

BID OF _____

2014

PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS

FOR

STREETS EAST TILE FLOOR REPLACEMENT

CONTRACT NO. 7077

IN

MADISON, DANE COUNTY, WISCONSIN

AWARDED BY THE COMMON COUNCIL
MADISON, WISCONSIN ON _____

CITY ENGINEERING DIVISION
1600 EMIL STREET
MADISON, WISCONSIN 53713

<https://bidexpress.com/login>

**STREETS EAST TILE FLOOR REPLACEMENT
CONTRACT NO. 7077**

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This Proposal, and Agreement have
been prepared by:

**CITY ENGINEERING DIVISION
CITY OF MADISON
MADISON, DANE COUNTY, WISCONSIN**

A handwritten signature in black ink, appearing to read "Robert Phillips", written in a cursive style.

Robert F. Phillips, P.E., City Engineer

SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERS

REQUEST FOR BID FOR PUBLIC WORKS CONSTRUCTION CITY OF MADISON, WISCONSIN

A BEST VALUE CONTRACTING MUNICIPALITY

PROJECT NAME:	STREETS EAST TILE FLOOR REPLACEMENT
CONTRACT NO.:	7077
BID BOND	5%
PREQUALIFICATION APPLICATION DUE (1:00 P.M.)	MARCH 21, 2014
BID SUBMISSION (1:00 P.M.)	MARCH 28, 2014
BID OPEN (1:30 P.M.)	MARCH 28, 2014
PUBLISHED IN WSJ	FEBRUARY 28 & MARCH 7 & 14, 2014

PREQUALIFICATION APPLICATION: Forms are available at the same location or on our website, www.cityofmadison.com/business/pw/forms.cfm. If not currently prequalified in the categories listed in Section A, an amendment to your Prequalification will need to be submitted prior to the same due date. Postmark is not applicable.

BIDS TO BE SUBMITTED by hand to 1600 EMIL ST., MADISON, WI 53713 or online at www.bidexpress.com.

THE BID OPENING is at 1600 EMIL ST., MADISON, WI 53713.

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2014 Edition, as supplemented and amended from time to time, forms a part of these contract documents as if attached hereto.

These standard specifications are available on the City of Madison Public Works website, www.cityofmadison.com/Business/PW/specs.cfm.

The Contractor shall review these Specifications prior to preparation of proposals for the work to be done under this contract, with specific attention to Article 102, "BIDDING REQUIREMENTS AND CONDITIONS" and Article 103, "AWARD AND EXECUTION OF THE CONTRACT." For the convenience of the bidder, below are highlights of three subsections of the specifications.

SECTION 102.1: PRE-QUALIFICATION OF BIDDERS

In accordance with Wisconsin State Statutes 66.0901 (2) and (3), all bidders must submit to the Board of Public Works proof of responsibility on forms furnished by the City. The City requires that all bidders be qualified on a biennial basis.

Bidders must present satisfactory evidence that they have been regularly engaged in the type of work specified herein and they are fully prepared with necessary capital, materials, machinery and supervisory personnel to conduct the work to be contracted for to the satisfaction of the City. All bidders must be pre-qualified by the Board of Public Works for the type of construction on which they are bidding prior to the opening of the bid.

In accordance with Section 39.02(9)(a)l. of the General Ordinances, all bidders shall submit in writing to the Affirmative Action Division Manager of the City of Madison, a Certificate of Compliance or an Affirmative Action Plan at the same time or prior to the submission of the proof of responsibility forms.

The bidder shall be disqualified if the bidder fails to or refuses to, prior to opening of the bid, submit a Certificate of compliance, Affirmative Action Plan or Affirmative Action Data Update, as applicable, as defined by Section 39.02 of the General Ordinances (entitled Affirmative Action) and as required by Section 102.11 of the Standard Specifications.

SECTION 102.4 PROPOSAL

No bid will be accepted that does not contain an adequate or reasonable price for each and every item named in the Schedule of Unit Prices.

A lump sum bid for the work in accordance with the plans and specifications is required. The lump sum bid must be the same as the total amounts bid for the various items and it shall be inserted in the space provided.

All papers bound with or attached to the proposal form are considered a part thereof and must not be detached or altered when the proposal is submitted. The plans, specifications and other documents designated in the proposal form will be considered a part of the proposal whether attached or not.

A proposal submitted by an individual shall be signed by the bidder or by a duly authorized agent. A proposal submitted by a partnership shall be signed by a member/partner or by a duly authorized agent thereof. A proposal submitted by a corporation shall be signed by an authorized officer or duly authorized registered agent of such corporation, and the proposal shall show the name of the State under the laws of which such corporation was chartered. The required signatures shall in all cases appear in the space provided thereof on the proposal.

Each proposal shall be placed, together with the proposal guaranty, in a sealed envelope, so marked as to indicate name of project, the contract number or option to which it applies, and the name and address of the Contractor or submitted electronically through Bid Express (www.bidexpress.com). Proposals will be accepted at the location, the time and the date designated in the advertisement. Proposals received after the time and date designated will be returned to the bidder unopened.

The Bidder shall execute the Disclosure of Ownership form. REFER TO SECTION F.

SECTION 102.5: BID DEPOSIT (PROPOSAL GUARANTY)

All bids, sealed or electronic, must be accompanied with a Bid Bond equal to at least 5% of the bid or a Certificate of Annual/Biennial Bid Bond or certified check, payable to the City Treasurer. Bid deposit of the successful bidders shall be returned within forty-eight (48) hours following execution of the contract and bond as required.

PREVAILING WAGE RATES

Prevailing Wage Rates may be required and are attached in Section J of the contract. See Special Provisions to determine applicability.

Bidders for this Contract(s) must be Pre-Qualified for at least one of the following type(s) of construction denoted by an ☒

Building Demolition

- 101 ☐ Asbestos Removal
120 ☐ House Mover

- 110 ☐ Building Demolition

Street, Utility and Site Construction

- 201 ☐ Asphalt Paving
205 ☐ Blasting
210 ☐ Boring/Pipe Jacking
215 ☐ Concrete Paving
220 ☐ Con. Sidewalk/Curb & Gutter/Misc. Flat Work
221 ☐ Concrete Bases and Other Concrete Work
222 ☐ Concrete Removal
225 ☐ Dredging
230 ☐ Fencing
235 ☐ Fiber Optic Cable/Conduit Installation
240 ☐ Grading and Earthwork
241 ☐ Horizontal Saw Cutting of Sidewalk
242 ☐ Infrared Seamless Patching
245 ☐ Landscaping, Maintenance
250 ☐ Landscaping, Site and Street
251 ☐ Parking Ramp Maintenance
252 ☐ Pavement Marking
255 ☐ Pavement Sealcoating and Crack Sealing
260 ☐ Petroleum Above/Below Ground Storage Tank Removal/Install
265 ☐ Retaining Walls, Precast Modular Units

- 270 ☐ Retaining Walls, Reinforced Concrete
275 ☐ Sanitary, Storm Sewer and Water Main Construction
276 ☐ Sawcutting
280 ☐ Sewer Lateral Drain Cleaning/Internal TV Insp.
285 ☐ Sewer Lining
290 ☐ Sewer Pipe Bursting
295 ☐ Soil Borings
300 ☐ Soil Nailing
305 ☐ Storm & Sanitary Sewer Laterals & Water Svc.
310 ☐ Street Construction
315 ☐ Street Lighting
318 ☐ Tennis Court Resurfacing
320 ☐ Traffic Signals
325 ☐ Traffic Signing & Marking
332 ☐ Tree pruning/removal
333 ☐ Tree, pesticide treatment of
335 ☐ Trucking
340 ☐ Utility Transmission Lines including Natural Gas, Electrical & Communications
399 ☐ Other _____

Bridge Construction

- 501 ☐ Bridge Construction and/or Repair

Building Construction

- 401 ☒ Floor Covering (including carpet, ceramic tile installation, rubber, VCT)
402 ☐ Building Automation Systems
403 ☐ Concrete
404 ☐ Doors and Windows
405 ☐ Electrical - Power, Lighting & Communications
410 ☐ Elevator - Lifts
412 ☐ Fire Suppression
413 ☐ Furnishings - Furniture and Window Treatments
415 ☐ General Building Construction, Equal or Less than \$250,000
420 ☐ General Building Construction, \$250,000 to \$1,500,000
425 ☐ General Building Construction, Over \$1,500,000
428 ☐ Glass and/or Glazing
429 ☐ Hazardous Material Removal
430 ☐ Heating, Ventilating and Air Conditioning (HVAC)
433 ☐ Insulation - Thermal
435 ☐ Masonry/Tuck pointing

- 437 ☐ Metals
440 ☐ Painting and Wallcovering
445 ☐ Plumbing
450 ☐ Pump Repair
455 ☐ Pump Systems
460 ☐ Roofing and Moisture Protection
464 ☐ Tower Crane Operator
461 ☐ Solar Photovoltaic/Hot Water Systems
465 ☐ Soil/Groundwater Remediation
466 ☐ Warning Sirens
470 ☐ Water Supply Elevated Tanks
475 ☐ Water Supply Wells
480 ☐ Wood, Plastics & Composites - Structural & Architectural
499 ☐ Other _____

State of Wisconsin Certifications

- 1 ☐ Class 5 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for quarries, open pits and road cuts.
2 ☐ Class 6 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for trenches, site excavations, basements, underwater demolition, underground excavations, or structures 15 feet or less in height.
3 ☐ Class 7 Blaster - Blasting Operations and Activities for structures greater than 15' in height, bridges, towers, and any of the objects or purposes listed as "Class 5 Blaster or Class 6 Blaster".
4 ☐ Petroleum Above/Below Ground Storage Tank Removal and Installation (Attach copies of State Certifications.)
5 ☐ Hazardous Material Removal (Contractor to be certified for asbestos and lead abatement per the Wisconsin Department of Health Services, Asbestos and Lead Section (A&LS).) See the following link for application:
www.dhs.wisconsin.gov/Asbestos/Cert. State of Wisconsin Performance of Asbestos Abatement Certificate must be attached.
6 ☐ Certification number as a Certified Arborist or Certified Tree Worker as administered by the International Society of Arboriculture
7 ☐ Pesticide application (Certification for Commercial Applicator For Hire with the certification in the category of turf and landscape (3.0) and possess a current license issued by the DATCP)
8 ☐ State of Wisconsin Master Plumbers License.

SECTION B: PROPOSAL

Please refer to the
Bid Express Website
at <https://bidexpress.com>
look up contract number
and go to
Section B: Proposal Page

You can access all City of Madison bid solicitations for FREE at www.bidexpress.com

Click on the “Register for Free” button and follow the instructions to register your company and yourself. You will be asked for a payment subscription preference, since you may wish to bid online someday. Simply choose the method to pay on a ‘per bid’ basis. This requires no payment until / unless you actually bid online. You can also choose the monthly subscription plan at this time. You will, however, be asked to provide payment information. Remember, you can change your preference at anytime. You will then be able to complete your free registration and have full access to the site. Your free access does not require completion of the ‘Digital ID’ process, so you will have instant access for viewing and downloading. To be prepared in case you ever do wish to bid online, you may wish to establish your digital ID also, since you cannot bid without a Digital ID.

If you have any problems with the free registration process, you can call the bidexpress help team, toll free at 1-888-352-2439 (option 1, option1).

SECTION C: SMALL BUSINESS ENTERPRISE

Instructions to Bidders City of Madison SBE Program Information

SBE NOT APPLICABLE

SECTION D: SPECIAL PROVISIONS

STREETS EAST TILE FLOOR REPLACEMENT CONTRACT NO. 7077

It is the intent of these Special Provisions to set forth the final contractual intent as to the matter involved and shall prevail over the Standard Specifications and plans whenever in conflict therewith. In order that comparisons between the Special Provisions can be readily made, the numbering system for the Special Provisions is equivalent to that of the Specifications.

Whenever in these Specifications the term "Standard Specifications" appears, it shall be taken to refer to the City of Madison Standard Specifications for Public Works Construction and Supplements thereto.

SECTION 102.10: PREVAILING WAGE

For this project, payment of prevailing wages (white sheet) shall be required unless the box indicating prevailing wages are not required is checked below.

☐ Prevailing wages shall not be required when this box is checked.

If prevailing wages (white sheets) are required, the wages and benefits paid on the contract shall not be less than those specified in the Prevailing Wage Determination included with these contract documents for the following types of work:

- ☒ Building and Heavy Construction
- ☐ Sewer, Water, and Tunnel Construction
- ☐ Local Street and Miscellaneous Paving Operations
- ☐ Residential and Agricultural Construction

SECTION 102.12: BEST VALUE CONTRACTING

This Contract shall be considered a Best Value Contract if the Contractor's bid is equal to or greater than \$54,000 for a single trade contract; or equal to or greater than \$264,500 for a multi-trade contract pursuant to MGO 33.07(7).

SECTION 109.2 PROSECUTION OF THE WORK

The Contractor shall begin work on or before **MAY 19, 2014.** The total time of completion for the contract shall be **SEVENTY-FIVE (75) CALENDAR DAYS.**

Work shall begin only after the start work letter is received by the contractor and shall proceed as stated in the schedule located in PART 1-General, 1.17 SCHEDULE OF OPERATIONS of the GENERAL REQUIREMENTS of this contract.

SECTION D: SPECIAL PROVISIONS
SECTION 01 00 00
GENERAL REQUIREMENT

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PART 1 – GENERAL

1.1. SCOPE

The scope of work for this contract shall consist of all work and materials necessary to install a moisture mitigation system, mechanical expansion joints, norament® grano rubber resilient flooring, base and reducer edging for the Streets East Office Area per plans and specifications. Work to remove the existing flooring shall be accomplished by an Asbestos Abatement Contractor in a separate contract. Moving of furnishing shall be performed by the City Facility Staff. All work shall be coordinated thru the City Project Manager per the phasing requirements in section 1.17. SCHEDULE OF OPERATIONS.

Location of Site: 4602 Sycamore Avenue, Madison WI.

1
2
3 **1.2. PRE-BID INFORMATION**

- 4 A. Arrange site visits with owner project manager.
5

6 **1.3. CONTACTS**

- 7 A. Send all pre-bid inquiries to the owner's project management
8 B. The owner's designee for project management:
9 1. Paul Stauffer
10 2. Company: City of Madison
11 3. Address: Room 115, 210 Martin Luther King Jr. Blvd.
12 4. Phone: 608-266-4366
13 5. Email: pstauffer@cityofmadison.com
14 C. The owner's designee for architecture and engineering is:
15 1. Paul Stauffer
16 2. Company: City of Madison
17 3. Address: Room 115, 210 Martin Luther King Jr. Blvd.
18 4. Phone: 608-266-4366
19 5. Email: pstauffer@cityofmadison.com
20

21 **1.4. QUALIFICATIONS OF BIDDER**

- 22 A. By submitting the bid, the bidder and each subcontractor certifies as to meeting the following requirements:
23 1. Has completed one projects of at least 50% of the size or value of the division of work being bid and the type of work
24 completed is similar to that being bid. Additional requirements will be described in the appropriate technical section of
25 these specifications.
26 2. Has access to all necessary equipment and has organizational capacity and technical competence necessary to do the
27 work properly and expeditiously.
28 3. Maintains a permanent place of business.
29 4. Contractor shall be an approved applicator for all flooring systems required in the flooring specifications section.
30

31 **1.5. WORK BY THE OWNER AND OWNER FURNISHED EQUIPMENT**

- 32 A. All asbestos removal will be performed by separate owner -hired asbestos contractor and contractor needs to accommo-
33 date asbestos contractor's work. **Removal of the existing flooring shall be completed by an asbestos abatement contrac-**
34 **tor and work shall be coordinate by the City Project Manager. Work shall proceed per phasing of work as outlined in Sec-**
35 **tion 1.17. SCHEDULE OF OPERATIONS**
36 B. The following work will be accomplished by the owner or will be let under separate contracts and will not be included under
37 this Contract. The contractor shall coordinate his work with the work provided :
38 C. Removal of furnishing from the work area shall be the responsibility of the City Facility Staff and shall be coordinated thru
39 the City Project Manager. The City's Facility Maintenance staff shall assist with the contractor with operation of the build-
40 ing's HVAC system in order to meet temperature requirements for the flooring installation.
41

42 **1.6. SALVAGE MATERIALS**

- 43 A. No materials removed from this project shall be reused except as specifically noted below. All materials removed shall be-
44 come the property of and shall be disposed of by the Contractor.
45

46 **1.7. PROVISIONS FOR FUTURE WORK**

- 47 A. Do not disconnect any electrical circuits that are part of the emergency power system. If such circuit is specified or labeled
48 on drawings as to be disconnected or removed, verify with owner.
49

50 **1.8. SPECIAL SITE CONDITIONS**

- 51 A. Unless otherwise noted, construction operations shall be allowed to work all hours required in order to meet the installa-
52 tion schedule. Building access shall be coordinate with the Building Owner. Compliance is required with applicable Noise
53 Ordinances.
54 B. A temporary field office and temporary toilets are not required. The Contractor's labor force may use owner facilities upon
55 approval by the owner. The Contractor shall maintain the toilets and other spaces provided by the owner in clean and sani-
56 tary condition at all times.
57 C. TOILETS:
58 1. The Contractor may provide and maintain sanitary temporary toilets, located where directed by the owner, in sufficient
59 number required for the force employed. The toilets shall comply with International Building Code Chapter 29 on
60 Plumbing Systems. Toilets shall be self-contained chemical type.
61 2. The Contractor shall maintain the temporary toilets in a sanitary condition at all times and shall supply toilet paper until
62 completion of the job.
63

64 **1.9. ALTERNATES**

- 65 A. Not applicable

1
2 **1.10. STANDARD SPECIFICATIONS**

- 3 A. The City of Madison Standard Publications for Public Works Construction (Edition at publication date of this bid) forms a
4 part of these contract documents as if attached hereto. These Standard Specifications are available from the City Engineer,
5 City Engineering Division, Room 115, City County Building, 210 Martin Luther King Jr. Blvd., Madison, WI 53710 or electroni-
6 cally from the City Website <http://www.cityofmadison.com/business/pw/specs.cfm>. The Contractor shall review these
7 standard specifications prior to preparation of proposal for the work to be done under this contract. Failure to do so does
8 not relieve the Contractor from meeting all requirements.
9

10 **1.11. GENERAL REQUIREMENTS**

- 11 A. All articles in these General Requirements are applicable to all Divisions fully as if repeated within that Division. The Condi-
12 tions of the Contract, General and Supplementary General Conditions, and these General Requirements shall apply to the
13 Contractor engaged in this work. Items listed under Scope of Work are not necessarily all inclusive. These specifications and
14 drawings are intended to include everything necessary to perform the entire work properly. Every item necessarily required
15 might not be specifically mentioned or shown. Unless expressly stated, all systems and equipment shall be complete and
16 operable. All devices and installation methods necessary for a functioning system are considered included in this contract
17 even if a detail is missing or unclear. The words "furnish", "install", "as required", and "provide" shall mean the same in a
18 sense that the Contractor shall furnish and install all the necessary materials, apparatus, and devices to complete the
19 equipment and systems installation herein specified, except such parts as are specifically exempted herein. This also in-
20 cludes that the contractor demolishes and disposes of an existing item if demolition is required to install the new item, even
21 if demolition drawings or specification don't mention demolition of the specific item. If an item is either called for in the
22 specifications or shown on the plans, it shall be considered sufficient for the inclusion of said item in this contract.
23 B. The terms "city", "owner", city engineer" and "project manager" are used interchangeably. The terms "contractor", "sub-
24 contractor" and "general contractor" are used interchangeably.
25 C. Portions of these specifications are of the abbreviated, simplified type and may include incomplete sentences. Omissions of
26 words or phrases such as "the Contractor shall", "in conformity with", "shall be", "as noted on the drawings", "in accord-
27 ance with details", are intentional. Omitted words or phrases shall be supplied by inference in the same manner, as they
28 are when a note occurs on the drawings. Such terms as approved, reviewed, equal, as directed, , as permitted, acceptable,
29 satisfactory mean by or to the owner.
30 D. If a conflict exists within the Specifications or exists within the Drawings, the Contractor shall furnish the item, system, or
31 workmanship, which is the highest quality, largest, largest quantity or most closely fits the owner's intent. Materials and
32 labor shall be new (unless noted or stated otherwise), first class, and workmanlike, and shall be subject at all times to the
33 owner's inspections, tests and approval from the commencement until the acceptance of the completed work. Whenever a
34 particular manufacturer's product is named, it is intended to establish a level of quality and performance requirements un-
35 less more explicit restrictions are stated to apply. It must be understood that the details and drawings are diagrammatic.
36 The Contractor shall verify all dimensions at the site and be responsible for their accuracy. If items are too large to fit into
37 existing space Contractor shall provide smaller model of same type upon approval by owner at no cost to owner. All sizes as
38 given are minimum except as noted. Prior to bidding, bidder must visit site to become familiar and verify existing condi-
39 tions. Failure to do so does not relieve the bidder from the responsibility to verify existing conditions, to point out errors in
40 drawings or specifications or code violations.
41 E. The area to be set aside for the work under this contract is shown on the drawings, and the Contractor shall confine the
42 construction to the immediate area within the construction limits. The Contractor shall immediately upon entering the site
43 for purpose of beginning work, locate general reference points and take such action as is necessary to prevent their de-
44 struction. The Contractor shall lay out its work and be responsible for all lines, elevations and measurements of the build-
45 ing and other work executed under its Contract. The Contractor must exercise proper precaution to verify dimensions on
46 the drawings before laying out work and will be held responsible for any error resulting from failure to exercise such pre-
47 caution. The Contractor shall verify grades, lines, levels, locations, and dimensions as shown on drawings and report any er-
48 rors or inconsistencies to owner before commencing work. Starting of work by the Contractor shall imply acceptance of ex-
49 isting conditions. Confine all operations, equipment, apparatus and storage of materials, to the immediate area of work to
50 the greatest possible extent. Contractor shall ascertain, observe and comply with all rules and regulations in effect on the
51 project site, including but not limited to parking and traffic regulations, use of walks, security restrictions and hours of al-
52 lowable ingress and egress. Any special traffic control during construction involving lane closures shall be in accordance
53 with the federal standard, Manual of Uniform Traffic Control Devices.
54 F. The work site shall be kept clean and neat at all times. Accumulation of debris shall be avoided and all new equipment and
55 material shall be stored neatly and protected. Failure to comply will result in the contractor responsible for the disorderly
56 conditions to be removed from job site.
57 G. Owner will not furnish Watchpersons. The Contractor shall provide such precautionary measures, to include the furnishing
58 of watchpersons if deemed necessary, to protect persons and property from damage or loss where the Contractor's work is
59 involved. The contractor is responsible for securing any material stored on site. In case of theft or damage
60

61 **1.12. CONTRACTOR'S RESPONSIBILITY PRIOR BIDDING**

- 62 A. Bidders shall bring inadequacies, omissions or conflicts to owner's attention at least ten (10) days before the date set for
63 bid submission. Prompt clarification will be supplied to all bidders of record by addendum. Failure to request clarification or
64 interpretation of the drawings and specifications will not relieve the successful Bidder of responsibility. Signing of the con-

- tract will be considered as implicitly denoting that the Contractor has thorough understanding of the scope of work, existing conditions, and comprehension of the contract documents. Owner is not responsible for verbal instructions.
- B. During bidding time owner will allow contractors to visit the site to familiarize themselves with the existing conditions and to ask questions for clarification. Failure to attend the scheduled walkthrough implies that the contractor accepts all existing conditions and includes all work to handle existing conditions in his bid price.
- C. Prior bidding, bidder must obtain information on payment conditions, discounts, shipping charges, and other cost from vendor and/or manufacturer of the products specified.

1.13. PAYMENT AND CHANGE ORDERS

- A. PAYMENTS: will be made based on progress of work. No payments will be made for occurred overhead cost that did not materialize in actual installation. Examples of cost to the contractor that is not part of partial payment are project management cost, bond cost etc. These cost will be covered proportionally for actual work done on site. No payments shall be made for material that is not installed.
- B. PAY APPLICATION: The Contractor is responsible for providing the Owner partial payment applications on form AIA Document G702 Application for Payment and AIA Document G703 Continuation Sheet (with schedule of values). Before the first Application for Payment, the Contractor shall submit to the A/E a schedule of values of the various portions of the Work, including quantities if required by the A/E aggregating the total Contract Sum, divided so as to facilitate payments to Subcontractors. Prepare a schedule of values in such form and supported by such substantiating data as the A/E and Owner may require. Each item in the schedule of values shall include its proper share of overhead and profit. This schedule, when approved by the A/E, shall be used only as a basis for reviewing the Contractor's Applications for Payment.
- C. CHANGE ORDERS: Changes only will be accepted if approved prior work done. No payment shall be made if contractor if contractor commences work without a cost is agreed on. In case of field change orders a price range has to be agreed on at minimum. If contractor does not provide cost before the additional work is done, it is assumed the contractor agreed that this work was part of the original contract.
- D. CHANGE ORDER MARKUP: Contractor shall supply all documentation for evaluation of reasonableness of change order price. These include but are not limited to subcontractor quotes, supplier quotes, time estimates and others. Markup on subcontractor price shall not exceed the value allowed by the Standard Specifications referenced in this contract. This markup will cover all the contractor expenses including added bond, insurance and other cost.

1.14. COOPERATION AND RESPONSIBILITIES BETWEEN TRADES

- A. The Contractor assumes responsibility for all work specified in this contract except for work explicitly noted as be done by owner or a Contractor separately hired by owner. The Contractor coordinate the work of all trades on the project. If plans or specifications designate parts of the work to be done by a specific trade it is meant as a suggestion only. It is up to the trades to agree on division of work and cost. Any work not done by a subcontractor will be the responsibility of the contractor (general contractor, party the owner is in contract with).
- B. All Contractors shall work in cooperation with the Contractor and with each other, and fit their work into the structure as job conditions may demand. Owner shall make all final decisions as to the right-of-way and run of pipe, ducts, etc., at pre-arranged meetings with responsible representatives of the Contractors involved. Contractor(s) shall coordinate the work with adjacent work with other Contractors prior to installation and shall cooperate with all other trades to facilitate the general progress of the work. The Contractor shall coordinate and schedule the work of all its subcontractors, and shall furnish all information required by them for proper scheduling and execution of the work. In the same manner, the Contractor shall coordinate the work with that of owner, and any other Contractor operating in the area, including reasonable adjustments of schedule in order to allow other Contractors or the owner to do their work. Any installed work that is not coordinated and that interferes with other Contractor's work shall be removed or relocated at the Contractor's expense.
- C. In case it is indicated which trade is responsible for which work, this is meant as a suggestion and it is the Contractor's responsibility in its contracts with subcontractors to clarify who ultimately will do the work. If conflicts arise between the Contractor and subcontractor about who is responsible for which work to be done it is the Contractor's responsibility to make sure the work gets done in time even if the dispute between Contractor and subcontractor gets settled later.

1.15. SUBMITTALS

- A. Documents have to be submitted in electronic form (PDF) as described elsewhere in addition to hardcopies no later than 3 business days after start work letter is issued. Owner will review, and process shop drawings and other required submittals with reasonable promptness. No delay will be allowed in the progress of the job attributable to Contractor's failure to supply submittals in time. PDF shall be in good quality in electronic original from manufacturer. Scanned PDF are not acceptable.
- B. The Contractor shall submit three (3) prints of all shop drawings, submittal data consisting of brochures, catalogs, material lists, wiring diagrams, Material Safety Data Sheets (MSDS), samples, erection drawings, and equipment layouts for review by owner. General catalog sheets showing a series of the same device is not acceptable unless the specific model is clearly marked. Each submittal shall be provided together with a transmittal letter or form. Each original transmittal shall be assigned a transmittal number. The number shall begin with the first initial of the name of the Contractor's firm followed by a serial number. The re-submittals shall indicate the same number with numerical suffix in sequence. Each transmittal shall itemize the enclosures and indicate the distribution of the transmittal and the enclosures. The following information shall be included on all submitted documents: Agency/Location/Address obtained, project number, building name, project name. Submittals shall be grouped to include complete submittals of related systems, products, and accessories in a single submit-

- tal. Mark dimensions and values in units to match those specified. Include wiring diagrams of electrically powered equipment.
- C. Submit all original documents providing information regarding sustainability requirements including but not limited to recycled content, VOC, certified wood, disposal certificates and transportation distance. Contractor is required to prove that material and methods used meet all requirements specified elsewhere.
- D. Owner will return the marked and stamped drawings together with transmittal letter or form to Contractor. If re-submittal is required, owner will so note and Contractor shall make another submission for review after correction resolving the review comments on the prior submittals. The above procedure shall be repeated until owner favorably reviews the submittal. The submittals must be approved before material is ordered and fabrication is authorized.
- E. Owner's favorable review of shop drawings and other submittals shall not relieve the Contractor of responsibility for deviations from drawings or specifications, unless the Contractor has in writing called the owner's attention to such deviations at the time of submission, and the owner has acknowledged in writing such deviations; nor shall it relieve the Contractor from responsibility for errors of any sort in such drawings. If deviations, discrepancies, or conflicts between shop drawing submittals and the drawings and specifications are discovered either prior to or after the shop drawing submittals are reviewed by owner, the drawings and specifications shall control and shall be followed. The Contractor shall be responsible for and shall check the correctness of all documents including those subcontractors prior to submitting them to owner for review.
- F. The Contractor shall furnish prints of the favorably reviewed final shop drawings, erection drawings, equipment layouts and vendor data to subcontractors and suppliers for the proper coordination of their work. The Contractor shall keep one (1) complete set of the above documents at the job site for the use by owner.
- G. After the completion of the project, and prior to final payment, submit:
1. One (1) copy of the Waste Manifest Records to the owner, if required in accordance with "Safety and Environment" Requirements Article "HAZARDOUS SUBSTANCES".
 2. The original and one (1) copy of all guarantee/warranty documents.

1.16. GUARANTEES

- A. All work, material and equipment is guaranteed by the Contractor to be free of faults for at least one year or longer if specified elsewhere. This year begins from the date of final acceptance from owner. The Contractor agrees to return to the project and commence work as directed upon notification by owner and will furnish at his own expense all necessary labor and material to make proper repairs or corrections made necessary by defective material or inferior workmanship furnished or performed under this contract. If a subcontractor is not complying, the Contractor is held responsible.
- B. All corrections and repairs are to be made no more than 30 days after notification of the Contractor for equipment and material that is not critical to the operation of the building. Critical equipment and material, including but not limited to HVAC, roofing, electrical, elevator, shall be repaired or brought into temporary and safe working condition in less than 7 days and temporary alternatives have to be provided by the Contractor if function is critical for use of the facility. If Contractor fails to do so the owner reserves the right to perform the work himself or subcontract a different Contractor and charge the Contractor the full cost of the repair and correction and cost of any material, rental fee, labor and equipment to provide temporary relief and protection to enable safe operation of the building.
- C. All equipment and material warranty by the manufacturer that lasts longer than the 1-year warranty by the contractor requires sufficient documentation acceptable by the manufacturer to honor the warranty beyond the first year. documents required include manufacturer's warranty certification for this specific material and equipment at the job site, purchase orders or any other documents that will be required beyond the first year for the manufacturer to honor warranty.

1.17. SCHEDULE OF OPERATIONS

- A. Within 5 calendar days after the effective date of Start Work Letter, the Contractor shall provide a installation schedule.
- B. Install work in phases to accommodate owner's occupancy requirements. During the construction period coordinate on a daily basis, all operations with the City.
- C. After the initial submittal, the Contractor shall update the schedule weekly by entering actual progress for the period.

D. PHASING OF WORK

1. **Start Work Letter to be issued on or before May 19th.**
2. **Pre Construction meeting to take place on May 19th**
3. **PHASE I, Parks Office- Friday- June 6th thru Monday June 16th.**
 - a. City Facilities Staff shall have all required furnishing remove from the area by 6:00 PM on Friday, June 6th
 - b. The Flooring Removal/Asbestos Abatement Contractor shall have from 6:00 PM on Friday June 6th thru 4:00 AM on Monday June 9th to remove the flooring/asbestos from the area.
 - c. The Flooring Installation Contractor shall have from 4:00 AM on Monday June 9th thru 4:00 PM on Monday June 16th to complete all requirements of the flooring system installation.
 - d. City Facilities Staff to move back in on or after Tuesday June 17th.
4. **PHASE II, Critical Aisles and Conference Room- Friday June 13th thru Monday June 23rd.**
 - a. City Facilities Staff shall have all required furnishing removed from the area by 6:00 PM on Friday, June 13th
 - b. The Flooring Removal/Asbestos Abatement Contractor shall have from 6:00 PM on Friday June 13th thru 4:00 AM on Monday June 16th to remove the flooring/asbestos from the area.
 - c. The Flooring Installation Contractor shall have from 4:00 AM on Monday June 16th thru 4:00 PM on Monday June 23rd to complete all requirements of the flooring system per plans and specifications. Any work that could restrict use of critical aisles by the City Staff during the day shall be completed between the hours of 4:00 PM thru 4:00 AM on each work day.

- d. City Facilities Staff to move back in on or after Tuesday June 24th.
5. PHASE III, Streets Office Area- Friday June 20th thru Monday June 30th.
 - a. City Facilities Staff shall have all required furnishing remove from the area by 6:00 PM on Friday, June 20th
 - b. The Flooring Removal/Asbestos Abatement Contractor shall have from 6:00 PM on Friday June 20th thru 4:00 AM on Monday June 23th to remove the flooring/asbestos from the area.
 - c. The Flooring Installation Contractor shall have from 4:00 AM on Monday June 23rd thru 4:00 PM on Monday June 30th to complete all requirements of the flooring system installation.
 - d. City Facilities Staff to move back in on or after Tuesday July 1st.
6. Project Week Phase IV, Parks & Streets Lunchrooms- Friday June 27th thru Tuesday July 8th.
 - a. City Facilities Staff shall have all required furnishing remove from the areas by 6:00 PM on Friday, June 27th
 - b. The Flooring Removal/Asbestos Abatement Contractor shall have from 6:00 PM on Friday June 27th thru 4:00 AM on Monday June 30th to remove the flooring/asbestos from the area.
 - c. The Flooring Installation Contractor shall have from 4:00 AM on Monday June 30th thru 4:00 PM on Tuesday July 8th to complete all requirements of the flooring system installation.
 - d. City Facilities Staff to move back in on or after Wednesday July 9th.

1.18. DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

- A. Drawings indicate approximate locations of the various items. These items are shown approximately to scale and attempt to show how these items should be integrated with building construction. Locate all the various items on-the-job measurements in conformance with code and cooperation with other trades. Before locating items, confer with the owner as to desired location in the various areas. In no case items shall be located by scaling drawings. Contractor must relocate items and bear cost of redoing work or other trades' work necessitated by failure to comply with this requirement.
- B. Demolition drawings, location, circuit numbers, number and type of fixtures, type of mounting and control devices may not be correct. All sizes are approximations and have to be field-verified by contractor. In case of a discrepancy within and between the drawings that would cause and awkward or improper installation the engineer has to be notified for clarification prior to installation. Any work in conflict with the drawings shall be corrected at contractor's expense and at no cost to the owner. Contractor shall determine if scheduled devices fit into space and shall advise if not BEFORE ordering fixtures or devices.
- C. Information pertaining to existing conditions that are described in the specifications or appear on the drawings is based on available records. While such data has been collected with reasonable care, there is no expressed or implied guarantee that conditions so indicated are entirely representative of those actually existing. This information is provided to inform the Contractor of known, existing conditions so that due diligence is taken by the Contractor to avoid damage. Where site observation or documents indicate existing underground utilities/services in close proximity (within four feet horizontally and/or four feet vertically) to necessary new construction work, the Contractor shall be responsible to test, probe or otherwise determine exact locations so as to prevent damage to such utilities/services.
- D. Standard References such as ANSI, AASHO, AWWA, AISC, Commercial Standards, Federal Specifications, NEMA, UL, and the like incorporated in the requirements by reference shall be those of the latest edition at time of receiving bids, unless otherwise specified. The manufacturers, producers and their agents of required materials shall have such specifications available for reference and are fully familiar with their requirements as pertains to their product or material.
- E. The Contractor shall not take advantage of any apparent error or omission in the plans or specifications, and the owner shall be permitted to make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specifications.
- F. In addition to verifying at the site all measurements shown on the Drawings, Contractor shall consult the Drawings and Specifications of related work or existing construction that may in any manner affect the work of this contract. Contractor shall promptly report to the owner, in writing, any errors, omissions, violations, or inconsistencies that may be discovered as a result of such verifications; otherwise, it shall be understood that Contractor accepts all such related data and conditions without reservations.
- G. Each trade shall keep one set of plans and specifications on site. In addition construction bulletins, change orders etc. as applicable to the trades shall be on site.
- H. It shall be the responsibility of the Contractor to submit to the owner within ten (10) days after final inspection, one complete marked-up set of contract drawings fully illustrating all revisions made by all the crafts in the course of the work. This shall include all field changes, adjustments, variances, substitutions and deletions, whether covered by Change Order or not. Underground utility installations must be located precisely as constructed on the marked-up drawings. Contractor shall markup changes for as-built drawings on a daily basis.
- I. Layout of existing piping, conduits, and locations of equipment are shown as exactly as could be determined during design of the facilities; but their accuracy, particularly when such layouts and drawings are schematic, cannot be guaranteed. Contractor shall check all Specifications including the Drawings for possible interference with electrical, mechanical, and structural details, as well as interference with existing building or equipment, and shall notify the owner of the interference for resolution of the interference before commencing work. Any completed work that interferes shall be corrected by Contractor at Contractor expense so that the original design can be followed.
- J. Electronic design files may be provided by the owner at its digression as they are needed for the contractor to perform the work. Contractor shall use electronic design files on their own risk and assume all liability. Electronic documents are not contract documents and significant discrepancies may exist between these electronic files and contract documents and actual site conditions.

- 1 K. Contractor shall provide list with all equipment installed. This list shall contain, but not limited to, type, make and special
2 product key and number. For grant purposes the contractor may have to provide detailed information about equipment in-
3 stalled and labor provided to third party institutions, such as Focus on Energy.
- 4 L. Using datum, the lot lines and present levels have been established as shown on the drawings. Other grades, lines, levels
5 and benchmarks, shall be established and maintained by the Contractor, who shall be responsible for them. As work pro-
6 gresses, the Contractor shall lay out on forms and floor, the locations of all partitions, walls and fix column centerlines as a
7 guide to all trades. The Contractor shall make provision to preserve property line stakes, benchmarks, or datum point. If
8 any are lost, displaced or disturbed through neglect of any Contractor, Contractor's agents or employees, the Contractor re-
9 sponsible shall pay the cost of restoration.

10 11 **1.19. QUALITY ASSURANCE**

- 12 A. Any installed material not meeting the specification requirements must be replaced with material that meets these specifi-
13 cations without additional cost to owner.
- 14 B. All products and materials used are to be new, undamaged, clean and in good condition. Existing products and materials
15 are not to be reused unless specifically indicated.
- 16 C. Where equipment or accessories are used which differ in arrangement, configuration, dimensions, ratings, or engineering
17 parameters from those indicated on the contract documents, the Contractor is responsible for all costs involved in integrat-
18 ing the equipment or accessories into the system and for obtaining the performance from the system into which these
19 items are placed. This may include changes found necessary during the testing, adjusting, and balancing phase of the pro-
20 ject.
- 21 D. Welding procedures, welders, and welding operators for all building service piping to be in accordance with certified weld-
22 ing procedures of the National Certified Pipe Welding Bureau and Section 927.5 of ASME B31.9 Building Services Piping or
23 AWS 10.9 Qualification of Welding Procedures and Welders for Piping and Tubing. Before any metallic welding is per-
24 formed, Contractor to submit his Standard Welding Procedure Specification together with the Procedure Qualification Rec-
25 ord as required by Section 927.6 of ASME B31.9 Building Services Piping. Before any metallic welding is performed, Contrac-
26 tor to submit his Standard Welding Procedure Specification together with the Procedure Qualification Record as required by
27 Section IX of the ASME Boiler and Pressure Vessel Code and/or the National Certified Pipe Welding Bureau. Before any pol-
28 yethylene fusion welding is performed, Contractor to submit certification that the welders to be used on this project have
29 successfully demonstrated proper welding procedures in accordance with the Code of Federal Regulations, Title 49, Part
30 192, Section 192.285.
- 31 E. Contractor shall assume the responsibility for the protection of all finished construction under the Contract and shall repair
32 and restore any and all damage of finished work to its original state. Wheeling of any loads over any type of floor, either
33 with or without plank protection, will be permitted only in rubber-tired wheelbarrows, buggies, trucks or dollies. Where
34 structural concrete is also the finished surface, care must be taken to avoid marking or damaging those surfaces. All struc-
35 tures and equipment shall be constructed, installed and operated with guards, controls and other devices in place.
- 36 F. Contractor shall obtain complete data at the site and inspect surfaces that are to receive the Work before proceeding with
37 fabricating, assembling, fitting or erecting any work under this contract. Contractor shall notify owner in writing in case of
38 discrepancies between existing work and drawings, and of any defects in such surfaces that are to receive the Contractor's
39 work. Owner will evaluate the notice and direct what remedial action will be taken.
- 40 G. Starting of work implies acceptance of existing work or the work of others. Removal and replacement of work applied to
41 defective surfaces, in order to correct defects, shall be done at the expense of the Contractor who applied work to defec-
42 tive surfaces.
- 43 H. For outdoor work the Contractor shall:
- 44 1. Provide, erect and maintain all required planking, barricades, guard rails, temporary walkways, etc., of sufficient size
45 and strength necessary for protection of stored material and equipment; paved surfaces, walks, curbs, gutters and
46 drives; streets adjacent to or within project area; adjoining property and all project work to prevent accidents to the
47 public and the workmen at the job site.
 - 48 2. Notify adjacent property owners if their property interferes with the work so that arrangements for proper protection
49 can be made.
 - 50 3. Provide and maintain proper shoring and bracing to prevent earth from caving or washing into the building excavation.
51 Provide temporary protection around openings through floors and roofs, including elevator openings, stairwells, and
52 edge of slabs.
 - 53 4. Provide and maintain proper shoring and bracing for existing underground utilities, sewers, etc., encountered during
54 excavation work, to protect them from collapse or other type of damage until such time as they are to be removed, in-
55 corporated into the new work, or can be properly backfilled upon completion of new work.
 - 56 5. Provide protection against rain, snow, wind, ice, storms, or heat to maintain all work, materials, apparatus, and fixtures,
57 incorporated in the work or stored on the site, free from injury or damage. At the end of the day's work, cover all new
58 work likely to be damaged. Remove snow and ice as necessary for safety and proper execution of the work.
 - 59 6. Protect the building and foundations from damage at all times from rain, ground water and back up from drains or
60 sewers. Provide all equipment and enclosures as necessary to provide this protection.
 - 61 7. Damaged property shall be repaired or replaced in order to return it to its original condition. Damaged lawns shall be
62 replaced with sod.
 - 63 8. Protect materials, work and equipment, not normally covered by above protection, until construction proceeds to a
64 point where the general building protection of the area where located, dispenses with the necessity therefore. Protect
65 work outside of the building lines such as trenches and open excavations, as specified above.

9. Take all necessary precautions to protect owner 's property as well as adjacent property, including trees, shrubs, buildings, sanitary and storm sewers, water piping, gas piping, electric conduit or cable, etc., from any and all damage which may result due to work on this project.
10. Repair work outside of property line in accordance with the requirements of the authority having jurisdiction.
11. Repair any work, damaged by failure to provide proper and adequate protection, to its original state to the satisfaction of owner or remove and replace with new work at the Contractor's expense.
12. Protect trees indicated on the drawings to remain and trees in locations that would not interfere with new construction, from all damage. Do not injure trunks, branches, or roots of trees that are to remain. Do cutting and trimming only as approved and as directed by owner. The value of trees destroyed or damaged will be charged against the account of the Contractor responsible for the damage in an amount equal to the expense of replacing the trees with those of similar kind and size.
- I. The contractor shall be fully responsible for inspecting the work of its suppliers, and subcontractors to assure that the work complies with the standards for materials and workmanship required by the contract documents. The Contractor shall:
 1. Monitor quality control over subcontractors, suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of the quality specified in the contract documents.
 2. Comply fully with manufacturer's instructions, including each step in sequence.
 3. Request clarification from owner before proceeding with work when manufacturers' instructions or reference standards conflict with Subcontract Documents.
 4. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or manufactures instructions require more precise workmanship.
 5. Ensure that work is performed by persons specializing in the specific trade and class of work required, and qualified to produce workmanship of specified quality.
 6. Secure products in place with positive anchorage devices designed and sized to withstand seismic, static and dynamic loading, vibration, physical distortion or disfigurement.
- J. If reference standards or manufacturers' instructions contain provisions that would alter or are at variance with relationships between the parties to the contract set forth in the contract Documents, the provisions in the contract Documents shall take precedence.
- K. When required by individual Specification sections, Contractor shall provide the following services from a manufacturer's representative:
 1. Review of Specifications and design and concurrence or suggestions for modification.
 2. Site observation of conditions of use and substrate.
 3. Observation of the installation work in progress and on completion.
 4. Start up, testing, and adjustment of equipment.
 5. Instruction to the owner in operation and maintenance.
 6. Provide written signed report by manufacturer's representative documenting services provided and any comments or recommendations.
- L. Inspection or testing performed by the owner shall not relieve the Contractor from responsibility for performing his own quality control and for complying with the requirements of the contract Documents. Owner will not be responsible for the Contractor's failure to carry out work in accordance with the contract Documents.

1.20. CODES AND PERMITS

- A. Applicable provisions of Public Law, the Constitution and Laws and Statutes of the State of Wisconsin and the codes and regulations of governmental departments are hereby referred to and made a part of this contract and all work performed shall be in accordance with such laws, regulations and the latest edition or supplement or amendment thereto in effect at the time of submittal of bid shall be considered to be the issue in effect (unless shown otherwise) of all applicable codes including, but not limited to:
 1. Wisconsin Building Code
 2. Wisconsin Electrical Code
 3. Wisconsin Mechanical Code
 4. Wisconsin Plumbing Code
 5. Wisconsin Energy Code
 6. Wisconsin Fire Code
 7. NFPA 70 National Electrical Code
 8. General Services Administration 41 CFR Part 101-19
 9. Americans with Disabilities Act (ADA)
 10. Energy Conservation Performance Standards,
 11. Local Codes
 12. Occupational Safety and Health Act (OSHA)
 13. Occupational Safety and Health Standards, Department of Labor
 14. Safety and Health Regulations for Construction, Department of Labor
 15. Wisconsin Fire Code
 16. National Electrical Safety Code, ANSI C2
 17. Environmental Protection Agency regulations
 18. Clean Air Act
 19. Clean Water Act

20. Resource Conservation and Recovery Act
 21. Toxic substances Control Act
 22. Wisconsin Department of Health and Family Services
 23. State and Regional Water Quality Control Boards
 24. County and Municipal ordinances
- B. In case of conflict or overlap of the above references, the most stringent provision shall apply.
- C. The newest version of the a code or standard shall apply even if an older version is adopted by the Jurisdiction Having Authority.
- D. If necessary, file and maintain Notification of Demolition and/or Renovation and Application for Permit Exemption (WDNR Form 4500-113) in accordance with the Wisconsin Administrative Code Chapter NR447.
- E. Contractor is expected to know or to ascertain, in general and in detail, the requirements of all codes and ordinances, and all rulings and interpretations of code requirements being made by all authorities having jurisdiction over the work performed by them, applicable to the construction and operation of systems covered by this contract. Where codes or standard specifications other than those listed in this paragraph are referred to in the different Divisions of these specifications, it is understood that they apply as fully as if cited here. Where differences exist between codes affecting this work, the code affording the greatest protection to the owner shall govern.
- F. All cost for items and procedures necessary to satisfy requirements of all applicable codes, ordinances and authorities, whether or not these are specifically covered by drawings or specifications. All cases of serious conflict or omission between the drawings, specifications, and codes shall be brought to the owner's attention as herein before specified. The Contractor shall carry out work and complete construction as required by applicable codes and ordinances and in such a manner as to obtain approval of all authorities whose approval is required.
- G. Contractor is responsible for obtaining permits at its own cost including expenses for supporting documents. Deliver original permits to the owner before work starts. Apply for, arrange and pay for all required installation inspections required. Deliver originals of these certificates to the owner. Include copies of the certificates in the Operating and Maintenance Instructions. Contractor shall arrange all required inspections and correct all deficiencies at no cost to owner.
- H. The Contractor must maintain all licenses required for the work performed and required by authorities. The Contractor must submit proof of holding the license or certificate upon request. If a Contractor loses a license for whatever reason he must inform the owner immediately after learning about that himself.
- I. PERMIT TO PENETRATE GROUND OR EXISTING SURFACES OF OWNER PROPERTY:
1. Prior to any penetration of the ground or existing concrete surfaces (including the use of stakes or poles) in excess of 1.5", the Subcontractor shall obtain from the Project Representative a Permit to penetrate or Excavate Existing Surface of owner property and shall adhere to the conditions of the permit during such work. The Permit and all conditions in it shall be considered part of these specifications and shall be included in the contractor's bid amount.
 2. In areas where a Permit to penetrate or excavate existing surfaces of owner property is not required, contractors shall verify by safe means, prior to drilling, that no utilities or services are enclosed within the area to be drilled.
- J. FIRE SAFETY PERMIT:
1. All operations with open flames or that cause sparks or is near gas lines or near combustible storage containers require a daily Fire Safety Permit issued by the Project Representative. Contractor shall not commence such work until the permit is issued. Activities requiring a Permit include, but are not limited to, electric arc and gas welding and flame cutting, other open flame operations, tar kettles, powder activated tools and excavations. Fire watch personnel shall be provided the contractor in sufficient number to continuously monitor all locations where work is conducting requiring a fire permit. The fire watch personnel shall remain on the job at least thirty minutes after such operations are completed. Fire safety personnel may be installers or welders.
 2. Noncombustible shields or covers shall be provided by the contractor on tables, floors, walls, around the workstation, and over equipment to protect building structures, equipment and personnel from sparks and fragments of hot metal. Contractor shall also take these precautions to protect against sparks and hot metallic oxides generated by grinding, drilling or sawing operations.
- K. AIR EMISSIONS PERMITS AND NOTIFICATIONS:
1. For all projects that involve demolition of a structure, the contractor shall complete the asbestos demolition forms and notify all related authorities at least 10 working days in advance of the activity, regardless of the presence of asbestos.
 2. For all projects that involve removal of regulated asbestos containing materials, the contractor shall complete the required asbestos removal forms and notify the authorities at least 10 working days in advance of the activity.
 3. For any operations required to obtain an Authority to Construct or Permit to Operate from the authorities, the contractor shall provide in advance to the Project Manager the information needed for the application. Authorities may take more than 40 working days to process the application and issue the Authority to Construct or Permit to Operate; the contractor shall include this time in his Schedule of Operations; OWNER will grant no extra cost under this contract for this wait period.
- 1.21. ENVIRONMENT, SAFETY AND HEALTH (EHS)**
- A. The owner can request additional safety or environmental protection measures at any time. If contractor does not follow safety or environmental protection requirements, the owner can hire a different contractor or self-perform to ensure compliance and charge the original contractor for the cost.
- B. Contractor shall provide all labor, materials, equipment, services and supervision required to maintain work sites that meet the environment, safety and health (ES&H) requirements of all applicable federal, state, and local regulations and protect

- the environment and the safety and health of its employees, the employees of its lower tier subcontractors, owner employees and the general public.
- C. The contractor shall provide a qualified onsite EHS Representative with the authority to enforce all of the safety requirements and implement the contractor's Injury and Illness Prevention Program and Hazard Abatement Plan. The contractor shall remove and replace its Health and Safety Representative at the request of the owner, if the Safety Representative is unsuccessful in enforcing the EHS requirements. The contractor's EHS representative shall conduct safety inspections of the project operations, materials, and equipment frequently throughout the day to ensure that all safety deficiencies are identified and corrected. The owner reserves the right to enforce measures if the contractor's onsite EHS representative does not enforce all requirements. Inspection findings and corrective actions taken shall be documented, and the record shall be kept on the construction work site and be made available to owner upon request. If safety deficiencies are found, owner will issue a Safety Deficiency Notice to the contractor. Upon receipt of a written Safety Deficiency Notice from the Owner, the contractor shall take appropriate action to correct the deficiency and discontinue the hazardous activity until the hazard is abated. Failure to correct or eliminate violation(s) within the period specified might result in the order to stop all or any part of the work. The contractor shall submit to the owner a written response to the Safety Deficiency Notice describing what corrective action it has taken, the date such corrective action was completed and actions that it will take to prevent future recurrence of the same incident.
- D. Provide protection for workmen, public, adjacent construction and occupants of existing building(s). Personal Protective Equipment (PPE) such as hard hats, ear plugs and dust masks, shall be provided to all employees and use shall be enforced by the onsite EHS Representative. PPE also shall be provided to site visitors near the main entrances to the jobsite. PPE shall be provided in sufficient numbers to outfit typical number of visitors (i.e. designers, inspectors, shipment workers)
- E. WORK SITE SAFETY ORIENTATION: Each employee shall receive initial EH&S orientation prior to performing any work on the project. The contractor shall maintain on the work site a detailed outline of the orientation and a signed and dated roster of all employees who have completed the project EHS indoctrination. Make documentation available to owner on request. The orientation shall, at a minimum, cover the following points:
1. Employee rights and responsibilities.
 2. Construction contractor responsibilities.
 3. Alcohol and drug abuse policy
 4. Contractor's disciplinary procedures.
 5. First aid and medical facilities.
 6. Site and project specific hazards.
 7. Hazard recognition and procedures for reporting or correcting unsafe conditions or practices.
 8. Procedures for reporting accidents and incidents.
 9. Fire fighting and other emergency procedures to include local warning and evacuation systems.
 10. Hazard Communication Program.
 11. Access to employee exposure monitoring data and medical records.
 12. Protection of the environment, including air, water, and storm drains from construction pollutants.
 13. Location of and access to reviewed project Illness and Injury Prevention Program, Hazard Analysis and Hazard Abatement Plan
 14. Location and contents of required postings
- F. A comprehensive EH&S program shall be established including but not be limited to:
1. Confined Space Entry
 2. Site specific Emergency Response, First Aid, & Medical Services. Identify employees with CPR/First Aid certification available at the work site.
 3. Fire Protection and Prevention
 4. Hazard Communications
 5. Hazardous Waste Operations
 6. Hazardous Work Permits
 7. Toxic and Hazardous substances
 8. Inspection, Maintenance, and Certification of Heavy Equipment, Cranes, and Motor Vehicles
 9. Lock Out/Tag Out (LOTO) Subcontractors are required to include LOTO
 10. Personal Protective and Life Saving Equipment
 11. Radiation Protection
 12. Construction Safety Training
 13. Control of silica dust released during demolition or drilling of concrete or released from work with other materials that contain silica.
- G. A comprehensive activity hazard analysis and hazard abatement plan shall be established including but not be limited to:
1. Description of work phase or activity
 2. Identification of potential hazards associated with the activity
 3. A list of the contractor's planned controls to mitigate the identified hazards
 4. Name of the contractor's employee responsible for inspecting the activity and ensuring that all proposed safety measures are followed
 5. Construction activities for which an Activity Hazard Analysis and Hazard Abatement Plan may be required include, but are not limited to:
 6. Roofing
 7. Hoisting and handling of materials

- 1 8. Excavations
- 2 9. Trenching and drilling
- 3 10. Concrete placement and false work
- 4 11. Welding
- 5 12. Steel erection
- 6 13. Work performed six feet or higher above ground
- 7 14. Electrical work
- 8 15. Demolition
- 9 16. Work in confined spaces
- 10 17. Work that causes the release of silica such as demolition or drilling of concrete or work with materials that contain sili-
- 11 ca.
- 12 18. Work with epoxy coatings
- 13 19. Work with or around hazardous materials
- 14 20. Work on hilly terrain
- 15 21. Use and handling of flammable materials
- 16 22. The owner must favorably review the Activity Hazard analysis and Hazard Abatement Plan before work can start on that
- 17 activity.
- 18 H. ELECTRICAL WORK:
- 19 1. Energized electrical work within panels and equipment is not allowed.
- 20 2. Workers shall be qualified to perform electrical tasks in accordance with OSHA 29 CFR 1910 and 1926 requirements.
- 21 3. Work practices must be compliant with NFPA 70E, newest edition – Standard for Electrical Safety in the Workplace.
- 22 I. Rubbish, debris and scrap shall not be thrown through any window or other opening, or dropped from any great height; it
- 23 shall be conducted to the ground, to waiting truck(s) or removable container(s) by means of approved chutes or other
- 24 means of controlled conveyance.
- 25 J. Form and scrap lumber shall have all nails withdrawn or bent over; shall be neatly stacked, placed in trash bins, or removed
- 26 from the premises.
- 27 K. Take all necessary precautions while dismantling piping containing gas, gasoline, oil or other explosive or toxic fluids or
- 28 gases. Purge lines and contain materials in accordance with all applicable regulations. Store such piping outdoors until
- 29 fumes are removed. Verify that all gas and electrical utilities have been abandoned or disconnected and associated hazards
- 30 mitigated, prior to beginning any demolition.
- 31 L. All material classified by authorities to be a material that needs special treatment must be recycled, reused or disposed of
- 32 by a special contractor that holds a valid license to work with such material. If hazardous materials are not anticipated, but
- 33 encountered, terminate operations and contact owner immediately.
- 34 M. CONTROL OF CRYSTALLINE SILICA DUST: The subcontractor shall provide all necessary control measures at the work site to
- 35 keep worker exposure to crystalline silica dust within the OSHA Established Permissible Exposure Limits (PEL's). Dust control
- 36 measures may require spraying of water or engineering controls at the dust generating points. It also may include the use
- 37 of respirators, industrial grade HEPA vacuums, and HEPA filtered locally exhausted tools. Construction operations known to
- 38 cause the release of silica dusts include, but are not limited to:
- 39 1. Chipping, sawing, grinding, hammering, and drilling of concrete, rock, or brick.
- 40 2. Work with cementitious materials such as grout, mortar, stucco, gunnite, etc.
- 41 3. Dry sweeping of dust originating from concrete or rock
- 42 N. CONSTRUCTION ACTIVITY POLLUTION PREVENTION:
- 43 1. Follow Requirements in Storm Water Pollution Prevention Plan (SWPPP) and Erosion and Sedimentation Control (ESC)
- 44 Plan
- 45 2. Stabilize any relocated and moved soil with fast growing grasses and place mulch (hay, woodchips, straw) on it to cover
- 46 and hold soil
- 47 3. Divert surface runoff from distributed areas into sediment basin or sediment traps with a mound of stabilized soil
- 48 4. Construct posts with filter fabric media to remove sediment from stormwater leaving the site.
- 49 5. Follow requirements in site development plan and don't disturb areas beyond the marked areas
- 50 O. INDOOR AIR QUALITY:
- 51 1. During construction the recommended control measures of the Sheet Metal and Air Conditioning Contractors National
- 52 Association (SMACNA) IAQ guidelines for occupied buildings under construction, (1995, chapter 3) must be met or ex-
- 53 ceeded.
- 54 2. Stored on-site or installed absorptive material must be protected from moisture damage.
- 55 3. In case permanently installed air handlers are used for ventilation, filtration media with a Minimum efficiency Reporting
- 56 Value (MERV) of 8 shall be used at each return air grille, as determined by ASHRAE 52.2-1999. Contractor shall replace
- 57 all filtration media immediately prior occupancy.
- 58 4. All to be installed ductwork, air handlers and other equipment later connected to the indoor air path are to be protect-
- 59 ed from dirt and debris.
- 60 P. FIRE PROTECTION AND PREVENTION:
- 61 1. The contractor shall develop and maintain an effective fire protection and prevention program at the job site through
- 62 all phases of demolition, alteration, repair, and construction work. Contractor shall ensure the accessibility and availa-
- 63 bility of fire protection and suppression equipment.
- 64 2. Smoking is prohibited everywhere on the job site – no exceptions. Signs shall be posted. In visible locations.

3. No burning of rubbish or debris will be allowed at the site. Combustible waste shall be removed immediately or stored in fire resistive containers until disposed of in an approved manner.
 4. The Contractor shall provide and maintain in working order during the entire construction period, a minimum of three (3) fire extinguishers on each floor level, including basement of the building, and one (1) in temporary office. Extinguishers shall be nonfreezing type such as A-B-C rated dry chemical, of not less than 10-pound capacity each. In addition, any subcontractor who maintains an enclosed shed on the site shall provide and maintain, in an accessible location, one or more similar nonfreezing type fire extinguisher in each enclosed shed.
- Q. ACCIDENTS AND SPILLS:
1. The contractor shall immediately notify the owner of any accidents, injuries or occupational illnesses that occur on the project, regardless of the employer of the involved personnel or the owner of the involved materials or equipment. For OSHA recordable injuries, the subcontractor shall also furnish a copy of the OSHA Form 301(or equivalent) to the Project Representative within five days of the injury.
 2. In the event a job site accident occurs, the contractor shall immediately implement controls and restrictions on the accident site to ensure the site remains undisturbed until released in writing by the owner to resume work. The contractor shall provide accident investigation follow-up and shall support Owner's accident investigation and reporting protocol.
 3. The contractor shall promptly report to owner any spill, deposit, leak, drainage, debris, residue, spoil, residual, and/or by-product, whether its presence at the jobsite is occasioned by accident, inadvertence, intent, discarding, or abandonment by the Subcontractor or its lower tier subcontractors. This reporting requirement applies to petroleum products, oil, lubricants, chemical substances, waste materials, and waste substances, which are in such quantities as to constitute a hazardous substance or hazardous waste. All such occurrences of any quantity involving paints, solvents, thinners, degreasers, PCBs, halogenated hydrocarbons, volatile organic compounds, and/or asbestos shall be deemed a reportable event. These identification and reporting requirements shall be the responsibility of the contractor for both its own work forces as well as for any sub tier contractor, material man or supplier performing work on site for the contractor. All removal, cleanup, and associated costs, which result from contractor or lower tier subcontractor, material man, or supplier presence at the jobsite, shall be at the contractor's sole expense.
- R. WASTE MANAGEMENT:
1. Recycle all recyclable material. This includes any material for which there is a recycling facility in Wisconsin.
 2. Separate all waste material in plastic, metal, paper, acoustical tile, brick, concrete, clean wood, glass, gypsum drywall, carpet and insulation and provide designated on-site collection areas.
 3. Keep track of volume and weight of each material and track if it was recycled, reused, donated or disposed otherwise.
 4. It is permissible to separate waste off-site by specialized recycling contractor. This contractor needs to be provide proof of recycling and needs to be WASTECAP certified as "Accredited Professional in Construction and Demolition Debris Recycling".
 5. Prior to demolition or construction activities, the General Contractor, with input of all contractors and their subcontractors, shall develop and submit a Waste Management Plan to owner. Priority is given to reuse, followed by recycling followed by disposal including proper land filling or incineration. Disposal only will be acceptable if other methods are not commercially available. The Waste Management Plan includes but is not limited to the following:
 - a. A list of each material proposed to be salvaged, reused, or recycled, Materials to be included, at a minimum, are the following:
 - i. Concrete: Clean concrete, concrete with rebar, asphalt concrete.
 - ii. Metals: Steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass or bronze, including banding, ductwork, framing, roofing and siding, flashing, piping and rebar.
 - iii. Clean Fill: Earth, rocks, and gravel.
 - iv. Wood: Clean dimensional wood, wood pallets, engineered wood products including plywood, particleboard, I joist.
 - v. Biodegradable landscaping materials.
 - vi. Cardboard, paper, packaging.
 - vii. Masonry: Brick, ceramic tile, CMU.
 - viii. Roofing: Clay or concrete tiles, asphalt shingles.
 - ix. Gypsum board.
 - x. Acoustic ceiling panels.
 - xi. Carpet and pad.
 - xii. Paint.
 - xiii. Insulation.
 - xiv. Plastics: ABS, PVC
 - xv. Beverage containers
 - xvi. Cardboard.
 - xvii. Concrete
 - xviii. Brick and concrete masonry units (CMU).
 - xix. Metals from banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
 - xx. Gypsum wallboard.
 - xxi. Clean dimensional wood
 - xxii. Wood doors

- 1 xxiii. Acoustical ceiling tiles/panels
2 xxiv. Glass
3 b. Separation and Materials Handling Procedures: How waste materials (as identified above), will be separat-
4 ed, cleaned (if necessary) and protected from contamination.
5 c. Waste Material Estimating Sheet (Appendix A at the end of this Section)
6 d. Proposed Alternatives to Land filling: List each material planned to be salvaged or recycled, quantities, and
7 proposed destination.
8 6. The contractor shall provide separation, bins for temporary onsite storage, handling, transportation, recycling, sal-
9 vage, and land filling for all demolition and waste materials and keep recycling and waste bins areas neat, clean and
10 clearly marked in order to avoid contamination or mixing materials and maintain logs onsite for each load of materials
11 removed from site.
12 7. During the progress of the work, the General Contractor shall report to owner the quantity of each material recycled,
13 reused, or salvaged, and the receiving party. All contractors shall maintain a record of weight tickets, manifests, re-
14 cepts, and invoices for review by owner on request.
15 8. At the completion of the project the General Contractor shall submit a final summary of the progress reports, includ-
16 ing the percentage of recycled waste (weight or volume) to the quantity of waste that would have been otherwise
17 land filled.
18 9. Contractor is to provide the following documents upon request for payment:
19 a. Waste Materials Estimating Sheet (Appendix A at the end of this Section)
20 b. Landfill Log (Appendix B at the end of this Section)
21 c. Waste Diversion Log (Appendix C at the end of this Section)
22 d. Legible copies of manifests, weight tickets, and receipts. Manifests shall be from recycling and/or disposal
23 site operators that can legally accept the materials for the purpose of reuse, recycling or disposal. These docu-
24 ments shall include the contract number and the job site name.
25 10. Examples of documents include, but are not limited to:
26 a. Cover sheet for hazardous materials recycling contract
27 b. Vendor "Pickup Request"
28 c. Vendor "Certificate of Recycling and/or Disposal"
29 d. Vendor invoice
30 e. Maintain at the Project site Landfill Logs and Waste Diversion Logs for each load of materials removed from
31 site.
32 f. Discuss Waste management plans and implementation during all construction-related meetings.
33 g. Immediately Inform the owner if hazardous materials are encountered or suspected, and stop work in the
34 suspect area. Do not proceed with work in the suspect area until approved by the owner.
35 11. The following resources are provided for information only, to aid the Contractor in managing the construction waste:
36 a. The Wisconsin DNR, Bureau of Waste Management <http://www.dnr.state.wi.us/org/aw/wm/>
37 b. The UW-Extension's Solid and Hazardous Waste Education Center <http://www1.uwex.edu/ces/shwec/>
38 c. WasteCap Wisconsin, Inc. <http://www.wastecapwi.org> or telephone: 414-961-1100 or 608-245-1100
39 12. The contractor shall provide summaries of type and amount of material recycled, reused or disposed of. Those sum-
40 maries shall include enough information and detail to satisfy requirements by external auditors. At a minimum the
41 documentation needs to meet the current LEED requirements and requirements set by the EPA and federal govern-
42 ment for federally funded projects. These requirements may or may not be mentioned specifically in this contract and
43 the contractor is required to learn about specifics and to add documentation as required by such third party auditors.
44

45 **1.22. STAIRS, SCAFFOLDS, HOISTS, ELEVATORS OR CRANES**

- 46 A. The Contractor shall furnish and maintain equipment such as temporary stairs, fixed ladders, ramps, chutes, runways and
47 the like as required for proper execution of work by all trades, and shall remove them on completion of the work. The Con-
48 tractor shall erect permanent stair framing as soon as possible. Provide stairs with temporary treads, handrails, and shaft
49 protection. Contractors requiring scaffolds shall make arrangements with the Contractor, or shall provide their own and
50 remove them on completion of the work. The Contractor shall underlay its interior scaffolds with planking to prevent up-
51 rights from resting directly on the floor construction.
52 B. Contractor shall provide and pay for its own hoist/crane or other apparatus necessary for unloading/setting or moving their
53 equipment and materials. Installation and removal of equipment for this activity must be accounted for in the Project
54 Schedule. Equipment and operations for this activity shall comply with applicable Department of Commerce and OSHA re-
55 quirements. No material hoist may be used to transport personnel unless it meets Department of Commerce and OSHA re-
56 quirements for that purpose.
57 C. Existing elevators may be used on a limited basis with the owner's permission and agreement. The Contractor will pay
58 costs of warranty extensions and additional service work required. Appropriate protection must be provided by the using
59 Contractor and that Contractor shall be responsible for any structural, mechanical or finish damage to the elevator and its
60 parts and to adjoining building finishes and components.
61

62 **1.23. SAFEGUARDS - EXISTING EQUIPMENT, UNDERGROUND UTILITIES AND ARTIFACTS**

- 63 A. Existing utilities, including those listed as abandoned, shall not be moved or otherwise disturbed without written verifica-
64 tion by the owner that the utility is abandoned.

- B. When altering existing facilities, the Contractor shall take every precaution to preserve and protect existing facilities, both those to be altered and those to remain unaltered that are within the limits of the work.
- C. The Contractor shall notify the owner of structural members, piping, conduit, or equipment not indicated for removal that may cause interference with the work. Work shall not proceed in the affected area until instructions have been issued. Do not drill or penetrate existing structures without prior permission. The removal of existing work shall be by methods that will not jeopardize the integrity of structures or systems that are to remain.
- D. Existing utilities, including but not limited to roof drainage systems, underground cables, ducts, roadways, manholes, building fire alarm, public address or telecommunications wiring shall not be moved or otherwise disturbed, nor electrical circuits or switches operated or taken in or out of service, without prior consent of the owner. Contractor shall compensate loss to the owner resulting from damage to utilities, facilities and other owner or public items damaged.
- E. Take measures necessary to safeguard all existing work and facilities that are inside and outside the limits of the work or items that are within the construction limits but are intended to remain. Report any damage to the owner immediately. Correct and pay for all damages.
- F. If bones or artifacts are encountered during digging, the owner requires that the Contractor stop work within a 50-foot radius of the find and immediately notify the owner. Work may continue only with approval from the owner.

1.24. OPERATION AND MAINTENANCE DATA

- A. All OM documents are to be submitted as electronic copy for review at the time the respective equipment is delivered. No hardcopy shall be provided until the OM manuals are approved.
- B. Submit data bound in 8-1/2 x 11 inch (A4) text pages, Use three D side rings if necessary and binders with durable plastic covers. Submit all documents in electronic form as well as in hardcopy. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project and subject matter of binder when multiple binders are required.
- C. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, typed on 20-pound white paper, in three parts as follows:
- E. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, subcontractors, and major equipment suppliers.
- F. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Identify the following:
 - 1. Summary list of maintenance items indicating frequency and type of maintenance required for all systems covered in this contract.
 - 2. List of equipment (including assigned equipment numbers).
 - 3. A description of recommended replacement parts and materials, which the owner should stock.
 - 4. Parts list for each component.
 - 5. A summary of equipment vendors, or location where replacement parts can be purchased.
 - 6. List indicating types and grades of oil and/or grease, packing materials, normal and abnormal tolerances for devices, and method of equipment adjustment.
 - 7. Copies of all approved submittals.
 - 8. Operating instructions.
 - 9. Maintenance instructions for equipment and systems, Preventive maintenance recommendations.
 - 10. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - 11. Manufacturer's wiring diagrams for electrically powered equipment.
 - 12. A complete set of record control drawings.
 - a. Copies of all checkout tests and calibrations performed by the Contractor (not commissioning tests).
 - b. The manual shall be organized and subdivided with permanently labeled tabs for each of the following data in the given order:
 - i. Sequences of operation including points and schematics of operations
 - ii. Control drawings
 - iii. Points lists
 - iv. Controller / module data
 - v. Maintenance instructions, including sensor calibration requirements and methods by sensor type
 - vi. Thermostats and timers
 - vii. Sensors and DP switches
 - viii. Valves and valve actuators
 - ix. Dampers and damper actuators
 - x. Program setups (software program printouts)
 - 13. Additional information as indicated in the technical specification sections
- G. Part 3: Project documents and certificates, including the following:
 - 1. Product data.
 - 2. Air and water balance reports.
 - 3. Certificates.
 - 4. Photocopies of warranties.

5. Name, address, and telephone number of the person or office to contact for service during the warranty period.
 6. Name, address, and telephone number of the person or service organization to be contacted for service after the warranty period.
- H. Submit all O&M manuals in original electronic form (PDF). Scanned copies are not acceptable. PDF need to be of high quality and searchable.
- I. Submit 1 draft copy of completed volumes 15 [fifteen] days after approval of applicable submittal or receipt of the product. Revise content of all document sets as required prior to final submission. Submit 2 [two] sets of revised final volumes, within 10 [ten] days after final inspection.

1.25. ACCESS PANELS AND DOORS

- A. All serviceable and replaceable devices, including but not limited to valves, boxes, and dampers shall receive an access at a location and in a size that enables proper servicing and repair of the device without removal of other material. Sizes described are minimum sizes and might be increased if the type and size of device requires it. Install all piping, conduit, ductwork, and accessories to permit access to equipment for maintenance. Coordinate the exact location of wall and ceiling access panels and doors with the owner making sure that access is available for all equipment and specialties. Relocate access panel or door if equipment is not properly accessible to perform all maintenance and repair at no cost to the owner. Minimum size is 12" by 12". Use "Cendrex" products or approved equal.
- B. LAY-IN CEILINGS: if 2 X 2 foot is not sufficient for access (i.e. VAV boxes require larger access), the grid shall be arranged in a manner to allow easy removal of grid sections.

1.26. LOOSE AND DETACHABLE PARTS

- A. Contractor shall retain all loose and small detachable parts of apparatus and equipment furnished under this Contract, until completion of the work and shall turn them over to the owner to receive them.
- B. Furnish one can of touch-up paint for each different color factory finish furnished by the Contractor. Deliver touch-up paint with other "loose and detachable parts".

PART 2 – PRODUCTS

2.1. SPECIFIED ITEMS - SUBSTITUTES

- A. Wherever catalog numbers and specific or trade names are used in conjunction with a designated material, product, item, or service mentioned in these Specifications, they are used to establish the standards of quality, utility, and appearance required. Substitutions will be approved, subject to the following provisions:
- a. Contractors or manufacturers may request listing of their product in the bid documents up to 10 calendar days prior bid due date. All requests must be accompanied by sufficient information to judge its suitability for this project.
 - b. Owner may reject any substitute request without providing specific reasons.
 - c. Owner may accept substitution requests after contract award, but reserves the right to refuse review or acceptance of any requests without providing specific reasons.
 - d. All Substitutions must be accepted by the owner in writing. The owner will accept, in writing, such proposed substitutions as are in his or her opinion, equal in quality, utility, and appearance to the items or materials specified. Such acceptance shall not relieve the Contractor from complying with the requirements of the drawings and specifications, and the Contractor shall be responsible at Contractor's own expense for any changes resulting from Contractor proposed substitutions which affect the other parts of Contractor's own work or the work of others.
 - e. The manufacturer shall be a company specializing in the manufacture of the specified equipment and accessories with minimum five years documented experience.
 - f. Failure of the Contractor to submit proposed substitutions for approval in the manner described above and within the time prescribed shall be sufficient cause for disapproval by owner of any substitutions otherwise proposed.
- B. Specifications may mention other manufacturers than the specific device specified. Those are manufacturers that in general are acceptable, but may not have a product for this specific project. Those manufacturers still may be rejected without providing specific reasons. The bidder only can rely on using items specifically mentioned in the contract documents.

2.2. APPROVED TESTING LABORATORIES

- A. The following laboratories are approved for providing electrical product safety testing and listing services as required in these specifications:
1. Underwriters Laboratories Inc.
 2. Electrical Testing Laboratories, Inc.

2.3. HAZARDOUS SUBSTANCES

- A. The Subcontractor shall submit to the Project Representative, for review by the EH&S Division, any proposed procurement, stocking, installing, or other use of materials containing asbestos, cadmium, chromates, or lead.
- B. All materials and applications shall comply with requirements of any and all Districts Regulations, including, but not limited to architectural coatings, general solvent and surface coatings, solvent cleaning operations, adhesive and sealants, visible emissions, and asbestos.
- C. Contractor shall keep and maintain proof of compliance with the above-referenced regulations, including any recordkeeping obligations, for a period of two years after completion of the project. Contractor shall make such documents or evidence available if so requested by owner.

- D. No materials outlawed in any of the 50 US states are to be used. Only equipment and material legal in all 50 states is to be used. All Federal, state, county and local codes and ordinances regarding are to be considered deciding if a piece of equipment or material is to be used.
- E. The contractor assumes responsibility for proper removal, collection and storage of hazardous substances on site and disposal of those if hazardous substances were known to be present and pointed out in these specifications or on the plans. If hazardous substances are not known to be present and are found, the owner assumes responsibility for additional cost due to removal, collection and storage on site. All hazardous substances are to be disposed in accordance with all federal, state and local laws, codes and regulations. It is the contractor's responsibility to recognize typical hazardous substances not known to be present. This includes all substances that were used in buildings of that type in the period since original construction.
- F. Contractor will assume that all electronic components, machinery, refrigeration devices and other common devices contain hazardous substances and include disposal of such in bid price, even if those substances are not mentioned separately. If special tests are necessary the owner assumes responsibility for such.
- G. ASBESTOS:
1. Contractor's attention is directed to WAC NR 447, WAC HSS 159 and the Occupational Safety and Health Act (OSHA) in general, part 1926.1101--ASBESTOS in particular. Contractor is responsible for compliance with all applicable regulations when the work includes fastening to or coring through Asbestos Containing Materials (ACM) and disturbance of asbestos containing caulking and mastics. Unless otherwise indicated, all caulking, sealants, glazing compounds, gas-kets, asphalt roofing materials and miscellaneous adhesives are assumed to contain asbestos and are considered to be Category I non-friable ACM as defined in NR 447. Waste material containing Category I non-friable ACM, is regulated as Construction and Demolition (C&D) waste and may be disposed of at a Department of Natural Resources (DNR) approved C&D waste landfill. If Contractor's work methods cause non-friable ACM to become friable, the Contractor is responsible for the disposal of the friable asbestos waste at a landfill specifically approved by DNR to accept friable asbestos. A copy of the signed waste manifest for the disposal of all friable asbestos waste shall be provided to owner prior to request for final payment.
 2. The regulations referenced above require removal of friable ACM and Category II non-friable ACM prior to demolition of a building. Category I non-friable ACM does not need to be removed from a building prior to demolition if the waste generated from the demolition is taken to a DNR approved C & D waste landfill. If the contractor chooses to recycle building materials from a building to be demolished, the contractor is responsible for removal and disposal of all Category I non-friable ACM in accordance with applicable regulations prior to demolition. If the contractor's demolition methods will cause non-friable ACM to become friable, the contractor is responsible for removal and disposal of all Category I non-friable ACM in accordance with applicable regulations prior to demolition.
 3. The asbestos abatement contractor will require sole occupancy of the workspace during asbestos abatement work. Contractor shall communicate with the asbestos abatement contractor and make adequate allowance for the asbestos abatement work in the work schedule
- H. LEAD BASED PAINT: Conform with OSHA and EPA recommended worker safety requirements when removing lead based paint or material bearing lead based paint or material contaminated with lead by the demolition process. Contractor's attention is directed to the Occupational Safety and Health Act (OSHA) in general and particularly to 29 CFR 1910 (LEAD STANDARD) and to CFR 1926 (LEAD EXPOSURE IN THE CONSTRUCTION INDUSTRY). For OSHA compliance and regulation interpretations, contractors may contact the area OSHA office for this project. [Milwaukee, telephone (414) 297-3315; Appleton, telephone (414) 734-4521; Eau Claire, telephone (715) 832-9019]. Dispose of refuse containing lead based paint or contaminated with lead by the demolition process in conformance with State of Wisconsin Hazardous Waste Regulations set forth by the Department of Natural Resources and in conformance with OSHA and EPA recommended worker safety requirements.
- I. PCB'S: Contractor shall assume all ballasts and transformers not specifically labelled as "no PCB" type to contain PCB and to dispose properly meeting all regulatory requirements
- J. MERCURY-CONTAINING DEVICES: Mercury containing devices are accumulated in our facilities for eventual recycling through a contracted vendor. These devices include certain building controls and switches, thermometers, and lamps. Lamps are stored in accordance with Environmental Protection Agency universal waste regulation 40 CFR part 273 including storing them in containers with labels describing the contents and the start date of accumulation.
- K. PAINT AND RELATED PRODUCTS: The oil-based paints are disposed of as hazardous waste
- L. USED APPLIANCES AND BUILDING EQUIPMENT: Used appliances include microwaves, refrigerators, and ice machines. Smaller pieces of building equipment include items such as water heaters and variable-drive motors. All of these items are recycled by a contracted vendor at the contractor's expense.
- M. VOC: Volatile Organic Compounds in materials shall be limited to these maximum values:
1. Adhesives and Sealants:
 2. Wood Glues: 30 g/L.
 3. Metal-to-Metal Adhesives: 30 g/L.
 4. Adhesives for Porous Materials (Except Wood): 50 g/L.
 5. Subfloor Adhesives: 50 g/L.
 6. Plastic Foam Adhesives: 50 g/L.
 7. Carpet Adhesives: 50 g/L.
 8. Carpet Pad Adhesives: 50 g/L.
 9. VCT and Asphalt Tile Adhesives: 50 g/L.
 10. Cove Base Adhesives: 50 g/L.

11. Gypsum Board and Panel Adhesives: 50 g/L.
12. Rubber Floor Adhesives: 60 g/L.
13. Ceramic Tile Adhesives: 65 g/L.
14. Multipurpose Construction Adhesives: 70 g/L.
15. Fiberglass Adhesives: 80 g/L.
16. Contact Adhesive: 80 g/L.
17. Structural Glazing Adhesives: 100 g/L.
18. Wood Flooring Adhesive: 100 g/L.
19. Structural Wood Member Adhesive: 140 g/L.
20. Single-Ply Roof Membrane Adhesive: 250 g/L.
21. Special Purpose Contact Adhesive (contact adhesive that is used to bond melamine covered board, metal, unsupported vinyl, rubber, or wood veneer 1/16 inch or less in thickness to any surface): 250 g/L.
22. Top and Trim Adhesive: 250 g/L.
23. Plastic Cement Welding Compounds: 250 g/L.
24. ABS Welding Compounds: 325 g/L.
25. CPVC Welding Compounds: 490 g/L.
26. PVC Welding Compounds: 510 g/L.
27. Adhesive Primer for Plastic: 550 g/L.
28. Sheet Applied Rubber Lining Adhesive: 850 g/L.
29. Aerosol Adhesive, General Purpose Mist Spray: 65 percent by weight.
30. Aerosol Adhesive, General Purpose Web Spray: 55 percent by weight.
31. Special Purpose Aerosol Adhesive (All Types): 70 percent by weight.
32. Other Adhesives: 250 g/L.
33. Architectural Sealants: 250 g/L.
34. Non-membrane Roof Sealants: 300 g/L.
35. Single-Ply Roof Membrane Sealants: 450 g/L.
36. Other Sealants: 420 g/L.
37. Sealant Primers for Nonporous Substrates: 250 g/L.
38. Sealant Primers for Porous Substrates: 775 g/L.
39. Modified Bituminous Sealant Primers: 500 g/L.
40. Other Sealant Primers: 750 g/L.
41. Inside Paints and Coatings:
42. Flat Paints, Coatings, and Primers: VOC not more than 50 g/L.
43. Nonflat Paints and Coatings: VOC not more than 150 g/L.
44. Dry-Fog Coatings: VOC not more than 400 g/L.
45. Primers, Sealers, and Undercoaters: VOC not more than 200 g/L.
46. Anticorrosive and Antirust Paints applied to Ferrous Metals: VOC not more than 250 g/L.
47. Zinc-Rich Industrial Maintenance Primers: VOC not more than 340 g/L.
48. Pretreatment Wash Primers: VOC not more than 420 g/L.
49. Clear Wood Finishes, Varnishes: VOC not more than 350 g/L.
50. Clear Wood Finishes, Lacquers: VOC not more than 550 g/L.
51. Floor Coatings: VOC not more than 100 g/L.
52. Shellacs, Clear: VOC not more than 730 g/L.
53. Shellacs, Pigmented: VOC not more than 550 g/L.
54. Stains: VOC not more than 250 g/L.

2.4. BARRICADES, SIGNS, WARNING DEVICES, AND TEMPORARY PLASTIC BARRIERS

- A. Traffic barricades, traffic signs, and warning devices shall meet the requirements of applicable OSHA standards and the FHA Manual of Uniform Traffic Control Devices (MUTCD).
- B. UV stabilized high-density polyethylene barrier fence free of holes tears and other defects. Provide 4' tall fence in diamond or rectangular pattern. Fencing shall be "safety orange" color, unless otherwise noted.
- C. Posts for temporary plastic barrier fencing shall be 5' tall, minimum 12 gauge, painted metal posts.

2.5. SEALING AND FIRESTOPPING

- A. Manufacturers: 3M, Hilti, Rectorseal, STI/SpecSeal, Tremco, or approved equal.
- B. All firestopping systems shall be provided by the same manufacturer and shall be UL listed.
- C. Submittals: Contractor shall submit product data for each firestop system. Submittals shall include product characteristics, performance and limitation criteria, test data, MSDS sheets, installation details and procedures for each method of installation applicable to this project. For non-standard conditions where no UL tested system exists, submit manufacturer's drawings for UL system with known performance for which an engineering judgment can be based upon.
- D. Use a product that has a rating not less than the rating of the wall or floor being penetrated.
- E. Contractor shall use firestop putty, caulk sealant, intumescent wrapstrips, intumescent firestop collars, firestop blocks, firestop mortar or a combination of these products to provide a UL listed system for each application required for this project. Provide mineral wool backing where specified in manufacturer's application detail.
- F. Where shown or specified, pack annular space with fiberglass batt insulation or mineral wool insulation. Provide 4" sheet metal escutcheon around duct on both sides of partition or floor to cover annular space.

- 1 G. Install approved product in accordance with the manufacturer's instructions where an installation penetrates a fire/smoke
2 rated surface. When pipe is insulated, use a product, which maintains the integrity of the insulation and vapor barrier.
3 H. Whenever possible, avoid penetrations of fire and smoke rated partitions. When they cannot be avoided, verify that suffi-
4 cient space is available for the penetration to be effectively fire and smoke stopped.
5

6 **PART 3 – EXECUTION**

8 **3.1. PROJECT MEETINGS**

- 9 A. Project meetings will be held at the time designated by the owner. If the principal of the firm does not attend meetings, a
10 responsible representative of the Contractor who can bind the Contractor to a decision at the meetings shall attend. The
11 contractor will write a report covering all items discussed and decisions reached and copy of such report distributed to all
12 parties involved within 3 business days. All contractors, sub-contractors and other related parties shall attend. Attendance
13 especially is required if such contractor is scheduled to perform work within the next 6 weeks.
14 B. PRE-CONSTRUCTION MEETING: Owner, design representatives and all contractor and sub-contractor representatives at-
15 tend.
16 C. PRE-INSTALLATION MEETING: prior installation, layout or other activities related to major systems, separate meetings will
17 be held to ensure proper coordination. These meetings will be initiated by the contractor. Not initiating these meetings
18 doesn't relieve the contractor from coordination responsibilities. The owner may set up such meetings as needed
19

20 **3.2. CONTINUITY OF SERVICE, TRAFFIC, SHUTDOWN AND ACCESS**

- 21 A. BUILDING ACCESS: Unless otherwise shown or directed, maintain existing access and egress to the facility throughout con-
22 struction. Maintain ANSI A117 compliant access for disabled persons, delivery access, emergency vehicle access, and emer-
23 gency egress. Do not interrupt access and egress without prior written approval by owner.
24 B. Contractor shall verify the locations of any water, drainage, gas, sewer, electric, drainage, gas, sewer, electric, tele-
25 phone/communication, fuel, steam lines or other utilities and site features which may be encountered in any excavations or
26 other site work. All lines shall be properly underpinned and supported to avoid disruption of service.
27 C. TRAFFIC:
28 a. Do not interrupt or change existing traffic, delivery, or parking without prior written approval from owner. When inter-
29 ruption is required, coordinate schedule with the Owner agency to minimize disruptions. When working in public right-
30 of-way, obtain all necessary approvals and permits from applicable municipalities and WISDOT.
31 b. When Contractor's activities impede or obstruct traffic flow, Contractor shall provide traffic control devices, signs and
32 flaggers in accordance with other Contract Documents and the current version of the MUTCD, or as shown on the
33 Drawings.
34 D. UTILITIES:
35 a. Verify the locations of any water, drainage, gas, sewer, electric, drainage, gas, sewer, electric, tele-
36 phone/communication, fuel, steam lines or other utilities and site features which may be encountered in any excava-
37 tions or other site work. All lines shall be properly underpinned and supported to avoid disruption of service.
38 b. Do not interrupt or change existing utilities without prior written approval from owner, affected utilities and users. No-
39 tify all users impacted by outages a minimum of 48 hours in advance of outage. Notification shall be provided in writing
40 and describe the nature and duration of outages and provide the name and number of Contractor's foreman or other
41 contact.
42 E. Contractor shall provide and maintain continuous service (power, controls, alarms, communication, elevators, HVAC, roads
43 etc.) during the entire construction period. No outages shall be permitted on existing systems except at the time and during
44 the interval specified by the owner. Any outage must be scheduled when the interruption causes the least interference with
45 normal institutional schedules and business routines and might be scheduled during after-hours if regular business hours
46 are not acceptable to the owner. No extra costs will be paid to the Contractor for such outages, which must occur outside
47 of regular weekly working hours. Cost to the utility is paid by Contractor. The Contractor shall provide temporary utility ser-
48 vices and bypasses for any disruptions not completed within this period. The Contractor shall restore any circuit interrupted
49 as a result of this work to proper operation as soon as possible.
50 F. HVAC: If the building is occupied and continues operation during construction, retrofit or demolition, Contractor must
51 maintain ventilation and air conditioning for as large parts of the building as technically feasible. Where maintaining space
52 conditioning is not feasible with the existing system, the Contractor shall provide temporary sufficient air conditioning,
53 heating and ventilation in coordination with the owner. Heating to prevent freeze damage is required for all construction
54 activity regardless of occupancy. All work affecting air conditioning and ventilation must be coordinated with and approved
55 by the owner. If air conditioning, heating and ventilation has to be taken out of service for longer periods of time in parts of
56 the building and owner would be affected negatively. All such taking out of service has to be coordinated and approved by
57 the owner.
58 G. SHUTDOWN:
59 a. If the shutdown involves the interface with, or modification of, existing building energy system(s), the Contractor shall
60 be required to show the reviewed submittal and shop drawings of the proposed modifications. Shutdown schedules
61 shall have been reviewed and approved by the owner at least 72 hours prior to date of shutdown. Postponement of
62 scheduled shutdowns by the owner shall not constitute a basis for additional charges to the owner.
63 b. Prior to the shutdown of any building energy system(s) the Contractor shall provide the following:
64 c. Proof of receipt of all materials required for the shutdown or a written commitment from the responsible suppliers that
65 the required materials will be available at the time of the shutdown.

- d. A list of the qualified Contractor personnel assigned to perform the work.
- e. Analysis of any affect on the utility or building energy system(s) and the estimated duration of the shutdown.
- f. A twenty-four-hour emergency callback phone number to be used by the owner in the event of any problems or concerns with the modifications made to the building system(s) after the Contractor has left the site.

3.3. DEMOLITION

- A. Perform all demolition as indicated on the drawings to accomplish new work. Demolition Drawings are based on casual field observation and/or existing record documents. Verify field measurements and circuiting arrangements as shown on Drawings, verify that abandoned wiring, piping, ducting and equipment serve only abandoned facilities. Report discrepancies to the owner before disturbing existing installation. Beginning of demolition means installer accepts existing conditions.
- B. Demolition all abandoned services and devices in areas affected by this contract, even if not shown on plans. This includes but is not limited to wiring, conduits, piping, and equipment.
- C. Before demolition of any load bearing concrete a ground-penetrating radar or concrete X-ray scan needs to be performed to detect any rebar, conduit or other damageable items. This work shall be performed at least a week before demolition starts to give A/E the opportunity to resolve any issues by rebar or other obstacles in unexpected locations. Drawings with existing subsurface obstacles may not be correct and shall not be relied on.
- D. Where pipe or duct is removed and not reconnected with new work, cap ends of existing services as if they were new work. Coordinate work with owner to minimize disruption to the existing building occupants.
- E. All pipe, wiring and associated conduit, insulation, ductwork, and similar items demolished, abandoned, or deactivated are to be removed from the site by the Contractor. Maintain the condition of material and/or equipment that is indicated to be reused equal to that existing before work began.
- F. Patch holes and openings caused by removal of material and equipment, or formerly covered by such, with like material and texture of surrounding surface. Paint to match surroundings.
- G. Disconnect all services in a manner which allows for future connection to that service. Disconnect services to equipment at unions, flanges, valves, or fittings wherever possible.
- H. Approval of all Jurisdictions Having Authority shall be obtained prior to disposal of any equipment and materials. All disposal has to be in compliance with all local, county, state and nationwide regulations.
- I. All disconnected wiring shall be removed from all raceway systems, panels, enclosures pull boxes, junction boxes etc. irrespective of whether the removal is specified in the construction documents or not. The empty raceway systems shall be tagged spare on both ends of each termination.
- J. Don't demolition or damage equipment and material that is to stay in place. Replace and repair any equipment and installations that get damaged during demolition. The Contractor shall restore all disturbed areas in accordance with the drawings and specifications. If plans and specifications do not address restoration of specific areas, these areas will be restored to pre-construction conditions as approved by owner.
- K. Verify the locations of, and protect, any buildings, structures, utilities, paved surfaces, signs, streetlights, utilities, landscaping and all other such facilities that are intended to remain or be salvaged. Make such explorations and probes as necessary to ascertain any required protection measures that shall be used before proceeding with demolition.
- L. Provide and maintain adequate catch platforms, warning lights, barricades, guards, weather protection, dust protection, fences, planking, bracing, shoring, piling, signs, and other items required for proper protection.
- M. Report damage of any facilities or items scheduled for salvaging to owner.
- N. Explosives shall not be used for demolition.
- O. Remove all equipment, fixtures and other materials scheduled for salvage prior to beginning demolition operations.
- P. Abandon gas, electric and communication utilities in accordance with local utility company requirements, or applicable substantive requirements if considered private.
- Q. Carry out vehicle loading as necessary within the project boundaries or as defined or indicated on the drawings, but not in locations that block vehicular traffic on the streets or pedestrian traffic on adjacent public walks.
- R. Dismantle each structure in an orderly manner to provide complete stability of the structure at all times. Provide bracing and shoring where necessary to avoid premature collapse of structure.
- S. Conduct demolition operations and the removal of rubbish and debris in such a way that a minimum of nuisance dust is caused. Constantly sprinkle rubbish and debris with water if necessary to keep nuisance dust to a minimum.
- T. Where necessary to prevent collapse of any construction, install temporary shores, underpinning, struts or bracing. Do not commence demolition work until all temporary construction is complete.
- U. During the execution of the work, provide, operate, and maintain all pumping equipment, suction and discharge lines in a number of capacity as required to keep all cellars and pits free of water from any source whatsoever at all times.
- V. Masonry and concrete shall be demolished in small sections. Use braces and shores as necessary to support the structure of the building or structure and protect it from damage. Where limits of demolition are exposed in the finished work, cutting shall be made with saws, providing an absolutely straight line, plumb, true and square.
- W. Operate equipment so as to cause a minimum of damage to plaster which is to remain, and so as to keep dust and dirt to a minimum.
- X. BUILDING DEMOLITION:
 - 1. Proceed with demolition in a systematic manner, from top of structure to ground. Complete demolition work above each floor or tier before disturbing supporting members on lower levels.
 - 2. Neatly saw or cut joints at the limits of removal; whenever possible, locate cuts at existing joints.
 - 3. Cut existing plaster with power saws equipped with plaster cutting blades and dust collection system.

4. Patch or repair any damaged surfaces or structural members at the limits of removal.
 5. Remove structural framing members and lower to ground by hoists, derricks or other suitable means.
 6. Remove all existing flooring in accordance with plans. Leave exposed existing sub flooring or surface in suitable condition for receiving new finished flooring.
 7. Locate demolition equipment and remove structure so as to not impose excessive loads to supporting walls, floors or framing.
 8. Break up and remove concrete slabs-on-grade, unless otherwise shown to remain.
 - Y. DEMOLITION BELOW GRADE:
 1. Demolish foundation walls and other below grade features in accordance with the plans. Unless otherwise noted, remove all below grade features to a point 4' below adjoining existing grade, or proposed grade, whichever is lower. Basement and/or lowest level floors more than 4' below existing grade need not be removed, but must be broken up to permit drainage.
 2. Backfill and compact below grade areas and voids resulting from demolition of structures and other abandonment and demolition. Backfilling shall not begin until demolition and abandonment has been approved and documented by owner. Prior to placement of fill materials, ensure that areas to be filled are free of standing water, frost, frozen materials, trash and debris.
 - Z. DRAIN TILE:
 1. Carefully protect and/or replace drain tiles encountered during demolition which are necessary to maintain site drainage conditions. Immediately repair or replace any drain tiles not scheduled for demolition, but damaged. Report damage to owner.
 2. Repairs to drain tile or replacement drain tile shall be comparable or better than the existing drain tile system.
 3. Test drain lines with water to assure free flow before covering. Remove all obstructions which may be found, retest until satisfactory.
- 3.4. TEMPORARY CONSTRUCTION**
- A. Temporary construction shall conform to all requirements and laws of state and local authorities, which pertain to operation, safety, and fire hazards. Contractor shall furnish and install all items necessary for conformance with such requirements, whether called for under separate sections of these Specifications or not. Contractor shall provide, maintain, and remove upon completion of his work:
 - B. Employ temporary crossovers and bypass to utilities, electrical connections, traffic and footbridges, and walkways used to maintain services or communications, which cannot be interrupted or curtailed.
 - C. Provide temporary rigging, scaffolding, shoring, hoisting equipment, and all other temporary work as required for this project.
 - D. TEMPORARY LIGHTING: shall be supplied and maintained by the Contractor so that construction work can be safely performed. The temporary lighting system shall be sufficient to enable all trades to safely complete their work and to enable owner to check all work as it is being done. Illumination shall be 5 foot-candles minimum in all areas and, in addition, shall meet or exceed the requirements of 29 CFR 1926.56 Illumination (OSHA regulations) or be higher if the type of work requires more lighting for quality control. All temporary electrical circuits for construction purposes shall be equipped with combination ground fault interrupter and circuit breakers meeting the requirements of UL for Class A, Group 1 devices.
 - E. TEMPORARY HEATING AND COOLING
 1. All heating and cooling including fuel required after enclosure of the building shall be provided by the Contractor. It shall be the responsibility of the Contractor to see that every precaution is used to prevent unnecessary escape of heat. A minimum temperature of 45 degrees and a maximum temperature of 65 degrees for the building shall be maintained. For a period of at least ten days prior to the placing of interior woodwork and throughout the placing of this and other finish, varnishing, painting, tiling etc., and until substantial completion to provide sufficient heat to insure a temperature in the spaces involved of not less than 70 degrees nor more than 80 degrees. Temperatures must be checked during nighttime and on weekends. Restitution shall be made by Contractor responsible for damage to building and contents caused by overheating, freezing, fumes, soot or residue given off by temporary heating or lack of thereof.
 2. Permanent heating and cooling system may be used for temporary heating at owners discretion. Warranty period may not be affected by use of permanent heating. Temporary filters shall be used in the permanent system. If the permanent heating system appears to be dirty after use, owner may require cleaning at contractor's expense.
 3. Provide bases, shields, etc., around heating elements to prevent too rapid drying of adjacent concrete, masonry or plaster. Surfaces and structure shall be patched as required.
 4. The use of temporary units whose product of combustion will damage fresh concrete, mortar or other building materials, will not be allowed. Use of coke or oil salamanders is prohibited. All portable temporary heating units shall be properly ventilated to prevent combustion gases from remaining in the heating area.
 5. Cooling shall be provided to all occupied areas that have permanent cooling installed. Such areas include but are not limited to offices, server rooms etc. Temperatures maintained must be equal to what the existing permanent system was able to maintain or what the new designed system is capable of delivering.
 6. Cooling capacity shall be sufficient and have spare capacity as required to account for diminished performance during temporary operation. Performance can be diminished by infiltration, bent hoses, dirt etc. Plans may or may not show specific capacities. Those are approximations and more cooling may be required.
 - F. TEMPORARY ELECTRICAL SERVICE
 1. The Contractor shall make all arrangements with the local utility company for metered electrical service, pay for the installation of all temporary service to utility point of termination shown on drawings, and upon completion of project,

- 1 pay for removal of temporary service. The meter shall be taken out in the Contractor's name. The Contractor shall
- 2 patch surfaces and structure after services have been removed. The Contractor shall pay for all electrical energy con-
- 3 sumed for construction purposes for all trades including temporary offices, for operation of ventilating equipment, for
- 4 heating of building, and for testing and operating of all equipment. The Contractor shall continue to pay for energy
- 5 used until substantial completion even though equipment has been connected to the permanent wiring.
- 6 2. Contractor shall provide and maintain electrical services in single phase or multiphase as required by equipment to be
- 7 used. Provide at multiple services to ensure service to run at less than 75% of its capacity at all times and to enable
- 8 short cable runs of less than 300 ft to equipment to be used.
- 9 G. TEMPORARY WATER, SEWER AND PUMPS:
- 10 1. The Contractor shall supply all water required for construction and other purposes until the permanent water supply
- 11 system is accepted and in operation. As soon as possible Contractor shall install and pay for permanent water mains in-
- 12 to new building, provide temporary gate valve and freezing protection, extend piping and provide a ¾" hose bib for use
- 13 by all Contractors. Permanent lines may be used.
- 14 2. Waste of water shall be avoided and valves, connections, pumps pipes and hoses shall be provided by Contractor kept
- 15 in perfect condition. Water supply used by workmen shall be kept clean and sanitary at all times.
- 16 3. Sewer work shall be started and finished as soon as possible. Including backfill.

3.5. INSTALLATION

- 19 A. Install in accordance with manufacturer's instructions and all code requirements. Provide the owner with copy of manufac-
- 20 turer's instructions prior to installation. Coordinate equipment location with piping, ductwork, conduit and equipment of
- 21 other trades to allow sufficient clearances. Locate equipment to provide access space for servicing all components. Install in
- 22 accordance with recognized industry practices. The manufacturer's latest recommendations shall be used. It is Contractor's
- 23 responsibility to enforce these requirements with all the Contractors. The Contractor shall be responsible for correcting any
- 24 infringement on this requirement at no cost to owner.
- 25 B. Startup and test equipment and adjust operating and safety controls for proper operation.
- 26 C. Contractor shall coordinate work with existing equipment so that all systems, equipment and other components will fit the
- 27 available space, and will allow proper service and repair. Each location needs to be approved by owner. This also applies to
- 28 existing equipment if newly installed equipment interferes with its accessibility. Location of equipment has to fit into exist-
- 29 ing panels, decoration or finish. Owner can request position changes of equipment before the work has begun.
- 30 D. The Contractor shall cooperate in reducing objectionable noise or vibration. If noise or vibration is a result of improper
- 31 material or installation, these conditions shall be corrected at no cost to owner. Abnormal buzzing in equipment is not ac-
- 32 ceptable.
- 33 E. Provide carpentry, cutting, patching, and core drilling required for installation of material and equipment.
- 34 F. WATERPROOF CONSTRUCTION: Maintain waterproof integrity of penetrations of materials intended to be waterproof.
- 35 Provide flashings at exterior roof penetrations. Caulk penetrations of foundation walls and floors watertight. Provide
- 36 membrane clamps at penetrations of waterproof membranes.
- 37 G. PAINTING OF EQUIPMENT AND HARDWARE: Provide moisture resistant paint for all exterior painting. Colors shall be as
- 38 shown on the drawings unless specified. All exposed conduits, raceways and gutters inside (finished spaces) and outside the
- 39 building shall be painted to match the wall color.
- 40 H. Lubricate all bearings with lubricant as recommended by the manufacturer before the equipment is operated for any rea-
- 41 son. Once the equipment has been run, maintain lubrication in accordance with the manufacturer's instructions until the
- 42 work is accepted by owner. Maintain a log of all lubricants used and frequency of lubrication; include this information in the
- 43 Operating and Maintenance Manuals at the completion of the project.

3.6. DELIVERY, STORAGE AND HANDLING OF MATERIALS

- 46 A. Contractor must be present to accept delivery of all equipment and material shipments. Owner will not knowingly accept,
- 47 unload or store anything delivered to the site for the Contractor's use. Inadvertent acceptance of delivered items by owner
- 48 shall not constitute acceptance or responsibility for any of the materials or equipment. It is the Contractor's responsibility
- 49 to assume liability for equipment or material delivered to the job site.
- 50 B. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays. Materials and
- 51 equipment shall be delivered to the site in adequate time to ensure uninterrupted progress of the work and inspection of
- 52 material by owner. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels
- 53 intact. Packaged units shall be delivered in their original crates.
- 54 C. Store in a clean and dry space. Maintain factory wrapping or provide an additional heavy canvas or heavy plastic cover to
- 55 protect units from dirt, water, construction debris, and traffic. Promptly inspect shipments to insure that the material is un-
- 56 damaged and complies with specifications. Materials or equipment, which do not conform to the Specifications or are dam-
- 57 aged shall not be incorporated in the work and shall be immediately removed from the site.
- 58 D. Arrange for the necessary openings in the building to allow for admittance of all apparatus. When the building access was
- 59 not previously arranged and must be provided by this Contractor, restore any opening to its original condition after the ap-
- 60 paratus has been brought into the building.
- 61 E. Contractor shall confine equipment, apparatus, storage of materials and operations to limits indicated on the drawings or
- 62 by specific direction of owner. Storage of materials within the building shall at no time exceed the design carrying capacity
- 63 of the structural system. The Contractor assumes full responsibility for damage due to the storage of materials.
- 64 F. Material shall be stored according to manufacturer's recommendations as a minimum. Provide and maintain watertight
- 65 storage sheds on the premises where directed, for storage of materials that might be damaged by weather. Sheds shall

have wood floors raised at least 6" above the ground. Materials, construction sheds, and earth stockpiles shall be located so as not to interfere with the installation of the utilities nor cause damage to existing lines. Should it be necessary at any time to move material sheds or storage platforms, the Contractor shall move it at the Contractor's expense, when directed by owner.

G. If necessary, material will be stored off site at the Contractor's expense. Offsite storage agreements will not relieve the Contractor from using proper storage techniques. Storage and protection methods must allow inspection to verify products.

H. All materials shall be stored in a manner that prevents release of hazardous material to the environment. All hazardous materials, including motor fuels, shall be properly handled and contained to prevent spills or other releases. The Contractor shall develop and maintain a contingency plan to provide emergency response, containment, and cleanup of spills of hazardous materials resulting from contract activities. All spills and releases shall be reported to owner immediately

3.7. CONCRETE WORK

A. Provide all layout drawings, anchor bolts, metal shapes, and/or templates required to be cast into concrete or used to form concrete for support or installation of electrical, mechanical, plumbing piping, fixtures, specialties and equipment. This includes but is not limited to piping thrust restraints, pipe supports, hydrant supports, manholes, catch basins, grease traps, septic tanks, distribution boxes, valve pits, meter pits, cleanout cover pads, yard hydrant pads, etc. Coordinate locations of equipment, pipe penetrations in wet areas, etc. with other trades.

B. Unless noted otherwise provide cast in place concrete for equipment pads, manhole bases and thrust blocks. Concrete to be 3,000 psi at 28 days, 3/4 inch aggregate, five bags cement, three inch slump, air entraining admixture. The ACI 614 Recommended Practice for Measuring, Mixing and Placing of Concrete shall constitute the execution requirements.

3.8. OPENINGS, SLEEVES, CUTTING, STRUCTURAL ATTACHMENT, PATCHING AND PAINTING

A. Before any drilling, cutting or other type of opening the contractor shall verify that no conduits, wires, pipes or other items are in or near opening area. X-ray or ground-penetrating radar technology shall be employed to survey ceilings, slabs or walls when potentially damaging opening techniques are employed. Existing available data and records may not be accurate regarding exact location of structural steel, pipes or conduit.

B. Openings shall be the responsibility of the Contractor requiring the openings even if such openings are not shown on drawings. The Contractor shall install sleeves for all openings and shall submit to the owner for review and approval, layout drawings of all such required sleeves and/or openings. Sleeve and opening sizes and locations shall be dimensioned from column lines and floor elevations or from a point of reference approved by owner.

C. All openings shall be made as airtight, watertight, fireproof, smoke-tight, thermally insulated as the wall they are in. Patch wall around sleeve to match adjacent wall construction and finish. In finished spaces where penetration through wall is exposed to view, sheet metal sleeve shall be installed flush with face of wall. Grout area around sleeve in masonry construction. Patching includes repairing openings to match adjacent construction and painting the surface to match existing surface including texture.

D. For floor pipe and duct penetrations through floors in mechanical rooms and wet locations (all rooms with water tap or connection, Parking ramps, kitchens, food service areas, pumping stations, swimming pools, chemical storage, storage of liquids or locations that can get wet by accident or failure of a component etc.), core drill opening and provide 1-1/2"x 1-1/2" x 1/8" galvanized steel angles fastened to floor surrounding the penetration or group of penetrations to prevent water from getting to penetration. Provide urethane caulk between angles and floor and fasten angles to floor minimum 8" on center. Seal corners water tight with urethane caulk. Or, core drill sleeve opening large enough to insert schedule 40 sleeve and grout area around sleeve with hydraulic setting, non-shrink grout. If the pipe penetrating the sleeve is supported by a pipe clamp resting on the sleeve, weld a collar or struts to the sleeve that will transfer weight to existing floor structure. Size sleeve to allow insulation and paint the sleeve.

E. PIPE SLEEVES:

1. Provide galvanized sheet metal sleeves for pipe penetrations through interior and exterior walls to provide a backing for sealant or firestopping. Pipe sleeves in new poured concrete construction shall be schedule 40 steel pipe (sized to allow insulated pipe to run through sleeve), cast in place.
2. Pipe sleeves are not required in interior non-rated drywall, plaster or wood partitions and sleeves are not required in existing poured concrete walls where penetrations are core drilled.
3. Pipe sleeves in new poured concrete construction shall be schedule 40 steel pipe (sized to allow insulated pipe to run through sleeve), cast in place.
4. Extend the top of sleeve 2 inch above the adjacent floor in piping floor penetrations located in the mechanical rooms and wet locations listed below. In finished areas sleeves shall be flush with rough floor.

F. DUCT SLEEVES:

1. Duct sleeves are not required in non-rated partitions or floors.
2. Provide sleeve required for fire dampers in fire-rated partitions and floors.

G. NON-RATED PENETRATIONS:

1. Conduit Penetrations Through Below Grade Walls: In exterior wall openings below grade, use a modular mechanical type seal consisting of interlocking synthetic rubber links shaped to continuously fill the annular space between the un-insulated conduit and the cored opening or a water-stop type wall sleeve.
2. Conduit and Cable Tray Penetrations: At conduit and cable tray penetrations of non-rated interior partitions, floors and exterior walls above grade, use urethane caulk in annular space between conduit and sleeve, or the core-drilled opening.

3. In exterior wall openings below grade, assemble rubber links of mechanical seal to the proper size for the pipe and tighten in place, in accordance with manufacturer's instructions.
- H. Do not pierce beams or columns without owner's permission and then only as directed in writing.
- I. No devices or materials shall be attached to non-structural or structural members or parts of the building without approval by owner. All items shall be attached to structurally stable building parts only. Provide all supporting devices as required for the installation of mechanical equipment and materials. All supports and installation procedures are to conform to the latest requirements of the ANSI Code for building piping. Do not hang any mechanical item directly from a metal deck or run piping so its rests on the bottom chord of any truss or joist. Fasteners depending on soft lead for holding power or requiring powder actuation will not be accepted. Support apparatus and material under all conditions of operation, variations in installed and operating weight of equipment and piping, to prevent excess stress, and allow for proper expansion and contraction.
- J. Provide all supporting steel required for the installation of mechanical equipment and materials, including angles, channels, beams, etc. to suspended or floor supported tanks and equipment. All of this steel may not be specifically indicated on the drawings.

3.9. IDENTIFICATION

- A. All labels shall be permanent, and machine generated. NO HANDWRITTEN OR NON-PERMANENT LABELS ARE ALLOWED.
- B. Identify all equipment with engraved name plates (White letters on a black background, 1/16 inch thick plastic laminate, beveled edges, screw mounting, Setonply Style 2060 by Seton Name Plate Company or Emedolite Style EIP by EMED Co., or equal by W. H. Brady).
- C. Identify interior piping with >1" stencils or snap-around pipe marker Equal to Seton Setmark not less than once every 25 feet, not less than once in each room, not less than once per 6' (or larger) section, adjacent to each access door or panel, and on both side of the partition where accessible piping passes through walls or floors. Place flow directional arrows at each pipe identification location. Label all pipes with name of loop and arrows for flow direction with permanent label. Mark pipes based on served system as "hot", "cold", and as "boiler", "chilled", "geothermal" and also as "glycol" or "water". All supply water shall be labeled per code as "potable" (green background / white letters) or "non-potable" (yellow background / black letters). Label all gauges. Use one coat of black enamel against a light background or white enamel against a dark background.
- D. Provide all buried utilities, conduit and pipes with detectable underground warning tape, 5.0 mil overall thickness, 6" width, .0035" thick aluminum foil core with polyethylene jacket bonded to both sides. Color code tape and print caution along with name of buried service in bold letters on face of tape. Manufacturers: Thor Enterprises Magnatec or equal by Carlton, MSI Marking Services, Seton.
- E. Extend tape to surface at building entrances, meters, hydrants and valves. Where existing underground warning tape is broken during excavation, replace with new tape identifying appropriate service and securely spliced to ends of existing tape.
- F. All underground non-metallic sewers/mains and water services/mains shall be provided with tracer wire installations. Tracer wire installations shall conform with code. Tracer wire shall be continuous solid copper or steel plastic coated with split bolt or compression-type connectors.
- G. Identify valves with brass tags bearing a system identification and a valve sequence number. Use round brass tags with 1/2 inch numbers, 1/4 inch system identification abbreviation, 1-1/4 inch minimum diameter, with brass jack chains, brass "S" hooks or one piece nylon ties around the valve stem, available from EMED Co., Seton Name Plate Company, or W. H. Brady. Valve tags are not required at a terminal device unless the valves are greater than ten feet from the device, located in another room or not visible from device. Provide a typewritten valve schedule and pipe identification schedule indicating the valve number and the equipment or areas supplied by each valve and the symbols used for pipe identification; locate schedules in mechanical room and in each Operating and Maintenance manual. Schedule in mechanical room to be framed under clear plastic.
- H. Identify balancing valves like valves above and in addition include balancing chart for the specific balancing valve and detail the setting and flow set at time of balancing.
- I. Label fire, smoke and combination fire smoke dampers on the exterior surface of ductwork directly adjacent to access doors using a minimum of 0.5 inch height lettering reading, "SMOKE DAMPER" or "FIRE DAMPER". Smoke and combination fire smoke dampers shall also include a second line listing the individual damper tag. The tags must be coordinated with the mechanical schedules. Utilize stencils or manufactured labels. All other forms of identification are unacceptable. All labels shall be clearly visible from the ceiling access point.
- J. Label all conductors. Size shall be appropriate for the conductor or cable size(s), outlet faceplate layout and patch panel design. All labels shall be self-laminating, white/transparent vinyl and be wrapped around the cable or sheath. Flag type labels are not allowed. The labels shall be of adequate size to accommodate the circumference of the cable being labeled and properly self-laminate over the full extent of the printed area of the label.

3.10. TRAINING AND DEMONSTRATION

- A. The owner's facility staff (and occupants and service Contractors as needed), shall receive orientation and training on features, systems and equipment in this facility requisite with the complexity and criticality of the system and the owner's needs. Additional training requirements may be found in specific equipment sections. Owner may video-record all training sessions.

- B. Only training on equipment that is commissioned and works as designed and with approved Operations and Maintenance manual is acceptable. If system fails, training will be repeated.
- C. The Contractor shall be responsible for training coordination and scheduling and ultimately for ensuring that training is completed on all equipment per the Specifications. Unless otherwise required or approved, the training shall be given during regular business hours during a regular work week.
- D. Owner will be responsible for coordinating and approving the content and adequacy of the training.
- E. Training team shall consist of, as needed and at the discretion of the owner, the installing technician, installing Contractor and the appropriate trade or manufacturer's representative on each major piece of equipment. Practical building operating expertise as well as in-depth knowledge of all modes of operation of the specific piece of equipment as installed in this project is required by the person training. If owner determines training was not adequate, it will be repeated in improved form.
- F. Follow the outline in the table of contents of the operation and maintenance manual and illustrate whenever possible the use of the O&M manuals for reference. Training Shall Include the Following:
 1. Use of the printed installation, operation and maintenance instruction material included in the O&M manuals.
 2. A review of the written O&M instructions emphasizing safe and proper operating requirements, preventative maintenance, and special tools needed and spare parts inventory suggestions. The training shall include start-up, operation in all modes possible, shutdown, seasonal changeover, as applicable, and any emergency procedures.
 3. Discussion of relevant health and safety issues and concerns.
 4. Discussion of warranties and guarantees.
 5. Common troubleshooting and maintenance issues, problems and solutions.
 6. Explanatory information included in the O&M manuals and the location of all related plans and manuals in the facility.
 7. Discussion of any peculiarities of equipment installation or operation.
- G. The format and training agenda in The HVAC Commissioning Process, ASHRAE Guideline 1 is recommended, as applicable.
- H. Hands-on training shall include start-up, operation in all modes possible, including manual, shutdown and any emergency procedures and preventative maintenance for all pieces of equipment.
- I. Training shall occur after functional testing and piping and equipment labeling are complete unless approved otherwise by Owner.
- J. HVAC CONTROL SYSTEMS:
 1. For the primary HVAC equipment, the controls Contractor shall provide a short discussion of the control of the equipment during the mechanical or electrical training conducted by others.
 2. The standard operating manual for the system and any special training manuals shall be provided for and retained by each trainee. In addition, the system technical manual shall be demonstrated during training. Manuals shall include detailed description of the subject matter for each session. The manuals shall cover all control sequences and have a definitions section that fully describes all relevant words used in the manuals and in all software displays.
 3. The trainings will be tailored to the needs and skill-level of the trainees and be oriented to the specific system installed in this project.
 4. There shall be three training sessions:
 5. Training I - Control System: The first training shall be 4 hours in length.
 6. Training II - Building Systems: The second session shall be held on-site for a period of 12 hours of actual hands-on training after the completion of system commissioning. The session shall include instruction on:
 - a. A review of the as-built drawings and O&M manuals, a walk-through of the facility to identify control panels and device locations.
 - b. Specific hardware configuration of installed systems in this building and specific instruction for operating the installed system, including HVAC systems, lighting controls and any interface with security and communication systems.
 - c. Security levels, alarms, system start-up, shut-down, power outage and restart routines, changing set points and alarms and other typical changed parameters, overrides, freeze protection, manual operation of equipment, optional control strategies that can be considered, energy savings strategies and set points that if changed will adversely affect energy consumption, energy accounting, procedures for obtaining vendor assistance, etc.
 - d. All trending and monitoring features (values, change of state, tantalization, etc.), including setting up, executing, downloading, viewing both tabular and graphically and printing trends. Trainees will actually set-up trends in the presence of the trainer.
 - e. Every screen shall be completely discussed, allowing time for questions.
 - f. Use of keypad or plug-in laptop computer at the zone level.
 - g. Use of remote access to the system via phone lines or networks.
 - h. Setting up and changing an air terminal unit controller.
 - i. Graphics generation.
 - j. Point database entry and modifications.
 - k. Understanding FMCS field panel operating programming (when applicable).
 7. Training III - Deferred On-Site: The third training will be conducted on-site 6 months after occupancy and consist of 8 hours of training in one session. The session will be structured to address specific topics that trainees need to discuss and to answer questions concerning operation of the systems.
- K. FIRE ALARM SYSTEM:
 1. Provide 2 hours of training to operate primarily, Level 1 and Level 2 system operators / users.
 2. A 2 hour session for the purpose of training personnel who will need to administrate and maintain the system. This training session shall familiarize these "power-users" with High-Level functions, and shall also familiarize Electrical Department personnel with an overview of the as-built drawings and equipment configuration / basic troubleshooting.

3. The above training shall include, but not be limited to, providing and reviewing all programming software, access codes, and licenses that allow the Owner to add or to delete any points (i.e.: The mapping of devices), and to change a heat detector to a smoke detector. To meet this requirement, provide the necessary configuration and/or access code (hardware and/or software key). If the Vendor cannot meet this requirement, the product is not acceptable
- L. Testing Adjusting and Balancing: The Contractor shall have the following special training responsibilities relative to the testing, adjusting and balancing (TAB) work:
 1. The TAB technician shall meet with facility staff after completion of TAB and instruct them on the following:
 - a. Go over the final TAB report, explaining the layout and meanings of each data type.
 - b. Discuss any outstanding deficient items in control, ducting or design that may affect the proper delivery of air or water.
 - c. Identify and discuss any terminal units, duct runs, diffusers, coils, fans and pumps that are close to or are not meeting their design capacity.
 - d. Discuss any temporary settings and steps to finalize them for any City-furnished, City-installed equipment.
 - e. Other salient information that may be useful for facility operations, relative to TAB.

3.11. TESTS, PUNCH LIST AND FINAL ACCEPTANCE

- A. The complete installation consisting of the several parts and systems and all equipment installed according to the requirements of the Contract Documents, shall be ready in all respects for use by owner and shall be subjected to a test at full operating conditions and pressures for normal conditions of use.
- B. Contractor shall make all necessary adjustments and replacements affecting the work, which is necessary to fulfill owner's requirements and to comply with the directions and recommendations of the manufacturer of the several pieces of equipment, and to comply with all codes and regulations, which may apply to the entire installation. Contractor shall also make all required adjustments to comply with all provisions of the drawings and specifications.
- C. Prior to acceptance, all elements of operating equipment, including those of mechanical nature and those that slide, swing, turn, or are intended to move in any way and those of an electrical nature, shall be given an operating test to assure to the satisfaction of owner that such equipment operates as required. Contractor shall make all adjustments, replacements, and such other modifications as needed. If it is necessary to run equipment in order to complete the work, for periods that exceed the manufacturer's recommended maintenance interval, the Contractor will provide such required maintenance at no additional cost to owner.
- D. Notice that the work is ready for final inspection and acceptance shall be given after the Contractor has carefully inspected all portions of the work, has reviewed in detail the drawings and specifications, and that to the best of the Contractor's knowledge all conditions of the contract documents have been fulfilled. The owner and the Contractor shall make a joint inspection of the work and owner will issue a punchlist.
 1. Multiple punch lists can be submitted and neither punchlist may be considered final. Punchlist can be submitted throughout the entire warranty period.
 2. If Contractor fails to perform required corrective work in less than 30 days upon receipt of punch list by Contractor, owner can perform corrections or hire a separate contractor and charge the Contractor the full cost.
 3. Contractor shall advise owner that the necessary work has been performed. If punch list items were not resolved and the work was not performed in less than 30 days upon receipt of punch list by Contractor, the Contractor shall be required to compensate the owner for additional site visits of project manager, design professional and other related staff at a rate of \$ 100/hour plus mileage. The amount shall be paid to the owner prior to processing the final payment. Payment may be processed as deductive change order.
- E. After deficiencies, if any, have been corrected or accounted for, and after all work is satisfactorily complete, the City will accept the work; and Notice of Completion will be filed by owner. The contractor shall test equipment before claiming completion. Prior to final acceptance, filing of the Notice of Completion or processing of final payment, the following shall be done and submitted reviewed and accepted by owner:
 1. Certificates of compliance and guarantees required under various Sections
 2. Operating and maintenance manuals
 3. Instruction to City personnel, as required
 4. Test reports (TAB, fire alarm, elevator etc.)
 5. Certifications and registrations (boiler etc.)
 6. All keys
 7. Replacement material as required in specifications
 8. All required operations tests
 9. All documents required by commissioning, LEED certification and other project related documents
 10. Satisfy all commissioning requirements
 11. As -built documents
 12. All punch list items resolved
 13. All training provided (except deferred seasonal training)
 14. All warranty issues brought to Contractor's attention so far resolved
 15. Warranty documents signed by representative of manufacturer, guarantee documents, roofing agreement and other warranty related documents

1 **3.12. CLEANING**

- 2 A. The construction site shall be kept in clean and safe manner. The Contractor shall clean up and remove from the premises,
3 on a daily basis accumulation of surplus materials, rubbish, debris and scrap and shall repair all damage to new and exist-
4 ing equipment resulting from its work. When job is complete, this Contractor shall remove all tools, excess material and
5 equipment, etc., from the site. Contractors or subcontractors found to be in violation may be required to leave the jobsite
6 until their staff is trained in orderly, clean and safe construction site work. Clean and safe construction site includes but is
7 not limited to:
- 8 1. All trades keep a separate and neat area for material, equipment etc.
 - 9 2. Equipment and material not needed anymore is removed from the jobsite
 - 10 3. Demolition material and equipment is removed from jobsite daily
 - 11 4. All material and equipment is sorted and stored properly
- 12 B. Spreading of dirt, dust and other construction related material must be kept to a minimum. Occupied and work areas must
13 be separated by seals. Such seals shall be inspected and repaired frequently as needed to ensure proper sealing at all
14 times.
- 15 C. Keep streets, walks and all other adjacent paved areas clean and swept clear of dirt, mud and debris deposited as a result
16 of this operation. Protect surrounding area from dust. Control rodents, and other vermin associated with demolition op-
17 erations.
- 18 D. All installed items shall be cleaned at time of installation, and all lens exteriors shall be cleaned just prior to final inspec-
19 tion. Equipment shall be thoroughly cleaned of all stains, paint, spots, dirt and dust. All temporary labels not used for in-
20 struction or operation shall be removed. Dust, dirt and other foreign matter shall be removed completely from all internal
21 surfaces of all mechanical and electrical units, cabinets, ducts, pipes, etc. Dirt, soil, fingerprints, stains and the like, shall be
22 completely removed from all exposed finished surfaces.
- 23 E. Contractor shall wash all glass immediately prior to the occupancy of this project. Work shall include the removal of labels,
24 paint splattering, glazing compound and sealant. Surfaces shall include mirrors and both sides of all glass in windows, bor-
25 rowed lights, partitions, doors and sidelights. In addition to the above, the Contractor shall be responsible for the general
26 "broom" cleaning of the premises and for expediting all of the cleaning, washing, waxing and polishing required within the
27 technical sections of the specifications governing work under this Contract. The Contractor shall also perform "final"
28 cleaning of all exposed surfaces to remove all foreign matter, spots, soil, construction dust, etc., so as to put the project in
29 a complete and finished condition ready for acceptance and use intended.
- 30 F. If rubbish and debris is not removed, or if surfaces are not cleaned as specified above, the owner reserves the right to have
31 said work done by others and the related cost(s) will be deducted from monies due the Contractor.
- 32

33 **END OF SECTION**

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APPENDIX A - WASTE MATERIALS ESTIMATING SHEET

Instructions: Use as many sheets as needed.

PROJECT TITLE: _____
COMPANY: _____
DATE: _____

		Total Amount Generated		Amount Recycled		Amount Salvaged		Amount Sent to Landfill	
Material	Destination	Tons	Cu Yds	Tons	Cu Yds	Tons	Cu Yds	Tons	Cu Yds
Total									

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APPENDIX B - LANDFILL LOG

Instructions: Use as many sheets as needed.
Project Title: _____
Company: _____
Log Dates: ____ through ____

Date	Destination	Cubic Yards Land filled	Tons Land filled
Total			

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APPENDIX C - WASTE DIVERSION LOG

Instructions: Use as many sheets as needed.

Project Title: _____

Company: _____

Log Dates: _____ through _____

Material	Date	Destination	Salvaged	Recycled	Tons	Cubic Yards	Cost
Total							

**SPECIFICATIONS FOR
RESILIENT FLOORING, EXPANSION JOINTS, BASE AND REDUCER EDGING,

SECTION 09650
RESILIENT FLOORING**

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A) Drawings and general provisions of Contract with respect to installation of the resilient flooring, including General and Supplementary Conditions and Division 1 – Specification sections, apply to work of this section.

1.02 SUMMARY

- A) The work of this Section includes:
- 1) Installation of nora grano rubber tile flooring for area indicated in plans
 - 2) Installation of rubber wall base and nosing
 - 3) Installation of expansion joints
 - 4) Responsibilities, preparation/installation
 - 5) Removal of existing floor shall be complete by Other, Asbestos Abatement Contractor in a separate contract.
- B) Related Sections: Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
- 1) Section 03300 - Cast-In-Place Concrete; concrete substrate; slab surface tolerances; vapor retarder for applications on or below grade; 83/90 degree riser and tread edge angle for stairtread and nosing
 - 2) Section 10270 - Access Flooring; resilient floor covering for access panels
- C) References (Industry Standards)
- 1) American Society for Testing and Materials (ASTM)
 - a) **ASTM D2047**-Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine
 - b) **ASTM D2240**-Standard Test Method for Rubber Property - Durometer Hardness
 - c) **ASTM D3389**-Standard Test Method for Coated Fabrics Abrasion Resistance (Rotary Platform, Double-Head Abrader)
 - d) **ASTM E84**-Standard Test Method for Surface Burning Characteristics of Building Materials
 - e) **ASTM E648**-Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source
 - f) **ASTM E662**-Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials
 - g) **ASTM E2180**-Standard Test Method for Determining the Activity of Incorporated Antimicrobial Agent(s) in Polymeric or Hydrophobic Materials
 - h) **ASTM F150**-Standard Test Method for Electrical Resistance of Conductive and Static Dissipative Resilient Flooring
 - i) **ASTM F511**-Standard Test Method for Quality of Cut (Joint Tightness) of Resilient Floor Tile
 - j) **ASTM F710**-Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
 - k) **ASTM F970**-Standard Test Method for Static Load Limit
 - l) **ASTM F1344**-Standard Specification for Rubber Floor Tile
 - m) **ASTM F1482**-Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring
 - n) **ASTM F1514**-Standard Test Method for Measuring Heat Stability of Resilient Flooring by Color
 - o) **ASTM E1745**-Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs
 - p) **ASTM F1859**-Standard Specification for Rubber Sheet Floor Covering Without Backing

- q) **ASTM F1860**- Standard Specification for Rubber Sheet Floor Covering With Backing
- r) **ASTM F1861**-Standard Specification for Resilient Wall Base
- s) **ASTM F2055**- Standard Test Method for Size and Squareness of Resilient Floor Tile by Dial Gage Method
- t) **ASTM F2169**- Standard Specification for Resilient Stair Treads
- u) **ASTM F2170**- Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using *in situ* Probes
- v) **ASTM F2420**- Standard Test Method for Determining Relative Humidity on the Surface of Concrete Floor Slabs Using Relative Humidity Probe Measurement and Insulated Hood
- w) **ASTM G21**- Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi
- 2) European Norm (EN)
 - a) **EN 1815**-Resilient and textile floor coverings. Assessment of static electrical propensity.
 - b) **FTM 4046 101**- Static Decay
- 3) Electro Static Discharge (ESD)
 - a) **ESD S7.1 100**-Resistive Characterization of Flooring Materials
 - b) **ESD STM 97.2**-Floor Materials and Footwear – Voltage Measurement on a Person
- 4) Static Generation
 - a) **AATCC**- Test Method 134 Electrostatic Propensity of Carpets
- 5) National Fire Protection Association (NFPA)
 - a) **NFPA 253**-Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Energy Source
 - b) **NFPA 258**-Test Method for Specific Density of Smoke Generated by Solid Materials

1.03 SUBMITTALS

- A) Product Data: Submit manufacturer's product data sheets, installation guide, and maintenance guide for each material proposed for use (available on www.nora.com/us).
- B) Samples: Submit two samples of rubber flooring (3"x3"), base (6") and edge nosing (6") in color specified, for verification.
- C) MSDS (Material Safety Data Sheets) should be submitted for all adhesives used: nora® membrane, primer, patch, leveler, heat weld rod, cold weld, liquid wax and cleaning agents. These are available at www.nora.com/us.
- D) Prior to installation of flooring, provide the Owner with a report of recorded moisture contents as outlined in Part 3, 301 General Contractor Responsibilities.
- E) All submittals shall be electronic pdf format that is searchable as specified in the General Conditions.

1.04 QUALITY ASSURANCE

- A) Manufacturer: Provide resilient flooring manufactured by a firm with a minimum of 10 years' experience with resilient flooring of types equivalent to those specified. Manufacturers proposed for use, which are not named in this section, shall submit evidence of ability to meet performance requirements specified not less than 10 days prior to bid date. **For this bid nora shall be the sole source manufacturer for the resilient flooring system. Base trim, expansion joints and reducer edging may be provided by other manufactures.**
 - 1) Manufacturer shall capable of providing technical training and field service representation.

1.05 DELIVERY, STORAGE, AND HANDLING

- A) Deliver materials in labeled packages. Store and handle in strict compliance with manufacturer's recommendations. Protect from damage due to weather, excessive temperatures, and construction operations.
- B) Deliver materials sufficiently in advance of installation to condition materials to the required temperature prior to installation.

1.06 PROJECT CONDITIONS

- A) Maintain temperature and humidity at service levels or 68° F (20° C), $\pm 5^\circ$ F (3° C), and 50% RH \pm 10% in areas to receive resilient flooring. Specified temperature shall be maintained at least 48 hours before, during, and 72 hours after installation.

1.07 WARRANTY

- A) Provide manufacturer's standard one-year warranty against defects in manufacturing and workmanship of all flooring products. Provide manufacturer's warranty as specified under each product as applicable, including limited wear, defect and conductivity

1.03 EXTRA MATERIALS (ATTIC STOCK)

- A) Furnish full size units equal to 3 percent of quantity of resilient flooring installed as extra materials. Properly label and package extra materials. Deliver to owners designated storage area.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A) Provide resilient flooring by nora systems, Inc., 9 Northeastern Blvd., Salem, NH 03079; telephone 800-332-NORA, or 603-894-1021; fax 603-894-6615.
- B) The manufacturer shall have the Quality Management System approved by Lloyd's Register Quality Assurance to the Quality Management System Standard ISO 9001:2000.
- C) The manufacturer shall be validated according to the Eco-Management and Audit System (EMAS).
- D) The manufacturer shall offer a construction waste take back program for the purpose of reducing jobsite waste by taking back their uninstalled waste flooring. Details of the nora program are available on www.nora.com/us.

Note: For specific product application recommendations please refer to your local nora sales representative, or www.nora.com/us.

2.02 RESILIENT TILE FLOORING FOR COMMERCIAL TRAFFIC

A) Resilient Tile Flooring.

- 1) **Product Name:** norament[®] grano, Article 1880, no substitutions shall be allowed.
- 2) **Material:** nora vulcanized rubber compound 926 with abundant natural fillers and environmentally compatible color pigments
- 3) **Surface:** Hammered
- 4) **Color:** 4882 Banded Agate
- 5) **Tile Size:** 0.14 inches (3.5mm) overall thickness, 39.53 inches by 39.53 inches (1004mm by 1004mm)
- 6) **Back of Tile:** Smooth, double-sanded back
- 7) **Composition:** Homogeneous rubber compound 926 with mottled design
- 8) **Limited Wear Warranty:** 10 years
- 9) **Hardness:** ASTM D2240, Shore type A, required ≥ 75
- 10) **Static Load:** Per ASTM F970 Standard Test Method for Static Load Limit, residual compression, when tested with 800 lbs. ≤ 0.005 "
- 11) **Quality of Cut:** ASTM F511 ≤ 0.005 "

- 12) **Squareness:** ASTM F2055 $\leq 0.010"$
- 13) **ISO 14001:** Manufacturer shall be ISO 14001 Environmental Management Systems Certified
- 14) **PVC Free:** Product shall contain no polyvinyl chloride
- 15) **Abrasion Resistance:** Taber abrasion test, ASTM D3389, H-18 wheel, 500 gram load, 1000 cycles, gram weight loss ≤ 0.4
- 16) **Slip Resistance:** Static coefficient of friction (James Test): ASTM D2047, ≥ 0.8
- 17) **Oil & Grease Resistant:** Yes
- 18) **Bacteria Resistance:** Product shall be resistant to bacteria, fungi, and micro-organism activity, according to ASTM E2180 and ASTM G21
- 19) **Halogen Free:** Product shall contain no halogens
- 20) **Sound Absorption:** 7 dB per ISO 140-8 and 39 IIC per ASTM E2179
- 21) **Burn Resistance:** Cigarette and solder burn resistance
- 22) **Heat Resistance:** Avg. Delta E < 8.0 per ASTM F1514
- 23) **Flammability:** ASTM E648; NFPA 253; NBSIR 75 950, ≥ 0.45 watts per square centimeter, Class 1
- 24) **Smoke Density:** ASTM E662, NFPA 258, NBS smoke density, < 450
- 25) **Asbestos Free:** Product shall contain no asbestos
- 26) **Static Generation:** < 2000 Volts (2KV) at 20% RH as per AATCC 134
- 27) **Non Hazardous:** Flooring shall be made without any chemicals that may be hazardous or containing any teratogenic, mutagenic or any other ingredients known to be carcinogenic.
- 28) **Cleaning:** Flooring surface shall have the ability to be cleaned and maintained without the use of any chemicals that may be hazardous or containing any teratogenic, mutagenic or any other ingredients known to be carcinogenic. Manufacturer shall make available a cleaning system that effectively cleans the flooring surface using water, cleaning pads and a suitable cleaning machine, without the use of factory and/or field-applied coatings.
- 29) **Shine:** Higher shine surfaces can be achieved by dry buffing without any artificial topical applied coatings.
- 30) **Installation System:** Use only nora® pro install system products following the current nora Installation Guide that may consist of part or all of the following steps depending upon the substrate conditions and requirements of the specific project.
 - Step 1 – nora® membrane (see Installation Guide for requirements).
 - Step 2 – nora® primer (see Installation Guide for requirements).
 - Step 3 – nora® leveler (see Installation Guide for requirements).
 - Step 4 – nora® patch (see Installation Guide for requirements).
 - Step 5 – nora® adhesives, the flooring usage and substrate conditions will determine the appropriate adhesive. Contact your nora representative for specific recommendations.

B) Mechanical Expansion Joints

- 1) Schlüter®-DILEX-EKSB V4A Movement Joint. Install over existing control joints as indicated on the plans.

C) Rubber Wall Base and Reducer Edging

- 1) Rubber wall base, Johnsonite Type TV 1/8" Coil 6" base selected from manufacturers color palette or approved equal.
- 2) Reducer Edging, for rubber tile to concrete transition -Johnsonite RRS-XX-C reducer or approved equal

D) Moisture Mitigation System

Investigating of the construction documents by the Owner revealed that a permanent effective vapor retarder with a low permeance (less than 0.1) having a minimum thickness of 10 mils, or meets the requirements of the latest edition of ASTM E1745 (Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs) **was not** placed directly underneath the concrete above the granular fill.

Therefore, the Owner shall require the installation of a Moisture Mitigation system to be installed per the manufacturer's written instructions. The Flooring Contractor shall provide an effective surface moisture mitigation membrane that has three (3) levels of protection (depending on %RH moisture content of the concrete), and that is in compliance (46 grams/liter) with SCAQMD Rule 1113, < 100 grams/liter.

nora systems, Inc. does have a five step nora® pro install system that includes a membrane system that is fully warranted by nora. However it is not a requirement to use it. Prior to the launch of their own system, nora has had good experience over many years with the following surface moisture mitigation systems. Please contact the individual manufacturers for their installation recommendations, applications, warranties and pricing.

1. Koester American Corp.
1206 Laskin Road, Suite 201 E
Virginia Beach, VA 23451
Tel: 757-425-1206

3. Ardex Engineered Cements
400 Ardex Park Drive
Aliquippa, PA 15001
Tel: 724-203-5000

2. Madewell Products Corp.
7561A Industrial Court
Alpharetta, GA 30004
Tel: 770-475-8199

4. H.B. Fuller Construction Products Inc.
1105 South Frontenac Street.
Aurora, IL 60504-6451
Tel: 800-552-6225

Note: nora systems, Inc. does not recommend the use of any product to control moisture without the manufacturer providing a suitable perm value for the product when tested according to ASTM E96 using Method B, inverted.

1. It is the responsibility of the manufacturer to guarantee and warrant that their product reduces and maintains the water vapor emission rate and alkalinity of the concrete substrate to an acceptable level so that they do not adversely affect the adhesive of the resilient floor coverings being installed, in this case nora rubber flooring.
2. The manufacturer shall also publish a dry mils thickness of the mitigation system and the required concrete surface profile number (CSP #) when applied correctly, so it can be tested in the event of a failure or complaint.
3. Should you decide to use any leveling or patching compound, please contact the manufacturer directly for any preparation requirements for use over the membrane as some membranes have amine blush that may need to be removed using solvents or similar.
4. Saw cuts and construction joints shall also be addressed with all manufacturers especially the manufacturer of the mitigation system and the flooring contractor as these also need to be fully covered with all relevant parties. Note: **As indicated on the plans, some controls joints have had movement and shall receive a mechanical expansion joint. These joints will need to be honored in such a manner that they operate with the moisture mitigation system and the specified mechanical expansion joint.**
5. Please contact the local Account Executive directly for an adhesive recommendation for this project.
6. The contractor shall be a certified applicator for the system that is installed.

PART 3 – RESPONSIBILITIES

3.01 OWNERS RESPONSIBILITIES

- A) Provide a building or flooring area that is water tight and fully enclosed from the elements, including roof, windows or facades and doors, that is ready for the flooring installation is required.
- B) Provide a concrete substrate that fully conforms to the requirements of ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring is required, or as detailed in the nora Installation Guide.
- C) Provide a concrete substrate that shall be structurally sound, that is finished shrinking, cracking, curling or moving in any way is required. **Mechanical expansion joints shall be installed by Flooring Contractor at designated control joint to compensate for any future movement between concrete slabs.**

- D) The Asbestos Abatement Contractor as hired by the City in a separate contract shall provide a clean non-burnished concrete surface free from any paint, wax, oil, grease, and film forming curing compounds, silicate penetrating curing compounds, sealing, hardening or parting compounds. The surface should not have any alkaline salts, laitance, mold, mildew, residual adhesive, chemical adhesive removers or anything that may prevent the appropriate products bonding to it. Any of the above shall be capable of being removed by mechanical means such as bead blasting.
- E) Provide a secure storage area that is maintained permanently or temporarily at ambient service temperature and humidity (except walk in freezers or similar), or $68^{\circ}\text{F} \pm 5^{\circ}\text{F}$ and $50\% \pm 10\%$ relative humidity, for at least 48 hours prior to and during the application of the flooring, so the flooring contractor can acclimate the flooring materials is required.
- F) Provide an installation area that is weather tight and maintained permanently or temporarily at ambient service temperature and humidity (except walk in freezers or similar), or $68^{\circ}\text{F} \pm 5^{\circ}\text{F}$ and $50\% \pm 10\%$ relative humidity, for at least 48 hours prior to, during and 72 hours after the application of the flooring is required.
- G) Provide an installation area that is free from furniture and office equipment that will prevent the flooring from being installed per installation schedule.
- H) Prevent all traffic for a minimum of 12 hours and heavy rolling loads for 72 hours to allow the adhesive to set up. If required, after 12 hours protect the flooring from damage during construction operations using Masonite, plywood or a similar product, ensuring first that the flooring surface is free of all debris. Lay panels so that the edges form a butt joint and tape the joint to prevent both movement and debris entrapment underneath them. Inspect immediately before covering and after removal for final acceptance.

3.02 FLOORING CONTRACTOR RESPONSIBILITIES

- A) Installer shall be trained and have at least one of the following:
 - 1) Approved by nora systems, Inc. for all of the requirements of the project.
 - 2) INSTALL (International Standards & Training Alliance) certified for the requirements of the project.
- B) Provide an effective project manager, to manage the installers, and ensure that all of the required procedures are followed, documented and that the nora Installation Guide is followed.
- C) After the removal of the existing flooring by the Abatement Contractor, prepare the concrete floor for the moisture mitigation system by bead-blasting with a suitable vacuum attachment.

Warning:

Do not sand, dry sweep, dry scrape, drill, saw, bead-blast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphalt "cutback" adhesive, or other adhesive. These products may contain asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content.

Various local, state and federal government agencies have regulations governing the removal of in-place asbestos-containing material. If you contemplate the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with all applicable local, state and federal regulations.

The RFCI (Resilient Floor Covering Institute) "Recommended Work Practices for Removal of Resilient Floor Coverings" are a defined set of instructions addressed to the task of removing all resilient floor-covering structures including adhesive and adhesive residues. For more information contact RFCI directly at www.rfci.com or 706-882-3833

- D) Provide valid tests and acceptable test results shall be provided to the Owner, including documentation with photographs, the location of all tests, recorded moisture content and temperature of the concrete subfloor prior to flooring installation. Testing shall be confirmed to have been performed at the correct, controlled ambient service temperature and humidity following the protocol of ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes, using a Wagner Rapid RH probes only. When tested at the correct service temperature and ambient humidity the maximum allowable shall be

85%RH for the correct nora® 385, 485, 585 or 685 adhesive or 75%RH for nora® dryfix, stepfix or Quickfix systems.

- E) If it is not possible to drill into the concrete for any reason as detailed in ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes, please contact the nora Technical Department for other recommendations.
- F) Areas of the flooring that are subject to direct sunlight through doors or windows shall have them covered using owners blinds, curtains or similar for the time of the installation and 72 hours after the installation to allow the adhesive to cure. Provide cardboard window coverings if blinds or curtains are not available. Note these areas shall be installed using wet adhesives only
- G) Acclimate the flooring in the secure storage area provided by the Owner that is maintained permanently or temporarily at ambient service temperature and humidity (except walk in freezers or similar), or 68°F ± 5° F and 50% relative humidity, for at least 48 hours prior to application.
- H) Perform mat bond tests are not required for this project. A perform bond test may be done as the contractor deems necessary.
- I) Clean out and fill or repair any dormant saw cuts and cracks following the appropriate directions of the membrane, leveler or patch sections within the installation guide. For any expansion (moving) joints, use the specified expansion joint assembly. Install in accordance with manufacturer's installation guide. Install in longest practical lengths in locations as specified on the plans. **As indicated on the plans, some controls joints have had movement and shall receive a mechanical expansion joint. These joints will need to be honored in such a manner that they operate with the moisture mitigation system and the specified mechanical expansion joint.**
- J) Install a nora compatible moisture mitigation system/membrane following the directions and requirements detailed within the nora/manufacturers Installation Guide. Provide written confirmation and photographs to the Owner that the subfloor was prepared correctly prior to the application of the moisture mitigation system/membrane, and that the moisture mitigation system/membrane was applied correctly (without pin-holes) including confirmation of the gallons used and total square feet installed.
- K) If required, use a nora compatible leveler system following the manufacturers Installation Guide. The surface shall be free of dust, solvents, paint, wax, varnish, oil, grease, asphalt, old adhesives, and other extraneous materials that may interfere with the bond.
- L) Prime the subfloor prior to using the leveler. Note: A 1/8 inch minimum thickness is required for the leveler to be considered porous as required when using nora 485 or 685 acrylic adhesives.
- M) If a nora leveler or patch is used, provide written confirmation and a workmanship warranty that (if required) the area was primed correctly, the leveler had been mixed and applied correctly to the required smoothness and or thickness of the general contractor / end user, or nora Installation Guide.
- N) Vacuum floors immediately prior to installing the flooring to remove all loose particles. If required, only use water based sweeping compounds. Do not use any wax or oil based compounds that leave behind a residue that may interfere with the adhesive bond.
- O) Install resilient flooring, including but not limited to the following, in accordance with the nora Installation Guide.
 - 1) Do not mix manufacturing batches of a color within the same area.
 - 2) Do not install resilient flooring over building expansion joints.
 - 3) Do not install defective or damaged resilient flooring.
 - 4) Layout resilient flooring to provide ~equal size at perimeter. Adjust layout as necessary to reduce the amount of resilient flooring which is cut to less than half full width.
 - 5) Lay resilient flooring with arrows in the same direction (excluding borders).
 - 6) Install resilient flooring without voids at seams. Lay seams together without stress.
 - 7) Cut/scribe resilient flooring neatly at perimeter and obstructions.
 - 8) Extend resilient flooring into reveals, closets, and similar openings.
 - 9) Remove excess adhesive immediately.
 - 10) Install reducer strips at exposed edges.
- P) Install wall base and reducer edging in accordance with manufacturer's installation guide. Install in longest practical lengths.

- Q) Install resilient accessories in accordance with the Manufacturers Installation Guide. Touch-up and repair any minor damage to eliminate all evidence of repair. Remove and replace work which cannot be satisfactorily repaired
- R) **Remove the manufacturer's production residue.** A general cleaning shall be performed a minimum of 72 hours after the installation. Clean the flooring only using the method detailed in the appropriate nora Maintenance Guide. The following initial maintenance procedures shall be performed by the Flooring Contractor prior to the floor being open to general traffic:
- 1) Dust mop or vacuum the floor to remove dirt or grit.
 - 2) Remove any adhesive residue.
 - 3) Survey the floor for any areas with construction damage (see note for areas with construction damage).
 - 4) Scrub the floor thoroughly with a floor scrubber using nora® pad 1. Do not allow the area to dry during scrubbing
 - 5) Wet vacuum the soiled solution, rinse the floor with clean water and allow to dry.

Note: Note: Areas with construction damage - scrub first with nora® pad 3, pick up residue with wet vacuum and continue from step 4 above. Areas with the use of nora® liquid wax for cold welding, scrub first with nora pad 1 using a high pH (12-13pH). Pick up residue with wet vacuum and continue from step 4.

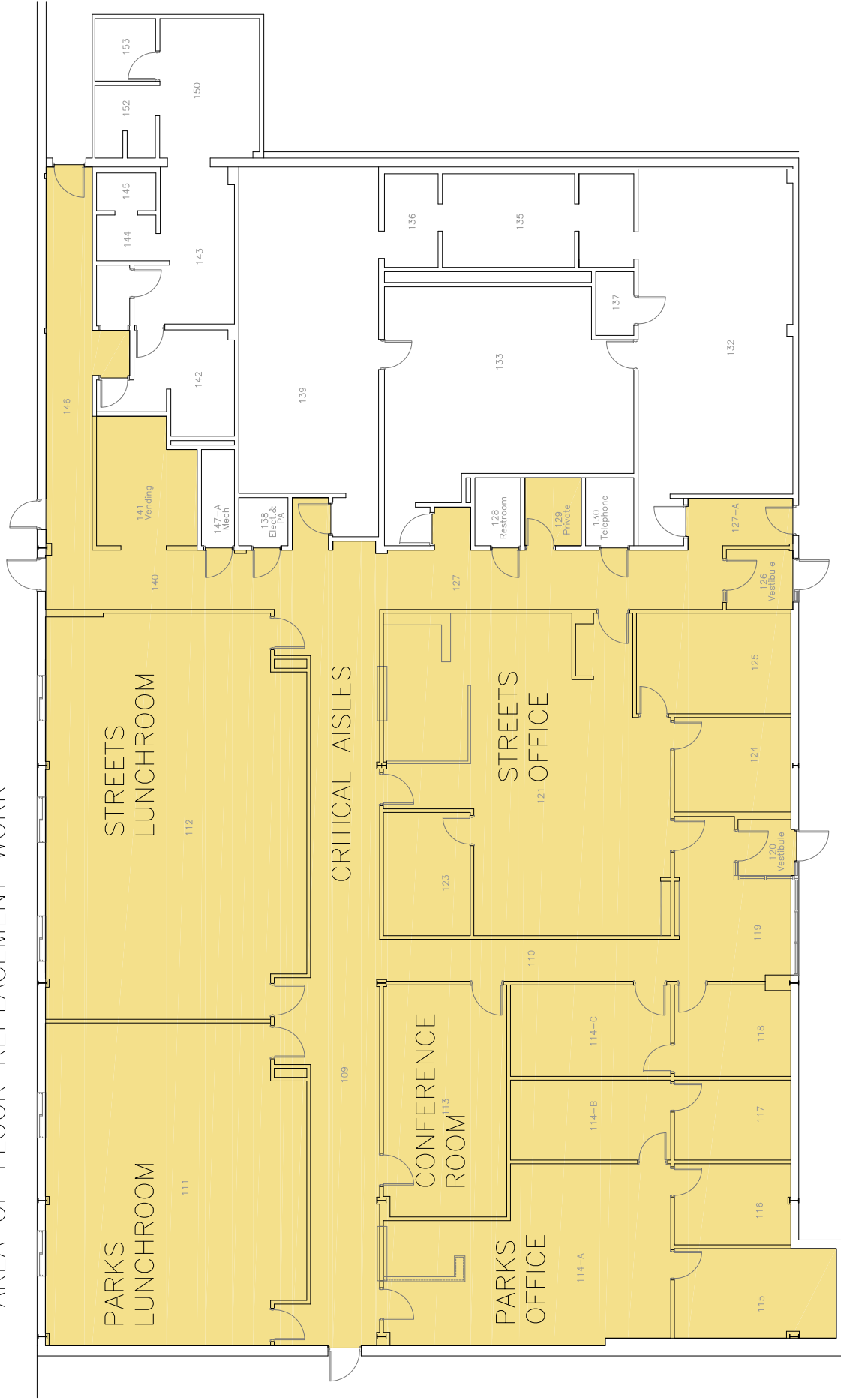
3.03 MANUFACTURER RESPONSIBILITIES

- A) Provide a one-year warranty against defects in manufacturing of all products supplied. Provide limited wear warranty for the flooring supplied, as detailed per product. Provide a nora pro install System warranty upon receipt of the required test results and documentation. Contact the nora Technical Department for details.
- B) Adherence to the Quality Management System approved by Lloyd's Register Quality Assurance to the Quality Management System Standard ISO 9001:2000.
- C) Provide flooring that shall contain no polyvinyl chloride or plasticizers.
- D) ISO 14001 Environmental Management Systems certification.
- E) Provide training for the installers, at a nora Technical Academy, contact the nora Technical Department for details and availability.
- F) Provide an effective surface moisture mitigation membrane that has three (3) levels of protection (depending on % RH moisture content of the concrete), and that is in compliance (46 grams/liter) with SCAQMD Rule 1113, < 100 grams/liter.
- G) Provide a water based primer, that is suitable for both porous and non-porous substrates including nora membrane, and that is in compliance (92 grams/liter) with SCAQMD Rule 1113, < 100 grams/liter.
- H) Provide a self-smoothing Portland cement based leveler, that can be pumped or barrel mixed with water and be used at a minimum of 1/8th inch that is in compliance (0 grams/liter) with SCAQMD Rule 1168, < 50 grams/liter.
- I) Provide a Portland cement based patching compound that can be used from a feather edge to 1 inch in one application and is in compliance (0 grams/liter) with SCAQMD Rule 1168, < 50 grams/liter.
- J) Provide flooring that shall contain no halogens.
- K) Provide flooring surfaces that shall be easily cleaned and not require coatings and stripping, or use chemicals that may be hazardous to human health.
- L) Provide flooring that shall be free of anything known to be teratogenic, mutagenic or carcinogenic.
- M) Provide adhesives that are in compliance (0 grams/liter) with SCAQMD Rule 1168, < 60 grams/liter Standard for Rubber Floor Adhesives

END OF SECTION

STREETS EAST—TILE FLOOR REPLACEMENT CONTRACT 7077

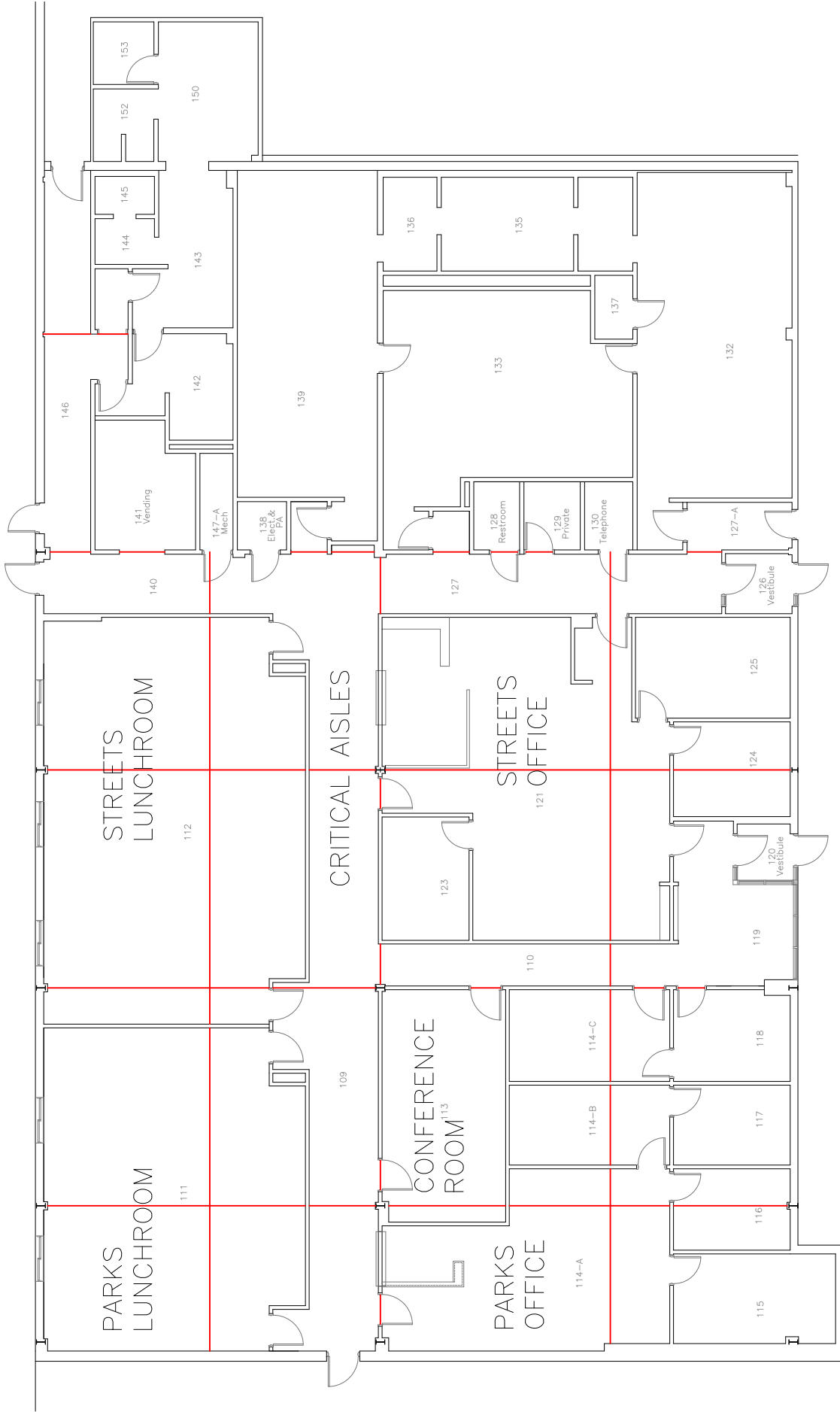
AREA OF FLOOR REPLACEMENT WORK



- Complete all necessary work and materials to install a complete flooring system in the area highlighted. Install all necessary components including, but not limited to; proper preparation of concrete by bead blasting, moisture mitigation system, floor leveler as required, norament grano flooring, rubber wall base, reducer edging and expansion joints.
- Existing flooring to be remove by an Asbestos Abatement Contract on a separate contract.
- Approximate area of flooring shown on drawing is 7800 ft².
- Contractor will be responsible for making the transition to existing thresholds at exterior doors.

STREETS EAST-TILE FLOOR REPLACEMENT-CONTRACT#7077

LOCATION OF EXPANSION JOINTS

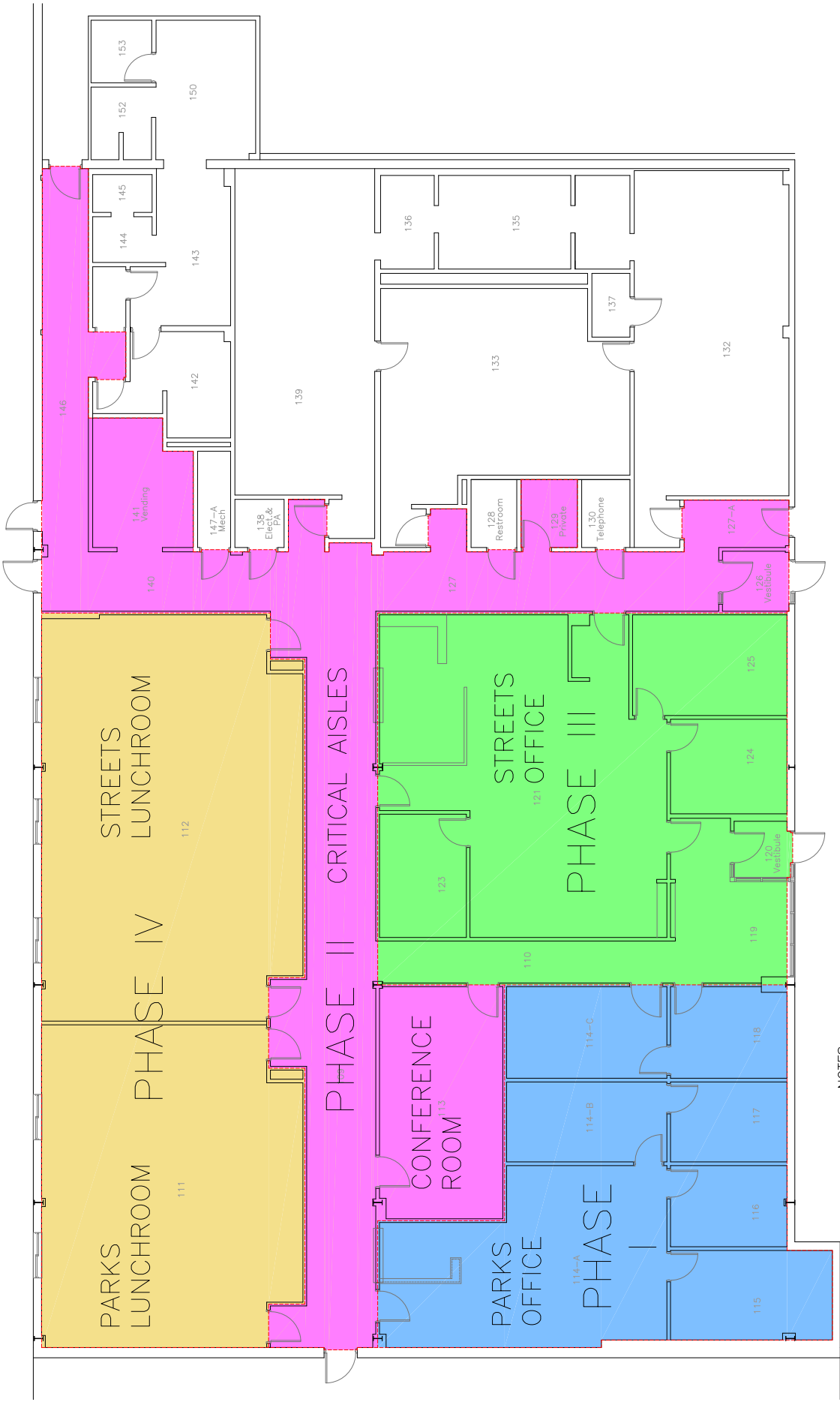


LOCATION OF EXPANSION/MOVEMENT JOINTS

- Install Schlüter-DILEX-EKSB V4A Movement Joint over the control joints at locations indicated.
- Honor joints in such a manner that they operate with the manufacturers installation procedures for the moisture mitigation system and the above expansion joint.
- The contractor shall select the height of the expansion joint as to provide the least noticeable transition profile. The top of the expansion joint shall be flush with the top of the flooring.

STREETS EAST TILE FLOOR REPLACEMENT CONTRACT# 7077

PHASING OF PROJECT



- NOTES:
- Flooring Installation for Phases I, III & IV may be done during normal business work hours with evening hours available.
 - Flooring Installation for Critical Aisles, Phases II shall be done during after normal business hours only.
 - Refer to the Phasing Requirements/Schedule in the Specifications, GENERAL REQUIREMENTS, PART 1, 1.17. SCHEDULE OF OPERATIONS for availability of each phased area to compete of work.

Streets East Tile Floor Replacement-Schedule

Contract #7077

	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F														
	6/2	6/3	6/4	6/5	6/6	6/7	6/8	6/9	6/10	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	6/20	6/21	6/22	6/23	6/24	6/25	6/26	6/27	6/28	6/29	6/30	7/1	7/2	7/3	7/4	7/5	7/6	7/7	7/8	7/9	7/10	7/11
PHASE I, Parks Office				X	X																																			
a. City staff to remove furnishing				X	X																																			
b. Existing flooring removal					X	X	X	X																																
c. Installation of new flooring							X	X	X	X	X	X	X	X	X																									
d. City staff to move in furnishing																X																								
PHASE II, Critical Aisles											X	X																												
a. City staff to remove furnishing												X	X		X																									
b. Existing flooring removal												X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
c. Installation of new flooring															X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
d. City staff to move in furnishing																																								
PHASE III, Streets Office																																								
a. City staff to remove furnishing																		X	X																					
b. Existing flooring removal																		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
c. Installation of new flooring																																								
d. City staff to move in furnishing																																								
PHASE IV, Lunchrooms																																								
a. City staff to remove furnishing																																								
b. Existing flooring removal																																								
c. Installation of new flooring																																								
d. City staff to move in furnishing																																								
a. City staff to remove furnishing																																								
b. Existing flooring removal																																								
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b. Existing flooring removal																																								
c. Installation of new flooring																																								
d. City staff to move in furnishing																																								

Notes: Refer to section 1.17 Schedule of Operations of Specifications for time of day that the area will be available for work.

H* Refers to 4th of July Holiday. There is no scheduled work for the weekend following the Holiday.

SECTION E: BIDDERS ACKNOWLEDGEMENT

STREETS EAST TILE FLOOR REPLACEMENT CONTRACT NO. 7077

Bidder must state a Unit Price and Total Bid for each item. The Total Bid for each item must be the product of quantity, by Unit Price. The Grand Total must be the sum of the Total Bids for the various items. In case of multiplication errors or addition errors, the Grand Total with corrected multiplication and/or addition shall determine the Grand Total bid for each contract. The Unit Price and Total Bid must be entered numerically in the spaces provided. All words and numbers shall be written in ink.

1. The undersigned having familiarized himself/herself with the Contract documents, including Advertisement for Bids, Instructions to Bidders, Form of Proposal, City of Madison Standard Specifications for Public Works Construction - 2014 Edition thereto, Form of Agreement, Form of Bond, and Addenda issued and attached to the plans and specifications on file in the office of the City Engineer, hereby proposes to provide and furnish all the labor, materials, tools, and expendable equipment necessary to perform and complete in a workmanlike manner the specified construction on this project for the City of Madison; all in accordance with the plans and specifications as prepared by the City Engineer, including Addenda to the Contract Nos. _____ through _____ issued thereto, at the prices for said work as contained in this proposal. (Electronic bids submittals shall acknowledge addendum under Section E and shall not acknowledge here)
2. If awarded the Contract, we will initiate action within seven (7) days after notification or in accordance with the date specified in the contract to begin work and will proceed with diligence to bring the project to full completion within the number of work days allowed in the Contract or by the calendar date stated in the Contract.
3. The undersigned Bidder or Contractor certifies that he/she is not a party to any contract, combination in form of trust or otherwise, or conspiracy in restraint of trade or commerce or any other violation of the anti-trust laws of the State of Wisconsin or of the United States, with respect to this bid or contract or otherwise.
4. I hereby certify that I have met the Bid Bond Requirements as specified in Section 102.5.
(IF BID BOND IS USED, IT SHALL BE SUBMITTED ON THE FORMS PROVIDED BY THE CITY. FAILURE TO DO SO MAY RESULT IN REJECTION OF THE BID).
5. I hereby certify that all statements herein are made on behalf of _____ (name of corporation, partnership, or person submitting bid) a corporation organized and existing under the laws of the State of _____ a partnership consisting of _____; an individual trading as _____; of the City of _____ State of _____; that I have examined and carefully prepared this Proposal, from the plans and specifications and have checked the same in detail before submitting this Proposal; that I have fully authority to make such statements and submit this Proposal in (its, their) behalf; and that the said statements are true and correct.

SIGNATURE

TITLE, IF ANY

Sworn and subscribed to before me this
_____ day of _____, 20_____.

(Notary Public or other officer authorized to administer oaths)

My Commission Expires _____

Bidders shall not add any conditions or qualifying statements to this Proposal.

SECTION F: DISCLOSURE OF OWNERSHIP & BEST VALUE CONTRACTING

STREETS EAST TILE FLOOR REPLACEMENT CONTRACT NO. 7077

State of Wisconsin
Department of Workforce Development
Equal Rights Division
Labor Standards Bureau

Disclosure of Ownership

Notice required under Section 15.04(1)(m), Wisconsin Statutes. The statutory authority for the use of this form is prescribed in Sections 66.0903(12)(d) and 103.49(7)(d), Wisconsin Statutes. The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes. Personal information you provide may be used for secondary purposes.

- (1) On the date a contractor submits a bid to or completes negotiations with a state agency or local governmental unit, on a project subject to Section 66.0903 or 103.49, Wisconsin Statutes, the contractor shall disclose to such state agency or local governmental unit the name of any "other construction business", which the contractor, or a shareholder, officer or partner of the contractor, owns or has owned within the preceding three (3) years.
- (2) The term "other construction business" means any business engaged in the erection, construction, remodeling, repairing, demolition, altering or painting and decorating of buildings, structures or facilities. It also means any business engaged in supplying mineral aggregate, or hauling excavated material or spoil as provided by Sections 66.0903(3), 103.49(2) and 103.50(2), Wisconsin Statutes.
- (3) This form must ONLY be filed, with the state agency or local governmental unit that will be awarding the contract, if **both (A) and (B) are met.**
 - (A) The contractor, or a shareholder, officer or partner of the contractor:
 - (1) Owns at least a 25% interest in the "other construction business", indicated below, on the date the contractor submits a bid or completes negotiations.
 - (2) Or has owned at least a 25% interest in the "other construction business" at any time within the preceding three (3) years.
 - (B) The Wisconsin Department of Workforce Development (DWD) has determined that the "other construction business" has failed to pay the prevailing wage rate or time and one-half the required hourly basic rate of pay, for hours worked in excess of the prevailing hours of labor, to any employee at any time within the preceding three (3) years.

Other Construction Business

Not Applicable ☐

Name of Business

Street Address or P O Box

City

State

Zip Code

Name of Business

Street Address or P O Box

City

State

Zip Code

Name of Business

Street Address or P O Box

City

State

Zip Code

I hereby state under penalty of perjury that the information, contained in this document, is true and accurate according to my knowledge and belief.

Print the Name of Authorized Officer

Signature of Authorized Officer

Date Signed

Name of Corporation, Partnership or Sole Proprietorship

Street Address or P O Box

City

State

Zip Code

If you have any questions call (608) 266-0028

ERD-7777-E (R. 09/2003)

**STREETS EAST TILE FLOOR REPLACEMENT
CONTRACT NO. 7077**

Best Value Contracting

1. The Contractor shall indicate the non-apprenticeable trades used on this contract.

2. Madison General Ordinance (M.G.O.), 33.07(7), does provide for some exemptions from the active apprentice requirement. Apprenticeable trades are those trades considered apprenticeable by the State of Wisconsin. Please check applicable box if you are seeking an exemption.

- ☐ Contractor has a total skilled workforce of four or less individuals in all apprenticeable trades combined.
- ☐ No available trade training program; The Contractor has been rejected by the only available trade training program, or there is no trade training program within 90 miles.
- ☐ Contractor is not using an apprentice due to having a journey worker on layoff status, provided the journey worker was employed by the contractor in the past six months.
- ☐ First-time Contractor on City of Madison Public Works contract requests a onetime exemption but intends to comply on all future contracts and is taking steps typical of a "good faith" effort.
- ☐ Contractor has been in business less than one year.
- ☐ Contractor doesn't have enough journeyman trade workers to qualify for a trade training program in that respective trade

3. The Contractor shall indicate on the following section which apprenticeable trades are to be used on this contract. Compliance with active apprenticeship, to the extent required by M.G.O. 33.07(7), shall be satisfied by documentation from an applicable trade training body; an apprenticeship contract with the Wisconsin Department of Workforce Development or a similar agency in another state; or the U.S Department of Labor. This documentation is required prior to the Contractor beginning work on the project site.

- ☐ The Contractor has reviewed the list and shall not use any apprenticeable trades on this project.

LIST APPRENTICABLE TRADES (check all that apply to your work to be performed on this contract)

- ☐ BRICKLAYER
- ☐ CARPENTER
- ☐ CEMENT MASON / CONCRETE FINISHER
- ☐ CEMENT MASON (HEAVY HIGHWAY)
- ☐ CONSTRUCTION CRAFT LABORER
- ☐ DATA COMMUNICATION INSTALLER
- ☐ ELECTRICIAN
- ☐ ENVIRONMENTAL SYSTEMS TECHNICIAN / HVAC SERVICE TECH/HVAC INSTALL / SERVICE
- ☐ GLAZIER
- ☐ HEAVY EQUIPMENT OPERATOR / OPERATING ENGINEER
- ☐ INSULATION WORKER (HEAT & FROST)
- ☐ IRON WORKER
- ☐ IRON WORKER (ASSEMBLER, METAL BLDGS)
- ☐ PAINTER & DECORATOR
- ☐ PLASTERER
- ☐ PLUMBER
- ☐ RESIDENTIAL ELECTRICIAN
- ☐ ROOFER & WATER PROOFER
- ☐ SHEET METAL WORKER
- ☐ SPRINKLER FITTER
- ☐ STEAMFITTER
- ☐ STEAMFITTER (REFRIGERATION)
- ☐ STEAMFITTER (SERVICE)
- ☐ TAPER & FINISHER
- ☐ TELECOMMUNICATIONS (VOICE, DATA & VIDEO) INSTALLER-TECHNICIAN
- ☐ TILE SETTER

SECTION G: BID BOND

KNOW ALL MEN BY THESE PRESENT, THAT _____ (a corporation of the State of _____) (individual), (partnership), hereinafter referred to as the "Principal") and _____, a corporation of the State of _____ (hereinafter referred to as the "Surety") and licensed to do business in the State of Wisconsin, are held and firmly bound unto the City of Madison, (hereinafter referred to as the "Obligee"), in the sum of five per cent (5%) of the amount of the total bid or bids of the Principal herein accepted by the Obligee, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that, whereas the Principal has submitted, to the City of Madison a certain bid, including the related alternate, and substitute bids attached hereto and hereby made a part hereof, to enter into a contract in writing for the construction of:

STREETS EAST TILE FLOOR REPLACEMENT CONTRACT NO. 7077

1. If said bid is rejected by the Obligee, then this obligation shall be void.
2. If said bid is accepted by the Obligee and the Principal shall execute and deliver a contract in the form specified by the Obligee (properly completed in accordance with said bid) and shall furnish a bond for his/her faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void.

If said bid is accepted by the Obligee and the Principal shall fail to execute and deliver the contract and the performance and payment bond noted in 2. above executed by this Surety, or other Surety approved by the City of Madison, all within the time specified or any extension thereof, the Principal and Surety agree jointly and severally to forfeit to the Obligee as liquidated damages the sum mentioned above, it being understood that the liability of the Surety for any and all claims hereunder shall in no event exceed the sum of this obligation as stated, and it is further understood that the Principal and Surety reserve the right to recover from the Obligee that portion of the forfeited sum which exceed the actual liquidated damages incurred by the Obligee.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which the Obligee may accept such bid, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, on the day and year set forth below.

Seal

Principal

Date

By:

Name of Surety

By:

Date

This certifies that I have been duly licensed as an agent for the above company in Wisconsin under License No. _____ for the year _____, and appointed as attorney in fact with authority to execute this bid bond and the payment and performance bond referred to above, which power of attorney has not been revoked.

Date

Agent

Address

City, State and Zip Code

Telephone Number

NOTE TO SURETY & PRINCIPAL

The bid submitted which this bond guarantees shall be rejected if the following instrument is not attached to this bond:

Power of Attorney showing that the agent of Surety is currently authorized to execute bonds on behalf of the Surety, and in the amounts referenced above.

Certificate of Biennial Bid Bond

TIME PERIOD - VALID (FROM/TO)
NAME OF SURETY
NAME OF CONTRACTOR
CERTIFICATE HOLDER <div>City of Madison, Wisconsin</div>

This is to certify that a biennial bid bond issued by the above-named Surety is currently on file with the City of Madison.

This certificate is issued as a matter of information and conveys no rights upon the certificate holder and does not amend, extend or alter the coverage of the biennial bid bond.

Cancellation: Should the above policy be cancelled before the expiration date, the issuing Surety will give thirty (30) days written notice to the certificate holder indicated above.

Signature of Authorized Contractor Representative

Date

SECTION H: AGREEMENT

THIS AGREEMENT made this _____ day of _____ in the year Two Thousand and Fourteen between _____ hereinafter called the Contractor, and the City of Madison, Wisconsin, hereinafter called the City.

WHEREAS, the Common Council of the said City of Madison under the provisions of a resolution adopted _____, and by virtue of authority vested in the said Council, has awarded to the Contractor the work of performing certain construction.

NOW, THEREFORE, the Contractor and the City, for the consideration hereinafter named, agree as follows:

1. **Scope of Work.** The Contractor shall, perform the construction, execution and completion of the following listed complete work or improvement in full compliance with the Plans, Specifications, Standard Specifications, Supplemental Specifications, Special Provisions and contract; perform all items of work covered or stipulated in the proposal; perform all altered or extra work; and shall furnish, unless otherwise provided in the contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to the prosecution and completion of the work or improvements:

STREETS EAST TILE FLOOR REPLACEMENT CONTRACT NO. 7077

2. **Completion Date/Contract Time.** Construction work must begin within seven (7) calendar days after the date appearing on mailed written notice to do so shall have been sent to the Contractor and shall be carried on at a rate so as to secure full completion SEE SPECIAL PROVISIONS, the rate of progress and the time of completion being essential conditions of this Agreement.
3. **Contract Price.** The City shall pay to the Contractor at the times, in the manner and on the conditions set forth in said specifications, the sum of _____ (\$ _____) Dollars being the amount bid by such Contractor and which was awarded to him/her as provided by law.

4. **Wage Rates for Employees of Public Works Contractors**

General and Authorization. The Contractor shall compensate its employees at the prevailing wage rate in accordance with section 66.0903, Wis. Stats., DWD 290 of the Wisconsin Administrative Code and as hereinafter provided unless otherwise noted in Section D: Special Provisions, Subsection 102.10 – Minimum Rate of Wage Scale.

“Public Works” shall include building or work involving the erection, construction, remodeling, repairing or demolition of buildings, parking lots, highways, streets, bridges, sidewalks, street lighting, traffic signals, sanitary sewers, water mains and appurtenances, storm sewers, and the grading and landscaping of public lands.

“Building or work” includes construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work, except for the delivery of mineral aggregate such as sand, gravel, bituminous asphaltic concrete or stone which is incorporated into the work under contract with the City by depositing the material directly in final place from transporting vehicle.

“Erection, construction, remodeling, repairing” means all types of work done on a particular building or work at the site thereof in the construction or development of the project, including without limitation, erecting, construction, remodeling, repairing, altering, painting, and decorating, the transporting of materials and supplies to or from the building or work done by the employees of the Contractor, Subcontractor, or Agent thereof, and the manufacturing or furnishing of

materials, articles, supplies or equipment on the site of the building or work, by persons employed by the Contractor, Subcontractor, or Agent thereof.

"Employees working on the project" means laborers, workers, and mechanics employed directly upon the site of work.

"Laborers, Workers, and Mechanics" include pre-apprentices, helpers, trainees, learners and properly registered and indentured apprentices but exclude clerical, supervisory, and other personnel not performing manual labor.

Establishment of Wage Rates. The Department of Public Works shall periodically obtain a current schedule of prevailing wage rates from DWD. The schedule shall be used to establish the City of Madison Prevailing Wage Rate Schedule for Public Works Construction (prevailing wage rate). The Department of Public Works may include known increases to the prevailing wage rate which can be documented and are to occur on a future specific date. The prevailing wage rate shall be included in public works contracts subsequently negotiated or solicited by the City. Except for known increases contained within the schedule, the prevailing wage rate shall not change during the contract. The approved wage rate is attached hereto.

Workforce Profile. The Contractor shall, at the time of signature of the contract, notify the City Engineer in writing of the names and classifications of all the employees of the Contractor, Subcontractors, and Agents proposed for the work. In the alternative, the Contractor shall submit in writing the classifications of all the employees of the Contractor, Subcontractors and Agents and the total number of hours estimated in each classification for the work. This workforce profile(s) shall be reviewed by the City Engineer who may, within ten (10) days, object to the workforce profile(s) as not being reflective of that which would be required for the work. The Contractor may request that the workforce profile, or a portion of the workforce profile, be submitted after the signature of the contract but at least ten (10) days prior to the work commencing. Any costs or time loss resulting from modifications to the workforce profile as a result of the City Engineer's objections shall be the responsibility of the Contractor.

Payrolls and Records. The Contractor shall keep weekly payroll records setting forth the name, address, telephone number, classification, wage rate and fringe benefit package of all the employees who work on the contract, including the employees of the Contractor's subcontractors and agents. Such weekly payroll records must include the required information for all City contracts and all other contracts on which the employee worked during the week in which the employee worked on the contract. The Contractor shall also keep records of the individual time each employee worked on the project and for each day of the project. Such records shall also set forth the total number of hours of overtime credited to each such employee for each day and week and the amount of overtime pay received in that week. The records shall set forth the full weekly wages earned by each employee and the actual hourly wage paid to the employee.

The Contractor shall submit the weekly payroll records, including the records of the Contractor's subcontractors and agents, to the City Engineer for every week that work is being done on the contract. The submittal shall be within twenty-one (21) calendar days of the end of the Contractor's weekly pay period.

Employees shall receive the full amounts accrued at the time of the payment, computed at rates not less than those stated in the prevailing wage rate and each employee's rate shall be determined by the work that is done within the trade or occupation classification which should be properly assigned to the employee.

An employee's classification shall not be changed to a classification of a lesser rate during the contract. If, during the term of the contract, an employee works in a higher pay classification than the one which was previously properly assigned to the employee, then that employee shall be considered to be in the higher pay classification for the balance of the contract, receive the appropriate higher rate of pay, and she/he shall not receive a lesser rate during the balance of the

contract. For purposes of clarification, it is noted that there is a distinct difference between working in a different classification with higher pay and doing work within a classification that has varying rates of pay which are determined by the type of work that is done within the classification. For example, the classification "Operating Engineer" provides for different rates of pay for various classes of work and the Employer shall compensate an employee classified as an "Operating Engineer" based on the highest class of work that is done in one day. Therefore, an "Operating Engineer's" rate may vary on a day to day basis depending on the type of work that is done, but it will never be less than the base rate of an "Operating Engineer". Also, as a matter of clarification, it is recognized that an employee may work in a higher paying classification merely by chance and without prior intention, calculation or design. If such is the case and the performance of the work is truly incidental and the occurrence is infrequent, inconsequential and does not serve to undermine the single classification principle herein, then it may not be required that the employee be considered to be in the higher pay classification and receive the higher rate of pay for the duration of the contract. However, the Contractor is not precluded or prevented from paying the higher rate for the limited time that an employee performs work that is outside of the employee's proper classification.

Questions regarding an employee's classification, rate of pay or rate of pay within a classification, shall be resolved by reference to the established practice that predominates in the industry and on which the trade or occupation rate/classification is based. Rate of pay and classification disputes shall be resolved by relying upon practices established by collective bargaining agreements and guidelines used in such determination by appropriate recognized trade unions operating within the City of Madison.

The Contractor, its Subcontractors and Agents shall submit to interrogation regarding compliance with the provisions of this ordinance.

Mulcting of the employees by the Contractor, Subcontractor, and Agents on Public Works contracts, such as by kickbacks or other devices, is prohibited. The normal rate of wage of the employees of the Contractor, Subcontractor, and Agents shall not be reduced or otherwise diminished as a result of payment of the prevailing wage rate on a public works contract.

Hourly contributions. Hourly contributions shall be determined in accordance with the prevailing wage rate and with DWD. 290.01(10), Wis. Admin. Code.

Apprentices and Subjourney persons. Apprentices and sub journeypersons performing work on the project shall be compensated in accordance with the prevailing wage rate and with DWD 290.02, and 290.025, respectively, Wis. Admin. Code.

Straight Time Wages. The Contractor may pay straight time wages as determined by the prevailing wage rate and DWD 290.04, Wis. Admin. Code.

Overtime Wages. The Contractor shall pay overtime wages as required by the prevailing wage rate and DWD 290.05, Wis. Admin. Code.

Posting of Wage Rates and Hours. A clearly legible copy of the prevailing wage rate, together with the provisions of Sec. 66.0903(10)(a) and (11)(a), Wis. Stats., shall be kept posted in at least one conspicuous and easily accessible place at the project site by the Contractor and such notice shall remain posted during the full time any laborers, workers or mechanics are employed on the contract.

Evidence of Compliance by Contractor. Upon completion of the contract, the Contractor shall file with the Department of Public Works an affidavit stating:

- a. That the Contractor has complied fully with the provisions and requirements of Sec. 66.0903(3), Wis. Stats., and Chapter DWD 290, Wis. Admin. Code; the Contractor has received evidence of compliance from each of the agents and subcontractors; and the

names and addresses of all of the subcontractors and agents who worked on the contract.

- b. That full and accurate records have been kept, which clearly indicate the name and trade or occupation of every laborer, worker or mechanic employed by the Contractor in connection with work on the project. The records shall show the number of hours worked by each employee and the actual wages paid therefore; where these records will be kept and the name, address and telephone number of the person who will be responsible for keeping them. The records shall be retained and made available for a period of at least three (3) years following the completion of the project of public works and shall not be removed without prior notification to the municipality.

Evidence of Compliance by Agent and Subcontractor. Each agent and subcontractor shall file with the Contractor, upon completion of their portion of the work on the contract an affidavit stating that all the provisions of Sec. 66.0903(3), Wis. Stats., have been fully complied with and that full and accurate records have been kept, which clearly indicate the name and trade or occupation of every laborer, worker or mechanic employed by the Contractor in connection with work on the project. The records shall show the number of hours worked by each employee and the actual wages paid therefore; where these records shall be kept and the name, address and telephone number of the person who shall be responsible for keeping them. The records shall be retained and made available for a period of at least three (3) years following the completion of the project of public works and shall not be removed without prior notification to the municipality.

Failure to Comply with the Prevailing Wage Rate. If the Contractor fails to comply with the prevailing wage rate, she/he shall be in default on the contract.

5. **Affirmative Action.** In the performance of the services under this Agreement the Contractor agrees not to discriminate against any employee or applicant because of race, religion, marital status, age, color, sex, disability, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, gender identity, political beliefs, or student status. The Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this contract because of race, religion, color, age, disability, sex, sexual orientation, gender identity or national origin.

The Contractor agrees that within thirty (30) days after the effective date of this agreement, the Contractor will provide to the City Affirmative Action Division certain workforce utilization statistics, using a form to be furnished by the City.

If the contract is still in effect, or if the City enters into a new agreement with the Contractor, within one year after the date on which the form was required to be provided, the Contractor will provide updated workforce information using a second form, also to be furnished by the City. The second form will be submitted to the City Affirmative Action Division no later than one year after the date on which the first form was required to be provided.

The Contractor further agrees that, for at least twelve (12) months after the effective date of this contract, it will notify the City Affirmative Action Division of each of its job openings at facilities in Dane County for which applicants not already employees of the Contractor are to be considered. The notice will include a job description, classification, qualifications and application procedures and deadlines. The Contractor agrees to interview and consider candidates referred by the Affirmative Action Division if the candidate meets the minimum qualification standards established by the Contractor, and if the referral is timely. A referral is timely if it is received by the Contractor on or before the date started in the notice.

Articles of Agreement
Article I

The Contractor shall take affirmative action in accordance with the provisions of this contract to insure that applicants are employed, and that employees are treated during employment without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin and that the employer shall provide harassment free work environment for the realization of the potential of each employee. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training including apprenticeship insofar as it is within the control of the Contractor. The Contractor agrees to post in conspicuous places available to employees and applicants notices to be provided by the City setting out the provisions of the nondiscrimination clauses in this contract.

Article II

The Contractor shall in all solicitations or advertisements for employees placed by or on behalf of the Contractors state that all qualified or qualifiable applicants will be employed without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin.

Article III

The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided by the City advising the labor union or worker's representative of the Contractor's equal employment opportunity and affirmative action commitments. Such notices shall be posted in conspicuous places available to employees and applicants for employment.

Article V

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison, including the contract compliance requirements. The Contractor agrees to submit the model affirmative action plan for public works contractors in a form approved by the Affirmative Action Division Manager.

Article VI

The Contractor will maintain records as required by Section 39.02(9)(f) of the Madison General Ordinances and will provide the City Affirmative Action Division with access to such records and to persons who have relevant and necessary information, as provided in Section 39.02(9)(f). The City agrees to keep all such records confidential, except to the extent that public inspection is required by law.

Article VII

In the event of the Contractor's or subcontractor's failure to comply with the Equal Employment Opportunity and Affirmative Action Provisions of this contract or Section 39.03 and 39.02 of the Madison General Ordinances, it is agreed that the City at its option may do any or all of the following:

1. Cancel, terminate or suspend this Contract in whole or in part.
2. Declare the Contractor ineligible for further City contracts until the Affirmative Action requirements are met.

3. Recover on behalf of the City from the prime Contractor 0.5 percent of the contract award price for each week that such party fails or refuses to comply, in the nature of liquidated damages, but not to exceed a total of five percent (5%) of the contract price, or five thousand dollars (\$5,000), whichever is less. Under public works contracts, if a subcontractor is in noncompliance, the City may recover liquidated damages from the prime Contractor in the manner described above. The preceding sentence shall not be construed to prohibit a prime Contractor from recovering the amount of such damage from the non-complying subcontractor.

Article VIII

The Contractor shall include the above provisions of this contract in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor shall take such action with respect to any subcontractor as necessary to enforce such provisions, including sanctions provided for noncompliance.

Article IX

The Contractor shall allow the maximum feasible opportunity to small business enterprises to compete for any subcontracts entered into pursuant to this contract. (In federally funded contracts the terms "DBE, MBE and WBE" shall be substituted for the term "small business" in this Article.)

**STREETS EAST TILE FLOOR REPLACEMENT
CONTRACT NO. 7077**

IN WITNESS WHEREOF, the Contractor has hereunto set his/her hand and seal and the City has caused these presents to be sealed with its corporate seal and to be subscribed by its Mayor and City Clerk the day and year first above written.

Countersigned:

Company Name

Witness Date

President Date

Witness Date

Secretary Date

CITY OF MADISON, WISCONSIN

Provisions have been made to pay the liability
that will accrue under this contract.

Approved as to form:

Finance Director

City Attorney

Signed this _____ day of _____, 20_____

Witness

Mayor Date

Witness

City Clerk Date

SECTION I: PAYMENT AND PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
as _____ principal, _____ and

Company of _____ as surety, are held and firmly bound unto the City of Madison, Wisconsin, in the sum of _____ (\$_____) Dollars, lawful money of the United States, for the payment of which sum to the City of Madison, we hereby bind ourselves and our respective executors and administrators firmly by these presents.

The condition of this Bond is such that if the above bounden shall on his/her part fully and faithfully perform all of the terms of the Contract entered into between him/herself and the City of Madison for the construction of:

STREETS EAST TILE FLOOR REPLACEMENT CONTRACT NO. 7077

in Madison, Wisconsin, and shall pay all claims for labor performed and material furnished in the prosecution of said work, and save the City harmless from all claims for damages because of negligence in the prosecution of said work, and shall save harmless the said City from all claims for compensation (under Chapter 102, Wisconsin Statutes) of employees and employees of subcontractor, then this Bond is to be void, otherwise of full force, virtue and effect.

Signed and sealed this _____ day of _____

Countersigned:

Company Name (Principal)

Witness

President

Seal

Secretary

Approved as to form:

Surety Seal
☐ Salary Employee ☐ Commission

City Attorney

By _____
Attorney-in-Fact

This certifies that I have been duly licensed as an agent for the above company in Wisconsin under License No. _____ for the year 20_____, and appointed as attorney-in-fact with authority to execute this payment and performance bond which power of attorney has not been revoked.

Date

Agent Signature

SECTION J: PREVAILING WAGE RATES

PREVAILING WAGE RATE DETERMINATION

Issued by the State of Wisconsin
Department of Workforce Development
Pursuant to s. 66.0903, Wis. Stats.
Issued On: 01/06/2014
Amended On: 02/28/2014

DETERMINATION NUMBER: 201400001

EXPIRATION DATE: Prime Contracts MUST Be Awarded or Negotiated On Or Before 12/31/2014. If NOT, You MUST Reapply.

PROJECT NAME: ALL PUBLIC WORKS PROJECTS UNDER SEC 66.0903, STATS - CITY OF MADISON

PROJECT LOCATION: MADISON CITY, DANE COUNTY, WI

CONTRACTING AGENCY: CITY OF MADISON-ENGINEERING

CLASSIFICATION:	Contractors are responsible for correctly classifying their workers. Either call the Department of Workforce Development (DWD) with trade or classification questions or consult DWD's Dictionary of Occupational Classifications & Work Descriptions on the DWD website at: dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm .
OVERTIME:	<p>Time and one-half must be paid for all hours worked:</p> <ul style="list-style-type: none">- over 10 hours per day on prevailing wage projects- over 40 hours per calendar week- Saturday and Sunday- on all of the following holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25;- The day before if January 1, July 4 or December 25 falls on a Saturday;- The day following if January 1, July 4 or December 25 falls on a Sunday. <p>Apply the time and one-half overtime calculation to whichever is higher between the Hourly Basic Rate listed on this project determination or the employee's regular hourly rate of pay. Add any applicable Premium or DOT Premium to the Hourly Basic Rate before calculating overtime.</p> <p>A DOT Premium (discussed below) may supersede this time and one-half requirement.</p>
FUTURE INCREASE:	When a specific trade or occupation requires a future increase, you MUST add the full hourly increase to the "TOTAL" on the effective date(s) indicated for the specific trade or occupation.
PREMIUM PAY:	If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.
DOT PREMIUM:	This premium only applies to highway and bridge projects owned by the Wisconsin Department of Transportation and to the project type heading "Airport Pavement or State Highway Construction." DO NOT apply the premium calculation under any other project type on this determination.
APPRENTICES:	Pay apprentices a percentage of the applicable journey person's hourly basic rate of pay and hourly fringe benefit contributions specified in this determination. Obtain the appropriate percentage from each apprentice's contract or indenture.
SUBJOURNEY:	Subjourney wage rates may be available for some of the trades or occupations indicated below with the exception of laborers, truck drivers and heavy equipment operators. Any employer interested in using a subjourney classification on this project MUST complete Form ERD-10880 and request the applicable wage rate from the Department of Workforce Development PRIOR to using the subjourney worker on this project.

This document **MUST BE POSTED** by the **CONTRACTING AGENCY** in at least one conspicuous and easily accessible place **on the site of the project**. A local governmental unit may post this document at the place normally used to post public notices if there is no common site on the project. This document **MUST** remain posted during the entire time any worker is employed on the project and **MUST** be physically incorporated into the specifications and all contracts and subcontracts. If you have any questions, please write to the Equal Rights Division, Labor Standards Bureau, P.O. Box 8928, Madison, Wisconsin 53708 or call (608) 266-6861.

The following statutory provisions apply to local governmental unit projects of public works and are set forth below pursuant to the requirements of s. 66.0903(8), Stats.

s. 66.0903 (1) (f) & s. 103.49 (1) (c) "PREVAILING HOURS OF LABOR" for any trade or occupation in any area means 10 hours per day and 40 hours per week and may not include any hours worked on a Saturday or Sunday or on any of the following holidays:

1. January 1.
2. The last Monday in May.
3. July 4.
4. The first Monday in September.
5. The 4th Thursday in November.
6. December 25.
7. The day before if January 1, July 4 or December 25 falls on a Saturday.
8. The day following if January 1, July 4 or December 25 falls on a Sunday.

s. 66.0903 (10) RECORDS; INSPECTION; ENFORCEMENT.

(a) Each contractor, subcontractor, or contractor's or subcontractor's agent performing work on a project of public works that is subject to this section shall keep full and accurate records clearly indicating the name and trade or occupation of every person performing the work described in sub. (4) and an accurate record of the number of hours worked by each of those persons and the actual wages paid for the hours worked.

s. 66.0903 (11) LIABILITY AND PENALTIES.

(a) 1. Any contractor, subcontractor, or contractor's or subcontractor's agent who fails to pay the prevailing wage rate determined by the department under sub. (3) or who pays less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor is liable to any affected employee in the amount of his or her unpaid wages or his or her unpaid overtime compensation and in an additional amount as liquidated damages as provided under subd. 2., 3., whichever is applicable.

2. If the department determines upon inspection under sub. (10) (b) or (c) that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the department shall order the contractor to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages within a period specified by the department in the order.

3. In addition to or in lieu of recovering the liability specified in subd. 1. as provided in subd. 2., any employee for and in behalf of that employee and other employees similarly situated may commence an action to recover that liability in any court of competent jurisdiction. If the court finds that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the court shall order the contractor, subcontractor, or agent to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages.

5. No employee may be a party plaintiff to an action under subd. 3. unless the employee consents in writing to become a party and the consent is filed in the court in which the action is brought. Notwithstanding s. 814.04 (1), the court shall, in addition to any judgment awarded to the plaintiff, allow reasonable attorney fees and costs to be paid by the defendant.

BUILDING OR HEAVY CONSTRUCTION

Includes sheltered enclosures with walk-in access for the purpose of housing persons, employees, machinery, equipment or supplies and non-sheltered work such as canals, dams, dikes, reservoirs, storage tanks, etc. A sheltered enclosure need not be "habitable" in order to be considered a building. The installation of machinery and/or equipment, both above and below grade level, does not change a project's character as a building. On-site grading, utility work and landscaping are included within this definition. Residential buildings of four (4) stories or less, agricultural buildings, parking lots and driveways are NOT included within this definition.

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
101	Acoustic Ceiling Tile Installer	30.48	15.90	46.38
102	Boilermaker Future Increase(s): Add \$1.50/hr on 1/01/2015; Add \$1.50/hr. on 01/01/2016	32.05	28.04	60.09
103	Bricklayer, Blocklayer or Stonemason Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.01	17.35	49.36
104	Cabinet Installer	30.48	15.90	46.38
105	Carpenter	30.48	15.90	46.38
106	Carpet Layer or Soft Floor Coverer	30.48	15.90	46.38
107	Cement Finisher	31.58	16.13	47.71
108	Drywall Taper or Finisher	24.80	16.60	41.40
109	Electrician Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	34.07	19.25	53.32
110	Elevator Constructor	42.86	23.84	66.70
111	Fence Erector	24.72	0.00	24.72
112	Fire Sprinkler Fitter	36.07	18.73	54.80
113	Glazier	38.03	13.42	51.45
114	Heat or Frost Insulator	33.68	24.31	57.99
115	Insulator (Batt or Blown)	15.00	9.50	24.50
116	Ironworker	31.25	19.46	50.71
117	Lather	30.48	15.90	46.38

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
118	Line Constructor (Electrical)	38.25	17.31	55.56
119	Marble Finisher	26.89	19.18	46.07
120	Marble Mason	32.01	17.35	49.36
121	Metal Building Erector	22.00	10.00	32.00
122	Millwright	32.11	15.95	48.06
123	Overhead Door Installer	20.95	4.94	25.89
124	Painter	24.50	16.60	41.10
125	Pavement Marking Operator	30.00	0.00	30.00
126	Piledriver	30.98	15.90	46.88
127	Pipeline Fuser or Welder (Gas or Utility)	30.79	19.74	50.53
129	Plasterer	31.03	17.71	48.74
130	Plumber Future Increase(s): Add \$1/hr on 6/1/2014.	36.42	16.87	53.29
132	Refrigeration Mechanic	41.60	16.71	58.31
133	Roofer or Waterproofofer	29.40	6.25	35.65
134	Sheet Metal Worker	34.45	22.57	57.02
135	Steamfitter Future Increase(s): Add \$1.70/hr on 6/1/2014.	42.95	17.81	60.76
137	Teledata Technician or Installer Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	22.25	12.24	34.49
138	Temperature Control Installer	32.94	18.80	51.74
139	Terrazzo Finisher	26.89	19.18	46.07
140	Terrazzo Mechanic	30.20	18.42	48.62
141	Tile Finisher	23.85	17.18	41.03
142	Tile Setter	29.81	17.18	46.99
143	Tuckpointer, Caulker or Cleaner	35.25	13.15	48.40
144	Underwater Diver (Except on Great Lakes)	34.48	15.90	50.38
146	Well Driller or Pump Installer	25.32	15.65	40.97
147	Siding Installer	25.92	18.04	43.96

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
		\$	\$	\$
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.16	14.34	43.50
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.86	45.46
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
		\$	\$	\$
201	Single Axle or Two Axle	32.39	18.46	50.85
203	Three or More Axle	18.00	22.88	40.88
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	32.89	18.96	51.85
205	Pavement Marking Vehicle	18.00	22.88	40.88
207	Truck Mechanic	18.00	22.88	40.88

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
		\$	\$	\$
301	General Laborer Premium Increase(s): Add \$1.00/hr for certified welder; Add \$.25/hr for mason tender	24.21	14.63	38.84
302	Asbestos Abatement Worker	24.36	14.44	38.80
303	Landscaper	21.01	9.37	30.38
310	Gas or Utility Pipeline Laborer (Other Than Sewer and Water)	21.01	13.63	34.64
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased) Premium Increase(s): DOT PREMIUMS: Pay two times the hourly basic rate on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	18.33	13.65	31.98
314	Railroad Track Laborer	23.46	3.30	26.76
315	Final Construction Clean-Up Worker	16.00	0.00	16.00

**HEAVY EQUIPMENT OPERATORS
SITE PREPARATION, UTILITY OR LANDSCAPING WORK ONLY**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
501	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Milling Machine; Boring Machine (Directional, Horizontal or Vertical); Backhoe (Track Type) Having a Mfg'r's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfg'r's Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Crane, Shovel, Dragline, Clamshells; Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Grader or Motor Patrol; Master Mechanic; Mechanic or Welder; Robotic Tool Carrier (With or Without Attachments); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Tractor (Scraper, Dozer, Pusher, Loader); Trencher (Wheel Type or Chain Type Having Over 8 Inch Bucket).	33.42	18.96	52.38
502	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Environmental Burner; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Jeep Digger; Screed (Milling Machine); Skid Rig; Straddle Carrier or Travel Lift; Stump Chipper; Trencher (Wheel Type or Chain Type Having 8 Inch Bucket & Under).	32.89	18.96	51.85
503	Air Compressor (&/or 400 CFM or Over); Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over); Greaser; High Pressure Utility Locating Machine (Daylighting Machine); Mulcher; Oiler; Post Hole Digger or Driver; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack.	30.82	18.96	49.78
504	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	20.17	58.97
505	Work Performed on the Great Lakes Including Crane or Backhoe Operator; Assistant Hydraulic Dredge Engineer; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder; 70 Ton & Over Tug Operator. Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	41.65	21.71	63.36
506	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	37.10	21.57	58.67

507	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	34.50	20.04	54.54
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**HEAVY EQUIPMENT OPERATORS
EXCLUDING SITE PREPARATION, UTILITY, PAVING LANDSCAPING WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
508	Boring Machine (Directional); Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Premium Increase(s): Add \$.50/hr for >200 Ton / Add \$1/hr at 300 Ton / Add \$1.50/hr at 400 Ton / Add \$2/hr at 500 Ton & Over.	35.62	18.96	54.58
509	Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Boring Machine (Horizontal or Vertical); Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Pile Driver; Versi Lifts, Tri-Lifts & Gantrys (20,000 Lbs. & Over).	36.35	6.95	43.30
510	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Dredge (NOT Performing Work on the Great Lakes); Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Hydro-Blaster (10,000 PSI or Over); Milling Machine; Skid Rig; Traveling Crane (Bridge Type).	33.42	18.96	52.38
511	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Environmental Burner; Gantrys (Under 20,000 Lbs.); Grader or Motor Patrol; High Pressure Utility Locating Machine (Daylighting Machine); Manhoist; Material or Stack Hoist; Mechanic or Welder; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tining or Curing Machine; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket).	32.89	18.96	51.85

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
512	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Grout Pump; Hoist (Tugger, Automatic); Industrial Locomotives; Jeep Digger; Lift Slab Machine; Mulcher; Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames.	30.82	18.96	49.78
513	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Boatmen (NOT Performing Work on the Great Lakes); Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Elevator; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Forklift; Generator (&/or 150 KW or Over); Greaser; Heaters (Mechanical); Loading Machine (Conveyor); Oiler; Post Hole Digger or Driver; Prestress Machine; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack.	24.19	17.89	42.08
514	Gas or Utility Pipeline, Except Sewer & Water (Primary Equipment).	36.34	21.14	57.48
515	Gas or Utility Pipeline, Except Sewer & Water (Secondary Equipment). Future Increase(s): Add \$1.60/hr on 06/01/2014; Add \$1.65/hr on 06/01/2015.	32.32	18.55	50.87
516	Fiber Optic Cable Equipment Future Increase(s): Add \$1.75/hr on 02/01/2014.	27.89	17.20	45.09

SEWER, WATER OR TUNNEL CONSTRUCTION
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Includes those projects that primarily involve public sewer or water distribution, transmission or collection systems and related tunnel work (excluding buildings).

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.10	18.40	53.50
105	Carpenter Future Increase(s): Add \$1.25/hr on 6/2/2014. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.68	19.81	53.49
107	Cement Finisher Future Increase(s): Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	33.51	16.13	49.64
109	Electrician Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.82	22.61	55.43
111	Fence Erector	24.72	0.00	24.72
116	Ironworker	31.25	19.46	50.71
118	Line Constructor (Electrical)	38.25	17.31	55.56
125	Pavement Marking Operator	16.00	7.35	23.35
126	Piledriver	30.98	15.90	46.88
130	Plumber	33.75	14.07	47.82
135	Steamfitter	42.45	16.71	59.16
137	Teledata Technician or Installer	21.89	11.85	33.74

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
143	Tuckpointer, Caulker or Cleaner	35.25	13.15	48.40
144	Underwater Diver (Except on Great Lakes)	38.80	20.17	58.97
146	Well Driller or Pump Installer	25.32	15.65	40.97
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.16	14.34	43.50
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.86	45.46
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
201	Single Axle or Two Axle	30.00	15.00	45.00
203	Three or More Axle	16.00	7.35	23.35
204	Articulated, Euclid, Dumptr, Off Road Material Hauler	32.89	18.96	51.85
205	Pavement Marking Vehicle	16.00	7.35	23.35
207	Truck Mechanic	16.00	7.35	23.35

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
301	General Laborer Premium Increase(s): Add \$.20 for blaster, bracer, manhole builder, caulker, bottomman and power tool; Add \$.55 for pipelayer; Add \$1.00 for tunnel work 0-15 lbs. compressed air; Add \$2.00 for over 15-30 lbs. compressed air; Add \$3.00 for over 30 lbs. compressed air.	25.60	14.62	40.22
303	Landscaper	25.28	11.46	36.74
304	Flagperson or Traffic Control Person	24.70	10.72	35.42
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.31	12.67	30.98
314	Railroad Track Laborer	23.46	3.30	26.76

**HEAVY EQUIPMENT OPERATORS
SEWER, WATER OR TUNNEL WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
521	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Master Mechanic; Pile Driver. Premium Increase(s): Add \$.25/hr for all >45 Ton lifting capacity cranes	34.62	18.96	53.58
522	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Spreader & Distributor; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Dredge (NOT Performing Work on the Great Lakes); Milling Machine; Skid Rig; Telehandler; Traveling Crane (Bridge Type).	33.42	18.96	52.38
523	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Boring Machine (Horizontal or Vertical); Bulldozer or Endloader (Over 40 hp); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Manhoist; Material or Stack Hoist; Mechanic or Welder; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket).	32.89	18.96	51.85

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
524	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Environmental Burner; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Hoist (Tugger, Automatic); Grout Pump; Jeep Digger; Lift Slab Machine; Mulcher; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Tining or Curing Machine; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames. Future Increase(s): Add \$1.05/hr on 6/2/2014; Add \$1.55/hr on 6/1/2015. Premium Increase(s): Add \$.25/hr for operating tower crane.	35.11	19.45	54.56
525	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Loading Machine (Conveyor); Post Hole Digger or Driver; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack.	30.19	20.94	51.13
526	Boiler (Temporary Heat); Forklift; Greaser; Oiler.	24.19	17.89	42.08
527	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	20.17	58.97
528	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	38.80	20.17	58.97
529	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	34.50	20.04	54.54
530	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under), Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	34.50	20.04	54.54

AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION

Includes all airport projects (excluding buildings) and all projects awarded by the Wisconsin Department of Transportation (excluding buildings).

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u> \$	<u>HOURLY FRINGE BENEFITS</u> \$	<u>TOTAL</u> \$
103	Bricklayer, Blocklayer or Stonemason	32.01	17.35	49.36
105	Carpenter	30.48	15.90	46.38
107	Cement Finisher Future Increase(s): Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	33.51	16.13	49.64
109	Electrician Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	34.07	19.25	53.32
111	Fence Erector	24.72	0.00	24.72
116	Ironworker	31.25	19.46	50.71
118	Line Constructor (Electrical)	38.25	17.31	55.56
124	Painter	21.87	11.37	33.24
125	Pavement Marking Operator	30.00	0.00	30.00
126	Piledriver	30.98	15.90	46.88
133	Roofer or Waterproofer	29.40	6.25	35.65
137	Teledata Technician or Installer	21.89	11.85	33.74
143	Tuckpointer, Caulker or Cleaner	35.25	13.15	48.40
144	Underwater Diver (Except on Great Lakes)	34.48	15.90	50.38
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	34.43	15.24	49.67
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	15.89	51.39

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45
TRUCK DRIVERS				

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
201	Single Axle or Two Axle	34.22	19.90	54.12
203	Three or More Axle Future Increase(s): Add \$1.30/hr on 6/1/2014. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	24.52	17.77	42.29
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.75/hr on 6/1/14); Add \$1.25/hr on 6/1/15); Add \$1.30/hr on 6/1/16); Add \$1.25/hr on 6/1/17. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	29.27	20.40	49.67
205	Pavement Marking Vehicle	23.31	17.13	40.44
206	Shadow or Pilot Vehicle	34.22	19.90	54.12
207	Truck Mechanic	23.31	17.13	40.44

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
301	General Laborer Future Increase(s): Add \$1.60/hr on 6/1/2014. Premium Increase(s): Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer. / DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	29.32	14.63	43.95
302	Asbestos Abatement Worker	24.36	14.44	38.80
303	Landscaper Future Increase(s): Add \$1.60/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	29.32	14.63	43.95
304	Flagperson or Traffic Control Person Future Increase(s): Add \$1.60/hr on 6/1/2014. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	25.67	14.63	40.30
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.31	12.67	30.98
314	Railroad Track Laborer	23.46	3.30	26.76

**HEAVY EQUIPMENT OPERATORS
AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
531	Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	36.72	20.40	57.12
532	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	36.22	20.40	56.62

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
533	<p>Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames.</p> <p>Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm.</p>	35.72	20.40	56.12

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
534	<p>Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.</p> <p>Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm.</p>	35.46	20.40	55.86
535	<p>Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.</p> <p>Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm.</p>	35.17	20.40	55.57
536	Fiber Optic Cable Equipment.	26.69	16.65	43.34
537	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	20.17	58.97
538	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	38.80	20.17	58.97

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
		\$	\$	\$
539	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	34.50	20.04	54.54
540	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.	34.50	20.04	54.54

LOCAL STREET OR MISCELLANEOUS PAVING CONSTRUCTION
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Includes roads, streets, alleys, trails, bridges, paths, racetracks, parking lots and driveways (except residential or agricultural), public sidewalks or other similar projects (excluding projects awarded by the Wisconsin Department of Transportation).

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
		\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason	32.01	17.35	49.36
105	Carpenter	32.93	19.93	52.86
107	Cement Finisher	31.48	15.68	47.16
109	Electrician	31.27	22.81	54.08
111	Fence Erector	24.72	0.00	24.72
116	Ironworker	31.25	19.46	50.71
118	Line Constructor (Electrical)	38.25	17.31	55.56
124	Painter	24.50	16.60	41.10
125	Pavement Marking Operator	30.00	0.00	30.00
126	Piledriver	30.98	15.90	46.88
133	Roofer or Waterproofer	29.40	6.25	35.65
137	Teledata Technician or Installer	21.89	11.85	33.74
143	Tuckpointer, Caulker or Cleaner	35.25	13.15	48.40
144	Underwater Diver (Except on Great Lakes)	38.80	20.17	58.97
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	34.43	15.24	49.67
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.86	45.46
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
		\$	\$	\$
201	Single Axle or Two Axle	30.00	15.00	45.00

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
203	Three or More Axle	17.00	0.00	17.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	32.89	18.96	51.85
205	Pavement Marking Vehicle	17.00	0.00	17.00
206	Shadow or Pilot Vehicle	30.00	15.00	45.00
207	Truck Mechanic	17.00	0.00	17.00

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
301	General Laborer	28.07	13.25	41.32
303	Landscaper Future Increase(s): Add \$1.60/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	29.04	14.63	43.67
304	Flagperson or Traffic Control Person	24.70	10.72	35.42
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.31	12.67	30.98
314	Railroad Track Laborer	23.46	3.30	26.76

**HEAVY EQUIPMENT OPERATORS
CONCRETE PAVEMENT OR BRIDGE WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
541	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	36.72	20.40	57.12
542	Backhoe (Track Type) Having a Mfrg.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Crane, Tower Crane Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	36.22	20.40	56.62

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
543	<p>Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames.</p> <p>Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm.</p>	35.72	20.40	56.12
544	<p>Backfiller; Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.</p>	33.96	19.79	53.75
545	<p>Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oilier; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.</p>	30.32	18.46	48.78
546	Fiber Optic Cable Equipment.	26.69	16.65	43.34

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
547	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	20.17	58.97
548	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	38.80	20.17	58.97
549	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or more); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	34.50	20.04	54.54
550	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	34.50	20.04	54.54

**HEAVY EQUIPMENT OPERATORS
ASPHALT PAVEMENT OR OTHER WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
551	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	35.12	18.46	53.58
552	Backhoe (Track Type) Having a Mfrgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	36.22	20.40	56.62

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
553	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type) Having a Mfrg.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Laser/Screed; Concrete Slipform Placer Curb & Gutter Machine; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames.	32.89	18.96	51.85
554	Backfiller; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self-Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler.	33.67	19.48	53.15
555	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	35.17	20.40	55.57
556	Fiber Optic Cable Equipment.	26.69	16.65	43.34

RESIDENTIAL OR AGRICULTURAL CONSTRUCTION

Includes single family houses or apartment buildings of no more than four (4) stories in height and all buildings, structures or facilities that are primarily used for agricultural or farming purposes, excluding commercial buildings. For classification purposes, the exterior height of a residential building, in terms of stories, is the primary consideration. All incidental items such as site work, driveways, parking lots, private sidewalks, private septic systems or sewer and water laterals connected to a public system and swimming pools are included within this definition. Residential buildings of five (5) stories and above are NOT included within this definition.

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
101	Acoustic Ceiling Tile Installer Future Increase(s): Add \$1.25/hr on 6/2/2014.	33.68	19.81	53.49
102	Boilermaker	26.00	4.73	30.73
103	Bricklayer, Blocklayer or Stonemason	32.01	13.26	45.27
104	Cabinet Installer	22.00	1.05	23.05
105	Carpenter	30.48	3.24	33.72
106	Carpet Layer or Soft Floor Coverer	23.68	3.20	26.88
107	Cement Finisher	20.93	5.94	26.87
108	Drywall Taper or Finisher	22.50	0.88	23.38
109	Electrician	27.50	7.47	34.97
110	Elevator Constructor	42.86	23.84	66.70
111	Fence Erector	18.52	4.89	23.41
112	Fire Sprinkler Fitter	52.82	5.54	58.36
113	Glazier	38.03	13.42	51.45
114	Heat or Frost Insulator	30.00	0.00	30.00
115	Insulator (Batt or Blown)	19.00	14.33	33.33
116	Ironworker	31.25	19.46	50.71
117	Lather	30.48	3.24	33.72
119	Marble Finisher	26.89	19.18	46.07
120	Marble Mason	32.01	13.26	45.27
121	Metal Building Erector	17.00	3.82	20.82
123	Overhead Door Installer	12.00	0.00	12.00
124	Painter	20.00	4.22	24.22

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
125	Pavement Marking Operator	30.00	0.00	30.00
129	Plasterer	25.00	0.00	25.00
130	Plumber	30.00	10.62	40.62
132	Refrigeration Mechanic	19.75	8.56	28.31
133	Roofer or Waterproofer	17.00	3.72	20.72
134	Sheet Metal Worker	21.03	3.40	24.43
135	Steamfitter	31.72	16.10	47.82
137	Teledata Technician or Installer	24.75	8.09	32.84
138	Temperature Control Installer	22.50	0.70	23.20
139	Terrazzo Finisher	26.89	19.18	46.07
140	Terrazzo Mechanic	30.20	18.42	48.62
141	Tile Finisher	23.77	16.50	40.27
142	Tile Setter	21.00	0.00	21.00
143	Tuckpointer, Caulker or Cleaner	32.50	0.02	32.52
146	Well Driller or Pump Installer	27.60	5.80	33.40
147	Siding Installer	20.18	0.00	20.18

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
201	Single Axle or Two Axle	28.05	4.16	32.21
203	Three or More Axle	18.00	2.37	20.37
205	Pavement Marking Vehicle	18.00	2.37	20.37
207	Truck Mechanic	19.00	1.85	20.85

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
301	General Laborer	18.14	10.16	28.30
302	Asbestos Abatement Worker	17.00	3.86	20.86

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
303	Landscaper	30.00	0.00	30.00
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.31	12.67	30.98
315	Final Construction Clean-Up Worker	16.00	0.00	16.00

**HEAVY EQUIPMENT OPERATORS
RESIDENTIAL OR AGRICULTURAL CONSTRUCTION**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
557	Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type); Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Crane, Shovel, Dragline, Clamshells; Forestry Equipment, Timberco, Tree Shear, Tub Grinder, Processor; Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type); Winches & A-Frames.	29.70	20.08	49.78
558	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Backfiller; Belting, Burlap, Texturing Machine; Boiler (Temporary Heat); Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Jeep Digger; Lift Slab Machine; Mulcher; Oiler; Post Hole Digger or Driver; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Roller (Rubber Tire, 5 Tons or Under); Screed (Milling Machine); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Stump Chipper; Telehandler; Vibratory Hammer or Extractor, Power Pack.	29.70	16.00	45.70

***** END OF RATES *****