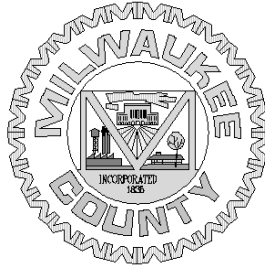


# MILWAUKEE COUNTY



## *Department of Administrative Services*

**Airport Engineering  
Milwaukee Mitchell International Airport  
5300 South Howell Ave.  
Milwaukee, Wisconsin 53207**

**REQUEST FOR QUALIFICATIONS  
FOR**

**Consulting Services and Design of the  
BAGGAGE HANDLING SYSTEM REPLACEMENT  
at Milwaukee Mitchell International Airport (MKE)**

**September 12, 2025**



To All Interested Consultants

Project: Baggage Handling System Replacement

Subject: REQUEST FOR QUALIFICATIONS (R.F.Q.)

Milwaukee County is requesting qualification statements for professional consulting services related to project management, design, and construction engineering services for airside and landside facilities at Milwaukee Mitchell International Airport (MKE).

The consultant selection process and subsequent fee negotiation and contracting will follow the requirements of FAA AC 150/5100-14E.

Milwaukee County will select one consulting team to provide the services identified in this RFQ. The selected team shall negotiate scope and fees and enter into a contract with Milwaukee County.

- I. **SCOPE OF CONSULTANT SERVICES:** The successful consultant shall provide all services as specified per the standard terms and conditions of the Milwaukee County Department of Administrative Services Consultant Agreement for Professional Services (Type C). See *Attachment 5 for a sample contract.*
  - a. **GENERAL REQUIREMENTS**
    - i. *Milwaukee Mitchell International Airport maintains a staff of project managers, engineers, technicians, and construction coordinators. The consulting team selected for this work will supplement in house capabilities in all aspects of project delivery. The amount of specific involvement will vary from project to project and task to task, to be negotiated for each project.*
    - ii. *Specific areas of expertise required for this work includes, but is not limited to:*
      1. Project management that may include the control of all aspects of a project (scope, schedule, budget, and quality) including coordination with MKE project managers, FAA, WIS BOA, and other stakeholders.
      2. Construction engineer services that may include: field construction oversight, coordination with MKE field staff and other project stakeholders, set up and running project meetings, preparing daily inspections and logs, conducting field quantity measurements, reviewing work for compliance with contract documents; developing and processing and tracking payments, change orders, RFIs, CB, project closeout and other project documentation.
      3. Engineering design including data gathering and analysis, charter development, cost estimation, basis of design reporting, the ability to develop complete and accurate plans and specifications for bidding, familiarity and use and compliance with design AC150/5300-13B.

4. Design related to all aspects of baggage handling systems, and demolition.
5. Site investigation including review of all existing baggage handling systems currently in place at MKE.
6. Use of project sustainability rating systems such as Envision and LEED.

II. **TENTATIVE PROJECT SCHEDULE**

MILESTONE	DATE
Issue A&E RFP	9/12/2025
Non-Mandatory Pre-Proposal Meeting	9/22/2025
Questions Due	9/29/2025
Question Responses Due	10/2/2025
Proposals Due	10/6/2025
Selection Committee Complete Review of Submitted Proposals	10/13/2025
Date Consultants to be interviewed will be notified by	10/15/2025
Interviews (if necessary)	10/22/2025
Notify Selected Consultant	10/27/2025

III. **PRE-PROPOSAL MEETING**

- a. A non-mandatory pre-proposal meeting will be held on 9/22/2025 at 2:00PM (CST) at:
  - i. Milwaukee Mitchell International Airport  
Sijan Conference Room  
5300 S. Howell Ave.  
Milwaukee, WI 53207
  - ii. The Sijan Conference Room is in the main terminal. Visit the help desk, centrally located in the terminal, for directions to the meeting space.
- b. Attendance for pre-proposal meeting will be in-person. No virtual options available.

IV. **SUBMISSION REQUIREMENTS:** Qualification statements shall conform to Milwaukee County's Proposal Preparation, Submission and Evaluation Guidelines (see Attachment 2) and include the following information:

- a. **Cover Page:** Include project name, project location, consultant's name, address, telephone number, e-mail address, date.
- b. **Table of Contents:** Include an identification of the material by section and page number.
- c. **Letter of Transmittal:** The name and description of the organization submitting the proposal briefly stating the proposer's understanding of the service to be provided.
- d. **Description of the Organization:** A description of the organization submitting the proposal. Include the name, size, legal status (corporation, partnership, etc.), professional registration/certification, major type of activity or areas of consulting.

- e. **Description of the Organization's Experience** Include a list of similar projects that the consultant has worked on during the past five years. Attach a separate sheet for each project, up to five projects maximum, giving a brief description of each project, details on the consultant's participation, and a client reference and contact information.
- f. **Description of Project Team/Resumes:** Provide an organizational structure of the consultant's project team, including any subconsultants to be used for this project. Include the name of the Principal in Charge of this project along with the name, occupation and title of the Project Manager who will be the main point of contact for the client throughout the duration of the projects on Table 1.

Provide a one-page resume for each key team member per Attachment 2 – Proposal Preparation, Submission, and Evaluation guidelines.

- g. **Sub-Consultants:** Indicate the names and addresses of any sub-consultants and/or associates proposed to be used in this project. State the capacity they would be used in, the proposed sub-consultants past work experiences related to this scope, and the approximate percentage of the total services they would provide.
- h. **Project Approach:** Describe your approach to successfully delivering the projects identified in Table 1. Discuss how you plan to staff the project to efficiently complete the work effort. Provide a description of challenges you anticipate in these projects and how you propose to overcome them.
- i. **TBE Firm Goals:** The Targeted Business Enterprise (TBE) participation goal is anticipated to be 17% for projects under this RFQ. Milwaukee County will determine specific TBE goals on a per project basis and each separate contract from this RFQ will need to meet their respective project TBE goal.
  - i. Include a completed Attachment 3 (Targeted Business Enterprise Consultant Team Member TBE Status Form) in your statement of qualifications submittal.
  - ii. Contact the Community Business Development Partners Office at [cbdп@milwaukeecountywi.gov](mailto:cbdp@milwaukeecountywi.gov) for questions related to TBE requirements.
- j. **Quality Control:** Submit a one-page plan, specification, and contract document quality control plan. Quality control is to be performed by individuals not assigned to the project on an ongoing basis.
- k. **Sustainability:** In alignment with the MKE Sustainability Management Plan, Milwaukee County may choose to pursue Envision project evaluation possibly third-party verification of one or more of the projects outline in Table 1. As part of your proposal, provide examples of your team's experience incorporating sustainability into projects. Highlight any specific experience you have with Envision.

## V. CONSULTANT SELECTION

- a. The evaluation team will be made up of three to five individuals with technical

knowledge of the requirements and familiarity with the projects. Depending on the number and quality of the qualification statements, Milwaukee County may decide to conduct interviews of a short-list of consultants. The evaluation team may select up to three consultants to attend an interview, which, if required, will be held on Wednesday, October 22. The interview will be evaluated based on project team, experience and qualifications, project understanding, and the overall presentation.

The project manager will post this RFQ, as well as any preproposal meeting minutes, sign in sheets, addendums and other information related to this project to the following Milwaukee County website:

<https://county.milwaukee.gov/EN/Admin-Services/Bids-and-RFPs>

The consultant should consider information on this website to be part of the official RFQ. Please check the site frequently. To allow time for proposal preparation, Milwaukee County will not post anything new within two days of the proposal due date.

Milwaukee County reserves the right to accept or reject any and all qualification statements, issue addenda, request clarification, waive technicalities, alter the nature and/or scope of the proposed projects, request additional submittals, and/or discontinue this process.

#### VI. **GENERAL REQUIREMENTS**

- a. The selected consultant and/or any contractor affiliated with the prime consultant shall be prohibited from submitting bids in the construction bidding process for this project.
- b. Selected consultant shall follow Milwaukee County Code of Ethics as follows: No person(s) with a personal financial interest in the approval or denial of a Contract being considered by a County department or with an agency funded and regulated by a County department, may make a campaign contribution to any County official who has approval authority over that Contract during its consideration. Contract consideration shall begin when a Contract is submitted directly to a County department or to an agency until the Contract has reached final disposition, including adoption, County Executive action, proceeding on veto (if necessary) or departmental approval.
- c. The selected consultant must be an Equal Opportunity Employer.
- d. The proposal shall conform with all attached documents. All qualification statements should use this RFQ, its attachments, and any documents posted on the above bidding website, as the sole basis for the proposal. The issuance of a written addendum will be the only official method through which interpretation, clarification or additional information will be given.
- e. All costs for preparing a proposal, attending the selection interview if required, or supplying additional information requested by Milwaukee County, is the sole responsibility of the submitting party. Material submitted will not be returned.

- f. The qualifications statements must be submitted as in a single bound 8-1/2" x 11" document (6 copies). Additional emailed PDF copies of the qualification statements are welcome, but the 6 paper copies are required.
- g. With the signing and submission of a statement or proposal the submitting consultant certifies that the standard terms and conditions of the Agreement for Professional Services (that will be used to contract with the selected consultant) has been read and understood and that the submitting consultant is ready, willing and able to sign the agreement when requested without making any substantive changes.

Submit 6 copies of the qualification statements, sealed in an envelope or equivalent, no later than 10/6/2025 by 12:00pm (CST). In addition to the required paper copies, the consultant can email an electronic copy of their qualification statements to [msifuentes@mitchellairport.com](mailto:msifuentes@mitchellairport.com)

The qualification statements shall be addressed and submitted to:

Mark Sifuentes  
Project Manager, Sr. Civil Engineer – Airport Engineering  
C/O Airport Engineering Room A260  
5300 South Howell Ave.  
Milwaukee, WI 53207

**Please direct any questions about this RFQ to Mark Sifuentes: 414-651-4967 or [msifuentes@mitchellairport.com](mailto:msifuentes@mitchellairport.com). Question about the pre-proposal meeting location and time, please reach out to Lauren Deml: 414-309-4079 or [ldeml@mitchellairport.com](mailto:ldeml@mitchellairport.com) .**

Sincerely,

---

Project Manager, Sr. Civil Engineer – Airport Engineering

Appendices:

- Attachment 1: Not used
- Attachment 2: Proposal Preparation, Submission and Evaluation
- Attachment 3: Consultant Proposal Form
- Attachment 4: TBE Forms
- Attachment 5: Sample Consulting Contract
- Attachment 6: Baggage Handling System Assessment Report

cc:

Director Airport Operations and Maintenance, Spencer Langhart

Director Airport of Project Management, Justin Weiss

Director Milwaukee County Facilities Management, Sean Hayes

Director of Architecture & Engineering, Anthony Raab

Director Milwaukee County CDBP, Lamont Robinson

FAA CHI-ADO Program Manager, Chad Oliver

ATTACHMENT 1

NOT USED

## ATTACHMENT 2

# PROPOSAL PREPARATION, SUBMISSION AND EVALUATION GUIDELINES

## PROPOSAL PREPARATION, SUBMISSION & EVALUATION

### I. Explanation to Prospective Offerors

Any prospective offeror desiring an explanation or interpretation of this RFQ must request it in writing via email no later than four business days before the last date for submission of qualification statement. Requests should be directed to the individual in charge at the email address listed in the RFQ. Any information given to a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an amendment to the RFQ by posting to the RFQ website, if that information is necessary in submitting offers or if the lack of it would be prejudicial to any other prospective offerors.

### II. Complete Qualification Statements

Qualification statements shall represent the best efforts of the offerors and will be evaluated as such. Qualification statements must set forth full, accurate, and complete information as required by this section and other sections of this RFQ.

### III. Unnecessarily Elaborate Qualification Statements

Brochures or other presentations beyond those sufficient to present a complete and effective response to this solicitation are not desired and may be construed as unnecessarily elaborate and an indication of the offeror's lack of cost consciousness. Elaborate artwork, expensive paper and binding, and expensive visual and other presentation aids are neither necessary nor desired. Concise and clear proposals are sought.

### IV. Retention of Qualification Statements

All qualification statement documents shall be retained by the County and therefore, will not be returned to the offerors. The County will not pay for preparation of qualification statements or for qualification statements that are retained by the County.

### V. Examination of Qualification Statements

Offerors are expected to examine the Site, Statement of Work and all instructions and attachments in this RFQ. Failure to do so will be at the offeror's risk.

### VI. Legal Status of Offeror

Each offeror must provide the following information in its proposal:

- A. Name of the offeror;
- B. Whether offeror is a corporation, joint venture, partnership (including type of partnership), or individual;
- C. Copy of any current license, registration, or certification to transact business in the State of Wisconsin if required by law to obtain such license, registration, or certification. If the offeror is a corporation or limited partnership and does not provide a copy of its license registration, or certification to transact business in the State of Wisconsin, the offeror shall certify its intent to obtain the necessary license, registration or certification prior to contract award or its exemption from such requirements; and
- D. Copies of any current license, registration or certification required in RFQ;

E. If the offeror is a partnership of joint venture, names of general partners or joint venturers.

VII. Organization of Offeror

Each qualification statement must further contain a chart showing the internal organization of the offeror and the numbers of regular personnel in each organizational unit.

VIII. Offerors Authorized Agent

Each proposal shall set forth the name, title, telephone number, and address of the person authorized to negotiate in behalf of the offeror and contractually bind the offeror, if other than the person signing the proposal.

IX. Price Schedule Submission

**Do not submit prices with this RFQ.** Scope and fees are to be negotiated per AC 150/5100-14E Change 1 for each project separately after the qualified consultant is selected.

X. Certification and Representations

Offerors shall return with their qualification statements, resumes and any other documents as may be requested in the RFQ.

XIII. Acknowledgement of Amendments

Offerors shall acknowledge receipt of any amendment to this solicitation within their proposal.

XIV. Late Proposals and Modifications and Withdrawals of Proposals

Any proposal received at the office designated in the solicitation after the exact time specified for receipt will not be considered.

XV. Proposal Evaluation Criteria

The following is a list of general criteria which will be used to evaluate the proposals (Out of a total of 100%):

- a. Project approach and understanding, including strategy to perform requested work. Weight: 40% Total.
  - 1) Project approach, understanding and strategy to perform the work: 30%
  - 2) Description of challenges anticipated in these projects and strategy to overcome them: 10%
  
- b. Qualifications and experience of proposed project manager and team, including sub consultants. Weight: 60% Total.
  - 1) Qualifications, experience, and client references of team on past projects of similar scale and scope: 30%
  - 2) Qualifications and experience of lead project manager(s) on past projects of similar scale and scope: 30%

XVI.      Staffing

Consultant shall provide, at its own expense, all personnel required in performing the services under this agreement. Such personnel shall not be employees of Owner.

The offeror must describe his or her qualifications and experience to perform the work described in this RFQ. Information about experience should include direct experience with the specific matter and similar facilities. Areas of expertise of each proposed staff member shall be provided (i.e., engineering, economics, architecture, planning). Specific examples of similar or related projects previously conducted shall cite:

- Name of client organization
- Name, address, and current telephone number of client contact person
- Contract number and inclusive dates
- Contract amount

Offeror shall provide the following information for every resume:

- Full name
- Title and areas of specialty
- Affiliation (that is, staff of offeror or subconsultant)
- Experience directly related to the proposed project
- Education/training
- Resumes shall be included for all key personnel expected to work on the project. Only resumes of staff or subconsultant staff employed by or under contract with the firm as of the date of proposal submission are to be included.

ATTACHMENT 3

TARGETED BUSINESS ENTERPRISE (TBE)  
CONSULTANT TEAM MEMBER TBE STATUS FORM



## ATTACHMENT 4

### TARGETED BUSINESS ENTERPRISE (TBE) REFERENCE FORMS

(Note: We are providing these forms for reference only. **Do not submit them with your proposal.** The selected consultant is required to complete these forms later, as part of the scope and fee negotiation phase.)

## Office of Economic Inclusion (OEI)

# COMMITMENT TO CONTRACT WITH TBE

### TBE Information

<b>TBE Firm Name:</b>	<b>Prime/Sub Options: (SELECT ONE)</b>
<b>Firm Address:</b> (Cannot be a PO Box)	<b>EIN Number:</b>

### Project Information

<b>Project Name:</b>	<b>Project No.:</b>
<b>Total Contract Amount (less allowances): \$</b>	<b>TBE Goal:</b>
<b>Type of Contract: (SELECT ONE)</b>	

### Scope of Work

<b>Scope of Work Detailed Description:</b>	
--	--

**Applicable NAICS:** \*If additional space is needed, please attach a separate sheet.

Work Scope Description:	NAICS:
Work Scope Description:	NAICS:
Work Scope Description:	NAICS:

**1. TBE Contract Amount:****2. % of Total Contract:**

1. *The total project contract amount is an estimate based on the outcome of negotiation between the Prime and Milwaukee County. In some situations, the TBE sub-contract amount might NOT be based on the total project contract amount.*
2. *The percentage is based on the eligible scope of services that TBE participation can reasonably be obtained, which might not be based on the total project contract amount. The commitment percentage is the key indicator of TBE participation. The Pass/Fail determination is based on the percentage stated in the RFP/BID. If the Prime is using one or multiple TBE companies the sum of the percentages MUST satisfy the minimum percentage stated in the RFP/BID. Note the percentage indicated on this document will be viewed by OEI the Prime's COMMITMENT to the TBE company.*

### Bidder/Proposer Commitment

(To be completed by firm committing work to TBE)

I certify that the TBE firm quoted the identified service(s) and cost(s). I further acknowledge our firm having negotiated with, and having received confirmation, on partnering, pricing and delivery from the TBE firm listed herein. *(Prime Contractor/Consultant)* \_\_\_\_\_  
*(Phone)* \_\_\_\_\_, or one of our subs, will enter into contract with the TBE firm listed, for the service(s) and amount(s) specified when awarded this contract. The information on this form is true and accurate to the best of my knowledge. I further understand that falsification, fraudulent statement, or misrepresentation will result in appropriate sanctions under applicable law.

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Name & Title of Authorized Representative

\_\_\_\_\_  
Date

### TBE Affirmation

(To be completed by TBE Owner/Authorized Representative)

- I affirm that our firm is certified as **(SELECT ONLY ONE)**
- I affirm this firm is owned by a **(SELECT ONLY ONE)**
- I affirm that the majority owner's ethnicity is **(SELECT ONLY ONE)**
- I affirm that the Wisconsin UCP has certified our company as a TBE, and that our company is currently listed in the Wisconsin UCP Directory.
- I acknowledge and accept this commitment to contract with my firm for the service(s) and dollar amount(s) specified herein, as put forth by *(Prime or sub firm name)* \_\_\_\_\_
- I understand and accept that this commitment is for service(s) to be rendered in completion of the project specified herein to be completed with my own forces.
- I affirm that approval from OEI will be obtained prior to subletting any portion of this work awarded to my firm on this project.
- Have you done work for Milwaukee County in the past?    YES                      NO

\_\_\_\_\_  
Signature of Authorized TBE Representative

\_\_\_\_\_  
Name & Title of Authorized TBE Representative

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Date

### OEI Use Only

Commitment number _____ of _____	Participation: _____	Project Total _____	CAGE Code: _____
Approved: _____		Date: _____	

## **COMMITMENT TO CONTRACT WITH TBE**

### **ADDITIONAL INFORMATION & REQUIREMENTS:**

Links to Directories for firms eligible for credit:

DBE <http://wisconsin.gov/Pages/doing-bus/civil-rights/dbe/certified-firms.aspx>

MBE and WBE <https://wisdp.wi.gov/Search.aspx>

Milwaukee County SBE <https://mke.diversitycompliance.com/Default.asp>

SAM Directory for Federal SBE <https://www.sam.gov/SAM/pages/public/index.jsf>

1. **CONTRACT ADJUSTMENTS:** The successful Bidder/Proposer will maintain the approved TBE participation level during the term of the contract with the County, including any additional work on the contract, e.g., change orders, addendums, scope changes, or fee increases.

2. **WRITTEN CONTRACTS WITH TBE:** The County requires that the successful Bidder/Proposer enter into contract, directly or through subs, as stated in this form. Agreements must be submitted to the County within 7 days of receipt of the Notice-To-Proceed. By executing this commitment, you are certifying that you have had contact with the named TBE firm and that they will be hired if you are awarded the contract by the County.

3. **SUBSTITUTIONS, TBE SUBCONTRACTING WORK, TRUCKING FIRMS:** The successful Bidder/Proposer must submit written notification of desire for substitution to the TBE affected, and send a copy to the County, stating the reason(s) for the request. The TBE will have five (5) business days to provide written objection/acceptance of the substitution. The "right to correct" must be afforded any TBE objecting to substitution/termination for less than good cause as determined by the County. Approval must be obtained from the County prior to making any substitutions. TBE firms are required to notify and obtain approval from the County prior to seeking to subcontract out work on this project. In the case of TBE trucking firms, credit will be given for trucks leased from other TBE firms; however, if the TBE leases trucks from non-TBE firms, the commission or fee will be counted for crediting.

4. **REQUESTS FOR PAYMENT:** The successful Bidder/Proposer must indicate on the Continuation Sheet (AIA form G703, or equivalent) or invoice for consulting the work being performed by TBE by either a) placing the word "TBE" behind the work item or b) breaking out the work done by TBEs at the end of the report. The successful Bidder/Proposer shall notify TBE firms of the date on which they must submit their invoices for payment.

5. **TBE UTILIZATION REPORTS:** The successful Bidder/Proposer will enter payments to subs and suppliers directly into the County's online reporting system on a monthly basis. These entries will cover payments made during the preceding month and will include zero dollar (\$0) entries where no payment has occurred.

If you have any questions related to the Milwaukee County Target Enterprise Program, please contact:

**414.278.4851** or [oeicompliance@milwaukeecountywi.gov](mailto:oeicompliance@milwaukeecountywi.gov)

ATTACHMENT 5

SAMPLE CONSULTING CONTRACT

**MILWAUKEE COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES  
FACILITIES MANAGEMENT DIVISION  
CONSULTANT AGREEMENT  
FOR  
PROFESSIONAL SERVICES**

Compensation Based on  
“Not-To-Exceed” Sum and  
Individual “Direct Salary Rates/Hour”  
(Without Outside Construction Manager)

**TYPE “C” AGREEMENT**

**PROJECT TITLE:** \_\_\_\_\_

**PROJECT LOCATION:** \_\_\_\_\_

**PROJECT NO.:** \_\_\_\_\_

Agency \_\_\_\_\_ Org. No. \_\_\_\_\_ Object No. \_\_\_\_\_

Project Code \_\_\_\_\_ Activity \_\_\_\_\_ Function \_\_\_\_\_

Category \_\_\_\_\_

Consultant Firm: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_  
(City) (State) (Zip Code)

Phone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

Email: \_\_\_\_\_

Type of Services: \_\_\_\_\_

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F. MILWAUKEE COUNTY “DBE” UTILIZATION FORMS  
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L. SIGNATURE PAGE ..... L-1 TO L-2

DRAFT

**THIS AGREEMENT**, entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between MILWAUKEE COUNTY (hereinafter referred to as "MILWAUKEE COUNTY" or "OWNER") and

\_\_\_\_\_ (hereinafter referred to "CONSULTANT"), is subject to the following conditions:

**1. GENERAL CONSULTANT**

- 1.1 The Consultant shall provide Professional Architectural and/or Engineering Services for the various phases of the Project, as may be authorized, in accordance with the terms and conditions of this Agreement.
- 1.2 The CONSULTANT shall designate in the space provided below one principal of the firm responsible to OWNER and available to answer questions, make decisions, and bear full responsibility for the Project.

\_\_\_\_\_ is the designated principal.

**2. PROJECT SCOPE**

2.1 Work within the scope of this Agreement shall include the tasks and objectives set forth in the OWNERS Request for Proposal ("RFP"), which is incorporated herein by reference, the CONSULTANTS Scope of Work (see **Attachment "A"**), and any Addenda, on a Not-to-Exceed Sum Basis with Reimbursable Expense if required as outlines in this Agreement.

2.1.1 CONSULTANT shall preform professional consulting services for OWNER when and as directed by OWNER and shall respond to OWNER inquiries within forty-eight (48) hours.

2.1.2 OWNERS desired completion dates for critical items: (refer to Paragraph 3.8 Performance Time)

- .1 Programming and Master Plan \_\_\_\_\_
- .2 Schematic Design \_\_\_\_\_
- .3 Design Development \_\_\_\_\_
- .4 Contract Documents \_\_\_\_\_
- .5 Bid Opening \_\_\_\_\_
- .6 Construction Start \_\_\_\_\_
- .7 Substantial Completion/Occupancy \_\_\_\_\_
- .8 \_\_\_\_\_
- .9 \_\_\_\_\_
- .10 \_\_\_\_\_

### **3. BASIC SERVICES**

Services shall be furnished by the CONSULTANT for performance of the following as may be requested in the RFP and the Scope of Work. Basic Services shall include all work described herein except as more specifically described, required, added or modified by the RFP, Scope of Work and Addenda.

#### **3.1 Programming and/or Master Plan Phase**

**3.1.1** From Interviews, research, and study of the OWNERS needs, the CONSULTANT shall prepare a program and an Estimate of Probable Construction Costs for the project. Elements of the program shall include a full description of each of the following:

- .1 Exterior and interior functional areas and spaces of the Project, with technical and equipment requirements on each;
- .2 Comparisons between existing and proposed facilities and systems;
- .3 Diagrams to describe proposed circulation and relationships between functional areas and departments;
- .4 Descriptions of provisions for future changes and growth;
- .5 Narrative of the rationale for proposed program and prioritized options to maintain Project budget.

**3.1.2** Upon completion of the Programming Phase documents, the CONSULTANT shall submit three (3) copies of drafts of same for review.

**3.1.3** After review, the CONSULTANT shall incorporate necessary corrections and additions into the final report and submit three (3) copies to OWNER for approval.

#### **3.2 Schematic Design Phase**

**3.2.1** Based upon the approved written program and budget, the CONSULTANT shall further examine the site and existing facilities, study existing conditions, and, based on the programmed analysis of OWNER's requirements, prepare studies and drawings of suggested solutions, outline suggested construction materials and systems, and submit recommendations for approval by OWNER.

**3.2.2** The CONSULTANT shall prepare drawings and other exhibits which are conceptual in character and closely follow the program developed and accepted in the Programming Phase.

**3.2.3** The CONSULTANT shall incorporate in these schemes conceptual building plans, preliminary sections and elevations, influence of site, selection of building systems and materials, and show approximate dimensions, areas and volumes.

**3.2.4** The CONSULTANT shall submit an Estimate of Probable Construction Costs upon which OWNER can evaluate the Project and determine whether to proceed with the Design Development Phase.

**3.2.5** The CONSULTANT shall submit three (3) copies of the Schematic Design Phase documents for review.

### **3.3 Design Development Phase**

- 3.3.1** After receiving approval of the Schematic Design Phase submittal, the CONSULTANT shall develop design and prepare drawings and other documents to fix and describe the size and character of the entire Project as to site work, architectural, structural, mechanical, and electrical systems, equipment, construction materials, and such other essentials as may be appropriate, including functional and operational aspects of facilities.
- 3.3.2** The CONSULTANT shall design the Project in compliance with applicable federal, state, and local codes, ordinances and regulations, and with requirements or service rules of utilities having jurisdiction.
- 3.3.3** The CONSULTANT shall provide revised Estimate of Probable Construction Costs provided during Schematic Design Phase.
- 3.3.4** The CONSULTANT shall submit three (3) copies of the Design Development Phase documents for review.

### **3.4 Contract Documents Phase**

- 3.4.1** After receiving approval of Design Development Phase submittal, the CONSULTANT shall prepare drawings and specifications for bidding and construction purposes, including what testing, warranties and guarantees are required of the parts and systems. When documents are approximately eighty percent (80%) complete, the CONSULTANT shall submit three (3) copies to OWNER for review and comments.
- 3.4.2** When the documents are one hundred percent (100%) complete, the CONSULTANT shall submit three (3) copies to OWNER for approval of completed Bidding Documents and an updated Estimate of Probable Construction Costs.
- 3.4.3** The CONSULTANT shall conform to OWNER's current standard formats on file in Architecture, Engineering and Environmental Services Section of the Facilities Management Division of Milwaukee County Department of Administrative Services, 633 W. Wisconsin Avenue, 10<sup>th</sup> Floor, Milwaukee, Wisconsin 53203.
- 3.4.4** After the one hundred percent (100%) complete bidding documents have been approved by OWNER, the CONSULTANT shall submit one (1) signed, stamped original set of Bidding Documents suitable for use in reproducing document sets for distribution during the bid process, unless otherwise specified in the Agreement.

### **3.5 Bidding Phase**

- 3.5.1** OWNER will make Contract Documents available to Bidders. OWNER will determine cost and other terms. OWNER will direct bidding of Contracts (informal, formal, multiple or single prime construction contracts).
- 3.5.2** CONSULTANT shall:
  - .1** Coordinate with OWNER for Advertisement of Bids. OWNER will prepare and place Advertisement of Bids.
  - .2** Make Application for required plan approvals. Pay local and state Examination Fees and be reimbursed at cost (fee for General Building Permit to be paid by Contractor).
  - .3** Prepare necessary Addenda copies for distribution required to amend or clarify Bidding

Documents. Complete Addenda so Bidders have access to them at least five (5) working days prior to bid opening. OWNER will mail out Addenda copies if they are delivered no later than seven (7) working days prior to bid opening.

- .4 Conduct a pre-bid conference, log attendance, tour site and take minutes of the conference, with one (1) copy to OWNER.
- .5 Review bids for conformance with bidding requirements. Make recommendations as to award of contract(s).

**3.5.3** If the low acceptable bid total received exceeds by five percent (5%) the Estimate of Probable Construction Costs submitted prior to bidding, the CONSULTANT shall revise the Bidding Documents, and rebid the project at no additional cost to OWNER.

### **3.6 Construction Phase**

**3.6.1** The CONSULTANT shall provide clarifications necessary for construction; review and approve shop drawings and other submittals; coordinate colors and materials with OWNER as defined in the Contract Documents.

**3.6.2** The CONSULTANT shall provide administration; coordination and on-site observation of the work in compliance with Wis. Stats. Chapter 443; confirm compliance with Contract Documents; determine quality and acceptability of materials provided and interpret Contract Documents; observe required tests; make recommendations regarding Change Orders and payments to contractors; and make recommendations as to Substantial Completion and final acceptance of the Project.

**3.6.3** The CONSULTANT shall issue a Construction Bulletin ("CB") in response to all Requests for Information ("RFIs") estimated to impact the construction contract dollar amount by more than \$5,000.00. A CB may be required on a case-by-case basis by the OWNER for RFIs estimated to impact the construction contract dollar amount by less than \$5,000.00.

**3.6.4** The number of additional CONSULTANT visits to site shall be as stated in the RFP.

**3.6.5** The CONSULTANT shall not have authority over or responsibility for means, methods, techniques, sequences or procedures of construction selected by contractor(s) for safety precautions and programs incident to the work of contractor(s) or for the failure of contractor(s) to comply with laws, rules or regulations, ordinances, codes, or orders applicable to contractor(s) furnishing and performing work.

### **3.7 General Consultant Services**

CONSULTANT services applicable to the above phases include the following:

**3.7.1** Conferences with OWNER, Users, Prime Contractors and subcontractors required to review and resolve questions regarding the Project.

**3.7.2** When requested by OWNER, the CONSULTANT shall attend presentations and appearances before public bodies with OWNER to discuss details, to comment, to recommend, to give progress reports, and to obtain approvals.

**3.7.3 Cost Control:** The budget established by the OWNER for the construction of the Project and CONSULTANT fee shall be considered as absolute. The CONSULTANT shall advise OWNER in writing of the following:

- .1 If directives or actions of OWNER increase the scope or cost of the Project or are considered by CONSULTANT to constitute Additional Services under this Agreement.
- .2 If CONSULTANT becomes aware that current market conditions have changed sufficiently to preclude construction within the limits of the approved budget.

**3.7.4** The CONSULTANT shall recommend to OWNER the obtaining of such investigations, surveys, tests, analyses, and reports as may be necessary for proper execution of CONSULTANT's services.

**3.7.5** CONSULTANT shall comply with Wisconsin Laws pertaining to registered architects and engineers, and federal, state, and local laws, codes, and regulations relating to responsibilities in design and administration of this Agreement.

**3.8 Performance Time**

The CONSULTANT shall complete the following time schedule for the performance of CONSULTANTS services:

- .1 Programming and/or Master Plan Phase \_\_\_\_\_
- .2 Schematic Design Phase \_\_\_\_\_
- .3 Design Development Phase \_\_\_\_\_
- .4 Contract Document Phase \_\_\_\_\_

The schedule shall show each phase of the Project in working days, including review times, and, if required, sub-schedules to define critical portions of schedule. The schedule shall be mutually acceptable to CONSULTANT and OWNER and, at a minimum, shall be consistent with the completion dates included in Paragraph 2.1.2.

**3.9 Record Documents**

See **Attachment "H"**.

**3.10 Subconsultant Services**

Should CONSULTANT find it necessary or advisable to employ subconsultants for performing services under this Agreement, the following shall apply:

**3.10.1** CONSULTANT shall:

- .1 Be responsible for services performed by any subconsultants under this Agreement.
- .2 Be compensated for the cost of any subconsultants as provided under Payments (subconsultant compensation is included in the overall basic compensation total).

**3.10.2** Subconsultants employed shall be engaged in conformance with the following:

- .1 Obtain OWNER's written approval for the hiring of each proposed subconsultant to be used in performance of the contractual obligations under this Agreement. Milwaukee County's Project Manager will indicate such approval and/or rejection on **Attachment "I"**.
- .2 Within five (5) days of the above approval, subconsultant shall execute **Attachment "J"**, binding subconsultant to the terms and conditions of this Agreement including the Audit and

Inspection of Records requirements.

- .3 Milwaukee County will not approve as a subconsultant a person connected with a firm manufacturing, selling, or installing material or equipment that is or may be included in Project.
- .4 Approved subconsultants shall also complete **Attachment "B"** (Manpower, Direct Salary Rate and Overhead & Profit Factor Schedule) for potential additional services to be requested at a later date.

**3.10.3** Unless otherwise approved by OWNER, CONSULTANT shall not employ subconsultants within the CONSULTANT's specialties, i.e. architectural design for architects, electrical for electrical engineers, HVAC for HVAC engineers, etc.

**3.10.4** Fees for subconsultants shall be compensated by OWNER as billed to CONSULTANT (there shall be no mark up for costs/fees billed by subconsultants).

### **3.11 Additional Services**

Based on hourly service rates (see **Attachment "B"**).

Services described in this Section are not included in Basic Services, and shall be paid by OWNER in addition to compensation for Basic Services. The services described under this Section shall only be provided if authorized in writing by the OWNER following a mutual agreement of the scope of the additional services and negotiation of a fair and reasonable actual cost "not-to exceed" fee.

**3.11.1** If OWNER and CONSULTANT agree that the performance of this Agreement requires representation at the construction site in addition to that described in Paragraph 3.6.2, then CONSULTANT shall provide one or more Project Representatives to assist in carrying out of such additional on-site responsibilities.

- .1 Through the observations by such Project Representatives, the CONSULTANT shall endeavor to provide further protection for OWNER against defects and deficiencies in work, but furnishing such project representation shall not modify rights, responsibilities or obligations of CONSULTANT as described elsewhere in this Agreement.

**3.11.2** Making revisions in Drawings, Specifications or other documents when such revisions are:

- .1 The result of a change by OWNER from a previous instruction or approval given by the OWNER, including revisions made necessary by adjustments in OWNER's program or Project budget;
- .2 Required by enactment or revision of codes, laws or regulations subsequent to preparation of such documents; or
- .3 Due to changes required as a result of OWNER's failure to render decisions in a timely manner.

**3.11.3** Providing services required because of significant changes in the Project including, but not limited to, size, quality, complexity, OWNER's schedule or method of bidding and contracting for construction.

**3.11.4** Providing consultation concerning replacement of work damaged by fire or other cause during construction, and furnishing services required in connection with the replacement of such work.

- 3.11.5 Providing services made necessary by the default of a contractor, by major defects or deficiencies in the work of a contractor, or by the failure of performance of either the OWNER or a contractor under contract for construction.
- 3.11.6 Providing services in connection with a public hearing, arbitration proceeding or legal proceeding except where CONSULTANT is party thereto or as exempted by Paragraph 4.3.1.
- 3.11.7 Providing services to apply for and obtain code variances, if necessary.
- 3.11.8 Provide an inventory and placement of OWNER's existing furniture and equipment.
- 3.11.9 Providing other services as requested by the OWNER.

**3.12 Reimbursable Expenses**

See **Attachment "C"** for specific description of reimbursable expenses. Reimbursable expenses are limited to those not included in the CONSULTANT's and/or subconsultants' "Overhead Factor".

- 3.12.1 The allowance for all reimbursables for the project shall not exceed \_\_\_\_\_ Dollars. ( \$ \_\_\_\_\_ ).

**4. COMPENSATION (applicable to both CONSULTANT and subconsultants)**

CONSULTANT compensation for services shall be based on the following terms and conditions:

- 4.1.1 The Basic Services Compensation Total including reimbursable expenses for the project for the CONSULTANT including all subconsultants shall be the "Not-To-Exceed" sum of \_\_\_\_\_ Dollars on the basis of hourly rates set forth in Paragraph 4.2.

**4.2 Additional Services Rate Itemization**

The form on which the Additional Services Rate Itemization is reported and approved is included as **Attachment "B"** (by CONSULTANT and subconsultants).

On **Attachment "B"** list staff by name, including clerical staff, who will be assigned to the Project.

"Overhead Rate" (Overhead Factor less profit) contained within the Overhead Factor submitted by CONSULTANT and each subconsultant shall be Federal Acquisition Regulation ("FAR") (48 CFR 1-31) audit certified. Provide a copy of the most recent auditor's report for each rate.

If CONSULTANT or subconsultant does not possess a FAR audit certified rate then each shall submit as **Attachment "B-2"** their proposed rate, for the fiscal year, with identification of the accounting method used and certification that the proposed rate contains only those indirect costs proper and appropriate for the type of professional services sought by this Agreement. It is understood and agreed that no direct charge will be made for labor or expenses included in the Overhead Factor.

"Overhead Factor" and the "Principal's Flat Rate" shall include but are not limited to reimbursement of the following:

- Social Security
- Vacation, Holiday & Sick Pay
- Pension & Personal Insurance Plans
- Local Telephone & Fax Service
- General Office Expenses
- Dues & Subscriptions
- Profit
- Registration Fees

- Insurance
- Postage & Shipping (see "C-2")
- Taxes
- Office & Drafting Supplies
- Repairs & Maintenance
- Selling Expense
- Office Rental
- General Advertising
- Office Utilities
- Legal & Accounting Expenses
- Auto Expenses, Parking
- Travel Costs to locations within a 100 mile radius of Milwaukee
- Meals
- Use of Gadd Equipment and Systems (including drawing plots)
- Miscellaneous Overhead

For personnel changes during the term of this Agreement submit a new **Attachment "B-1"** within sixty (60) days of adding or deleting staff used or permanent classification changes. In case of added personnel or classification changes, the new "Direct Salary Rate/Hour" will not increase more than 10 percent (10%) above the rate previously listed for the specific classification being replaced.

#### 4.3 **Payment for Approved Additional Services**

If approved Additional Services as set forth in Paragraph 3.11 are performed, CONSULTANT shall be paid for such services and expenses on the basis of hourly rates set forth in Paragraph 4.2. Amounts paid may be in excess of the Basic Compensation.

#### 4.3.1 **Non-Reimbursable Costs and Services**

If arbitration or court proceedings are brought against OWNER for damages or other relief attributable to the negligent acts of CONSULTANT or defective drawings, specifications, or other Contract Documents for which the CONSULTANT is responsible, CONSULTANT, to the extent CONSULTANT is found responsible, shall assume the defense, bear any related legal expense, and satisfy awards and judgments resulting from such claims. The CONSULTANT shall pay the costs of revisions to drawings or other documents because of errors or omissions on the part of CONSULTANT.

Costs not specifically mentioned in **Attachment "C"**.

### 5. **PAYMENTS**

Payments to CONSULTANT for services shall be made as follows:

5.1 Monthly invoices: **Attachments "D-1" & "D-2"** for "Basic Services Compensation" and **Attachments "D-1", "D-2" and "D-3"** for approved "Additional Services". All costs submitted on these attachments shall be supported by properly executed payrolls, time records, invoices, contracts or vouchers, or other official documentation evidencing in proper detail the nature and propriety of other accounting documents pertaining in whole or in part to the Agreement. Except for documentation specifically required by the attachments, all other supporting documentation shall not be submitted but shall be clearly identified and readily accessible as specified herein under Section 9, AUDIT AND INSPECTION OF RECORDS.

5.1.1 Bill each individual annual project or requested service separately following the format of OWNER's **Attachments "D-1" though "D-3"** not more than once monthly or when project CONSULTANT service is complete. Each billing shall be for not less than \$500, except for the final billing for an amount due.

**5.2 Monthly Invoices and Retainage**

OWNER will make payments to CONSULTANT within thirty (30) days of invoice approval on the basis of monthly billings prepared by the CONSULTANT and approved by the OWNER. Payments will be made on the basis of ninety five percent (95%) of the approved statement. No retainage, however, shall be withheld for reimbursable expenses.

**5.3 Progress Payment limitations**

Progress payments for basic services shall total no more than the following percentages of total basic compensation payable.

Program and Master Plan .....	Ten Percent (10%)
Schematic Design .....	Twenty Five Percent (25%)
Design Development .....	Forty Percent (40%)
Contract Documents .....	Seventy Eight Percent (78%)
Bidding .....	Eighty Two Percent (82%)
Construction Administration .....	One Hundred Percent (100%)

**5.4 Final Payment**

**5.4.1** Final Payment shall be made after the following have been accomplished:

- .1 OWNER is in receipt of CONSULTANT's signed Certification of Substantial Completion (A.I.A. Document G704) in conformance with Contract Documents (for each contract).
- .2 OWNER is in receipt of "Record Documents".
- .3 OWNER is in receipt of CONSULTANT's invoice labeled "Final Billing".
- .4 OWNER has determined that CONSULTANT has performed the obligations under this Agreement.

**5.4.2** Final payment shall be the release of the five percent (5%) retainage, held by OWNER from partial payments for performance under this Agreement.

**5.4.3** Upon notification from OWNER to the CONSULTANT that the obligations under this Agreement have been completed, the CONSULTANT shall within thirty (30) calendar days submit for payment a final invoice for any remaining unpaid charges. Should the CONSULTANT fail to respond within the thirty (30) days, the OWNER will assume no additional charges have been incurred. OWNER will transmit to CONSULTANT notice of termination of this Agreement with a check for any remaining retainage.

**6. DISPUTE RESOLUTION**

**6.1** Claims, disputes and other matters in question between the CONSULTANT and the OWNER arising out of or relating to the Agreement or breach thereof, which cannot be resolved through negotiation between the parties, shall be subject to and decided at the sole discretion of the OWNER, either by the process and procedures set forth in Article 6 of AIA Document 8901, Part 1, (1996 edition, not bound herein) Dispute Resolution - Mediation and Arbitration or in a court of law.

**6.2** Any mediation or arbitration conducted under this Agreement shall take place in Milwaukee, Wisconsin, unless an alternative location is chosen by mutual agreement of the Parties. The exclusive venue for any cause of action brought in relation to this Agreement shall be Milwaukee

County Circuit Court, Milwaukee, Wisconsin.

**7. CONSULTANTS RESPONSIBILITY**

**7.1 Insurance & Proof of Financial Responsibility for Claims**

Purchase and maintain policies of insurance and proof of financial responsibility to cover costs as may arise from claims of tort as respect damage to persons or property and third parties in such coverage and amounts as required and approved by the County Risk Manager. Furnish acceptable proof of such coverage to the County Risk Manager prior to services commenced under this Agreement.

**7.1.2 Provide evidence of the following coverage and minimum amounts.**

<b><u>Type of Coverage</u></b>	<b><u>Minimum Limits</u></b>
Wisconsin Workers Compensation	Statutory (Waiver of Subrogation for Worker Comp by Endorsement)
Employers Liability & Disease USL&H and All States Endorsement	\$100,000/\$500,000/\$100,000
General Liability	\$5,000,000 Per Occurrence (name the OWNER as additional insured in the general liability policy by endorsement)
Bodily Injury & Property Damage to include personal injury, fire, legal, products and complete operations Contractual Liability and X, C & U	\$5,000,000 Aggregate
Architects & Engineers Professional Liability & Errors & Omissions	\$2,000,000 Per Occurrence
(Refer to paragraph 7.2 for additional conditions)	
Environmental Impairment Insurance	\$1,000,000 Aggregate minimum (Unless not required)
Automobile Liability	(Name the OWNER as an Additional Insured in the automobile policy by endorsement)
Bodily Injury & Property Damage All Autos	\$1,000,000 Per Accident

Note: Consultants performing work on the secured air side at General Mitchell International Airport and Timmerman airport shall maintain at least \$5,000,000 Auto & Commercial General Liability Limits. This can be satisfied through a combination of Auto and Umbrella, and General Liability and Umbrella Limits.

**7.1.3 Except for Environmental Impairment Insurance, Professional Liability (Errors and Omissions), Workers Compensation and Employers Liability, name OWNER as an additional insured in the general liability and automobile policy as their interests may appear as respects services provided in this Agreement. A Waiver of Subrogation for Workers Compensation by endorsement in favor of Milwaukee County shall be provided. Afford OWNER Thirty (30) day written notice of cancellation or non-renewal.**

- 7.1.4 Place insurance specified above with at least an "A" rated carrier per Best's Rating Guide approved to do business in the State of Wisconsin. Submit deviations or waiver of required coverage or minimums in writing to OWNER's Risk Manager for approval as a condition of this Agreement. Waivers may be granted when surplus lines and specialty carriers are used.
- 7.1.5 Submit certificate of insurance and endorsements for review to OWNER for each successive period of coverage for duration of this Agreement.
- 7.1.6 The insurance requirements contained within this Agreement are subject to periodic review and adjustment by the OWNER's Risk Manager.
- 7.1.7 Required certificates and endorsements shall be part of **Attachment "E"**.

## **7.2 Professional Liability - Additional Provisions**

- 7.2.1 Provide additional information on professional liability coverage as respects policy type, i.e., errors and omissions for consultants, architects, and/or engineers, etc.; applicable retention levels; coverage form, i.e. claims-made, occurrence; discovery clause conditions; and effective, retroactive, and expiration dates, to OWNER's Risk Manager as requested to obtain approval of coverage as respects this section.
- 7.2.2 Be responsible for the accuracy of the services performed under this Agreement and promptly make necessary revisions or corrections to services resulting from negligent acts, errors or omissions without additional compensation.
- 7.2.3 Give immediate attention to these revisions or corrections to prevent or minimize delay to Project schedule.
- 7.2.4 Be responsible to the OWNER for losses or costs to repair or remedy as a result of CONSULTANT's negligent acts, errors or omissions.
- 7.2.5 It is understood and agreed that coverage which applies to services inherent in this Agreement will be extended for two (2) years after completion of work contemplated in this Project if coverage is written on a claims-made basis.
- 7.2.6 Deviations and waivers may be requested in writing based on market conditions to OWNER's Risk Manager. Approval shall be given in writing of any acceptable deviation or waiver to the CONSULTANT prior to the CONSULTANT effecting any change in conditions as contained in this section. Waivers shall not be unduly withheld nor denied without consultation with the CONSULTANT.
- 7.2.7 Obtain information on the professional liability coverage of subconsultants and/or subcontractors in the same form as specified above for review by OWNER's Risk Manager.

## **7.3 Compliance with Governmental Requirements**

- 7.3.1 Evidence satisfactory compliance for Unemployment Compensation and Social Security Reporting as required by federal and state laws.

## **7.4 Indemnity**

Each party agrees to the fullest extent permitted by law to indemnify, defend and hold harmless, the other party, and its agents, officers and employees, from and against all loss and expenses including costs and attorney's fees by reason of liability for damages including suits at law or in equity, caused by any wrongful, intentional, or negligent act or omission of its employees or

agents which may arise out of or are connected with the activities covered by this Agreement. Each party shall further indemnify the other from, and defend against, any liability or expenses (including reasonable attorneys' fees) arising out of or relating to an act or omission by it or its employees arising out of or relating to (1) federal, state, or other laws or regulations for the protection of persons who are members of a protected class or category of persons, (2) sexual discrimination or harassment, (3) any personal injury (including death) received or sustained by any employee of either party, its subcontractors, agents, or invitees for any reason not covered by workers compensation, and (4) any personal injury (including death) sustained by a third party or property damage by reason of any act or omission, negligent, or otherwise, to the extent caused by a party or its employees. Milwaukee County's liability shall be limited by Wisconsin State Statutes § 345.05(3) for automobile and § 893.80(3) for general liability.

## **7.5 Conflict of Interest**

**7.5.1** CONSULTANT shall not specify, recommend, nor commit OWNER to purchase or install material or equipment from an entity with which CONSULTANT has financial or ownership interest without obtaining prior approval.

## **7.6 Cost and Scheduling**

See **Attachment "G"** - Cost & Scheduling Systems Requirements.

The CONSULTANT shall prepare for inclusion with **Attachment "A"** a "Scope of Work and Budget" spreadsheet that is intended to represent the CONSULTANT's work plan, estimates of cost by task, and the consequent development of the "Not-To-Exceed" compensation totals for each service provided. The Spreadsheet shall identify all scheduled project tasks, assigned staff and firm, estimated labor hours for each staff by task, the cost per hour for each, reimbursable expenses, and total cost for each staff by task. Reimbursable expenses shall be totaled to correspond with each allowance indicated in Section 3. Additional columns on the spreadsheet shall provide a breakdown of project cost by CONSULTANT and subconsultant.

If specifically requested by OWNER, the spreadsheet shall also contain the direct salary rate per hour, overhead rate and profit for each staff and columns shall be totaled to identify the direct labor, overhead, and profit breakdown of each Basic Services Compensation Total indicated in Section 4 of this Agreement.

Concurrent with each monthly invoice the CONSULTANT shall submit an "Earned Value" spreadsheet in the same format as described above. This spreadsheet shall identify project cost and value earned through the date of each invoice. A pay application will not be accepted for payment processing without an appropriate and accurate identification of earned value on this spreadsheet. Each "Earned Value" spreadsheet shall correspond and agree with the project schedule updates required in **Attachment "G"**.

## **8. OWNERS RESPONSIBILITIES**

**8.1** OWNER will provide information regarding the requirements for the Project which will set forth OWNER's objectives, schedule, constraints and criteria.

**8.2** OWNER will designate a representative authorized to act on the OWNER's behalf with respect to the Project. The OWNER or such authorized representative shall render, in a timely manner, decisions pertaining to documents submitted by the CONSULTANT.

**8.3** OWNER will furnish surveys required by the Project, and not otherwise provided in the CONSULTANTS proposal, describing physical characteristics, legal limitations and utility locations for the site of the Project and a written legal description of the site. Surveys and legal information will include, as applicable, grades and lines of streets, alleys, pavements and

adjoining property and structures; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data pertaining to existing buildings, other improvements and trees; utility services and lines, both public and private, above and below grade, including inverts and depths. Survey information will be referenced to the project benchmark.

- 8.4 OWNER will furnish the services of geotechnical engineers when such services are requested by the CONSULTANT.
- 8.5 OWNER will furnish structural, mechanical, and other laboratory and environmental tests, required by law or the Contract Documents.
- 8.6 OWNER will give prompt written notice to CONSULTANT if OWNER becomes aware of a fault or defect in the Project or CONSULTANT's nonconformance with the Contract Documents.
- 8.7 OWNER will utilize a consultant grading procedure for CONSULTANT's performance on each Milwaukee County project. The Project Manager will grade CONSULTANT's performance and share preliminary grading with the CONSULTANT. CONSULTANT will have an opportunity to review and comment on the performance report. The final report along with CONSULTANT comments will become part of the Project file and will also be added to a database tabulating all such performance ratings (see **Attachment "K"**).

## 9. COUNTY RIGHTS OF ACCESS AND AUDIT

- 9.1 The Contractor, Lessee, or other party to the contract, its officers, directors, agents, partners and employees shall allow the County Audit Services Division and department contract administrators (collectively referred to as Designated Personnel) and any other party the Designated Personnel may name, with or without notice, to audit, examine and make copies of any and all records of the Contractor, Lessee, or other party to the contract, related to the terms and performance of the Contract for a period of up to three years following the date of last payment, the end date of this contract, or activity under this contract, whichever is later. Any subcontractors or other parties performing work on this Contract will be bound by the same terms and responsibilities as the Contractor. All subcontracts or other agreements for work performed on this Contract will include written notice that the subcontractors or other parties understand and will comply with the terms and responsibilities. The Contractor, Lessee, or other party to the contract, and any subcontractors understand and will abide by the requirements of Section 34.09 (Audit) and Section 34.095 (Investigations Concerning Fraud, Waste, and Abuse) of the Milwaukee County Code of General Ordinances.

## 10. OWNERSHIP OF DOCUMENTS

- 10.1 Upon completion of the Project or upon termination of this Agreement, it is understood that all completed or partially completed data, drawings, records, computations, survey information, and all other material that CONSULTANT has collected or prepared in carrying out this Agreement shall be provided to and become the exclusive property of the County. Therefore, any reports, information and data, given to or prepared or assembled by CONSULTANT under this Agreement shall not be made available to any individual or organization by CONSULTANT without the prior written approval of the OWNER (see **Attachment "H"**).

No reports or documents produced in whole or in part under this Agreement shall be the subject of an application for copyright by or on behalf of the CONSULTANT.

- 10.2 CONSULTANT further understands that oral and written communications with OWNER regarding CONSULTANT'S services under this Agreement are confidential. No aspect of CONSULTANT'S services may be discussed with any individual or organization other than OWNER, unless CONSULTANT receives prior written authorization from OWNER for such discussion.

**10.3** If CONSULTANT'S services are terminated prior to completion of the Project, OWNER will indemnify and hold CONSULTANT and CONSULTANT's subconsultants harmless for costs or claims for damages arising out of use the of incomplete documents, interpretation, revision, alteration, or omission to the documents which are not made by CONSULTANT or subconsultants . Should OWNER reuse documents, created by CONSULTANT, the seals and certifications of CONSULTANT and subconsultants shall be invalid, shall not be used and shall be deleted and OWNER will indemnify and hold CONSULTANT and CONSULTANT'S subconsultants harmless for cost or claims for damages arising out of the reuse of the documents.

## **11. EQUAL EMPLOYMENT OPPORTUNITY**

**11.1** In accordance with Section 56.17 of the Milwaukee County Code of General Ordinances and Title 41 of the Code of Federal Regulations, Chapter 60, CONSULTANT certifies as to the following:

### **11.1.1 Non-Discrimination**

- .1 The CONSULTANT shall not discriminate against an employee or applicant for employment because of race, color, national origin or ancestry, age, sex, sexual orientation, gender identity and gender expression, or disability, marital status, family status, lawful source of income or status as a victim of domestic abuse, sexual assault or stalking, which includes, but is not limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising; lay-off or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- .2 The CONSULTANT shall post in conspicuous places, available to employees, notices to be provided by the County, setting forth provisions of non-discrimination clause.
- .3 A violation of this Section 11 shall be sufficient cause for OWNER to terminate this Agreement without liability for uncompleted portion or for materials or services purchased or paid for by CONSULTANT for use in completing this Agreement.

### **11.1.2 Affirmative Action Program**

- .1 CONSULTANT shall strive to implement principles of equal employment opportunity through an effective affirmative action program, which shall have as its objective to increase the use of women, minorities, and persons with disabilities and other protected groups, at all levels of employment in all divisions of CONSULTANT's work force, where these groups may have been previously under-used and under-represented.
- .2 In the event of dispute of compliance with these requirements, CONSULTANT shall be responsible for showing that the requirements have been met.

### **11.1.3 Affirmative Action Plan**

- .1 CONSULTANT shall certify that if it has fifty (50) or more employees, a written affirmative action plan has been filed or will be developed and submitted (within 120 days of contract award) for each establishment. File current Affirmative Action plans, if required, with one of the following: The Office of Federal Contract Compliance Programs, the State of Wisconsin, or the Milwaukee County Department of Audit, 633 W. Wisconsin Avenue, 9<sup>th</sup> Floor, Milwaukee, Wisconsin 53203. If a current plan has been filed,

indicate where filed \_\_\_\_\_ and the year covered \_\_\_\_\_

- .2 The CONSULTANT shall require lower-tier subcontractors who have fifty (50) or more

employees to establish similar written affirmative action plans.

**11.1.4 Non-Segregated Facilities**

CONSULTANT shall certify that it does not and will not maintain or provide segregated facilities for employees at its establishments, and that employees are not permitted to perform their services at a location under its control where segregated facilities are maintained.

**11.1.5 Subconsultants**

CONSULTANT shall certify that certifications regarding non-discrimination, affirmative action program, and non-segregated facilities have been obtained from proposed subconsultants that are directly related to contracts with Milwaukee County, if any, prior to the award of subcontracts, and that such certification will be retained.

**11.1.6 Reporting Requirement**

Where applicable, CONSULTANT shall certify compliance with reporting requirements and procedures established in Title 41 Code of Federal Regulations, Chapter 60 (Equal Opportunity Employment).

**11.1.7 Employees**

CONSULTANT shall certify that \_\_\_\_\_ employees are in the Standard Metropolitan Statistical Area (Counties of Milwaukee, Waukesha, Ozaukee, and Washington, Wisconsin) and that it has \_\_\_\_\_ employees in total.

**11.1.8 Compliance**

CONSULTANT shall certify that it is not currently in receipt of outstanding letters of deficiencies, show cause, probable cause, or other notification of non-compliance with EEO regulations.

**12. TERMINATION OF AGREEMENT**

**12.1** This Agreement may be terminated by either party upon seven (7) days written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

**12.2** This Agreement may be terminated by the OWNER without cause upon at least seven (7) days written notice to CONSULTANT.

**12.3** OWNER's obligation for CONSULTANT'S services rendered to the date of termination shall be for that proportion of fee earned, plus retainage and authorized Reimbursable Expenses.

**12.4** In the event of termination completed or partially complete work materials prepared by CONSULTANT in conduct of this Agreement shall be provided to and become the property of OWNER.

**12.5** This Agreement shall terminate on December 31 of the calendar year in which the Agreement was executed, unless mutually extended in writing.

**13. SUCCESSORS AND ASSIGNS**

This Agreement is binding upon the OWNER, the CONSULTANT, and their respective successors, assigns, and legal representatives. Neither shall assign, sublet, nor transfer its interest in this Agreement without the prior written consent of the other.

**14. APPLICABLE LAW**

This Agreement shall be governed by the Laws of the State of Wisconsin.

**15. INDEPENDENT CONTRACTOR**

Nothing contained in this Agreement shall constitute or be construed to create a partnership or joint venture between OWNER or its successors or assigns and CONSULTANT or its successors or assigns. In entering into this Agreement, and in acting in compliance herewith, CONSULTANT is at all times acting and performing as an independent contractor, duly authorized to perform the acts required of it hereunder.

**16. PROHIBITED PRACTICES**

- 16.1** CONSULTANT during the period of this Agreement shall not hire, retain or utilize for compensation any member, officer, or employee of Milwaukee County or any person who, to the knowledge of CONSULTANT, has a conflict of interest with Milwaukee County.
- 16.2** CONSULTANT hereby attests that it is familiar with Milwaukee County's Code of Ethics which states, in part, "No person may offer to give to any County officer or employee or his immediate family, and no County officer or employee or his immediate family, may solicit or receive anything of value pursuant to an understanding that such officer's or employee's vote, official actions or judgment would be influenced thereby."

**17. EXTENT OF AGREEMENT**

- 17.1** This Agreement represents the entire and integrated Agreement between the OWNER and the CONSULTANT and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement shall not be superseded by provisions of contracts for design or construction and may be amended only by a written instrument signed by both the OWNER and the CONSULTANT.
- 17.2** Nothing contained herein shall be deemed to create any contractual relationship between the CONSULTANT and any of the contractors, subcontractors, or material suppliers on the Project; nor shall anything contained herein be deemed to give any third party any claim or right of action against the OWNER or the CONSULTANT which does not otherwise exist without regard to this Agreement.

## DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION SPECIFICATIONS

- 18.1 The award of this contract is conditioned upon the Good Faith Efforts (GFE) put forth by the bidder/proposer in achieving this contract's assigned Disadvantaged Business Enterprise (DBE\*) goal. The bidder/proposer shall operate in good faith to ensure that DBEs have opportunities to participate on this contract.
- 18.2 **DBE Goal:** This contract's DBE participation goal is \_\_%. For purposes of responsiveness, this participation goal shall be met based upon the dollar value of the base bid, initial offer or initial scope of work. As it may be in the best interest of Milwaukee County to accept the inclusion of alternates, or a best-final offer, approval of DBE participation shall be based upon total contract award. Likewise, if the successful contractor/consultant receives additional work on the contract, e.g., change orders, addendums, use of allowances, etc., DBE participation shall be based upon the revised contract total. **Contractors/Consultants, who are also DBE firms, must perform** at least thirty (30) percent of the contract with their own work force.

### PRIOR TO BID/PROPOSAL OPENING

- 18.3 As a matter of responsiveness, the contractor/consultant shall submit with its original bid/proposal, the completed **Subcontractor/Subconsultant/Supplier Information Sheet (DBE-02)** and the signed and notarized **Commitment to Contract with DBE (DBE-14)** form(s) detailing the participation plan being proposed to meet or exceed this contract's participation goal. In the event the contractor/consultant is not successful in meeting the DBE goal, a complete **Certificate of Good Faith Efforts (DBE-01)** form and all relevant documentation shall be submitted with the bid/proposal in addition to the aforementioned forms. CBDP reserves the right to reject a bid/proposal, as non-responsive, if the required documentation is not submitted with the original bid/proposal.
- 18.4 Milwaukee County's Community Business Development Partners Department (CBDP) determines the sufficiency of the intended contract awardee's good faith efforts undertaken to achieve the assigned DBE participation goal. These efforts are proven by doing either of the following:
- a. Evidencing that it has met the DBE participation goal by submitting with its bid/proposal a signed and notarized **Commitment to Contract with DBE (DBE-14)** form for each DBE documenting sufficient participation; or
  - b. Documenting the good faith efforts made to meet the DBE participation goal, even though it did not succeed in achieving the goal. In this case, the contractor/consultant shall submit the **Certificate of Good Faith Efforts (DBE-01)** and all relevant documentation, which will include a signed and notarized **Commitment to Contract with DBE (DBE-14)** form for each DBE documenting the participation achieved toward satisfying the goal, with its bid/proposal. CBDP is prohibited from ignoring *bona fide* good faith efforts when making determinations on requests for modification of the contract goal, in whole or part. Determinations are made on a contract-by-contract basis.
- 18.5 The efforts employed by the contractor/consultant should be those that one could reasonably expect to be taken if the contractor/consultant were actively and aggressively trying to obtain DBE participation sufficient to meet the goal. Mere pro forma efforts are not good faith efforts. (49 CFR, §26.53, and Appendix A to 49 CFR, Part 26, provide guidance regarding GFE).

- 18.6** In the event CBDP determines that the contractor/consultant has failed to meet the GFE requirements, the contractor/consultant is entitled to appeal this determination. The provisions of 49 CFR, §26.53(d), apply to such an appeal.
- 18.7** Listing a DBE on the **Commitment to Contract with DBE (DBE-14)** form shall constitute a written representation and commitment that the contractor/consultant has communicated and negotiated directly with the DBE firm(s) listed and secured actual pricing from the DBE firm. If awarded the contract, the contractor/consultant shall enter into contract agreement, directly or through subcontractors, with each DBE firm listed on the **Commitment to Contract with DBE (DBE-14)** form(s) for the work and price set forth thereon. The agreement(s) must be submitted to CBDP within seven (7) days from receipt of the "Notice-to-Proceed" or execution of the purchase order.
- 18.8** The DBE participation credited towards the contract goal for both DBE and non-DBE prime contractors is calculated on the following criteria and is further identified in 49 CFR §26.55:
- a.** Prime Contractor shall count towards the DBE requirement and be credited one hundred percent (100%) of expenditures to DBE firms, if all of the identified scope of work has a commercially useful function in the actual work of the contract and is performed directly by the listed certified DBE firm. CBDP through the application of 49 CFR §26.55(c) is responsible for the determination and evaluation of whether or not the firm is performing a commercially useful function on this project.
  - b.** Prime Contractor shall be credited with one hundred (100%) percent for the work performed by the DBE subcontractor with its own forces. If a DBE further subcontracts a portion of its work to another firm, the value of the subcontracted work will not be counted towards the DBE goals unless the work is performed by another DBE firm. The Prime Contractor will be given credit for the cost of material and supplies obtained by the DBE and installed by the DBE for work on the contract. The Prime Contractor will also be given credit for the cost of equipment leased by a DBE subcontractor provided the equipment is not leased from the prime contractor or its affiliates.
  - c.** Prime Contractor shall be credited with one hundred percent (100%) of the expenditures to DBE manufacturers. A DBE manufacturer is a firm that operates or maintains a factory or establishment that produces on the premises goods from raw materials or substantially alters the materials or supplies obtained by the contractor.
  - d.** Prime Contractor shall be credited with sixty (60%) of the expenditures for materials or supplies purchased from a certified DBE regular dealer.

**A Regular Dealer** is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies are kept in stock, and regularly sold to the public in the usual course of business. A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock, if it owns or operates distribution equipment.

Brokers, packagers and manufacturers' representatives or other persons who arrange or expedite transactions are not regarded as regular dealers within the meaning of section 26.55.

- e. Prime Contractor shall be credited one hundred percent (100%) for the fees or commissions charged for assistance in the procurement of material and supplies. A prime contractor shall also be credited with one hundred (100%) percent for fees or transportation charges for the delivery of material or supplies by a DBE to a job site provided that the County determines that the fee is reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the material and supplies will not be credited towards its DBE goals.
- f. Prime Contractor shall be credited with one hundred percent (100%) of transportation expenditures with DBE trucking firms provided the DBE firm is responsible for the management and supervision of the entire trucking operation for which it has contracted. The DBE must also use trucks it owns, insures, and operates using drivers it employs. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract. The DBE may also lease trucks from a non-DBE firm, including an owner-operator; however, the DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE. (Concrete ready mix operations will not receive credit for leased concrete delivery trucks from non-DBE firms).
- g. Contractor/Consultant is required to notify the County Contract Administrator and CBDP if any DBE contractor(s) working on this contract will sublet any portion of their work on this project. Work will be credited based on actual participation by DBE firms.

**18.9** Contractors/Consultants should note that for the purpose of determining compliance with the DBE requirements of this contract, only DBEs certified by the State of Wisconsin Unified Certification Program (UCP) prior to the bid/proposal submission deadline count towards the satisfaction of the goal. If a bidder/proposer wishes to utilize a DBE certified in another state for credit on this contract, the bidder/proposer shall include a copy of DBE certification from the home state along with its good faith efforts documentation upon submission of bid/proposal as a matter of responsiveness. Additionally, any such named DBE must apply for certification with the Wisconsin UCP prior to bid opening or proposal due date. For assistance related to certified DBE firms, contact the Certification and Compliance Administrator at (414) 278-4747.

**18.10** When evaluating a contractor/consultant's proposed DBE commitment, Milwaukee County reserves the right to request supporting documentation from both the contractor/consultant and any listed DBE. If the information requested is not submitted by the contractor/consultant within the time specified for such submission, Milwaukee County may determine the contractor/consultant to be non-responsive and thereby remove them from further consideration for contract award.

#### **FOLLOWING CONTRACT AWARD**

**18.11** When evaluating the performance of this contract after execution, Milwaukee County reserves the right to conduct compliance reviews and request, both from the contractor/consultant and any subcontractors/ subconsultants or material suppliers, documentation necessary to verify actual level of DBE participation. If the contractor/consultant is not in compliance with these specifications, CBDP will notify the contractor/consultant in writing of the corrective action that will bring the contractor/consultant into compliance. If the contractor/consultant fails or refuses to take corrective action as directed, Milwaukee County may take one or more of the actions listed below:

- a. Terminate or cancel the contract, in whole or in part;
  - b. Remove the contractor/consultant from the list of qualified contractors/consultants and refuse to accept future bids/proposals for a period not to exceed three (3) years;
  - c. Impose other appropriate sanctions, including withholding any retainage or other contract payments due which are sufficient to cover the unmet portion of the DBE contract commitment, where the failure to meet the DBE contract commitment is the result of a finding by CDBP of less than adequate good faith efforts on the part of the contractor/consultant; and/or
  - d. If the contractor/consultant has completed its contract, and the DBE contract commitment was not met due to an absence of good faith on the part of the contractor/consultant as determined as determined under 49 CFR, Part 26, the parties agree that the proper measure of damages for such non-compliance shall be the dollar amount of the unmet portion of the DBE contract commitment. The County may in such case retain any unpaid contract amounts otherwise due the contractor/consultant, up to the amount of the unmet DBE contract commitment. If insufficient funds remain in the contract account to compensate the County up to that amount, Milwaukee County may bring suit to recover damages up to the amount of the unmet commitment, including interest at the rate of 12% annually, plus the County's costs, expenses and actual attorney's fees incurred in the collection action.
- 18.12** Contractor/Consultant shall be credited for expenditures to DBE firms toward the requirements, if the entire identified scope of work has a commercially useful function in the actual work of the contract and is performed directly by the listed DBE firm. CDBP, through the application of 49 CFR, §26.55(c), is responsible for the determination and evaluation of whether or not the firm is performing a commercially useful function on this project.
- 18.13** After the execution of the contract, contractor/consultant must submit copies of executed **Subcontract Agreement(s)** for each DBE firm listed on the contract. Attach agreements to the first payment application. **APPLICATIONS FOR PAYMENT WILL NOT BE PROCESSED IF AGREEMENTS ARE NOT SUBMITTED AS REQUESTED.** In addition, **contractor/consultant** shall document that each DBE is notified at least three (3) working days before start of their subcontract work.
- 18.14** Contractor/Consultant is required to notify the County Contract Administrator and CDBP if any DBE contractor(s) working on this contract will sublet any portion of their work on this project. Work will be credited based on actual participation by DBE firms.
- 18.15** Contractor/Consultant must maintain DBE participation and performance logs. If the DBE firm(s) cannot perform, if the contractor/consultant has a problem in meeting the goal, or any other problem relative to these requirements, the contractor/consultant shall immediately contact CDBP at (414) 278-4747. The prime contractor/consultant must submit written notification of desire for substitution to the DBE affected, and forward a copy to CDBP, specifying the reason for the request, including the performance log. Any DBE so notified has five (5) business days to provide written objection/acceptance to the prime making the notification. The "right to correct" must be afforded any DBE objecting to substitution/termination for less than good cause as determined by CDBP (Refer to 49 CFR §26.53). Approval must be obtained from CDBP prior to making any substitutions. DBE contractors are also required to notify and obtain approval from CDBP prior to subletting work on this project.
- 18.16** **Requests For Payment:** A ***DBE Utilization Report (DBE-16)*** form shall be submitted with each payment request by the contractor/consultant after contract award. This report must cover the period from the start of the project to the end of each period covered by the request for payment being

submitted. This report must be submitted even if no DBE activity took place during the period being reported. Contractor/Consultant must indicate on the AIA Document **G703 - Continuation Sheet**, or similar, work being performed by DBEs by either a) placing the word "DBE" behind the work item or b) breaking out the work done by DBEs at the end of the report. Contractor/Consultant shall notify DBEs of the date on which they must submit their invoices for payment. Failure to submit required forms with requests for payment will result in denial of payment, or other sanctions deemed appropriate by Milwaukee County, including those listed in Section 11, above.

- 18.17** **Final Payment Verification**. Contractor/Consultant shall submit a **Contract Close-Out DBE Payment Certification (DBE-18)** form completed by the contractor/consultant and each DBE along with its final request for payment, in addition to a final **DBE Utilization Report (DBE-16)** covering the entire project. Milwaukee County will not process the final request for payment without inclusion of these required forms.
- 18.18** Milwaukee County has a revolving loan program for DBE firms. The program is administered by CBDP. Should the Prime Contractor utilize a DBE that is a participant in this revolving loan program, the contractor will cooperate fully and completely with the County to facilitate repayment of said loan. Said cooperation includes, but is not limited to, written information regarding balance of DBE subcontractor's contract, prior payment (two or three party) agreements, and the issuance of two-party checks payable in the name of Milwaukee County and the DBE indebted to the County under the revolving loan program
- 18.19** Milwaukee County reserves the right to waive any of these specifications when it is in the best interest of the County and with the concurrence of CBDP.

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If your firm does not possess a FAR audit certified rate, please complete the following:

**Overhead Rate = \_\_\_\_\_ (Without Profit)**

\_\_\_\_\_ does not have an audit-certified  
(Name of Firm)

The above rate calculation, which includes all non-direct costs considered to be proper and appropriate to the provision of professional services covered by this Annual Consultant Agreement for Professional Services, was prepared in accordance with the standards of:

\_\_\_\_\_  
(Accounting Practice Used)

It is understood and agreed that no direct charge will be made for labor or expenses included in the Overhead Rate Factor.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_

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**MILWAUKEE COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES, FACILITIES MANAGEMENT DIVISION**

**GUIDELINES FOR REIMBURSABLE EXPENSES**

**GENERAL**

Milwaukee County reimburses consultants under contract for expenses in connection with authorized out-of-town travel; long distance communications; fees paid to approving authorities; reproductions which are products of service; requested renderings, presentation models and mockups; and the expenses of requested additional insurance coverage. There may be other qualifying reimbursable expense items if the project or circumstances are unique and terms concerning them are contained in an approved and signed contract. These guidelines are intended to clarify the County's general policies concerning payments for reimbursable items.

**DEFINITION**

Reimbursable expenses are out-of-pocket expenses incurred by the consultant and consultant's employees in direct support of the project. Over and above compensation for Basic and Additional Services, they are unique and non-recurring costs. By their nature, the cost is not predictable in advance of occurrence.

Approved reimbursable expenses are billed at the same cost paid by the consultant and are not subject to retainage provisions found in Milwaukee County service agreements.

**DOCUMENTATION**

Most reimbursables can be documented by presenting a copy of the original sales slip or invoice clearly highlighted, dated, and labeled with the appropriate job number/name and person incurring the expense. When the original charge has been recorded on an employee expense log, an in-house printing or copy log, or on a phone bill printout, for examples, a copy of the appropriate log or journal can be submitted as long as the costs are clearly highlighted, dated and labeled. All documentation must be attached to a cover sheet which itemizes and sub-totals the charges, by type. The documentation and cover sheet is attached to the consultant's monthly invoice.

**REIMBURSABLES BUDGET ALLOWANCE**

All agreements shall establish a pre-approved budget allowance for the total out-of-pocket reimbursable expenses of consultant's. Changes to the approved allowance total require a written amendment to the consultant's contract. As part of final contract negotiations, the consultant shall prepare an itemized budget estimate for reimbursables for review and approval by the County. Special care should be taken to differentiate those out-of-pocket expenses that will be initially borne by the consultant and those that will be paid directly by the County (under a separate County Services line item in the project budget).

**AUTHORIZED OUT-OF-TOWN TRAVEL**

Reimbursable travel expenses can accrue for both travel to and from Milwaukee for work in connection with a project if that travel involves a distance greater than a 100 mile radius from Milwaukee **or if the consultant's working office is more than 100 miles from Milwaukee.** Milwaukee County will reimburse consultant's for reasonable expenses incurred for such transportation, subsistence and lodging. Mutual agreement about what constitutes an authorized travel expense begins at the time of contract negotiations when the budget for these items is established and continues as the project proceeds. Milwaukee County policy is to pay for essential, not luxury, services.

Whenever possible, air travel dates should be planned in advance to take advantage of the lowest coach fares available on connecting airlines; Milwaukee County does not pay for first-class or business-class travel.

Daily rental car rates are rarely competitive with airport van or taxi fares to and from the airport, hotel and project meeting sites. Consultants should confer with Milwaukee County's project manager regarding the most reasonable and cost-effective means for transportation while in Milwaukee.

If traveling by personal car, the total mileage may be charged at the prevailing cost per mile rate allowed by the Internal Revenue Service. Highway tolls and parking fees for out of town consultants are also reimbursable, if properly documented and if the consultant's office is more than 100 miles from Milwaukee.

Meals reimbursement qualifies if the consultant's employees are required to eat in restaurants in connection with an out-of-town (100 mile radius) visit/trip directly in service of the project. The consultant's choice of restaurants should be modest in every circumstance. Milwaukee County does not pay for meals taken in first-class restaurants, for cocktails, or for entertaining guests or in-town project team members. Milwaukee County discourages the scheduling of a business meeting over a meal period, thus avoiding the question of which meals might be authorized for reimbursement. Check with Milwaukee County's project manager if you are uncertain about which kind of meal expenditure might be disallowed.

Lodging costs at medium-priced accommodations will be approved. Deluxe accommodations and charges involving personal services of any kind will be disallowed.

#### LONG DISTANCE COMMUNICATIONS

Milwaukee County will reimburse the consultant for properly documented long distance telephone tolls made for project business.

#### FEES PAID TO APPROVING AUTHORITIES

Milwaukee County will reimburse the cost of fees paid for securing the approval of authorities having jurisdiction over the project. Consultants should plan for this expense in advance, because cutting County checks to coincide with dates of submittal cannot usually be done. The County will accept, however, an out-of-sequence invoice covering an unusually high plan exam fee in order to minimize the inconvenience to the consultant.

#### REPRODUCTIONS AND REPROGRAPHICS

The cost of drawings, specifications, reports, exhibits and other documents which are products of service are reimbursed with proper documentation. Charges for postage, handling and shipping of reproductions are considered overhead expenses and are not reimbursed. Bid sets, which are often the most expensive segment of the out-of-pocket expense paid by the consultant, are sometimes contracted for by the County on larger jobs that could benefit from competitive bidding for that service. Consult with the County project manager if the furnishing of bid sets is not specifically excluded from consultant's reimbursable allowance budget.

#### ADDITIONAL INSURANCE

When additional insurance coverage or limits, over and above that normally carried by a consultant is specifically requested by the County, the County will reimburse that additional premium cost. Specific documentation will be requested by the County project manager if this expense qualifies as reimbursable.

**MILWAUKEE COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES FACILITIES MANAGEMENT DIVISION**

**INVOICE FOR CONSULTING SERVICES**  
(Lump Sum Contract Form)

INVOICE # \_\_\_\_\_

DATE: \_\_\_\_\_

PROJECT TITLE: \_\_\_\_\_  
\_\_\_\_\_

PROJECT NO.: \_\_\_\_\_

CONSULTANT: \_\_\_\_\_

SERVICES FOR THE MONTH ENDING: \_\_\_\_\_  
\_\_\_\_\_

- 1.) BASIC SERVICES (**Attachment "D-2"**):
  
- 2.) REIMBURSABLE EXPENSES (**Attachment "D-2"**):  
(Attach itemization and back-up copies of all charges)
  
- 3.) ADDITIONAL SERVICES (**Attachment "D-3"**):  
(Attach itemization for each service by name, classification,  
direct salary rate x O.H. factor x man hours)

**TOTAL THIS MONTH:**

**LESS:** Retainage @ 5% (On Items 1. & 3. Only).....

**CURRENT PAYMENT DUE:**  
(Attach continuation sheet, D-2, on job status)

Approved for Billing:

Approved for Milwaukee County  
Department of Administrative Services  
Facilities Management Division:

\_\_\_\_\_  
Consultant

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**MILWAUKEE COUNTY DEPARTMENT OF ADMINISTRATIVE SERVICES, FACILITIES MANAGEMENT DIVISION**

CONSULTANT INVOICE CONTINUATION SHEET FOR REPORTING JOB STATUS

PROJECT NO.: \_\_\_\_\_

CONSULTANT: \_\_\_\_\_

INVOICE # \_\_\_\_\_

Basic Services	Fee Limit Per Phase/ or Totals	Previously Billed	Billed This Month	Percent Complete (%)	Total Billed To Date	Retainage To Date	Balance To Completion
Program, Master Plan							
Schematic Des							
Design Dev.							
Contract Doc.							
Bidding							
Const. Admin.							
Subtotal							
Reimbursables (Itemized)	\$			N.A.		N.A.	
Subtotal							
Additional Services (Itemized) INCR.	\$						
Subtotal							
Totals							

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**MILWAUKEE COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES, FACILITIES MANAGEMENT DIVISION**

INVOICE FOR ADDITIONAL CONSULTING SERVICES ONLY  
(Multiple of Direct Salary Rate Form)  
(One FORM "D-3"/Ea. Increase/Billing)

INVOICE # \_\_\_\_\_

Fee Increase # \_\_\_\_\_

DATE: \_\_\_\_\_

Fee Increase Total \$ \_\_\_\_\_

PROJECT TITLE: \_\_\_\_\_

PROJECT NO.: \_\_\_\_\_

CONSULTANT: \_\_\_\_\_

SERVICES FOR THE MONTH ENGING: \_\_\_\_\_

1.) **CONSULTANT LABOR** (Refer to approved Manpower Direct Salary Rate & O.H. Factor Schedule)

Name	Classification	Direct Sal. Rate/Hr.	OH Factor	Man Hrs	Cost
_____	_____	\$ x	x	_____	= _____
_____	_____	\$ x	x	_____	= _____
_____	_____	\$ x	x	_____	= _____
_____	_____	\$ x	x	_____	= _____
_____	_____	\$ x	x	_____	= _____
					Subtotal _____

2.) **SUBCONSULTANTS**  
(Attach itemizations in same form as above) Subtotal \_\_\_\_\_

3.) **REIMBURSABLE EXPENSES**  
(Attach itemization and backup copies of all charges) Subtotal \_\_\_\_\_

**TOTAL THIS MONTH:**

**LESS:** Retainage @ 5% (On Items 1. & 2. Only).....

**CURRENT PAYMENT DUE:**  
(Attach continuation sheet on job status)

Approved for Billing:

Approved for Milwaukee County  
Department of Administrative Services  
Facilities Management Division:

\_\_\_\_\_  
Consultant

\_\_\_\_\_  
Signature & Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

## TBE RFP LANGUAGE INSERT

***NOTE: This language is typically inserted before or after the Affirmative Action/EEO Requirements sections.***

### TARGETED BUSINESS ENTERPRISE (DBE) UTILIZATION

The award of this contract is conditioned upon your good faith efforts in achieving this project's Targeted Business Enterprise (TBE) goal of %, and you must document those efforts. Your Proposal must state how you will meet the goal, including identifying the TBE firm(s) by name, the scope(s) of work/service(s) to be provided, the dollar amount(s) of such work, and the percentage of the TBE goal to be met. Failure to do this will result in a determination of non-responsiveness, and rejection of your Proposal will occur. During the Contract, the successful Proposer will use the County's online reporting system to document TBE participation. The *Targeted Business Enterprise (DBE) Requirements* and forms to be used are attached in this RFP.

A necessary step in the good faith efforts process is contacting Community Business Development Partners (CBDP) at 414-278-4747 or [cbdp@milwaukeecountywi.gov](mailto:cbdp@milwaukeecountywi.gov) for assistance in identifying TBEs and understanding the County's TBE Program procedures. The official directory of eligible TBE firms can be accessed by the following link:

<https://app.mylcm.com/wisdot/Reports/WisDotUCPDirectory.aspx>

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**MILWAUKEE COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES, FACILITIES MANAGEMENT DIVISION**

**COST & SCHEDULING SYSTEM REQUIREMENTS**

**GENERAL**

SureTrak and Expedition are software packages produced by Primavera Systems, Inc. This software, in addition to Microsoft Project, is used by Milwaukee County.

**Requirements According To Agreement Size**

Schedule and control services using Sure Trak or Microsoft Project software are required for this project to the degree listed below:

- A. For consultant services agreements with fees up to \$50,000, FACILITIES MANAGEMENT DIVISION staff will enter schedule and control information on FACILITIES MANAGEMENT DIVISION's contract management information system. Prime Consultant shall provide scheduling information requested by FACILITIES MANAGEMENT DIVISION according to the needs of the project.
- B. For consultant agreements with a fee range from \$50,000 to \$500,000, Prime Consultant shall use Microsoft Project and provide scheduling information determined necessary by FACILITIES MANAGEMENT DIVISION according to the needs of the project. Milwaukee County will use Primavera Contract Manager for contract cost control.
- C. For consultant services contracts over \$500,000, consultant shall use Microsoft Project and provide scheduling information determined necessary by FACILITIES MANAGEMENT DIVISION according to the needs of the project. Milwaukee County will use Primavera Contract Manager for contract cost control.

**SCHEDULE DEVELOPMENT**

Before work begins, the Prime Consultant shall prepare a Baseline Schedule of the work scope in Critical Path Method form. Milwaukee County will furnish an activity coding format to facilitate reports and graphics used in project management activities. The Prime Consultant shall submit the completed schedule for review and approval (cd disc format or electronic mail) by FACILITIES MANAGEMENT DIVISION's project manager. The review will confirm the following: that the schedule is complete and reflects a realistic work plan; that the total schedule costs equal the contract values; that there is a defined, justifiable critical path with design activity durations subdivided into periods less than 20 working days or \$10,000 value; that responsible parties are assigned; and that all the key project milestone dates are recorded. Milwaukee County approval of the Baseline Schedule is required before any pay request from the Prime Consultant can be processed.

The consultant is responsible for information required to develop the schedule. Content includes work operations, sequencing, activity breakdown and time estimates. Milwaukee County may require additional schedules or reports to verify timely completion of scheduled activities and project milestones.

On a monthly basis, the consultant shall review the schedule and report on actual performance, i.e., the actual start and finish dates and durations, work performed since the last update, description of problem areas, delaying factors and their impacts, and corrective actions taken. The Prime Consultant shall also update the current schedule, identifying changes in network logic, work sequences and durations needed to meet contract requirements, and contract time adjustments, when authorized by Milwaukee County. Each schedule update will be submitted to the County project manager for approval on 3.5" discs or through electronic mail, concurrent with submittal of consultant's monthly invoice for professional services. Pay applications will not be processed if updated schedule with all information required is not submitted. Copies of approved schedule updates shall be distributed to other members of project teams with instructions to recipients to promptly report discrepancies and problems anticipated by projections shown in the schedule.

MILWAUKEE COUNTY DEPT. OF ADMINISTRATIVE SERVICES - FACILITIES MANAGEMENT DIVISION RECORD DOCUMENT  
STANDARDS FOR PROFESSIONAL SERVICES  
SECTION H

**I. RECORD DOCUMENTS**

The Prime Consultant shall prepare and file record documents of the project with Milwaukee County DEPT. OF ADMINISTRATIVE SERVICES - FACILITIES MANAGEMENT DIVISION, as per this attachment. Prime Consultant agreement close-out and final payment will be contingent on approval of complete record document submittal by Prime Consultant.

**II. ELECTRONIC MEDIA REQUIREMENTS**

- A. Produce Project Manuals, Reports, and other permanent records in an electronic word processing format that can be read by Microsoft Office 2013, Microsoft Office 365 or newer. Produce Project Manual technical sections in Milwaukee County format. Obtain electronic formats for Project Manual technical sections through the Architect/Engineer of record for the Project or contacting John Bunn (414-278-3921).

These materials shall be submitted on a CD-ROM which adheres to ISO 9660 CD, or CD-ROM XA (Mode 2) format for multi-session CD-ROM.

- B. CADD drawings shall be produced in AutoCAD 2013 software, or higher, and be capable of residing on an IBM-compatible computer utilizing Windows 7, Windows 7 Professional, or newer operating systems. Provide drawings in DWG & PDF formats. **Drawings submitted in DXF format will NOT be accepted.**

The Consultant shall use AutoCAD 2013 or newer for AutoCAD engineering drawings.

Obtain Milwaukee County drawing format standards for title blocks and cover sheets: B\_1711, D\_3624, and/ or F\_4230 by contacting the Architect/ Engineer of Record for the Project.

AutoCAD drawings shall be submitted on a CD which adheres to ISO 9660 CD, or CD-ROM XA (Mode 2) format for multi-session CD-ROM, and (1) additional copy of drawings on separate CD in PDF format.

**III. AUTOCAD DRAWING STANDARDS**

The Prime Consultant and his/her sub-consultants shall prepare AutoCAD drawings in accordance with the following document standards:

- A. Xref Files, Image Files, Blocks and 3rd Party Fonts
1. XBIND all Xref files to their drawing(s). Each individual electronic graphic document must be submitted in a single file format without any external files attached.
  2. Insert all image files in Final Drawing
  3. A document created with multiple files **MUST NOT SHARE LAYER NAMES** among the files.
  4. Provide a **SINGLE DRAWING FILE** for each Drawing Sheet.
  5. While working in Paper Space, **TURN ON VIEW LOCK** to prevent your viewport view from being accidentally altered while moving between Paper Space and Floating Model Space mode.
  6. Purge all drawing files of all unused entities-Blocks, Layers, Fonts
  7. "READ-ONLY" and "LOCKED" drawing files will not be accepted.
- B. It is **PREFERRED** that all final drawings be submitted in Model Space. However, final drawings may be submitted in Paper Space as long as AutoCAD Drawing Standards A-1 through A-7 are adhered to. Drawings must also conform to the following requirements:
- a. Drawings must be referenced to a NAD83 horizontal datum
  - b. Drawings must be referenced to the State Plane Wisconsin South FIPS 4803 coordinate system
  - c. Drawings must have an origin point referenced to a location within Milwaukee County, with coordinate values that fall within the coordinate system specified above
- C. Consultants shall utilize the following Milwaukee County drawing format standards:
1. Standard text set-up and dimension set-up (**page H-20**)
  2. Standard drawing conversion scale (**page H-21**)
  3. Standard title blocks (**B\_1711, O\_3624, E\_4230**)
  4. The standard AutoCAD font to be used is **ROMANS.shx**
  5. Sheet sizes to be used, on BOND PAPER, are:

**Architectural:**

A = 9" x 12"  
B = 12" x 18"  
C = 18" x 24"  
D = 24" x 36"  
E = 36" x 48"  
E1 = 30" x 42"

**Engineering:**

Ansi A = 8 1/2" x 11"  
B = 11" x 17"  
C = 17" x 22"  
D = 22" x 34"  
E = 34" x 44"

Drawing Sheet numbers and electronic drawing files shall consist of the following:

1. Alphanumeric discipline designation
  - A** - Architectural Interiors and Facilities Management
  - C** - Civil Engineering and Site Work
  - E** - Electrical
  - EV** - Environmental
  - F** - Fire Protection
  - L** - Landscape Architecture
  - M** - Mechanical
  - P** - Plumbing
  - S** - Structural

2. A maximum of 3 characters for sheet number

Example: A101.dwg  
| |  
| | \_\_\_\_\_ Sheet Number  
| \_\_\_\_\_ Discipline

- D. The DOS 8+3 naming convention shall be used for all Drawing Sheet numbers and electronic drawing files (e.g., A101.dwg).
- E. Consultants shall utilize the **AIA**, or Milwaukee County Standard Layer Index, including color and line type (**pages H-6 through H-19**); or for approval of your firm's standard layer index.
- F. The room attributes shall be provided on all AutoCAD building plans. Window attributes shall be shown on elevation drawings. The following attribute data shall be included:
  1. **Rooms**
    - Room number (serves as the room tag)
    - Dimensions (length, width, height)
  2. **Tag number**
    - Door size
    - Frame size
    - Fire rating
  3. **Windows**
    - Tag number
    - Size
    - Glazing
    - Framing material

#### IV. GIS RECORD STANDARDS

- a. GIS data must be obtained via resources found at:  
<http://mclio.maps.arcgis.com/apps/webappviewer/index.html?id=1d1bc0975f414049ace560b95b377adc>
- b. GIS data must be edited to match the as-built state, edited to include all changes to all assets affected by the project, including all relevant/affected attributes and geometries, and returned to Milwaukee County

with the same layers, fields, and Esri file geodatabase (.gdb) format as originally obtained via above resource.

- c. Editors may edit the GIS data using their preferred software. Suitable commercial software packages that can read and edit the data are available from Esri and Autodesk (e.g. ArcMAP, ArcGIS Pro, AutoCAD Map3D, ect.)
- d. Edited data must be returned in a zipped file geodatabase via the upload process documentation & resources found at <http://mclio.maps.arcgis.com/apps/webappviewer/index.html?id=1d1bc0975f414049ace560b95b377adc>

## V. DOCUMENT REQUIREMENTS

A. **Design Documents:** Prepare and submit the following documents to the DAS - Records Management Office with a copy of the transmittal letter submitted to the respective Project Manager:

- |                                      |  |
|--------------------------------------|--|
| 1. City/State Approved Drawings      | (1) Original set   |
| 2. Bid Set Drawings                  | (1) Set BOND PAPER (marked as "ORIGINAL")<br>(1) Set electronic file (DWG & PDF) |
| 3. Project Manual<br>& Detail Manual | (1) Set hard copy<br>(1) Set electronic file                                     |

B. **As-Built/Record Documents:** Prepare and submit the following record documents to the DAS - Records Management Office with a copy of the transmittal letter submitted to the respective Project Manager:

- |                                      |   |
|--------------------------------------|---|
| 1. As-Built/Record Drawings          | (2) Sets BOND PAPER (marked as "ORIGINAL")<br>(1) Set electronic file (DWG & PDF) |
| 2. Project Manual<br>& Detail Manual | (2) Sets hard copy<br>(1) Set electronic file                                     |
| 3. Operating/Maintenance Manuals     | (3) Sets hard copy, (1) set electronic file                                       |

The Prime Consultant and his/her sub-consultants shall prepare and submit the required As• Built/Record Drawings and Project Manuals in accordance with the following procedures:

1. Obtain from each Prime Contractor marked-up prints, clarification drawings, shop drawings and/or any other data showing significant changes in the work made during the construction phase, including all changes described in the original addenda.
2. Update the original electronic drawings and project manuals by transferring all addenda and field changes from the contractor's marked-up documents, describing significant changes to the original drawings and project manuals.

The Prime Consultant shall list all revisions on each drawing and identify each revision with boundaries. Each drawing shall be labeled **AS-BUILT/RECORD DRAWINGS** and **PROJECT and DETAIL MANUAL**, and have them dated and signed by the Principal in Charge.

3. The end product shall consist of a composite set of Record Drawings and Project Manuals accurately showing the as-built, on-site conditions of the entire project.

C. **Studies/Analysis/Survey Reports:** Prepare and submit the following documents to the DTPW Records Management Office with a copy of the transmittal letter submitted to the respective Project Manager:

- |                          |   |
|--------------------------|---|
| 1. Final Approved Report | (2) Sets hard copy<br>(1) Set electronically produced |
|--------------------------|---|

## VI. FINAL DOCUMENT REQUIREMENTS FOR ELETRONIC MEDIA

The Prime Consultant and his/her subconsultants shall prepare and submit:

A. A Drawing Directory consisting of a drawing index, in hard copy and on electronic media, that is sorted by:

1. Property site
2. Building
3. Discipline

And shall include:

4. MILWAUKEE COUNTY Project Number
5. MILWAUKEE COUNTY Site I.D. and Building I.D.
6. MILWAUKEE COUNTY Drawing Name and Description
7. Sheet number
8. Text Style
9. Image Files
10. 3rc1\_party Fonts
11. **Layer Log** for each Drawing Sheet including layer name, state (on/off), color, line type, defined blocks, user blocks, dependent blocks and unnamed blocks.

B. Detail Drawings produced as a MANUAL shall include a Drawing Index consisting of the detail title and/or description, and identification number sorted by discipline and page number. The Drawing Index shall be submitted in hard copy and shall be incorporated in the Detail Manual.

C. Consultants shall also submit correspondence outlining all special loading or start-up procedures required to generate the drawings for viewing, manipulating and editing on Milwaukee County DAS's CADD system (AutoCAD 2013).

D. Consultants shall label the CD-ROM identifying:

1. Project Number
2. Project Title with Site I.D. and Building I.D.
3. Name of Consultant Firm and Principal in Charge
4. Date

E. Consultants may insert their logos on Milwaukee County's Standard Cover Sheet with PRIOR APPROVAL from the Architect/ Engineer of record for the project.

Submit the Project Cover Sheet Layout to the Architect/ Engineer of record for review and approval. Consultants **MAY NOT** insert their logos on the Project Drawing Sheets. The consultant firm's name may be inserted in the designated space provided within Milwaukee County's Standard Title Block.

F. For an example of file and layer indexing, please visit

<http://county.milwaukee.gov/ImageLibrary/Groups/cntyArchEng/dturzai/09172013forward/SectionHFile/LayerIndex2015.pdf>

### SUBMIT TO:

**MILWAUKEE COUNTY DEPARTMENT OF ADMINISTRATIVE SERVICES ARCHITECTURAL, ENGINEERING  
& ENVIRONMENTAL SERVICES DIVISION  
633 WEST WISCONSIN AVENUE-SUITE 1000  
MILWAUKEE, WI 53203**

**PHONE: 414-278-3986**

MILWAUKEE COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES, FACILITIES MANAGEMENT DIVISION

COMPLETE LISTING OF SUBCONSULTANTS

(To Be Completed by Prime Consultant)

DATE: \_\_\_\_\_

PROJECT TITLE: \_\_\_\_\_

PROJECT NO.: \_\_\_\_\_

PRIME CONSULTANT: \_\_\_\_\_

In the execution of the subject Prime Consultant Agreement, I/We propose to use the following subconsultants:

No.	Name & Address	Type of Service	Principal Contact
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

For Prime Consultant:

For Milwaukee County  
Department of Administrative Services  
Facilities Management Division

Approved (No.'s): \_

Rejected/Resubmit (No.'s) \_

\_\_\_\_\_

\_\_\_\_\_

Signature

Signature

Name

Name

Title

Title

Date

Date

DRAFT

MILWAUKEE COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES, FACILITIES MANAGEMENT DIVISION

SUBCONSULTANT COMPLIANCE CERTIFICATION

DATE: \_\_\_\_\_

PROJECT TITLE: \_\_\_\_\_

PROJECT NO.: \_\_\_\_\_

PRIME CONSULTANT: \_\_\_\_\_

This is to Certify that I/We:

SUBCONSULTANT NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

Shall provide the following subconsulting services to the above named Prime Consultant:

TYPE OF SERVICES: \_\_\_\_\_

\_\_\_\_\_

We also certify that if I/We are approved for this project, we shall be bound by all the applicable terms and conditions, including the "Audit and Inspection of Records" requirements, required of the Prime Consultant. No work shall be started until we have an executed Agreement with the Prime Consultant incorporating all of the above requirements.

**SUBCONSULTANT**

\_\_\_\_\_  
Subconsultant's Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

If Principal is a Corporation  
IMPRINT CORPORATE SEAL

**MILWAUKEE COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES, FACILITIES MANAGEMENT DIVISION  
CONSULTANT AGREEMENT CLOSEOUT CHECKLIST**

Consultant: \_\_\_\_\_

Project Title: \_\_\_\_\_

Project No.: \_\_\_\_\_

Agreement (Contract) No.: \_\_\_\_\_ Effective Date: \_\_\_\_\_

Type Agreement: A: \_\_\_\_ B (Annual): \_\_\_\_ C: \_\_\_\_ D: \_\_\_\_

Consultant Selection Documentation in File: Yes No

**These deliverable item from the consultant must be in the FACILITIES MANAGEMENT DIVISION  
Project (job) File:**

- Final Project Program Report (Sec. 3.1.3) (*Scope of project as agreed by all parties*)
- Final Estimate of Probable Construction Costs (Sec. 3.4.2) (*Submitted before bid process begins*)
- Copies of all State and Local Plan Examination approvals and receipts for paid application fees (Sec. 3.5.2.2)
- Project Manual and all addendum originals (Sec. 3.4.2, 3.5.2.3)
- Written recommendation as to Substantial Completion and final acceptance of the project (Sec. 3.6.2, 5.4.1.1) (AIA Form G704)
- Written confirmation of compliance of the Work with Contract Documents (sec. 3.6.2) (WI Commercial Bldg. Code, Form SBDB-9720)
- Final updated cost loaded schedule (Attachment "G-1")
- Record documents (Attachment "H-1") are accessible and useable \_\_\_\_\_
- Operation and maintenance manuals and data (CONSULTANT approved)
- Confirmation of Site Clean-Up (*i.e., environmental or geotechnical soil cuttings, purge water*)
- DBE Participation (Attach Approved Final Utilization Report): DBD-018PS

Note - Signature no longer required. Use Record Document BP for record document closeout.

**All of the above items applicable to this project have been submitted**

Prime CONSULTANT Signature: \_\_\_\_\_

County Project Manager Approval: \_\_\_\_\_ Date: \_\_\_\_\_

SCORE: \_\_\_\_\_

MILWAUKEE COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES, FACILITIES MANAGEMENT DIVISION

CONSULTANT EVALUATION FORM

Consultant: \_\_\_\_\_

Consultant P.M.: \_\_\_\_\_

Project Title: \_\_\_\_\_

Project No.: \_\_\_\_\_ Contract No.: \_\_\_\_\_

Date of Evaluation: \_\_\_\_\_ Evaluation Form Completed By: \_\_\_\_\_

Basic Services Provided by the CONSULANT: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Please circle the Appropriate Response:  
Performance Assessment:**

- I. Quality of Work:
  - (4) Satisfied/Above Average
  - (3) Acceptable/Average
  - (2) Marginally Acceptable/Below Average
  - (1) Unacceptable

Comments: \_\_\_\_\_

\_\_\_\_\_

- II. Adherence to Schedule/Timeliness/Responsiveness:
  - (4) Satisfied/Above Average
  - (3) Acceptable/Average
  - (2) Marginally Acceptable/Below Average
  - (1) Unacceptable

Comments: \_\_\_\_\_

\_\_\_\_\_

- III. Budget Management/DBE Compliance:
  - (4) Satisfied/Above Average
  - (3) Acceptable/Average
  - (2) Marginally Acceptable/Below Average
  - (1) Unacceptable

Comments: \_\_\_\_\_

\_\_\_\_\_

ADDITIONAL COMMENTS: \_\_\_\_\_

Composite Score = I + II + III / 3

**IN WITNESS WHEREOF**, This Agreement executed the day and year first above written.

**FOR MILWAUKEE COUNTY:**

\_\_\_\_\_  
Gregory G. High, Director (Date)  
DAS- Architecture, Engineering  
And Environmental Services

\_\_\_\_\_  
Teig Whaley Smith, Director (Date)  
Administrative Services

\_\_\_\_\_  
Stuart Carron, Director (Date)  
DAS- Facilities Management Division

\_\_\_\_\_  
Chris Abele, County Executive (Date)  
Office of the County Executive

**APPROVED AS TO FUNDS AVAILABLE FOR WISCONSIN STATE STATUTES SECTION 59.255(2)(E):**

\_\_\_\_\_  
Comptroller (Date)  
Office of the Comptroller

**REVIEWED AS TO DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS  
(APPROVED WITH REGARD TO COUNTY ORDINANCE CHAPTER 42):**

\_\_\_\_\_  
Community Business Development Partners (Date)

**APPROVED AS TO FORM AND INDEPENDENT CONTRACT STATUS BY CORPORATION COUNSEL:**

\_\_\_\_\_  
Corporation Counsel (Date)

**REVIEWED AS TO INSURANCE REQUIREMENTS:**

\_\_\_\_\_  
Risk Manager (Date)

**APPROVED AS COMPLIANT UNDER SEC. 59.42(2)(B)5, STATS.:**

\_\_\_\_\_  
Corporation Counsel (Date)

**BY CONSULTANT / CONTRACTOR:**

\_\_\_\_\_  
Contracting Firms Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

    N/A      
Witnessed By

If Principal is a Corporation  
IMPRINT CORPORATE SEAL

DRAFT

# ATTACHMENT 6

## BHS - ASSESSMENT REPORT

# ASSESSMENT OF BAGGAGE HANDLING SYSTEMS AT MILWAUKEE MITCHELL INTERNATIONAL AIRPORT

*Milwaukee Mitchell International Airport (MKE)*

July 10, 2025

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# 1 DOCUMENT OVERVIEW

The intent of this document is to review the existing Baggage Handling System (BHS) at Milwaukee Mitchell International Airport (MKE). MKE is experiencing end-of-life issues with the existing control system and is intending to review and verify findings from a separate report provided by ControlTouch, for the airline consortium, which identified various upgrade recommendations to the existing control system. This report is an effort to review and verify the findings of that report as well as determine other potential limiting factors in the system outside of the Explosive Detection System (EDS) machines and the BHS control logic. This report is based upon a review of existing system drawings and an in-person site survey, conducted on May 29, 2025, during the typical baggage system operating conditions.

## 1.1 System Overview

The existing outbound system consists of four ticket counter inputs that merge into one mainline that feeds a total of four L3 Examiner 3DX 6700 ES EDS screening machines in a centralized Checked Baggage Inspection System (CBIS). The system contains a Checked Baggage Reconciliation Area (CBRA) that contains eight TSA workstations for normal bag screening. After being screened, the checked baggage is transported to an outbound sortation mainline that feeds four slope plate carousels. Figure 1 shows the overall layout of the existing outbound system.

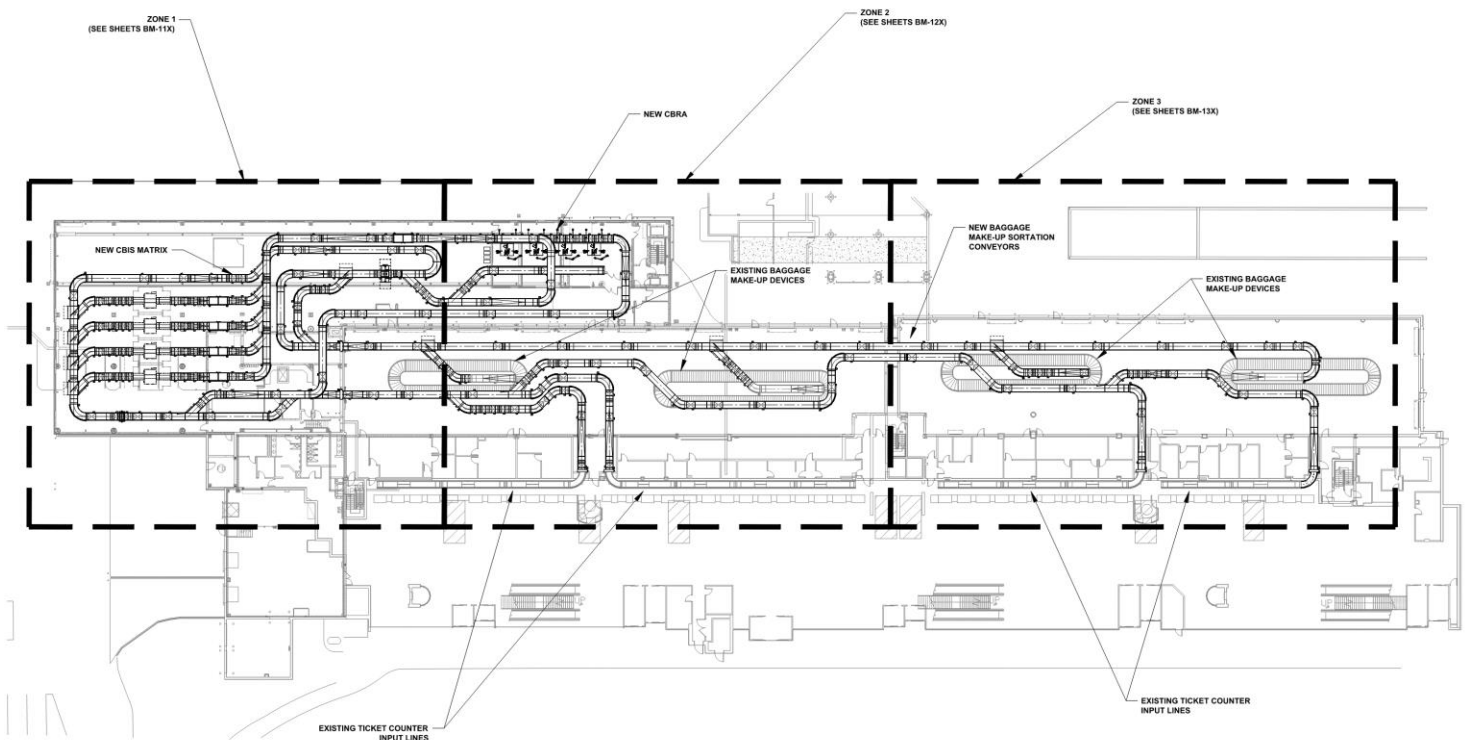
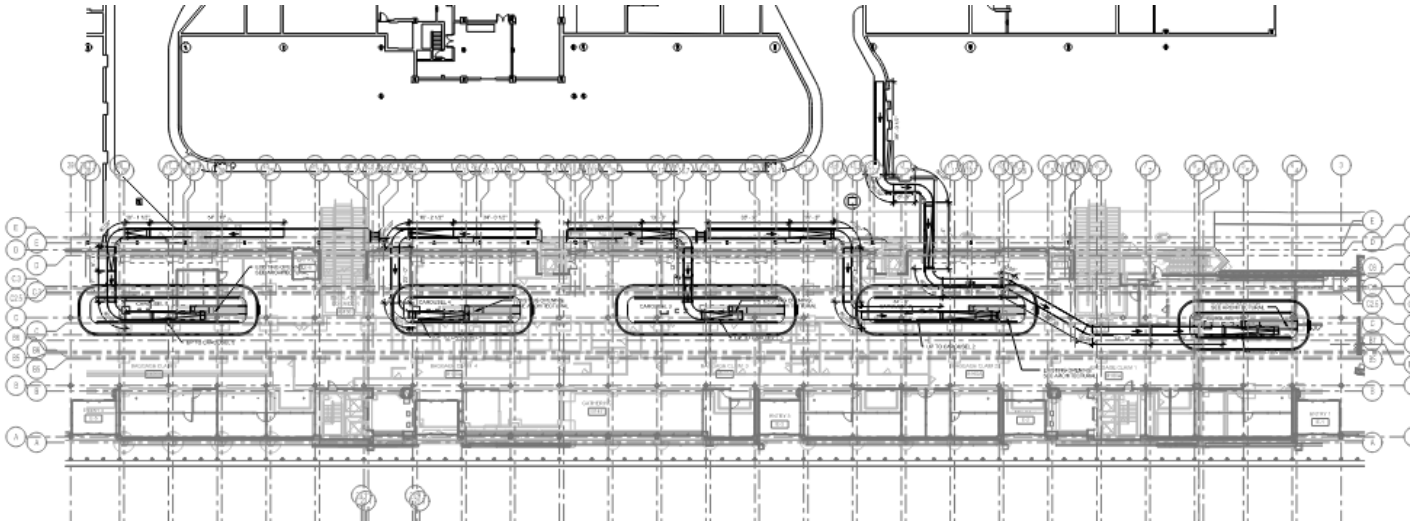


Figure 1: MKE Existing Outbound System Overall Layout

The existing inbound BHS system consists of five slope plate carousels that are fed by dedicated unload conveyors. The system is controlled by a single PLC that communicates back to the BHS control room and has visibility for the operators to monitor system status. Figure 2 shows the layout of the existing inbound system at MKE.



*Figure 2: MKE existing Inbound BHS System*

## 2 BHS ASSESSMENT

### 2.1 Outbound Lower-Level Network Upgrade

#### 2.1.1 Summary

The existing outbound CBIS system communicates from the PLC to the conveyor devices via a ControlNet and DeviceNet communication protocol with the associated communication equipment. This type of communication and equipment protocol is common in systems that were installed at the time that this particular system was designed and installed.

Over the past few years this communication protocol and its associated equipment has shifted to a “discontinued” or “end of life” status and the manufacturer of the equipment will no longer provide future support for the equipment. This has led to many systems that were built during this time period to undergo system modernizations by replacing the outdated communication system with new equipment and communication protocols that will be supported in the future.

#### 2.1.2 Recommendations

The recommendations listed below agree with those presented in the ControlTouch ROM Proposal.

- Replace the legacy DeviceNet and ControlNet communications with an Ethernet/IP control system. Only replace equipment from the PLC controller downstream to the devices and PLC peer-to-peer network.
- Implement Device Level Ring (DLR) control architecture on the outbound CBIS
- Implement Guardlogix PLC controller to remove hardwired E-Stop on the outbound CBIS (See Section 2.3)
- New Equipment Needed:
  - Ethernet cabling
  - New PLC Controllers
  - New PLC Communication Cards
  - New Switches to implement DLR architecture
  - New Devices (Photoeyes, Control Stations, Shaft Encoders, etc.) or new I/O modules to connect devices on new network
  - New VFDs due to the current “end of life” status from the manufacturer.

#### 2.1.3 Challenges

- Phasing a new control system over an existing system while maintaining operations.
  - Mitigation Strategy – Replace control system one DeviceNet Network at a time. During the replacement of each DeviceNet Network that disrupts the entire baggage flow to a critical BHS operation, use baggage porters to transport baggage across the gap of conveyors under construction.
- Will potentially require new TSA certification and costs associated with testing and machine integration.
  - Mitigation Strategy – Discuss network replacement with TSA to determine any additional integration, testing, and certification costs.

#### 2.1.4 Alternatives and Considerations

As recommended above, the replacement system will be a Rockwell Automation-driven system. GuardLogix PLCs, ControlLogix PLCs, and Armor PowerFlex VFDs are all proprietary to Rockwell automation, so this could raise sole-sourcing concerns. Also, these products would be at the mercy of any changes or decisions Rockwell Automation makes regarding them.

It is possible to replace the lower-level network utilizing remote I/O, but this would reintroduce the need for a separate safety relay. Therefore, this option would constitute the need to replace the existing safety relays and wiring with Ethernet/IP capable models. This option would also utilize remote I/O cards to collect all the necessary control points for the PLC, meaning the Armor PowerFlex VFD does not need to be the specific type and brand of VFD needed. VFDs without safety-specific inputs could be considered, as the safety I/O of the system could be routed through remote I/O cards.

This alternative could be considered; however, it will be more costly to implement this type of control system and therefore we recommend the replacement of the existing control system with Allen Bradley components, as suggested in the ControlTouch ROM Proposal.

## 2.2 Inbound Lower-Level Network Upgrade

### 2.2.1 Summary

Like the Outbound system, the existing inbound BHS system communicates from the PLC to the conveyor devices via ControlNet and DeviceNet communication protocols with Input and Output (I/O) devices to control the associated equipment. The main difference between the two systems is how the motors are controlled. The outbound system uses VFD drives that communicate on the DeviceNet protocol, where the inbound system uses motor starters that are controlled through the I/O so the removal of DeviceNet is not as intrusive as the outbound system.

### 2.2.2 Recommendations

The recommendations listed below were not identified in the ControlTouch ROM Proposal and should be considered when replacing the DeviceNet network on the outbound system.

- Replace the legacy DeviceNet and ControlNet communications with an Ethernet/IP control system. Only replace equipment from the PLC controller downstream to the devices and PLC peer-to-peer network. A new Ethernet cable will be needed to connect the inbound PLCs to the BHS control Room
- Implement new I/O cards for the inbound system to control the devices that were previously on the DeviceNet Protocol
- New Equipment Needed:
  - Ethernet cabling
  - New PLC Communication Cards
  - New Switches to implement DLR architecture
  - New Devices (Photoeyes, Control Stations, Shaft Encoders, etc.) connected to new I/O modules

### 2.2.3 Alternatives and Considerations

As recommended above, the replacement system will be a simplified centralized I/O system. It is possible to replace the lower-level network, similar to the outbound system option. This option would require additional ethernet switches and VFDs to create the DLR redundancy. This alternative could be considered; however, due to the higher cost impact and less significant value added, we recommend replacing the existing control system with the centralized I/O as discussed above.

## 2.3 PLC Processors

### 2.3.1 Summary

The existing system communicates using PLCs that are Allen Bradley ControlLogix series L7x. They are believed to be performing adequately for the current application, and replacement is not required. However, there will be some cost efficiency gained by replacing PLCs with newer versions when the lower-level network is replaced. The existing PLCs in the outbound and inbound baggage rack are shown below in Figure 3.

Outbound PLCs



Inbound PLCs



Figure 3: Existing PLCs

The proposed replacement for two of the four existing PLCs for the outbound system is a 1756-L83 ES GuardLogix. This PLC has the capability to handle both safety and standard tasks, eliminating the need for an external safety relay and related wiring. Consequently, the existing safety relays would not need to be replaced or upgraded but could simply be removed without introducing equipment and labor costs for new relays. This is due to the GuardLogix PLC's integrated safety functions, high reliability,

and ethernet compatibility. These PLCs will operate in conjunction with Armor PowerFlex VFDs that have integrated safety specific I/O ports and standard I/O ports. There will be a need for a small number of remote I/O cards to be used in specific places where there are too many points for an Armor PowerFlex to collect.

It is worth noting that the GuardLogix PLCs are not capable of being configured for “hot standby,” so they will not be able to take over system functions while running simultaneously if one fails. For redundancy, a second GuardLogix controller would need to be on “cold standby” where the failed controller is swapped directly for a back-up that was not previously running the system.

The remaining two PLCs do not need to be replaced by GuardLogix PLCs, since the other GuardLogix controllers will be able to handle the safety tasks. Replacing the remaining PLCs with 1756-L83 ControlLogix controllers will be sufficient for standard control tasks. Having the ControlLogix PLCs also allows the processing and memory workload to be adequately captured and divided without putting strain on any one PLC or running the risk of not having enough capacity to handle all BHS needs.

Generally, it is best practice in most control systems to separate the safety I/O and the standard I/O. However, using the Armor PowerFlex VFDs proposed for this system will require safety and standard I/O to be mixed since safety functions will be routed directly into the safety specific inputs of the VFDs. However, modern PLC solutions, including those proposed for this system’s upgrade, have evolved to allow mixing of these I/O while still providing reliable functionality.

### 2.3.2 Recommendations

The recommendations listed below agree with those presented in the ControlTouch ROM Proposal.

- Replace two existing PLCs with 1756-L83ES GuardLogix controllers and the other two existing PLCs with 1756-L83E ControlLogix processors (as specified in section 3.1.2 of the ControlTouch ROM Proposal)
- Replace existing VFDs with Armor PowerFlex VFDs on the outbound CBIS (as specified in section 3.1.6 of the ControlTouch ROM Proposal)

### 2.3.3 Alternatives and Considerations

As mentioned in the lower-level considerations, the replacement system will be a Rockwell Automation-driven system. GuardLogix PLCs, ControlLogix PLCs, and Armor PowerFlex VFDs are all proprietary to Rockwell automation, so once again sole-sourcing concerns could arise.

It is possible to replace all four of the existing PLCs with non-safety PLC controllers, but this would reintroduce the need for a separate safety relay. Therefore, this option would require replacing the existing safety relays and wiring with Ethernet/IP capable models. Another consideration with this option is that other types and brands of PLCs could be utilized in place of the GuardLogix and ControlLogix brand. This option would also utilize remote I/O cards to collect all the necessary control points for the PLC, meaning the Armor PowerFlex VFD would not have to be the specific type and brand of VFD used. VFDs without safety-specific inputs could be considered, as the safety I/O of the system could be routed through remote I/O cards.

Pros:

- Non-safety PLCs are less costly
- Broader choice of PLC and VFD manufacturer/brand
- Reduced chance of sole-sourcing issues, i.e., supply chain issues, manufacturer-specific defects/recalls/discontinuations, etc.

Cons:

- More wiring will need to be replaced
- More I/O cards will be needed
- Safety relays will need to be replaced instead of removed
- Material cost of extra equipment could offset the cost saving of the PLCs
- Increased installation time due to increased equipment need

This alternative could be considered; however, it will be more costly to implement this type of control system and therefore we recommend replacing the existing control system with Allen Bradley components as suggested in the ControlTouch ROM Proposal.

## 2.4 Additional Programming Improvements

### 2.4.1 Summary

While evaluating the existing lower-level network and the PLCs on site, it was determined that there are other programming improvements that could be made alongside the outbound lower-level system upgrade to further improve the overall system operation. These additional programming improvements were not a part of the ControlTouch ROM Proposal and are items that should be considered to add value while the other control system changes are being implemented.

#### 2.4.1.1 *Run-on-Demand Conveyors*

While on-site, it was observed that during an hour of typical baggage volume, the bags that the system processes can be spaced out by a few minutes from each other. Currently, the conveyors are programmed to an auto-stopping zone. The auto-stopping zone can be set for a length of time between five and thirty minutes. If a photoeye is flagged in the auto-stopping zone, the timer for the zone resets. This allows the conveyors to run for longer than is necessary, which causes unnecessary wear and increased failure rates of the conveyor's mechanical components in addition to unnecessary energy consumption.

#### 2.4.1.2 *Merge/Diverge Timing Optimization*

It was discussed during the site walk that occasionally, the hard-shell bags could rotate up to 90 degrees when they are merging/diverging. The rotated bags require TSA intervention to straighten them back out before they can be screened through the EDS. If a rotated bag remains uncorrected, the bag could cause the EDS to jam which would negatively impact the system throughput. While reviewing the ERM C BHS reporting data, it was noticed in the 3am-6am day-end reports that the conveyors directly upstream of the EDS were responsible for the majority of baggage jams during this time period. This verifies that the high-speed diverters that feed onto the EDS shunts are likely responsible for rotating the baggage and causing jams at the EDS. Figure 4 below shows the four high speed diverters before the EDS shunts, the location where hard-shell bags are likely to rotate.



*Figure 4: High Speed Diverters Prior to EDS Machines*

#### 2.4.1.3 CBRA Mainline Dieback

It was discussed on site with TSA that during the periods of peak baggage operation, the mainline into CBRA can dieback back through the second decision point divert location. This causes the entire system to gridlock as cleared baggage is no longer able to divert onto the clear line without stopping for the alarmed bags to be processed through CBRA. When this occurs, TSA tends to use the reinsert line more frequently to help move baggage through the CBRA faster. While this is effective at clearing the CBRA mainline dieback and system gridlock, the mass number of bags being reinserted all at once can have the tendency to overwhelm the system and reduce its overall capacity. Approximately 50% of bags going to the CBRA are identified as either "OSR Time-out" or "BHS Unknown" bags. OSR Time-outs occur when the On-Screen Resolution (OSR) operator made no decision within the allotted time, and BHS Unknown bags are usually lost-in-tracking bags, or bags that have no tracked status for a variety of reasons. Improvements to the system to reduce this load would have a significant positive impact on CBRA operations and possibly improve operations with the reduction in reinsertion baggage.

#### 2.4.2 Recommendations

The recommendations listed below were not identified in the ControlTouch ROM Proposal and should be considered when replacing the control system.

#### 2.4.2.1 *Run-on-Demand Conveyors*

- Program the conveyors to Run-on-Demand.
  - Allows the conveyors to automatically turn on as soon as an upstream conveyor detects a bag and allows them to automatically turn off individually after a short set time of not detecting a bag. This would reduce the mechanical wear, the frequency of conveyor maintenance, and the energy consumption of the overall system.

#### 2.4.2.2 *Merge/Diverge Timing Optimization*

- Adjust the timing of the high-speed diverter's (HSD) paddle actuation and the speed of the paddle belts to prevent any bags from rotating when merging or diverging.

#### 2.4.2.3 *CBRA Mainline Dieback*

- Program AL-02 and AL-03, a part of the CBRA mainline, so they include the functionality to inch and store the bags. Doing this will allow the longer conveyors to be able to store more bags on them during a CBRA mainline dieback which will allow CBRA more time to recover from a period of increased CBRA volume before causing system gridlock.
- Analyze BHS Unknown locations to determine severity (SSx-08/09, AL-02, etc.). Adjust tracking to minimize lost-in-tracking issues.
- Work with TSA to determine the root cause of OSR Time-outs. Determine if OSR time can be extended or if additional workstations are needed to keep up with OSR demand.

## 2.5 Additional Design Improvements

### 2.5.1 Summary

While evaluating the existing lower-level network and the PLCs on site, it was determined that there are other design improvements that can be made alongside the outbound lower-level system upgrade to further improve the overall system operation. These additional design improvements were not a part of the ControlTouch ROM Proposal and are items to consider to add value while the other control system changes are being implemented.

#### 2.5.1.1 *Carousel Replacement*

The four existing outbound makeup carousels were installed in 2007, as part of the Baggage Make-Up Reconfiguration Project. These baggage carousels are over ten years old, which is approaching the typical useful life for most BHS equipment. While the existing carousels are currently fully functional, keeping the units in service for longer than their useful life may result in an increased duration of annual downtime. The existing MU2 carousel is shown in Figure 5 below. All four of the existing makeup carousels are in a similar condition.



*Figure 5: Existing MU2 Makeup Carousel*

#### 2.5.1.1.1 Carousel Replacement Phasing

Begin with demolishing the MU1 and MU3 makeup carousels. The baggage that would typically be sent to MU1 is now sent to MU2 and the baggage that would typically be sent to MU3 is now sent to MU4. For the entire duration, the MU1 and MU3 carousels are not in operation during normal airport operating hours, use three baggage porters per carousel to transport the baggage from the MU2 and MU4 carousels to temporary roller piers set up along the outside of MU1 and MU3. Doing this will allow the ability to maintain four separate makeup areas while MU1 and MU3 are being replaced. After MU1 and MU3 have been replaced and are operational, move the temporary roller conveyor from along the outside of MU1 and MU3 to along the outside of MU2 and MU4. Adjust the diverters to send the baggage to the new MU1 and MU3 carousels and use the porters to transport the baggage from the new MU1 and MU3 to the temporary roller piers along the outside of MU2 and MU4. Once all four carousels have been replaced and are fully operational, the temporary roller piers can be removed.

#### 2.5.1.2 Merge/Diverge Belting Upgrade

In addition to adjusting the timing and belt speed to optimize the software of the merges/diverges, as mentioned in section 2.4.1.2, there are hardware improvements that could be made to further increase the baggage control of the hard-shell bags. The belting of the merges/diverges could also be upgraded to an option that has a higher coefficient of friction. This would further prevent the hard-shell bags from rotating.

#### 2.5.1.3 CBRA Mainline Dieback Additional Conveyors

Instead of programming AL-02 and AL-03 to allow them to inch and store bags during a system dieback, as mentioned in section 2.4.1.3, there are hardware improvements that can be made to further prevent the CBRA Mainline from dying back through the second decision point divert location, causing

a system gridlock. The hardware improvements listed below in section 2.5.2.3 are more effective at storing bags and preventing a CBRA mainline dieback than the programming improvements listed in section 2.4.2.3.

## 2.5.2 Recommendations

The recommendations listed below were not identified in the ControlTouch ROM Proposal and should be considered when replacing the control system.

### 2.5.2.1 *Carousel Replacement*

- Replace the four existing carousels during the DeviceNet upgrade.

### 2.5.2.2 *Merge/Diverge Belting Upgrade*

- Upgrade all merge/diverge belts to a belt with a higher coefficient of friction.

### 2.5.2.3 *CBRA Mainline Dieback Additional Conveyors*

- Replace AL-02 with three queue conveyors to break up the mainline and allow for more bag storage during a CBRA mainline dieback.
- Replace AL-03 with four queue conveyors to further breakup the mainline into the CBRA and allow for even more bag storage.

# 3 BHS LOAD ASSESSMENT

## 3.1.1 Summary

An overall BHS load assessment was conducted to determine the present day and future predicted baggage system volumes. These BHS volumes were further analyzed alongside the current capacity limits of the existing four L3 Examiner 3DX 6700 ES EDS screening machines to determine when the existing EDS configuration will start to bottleneck the system. The findings from the load assessment are discussed in detail throughout section 3 of this report.

## 3.1.2 Present-Day BHS Volume

A flight schedule was created for MKE for Monday, 06/23/2025 by using the daily flight schedule published on MKE's website and the flight data from Flightstats.com. The flight schedule was analyzed alongside the physical characteristics of each airplane flying out of MKE to determine an approximate volume of baggage being processed through the BHS throughout the day.

Our analysis of the flight schedule revealed that the baggage system at MKE has a present-day peak baggage volume with a surge factor applied of 1018 bags per hour. Figure 6 below shows a graphical representation of the overall baggage volume throughout various times of the day. The results from our analysis were compared to the total baggage volumes stated in the 3am-6am day-end reports received from ERMC. This was done to verify that our flight schedule was an accurate representation of the time of year when baggage volume is typically at its peak for MKE, during the week of spring break.

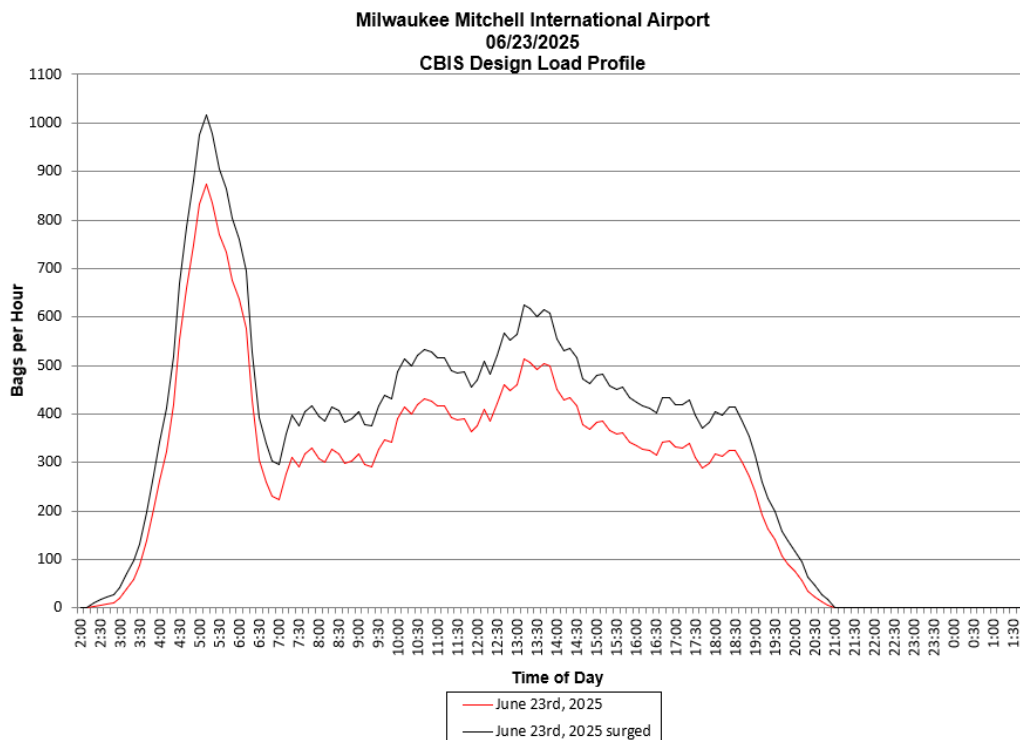


Figure 6: MKE CBIS Design Load Profile, 06/23/2025

The peak baggage volume occurs in the morning, at approximately 5:10am. When the system is experiencing its peak baggage volume, the existing EDS configuration is only at 50% of its overall capacity. This shows that the EDS configuration is not a bottleneck for the present-day baggage system.

### 3.1.3 Future Predicted BHS Volume

The current baggage demand was grown to represent future predicted BHS Volumes and compared to the available capacity of the existing system. This was done by using the Federal Aviation Administration (FAA) Terminal Area Forecast (TAF) data to determine approximately how much MKE is estimated to grow year-over-year for the next 20 years. A graphic representation of the FAA TAF data is shown in Figure 7 below.

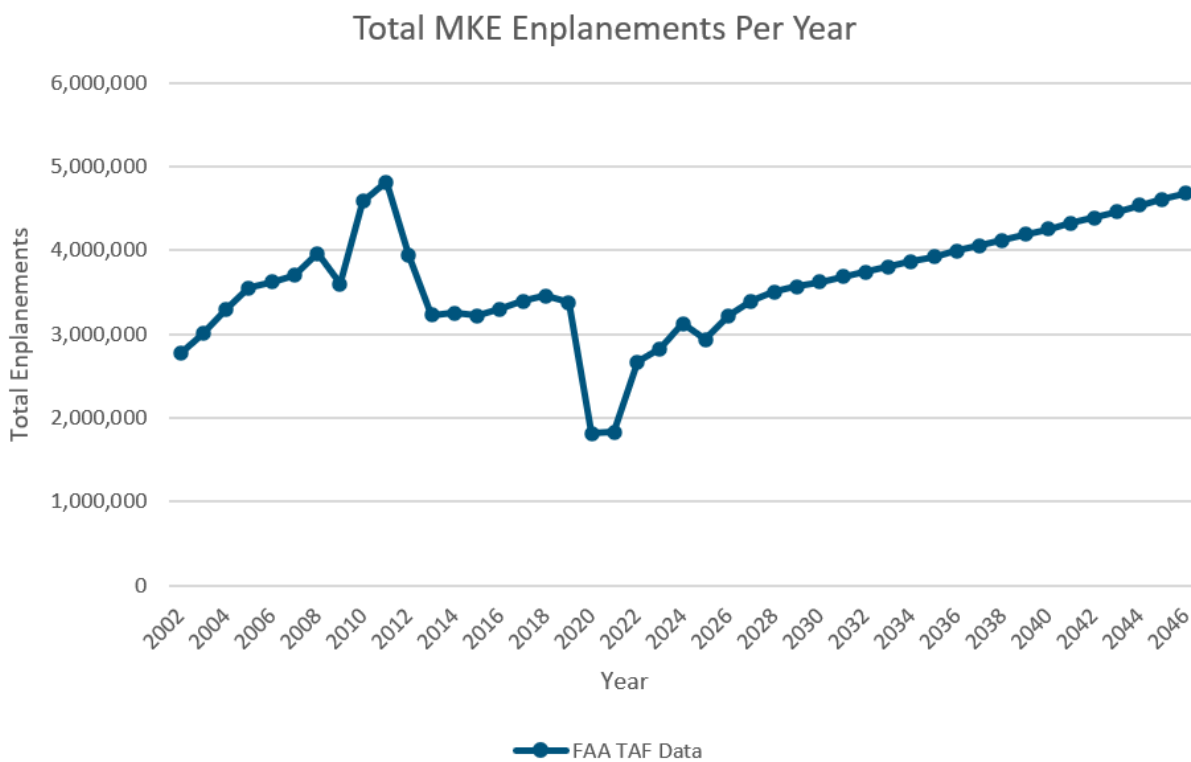


Figure 7: Total MKE Enplanements Per Year

The FAA predicts that MKE will have approximately a 1.9% increase in total enplanements every year from 2025-2046. The FAA TAF data shows that the maximum number of enplanements experienced in one year was in 2011 with a total of 4,812,394 enplanements. The existing CBIS configuration was designed in 2011 to manage the baggage volume in 2016 while allowing for room to grow in the future. The FAA TAF predictions show that 20 years beyond the design day, the total yearly enplanements for MKE are estimated to be 4,683,478 which is 97% of the total capacity of the 2011 enplanements peak. Analysis of the current day flight schedule with the TAF growth rate applied verifies that the system will have ample available capacity for future growth, assuming there are no major disruptions to the growth profile.

## 4 APPROXIMATE ROM AND SCHEDULE

### 4.1 Outbound Lower-Level Network Upgrade

Includes:

- PLC Replacement
- New Switches
- New Devices
- New VFD
- All items in Additional Programming Improvements

4.1.1 ROM - *(NOTE ALL COSTS REMOVED FROM THIS REPORT)*

4.1.2 Schedule ~ 5 Months

### 4.2 Inbound Lower-Level Network Upgrade

Includes:

- New Devices
- New I/O modules

4.2.1 ROM ~

4.2.2 Schedule ~ 2 Months

### 4.3 Additional Design Improvements

Includes:

- Carousel Replacement
- Merge/Diverge Belting Upgrade
- CBRA Mainline Dieback Additional Conveyors

4.3.1 ROM ~

- MU1 Carousel Replacement ~
- MU2 Carousel Replacement ~
- MU3 Carousel Replacement ~
- MU4 Carousel Replacement ~
- Belting Upgrades ~
- Additional CBRA conveyors ~

4.3.2 Schedule ~ 3 Months

## 4.4 Recommendations/ Schedule/ ROM Costs Summary

Table 1: Summary of BHS Modifications

Modification	ROM Cost*	Approx. Construction Duration
Outbound Lower-Level Network		5 Months
Inbound Lower-Level Network		2 Months
Additional Design Improvements		3 Months

\*ROM costs are considered costs from BHS contractor and do not reflect any general contractor markups or project soft costs. All Costs include 20% Estimating Contingency.

A proposed schedule is shown below with approximate durations in working days. The overall duration from design to construction is approximately 1 year, 6 months.

ID	Task Mode	Task Name	Duration
1		<b>Design</b>	<b>116 days</b>
2		Design NTP	1 day
3		30% Design	1.5 mons
4		Client Review	3 wks
5		70% Design	1.5 mons
6		Client Review	3 wks
7		100% Design	1.5 mons
8		Client Review	3 wks
9		<b>Bidding</b>	<b>70 days</b>
10		Advertise for Bid	1.5 mons
11		Bid Evaluation and Board Approval	2 mons
12		<b>Construction</b>	<b>166 days</b>
13		NTP received	1 day
14		<b>Engineering</b>	<b>25 days</b>
15		BHS Mech Submittals	10 days
16		BHS Electrical/Controls Submittals	10 days
17		BHS Mech Submittal Approval	10 days
18		BHS Electrical/Controls Submittal Approval	10 days
19		<b>Fabrication</b>	<b>90 days</b>
20		Fabricate, Deliver Conveyors	90 days
21		Fabricate, Deliver Controls	60 days
22		<b>Installation</b>	<b>105 days</b>
23		Outbound Lower Level Network	5 mons
24		Inbound Lower Level Network	2 mons
25		Carousuel Replacement and Additional Improvements	3 mons

Figure 8: Proposed Notional Project Schedule