending on use), Seat Color: Black, Frame: Black, Casters or glides depending on flooring material selections.
 - b) Haworth-Very side chairs and stacking chairs. Frame finish and shell color to be selected on a project by project basis. Casters or glides depending on flooring material selections.
 - vi. Conference Room and Training Room Tables
 - a) Conference Room Tables: Herman Miller Everywhere
 - b) Training Room Tables: Herman Miller Everywhere Flip-top
 - b. Other Furnishings shall be addressed by the A/E and City Staff on a project by project basis.

DIVISION 13 – Special Construction

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.

DIVISION 14 – Conveying Equipment

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.

DIVISION 21 – Fire Suppression

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E to incorporate the following standards into the A/E Division 21 specifications and design standards as follows:
 - 1. This division of design guidelines shall specifically apply when "Exhibit A – A/E Scope of Work" requires the A/E to have a Fire Protection Engineer (FPE) on the Design Team.
 - a. In the event Exhibit A does not require an FPE, the A/E shall provide sufficient Fire Protection plans to clearly indicate special requirements of the sprinkler system. Requirements may include, but

- would not be limited to, routing along architectural features, through specific penetration points, or around mechanical features such as roof vents.
2. The FPE must be a full participant of the A/E team for each phase of the project from concept through design, construction, and occupancy.
 3. Fire Suppression design shall be in full compliance with the latest edition of the IBC and other applicable codes. Any variance for any reason must be reviewed with the City.
 4. The A/E and Fire Protection Engineer must perform the following minimum requirements and review with the Madison Fire Department Fire Protection Engineer at each phase of design and any revisions during construction:
 - a. Analysis of: Building construction, occupancy classification, means of egress, fire alarm system, water-based fire extinguishing system(s), non-water-based fire extinguishing system(s), smoke control system(s).
 - b. Calculations for: egress, water supply, smoke control (fire dynamics) and timed egress, audibility for fire alarm system.
 - c. Design of all fire protection and life safety systems, including but not limited to, fire alarm system, water-based fire extinguishing system(s), smoke control systems and stair pressurization systems.
- D. The City of Madison, **Parks Division** prefers to use a standardized non-proprietary system. Only a system provided by the manufacturers listed below shall be specified for this project:
1. Honeywell Notifier
 2. Gamewell FCI
 3. Edwards

DIVISION 22 – Plumbing

- A. The City currently does not have any specifications for this Division of Work.
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E to incorporate the following standards into the A/E Division 22 specifications and design standards as follows:
 1. Plumbing design shall be in full compliance with the latest edition of the IBC and other applicable codes. Any variance for any reason must be reviewed with the City.
 2. Specify plumbing fixtures that comply with the International Plumbing Code and local building codes. Water conservation technologies must be applied to the extent that the technologies are life-cycle cost-effective.
 3. Coordinate locations of plumbing equipment, piping, etc., in each design phase, using REVIT, with other disciplines. Report all conflicts and potential corrective actions to the A/E design team.
 - a. A/E is responsible for resolving all conflicts of architectural, structural, mechanical, electrical, plumbing, fire protection, and technology.
 4. Where this Division of Work has floor mounted equipment a concrete housekeeping pad shall be provided for each piece of equipment.
 - a. Concrete pad shall be a minimum of 4” in height and 4” wider than the full size of the equipment footprint including connections, etc.
 - b. Concrete pad shall be level and edges shall be rounded to allow drainage off the slab.
 5. The City of Madison, **Parks Division** has standardized the following fixtures, equipment, and trim. Only the manufacturer and model information provided below shall be specified for this project.
 - a. Fixture Types: Zurn, Chicago Faucet
 - i. Water Closet, flushometer valve type:
 - a) Water closets must be either dual-flush or low-flow type and manually controlled.
 - b) Single flush, maximum flush volume when determined in accordance with ASME A112.19.2– (1.28 gal).
 - c) Dual-flush, effective flush volume determined in accordance with ASME A112.19.14 and USEPA WaterSense Tank-Type High Efficiency Toilet Specification – (1.28 gal).
 - ii. Water Closet, Tank-Type, High Efficiency Toilets (HET); Tank-type water closets must comply with the performance criteria of the U.S. EPA WaterSense Tank-Type High-Efficiency Toilet Specification.
 - iii. High Efficiency Urinals (HEU); Urinals must be low-flow, flush-type fixtures. Maximum flush volume when determined in accordance with ASME A112.19.2 – 0.5 L (0.125 gal).

- iv. Private Lavatory Faucets:
 - a) Manual control
 - b) Meter or on/off sensor control will be considered based on space type and use of fixture; Maximum water use — 1.0 L 0 (.25 gal) per metering cycle when tested in accordance with ASME A112.18.1/CSA B125.1.; Maximum flow rate: 0.5 gpm.
 - v. Public Lavatory Faucets:
 - a) Use metered or on/off sensor type faucets for lavatories.
 - b) If using sensors, preference is hard wired.
 - c) If using batteries, consider solar charged batteries for sensors.
 - d) Depending on the building and the lavatory use, meter or sensor type may be more appropriate.
 - e) Maximum water use — 1.0 L 0 (.25 gal) per metering cycle when tested in accordance with ASME A112.18.1/CSA B125.1.
 - f) Maximum flow rate: 0.5 gpm
 - vi. Other sinks: Manual, metered or on/off sensor type faucets depending on application.
 - vii. Water Cooler: Elkay Electric Water Coolers; Verify ADA accessibility and bottle filler capability for each location required.
 - viii. Warm Air Dryer: Excel Dryer Inc. - XLERATOReco Hand Dryer.
 - a) Standard-speed, warm-air hand dryer.
 - b) Surface mounted.
 - c) Electronic-sensor activated with timed power cut-off switch. Operation Time: 12 seconds.
 - d) Stainless steel, brushed finish.
 - e) Electrical Requirements: 110-120 V, 13 A, 425 Watts to 530 Watts.
 - ix. Water Softener: Capital Water Softener, Windsor Series or Hellenbrand High Efficiency Series.
 - x. Solar Hot Water Heating: Based on the anticipated building use and hot water loads, perform a life cycle cost analysis for the solar hot water system including first cost, utility cost savings, maintenance, replacement and utility cost escalation. If the analysis shows that the system is cost effective it shall be included in the project. Not less than 30 percent of the hot water demand must be met through the installation and use of solar hot water heaters. Both drainback and pressurized glycol systems should be considered.
 - xi. Emergency Plumbing Fixtures; Emergency eye wash and shower fixtures shall be as manufactured by Bradley. Combination units are acceptable when hazard dictates. Quantities and location to be determined during the design process with input from City Staff.
 - xii. Where plumbing fixtures are made of vitreous china only Kohler products shall be specified.
 - xiii. Provide specific models, options, and colors in plumbing schedules.
6. Plumbing Noise and Insulation: Ambient noise from plumbing equipment shall not exceed the noise criteria (NC) values described in Division 09 above.
- a. All wastewater and drain piping above slab on grade must be specified as cast iron.
 - b. All water, wastewater, and drain piping must be vibration-isolated from the structure, finishes, and other piping.
 - c. Install R-11 batt insulation in all wall spaces where such piping is located and install the piping at least 1 inch away from the gypsum wall board.
 - d. Pipe Insulation: All supply, wastewater, and drain piping shall be insulated for additional noise reduction.
 - i. Domestic water piping (both hot and cold) shall be insulated with closed cell insulation and jacketed where exposed or otherwise visible from occupied spaces.
7. Pipe Identification: All piping shall be identified as to content type (waste, vent, domestic hot, soft cold, etc.) and flow direction.
- a. The following minimum marking requirements shall be followed for all pipe types:
 - i. Minimum marking requirements is once per room with no ceiling for each pipe type preferably centered on the room.
 - ii. Where a room has exposed piping, with a ceiling, pipe identification shall be above and below the ceiling.
 - iii. Large rooms shall be marked as often as possible with distances not to exceed 50 feet apart.
 - iv. Where pipe alignments bend around large equipment and ducts pipes shall be marked on both sides.

- v. Pipes entering or leaving equipment shall be marked within 5 feet of the equipment being served by the pipe.
- 8. Valve Identification Tags and Lists: All plumbing valves shall be brass tags fastened to the valve by chain or metal clip. Zip-ties are not an acceptable means of fastening tags.
 - a. All plumbing valve tags shall carry a prefix of “P” or “PLBG” followed by consecutive numbering. Valve tags DO NOT need to have pipe type and size on the tag.
 - b. A complete plumbing valve list shall be provided in hard copy and wall mounted in plexi-glass frames in all mechanical rooms. An electronic copy of the valve list in PDF format shall also be provided to the owner. Valve lists shall provide all of the following information for each valve.
 - i. Valve Number (example: P-101 or PLBG-101)
 - ii. Valve size and type (example: 3/4 Ball)
 - iii. Type of piping (example: CW)
 - iv. Room number or name; coordinate room locations with final architectural plan sets.
 - v. Remarks; indicate if valve is above ceiling in chase space, etc.
 - c. When the project is a remodeling of existing work:
 - i. The previous list shall be updated for valves taken out of service.
 - ii. New valves shall not reuse old numbers. Coordinate with the agency maintenance supervisor for numbering. Consider using a new numbering sequence (example; all new valves installed would be numbered in the 200’s).
- 9. Trap seal primers are not acceptable. Trap primers can be considered if very accessible.

DIVISION 23 – Heating, Ventilating, and Air Conditioning (HVAC)

- A. The City may provide any/all of the specifications listed below to the A/E for inclusion in the project specifications. The A/E and the City shall refine this list as necessary based on the project needs. Editing of the specifications in this list shall be the responsibility of the City.
 - 1. 23 83 00 Radiant Floor Heating System
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E to incorporate the following standards into the A/E Division 23 specifications and design standards as follows:
 - 1. HVAC design shall be in full compliance with the latest edition of the IBC and other applicable codes. Any variance for any reason must be reviewed with the City.
 - 2. Specify HVAC Equipment that complies with the International Mechanical and Energy Conservation Codes and local building codes. Energy conservation technologies must be applied to the extent that the technologies are life-cycle cost-effective.
 - 3. Design a high level of building performance in order to achieve indoor environments that are most conducive to comfort, health, and productivity, to increase the longevity of the property, and to deliver these in an optimally energy efficient and cost effective manner.
 - 4. Select HVAC technology types as requested by City and provide alternative suggestions or new technologies when applicable.
 - a. Develop a report analyzing Initial Costs vs. Operating Costs to demonstrate energy efficiency and life cycle costing for each technology type. The City shall evaluate the benefits of incorporating components of varying energy efficiencies in the project to select final technologies to be used.
 - b. Energy Performance: Perform energy simulations to determine best system options and improve design and control strategy. Exceed current ASHRAE guidelines by 30%. Employ most efficient equipment for each technology type (if not contradicting maintainability).
 - c. Energy Simulation Methods:
 - i. Preliminary simulation: Energy Plus, Design Builder, Trane Trace, or eQuest.
 - ii. Final simulation: Same software as preliminary simulation unless approved by City.
 - d. Thermal Comfort shall be based on ASHRAE 55.
 - e. Indoor Air quality: Ventilate to meet OSHA, code and ASHRAE requirements (whichever is higher).
 - 5. Coordinate locations of HVAC equipment, ductwork, piping, etc., in each design phase, using REVIT, with other disciplines. Report all conflicts and potential corrective actions to the A/E design team.
 - a. A/E is responsible for resolving all conflicts of architectural, structural, mechanical, electrical, plumbing, fire protection, and technology.

6. Where this Division of Work has floor mounted equipment a concrete housekeeping pad shall be provided for each piece of equipment.
 - a. Concrete pad shall be a minimum of 4" in height and 4" wider than the full size of the equipment footprint including connections, etc.
 - b. Concrete pad shall be level and edges shall be rounded to allow drainage off the slab.
7. Unacceptable Design Practices: Obsolete or soon to be phased out technologies (example R22), electric heat.
8. The City of Madison, **Parks Division** has standardized the following Operability and Maintainability requirements for the HVAC system regardless of the technology type selected:
 - a. Operation; Design the HVAC system so that equipment failures and normal maintenance have minimal impact on the tenants.
 - i. Failure of one piece of equipment should not shut down large portions of the building.
 - ii. Install piping and valves so that equipment can be easily isolated for repair and so that different combinations of equipment can be used during replacement and overhaul.
 - iii. Equipment components, spare parts, and related materials should be readily available in the local area.
 - iv. Equipment components, spare parts, and related materials be repairable by craftsman and technicians available in the local area.
 - b. Simple/Understandable to Operate; The sequence of operation for the control systems must be clearly described and comprehensively documented. The HVAC system design should minimize the need for overly complex control systems.
 - c. Accessible for Maintenance; Install equipment so that it can be safely and easily maintained and inspected. Comply with requirements for mechanical room sizes and manufacturer's recommended clearances around installed equipment. Maintenance access doors should swing full open and be accessible from the maintenance side of the equipment being served.
 - d. Robust and Reliable with Extended Life Expectancy; City facilities have a longer life expectancy than most commercial office buildings. Mechanical systems are expected to have extended service lives. They will be modified many times over the life of the building and operated by many different maintenance teams and occupied by many different tenants. Selection of robust, reliable, energy efficient equipment is important. Systems that can be reliably operated at near design conditions over the long term are needed.
9. The City of Madison, **Parks Division** has standardized the following HVAC Components depending on the technology type selected. Only the manufacturer and model information provided below shall be specified for this project when applicable. Any recommended alternates shall be approved by the City prior to incorporating them into the plans and specifications.
 - a. Basis of Design (BOD); at time of contract, subject to design modifications throughout the design process.
 - i. Central Plant:
 - a) Heat and cool with single existing central plant where possible.
 - b) Multiple AHUs may be required by schedules or space constraints, but use central heating/cooling plant.
 - ii. Cooling:
 - a) Small systems DX system (variable speed compressors for modulation, variable speed condenser fan). BOD is Carrier or Daiken/McQuay. Sizing is to include a peak reduction from energy recovery.
 - b) Large systems water-cooled or air-cooled chillers. BOD is Carrier or Daiken/McQuay. Sizing is to include a peak reduction from energy recovery.
 - iii. Cooling/Ventilation:
 - a) For each air handling unit system (AHU), outside air (OA) and exhaust air (EA) is to be provided by a Dedicated Outdoor Air System (DOAS unit) with a total energy recovery wheel or HX.
 - b) Conditioned OA from DOAS unit is to be provided to the AHU.
 - c) Both the DOAS unit and AHU are to have DX or Cooling coils.
 - d) The AHU shall not have a heating coil.
 - e) All fans are to be direct drive and nominal speed of 1750 RPM.
 - f) An airside dry bulb economizer is to be included with the AHU.

- iv. Heating:
 - a) AHU shall not have a heating coil.
 - b) Heating is to be provided by perimeter radiators and/or in-floor radiant heating.
 - v. Shop / Garage Ventilation:
 - a) ERV with hydronic heat preferable
 - b) Direct-fired MAU where ERV is not practical (example: dirty environment)
 - b. Alternatives to the BOD; The BOD system may be combined with a geothermal system when the appropriate site space is available for a quality design. (example: geothermal system as central boiler/chiller, no zone heat pumps).
 - i. When space is critical evaluate VRV system.
 - ii. When sensible cooling load is high, evaluate radiant cooling.
 - c. Controls; Honeywell WEBs Building Automation System Utilize existing system and expand as needed, All equipment shall be controlled by BAS as to the maximum extent possible. Control sequences to include, at a minimum:
 - i. Static pressure reset based on damper position.
 - ii. HVAC Occupancy sensors, in addition to lighting occupancy sensors.
 - iii. Operable window sensors.
 - iv. Discharge air temperature reset based on cooling demand.
 - v. Boiler and Chiller (if applicable) supply temperature reset.
 - vi. CO2-sensors for system ventilation reset and VAV control in critical zones (i.e. conference room).
 - vii. Scheduling
 - viii. Lead/Lag switchover
 - d. Filtration:
 - i. MERV 8 for Air intake
 - ii. MERV 13 for re-circulated air of occupied spaces.
 - iii. MERV 8 for re-circulated air of unoccupied spaces.
 - e. Boilers: Condensing and modulating (down to 46,000 Btu/h), AERCO, Design for 90-140°F and dT of 30°F. Sizing is to include a peak reduction from energy recovery.
 - f. Actuators and Control Valves; Honeywell; Pressure-independent control valves in lieu of balancing valves.
 - g. Fans; Greenheck, Carnes
 - h. Pumps; B&G, Grundfos
 - i. Makeup Air Units; Modine, Greenheck
 - j. Unit Heaters; Modine; Sterling Gas-fired units
 - k. IT Equipment Cooling; cool with transient air from conditioned spaces when possible, recover excess heat when possible.
10. HVAC Mechanical Noise and Insulation: Ambient noise from HVAC equipment shall not exceed the noise criteria (NC) values described in Division 09 above.
- a. All mechanical equipment must be vibration isolated from the building frame.
 - b. Diffusers with an NC rating 5 points less than the noise criterion for the space being served must be used where occupied space occurs adjacent to, above, or below mechanical equipment, electrical equipment, machine rooms, or adjacent to HVAC or elevator shafts.
 - c. Where an equipment room occurs adjacent to noise-sensitive spaces (NC/RC 35 or lower), the maximum intrusion level of noise must be limited to 5 dB below the maximum NC/RC for the space in all octave bands.
 - d. In the walls, ceilings, and floors enclosing noise-sensitive spaces all hydronic piping, fans, motors, and other related HVAC equipment must be vibration-isolated from the structure, finishes, and other piping. Install R-11 batt insulation in all wall spaces where such piping is located and install the piping at least 1 inch away from the gypsum wall board.
 - e. Pipe Insulation: All HVAC piping shall be insulated. Closed cell insulation shall be used. Insulation shall be jacketed where exposed, exterior or otherwise visible from occupied spaces.
11. Pipe and Duct Identification: All piping and ductwork shall be identified as to content type (chiller supply, chiller return, air supply, air return, etc.) and flow direction.
- a. The following minimum marking requirements shall be followed for all pipe and duct types:

- i. Minimum marking requirements is once per room with no ceiling for each pipe type preferably centered on the room.
 - ii. Where a room has exposed piping and ductwork, with a ceiling, identification shall be above and below the ceiling.
 - iii. Large rooms shall be marked as often as possible with distances not to exceed 50 feet apart.
 - iv. Where pipe alignments bend around large equipment and ducts pipes shall be marked on both sides.
 - v. Pipes entering or leaving equipment shall be marked within 5 feet of the equipment being served by the pipe.
12. Valve Identification Tags: All HVAC valves shall be brass tags fastened to the valve by chain or metal clip. Zip-ties are not acceptable means of fastening tags.
- a. All HVAC valve tags shall carry a prefix of “H” or “HVAC” followed by consecutive numbering. Valve tags DO NOT need to have the pipe type and size on the tag.
 - b. A complete HVAC valve list shall be provided in hard copy and wall mounted in plexi-glass frames in all mechanical rooms. An electronic copy of the valve list in PDF format shall also be provided to the owner. Valve lists shall provide all of the following information for each valve.
 - i. Valve Number (example: H-101)
 - ii. Valve size and type (example: 3/4 Ball)
 - iii. Type of piping (example: CW)
 - iv. Room number or name; coordinate room locations with final architectural plan sets.
 - v. Remarks; indicate if valve is above ceiling in chase space, etc.

DIVISION 26 – Electrical

- A. The City may provide any/all of the specifications listed below to the A/E for inclusion in the project specifications. The A/E and the City shall refine this list as necessary based on the project needs. Editing of the specifications in this list shall be the responsibility of the City.
 1. 26 31 00 Photovoltaic System Performance Requirements
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E to incorporate the following standards into the A/E Division 26 specifications and design standards as follows:
 1. The Electrical design shall be in full compliance with the latest edition of the IBC and other applicable codes. Any variance for any reason must be reviewed with the City.
 2. Specify Electrical Equipment that complies with the International Electrical Code and local building codes.
 3. The following general electrical engineering standards are intended to be the minimum design guidelines/requirements for this project:
 - a. Minimum Design Services include power distribution, electrical service, circuit design for all load types, lighting design (by Lighting Designer), equipment connection schedules, integration of renewable energy equipment, electric vehicle charging equipment and utility coordination.
 - b. The service entrance location for commercial electrical power must be determined concurrently with the development of conceptual design and space planning documents.
 - i. Standards for equipment furnished by utility companies must be incorporated into the concept design.
 - ii. Locations of transformers, vaults, meters, and other utility items must be coordinated with the architectural design to avoid conflicts with critical architectural features such as main entrances and must accommodate both equipment ventilation and equipment removal.
 - iii. All major electrical equipment must be located 5 feet above the 100-year flood plain.
 4. A detailed load study, including connected loads and anticipated maximum demand loads, as well as the estimated size of the largest motor, must be included in the initial contact with the local utility company to prepare its personnel for discussions relative to the required capacity of the new electrical service.
 5. When required the A/E shall work with City Staff to determine any emergency power generation requirements. This shall include, but not be limited to, required emergency loads/circuits; generator size, location, type; etc.
 6. When required the A/E shall work with City Staff to determine the use of Photovoltaic (PV) power where site and roof features make it feasible and cost effective.

7. When required the A/E shall work with City Staff to determine the use of Electric Vehicle (EV) charging where site features make it feasible and cost effective.
8. Coordinate locations of electrical equipment, ductwork, piping, etc., in each design phase, using REVIT, with other disciplines. Report all conflicts and potential corrective actions to the A/E design team.
 - a. A/E is responsible for resolving all conflicts of architectural, structural, mechanical, electrical, plumbing, fire protection, and technology.
9. Where this Division of Work has floor mounted equipment a concrete housekeeping pad shall be provided for each piece of equipment.
 - a. Concrete pad shall be a minimum of 4" in height and 4" wider than the full size of the equipment footprint including connections, etc.
 - b. Concrete pad shall be level and edges shall be rounded to allow drainage off the slab.
10. The City of Madison, **Parks Division** has standardized the following Electrical Power and Supply Components.
 - a. Electrical Panels; Shall be as manufactured by Square D or Siemens
 - i. Transient voltage surge suppression (TVSS) at main panel.
 - ii. All panels with at least 25% spare capacity for future expansion.
 - iii. Subpanels on each floor (multiple if required).
 - iv. Separate panels for high-usage areas (example: shops).
 - v. Separate panels for electric vehicle chargers.
 - b. Electrical Devices; Shall be as manufactured by Hubble or LeGrand
 - i. Including, but not limited to switches, receptacles, and other electric devices.
 - ii. All devices to be commercial grade.
 - iii. All outlets to be minimal rating of 20A.
 - c. Photovoltaic Collectors:
 - i. Panels; Shall be as manufactured by Canadian Solar, Hanwha Q-Cells, Heliene, REC, or Trina Solar.
 - ii. Inverters; Shall be as manufactured by Solaredge, Fromius, or SMA.
 - iii. Racking shall be as manufactured by:
 - a) Unirac or Ecolibrium Solar when mounted on a support structure or ballasted roof.
 - b) Iron Ridge or Unirac when mounted on piers.
 - c) S5 Clips shall be used when mounting directly to standing seam metal roofs.
 - iv. Conduit associated with the PV System shall be metallic.
 - d. Electric Vehicle Chargers:
 - i. Basis of design is Juice Box. 240 V, 40A
 - ii. Size breakers and wire for 50A (charger will operate > 1hr)
 - iii. Charger and wiring is OFOI. Infrastructure including panel, breakers and conduit is CFCI
11. The City of Madison, **Parks Division** has standardized the following Lighting Design and Component Requirements.
 - a. The A/E and Lighting Designer shall design all lighting including, but not limited to the interaction of daylighting and electric lighting, all interior general ambient, task and accent lighting, exterior lighting, illumination of means of egress, luminaires, emergency lighting, site lighting, artwork lighting, etc.
 - b. The lighting design shall meet code-required lighting and/or IES recommended foot candle (FC) levels.
 - i. The use of fixtures that provide 20% lower W/ft² to meet code minimum design is required.
 - c. Use 277v lighting when building has 480v service.
 - d. Switching and Sensors:
 - i. Switching for improved comfort, however no switches in corridors.
 - ii. Dimming wherever possible and Bi-level only if dimming is not possible.
 - iii. No wall-mounted sensors – use ceiling mounted, line-voltage, dual technology. Sensorswtich.
 - iv. Occupancy sensor control in bathrooms, corridors, janitor and storage.
 - v. Vacancy sensor control in offices, conference rooms and break rooms.
 - vi. No occupancy sensor control where code prohibits including IT, Mech and Elec rooms.
 - vii. Daylight dimming in areas near large windows – use sensors integrated with fixture.
 - viii. Outdoor lighting control by photocell (will consider central photocell and fixture integrated), motions sensor unless facility requires timed lighting.

- e. Lighting Products:
 - i. Lighting products shall be standard available fixtures. Factory customization of “gangable” fixtures is not permitted.
 - ii. Outdoors; LED lighting as manufactured by Cree. Controlled by integrated motion and photosensor. Dark sky compliant.
 - iii. Indoors, General Illumination:
 - a) Fluorescent 4’ lamps as manufactured by Lithonia, Daybrite; T8 with parallel-wired ballast as manufactured by GE UltraStart.
 - b) LED 2x2 Finelite HRP WAV and Finelite HP-4.
 - c) LED spotlights w/Edison-base; 4100 K.
 - d) LED task lights w/ motion sensor as manufactured by Phillips; 4100 K.
 - e) LED down lights w/Edison base as manufactured by Capri for non-proprietary replacement and when not much light is needed; 4100 K.
 - iv. LED EXIT signs as manufactured by Lithonia; 4100 K.
 - v. Emergency lighting; Separate emergency lighting fixture as manufactured by Lithonia.
 - a) Battery backup ballasts and drivers are not acceptable.
 - b) Consider central inverter for new installations as manufactured by Lithonia or Myers.

DIVISION 27 – Communications

- A. The City may provide any/all of the specifications listed below to the A/E for inclusion in the project specifications. The A/E and the City shall refine this list as necessary based on the project needs. Editing of the specifications in this list shall be the responsibility of the City.
 - 1. 27 00 05 Communication Cabling
 - 2. 27 21 33 Wireless Access Points (WAP)
 - 3. 27 32 43 Radio Communication Equipment
 - 4. 27 35 00 Call Management
 - 5. 27 41 23 Audio-Visual Accessories
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E to incorporate the following standards into the A/E Division 27 specifications and design standards as follows:
 - 1. Design and coordinate with City Staff as directed all Telecommunication and Information Technology (IT) elements required for this project. This shall include, but not be limited to, the following:
 - a. Exterior service of cable, fiber and other utility connections.
 - b. Dedicated IT rooms, racks, and equipment.
 - c. All interior data conduit, cabling, data ports including floor outlets if needed.
 - d. Data cabling and connections for any equipment specified in other Divisions of Work.
 - e. All audio/visual equipment including projectors, monitors, mounting devices and related installation materials.
 - f. All items required for wireless connectivity as needed.
 - g. All items for City Channel connectivity as needed.
 - h. All items for security system connectivity as needed.
 - 2. Coordinate with other consultants as needed for complete installation this shall include, but not be limited to, the following:
 - a. The Architect/Structural Engineer for all items where support is required (hangers, backer boards, etc.) for a complete installation.
 - b. MEP Engineers for coordinating controls, electrical and mechanical connection points.
 - c. Specialized Equipment that is described in other Divisions of Work.
 - 3. Coordinate locations of all Technology equipment, cabling trays, conduit, etc., in each design phase, using REVIT, with other disciplines. Report all conflicts and potential corrective actions to the A/E design team.
 - a. A/E is responsible for resolving all conflicts of architectural, structural, mechanical, electrical, plumbing, fire protection, and technology.

DIVISION 28 – Electronic Safety and Security

- A. The City may provide any/all of the specifications listed below to the A/E for inclusion in the project specifications. The A/E and the City shall refine this list as necessary based on the project needs. Editing of the specifications in this list shall be the responsibility of the City.
 - 1. 28 13 00 Access Control System (Keyscan)
 - 2. 28 20 00 Electronic Surveillance
- B. The A/E is responsible for writing any specifications related to this Division of Work.
- C. The City is requiring the A/E to incorporate the following standards into the A/E Division 28 specifications and design standards as follows:
 - 1. The A/E shall work with the City at each phase of design (starting with pre-design) to develop a site/building specific risk assessment. The assessment shall evaluate credible threats, identify vulnerabilities, and assess consequences. This process will primarily be in collaboration with the City's Project Manager, Madison Police Department, and City IT; but will also require agency input.
 - a. Past and current solutions include both:
 - i. Architectural solutions such as "airport style" public bathrooms, open plans without hiding areas, physical barriers, proper staff locations, etc.
 - ii. Technological solutions such as access control, security cameras, glass break alerts, panic alarms, etc.
 - 2. Design and coordinate with City Staff as directed all locations for each of the following:
 - a. Access Control Systems; the City has standardized on Keyscan door security systems.
 - i. Provide installation plans, details and schedules per specification 28 13 00. Assist with edits as needed in Part 3 – Execution.
 - ii. System hardware shall be installed in dedicated IT rooms with other related equipment.
 - iii. Doors and card reader/keypad locations shall be identified on all floor plans, electrical plans, technology plans, and door schedules as required.
 - iv. Ensure required connectivity cabling does not exceed manufacturer maximums along the path of travel.
 - b. Electronic Surveillance Equipment; coordinate with City Staff (including Madison police, and IT Departments as needed) all requirements for electronic surveillance.
 - i. Provide floor plans, elevations, and other details as needed the locations for cameras and other surveillance equipment.
 - a) When necessary, architectural, electrical and other plans shall also show mounted equipment for clarity during construction.
 - ii. Provide equipment schedules as needed.
 - iii. Ensure required connectivity cabling does not exceed manufacturer maximums along the path of travel.
 - c. Electronic Security Equipment; coordinate with City Staff all requirements for additional electronic security equipment that may be needed for this project including but not limited to electronic security gates, body scanners, baggage scanners, etc.
 - i. Provide floor plans, elevations, and other details as needed the locations for cameras and other surveillance equipment.
 - a) When necessary, architectural, electrical and other plans shall also show mounted equipment for clarity during construction.
 - ii. Provide equipment schedules as needed.
 - iii. Ensure required connectivity cabling does not exceed manufacturer maximums along the path of travel.
 - 3. Coordinate locations of all Technology equipment, cabling trays, conduit, etc., in each design phase, using REVIT, with other disciplines. Report all conflicts and potential corrective actions to the A/E design team.
 - a. A/E is responsible for resolving all conflicts of architectural, structural, mechanical, electrical, plumbing, fire protection, and technology.

DIVISION 31 – Earthwork

- A. The A/E (including the Civil and Landscape Architect sub-consultants) shall use the *The City of Madison Board of Public Works Standard Specifications* (BPWSS) for most common work results required for this division of work.
 - 1. The City of Madison Board of Public Works Standard Specifications are updated annually and can be found on line at <http://www.cityofmadison.com/business/pw/specs.cfm>.
 - 2. The A/E shall use BPWSS Standard Detail Drawings that may apply to this division of work.
 - a. Details may be downloaded off the website in PDF format.
 - b. Details shall be inserted into A/E drawing sheets and shall include all City title blocks, detail numbers and other related information.
 - c. City standard details shall not be edited.
 - d. Deviations of details shall be approved by the City Project Manager and other City Engineering staff on a case by case basis.
- B. The A/E is responsible for writing any specifications, in CSI format, related to this Division of Work. References to the BPWSS within the CSI format are permissible and shall include the BPWSS Part, Article, and Section number being referenced.

DIVISION 32 – Exterior Improvements

- A. The A/E (including the Civil and Landscape Architect sub-consultants) shall use the *The City of Madison Board of Public Works Standard Specifications* (BPWSS) for most common work results required for this division of work.
 - 1. The City of Madison Board of Public Works Standard Specifications are updated annually and can be found on line at <http://www.cityofmadison.com/business/pw/specs.cfm>.
 - 2. The A/E shall use BPWSS Standard Detail Drawings that may apply to this division of work.
 - a. Details may be downloaded off the website in PDF format.
 - b. Details shall be inserted into A/E drawing sheets and shall include all City title blocks, detail numbers and other related information.
 - c. City standard details shall not be edited.
 - d. Deviations of details shall be approved by the City Project Manager and other City Engineering staff on a case by case basis.
- B. The A/E is responsible for writing any specifications, in CSI format, related to this Division of Work. References to the BPWSS within the CSI format are permissible and shall include the BPWSS Part, Article, and Section number being referenced.
- C. All proposed site design must meet baseline compliance with all applicable federal, state, and local regulation and/or guidance. This includes all elements of work performed under the scopes of the landscape architect, architect, civil engineer, and geotechnical engineer. The applicable regulations must be determined by the A/E and authority having jurisdiction.
- D. The A/E shall provide protection zone(s) on the drawings to define the area surrounding individual trees, groups of trees, shrubs, other vegetation or site features to be protected during construction. This shall include protection zone(s) for plantings outside the property boundaries. All protection zones shall conform to the BPWSS standards and details.
- E. The City is requiring the A/E to incorporate the following standards into the A/E Division 32 specifications and design standards as follows:
 - 1. Civil; the A/E shall prepare all civil plans and details required for the project with input from the City Design Staff and other City agencies as appropriate for the project.
 - 2. Pavements; the City shall specify the appropriate pavement type to be used in various portions of the project depending on the end use. This shall include asphalt paving, concrete paving, and permeable paving.
 - 3. Landscape; the A/E shall prepare all landscaping plans and details required for the project with input from the City Design Staff and other City agencies as appropriate for the project.
 - a. Prepare plans, details, and specifications for landscape design. Landscape shall consist of materials, systems, equipment, and furnishings for land forms, lawns, and plantings. Landscape design shall be based on program requirements, physical site characteristics, design objectives, and environmental determinants.

- b. Detailed plans must be provided for those plants that will be impacted and/or removed from the site. For all new construction projects this includes identifying proposed new tree/plant locations and quantities. Plans and schedules shall follow all applicable ordinances for screening and other parking lot/site related requirements prior to first review. Project shall always exceed the minimum requirements.
4. Storm Water Management; the A/E shall prepare all required storm water management plans, specifications and details. Coordinate types and designs with input from the City Design Staff and other City agencies as appropriate for the project. Coordinate required/compatible plantings for the storm water feature with the landscaping plans and planting schedule.
5. At the end of the Design Development Phase – and the beginning of the Construction Document phase – the A/E shall be prepared to submit the City of Madison Parking Lot / Site Plan review.
 - a. All items required for this submission can be found on line at <https://www.cityofmadison.com/development-services-center/other-residential/parking-lot-site-plan>
 - b. The Parking Lot / Site Plan review is conducted by multiple agencies within the City of Madison for compliance with City ordinances.
 - i. After the initial review the A/E shall be responsible for correcting any plans, details, specifications, etc. per the published staff agency comments and resubmitting for final review.
 - ii. Final review must be approved by all staff agencies prior to the completion of the CD phase.

DIVISION 33 – Utilities

- A. The A/E (including all sub-consultants) shall use the *The City of Madison Board of Public Works Standard Specifications* (BPWSS) for most common work results required for this division of work.
 1. The City of Madison Board of Public Works Standard Specifications are updated annually and can be found on line at <http://www.cityofmadison.com/business/pw/specs.cfm>.
 2. The A/E shall use BPWSS Standard Detail Drawings that may apply to this division of work.
 - a. Details may be downloaded off the website in PDF format.
 - b. Details shall be inserted into A/E drawing sheets and shall include all City title blocks, detail numbers and other related information.
 - c. City standard details shall not be edited.
 - d. Deviations of details shall be approved by the City Project Manager and other City Engineering staff on a case by case basis.
- B. The A/E is responsible for writing any specifications, in CSI format, related to this Division of Work. References to the BPWSS within the CSI format are permissible and shall include the BPWSS Part, Article, and Section number being referenced.
- C. The City is requiring the A/E to incorporate the following standards into the A/E Division 33 specifications and design standards as follows:
 1. This division of work shall apply to storm, sanitary, water and other Public Works Utilities (traffic signaling, street lighting, etc.).
 2. The A/E shall work with designated City Agencies for any City owned utility work and all private utility companies having utilities above or below the ground within the work limits of this project.
 3. Design and coordinate with City Agencies and private utility companies beginning in the Pre-design Phase for existing utilities that may be reused or rerouted and any new utilities that will be required for this project.
 4. Include utility installation, rate structure options, connection charges, area charges, and other related costs in all project cost estimates.

APPENDIX A – STANDARD WORKSTATION AND OFFICE LAYOUTS

- A. The A/E shall incorporate the following standard workstation and office layouts for this project as noted in Division 12.
1. Layout size standards are based on specific job tasks and changing sizes of layouts or equipment shall be avoided. Other workstation options will be considered, based on job tasks, on a project by project basis.
 2. Full sized cut sheets are available as needed through the City Project Manager.

5.5' x 6' Workstation Cubicle, typical, use for most intern and touchdown/hoteling applications



6' x 7' Workstation Cubicle, typical, use for most permanent employees



Supervisor Office Layout, furnishings standard, layout dependent on room size




Director Office Layout, furnishings standard, layout dependent on room size



APPENDIX B – LEED Certification Checklist

?Y is leaning yes vs. ?N is leaning no. No is typically not considered. Starting point is enough points for GOLD Level, but this can evolve as the project progresses (higher or lower).

 TYPICAL LEED CHECKLIST FOR TYPICAL CITY NEW CONSTRUCTION PROJECT LEED v4.0 for BD+C: New Construction and Major Renovations Project Checklist 03 FEBRUARY 2022										
1	0	0	0		Integrative Process				Possible Points:	1
Y	?Y	?N	N	D/C						
1				D	Credit	Integrative Process			1	
13	3	0	0		Location and Transportation				Possible Points:	16
Y	?Y	?N	N	D/C						
				D	Credit	LEED for Neighborhood Development Location			16 or	
	1			D	Credit	Sensitive Land Protection			1	
	2			D	Credit	High Priority Site			1-2	
5				D	Credit	Surrounding Density and Diverse Uses			1-5	
5				D	Credit	Access to Quality Transit			1-5	
1				D	Credit	Bicycle Facilities			1	
1				D	Credit	Reduced Parking Footprint			1	
1				D	Credit	Green Vehicles			1	
5	0	5	0		Sustainable Sites				Possible Points:	10
Y	?Y	?N	N	D/C						
Y	-	-	-	C	Prereq	Construction Activity Pollution Prevention				
1				D	Credit	Site Assessment			1	
		2		D	Credit	Site Development - Protect or Restore Habitat			1-2	
		1		D	Credit	Open Space			1	
2		1		D	Credit	Rainwater Management			2-3	
1		1		D	Credit	Heat Island Reduction			1-2	
1				D	Credit	Light Pollution Reduction			1	
4	0	6	1		Water Efficiency				Possible Points:	11
Y	?Y	?N	N	D/C						
Y	-	-	-	D	Prereq	Water Use Reduction—20% Reduction				
Y	-	-	-	D	Prereq	Water Efficient Landscaping			-	
Y	-	-	-	D	Prereq	Innovative Wastewater Technologies			-	
2				D	Credit	Outdoor Water Use Reduction			1-2	
2		4		D	Credit	Indoor Water Use Reduction (30% reduction)			1-6	
		2		D	Credit	Cooling Tower Water Use			1-2	
			1	D	Credit	Water Metering			1	

					Energy and Atmosphere		Possible Points:	33
23	4	4	2					
Y	?Y	?N	N	d/C				
Y	-	-	-	C	Prereq	Fundamental Commissioning and Verification		-
Y	-	-	-	D	Prereq	Minimum Energy Performance		-
Y	-	-	-	D	Prereq	Building Level Energy Metering		-
Y	-	-	-	D	Prereq	Fundamental Refrigerant Management		-
6				C	Credit	Enhanced Commissioning		2-6
10	4	4		D	Credit	Optimize Energy Performance		1-18
1				D	Credit	Advanced Energy Metering		1
			2	D	Credit	Demand Response		2
3				D	Credit	Renewable Energy Production		1-3
1				D	Credit	Enhanced Refrigerant Management		1
2				D	Credit	Green Power and Carbon Offsets		1-2
					Materials and Resources		Possible Points:	13
7	0	1	5					
Y	?Y	?N	N	D/C				
Y	-	-	-	D	Prereq	Storage and Collection of Recyclables		
Y	-	-	-	C	Prereq	Construction and Demolition Waste Management Reporting		
			5	D	Credit	Building Life-Cycle Impact Reduction		2-5
1		1		C	Credit	Building Product Disclosure - EPD		1-2 pts
2				C	Credit	Building Product Disclosure – Source Materials		1-2 pts
2				C	Credit	Building Product Disclosure – Material Ingredients		1-2 pts
2				C	Credit	Construction and Demo Waste Management		1-2 pts
					Indoor Environmental Quality		Possible Points:	16
10	2	4	0					
Y	?Y	?N	N	D/C				
Y	-	-	-	D	Prereq	Minimum Indoor Air Quality Performance		
Y	-	-	-	D	Prereq	Environmental Tobacco Smoke (ETS) Control		
2				D	Credit	Enhanced Indoor Air Quality Strategies		1-2
2		1		C	Credit	Low-Emitting Materials		1-3 pts
1				C	Credit	Construction IAQ Management Plan		1
1		1		C	Credit	Indoor Air Quality Assessment		1-2 pts
1				D	Credit	Thermal Comfort		1
2				D	Credit	Interior Lighting		1-2
1	2			D	Credit	Daylight		1-3
		1		D	Credit	Quality Views		1
		1		D	Credit	Acoustic Performance		1

4	0	2	0		Innovation and Design Process				Possible Points:	6
Y	?Y	?N	N	D/C						
1				D/C	Credit 1.1	Innovation in Design: X			1	
1				D/C	Credit 1.2	Innovation in Design: Y			1	
1				D/C	Credit 1.3	Innovation in Design: Z			1	
		1		D/C	Credit 1.4	Innovation in Design: XX			1	
		1		D/C	Credit 1.5	Innovation in Design: YY			1	
1				D	Credit 2	LEED Accredited Professional			1	
3	0	1	0		Regional Priority Credits				Possible Points:	4
Y	?Y	?N	N	D/C						
1				D/C	Credit 1.1	Regional Priority: ZZ			1	
1				D/C	Credit 1.2	Regional Priority: XXX			1	
1				D/C	Credit 1.3	Regional Priority: YYY			1	
		1		D/C	Credit 1.4	Regional Priority: ZZZ			1	
70	9	23	8		Total				Possible Points:	110
Y	?Y	?N	N							

END OF DOCUMENT



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**Exhibit C – FACILITY GUIDELINES for VIRUS PROTECTION
 CONTRACT #9170, PROJECT #17196-51-140
 WARNER PARK COMMUNITY & RECREATION CENTER
 EXPANSION PROJECT**

In this Exhibit C; the word “City” means City of Madison, Wisconsin.

The A/E shall use this Exhibit C as a basis for preparing all plans and specifications, in all phases of the design, as defined in Exhibit A-Scope of Work. Any deviation from the guidelines must be approved by the City Design Team before incorporating them into the plans and specifications.

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Historical Context

- A. This document was written (mid-2020) during the Coronavirus Pandemic in 2020 (referred to as COVID-19). Coronavirus is defined as a RNA (ribonucleic) virus that can cause a variety of diseases in humans and other animals.
- B. COVID-19 is/was a newly discovered Coronavirus that is believed to have originated from China in 2019 and within months caused a worldwide pandemic.
- C. General information on COVID-19
 - 1. Is an illness caused by a virus that can spread from person to person, mainly through respiratory droplets.
 - 2. Can range from no symptoms to severe illness and death.
 - 3. Some of the many symptoms included: fever, cough, tiredness, sore throat, difficulty breathing, and chest pain.
 - 4. COVID-19 may take 4-5 days to present symptoms in an individual after first exposure.
 - 5. COVID-19 required at least 10 days of self-isolation and after resolution of fever for at least 24hrs and improvement of symptoms before you were considered safe to re-enter social interaction.
 - 6. To slow the spread of the virus most businesses and restaurants were closed to the public for the first few months. Only essential businesses such as grocery stores, gas stations, etc. were deemed essential to stay open under strict guidelines. Where possible people worked from home.
 - 7. To allow social interaction after the initial spread of the virus the CDC recommended “social distancing” guidelines. This required adequate spacing between occupants which also affected the occupancy load of some buildings and offices. For COVID-19, CDC recommended maintaining 6’ of space between people and the wearing of surgical grade or cloth masks was required. Social distancing guidelines are set by the CDC based on the transmission of the virus..
- D. We have seen many pandemics and epidemics throughout history. Most recently there has been Small Pox; Polio; multiple flu epidemics including the Spanish Flu, Asian Flu, and H1N1 Swine Flu; AIDS/HIV; Ebola; and the Zika Virus.
- E. Most outbreaks of diseases start as an epidemic; local spreading within a region. A disease becomes pandemic when it spreads beyond a small region and affects a whole country, crosses borders or goes global.

General Document Information

This document has multiple intent, ranging from the highest level of incorporating specific design methods for future construction and remodeling projects of City owned facilities, down to the lowest level of maintaining those facilities on a daily or hourly basis.

Each section in this guideline will have a short introduction paragraph describing the parameters for that section. There may also be information provided or referenced from organizations that require a standard, has done some testing, or design analysis.

Immediately following the introduction will be recommendations in the form of bullet points. Adjacent to each bullet point will be 4 columns as follows:

- A. **ON GOING** identifies a bullet comment that should be implemented and made part of a standard routine, such as a maintenance strategy.
 - B. **IMPLEMENT NOW** identifies a bullet comment that could be implemented right away to reduce risk in existing facilities. This could be a maintenance strategy or it could be a design/implement strategy such as foot pulls.
 - C. **FUTURE PLANNING** identifies a bullet comment that would require extensive planning, development, and budgeting before implementation. This may include a major retrofit to an existing facility or it would be included during Design Development and Construction of future new construction and remodeling projects of city facilities.
 - D. **CRISIS SITUATION** identifies a recommended action or policy that would only be implemented in the event of an actual health crisis. Whenever possible these situations should be planned for either logistically through stockpiling masks, gloves, wipes, hand sanitizer, etc.; or through pre-planning alternate office layouts, schedules, and operation procedures.
-

Bullet comments will be checked in each column that applies. Some bullet comments may have a check mark in more than one column as it could be applied to existing facilities but should also be planned for in new facilities.

This document is structured from the outside in, as if you were a member of the general public approaching a city facility to enter and conduct business (pay taxes, apply for a building permit, register to vote, etc.), or as a staff member coming to work and going to your office/workstation.

This document does not include areas that are not typical in most city facility applications. This would include spaces that are required to already meet a higher level of cleanliness such as a cafeteria; specialized areas such as vehicle servicing areas; and mobility equipment such as buses and pool cars.

Many of the guidelines in this exhibit could be implemented during normal cold and flu season thereby reducing the spread of annual viruses.

Where applicable, references used within each of the document topics are included at the end of the topic section. Additional references/guidelines that provide more detailed information may be found in Appendix A at the end of this document. Additional appendices noted within topics provide diagrams and more detailed explanations of bullet points within topic sections.

Primary Building Entrances

This section addresses all building entrances that may be used by the general public, staff, and dedicated delivery/service (including garage) entrances for a facility.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
<u>Main Public Entrances</u>				
Queing lines with identified social distancing for peak entrance periods.				√
Where multiple entrance doors are prevalent queing lines funnel down to one controllable entrance.				√
Infrared/motion detection/hand wave devices for touchless door operation.		√	√	
Cleaning entrance, handles and glass at least once daily, more often as needed.	√	√		√
Design buildings to have dedicated entrances and exits for one way traffic flow.			√	√
<u>Staff Only Entrances</u>				
Close staff only entrances so all staff must go through health screening station (see Building Protective Measures below) to enter building.				√
<u>Dedicated Delivery & Service Entrances</u>				
Dedicated delivery entrances should be locked to prevent free access to the facility.	√			√
Schedule deliveries/services whenever possible.	√			√
Delivery drivers to wear required PPE, provide sanitization stations as needed at entrance doors, elevators, and stairwells.				√

Building Protective Measures and Illness Detection

This section contains recommendations for facility monitoring during an actual health crisis. During COVID-19 when many stores and office buildings were reopening there were “door monitors” keeping track of how many people could

be in the store at any given time, ensuring spacing in the entry area was being maintained, etc. Many places were also doing verbal health screening and monitoring of body temperature prior to being allowed into the facility.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Provide health certified wellness monitors at all public entrances, follow prescribed protocols.				√
Consider adding a dedicated space at building entrance for health screening.			√	√
Provide building monitors at all public entrances, follow prescribed protocols of building occupancy, assist health monitor.				√
Provide personal protection stations with hand sanitizer, masks, and gloves.	√	√	√	√
Consider using room scheduling apps and occupancy sensors to provide data for tracing and mitigation purposes.			√	

References and Resources:

- "A Roadmap for Returning to the Office post COVID 19" www.workdesign.com
<https://www.workdesign.com/?s=a+roadmap+for+returning+to+the+office+post+COVID+19>

Internal Circulation Spaces

This section covers general internal circulation spaces and areas used by the public and staff to get from point A to point B. This includes main public hallways, public and freight elevators, and stairways (including emergency exit stairways). This section does not include circulation within a given suite/office.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Designate certain stairwells as "up" and "down"				√
Design buildings with wider public corridors whenever possible.			√	
Provide main corridors with queueing ropes down the center. Traffic in corridor to be like driving down a divided highway. One way, stay to the right with "crossovers" for offices.				√
Reduce occupancy load of elevators to accommodate social distancing.				√
Infrared/motion detection/hand wave devices for touchless door operation. Select a sensor that is compatible with ADA requirements.		√	√	
Cleaning entrance, handles and glass at least once daily, more often as needed.	√	√		√
Where door operators are impractical consider hands-free foot pulls instead.		√	√	

Office Suites – Points of Public Service

Most city agencies have some form of service area for assisting walk up business by the public or other staff. This section applies to public service counters, queueing lines, general waiting areas and similar spaces.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Minimize seating and waiting areas. Separate these areas from the public service counter.			√	√
Remove reading materials, water dispensers, candy bowls, etc.	√	√	√	√
Provide sanitizing wipes and hand sanitizer at all public service areas. Area to be cleaned between each customer. Assist in public education by asking the customer to wipe the area down after they are finished.	√	√	√	√

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Provide sneeze/cough guard panels between customers and staff.	√	√	√	√
Provide service lane dividers if customer service area can occupy more than one customer at a time.			√	√
Install automatic door operators with hand wave or motion sensors on all main suite doors. Select a sensor that is compatible with ADA requirements.	√		√	
Set up queueing lanes within the public service area. Provide floor markings based on recommended CDC social distancing requirements within the queue.		√		√

Office Suites – Employee Areas and Circulation

This section applies to shared general employee areas including employee circulation, office equipment areas (Xerox/mail), central files, library and collaborative tables, open office workstations and private offices.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Design for adequate facilities under normal times; yet consider teleworking or remote work as part of the overall plan.	√		√	√
Reduce the occupancy load of spaces as recommended by CDC guidelines. Have a plan for alternating staff schedules, working from home/alternate locations, that limit the number of occupants in a space.				√
Enforce CDC social distancing protocols in areas where employees will be working together. Protocols may vary.				√
Increase availability of open collaboration areas that offer alternatives to closed in conference and meeting rooms, allow staff to arrange/rearrange.	√		√	
Supply wipes in all common areas. Staff should wipe down surfaces after each use including print/copy/scan machines and shared tables.	√	√	√	√
Remove lids from trash receptacles.		√		√
Create touch down spaces at other city facility locations for access to printers/scanners and the city network as alternatives to only accessing the CCB or MMB.			√	√

Office Suites – Employee Break Rooms

This section applies to designated break areas for staff use. This shall include any private break areas within a single office/department as well as larger break rooms shared by multiple departments.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Design for adequate facilities under normal times.			√	
Close break rooms as applicable during abnormal times				√
Supply wipes in all common break areas. Staff should wipe down surfaces after each use including appliances and vending machines.	√	√	√	√
Remove lids from trash receptacles.		√		√
Provide wall mounted automatic dispensers at sinks for hand/dish washing soap and hand sanitizer if space permits.	√		√	√
Reduce occupancy and enforce social distancing within the break room based on CDC protocols.				√

Staff Locker, Toilet, and Shower Rooms

Multiple agencies provide locker and shower rooms for staff to change clothing before/after shifts and for showering if desired. These areas often have a high occupancy rate at the beginning and end of each shift.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Design for adequate facilities under normal times.			√	
Consider separate single occupancy shower areas instead of a large multiple shower head areas.			√	
Provide wall mounted automatic dispensers at sinks for hand/dish washing soap and hand sanitizer if space permits.		√	√	
Reduce the occupancy load of spaces as recommended by CDC guidelines. Stagger shift start/end times if necessary to accommodate this.				√
Enforce CDC social distancing protocols in areas where employees will be working together. Protocols may vary.				√
Supply wipes for wiping down lockers, benches/seats, and other surfaces.	√	√	√	√
Conduct cleaning of these areas between shifts (department staff and/or janitorial staff)	√	√	√	√
Remove lids from trash receptacles.		√		√

Assembly Spaces

Assembly spaces include general meeting rooms of all sizes, auditoriums, classrooms, and large rooms that could be rented to the general public or used for special events.

Please see Appendix B at the end of this documents for possible seating recommendations of these types of spaces.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Design for adequate facilities under normal times.			√	
Furnish with flexible furniture (tables and chairs on casters: chair dollies) so it can be easily moved and reconfigured.	√		√	√
Reduce the occupancy load of the assembly space during virus outbreak as recommended by CDC guidelines.				√
Provide assembly space set up plans to show seating arrangements using CDC social distancing protocols. Protocols may vary.				√
Supply wipes in all assembly spaces. Staff should wipe down surfaces after each use.	√	√	√	√
Provide two sided placard that signals room has been cleaned and disinfected by custodial staff on one side and room has not been cleaned on opposite side.	√			√

References and Resources:

- "Road Map for Return; Guidance for a Return to the Office during COVID-19"/Perkins&Will <https://perkinswill.com/road-map-for-return/>

Public Restrooms and Comfort Rooms

This section is for any restroom facility, multi-use or single-use, that is required under the building code to be provided for the general public. This is not intended to include staff single or multi-use restrooms which are discussed later in this document although similar recommendations may apply.

Also applicable under this section are Comfort Rooms. A Comfort Room is typically a clean, single-use room with a lounge chair, side table, small sink, and dimmable lighting. The purpose of the room is to provide privacy for mothers

who are breast feeding/pumping or for other medically related uses (examples: refuge for migraine headaches, dispensing of insulin, etc.).

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Limit the number of people allowed in the restroom at one time.	√			√
Provide hourly janitorial service to each restroom/stall/fixture.	√			√
Install automatic door operators with hand wave or motion sensors on all restroom doors. Select a sensor that is compatible with ADA requirements.		√	√	
Take fixtures out of service as necessary to meet CDC social distancing protocols. Protocols may vary.	√			√
Modify stalls by extending as close to the ceiling and floor as possible without affecting sanitation/ventilation/lighting requirements.		√	√	
Do not allow personal hygiene beyond washing hands in public restrooms. Do not allow washing of dishes or food containers, shaving, teeth brushing, etc.	√	√		
Design future multi person restrooms to not have a main entry door. Provide privacy screening by adding walls and turns at the entrance. Provide positive air flow into the space.			√	
Replace multi person restrooms with multiple single user/unisex restrooms whenever possible.			√	
Install touchless operators of flushing, faucets and product dispensers.		√	√	

References and Resources:

- “5 Ways to Achieve A Healthier Work Space Now and After COVID 19”, www.workdesign.com, <https://www.workdesign.com/2020/04/5-ways-to-achieve-a-healthier-post-covid-19-workplace/>
- “Reopening America: Strategies for Safer Offices”, www.aia.org, https://www.aia.org/resources/6301958-reopening-america-strategies-for-safer-off/?utm_source=real-magnet&utm_medium=email&utm_campaign=aiamem20-covid-19-10-weekly-001members

Finishes

This section applies to finish materials for countertops and work surfaces, fabrics on office partitions and seating, and other similar finish materials. Select non-porous materials such as glass, hard plastic, metal or stainless steel and solid surface (like Corian) for counters and work surfaces. Select bleach-cleanable fabrics (solution-dyed fibers like nylon) that hold their color when exposed to harsh cleaners and chemicals.

Please Note:

- Anti-bacterial and Anti-microbial are not the same thing! Anti-bacterial products prevent the development of bacteria while anti-microbial products prevent the spread of bacteria, fungi, and viruses.
- Nanoseptic self-cleaning surfaces also known as self-cleaning skins utilizes a new technology of mineral nano-crystals embedded into the product surface. Light sources activate the crystals and oxidize organic contaminants to continuously clean the surface without the aid of traditional disinfectants/cleaners.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Consider using self-cleaning skins on high touch surfaces.			√	
Countertops – select solid surface materials at high traffic areas (reception counters)	√		√	
Work surfaces – select easy to clean laminate surfaces	√		√	
Office Partitions – select bleach-cleanable fabrics	√		√	
Vinyl fabrics where applicable, others to be bleach or hydrogen peroxide-cleanable	√		√	

References and Resources:

- Nanoseptic self cleaning surfaces <https://www.nanoseptic.com/>
- EPA Guidelines on cleaners <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2-covid-19>

Furnishings

This section applies to personal and shared work stations, seating (desk chairs, side chairs, lounge chairs), tables and other common items found in these spaces including trash cans, recycling bins, etc.

Please see Appendix C at the end of this document for examples of furnishing layouts under normal times and under CDC Covid-19 social distancing protocols (adjust to the appropriate protocol as needed).

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Design for adequate facilities under normal times; yet consider teleworking or remote work as part of the overall plan.	√		√	√
Reduce the occupancy load and adequate social distancing within the office as recommended by CDC guidelines (protocols may vary) and plan for alternating staff schedules or remote work that allow a limited number of occupants in the space on given days.				√
Increase availability of open collaboration areas that offer alternatives to closed in conference and meeting rooms, allow staff to arrange/rearrange.	√		√	
Consider smaller “pods” of workstations to be grouped together with more circulation space around them.	√		√	
Orient desks in outward facing pods, or pinwheels (to face in different directions).	√		√	
Consider storage like files or lockers as dividers, or provide moveable divider screens or planters to divide spaces.	√		√	
Consider “hotel desking” where desks are shared, yet individual dedicated lockers or storage for personal files are provided.	√		√	
Identify one-way corridors during virus outbreak.				√
Provide counter shields at public points of interaction.				√
Vinyl fabrics where applicable, others to be bleach or hydrogen peroxide-cleanable.	√		√	
Remove lids from trash receptacles.	√	√	√	
Provide PPE stations in all office spaces.	√	√	√	√
Provide cleaning kits for staff to clean/disinfect at beginning and end of each work day.	√	√	√	√

References and Resources:

- “Road Map for Return; Guidance for a Return to the Office during COVID-19”/Perkins&Will <https://perkinswill.com/road-map-for-return/>
- <https://facilityexecutive.com/2020/07/looking-ahead-space-planning-tips/>

Office Support Areas

The section is for “shared equipment” within an office suite that may not fall into any other previous category. This would include, but not be limited to, the following: printers, plotters, mail assembly areas, mail boxes, office supply and storage.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Plan office support areas of shared equipment to not be in or part of main circulation aisles.			√	
Enforce CDC social distancing protocols in areas where employees will be working together. Protocols may vary.				√
Select cleanable work surfaces.			√	
Provide wipes and cleaners.	√	√	√	√

References and Resources:

- “Guidance for Preparing Workplaces for COVID-19”, <https://www.osha.gov/Publications/OSHA3990.pdf>

Heating, Ventilating, and Air Conditioning (HVAC)

The HVAC systems in our buildings (new, remodeled, and existing) are a critical item for every day use as well as virus protection. These systems provide us with the air we breathe as well as the degree of comfort we feel.

Each building and even different spaces within the building are conditioned with different types of equipment with various vintages, equipment configurations, and design standards that have evolved over time.

Each existing building needs to be evaluated on a case by case basis, some recommendations may not be able to be implemented due to cost, space limitations or constructability. Generally virus protection with HVAC systems falls into several categories: filtration, air exchanges, control of minimum/maximum relative humidity and eliminating viral load.

Below are general bullets regarding the HVAC components. For more detailed information please see Appendix D at the end of this document.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Humidification of the indoor environment to a minimum of 40% relative humidity during winter months.		√	√	
Dehumidification of the indoor environment to a maximum of 55-60% relative humidity during summer months.	√		√	
Install filters with a Minimum Efficiency Reporting Value (MERV) Rating of 13 or higher (MERV 13-16) in ventilation air streams.	√		√	
Install filters with Minimum Efficiency Reporting Value (MERV) Rating of 13 or higher (MERV 13-16) in return or recirculated air streams from the indoor environment.		√	√	
Increase air exchanges within the space.	√	√	√	√
Increase the percent of ventilation air going to the spaces, thus reducing the amount of air that recirculates to the space.	√	√	√	√
Purge spaces before and after occupancy.	√	√	√	√
Control viral count with UVC Lights in the Air Handling Unit(s).			√	
Control viral count with Bi-Polar Ionization in multi-occupant spaces with recirculated air.			√	

References and Resources:

- “An Overview on the Role of Relative Humidity in Airborne Transmission of SARS-CoV-2 in Indoor Environments” <https://aaqr.org/articles/aaqr-20-06-covid-0302>
- ASHRAE: <https://www.ashrae.org/technical-resources/resources>
- ASHRAE Epidemic Task Force has developed [HVAC systems operation guidance](#) to help mitigate the airborne transmission of SARS-CoV-2
- Energy Star Webex: [Building HVAC Operations and COVID-19 top takeaways](#)
- BOMA: [Getting Back to Work: Preparing Buildings for Re-Entry Amid COVID-19](#)
- York, Atmos Air (Bi Polar Ionization): <https://atmosair.com/>
- GPS, Global Plasma Solution (Bi Polar Ionization): <https://globalplasmasolutions.com/>
- UVC lighting integrated with light fixtures (Bathroom solution?): <https://healthlighting.com/>

Plumbing

This section is intended to provide information specific to plumbing systems as a whole. More specifically the operation of supply and waste water, as well as specifying plumbing fixtures and trim. It does not include previous discussions of Toilet Rooms, Break Rooms, and other areas where plumbing fixtures are located.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Flush building water systems post pandemic, before transitioning a building from unoccupied to occupied, to eliminate concentrations of pathogens that propagate in stagnate tepid water such as legionaires.				√
Flush building water systems when leasing or purchasing unused buildings, to eliminate concentrations of pathogens that propagate in stagnate tepid water such as legionaires.			√	
Install touchless operators for toilet flushing	√	√	√	
Install touchless operators for faucets. Provide with mixing valves on a re-circulated supply to provide always available warm water for hand washing.	√	√	√	
Replace drinking fountains with water coolers and bottle filling stations		√	√	
Clean drinking fountains several times daily and replace filters per manufacturers recommendations.	√	√		√
Use stainless steel NSF fixtures and trim in all breakrooms, provide touch free faucets with mixing valves on a re-circulated supply to provide warm water for washing and cleaning.			√	

References and Resources:

- “5 Ways to Achieve a Healthier Work Space Now and After Covid-19” www.dorkdesign.com, <https://www.workdesign.com/2020/04/5-ways-to-achieve-a-healthier-post-covid-19-workplace/>
- “Navigating Your Future Workplace Post COVID-19: A Roadmap” www.workdesign.com, <https://www.workdesign.com/2020/05/navigating-your-future-workplace-post-covid-19-a-roadmap/>
- “Reopening America: Strategies for Safer Buildings” www.aia.org, http://content.aia.org/sites/default/files/2020-06/AIA_Public_Health_Briefing.pdf
- “Reopening America: Strategies for Safer Offices” www.aia.org, <http://content.aia.org/sites/default/files/2020-06/BuildingTypeReport-Office.pdf>

Crisis Planning and Logistics

This section pertains to the planning and logistics of being prepared for a future epidemic/pandemic situation. These bullet comments are based on observations made by the Engineering-Facility Management Team and our observations of other agencies during the current COVID-19 crisis.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Stockpile sufficient quantities of tissue, toilet paper, hand sanitizer, sanitizing wipes, masks, gloves and other Personal Protective Equipment in a city wide stock. Early panic caused all these items to become scarce quickly. Rotate stock as needed to keep the stockpile fresh.	√	√	√	
Consider providing all employees using computers in their daily duties with laptops and multiple screens. Many departments are still using desktop units and a single screen. We have found to have better production with multiple screens. Laptops provide better mobility.			√	
Consider having sufficient surplus of laptops, monitors, docking stations, and other equipment available so hoteling and touch down workstations can be provided in offices and other locations when most staff are working from home with their assigned equipment. Staff coming into the office due to network issues at home would then only need to remobilize with their laptop.			√	

Dedicated Housekeeping

This section pertains to the general housekeeping of all facilities. In the last decade or more most facility management policies have reduced janitorial staff significantly and then reduced the frequency of services performed on a routine basis. This section shall address new policies and procedures to ensure public and staff spaces remain at a high level of cleanliness and hygiene.

When choosing cleaning chemicals, consult information on Environmental Protection Agency (EPA)-approved disinfectant labels with claims against emerging viral pathogens. Products with EPA-approved emerging viral pathogens claims are expected to be effective against viruses like SARS-CoV-2 based on data for harder to kill viruses. Follow the manufacturer’s instructions for use of all cleaning and disinfection products (examples: concentration, application method and contact time, PPE).

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Ensure all PPE, hand sanitizer, disinfecting wipes, etc. are thoroughly stocked at all times.	√	√	√	√
Frequent cleaning of common touch points (handles, computer equipment, switches, copiers, etc)	√	√	√	√
Daily cleaning procedures	√	√	√	√
Hand sanitizer stations	√	√	√	√

References and Resources:

- [“Guidance on Preparing Workplaces for COVID 19”](#) U.S. Department of Labor, Occupational Safety and Health Administration, 2020
- [“Guidance for Cleaning and Disinfecting”](https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/Reopening_America_Guidance.pdf) Centers for Disease Control, 2020. https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/Reopening_America_Guidance.pdf
- EPA List-N disinfectants for use against coronavirus (COVID-19): <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
- EPA Proper use of disinfectants: infographic with six steps for safe use. <https://www.epa.gov/pesticide-registration/six-steps-safe-effective-disinfectant-use>

Common Sense Strategies

This section covers comon sense strategies that all individuals should follow daily regardless of the situation at hand.

Item Description	On Going	Implement Now	Future Planning	Crisis Situation
Individuals should thoroughly wash and dry hands after using the bathroom, before and during meal preparation, and after caring for others that may be sick.	√	√	√	√
Be knowledgeable about the virus of the moment. Self quarantine as appropriate per CDC guidelines.	√	√	√	√
Follow CDC and Health Department guidelines for reducing the spread of the virus and for self protection. Examples: washing hands, covering a sneeze or cough, wearing a mask, etc.	√	√	√	√
Seek medical attention as needed.	√	√	√	√

Appendix A – General References

<https://www.cdc.gov/coronavirus/2019-nCoV/index.html>
<https://www.publichealthmdc.com/>
<https://www.aia.org/pages/6280670-covid-19-resources-for-architects>
<https://www.ashrae.org/technical-resources/resources>

Appendix B – Assembly Spaces

Physical Distance Analysis - Meeting Rooms

-  Occupy
-  Unavailable
-  Room Limit
-  6 ft. guide



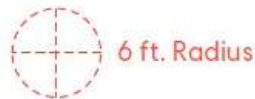
6 ft. radius circle is placed at a practical stationary work position (**chair location will vary on plans**)

Diagrams shown are reference examples. Analysis of your specific furniture may differ.

Appendix C – Furnishings

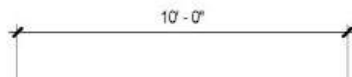
Physical Distance Analysis - Workstation Examples

-  Occupy
-  Unavailable
-  Room Limit
-  6 ft. guide



6 ft. radius circle is placed at a practical stationary work position (**chair location will vary on plans**)

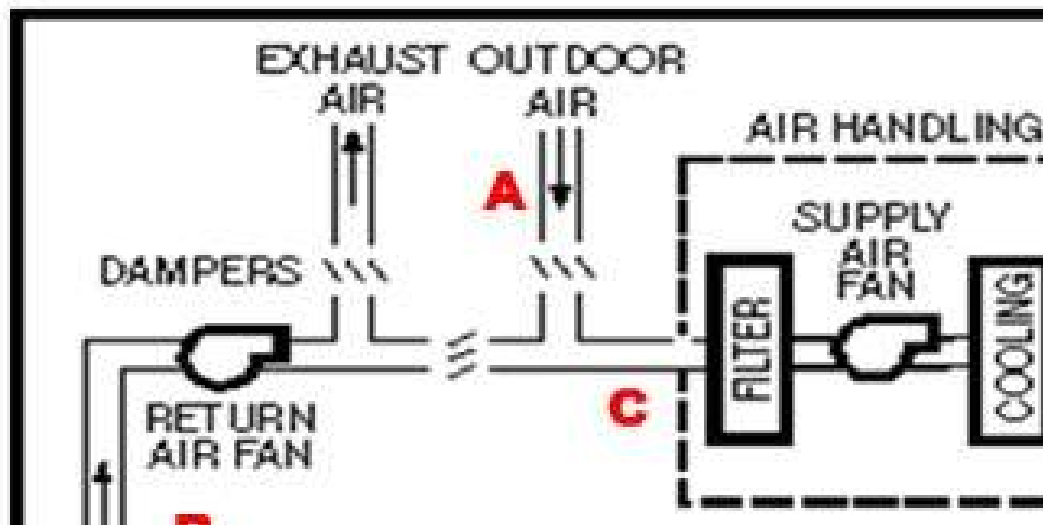
Diagrams shown are reference examples. Analysis of your specific furniture may differ.



Appendix D – HVAC Operation and Modifications

HVAC Operation Overview:

- A. Outdoor Air (OA), also called ventilation air, is brought into the building, and
- B. Mixed with return air (RA) from most of the building spaces (toilet rooms, cooking areas and garages are excluded and typically have their own dedicated exhaust air and ductwork).
- C. This mixed air (MA) is filtered and conditioned by the air handling unit (AHU);
- D. To become supply air (SA);
- E. Which is then sent to most of the spaces in the building based on what the variable air volume (VAV VALVE) devices at each zone are calling for. The VAV devices are a damper which are controlled by a thermostat in the space.
- F. The air leaves the space and then returns to the air handler to start the process over. The building automation system controls each component in this system to get the desired outcome.



Expanded Bullet Information from the HVAC Table (in main document):

1. **Humidification;** Humidification of the indoor environment to a minimum of 40% relative humidity during winter months. Without humidifiers relative humidity in most of our spaces drops to 20-30% in Winter for several months. Higher relative humidity in the winter improves the human bodies immunoresponse and also reduces the ability of aerosol droplets to become suspended in the air. Humidifiers are expensive to operate and maintain, take up space in the equipment, and can sometimes cause biological growth in buildings if not controlled properly, implement carefully.
2. **Dehumidification;** Dehumidification of the indoor environment to a maximum of 55-60% relative humidity during summer months. Any indoor space with mechanical cooling can accomplish reducing interior humidity by default. Relative humidity of > 60% allows aerosol droplets to spread more easily.
3. **Install filters - ventilation air streams;** Install filters with a Minimum Efficiency Reporting Value (MERV) Rating of 13 or higher (MERV 13-16) in ventilation air streams. A MERV-13 filter will trap >75% of virus and >90% of aerosol droplets. MERV-13 is our existing design standard for filtering ventilation air entering buildings.
4. **Install filters - return or recirculated air streams;** Install filters with Minimum Efficiency Reporting Value (MERV) Rating of 13 or higher (MERV 13-16) in return or recirculated air streams from the indoor environment. As the MERV rating is increased from 13-16, more viruses are captured (from 75-95%), but the pressure drop also increases which could cause issues with fan operation. Currently filters are not typically installed at this location, which means additional pressure drop would need to be considered prior to implementing.
5. **Increase air exchanges within the space.** Some air distribution systems are able to do this easier than others (VAV Systems are easier to increase air exchange compared to Dedicated Outdoor Air Systems that are

typically associated with VRF or Geothermal Heat Pump Systems). Our building controls allow us to turn this feature on and off. Increased air exchanges will also increase fan energy consumption.

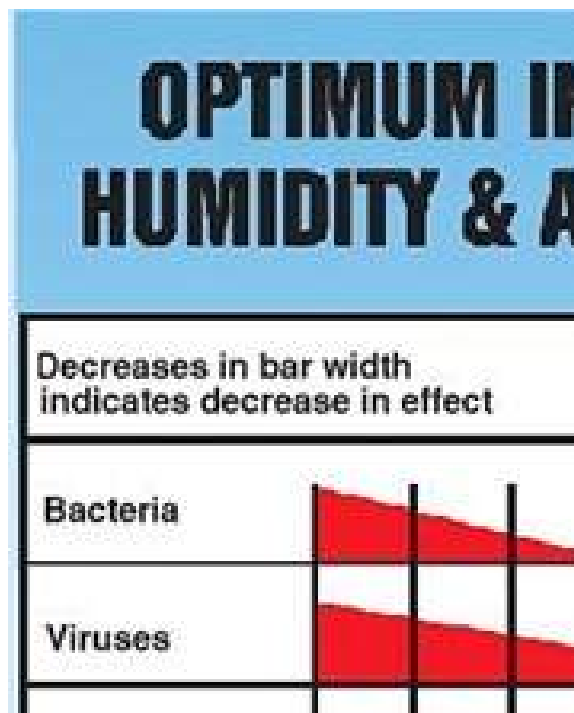
6. **Increase the percent of ventilation air going to the spaces**, thus reducing the amount of air that recirculates to the space. Our building controls allow us to turn this feature on and off. Typical systems for our buildings are ~20-30% ventilation and ~70-80% recirculation. Increased ventilation may not be possible with some existing systems depending on equipment sizing. Build this capacity into future designs. In addition it can cause comfort issues during extreme weather and loss of humidity control during summer months. It will also increase the energy consumption of cooling and heating equipment.
7. **Purge spaces before and after occupancy**. Purging means allowing the maximum amount of air to flow through the space with the maximum percentage of ventilation air. Certain times of the year, depending on the capacities of the heating and cooling equipment up to 100% ventilation air with 0% recirculation would be possible. Our building controls allow us to turn this feature on and off and schedule it. This strategy can cause comfort issues during extreme weather and loss of humidity control during summer months if not done carefully. It will also increase the energy consumption of cooling and heating and air handling equipment.
8. **Control viral count with UVC Lights in the Air Handling Unit(s)**. The amount of light and the amount of time the virus resides near its influence affect the percentage of viruses that are neutralized. Technology could be installed on the return air to the air handler. Minimal pressure drop, but space is needed. Available from several manufacturers. It is relatively expensive to install or retrofit, and requires ongoing maintenance annually (replacement of a UV lamps to maintain intensity). It is also harmful to people so procedures need to be in place for safe operation. Some increase in energy consumption and operational costs should be expected if this technology is implemented.
9. **Control viral count with Bi-Polar Ionization** in multi-occupant spaces with recirculated air. This technology basically causes the viruses or aerosol particles to drop out of the air stream. It can be installed within ductwork and is available from several manufacturers. It is relatively expensive to install or retrofit, but requires minimal ongoing maintenance (replacement of a cartridge every so often). Some increase in energy consumption and operational costs should be expected if this technology is implemented.

1 & 2 from above.

Optimum Relative Humidity Zone (>40 and <60% for viruses)

In the summer, when a space is air conditioned, it generally stays between 50-60% rh.

In the winter, spaces without humidifiers in our climate generally see relative humidity drop below 30% for several months – typically between 20-30% for most spaces.



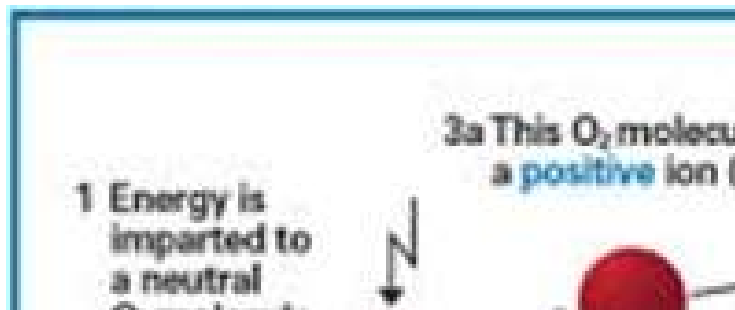
8 from above

UVC Lights installed
in an AHU



9 from above

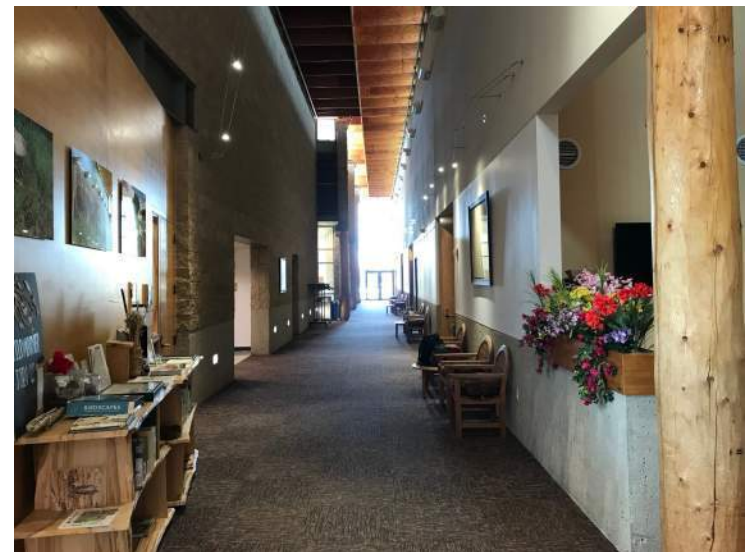
Bi Polar ionization
Technology

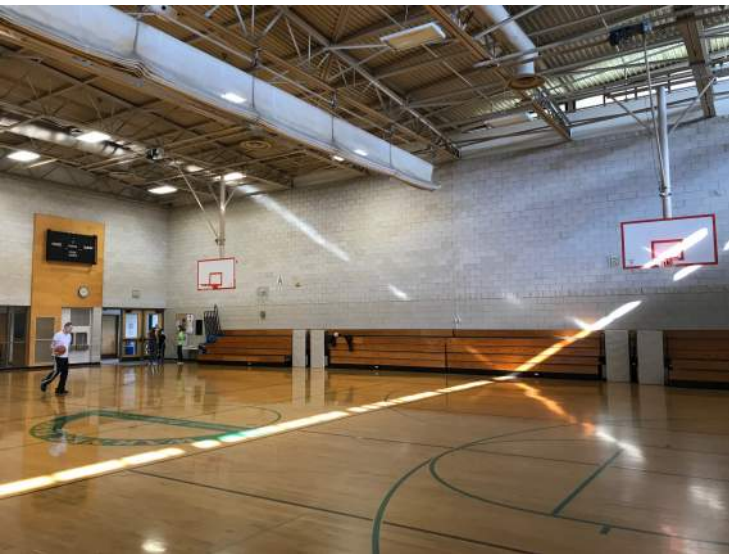
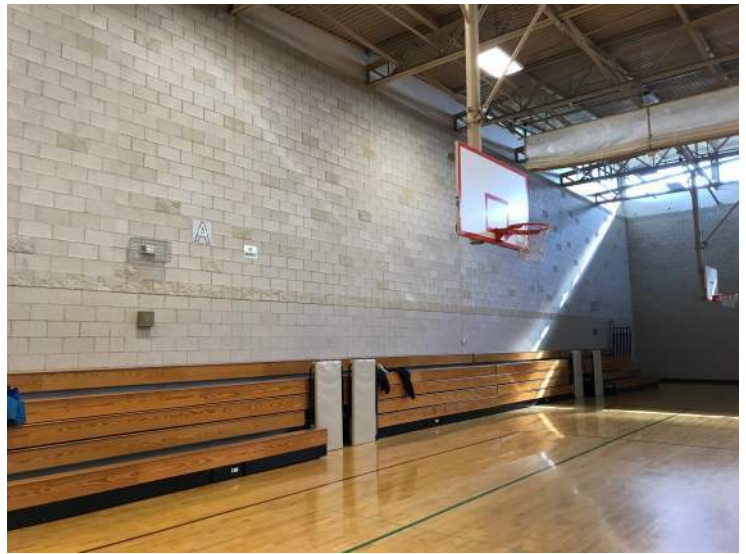


END OF DOCUMENT

Exhibit D - PHOTOS
CONTRACT #9170, PROJECT #17196-51-140
WARNER PARK COMMUNITY & RECREATION CENTER
EXPANSION PROJECT









WARNER PARK COMMUNITY & RECREATION CENTER
PHOTOS





CITY OF MADISON
WARNER PARK COMMUNITY RECREATION CENTER
Programmatic Facility Study

December, 2017

Engberg Anderson Architecture | Interior Design | Planning

305 W. Washington Ave. | Madison, WI 53703 | (608) 250-0100 | www.engberganderson.com

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ATTACHMENTS

- APPENDIX A: EXISTING BUILDING EVALUATION
- APPENDIX B: 2015 VISIONING STATEMENT
- APPENDIX C: PROGRAM
- APPENDIX D: COST MODEL
- APPENDIX E: MEETING MINUTES

I – INTRODUCTION & PROJECT TEAM

The City of Madison wishes to examine the current and future potential of the community and recreational services provided by the Warner Park Community Recreation Center (WPCRC). The City engaged the services of Engberg Anderson, Ayres Associates, raSmith, IMEG, and Comprehensive Estimating Services to provide a programmatic study of the existing facility for potential Renovation / Expansion. This initial process involved members of the City and Parks Division discussing community comments from the 2015 envisioning statement. The information from the envisioning statement was used to develop a building program which fulfilled as many of the identified needs as the budget would allow. This report is a study of the programmatic needs, possible expansion options, and associated costs.

CITY OF MADISON

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II – SUMMARY

OBJECTIVES

The City of Madison wishes to examine the current and future potential of the community and recreational services provided by the Warner Park Community Recreation Center (WPCRC). The City has engaged the services of Engberg Anderson, Ayres Associates, raSmith, IMEG, and Comprehensive Estimating Services to provide a programmatic study of the existing facility for potential Renovation / Expansion.

In the event the project moves past the programmatic study, the City will gather community input from local organizations, businesses, schools, and neighbors. The community must be given the opportunity to provide input on programs as well as the design of an expanded and renovated facility.

The programmatic study includes the existing facility spaces while envisioning new space potential based on the initial envisioning statement conducted in 2015. The community outreach process that started in 2015 is summarized and attached to the report as an exhibit. The study is intended to provide a framework for establishing a budget. A final building program and design will be a part of a larger effort involving all project stakeholders.

The goals of the programmatic study were developed by both the City of Madison and the Parks Division. The first goal is to provide appropriate spaces to support existing and proposed fitness programs. Current fitness programs are either scheduled for the gymnasium or community rooms. These programs are heavily attended and the existing spaces are not conducive to these uses. By providing a dedicated fitness and dance studio, Warner Park could provide more fitness classes while maintaining the Gymnasium/Community Rooms availability for open gym, organized team practices, weddings, large presentations and meetings.

The second goal is to create youth engagement spaces and provide options for off-school activities. The project will look to renovate the existing game room, provide an outdoor activity area, splash pad, and provide a multipurpose room dedicated for youth activities. This will free up other spaces within the facility while working to create stronger connection with the youth of the community.

The third goal is to create additional flexible spaces within the existing facility to offer more community programs. By providing smart storage areas and adaptable furniture the spaces can transform quicker and more effectively to offer the community more choices for events, programs, and activities.

The final goal is to bring a facility that is approaching its 20th year into current building standards in terms of building controls, lighting systems, and finishes. Typically, materials and equipment have a 20 to 25 year life expectancy. Although the WPCRC is well maintained, it is important to plan for equipment and finish replacement to eliminate surprise, increase overall building efficiency and building health.

These goals are the foundation for the programmatic study and are the basis for many of the team's decisions. The report below investigates different options and approaches to meet these objectives. The preferred concept was selected based on the existing building report and the team believed the overall approach best matched the project goals.

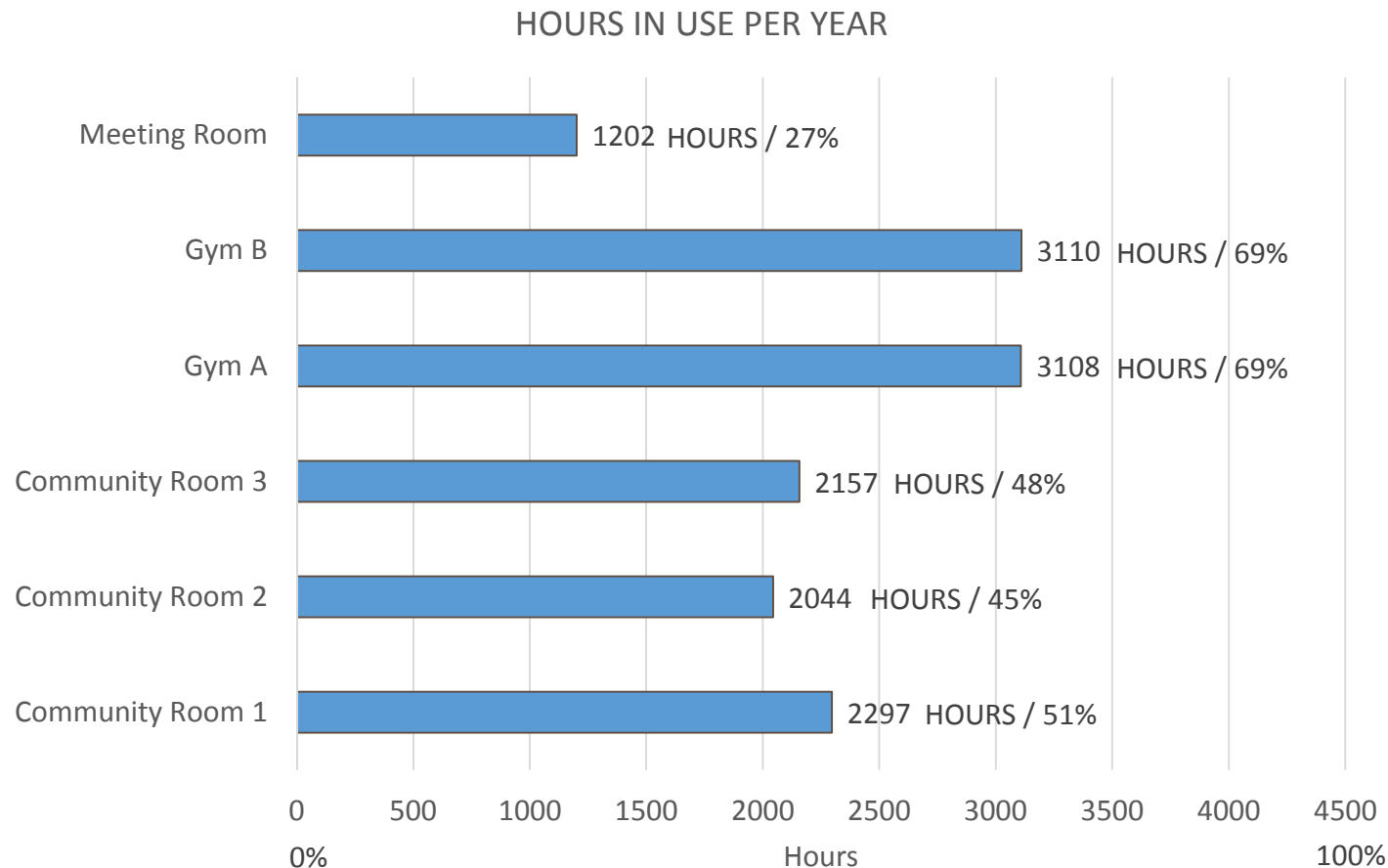
EXISTING BUILDING SUMMARY

The goal of the existing building report is to evaluate the facility for a possible future Renovation / Expansion and determine the life expectancy of the existing systems to anticipate future capital projects. The project team reviewed drawings, specifications, and completed a building walk-through to identify areas that require action. A summary of the report is listed in the table below. The summary does not include all items in the report, only the most urgent or cost significant issues.

Item	Concern	Resolution
Civil & Site		
Building Grading	There are several low points near the foundation that need regrading to direct stormwater away from the building.	Provide regrading at all low points.
Parking Lot	The parking lot shows signs of significant age and deterioration based on water infiltration.	The parking lot should plan to be resurfaced with an allowance for subgrade replacement. The parking lot should add a concrete curb and gutter or ribbon curb on the downslope side of the parking lot for more effective water conveyance.
Landscape		
Main Entry	The donor paver walkway adjacent to the drop off cul-de-sac presents a trip hazard due to uneven paver settling and wear, especially for those using walkers	This area should be salvaged and replaced with a concrete sidewalk.
Structure		
Building Grading	Standing and ponding water next to or the building could lead to foundation settlement.	Provide regrading as described in Civil report.
North Foundation Wall	Shrinkage cracks along the north foundation wall at approximately four foot intervals. (not structural at this time)	Seal cracks to prevent water infiltration.
Chiller Pit	Substantial cracking and settling of the concrete slab.	Excavation behind the chiller walls to determine the cause. (water infiltration, compaction issues) Repair walls and slab based on the findings.

Item	Concern	Resolution
South East Pier	A crack extends around the entire exposed portion of the pier. The pier appears to be non-structural based on interior columns.	The reason for the crack cannot be determined without a further invasive inspection. The most likely cause would be water infiltration behind the EIFS. Once the cause of the crack is determined, grout injection could be a possible solution.
East exterior storage room wall.	This areas has a full height, stepped crack where it is toothed into the tall gymnasium wall, at the double gymnasium fire exit doors. Unclear as to cause	Appears like a foundation settlement crack, or the taller gymnasium wall moving independent of the intersecting lower wall. Recommend repair and possible mechanical connector between the two walls.
Exterior		
Vine Growth	Significant vine growth is on the Southeast corner of the building.	Remove all plant material from building façade and within 3 feet of the building.
South East Pier	See Structural	See Structural
West CMU Wing Wall	Staining and water infiltration is present at the west exterior wing wall. This appears to be an issue with the gutter.	Re-slope the existing gutter or provide an additional downspout.
Split Face CMU	Minor areas around the exterior CMU have cracks.	Provide tuck pointing at all areas where CMU or grout has cracked. This accounts for less than 1% of all the façade. This should be included in an annual maintenance budget.
Sealants	The sealants have not been replaced since the building was constructed. Some of the sealants have failed.	Replace all the vertical and horizontal exterior sealants on the building.
Soffits	The southeast corner of the building soffit is damaged beyond repair based on the previous roof leaks.	Remove and replace the southeast soffit to match the existing building standard.
Interior		
Staff Space	Not all staff members have an office.	Provide at least one additional office for existing building staff.
Exercise Room	This room does not have adequate space for accessible or general circulation.	Remove some equipment to create required circulation paths.

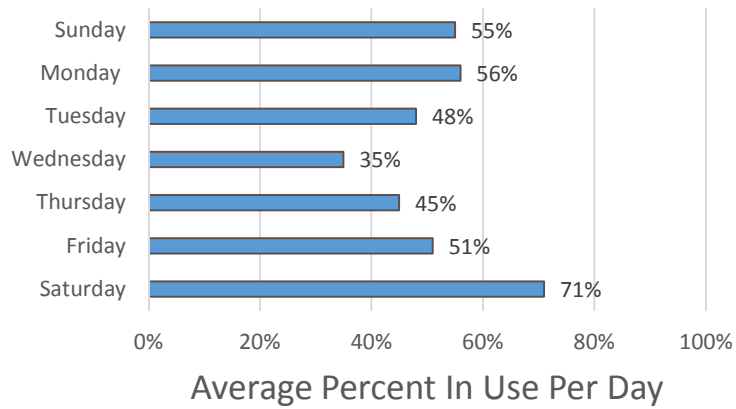
Item	Concern	Resolution
Mechanical		
Return Air Flow	Need to consider how to address the building return air for the north and south area air handling units. Building egress path should not be used as return air path per current building code.	This condition will need to be addressed in a building Renovation / Expansion.
Air Cooled Chiller	Future replacement of the air-cooled chiller should be considered as unit will reach its expected useful life in 10-15 years. As R-22 refrigerant is phased out of production, finding refrigerant for charging the unit may become difficult or expensive.	Budget for replacement in 10-15 years if the building is not renovated or expanded. The renovated or expanded building will budget the replacement of this system.
Electrical		
Lighting Control	Automatic shut-off for lighting should be added to the areas that currently do not have it.	Provide a lighting control system.
Technology		
Server Room	Current technology room does not have mechanical cooling. Newer equipment in these rooms can be more sensitive to high temperatures and left to operate in these room conditions can lead to premature equipment failure.	Provide mechanical cooling to existing and all new technology rooms.

BUILDING USE SUMMARY

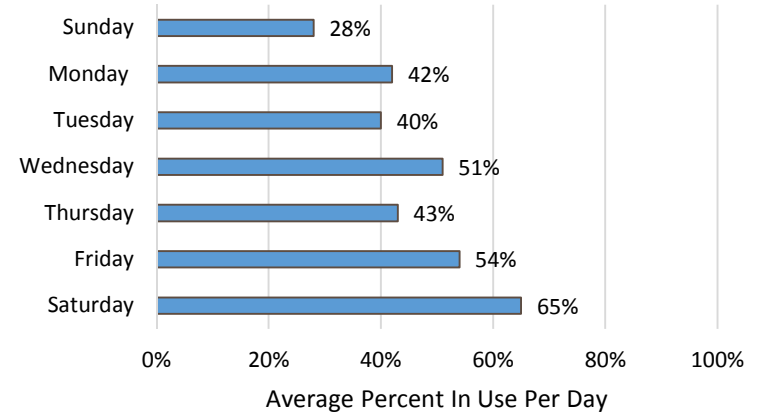
Overall the WPCRC is heavily used and programmed facility. Facility peak times (indicated by the blue bars as hours of use per year in the bar graph above) are filled with programs and community reservations. It would be unreasonable to try and attain a facility use rate of 100% considering most of the unused hours occur during non-peak (off) hours. The hours the facility is open but not in use (balance of hours in use per year up to 4500 hours) are non-peak (off) hours.

The most heavily used space within the facility is the Gymnasium which is shared by Gym related activities, fitness/dance programs, and youth programs. One of the main goals of the study is to provide increased Gymnasium access for community programs and activities. Since most of the Gym programs and activities are “unstructured” (open gym) relocating fitness, dance, and youth programs would provide more hours of Open Gym for the community.

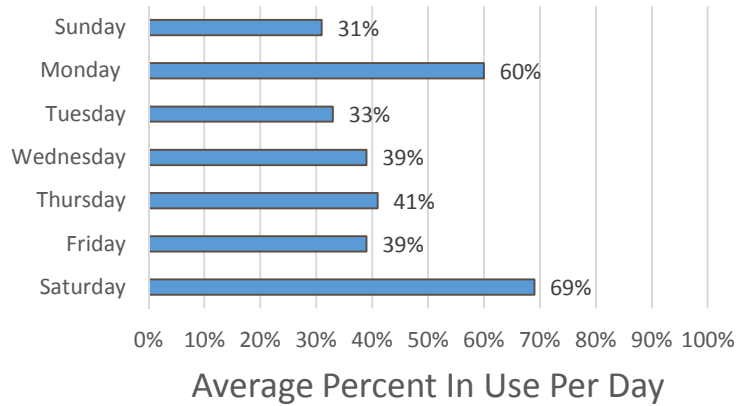
COMMUNITY ROOM ONE



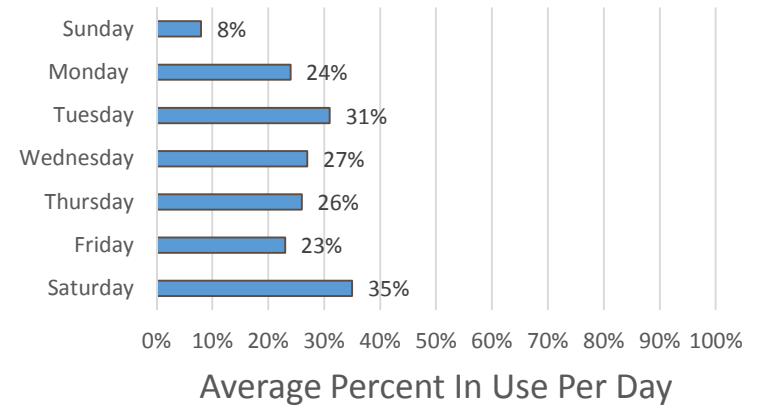
COMMUNITY ROOM THREE



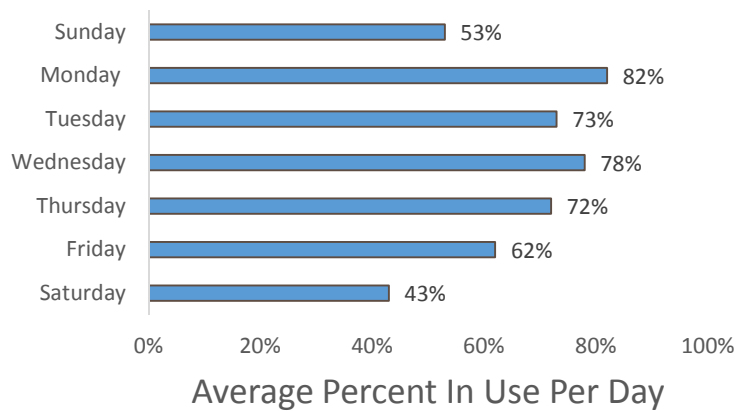
COMMUNITY ROOM TWO



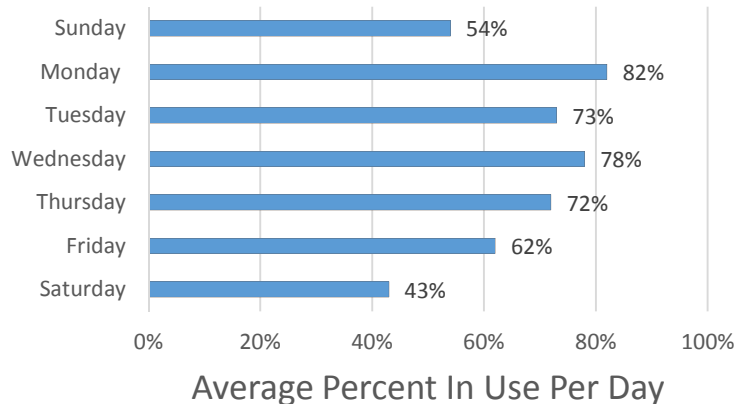
MEETING ROOM



GYMNASIUM A



GYMNASIUM B



The Community Rooms at the WPCRC can be divided up into three separate spaces, separated into one small and one medium space, or used as one large space. Each space has unique features which can be appealing to different groups. Community Room One has a hardwood floor which lends itself to more fitness type activities. Community Room Three is next to the commercial kitchen and has advantages for food based programming or NESCO lunches. These spaces are heavily used during peak hours. A Youth Program Room and/or Fitness/Dance Studio expansion will allow additional flexibility in hours and community programming.

The Meeting Room is the most underutilized space in the building as the space offers the least amount of options in terms of programming and use. The team recommends adding a resilient floor, upgraded audio visual technology, and flexible furnishings to expand the program options and community use.

The most heavily used space in the building is the Gymnasium. Although this space can be divided by a curtain, this does not typically allow multiple, separate, simultaneous programs. Acoustics and programming access are the biggest impediment to the space. Often when a program only requires one half (side) of the gym, both sides are reserved. An facility expansion by adding a Fitness/Dance Studio will allow more Open Gym opportunities (most popular activity) while providing an acoustically, spatially, and environmentally compatible space for fitness/dance programs.

PROGRAM SUMMARY

EXISTING BUILDING		Area	
Entry Spaces		2,540	sf
Recreation Spaces		11,090	sf
Community Spaces		6,180	sf
Staff Spaces		1,250	sf
Support Spaces		7,600	sf
Leased Spaces		1,400	sf
<hr/>			
Existing Space Subtotal		30,060	sf
Net to Gross Allowance	6%	1,840	sf
<hr/>			
TOTAL EXISTING AREA		31,900	sf

EXPANSION/NEW INDOOR SPACES		Area	
Recreation Spaces		2,350	sf
Community Spaces		2,050	sf
Support Spaces		3,000	sf
<hr/>			
Existing Space Subtotal		7,400	sf
Net to Gross Allowance	8%	600	sf
<hr/>			
TOTAL NEW INDOOR AREA		8,000	sf

TOTAL PROPOSED BUILDING AREA		Area	
<hr/>		39,900	sf
Alternate 1: Second Gym		8,400	sf
Alternate 2: Child Care		2,100	sf

NEW OUTDOOR SPACES		Area	
Outdoor Classroom		1,800	sf
Splash Pad		3,500	sf
<hr/>			
TOTAL NEW OUTDOOR AREA		5,300	sf

III – PROGRAM

EXISTING INDOOR PROGRAM

The existing facility is well maintained but its aesthetic is representational of the period when the facility was designed and constructed. In addition, many of the building finishes are nearing the end of their useful life. The facility renovation is intended to provide the following benefits:

- Revise some of the existing spaces to better serve the community.
- Integrate the expansion with the existing building and revitalize the nature of the existing spaces.
- Replace existing furnishings and finishes that have reached the end of life.

Some spaces within the facility no longer meet the community's needs or are inefficient due to operational changes within the facility. The two major areas under consideration include the game room and staff spaces.

Staff work space, based on staff operations, is inefficient and underutilized. Citing the need for additional collaboration and a better workflow, staff suggested a large workroom and conference space.

The Game Room is outdated. In order to be more appealing to the community's youth it needs to be re-envisioned to be a facility asset.

Spaces such as the restrooms, lobby, community rooms, and meeting spaces require flexible furnishings and new finishes.

EXISTING BUILDING		Area
Entry Spaces		2,540 sf
Recreation Spaces		11,090 sf
Community Spaces		6,180 sf
Staff Spaces		1,250 sf
Support Spaces		7,600 sf
Leased Spaces		1,400 sf
Existing Space Subtotal		30,060 sf
Net to Gross Allowance	6%	1,840 sf
TOTAL EXISTING AREA		31,900 sf



Barbara Hochberg Lobby Reception | Engberg Anderson

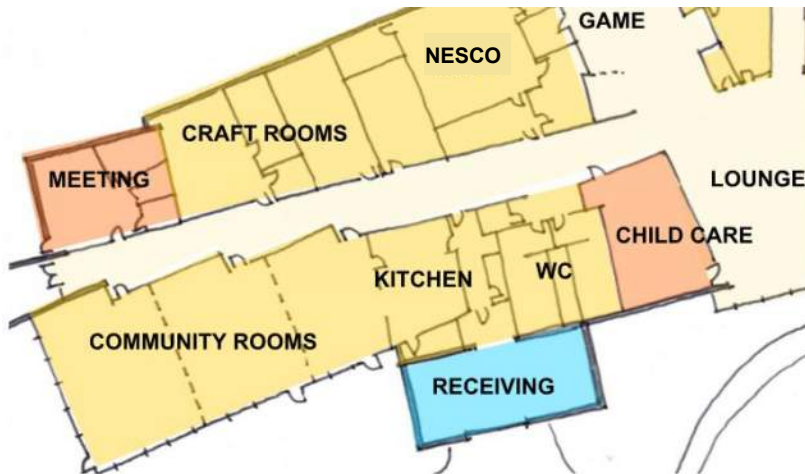
Existing Child Care Space: A child care space exists on the west end of the facility. This area is currently used for kid’s summer camp and for evening child care services while parents attend activities or programs. The space does not provide daycare services and the evening child care service is not well attended. Based on discussions with staff, community awareness of the program as well as the location within the facility are the core issues to overcome for it to be more effective.

One option to increase participation with this program is to swap the location of the meeting room and the child care area. The spaces are about the same size and could easily fit into the others area. This would locate the child care room next to the entry which would increase visibility to patrons as well as convenience. The main concern with swapping these spaces would be the overall relocation cost while gauging community interest in the program. Community outreach would be needed to gauge interest in the program prior to moving ahead with any relocation. An approximate relocation budget of \$200,000 would be needed to implement the change.

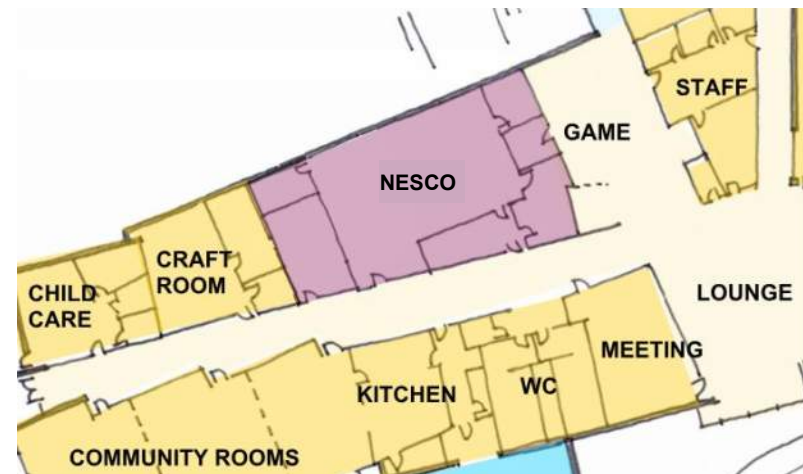
North / Eastside Senior Coalition (NESCO): At the center of the facility is the NESCO main offices. This space includes a reception area, two private offices, a workroom, and staff break area. NESCO has requested additional space in the WPCRC for expansion. The location within the facility does not easily allow expansion.

During programing discussions the team developed a possible option for NESCO expansion without further expansion of the building. NESCO could expand into the WPCRC dedicated dry craft room. This space would be converted into a community room storage space and one private NESCO office. The existing community room storage and NESCO office could then be converted into an additional NESCO workroom space.

In order to provide areas for dry crafts, the proposed youth program room and the existing meeting room would need resilient flooring and some additional locked storage. Each space would also need a small sink. An approximate budget to upgrade the meeting room, youth multipurpose room, and the NESCO office spaces would be \$250,000.



Warner Park Facility Plan | Meeting and Child Care Swap



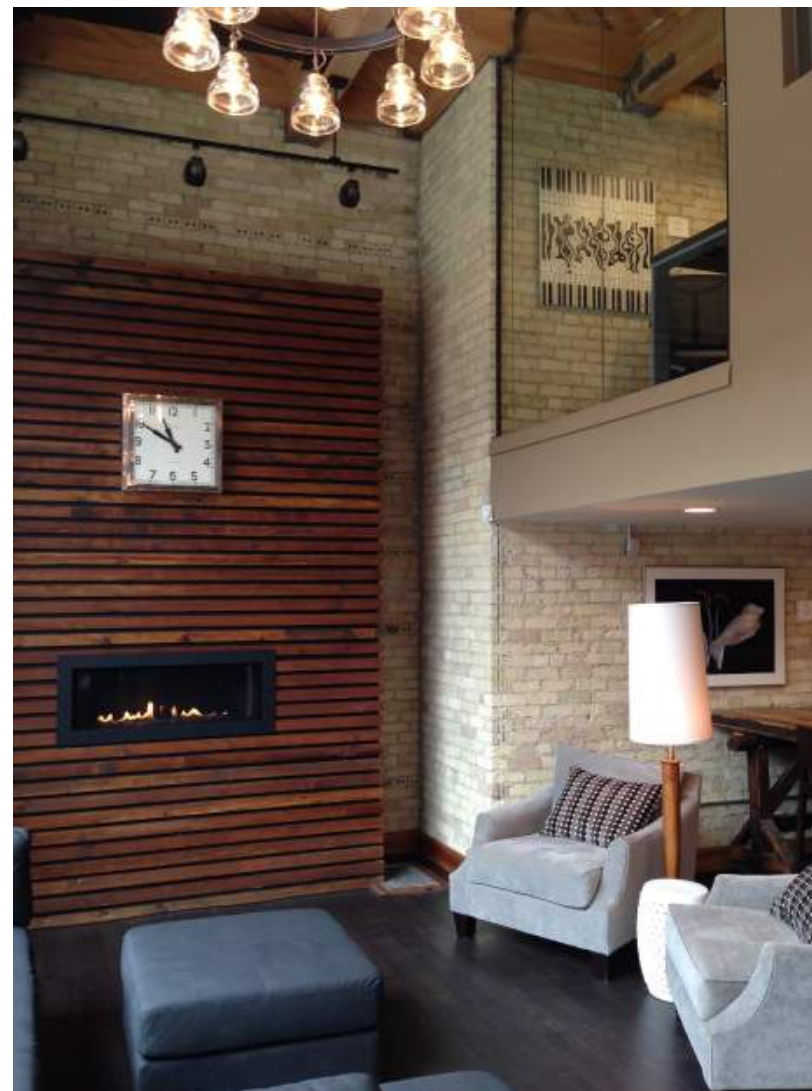
Warner Park Facility Plan | NESCO Expansion

ENTRY SPACES

Plan	Update the existing Entry and Lobby space to provide flexible furnishings for community interaction and leisure spaces.
Area	Lounge: 1,400 sf Reception: 975 sf Alcove: 100 sf
Space Includes	Flexible Seating and Tables Lounge Furnishings Carpet and Resilient Flooring Video Monitors Community Events Board Reception Desk
List of Possible Programs	Small Community Meeting Space Lounge / Leisure Space



Bader Rutter | Engberg Anderson



Hudson | Engberg Anderson

GAME ROOM

Plan	Multi-Generational Activity Room with Storage, intended for both structured and unstructured programming.
Area	Game Room: 930 sf Storage: 100 sf Vending / Concessions: 60 sf
Occupancy	70 People
Space Includes	Ping Pong Tables Flexible Seating and Tables Pool Table / Billiards Video Games Foosball Bar Counter (2) Vending machines or Self-Serve Concession Area TV / Monitor Connection to the Youth Multipurpose Room Connection to the Main Entry
List of Possible Programs	Ping Pong / Gaming Tournaments Unstructured Play Board Games Active Interaction



The North End Community Space | Engberg Anderson



Meadowridge Neighborhood Center | Engberg Anderson

STAFF SPACES

Plan	Renovate the existing staff zone to provide a collaborative workroom and support spaces
Occupancy	8-10 People
Area	Staff Workroom: 770 sf Staff Conference Room: 240 sf Staff Break Area: 120 sf Staff Storage and Copy Area: 120 sf Total Area: 1,250 sf
Space Includes	Staff Workstations for 7 MSCR Workstation Break Room with Fridge and Microwave Copy Station Conference table and seating for 6 Storage Shelves and Cabinets Counter and Millwork File Cabinets



Cohen Fund | Engberg Anderson



Bader Rutter | Engberg Anderson

SUPPORT SPACES

Plan	General Spaces throughout the facility that require renovation of finishes.
Area	Restrooms: 520 sf (Men and Women) Locker Rooms: 500 sf (Men and Women) Family Restroom: 40 sf Circulation Zones 3,000 sf
Space Includes	7 Women's Water Closets 3 Men's Water Closets 4 Urinals 10 Total Lavatories 100 lockers 4 Showers Toilet Accessories for (5) restroom areas. Flooring, Wall and Ceiling Finishes Janitor Closet Accessories



Villard Square Library | Engberg Anderson



GMIA | Engberg Anderson

PROPOSED INDOOR PROGRAM

Proposed additional, alternate spaces are not only intended to expand programming for those specific spaces, but free up time and area for the Gymnasium and Community Rooms. Each proposed space will need additional support spaces for storage, mechanical and restrooms.

One of the proposal additional spaces would be a second or Upper Gymnasium. If this space is included in the overall building expansion the additional restroom facilities would need to be coordinated. The plan diagrams show two additional restroom areas. However, these could be consolidated if the Upper Gymnasium was constructed at this same time as other areas.

The Upper Gymnasium could also be implemented as a separate project either before or after other building expansions. The plan diagrams indicate how this could be achieved. The project budget has costs associated with either option.

The Child Care area is another alternate space which could be part of the expansion if a third party company was interested in providing these services. The Parks Division is currently not considering providing “Day Care” services.

EXPANSION/NEW INDOOR SPACES		Area
Recreation Spaces		2,350 sf
Community Spaces		2,050 sf
Support Spaces		3,000 sf
Existing Space Subtotal		7,400 sf
Net to Gross Allowance	8%	600 sf
TOTAL NEW INDOOR AREA		8,000 sf



UW Rover Fall Falcon Center | IMEG



Lemont Community Room | Engberg Anderson

YOUTH ACTIVITY ROOM

Plan	Large Classroom type space, possibly divisible geared towards youth activities and programs. (K-12)
Area	Classroom Space: 1,800 sf Storage: 250 sf Associated Restroom Facilities per Occupancy
Occupancy	90 people
Space Includes	Flexible Seating and Tables Accessible Storage Connection to the Activity / Game Room Sink & Cabinetry Lighting, Shades, & AV Technology Connection to the Outdoor Classroom Divided Wall (Optional) Resilient Floor
List of Possible Programs	Youth Activities Youth Programs Kids Camp Reservable for Other Programs and Facility Needs



Children's Activity Space | Engberg Anderson

FITNESS / DANCE STUDIO

Plan	Divisible Fitness / Dance Studio rooms with storage
Area	Fitness / Dance Studio 2,100 sf Storage: 250 sf Associated Restroom Facilities per Occupancy
Occupancy	105 People
Space Includes	Accessible Storage Equipment Storage Lighting, Shades, & AV Technology Connection to the Outdoor Classroom Divided Wall Resilient Floor (wood) Ballet Bars Mirrored Walls
List of Possible Programs	Aerobics Dance Classes Cycling Yoga Zumba Small Meetings Tumbling (with mats) Gymnastics Ballet Step Senior Strength Senior Fit / Fitness Weight Class



UW Rover Fall Falcon Center | IMEG



Meadowridge Neighborhood Center | Engberg Anderson

UPPER GYMNASIUM

Plan	Second Gym located on existing grade about 8 feet higher than the existing building finish floor. Upper Gym to overlook existing Gym.
Area	Gymnasium: 6,200 sf Storage: 400 sf Mechanical: 600 sf Restrooms / Locker Rooms: 500 sf Circulation: 700 sf Total Area: 8,400 sf
Occupancy	250 People
Space Includes	1 High School Basketball Court 2 Pickle ball Courts Dividing Curtain Accessible Storage Audio System Score Board Bleachers Restrooms
List of Possible Programs	Basketball Pickle Ball Badminton Indoor Tennis Open Gym Dodgeball Youth Programs & Activities



Auburn University | IMEG

CHILD CARE

Plan	Provide an alternate space for a third party organization or company to provide child care or “Day Care” services.
Area	Classrooms: 1,250 sf Kids Restrooms: 100 sf (2 individual WC) Office and Storage Space: 400 sf Hallway and Lockers: 350 sf
Occupancy	80 people
Space Includes	Minimum of two classrooms Chalk / White Boards Tack Boards Youth / Toddler Play Equipment Sink & Cabinetry Connection to the Outside Secure Area Access to the WPCRC Flexible Youth Tables and Chairs
List of Possible Programs	Morning Child Care After Work Child Care Day Care (by other company or organization) Kids Camp Youth Programs & Activities



Youth Services Activity Space | Engberg Anderson

PROPOSED OUTDOOR PROGRAM

The two proposed outdoor program areas (splash pad and outdoor classroom) could be divided up based on how the project moves forward or when funding becomes available. One potential location for the Splash Pad is adjacent to the existing Warner Park Shelter. The Splash Pad could utilize the shelter's restrooms rather than providing additional exterior restrooms. If the Warner Park Shelter location was selected this could be separated out of the overall Renovation / Expansion project as a stand-alone project. Currently, the budget has this scope as a separate component. If the Splash Pad was incorporated into a WPCRC Renovation / Expansion the project should expect to see some cost savings based on economy of scope and project management / design fees.

The outdoor classroom could also be a stand-alone project. However, the budget and the plan diagram would need to be revisited. The intent of this study is to include the outdoor classroom as part of the WPCRC Renovation / Expansion.

NEW OUTDOOR SPACES	Area
Outdoor Classroom	1,800 sf
Splash Pad	3,500 sf
TOTAL NEW OUTDOOR AREA	5,300 sf



Milwaukee Calvin Moody Park Splash Pad | Ayres



Madison College | Ayres

OUTDOOR CLASSROOM

Plan	Flexible outdoor space where programs and activities can be scheduled. The space should be easily accessible from the Youth Multipurpose Room and Fitness/Dance Studio.
Area	The general area of a program / activity would be 1,800 sf. However, since this is an outdoor area the feel of the space could be larger.
Space Includes	<ul style="list-style-type: none"> Hardscape: brick or stone paving Possible shading devices / structures Trees and Shrubs Ground Cover & Grass Seating & Tables Lighting Possible gate and fencing
List of Possible Programs	<ul style="list-style-type: none"> Nature Activities and Programs Kids Camp Yoga Fitness / Dance Classes Youth Activities and Programs (K-12) Leisure Unstructured Play



Madison College Outdoor Classroom | Ayres



South Beloit Nature Center Outdoor Classroom | Ayres

SPLASH PAD

Plan	Provide a similar aquatic feature to other Madison Parks such as Reindahl Park and Elver Park.
Area	Splash Pad: 3,300 sf Equipment building: 200 sf
Space Includes	Use of existing Warner Park Shelter restrooms Shading devices / structures Colored concrete deck Emergency phone Ornamental fencing Seating and tables Features and water events similar to Reindahl Park and Elver park.
List of Possible Programs	Unstructured Play Youth Water Programs (K-12)



Madison Elver park Splash Pad | Ayres

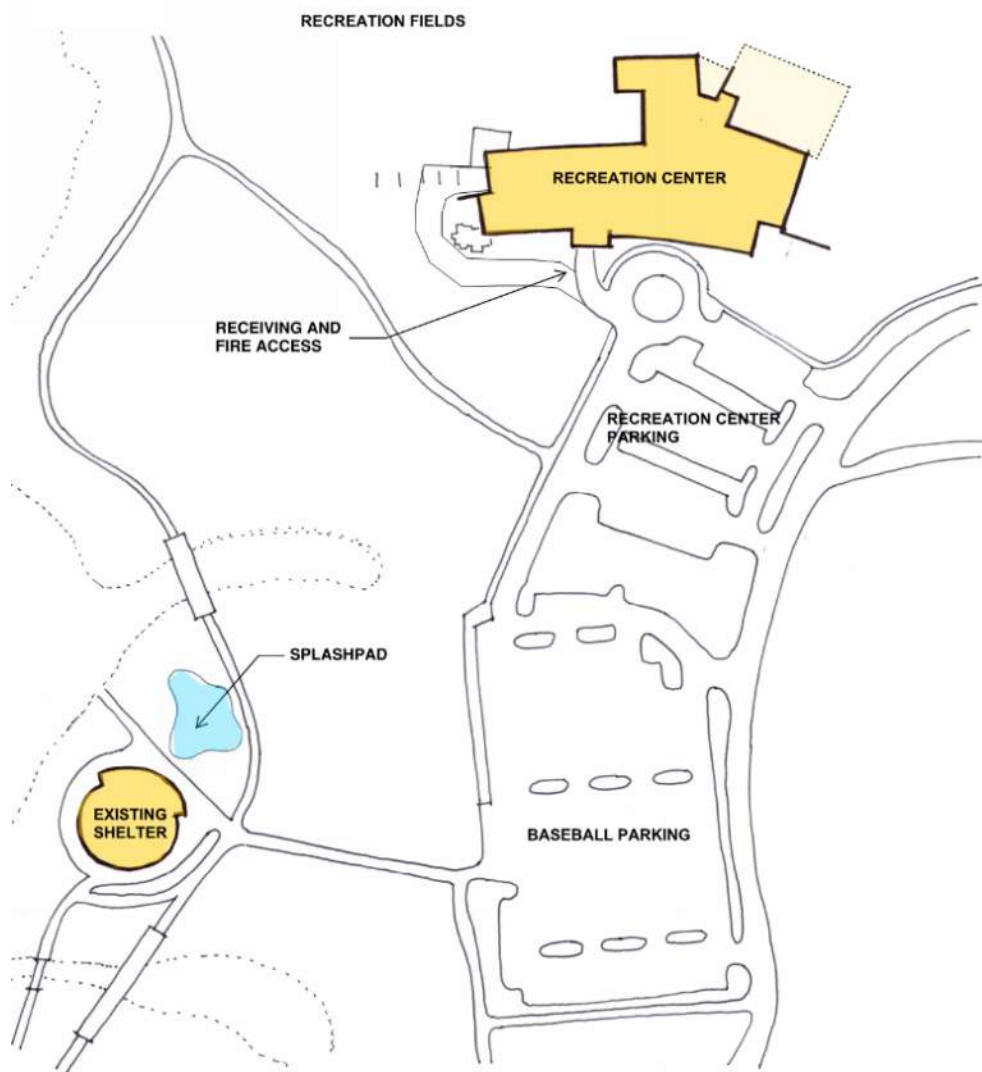


Milton Goodrich Square Splash Pad | Ayres

IV –CONCEPTUAL PLANS

SITE DIAGRAMS

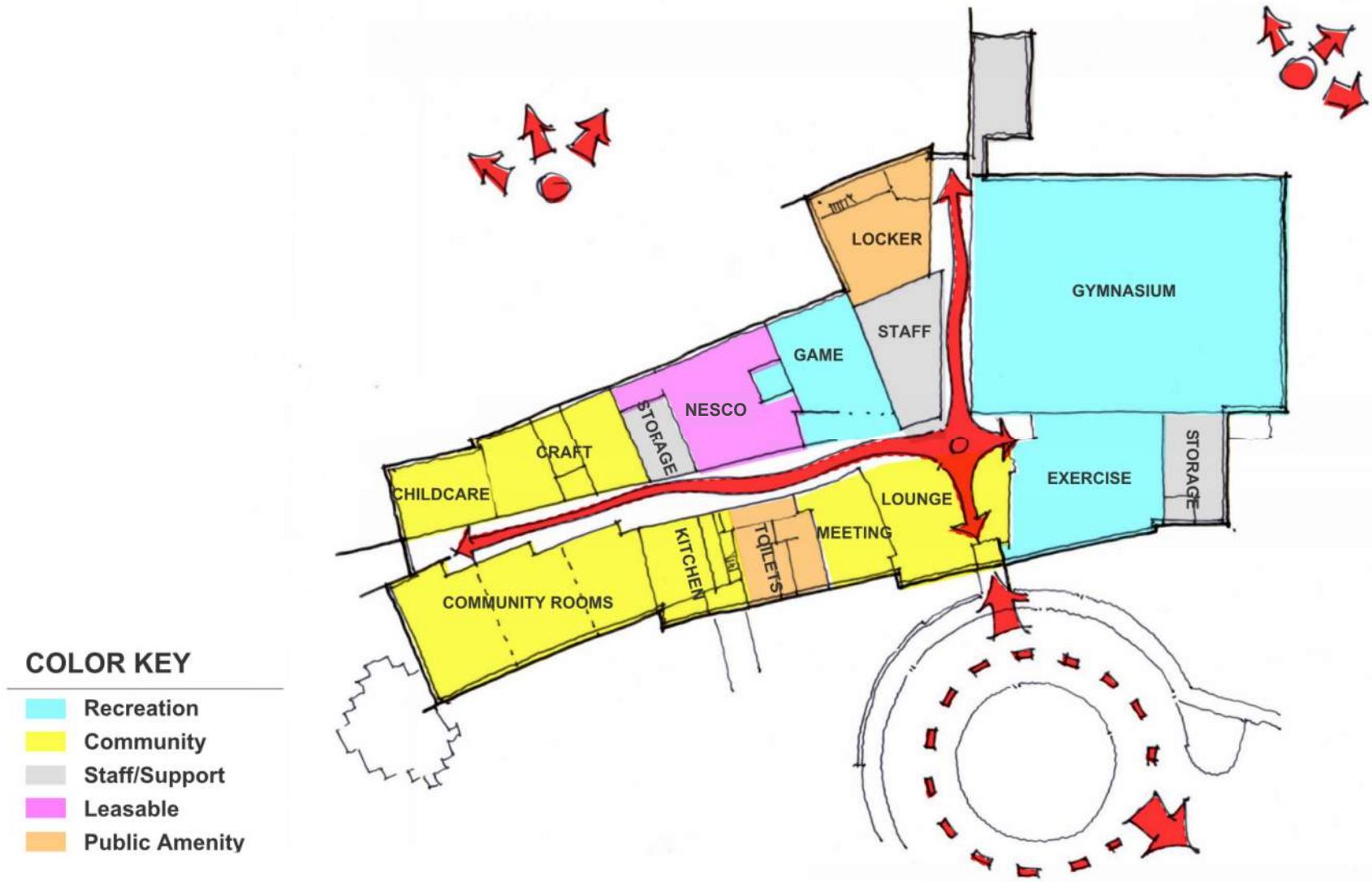
Site Diagram



Site Utility Diagram



EXISTING SPACE USE DIAGRAM

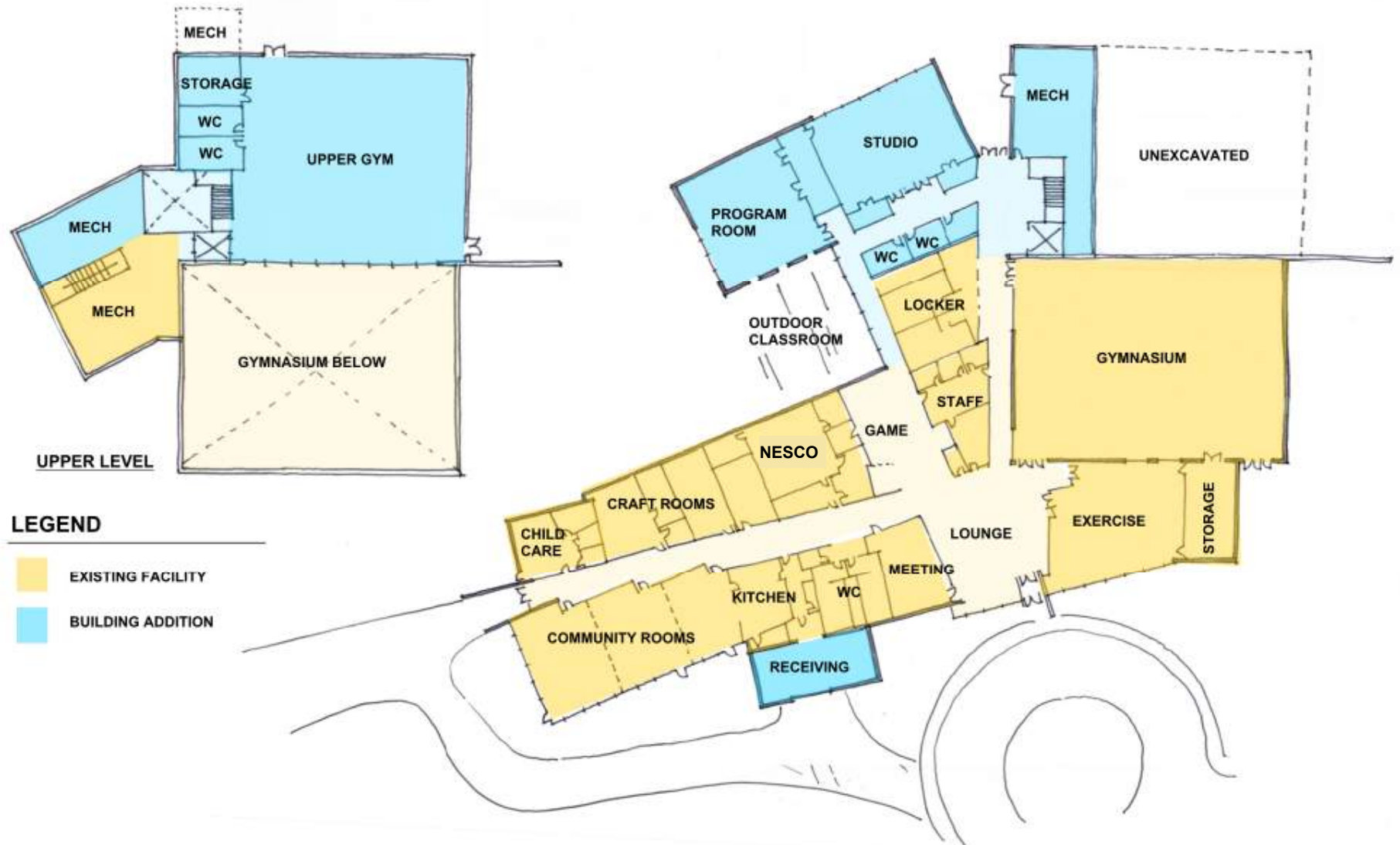


- COLOR KEY**
- Recreation
 - Community
 - Staff/Support
 - Leasable
 - Public Amenity

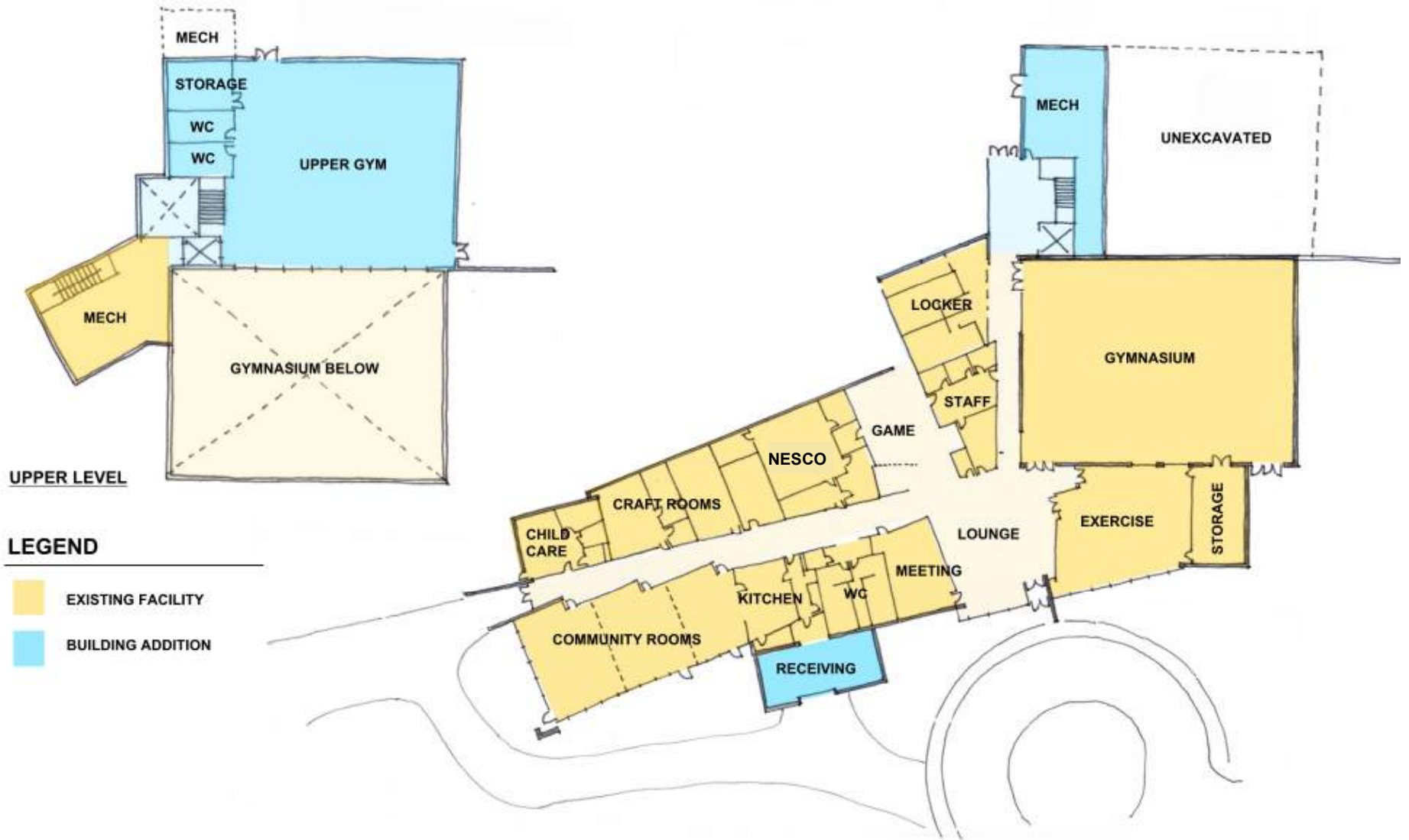
PROPOSED MAIN ADDITION



MAIN ADDITION WITH UPPER GYM



UPPER GYM ADDITION ONLY



UPPER LEVEL

LEGEND

- EXISTING FACILITY
- BUILDING ADDITION

MAIN ADDITION WITH CHILD CARE



V – BUDGET

COST MODEL

Item	Component	Option 1
1	Renovation	\$737,800
1.1	Demolition	\$37,500
1.2	Interior Construction	\$207,500
1.3	Specialties	\$61,300
1.4	Fire Sprinkler	\$29,000
1.5	Plumbing	\$70,000
1.6	HVAC	\$58,000
1.7	Electrical	\$232,000
1.8	Special Conditions	\$42,500
2	Addition	\$1,654,100
2.1	Site Work	\$82,000
2.2	Structure & Substructure	\$366,300
2.3	Exterior Enclosure	\$637,200
2.4	Interior Construction	\$202,800
2.5	Specialties	\$30,240
2.6	Fire Protection	\$27,300
2.7	Plumbing	\$40,920
2.8	HVAC	\$81,840
2.9	Electrical	\$185,500
3	Multipliers	\$1,203,000
3.1	General Conditions, OH&P (15%)	\$358,800
3.2	Design Contingency (10%)	\$239,200
3.3	Construction Contingency (8%)	\$191,400
3.4	Escalation (11% Construction 2020)	\$350,000
3.5	City of Madison Management (2%)	\$63,600
4	Fee & Owner	\$720,000
4.1	A/E Fees (8%)	\$320,000
4.2	Owner & Furniture Allowance	\$400,000
5	TOTAL	\$4,314,900

The budget for the WPCRC Renovation / Expansion was developed based on the diagrams above and the cost narrative attached to this report. The budget was created using industry available 2017 data, previous project experience, and discussions with members of the team. A detailed budget is also attached to this report. This document is intended to be the starting point in the design process. Each step in the design process should revisit the budget and reconcile scope decisions with updated budget numbers. Below is a summary of each section listed on the left.

Renovation: The items included in this scope include addressing the major concerns of the existing facility report while renovating the interior finishes. Spaces include but are not limited to restrooms, locker rooms, staff spaces, carpet and resilient floor finishes, paint, acoustical tile, electrical systems and lighting, and plumbing.

Addition: The scope includes an addition of approximately 8,000 square feet to the north of the existing facility. The addition would include, restrooms, storage, a program room, and fitness studio. The budget assumes that any addition would complement the existing architectural style of the building including massing that is taller than the existing North roof but lower than the gym roof.

Multipliers: Each item in the multipliers section assumes an industry standard allowance based on previous projects and the current construction climate. Escalation is estimated for a 2020 construction period.

Fee & Owner: These items are based on industry standard allowances for architectural and engineering design services along with an allowance for new owner provided furnishings, fixtures, and equipment.

6 Alternates		
6.1	Alternate 1 - Upper Gym	\$2,970,000
6.2	Alternate 2 - Upper Gym (No Addition)	\$3,080,000
6.3	Alternate 3 - Child Care	\$1,100,000
6.4	Parking Lot Renovation	\$500,000
7 Splash Pad \$1,093,800		
7.1	Site Demolition	\$12,000
7.2	Concrete Work	\$47,500
7.3	Equipment Building	\$95,000
7.4	Equipment Allowance	\$290,000
7.5	Plumbing	\$125,000
7.6	Electrical	\$110,000
7.7	General Conditions, OH&P (15%)	\$102,000
7.8	Design Contingency (10%)	\$68,000
7.9	Construction Contingency (8%)	\$54,400
7.10	Escalation (11% Construction 2020)	\$99,500
7.11	City of Madison Management (2%)	\$20,100
7.12	A/E Fees (7%)	\$70,300

Alternates: Each of the alternates were selected based on discussions about other possible features or spaces which would

benefit the community. Each alternate includes the construction cost as well as the multipliers and fees listed in sections 3 & 4 above. Each alternate is assumed to be part of the larger overall project unless specifically noted otherwise.

- **Alternate 1: Gym;** Includes the items shown in the diagram above. This space would be sited approximately 8-feet above the existing gym floor and therefore would require a vertical circulation system (stair, elevator, ramp..).
- **Alternate 2: Gym (No Addition);** Similar to Alternate 1. However, this alternate is independent of any Renovation / Expansion project. The intent is to create a stand-alone project to build a second gym without expanding or renovating the balance of the building.
- **Alternate 3: Child Care;** Intent is to provide a budget for the Parks Division if a third party vendor was interested in providing day care services at the WPCRC.
- **Park Lot Renovation:** During the existing facility review it was determined that the WPCRC will need to expedite the parking lot resurfacing. It was requested that this be identified separately from the Renovation / Expansion project.

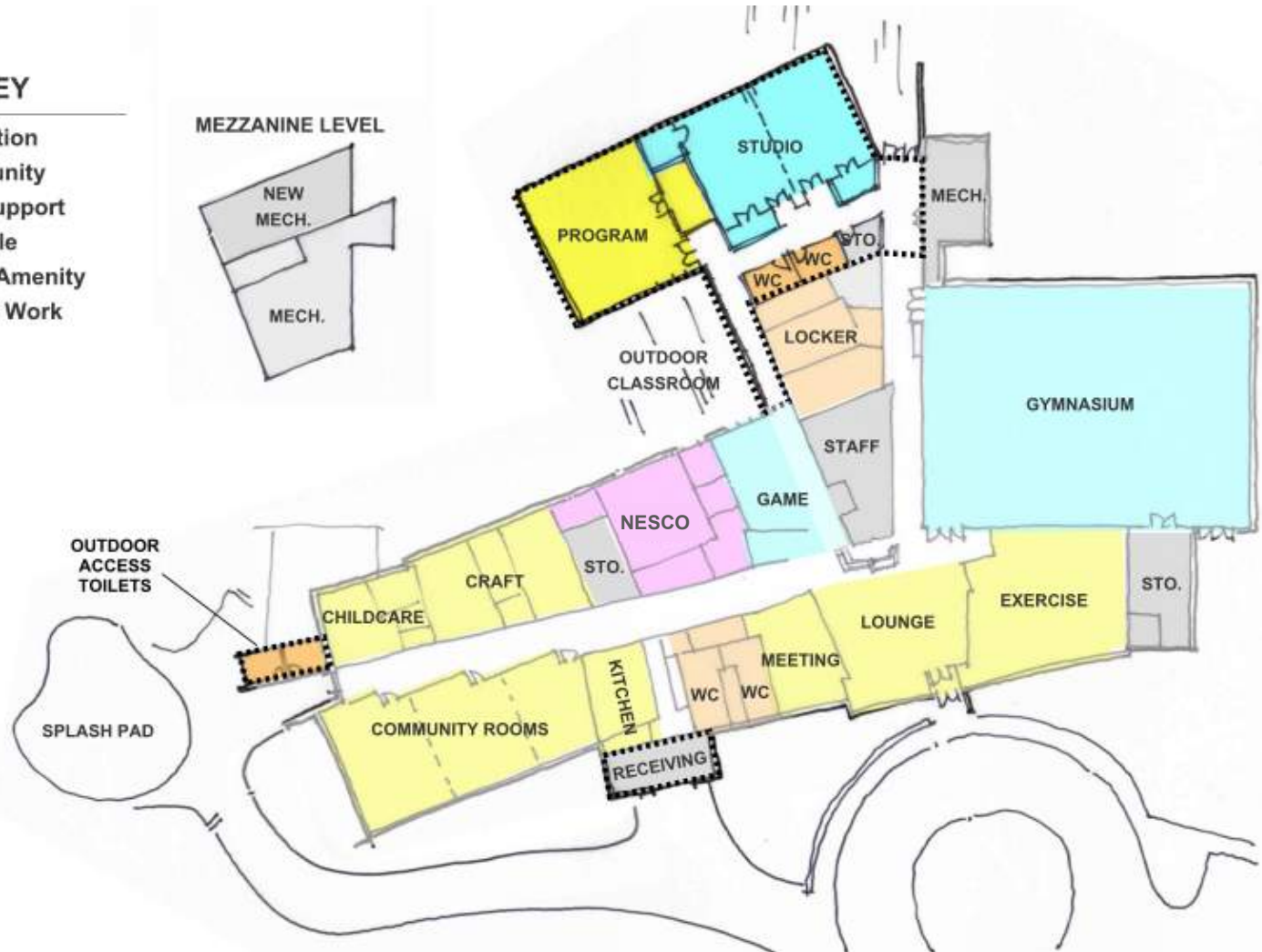
Splash Pad: The splash pad was separated from the WPCRC Renovation / Expansion as it is an ideal candidate for a separate, stand-alone project with a separate schedule. Based on the proposed location (Warner Park Shelter) this project does not require any of the proposed alterations to the WPCRC to move forward. This project could be added into the overall Renovation / Expansion project to realize some cost savings in design and construction fees.

V – PRELIMINARY DIAGRAMS

OPTION 1

COLOR KEY

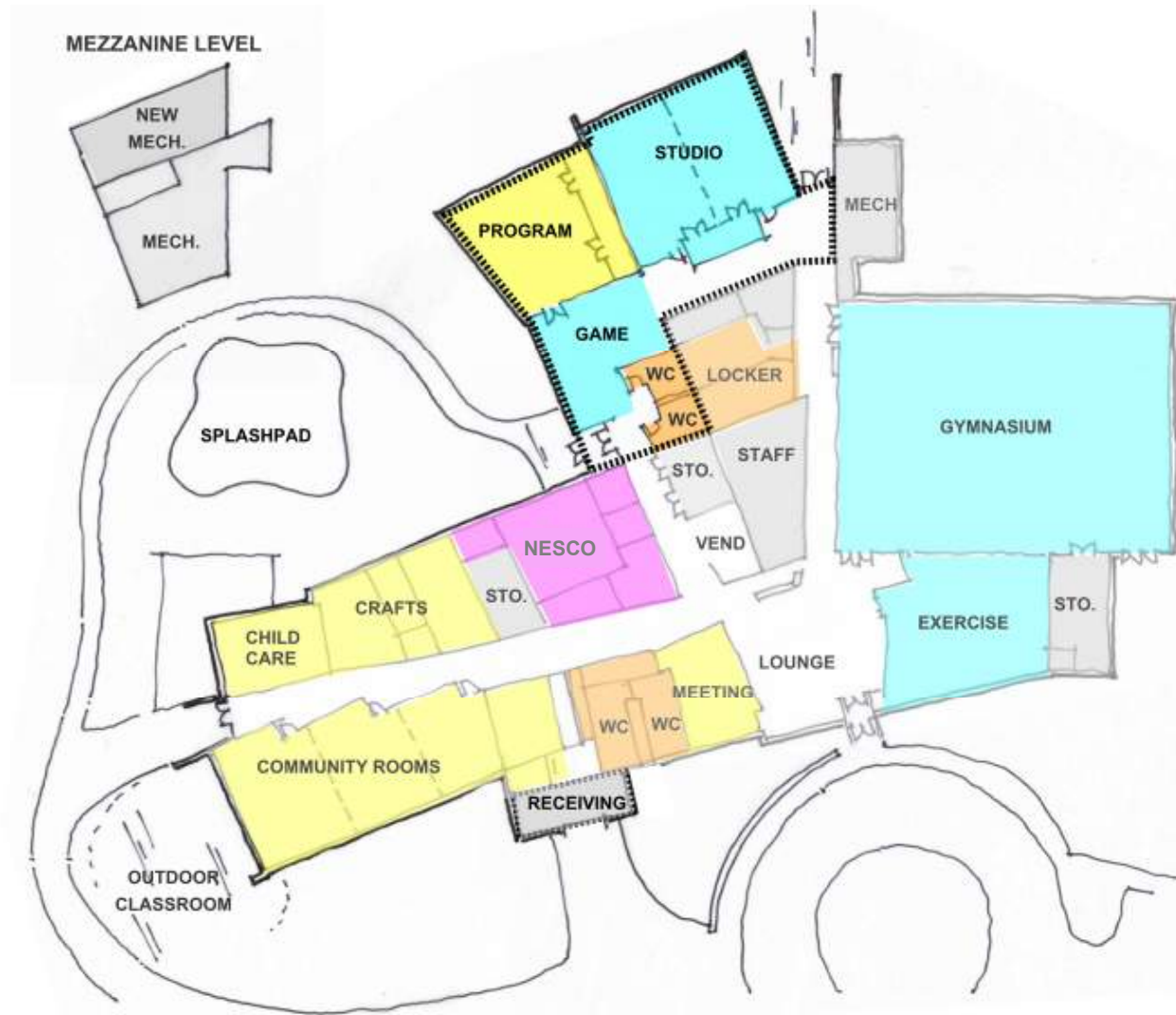
- Recreation
- Community
- Staff/Support
- Leasable
- Public Amenity
- Area of Work



OPTION 2

COLOR KEY

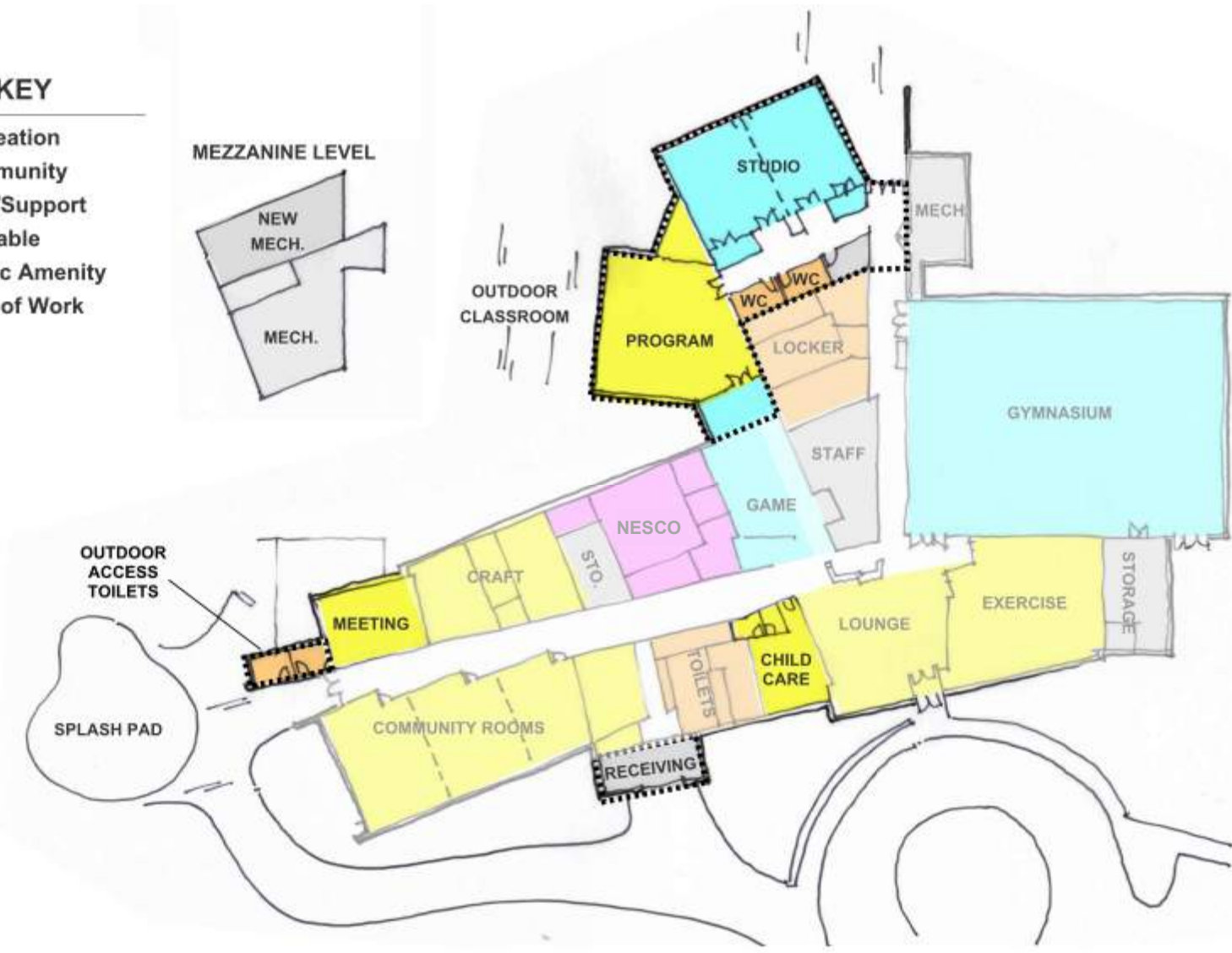
- Recreation
- Community
- Staff/Support
- Leasable
- Public Amenity
- Area of Work



OPTION 3

COLOR KEY

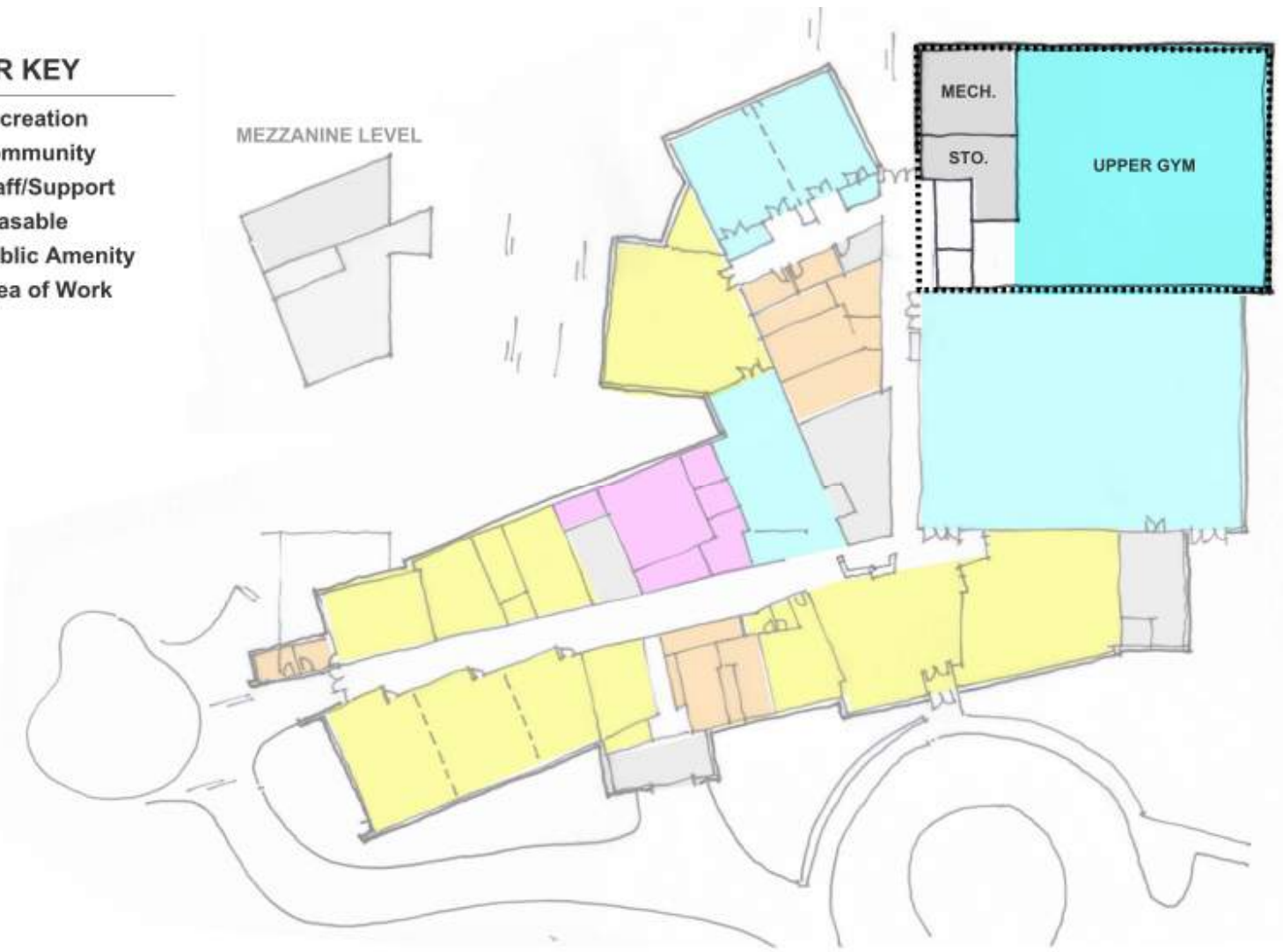
- Recreation
- Community
- Staff/Support
- Leasable
- Public Amenity
- Area of Work



OPTION 3 WITH GYMNASIUM ALTERNATE

COLOR KEY

- Recreation
- Community
- Staff/Support
- Leasable
- Public Amenity
- Area of Work





September, 2017

FACILITY ASSESSMENT

City of Madison, Parks Division | Warner Park Community Recreation Center
Engberg Anderson Project No. 172744



Draft v1

Engberg Anderson Architecture | Interior Design | Planning

305 W. Washington Ave. | Madison, WI 53703 | (608) 250-0100 | www.engberganderson.com

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PART 1 - BUILDING INFORMATION & PROJECT TEAM

LOCATION

Warner Park Community Recreation Center
1625 Northport Dr.
Madison, WI 53704

AREA

First Floor	29,000	sf
North Mechanical Mezzanine	1,700	sf
South Mechanical Mezzanine	1,300	sf
Total Building Area	32,200	sf

The facility and grounds are owned and Operated by the City of Madison, Wisconsin, Parks Division.

FACILITY ASSESSMENT TEAM

ENGBERG ANDERSON

Jim Brown, Architect
Shaun Kelly, Architect

AYRES ASSOCIATES

Jacob Blue, Landscape Architect
Bruce Marrow, Landscape Architect

RA SMITH

Wayne Vandenberg, Structural Engineer

IMEG

Kris Cotharn, Mechanical Engineer
Scott Hole, Electrical Engineer
Aaron Smak, Technology Designer

HISTORY

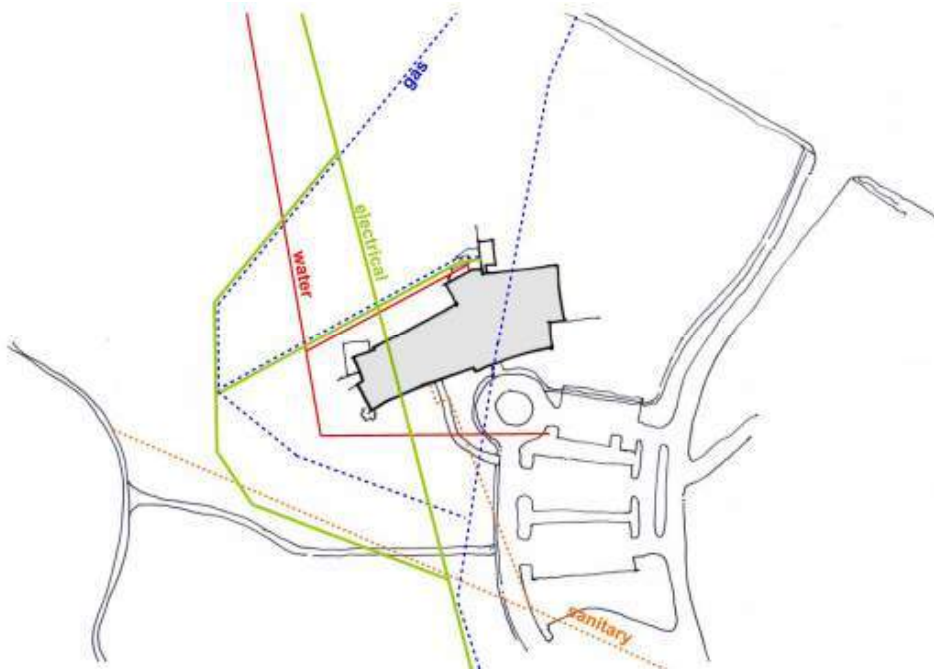
Existing building was constructed in 1998 as a one story slab on grade building with two mechanical mezzanines. The building is constructed at the North end of Warner Park adjacent to the Madison Mallards Ballpark and accessed from Northport Drive.

The site contains a shelter building, two soccer fields, tennis courts, a small pond, and walking path. To the south of the building is a parking lot and drive up drop-off area at the main building entrance. This is also the area where service vehicles access the building. Numerous underground utilities cross the site which will make expansion difficult.

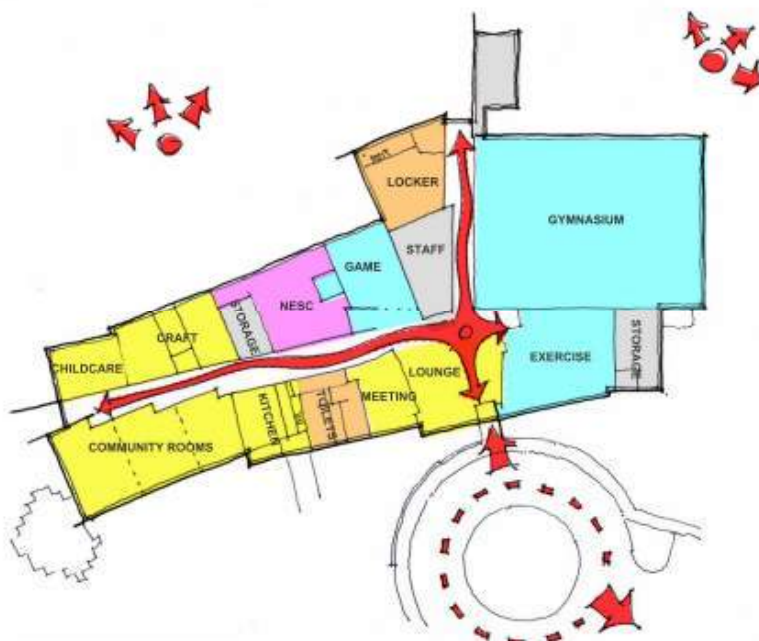
The building provides community rooms, craft spaces, child care, a gymnasium, game space and a fitness center. The facility also leases office space to the North/Eastside Senior Coalition (NESC). The programs associated with the NESC partnership account for a significant amount of room reservations. The facility also has a full commercial kitchen for events, locker rooms to support the recreation activities, and staff spaces for the Parks Department.

Recent facility improvements include a roof replacement for the majority of roof areas, a boiler replacement, and installation of photovoltaic panels. While the original 1998 finishes remain the facility is well maintained. This reports purpose is to review the existing systems, finishes, while evaluating the possibility of building expansion.

BUILDING SITE DIAGRAM



BUILDING DIAGRAM



PART 2 - BUILDING SUMMARY

OBJECTIVES

In preparation for the building evaluation we reviewed available documentation including construction or record drawings and specifications as provided by the City of Madison.

Next, we convened a group of engineers and architects familiar with the building systems for a one day facility walk-through. We met with building maintenance personnel and management staff to identify areas of known or suspected issues related to building performance.

The results of these conversations and the walk-through is the basis for this report. The table below summarizes the main concerns. The summary doesn't not include all items contained within the report - only the most urgent or cost significate issues.

SUMMARY TABLE

Item	Concern	Resolution
Civil & Site		
Building Grading	Several low points at the foundation which need regrading to direct stormwater away from the building.	Provide regrading at low points.
Parking Lot	The parking lot shows signs of ageing and deterioration due to water infiltration.	Resurface the parking lot with an allowance for subgrade replacement. Add concrete curb and gutter or ribbon curb on the downslope side of the parking lot for more effective water conveyance.
Landscape		
Main Entry	The donor paver walkway adjacent to the drop off cul-de-sac presents a trip hazard due to uneven paver settlement and wear. Special concern for those using walkers	The pavers should be salvaged for reuse elsewhere and the walkway replaced with a concrete sidewalk.
Structure		
Building Grading	Standing / ponding water adjacent to the building could lead to foundation settlement.	Regrade as described in the Civil portion of the report.
North Foundation Wall	Shrinkage cracks along the north foundation wall at approximately four foot intervals. (not structural at this time)	Seal cracks to prevent water infiltration.

Item	Concern	Resolution
Chiller Pit	Substantial cracking and concrete slab settlement.	Exploration excavation behind the chiller walls to determine the cause. (water infiltration, compaction issues) Repair walls and slab along with remedial work based on the findings.
South East Pier	A crack extends around the entire exposed portion of the pier. The pier appears to be non-structural based on interior columns.	The reason for the crack cannot be determined without further invasive inspection. The most likely cause is water infiltration behind the EIFS. Once the cause is determined, grout injection could be a possible solution.
East exterior storage room wall.	This area has a full height, stepped crack where it is toothed into the gymnasium wall at the double doors. Unclear as to cause	Appears to be a foundation settlement crack or the taller gymnasium wall moving independently of the intersecting lower wall. Recommend repair. Possible mechanical connector between the two walls.
Exterior		
Vine Growth	Significant vine growth on the Southeast corner of the building.	Remove all plant material from building façade and within 3 feet of the building.
South East Pier	Refer to Structural	Refer to Structural
West CMU Wing Wall	Staining and water infiltration is present. This appears to be a roof gutter issue.	Re-slope the existing gutter or provide an additional downspout.
Slit Face CMU	Minor areas around the exterior CMU have cracks.	Provide tuck pointing at areas where CMU or grout has cracked. This accounts for less than 1% of the façade. This should be included in the annual maintenance budget.
Sealants	The sealants are original to the building. Some of the sealants have failed.	Replace the exterior sealants.
Soffits	The southeast corner of the building soffit is damaged beyond repair due to previous roof leaks.	Remove and replace the southeast soffit.
Interior		

Item	Concern	Resolution
Staff Space	Not all staff members have an office.	Provide at least one additional staff office.
Exercise Room	Does not have adequate space for accessible or general circulation.	Remove some equipment to create required circulation paths.
Mechanical		
Return Air Flow	Building egress path should not be used as return air path per current building code. Develop a plan to address the building return air for the north and south air handling units.	This condition will need to be addressed in a building renovation or expansion plan.
Air Cooled Chiller	Future replacement of the air-cooled chiller should be considered as unit will reach its expected useful life in 10-15 years. As R-22 refrigerant is phased out of production, finding refrigerant for charging the unit may become difficult or expensive.	Budget for replacement in 10-15 years if the building is not renovated or expanded. The renovated or expanded building should plan for the replacement of this system.
Electrical		
Lighting Control	Automatic lighting shut-off should be added to areas that currently do not have it.	Provide a lighting control system.
Technology		
Server Room	Current technology room does not have mechanical cooling. Newer equipment in these rooms can be more sensitive to high temperatures. Premature equipment failure may occur if left to operate in the current conditions	Provide mechanical cooling in existing and new technology rooms.

EXPANSION SUMMARY

Each building façade has different challenges for potential expansion. There are additional concerns with building expansion as it relates to the site. These concerns are summarized below.

SITE

The facility does not meet a minimum parking requirement and any expansion will require additional parking. Also, the current receiving and trash area does not meet the needs of the building nor City of Madison zoning requirements. These issues would need to be addressed in any expansion. A screening fence or wall must be provided to screen the following site elements: Refuse disposal areas, outdoor storage areas, loading areas, and mechanical equipment.

Subsurface water, gas, electric, telephone, and sanitary sewer lines extend throughout the site but are found in the highest concentration to the west and north of the building. Water, gas, and electric lines connect to the building on the north side near the outdoor amphitheater.

SOUTH

Directly south of the building is the main entry, drop-off, and parking lot. The site features would need to be relocated to make a southern expansion possible. Due to the cost and connection to the Mallards Ballpark, expansion in this direction is less desirable.

Expansion at the southwest corner can be accomplished with little structure concern if addressed similarly as that of the west wall. However, as the expansion moves east, the existing roof elevation drops and structural framing becomes more complicated.

NORTH

Expansion to the north of the gymnasium would be problematic due to the existing grades. The area north of the gym is about 7 or-8 feet above the current floor. The north wall of the gym is also load bearing. A slab on grade addition could be done at this higher elevation but would require an internal circulation and accessibility investigation.

The northwest side of the building appears less complicated for a building expansion. There are concerns with the existing site utilities and low roof lines. However, the grade and proximity to the main entrance make this ideal for expansion.

EAST

Significant expansion to the east (northern portion of the east wall) would be problematic based on the existing grades. While the east wall of the gymnasium is not load bearing, excavation would be expensive. However, expansion from the southern portion of the east wall (out from the gym storage area) could be accomplished because the grades in this area would not require extensive excavation.

WEST

Expansion to the west appears to be less complicated based on the high roof lines and existing grades. Site utilities would play a role in the shape and area of an expansion. This would also create a very long building and interior corridor which would have staffing implications.

PART 3 - CIVIL

GEOTECHNICAL INVESTIGATIONS

Per the geotechnical report prepared by Soil & Engineering Services, Inc. (attached), the soil borings revealed that the native soil in the building area consists of a surface layer of topsoil with a clay stratum extending to depths of 2'6" to 5'0" below grades. Below the clay stratum, the soil was primarily silty fine to medium sand with gravel. Soils under the pavement contain a surface layer of fill overlying native soil to depths varying from 2'9" to 5'0" below grade. The fill material varied between borings, but generally consisted of a combination of fine sand and lean clay.

Groundwater was encountered in 12 of the 18 soil borings and within one of two groundwater monitoring wells. The approximate groundwater elevation is between +0.5 feet and -0.5 feet. The geotechnical report recommended design elevation for groundwater was +0.5 feet (more than 15 feet below the proposed floor elevation of 16 feet indicated in the report). In general, the site can be characterized as having well drained soils below the surface fills and lean clays.

DRAINAGE AND GRADING

The existing stormwater drainage system consists of a storm sewer on the south side of the building that extends beneath the parking lot and outlets to a rain garden on the south side of the site. The parking lot is surface drained via one curb cut to the same rain garden. The rain garden overflows to a culvert which runs beneath the adjacent road and outlets in the turf area adjacent to the Mallards Ballpark.

The downspouts on portions of the building have been fitted with black corrugated plastic drain pipe to convey water away from the building foundation. There are several low points near the building foundation that need regrading to direct stormwater away from the building. In some areas, concrete pavement settling has slowed surface drainage, causing sediment deposition on the settled slabs.

Undeveloped portions of the site to the north and west of the building consist primarily of turf grass which infiltrates / drains stormwater via overland flow to the Warner Park Duck Pond.

STORMWATER MANAGEMENT

Stormwater management must be designed to meet the requirements of Chapter 37: Erosion & Stormwater Runoff Control of the City of Madison General Ordinance and Chapter NR 151 Runoff Management of the Wisconsin Administrative Code.

If the expansion creates a site disturbance in excess of 4,000 square feet, the plan will need to include an erosion control plan and stormwater management plan to mitigate soil loss during construction. The site design itself must incorporate stormwater detention and infiltration if the expansion creates more than 20,000 SF of new impervious area.

When these practices are mandated, the site must meet the following goals:

- Sediment control: 40% control of sediment from paved areas of the site
- Oil & Grease control: Oil and grease must be trapped from the first 1/2" of runoff from paved areas.
- Stormwater detention: Post-expansion peak flows from the 2-year and 10-year storm events must match peak flows from the area in the pre-expansion state.

Wisconsin Administrative Code requires that redevelopment sites must reduce 40% of their Total Suspended Solid (TSS) load from parking areas and roads. Site stormwater best management practices must, to the maximum extent practical, also be designed to maintain or reduce the 1-year, 24-hour and

2-year, 24-hour post-construction peak runoff rates to the 1-year, 24-hour and the 2-year, 24-hour predevelopment peak runoff discharge rates respectively. The site must also meet an infiltration performance standard which ranges from 60-90% of its pre-development infiltration volume, dependent on its percentage of impervious surfaces. The state rule does not require more than 2% of the post-construction site to be dedicated to infiltration.

KNOWN ENVIRONMENTAL HAZARDS & MATERIALS ABATEMENT

No hazardous materials have been identified at this time.

UTILITIES

The Utility Plan (Sheet LA2.1) from the initial Warner Park Community Recreation Center construction drawings prepared by JJR Incorporated and issued for bidding January 12, 1998 shows the location of existing utilities on the site. Subsurface water, gas, electric, telephone, and sanitary sewer lines extend throughout the site, but are found in the highest concentration to the west and north of the building. Water, gas, and electric lines connect to the building on the north side near the outdoor amphitheater. The sanitary sewer exits the building beneath the main entrance.

Utilities that do not serve the building run beneath it. A gas line is located beneath the building's eastern half, and an MG&E electric line lies beneath its western half. Future expansion will likely impact at least one utility, but expansion of the northeastern façade of the building would result with the fewest utility conflicts.

PARKING LOT

The existing parking lot is bituminous concrete. Assuming it was constructed in accordance with the 1998 project manual, the bituminous concrete is 3.5" thick with 8" of compacted aggregate base. Rutting in areas of the parking lot suggest that some settling of the subgrade has occurred.

The parking lot curbs lack a concrete gutter. Water draining to the parking lot perimeter has caused sediment accumulation at the joint between the curb edge and asphalt surfacing. Water infiltrating below the pavement at this location is likely undermining the pavement and contributing to rutting within the parking lot. Any parking lot redevelopment or expansion should employ a concrete curb and gutter or ribbon curb on the downslope side of the parking lot for more effective water conveyance.

The site does not have a minimum parking requirement, and it appears to have a sufficient quantity of parking stalls. Distance of parking to the entrance is a bigger complaint than lack of parking. Expansion of the site should explore ways to create more parking closer to the building to better serve visitors with limited mobility such as seniors, disabled, and families with small children.

The parking lot has 6 handicap stalls in a parking lot with a total of 65 stalls, which meets minimum guidelines. However, handicap and senior parking are routinely at capacity and should be expanded. If the parking lot is redeveloped one of the handicap stalls should also be van accessible, since none of the existing stalls fulfill this requirement. Handicap parking should also have a maximum slope of 2%. Some of the handicap parking appears to have a slope that exceeds this requirement.

Buses routinely stack up at the main entrance as they wait to pick up visitors, often from senior lunches. This stacking is driven by the short length of handicap accessible curb. Future modifications to the parking lot should consider expanding the length or adding additional accessible curbs to reduce bus stacking.

Improved service access should also be provided as part of the parking lot's redevelopment. Presently trash is rolled out to the curb since trucks do not have access to the screened storage area. The building could also benefit from a delivery / loading area.

CODE

- A. Dane County
- B. City of Madison

1. Parking Dimensions

Chapter 10 of the City of Madison zoning code governs the construction of streets, alleys, sidewalks, and gutters. Design criteria for permanent parking facilities are identified in section 10.08(6). The existing parking stalls are approximately 9 feet wide by 18 feet long with an aisle width greater than 24 feet, which satisfies minimum required stall dimensions.

2. Fire Access

Fire access road requirements and hydrant locations are governed by Section 34.503 of the City of Madison Ordinance, City of Madison Building Code, and International Fire Code. The existing building does not meet minimum fire access road requirements for minimum lane width adjacent to a hydrant or within an aerial apparatus lane, inside turning radius, quantity or orientation to the building. Consultation with the City of Madison Fire Department will be needed to determine whether the existing building must be brought up to code in conjunction with the expansion.

- i. Fire lanes must be a minimum of 20 feet wide, with 26 feet of width in the aerial apparatus fire lane and within 20 feet of a fire hydrant. Fire lanes must also have a minimum vertical clearance of 13.5 feet and inside turning radius of at least 28 feet. The slope of the fire lane must not exceed 8%.
- ii. Dead end fire lanes longer than 150 feet require large cul-de-sacs with an inside diameter of 70 feet or a wye or tee intersection with a minimum length of 60 feet per side.
- iii. Buildings exceeding three stories or 30 feet in height must have at least three means of fire apparatus access for each structure. At least one of these access roads must be located 15-30 feet from the building and be positioned parallel to its entire side.

3. Zoning

PR, Parks and Recreation

- i. Parks and playgrounds are permitted uses in PR Zoning.
- ii. Community centers are conditional uses in PR Zoning.

4. Off-Street Parking Requirements

Per Table 281-3 in Sec 28.141(4)(g) of the City of Madison Zoning Code Ordinance, parks and playgrounds have no minimum or maximum automobile or bicycle parking except where required for specific facilities as determined by the Zoning Administrator.

5. Off-Street Loading Requirements

Per Section 28.141(13) of the City of Madison Zoning Code Ordinance, any use which has a gross floor area of 10,000 square feet or more which requires deliveries shall provide off-street loading facilities. Each loading space must be at least 10 feet wide by 50 feet long for structures greater than 20,000 square feet. The existing building footprint is approximately 32,200 SF. No specific guidance is given for the number of spaces required for buildings with civic uses. An office building or lodging 10,000-50,000 square feet requires 1 loading space, while a retail, service, wholesale, or industrial use 20,001-100,000 square feet requires 2 loading spaces. The number of spaces required may be reduced through conditional approval.

PART 4 - LANDSCAPE

GENERAL LANDSCAPING REQUIREMENTS

Section 28.142 of the City of Madison zoning code defines landscaping standards based on the square footage of a site's developed area, quantity of parking stalls, linear feet of street frontage, and the length of the building's perimeter. These requirements are described conceptually below as they relate to the existing 1998 development when it was first constructed. New development at the site should also meet or exceed these requirements.

Landscape Points

The 1998 landscape plan had a developed area of approximately 69,455 sf, requiring 166 total landscape points (5 points per every 300 square feet). The tree and shrubs planted on the 1998 landscape plan generated a total of 1840 plants, more than meeting this requirement.

Frontage Landscaping

Development frontage landscaping must be installed between the street and on-site buildings and parking areas at a rate of one over story deciduous tree and five shrubs for each thirty lineal feet of lot frontage. The existing trees along Northport Drive from the park driveway to the intersection with Troy Drive appear to satisfy this requirement. Depending on the site boundary chosen for this project more trees or shrubs may need to be installed to fulfill this requirement, because the existing frontage trees are not evenly spaced along the site's perimeter.

Interior Parking Lot Landscaping

Parking lots with 12 or more consecutive stalls must be interrupted with a landscaped island containing a deciduous shade tree unless a landscape strip between each parking bay is provided with a minimum width of 7 feet. The landscape strips in the existing parking area built in 1998 fulfill this requirement.

Foundation Planting

The existing building does not meet the requirement that foundations plantings be installed along all building facades not directly abutting a sidewalk, plaza, or other hardscape feature. The zoning administrator may modify this requirement for existing development that existed prior to the effective date of this ordinance, if the improvements achieve an equivalent or greater level of landscaping for the site.

Site Element Screening

Screening fence or wall must also be provided to screen the following site elements: Refuse disposal areas, outdoor storage areas, loading areas, and mechanical equipment.

Tree Protection

Existing mature trees should be protected during construction in accordance with City of Madison Standard Specification 107.13.

LANDSCAPE ELEMENTS

Decorative Paving

The donor paver walkway adjacent to the drop off cul-de-sac presents a trip hazard due to uneven paver settling and wear, especially for those using walkers. The walkway should be replaced using a material better suited to the needs of buildings users, such as broom finished concrete. The donor pavers should be reused elsewhere on site in a less traveled area or an alternate design to recognize and honor donors.

Typical Sidewalks

Existing concrete sidewalks are approximately 5 feet wide, with larger paved areas in the outdoor amphitheater area and adjacent to building entrances. Some of the pavement has cracked and settled unevenly, promoting weed growth and interfering with site drainage. These sections of pavement should be repaired or replaced.

Site Furniture

Existing bicycle parking spaces are not deep enough, causing bikes to protrude into walkways. Bike racks should have a minimum of 48" of clear space between them and adjacent walkways, and 24" of clear space adjacent to other edges or 30" to the nearest wall. The racks must be spaced 48" apart.

The facility has a small amount of site furniture that should be expanded to encourage use of its outdoor spaces. Some existing site benches are concrete with a metal back with a cutout park name and recreational graphics. The site also contains stone slab benches near the southwest corner of the building. Picnic tables are located northwest of the building in turf grass.

Site furnishings should either remain on-site or be replaced with new furnishings in keeping with the expansion's aesthetic.

Existing natural stone steps disappear into turf grass areas and do not read as a design element the way they were intended. Ways to highlight these steps should be considered as part of the building expansion project.

Lighting

Existing outdoor lighting is located adjacent to pedestrian walkways and in the parking lot landscaping strip closest to the building. The City of Madison's outdoor lighting standards would classify this facility as an open parking facility with low activity. The City requires that a photometric plan be produced and supplied to the City Zoning office for approval along with catalogue pages or cut sheets for proposed lighting fixtures. The client has expressed an interest in improving the energy efficiency of the lighting and becoming dark sky friendly.

Planting & Groundcovers

The prairie planting adjacent to the drop-off is in good condition and should be maintained on-site if feasible.

Boston ivy that was planted in 1998 and possibly other volunteer vine species have become overgrown and should be removed from the existing building's façade. Many other planted perennial beds contain a mix of weedy species with planted shrubs that have not been properly maintained and are growing through ornamental fence panels. Weedy species have also become well-established adjacent to the outdoor amphitheater and in cracks in outdoor pavement and adjacent to the building foundation. These plants should be removed from the site.

Existing maintenance strips are narrow, causing distressed turf grass beneath the roof's drip line and promoting weedy vegetation growth. These maintenance strips should be extended past the roof dripline and weedy vegetation should be removed.

New perennial planting areas and replacements for any removed planting beds should be low maintenance to meet the time and budget constraints of staff. Perennial planting should be concentrated near the main building entrance, where money has already been budgeted for a proposed German gravel garden to replace the existing landscape.

The site has amassed a collection of large concrete planters donated from other City properties that are not in keeping with the park's aesthetic. The site redevelopment should assess whether these planters should be removed or repurposed on-site or at another City property.

POTENTIAL EXPANSION SPACES

Outdoor Gathering Areas

The Center hosts a summer camp with approximately 60 campers. The site landscape should address their needs by providing more usable outdoor space with ample shade and replacing or repairing existing overgrown rubber play surfacing.

The existing outdoor amphitheater is not used, due in part to its current location which is adjacent to a loud outdoor chiller and does not take advantage of views into the park. This area could be relocated and expanded to better address the site's need for outdoor gathering space.

Splash Pad

Splash pads are a popular programming option in Madison and is being evaluated as a possible addition to Warner Park. All splash pads must be designed to meet local codes and ASTM standards.

Splash pads can use either a recirculated or flow through system. Recirculated systems are more expensive to install and maintain and are more highly regulated than flow-through systems. However, flow through systems use a much higher quantity of water than recirculated splash pads and thus they have a much higher water utility cost and a much greater environmental impact.

PART 5 - STRUCTURE

EXISTING STRUCTURE

GENERAL DESCRIPTION

The Warner Park Community Recreation Center (WPCRC) is constructed in two standard styles. The dominant structural system of the west side of the facility is comprised of sloped joists with wood beam outriggers and wood joists over the corridor. Any structural steel used as joist support or masonry lintels and headers are exposed and either set on masonry walls or on steel posts wrapped with wood 'faux tree' column wraps. The exposed roof system (except in gymnasium) is plywood sheathing. The roof above is a combination of standing seam and copper sheathing, The gymnasium area, to the east of the main entrance, is standard flat roof long span joists and masonry bearing walls.

The foundation walls are partially exposed to window sill height with exposed aggregate finish. At the east end of the facility, where the gymnasium is located, the grade is much higher and supported by the foundation wall of the gymnasium and a site wall running east off of the south east corner of the building. To the north side of the building is an exterior mechanical chiller space that is partially built into the sloping grade behind the building. The area has concrete walls and open grate roof that is at grade level on the high side, and door entry from the low side. The piping enters the building and continues up into the mechanical space.

There are two mechanical spaces in the building. Both of them have precast with topping floor systems on masonry bearing walls. The larger room is set in the mass of the gymnasium and above office, closet, and shower spaces. The roof is steel joist on masonry bearing; the same continued system of the gymnasium. The second smaller mechanical space is in the sloped joist/wood accent region of the west portion of the building. This mechanical space has steel joists and the exposed wood sheathing roof.

FOUNDATION REVIEW

The foundation is standard stem wall on footing and pad footing construction. The stem wall extends approximately 3 feet above grade around the majority of the building, extending to approximately 7 feet at the east end for retaining of the hillside to the east.

The high ground at the east side of the gymnasium is graded such that the majority of the water flows to the north and behind the building. This flow looks positive and a low trough seems effective. Some of the site water, however, flows to the east along the site wall and the grade is not steep enough to provide for positive flow away from the building and the wall. Low spots imply that the water may pond behind the wall. The standing water and associated saturated soil behind the wall will cause settlement of the grade, and tipping of the wall. At the time of our visit, the soil and wall were separated by nearly 1/2" indicating that some wall movement has occurred. Refer to the civil study, but we recommend minor regrading in this region to provide for better drainage. This site wall is in good condition.

The exposed foundation stem wall, in general, is in good condition. Sealant at construction joints show signs of aging and are probably beyond their life. Along the north wall of the classroom section there are regularly spaced vertical cracks (four feet to six feet spaced) measuring 0.020 inches wide. These would be shrinkage cracking and would not be considered structural. However, it would be recommended that a caulk or grout system be proposed to prevent water infiltration that can result in future freeze-thaw expansion damage to the wall.

There is a more substantial crack in the Chiller pit that has resulted in settling and cracking of a concrete slab at the higher grade elevation. Excavation of the grade behind this wall, below the damaged walk, could provide further insights into the cause of the damage (water infiltration, compaction issues) which can then be repaired, including any issues with water barrier on the chiller wall. The chiller wall crack can then be repaired based on those findings.

A pier feature off the south-east corner of the building has a severe crack around its perimeter. The crack extends around the entire exposed portion of the pier about 6" to 9" above the side walk. The pier appears to be non-structural as the columns for the roof of the structure are in the window system. The EIFS wall system on this pier shows water damage at its support at the pier, and water staining is noted at the crack. The walk around the pier is only a couple years old, and previous to that the grade was noted as low and troughed due to the water free flowing off the roof in the area. Reason for this crack has not been determined, but may not be of structural concern due to its support of only the EIFS wall system. Further review of the pier, and determination of any water source, should be completed. Grout injection repair as a minimum should be completed to provide for protection from further deterioration, but only after water infiltration behind the EIFS wall system and pier interior is determined and controlled.

SLAB-ON-GRADE REVIEW

Accept for the slab near the upper level of the chiller room, no slab on grade issues were noted interior or exterior to the building.

SUPERSTRUCTURE REVIEW

Masonry bearing walls were in good condition with no structural issues noted. The exterior walls, along the south building face, have climbing vines growing on the masonry. Vines tend to speed up the deterioration of masonry and grout joints by providing a continually moist condition, and the root system that extends into the block and grout eventually weaken and provide for water penetration. We recommend removal of the vines.

The CMU block of the east exterior wall of the storage room (along the treadmill room) has a full height, stepped crack where it is toothed into the tall gymnasium wall, at the double gymnasium fire exit doors. Unclear as to cause. Crack not noticed from outside. Appears like a foundation settlement crack, or the taller gymnasium wall moving independent of the intersecting lower wall. Recommend repair and possible mechanical connector between the two walls.

Locations of heavy steel beams set on masonry walls have minor joint cracking in the block. This could be due to differential movement of the steel and block but no structural issues to note.

Locations were noted of previous water damage or staining. The locations show up as minor staining at steel joist seats, or of wood in wood saddles at frames. The recent reroofing project has fixed the water issues and these are aesthetics issues and not seen as structural concerns.

Current dining and fitness rooms have two folding partitions. Replacing the existing partitions with more acoustic panels would require an evaluation of the roof structure above.

EXPANSION POTENTIAL LOCATIONS

The following comments focus on structural impacts and do not necessarily take into account potential issues with exterior access points, interior room functions, or utility/systems conflicts. Refer to the comments only to interpret structural impact of expansion in these areas.

The east wall of the gymnasium is non-bearing, but would require excavation / construction into the hillside along with the challenges of providing daylight and egress which may result in significant regrading depending on the program / purpose of expansion in that direction.

To the north, the gymnasium floor is significantly below the existing grade and would require regrading. This wall is a bearing wall and wall openings would need to account for that. West of the chiller, mechanical, locker room spaces, and classrooms the eave line is quite low due to the sloped framing design. The post and beam design allows for new access points into this area provided that a new roof structure can be established which minimizes over-building and does not impose new snow drifting on the current roof. Many of the current building utilities run along the exterior of this wall complicating expansion along this face.

Expansion to the west appears less complicated because of the higher roof line and a floor line that is already at grade. A separate frame or bearing wall along the east wall will separate the expansion from the existing structurally, and add a new roof line that will be lower than the existing which will not impact the existing roof with new snow drift loads.

Expansion out front near the south west corner can be accomplished with little structure concerns if attended to similarly as discussed along the west wall. As the expansion moves to the east, the existing roof elevation drops and new framing becomes more complicated.

DESIGN CRITERIA & REFERENCES

Building Code

- Based on the timing of any future expansion: IBC 2015 + Wisconsin Amendments

Design Loads

1. Live Loads

Typical Floor Loading

- Public rooms, Lobbies, and Exits 100 psf

Roof Loading

- Snow Ground Snow Load 30 psf (plus drifted snow loads)

2. Wind Loads

- Determined by code, anticipate in the 20 psf range.

3. Allowable Soil Bearing Pressure

- New Geotechnical information not available.

PART 6 - ENCLOSURE

WALL SYSTEMS

The exterior of the building is comprised of 4 basic façade systems. These include split face block, EIFS, sandblasted concrete, and an aluminum window system. In general, the building is in good condition and appears to be well maintained. Since the recent reroofing the facility has not reported any leaking.

There is significant vine growth on the south east side of the building. All vines and plants within three feet of the building should be removed. Vine growth will erode the mortar and concrete foundation walls.



Split Face Block

The split face block system is a double wythe CMU (4" exterior wythe and 8" interior wythe) with rigid cavity insulation between. These walls either sit on the concrete foundation or steel beams. The tops are terminated in a stone cap or at the bottom of roof overhangs. Minor movement and cracking was observed during the site visit. The cracks were typically located around openings and material changes. Depending on the area these joints should either be tuck pointed with new mortar or sealed with sealant. We recommend these areas be repaired to prevent water infiltration and further degradation.

Water staining and infiltration is taking place at the West CMU wing wall. Water appears to be draining out of the gutter and washing down the wall. The gutter should be sloped away from this area or an additional downspout added.

**EIFS**

Minor weathering and some chipping of the EIFS system was observed. Based on the age of the system these all appear to fall in the standard weathering of the system. These areas should be patched. We also recommend the entire EIFS system be refinished with a manufacture approved product.

There is evidence of water infiltration at the southwest corner EIFS and concrete pier. There is staining consistent with water infiltration behind the façade and cracking at the pier. The structural Engineer does not believe this to be a structural issues. With the recent roof repair this issue might have been corrected. One approach would be to clean the water staining in this area and monitor it for reappearance. If the staining returns, additional investigation would be needed to determine the source or cause of the cracking and water staining. If the staining does not return, the concrete and EIFS should be repaired.



Sandblasted Concrete

On some elevations of the building the cast in place concrete foundation was extended out of the ground 4 to 5 feet above grade. Insulation is provided on the interior face of the concrete. Most of these areas show expansion and contraction cracking. Specifically, the northwest façade has cracking at approximately a four foot interval. Since these cracks appear to not be structural, they should be cleaned and sealed with a non-staining compatible sealant.

Aluminum Window System

The aluminum window system appears to be combination of storefront and curtain wall systems. This systems appears to be in good condition and no leaks were reported. There as some evidence of one or two glass panes with a broken thermal seal. This will cause the glass to fog up on humid or cold days. We recommend that these be repaired and become part of the annual maintenance budget.

SEALANTS

Based on discussions with the facility staff the exterior façade sealants have never been replaced. These should typically be replaced every 8 years. We recommend the facility have all the vertical and horizontal exterior sealants replaced.

EXTERIOR DOORS, FRAMES AND LOUVERS

The hollow metal doors are generally in good shape. Some rust spots are starting to show on several doors. The rust should be removed and the metal doors should be repainted.

Some of the building louvers are covered with vines. These should be removed to allow proper use of the mechanical systems. The louvers should be repainted as well.

The aluminum entrances are in good condition and should not need to be replaced in a building expansion.

ROOF SYSTEM*Roof System 1 – Standing Seam Copper*

The standing seam copper roof on the south lower roof was recently replaced. Prior to the replacement this roof leaked constantly. Since the replacement the facility has not reported any leaks.

The standing seam copper roof on the north side has not been replaced as no leaks have been reported. This roof should be at least a 50 year product and should not need to be replaced with a building expansion.

Roof System 2 –PVC Membrane Roof

This roof is a thermoplastic roofing membrane. Sika Sarnafil G 410 in copper brown (#7450).

Installed in 2007 with a 15 year warranty.

SOFFITS

The building soffits are cedar plywood with a translucent finish. Based on the age of the building, the cedar soffits should be refinished, with the exceptions noted below.

The soffits in the southeast corner of the building have extensive water damage. The soffits in this area should be removed and replaced to match the existing soffits. There are other minor soffit areas around the building that show some water damage. These areas should be selectively removed and replaced.



PART 7 - INTERIOR CONSTRUCTION

CODE

Building: IBC 2009 with amendments

Energy: IECC 2009 with amendments

Accessibility: OCC / ANSI

Fire Safety: NFPA & IFC with amendments

ENTRY

- Vestibule
- Lounge
- Reception
- Alcove

Wall Finishes:

The gypsum board should be painted.

The plywood walls should be refinished.

The split face CMU walls. Provide annual tuck pointing as necessary.

Floor Finishes:

The entry mat in the vestibule should be replaced. (approximately 64 sf)

The terrazzo in the lounge and reception area is in good condition.

The carpet in the lounge should be replaced. (approximately 1240 sf)

Ceilings:

The plywood ceilings should be refinished. There are signs of water damage from previous roof leaks.

The exposed steel structure should also be repainted.

Millwork:

The reception desk shows signs of wear and does not provide adequate function for the current operation and services of the facility. We recommend the desk be replaced with a dual height service deck with features applicable to current uses.

Furniture

The furniture in the space is showing signs of wear and is not conducive with the intended use of informal gathering and lounge activities.

Known Issues:

The public is able to bypass the reception desk and “sneak” into the exercise room. The staff have set up a furniture and display barrier to try and prevent this issue. This issue should be addressed with any renovation project.

EXERCISE / TRAINING & OFFICE

Wall Finishes:

The gypsum board should be painted.

The split face CMU walls. Provide annual tuck pointing as necessary.

Floor Finishes:

The floor is rubber and appears to be in good conditions.

The floor in the office is concrete and is in good condition.

Ceilings:

The plywood ceilings should be refinished. There are signs of water damage from previous roof leaks.

The exposed steel structure should also be repainted.

Furniture

The office / storage furniture does not provide enough storage.

Known Issues:

The space has too much equipment and the side office is underutilized.

GYMNASIUM & STORAGE

Wall Finishes:

The gypsum board should be painted.

The split face CMU walls. Provide annual tuck pointing as necessary.

The CMU walls should be repainted.

Floor Finishes:

The gym has a wood basketball court floor and is in good condition.

The storage is concrete and is in good condition.

Ceilings:

Storage Room: The plywood ceilings should be refinished. There are signs of water damage from previous roof leaks. The exposed steel structure should also be repainted.

Gym: The exposed steel structure should be repainted.

Furniture

The bleachers are operable and are in good working condition.

Known Issues:

The storage space is not adequate. Additional storage is required to expand services and programs.

LOCKER ROOMS

In general these spaces are dated. They appear well maintained but show signs of wear after 20 years of use. We recommend the locker rooms and restrooms be renovated to meet current accessibility, plumbing, and use standards.

Wall Finishes:

Remove existing tile. Provide floor to ceiling tile with epoxy grout.

Floor Finishes:

Remove existing tile. Provide floor tile with epoxy grout.

Ceilings:

Repaint existing gypsum board ceiling.

Fixtures and Accessories

Remove and replace the existing plumbing fixtures with new low flow automatic fixtures.

Remove existing toilet accessories and provide new.

Existing toilet partitions are in good condition.

Remove and provide new lockers with better locking system.

GAME ROOM, VENDING & STORAGE

Wall Finishes:

The gypsum board should be painted.

The split face CMU walls. Provide annual tuck pointing as necessary.

The CMU walls should be repainted.

Floor Finishes:

The vinyl in this area should be replaced. (approximately 1,000 sf)
The storage room has concrete floors and are in good condition.

Ceilings:

The plywood ceilings should be refinished. The exposed steel structure should also be repainted.

Millwork:

The existing millwork should be removed. Seating and gather spaces should be furniture to allow the facility more flexibility.

Furniture

The existing furniture is at the end of its useful life and should be replaced with new lounge and gathering tables and chairs.

The existing gaming equipment is used and in fair condition.

Known Issues:

The space can get loud. Additional acoustic measures should be considered. The storage space is not adequate for the intended programs and services. Additional space for ping pong tables and similar game tables is desired.

CRAFT SPACES

- Wet Crafts (pottery)
- Dry Crafts
- Storage (used by pottery)
- Kiln (used by pottery)

Wall Finishes:

The gypsum board should be painted.

Floor Finishes:

The floors are concrete and should be refinished and resealed.

Ceilings:

The plywood ceilings should be refinished. The exposed steel structure should also be repainted.

Millwork:

The existing staff workroom millwork should be replaced with more flexible storage.

Furniture

The tables and chairs in the dry craft room should be replaced with flip top tables and stackable chairs to allow increased flexibility.

New closed and locked storage should be provided in the dry craft room.

Known Issues:

The dry storage space is inadequate. The existing storage room is lately full with pottery supplies and equipment.

The off gassing from the kiln is corroding the fire protection and other metals in the space. We recommend providing a new ventilation system specifically for the Kiln room.

Pottery is set up in the Wet Craft room and does not allow for use by other activities.

CHILD CARE

- Child Care Room
- Kids Toilet
- Storage

- Office

Wall Finishes:

The gypsum board should be painted.

The CMU walls should be repainted.

The kid's bathroom should have the existing tile removed and replaced.

Floor Finishes:

The carpet in this area should be replaced. (approximately 600 sf)

The kid's bathroom should have the existing tile removed and replaced.

Ceilings:

The ceilings are ACT. The ceilings are dated and should be replaced based on the age of the tiles.

Millwork:

The existing staff workroom millwork should be replaced when the space is renovated.

Furniture & Fixtures

The staff spaces should receive appropriate office furniture and storage for activities.

The restroom fixtures should be replaced with more modern and efficient fixtures.

Known Issues:

The Child Care area is remote from the entry which contributes to the low use.

COMMUNITY ROOMS & KITCHEN

Wall Finishes:

The gypsum board should be painted.

The plywood walls should be refinished.

The split face CMU walls. Provide annual tuck pointing as necessary.

The wall tile in the kitchen is in good condition.

Floor Finishes:

Community room 1 has a wood floor and is generally used for more fitness activities. This floor is in good condition.

The carpet in community Room 1 & 2 should be replaced. (approximately 1,500 sf)

The flooring in the kitchen is in good condition.

Ceilings:

The plywood ceilings should be refinished. There are signs of water damage from previous roof leaks.

The exposed steel structure should also be repainted.

Millwork:

The small amount of millwork in the space should be replaced with any renovation.

Furniture

The tables and chairs that serve these spaces should be replaced with flip top tables and stackable chairs. This will free up storage space and allow for increased flexibility.

The kitchen equipment should be evaluated for possible additional programs and services. The existing equipment appears to be in good condition.

Known Issues:

The folding partitions are difficult to operate. New automated doors should be considered.

MEETING SPACEWall Finishes:

The gypsum board should be painted.

The plywood walls should be refinished.

The split face CMU walls. Provide annual tuck pointing as necessary.

Floor Finishes:

The carpet in meeting should be replaced. (approximately 700sf)

Ceilings:

The plywood ceilings should be refinished. There are signs of water damage from previous roof leaks.

The exposed steel structure should also be repainted.

Furniture

The tables and chairs that serve these spaces should be replaced with flip top tables and stackable chairs. This will free up storage space and allow for increased flexibility.

NESC OFFICES (LEASED SPACE)

- (2) Private office
- Workroom
- Open Office
- Reception

Wall Finishes:

The gypsum board should be painted.

Floor Finishes:

The carpet in this area should be replaced. (approximately 1,500 sf)

Ceilings:

The ceilings are ACT. The ceilings are dated and should be replaced based on the age of the tiles.

Millwork:

The existing staff workroom millwork should be replaced when the space is renovated.

Furniture

The furniture is owned and operated by the NESC. This is not part of the Parks responsibility.

Known Issues:

The NESC would like additional space, a dedicated senior program room, and higher toilets.

STAFF SPACES

- (3) Private office
- Break Room
- kitchenette
- (2) person Workroom

Wall Finishes:

The gypsum board should be painted.

Floor Finishes:

The carpet in this area should be replaced. (approximately 900 sf)

Ceilings:

The ceilings are ACT. The ceilings are dated and should be replaced based on the age of the tiles.

Millwork:

The existing staff lounge millwork should be replaced when the space is renovated.

Furniture

The furniture in the space is showing signs of wear and is not conducive with the intended use of informal gathering and lounge activities.

Known Issues:

The staff space is inefficient and is not conducive to current staffing practices. The space should be renovated to increase efficiency and incorporate a facility work station.

CORRIDORSWall Finishes:

The gypsum board should be painted.

The plywood walls should be refinished.

The split face CMU walls. Provide annual tuck pointing as necessary.

Floor Finishes:

The corridors are generally carpet and should be replaced. (approximately 2,500 sf)

Ceilings:

West Corridor: The plywood ceilings should be refinished. There are signs of water damage from previous roof leaks. The exposed steel structure should also be repainted.

North Corridor: The ceilings are ACT. The ceilings are dated and should be replaced based on the age of the tiles.

RESTROOMS

In general these spaces are dated. They appear well maintained but show signs of wear after 20 years of use. We recommend the locker rooms and restrooms be renovated to meet current accessibility, plumbing, and use standards.

Wall Finishes:

Provide floor to ceiling tile with epoxy grout.

Floor Finishes:

Remove existing tile. Provide floor tile with epoxy grout.

Ceilings:

Repaint existing gypsum board ceiling.

Fixtures and Accessories

Remove and replace the existing plumbing fixtures with new low flow automatic fixtures.

Remove existing toilet accessories and provide new.

Existing toilet partitions are in good condition.

SUPPORT SPACES

- Facility Storage
- Janitor's Closets
- Mechanical Spaces

Wall Finishes:

Paint all walls.

Floor Finishes:

Concrete floors are in good condition.

Ceiling:

Open to structure, paint metal deck and steel structure.
Repair concrete ceiling in north janitor closet.

Known Issues:

There currently is not enough space for the facility manager to have an office. A space has been set aside in the North Mechanical room. This area has excessive noise and was not designed to be an office.

SPECIALTIES**Window Treatment**

The existing shades appear to be in good condition.

AccessoriesFire Extinguisher Cabinets

The existing fire extinguisher cabinets appear to be in good working order.

Defibulator

The facility should consider adding a defibulator to the existing space.

Signage

- The existing signage appears to be in good condition. If the building is going to be renovated the facility should consider new ADA signage as well as more digital signage.

PART 8 - FIRE PROTECTION SYSTEMS

GENERAL

The building is fully sprinkled. The system is a wet-type automatic fire sprinkler system with a single zone for the entire building. The water service is a 4" combination fire protection and domestic service with a double check back-flow preventer on the fire protection system.

Pipe material is black steel with roll-grooved fittings.

The building does not have stand pipes, nor should they be required based on highest floor elevation above fire access.

CODE

Wisconsin State Plumbing Code Chapter 314
NFPA 13 - 2012

DESIGN CONSIDERATIONS

An 8,000sf addition would still be within the allowable limits of building area to be served by a single fire protection zone. This would allow the existing sprinkler piping to be extended to an addition. There are no high density storage areas planned for the addition, so fire protection system demand should not change.

PART 9 - PLUMBING SYSTEMS

DOMESTIC WATER SYSTEM:

The building currently has a 4" combination fire protection and domestic water service that enters the building underground along the north side of the building. The water service is served by a 2" water meter located in Stair #1. Service is split downstream of the meter with a 2 1/2" cold water line continuing to the east and routed up to the mezzanine level and a 1 1/4" cold water line that continues to the locker room on first floor near stair #1.



DOMESTIC WATER HEATING

The building is served by two (2) AO Smith sealed combustion high efficiency water heaters. All hot water is softened before entering the water heaters. Hot water is circulated through the building at 120F with a recirculation line. Each water heater capacity is 150,000 Btuh input for 100F rise at 171 gal/hour.

**SANITARY DRAINAGE SYSTEM:**

The building is served by a 4" sanitary sewer that exits the building below grade out the south side. The kitchen is served by a dedicated 4" grease waste line that is routed through a 1,000-gallon exterior grease interceptor before connecting to the building sanitary and continuing as a 6" sanitary sewer to the City main.

STORM DRAINAGE SYSTEM:

The building has drain tile around the foundation that collects in a sump pump located in the storage room in the southeast corner of the building. The sump pump has a 4" clearwater waste line that exits the building to the south. There is another 4" clearwater waste line that serves the cooling coil condensate for the building HVAC system that exits the building to the south near the sanitary main exit. The roof storm drainage is a gutter and downspout system that drains to grade.

NATURAL GAS SYSTEM:

A gas meter is located outside the building in the chiller enclosure on the north side of the building.



WATER SOFTENERS

All hot water is softened.

FIXTURES

Fixtures are original to the building and are in good operating condition. Water closets are manual flush and lavatories are sensor operated. There are plaster traps for the utility sinks in the art rooms.



Code

- Wisconsin State Plumbing Code Chapter 382 + amendments.

DESIGN CONSIDERATIONS

The building water service size would be adequate for the planned 8,000 sf addition but piping from the service entrance to the addition would need to be increased to a minimum 2" cold water to service any new water closets. The building sanitary sewer would be adequately sized to support new toilet rooms but new sanitary would need to connect back to existing below grade within the building. This would

require underfloor work that may be too costly or disruptive to existing activities. For this reason, a second sanitary sewer for the building addition may want to be used in lieu of connecting to existing within the building.

The water softener and water heaters would be sufficiently sized to support new toilet rooms and miscellaneous sinks. If new shower/locker rooms would be installed, new water heaters may want to be considered depending on expected use of these facilities.

PART 10 - HEATING VENTILATING AND AIR CONDITIONING

HEAT GENERATION AND DISTRIBUTION

The building is heated with three (3) high efficiency condensing, gas-fired hot water boilers that were installed as a replacement to the original boilers. The boilers are sealed combustion and in good working condition. Total heating capacity is 3000 MBtuh. Current operation only requires both boilers to operate at part load at peak heating design days, so additional capacity is available but will reduce system redundancy. Building circulating pumps are original to the building.



TERMINAL HEAT

Rooms are individually served by VAV terminal boxes with hot water reheat for zone temperature control. These terminal units are fed from the two VAV air handling units. There are other heating only terminal units such as convectors, cabinet unit heaters, and unit heaters, located around the building to provide individual room heat.





VENTILATION

Supply air is distributed with overhead ductwork routed above the ceiling areas. Return air is returned to the air handling unit with a common return located above the ceiling of the corridor or open lobby areas of the building. Room air is transferred from the room to the corridor through transfer grilles and/or door grilles and then above the corridor ceiling. This method of using the corridor or building egress path as a return air path is no longer allowed by the building code so this may need to be corrected if these areas are renovated depending on the level of renovation per the building code.



AUTOMATIC CONTROL SYSTEM

The building is currently and ALS electronic controls system with plans to upgrade to a Honeywell electronic DDC control system yet this year.

CODES and STANDARDS

- Wisconsin State Commercial Building Administrative Code Chapters 363 & 364.
- IBC - 2009 International Building Code with Wisconsin State amendments.
- IECC - 2009 International Energy Conservation Code with Wisconsin State amendments

- IMC - 2009 International Mechanical Code with Wisconsin State amendments

DESIGN CONDITIONS

- Need to consider how to address the building return air for the north and south area air handling units. Building egress path should not be used as return air path per current building code.
- Future replacement of the air-cooled chiller should be considered as unit will reach its expected useful life in 10-15 years. As R-22 refrigerant is phased out of production, finding refrigerant for charging the unit may become difficult or expensive.
- The boilers and chiller serving the heating and cooling for the building each have spare capacity available. An addition will not automatically trigger the need to expand these systems especially if high performance building envelope along with energy recovery to pre-treat ventilation air are used to minimize heating and cooling load requirements of the addition.
- Any addition would require an air handling unit to condition the area as the existing air handling unit are at their operating capacities.
- A renovation of the existing building may require a modification in the existing HVAC system to maintain zone control, but the installed system lends itself easily to these types of modifications.

PART 11 - ELECTRICAL SYSTEMS

GENERAL

The building is served by a MG&E owned utility transformer located in the underground mechanical yard.

Electrical distribution originates from a 1600-amp service entrance rated disconnect switch located in room 107. The service is rated at 120/208 volt, 3-phase, 4-wire. The disconnect switch contains a section for MG&E metering.

The disconnect switch appears to be in good working condition and replacement parts should be readily available.

The branch circuit panelboards throughout the building are in good working condition with room for expansion.

In the North Mezzanine, there is a switchboard that is at its capacity for breaker space. It is rated at 1600 amps. This feeds the pumps and motors for the HVAC system as well as the building branch circuit panels.



ENERGY GENERATION

The building has a photovoltaic array mounted on the roof. This feeds into the North Mezzanine Switchboard.

LIGHTING & CONTROL

Lighting for the building is mostly updated from the original HID lighting. There was a lighting upgrade about 8 years ago, that replaced the original with florescent. Over the last few months' small upgrades to LED have started.

Most of the rooms are equipped with occupancy sensors. The remainder of the lights are controlled by manual switches at the front desk.

Emergency lighting is via battery packs. Coverage appeared to be adequate.

FIRE ALARM SYSTEM

The fire alarm system is addressable and is in good working condition. It is a Siemens system with horns and strobes for notification.

CODES

Building: IBC 2009 with amendments

Energy: IECC 2009 with amendments

Electrical: NEC 2011 with amendments

Fire Alarm: NFPA 72

DESIGN CONDITIONS

- Automatic shut-off for lighting should be added to the areas that currently do not have it.
- The capacity of the existing electrical service will need to be evaluated by obtaining usage information from MG&E Based on the current square footage and service size, it likely has adequate capacity for the 10,000-square foot addition. A new branch panel will be added to serve the addition. It will be fed from the switchboard located in the Mezzanine. Modifications to this switchboard will be needed to accommodate the new breaker.

PART 12 - TECHNOLOGY SYSTEMS

DATA STATION CABLING & CONNECTING HARDWARE

Structured Cabling - Inter-building: Consists of single-mode fiber that connects the building to the county network. The fiber routes from the Fire Station to the Community Center building then to the NESCO building. There also exists multi-pair phone cabling. The Inter-building cabling enters the facility in room 107. It then is routed in (2) 4" conduits to room storage 120. Room 120 is considered the MDF for the building.

Structured Cabling - Intra-building: The building uses Voice Over IP protocol for telephones. Therefore, all cabling is treated as data. The current horizontal cabling used is Category 5 cabling. There are (2) existing wireless access points. This quantity is insufficient per the Facility Director.

Existing Telecom Equipment Rack



Existing Telecom Wall Field



VIDEO CAMERA & SURVEILLANCE

Video Surveillance: Consists of Analog cameras with coax cabling cabled to a digital video recorder. Current Technology consist of Category 6 cabling, Megapixel IP Cameras, and video management server.

ACCESS CONTROL

Emergency Exit Doors are monitored/controlled wirelessly. No credential readers currently exist onsite.

AUDIO VISUAL

Gymnasium room 103 has an existing sound system. This system is inadequate per the Facilities Director.

HVAC DESIGN CONDITIONS

Telecom space(s) shall be maintained between 68 and 74 degrees Fahrenheit with 30% to 50% relative humidity at all times. If the building HVAC system cannot provide continuous operation or adequate capacity to meet these criteria, supplemental cooling units shall be provided for each TR. Environmental control is required 24 x 7 x 365.

EA File Name: Q:\2017 2694\172744 Warner Park\1-Project Administration\8-Correspondence & Reports\Reports\Existing Building Report\Warner Park Existing Building Report.Docx

Warner Park Facility Study and Visioning Meeting
Synopsis of Important Issues, Park Uses, and Future Needs

These are the major points that were highlighted as “having more than 2 votes” and issues that were recurring through small group discussions and the compiled email responses. The visioning meeting was held on April 29, 2015 and the emails were compiled between April 1st and May 10th. They have been divided into three (3) sub-categories to provide focus; Natural Areas and Conservation, WPCRC Expansion and Programming, and Warner Park Amenities.

NATURAL AREAS AND CONSERVATION

FISHING & LAGOON/WETLAND RESTORATION

- Warner Park becomes leader in ecological restoration with teaching youth
- Fish research at Warner Park
- More nature recreation space using park as classroom promoting stem field tutoring
- Increase recreational fishing opportunities

MAINTAIN NATURAL AREAS

- Preserve nature/green space and walking trails
- Keep and restore natural areas
- Keep maintaining natural areas
- Keep Warner wild – nature areas
- Maintaining/enhancing natural areas
- Don't take away existing natural areas for new buildings/park features

TREE PLANTINGS

- Add trees along the foot path, not the water's edge
- Add trees near the foot path
- Plant more shade trees along bike path

LANDBRIDGE

- Acquire adjacent land for future-Troy Dr/Northport corner
- Landbridge
- Eco community landbridge

WPCRC EXPANSION AND PROGRAMMING

FITNESS SPACES

- WPCRC - bigger workout space
- WPCRC fitness/dance studio
- WPCRC fitness/dance class studio

MULTI-USE YOUTH SPACES

- WPCRC multi-purpose youth activity center (summer camps, youth/teen programs, nature/science education center)
- WPCRC multi-purpose room (after school, science and nature programs for kids)
- Education (and outreach) opportunities, plus nature education paid and volunteer
- Expand nature education
- Summer jobs for teens – JR Ranger program
- Space for DSS Community Center kids - Brentwood

- WPCRC - inviting for youth and make more space
- WPCRC - expand rec room
- WPCRC café area – like Goodman Center – student run

OTHER IDEAS

- WPCRC - expand building to second floor
- WPCRC - expanding with indoor space strictly for organizations and recreational use
- WPCRC - more gym space and senior activity area
- More area(rooms) in WPCRC for senior to congregate

WARNER PARK AMENITIES

SPLASHPAD

- Splashpad
- Splashpad behind center field
- Splash park (near center or ball diamond)
- Splashpad - “near WPCRC or existing structure”

BIKE/WALKING PATHS

- Complete bike path on Woodward - south corner of park is unsafe
- Add path between foot bridge and over creek and dog park parking lot
- Improve safe access to park and beach (walk & bike)
- Complete sidewalk connection to Woodward from Forster calming traffic along all roads - bike path connection to other paths

SWIMMING POOL

- Pool (connected to main building)
- Pool next to recreation center
- Pool (scaled down)

WARNER BEACH

- Fix up existing beach facilities – shower, water, etc
- Beach recreation - boat rentals (Lake Mendota)
- Beach improvements
- Clean swimming beach
- Beach improvements - upgrade bike path to beach

OBJECTIONS TO NEW AMENITIES

- No pool
- No new buildings
- No Brentwood neighborhood center or library in park
- No library or neighborhood center
- New buildings only adjacent to the center or stadium

OTHER IDEAS

- B-CYCLE stations (part of a Northside expansion)
- More/better lighting in the parking lot – dark sky

SUMMARY OF SPACES

EXISTING BUILDING		AREA
ENTRY SPACES		2,540 sf
RECREATION SPACES		11,090 sf
COMMUNITY SPACES		6,180 sf
STAFF SPACES		1,250 sf
SUPPORT SPACES		7,600 sf
LEASED SPACES		1,400 sf
EXISTING SPACES SUBTOTAL		30,060 sf
NET TO GROSS ALLOWANCE	6%	1,840 sf
TOTAL EXISTING SPACES		31,900 sf

NEW INDOOR SPACES		AREA
RECREATION SPACES		2,350 sf
COMMUNITY SPACES		2,050 sf
SUPPORT SPACES		3,000 sf
NEW SPACES SUBTOTAL		7,400 sf
NET TO GROSS ALLOWANCE	8%	600 sf
TOTAL NEW INDOOR SPACES		8,000 sf

TOTAL PROPOSED BUILDING **39,900 sf**

NEW OUTDOOR SPACES		AREA
OUTDOOR CLASS ROOM		1,800 sf
SPLASH PAD		3,500 sf
TOTAL NEW OUTSIDE SPACES		5,300 sf

PROPOSED PROJECT ALTERNATES		AREA
ALTERNATE 1: SECOND GYM		8,400 sf
ALTERNATE 2: CHILD CARE		2,100 sf

ENTRY SPACES

SUMMARY

LOUNGE	1,400
VESTIBULE	60
RECEPTION	975
ALCOVE	103
Total	2,538

LOUNGE

1,400 sf

Room #: 100 Floor: First Zone: Community Scope: Existing

DESCRIPTION

Orientation Area, introduction to the interior, determine routes to various service points. This space also acts as an informal meeting space and offers lounge chairs, tables, and task chairs. There is a small display case near the gymnasium. The existing plaques and a place for forms should remain.

RENOVATION / EXPANSION

Potted plants have been accumulating in the South window area. This is a nice lit area that was intended for seating. The plans should be removed or relocated and additional furniture provided. Except for the terrazzo, the floor, wall, and ceiling finishes need to be replaced or refinished.

FURNITURE	QTY	100	SF	Comments
Lounge Chairs	8	40	320	
Tables - 4 person w/ chairs	2	100	200	Powered Tables
Tables - 2 person w/ chairs	4	50	200	Powered Tables
Side Tables / Coffee Table	4	20	80	
Sofas	2	100	200	
Entry Bench	1	80	80	
Digital Display	1	25	25	
Total			1,105	

NOTES

There currently is a set of displays and furniture located to block direct access to the fitness/exercise room. People try and circumvent the reception desk and "sneak" into the room. This furniture was added to stop this activity. The renovation should look to solve this situation.

VESTIBULE

60 sf

Room #: 101 Floor: First Zone: Community Scope: Existing

DESCRIPTION

Climate controlled airlocks to moderate transition from the exterior to the interior. The public notice board and the fire alarm panel are located in this space.

RENOVATION / EXPANSION

This space is generally good condition. The automatic doors are functional and the doors provide a reasonable seal.

NOTES

This space does not have air-conditioning and is not required to by the Parks District.

RECEPTION

975 sf

Room #: 118 Floor: First Zone: Community Scope: Existing

DESCRIPTION

The main desk that is visible to anyone entering the facility. This desk has (2) positions and is located to monitor the exercise room, gym, and game room. There is a clear sight line from the front door to the desk.

RENOVATION / EXPANSION

This desk is envisioned to have (1) dedicated Park's staff member and (1) seat for other partner organizations. This Park would like to continue to have one central control and monitoring point in an expansion. The desk is envisioned to be replaced with a more functional millwork for furniture based product.

FURNITURE	QTY	Unit SF	SF	Comments
Reception Desk	1	250	250	
Task Chairs	2	25	50	
Storage	1	100	100	
Total			400	

NOTES

The desk and storage could be furniture or millwork. Furniture might allow more flexibility.

ALCOVE

103 sf

Room #: 120 Floor: First Zone: Community Scope: Existing

DESCRIPTION

Small public space located off the reception area and the game room. This space has waiting room chairs and a large television. People like to sit here and watch TV while waiting for an activity or program to begin or end.

RENOVATION / EXPANSION

This type of space should be part of any renovation or expansion. Many people attend programs or activities with friends and family members. This space provides entertainment while people wait.

FURNITURE	QTY	Unit SF	SF	Comments
Large Format Display	1	25	25	
Lounge Chairs	4	40	160	
Side Tables	2	20	40	
Total			225	

NOTES

This space should be set apart from the Lounge based on the noise from the TV.

RECREATIONAL SPACES

SUMMARY

EXERCISE / TRAINING	1,976 sf
EXERCISE OFFICE	72 sf
GYMNASIUM	7,354 sf
GYM STORAGE	600 sf
GAME ROOM	934 sf
GAME STORAGE	98 sf
VENDING	56 sf
Total	11,090 sf

EXERCISE / TRAINING

1,976 sf

Room #: 102 Floor: First Zone: Recreation Scope: Existing

DESCRIPTION

The space includes strength equipment, free weights, cardio machines with power and data connections, circuit machines, mirrors, stretching mat area. This area is visible from the Lounge and the exterior drop-off area. This space contains a drinking fountain and windows to the Gymnasium.

RENOVATION / EXPANSION

100

The floors in this space are in good condition. There is too much equipment for the space. The Parks will monitor the most used equipment and reduce as required. There currently is not stretching area and the drinking fountains are difficult to access.

FURNITURE	QTY	Unit SF	SF	Comments
Strength Equipment				Parks to review
Free Weights				Parks to review
Cardio machines				Parks to review
Stretching mat area				Parks to review
Circuit machines				Parks to review

NOTES

This space should be studied for possible relocation. The fitness/dance studio could use this space and a new exercise room could be added.

At busy times this room has 15-20 people.

During the "free hour" every day, the space is at capacity.

An outdoor view is important for the users

Better controlled access is required.

Reception should have visual access to this space if possible.

EXERCISE OFFICE

72 sf

Room #: 103 Floor: First Zone: Staff Scope: Existing

DESCRIPTION

The existing office is connected to the Exercise Training room. This is an individual office with existing shelving and storage cabinets.

RENOVATION / EXPANSION

This space is under utilized by the Park District. The Park would like to convert this space to storage to support the Exercise Room. This will allow for more activities and services to be offered in the exercise room.

FURNITURE	QTY	Unit SF	SF	Comments
Open storage shelving	2	12	24	
Storage Cabinets	2	15	30	Lockable
Total			54	

NOTES

This room could also be used as storage for personal trainers.

GYMNASIUM

7,354 sf

Room #: 105 Floor: First Zone: Recreation Scope: Existing

DESCRIPTION

The gym is sized for a high school basketball court, (2) half courts, or (2) Volleyball courts. The space is not striped for other sports activities. This is the most popular space in the building and is constantly booked.

RENOVATION / EXPANSION

One of the main reasons for the expansion is to allow this space to become more available. The gym is in good condition but the CMU walls need to be cleaned. The existing bleachers are to remain.

FURNITURE	QTY	Unit SF	SF	Comments
Bleachers				

NOTES

This space currently provides the following activities: Volleyball, Basketball, Kids Play Zone, Rental Space. (There is a bounce house available for the Play Zone or Rental)

Other activities that have been requested but are not provided are: Pickle Ball, Badminton, Indoor Soccer.

There is not acoustic dampening in the space as this is not currently desired by the Parks.

The bounce house should be moved to storage once more is available.

GYM STORAGE

600 sf

Room #: 104 Floor: First Zone: Support Scope: Existing

DESCRIPTION

This space is south the of Gymnasium and provides storage to gym equipment and supplies. The storage is completely full. This space also houses locked storage and electrical panels for the building.

RENOVATION / EXPANSION

The intention of the expansion is to free up some of the storage to the Park can offer additional or expanded services. Many of the adult and youth programs take place in the gym and if these were relocated, their equipment would also move.

FURNITURE

QTY	Unit SF	SF	Comments
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A large collection of sports, exercise, and youth play equipment. The Parks will review the equipment and determine the approximate amount. The existing shelving is adequate.			
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NOTES

If the fitness equipment is relocated the gym should have enough storage.
The bounce house should be stored in this space.
This space has secure storage at the south end.

GAME ROOM

934 sf

Room #: 121 Floor: First Zone: Community Scope: Existing

DESCRIPTION

This area is directly behind the reception desk and appears to be open to the public whenever the building is open. There is a gaming table and seating for impromptu gatherings and lounging. This space is intended for youth activities however, it is open to all ages.

RENOVATION / EXPANSION

The game room is popular with all ages. Ping Pong, Foosball, and Pool are all very popular. This space also has a video game area. This space needs to be near the reception desk so it can be monitored. The video game equipment is dated and most likely not appealing. The Park should consider updating the equipment and game selection

FURNITURE	QTY	Unit SF	SF	Comments
Tables - 4 person w/ chairs	4	100	400	
Game Table	4	100	400	
Stools	1	20	20	
Total			820	

NOTES

Possible Expanded Services: Arcade style video games, Darts, White Board
 Ping Pong is the most popular activity. The Park would like to see space for 2 more tables.
 The video games and systems are out of date. The Park should invest in more current options.

GAME STORAGE

98 sf

Room #: 123 Floor: First Zone: Support Scope: Existing

DESCRIPTION

Storage space with access directly into the Game Room. This room also houses the IT equipment for the building.

RENOVATION / EXPANSION

More storage is required to expand programing and services of the game room. The current storage is completely full and 1/3 of it houses the building service equipment.

FURNITURE	QTY	Unit SF	SF	Comments
Open storage shelving	3	12	36	
Total			36	

NOTES

The Park does not currently require air conditioning in this area for the IT equipment.

VENDING

56 sf

Room #: 121A Floor: First Zone: Community Scope: Existing

DESCRIPTION

Located in the game room, this space provides room for (2) vending machines.

RENOVATION / EXPANSION

This area does not necessary have to be next to or in the gaming room. This could be a self-service kiosk near the lounge or alcove.

FURNITURE	QTY	Unit SF	SF	Comments
Vending Machine	2	50	100	
Total			100	

NOTES

The Parks Division is not currently interested in a café or third party leased space at this facility.

COMMUNITY SPACES

SUMMARY

COMMUNITY ROOM 1	1,064 sf
COMMUNITY ROOM 2	920 sf
COMMUNITY ROOM 3	661 sf
COMM ROOM / STORAGE	370 sf
KITCHEN	445 sf
PANTRY	78 sf
MEETING ROOM	696 sf
DRY CRAFTS	501 sf
WET CRAFTS	505 sf
WET/DRY STORAGE	206 sf
KILN	72 sf
INFANTS	146 sf
CHILD CARE	421 sf
CHILD STORAGE	55 sf
CHILD TOILET	40 sf
Total	6,180 sf

COMMUNITY ROOM 1

1,064 sf

Room #: 137 Floor: First 100 Community Scope: Existing

DESCRIPTION

Large meeting space which can be divided up into (2-3) separate rooms or combine into a single large room. This space has (2) dividing walls. Each room has millwork storage and a sink.

RENOVATION / EXPANSION

No work is currently anticipated in this space, except for updating the existing finishes. A renovation or expansion project should investigate motorized folding partitions.

FURNITURE	QTY	Unit SF	SF	Comments
Tables				
Meeting Room Chairs				

NOTES

This room has a wood floor similar to the gym.

COMMUNITY ROOM 2

920 sf

Room #: 138 Floor: First Zone: Community Scope: Existing

DESCRIPTION

Large meeting space which can be divided up into (2-3) separate rooms or combine into a single large room. This space has (2) dividing walls. Each room has millwork storage and a sink.

RENOVATION / EXPANSION

No work is currently anticipated in this space, except for updating the existing finishes. A renovation or expansion project should investigate motorized folding partitions.

FURNITURE

	QTY	Unit SF	SF	Comments
Tables				
Meeting Room Chairs				

NOTES

This room has carpet flooring.

COMMUNITY ROOM 3

661 sf

Room #: 139 Floor: First Zone: Community Scope: Existing

DESCRIPTION

Large meeting space which can be divided up into (2-3) separate rooms or combine into a single large room. This space has (2) dividing walls. Each room has millwork storage and a sink. This room also connects to a full kitchen which can be used as a demonstration area for Park programs.

RENOVATION / EXPANSION

No work is currently anticipated in this space, except for updating the existing finishes. A renovation or expansion project should investigate motorized folding partitions.

FURNITURE

	QTY	Unit SF	SF	Comments
Tables				
Meeting Room Chairs				

NOTES

This room has carpet flooring.

COMM ROOM / STORAGE

370 sf

Room #: 128 Floor: First Zone: Support Scope: Existing

DESCRIPTION

This is a large storage room with tables and chairs for the community rooms. This space does house some other building storage items, but the primary purpose is for the Community Room.

RENOVATION / EXPANSION

This space should be reevaluated when new furniture is purchased.

NOTES

With new efficient furniture this space should be adequate for community room storage.

KITCHEN

445 sf

Room #: 140 Floor: First Zone: Community Scope: Existing

DESCRIPTION

Commercial style kitchen for demonstration and/or catering. This is connected to Community Room 3. There is direct access to the pantry and the main receiving corridor.

RENOVATION / EXPANSION

The Kitchen primary serves the NESCO for their lunch program. However, the kitchen is fully equipment and could house demonstration and learning programs.

NOTES

This space is centrally located and can easily service all the community spaces. The Park's staff did not see a need to expand this area.

PANTRY

78 sf

Room #: 141 Floor: First Zone: Support Scope: Existing

DESCRIPTION

This space is directly south of the Kitchen. It can only be accessed through the Kitchen. The primary use is to store goods and equipment for the Kitchen.

RENOVATION / EXPANSION

This space is in good working order and should not need to be expanded based on comments from the Park's Staff.

NOTES

This area does not need to be expanded and the shelving is in good condition.

MEETING ROOM

696 sf

Room #: 149 Floor: First Zone: Community Scope: Existing

DESCRIPTION

This space is located off the Lobby and can be access through two different doors. This is generally set up as a conference room or presentation space.

RENOVATION / EXPANSION

The location of this space is ideal for other possible program elements. The space is a part of the existing programing and would need to be relocated if the space reallocated for other purposes.

FURNITURE

	QTY	Unit SF	SF	Comments
Tables				
Meeting Room Chairs				
Podium				

NOTES

This space does not have any direct accessible storage. This space shares the community room storage space in the west corridor.

DRY CRAFTS

501 sf

Room #: 129 Floor: First Zone: Community Scope: Existing

DESCRIPTION

Craft space was intended for dry craft activities. There is a sink and some built in millwork in the space. The rest of the space has a perimeter storage shelving, tables, and chairs.

RENOVATION / EXPANSION

Although this space was intended for dry crafts, it is used for all crafts. The wet craft room is devoted to pottery. In the expansion, better storage and furniture is required for this space.

FURNITURE

	QTY	Unit SF	SF	Comments
Tables				
Meeting Room Chair				
Lockage Storage				

NOTES

This space needs to be supervised during and activity based on the open storage.

WET CRAFTS

505 sf

Room #: 132 Floor: First Zone: Community Scope: Existing

DESCRIPTION

Craft space was intended for wet craft activities. However, this room is set up for primarily pottery. This space has a sink and millwork storage cabinets. This space also has access to a Kiln room and storage space.

RENOVATION / EXPANSION

The room is adequate for the purpose of pottery. The Parks will reach out to other local groups to try and increase participation in the use of space.

NOTES

This space is a community favorite and should continue to be part of the Warner Park Services.

WET/DRY STORAGE

206 sf

Room #: 130 Floor: First Zone: Support Scope: Existing

DESCRIPTION

Storage room accessible from both the Dry Craft space and the Wet Craft Space.

RENOVATION / EXPANSION

This space is primarily used by the Wet Crafts "pottery" space. Based on the amount of supplies and equipment this area is almost completely full. Dry Crafts could store items on lockable shelving in the Dry Craft space. This will free up the entire space for pottery storage.

FURNITURE	QTY	Unit SF	SF	Comments
Shelving	16	15	240	

NOTES

This space is only accessible through the Craft rooms.

KILN

72 sf

Room #: 131 Floor: First Zone: Community Scope: Existing

DESCRIPTION

The kiln is a fire rated room with direct access from the Wet Craft space. This room houses the kiln as well as a couple of metal shelving units.

RENOVATION / EXPANSION

The use of the kiln is causing significant corrosion of the piping and fire protection in the room. An expansion should install a proper ventilation system to evacuate the damaging gasses. This room appears to be an adequate size.

NOTES

This room is only used during pottery classes.

INFANTS

146 sf

Room #: 133 Floor: First Zone: Community Scope: Existing

DESCRIPTION

This space was originally intended for children under the age of two years. Based on the room size this space code does not allow the space to be used for this purpose. It is currently being used as an office space for the child care service.

RENOVATION / EXPANSION

This space should be relabeled as an office and the office needs should be reviewed with the child care staff.

FURNITURE	QTY	Unit SF	SF	Comments
Workstation	1	100	100	
Closed lockable storage	2	20	40	

NOTES

Does child care need a separate office?

CHILD CARE

421 sf

Room #: 136 Floor: First Zone: Community Scope: Existing

DESCRIPTION

A space devoted to child care. This space is used by summer camps and evening hour child care services.

RENOVATION / EXPANSION

The Parks do not have a desire to offer day care services. This space is intended to offer child care while parents are using the facility for other activities. The space is generally too remote from the entry and is not heavily used. If the space was closer to the entry it might be used more.

FURNITURE	QTY	Unit SF	SF	Comments
Chairs				
Tables				
Interactive children's furnishings.				

NOTES

This space should have access to an outdoor activity area.

CHILD STORAGE

55 sf

Room #: 134 Floor: First Zone: Support Scope: Existing

DESCRIPTION

Storage Room within the Child Care suite. Accessed from the main child care area.

RENOVATION / EXPANSION

This room is an appropriate size based on the currently size and capacity of the child care room.

NOTES

The existing furniture is in good condition.

CHILD TOILET

40 sf

Room #: 135 Floor: First Zone: Support Scope: Existing

DESCRIPTION

Single use restroom within the Child Care suite. The toilet is child sized and can not be used towards the total building water closets. (1) water closet and (1) lavatory.

RENOVATION / EXPANSION

This space should be renovated with efficient plumbing fixtures and toilet accessories. Based on the current location and current size this space can not accommodate additional restrooms.

FURNITURE	QTY	Unit SF	SF	Comments
Water Closets	5			Provide 1 ADA
Lavatories	3			

NOTES

Based on the current location of the child care room, it is recommended that this restroom remain.

STAFF SPACES

The existing staff spaces are not arranged in a manner that provided an efficient work environment. Based on the current configuration the staff space is at capacity but does not provide enough room for all current staff members. By reconfiguring the existing space more staff could fit into the current area. The spaces below are envisioned for a reconfigured space and do not reflect existing conditions.

SPACE SUMMARY

STAFF WORKROOM	770 sf
STAFF CONFERENCE SPACE	240 sf
STAFF BREAK ROOM	120 sf
STAFF STORAGE AND COPY	120 sf
Total	1,250 sf

STAFF SUMMARY

Full Time Parks Staff	4
Part Time Parks Staff	3
MSCR Staff	1
Total	8

STAFF WORKROOM

770 sf

Room #: 115 Floor: First Zone: Staff Scope: Renovation

DESCRIPTION

This space is intended to be an open work environment with staff workstations. Staff will not have private offices. Each workstation should have lockable storage and some amount of privacy. Each Full Tile workstation will have (1) remove file cabinet for additional storage. Each workstations should have enough room for a visitor.

FURNITURE	QTY	Unit SF	SF	Comments
Workstation Parks Staff	4	100	400	
Shared Workstation Parks Staff	1	100	100	
Workstation MSCR Staff	1	100	100	
File Cabinet	5	20	100	
Unassigned Space	10%	700	70	
Total			770	

NOTES

This space should be well lit and be in proximity to the reception deck.

STAFF CONFERENCE SPACE

240 sf

Room #: 112 Floor: First Zone: Staff Scope: Renovation

DESCRIPTION

This space is intended for internal staff meetings as well as a space to make private phone calls or meet with vendors. This space is not intended to be accessible to the public.

FURNITURE	QTY	Unit SF	SF	Comments
Conference Table 6 person w/ chairs	1	200	200	
Wall Mounted Monitor	1	20	20	
Unassigned Space	10%	220	20	
Total			240	

NOTES

This space should be connected to the Staff Workroom.

STAFF BREAK ROOM

120 sf

Room #: 113 Floor: First Zone: Staff Scope: Renovation

DESCRIPTION

This area is not intended to be a separate room but part of the Staff Workroom. Staff can use the public areas or the conference room for spaces away from their desk to have a break. This area will have equipment for preparing and storage of personal items and food.

FURNITURE	QTY	Unit SF	SF	Comments
10 foot counter and cabinetry w/ sink.	1	90	90	
Refrigerator	1	20	20	
Unassigned Space	10%	110	10	
Total			120	

NOTES

In addition to the refrigerator the space should provide a coffee maker and a microwave.

STAFF STORAGE AND COPY

120 sf

Room #: 114 Floor: First Zone: Staff Scope: Renovation

DESCRIPTION

This space is intended to provide storage for office supplies as well as a copy and print area.

FURNITURE	QTY	Unit SF	SF	Comments
10 foot counter with shelving above	1	90	90	
Copy Printer	1	20	20	
Unassigned Space	10%	110	10	
Total			120	

NOTES

This space should be connected to the Staff Workroom.

SUPPORT SPACES

SUMMARY

WOMEN	281 sf
MEN	255 sf
FAMILY TOILET	40 sf
JANITOR CLOSETS	55 sf
LOCKER ROOM WOMEN	219 sf
LOCKER ROOM MEN	216 sf
NORTH MECHANICAL	1,587 sf
SOUTH MECHANICAL	1,172 sf
FIRST FLOOR MECHANICAL	645 sf
STORAGE / WORKSHOP	160 sf
CIRCULATION	2,970 sf
Total	7,600 sf

WOMEN

281 sf

Room #: 147 Floor: First Zone: Support Scope: Existing

DESCRIPTION

Women's' Public Restroom. (5) water closets and (3) lavatories. (one water closet is accessible)

RENOVATION / EXPANSION

This space should be renovated with efficient plumbing fixtures and toilet accessories. Based on the current location and current size this space can not accommodate additional restrooms.

FIXTURES	QTY	Unit SF	SF	Comments
Water Closets	5			Provide 1 ADA
Lavatories	3			

NOTES

If the building were to expand, additional restrooms would be required elsewhere in the building.

MEN

255 sf

Room #: 148 Floor: First Zone: Support Scope: Existing

DESCRIPTION

Men's' Public Restroom. (2) water closets, (3) Urinals, and (3) lavatories. (One water closet is accessible)

RENOVATION / EXPANSION

This space should be renovated with efficient plumbing fixtures and toilet accessories. Based on the current location and current size this space can not accommodate additional restrooms.

FIXTURES	QTY	Unit SF	SF	Comments
Water Closets	2			Provide 1 ADA
Urinals	3			
Lavatories	3			

NOTES

If the building were to expand, additional restrooms would be required elsewhere in the building.

FAMILY TOILET

40 sf

Room #: 146 Floor: First Zone: Support Scope: Existing

DESCRIPTION

This is a single use toilet next to the Public Restrooms. Verify ADA requirements.

RENOVATION / EXPANSION

This space should be renovated with efficient plumbing fixtures and toilet accessories. Based on the current location and current size this space can not accommodate additional restrooms.

NOTES

One Family restroom is sufficient with a minor building expansion.

JANITOR CLOSETS

55 sf

Room #: 109, 143 Floor: First Zone: Support Scope: Existing

DESCRIPTION

There are two janitor closets in the building. One is near the locker rooms and the other is near the kitchen.

FURNITURE	QTY	Unit SF	SF	Comments
JANITOR CLOSET A	1	38	38	
JANITOR CLOSET B	1	17	17	
Total			55	

NOTES

The amount of janitor storage is sufficient for the existing and expanded building.

LOCKER ROOM WOMEN

219 sf

Room #: 110B Floor: First Zone: Support Scope: Existing

DESCRIPTION

This space has (2) showers (one of them is ADA) and about 48 lockers. This space includes (2) water closets and (2) lavatories

RENOVATION / EXPANSION

This space should be renovated with efficient plumbing fixtures and toilet accessories. In addition the lockers should be replaced with a better system for locking. This space could be expanded to have additional restrooms and locker space if desired.

FURNITURE	QTY	Unit SF	SF	Comments
Benches	1	20	20	
Lockers	48	7	336	Double Height
Water Closet	2			
Lavatory	2			
Shower	2			

NOTES

If the building does not add an additional gym, this space should be sufficient.

LOCKER ROOM MEN

216 sf

Room #: 111B Floor: First Zone: Support Scope: Existing

DESCRIPTION

This space has (2) showers (one of them is ADA) and about 48 lockers. This space includes (1) water closet, (1) Urinal, and (2) lavatories

RENOVATION / EXPANSION

This space should be renovated with efficient plumbing fixtures and toilet accessories. In addition the lockers should be replaced with a better system for locking. This space could be expanded to have additional restrooms and locker space if desired.

FURNITURE	QTY	Unit SF	SF	Comments
Benches	1	20	20	
Lockers	48	7	336	Double Height
Water Closet	1			
Urinal	1			
Lavatory	2			
Shower	2			

NOTES

If the building does not add an additional gym, this space should be sufficient.

NORTH MECHANICAL

1,587 sf

Room #: 200 Floor: Second Zone: Mechanical Scope: Existing

DESCRIPTION

This space is located on the second floor and is only accessible through the Building Storage and Workshop.

RENOVATION / EXPANSION

This room could be expanded north with a renovation. The current space does not have adequate access doors.

NOTES

This room is full and can not house an additional equipment.

SOUTH MECHANICAL

1,172 sf

Room #: 201 Floor: Second Zone: Mechanical Scope: Existing

DESCRIPTION

This space is located on the second floor and is only accessible through the a corridor or the Kitchen.

RENOVATION / EXPANSION

This space is above the restrooms and the kitchen. Based on the location it would be difficult to expand this existing space.

NOTES

This room is full and can not house an additional equipment.

FIRST FLOOR MECHANICAL

645 sf

Room #: 150 Floor: First Zone: Mechanical Scope: Existing

DESCRIPTION

This space is located outside of the building and houses the cooling unit and building transformer.

RENOVATION / EXPANSION

The walls and slab in this space are showing signs of heaving and cracking. This space should be replaced and possible relocated in an expansion.

NOTES

This room is full and can not house an additional equipment.

STORAGE / WORKSHOP

160 sf

Room #: 107 Floor: First Zone: Staff Scope: Existing

DESCRIPTION

Storage and work space for facilities staff. Also provides access to the North second floor mechanical room.

RENOVATION / EXPANSION

This space is full of storage items, a Washer/Dryer and a small desk. The desk should be removed and more efficient storage should be provided.

FURNITURE	QTY	Unit SF	SF	Comments
Industrial Shelving	3	15	45	
Washer Dryer	1	40	40	

NOTES

Circulation though and up to the mechanical room should be evaluated with an expansion.

CIRCULATION

2,970 sf

Room #: 108, 119 Floor: First Zone: Support Scope: Existing

DESCRIPTION

The building has two main corridors which run to the north of the reception desk and to the west. The west corridor is long and leads to the community spaces. The north corridor is short and leads to the locker room and recreational spaces.

RENOVATION / EXPANSION

These spaces should receive new finishes in renovation / expansion.

Spaces	QTY	Unit SF	SF	Comments
CORRIDOR NORTH	1	727	727	
NORTH STAIRWELL	1	171	171	
CORRIDOR WEST	1	1735	1735	
CORRIDOR ALCOVE	1	100	100	
CORRIDOR SOUTH	1	104	104	
SOUTH STAIRWELL	1	41	41	
HOLDING ROOM	1	92	92	
Total			2970	

NOTES

LEASED SPACES

The Warner Park Facility has an area within this existing building which is leased out to the North/Eastside Senior Coalition. This is generally office space which supports the senior services in the building and at other locations.

SPACE SUMMARY

NESCO RECEPTION	188 sf
NESCO OFFICES	759 sf
NESCO OFFICE 1	118 sf
NESCO OFFICE 2	127 sf
WORK ROOM	208 sf
Total	1,400 sf

NESCO RECEPTION

188 sf

Room #: 125 Floor: First Zone: Staff Scope: Existing

DESCRIPTION

This is a private reception area located within the NESCO space. (North / Eastside Senior Coalition)

RENOVATION / EXPANSION

The Parks should sit down with the NESCO and determine their future needs. They have indicated they would like some additional office space and a dedicated senior space.

NOTES

The current space has a reception desk and some visitor chairs.

NESCO OFFICES

759 sf

Room #: 126 Floor: First Zone: Staff Scope: Existing

DESCRIPTION

This is a private office space area located within the NESCO space. (North / Eastside Senior Coalition)
This space houses cubicles.

RENOVATION / EXPANSION

The Parks should sit down with the NESCO and determine their future needs. They have indicated they would like some additional office space and a dedicated senior space.

NOTES

The current space has furniture systems cubicles.

NESCO OFFICE 1

118 sf

Room #: 122 Floor: First Zone: Staff Scope: Existing

DESCRIPTION

This is a private office located within the NESCO space. (North / Eastside Senior Coalition)

RENOVATION / EXPANSION

The Parks should sit down with the NESCO and determine their future needs. They have indicated they would like some additional office space and a dedicated senior space.

NOTES

This office is set up as a typical single person office.

NESCO OFFICE 2

127 sf

Room #: 127 Floor: First Zone: Staff Scope: Existing

DESCRIPTION

This is a private office located within the NESCO space. (North / Eastside Senior Coalition)

RENOVATION / EXPANSION

The Parks should sit down with the NESCO and determine their future needs. They have indicated they would like some additional office space and a dedicated senior space.

NOTES

This office is set up as a typical single person office.

WORK ROOM

208 sf

Room #: 124 Floor: First Zone: Support Scope: Existing

DESCRIPTION

This is a private workroom located within the NESCO space. (North / Eastside Senior Coalition)

RENOVATION / EXPANSION

The Parks should sit down with the NESCO and determine their future needs. They have indicated they would like some additional office space and a dedicated senior space.

NOTES

This space has a small table and some other storage furniture.

PROPOSED INTERIOR NEW SPACES

SUMMARY

FITNESS & DANCE STUDIO	2,100	sf
FITNESS STORAGE	250	sf
MULTI-USE YOUTH PROGRAM	1,800	sf
YOUTH PROGRAM STORAGE	250	sf
RESTROOM	480	sf
NEW MECHANICAL	900	sf
RECEIVING	390	sf
CIRCULATION	20%	1,230 sf
Total		7,400

FITNESS & DANCE STUDIO

2,100 sf

Room #: # Floor: First Zone: Recreation Scope: New

DESCRIPTION

The Parks Department is looking for flexible spaces which are focused on fitness in an appropriately sized and conditioned space. The Fitness & Dance Studio should have an operable partition to separate the space into two rooms. The area should have storage directly accessible off the space that can be accessed for either side when the door is closed.

ACTIVITIES

Yoga, Hot Yoga, Chair Yoga	Senior Fitness
Dance Classes	100
Senior Strength	Weight Class

NOTES

This space should have views to the outside
This space should have access to an exterior gathering area.

FITNESS STORAGE

250 sf

Room #: # Floor: First Zone: Recreation Scope: New

DESCRIPTION

The intention is to move the fitness items currently stored in the gym and move them here. The size of the storage room should accommodate the existing fitness items and include additional space to expand Fitness programs.

FURNITURE	QTY	Unit SF	SF	Comments
Shelving	10	15	150	

NOTES

This space should be directly accessible to the Fitness & Dance Studio

MULTI-USE YOUTH PROGRAM

1,800 sf

Room #: # Floor: First Zone: Recreation Scope: New

DESCRIPTION

This space is primarily intended for youth activities and projects. However, the space should be flexible to allow other programs if necessary.

RENOVATION / EXPANSION

This space should be located near the game space. In addition the Youth Program room should have access to an outdoor classroom. The floors should be resilient and any built-in millwork should be durable and easily cleaned. The space should be able to function as an additional craft room on occasion.

FURNITURE	QTY	Unit SF	SF	Comments
Flip Top Tables	10			
Stackable Seating	40			
Podium	1			

NOTES

YOUTH PROGRAM STORAGE

250 sf

Room #: # Floor: First Zone: Support Scope: New

DESCRIPTION

The intention is to move the youth items currently stored in the gym and move them here. The size of the storage room should accommodate the existing youth items and include additional space to expand Youth programs.

FURNITURE	QTY	Unit SF	SF	Comments
Shelving	10	15	150	

NOTES

RESTROOM

480 sf

Room #: # Floor: First Zone: Support Scope: New

DESCRIPTION

The intent of these spaces is to add restroom facilities not locker rooms. They should be located conveniently for the fitness area.

RENOVATION / EXPANSION

With any expansion additional restrooms will be required. The current building restroom facilities are not sized to allow an expansion of this size. The chart below is a total for both men's and women's facilities.

Fixtures	QTY	Unit SF	SF	Comments
Water Closets	3			Provide 2 ADA
Urinals	1			
Lavatories	4			

NOTES

If a second gym is added to the facility, additional locker rooms could be required. With any addition the locker rooms could be paired with additional restrooms to make the spaces more economical.

NEW MECHANICAL

900 sf

Room #: # Floor: Second Zone: Mechanical Scope: New

DESCRIPTION

The new mechanical room is intended to provide an air handler for the additional 8,000 square foot addition. The existing boiler and chiller should have enough capacity for the added area.

NOTES

RECEIVING

390 sf

Room #: 160 Floor: First Zone: Staff Scope: New

DESCRIPTION

The existing facility does not have a receiving area. The intention of this space is to add a location to coordinate deliveries, staging and a possible facility office. The could also house the trash and recycling containers.

NOTES

PROPOSED OUTDOOR NEW SPACES

SPACE SUMMARY

OUTDOOR CLASS ROOM	1,800 sf
SPLASH PAD	3,500 sf
Total	5,300 sf

OUTDOOR CLASS ROOM

1,800 sf

Room #: # Floor: Outdoor Zone: Recreation Scope: New

DESCRIPTION

This area would serve both the multipurpose program room and the fitness dance studio. The facility could extend programming on weather approximate days or schedule outdoor specific activities in this space.

FURNITURE

FURNITURE	QTY	Unit SF	SF	Comments
Benches	5	40	200	

NOTES

Fitness and Dance equipment would be stored in the Fitness and Dance Studio
 Youth Services and Adult Programming would use their individual storage.
 No additional storage is planned for this space.

SPLASH PAD

3,500 sf

Room #: # Floor: Outdoor Zone: Recreation Scope: New

DESCRIPTION

This area is intended to be similar to other splash pads the Parks Department has provided around the Madison Community. The intended location of the splash pad is near the Warner Park Shelter. The shelter has restrooms which could be shared by the splash pad.

NOTES

The intention is to match other splash pads in the Madison Area.

EXTERIOR RESTROOMS

0 sf

Room #: 161 Floor: First Zone: Recreation Scope: New

DESCRIPTION

The intention of these restrooms is to serve the splash pad. The assumption is two separate accessible restrooms with access from the outside.

NOTES

Rooms should be for single or family use. The facility will not provide separate changing facilities.

ALTERNATE 1: SECOND GYM

The existing gym facility is set up for (1) high school basketball court, (2) half courts, and volleyball. The community is interested in an indoor pickle ball court as well as possible other indoor related sports. The gymnasium is the most used space in the building. Based on the existing number of lines of the current gym floor, a new gym would be required to offer additional indoor sports in an official capacity.

SPACES

GYMNASIUM	6,200	sf
STORAGE	440	sf
MECHANICAL	1,000	sf
CIRCULATION	10%	760 sf
Total	8,400	sf

ACTIVITIES

Indoor Basketball	Open Gym
Indoor Pickle ball	Running Track
Indoor Tennis	Open Swim
Badminton	Dodgeball

NOTES

Based on the layout of the building we are proposing this addition to the north of the gym.

ALTERNATE 2: CHILD CARE

Although the Parks Department is not interested in offering day care services, there could be some interest in offering leasable space. A official program and space offering should be worked out with a prospective company, however the space allocation below will give a general overview of a small daycare space. This area assumes that the facility will have access to the craft, gymnasium, etc... in the building.

SPACES

CLASSROOM 1		625	sf
CLASSROOM 2		625	sf
KIDS TOILETS		100	sf
OFFICE & STORAGE		400	sf
CIRCULATION	20%	350	sf
Total		2,100	sf

NOTES

The child care facility could be used in the evening to provide child care to members using the facility.

Warner Park Recreation Center

Final 1

October 10, 2017

Renovation Addition

Item	Component	Option 1 Budget
1	Renovation	\$737,800
1.1	Demolition	\$37,500
1.2	Interior Construction	\$207,500
1.3	Specialties	\$61,300
1.4	Fire Sprinkler	\$29,000
1.5	Plumbing	\$70,000
1.6	HVAC	\$58,000
1.7	Electrical	\$232,000
1.8	Special Conditions	\$42,500
2	Addition	\$1,654,100
2.1	Site Work	\$82,000
2.2	Structure & Substructure	\$366,300
2.3	Exterior Enclosure	\$637,200
2.4	Interior Construction	\$202,800
2.5	Specialties	\$30,240
2.6	Fire Protection	\$27,300
2.7	Plumbing	\$40,920
2.8	HVAC	\$81,840
2.9	Electrical	\$185,500
3	Multipliers	\$1,203,000
3.1	General Conditions, OH&P (15%)	\$358,800
3.2	Design Contingency (10%)	\$239,200
3.3	Construction Contingency (8%)	\$191,400
3.4	Escalation (11% Construction 2020)	\$350,000
3.5	City of Madison Management (2%)	\$63,600
4	Fee & Owner	\$720,000
4.1	A/E Fees (8%)	\$320,000
4.2	Owner & Furniture Allowance	\$400,000
5	TOTAL	\$4,314,900
6	Alternates	
6.1	Alternate 1 - Upper Gym	\$2,970,000
6.2	Alternate 2 - Upper Gym (No Addition)	\$3,080,000
6.3	Alternate 3 - Child Care	\$1,100,000
6.4	Parking Lot Renovation	\$500,000

Warner Park Recreation Center

Final 1

October 10, 2017

Renovation Addition

Item	Component	Option 1 Budget
7	Splash Pad	\$1,093,800
7.1	Site Demolition	\$12,000
7.2	Concrete Work	\$47,500
7.3	Equipment Building	\$95,000
7.4	Equipment Allowance	\$290,000
7.5	Plumbing	\$125,000
7.6	Electrical	\$110,000
7.7	General Conditions, OH&P (15%)	\$102,000
7.8	Design Contingency (10%)	\$68,000
7.9	Construction Contingency (8%)	\$54,400
7.10	Escalation (11% Construction 2020)	\$99,500
7.11	City of Madison Management (2%)	\$20,100
7.12	A/E Fees (7%)	\$70,300

**Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation
Project Location : Madison, Wisconsin**

Estimate type : Preliminary

Date : October 9, 2017

SUMMARY:

Additions and Renovation	\$3,600,484
Alternate 1 - Upper Gym	\$2,654,137
Alternate 2 - Upper Gym (No Addition)	\$2,756,679
Alternate 3 - Child Care	\$976,011
Alternate 4 - Splash Pad	\$1,022,513
Parking Lot Repair	\$298,362

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>New Additions:</u>					
<u>Structure/Substructure:</u>					
Demolitions at existing building connection	144	36.00	LF	5,184	
Building excavation	1	5,000.00	LS	5,000	
Cast in place concrete footing and foundation wall, formwork and reinforcement	408	240.00	LF	97,920	
Ditto - interior	56	180.00	LF		
Column footing (allowance)	12	600.00	EA	7,200	
Cast in place concrete slab on grade (5"), wire welded fabric reinforcement, vapor barrier and gravel base (6")	6,820	6.50	SF	44,330	
Perimeter insulation	1,224	1.70	LF	2,081	
Steel column and beams - mezzanine structure	900	15.00	SF	13,500	
Precast concrete plank (10"), concrete topping (2") - mezzanine	900	20.00	SF	18,000	
Steel column, beams, joists, bracing and bridging - roof structure (allowance - 11#/sf)	37.51	3,400.00	TN	127,534	
Roof deck - acoustical	8,500	2.60	SF	22,100	
Miscellaneous steel	3	3,800.00	TN	11,400	
Stair to mezzanine	1	12,000.00	EA	12,000	
<u>Exterior Closure:</u>					
Split face CMU (4"), air/water/vapor barrier, 3" spray foam insulation and 10" reinforced CMU	1,850	35.00	SF	64,750	
Copper panel, gypsum wallboard sheathing, air/water/vapor barrier, 3"	2,590	53.00	SF	137,270	
Through wall flashing	1,026	35.00	LF	35,910	
Cast stone base and sills (allowance)	1	10,000.00	LS	10,000	
Metal fascia /coping (allowance)	408	38.00	LF	15,504	
Soffits (allowance)	1,212	16.00	SF	19,392	
Aluminum frame insulated low E glass window wall and storefront system	2,960	65.00	SF	192,400	
Premium for pair door	1	3,600.00	EA	3,600	
Premium for single door	1	1,850.00	EA	1,850	
Power operator	1	6,000.00	LS	6,000	
Single hollow metal door, hollow metal frame, hardware and finishes	5	1,100.00	EA	5,500	
Motorized overhead door	1	6,000.00	EA	6,000	

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>New Additions (Continued):</u>					
<u>Roof:</u>					
Fully adhered PVC membrane, protection board, roof insulation, associated flashing and trim	8,500	16.00	SF	136,000	
Roof accessories (allowance)	1	3,000.00	LS	3,000	
<u>Interior:</u>					
10" CMU reinforced	4,160	16.00	SF	66,560	
8" CMU	320	12.00	SF	3,840	
5/8" Gypsum wallboard both sides, metal stud framing, sound insulation	2,048	7.50	SF	15,360	
5/8" Gypsum wallboard on metal furring	4,200	3.00	SF	12,600	
Solid core wood door, hollow metal frame, hardware and finishes	5	860.00	EA	4,300	
Ditto - pair	6	1,780.00	EA	10,680	
Moveable partition and track	22	450.00	LF	9,900	
<u>Floor Finishes and Bases:</u>					
Wood floor - studio	1,920	14.00	SF	26,880	
Rubber floor - program	1,760	13.00	SF	22,880	
Ceramic tile - toilets	120	8.50	SF	1,020	
Seal concrete	3,920	1.70	SF	6,664	
<u>Ceiling Finishes:</u>					
Gypsum wallboard painted - toilets	120	4.00	SF	480	
Paint exposed	6,700	2.00	SF	13,400	
<u>Wall Finishes:</u>					
Paint gypsum wallboard	8,296	0.70	SF	5,807	
Paint CMU	1,100	0.85	SF	935	
Miscellaneous painting and decorating	1	1,500.00	LS	1,500	

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>New Additions (Continued):</u>					
<u>Specialties:</u>					
Toilet partitions and accessories	1	4,000.00	LS	4,000	
Mirror - studio (4' x 8')	6	550.00	EA	3,300	
Plastic laminate work counter with cabinets	16	300.00	LF	4,800	
Fire extinguisher and cabinet	2	420.00	EA	840	
Defibrillator	1	1,100.00	EA	1,100	
Signage	1	1,200.00	LS	1,200	
Shelving	1	2,000.00	LS	2,000	
Miscellaneous specialties	1	1,000.00	LS	1,000	
Window treatment (allowance)	2,000	6.00	SF	12,000	
<u>Plumbing:</u>					
Toilet fixtures, water and sanitary piping, insulation, roof drains and connection	6,820	6.00	SF	40,920	
<u>HVAC:</u>					
New air handling unit, duct work, piping and insulation, controls, connection to existing system	6,820	12.00	SF	81,840	
<u>Fire Protection:</u>					
Extend water service to new additions, new sprinkler heads, piping, etc.	6,820	4.00	SF	27,280	
<u>Electrical:</u>					
New electrical service (600A)	1	15,000.00	LS	15,000	
Power and distribution, LED lighting and controls, special electrical systems	6,820	25.00	SF	<u>170,500</u>	1,572,011

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Renovation:</u>					
<u>Demolitions:</u>					
Remove floor finishes and dispose	14,692	1.00	SF	14,692	
Remove ceiling finishes and dispose	4,736	0.70	SF	3,315	
Miscellaneous demolition	1	1,500.00	LS	1,500	
Remove toilet partitions and accessories	1	3,000.00	LS	3,000	
Mechanical and electrical demolition	1	15,000.00	LS	15,000	
<u>Interior:</u>					
Clean, patch, paint gypsum wallboard wall; clean, patch, tuckpoint, paint masonry wall; clean, repaint doors	29,000	2.00	SF	58,000	
New carpet and bases	8,940	6.00	SF	53,640	
New rubber floor and bases	1,000	14.50	SF	14,500	
Clean remaining floor	1	6,000.00	LS	6,000	
Walk-off mat	64	30.00	SF	1,920	
2' x 4' acoustical ceiling, suspended	4,736	3.00	SF	14,208	
Clean, plan, refinish existing plywood ceiling	21,264	2.50	SF	53,160	
Repaint existing exposed ceiling	3,000	2.00	SF	6,000	
<u>Specialties:</u>					
Toilet partitions and accessories	1	9,000.00	LS	9,000	
Replacement reception desk	1	10,000.00	EA	10,000	
Work counter	95	260.00	LF	24,700	
Signage	1	2,800.00	LS	2,800	
Window treatment (allowance)	1	10,000.00	LS	10,000	
Locker (allowance)	30	160.00	EA	4,800	
<u>Plumbing:</u>					
New fixtures, piping, insulation, etc.	1	70,000.00	LS	70,000	

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Renovation (Continued):</u>					
<u>HVAC:</u>					
Update return air, modify existing systems	29,000	2.00	SF	58,000	
<u>Fire Sprinkler:</u>					
Update and modify existing systems	29,000	1.00	SF	29,000	
<u>Electrical:</u>					
New LED lighting and controls, adjust existing system	29,000	8.00	SF	232,000	
<u>Special Conditions:</u>					
Temporary partitions and barricade	1	3,000.00	LS	3,000	
Protection of existing	1	5,000.00	LS	5,000	
Pedestrian protection	1	4,500.00	LS	4,500	
Premium for phasing	1	30,000.00	LS	<u>30,000</u>	737,735

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Sitework:</u>					
Miscellaneous site demolitions	1	3,000.00	LS	3,000	
Excavation and grading	1	6,000.00	LS	6,000	
Asphalt paving, gravel base	5,440	3.80	SF	20,672	
Connection to existing	1	1,300.00	LS	1,300	
Cast in place concrete sidewalk (allowance)	1,000	5.20	SF	5,200	
Concrete pavers - outdoor classroom	2,304	16.00	SF	36,864	
Concrete seating	1	3,000.00	LS	3,000	
Benches	10	600.00	EA	6,000	82,036
		Subtotal			2,391,782
<u>General conditions, overhead, profit, and contingencies:</u>					
General conditions, overhead and profit		12.00%			287,014
Design contingency		10.00%			267,880
Construction contingency		10.00%			294,668
Escalation (commencing April 2020 - completion 12 months) (3.5% Inflation rate)		11.08%			359,141
		ESTIMATED COST			\$3,600,484

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation - Alternate 1 - Upper Gym
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Demolitions:</u>					
Demolition at exterior wall	1	3,000.00	LS	3,000	
Demolition at existing mechanical slab/chiller	1	2,500.00	LS	2,500	
<u>Substructure/Structure:</u>					
Cast in place concrete footing and foundation wall, formwork, reinforcement and earthwork	232	250.00	LF	58,000	
Cast in place concrete retaining wall	288	30.00	SF	8,640	
Column footing	12	800.00	EA	9,600	
Perimeter insulation	696	1.70	SF	1,183	
Cast concrete slab on grade (5"), wire welded fabric reinforcement, vapor barrier and gravel base (6")	8,375	6.00	SF	50,250	
Elevator pit	1	4,500.00	EA	4,500	
Cast in place concrete chiller pad	768	10.00	SF	7,680	
Steel columns, beams, joists, bracing and bridging (allowance 16#/sf) - roof structure	67	3,400.00	TN	227,800	
Acoustical steel roof deck	8,375	2.40	SF	20,100	
Miscellaneous steel	4	3,800.00	TN	15,200	
Staircase	1	20,000.00	EA	20,000	
<u>Exterior Closure:</u>					
Split face CMU (4"), air/water/vapor barrier, 3" spray foam insulation and 10" CMU reinforcement	5,400	38.00	SF	205,200	
Aluminum frame insulated low E glass - window system	1,800	60.00	SF	108,000	
Through wall flashing	928	35.00	LF	32,480	
Cast stone base and sills (allowance)	1	12,000.00	LS	12,000	
Metal fascia/coping	232	38.00	LF	8,816	
Soffit	696	16.00	SF	11,136	
Single hollow metal door, hollow metal frame, hardware and finishes	2	1,100.00	EA	2,200	
<u>Roof:</u>					
Fully adhered PVC membrane, protection board, roof insulation, associated flashing and trim	9,200	16.00	SF	147,200	
Roof accessories	1	3,000.00	LS	3,000	

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation - Alternate 1 - Upper Gym
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Interior:</u>					
10" CMU reinforced	5,984	16.00	SF	95,744	
Single hollow metal door, hollow metal frame, hardware and finishes	6	860.00	EA	5,160	
Ditto - pair	2	1,780.00	EA	3,560	
<u>Floor Finishes and Bases:</u>					
Wood floor	6,400	16.00	SF	102,400	
Seal concrete	1,975	1.20	SF	2,370	
<u>Ceiling Finishes:</u>					
Paint exposed	8,375	2.00	SF	16,750	
<u>Wall Finishes:</u>					
Paint CMU	17,200	0.85	SF	14,620	
Miscellaneous painting and decorating	1	2,000.00	LS	2,000	
<u>Specialties:</u>					
Gym divider	1	8,000.00	EA	8,000	
Basketball backstops - motor	6	2,800.00	EA	16,800	
Miscellaneous gym equipment	1	5,000.00	LS	5,000	
Window treatment	1,800	6.00	SF	10,800	
Signage	1	600.00	LS	600	
Fire extinguisher and cabinet	2	420.00	EA	840	
Miscellaneous specialties	1	3,000.00	LS	3,000	
Hydraulic passenger elevator, 3000# capacity, 125 fpm, 8' travel, 2 stops	1	40,000.00	EA	40,000	

**Project Title : Warner Park Recreation Center - City of Madison, Park Division
 Additions and Renovation - Alternate 1 - Upper Gym
 Project Location : Madison, Wisconsin**

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Plumbing:</u>					
Roof drains and connections, 2 restrooms	8,375	6.00	SF	50,250	
<u>HVAC:</u>					
Equipment, ductwork, piping and insulation, controls	8,375	21.00	SF	175,875	
<u>Fire Sprinkler:</u>					
Sprinkler heads, piping, etc.	8,375	4.00	SF	33,500	
<u>Electrical:</u>					
Power and distribution, LED lighting and controls, special electrical systems, intercom, etc.	8,375	25.00	SF	209,375	
Miscellaneous site work	1	8,000.00	LS	8,000	1,763,129
				<u>Subtotal</u>	<u>1,763,129</u>
<u>General conditions, overhead, profit, and contingencies:</u>					
General conditions, overhead and profit		12.00%			211,576
Design contingency		10.00%			197,470
Construction contingency		10.00%			217,218
Escalation (commencing April 2020 - completion 12 months) (3.5% Inflation rate)		11.08%			264,745
				ESTIMATED COST	<u><u>\$2,654,137</u></u>

**Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation - Alternate 2 - Upper Gym (No Addition)
Project Location : Madison, Wisconsin**

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Demolitions:</u>					
Demolition at exterior wall	1	3,000.00	LS	3,000	
Demolition at existing mechanical slab/chiller	1	2,500.00	LS	2,500	
<u>Substructure/Structure:</u>					
Cast in place concrete footing and foundation wall, formwork, reinforcement and earthwork	271	250.00	LF	67,750	
Cast in place concrete retaining wall	288	30.00	SF	8,640	
Column footing	12	800.00	EA	9,600	
Perimeter insulation	740	1.70	SF	1,258	
Cast concrete slab on grade (5"), wire welded fabric reinforcement, vapor barrier and gravel base (6")	8,887	6.00	SF	53,322	
Elevator pit	1	4,500.00	EA	4,500	
Cast in place concrete chiller pad	768	10.00	SF	7,680	
Steel columns, beams, joists, bracing and bridging (allowance 16#/sf) - roof structure	68	3,400.00	TN	231,200	
Acoustical steel roof deck	8,887	2.40	SF	21,329	
Miscellaneous steel	4	3,800.00	TN	15,200	
Staircase	1	20,000.00	EA	20,000	
<u>Exterior Closure:</u>					
Split face CMU (4"), air/water/vapor barrier, 3" spray foam insulation and 10" CMU reinforcement	5,940	38.00	SF	225,720	
Aluminum frame insulated low E glass - window system	1,800	60.00	SF	108,000	
Through wall flashing	968	35.00	LF	33,880	
Cast stone base and sills (allowance)	1	12,000.00	LS	12,000	
Metal fascia/coping	232	38.00	LF	8,816	
Soffit	696	16.00	SF	11,136	
Single hollow metal door, hollow metal frame, hardware and finishes	2	1,100.00	EA	2,200	
<u>Roof:</u>					
Fully adhered PVC membrane, protection board, roof insulation, associated flashing and trim	9,200	16.00	SF	147,200	
Roof accessories	1	3,000.00	LS	3,000	

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation - Alternate 2 - Upper Gym (No Addition)
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Interior:</u>					
10" CMU reinforced	5,984	16.00	SF	95,744	
Single hollow metal door, hollow metal frame, hardware and finishes	6	860.00	EA	5,160	
Ditto - pair	2	1,780.00	EA	3,560	
<u>Floor Finishes and Bases:</u>					
Wood floor	6,400	16.00	SF	102,400	
Seal concrete	1,975	1.20	SF	2,370	
<u>Ceiling Finishes:</u>					
Paint exposed	8,375	2.00	SF	16,750	
<u>Wall Finishes:</u>					
Paint CMU	17,200	0.85	SF	14,620	
Miscellaneous painting and decorating	1	2,000.00	LS	2,000	
<u>Specialties:</u>					
Gym divider	1	8,000.00	EA	8,000	
Basketball backstops - motor	6	2,800.00	EA	16,800	
Miscellaneous gym equipment	1	5,000.00	LS	5,000	
Window treatment	1,800	6.00	SF	10,800	
Signage	1	600.00	LS	600	
Fire extinguisher and cabinet	2	420.00	EA	840	
Miscellaneous specialties	1	3,000.00	LS	3,000	
Hydraulic passenger elevator, 3000# capacity, 125 fpm, 8' travel, 2 stops	1	40,000.00	EA	40,000	

**Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation - Alternate 2 - Upper Gym (No Addition)
Project Location : Madison, Wisconsin**

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Plumbing:</u>					
Roof drains and connections, 2 restrooms	8,887	6.00	SF	53,322	
<u>HVAC:</u>					
Equipment, ductwork, piping and insulation, controls	8,887	21.00	SF	186,627	
<u>Fire Sprinkler:</u>					
Sprinkler heads, piping, etc.	8,887	4.00	SF	35,548	
<u>Electrical:</u>					
Power and distribution, LED lighting and controls, special electrical systems, intercom, etc.	8,887	25.00	SF	222,175	
Miscellaneous site work	1	8,000.00	LS	8,000	1,831,247
				Subtotal	1,831,247
<u>General conditions, overhead, profit, and contingencies:</u>					
General conditions, overhead and profit		12.00%			219,750
Design contingency		10.00%			205,100
Construction contingency		10.00%			225,610
Escalation (commencing April 2020 - completion 12 months) (3.5% Inflation rate)		11.08%			274,973
				ESTIMATED COST	\$2,756,679

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation - Alternate 3 - Child Care
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Demolitions:</u>					
Demolition at exterior wall	1	3,000.00	LS	3,000	
<u>Substructure/Structure:</u>					
Cast in place concrete footing and foundation wall, formwork, reinforcement and earthwork	184	250.00	LF	46,000	
Perimeter insulation	552	1.70	SF	938	
Cast concrete slab on grade (5"), wire welded fabric reinforcement, vapor barrier and gravel base (6")	2,000	6.00	SF	12,000	
Steel columns, beams, joists, bracing and bridging (allowance 11#/sf) - roof structure	11	3,400.00	TN	37,400	
Acoustical steel roof deck	2,000	2.40	SF	4,800	
Miscellaneous steel	1	3,800.00	TN	3,800	
<u>Exterior Closure:</u>					
Split face CMU (4"), air/water/vapor barrier, 3" spray foam insulation and 10" CMU reinforcement	1,875	38.00	SF	71,250	
Aluminum frame insulated low E glass - window system	625	60.00	SF	37,500	
Through wall flashing	368	35.00	LF	12,880	
Cast stone base and sills (allowance)	1	6,000.00	LS	6,000	
Metal fascia/coping	184	38.00	LF	6,992	
Soffit	552	16.00	SF	8,832	
Single hollow metal door, hollow metal frame, hardware and finishes	1	1,100.00	EA	1,100	
<u>Roof:</u>					
Fully adhered PVC membrane, protection board, roof insulation, associated flashing and trim	9,200	16.00	SF	147,200	
Roof accessories	1	2,000.00	LS	2,000	
Gutter and downspouts	1	3,500.00	LS	3,500	

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation - Alternate 3 - Child Care
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Interior:</u>					
5/8" gypsum wallboard both sides, metal stud framing, sound insulation	2,048	7.50	SF	15,360	
5/8" gypsum wallboard on metal furring	1,875	3.00	SF	5,625	
Single hollow metal door, hollow metal frame, hardware and finishes	7	860.00	EA	6,020	
<u>Floor Finishes and Bases:</u>					
Carpet tile	1,800	7.00	SF	12,600	
Seal concrete	200	1.20	SF	240	
<u>Ceiling Finishes:</u>					
2' x 4' acoustical	2,000	3.50	SF	7,000	
<u>Wall Finishes:</u>					
Paint gypsum wallboard	5,971	0.65	SF	3,881	
Miscellaneous painting and decorating	1	1,000.00	LS	1,000	
<u>Specialties:</u>					
Window treatment	625	6.00	SF	3,750	
Signage	1	600.00	LS	600	
Fire extinguisher and cabinet	2	420.00	EA	840	
Miscellaneous specialties	1	3,000.00	LS	3,000	
Tackboard, chalkboard, etc. (allowance)	1	3,000.00	LS	3,000	
Childcare facility specialties - cabinets, cubbies, etc. - (allowance)	1	8,000.00	LS	8,000	

**Project Title : Warner Park Recreation Center - City of Madison, Park Division
 Additions and Renovation - Alternate 3 - Child Care
 Project Location : Madison, Wisconsin**

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
<u>Plumbing:</u>					
Fixtures, piping, insulation, etc.	1	16,000.00	LS	16,000	
<u>HVAC:</u>					
Equipment, ductwork, piping and insulation, controls, connection to existing system	2,000	21.00	SF	42,000	
<u>Fire Sprinkler:</u>					
Sprinkler heads, piping, etc., connection to existing system	8,375	6.00	SF	50,250	
<u>Electrical:</u>					
Power and distribution, LED lighting and controls, special electrical systems, intercom, etc.	2,000	28.00	SF	56,000	
Miscellaneous site work	1	8,000.00	LS	8,000	648,359
				<u>Subtotal</u>	<u>648,359</u>
<u>General conditions, overhead, profit, and contingencies:</u>					
General conditions, overhead and profit		12.00%			77,803
Design contingency		10.00%			72,616
Construction contingency		10.00%			79,878
Escalation (commencing April 2020 - completion 12 months) (3.5% Inflation rate)		11.08%			97,355
				<u>ESTIMATED COST</u>	<u>\$976,011</u>

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Additions and Renovation - Alternate 4 - Splash Pad
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
Miscellaneous excavation	1	12,000.00	LS	12,000	
Cast in place concrete splash pad (5"), gravel base (6")	3,000	9.50	SF	28,500	
Premium for colored concrete (50% allowance)	1,500	4.50	SF	6,750	
Pool equipment building	1	95,000.00	LS	95,000	
Pool equipment (allowance)	1	260,000.00	LS	260,000	
Piping, insulation and connection	1	110,000.00	LS	110,000	
Electrical service, distribution, lighting, controls, etc.	1	110,000.00	LS	110,000	
Miscellaneous specialties	1	30,000.00	LS	30,000	
Sidewalk connections, etc.	1	12,000.00	LS	12,000	
Water/sewer connection (allowance)	1	15,000.00	LS	15,000	679,250
				Subtotal	679,250
<u>General conditions, overhead, profit, and contingencies:</u>					
General conditions, overhead and profit		12.00%			81,510
Design contingency		10.00%			76,076
Construction contingency		10.00%			83,684
Escalation (commencing April 2020 - completion 12 months) (3.5% Inflation rate)		11.08%			101,994
				ESTIMATED COST	\$1,022,513

Project Title : Warner Park Recreation Center - City of Madison, Park Division
Parking Lot Repair
Project Location : Madison, Wisconsin

Estimate type : Preliminary

Date : October 9, 2017

Description	Quantity	Rate \$	Unit	Subtotal \$	Total \$
Remove concrete sidewalk (50% allowance)	1,928	1.25	SF	2,410	
Remove concrete curb	2,206	2.50	LF	5,515	
Scarify asphalt paving	42,869	0.85	SF	36,439	
Disposal	1	5,000.00	LS	5,000	
Overlay asphalt paving	42,869	2.10	SF	90,025	
Cast in place concrete sidewalk	1,928	5.50	SF	10,604	
Cast in place concrete curb and gutter	2,206	18.00	LF	39,708	
Parking lot striping	1	6,000.00	LS	6,000	
Handicap signage (allowance)	10	250.00	EA	2,500	198,201
			Subtotal		198,201
 <u>General conditions, overhead, profit, and contingencies:</u>					
General conditions, overhead and profit		12.00%			23,784
Design contingency		10.00%			22,198
Construction contingency		10.00%			24,418
Escalation (commencing April 2020 - completion 12 months) (3.5% Inflation rate)		11.08%			29,761
			ESTIMATED COST		\$298,362



July 20, 2017

MEETING NOTES | Kick-Off Meeting

City of Madison Parks Division | Warner Park Recreation Center Study
Engberg Anderson Project No. 172744

DATE & TIME July 18, 2017, 3:30 pm

LOCATION Conf Rm CCB Rm 108

PRESENT:

City of Madison	Michael Strum, Janet Schmidt, Claire Oleksiak, Chad Norquist, Kay Rutledge, Jeanne Hoffman
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Engberg Anderson	Shaun Kelly, Jim Brown
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PURPOSE: Project Kick-Off Meeting

Item	Description	Action By	Date Due
IA	Engberg Anderson <ul style="list-style-type: none"> • Shaun is the Project Manager for EA • Copy Jim on correspondence City of Madison <ul style="list-style-type: none"> • Mike is the Project Manager for the City • Chad and Claire are typically available at the Warner Park Facility. 		
IB	Everyone should be copied on the correspondence. Chad will coordinate site visits to the Warner Park Facility Mike will coordinate the schedule and meetings for the City.		
IIA	Schedule: the draft schedule provided by EA will need to be updated to meet the following items: <ul style="list-style-type: none"> • The draft report available by October 1 • Substantial billing complete by September 15 and submitted to the City. • The report can be finalized in October. The preferred date for meetings will be Tuesday Afternoons. <ul style="list-style-type: none"> • There is some conflict with August 1. Shaun and Mike to coordinate. 	EA	8/1/2017
IIB	The City does not have a budget for the project. Part of the intent of this study is to develop a budget for a future project.	EA/CoM	8/1/2017
		EA	10/1/2017

Item	Description	Action By	Date Due
IIIA	The project is conceptual in nature. Plans should be diagrammatic and massing should be conceptual. The City will have a community engagement plan during a full project. The study should not start designing the exterior.		
IIIB	Phase 1: Existing Building Analysis Phase 2: Concepts and Estimates Phase 3: Final Report		
IIIC	The members of the team listed at the meeting will be the group reviewing the project. Additional reviews are not anticipated during the concept or building analysis phase.		
IIID	The Existing building is well liked. The community appreciates the unique design and efforts should be made to maintain the current quality and design intent. The initial thought was to expand the building to the North. There is a current pinch point at the gym and reception based on current use. The child care areas seem under used. Parks to look at possible wish list items for the Warner Park Location.	CoM	8/1/2017
IIIE	Documents <ul style="list-style-type: none"> • Chad will send PDF copies of the existing drawings • Mike will send the 2015 envisioning document and an existing survey / utility information • Jeanne will try and acquire CAD files and look into a Sharepoint site. 	CoM CoM CoM	8/1/2017

These meeting minutes constitute the author's understanding of the issues discussed and the decisions reached. Please contact the undersigned with any additions, deletions or changes.

Prepared by

Shaun Kelly
Principal

Copied **Kristin Richardson** | Architect
Mike Zuehlke | Architect

EA File Name: P:\Madison\2017 2694\172744 Warner Park\1-Project Administration\7-Meetings\00 Kick-Off\2744 Warner Park MM 7-20-17.Docx



August 7, 2017, 2017

MEETING NOTES | Workshop 1

City of Madison Parks Division | Warner Park Recreation Center Study
Engberg Anderson Project No. 172744

DATE & TIME August 7, 2017, 1:30 pm

LOCATION Conf Rm CCB Rm 108

PRESENT:

City of Madison	Michael Strum, Janet Schmidt, Claire Oleksiak, Chad Norquist, Kay Rutledge, Jeanne Hoffman
Engberg Anderson	Shaun Kelly, Jim Brown

PURPOSE: Workshop 01

Item	Description	Action By	Date Due
I	Previous Meeting <ul style="list-style-type: none"> • Mike to try and find and old existing Survey. • Mike to follow-up on 2015 envisioning document. • Jeanne to follow-up on CAD files 	CoM/Parks	8/22/2017
II	Schedule: <ul style="list-style-type: none"> • EA to send out meeting invitations to everyone for all meetings. • Workshop 2: August 22 • Workshop 3: September 5 • Workshop 4: September 12 • Workshop 5: September 26 • Workshop 6: October 10 • MEP Site Visit – August 11 (Chad, Jim, IMEG) 	EA	8/11/2017
IIIA	Existing Scope <ul style="list-style-type: none"> • Estimate Narrative to include costs to renovate finishes (floors, walls, ceilings) in the existing building. • Existing space uses and needs discussed. Program to reflect the discussion. Below are the significant items discussed: <ul style="list-style-type: none"> ○ Fitness Center: Is this the best location? Parks to review amount of equipment and need for a stretching area. 	EA	8/22/2017



August 7, 2017, 2017

MEETING NOTES | Workshop 2

City of Madison Parks Division | Warner Park Recreation Center Study
Engberg Anderson Project No. 172744

DATE & TIME August 22, 2017, 1:30 pm

LOCATION Conf Rm CCB Rm 103A

PRESENT:

City of Madison	Michael Strum, Kay Rutledge, Jeanne Hoffman
Engberg Anderson	Shaun Kelly,

PURPOSE: Workshop 02

Item	Description	Action By	Date Due
I	Previous Meeting <ul style="list-style-type: none"> • Mike provided the 2015 envisioning document. • Jeanne is working on CAD files. • Shaun to send estimator contact information to Jeanne. 	CoM/Parks	9/5/2017
IIA	Schedule: <ul style="list-style-type: none"> • Was reviewed and no changes were made. 		
IIB	Billing: <ul style="list-style-type: none"> • Was reviewed and no changes were made. 		
III	The existing facility study was discussed. The document is about 70% complete and waiting on some final comments from MEP. EA to send out draft once the document is ready.	EA	9/5/2017
IV	An updated program was discussed. <ul style="list-style-type: none"> • EA to send request to Chad and Claire for clarification on the game room and youth program space. • Based on the added space to the building it is anticipated additional parking would be required. The team would like to address this with parking sharing program with the ball stadium and a variance with the City. 	EA	9/5/2017

Item	Description	Action By	Date Due
	<ul style="list-style-type: none"> • The new indoor spaces adds about 8,165 square feet to the building. The Parks would like to keep this under 7,000 sf for cost purposes. • The project should carry (2) alternate prices for Park and City Review. <ul style="list-style-type: none"> ○ Alternate 1: Cost to add additional gym space. ○ Alternate 2: Cost to add leasable space for a 3rd party child care organization. 		
VA	<p>A variety of concepts were discussed during the meeting. EA provided base diagrams for the existing facility and six different options including alternates.</p> <ul style="list-style-type: none"> • Based on the existing facility report the best place to expand is to the North. There are utilities in the way however they are service utilities for the building and could be relocated or built over. • Below are the significant discussion points for each scheme. 	EA	9/5/2017
VB	<p>Concept 1</p> <ul style="list-style-type: none"> • Any renovation to the meeting room should use finishes that allow to meeting room to be multi-function. Possibly rubber flooring. • If the child care moves to where the meeting room is now, the facility would have acoustic concerns which would need to be addressed. • The location of the splash pad in the Southeast corner is not preferred. • Exterior walls should focus on view to the outside, the restrooms should be located interior to the building possible backing up to the existing locker room. • The receiving area should not block any existing windows. • The new program room should have direct access to the game room. • Alternate 1 is not acceptable. • Alternate 2 for a second gym should be studied more and the Park would like a cost. 	EA	9/5/2017
VC	<p>Concept 2</p> <ul style="list-style-type: none"> • The staff should be located close to the reception deck. • The receiving diagram in this option is preferred. • The scope of the renovation on this option is too grate and would not fit within the Park's budget. 	EA	9/5/2017

Item	Description	Action By	Date Due
	<ul style="list-style-type: none"> • Access through the building, North and South, is a good concept and should be explored. • The location of the Splash pad is not preferred however could be an option based on access. 		
VD	<p>Concept 3</p> <ul style="list-style-type: none"> • The west end of the building is the preferred location of the splash pad. • The receiving on the east side of the building is not preferred. This causes too much rework of existing spaces. The park parterres the exercise room in the current location. • The program room and the game room should have a close relationship. • Staff should be located behind the reception desk. • The connection of the NESC and the youth program room should be further explored. • Alternate 3 for a leasable child care space should be studied more and the Park would like a cost. 	EA	9/5/2017

These meeting minutes constitute the author's understanding of the issues discussed and the decisions reached. Please contact the undersigned with any additions, deletions or changes.

Prepared by

Shaun Kelly
Principal

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Jim Brown | Architect

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September 5, 2017

MEETING NOTES | Workshop 3

City of Madison Parks Division | Warner Park Recreation Center Study
Engberg Anderson Project No. 172744

DATE & TIME September 5, 2017, 1:30 pm

LOCATION Conf Rm CCB Rm 103A

PRESENT:

City of Madison	Michael Strum, Kay Rutledge, Jeanne Hoffman, Claire Oleksiak
Engberg Anderson	Shaun Kelly

PURPOSE: Workshop 03

Item	Description	Action By	Date Due
I	Previous Meeting <ul style="list-style-type: none"> • CAD files are available. 		
II	Schedule: <ul style="list-style-type: none"> • Was reviewed and no changes were made. 		
III	The existing facility study was discussed. The document is about 99% complete and waiting on some final comments from MEP. EA to send out draft once the document is ready.	EA	9/12/2017
IV	Program Updates: <ul style="list-style-type: none"> • The Youth Services space will have the following programs: <ul style="list-style-type: none"> ○ Kids Camp ○ After School programs ○ Summer Camp ○ Can the room be divided? ○ Focused on upper grades, middle and high school. ○ During school hours can be used by younger kids. • Outdoor Classroom <ul style="list-style-type: none"> ○ Place for any age group ○ Should be as large as the Youth Multipurpose Room 1,800 sf 	EA	9/12/2017

Item	Description	Action By	Date Due
	<ul style="list-style-type: none"> ○ More focused on youth but flexible for other programs. ● Game Room <ul style="list-style-type: none"> ○ Envisioned of unstructured activities. Should have a connection to the Youth room. Would be nice to have a connection to the outdoor classroom. 		
V	<p>The updated concepts were discussed.</p> <ul style="list-style-type: none"> ● Option 1 is preferred. <ul style="list-style-type: none"> ○ Locate splash pad so it cannot be seen from the community rooms. ○ Relocate the mechanical room for a possible gym addition. ○ Change outdoor classroom to outdoor activity Area. ● Option 2 <ul style="list-style-type: none"> ○ The classroom should not be visible from the community rooms. ○ The splash pad is too far behind the building. Maybe look at options by the Warner Park Shelter. <ul style="list-style-type: none"> ▪ Splash Pad needs outdoor restrooms. ○ Park did not like the new game room location, but did like the restroom addition. ● Option 3 <ul style="list-style-type: none"> ○ The different views from the space were interesting but the shape did not seem to be favorable. ○ The park wanted a corridor that went all the way around like option 1. ○ Same notes on the splash pad as option 1. ○ Not a clear way to get to the classroom. ● Gym 2 <ul style="list-style-type: none"> ○ Park really liked this option. ○ Show where chiller would be relocated to. ● Child Care <ul style="list-style-type: none"> ○ Good in concept. ○ Maintain a cost for this in the estimate. <p>Verify cost estimate of the splash pad. The costs do not look to include this item.</p>	EA	9/12/2017

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Shaun Kelly
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September 21, 2017

MEETING NOTES | Workshop 4

City of Madison Parks Division | Warner Park Recreation Center Study
Engberg Anderson Project No. 172744

DATE & TIME September 21, 2017, 10:30 am

LOCATION Conf Rm CCB Rm 103A

PRESENT:

City of Madison	Michael Strum, Chad Norquist, Jeanne Hoffman
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Engberg Anderson	Shaun Kelly, Jim Brown
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PURPOSE: Workshop 04

Item	Description	Action By	Date Due
1A	Schedule: <ul style="list-style-type: none"> • Move Workshop 5 forward at least 1 week. • Move Workshop 6 forward at least 1 week. 	EA	9/22/2017
1B	Mike provided an update from the executive Parks committee on the Warner Parks Options: <ul style="list-style-type: none"> • Option 1 is preferred. • They would like to see the splash pad move to the Warner Park shelter. <ul style="list-style-type: none"> ○ Use shelter restrooms for splash pad. • Provide the upper gym as a separate cost / completely separate project. 		
II	The existing facility study is being reviewed by EA. EA expects the study to be available for City/Park review the week of September 25.	EA	9/26/2017
IIIA	Engberg Anderson will precede with further development of option 1. The splash pad will be removed from the Recreation Center Plans and moved to the shelter. EA will assume the restrooms in the shelter are adequate for the splash pad. The Parks would like the Gym alternate added to option 1. They would also like to see what an option would look like with just the gym. This would need to include an extended hallway access and restrooms.	EA	10/3/2017

Item	Description	Action By	Date Due
	The project will maintain the (3) alternates in the project.		
IIIB	Overall there are no major changes or concerns with the estimate. A note will need to added for a Gym only design. The City would like a "City Project Management" line added at 2% for the project. Change the Furniture line to FF&E and correct the numbering.	EA	10/3/2017

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October 3, 2017

MEETING NOTES | Workshop 5

City of Madison Parks Division | Warner Park Recreation Center Study
Engberg Anderson Project No. 172744

DATE & TIME October 3, 2017, 1:30 pm

LOCATION Conf Rm CCB Rm 103A

PRESENT:

City of Madison

Michael Strum, Chad Norquist, Janet Schmidt,
Claire Oleksiak

Engberg Anderson

Shaun Kelly

PURPOSE: Workshop 05

Item	Description	Action By	Date Due
I	<p>Schedule:</p> <ul style="list-style-type: none"> Workshop 6: date is pending Park and City Review of draft final report. All comments on the reports or drawings should be sent to Mike for coordination and delivery to EA. 	CoM	
II	<p>The existing facility study Draft was provided to the Parks Division and City of Madison. EA requested that the document be reviewed. Comments will be incorporated into the final report.</p> <p>The document is divided up by consulting division with a summary report at the beginning of the document.</p>	CoM	
III	<p>Updated concepts were provided to the team for review and comment.</p> <ul style="list-style-type: none"> The Park requested that the final report include an option for NESCO to expand. We discussed having NESCO expanding to the existing dry craft room. We would then provide resilient floors in the youth multipurpose room and the meeting room to act as craft rooms. 	EA	

Item	Description	Action By	Date Due
	<ul style="list-style-type: none"> The splash pad location is acceptable. If this project is funded the team should look at additional locations like the existing winter ice rink and the volleyball courts. 		
IV	A draft of the final report was provided to the Parks Division and the City of Madison for review. The document is a work in progress. EA will provide updates and the document gets completed. Comments will be incorporated into the final report.	EA	

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