BID OF\_\_\_\_\_

2014

# **PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS**

FOR

# WINGRA CREEK PARKWAY, PHASE 3

CONTRACT NO. 6832 PROJECT NO. 53W0312

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

# INDEX

SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERS	A-1
SECTION B: PROPOSAL SECTION	B-1
SECTION C: SMALL BUSINESS ENTERPRISE	C-1
SECTION D: SPECIAL PROVISIONS	D-1
SECTION E: BIDDER'S ACKNOWLEDGEMENT	E-1
SECTION F: DISCLOSURE OF OWNERSHIP & BEST VALUE CONTRACTING	F-1
SECTION G: BID BOND	G-1
SECTION H: AGREEMENT	H-1
SECTION I: PAYMENT AND PERFORMANCE BOND	I-1
SECTION J: PREVAILING WAGE RATES	J-1

This Proposal, and Agreement have been prepared by:

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

hilops what

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

RFP: ss

# 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:	WINGRA CREEK PARKWAY, PHASE 3
CONTRACT NO.:	6832
SBE GOAL	14%
BID BOND	5%
PRE BID MEETING (1:00 P.M.)	OCTOBER 31, 2014
PREQUALIFICATION APPLICATION DUE (1:00 P.M)	OCTOBER 31, 2014
BID SUBMISSION (1:00 P.M.)	NOVEMBER 7, 2014
BID OPEN (1:30 P.M.)	NOVEMBER 7, 2014
PUBLISHED IN WSJ	10/24/14 & 10/31/14

PRE BID MEETING: Representatives of the Affirmative Action Department will be present to discuss the Small Business Enterprise requirements at 1600 Emil Street, Madison Wisconsin.

PREQUALIFICATION APPLICATION: Forms are available on our website, <u>www.cityofmadison.com/business/pw/forms.cfm</u>. 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.

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

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, <u>www.cityofmadison.com/Business/PW/specs.cfm</u>.

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)I. 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 (<u>www.bidexpress.com</u>). 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 $\boxtimes$

110 Demolition

#### **Building Demolition** 101 Asbestos Removal

120 House Mover	
Street, Utility and Site Construction	
201 Asphalt Paving	270 🔲 Retaining Walls, Reinforced Concrete
205 🔲 Blasting	275 Sanitary, Storm Sewer and Water Main
210 D Boring/Pipe Jacking	Construction
215 Concrete Paving	276 Sawcutting
220 Con. Sidewalk/Curb & Gutter/Misc. Flat Work	280 Sewer Lateral Drain Cleaning/Internal TV Insp.
221 Concrete Bases and Other Concrete Work	285 Sewer Lining
222 Concrete Removal	290 Sewer Pipe Bursting
225 🛛 Dredging	295 Soil Borings
230 Fencing	300 Soil Nailing
235 Fiber Optic Cable/Conduit Installation	305 Storm & Sanitary Sewer Laterals & Water Svc.
240 Grading and Earthwork	310 Street Construction
241 Horizontal Saw Cutting of Sidewalk	315 Street Lighting
242 Infrared Seamless Patching	318 Tennis Court Resurfacing
245 Landscaping, Maintenance	320 Traffic Signals
250 X Landscaping, Site and Street	325 Traffic Signing & Marking
251 Parking Ramp Maintenance	332 Tree pruning/removal
252 Pavement Marking	333 Tree, pesticide treatment of
255 Devement Sealcoating and Crack Sealing	335 Trucking
260 Petroleum Above/Below Ground Storage	340 ☐ Utility Transmission Lines including Natural Gas,
Tank Removal/Installation	Electrical & Communications
262 Playground Installer	399 Other
265 Retaining Walls, Precast Modular Units	
Bridge Construction	
501 Diridge Construction and/or Repair	
Building Construction	
401 Floor Covering (including carpet, ceramic tile installation,	437 🔲 Metals
rubber, VCT	440  Painting and Wallcovering
402 Duilding Automation Systems	445 🔲 Plumbing
403 🔲 Concrete	450 🔲 Pump Repair
404 🔲 Doors and Windows	455 🔲 Pump Systems
405 🔲 Electrical - Power, Lighting & Communications	460 Roofing and Moisture Protection
410 🔲 Elevator - Lifts	464 🔲 Tower Crane Operator
412 T Fire Suppression	461 Solar Photovoltaic/Hot Water Systems
413 Terrishings - Furniture and Window Treatments	465 🗍 Soil/Groundwater Remediation
415 General Building Construction, Equal or Less than \$250,000	466 🔲 Warning Sirens
420 General Building Construction, \$250,000 to \$1,500,000	470 Water Supply Elevated Tanks
425 General Building Construction, Over \$1,500,000	475 Water Supply Wells
428 Glass and/or Glazing	480 🗍 Wood, Plastics & Composites - Structural &
429 Hazardous Material Removal	Architectural
430 Heating, Ventilating and Air Conditioning (HVAC)	499 🔲 Other
433 Insulation - Thermal	

- 435 Masonry/Tuck pointing

# State of Wisconsin Certifications

Class 5 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for quarries, open pits and road cuts.

Class 6 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for trenches, site 2 excavations, basements, underwater demolition, underground excavations, or structures 15 feet or less in height.

Class 7 Blaster - Blasting Operations and Activities for structures greater than 15 ' in height, bridges, towers, and any of 3 the objects or purposes listed as "Class 5 Blaster or Class 6 Blaster".

 Petroleum Above/Below Ground Storage Tank Removal and Installation (Attach copies of State Certifications.) 4 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.

- Certification number as a Certified Arborist or Certified Tree Worker as administered by the International Society of 6 Arboriculture
- Pesticide application (Certification for Commercial Applicator For Hire with the certification in the category of turf and 7 landscape (3.0) and possess a current license issued by the DATCP)
- State of Wisconsin Master Plumbers License. 8

**SECTION B: PROPOSAL** 

# Please refer to the Bid Express Website at <u>https://bidexpress.com</u> 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

#### 2 Small Business Enterprise (SBE) Program Information

#### 2.1 Policy and Goal

The City of Madison reaffirms its policy of nondiscrimination in the conduct of City business by maintaining a procurement process which remains open to all who have the potential and ability to sell goods and services to the City. It is the policy of the City of Madison to allow Small Business Enterprises (SBE) maximum feasible opportunity to participate in City of Madison contracting. The bidder acknowledges that its bid has been submitted in accordance with the SBE program and is for the public's protection and welfare.

Please refer to the "ADVERTISEMENT FOR BIDS" for the goal for the utilization of SBEs on this project. SBEs may participate as subcontractors, vendors and/or suppliers, which provide a commercially useful function. The dollar value for SBE suppliers or 'materials only' vendors shall be discounted to 60% for purposes of meeting SBE goals.

A bidder which achieves or exceeds the SBE goal will be in compliance with the SBE requirements of this project. In the event that the bidder is unable to achieve the SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Failure to either achieve the goal or demonstrate a good faith effort to do so will be grounds for the bidder being deemed a non-responsible contractor ineligible for award of this contract.

A bidder may count towards its attainment of the SBE goal only those expenditures to SBEs that perform a commercially useful function. For purposes of evaluating a bidder's responsiveness to the attainment of the SBE goal, the contract participation by an SBE is based on the percentage of the total base bid proposed by the Contractor. The total base bid price is inclusive of all addenda.

Work performed by an SBE firm in a particular transaction can be counted toward the goal only if it involves a commercially useful function. That is, in light of industry practices and other relevant considerations, does the SBE firm have a necessary and useful role in the transaction, of a kind for which there is a market outside the context of the SBE Program, or is the firm's role a superfluous step added in an attempt to obtain credit towards goals? If, in the judgment of the Affirmative Action Division, the SBE firm will not perform a commercially useful function in the transaction, no credit towards goals will be awarded.

The question of whether a firm is performing a commercially useful function is completely separate from the question of whether the firm is an eligible SBE. A firm is eligible if it meets the definitional criteria and ownership and control requirements, as set forth in the City of Madison's SBE Program.

If the City of Madison determines that the SBE firm is performing a commercially useful function, then the City of Madison must then decide what that function is. If the commercially useful function is that of an SBE vendor / supplier that regularly transacts business with the respective product, then the City of Madison will count 60% of the value of the product supplied toward SBE goals.

To be counted, the SBE vendor / supplier must be engaged in selling the product in question to the public. This is important in distinguishing an SBE vendor / supplier, which has a regular trade with a variety of customers, from a firm which performs supplier-like functions on an <u>ad hoc</u> basis or for only one or two contractors with whom it has a special relationship.

A supplier of bulk goods may qualify as an eligible SBE vendor / supplier if it either maintains an inventory or owns or operates distribution equipment. With respect to the distribution equipment; e.g., a fleet of trucks, the term "operates" is intended to cover a situation in which the supplier leases the equipment on a regular basis for its entire business. It is not intended to cover a situation in which the firm simply provides drivers for trucks owned or leased by another party; e.g., a prime contractor, or leases such a party's trucks on an <u>ad hoc</u> basis for a specific job.

If the commercially useful function being performed is not that of a qualified SBE vendor / supplier, but rather that of delivery of products, obtaining bonding or insurance, procurement of personnel, acting as a broker or manufacturer's representative in the procurement of supplies, facilities, or materials, etc., only the fees or commissions will apply towards the goal.

For example, a business that simply transfers title of a product from manufacturer to ultimate purchaser; e. g., a sales representative who re-invoices a steel product from the steel company to the Contractor, or a firm that puts a product into a container for delivery would not be considered a qualified SBE vendor / supplier. The Contractor would not receive credit based on a percentage of the cost of the product for working with such firms.

Concerning the use of services that help the Contractor obtain needed supplies, personnel, materials or equipment to perform a contract: only the fee received by the service provider will be counted toward the goal. For example, use of a SBE sales representative or distributor for a steel company, if performing a commercially useful function at all, would entitle the Contractor receiving the steel to count only the fee paid to the representative or distributor toward the goal. This provision would also govern fees for professional and other services obtained expressly and solely to perform work relating to a specific contract.

Concerning transportation or delivery services: if an SBE trucking company picks up a product from a manufacturer or a qualified vendor / supplier and delivers the product to the Contractor, the commercially useful function it is performing is not that of a supplier, but simply that of a transporter of goods. Unless the trucking company is itself the manufacturer or a qualified vendor / supplier in the product, credit cannot be given based on a percentage of the cost of the product. Rather, credit would be allowed for the cost of the transportation service.

The City is aware that the rule's language does not explicitly mention every kind of business that may contribute work on this project. In administering these programs, the City would, on a case-by-case basis, determine the appropriate counting formula to apply in a particular situation.

## 2.2 Contract Compliance

Questions concerning the SBE Program shall be directed to the Contract Compliance Officer of the City of Madison Department of Civil Rights, Affirmative Action Division, 210 Martin Luther King, Jr. Blvd., Room 523, Madison, WI 53703; telephone (608) 266-4910.

# 2.3 Certification of SBE by City of Madison

The Affirmative Action Division maintains a directory of SBEs which are currently certified as such by the City of Madison. Contact the Contract Compliance Officer as indicated in Section 2.2 to receive a copy of the SBE Directory or you may access the SBE Directory online at <a href="http://www.cityofmadison.com/dcr/aaTBDir.cfm">www.cityofmadison.com/dcr/aaTBDir.cfm</a>.

All contractors, subcontractors, vendors and suppliers seeking SBE status must complete and submit the Targeted Business Certification Application to the City of Madison Affirmative Action Division by the time and date established for receipt of bids. A copy of the Targeted Business Certification Application is available by contacting the Contract Compliance Officer at the address and telephone indicated in Section 2.2 or you may Targeted access the Business Certification Application online at www.citvofmadison.com/dcr/aaTBDir.cfm. Submittal of the Targeted Business Certification Application by the time specified does not guarantee that the applicant will be certified as a SBE eligible to be utilized towards meeting the SBE goal for this project.

# 2.4 Small Business Enterprise Compliance Report

# 2.4.1 Good Faith Efforts

Bidders shall take all necessary affirmative steps to assure that SBEs are utilized when possible and that the established SBE goal for this project is achieved. A contractor who self performs a portion of the work, and is pre-qualified to perform that category of work, may subcontract that portion of the work, but shall not be required to do so. When a bidder is unable to achieve the established SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Such a good faith effort should include the following:

- 2.4.1.1 Attendance at the pre-bid meeting.
- 2.4.1.2 Using the City of Madison's directory of certified SBEs to identify SBEs from which to solicit bids.
- 2.4.1.3 Assuring that SBEs are solicited whenever they are potential sources.
- 2.4.1.4 Referring prospective SBEs to the City of Madison Affirmative Action Division for certification.
- 2.4.1.5 Dividing total project requirements into smaller tasks and/or quantities, where economically feasible, to permit maximum feasible SBE participation.
- 2.4.1.6 Establishing delivery schedules, where requirements permit, which will encourage participation by SBEs.
- 2.4.1.7 Providing SBEs with specific information regarding the work to be performed.
- 2.4.1.8 Contacting SBEs in advance of the deadline to allow such businesses sufficient time to prepare a bid.
- 2.4.1.9 Utilizing the bid of a qualified and competent SBE when the bid of such a business is deemed reasonable (i.e. 5% above the lowest bidder), although not necessarily low.
- 2.4.1.10 Contacting SBEs which submit a bid, to inquire about the details of the bid and confirm that the scope of the work was interpreted as intended.

## 2.4.2 **Reporting SBE Utilization and Good Faith Efforts**

The Small Business Enterprise Compliance Report is to be submitted by the <u>bidder</u> with the bid: This report is due by the specified bid closing time and date. Bids submitted without a completed SBE Compliance Report as outlined below

shall be deemed non-responsible and the bidder ineligible for award of this contract.

- 2.4.2.1 If the Bidder <u>meets or exceeds</u> the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:
  - 2.4.2.1.1
     Cover Page, Page C-6; and

     2.4.2.1.2
     Summary Sheet, C-7.
- 2.4.2.2 If the bidder <u>does not meet</u> the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:
  - 2.4.2.2.1 **Cover Page**, Page C-6;
  - 2.4.2.2.2 Summary Sheet, C-7; and
  - 2.4.2.2.3 **SBE Contact Report,** C-8 and C-9. (A <u>separate</u> Contact Report must be completed for <u>each applicable</u> SBE which is <u>not</u> utilized.)

# 2.5 Appeal Procedure

A bidder which does not achieve the established goal and is deemed <u>non-responsible</u> for failure to demonstrate a good faith effort to achieve such goal and subsequently denied eligibility for award of contract may, within 72 hours of receiving such notification, appeal that decision to a special appeals committee composed of three (3) members of the Affirmative Action Commission, three (3) members of the Board of Public Works and a seventh member appointed by the Mayor. All appeals must be made in writing to the City Engineer and <u>received</u> within 72 hours of City of Madison's notice. Postmark not applicable.

#### 2.6 SBE Requirements After Award of the Contract

The successful bidder shall identify SBE subcontractors, suppliers and vendors on the subcontractor list in accordance with the specifications. The Contractor shall submit a detailed explanation of any variances between the listing of SBE subcontractors, vendors and/or suppliers on the subcontractor list and the Contractor's SBE Compliance Report for SBE participation.

No change in SBE subcontractors, vendors and/or suppliers from those SBEs indicated in the SBE Compliance Report will be allowed without prior approval from the Engineer and the Affirmative Action Division. The contractor shall submit in writing to the City of Madison Affirmative Action Division a request to change any SBE citing specific reasons which necessitate such a change. The Affirmative Action Division will use a general test of reasonableness in approving or rejecting the contractor's request for change. If the request is approved, the Contractor will make every effort to utilize another SBE if available.

The City will monitor the project to ensure that the actual percentage commitment to SBE firms is carried out.

# 2.7 SBE Definition and Eligibility Guidelines

A Small Business Enterprise is a business concern awarded certification by the City of Madison. For the purposes of this program a Small Business Enterprise is defined as:

- A. An independent business operated under a single management. The business may not be a subsidiary of any other business and the stock or ownership may not be held by any individual or any business operating in the same or a similar field. In determining whether an entity qualifies as a SBE, the City shall consider all factors relevant to being an independent business including, but not limited to, the date the business was established, adequacy of its resources for the work in which it proposes to involve itself, the degree to which financial, equipment leasing and other relationships exist with other ineligible firms in the same or similar lines of work. SBE owner(s) shall enjoy the customary incidents of ownership and shall share in the risks and profits commensurate with their enjoyment interests, as demonstrated by an examination of the substance rather than form or arrangements that may be reflected in its ownership documents.
- B. A business that has averaged no more than \$4.0 million in annual gross receipts over the prior three year period and the principal owner(s) do not have a personal net worth in excess of \$1.32 million.

Firm and/or individuals that submit fraudulent documents/testimony may be barred from doing business with the City and/or forfeit existing contracts.

SBE certification is valid for one (1) year unless revoked.

# **Small Business Enterprise Compliance Report**

This information may be submitted electronically through Bid Express or submitted with bid in sealed envelope.

# **Cover Sheet**

Prime Bidder Information	
Company:	
Address:	
Telephone Number:	Fax Number:
Contact Person/Title:	
Prime Bidder Certification	
I,, _	of
Name	Title
	certify that the information
Company	
contained in this SBE Compliance Report is true and corre	ect to the best of my knowledge and belief.
Witness' Signature	Bidder's Signature

Date

# **Small Business Enterprise Compliance Report**

# Summary Sheet

# SBE Subcontractors Who Are NOT Suppliers

Name(s) of SBEs Utilized	Type of Work	% of Total Bid Amount
		%
		%
		%
		%
		%_
		%_
		%_
		%_
		%_
		%_
		%_
		%
		%
Subtotal SBE who are NOT suppliers:		%

# SBE Subcontractors Who Are Suppliers

Name(s) of SBEs Utilized	Type of Work	% of Total Bid Amount
		%
		%
		%
		%
		%
		%
Subtotal Contractors who are suppliers:	% x 0.6 =	% (discounted to 60%)
Total Percentage of SBE Utilization:	%.	

# **Small Business Enterprise Compliance Report**

# SBE Contact Report

Submit <u>separate</u> copy of this form for <u>each</u> SBE which you are not able to utilize towards meeting the SBE goal for this project. Attach separate sheets if necessary.

SBE Information

Company:\_\_\_\_\_

Address:

Telephone Number:\_\_\_\_\_

Contact Person/Title:

- 1. Outline below all efforts to solicit a bid from the above SBE. Include date, means of contact, who from your company made this contact and the result.
- 2. Describe the information provided to the aforementioned SBE regarding the scope of work for which he/she was to provide a bid.

Is this the same scope of work on which the subcontractor you intend to utilize based his/her bid?

	Yes		No
--	-----	--	----

3.	Did this SBE submit a bid?	🗌 Yes	🗌 No
----	----------------------------	-------	------

4. Is the General Contractor pre-qualified to self-perform this category of work?

🗌 Yes 🗌 No

The SBE listed above is unavailable for work on this project for the following reasons. Provide specific detail for this conclusion.
The SBE listed above is unqualified for work on this project. Provide specific details for
this conclusion.
The SBE listed above provided a price that was unreasonable (i.e. more than 5% above the lowest bidder). Provide specific detail for this conclusion including the SBE's price and the price of the subcontractor you intend to utilize.
A contract with the SBE listed above may constitute a breach of the bidder's collective bargaining agreements. Provide specific detail for this conclusion including, but not limited to, correspondence from the SBE indicating it will not sign a project labor agreement and/or correspondence from the applicable trade union indicating a project labor agreement will not be allowed at the time of project bidding.
Other; please specify reason(s) other than listed above which made it impossible for you to utilize this SBE on this project.

Rev. 07/11/2014-6832specs.doc

# SECTION D: SPECIAL PROVISIONS

# WINGRA CREEK PARKWAY, PHASE 3 CONTRACT NO. 6832

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:

$\boxtimes$	
$\boxtimes$	
$\boxtimes$	
$\square$	

Building or Heavy Construction

Sewer, Water, or Tunnel Construction

Local Street or Miscellaneous Paving Construction

Residential or Agricultural Construction

When multiple boxes are checked, worker's wages may vary according to the type and area of work performed. It is the responsibility of the Contractor to determine and apply the appropriate wage rate for the specific work assigned.

## 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).

## ARTICLE 104: SCOPE OF WORK

This contract consists of dredging and stabilizing approximately 2000 linear feet of Wingra Creek. The project is located between the Union Pacific Railroad Bridge and Olin Avenue. Work for this project will also include constructing six littoral shelves in a meandering pattern.

In conjunction with this project, the Contractor shall excavate approximately 1700 cubic yards from the John Nolen Retention Pond. This work may be completed prior to, during, or after the channel work.

Following work on the channel and banks, the bike path on the northwest side of the channel will pulverized, shaped, and resurfaced.

The Contractor shall view all associated project sites prior to bidding to become familiar with the existing conditions. It will be the responsibility of the Contractor to work with the utilities located in the right of way to resolve conflicts during the construction process.

## SECTION 105.1: AUTHORITY OF THE ENGINEER

The Engineer shall resolve all questions which arise as to the quality and acceptability of materials furnished, work performed, manner of performance, rate of progress of the work, interpretation of the plans and Specifications, acceptable fulfillment of the contract, compensation, and disputes and mutual rights between Contractors under the Specifications. The Engineer shall determine the amount and quantity of work performed and materials furnished.

All decisions of the Engineer shall, when so requested, be rendered in writing. They shall be final and conclusive in all matters unless within ten (10) days after such decision the Contractor applies in writing to the Board of Public Works for a review of such decision.

Any change proposed by a Contractor in SBE subcontractors, vendors or suppliers from those SBEs indicated on the SBE Compliance Report must be approved by the Engineer and the City's Manager of the Affirmative Action Division (hereafter, AAD). When requested, such decision shall be rendered in writing. Such decisions shall be final and conclusive in all matters unless within ten (10) days after such decision the Contractor or the affected SBE applies in writing to the Board of Public Works for a review of such decision.

In the event the Engineer and the AAD disagree over the proper decision to be made regarding an SBE, the Mayor shall appoint a third person to resolve the disagreement, within 30 days of appointment. The decision thus rendered may be reviewed by the Board of Public Works upon request of the Contractor or the affected SBE as set forth in Sections 105.1 and 105.2 of the City's standard specifications.

## SECTION 105.12: COOPERATION BY THE CONTRACTOR

This contract provides the Contractor a significant window in which to complete the defined work. It is not intended that Contractor use the entire time provided. Rather, it is intended that the Contractor complete this work during favorable weather conditions and water levels. The Contractor will be allowed to suspend the project, if necessary, due to weather, channel, or permit conditions. However, for each shutdown required or requested, the Contractor shall provide a shut-down plan, which shall be submitted to the Project Engineer for approval.

The pedestrian bridge is rated to 10,000 lbs. The bridge shall not be used as access to the site, and shall be protected during the project.

The Contractor shall use care around existing trees, plantings, fences, abutments, and other features. Damage to these items during construction shall be repaired or replaced at the Contractor's expense. No trees, other than those shown on the plan or marked in the field shall be removed without the approval of the Engineer.

Several utilities exist on site. The Contractor shall perform a One Call through Digger's Hotline for each site at least three days prior to beginning construction. To ensure that Parks-owned utilities are also marked, include the park name at the beginning of the Marking Instructions field on the ticket, and send a copy of the ticket to the City of Madison Parks Surveyor, Dan Rodman (drodman@cityofmadison.com or (608) 266-6674).

# SECTION 105.13: ORDER OF COMPLETION

The Contractor shall begin construction at the upstream project limits, near the Union Pacific Railroad bridge and progress downstream in an orderly manner. Work shall be completed as construction progresses downstream. Specifically, stone shall be placed on the banks as soon as possible following dredging. Littoral Shelves shall be completed individually, and as soon as possible following dredging. Topsoil, seeding, and matting shall occur immediately following littoral shelf construction.

Upland areas used for hauling and stockpiling, do not need to be stabilized until project work is complete, but shall be protected from erosion with silt sock, silt fence, polymer, or as directed by the Construction Engineer.

The Contractor shall submit for approval, a project schedule. If a shut-down is anticipated, the Contractor shall also submit a shut-down plan for approval.

Work can begin as soon as project permits are approved. Please contact Sally Swenson, the Project Engineer, for an updated permit schedule.

The Contractor may complete the John Nolen Retention Pond excavation separately from the channel work. The John Nolen Retention pond excavation shall be completed within the allowed contract time.

Permit stipulations require that no work be completed in the channel between March 15, 2015 and May 15, 2015. The Contractor may choose to work prior to March 15<sup>th</sup>, prepare the site for a shutdown, and finish at a later date. All proposed construction schedules shall be approved by the Project Engineer.

## SECTION 107.7: MAINTENANCE OF TRAFFIC

All traffic control shall conform to Part VI of the Federal Highways Administration's "Manual on Uniform Traffic Control Devices" (MUTCD), the State of Wisconsin Standard Facilities Development Manual (including Chapter 16 – Standard Detail Drawings) and the City of Madison Standards for Sidewalk and Bikeway closures.

The Contractor shall submit an acceptable, complete Traffic Control Plan, including all necessary phases and any required sidewalk or bike route closures, to the office of the City Traffic Engineer, at 215 Martin Luther King Jr. Blvd. Suite 100, Madison, WI 53703, a minimum of five (5) working days prior to the preconstruction meeting. The Traffic Control Plan shall address all requirements of this section of the Special Provisions. The Contractor shall not start work on this project until the Traffic Engineering Division has approved a traffic control plan and traffic control devices have been installed, in accordance with the approved plan. Failure of the Contractor to obtain an approved Traffic Control Plan, as specified above, may prevent the Contractor from starting work and shall be considered a delay of the project, caused by the Contractor. Please contact Luke Peters at <u>lpeters@cityofmadison.com</u> or (608) 267-1969.

The Contractor will be responsible for installing and maintaining traffic control in accordance with the traffic control plan and as directed by the City Traffic Engineer. The Contractor shall install and maintain modifications or additions to the traffic control, as directed by the City Traffic Engineer, at no cost to the City.

The Contractor shall access the site from the bike path adjacent to Wingra Creek Parkway, on the northwest side of the channel, and from the park areas on the southeast side of the channel. The Contractor shall minimize and isolate traffic across the park path on the southeast side of Wingra Creek to minimize damage to the path.

For the majority of the project, bike traffic shall be rerouted to Wingra Creek Parkway. The Contractor shall provide a durable, smooth surface to transition between the existing path and Wingra Creek Parkway.

When working between Stations 0+00 and 2+00 on the northwest side of the channel, the Contractor shall provide a signed detour for the bike path, as shown on Sheet TC-1. The signed detour shall be limited to 30 days in duration and shall occur prior to April 1, 2015, unless the Contractor has an approved traffic control plan stating an alternative time frame.

Bike path traffic on the park path adjacent to Quann Soccer Fields and Quann Park shall be rerouted for the duration of the project. The Contractor shall provide a signed detour, as shown on Sheet TC-2.

The Contractor is permitted to close one lane of traffic on John Nolen Drive for the construction and removal of curb protection, in order to access the John Nolen Retention Pond site. Placement and removal of curb protection shall occur on a weekday during non-peak hours, between 9 am and 3 pm. All travel lanes on John Nolen Drive shall remain open at all other times. Additionally, the Contractor shall take all necessary precautions to keep the travel lanes on John Nolen Drive free of debris, rocks, or other project materials. The Contractor shall provide a traffic control plan for the lane closure on John Nolen Drive, which must be approved by Traffic Engineering prior to the start of work.

# SECTION 107.8: NOTIFICATION WHEN CLOSING STREET

The Contractor shall not remove traffic signs. For removal or replacement of traffic and parking signs, contact the City of Madison Traffic Engineering Field Operations, 1120 Sayle Street, 266-4767, 8:00 a.m. to 4:00 p.m., a minimum of twenty-four (24) hours in advance of when any existing signs need to be removed. This service is provided free of charge. If the Contractor removes the signs, the Contractor will be billed for the reinstallation of, and any damage to, the signing equipment.

# SECTION 107.13: TREE PROTECTION SPECIFICATIONS

The Contractor is advised to review Article 107.13 of the Standard Specifications for tree protection. Note that Articles 107.13(b) Curb Excavation and Installation, 107.13(c) Sidewalk Excavation and Installation, are not applicable to this project. Other sections are applicable except as provided below.

All trees shall be saved except those trees marked for removal on the plans. It is recognized that grading operations and root cutting of trees within the project limits may need to occur within 5 feet of trees in order to complete the work, but care must be taken in these areas. Roots shall be cut cleanly by using a saw, axe, lopping shears, chain saw, stump grinder, or other means which will produce a clean cut. Exposed roots shall be covered as soon as excavation is complete. The Contractor shall not rip or pull roots out towards the trunk of a tree while excavating with a backhoe. The use of a backhoe to cut roots is NOT acceptable. Grading within 5' of the trees within the construction area, if absolutely required, shall be minimized.

With regard to Article 107.13(f), pruning to accommodate construction equipment invading the tree crown may be done by the Contractor, with advance permission from the Construction Engineer. No pruning will be performed by City Forestry. All pruning shall be done according to ANSI A300 tree pruning specifications.

With regard to Article 107.14(g), no equipment or materials will be allowed to be parked on, or piled on areas within 5 feet of a tree. Construction traffic within 5 feet of a tree will be allowed only where necessary to complete grading operations, as described above, at the discretion of the Construction Engineer.

## SECTION 108.2: PERMITS

The following permits have been applied for (each of the two projects has separate permits):

- 1. Army Corps of Engineers Permit for work in public waters –Non-Reporting permit
- 2. WI-DNR Chapter 30 Permit (Applied for but not yet received)
- 3. WI-DNR WRAPP Water Resources Application for Project Permit, formerly known as a Notice
- of Intent NOI) for construction site erosion control received
- 4. City of Madison Erosion Control and Stormwater Management Permit received

Contractor may not begin work until DNR Chapter 30 permit is received.

It shall be the responsibility of the Contractor to obtain the permits listed below, if required, and to pay all applicable charges and fees associated with these permits.

• Wisconsin DNR Dewatering

All permit costs shall be considered incidental to the various Mobilization bid items for the Contract.

The Contractor shall meet the conditions of all permits and must keep a copy of each individual permit on site at all times throughout construction.

With regard to Control of Invasive or Exotic Species, the Chapter 30 permit will stipulate that any equipment or materials that may be in contact with invasive or exotic species must be decontaminated prior to and after work at the project site. It shall be the Contractor's responsibility to comply with decontamination requirements.

The Contractor shall meet the conditions of the permits involving including properly installing and maintaining the erosion control measures shown on the plans, specified in these Special Provisions, or as directed by the Construction Engineer or his designees. This work will be paid for under the appropriate bid items, or if appropriate items are not included in the contract, they shall be paid for as Extra Work.

The City's obtaining these permits is not intended to be exhaustive of all permits that may be required to be obtained by the Contractor for construction of this project. It shall be the responsibility of the Contractor to identify and obtain any other permits needed for construction.

# SECTION 109.2: PROSECUTION OF WORK

The Contractor shall begin work on or before <u>January 15, 2015</u>. The contract completion date shall be <u>December 18, 2015</u>. This contract provides the Contractor a significant window in which to complete the defined work. It is not intended that Contractor use the entire time provided. Rather, it is intended that the Contractor complete this work during favorable weather conditions and water levels.

Work shall begin only after the start work letter is received. The Contractor shall limit workdays from 7:00 am to 7:00 pm, Monday through Saturday, unless approved by the Engineer in writing.

Permit stipulations prohibit work in the channel between March 15 and May 15. The Contractor may begin work prior to March 15, provided that a shut-down plan detailing the methods used to stabilize the site, is submitted to and approved by the Project Engineer. Work is permitted to occur in the areas outside of the ordinary high water mark between March 15 and May 15.

#### BID ITEM 10911: MOBILIZATION

#### DESCRIPTION

This item shall include all work necessary to mobilize and de-mobilize all equipment, personnel, and incidentals to all portions of this project, including Wingra Creek, Quann Soccer Fields, and the John Nolen Retention Pond.

If a shut-down is required to complete the project, costs associated with preparing a shut-down plan, closing the site for the duration of the shut-down, and re-mobilizing to resume project activities shall be included in this bid item.

#### METHOD OF MEASUREMENT

Mobilization shall be measured as a Lump Sum.

#### **BASIS OF PAYMENT**

Mobilization shall be measured as described above which shall be full compensation for all work, materials, and incidentals required to complete the work as described above.

# BID ITEM 20201: EXCAVATION CUT

#### DESCRIPTION

Excavation Cut shall include all excavation from within the limits shown on the plans. Excavation cut shall be limited to the material generated from the John Nolen Retention Pond. All material generated from Wingra Creek shall be paid for via Bid Item 90033, Dredging.

Excavation shall be completed to the dimensions shown on Sheet P-7. This excavation is occurring to provide compensatory cut for fill occurring within the flood plain associated with construction of the littoral shelves. Therefore, it is unnecessary to meet exact grades and locations with this excavation. Survey verification of the excavation will not be required.

It is anticipated that the material generated in the excavation of the John Nolen Retention Pond will not be suitable for use as fill in littoral shelf construction. If topsoil quality soil is generated from this excavation, it may be used as topsoil in other areas of the project after approval from the Project Engineer or Construction Engineer.

The Contractor shall be responsible for determining a suitable off-site disposal location for excess excavated materials, and shall be responsible for hauling unsuitable material away from the site and for placement at the disposal site. This material shall be hauled in water-tight trucks.

A significant quantity of cattail is currently growing in the area of the proposed excavation. The removal of the vegetation is considered incidental to this bid tiem.

Any undercut or excavation directed by the Engineer beyond the limits shown on the plans shall be measured in the field and paid for as Excavation Cut.

Excavation 1700 cy

## METHOD OF MEASUREMENT

Excavation Cut within the limits shown on the plans will be paid for based on the Cubic Yard as measured per truck. A uniform 6 percent bulking factor shall be applied to all excavated material; therefore, the Contractor shall remove 1802 cubic yards of material from the site. A per truck quantity will be mutually agreed upon by the Contractor, Construction Engineer, and Project Engineer at the preconstruction meeting.

## **BASIS OF PAYMENT**

Excavation shall be paid for at the contract price for work as described and measured above which shall be full compensation for all labor, tools, equipment, and incidentals necessary to complete this item of work.

#### BID ITEM 20221: TOPSOIL

#### DESCRIPTION

Work under this item shall include placement of topsoil within the seeding limits shown on the drawings or as directed by the Engineer in the field, in accordance with Section 202 of the Standard Specifications. Topsoil shall be placed on all disturbed areas, including on newly constructed littoral shelves, four (4) inches thick per the Standard Specifications. Topsoil materials and placement shall be in accordance with Article 202 – Fill.

Salvaged topsoil from on site meeting the specifications may be reused. In some areas the existing topsoil thickness may be adequate and no additional topsoil may be required; however, scarifying of the

existing topsoil may be required and shall be considered incidental to this bid item. If insufficient topsoil is available on site, the Contractor shall import topsoil.

This bid item is intended to accommodate all topsoil activities, including stripping, stockpiling, and replacing topsoil in the areas adjacent to Wingra Creek. Topsoil maintenance associated with dewatering the dredged materials and regrading of Quann Soccer Fields shall be paid under Bid Item 90004.

Topsoil shall not be stockpiled adjacent to the channel, or at elevations below 848 feet.

#### METHOD OF MEASUREMENT

Topsoil within the limits shown on the plan set shall be paid per Square Yard, based on "plan quantity" as shown in the contract without measurement thereof. The plan quantity was computed by measuring all areas between the bike path and channel, on both sides of the channel. Additionally, the Topsoil plan quantity includes the design dimensions of the littoral shelves, as topsoil is to be placed on the newly constructed shelves.

#### **BASIS OF PAYMENT**

Topsoil shall be paid at the contract price for work as described and measured above, which shall be full compensation for all labor, tools, equipment, and incidentals necessary to complete this item of work, including segregating, stockpiling, and preparing salvaged topsoil, furnishing topsoil from off-site as needed, placing, grading and raking finished surface.

#### BID ITEM 20401: CLEARING

#### DESCRIPTION

Work under this item shall include removal of trees indicated on the plans for removal. Prior to construction, trees will be marked in the field with pink paint by City Engineering. Tree sizes noted on the plans are approximate. Any questions or concerns about the removal of particular trees shall be brought promptly to the attention of the Engineer. Clearing shall be as described in the Standard Specifications except as noted below.

All clearing shall be done by sawing trees near the ground line. Under no circumstances is the Contractor permitted to pull trees from the ground or use methods which will significantly disturb existing root systems. Grubbing shall be done with stump grinding equipment, except as noted in Bid Item 20403.

Trees four (4) inches in diameter and smaller, shrubs, brush, windfalls, logs and other vegetation to be removed shall be paid separately under Bid Item 20405 - Brush Clearing. Contractor is strongly encouraged to visit the site prior to bidding in order to become familiar with site access and the quantity of tree removal.

Removal of large tree falls within Wingra Creek will be paid under this bid item.

The Contractor shall be responsible for the proper disposal of the material.

# METHOD OF MEASUREMENT

Clearing will be measured per Inch Diameter, as set forth in the Standard Specifications.

#### **BASIS OF PAYMENT**

The contract unit price for Clearing per inch diameter shall be payment in full for furnishing all labor and equipment for all clearing actually performed, and for the handling and disposal of all debris resulting from clearing and grubbing.

# BID ITEM 20403: GRUBBING

#### DESCRIPTION

Work under this item shall include grubbing following removal of trees indicated on the plans for removal, including the trees marked for removal to provide an access route to the John Nolen Retention Pond. Tree sizes noted on the plans are approximate. Only stumps that directly interfere with channel dredging or creek bank grading shall be excavated. All other stumps shall be ground with stump grinding equipment, or cut within 2 inches of the ground surface and treated with an appropriate herbicide. Herbicide application shall occur in accordance with the manufacturer's recommendations and the City of Madison Policy Regarding Pest Management on City Property. The Contractor shall submit for approval documentation of the type of herbicide, along with the MSDS, to the Project Engineer prior to the start of tree removal. Herbicides containing Triclopyr, Glyphosphate, or similar chemicals are recommended. Herbicides containing Picloram will not be approved.

Under no circumstances is the Contractor permitted to pull trees from the ground or use methods which will significantly disturb existing root systems, except as noted above.

Fill required to backfill holes where stumps are removed shall be considered incidental to this bid item.

Trees four (4) inches in diameter and smaller, shrubs, brush, windfalls, logs and other vegetation to be removed shall be paid separately under Bid Item 20405 - Brush Clearing.

#### METHOD OF MEASUREMENT

Grubbing will be measured per Inch Diameter, as set forth in the Standard Specifications.

#### **BASIS OF PAYMENT**

The contract unit price for Grubbing per inch diameter shall be payment in full for furnishing all labor, equipment, and incidentals necessary to excavate, grind, or treat stumps remaining from clearing activities.

#### BID ITEM 20405: BRUSH CLEARING

#### DESCRIPTION

This item shall include clearing of all brush, trees 4 inches in diameter or smaller, fallen logs, debris, and herbaceous vegetation within the grading limits. The Contractor is strongly encouraged to visit the site prior to bidding in order to become familiar with site access and the quantity of brush removal.

Brush clearing shall consist of removing all unmarked small trees, brush, shrubs, and herbaceous vegetation and completely removing them from site. Smaller trees and brush shall be removed within 1 inch below proposed finished grades. Any fill required to backfill holes where stumps are removed shall be considered incidental to this bid item. All clearing shall be done by sawing brush near the ground line. Under no circumstances is the Contractor permitted to pull trees from the ground or use methods which will significantly disturb existing root systems.

This item shall include removal of windfalls, debris, and logs present within the work area. This item shall also include any trimming of trees and brush by contractor to facilitate access, where approved by the Construction Engineer.

The Contractor shall be responsible for the proper disposal of the material.

#### METHOD OF MEASUREMENT

This item shall be measured as a Lump Sum.

## **BASIS OF PAYMENT**

This work, measured as provided above, will be paid for at the contract price which shall be considered full compensation for furnishing all labor and equipment for all brush clearing performed, and for the handling and disposal of all debris resulting from brush clearing.

## BID ITEM 21061: EROSION MATTING CLASS I - URBAN TYPE A

# DESCRIPTION

Work under this bid item shall include provision and installation of Class I Urban Type A Erosion Control Revegetative Mat (ECRM). Class I, Urban Type A matting shall be placed on all disturbed areas above the ordinary high water mark adjacent to Wingra Creek. Littoral shelves will be stabilized with Erosion Matting, Class II Type C – Organic matting.

Class I Urban Type A matting shall be placed on all restored haul routes between Wingra Creek and Quann Soccer Fields, but shall be considered incidental to Bid Item 90033, Dredging.

# METHOD OF MEASUREMENT

Erosion Matting Class I, Urban Type A within the limits shown on the plan set shall be paid per Square Yard, based on "plan quantity" as shown in the contract without measurement thereof. The plan quantity was computed by measuring all areas between the bike path and existing channel bank, on both sides of the channel. The Contractor shall perform their own calculations to provide additional material necessary for overlapping seams, etc.

## BASIS OF PAYMENT

Erosion Matting Class I – Urban Type A shall be paid at the contract price for work as described and measured above, which shall be full compensation for all labor, tools, equipment, and incidentals necessary to provide and install the matting in accordance with manufacturer's recommendations.

# BID ITEM 21073: EROSION MATTING CLASS II, TYPE C - ORGANIC

## DESCRIPTION

Work under this bid item shall include provision and installation of Class II, Type C – Organic Erosion Control Revegetative Mat (ECRM). Class II, Type C – Organic matting shall be used in two locations during construction of the littoral shelves. First, Class II matting shall be placed between the existing creek bed and fill material. In this application, Dekowe 900 or GeoCoir 900 shall be selected from the Product Acceptability List. These materials were chosen because they have a smaller weave and are 100% biodegradable. An alternate material that meets these criteria may be proposed for this location, subject to the approval of the Project Engineer.

Class II, Type C – Organic matting shall also be placed over the newly constructed littoral shelves. The Contractor shall toe the Class II matting into the fill material, immediately behind the stone bank stabilization material, in order to provide a stable anchorage for the matting. Class II matting will stop at the edge of the existing bank, and will transition to Class I, Urban Type A matting.

## METHOD OF MEASUREMENT

Erosion Matting Class II, Type C - Organic shall be paid per Square Yard, based on "plan quantity" as shown in the contract without measurement thereof. The plan quantity was computed by measuring the approximate design area of the littoral shelves. The Contractor shall perform their own calculations to provide additional material necessary for overlapping seams, etc.

# **BASIS OF PAYMENT**

Erosion Matting Class II, Type C - Organic shall be paid at the contract price for work as described and measured above, which shall be full compensation for all labor, tools, equipment, and incidentals necessary to provide and install the matting in accordance with manufacturer's recommendations.

#### BID ITEM 90001 - TEMPORARY FENCING

# DESCRIPTION

This item includes installation of temporary construction fencing at the locations shown on the drawing, or as directed in the field by the Construction Engineer. The intent of this item is to delineate the area to which the Contractor shall confine their operations, to protect trees, and to direct the public away from construction areas. Minor relocation of fencing may be required as the work progresses. No extra payment shall be made for temporarily opening and re-closing the fence, or minor relocation of the fencing as needed to perform the work.

Construction fencing shall be International Orange color, high-density polyethylene mesh conforming to the following:

- Mesh opening: 1 inch min to 3 inch max
- Height: 4 feet
- Ultimate tensile strength: Avg 3000 lb per 4' width (ASTM D638)

Posts shall be conventional metal "T" or "U" shaped posts. Fencing shall be installed according to the manufacturer's recommendations.

## METHOD OF MEASUREMENT

Temporary fencing shall be measured per Linear Foot installed, maintained, and removed in the field.

## **BASIS OF PAYMENT**

Cost for temporary fencing shall be paid at the contract unit price. Price shall include payment for providing and installing temporary fence and appurtenances, maintenance of fencing as required, creating and closing temporary openings as needed, and removal of fencing and appurtenances, including furnishing all labor, tools, equipment, and incidentals necessary to perform the work.

#### **BID ITEM 90002 – CONSTRUCTION SURVEYING**

## DESCRIPTION

The Contractor shall be responsible for setting and verifying all grades within the dredge area in Wingra Creek, for the construction of the littoral shelves in accordance with the plan set, and for recording the final grades of the regraded Quann Soccer Fields.

The Contractor shall be responsible for configuring the Microstation file to a usable format in order to create nodes, alignments, or other useful data to facilitate surveying and staking.

The Contractor shall use the established horizontal and vertical control points as provided by the City of Madison. The Contractor shall run a level circuit for the project in order to check for accuracy. If GPS is used to establish vertical and horizontal control, the Contractor shall provide a check on accuracy by checking established control locations. If vertical control is established using GPS, the vertical control must be distributed across the site using conventional level circuits.

The vertical datum for this project is National Geodetic Vertical Datum of 1988, 2007 revision.

City Engineering will provide control points and will be checking accuracy to provide quality control.

## METHOD OF MEASUREMENT

Construction Surveying shall be measured as a Lump Sum for work completed in the field.

#### **BASIS OF PAYMENT**

Construction Surveying shall be measured as described above and shall be paid at the contract unit price, which shall constitute full compensation for all work, materials, and incidentals required to complete the work defined in this bid item.

## BID ITEM 90003 - REMOVE AND REPLACE STEEL PLATE BEAM GUARD

#### DESCRIPTION

Work under this bid item shall include the removal and replacement of beam guard along John Nolen Drive, in order to accommodate access to the John Nolen Retention Ponds. The Contractor may salvage the existing beam guard, provided the materials are in good condition both before after removal. The Construction Engineer shall approve the reuse of all materials. The Contractor need only remove sufficient beam guard to provide access for their equipment.

If existing beam guard cannot be salvaged, the Contractor shall provide sufficient and acceptable materials for replacement of the beam guard. Material provision, as necessary, shall be considered incidental to this bid item.

The beam guard shall be replaced in accordance with Wisconsin DOT Standard Detail Drawing 14 B 15-8, or to match existing conditions.

The current Standard Detail Drawing can be found here:

http://roadwaystandards.dot.wi.gov/standards/fdm/SDD/14b15.pdf#1

## METHOD OF MEASUREMENT

Remove and Replace Steel Plate Beam Guard shall be measured per Linear Foot of beam guard removed and replaced in the field.

## **BASIS OF PAYMENT**

Remove and Replace Beam Guard shall be measured as described above and shall be paid at the contract unit price, which shall constitute full compensation for all work, materials, and incidentals required to complete the work defined in this bid item.

## BID ITEM 90004 – QUANN SOCCER FIELD TOPSOIL AND SEEDING

#### DESCRIPTION

Work under this bid item shall include all labor, equipment, materials, and incidentals necessary to strip the existing topsoil from within the grading limits at Quann Soccer field. The topsoil shall be shaped into a stable berm and seeded with No Mow Turf seed mix as defined Article 207 of the Standard Specifications. The seeding shall be completed in accordance with Article 207, including the use of fertilizer and a cover crop, if necessary. Mulching is not necessary for the topsoil berm.

The topsoil berm shall be maintained in good condition for the duration of the project.

After the dredged materials have been graded in accordance with the plans, the topsoil shall be redistributed over all disturbed areas, seeded, fertilized, and matted with straw mulch. The final seeding

for the Quann Soccer Fields shall be completed using Sun Terrace Seed Mix in accordance with Article 207 of the Standard Specifications. The Contractor shall note that seeding and placement of the stockpiled topsoil shall be included with this bid item and will not be paid for per the square yard, as is customary on City projects. Prior to seed placement, City Parks shall approve final grading. The Contractor shall contact Richard Bergmann at (608) 513-3567 and have Mr. Bergmann inspect the site.

## METHOD OF MEASUREMENT

Quann Soccer Field Topsoil and Seeding shall be measured as a Lump Sum.

#### **BASIS OF PAYMENT**

Quann Soccer Field Topsoil and Seeding shall be measured as described above and shall be paid at the contract unit price, which shall constitute full compensation for stripping, stockpiling, temporary seeding, and replacing topsoil on the Quann Soccer Fields. Final seeding and mulching shall be included with this bid item.

#### **BID ITEM 90005 – CHAIN LINK FENCE**

#### DESCRIPTION

This bid item shall include all work, materials, labor, and incidentals required to install new chain link fence along the southwest boundary of the dog park adjacent to Wingra Creek, as shown on the plan set. The chain link fence shall be installed accordance with the detail shown on Sheet D-2. The fence is being removed solely to facilitate construction access. The Contractor may choose to not remove the fence, or salvage any portion of the existing fence. If removed, the fence shall be re-installed in exactly the same configuration as currently exists, including the size and location of the gate. The Construction Engineer shall approve the condition of all reused materials.

## METHOD OF MEASUREMENT

Chain Link Fence shall be measured by the Linear Foot of fence installed in the field.

#### **BASIS OF PAYMENT**

Chain Link Fence shall be measured as described above and shall be paid for at the unit price, which shall be considered full compensation for furnishing, hauling, stockpiling as needed, and placing the fence and gate. This shall include all equipment, tools, labor, and incidentals necessary to complete the work as set forth in this description.

#### BID ITEM 90006 – SEEDING – WETLAND EMERGENT

#### DESCRIPTION

Work under this bid item shall include provision and placement of the seed mix defined below at the locations shown in the plan set. It is the intent that Wetland Emergent seed mix be placed on the portion of littoral shelf (a 10-12 foot strip, approximately) that is immediately adjacent to the channel. Seeding shall be completed in accordance with Article 207 of the Standard Specifications, including the use of fertilizer, polymer, and a cover crop if necessary. Following seeding, the site shall be stabilized with erosion control matting, which shall be paid separately under the appropriate bid item.

The seed mix, as defined below, was provided by Agrecol in Madison, Wisconsin (608-223-3571). The Contractor may choose to use an alternate supplier, but shall submit the seed mix and supplier contact information to the Project Engineer for approval.

Wetland Emergent Seed Mix		
4.00 PLS lbs/acre		
113.00 PLS seeds/square foot		
Wildflowers		oz/acre
Acorus calamus	Sweet Flag	5.00
Alisma subcordatum	Common Water Plantain	2.00
Iris virginica	Blue Flag Iris	3.50
Mimulus ringens	Monkey Flower	0.20
Sagittaria latifolia	Arrowhead	2.00
Sparganium Eurycarpum	Gian Bur-Reed	6.00
Grasses, Sedges & Rushes	Plue Joint Cross	oz/acre
Calamagrostis canadensis Carex Comosa	Blue Joint Grass	1.25
	Bristly Sedge	5.00
Carex crinita	Fringed Sedge	2.00 5.00
Carex hystericina	Porcupine Sedge Reed Manna Grass	3.00
Glyceria Grandis Glyceria striata	Fowl Manna Grass	2.00
Juncus effusus	Common Rush	0.30
Leersia oryzoides	Rice Cut Grass	4.00
Scirpus acutus	Hard-Stemmed Bulrush	1.00
Scirpus atrovirens	Dark-Green Bullrush	2.00
Scirpus cyperinus	Wool Grass	0.75
Scirpus fluviatilis	River Bullrush	2.50
Scirpus pendulus	Red Bullrush	1.00
Scirpus validus	Sotf-Stem Bullrush	2.50
Spartina pectinata	Prairie Cord Grass	13.00

# METHOD OF MEASUREMENT

Seeding – Wetland Emergent within the limits shown on the plan set shall be paid per Square Yard, based on "plan quantity" as shown in the contract without measurement thereof.

## **BASIS OF PAYMENT**

Seeding – Wetland Emergent shall be measured as described above and shall be paid at the contract unit price, which shall constitute full compensation for provision and placement of seed as defined in this section and Article 207 of the Standard Specifications.

## BID ITEM 90007 - SEEDING - FLOOD PLAIN

#### DESCRIPTION

Work under this bid item shall include provision and placement of the seed mix defined below at the locations shown in the plan set. It is the intent that Flood Plain seed mix be placed in the transition zone between the ordinary high water mark and the Wetland Emergent seed zone. Seeding shall be completed in accordance with Article 207 of the Standard Specifications, including the use of fertilizer, polymer, and a cover crop if necessary. Following seeding, the site shall be stabilized with erosion control matting, which shall be paid separately under the appropriate bid item.

The seed mix, as defined below, was provided by Agrecol in Madison, Wisconsin. The Contractor may choose to use an alternate supplier, but shall submit a seed mix to the Project Engineer for approval.

Flood Plain Seed Mix		
8.00 PLS lbs/acre		
82.00 PLS seeds/square foot		
\\/{idflowere		
Wildflowers		oz/acre
Alisma subcordatum	Common Water Plantain	1.00
Asclepias incarnata	Marsh Milkweed	3.00
Aster novae-angliae	New England Aster	1.00
Aster puniceus	Red-Stemmed Aster	1.00
Eupatorium maculatum	Spotted Joe Pye Weed	1.00
Eupatorium perfoliatum	Boneset	0.50
Helenium autumnale	Sneezeweed	0.30
Helianthus grosseserratus	Saw-Tooth Sunflower	0.50
Liatris spicata	Marsh Blazing Star	3.00
Lobelia cardinalis	Cardinal Flower	0.30
Lobelia siphilitica	Great Blue Lobelia	0.35
Pycnanthemum virginianum	Mountain Mint	0.50
Rudbeckia laciniata	Wild Golden Glow	3.00
Silphium perfoliatum	Cupplant	4.00
Solidago riddellii	Riddell's Goldenrod	4.00
Verbena hastata	Blue Vervain	2.00
Venonia fasciculata	Ironweed	4.00
Zizia aurea	Golden Alexanders	4.00
Grasses, Sedges & Rushes		oz/acre
-		
Bromus ciliatus	Fringed Brome	24.00
Carex vulpinoidea	Brown Fox Sedge	4.00
Elymus riparius	River Bank Wild Rye	30.00
Elymus virginicus	Virginia Wild Rye	24.00
Glyceria grandis	Reed Manna Grass	2.00
Leersia oryzoides	Rice Cut Grass	2.00
Scirpus atrovirens	Dark-Green Bullrush	1.00
Scirpus cyperinus	Wool Grass	0.25
Scirpus fluviatilis	River Bullrush	3.00
Scirpus validus	Soft-Stemmed Bullrush	0.30
Spartina pectinata	Prairie Cord Grass	4.00

## METHOD OF MEASUREMENT

Seeding – Flood Plain within the limits shown on the plan set shall be paid per Square Yard, based on "plan quantity" as shown in the contract without measurement thereof.

## **BASIS OF PAYMENT**

Seeding – Flood Plain shall be measured as described above and shall be paid at the contract unit price, which shall constitute full compensation for provision and placement of seed as defined in this section and Article 207 of the Standard Specifications.

# BID ITEM 90008 – ASPHALT PATH REPAIR (PARK)

## DESCRIPTION

Work under this bid item shall include all labor, materials, equipment, and incidentals necessary to repair the asphalt path within Quann Park. It is anticipated that the bike path on the northwest side of the channel will be significantly damaged during construction and will, therefore, be resurfaced. That work is not included in this bid item and will be paid separately. For the most part, the asphalt path within the park (on the southeast side of the channel) can and should be avoided, with the exception of defined crossing areas. This bid item is intended to accommodate repair of the path in locations where repeated crossing occurs. The Contractor shall designate the specific locations to which the path crossing will be limited. The Construction Engineer shall approve all asphalt repair in the park path.

The Contractor shall sawcut the existing pavement at the outer limits of damage and remove the asphalt between the sawcuts. The Contractor shall properly dispose of the removed asphalt.

The Contractor shall import, place, and compact 6 inches of crushed aggregate base course. Three inches of HMA Pavement Type E-0.3 shall be imported and placed in accordance with Section 4 of the Standard Specifications. Compaction with a hand compacter will be acceptable for these repairs.

Path dimensions shall match the existing path. Approximately 0.4 tons of asphalt is estimated for this repair.

#### METHOD OF MEASUREMENT

Asphalt Repair shall be measured per Square Yards of asphalt repair made in the field.

#### BASIS OF PAYMENT

Asphalt Repair shall be measured as described above and shall be paid for at the contract unit price, which shall be considered full compensation for sawcutting and removing existing asphalt, importing and placing 6 inches of crushed aggregate base course, and importing and placing 3 inches of HMA Pavement Type E-0.3.

#### BID ITEM 90030 - STORM/STREAM CONTROL

#### DESCRIPTION

Work under this item shall include all work, materials, equipment, and incidentals required to control wet and dry weather flow in the channel, from the adjacent storm sewers, and within John Nolen Drive Retention Pond excavation area. The Contractor shall expect water to be present in Wingra Creek at all times. This channel is heavily influenced by the water levels in Lake Monona. Therefore, if the lake level is high, the Contractor shall expect the creek level to be elevated and remain elevated. The Contractor shall take all necessary steps to protect the new structures and channels from damage during construction and to accommodate the existing flows during construction.

This item includes all storm control necessary for all aspects of the Construction. This item is not for control of groundwater.

#### METHOD OF MEASUREMENT

Storm Control shall be measured as a Lump Sum for all storm control necessary throughout construction.

## **BASIS OF PAYMENT**

Storm Control will be paid for at the contract sum price, which shall be full compensation for all work as provided in the description.

# BID ITEM 90031 - SILT CURTAIN

#### DESCRIPTION

Work under this bid item shall include all work, labor, materials, and incidentals necessary to provide, install, maintain, and remove Silt Curtain in accordance with these special provisions and Wisconsin DNR Conservation Practice Standard 1070, which is attached to these special provisions.

Three layers of silt curtain shall be installed immediately downstream of the project area. The layers of silt curtain shall be between 10 and 15 apart. The curtain shall be installed in a manner that allows water to overtop each layer of curtain in the center of the channel. Please see the detail on Sheet D-2.

Silt Curtain shall be installed perpendicular to flow in Wingra Creek and shall be continuous between opposite banks. The installation shall be free of tears and gaps. Where Silt Curtain installations intersect the creek bank, the Contractor shall minimize gapping.

If a project shut-down occurs, the silt curtain shall be removed from the channel. It shall be reinstalled when work at the site resumes. The Contractor shall be compensated for both installations.

#### METHOD OF MEASUREMENT

Silt Curtain shall be measured as per Linear Foot of Silt Curtain installed, maintained, and removed in the field. Installations of salvaged Silt Curtain material will be paid as new material, provided it meets the original specifications.

## **BASIS OF PAYMENT**

Silt Curtain shall be measured as described above and shall be paid for at the contract unit price, which shall be considered full compensation for providing, installing, maintaining, and removing Silt Curtain as described above.

# BID ITEM 90032 - LIGHT RIPRAP – GLACIAL FIELD STONE

#### DESCRIPTION

This item includes all work, materials, labor, and incidentals required to provide and install glacial field stone as shown in the plan set and described in these Special Provisions. The stone shall meet the size requirements defined below and shall be comprised of rounded, durable, non-sedimentary material that is not susceptible to freeze-thaw degradation. The stone shall meet the following size requirements:

D50 Median Stone Size	% of Material Smaller than Typical Stone	Typical Stone Equivalent Diameter (Inches)
9	70-100	12
	50-70	9
	35-50	6
	2-10	4

The Light Riprap Glacial Field Stone shall be placed a minimum of 12 inches deep.

The stone shall be placed on the channel banks after dredging has been completed in the immediate area and shall be placed at a slope of approximately 3:1. The stone shall be underlain with non-woven geotextile fabric. The fabric shall be paid separately under Bid Item 20140.

#### METHOD OF MEASUREMENT

Light Riprap Glacial Field Stone shall be measured per Ton of stone placed in the field. All tickets shall be presented to the City representative on the project within twenty-four (24) hours after delivery of the materials to the project.

## **BASIS OF PAYMENT**

Light Riprap Glacial Field Stone shall be measured as described above and shall be paid for at the contract unit price, which shall be considered full compensation for furnishing, hauling, stockpiling as needed, and placing the material, including all equipment, tools, labor and incidentals necessary to complete the work as set forth in the description.

## BID ITEM 90033: DREDGING

## DESCRIPTION

Work under this item shall include dredging of sediments from Wingra Creek in the locations shown on the plan set. The Contractor shall submit for approval a dredging and sediment transport plan prior to beginning work in Wingra Creek. Mechanical dredging will be considered an acceptable methodology. The intent of the dredging is to remove sediment accumulated from storm water runoff and sloughing of the stream bank. The Contractor shall remove sediment to an elevation of 841.00.

Regardless of dredging methodology, all material shall be hauled, pumped, or transported to the Quann Soccer Fields, which are southwest of the Quann Dog Park and shown on Sheet O-1 and P-6. Dredged materials that are hauled on city streets shall be transported using water-tight, sealed trucks. Dredged materials hauled on City Park land do not need to be transported in sealed trucks. Dredged materials shall be allowed to dewater in-place within the soccer fields until they are dry enough to be graded to the approximate lines and grades shown on the drawings using standard construction equipment. All work required for dewatering shall be paid under Bid Item 90034.

Dredged material generated between Stations 0+50 and 2+00 is contaminated with low-level polychlorinated biphenyl (PCB) concentrations. This material shall be segregated from all other material generated during dredging activities. It does not need to be contained, rather segregated to ensure an ultimate burial depth of 2 feet or greater during final grading of the Quann Soccer Field.

If trash is encountered in the dredging process, it shall be segregated and properly disposed of by the Contractor. Managing any large trash shall be considered incidental to this bid item.

Final grading of the dredged materials, following dewatering, shall be included in this bid item. Grading shall be completed in accordance with the grading plan shown on Sheet P-6.

All costs related to dredging and grading the channel banks to a 3:1 slope, regardless of method used, shall be included with this bid item. No separate payment shall be made for facilitating access, temporary fills, barges, etc. The Contractor may elect to accomplish dredging by placement of temporary fill in locations

All labor, equipment, materials, and incidentals necessary to restore haul routes between Wingra Creek and Quann Soccer Fields shall be considered incidental to this bid item. This includes final grading of haul routes, topsoiling, seeding, and mulching disturbed areas. Straw mulch will be permitted in restoration locations outside of the grading limits shown on Sheets P-1 through P-4. Seed used outside of the grading limits shown on Sheets P-1 through P-4. Seed Mix, which shall be placed in accordance with Article 207 of the Standard Specifications.

If the Contractor chooses to use the Quann Park asphalt path as a haul route, damage to the path shall be repaired, or the path resurfaced, as part of this bid item.

#### METHOD OF MEASUREMENT

Dredging shall be paid per Cubic Yard of material removed from Wingra Creek. This item may be measured per the plan quantity, which was determined from cross-sectional areas. Alternatively, the Contractor may choose to measure the volume by survey. The final volume shall be computed by determining the difference between the original ground surface and the final surface. The Contractor shall be responsible for gathering the final survey of Quann Soccer Field, which shall be checked by City Surveyors.

# BASIS OF PAYMENT

Dredging shall be measured as defined above, and shall be paid for at the contract unit price, which shall be considered full compensation for all work, materials, equipment, and incidentals necessary to dredge Wingra Creek to the lines and grades defined in the plan set, to haul the dredged material to Quann Soccer Field, to final grade the dewatered sediment, and to repair and restore all haul routes between Wingra Creek and Quann Soccer Field.

#### BID ITEM 90034 - DEWATERING (DREDGED MATERIAL)

#### DESCRIPTION

Dredged materials shall be allowed to dewater in place within the Quann Soccer Fields grading limits, as shown on Sheet P-6, until they are dry enough to be graded to the approximate lines and grades shown on the drawings using standard earth moving equipment.

Dredged materials may require "working" in order for full dewatering to occur. This bid item includes any and all work required to facilitate dewatering of dredged materials, including but not limited to any temporary grading, disking, raking, or multiple handling of dredged materials that may be necessary for drying. The Contractor shall provide a dewatering plan to the Project Engineer for approval one week prior to commencing dredging activities.

Dredged material generated between Stations 0+50 and 2+00 shall remain segregated for the duration of dewatering activities to ensure an ultimate burial depth of 2 feet or deeper during final grading.

Final grading of dredged materials following dewatering shall be paid under Bid Item 90033, Dredging.

#### METHOD OF MEASUREMENT

Dewatering shall be measured as a Lump Sum for all dewatering activities.

#### **BASIS OF PAYMENT**

Dewatering, as measured above, shall be paid at the contract unit price, which shall constitute full compensation for all labor, equipment, materials, and incidentals necessary to complete dewatering activities for the materials dredged from Wingra Creek, as described above.

# BID ITEM 90035 - STEPPED STONE REVETMENT (STATION 1+25)

#### DESCRIPTION

Work under this item shall include all work, materials, labor and incidentals necessary for the Contractor to provide and install 10 linear feet of Stepped Stone Revetment at Station 1+25 in accordance with the Specification that follows, and as shown on Sheet D-1. Filter Fabric and Clear Stone to be used in the revetment installation shall be paid separately, under Bid Items 20140 and 20217, respectively.

# **CONSTRUCTION METHODS**

The Stepped Stone Revetment shall be constructed as shown in the plan set. A suitable foundation, as approved by the Engineer shall be provided to preclude settlement. Filter Fabric shall be installed under the bed, as shown on the drawings. Clear stone and filter fabric shall be installed according to the Standard Specifications. Each stone step shall be firmly set with no rocking or tipping, providing a firm foundation for subsequent layers. Cut stone blocks shall be field cut as required to fit tightly to abutting structures.

- 1. The stepped stone revetment shall be placed by equipment on the surfaces and to the depths specified on the drawings.
- 2. Stone shall be placed tightly together such that at least 60% of all joined faces are in direct contact and no more than 1.5-inch gap exists at any point along the joint. Vertical seams shall be staggered. Chiseling or cutting of the stone may be needed. Any costs for working the stone shall be included in the prices bid.
- 3. The finished surface aesthetic is critical. The stone layers shall follow the requirements noted on the plan. The tread width shall be consistent along each elevation and the stones shall fit snugly together and have no gaps larger than 1.5-inch. Working of stone faces may be required to achieve desired tolerances.
- 4. The intention of the above tolerances is that the work will be generally built to the required elevation, slopes and grades, and that the outer surfaces shall present a neat and aesthetic appearance. Placed material not meeting these intentions shall be removed and/or reworked to the satisfaction of the Owner's Representative. The Contractor is encouraged to look at a similar application of stone steps along the shoreline of Lake Mendota in front of the boathouse at James Madison Park.

# QUALITY CONTROL

- A. Stone Quality and Gradation
  - 1. The Contractor is responsible for, and shall establish and maintain, quality control for all work performed at the quarry and at the job site to ensure compliance with the specifications.
  - 2. The Contractor shall provide a quarry inspector for all stepped stone. The inspector's responsibilities shall include, but not be limited to:
    - a. A visual test shall be made at the quarry for elongation, cracks, deterioration and other defects visible to the naked eye on at least two-thirds of the surface area of the stone. Ten percent of the stone checked for cracks shall be wetted and reinspected for minute cracks to determine if they would be detrimental to the stone quality and if additional inspections are necessary on all stone. Stones with cracks that are detrimental to a long-lasting product shall not be shipped to the project site.
    - b. Quarry representative shall pick stones of similar height dimensions for each layer. Stones shall have face and sides perpendicular to each other or angles that will match adjacent stone to achieve a tight fit. Stones intended for each layer shall be marked on the back to identify exact location in the finished work.
  - 3. The Owner's Representative reserves the right to inspect the quarry operations at any time to check for compliance to the specifications.
  - 4. All Stepped Stone shall be produced from the same quarry.

# B. Test Section

- 1. General
  - a. The initial stepped stone revetment section will be considered as a test section. The purpose of the test sections will be to establish an in-the-field standard, built in accordance with the requirements of the contract documents, to which the remainder of the stepped stone revetment shall be constructed. The Contractor will make whatever modifications are necessary to placement procedures such that this standard will be achieved consistently during construction of the remainder of the revetment.
- 2. Execution
  - a. The Contractor shall lay out the work, provide any survey control as needed for control of the work beyond the initial stakeout by City.
  - b. The Contractor shall make every effort to place the stone to the lines, grades and course thicknesses shown on the drawings.
  - c. The Contractor's equipment and methods for handling each classification of stone shall be such that all placement requirements of this section are satisfied.
- 3. Approval
  - a. The Contractor will be required to rework deficient portions of the test section to meet these requirements. If during construction of the test section, it becomes evident that the Contractor cannot achieve the required neat lines and course thicknesses due to the type of stone being used, modifications to the section will be made. Upon approval, the test section can be incorporated into the remaining work such that removal will not be necessary.
- 4. Modifications
  - a. The Contractor will make any necessary modifications to placement equipment and procedures to achieve the specified in-place requirements.
- C. Delivery, Storage and Handling
  - 1. General
    - a. The Contractor shall exercise care in the transportation of all stone materials to prevent cracking, splitting, spalling, etc., that would otherwise lead to rejection at the job site.
    - b. The Contractor shall handle and store bedding stone material to ensure that stockpiles are not contaminated with other soils and materials, and to limit the segregation of material sizes.

# PRODUCTS

- A. General
  - 1. Materials which have been delivered to the project site and are rejected, whether in stockpile or in place in the structure, shall be removed from the project site at the Contractor's expense. Any damages to approved stone prior to substantial completion,

due to Contractor or subcontractor operations, wave activity, or otherwise, shall be repaired by the Contractor at no additional cost to the Owner.

- B. Sources for Stone Blocks
  - 1. The following listed sources have supplied materials that meet the quality requirements specified. All stone shall be produced from the sources listed below and meet the requirements of Article 2.06 and other requirements of these specifications:

Michels Materials, Valders, WI, 920-478-2084 Halquist Stone, Sussex, WI, 800-255-8811 Valders Stone and Marble, Inc., Valders, WI, 800-569-2156

#### C. Material Quality

- 1. All stone shall be highly resistant to weathering and disintegration under freezing and thawing and wetting and drying conditions, and shall be of a quality to ensure permanence of the structure in the climate in which it is to be used. The stone shall be durable, sound, and free from detrimental cracks, seams and other defects which tend to increase deterioration from natural causes or cause breakage in handling and/or placing. A high argillaceous or shale content is often indicative of poorer quality rock being more susceptible to weathering, abrasion, thin bedding, close fracturing and other undesirable rock properties.
- D. Other Sources
  - 1. If the Contractor elects to use stone from a source not indicated as previously approved by the USACE, the material must be approved by the USACE and the Owner's Representative, prior to its production, for use on this project. This approval process may include any or all of the following, as directed by the Owner's Representative.
    - a. Test samples of the proposed stone shall be obtained by the Contractor at its own expense. Samples selected for testing shall be representative of material formations in the quarry to be used or being used on the project. The representative must be present and agree on the selection of all test samples prior to shipment. The Owner's Representative may personally select all samples if he so elects.
    - b. The samples shall be shipped or delivered by the Contractor, at its expense, to the Local Division Laboratory, U.S. Army Corps of Engineers.
    - c. Tests to which the material may be subject to include one or more of the following: petrographic examination; specific gravity; abrasion; absorption; wetting and drying; freezing and thawing; soundness; compressive strength; expansion; tensile strength; pulse velocity; gradation; water content; dry unit weight and total porosity; elastic moduli; direct shear; and any other tests determined necessary to ensure that the stone is suitable for its intended use.
    - d. The Contractor is responsible for allowing sufficient time for the testing to be completed such that there are no delays in construction.
    - e. If the Contractor elects to use material from a source not previously approved, all costs incurred as a result of testing to verify material acceptability shall be the responsibility of the Contractor.
- E. Quarry Operations
  - 1. Quarry operations shall be conducted by the Contractor/supplier in a manner that will produce stone conforming to the requirements specified, and may involve selective quarrying, handling and loading as necessary. Blasting and handling of rock shall be controlled by the Contractor/supplier to produce stone of the size ranges and quality specified. Techniques such as the use of proper hole diameter, hole depth, hole angle, burden and spacing distances, types and distribution of explosives, delay interval and sequence, removal of muck piles between each shot and special handling techniques will be required as necessary to produce the specified materials. All specifications of blasting operations shall be specifically designed so that the end product is not damaged from the blasting technique and that the stone is suitable for the intended purpose.
  - 2. All sedimentary quarry stone from any source shall be stockpiled at the quarry a minimum of 48 hours prior to shipment to the project site. No stone production shall be allowed prior to 1 April or after 1 November, unless quarry history is available to ensure that durable stone can be quarried in freezing temperatures.

# METHOD OF MEASUREMENT

Stepped Stone Revetment (Station 1+25) shall be measured per Linear Foot of steps acceptably completed, as measured along the reference line. Only accepted work will be measured for payment.

# BASIS OF PAYMENT

Stepped Stone Revetment (Station 1+25) shall be measured as described above and shall be paid at the contract price which shall be full compensation for all materials, labor and equipment necessary for a complete installation including preparation of the bed and stone steps as defined herein, but not including filter fabric, clear stone, or ECRM above the steps.

# BID ITEM 90036 - STEPPED STONE REVETMENT (STATION 6+50)

# DESCRIPTION

Work under this item shall include all work, materials, labor and incidentals necessary for the Contractor to provide and install 25 linear feet of Stepped Stone Revetment at Station 6+50 in accordance with the Specification that follows, and as shown on the drawings. Filter Fabric and Clear Stone to be used in the revetment installation shall be paid separately, under Bid Items 20140 and 20217, respectively.

# **CONSTRUCTION METHODS**

The Stepped Stone Revetment shall be constructed as shown in the plan set. A suitable foundation, as approved by the Engineer shall be provided to preclude settlement. Filter Fabric shall be installed under the bed, as shown on the drawings. Clear stone and filter fabric shall be installed according to the Standard Specifications. Each stone step shall be firmly set with no rocking or tipping, providing a firm foundation for subsequent layers. Cut stone blocks shall be field cut as required to fit tightly to abutting structures.

- 5. The stepped stone revetment shall be placed by equipment on the surfaces and to the depths specified on the drawings.
- 6. Stone shall be placed tightly together such that at least 60% of all joined faces are in direct contact and no more than 1.5-inch gap exists at any point along the joint. Vertical seams shall be staggered. Chiseling or cutting of the stone may be needed. Any costs for working the stone shall be included in the prices bid.

- 7. The finished surface aesthetic is critical. The stone layers shall follow the requirements noted on the plan. The tread width shall be consistent along each elevation and the stones shall fit snugly together and have no gaps larger than 1.5-inch. Working of stone faces may be required to achieve desired tolerances.
- 8. The intention of the above tolerances is that the work will be generally built to the required elevation, slopes and grades, and that the outer surfaces shall present a neat and aesthetic appearance. Placed material not meeting these intentions shall be removed and/or reworked to the satisfaction of the Owner's Representative. The Contractor is encouraged to look at a similar application of stone steps along the shoreline of Lake Mendota in front of the boathouse at James Madison Park.

# QUALITY CONTROL

- A. Stone Quality and Gradation
  - 1. The Contractor is responsible for, and shall establish and maintain, quality control for all work performed at the quarry and at the job site to ensure compliance with the specifications.
  - 2. The Contractor shall provide a quarry inspector for all stepped stone. The inspector's responsibilities shall include, but not be limited to:
    - a. A visual test shall be made at the quarry for elongation, cracks, deterioration and other defects visible to the naked eye on at least two-thirds of the surface area of the stone. Ten percent of the stone checked for cracks shall be wetted and re-inspected for minute cracks to determine if they would be detrimental to the stone quality and if additional inspections are necessary on all stone. Stones with cracks that are detrimental to a long-lasting product shall not be shipped to the project site.
    - b. Quarry representative shall pick stones of similar height dimensions for each layer. Stones shall have face and sides perpendicular to each other or angles that will match adjacent stone to achieve a tight fit. Stones intended for each layer shall be marked on the back to identify exact location in the finished work.
  - 3. The Owner's Representative reserves the right to inspect the quarry operations at any time to check for compliance to the specifications.
  - 4. All Stepped Stone shall be produced from the same quarry.
- B. Test Section
  - 1. General
    - a. The initial stepped stone revetment section will be considered as a test section. The purpose of the test sections will be to establish an in-the-field standard, built in accordance with the requirements of the contract documents, to which the remainder of the stepped stone revetment shall be constructed. The Contractor will make whatever modifications are necessary to placement procedures such that this standard will be achieved consistently during construction of the remainder of the revetment.
  - 2. Execution
    - a. The Contractor shall lay out the work, provide any survey control as needed for control of the work beyond the initial stakeout by City.

- b. The Contractor shall make every effort to place the stone to the lines, grades and course thicknesses shown on the drawings.
- c. The Contractor's equipment and methods for handling each classification of stone shall be such that all placement requirements of this section are satisfied.
- 3. Approval
  - a. The Contractor will be required to rework deficient portions of the test section to meet these requirements. If during construction of the test section, it becomes evident that the Contractor cannot achieve the required neat lines and course thicknesses due to the type of stone being used, modifications to the section will be made. Upon approval, the test section can be incorporated into the remaining work such that removal will not be necessary.
- 4. Modifications
  - b. The Contractor will make any necessary modifications to placement equipment and procedures to achieve the specified in-place requirements.
- C. Delivery, Storage and Handling
  - 1. General
    - c. The Contractor shall exercise care in the transportation of all stone materials to prevent cracking, splitting, spalling, etc., that would otherwise lead to rejection at the job site.
    - d. The Contractor shall handle and store bedding stone material to ensure that stockpiles are not contaminated with other soils and materials, and to limit the segregation of material sizes.

# PRODUCTS

- A. General
  - 1. Materials which have been delivered to the project site and are rejected, whether in stockpile or in place in the structure, shall be removed from the project site at the Contractor's expense. Any damages to approved stone prior to substantial completion, due to Contractor or subcontractor operations, wave activity, or otherwise, shall be repaired by the Contractor at no additional cost to the Owner.
- C. Sources for Stone Blocks
  - 2. The following listed sources have supplied materials that meet the quality requirements specified. All stone shall be produced from the sources listed below and meet the requirements of Article 2.06 and other requirements of these specifications:

Michels Materials, Valders, WI, 920-478-2084 Halquist Stone, Sussex, WI, 800-255-8811 Valders Stone and Marble, Inc., Valders, WI, 800-569-2156

- C. Material Quality
  - 1. All stone shall be highly resistant to weathering and disintegration under freezing and thawing and wetting and drying conditions, and shall be of a quality to ensure

permanence of the structure in the climate in which it is to be used. The stone shall be durable, sound, and free from detrimental cracks, seams and other defects which tend to increase deterioration from natural causes or cause breakage in handling and/or placing. A high argillaceous or shale content is often indicative of poorer quality rock being more susceptible to weathering, abrasion, thin bedding, close fracturing and other undesirable rock properties.

- D. Other Sources
  - 1. If the Contractor elects to use stone from a source not indicated as previously approved by the USACE, the material must be approved by the USACE and the Owner's Representative, prior to its production, for use on this project. This approval process may include any or all of the following, as directed by the Owner's Representative.
    - a. Test samples of the proposed stone shall be obtained by the Contractor at its own expense. Samples selected for testing shall be representative of material formations in the quarry to be used or being used on the project. The representative must be present and agree on the selection of all test samples prior to shipment. The Owner's Representative may personally select all samples if he so elects.
    - b. The samples shall be shipped or delivered by the Contractor, at its expense, to the Local Division Laboratory, U.S. Army Corps of Engineers.
    - c. Tests to which the material may be subject to include one or more of the following: petrographic examination; specific gravity; abrasion; absorption; wetting and drying; freezing and thawing; soundness; compressive strength; expansion; tensile strength; pulse velocity; gradation; water content; dry unit weight and total porosity; elastic moduli; direct shear; and any other tests determined necessary to ensure that the stone is suitable for its intended use.
    - d. The Contractor is responsible for allowing sufficient time for the testing to be completed such that there are no delays in construction.
    - e. If the Contractor elects to use material from a source not previously approved, all costs incurred as a result of testing to verify material acceptability shall be the responsibility of the Contractor.
- E. Quarry Operations
  - 1. Quarry operations shall be conducted by the Contractor/supplier in a manner that will produce stone conforming to the requirements specified, and may involve selective quarrying, handling and loading as necessary. Blasting and handling of rock shall be controlled by the Contractor/supplier to produce stone of the size ranges and quality specified. Techniques such as the use of proper hole diameter, hole depth, hole angle, burden and spacing distances, types and distribution of explosives, delay interval and sequence, removal of muck piles between each shot and special handling techniques will be required as necessary to produce the specified materials. All specifications of blasting operations shall be specifically designed so that the end product is not damaged from the blasting technique and that the stone is suitable for the intended purpose.
  - 2. All sedimentary quarry stone from any source shall be stockpiled at the quarry a minimum of 48 hours prior to shipment to the project site. No stone production shall be allowed prior to 1 April or after 1 November, unless quarry history is available to ensure that durable stone can be quarried in freezing temperatures.

# METHOD OF MEASUREMENT

Stepped Stone Revetment (Station 6+50) shall be measured per Linear Foot of steps acceptably completed, as measured along the reference line. Only accepted work will be measured for payment.

### BASIS OF PAYMENT

Costs for Stepped Stone Revetment (Station 6+50) shall be measured as described above and shall be paid at the contract price which shall be full compensation for all materials, labor and equipment necessary for a complete installation including preparation of the bed and stone steps as defined herein, but not including filter fabric, clear stone, or ECRM above the steps.

# BID ITEM 90037 – LITTORAL SHELF CONSTRUCTION

### DESCRIPTION

Work under this bid item includes all labor, equipment, materials, and incidentals necessary to construct littoral shelves to the lines and grades shown on the plan set.

The Contractor shall place a layer of Erosion Matting Class II, Type C – Organic between the existing creek bed and imported fill. The matting shall be toed-in behind the stone used to armor the banks. The matting placed between the existing creek bed material and the fill shall be Dekowe 900, GeoCoir 900, or approved equal. In this application, Dekowe 900 or GeoCoir 900 shall be selected from the Product Acceptability List. These materials were chosen because they have a smaller weave and are 100% biodegradable. An alternate material that meets these criteria may be proposed for this location, subject to the approval of the Project Engineer. All Erosion Control Matting, Class II, Type C shall be paid separately under that bid item.

Clean fill shall then be placed over the matting to achieve the elevations shown on the plan set. The Contractor shall anticipate settlement between 0.5 and 1 foot in the existing creek bed. An average settlement of 0.75 feet was used to calculate the fill estimate shown below. Provision and placement of fill material shall be considered incidental to this bid item.

Fill: 3864 CY

Four inches of topsoil shall be placed over the fill material. Topsoil shall be paid separately under Bid Item 20221 and shall be placed in accord with Article 202 of the Standard Specifications.

The littoral shelf shall be seeded according to Sheet D-2 and stabilized with Erosion Control Matting Class II, Type C – Organic **immediately following fill and topsoil placement**. Seed shall be placed in accordance with Article 207 of the Standard Specifications. Any Class II, Type C matting listed on the WI DOT Product Acceptability List is acceptable for the surface matting. Seeding and erosion matting shall be paid separately under the appropriate bid items.

The Contractor shall manage their schedule so as not to leave a partially constructed littoral shelf exposed to rainfall, or rising creek levels.

# METHOD OF MEASUREMENT

Littoral Shelf shall be measured per Square Foot of shelf constructed.

# BASIS OF PAYMENT

Littoral Shelf shall be measured as defined above and shall be paid at the contract unit price, which shall constitute full payment for the construction of the littoral shelves and described above.

# BID ITEM 90038 - WOODY DEBRIS FISH HABITAT

# DESCRIPTION

The Contractor shall provide and install Woody Debris Fish Habitat at the locations shown on the drawings.

This item shall include installation and anchoring of a tree trunk and limbs salvaged from site clearing activities, as shown on the detail in Sheet D-2. Excavation, Fill, Clear Stone, Filter Fabric, Topsoil, Seeding, and ECRM shall be paid separately under their respective bid items, except additional quantities of these items and/or reworking/reconfiguration of these items needed to accommodate installation of the tree trunk, shall be considered incidental to this bid item, and no measurement of these additional quantities shall be made.

Anchorage systems shall consist of anchors, plastic cable, and plastic washers used for installation of Scourstop<sup>TM</sup> turf reinforcement mats, available from Geo-Synthetics Inc. in Waukesha, WI (<u>www.geo-synthetics.com</u>), or Engineer-approved equivalent. Scourstop turf reinforcement mats are not required for this application – only the anchors are required. For each tree trunk, install two anchors (one on each side of trunk) to sufficient depth to achieve anchoring to the satisfaction of the Engineer, and fasten plastic cable from each anchor securely into a single plastic washer.

An acceptable alternative anchorage system is Manta Ray MR-SR anchors, 1-inch threaded anchor rod, swivel eye, 3/8-inch galvanized steel cable, and appropriately sized cable clips, or approved equal. Two anchors and cables shall be installed per tree.

# METHOD OF MEASUREMENT

Woody Debris Fish Habitat shall be measured per Each complete unit as installed in the field.

# **BASIS OF PAYMENT**

Woody Debris Fish Habitat shall be measured as described above and shall be paid for at the contract price which shall be full compensation for all work, materials, labor, tools, equipment and incidentals required for a complete installation as set forth in the description.

# BID ITEM 90039 – GEOWEB CREEK ACCESS

# DESCRIPTION

This bid item shall include all labor, equipment, materials, and incidentals necessary to provide and install Geoweb GW30V, 6-inch geocell matrix, (http://www.prestogeo.com/slope\_protection) or approved equal at the locations and grades shown in the plan set and detailed on Sheet D-1. The geoweb shall be installed per the manufacturer's recommendations.

The Contractor shall install a layer of non-woven geotextile fabric beneath the geoweb installation. Filter fabric shall be paid separately under Bid Item 20140. Manufacturer specified anchors shall be installed in accordance their recommendations (approximately 10% coverage, i.e. 10 anchors per 100 feet of Geoweb). The cells shall be filled with 1-inch clear stone, which shall be considered incidental to this bid item.

The Contractor shall anchor the geoweb installation via a trench at the top of bank. The anchor shall be buried a minimum of two feet within the trench, and shall be anchored into the existing soil. Geoweb within the trench may be filled with backfill material, as opposed to 1-inch clear stone.

# METHOD OF MEASUREMENT

Geoweb Creek Access shall be measured per Square Foot of material installed in the field, including material buried within the anchor trench.

# **BASIS OF PAYMENT**

Geoweb Creek Access shall be measured as described above and shall be paid for at the contract unit price which shall constitute full compensation for all work, materials, labor, tools, equipment and incidentals required for a complete installation as set forth in the description.

# Silt Curtain (1070)

Wisconsin Department of Natural Resources Conservation Practice Standard

# I. Definition

A temporary permeable fabric installed in a waterway or waterbody to minimize sediment transport. A silt curtain does not extend to the bottom of the channel and is placed parallel or perpendicular to the direction of flow.

# II. Purposes

The purpose of this practice is to provide sediment containment while construction activities are occurring in or directly adjacent to a waterway or waterbody.

# **III. Conditions Where Practice Applies**

This practice applies where construction activities intrude or are directly adjacent to a waterway or waterbody. This includes but is not limited to bridge construction, rip rap placement, utility work, streambank restoration, boat launches and dredging.

Silt curtain is intended for calm water conditions where it will not be subjected to wind, wave, or current. Silt curtains are appropriate to settle out coarse and granular soils where water depth at the time of construction is greater than or equal to 4 feet. For applications in finer sediment or moving water see WDNR Technical Standard 1069 Turbidity Barrier.

# IV. Federal, State, and Local Laws

Users of this standard shall be aware of applicable federal, state, and local laws, rules, regulations, or permit requirements governing the use and placement of silt curtains. This standard does not contain the text of federal, state, or local laws.

# V. Criteria

This section establishes the minimum standards for design, installation and performance requirements.

- A. **Installation** Details of construction not listed in the text shall conform to the pertinent requirements of Figure 1.
  - The silt curtain shall be installed before construction activities are initiated in or adjacent to the waterway or waterbody. Install the silt curtain as close to the construction as practical. The curtain shall remain in place and be maintained until the construction activity is completed and the disturbed area is *stabilized*<sup>1</sup>.
  - 2. The ends of the silt curtain shall be securely anchored and keyed into the shoreline to fully enclose the area where sediment may enter the water.
  - 3. A 2-foot gap shall exist between the weighted lower end of the curtain and the bottom of the waterway or waterbody.
  - 4. Bottom anchors shall be used to hold the silt curtain in the same position relative to the bottom the waterway or waterbody without interfering with the function of the curtain. Anchors shall either be driven into the bottom of the waterway or waterbody or be weighted and attached to the curtain floatation device via an anchor line. Manufacture's recommendations shall be followed for the number and spacing of anchors.
  - 5. Danger buoys shall be used as directed by the Coast Guard or DNR permit when working in navigable waters.
- B. Material:
  - 1. Reusable components of the silt curtain system shall be clean and free of potential exotic species. Fabric cannot be reused.
  - 2. The silt curtain shall be constructed from heavy woven filter fabric to allow water to pass through the barrier yet retain sediment.

Conservation Practice Standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your local WDNR office or the Standards Oversight Council office.

WDNR, WI 9/05 All fabric seams shall be heat sealed or sewn. Silt curtain fabric shall conform to the specifications in Table 1.

Table	1

Requirement	Value
Thickness	15 mils (0.38 mm)
Min. grab tensile strength (ASTM D 4632)	120 lb (550 N)
Min. equivalent opening	No. 170 sieve (90 µm)

- Floatation devices shall be flexible, buoyant units contained in an individual floatation sleeve or collar attached to the curtain. Use expanded polystyrene logs or equivalent having a 49 square inch minimum end area. Do not use polystyrene beads or chips. Buoyancy provided by the floatation device shall be sufficient to support the weight of the curtain and maintain a freeboard of at least 3 inches above the water surface level.
- 4. Top load lines shall consist of 5/16 inch steel cable.
- 5. Bottom load lines shall consist of a minimum <sup>1</sup>/<sub>4</sub>-inch steel chain incorporated into the bottom hem of the curtain. Larger chain sizes may be used where additional weight to serve as ballast to hold the curtain in a vertical position is required.

# **VI.** Considerations

- A. Sediment that has settled out by the silt curtain should only be removed as directed by the regulatory authority because re-suspension of sediment will likely occur during the removal process. Use of polymers may help prevent resuspension of sediment. See WDNR Technical Standard 1051 Sediment Control Water Application of Polymers for further guidance.
- B. Silt curtains are meant to manage sediment in the waterbody. The best way to prevent sediment from entering the waterbody is through the implementation of effective upland erosion control, stopping sediment transport at its source.

# VII. Plans and Specifications

Plans and specifications for installing a silt curtain shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose:

- A. Location of silt curtain.
- B. Material specification conforming to standard.
- C. All plans, standard detail drawings, or specifications shall include schedule for installation, inspection, and maintenance. The responsible party shall be identified.

# **VIII. Operation and Maintenance**

- A. Silt curtains shall be inspected daily and repaired if necessary.
- B. Regardless of upland stabilization conditions silt curtains shall not be removed until the water behind the curtain has equal or greater clarity than the waterway or waterbody. Soil particles shall be allowed to settle for a minimum of 24 hours prior to removal of the curtain.
- C. Care shall be taken when removing the silt curtain to minimize the release or re-suspension of accumulated sediment.
- D. To prevent the spread of exotic species silt curtains shall not be reused on other sites. Bouys and chains can be reused but shall be either disinfected with vinegar or cleaned with hot water greater than 104 deg. F then allowed to completely dry for a minimum period of five days. If there are any questions about the occurrence of zebra mussels, Eurasian watermilfoil, or other aquatic invasive species in a waterbody that you are working in or intend to work in contact your local DNR staff.

# IX. References

Virginia Erosion and Sediment Control Handbook, Third Edition, 1992

WisDOT Facilities Development Manual: Chapter 10, Section 10, Subject 43, Silt Screen

# X. Definitions

*Stabilized* (V.A.1): Means that all land disturbing construction activities at the construction site have been completed, and that a uniform perennial vegetative cover has been established with a density of at least 70% of the cover for the unpaved areas and areas not covered by permanent structures, or that employ equivalent stabilization measures.



**GENERAL NOTES** 



	LOG OF TEST BORING	Boring No.		6		
(CGC Inc.)	Project Wingra Creek Phase 3	Surface Ele			1	
	Location Madison, Wisconsin	Sheet	of	1		
292	1 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608)			PERTIE		
m	VISUAL CLASSIFICATION					
No. $\begin{array}{c c} Y & Rec \\ P \\ E \\ \end{array}$ (in.) Moist N   Depth N   (ft)	and Remarks	(qa) (tsf)	W	LL PL	LI	
	3" ICE/33" WATER           Dark Gray Organic SILT to Silty Sand, Little Clay           Gray Fine to Medium SAND, Trace to Little Silt					
	End of Sediment Core at 9 ft					
WATEF	LEVEL OBSERVATIONS	SENERA		ES	L	
While Drilling       ✓         Time After Drilling	0/14 End Chief Editor d Piston S d with TSP S		Rig			

CGC	Inc
$\bigcirc$	

# LOG OF TEST BORING

Project Wingra Creek Phase 3

Location Madison, Wisconsin

Boring No.7Surface Elevation (ft)Job No.C13064-43Sheet1of10

2921 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608) 288-7887

SAMPLE	VISUAL CLASSIFICATION	SOIL PROPERTIES					
No. $\begin{array}{c c} T & \text{Rec} \\ Y & P \\ P \\ (in.) \end{array}$ Moist N Depth (ft)	and Remarks	qu (qa) (tsf)	w	LL	PL	LI	
	6" WATER Brown to Gray Fine to Coarse SAND Dark Gray Organic SILT, Little to Some Sand						
	Gray to Brown Sedimentary PEAT to Organic SILT, Trace Sand						
	Gray Silty Fine SAND, Trace Organics						
	End of Sediment Core at 6.5 ft						
		GENERA	LNC	TES	5		
While Drilling       ↓         Time After Drilling       ↓         Depth to Water       ↓         Depth to Cave in       ↓         The stratification lines resolit types and the transiti	□		· ES Sampl	F F er	kig		

CGC Inc.		LOG OF TEST BORINGProjectWingra Creek Phase 3LocationMadison, Wisconsin	Surfa Job 1 Shee	ng No. ace Ele No t	evation C	n (ft) 13064	-43			
SAMPLE	292:	VISUAL CLASSIFICATION		SOIL PROPERTIES						
No. Moist N	epth	and Remarks	q (q	a)	w	LL	PL	LI		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	(ft)	I" ICE/8" WATER         Dark Gray Organic SILT, Little to Some Sand, Little Clay         Gray Silty Fine SAND, Trace Gravel and Organics	(ts							
		End of Sediment Core at 6.75 ft	GEN	RA	_ NC	DTES				
While Drilling       ✓         Time After Drilling       _         Depth to Water       _         Depth to Cave in       _		Upon Completion of Drilling Start ↓ Start Driller Logger Drill Me	2/10/14	End Chief Editor iston S	2/10 ES Sampl	/14 F F er	kig			

CGC Inc.	LOG OF TEST BORING Project Wingra Creek Phase 3	Boring No. Surface Ele Job No.	evation	(ft)		
	Location Madison, Wisconsin	Sheet	<u>1</u> c	of	1	
SAMPLE 292	288-7887	PRO	PFF		S	
T Rec Depth	qu					
No. $\frac{P}{E}(in.)$ Moist N (ft)	and Remarks	(qa) (tsf)	W	LL	PL	LI
	2" ICE/7" WATER Dark Gray Organic SILT to Silty Sand, Little Clay Gray Lean CLAY					
	End of Sediment Core at 6.75 ft					
10-				TEC		
While Drilling <u> ↓</u> Time After Drilling Depth to Water Depth to Cave in	Upon Completion of Drilling Start 2/ Driller Uogger Drill Metho		2/11 ES Sample	/14 R F er		

				L	LOG	OF TES	T BORING	G	Boring No	•	1	0		
CC	C I	nc	)					Creek Phase		Surface El Job No.				
						<i></i>	Madiso	o <mark>n, Wiscon</mark> sin		Sheet	<b>1</b> 0	of	1	
S	AMPL	.E	- 292:	l Perr				sificatio		288-7887	PRO	PEF	RTIE	S
No. TRep	Moist	N	Depth (ft)		V I		and Ren			qu (qa)	w	LL	PL	LI
E	-/				3" ICE/	/9" WA	TER			(tsf)				
			_											
					Dark G	iray Org	ganic SILT,	Little to Some	Sand					
					Gray L	ean CL	AY, Occasi	onal Sand Part	tings					
			L_   											
			г— 5— I I		Thin (<	<1") Sar	nd Seams no	oted near 6'						
			L   											
			⊢   											
						Ene	d of Sedime	nt Core at 7.0	ft					-
			└──   											
			⊨ ↓ ↓											
		W		LE	VEL (	OBSE	ERVATIO	ONS	(	GENERA		TES	5	
While Dr Time Aft	0	<u><u> </u></u>		U	Jpon Cor	mpletio	n of Drilling	g	Start <u>2/1</u> Driller	1/14 End Chief	2/11		Rig	
Depth to Depth to	Water	15							Logger Drill Metho	Edito d <b>Piston</b>	r ES Sampl	F er		
The str soil ty	ratificat	the t	ines re ransiti	prese on ma	ent the ay be gra	approx: adual.	imate bounda	ary between		ed with TSP	Soluti	on		





Checked By: DAS







Checked By: DAS



February 26, 2014

Dennis Iverson IVERTECH, LLC. 2880 Jonathan Circle Madison, WI 53711

RE: Project: C7799-WING III WINGRA Pace Project No.: 4092070

Dear Dennis Iverson:

Enclosed are the analytical results for sample(s) received by the laboratory on February 13, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Day Milent

Dan Milewsky dan.milewsky@pacelabs.com Project Manager

Enclosures





#### CERTIFICATIONS

Project: C7799-WING III WINGRA

Pace Project No.: 4092070

#### **Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302 Florida/NELAP Certification #: E87948 Illinois Certification #: 200050 Kentucky Certification #: 82 Louisiana Certification #: 04168 Minnesota Certification #: 055-999-334

New York Certification #: 11888 North Dakota Certification #: R-150 South Carolina Certification #: 83006001 US Dept of Agriculture #: S-76505 Wisconsin Certification #: 405132750



# SAMPLE SUMMARY

#### Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4092070001	B6-S1	Solid	02/11/14 07:30	02/13/14 08:40
4092070002	B6-S2	Solid	02/11/14 07:45	02/13/14 08:40
4092070003	B7-S1	Solid	02/11/14 08:15	02/13/14 08:40
4092070004	B7-S2	Solid	02/11/14 08:30	02/13/14 08:40
4092070005	B8-S1	Solid	02/11/14 09:00	02/13/14 08:40
4092070006	B8-S2	Solid	02/11/14 09:15	02/13/14 08:40
4092070007	B9-S1	Solid	02/11/14 09:45	02/13/14 08:40
4092070008	B9-S2	Solid	02/11/14 10:00	02/13/14 08:40
4092070009	B10-S1	Solid	02/11/14 10:30	02/13/14 08:40
4092070010	B10-S2	Solid	02/11/14 10:45	02/13/14 08:40



# SAMPLE ANALYTE COUNT

Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4092070001	B6-S1	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G
4092070002	B6-S2	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G
092070003	B7-S1	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G
092070004	B7-S2	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G
092070005	B8-S1	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G
1092070006	B8-S2	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G



# SAMPLE ANALYTE COUNT

Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G
1092070007	B9-S1	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G
092070008	B9-S2	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G
092070009	B10-S1	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G
092070010	B10-S2	EPA 8082	BLM	10	PASI-G
		EPA 6010	MMZ	9	PASI-G
		EPA 6010	MMZ	1	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
		EPA 9060 Modified	TJJ	4	PASI-G

# **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



# **ANALYTICAL RESULTS**

#### Project: C7799-WING III WINGRA

4092070

Pace Project No.: --

Sample: B6-S1	Lab ID	: 4092070001	Collecte	d: 02/11/1	4 07:30	Received: 02/	13/14 08:40 Ma	atrix: Solid	
Results reported on a "dry-we	eight" basis								
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytica	al Method: EPA	8082 Prepa	ration Meth	nod: EP/	3541			
PCB-1016 (Aroclor 1016)	<0.048	mg/kg	0.097	0.048	1	02/14/14 10:52	02/17/14 16:09	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.048	mg/kg	0.097	0.048	1	02/14/14 10:52	02/17/14 16:09	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.048	mg/kg	0.097	0.048	1	02/14/14 10:52	02/17/14 16:09	11141-16-5	
PCB-1242 (Aroclor 1242)	0.092J	mg/kg	0.097	0.048	1	02/14/14 10:52	02/17/14 16:09	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.048	mg/kg	0.097	0.048	1	02/14/14 10:52	02/17/14 16:09	12672-29-6	
PCB-1254 (Aroclor 1254)	0.16	mg/kg	0.097	0.048	1	02/14/14 10:52	02/17/14 16:09	11097-69-1	
PCB-1260 (Aroclor 1260)	0.076J	mg/kg	0.097	0.048	1	02/14/14 10:52	02/17/14 16:09	11096-82-5	
PCB, Total <b>Surrogates</b>	0.33	mg/kg	0.097	0.048	1	02/14/14 10:52	02/17/14 16:09	1336-36-3	
Tetrachloro-m-xylene (S)	72	%	40-130		1	02/14/14 10:52	02/17/14 16:09	877-09-8	
Decachlorobiphenyl (S)	79	%	48-130		1	02/14/14 10:52	02/17/14 16:09	2051-24-3	
6010 MET ICP	Analytica	al Method: EPA	6010 Prepa	ration Meth	nod: EPA	3050			
Arsenic	12.3	mg/kg	3.6	0.98	1	02/14/14 08:57	02/14/14 18:24	7440-38-2	
Barium		mg/kg	0.91	0.16	1	02/14/14 08:57	02/14/14 18:24	7440-39-3	
Cadmium		mg/kg	0.91	0.092	1		02/14/14 18:24		
Chromium		mg/kg	0.91	0.23	1		02/14/14 18:24		
Iron	10200		18.1	4.9	1		02/14/14 18:24		
Lead		mg/kg	1.8	0.53	1		02/14/14 18:24		
Manganese		mg/kg	0.91	0.056	1		02/14/14 18:24		
Selenium		mg/kg	3.6	1.1	1		02/14/14 18:24		
Silver	<0.39		1.8	0.39	1		02/14/14 18:24		
6010 MET ICP, TCLP		al Method: EPA			nod: EPA				
	-	e Method/Date:							
Lead	0.30	mg/L	0.038	0.015	1	02/20/14 09:45	02/24/14 11:53	7439-92-1	
7471 Mercury	Analytica	al Method: EPA	7471 Prepa	ration Meth	nod: EPA	7471			
Mercury	0.13	mg/kg	0.010	0.0051	1	02/18/14 14:50	02/19/14 16:06	7439-97-6	
8270 MSSV PAH by SIM	Analytica	al Method: EPA	8270 by SIM	I Preparati	on Meth	od: EPA 3546			
Acenaphthene	0.078	mg/kg	0.065	0.032	1	02/19/14 09:27	02/20/14 11:29	83-32-9	
Acenaphthylene	<0.029	mg/kg	0.065	0.029	1	02/19/14 09:27	02/20/14 11:29	208-96-8	
Anthracene	0.21	mg/kg	0.065	0.033	1	02/19/14 09:27	02/20/14 11:29	120-12-7	
Benzo(a)anthracene	0.60	mg/kg	0.065	0.022	1	02/19/14 09:27	02/20/14 11:29	56-55-3	
Benzo(a)pyrene		mg/kg	0.065	0.023	1	02/19/14 09:27	02/20/14 11:29	50-32-8	
Benzo(b)fluoranthene		mg/kg	0.065	0.032	1	02/19/14 09:27	02/20/14 11:29	205-99-2	
Benzo(g,h,i)perylene		mg/kg	0.065	0.025	1	02/19/14 09:27	02/20/14 11:29	191-24-2	
Benzo(k)fluoranthene	0.55	mg/kg	0.065	0.036	1	02/19/14 09:27	02/20/14 11:29	207-08-9	
Chrysene		mg/kg	0.065	0.030	1		02/20/14 11:29		
Dibenz(a,h)anthracene		mg/kg	0.065	0.024	1	02/19/14 09:27	02/20/14 11:29	53-70-3	
Fluoranthene		mg/kg	0.065	0.032	1	02/19/14 09:27	02/20/14 11:29	206-44-0	
Fluorene	0.083	mg/kg	0.065	0.032	1	02/19/14 09:27	02/20/14 11:29	86-73-7	
Indeno(1,2,3-cd)pyrene	0.44	mg/kg	0.065	0.025	1	02/19/14 09:27	02/20/14 11:29	193-39-5	

# **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Sample: B6-S1 Lab ID: 4092070001 Received: 02/13/14 08:40 Collected: 02/11/14 07:30 Matrix: Solid Results reported on a "dry-weight" basis Parameters Results Units LOQ LOD DF Prepared Analyzed CAS No. Qual 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 0.032 1-Methylnaphthalene <0.032 mg/kg 0.065 1 02/19/14 09:27 02/20/14 11:29 90-12-0 <0.032 mg/kg 0.032 2-Methylnaphthalene 0.065 1 02/19/14 09:27 02/20/14 11:29 91-57-6 Naphthalene 0.059J mg/kg 0.065 0.032 02/20/14 11:29 91-20-3 1 02/19/14 09:27 Phenanthrene 0.80 mg/kg 0.065 0.032 1 02/19/14 09:27 02/20/14 11:29 85-01-8 Pyrene 1.3 mg/kg 0.065 0.032 1 02/19/14 09:27 02/20/14 11:29 129-00-0 Surrogates 2-Fluorobiphenyl (S) 54 % 40-130 02/19/14 09:27 02/20/14 11:29 321-60-8 1 Terphenyl-d14 (S) 53 % 40-130 02/19/14 09:27 02/20/14 11:29 1718-51-0 1 **Percent Moisture** Analytical Method: ASTM D2974-87 Percent Moisture 48.4 % 0.10 0.10 1 02/13/14 14:24 **Total Organic Carbon** Analytical Method: EPA 9060 Modified Surrogates RPD% 18.5 % 0.10 0.10 1 02/20/14 10:44 Total Organic Carbon 49400 mg/kg 20000 2490 1 02/20/14 10:39 7440-44-0 Total Organic Carbon 59500 mg/kg 16700 2070 02/20/14 10:44 7440-44-0 1 Mean Total Organic Carbon 54400 mg/kg 2280 18300 1 02/20/14 10:44 7440-44-0



#### Project: C7799-WING III WINGRA

4092070

Pace Project No.:

Sample: B6-S2	Lab ID:	4092070002	Collected:	02/11/1	4 07:45	Received: 02/	13/14 08:40 Ma	atrix: Solid		
Results reported on a "dry-we	ight" basis									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual	
8082 GCS PCB	Analytica	I Method: EPA 8	082 Prepara	ation Meth	od: EPA	- <u></u> \ 3541				
PCB-1016 (Aroclor 1016)	<0.031	ma/ka	0.062	0.031	1	02/14/14 10:52	02/17/14 16:26	12674-11-2		
PCB-1221 (Aroclor 1221)	<0.031		0.062	0.031	1		02/17/14 16:26			
PCB-1232 (Aroclor 1232)	<0.031		0.062	0.031	1		02/17/14 16:26			
PCB-1242 (Aroclor 1242)	<0.031		0.062	0.031	1		02/17/14 16:26			
PCB-1248 (Aroclor 1248)	<0.031		0.062	0.031	1		02/17/14 16:26			
PCB-1254 (Aroclor 1254)	<0.031		0.062	0.031	1		02/17/14 16:26			
, ,			0.062	0.031			02/17/14 16:26			
PCB-1260 (Aroclor 1260)	<0.031				1					
PCB, Total	< <b>0.031</b> r	mg/kg	0.062	0.031	1	02/14/14 10:52	02/17/14 16:26	1330-30-3		
<i>Surrogates</i> Tetrachloro-m-xylene (S)	72 9	0/	40-130		1	02/14/14 10:52	02/17/14 16:26	977 00 9		
	83 9									
Decachlorobiphenyl (S)	83 \	%	48-130		1	02/14/14 10:52	02/17/14 16:26	2051-24-3		
6010 MET ICP	Analytica	I Method: EPA 6	010 Prepara	ation Meth	od: EPA	3050				
Arsenic	0.74J i	mg/kg	2.3	0.61	1	02/14/14 08:57	02/14/14 18:26	7440-38-2		
Barium	4.8	mg/kg	0.57	0.099	1	02/14/14 08:57	02/14/14 18:26	7440-39-3		
Cadmium	0.22J i	mg/kg	0.57	0.058	1	02/14/14 08:57	02/14/14 18:26	7440-43-9		
Chromium		mg/kg	0.57	0.14	1		02/14/14 18:26			
Iron	1560		11.4	3.0	1		02/14/14 18:26			
Lead	19.6		1.1	0.33	1		02/14/14 18:26			
Manganese	70.0		0.57	0.035	1		02/14/14 18:26			
Selenium	<0.67		2.3	0.67	1		02/14/14 18:26			
Silver	<0.24	0 0	1.1	0.24	1		02/14/14 18:26			
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010									
	Leachate Method/Date: EPA 1311; 02/19/14 00:00									
Lead	0.083 I		0.038	0.015	1	02/20/14 09:45	02/24/14 11:42	7430-02-1		
		•					02/24/14 11.42	1400-02-1		
7471 Mercury	Analytica	I Method: EPA 7	4/1 Prepara		od: EPA	X 7471				
Mercury	<0.0039 r	mg/kg	0.0077	0.0039	1	02/18/14 14:50	02/19/14 16:09	7439-97-6	2q	
8270 MSSV PAH by SIM	Analytica	l Method: EPA 8	270 by SIM	Preparati	on Meth	od: EPA 3546				
Acenaphthene	<0.010 r	mg/kg	0.021	0.010	1	02/19/14 09:27	02/19/14 14:48	83-32-9		
Acenaphthylene	<0.0093		0.021	0.0093	1		02/19/14 14:48			
Anthracene	<0.011		0.021	0.011	1		02/19/14 14:48			
Benzo(a)anthracene	0.0086J		0.021	0.0072	1		02/19/14 14:48			
Benzo(a)pyrene	0.0084J i		0.021	0.0074	1	02/19/14 09:27	02/19/14 14:48			
Benzo(b)fluoranthene	<0.010		0.021	0.0014	1	02/19/14 09:27				
Benzo(g,h,i)perylene	<0.0079	0 0	0.021	0.0079	1	02/19/14 09:27				
Benzo(k)fluoranthene	<0.011		0.021	0.0073	1	02/19/14 09:27				
Chrysene	0.010J i		0.021	0.0096	1	02/19/14 09:27				
Dibenz(a,h)anthracene	<0.0076		0.021	0.0090	1	02/19/14 09:27				
Fluoranthene	0.021		0.021	0.010	1	02/19/14 09:27				
Fluorene	<0.010 r	0 0	0.021	0.010	1	02/19/14 09:27				

# **REPORT OF LABORATORY ANALYSIS**

0.0079

1

0.021

<0.0079 mg/kg

Indeno(1,2,3-cd)pyrene

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..

02/19/14 09:27 02/19/14 14:48 193-39-5



...

-

# **ANALYTICAL RESULTS**

. . . . . . . . . . .

Project: C7799-WING III WINGRA

Pace Project No.: 4092070 ----

-

Sample: B6-S2	Lab ID: 4092070	Received: 02/	Received: 02/13/14 08:40 Matrix: Solid					
Results reported on a "dry-wei	ght" basis							
Parameters	Results Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method:	EPA 8270 by SIM	Preparation	on Meth	nod: EPA 3546			
1-Methylnaphthalene	<b>&lt;0.010</b> mg/kg	0.021	0.010	1	02/19/14 09:27	02/19/14 14:48	90-12-0	
2-Methylnaphthalene	<b>&lt;0.010</b> mg/kg	0.021	0.010	1	02/19/14 09:27	02/19/14 14:48	91-57-6	
Naphthalene	<b>&lt;0.010</b> mg/kg	0.021	0.010	1	02/19/14 09:27	02/19/14 14:48	91-20-3	
Phenanthrene	0.012J mg/kg	0.021	0.010	1	02/19/14 09:27	02/19/14 14:48	85-01-8	
Pyrene <i>Surrogates</i>	0.019J mg/kg	0.021	0.010	1	02/19/14 09:27	02/19/14 14:48	129-00-0	
2-Fluorobiphenyl (S)	63 %	40-130		1	02/19/14 09:27	02/19/14 14:48	321-60-8	
Terphenyl-d14 (S)	63 %	40-130		1	02/19/14 09:27	02/19/14 14:48	1718-51-0	
Percent Moisture	Analytical Method:	ASTM D2974-87						
Percent Moisture	<b>19.5</b> %	0.10	0.10	1		02/13/14 14:24		
Total Organic Carbon	Analytical Method: EPA 9060 Modified							
Surrogates								
RPD%	<b>19.2</b> %	0.10	0.10	1		02/20/14 11:12		
Total Organic Carbon	<b>935</b> mg/kg	375	46.6	1		02/20/14 11:08	7440-44-0	
Total Organic Carbon	1130 mg/kg	382	47.5	1		02/20/14 11:12	7440-44-0	
Mean Total Organic Carbon	<b>1030</b> mg/kg	378	47.0	1		02/20/14 11:12	7440-44-0	



#### Project: C7799-WING III WINGRA

Pace Project No.:

xt No.: 4092070

Sample: B7-S1	Lab ID: 4092070003	Collecte	d: 02/11/14	1 08:15	Received: 02/	/13/14 08:40 Ma	atrix: Solid		
Results reported on a "dry-we									
	•			55	<b>.</b> .		040 N	<b>o</b> 1	
Parameters	Results Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual	
8082 GCS PCB	Analytical Method: EPA	8082 Prepa	ration Meth	od: EPA	3541				
PCB-1016 (Aroclor 1016)	<b>&lt;0.042</b> mg/kg	0.085	0.042	1	02/14/14 10:52	02/17/14 16:43	12674-11-2		
PCB-1221 (Aroclor 1221)	<b>&lt;0.042</b> mg/kg	0.085	0.042	1	02/14/14 10:52	02/17/14 16:43	11104-28-2		
PCB-1232 (Aroclor 1232)	<b>&lt;0.042</b> mg/kg	0.085	0.042	1	02/14/14 10:52	02/17/14 16:43	11141-16-5		
PCB-1242 (Aroclor 1242)	0.045J mg/kg	0.085	0.042	1	02/14/14 10:52	02/17/14 16:43	53469-21-9		
PCB-1248 (Aroclor 1248)	<b>&lt;0.042</b> mg/kg	0.085	0.042	1	02/14/14 10:52	02/17/14 16:43	12672-29-6		
PCB-1254 (Aroclor 1254)	<b>&lt;0.042</b> mg/kg	0.085	0.042	1	02/14/14 10:52	02/17/14 16:43	11097-69-1		
PCB-1260 (Aroclor 1260)	<b>&lt;0.042</b> mg/kg	0.085	0.042	1	02/14/14 10:52	02/17/14 16:43	11096-82-5		
PCB, Total	0.045J mg/kg	0.085	0.042	1		02/17/14 16:43			
Surrogates	e.e	0.000	0.0.2	•	02/10/0102	02,,			
Tetrachloro-m-xylene (S)	79 %	40-130		1	02/14/14 10:52	02/17/14 16:43	877-09-8		
Decachlorobiphenyl (S)	85 %	48-130		1	02/14/14 10:52	02/17/14 16:43	2051-24-3		
6010 MET ICP	Analytical Method: EPA	6010 Prepa	ration Meth	od: EPA	3050				
Arsenic	<b>7.0</b> mg/kg	3.2	0.86	1		02/14/14 18:28	7440 29 2		
			0.80	1					
Barium	77.4 mg/kg	0.79				02/14/14 18:28			
Cadmium	0.76J mg/kg	0.79	0.081	1		02/14/14 18:28			
Chromium	<b>14.9</b> mg/kg	0.79	0.20	1		02/14/14 18:28			
Iron	<b>9180</b> mg/kg	15.9	4.3	1		02/14/14 18:28			
Lead	66.3 mg/kg	1.6	0.46	1		02/14/14 18:28			
Manganese	<b>257</b> mg/kg	0.79	0.049	1		02/14/14 18:28			
Selenium	<b>&lt;0.94</b> mg/kg	3.2	0.94	1		02/14/14 18:28			
Silver	<b>&lt;0.34</b> mg/kg	1.6	0.34	1	02/14/14 08:57	02/14/14 18:28	7440-22-4		
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 02/19/14 00:00								
Lead	0.089 mg/L	0.038	0.015	1	02/20/14 09:45	02/24/14 11:44	7439-92-1		
7471 Mercury	Analytical Method: EPA	7471 Prepa	ration Meth	od: EPA	7471				
Mercury	<b>0.049</b> mg/kg	0.0086	0.0043	1	02/18/14 14:50	02/19/14 16:11	7439-97-6		
8270 MSSV PAH by SIM	Analytical Method: EPA	8270 by SIM	Preparation	on Meth	od: EPA 3546				
Acenaphthene	<b>0.044J</b> mg/kg	0.057	0.028	2	02/19/14 09:27	02/20/14 10:55	83-32-9		
Acenaphthylene	<b>&lt;0.025</b> mg/kg	0.057	0.025	2	02/19/14 09:27	02/20/14 10:55	208-96-8		
Anthracene	<b>0.13</b> mg/kg	0.057	0.029	2	02/19/14 09:27	02/20/14 10:55	120-12-7		
Benzo(a)anthracene	<b>0.39</b> mg/kg	0.057	0.020	2		02/20/14 10:55			
Benzo(a)pyrene	<b>0.45</b> mg/kg	0.057	0.020	2		02/20/14 10:55			
Benzo(b)fluoranthene	0.47 mg/kg	0.057	0.028	2		02/20/14 10:55			
Benzo(g,h,i)perylene	0.36 mg/kg	0.057	0.022	2		02/20/14 10:55			
Benzo(k)fluoranthene	<b>0.43</b> mg/kg	0.057	0.031	2		02/20/14 10:55			
Chrysene	<b>0.52</b> mg/kg	0.057	0.026	2		02/20/14 10:55			
Dibenz(a,h)anthracene	<b>0.12</b> mg/kg	0.057	0.021	2		02/20/14 10:55			
Fluoranthene	<b>1.1</b> mg/kg	0.057	0.028	2		02/20/14 10:55			
Fluorene	0.050J mg/kg	0.057	0.028	2		02/20/14 10:55			
		5.007	0.020	-	52, 10, 14 00.21				

# **REPORT OF LABORATORY ANALYSIS**

0.021

2

0.057

0.32 mg/kg

Indeno(1,2,3-cd)pyrene

02/19/14 09:27 02/20/14 10:55 193-39-5



Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Sample: B7-S1 Lab ID: 4092070003 Received: 02/13/14 08:40 Collected: 02/11/14 08:15 Matrix: Solid Results reported on a "dry-weight" basis Parameters Results Units LOQ LOD DF Prepared Analyzed CAS No. Qual 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 0.057 0.028 2 1-Methylnaphthalene <0.028 mg/kg 02/19/14 09:27 02/20/14 10:55 90-12-0 <0.028 mg/kg 0.028 2 2-Methylnaphthalene 0.057 02/19/14 09:27 02/20/14 10:55 91-57-6 Naphthalene 0.052J mg/kg 0.057 0.028 2 02/19/14 09:27 02/20/14 10:55 91-20-3 Phenanthrene 0.59 mg/kg 0.057 0.028 2 02/19/14 09:27 02/20/14 10:55 85-01-8 Pyrene 0.86 mg/kg 0.057 0.028 2 02/19/14 09:27 02/20/14 10:55 129-00-0 Surrogates 2-Fluorobiphenyl (S) 54 % 40-130 2 02/19/14 09:27 02/20/14 10:55 321-60-8 Terphenyl-d14 (S) 47 % 40-130 2 02/19/14 09:27 02/20/14 10:55 1718-51-0 **Percent Moisture** Analytical Method: ASTM D2974-87 Percent Moisture 41.1 % 0.10 0.10 1 02/13/14 14:25 **Total Organic Carbon** Analytical Method: EPA 9060 Modified Surrogates RPD% 17.4 % 0.10 0.10 1 02/20/14 12:44 Total Organic Carbon 34300 mg/kg 7690 956 1 02/20/14 12:40 7440-44-0 Total Organic Carbon 28800 mg/kg 8330 1040 1 02/20/14 12:44 7440-44-0 Mean Total Organic Carbon 31500 mg/kg 8010 996 1 02/20/14 12:44 7440-44-0



#### Project: C7799-WING III WINGRA

Pace Project No.:

No.: 4092070

Sample: B7-S2	Lab ID: 4	092070004	Collected	d: 02/11/14	4 08:30	Received: 02/	13/14 08:40 Ma	atrix: Solid	
Results reported on a "dry-we	eight" basis								
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical M	ethod: EPA 8	082 Prepa	ration Meth	od: EPA	3541			
PCB-1016 (Aroclor 1016)	<b>&lt;0.039</b> mg/	'kg	0.078	0.039	1	02/14/14 10:52	02/17/14 17:01	12674-11-2	
PCB-1221 (Aroclor 1221)	<b>&lt;0.039</b> mg/	'kg	0.078	0.039	1	02/14/14 10:52	02/17/14 17:01	11104-28-2	
PCB-1232 (Aroclor 1232)	<b>&lt;0.039</b> mg/	'kg	0.078	0.039	1	02/14/14 10:52	02/17/14 17:01	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.039 mg/	'kg	0.078	0.039	1	02/14/14 10:52	02/17/14 17:01	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.039 mg/	'kg	0.078	0.039	1	02/14/14 10:52	02/17/14 17:01	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.039 mg/	'kg	0.078	0.039	1	02/14/14 10:52	02/17/14 17:01	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.039 mg/		0.078	0.039	1	02/14/14 10:52	02/17/14 17:01	11096-82-5	
PCB, Total	<0.039 mg/		0.078	0.039	1	02/14/14 10:52	02/17/14 17:01	1336-36-3	
Surrogates	0	0							
Tetrachloro-m-xylene (S)	73 %		40-130		1	02/14/14 10:52	02/17/14 17:01	877-09-8	
Decachlorobiphenyl (S)	83 %		48-130		1	02/14/14 10:52	02/17/14 17:01	2051-24-3	
6010 MET ICP	Analytical M	ethod: EPA 6	010 Prepa	ration Meth	od: EPA	3050			
Arsenic	<b>4.4</b> mg/	kα	2.7	0.74	1	02/14/14 08:57	02/14/14 18:30	7440-38-2	
Barium	<b>38.0</b> mg/	0	0.68	0.12	1		02/14/14 18:30		
Cadmium	0.33J mg/	-	0.68	0.070	1		02/14/14 18:30		
Chromium	10.0 mg/	-	0.68	0.17	1		02/14/14 18:30		
Iron	6680 mg/		13.7	3.7	1		02/14/14 18:30		
Lead	13.5 mg/		1.4	0.40	1		02/14/14 18:30		
Manganese	184 mg/	-	0.68	0.40	1		02/14/14 18:30		
Selenium	<0.81 mg/	-	2.7	0.81	1		02/14/14 18:30		
Silver	<0.29 mg/	-	1.4	0.29	1		02/14/14 18:30		
	-	-					02/14/14 10:00	1440 22 4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Leachate Method/Date: EPA 1311; 02/19/14 00:00								
Lead	0.054 mg/		0.038	0.015	1	02/20/14 09:45	02/24/14 11:56	7439-92-1	1q
7471 Mercury	Ũ	ethod: EPA 7							
Mercury	0.016 mg/		0.0084	0.0042	1		02/19/14 16:13	7439-97-6	2q
8270 MSSV PAH by SIM	Ũ	0			-	od: EPA 3546	0_,.0,		-9
-			-				00/40/4445.05	00.00.0	
Acenaphthene	< <b>0.013</b> mg/ < <b>0.012</b> mg/	0	0.026 0.026	0.013 0.012	1	02/19/14 09:27			
Acenaphthylene	0	0			1		02/19/14 15:05		
Anthracene	<0.013 mg/	-	0.026	0.013	1		02/19/14 15:05		
Benzo(a)anthracene	0.025J mg/		0.026	0.0090	1		02/19/14 15:05		
Benzo(a)pyrene	0.026J mg/	-	0.026	0.0093	1		02/19/14 15:05		
Benzo(b)fluoranthene	0.029 mg/	-	0.026	0.013	1		02/19/14 15:05		
Benzo(g,h,i)perylene	0.018J mg/	-	0.026	0.0099	1		02/19/14 15:05		
Benzo(k)fluoranthene	<b>0.024J</b> mg/	-	0.026	0.014	1		02/19/14 15:05		
Chrysene	0.032 mg/	-	0.026	0.012	1		02/19/14 15:05		
Dibenz(a,h)anthracene	<0.0095 mg/	-	0.026	0.0095	1		02/19/14 15:05		
Fluoranthene	0.070 mg/	-	0.026	0.013	1		02/19/14 15:05		
Fluorene	<b>&lt;0.013</b> mg/	kg	0.026	0.013	1	02/19/14 09:27	02/19/14 15:05	86-73-7	

# **REPORT OF LABORATORY ANALYSIS**

0.0099

1

0.026

0.015J mg/kg

Indeno(1,2,3-cd)pyrene

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..

02/19/14 09:27 02/19/14 15:05 193-39-5



...

# **ANALYTICAL RESULTS**

. . . . . . . . . .

Project: C7799-WING III WINGRA

Pace Project No.: 4092070 ----

-

Sample: B7-S2	Lab ID: 409207	0004 Collecte	d: 02/11/14	1 08:30	Received: 02/	/13/14 08:40 Ma	atrix: Solid	
Results reported on a "dry-wei	ight" basis							
Parameters	Results Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method:	EPA 8270 by SIM	Preparatio	on Meth	nod: EPA 3546			
1-Methylnaphthalene	<b>&lt;0.013</b> mg/kg	0.026	0.013	1	02/19/14 09:27	02/19/14 15:05	90-12-0	
2-Methylnaphthalene	<b>&lt;0.013</b> mg/kg	0.026	0.013	1	02/19/14 09:27	02/19/14 15:05	91-57-6	
Naphthalene	<0.013 mg/kg	0.026	0.013	1	02/19/14 09:27	02/19/14 15:05	91-20-3	
Phenanthrene	0.037 mg/kg	0.026	0.013	1	02/19/14 09:27	02/19/14 15:05	85-01-8	
Pyrene	0.059 mg/kg	0.026	0.013	1	02/19/14 09:27	02/19/14 15:05	129-00-0	
Surrogates	0.0							
2-Fluorobiphenyl (S)	58 %	40-130		1	02/19/14 09:27	02/19/14 15:05	321-60-8	
Terphenyl-d14 (S)	50 %	40-130		1	02/19/14 09:27	02/19/14 15:05	1718-51-0	
Percent Moisture	Analytical Method:	ASTM D2974-87						
Percent Moisture	<b>35.8</b> %	0.10	0.10	1		02/13/14 14:25		
Total Organic Carbon	Analytical Method: EPA 9060 Modified							
Surrogates								
RPD%	<b>32.8</b> %	0.10	0.10	1		02/20/14 12:55		
Total Organic Carbon	20200 mg/kg	9090	1130	1		02/20/14 12:47	7440-44-0	
Total Organic Carbon	<b>28100</b> mg/kg	7140	888	1		02/20/14 12:55	7440-44-0	
Mean Total Organic Carbon	24200 mg/kg	8120	1010	1		02/20/14 12:55		
		0.20		•		1		



#### Project: C7799-WING III WINGRA

4092070

Pace Project No .:

Lab ID: 4092070005 Sample: B8-S1 Collected: 02/11/14 09:00 Received: 02/13/14 08:40 Matrix: Solid Results reported on a "dry-weight" basis Parameters Results Units LOQ LOD DF Prepared Analyzed CAS No. Qual 8082 GCS PCB Analytical Method: EPA 8082 Preparation Method: EPA 3541 PCB-1016 (Aroclor 1016) <0.035 mg/kg 0.071 0.035 1 02/14/14 10:52 02/17/14 17:18 12674-11-2 0.035 PCB-1221 (Aroclor 1221) <0.035 mg/kg 0.071 1 02/14/14 10:52 02/17/14 17:18 11104-28-2 <0.035 mg/kg 0.035 PCB-1232 (Aroclor 1232) 0.071 1 02/14/14 10:52 02/17/14 17:18 11141-16-5 PCB-1242 (Aroclor 1242) <0.035 mg/kg 0.071 0.035 1 02/14/14 10:52 02/17/14 17:18 53469-21-9 PCB-1248 (Aroclor 1248) <0.035 mg/kg 0.071 0.035 1 02/14/14 10:52 02/17/14 17:18 12672-29-6 PCB-1254 (Aroclor 1254) <0.035 mg/kg 0.071 0.035 02/14/14 10:52 02/17/14 17:18 11097-69-1 1 PCB-1260 (Aroclor 1260) <0.035 mg/kg 0.071 0.035 02/14/14 10:52 02/17/14 17:18 11096-82-5 1 0.035 PCB, Total <0.035 mg/kg 0.071 1 02/14/14 10:52 02/17/14 17:18 1336-36-3 Surrogates 02/14/14 10:52 02/17/14 17:18 877-09-8 Tetrachloro-m-xylene (S) 73 % 40-130 1 Decachlorobiphenyl (S) 82 % 48-130 1 02/14/14 10:52 02/17/14 17:18 2051-24-3 **6010 MET ICP** Analytical Method: EPA 6010 Preparation Method: EPA 3050 2.6 0.71 02/14/14 08:57 02/14/14 18:33 7440-38-2 Arsenic 6.8 mg/kg 1 Barium 57.4 mg/kg 0.66 0.11 1 02/14/14 08:57 02/14/14 18:33 7440-39-3 Cadmium 0.35J mg/kg 0.66 0.067 02/14/14 08:57 02/14/14 18:33 7440-43-9 1 0.66 0.16 Chromium 13.1 mg/kg 1 02/14/14 08:57 02/14/14 18:33 7440-47-3 Iron 9140 mg/kg 13.1 3.5 1 02/14/14 08:57 02/14/14 18:33 7439-89-6 Lead 6.3 mg/kg 1.3 0.38 1 02/14/14 08:57 02/14/14 18:33 7439-92-1 220 mg/kg Manganese 0.66 0.040 1 02/14/14 08:57 02/14/14 18:33 7439-96-5 <0.78 mg/kg 0.78 Selenium 2.6 1 02/14/14 08:57 02/14/14 18:33 7782-49-2 0.28 02/14/14 08:57 02/14/14 18:33 7440-22-4 Silver <0.28 mg/kg 1.3 1 6010 MET ICP, TCLP Analytical Method: EPA 6010 Preparation Method: EPA 3010 Leachate Method/Date: EPA 1311; 02/19/14 00:00 0.038 0.015 Lead <0.015 mg/L 1 02/20/14 09:45 02/24/14 11:46 7439-92-1 7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471 0.0089 mg/kg 0.0073 0.0036 02/18/14 14:50 02/19/14 16:21 7439-97-6 Mercury 1 2q 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 0.024 0.012 02/19/14 09:27 02/19/14 15:23 83-32-9 Acenaphthene <0.012 mg/kg 1 0.011 0.024 02/19/14 09:27 02/19/14 15:23 208-96-8 Acenaphthylene <0.011 mg/kg 1 <0.012 mg/kg 0.024 0.012 02/19/14 09:27 02/19/14 15:23 120-12-7 Anthracene 1 Benzo(a)anthracene <0.0082 mg/kg 0.024 0.0082 1 02/19/14 09:27 02/19/14 15:23 56-55-3 Benzo(a)pyrene <0.0084 mg/kg 0.024 0.0084 02/19/14 09:27 02/19/14 15:23 50-32-8 1 Benzo(b)fluoranthene <0.012 mg/kg 0.024 0.012 02/19/14 09:27 02/19/14 15:23 205-99-2 1 Benzo(g,h,i)perylene <0.0090 mg/kg 0.024 0.0090 1 02/19/14 09:27 02/19/14 15:23 191-24-2 Benzo(k)fluoranthene <0.013 mg/kg 0.024 0.013 1 02/19/14 09:27 02/19/14 15:23 207-08-9 Chrysene <0.011 mg/kg 0.024 0.011 1 02/19/14 09:27 02/19/14 15:23 218-01-9 Dibenz(a,h)anthracene <0.0086 mg/kg 0.024 0.0086 1 02/19/14 09:27 02/19/14 15:23 53-70-3 Fluoranthene <0.012 mg/kg 0.024 0.012 1 02/19/14 09:27 02/19/14 15:23 206-44-0 Fluorene <0.012 mg/kg 0.012 02/19/14 09:27 02/19/14 15:23 86-73-7 0.024 1 <0.0089 mg/kg

# **REPORT OF LABORATORY ANALYSIS**

0.0089

1

02/19/14 09:27 02/19/14 15:23 193-39-5

0.024

Indeno(1,2,3-cd)pyrene

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Sample: B8-S1 Lab ID: 4092070005 Collected: 02/11/14 09:00 Received: 02/13/14 08:40 Matrix: Solid Results reported on a "dry-weight" basis Parameters Results Units LOQ LOD DF Prepared Analyzed CAS No. Qual 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 0.024 0.012 1-Methylnaphthalene <0.012 mg/kg 1 02/19/14 09:27 02/19/14 15:23 90-12-0 <0.012 mg/kg 0.012 2-Methylnaphthalene 0.024 1 02/19/14 09:27 02/19/14 15:23 91-57-6 Naphthalene <0.012 mg/kg 0.024 0.012 02/19/14 09:27 02/19/14 15:23 91-20-3 1 Phenanthrene <0.012 mg/kg 0.024 0.012 1 02/19/14 09:27 02/19/14 15:23 85-01-8 Pyrene <0.012 mg/kg 0.024 0.012 1 02/19/14 09:27 02/19/14 15:23 129-00-0 Surrogates 2-Fluorobiphenyl (S) 60 % 40-130 02/19/14 09:27 02/19/14 15:23 321-60-8 1 Terphenyl-d14 (S) 58 % 40-130 02/19/14 09:27 02/19/14 15:23 1718-51-0 1 **Percent Moisture** Analytical Method: ASTM D2974-87 Percent Moisture 29.2 % 0.10 0.10 1 02/13/14 14:25 **Total Organic Carbon** Analytical Method: EPA 9060 Modified Surrogates RPD% 22.4 % 0.10 0.10 1 02/20/14 13:02 Total Organic Carbon 8600 mg/kg 4760 592 1 02/20/14 12:58 7440-44-0 Total Organic Carbon 10800 mg/kg 4350 541 1 02/20/14 13:02 7440-44-0 Mean Total Organic Carbon 9690 mg/kg 4550 566 1 02/20/14 13:02 7440-44-0


#### **ANALYTICAL RESULTS**

#### Project: C7799-WING III WINGRA

4092070

Pace Project No.: -----

Sample: B8-S2	Lab ID:	4092070006	Collected	d: 02/11/14	4 09:15	Received: 02/	13/14 08:40 Ma	atrix: Solid	
Results reported on a "dry-weig	ght" basis								
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical	Method: EPA 8	8082 Prepa	ration Meth	od: EPA	3541			
PCB-1016 (Aroclor 1016)	<b>&lt;0.032</b> m	g/kg	0.064	0.032	1	02/14/14 10:52	02/17/14 17:35	12674-11-2	
PCB-1221 (Aroclor 1221)	<b>&lt;0.032</b> m	g/kg	0.064	0.032	1	02/14/14 10:52	02/17/14 17:35	11104-28-2	
PCB-1232 (Aroclor 1232)	<b>&lt;0.032</b> m	g/kg	0.064	0.032	1	02/14/14 10:52	02/17/14 17:35	11141-16-5	
PCB-1242 (Aroclor 1242)	<b>&lt;0.032</b> m	g/kg	0.064	0.032	1	02/14/14 10:52	02/17/14 17:35	53469-21-9	
PCB-1248 (Aroclor 1248)	<b>&lt;0.032</b> m	g/kg	0.064	0.032	1	02/14/14 10:52	02/17/14 17:35	12672-29-6	
PCB-1254 (Aroclor 1254)	<b>&lt;0.032</b> m	g/kg	0.064	0.032	1	02/14/14 10:52	02/17/14 17:35	11097-69-1	
PCB-1260 (Aroclor 1260)	<b>&lt;0.032</b> m	g/kg	0.064	0.032	1	02/14/14 10:52	02/17/14 17:35	11096-82-5	
PCB, Total <i>Surrogates</i>	<b>&lt;0.032</b> m	g/kg	0.064	0.032	1	02/14/14 10:52	02/17/14 17:35	1336-36-3	
Tetrachloro-m-xylene (S)	72 %	,	40-130		1	02/14/14 10:52	02/17/14 17:35	877-09-8	
Decachlorobiphenyl (S)	84 %	,	48-130		1	02/14/14 10:52	02/17/14 17:35	2051-24-3	
6010 MET ICP	Analytical	Method: EPA 6	010 Prepa	ration Meth	od: EPA	A 3050			
Arsenic	<b>5.8</b> m	g/kg	2.2	0.59	1	02/14/14 08:57	02/14/14 18:35	7440-38-2	
Barium	<b>10.1</b> m		0.55	0.095	1	02/14/14 08:57	02/14/14 18:35	7440-39-3	
Cadmium	<b>0.076J</b> m		0.55	0.056	1	02/14/14 08:57	02/14/14 18:35	7440-43-9	
Chromium	<b>3.7</b> m		0.55	0.14	1	02/14/14 08:57	02/14/14 18:35	7440-47-3	
Iron	<b>2890</b> m	g/kg	11.0	2.9	1	02/14/14 08:57	02/14/14 18:35	7439-89-6	
Lead	<b>1.4</b> m	g/kg	1.1	0.32	1	02/14/14 08:57	02/14/14 18:35	7439-92-1	
Manganese	<b>111</b> m		0.55	0.034	1	02/14/14 08:57	02/14/14 18:35	7439-96-5	
Selenium	<0.65 m		2.2	0.65	1	02/14/14 08:57	02/14/14 18:35	7782-49-2	
Silver	<b>&lt;0.23</b> m	g/kg	1.1	0.23	1	02/14/14 08:57	02/14/14 18:35	7440-22-4	
6010 MET ICP, TCLP	Analytical	Method: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
	Leachate I	Method/Date: E	EPA 1311; 0	2/19/14 00:	00				
Lead	<b>&lt;0.015</b> m	g/L	0.038	0.015	1	02/20/14 09:45	02/24/14 11:49	7439-92-1	
7471 Mercury	Analytical	Method: EPA 7	471 Prepa	ration Meth	od: EPA	7471			
Mercury	<b>&lt;0.0035</b> m	g/kg	0.0071	0.0035	1	02/18/14 14:50	02/19/14 16:23	7439-97-6	2q
8270 MSSV PAH by SIM	Analytical	Method: EPA 8	8270 by SIM	Preparati	on Meth	od: EPA 3546			
Acenaphthene	<b>&lt;0.011</b> m	g/kg	0.021	0.011	1	02/19/14 09:27	02/19/14 15:40	83-32-9	
Acenaphthylene	<b>&lt;0.0095</b> m	g/kg	0.021	0.0095	1	02/19/14 09:27	02/19/14 15:40	208-96-8	
Anthracene	<b>&lt;0.011</b> m	g/kg	0.021	0.011	1	02/19/14 09:27	02/19/14 15:40	120-12-7	
Benzo(a)anthracene	<b>&lt;0.0074</b> m	g/kg	0.021	0.0074	1	02/19/14 09:27	02/19/14 15:40	56-55-3	
Benzo(a)pyrene	<b>&lt;0.0076</b> m	g/kg	0.021	0.0076	1	02/19/14 09:27	02/19/14 15:40	50-32-8	
Benzo(b)fluoranthene	<b>&lt;0.011</b> m	g/kg	0.021	0.011	1	02/19/14 09:27			
Benzo(g,h,i)perylene	<b>&lt;0.0081</b> m	g/kg	0.021	0.0081	1	02/19/14 09:27	02/19/14 15:40	191-24-2	
Benzo(k)fluoranthene	<b>&lt;0.012</b> m	g/kg	0.021	0.012	1	02/19/14 09:27	02/19/14 15:40	207-08-9	
Chrysene	<b>&lt;0.0098</b> m	g/kg	0.021	0.0098	1	02/19/14 09:27	02/19/14 15:40	218-01-9	
Dibenz(a,h)anthracene	<b>&lt;0.0078</b> m	g/kg	0.021	0.0078	1	02/19/14 09:27	02/19/14 15:40	53-70-3	
Fluoranthene	<b>&lt;0.011</b> m	g/kg	0.021	0.011	1	02/19/14 09:27	02/19/14 15:40	206-44-0	
Fluorene	<b>&lt;0.011</b> m		0.021	0.011	1	02/19/14 09:27	02/19/14 15:40	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>&lt;0.0081</b> m	g/kg	0.021	0.0081	1	02/19/14 09:27	02/19/14 15:40	193-39-5	

### **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Sample: B8-S2 Lab ID: 4092070006 Received: 02/13/14 08:40 Collected: 02/11/14 09:15 Matrix: Solid Results reported on a "dry-weight" basis Parameters Results Units LOQ LOD DF Prepared Analyzed CAS No. Qual 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 0.021 0.011 1-Methylnaphthalene <0.011 mg/kg 1 02/19/14 09:27 02/19/14 15:40 90-12-0 <0.011 mg/kg 0.011 2-Methylnaphthalene 0.021 1 02/19/14 09:27 02/19/14 15:40 91-57-6 Naphthalene <0.011 mg/kg 0.021 0.011 02/19/14 09:27 02/19/14 15:40 91-20-3 1 Phenanthrene <0.011 mg/kg 0.021 0.011 1 02/19/14 09:27 02/19/14 15:40 85-01-8 Pyrene <0.011 mg/kg 0.021 0.011 1 02/19/14 09:27 02/19/14 15:40 129-00-0 Surrogates 2-Fluorobiphenyl (S) 67 % 40-130 02/19/14 09:27 02/19/14 15:40 321-60-8 1 Terphenyl-d14 (S) 70 % 40-130 02/19/14 09:27 02/19/14 15:40 1718-51-0 1 **Percent Moisture** Analytical Method: ASTM D2974-87 Percent Moisture 21.7 % 0.10 0.10 1 02/13/14 14:25 **Total Organic Carbon** Analytical Method: EPA 9060 Modified Surrogates RPD% 7.5 % 0.10 0.10 1 02/20/14 13:09 Total Organic Carbon 863 mg/kg 345 42.9 1 02/20/14 13:07 7440-44-0 Total Organic Carbon 800 mg/kg 356 44.2 02/20/14 13:09 7440-44-0 1 Mean Total Organic Carbon 350 832 mg/kg 43.6 1 02/20/14 13:09 7440-44-0



#### Project: C7799-WING III WINGRA

4092070

Pace Project No.:

Results reported on a "dry-weight" basis           Parameters         Results         Units         LOQ         LOD         DF         Prepared         Analyzed           8082 GCS PCB         Analytical Method: EPA 8082         Preparation Method: EPA 3541           PCB-1016 (Aroclor 1016)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1221 (Aroclor 1221)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1232 (Aroclor 1221)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1242 (Aroclor 1224)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1242 (Aroclor 1242)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1254 (Aroclor 1254)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1256 (Aroclor 1260)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52	11104-28-2 11141-16-5 53469-21-9
8082 GCS PCB         Analytical Method: EPA 8082         Preparation Method: EPA 3541           PCB-1016 (Aroclor 1016)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1221 (Aroclor 1221)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1232 (Aroclor 1221)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1232 (Aroclor 1232)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1242 (Aroclor 1242)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1248 (Aroclor 1248)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1254 (Aroclor 1254)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           PCB-1260 (Aroclor 1260)         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1	12674-11-2 11104-28-2 11141-16-5 53469-21-9
PCB-1016 (Aroclor 1016)       <0.037 mg/kg	11104-28-2 11141-16-5 53469-21-9
PCB-1221 (Aroclor 1221)       <0.037 mg/kg       0.075       0.037 1       02/14/14 10:52       02/17/14 17:53 1         PCB-1232 (Aroclor 1232)       <0.037 mg/kg	11104-28-2 11141-16-5 53469-21-9
PCB-1232 (Aroclor 1232)       <0.037 mg/kg       0.075       0.037       1       02/14/14 10:52       02/17/14 17:53       1         PCB-1242 (Aroclor 1242)       <0.037 mg/kg	11141-16-5 53469-21-9
PCB-1242 (Aroclor 1242)       <0.037 mg/kg       0.075       0.037       1       02/14/14 10:52       02/17/14 17:53       5         PCB-1248 (Aroclor 1248)       <0.037 mg/kg	53469-21-9
PCB-1248 (Aroclor 1248)       <0.037 mg/kg       0.075       0.037 1       02/14/14 10:52       02/17/14 17:53 1         PCB-1254 (Aroclor 1254)       <0.037 mg/kg	
PCB-1254 (Aroclor 1254)       <0.037 mg/kg       0.075       0.037 1       02/14/14 10:52       02/17/14 17:53 1         PCB-1260 (Aroclor 1260)       <0.037 mg/kg	12672-29-6
PCB-1260 (Aroclor 1260)       <0.037 mg/kg       0.075       0.037       1       02/14/14 10:52       02/17/14 17:53       1         PCB, Total       <0.037 mg/kg       0.075       0.037       1       02/14/14 10:52       02/17/14 17:53       1         Surrogates       72 %       40-130       1       02/14/14 10:52       02/17/14 17:53       1	
PCB, Total         <0.037 mg/kg         0.075         0.037         1         02/14/14 10:52         02/17/14 17:53         1           Surrogates         Tetrachloro-m-xylene (S)         72 %         40-130         1         02/14/14 10:52         02/17/14 17:53         1	11097-69-1
Surrogates           Tetrachloro-m-xylene (S)         72 %         40-130         1         02/14/14 10:52         02/17/14 17:53         8	11096-82-5
Tetrachloro-m-xylene (S) 72 % 40-130 1 02/14/14 10:52 02/17/14 17:53 8	1336-36-3
Desception binder bind	
Decachlorobiphenyl (S) 78 % 48-130 1 02/14/14 10:52 02/17/14 17:53 2	2051-24-3
6010 MET ICP         Analytical Method: EPA 6010         Preparation Method: EPA 3050	
Arsenic <b>7.3</b> mg/kg 2.5 0.68 1 02/14/14 08:57 02/14/14 18:37 7	7440-38-2
Barium 72.6 mg/kg 0.63 0.11 1 02/14/14 08:57 02/14/14 18:37 7	7440-39-3
Cadmium 0.51J mg/kg 0.63 0.064 1 02/14/14 08:57 02/14/14 18:37 7	7440-43-9
Chromium 22.6 mg/kg 0.63 0.16 1 02/14/14 08:57 02/14/14 18:37 7	7440-47-3
Iron 16000 mg/kg 12.6 3.4 1 02/14/14 08:57 02/14/14 18:37 7	7439-89-6
Lead 22.8 mg/kg 1.3 0.37 1 02/14/14 08:57 02/14/14 18:37 7	7439-92-1
Manganese 527 mg/kg 0.63 0.039 1 02/14/14 08:57 02/14/14 18:37 7	7439-96-5
Selenium <0.75 mg/kg 2.5 0.75 1 02/14/14 08:57 02/14/14 18:37 7	7782-49-2
Silver <0.27 mg/kg 1.3 0.27 1 02/14/14 08:57 02/14/14 18:37 7	7440-22-4
6010 MET ICP, TCLP Analytical Method: EPA 6010 Preparation Method: EPA 3010	
Leachate Method/Date: EPA 1311; 02/19/14 00:00	
Lead 0.038 mg/L 0.038 0.015 1 02/20/14 09:45 02/24/14 11:51 7	7439-92-1
7471 Mercury         Analytical Method: EPA 7471         Preparation Method: EPA 7471	
Mercury 0.029 mg/kg 0.0080 0.0040 1 02/18/14 14:50 02/19/14 16:27 7	7439-97-6 2q
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546	
Acenaphthene <0.012 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 15:57 8	83-32-9
Acenaphthylene <0.011 mg/kg 0.025 0.011 1 02/19/14 09:27 02/19/14 15:57 2	208-96-8
Anthracene <0.013 mg/kg 0.025 0.013 1 02/19/14 09:27 02/19/14 15:57 1	120-12-7
Benzo(a)anthracene 0.039 mg/kg 0.025 0.0086 1 02/19/14 09:27 02/19/14 15:57 5	56-55-3
Benzo(a)pyrene 0.048 mg/kg 0.025 0.0089 1 02/19/14 09:27 02/19/14 15:57 5	50-32-8
Benzo(b)fluoranthene 0.063 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 15:57 2	205-99-2
Benzo(g,h,i)perylene 0.039 mg/kg 0.025 0.0095 1 02/19/14 09:27 02/19/14 15:57 1	191-24-2
Benzo(k)fluoranthene 0.050 mg/kg 0.025 0.014 1 02/19/14 09:27 02/19/14 15:57 2	207-08-9
Chrysene 0.069 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 15:57 2	218-01-9
Dibenz(a,h)anthracene 0.010J mg/kg 0.025 0.0091 1 02/19/14 09:27 02/19/14 15:57 5	53-70-3
Fluoranthene 0.13 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 15:57 2	206-44-0
Fluorene <0.012 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 15:57 8	86-73-7
Indeno(1,2,3-cd)pyrene 0.033 mg/kg 0.025 0.0095 1 02/19/14 09:27 02/19/14 15:57 1	

#### **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Sample: B9-S1 Lab ID: 4092070007 Collected: 02/11/14 09:45 Received: 02/13/14 08:40 Matrix: Solid Results reported on a "dry-weight" basis Parameters Results Units LOQ LOD DF Prepared Analyzed CAS No. Qual 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 0.025 0.012 1-Methylnaphthalene <0.012 mg/kg 1 02/19/14 09:27 02/19/14 15:57 90-12-0 <0.012 mg/kg 0.012 2-Methylnaphthalene 0.025 1 02/19/14 09:27 02/19/14 15:57 91-57-6 Naphthalene <0.012 mg/kg 0.025 0.012 02/19/14 09:27 02/19/14 15:57 91-20-3 1 Phenanthrene 0.051 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 15:57 85-01-8 Pyrene 0.11 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 15:57 129-00-0 Surrogates 2-Fluorobiphenyl (S) 63 % 40-130 02/19/14 09:27 02/19/14 15:57 321-60-8 1 Terphenyl-d14 (S) 68 % 40-130 02/19/14 09:27 02/19/14 15:57 1718-51-0 1 **Percent Moisture** Analytical Method: ASTM D2974-87 Percent Moisture 33.0 % 0.10 0.10 1 02/13/14 14:25 **Total Organic Carbon** Analytical Method: EPA 9060 Modified Surrogates RPD% 28.2 % 0.10 0.10 1 02/20/14 13:15 Total Organic Carbon 18900 mg/kg 7140 888 1 02/20/14 13:12 7440-44-0 25100 mg/kg Total Organic Carbon 6250 777 02/20/14 13:15 7440-44-0 1 Mean Total Organic Carbon 22000 mg/kg 6700 833 1 02/20/14 13:15 7440-44-0



#### **ANALYTICAL RESULTS**

#### Project: C7799-WING III WINGRA

4092070

Pace Project No.: - --

Sample: B9-S2	Lab ID: 409	2070008 Collecte	d: 02/11/1	4 10:00	Received: 02/	13/14 08:40 Ma	atrix: Solid	
Results reported on a "dry-weig	ght" basis							
Parameters	Results	Units LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Met	hod: EPA 8082 Prepa	ration Meth	nod: EP/	A 3541			
PCB-1016 (Aroclor 1016)	<b>&lt;0.037</b> mg/kg	g 0.074	0.037	1	02/14/14 10:52	02/17/14 18:10	12674-11-2	
PCB-1221 (Aroclor 1221)	<b>&lt;0.037</b> mg/kg	g 0.074	0.037	1	02/14/14 10:52	02/17/14 18:10	11104-28-2	
PCB-1232 (Aroclor 1232)	<b>&lt;0.037</b> mg/kg	g 0.074	0.037	1	02/14/14 10:52	02/17/14 18:10	11141-16-5	
PCB-1242 (Aroclor 1242)	<b>&lt;0.037</b> mg/kg	g 0.074	0.037	1	02/14/14 10:52	02/17/14 18:10	53469-21-9	
PCB-1248 (Aroclor 1248)	<b>&lt;0.037</b> mg/kg		0.037	1	02/14/14 10:52	02/17/14 18:10	12672-29-6	
PCB-1254 (Aroclor 1254)	<b>&lt;0.037</b> mg/kg		0.037	1	02/14/14 10:52	02/17/14 18:10	11097-69-1	
PCB-1260 (Aroclor 1260)	<b>&lt;0.037</b> mg/kg		0.037	1	02/14/14 10:52	02/17/14 18:10	11096-82-5	
PCB, Total <i>Surrogates</i>	<b>&lt;0.037</b> mg/kg	g 0.074	0.037	1	02/14/14 10:52	02/17/14 18:10	1336-36-3	
Tetrachloro-m-xylene (S)	74 %	40-130		1	02/14/14 10:52	02/17/14 18:10	877-09-8	
Decachlorobiphenyl (S)	84 %	48-130		1	02/14/14 10:52	02/17/14 18:10	2051-24-3	
6010 MET ICP	Analytical Met	hod: EPA 6010 Prepa	ration Meth	nod: EP/	A 3050			
Arsenic	<b>9.4</b> mg/kg	g 2.8	0.75	1	02/14/14 08:57	02/14/14 18:39	7440-38-2	
Barium	<b>128</b> mg/kg	0	0.12	1	02/14/14 08:57	02/14/14 18:39	7440-39-3	
Cadmium	0.50J mg/kg	-	0.070	1	02/14/14 08:57	02/14/14 18:39	7440-43-9	
Chromium	<b>18.1</b> mg/kg	-	0.17	1	02/14/14 08:57	02/14/14 18:39	7440-47-3	
Iron	14400 mg/kg	-	3.7	1		02/14/14 18:39		
Lead	<b>9.1</b> mg/kg	5	0.41	1		02/14/14 18:39		
Manganese	<b>495</b> mg/kg	-	0.043	1		02/14/14 18:39		
Selenium	<b>&lt;0.82</b> mg/kg	-	0.82	1	02/14/14 08:57	02/14/14 18:39	7782-49-2	
Silver	<b>&lt;0.30</b> mg/kg	-	0.30	1	02/14/14 08:57	02/14/14 18:39	7440-22-4	
6010 MET ICP, TCLP	Analytical Met	hod: EPA 6010 Prepa	ration Meth	nod: EP/	A 3010			
	Leachate Met	hod/Date: EPA 1311; 0	2/20/14 00	:00				
Lead	<b>&lt;0.015</b> mg/L	0.038	0.015	1	02/21/14 08:30	02/24/14 12:18	7439-92-1	
7471 Mercury	Analytical Met	hod: EPA 7471 Prepa	ration Meth	nod: EP/	A 7471			
Mercury	<b>0.019</b> mg/kg	g 0.0082	0.0041	1	02/18/14 14:50	02/19/14 16:29	7439-97-6	2q
8270 MSSV PAH by SIM	Analytical Met	hod: EPA 8270 by SIM	1 Preparati	ion Meth	nod: EPA 3546			
Acenaphthene	<b>&lt;0.012</b> mg/kg	g 0.025	0.012	1	02/19/14 09:27	02/19/14 16:14	83-32-9	
Acenaphthylene	<0.011 mg/kg	g 0.025	0.011	1	02/19/14 09:27	02/19/14 16:14	208-96-8	
Anthracene	<b>&lt;0.013</b> mg/kg	g 0.025	0.013	1	02/19/14 09:27	02/19/14 16:14	120-12-7	
Benzo(a)anthracene	<0.0085 mg/kg	g 0.025	0.0085	1	02/19/14 09:27	02/19/14 16:14	56-55-3	
Benzo(a)pyrene	<b>&lt;0.0088</b> mg/kg	g 0.025	0.0088	1	02/19/14 09:27	02/19/14 16:14	50-32-8	
Benzo(b)fluoranthene	<b>&lt;0.012</b> mg/kg	g 0.025	0.012	1	02/19/14 09:27			
Benzo(g,h,i)perylene	<0.0094 mg/kg	g 0.025	0.0094	1	02/19/14 09:27	02/19/14 16:14	191-24-2	
Benzo(k)fluoranthene	<b>&lt;0.014</b> mg/kg	g 0.025	0.014	1	02/19/14 09:27	02/19/14 16:14	207-08-9	
Chrysene	<0.011 mg/kg	g 0.025	0.011	1	02/19/14 09:27	02/19/14 16:14	218-01-9	
Dibenz(a,h)anthracene	<0.0090 mg/kg	g 0.025	0.0090	1	02/19/14 09:27	02/19/14 16:14	53-70-3	
Fluoranthene	<b>&lt;0.012</b> mg/kg	g 0.025	0.012	1	02/19/14 09:27	02/19/14 16:14	206-44-0	
Fluorene	<b>&lt;0.012</b> mg/kg		0.012	1	02/19/14 09:27	02/19/14 16:14	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>&lt;0.0093</b> mg/kg	g 0.025	0.0093	1	02/19/14 09:27	02/19/14 16:14	193-39-5	

### **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Sample: B9-S2 Lab ID: 4092070008 Received: 02/13/14 08:40 Collected: 02/11/14 10:00 Matrix: Solid Results reported on a "dry-weight" basis Parameters Results Units LOQ LOD DF Prepared Analyzed CAS No. Qual 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 0.025 0.012 1-Methylnaphthalene <0.012 mg/kg 1 02/19/14 09:27 02/19/14 16:14 90-12-0 <0.012 mg/kg 0.012 2-Methylnaphthalene 0.025 1 02/19/14 09:27 02/19/14 16:14 91-57-6 Naphthalene <0.012 mg/kg 0.025 0.012 02/19/14 09:27 02/19/14 16:14 91-20-3 1 Phenanthrene <0.012 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 16:14 85-01-8 Pyrene <0.012 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 16:14 129-00-0 Surrogates 2-Fluorobiphenyl (S) 64 % 40-130 02/19/14 09:27 02/19/14 16:14 321-60-8 1 Terphenyl-d14 (S) 69 % 40-130 02/19/14 09:27 02/19/14 16:14 1718-51-0 1 **Percent Moisture** Analytical Method: ASTM D2974-87 Percent Moisture 32.1 % 0.10 0.10 1 02/13/14 14:25 **Total Organic Carbon** Analytical Method: EPA 9060 Modified Surrogates RPD% 2.1 % 0.10 0.10 1 02/20/14 13:22 Total Organic Carbon 6600 mg/kg 2440 303 1 02/20/14 13:18 7440-44-0 Total Organic Carbon 6730 mg/kg 2630 327 02/20/14 13:22 7440-44-0 1 Mean Total Organic Carbon 2540 6660 mg/kg 315 1 02/20/14 13:22 7440-44-0



#### Project: C7799-WING III WINGRA

4092070

Pace Project No.:

CPC-0106 (Arodor 1016)         <0.037 mg/kg	Sample: B10-S1	Lab ID:	: 4092070009	Collecte	d: 02/11/14	10:30	Received: 02/	/13/14 08:40 Ma	atrix: Solid	
Box         Constraint         Constraint           Box         CS         PCB         Analytical Method: EPA 8082         Preparation Method: EPA 3541           PCB-1016 (Arcolor 1016)         -0.037         mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         1162-28-2           PCB-1222 (Arcolor 1223)         -0.037         mg/kg         0.074         0.037         02/14/14 10:52         02/17/14 18:28         1162-28-2           PCB-1224 (Arcolor 1242)         -0.037         mg/kg         0.074         0.037         02/14/14 10:52         02/17/14 18:28         11692-29-6           PCB-1236 (Arcolor 1248)         -0.037         mg/kg         0.074         0.037         02/14/14 10:52         02/17/14 18:28         11697-29-6           PCB-1236 (Arcolor 1248)         -0.037         mg/kg         0.074         0.037         02/14/14 10:52         02/17/14 18:28         11697-49-5           PCB-1236 (Arcolor 1248)         -0.037         mg/kg         0.074         0.037         02/14/14 10:52         02/17/14 18:28         11697-49-3           Surrogares         Titrachiors-mxylene (S)         75         40-130         1         02/14/14 10:57         02/14/14 18:27         02/14/14 18:27         02/14/14 18:27         02/14/14	Results reported on a "dry-we	eight" basis								
CPC-0106 (Arodor 1016)         <0.037 mg/kg	Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
PCB-1221 (Aroder 1221)       <0.037 mg/kg	8082 GCS PCB	Analytica	al Method: EPA 8	3082 Prepa	ration Meth	od: EP/	3541			
PCB-1322 (Anocka 1322)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         11141-6-5           PCB-1242 (Anocka 1242)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         128469-21-9           PCB-1246 (Anocka 1248)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         1297-69-1           PCB-1266 (Anocka 1248)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         1366-3-3           Surrogates         -         -         1         02/14/14 10:52         02/17/14 18:28         77-09-8           Decachlorobiphenyl (S)         85 %         48-130         1         02/14/14 10:52         02/17/14 18:28         740-39-2           Arsenic         7.7 mg/kg         2.9         0.78         1         02/14/14 08:57         02/14/14 18:42         740-39-3           Cadmium         0.50 mg/kg         0.72         0.73         1         02/14/14 08:57         02/14/14 18:42         740-39-3           Cadmium         0.50 mg/kg         0.72         0.74         1         02/14/14 08:57         02/14/14 18:42         740-39-	PCB-1016 (Aroclor 1016)	<0.037	mg/kg	0.074	0.037	1	02/14/14 10:52	02/17/14 18:28	12674-11-2	
PCB-1242 (Anocior 1242)       -0.037 mg/kg       0.074       0.037       1       02/14/14 10:52       02/17/14 18:28       53468-19         PCB-1264 (Anocior 1256)       -0.037 mg/kg       0.074       0.037       1       02/14/14 10:52       02/17/14 18:28       11097-69-1         PCB-1256 (Anocior 1260)       -0.037 mg/kg       0.074       0.037       1       02/14/14 10:52       02/17/14 18:28       11098-69-1         PCB-1256 (Anocior 1260)       -0.037 mg/kg       0.074       0.037       1       02/14/14 10:52       02/17/14 18:28       1396-36-3         Surrogates       -       -       02/14/14 10:52       02/17/14 18:28       1396-36-3       -         Tetrachtoro-mx-yiene (S)       75       40-130       1       02/14/14 10:57       02/14/14 18:27       240-33-3       -         Barium       75       %       48-130       1       02/14/14 08:57       02/14/14 18:27       240-33-3       -         Cadmium       0.50       mg/kg       0.72       0.74       1       02/14/14 08:57       02/14/14 18:42       740-33-3       -       -       1       02/14/14 08:57       02/14/14 18:42       740-33-3       -       -       -       1       02/14/14 08:57       02/14/14 18:42       740-43-3 <td>PCB-1221 (Aroclor 1221)</td> <td>&lt;0.037</td> <td>mg/kg</td> <td>0.074</td> <td>0.037</td> <td>1</td> <td>02/14/14 10:52</td> <td>02/17/14 18:28</td> <td>11104-28-2</td> <td></td>	PCB-1221 (Aroclor 1221)	<0.037	mg/kg	0.074	0.037	1	02/14/14 10:52	02/17/14 18:28	11104-28-2	
PCB-1248 (Aroclor 1248)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         1267-29-6           PCB-1256 (Aroclor 1260)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         11096-82-5           PCB-1256 (Aroclor 1260)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         11096-82-5           PCB-1256 (Aroclor 1260)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         1305-36-3           Surrogates         -         -         02/14/14 10:52         02/17/14 18:28         877-09-8         02/17/14 18:28         2051-24-3           Bearlum         Chorennykg         0.72         0.78         1         02/14/14 10:52         02/14/14 18:42         7440-38-2           Cadmium         0.500 mg/kg         0.72         0.78         1         02/14/14 08:57         02/14/14 18:42         7440-38-3           Cadmium         0.500 mg/kg         0.72         0.78         1         02/14/14 08:57         02/14/14 18:42         7440-39-3           Cadmium         0.500 mg/kg         0.72         0.704         10         02/1	PCB-1232 (Aroclor 1232)	<0.037	mg/kg	0.074	0.037	1	02/14/14 10:52	02/17/14 18:28	11141-16-5	
PCB-1264 (Aroclor 1264)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         11097-69-1           PCB-1260 (Aroclor 1260)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         11097-69-1           PCB, Total         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         1308-36-3           Surrogates         -         -         02/14/14 10:52         02/17/14 18:28         877-09-8           Tistrachioro-m-xylene (S)         75 %         40-130         1         02/14/14 10:52         02/17/14 18:28         740-9-3           G010 MET ICP         Analytical Method: EPA 6010         Preparatom         1         02/14/14 08:57         02/14/14 18:42         7440-39-9           Barium         101 mg/kg         0.72         0.73         1         02/14/14 08:57         02/14/14 18:42         7440-43-9           Chromium         2.00 mg/kg         0.72         0.74         1         02/14/14 08:57         02/14/14 18:42         7439-92-1           Iron         14000         mg/kg         1.4         0.21         02/14/14 08:57         02/14/14 18:42         7439-92-1           M	PCB-1242 (Aroclor 1242)	<0.037	mg/kg	0.074	0.037	1	02/14/14 10:52	02/17/14 18:28	53469-21-9	
PCB-1260 (Aroclor 1260)         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         1306-82-5           PCB, Total         -0.037 mg/kg         0.074         0.037         1         02/14/14 10:52         02/17/14 18:28         1336-83           Surrogates         -         -         02/14/14 10:52         02/17/14 18:28         877-09-8           Decachlorothypheny (S)         85 %         40-130         1         02/14/14 10:52         02/17/14 18:28         877-09-8           Decachlorothypheny (S)         85 %         40-130         1         02/14/14 10:52         02/17/14 18:28         740-38-2           G010 MET ICP         Analytical Method: EPA 6010         Preparation         1         02/14/14 08:57         02/14/14 18:42         7440-38-3           Cadmium         0.50 mg/kg         0.72         0.074         1         02/14/14 08:57         02/14/14 18:42         7440-38-3           Coronium         2.00 mg/kg         0.72         0.074         1         02/14/14 08:57         02/14/14 18:42         7440-38-3           Coronium         1.000 mg/kg         1.4         0.42         0.21/14/14 08:47         02/14/14 08:47         02/14/14 08:47         02/14/14 18:42         749-98-5	PCB-1248 (Aroclor 1248)	<0.037	mg/kg	0.074	0.037	1	02/14/14 10:52	02/17/14 18:28	12672-29-6	
PCB. Total         <0.037         mg/kg         0.037         1         02/14/14 10:52         02/17/14 18:28         1336-36-3           Surrogates         75 %         40-130         1         02/14/14 10:52         02/17/14 18:28         877-09-8           Decachiorobiphenyl (S)         85 %         48-130         1         02/14/14 10:57         02/14/14 18:20         747-09-8           G010 MET ICP         Analytical Method: EPA 6010         Preparator         1         02/14/14 08:57         02/14/14 18:42         7440-39-3           Barium         101 mg/kg         0.72         0.018         1         02/14/14 08:57         02/14/14 18:42         7440-39-3           Cadmium         0.501 mg/kg         0.72         0.018         1         02/14/14 08:57         02/14/14 18:42         7440-39-3           Cadmium         14000 mg/kg         0.72         0.045         1         02/14/14 08:57         02/14/14 18:42         7440-39-9           Lead         15.3 mg/kg         0.72         0.045         1         02/14/14 08:57         02/14/14 18:42         7439-96-5           Steinium         -         0.35 mg/kg         0.72         0.045         1         02/14/14 08:57         02/14/14 18:42         7439-96-5	PCB-1254 (Aroclor 1254)	<0.037	mg/kg	0.074	0.037	1	02/14/14 10:52	02/17/14 18:28	11097-69-1	
Surragates Tetrachioro-maylene (S)         75 %         40-130         1         02/14/14 10:52         02/17/14 18:28         877-05-8           Decachlorobiphenyl (S)         85 %         48-130         1         02/14/14 10:52         02/17/14 18:28         2051-24-3           6010 MET ICP         Analytical Method: EPA 6010         Preparation Method: EPA 3050         02/14/14 18:42         7440-38-2           Cadmium         0.500 mg/kg         0.72         0.013         1         02/14/14 18:42         7440-39-3           Cadmium         0.500 mg/kg         0.72         0.014         1         02/14/14 18:42         7440-39-3           Cadmium         0.200 mg/kg         0.72         0.014         1         02/14/14 08:57         02/14/14 18:42         7440-43-9           Chromium         20.0 mg/kg         0.72         0.045         1         02/14/14 08:57         02/14/14 18:42         7439-96-5           Lead         15.3 mg/kg         1.4         0.42         1         02/14/14 08:57         02/14/14 18:42         7439-92-1           Manganese         354 mg/kg         2.9         0.86         0.02/14/14 08:57         02/14/14 18:42         7439-92-1           Stiver         -0.31 mg/kg         0.21         02/14/14 08:57         <	PCB-1260 (Aroclor 1260)	<0.037	mg/kg	0.074	0.037	1	02/14/14 10:52	02/17/14 18:28	11096-82-5	
Tetrac functione         75 %         40-130         1         02/14/14 10:52         02/17/14 18:28         877-09-8           Decachilorobiphenyl (S)         85 %         48-130         1         02/14/14 10:52         02/17/14 18:28         877-09-8           6010 MET ICP         Analytical Method: EPA 6010         Presaria         02/14/14 10:57         02/14/14 18:27         7440-38-2           Arsenic         77. mg/kg         0.72         0.18         1         02/14/14 08:57         02/14/14 18:42         7440-39-3           Cadmium         0.500         mg/kg         0.72         0.074         1         02/14/14 08:57         02/14/14 18:42         7440-43-9           Chromium         20.00 mg/kg         0.72         0.074         1         02/14/14 08:57         02/14/14 18:42         7439-39-1           Manganese         354 mg/kg         0.72         0.045         1         02/14/14 08:57         02/14/14 18:42         7439-39-1           Steinum         -0.66 mg/kg         2.9         0.86         1         02/14/14 08:57         02/14/14 18:42         7439-39-1           Steinum         -0.33 mg/kg         0.41         0.21         02/14/14 08:57         02/14/14 18:42         7439-39-1           Steinum         -0.	PCB, Total	<0.037	mg/kg	0.074	0.037	1	02/14/14 10:52	02/17/14 18:28	1336-36-3	
Decachlorobiphenyl (S)         85 %         48-130         1         02/14/14 10:52         02/17/14 18:28         2051-24-3           6010 MET ICP         Analytical Method: EPA 6010         Preparation Method:         EPA 300           Arsenic         7.7 mg/kg         2.9         0.78         1         02/14/14 08:57         02/14/14 18:42         7440-38-2           Barium         101 mg/kg         0.72         0.13         1         02/14/14 08:57         02/14/14 18:42         7440-38-2           Cadmium         0.50 J mg/kg         0.72         0.18         1         02/14/14 08:57         02/14/14 18:42         7440-43-9           Chromium         20.0         mg/kg         1.4         0.72         0.18         1         02/14/14 08:57         02/14/14 18:42         7440-43-9           Lead         15.3 mg/kg         1.4         0.42         1         02/14/14 08:57         02/14/14 18:42         7439-92-1           Manganese         354 mg/kg         0.72         0.045         1         02/14/14 08:57         02/14/14 18:42         7482-92-2           G010 MET ICP, TCLP         Analytical Method: EPA 6010         Preparation Method: EPA 301         1         02/14/14 08:57         02/14/14 18:42         7482-92-1           T71 <td>Surrogates</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Surrogates									
Gotto MET ICP         Analytical Method: EPA 6010         Preparation Method: EPA 3050           Arsenic         7.7 mg/kg         2.9         0.78         1         02/14/14 08:57         02/14/14 18:42         7440-38-2           Barium         0.50J mg/kg         0.72         0.13         1         02/14/14 08:57         02/14/14 18:42         7440-38-3           Cadmium         0.50J mg/kg         0.72         0.13         1         02/14/14 08:57         02/14/14 18:42         7440-38-3           Chromium         20.0 mg/kg         0.72         0.14         1         02/14/14 08:57         02/14/14 18:42         7439-92-1           Manganese         354 mg/kg         0.72         0.045         1         02/14/14 08:57         02/14/14 18:42         7439-92-1           Manganese         354 mg/kg         0.72         0.045         1         02/14/14 08:57         02/14/14 18:42         7439-92-1           Steinium         <0.86 mg/kg	Tetrachloro-m-xylene (S)	75	%	40-130		1	02/14/14 10:52	02/17/14 18:28	877-09-8	
Arsenic 7.7 mg/kg 0.72 0.13 1 02/14/14 08:57 02/14/14 18:42 7440-38-2 Barium 0.500 mg/kg 0.72 0.13 1 02/14/14 08:57 02/14/14 18:42 7440-39-3 Cadmium 0.500 mg/kg 0.72 0.18 1 02/14/14 08:57 02/14/14 18:42 7440-43-9 Chromium 20.0 mg/kg 0.72 0.18 1 02/14/14 08:57 02/14/14 18:42 7439-83-6 Iron 14000 mg/kg 14.5 3.9 1 02/14/14 08:57 02/14/14 18:42 7439-89-6 Lead 15.3 mg/kg 0.72 0.45 1 02/14/14 08:57 02/14/14 18:42 7439-89-6 Selenium - 0.86 mg/kg 2.9 0.86 1 02/14/14 08:57 02/14/14 18:42 7439-89-5 Selenium - 0.86 mg/kg 2.9 0.86 1 02/14/14 08:57 02/14/14 18:42 7439-89-5 Selenium - 0.86 mg/kg 2.9 0.86 1 02/14/14 08:57 02/14/14 18:42 7439-99-5 Selenium - 0.31 mg/kg 1.4 0.31 1 02/14/14 08:57 02/14/14 18:42 7439-99-5 Selenium - 0.31 mg/kg 1.4 0.31 1 02/14/14 08:57 02/14/14 18:42 7439-99-5 Selenium - 0.015 J mg/L 0.038 0.015 1 02/14/14 08:57 02/14/14 18:42 7439-92-1 Leachate Method/Date: EPA 1311; 02/20/14 00:00 Leachate Method/Date: EPA 1311; 02/20/14 00:00 Leachate Method/Date: EPA 7471 Preparation Method: EPA 7471 Mercury 0.018 mg/kg 0.0097 0.0049 1 02/18/14 14:50 02/19/14 16:31 7439-97-6 2q 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Acenaphthene - 0.011 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 16:32 83-32-9 Acenaphthylene - 0.0013 mg/kg 0.025 0.013 1 02/19/14 09:27 02/19/14 16:32 208-96-8 Anthracene - 0.0013 mg/kg 0.025 0.013 1 02/19/14 09:27 02/19/14 16:32 208-96-8 Anthracene - 0.0088 mg/kg 0.025 0.0088 1 02/19/14 09:27 02/19/14 16:32 208-96-8 Benzo(b)/Itoranthene - 0.0088 mg/kg 0.025 0.0088 1 02/19/14 09:27 02/19/14 16:32 208-96-8 Benzo(b)/Itoranthene - 0.0088 mg/kg 0.025 0.014 1 02/19/14 09:27 02/19/14 16:32 208-96-8 Benzo(b)/Itoranthene - 0.0088 mg/kg 0.025 0.014 1 02/19/14 09:27 02/19/14 16:32 208-96-8 Benzo(b)/Itoranthene - 0.0088 mg/kg 0.025 0.014 1 02/19/14 09:27 02/19/14 16:32 208-96-8 Benzo(b)/Itoranthene - 0.0088 mg/kg 0.025 0.014 1 02/19/14 09:27 02/19/14 16:32 208-96-8 Benzo(b)/Itoranthene - 0.0012 mg/kg 0.025 0.014 1 02/19/14 09:27 02/19/14 16:32 208-96-8 Benzo(b)	Decachlorobiphenyl (S)	85	%	48-130		1	02/14/14 10:52	02/17/14 18:28	2051-24-3	
Barium       101 mg/kg       0.72       0.13       1       02/14/14 08:57       02/14/14 18:42       7440-39-3         Cadmium       0.50J mg/kg       0.72       0.074       1       02/14/14 08:57       02/14/14 18:42       7440-43-9         Chromium       1000 mg/kg       14.5       3.9       1       02/14/14 08:57       02/14/14 18:42       7439-89-6         Lead       15.3 mg/kg       1.4       0.42       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Manganese       354 mg/kg       0.72       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Selenium       <0.66 mg/kg	6010 MET ICP	Analytica	al Method: EPA 6	6010 Prepa	ration Meth	od: EPA	A 3050			
Barium       101 mg/kg       0.72       0.13       1       02/14/14 08:57       02/14/14 18:42       7440-39-3         Cadmium       0.50J mg/kg       0.72       0.074       1       02/14/14 08:57       02/14/14 18:42       7440-43-9         Chromium       1000 mg/kg       14.5       3.9       1       02/14/14 08:57       02/14/14 18:42       7439-89-6         Lead       15.3 mg/kg       1.4       0.42       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Manganese       354 mg/kg       0.72       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Selenium       <0.66 mg/kg	Arsenic	7.7	ma/ka	2.9	0.78	1	02/14/14 08:57	02/14/14 18:42	7440-38-2	
Cadmium       0.501 mg/kg       0.72       0.074       1       02/14/14 08:57       02/14/14 18:42       7440-47-3         Chromium       20.0       mg/kg       0.72       0.18       1       02/14/14 08:57       02/14/14 18:42       7439-89-6         Lead       15.3       mg/kg       1.4       0.42       1       02/14/14 08:57       02/14/14 18:42       7439-89-6         Lead       15.3       mg/kg       0.72       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-86-6         Selenium       <0.86	Barium			0.72	0.13	1	02/14/14 08:57	02/14/14 18:42	7440-39-3	
Chromium       20.0 mg/kg       0.72       0.18       1       02/14/14 08:57       02/14/14 18:42       7440-47-3         Iron       14000 mg/kg       14.5       3.9       1       02/14/14 08:57       02/14/14 18:42       7439-89-6         Lead       15.3 mg/kg       0.72       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-89-6         Selenium       -0.86 mg/kg       0.9       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Silver       -0.31 mg/kg       0.72       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Silver       -0.31 mg/kg       0.72       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Silver       -0.31 mg/kg       1.4       0.31       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Silver       -0.31 mg/kg       0.038       0.015       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Lead       0.015J mg/L       0.038       0.015       1       02/14/14 08:30       02/24/14 12:29       7439-92-1         Torn       Lead       0.015 J mg/L       0.038       0.015       1       <	Cadmium					1				
Iron       14000       mg/kg       14.5       3.9       1       02/14/14 08:57       02/14/14 18:42       7439-89-6         Lead       15.3       mg/kg       1.4       0.42       1       02/14/14 08:57       02/14/14 18:42       7439-89-6         Manganese       354       mg/kg       0.72       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Selenium       <0.86       mg/kg       2.9       0.86       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Selenium       <0.31       mg/kg       0.31       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Selenium       <0.31       mg/kg       0.015       r       02/14/14 08:57       02/14/14 18:42       7439-92-1         Selenium       <0.31       mg/kg       0.038       0.015       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Lead       0.015       mg/k       0.038       0.015       1       02/14/14 08:37       02/24/14 12:29       7439-92-1         T471       Mercury       0.018       mg/kg       0.025       0.012       1       02/19/14 08:27       02/19/14 16:32       03/32-9       2 <tr< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr<>										
Lead       15.3 mg/kg       1.4       0.42       1       02/14/14 08:57       02/14/14 18:42       7439-92-1         Manganese       354 mg/kg       0.72       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-96-5         Selenium       <0.86										
Manganese       354 mg/kg       0.72       0.045       1       02/14/14 08:57       02/14/14 18:42       7439-96-5         Selenium       <0.86 mg/kg       2.9       0.86       1       02/14/14 08:57       02/14/14 18:42       7439-96-5         Silver       <0.31 mg/kg       1.4       0.31       1       02/14/14 08:57       02/14/14 18:42       7430-92-5         6010 MET ICP, TCLP       Analytical Method: EPA 6010       Prepartion Method: EPA 311; 02/20/14 00:00       Eachate Method/Date: EPA 1311; 02/20/14 00:00       7439-92-1       7439-92-1         Lead       0.015 J mg/L       0.038       0.015       1       02/14/14 18:30       02/24/14 12:29       7439-92-1         Art1 Mercury       Analytical Method: EPA 7471       Preparation Method: EPA 7471       Preparation Method: EPA 3546       2       2         Accenaphthene       <0.012 mg/kg       0.025       0.012       1       02/19/14 09:27       02/19/14 16:32       20-12-7         Benzo(a)anthracene       <0.013 mg/kg       0.025       0.018       1       02/19/14 09:27       02/19/14 16:32       20-12-7         Benzo(a)anthracene       <0.013 mg/kg       0.025       0.018       1       02/19/14 09:27       02/19/14 16:32       20-12-7         Benzo(b)fluoranthene			00							
Selenium         <0.86 mg/kg         2.9         0.86         1         02/14/14 08:57         02/14/14 18:42         7782-49-2           Silver         <0.31 mg/kg         1.4         0.31         1         02/14/14 08:57         02/14/14 18:42         7782-49-2           6010 MET ICP, TCLP         Analytical Method: EPA 6010         Preparation         EPA 301         EPA 301         EPA 301           Leachate Method/Date: EPA 1311; 02/20/14 00:00         Leachate Method: EPA 7471         Preparation         02/14/14 08:30         02/24/14 12:29         7439-92-1           7471 Mercury         Analytical Method: EPA 7471         Preparation         EPA 300         02/19/14 16:31         7439-97-6         2q           8270 MSSV PAH by SIM         Analytical Method: EPA 300         0.012         1         02/19/14 09:27         02/19/14 16:32         83-32-9           Accenaphthene         <0.013 mg/kg         0.025         0.011         1         02/19/14 09:27         02/19/14 16:32         83-32-9           Anthracene         <0.013 mg/kg         0.025         0.013         1         02/19/14 09:27         02/19/14 16:32         83-32-9           Benzo(a)anthracene         <0.013 mg/kg         0.025         0.013         1         02/19/14 09:27         02/19/14 16:32         20										
Silver       <0.31 mg/kg       1.4       0.31 n       1       02/14/14 08:57       02/14/14 18:42       7440-22-4         6010 MET ICP, TCLP       Analytical Method: EPA 6010       Preparation       Method:       EPA 3010       Image 1000	•									
6010 MET ICP, TCLP         Analytical Method: EPA 6010 Preparation Method: EPA 3010 Leachate Method/Date: EPA 1311; 02/20/14 00:00           Lead         0.015J mg/L         0.038         0.015         1         02/21/14 08:30         02/24/14 12:29         7439-92-1           7471 Mercury         Analytical Method: EPA 7471         Preparation Method: EPA 7471         Outparation Method: EPA 7471         Preparation Method: EPA 7471           Mercury         0.018 mg/kg         0.0097         0.0049         1         02/18/14 14:50         02/19/14 16:31         7439-97-6         2q           8270 MSSV PAH by SIM         Analytical Method: EPA 8270 by SIM         Preparation         Method: EPA 3546           Acenaphthene         <0.012 mg/kg         0.025         0.011         02/19/14 09:27         02/19/14 16:32         83-32-9           Acenaphthylene         <0.011 mg/kg         0.025         0.011         02/19/14 09:27         02/19/14 16:32         208-96-8           Analytical Method: EPA 8270 by SIM         Disperation         1         02/19/14 09:27         02/19/14 16:32         83-32-9           Acenaphthylene         <0.011 mg/kg         0.025         0.013         1         02/19/14 09:27         02/19/14 16:32         208-96-8           Anthracene         <0.0088 mg/kg         0.025         0.013 <td></td> <td></td> <td>0 0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			0 0							
Leachate Method/Date: EPA 1311; 02/20/14 00:00           Lead         0.015J mg/L         0.038         0.015         1         02/21/14 08:30         02/24/14 12:29         7439-92-1           7471 Mercury         Analytical Method: EPA 7471         Preparation Method: EPA 7471           Mercury         0.018         mg/kg         0.0097         0.049         1         02/18/14 14:50         02/19/14 16:31         7439-97-6         2q           8270 MSSV PAH by SIM         Analytical Method: EPA 8270 by SIM         Preparation Method: EPA 3546           Acenaphthene         <0.012 mg/kg         0.025         0.011 1         02/19/14 09:27         02/19/14 16:32         83-32-9           Acenaphthylene         <0.012 mg/kg         0.025         0.011         02/19/14 09:27         02/19/14 16:32         08-30           Anthracene         <0.0011 mg/kg         0.025         0.0085         0.0085         0.0219/14 09:27         02/19/14 16:32         08-30           Anthracene         <0.0085         0.0085         0.0085 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>02/14/14 10:42</td><td>7440 22 4</td><td></td></th<>								02/14/14 10:42	7440 22 4	
Lead0.015 J mg/L0.0380.015102/21/14 08:3002/24/14 12:297439-92-17471 MercuryAnalytical Method: EPA 7471Preparation Method: EPA 7471EPA 7471Mercury0.018 mg/kg0.00970.0049102/18/14 14:5002/19/14 16:317439-97-62q8270 MSSV PAH by SIMAnalytical Method: EPA 8270 by SIMPreparation Method:EPA 3546Acenaphthene<0.012 mg/kg0.0250.012102/19/14 09:2702/19/14 16:3283-32-9Acenaphthene<0.011 mg/kg0.0250.011102/19/14 09:2702/19/14 16:32208-96-8Acthracene<0.011 mg/kg0.0250.013102/19/14 09:2702/19/14 16:32208-96-8Benzo(a)anthracene<0.0085 mg/kg0.0250.0088102/19/14 09:2702/19/14 16:32205-93-2Benzo(a)pyrene<0.0088 mg/kg0.0250.012102/19/14 09:2702/19/14 16:32205-99-2Benzo(g),hi)perylene<0.0012 mg/kg0.0250.014102/19/14 09:2702/19/14 16:32207-08-9Benzo(g),hi)perylene<0.0014 mg/kg0.0250.014102/19/14 09:2702/19/14 16:32218-01-9Benzo(g),hi)perylene<0.0014 mg/kg0.0250.014102/19/14 09:2702/19/14 16:32218-01-9Benzo(g),hi)perylene<0.0014 mg/kg0.0250.011102/19/14 09:2702/19/14 16:32218-01-9Benzo(g),hi)perylene<0.0014 mg/kg0.0250.	6010 MET ICP, TCLP	-					4 3010			
7471 Mercury         Analytical Method: EPA 7471         Preparation Method: EPA 7471           Mercury         0.018 mg/kg         0.0097         0.0049         1         02/18/14 14:50         02/19/14 16:31         7439-97-6         2q           8270 MSSV PAH by SIM         Analytical Method: EPA 8270 by SIM         Preparation Method: EPA 3546         2           Acenaphthene         <0.012 mg/kg										
Mercury         0.018 mg/kg         0.0097         0.0049         1         02/18/14 14:50         02/19/14 16:31         7439-97-6         2q           8270 MSSV PAH by SIM         Analytical Method: EPA 8270 by SIM         Preparation Method: EPA 3546         EPA 3546           Acenaphthene         <0.012 mg/kg	Lead		0					02/24/14 12:29	7439-92-1	
8270 MSSV PAH by SIM       Analytical Method: EPA 8270 by SIM       Preparation Method: EPA 3546         Acenaphthene       <0.012 mg/kg	7471 Mercury	Analytica	al Method: EPA 7	7471 Prepa	ration Meth	od: EPA	\ 7471			
Acenaphthene<0.012 mg/kg0.0250.012102/19/14 09:2702/19/14 16:3283-32-9Acenaphthylene<0.011 mg/kg	Mercury	0.018	mg/kg	0.0097	0.0049	1	02/18/14 14:50	02/19/14 16:31	7439-97-6	2q
Acenaphthylene<0.011mg/kg0.0250.011102/19/14 09:2702/19/14 16:32208-96-8Anthracene<0.013	8270 MSSV PAH by SIM	Analytica	al Method: EPA 8	3270 by SIM	Preparation	on Meth	od: EPA 3546			
Anthracene<0.013mg/kg0.0250.013102/19/14 09:2702/19/14 16:32120-12-7Benzo(a)anthracene<0.0085	Acenaphthene	<0.012	mg/kg	0.025	0.012	1	02/19/14 09:27	02/19/14 16:32	83-32-9	
Anthracene<0.013mg/kg0.0250.013102/19/14 09:2702/19/14 16:32120-12-7Benzo(a)anthracene<0.0085	Acenaphthylene	<0.011	mg/kg	0.025	0.011	1	02/19/14 09:27	02/19/14 16:32	208-96-8	
Benzo(a)pyrene         <0.0088         mg/kg         0.025         0.0088         1         02/19/14 09:27         02/19/14 16:32         50-32-8           Benzo(b)fluoranthene         <0.012	Anthracene	<0.013	mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:32	120-12-7	
Benzo(a)pyrene<0.0088mg/kg0.0250.0088102/19/14 09:2702/19/14 16:3250-32-8Benzo(b)fluoranthene<0.012	Benzo(a)anthracene	<0.0085	mg/kg	0.025	0.0085	1	02/19/14 09:27	02/19/14 16:32	56-55-3	
Benzo(b)fluoranthene         <0.012         mg/kg         0.025         0.012         1         02/19/14 09:27         02/19/14 16:32         205-99-2           Benzo(g,h,i)perylene         <0.0094				0.025	0.0088	1	02/19/14 09:27	02/19/14 16:32	50-32-8	
Benzo(k)fluoranthene         <0.014         mg/kg         0.025         0.014         1         02/19/14 09:27         02/19/14 16:32         207-08-9           Chrysene         <0.011	Benzo(b)fluoranthene	<0.012	mg/kg	0.025	0.012	1	02/19/14 09:27	02/19/14 16:32	205-99-2	
Benzo(k)fluoranthene         <0.014         mg/kg         0.025         0.014         1         02/19/14 09:27         02/19/14 16:32         207-08-9           Chrysene         <0.011	Benzo(g,h,i)perylene	<0.0094	mg/kg	0.025	0.0094	1	02/19/14 09:27	02/19/14 16:32	191-24-2	
Chrysene         <0.011         mg/kg         0.025         0.011         1         02/19/14 09:27         02/19/14 16:32         218-01-9           Dibenz(a,h)anthracene         <0.0090	Benzo(k)fluoranthene	<0.014	mg/kg	0.025	0.014	1	02/19/14 09:27	02/19/14 16:32	207-08-9	
Dibenz(a,h)anthracene         <0.0090         mg/kg         0.025         0.0090         1         02/19/14         09:27         02/19/14         16:32         53-70-3           Fluoranthene         0.019J         mg/kg         0.025         0.012         1         02/19/14         09:27         02/19/14         16:32         206-44-0           Fluorene         <0.012	Chrysene	<0.011	mg/kg			1				
Fluoranthene         0.019J mg/kg         0.025         0.012         1         02/19/14 09:27         02/19/14 16:32         206-44-0           Fluorene         <0.012 mg/kg         0.025         0.012         1         02/19/14 09:27         02/19/14 16:32         86-73-7	Dibenz(a,h)anthracene					1	02/19/14 09:27	02/19/14 16:32	53-70-3	
Fluorene <0.012 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 16:32 86-73-7		0.019J	mg/kg			1				
	Fluorene					1				
	Indeno(1,2,3-cd)pyrene			0.025	0.0094	1	02/19/14 09:27	02/19/14 16:32	193-39-5	

#### **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Sample: B10-S1 Lab ID: 4092070009 Collected: 02/11/14 10:30 Received: 02/13/14 08:40 Matrix: Solid Results reported on a "dry-weight" basis Parameters Results Units LOQ LOD DF Prepared Analyzed CAS No. Qual 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 0.025 0.012 1-Methylnaphthalene <0.012 mg/kg 1 02/19/14 09:27 02/19/14 16:32 90-12-0 <0.012 mg/kg 0.012 2-Methylnaphthalene 0.025 1 02/19/14 09:27 02/19/14 16:32 91-57-6 Naphthalene 0.015J mg/kg 0.025 0.012 02/19/14 09:27 02/19/14 16:32 91-20-3 1 Phenanthrene <0.012 mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 16:32 85-01-8 Pyrene 0.016J mg/kg 0.025 0.012 1 02/19/14 09:27 02/19/14 16:32 129-00-0 Surrogates 2-Fluorobiphenyl (S) 61 % 40-130 02/19/14 09:27 02/19/14 16:32 321-60-8 1 Terphenyl-d14 (S) 65 % 40-130 02/19/14 09:27 02/19/14 16:32 1718-51-0 1 **Percent Moisture** Analytical Method: ASTM D2974-87 Percent Moisture 32.3 % 0.10 0.10 1 02/13/14 14:25 **Total Organic Carbon** Analytical Method: EPA 9060 Modified Surrogates RPD% 24.3 % 0.10 0.10 1 02/20/14 13:28 Total Organic Carbon 15100 mg/kg 2080 259 1 02/20/14 13:25 7440-44-0 Total Organic Carbon 11800 mg/kg 2270 283 02/20/14 13:28 7440-44-0 1 Mean Total Organic Carbon 13400 mg/kg 2180 271 1 02/20/14 13:28 7440-44-0



#### Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Sample: B10-S2	Lab ID: 4092070010	Collecte	d: 02/11/14	4 10:45	Received: 02	/13/14 08:40 Ma	atrix: Solid	
Results reported on a "dry-we	eight" basis							
Parameters	Results Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA	8082 Prepa	ration Meth	od: EPA	3541			
PCB-1016 (Aroclor 1016)	<0.038 mg/kg	0.075	0.038	1	02/14/14 10:52	02/17/14 18:45	12674-11-2	
PCB-1221 (Aroclor 1221)	<b>&lt;0.038</b> mg/kg	0.075	0.038	1	02/14/14 10:52	02/17/14 18:45	11104-28-2	
PCB-1232 (Aroclor 1232)	<b>&lt;0.038</b> mg/kg	0.075	0.038	1	02/14/14 10:52	02/17/14 18:45	11141-16-5	
PCB-1242 (Aroclor 1242)	<b>&lt;0.038</b> mg/kg	0.075	0.038	1	02/14/14 10:52	02/17/14 18:45	53469-21-9	
PCB-1248 (Aroclor 1248)	<b>&lt;0.038</b> mg/kg	0.075	0.038	1	02/14/14 10:52	02/17/14 18:45	12672-29-6	
PCB-1254 (Aroclor 1254)	<b>&lt;0.038</b> mg/kg	0.075	0.038	1	02/14/14 10:52	02/17/14 18:45	11097-69-1	
PCB-1260 (Aroclor 1260)	<b>&lt;0.038</b> mg/kg	0.075	0.038	1	02/14/14 10:52	02/17/14 18:45	11096-82-5	
PCB, Total	<b>&lt;0.038</b> mg/kg	0.075	0.038	1	02/14/14 10:52	02/17/14 18:45	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	78 %	40-130		1	02/14/14 10:52	02/17/14 18:45	877-09-8	
Decachlorobiphenyl (S)	90 %	48-130		1	02/14/14 10:52	02/17/14 18:45	2051-24-3	
6010 MET ICP	Analytical Method: EPA	6010 Prepa	ration Meth	od: EPA	3050			
Arsenic	<b>7.7</b> mg/kg	2.6	0.70	1	02/14/14 08:57	02/14/14 18:44	7440-38-2	
Barium	95.9 mg/kg	0.64	0.11	1	02/14/14 08:57	02/14/14 18:44	7440-39-3	
Cadmium	<b>0.47J</b> mg/kg	0.64	0.065	1	02/14/14 08:57	02/14/14 18:44	7440-43-9	
Chromium	<b>18.4</b> mg/kg	0.64	0.16	1	02/14/14 08:57	02/14/14 18:44	7440-47-3	
Iron	14500 mg/kg	12.9	3.5	1	02/14/14 08:57	02/14/14 18:44	7439-89-6	
Lead	<b>8.4</b> mg/kg	1.3	0.38	1	02/14/14 08:57	02/14/14 18:44	7439-92-1	
Manganese	<b>281</b> mg/kg	0.64	0.040	1	02/14/14 08:57	02/14/14 18:44	7439-96-5	
Selenium	<b>&lt;0.76</b> mg/kg	2.6	0.76	1	02/14/14 08:57	02/14/14 18:44	7782-49-2	
Silver	<b>&lt;0.27</b> mg/kg	1.3	0.27	1	02/14/14 08:57	02/14/14 18:44	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA	6010 Prepa	ration Meth	od: EPA	3010			
	Leachate Method/Date	: EPA 1311; 0	2/20/14 00:	:00				
Lead	<b>&lt;0.015</b> mg/L	0.038	0.015	1	02/21/14 08:30	02/24/14 12:31	7439-92-1	
7471 Mercury	Analytical Method: EPA	7471 Prepa	ration Meth	od: EPA	7471			
Mercury	0.015 mg/kg	0.0094	0.0047	1	02/18/14 14:50	02/19/14 16:33	7439-97-6	2q
8270 MSSV PAH by SIM	Analytical Method: EPA	8270 by SIM	Preparation	on Meth	od: EPA 3546			
Acenaphthene	<b>&lt;0.013</b> mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	83-32-9	
Acenaphthylene	<b>&lt;0.011</b> mg/kg	0.025	0.011	1	02/19/14 09:27	02/19/14 16:49	208-96-8	
Anthracene	<b>&lt;0.013</b> mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	120-12-7	
Benzo(a)anthracene	<b>&lt;0.0087</b> mg/kg	0.025	0.0087	1	02/19/14 09:27	02/19/14 16:49	56-55-3	
Benzo(a)pyrene	<b>&lt;0.0090</b> mg/kg	0.025	0.0090	1	02/19/14 09:27	02/19/14 16:49	50-32-8	
Benzo(b)fluoranthene	<b>&lt;0.013</b> mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	205-99-2	
Benzo(g,h,i)perylene	<b>&lt;0.0095</b> mg/kg	0.025	0.0095	1	02/19/14 09:27	02/19/14 16:49	191-24-2	
Benzo(k)fluoranthene	<b>&lt;0.014</b> mg/kg	0.025	0.014	1	02/19/14 09:27	02/19/14 16:49	207-08-9	
Chrysene	<b>&lt;0.012</b> mg/kg	0.025	0.012	1		02/19/14 16:49		
Dibenz(a,h)anthracene	<b>&lt;0.0092</b> mg/kg	0.025	0.0092	1	02/19/14 09:27	02/19/14 16:49	53-70-3	
Fluoranthene	<b>&lt;0.013</b> mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	206-44-0	
Fluorene	<b>&lt;0.013</b> mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	86-73-7	
la den e (4.0.0. e d) e une e e	.0.0005	0.005	0.0005		00/40/44 00.07	00/40/4440.40	400.00 5	

### **REPORT OF LABORATORY ANALYSIS**

0.0095

1

0.025

<0.0095 mg/kg

Indeno(1,2,3-cd)pyrene

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..

02/19/14 09:27 02/19/14 16:49 193-39-5



Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Sample: B10-S2	Lab ID: 409207001	0 Collecte	d: 02/11/14	10:45	Received: 02/	/13/14 08:40 Ma	atrix: Solid	
Results reported on a "dry-wei	ight" basis							
Parameters	Results Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EF	PA 8270 by SIM	Preparatio	on Meth	nod: EPA 3546			
1-Methylnaphthalene	<b>&lt;0.013</b> mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	90-12-0	
2-Methylnaphthalene	<b>&lt;0.013</b> mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	91-57-6	
Naphthalene	<0.013 mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	91-20-3	
Phenanthrene	<0.013 mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	85-01-8	
Pyrene	<0.013 mg/kg	0.025	0.013	1	02/19/14 09:27	02/19/14 16:49	129-00-0	
Surrogates	0.0							
2-Fluorobiphenyl (S)	50 %	40-130		1	02/19/14 09:27	02/19/14 16:49	321-60-8	
Terphenyl-d14 (S)	50 %	40-130		1	02/19/14 09:27	02/19/14 16:49	1718-51-0	
Percent Moisture	Analytical Method: AS	STM D2974-87						
Percent Moisture	33.5 %	0.10	0.10	1		02/13/14 14:25		
Total Organic Carbon	Analytical Method: EF	PA 9060 Modifie	ed					
Surrogates								
RPD%	<b>5.9</b> %	0.10	0.10	1		02/20/14 13:36		
Total Organic Carbon	<b>6770</b> mg/kg	3030	377	1		02/20/14 13:31	7440-44-0	
Total Organic Carbon	6380 mg/kg	3120	389	1		02/20/14 13:36	7440-44-0	
Mean Total Organic Carbon	6580 mg/kg	3080	383	1		02/20/14 13:36	7440-44-0	



Project:	C7799-WING		A										
Pace Project No.:	4092070												
QC Batch:	MERP/4109	)		Analys	is Method:	E	PA 7471						
QC Batch Method:	EPA 7471			Analys	is Descript	ion: 74	471 Mercury	/					
Associated Lab Sar		070001, 409 070009, 409		092070003	, 40920700	004, 40920	70005, 4092	2070006, 4	092070007	7, 4092070	0008,		
METHOD BLANK:	932376			N	latrix: Soli	d							
Associated Lab Sar	•	070001, 409 070009, 409		092070003	, 40920700	004, 40920	70005, 4092	2070006, 4	092070007	7, 4092070	0008,		
				Blank	R	eporting							
Parar	neter		Units	Resul	t	Limit	Analyz	ed	Qualifiers				
Mercury		mg/kg		<0.	0033	0.0067	02/19/14	15:36		_			
LABORATORY CO	NTROL SAMPI	LE: 93237	7										
				Spike	LCS		LCS	% Rec	;				
Parar	neter		Units	Conc.	Resu	lt	% Rec	Limits	Qı	ualifiers			
Mercury		mg/kg		.17		0.17	103	85	-115		-		
MATRIX SPIKE & N	ATRIX SPIKE	DUPLICATI	E: 93237	8		932379							
				MS	MSD								
-			91982001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	<b>o</b> .
Parame	ter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual



Project:	C7799-	WING III WINGR	A										
Pace Project No .:	409207	0											
QC Batch:	MPRF	2/9841		Analys	is Method:	FF	PA 6010						
QC Batch Method:	EPA 3				is Descript		10 MET						
		4092070001, 40	02070002 1		•			2070006 4	იიაიკიიიკ	4002070	008		
Associated Lab Sam	pies.	4092070009, 40		092070000	, 40920700	504, 409207	0000, 4092	2070000, 4	092070007	, 4032070	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
METHOD BLANK:	931331			Ν	Aatrix: Soli	id							
Associated Lab Sam	ples:	4092070001, 40 4092070009, 40		092070003	, 40920700	004, 409207	70005, 4092	2070006, 4	092070007	, 4092070	0008,		
		,,		Blank	k R	eporting							
Param	eter		Units	Resul	t	Limit	Analyz	ed	Qualifiers				
Arsenic		mg/kg	1		<0.54	2.0	02/14/14	17:47		_			
Barium		mg/kg		<(	0.087	0.50	02/14/14	17:47					
Cadmium		mg/kg	1	<(	0.051	0.50	02/14/14	17:47					
Chromium		mg/kg		•	<0.13	0.50	02/14/14						
Iron		mg/kg			<2.7	10.0	02/14/14						
Lead		mg/kg			<0.29	1.0							
Manganese Selenium		mg/kg mg/kg			.033J <0.59	0.50 2.0							
Silver		mg/kg			<0.39	2.0	02/14/14						
		119/12	,				02/11/11						
LABORATORY CON	TROLS	SAMPLE: 9313	32										
Param	otor		Units	Spike Conc.	LCS Resu		LCS % Rec	% Rec Limits		ualifiers			
										amers	-		
Arsenic		mg/kg		50		49.2	98		-120				
Barium Cadmium		mg/kg mg/kg		50 50		49.9 50.3	100 101		-120 -120				
Chromium		mg/kg		50		50.3 50.2	101		-120				
Iron		mg/kg		500		479	96		-120				
Lead		mg/kg		50		50.9	102		-120				
Manganese		mg/kg		50		48.2	96		-120				
Selenium		mg/kg		50		49.9	100	80	-120				
Silver		mg/kg	1	25		25.1	100	80	-120				
			E. 02422	<u>, , , , , , , , , , , , , , , , , , , </u>		931334							
MATRIX SPIKE & MA			E: 93133	MS	MSD	301334							
			092026001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramete	er	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qu
Arsenic		mg/kg	12.4	55.3	55.5	70.0	65.4	104	95	75-125	7	20	
Barium		mg/kg	139	55.3	55.5	203	244	114	189	75-125	19	20	MO
Cadmium		mg/kg	0.48J	55.3	55.5	56.2	55.4	101	99	75-125		20	
Chromium		mg/kg	37.5	55.3	55.5	77.1	84.4	72	84	75-125		20	
Iron		mg/kg	17900	553	555	23500	19300	1010	252	75-125	20	20	P6
Lead		mg/kg	38.8	55.3	55.5	86.0	85.5	86	84	75-125		20	
Manganese		mg/kg	399	55.3	55.5	402	470	7	128	75-125		20	P6
Selenium		mg/kg	<0.66	55.3	55.5	54.0	52.3	98	94	75-125		20	
Silver		mg/kg	<0.24	27.7	27.8	28.3	28.0	102	100	75-125	1	20	

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



Project:	C7799-WING III V	VINGRA						
Pace Project No.:	4092070							
QC Batch:	MPRP/9859		Analysis Met	hod: EF	PA 6010			
QC Batch Method:	EPA 3010		Analysis Des		10 MET TCLP			
Associated Lab Sam	ples: 40920700	001, 4092070002, 4	•	•			007	
METHOD BLANK:	933198		Matrix:	Water				
Associated Lab Sam	ples: 40920700	001, 4092070002, 4	092070003, 4092	070004, 409207	70005, 409207	0006, 40920700	007	
			Blank	Reporting				
Param	eter	Units	Result	Limit	Analyzed	Qualifie	rs	
_ead		mg/L	<0.0030	0.0075	02/24/14 11:1	14		
METHOD BLANK:	931972		Matrix:	Solid				
Associated Lab Sam	ples: 40920700	001, 4092070002, 4	092070003, 4092 Blank	070004, 409207 Reporting	70005, 409207	0006, 40920700	007	
Param	eter	Units	Result	Limit	Analyzed	Qualifie	rs	
Lead		mg/L	<0.015	0.038	02/24/14 11:2	21		
	020720		Motrive	Colid				
METHOD BLANK: Associated Lab Sam		01 4000070000 4	Matrix:		70005 400007	0006 40000700	07	
ASSOCIATED LAD SAIN	pies. 40920700	001, 4092070002, 4	Blank	Reporting	10005, 409207	0006, 40920700	JU7	
Param	eter	Units	Result	Limit	Analyzed	Qualifie	rs	
Lead		mg/L	<0.015	0.038	02/24/14 11:1	17		
METHOD BLANK:	932740		Matrix:	Solid				
Associated Lab Sam	ples: 40920700	001, 4092070002, 4	092070003, 4092	070004, 409207	70005, 409207	0006, 40920700	007	
			Blank	Reporting				
Param	eter	Units	Result	Limit	Analyzed	Qualifie	rs	
		/1						
Lead		mg/L	0.017J	0.038	02/24/14 11:	19		
Lead	TROL SAMPLE:	mg/∟ 933199	0.017J	0.038	02/24/14 11:*	19		
LABORATORY CON		933199	Spike	LCS	LCS	% Rec	0	
ABORATORY CON		933199 Units	Spike Conc. F	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
ABORATORY CON		933199	Spike	LCS	LCS	% Rec	Qualifiers	
ABORATORY CON Param	eter	933199 Units	Spike Conc. F .5	LCS Result 0.51	LCS % Rec	% Rec Limits 80-120		
LABORATORY CON	eter	933199 Units  mg/L	Spike Conc. F	LCS Result	LCS % Rec	% Rec Limits	Qualifiers % Rec Limits	Qualifiers



Project: C7799-WING III WINGRA

Pace Project No.: 4092070

MATRIX SPIKE SAMPLE:	933201	4092225001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Lead	mg/L	0.025J	2.5	2.5	99	75-125	
MATRIX SPIKE SAMPLE:	933203						
		4092143001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Lead	mg/L		2.5	2.6	103	75-125	



Project:	C7799-WI	NG III WINGR	A										
Pace Project No .:	4092070												
QC Batch:	MPRP/98	862		Analys	sis Method	: E	PA 6010						
QC Batch Method:	EPA 301	0		Analys	sis Descrip	tion: 60	010 MET TO	CLP					
Associated Lab Sam	ples: 40	92070008, 40	92070009, 4	092070010	)								
METHOD BLANK:	933612			Ν	Matrix: Wa	iter							
Associated Lab Sam	ples: 40	92070008, 40	92070009, 4	092070010	)								
Param	eter		Units	Blank Resul		Reporting Limit	Analyz	ed	Qualifiers				
Lead		mg/L		<0.	.0030	0.0075	02/24/14	12:09					
METHOD BLANK:	933175			Ν	Matrix: Sol	lid							
Associated Lab Sam	ples: 40	92070008, 40	92070009, 4										
Param	otor		Units	Blank Resul		Reporting Limit	Anal -	rod	Qualifiers				
	elei		Units				Analyz		Quaimers	_			
Lead		mg/L		<	0.015	0.038	02/24/14	12:11					
METHOD BLANK: Associated Lab Sam Param	ples: 40	092070008, 409	92070009, 4 Units		K R	lid Reporting Limit	Analyz	zed	Qualifiers				
Lead		mg/L		<	0.015	0.038	02/24/14	12:14		_			
LABORATORY CON	TROL SAM	MPLE: 9336	13										
_				Spike	LCS		LCS	% Red					
Param	eter		Units	Conc.	Resu		% Rec	Limits		ualifiers	_		
Lead		mg/L		.5	5	0.51	103	80	-120				
MATRIX SPIKE & M	ATRIX SPI	KE DUPLICAT	E: 93361	4 MS	MSD	933615							
		40	092070008	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramete	er	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Lead		mg/L	<0.015	2.5	2.5	2.5	2.5	100	100	75-125	0	20	
MATRIX SPIKE SAM	1PLE:	9336	16										
Param	eter		Units	409226 Res		Spike Conc.	MS Result		IS Rec	% Rec Limits		Qualif	iers
Lead		mg/L		·	0.021J	2.5	2	2.6	101	75-	125		



,	799-WING II 92070	I WINGRA											
-	EXT/21331			Analy	sis Metho	d. El	PA 8082						
								<b>~</b> D					
	PA 3541			,	sis Descri	•	082 GCS P						
Associated Lab Sample		0001, 409 0009, 409		09207000	3, 409207	0004, 40920	70005, 4092	2070006, 4	1092070007	7, 4092070	0008,		
METHOD BLANK: 93	1395				Matrix: So	blid							
Associated Lab Sample		0001, 409 0009, 409		092070003	3, 409207	0004, 40920	70005, 4092	2070006, 4	1092070007	7, 4092070	0008,		
				Blan	k	Reporting							
Paramete	r	ι	Jnits	Resu	ılt	Limit	Analyz	zed	Qualifiers				
PCB-1016 (Aroclor 1016	6)	mg/kg		<	.0.025	0.050	02/17/14	14:25					
PCB-1221 (Aroclor 122	,	mg/kg			:0.025	0.050							
PCB-1232 (Aroclor 1232	,	mg/kg			:0.025	0.050							
PCB-1242 (Aroclor 1242	2)	mg/kg		<	:0.025	0.050	02/17/14	14:25					
PCB-1248 (Aroclor 1248	3)	mg/kg		<	0.025	0.050	02/17/14	14:25					
PCB-1254 (Aroclor 1254	4)	mg/kg		<	:0.025	0.050	02/17/14	14:25					
PCB-1260 (Aroclor 1260	D)	mg/kg		<	:0.025	0.050	02/17/14	14:25					
Decachlorobiphenyl (S)		%			96	48-130	02/17/14	14:25					
Tetrachloro-m-xylene (S	)	%			76	40-130	02/17/14	14:25					
LABORATORY CONTR	OL SAMPLE	: 93139	6										
Paramete	r		Jnits	Spike Conc.	LC Res		LCS % Rec	% Re Limits		ualifiers			
							/01100			aamoro	-		
PCB-1016 (Aroclor 1016	,	mg/kg				< 0.025							
PCB-1221 (Aroclor 122 PCB-1232 (Aroclor 1232		mg/kg				<0.025 <0.025							
PCB-1232 (Arocior 1232) PCB-1242 (Aroclor 1242)		mg/kg mg/kg				<0.025							
PCB-1242 (Aroclor 1242) PCB-1248 (Aroclor 1248	,	mg/kg				<0.025							
PCB-1254 (Aroclor 1254	,	mg/kg				<0.025							
PCB-1260 (Aroclor 126)	,	mg/kg		ı	5	0.38	76	7(	0-130				
Decachlorobiphenyl (S)	-	%			0	0.00	99		3-130				
Tetrachloro-m-xylene (S	)	%					77		0-130				
MATRIX SPIKE & MATE			: 93139	7		931398							
			. 33139	MS	MSD	331330							
		409	92070002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter		Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
PCB-1016 (Aroclor 1016	6) m	g/kg	<0.031			<0.031	<0.031					31	
PCB-1221 (Aroclor 122	,	g/kg	< 0.031			<0.031	<0.031					31	
PCB-1232 (Aroclor 1232		g/kg	<0.031			<0.031	<0.031					31	
PCB-1242 (Aroclor 1242		g/kg	<0.031			<0.031	<0.031					31	
PCB-1248 (Aroclor 1248		g/kg	<0.031			<0.031	<0.031					31	
PCB-1254 (Aroclor 1254	4) m	g/kg	<0.031			<0.031	<0.031					31	
PCB-1260 (Aroclor 1260	D) m	g/kg	<0.031	.62	.62	2 0.40	0.39	65	63	40-149	2	31	
Desceptorebiphonyd (C)	0/							0.0	00	40 400			

## **REPORT OF LABORATORY ANALYSIS**

83

71

82

68

48-130

40-130

Decachlorobiphenyl (S)

Tetrachloro-m-xylene (S)

%

%



Project:	C7799	-WING III WINGRA				
Pace Project No .:	409207	70				
QC Batch:	OEX	T/21381	Analysis Meth	od: EP	PA 8270 by SIM	
QC Batch Method:	EPA 3	3546	Analysis Desc	cription: 82	70/3546 MSSV PAH	H by SIM
Associated Lab Sam	nples:	4092070001, 4092070002, 40 4092070009, 4092070010	092070003, 40920	070004, 409207	0005, 4092070006	, 4092070007, 4092070008,
METHOD BLANK:	93267	1	Matrix:	Solid		
Associated Lab Sam	nples:	4092070001, 4092070002, 4092070009, 4092070009, 4092070010	092070003, 40920	070004, 409207	0005, 4092070006	, 4092070007, 4092070008,
			Blank	Reporting		
Param	neter	Units	Result	Limit	Analyzed	Qualifiers
1-Methylnaphthalene	е		<0.0083	0.017	02/19/14 10:46	
2-Methylnaphthalene	е	mg/kg	<0.0083	0.017	02/19/14 10:46	
Acenaphthene		mg/kg	<0.0083	0.017	02/19/14 10:46	
Acenaphthylene		mg/kg	<0.0075	0.017	02/19/14 10:46	
Anthracene		mg/kg	<0.0086	0.017	02/19/14 10:46	
Benzo(a)anthracene	9	mg/kg	<0.0058	0.017	02/19/14 10:46	
Benzo(a)pyrene		mg/kg	<0.0060	0.017	02/19/14 10:46	
Benzo(b)fluoranthen		mg/kg	<0.0083	0.017	02/19/14 10:46	
Benzo(g,h,i)perylene	Э	mg/kg	< 0.0063	0.017	02/19/14 10:46	
Benzo(k)fluoranthen	e	mg/kg	<0.0092	0.017	02/19/14 10:46	
Chrysene		mg/kg	<0.0077	0.017	02/19/14 10:46	
Dibenz(a,h)anthrace	ene	mg/kg	<0.0061	0.017	02/19/14 10:46	
Fluoranthene		mg/kg	<0.0083	0.017	02/19/14 10:46	
Fluorene		mg/kg	<0.0083	0.017	02/19/14 10:46	
Indeno(1,2,3-cd)pyre	ene	mg/kg	<0.0063	0.017	02/19/14 10:46	
Naphthalene		mg/kg	<0.0083	0.017	02/19/14 10:46	
Phenanthrene		mg/kg	<0.0083	0.017	02/19/14 10:46	
Pyrene		mg/kg	<0.0083	0.017	02/19/14 10:46	
2-Fluorobiphenyl (S) Terphenyl-d14 (S)	)	%	65 74	40-130 40-130	02/19/14 10:46 02/19/14 10:46	
		<i>,</i> ,,	14	10 100	5_, 10, 11 10.10	

#### LABORATORY CONTROL SAMPLE: 932672

LADURATURY CONTROL SAMPLE.	932072					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1-Methylnaphthalene	mg/kg	.33	0.23	70	47-130	
2-Methylnaphthalene	mg/kg	.33	0.23	69	48-130	
Acenaphthene	mg/kg	.33	0.22	65	55-130	
Acenaphthylene	mg/kg	.33	0.21	64	55-130	
Anthracene	mg/kg	.33	0.24	71	66-130	
Benzo(a)anthracene	mg/kg	.33	0.23	69	55-130	
Benzo(a)pyrene	mg/kg	.33	0.24	71	56-130	
Benzo(b)fluoranthene	mg/kg	.33	0.26	77	53-130	
Benzo(g,h,i)perylene	mg/kg	.33	0.21	63	51-130	
Benzo(k)fluoranthene	mg/kg	.33	0.23	70	52-130	
Chrysene	mg/kg	.33	0.24	72	58-130	
Dibenz(a,h)anthracene	mg/kg	.33	0.18	55	55-130	
Fluoranthene	mg/kg	.33	0.24	72	62-130	
Fluorene	mg/kg	.33	0.22	67	58-130	
Indeno(1,2,3-cd)pyrene	mg/kg	.33	0.20	60	54-130	
Naphthalene	mg/kg	.33	0.22	65	41-130	

### **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



#### Project: C7799-WING III WINGRA

Pace Project No.: 4092070

LABORATORY CONTROL SAMPLE:	932672	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Phenanthrene	mg/kg	.33	0.24	71	60-130	
Pyrene	mg/kg	.33	0.25	74	51-130	
2-Fluorobiphenyl (S)	%			58	40-130	
Terphenyl-d14 (S)	%			65	40-130	

MATRIX SPIKE & MATRIX S	PIKE DUPLICAT	E: 93267	3		932674							
			MS	MSD								
		092152003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	mg/kg	<9.6 ug/kg	.38	.38	0.27	0.29	71	75	42-130	6	32	
2-Methylnaphthalene	mg/kg	<9.6 ug/kg	.38	.38	0.27	0.27	70	72	34-130	2	35	
Acenaphthene	mg/kg	<9.6 ug/kg	.38	.38	0.26	0.26	67	69	31-130	2	35	
Acenaphthylene	mg/kg	<8.6 ug/kg	.38	.38	0.26	0.26	68	69	32-130	1	25	
Anthracene	mg/kg	<9.9 ug/kg	.38	.38	0.28	0.28	72	74	39-131	2	38	
Benzo(a)anthracene	mg/kg	<6.6 ug/kg	.38	.38	0.26	0.27	69	70	29-130	2	30	
Benzo(a)pyrene	mg/kg	<6.8 ug/kg	.38	.38	0.28	0.28	73	74	35-130	1	33	
Benzo(b)fluoranthene	mg/kg	<9.6 ug/kg	.38	.38	0.28	0.29	72	77	21-142	6	44	
Benzo(g,h,i)perylene	mg/kg	<7.3 ug/kg	.38	.38	0.28	0.29	74	75	12-134	2	33	
Benzo(k)fluoranthene	mg/kg	<10.6 ug/kg	.38	.38	0.28	0.28	74	72	35-130	3	37	
Chrysene	mg/kg	<8.8 ug/kg	.38	.38	0.27	0.27	70	71	37-130	2	38	
Dibenz(a,h)anthracene	mg/kg	<7.0 ug/kg	.38	.38	0.27	0.27	71	71	23-130	1	27	
Fluoranthene	mg/kg	<9.6 ug/kg	.38	.38	0.28	0.28	73	74	29-137	2	50	
Fluorene	mg/kg	<9.6 ug/kg	.38	.38	0.26	0.27	68	70	32-130	2	32	
Indeno(1,2,3-cd)pyrene	mg/kg	<7.3 ug/kg	.38	.38	0.28	0.28	72	73	17-134	1	28	
Naphthalene	mg/kg	<9.6 ug/kg	.38	.38	0.26	0.27	68	70	24-130	2	40	
Phenanthrene	mg/kg	<9.6 ug/kg	.38	.38	0.28	0.28	72	73	27-135	2	46	
Pyrene	mg/kg	<9.6 ug/kg	.38	.38	0.28	0.29	74	75	24-130	1	49	
2-Fluorobiphenyl (S) Terphenyl-d14 (S)	% %	0					60 64	60 65	40-130 40-130			



Project: Pace Project No.:	C7799 40920	-WING III WIN 70	GRA						
QC Batch:	PMS	T/9432		Analysis Meth	nod:	ASTM D2974-87			
QC Batch Method:	ASTI	N D2974-87		Analysis Desc	cription:	Dry Weight/Percer	nt Moisture		
Associated Lab Sa	mples:	,	4092070002, 4092070010	4092070003, 40920	070004, 409	2070005, 40920700	006, 40920700	07, 4092070008,	
SAMPLE DUPLICA	TE: 93	31238							
				4092059001	Dup		Max		
Para	neter		Units	Result	Result	RPD	RPD	Qualifiers	

Percent Moisture	%	7.6	7.5	1	10	
	,,					



Project:	C7799-	WING III WINGRA											
Pace Project No.:	409207	0											
QC Batch:	WETA	/21935		Analys	is Method:	E	PA 9060 Mc	odified					
QC Batch Method:	EPA 9	060 Modified		Analys	is Descript	ion: 9	060 TOC Av	verage					
Associated Lab Sam		4092070001, 40920 4092070009, 40920		4092070003	, 40920700	004, 40920	070005, 4092	2070006, 4	092070007	, 4092070	0008,		
METHOD BLANK:	933089			Ν	Aatrix: Soli	d							
Associated Lab Sam		4092070001, 40920 4092070009, 40920		4092070003	, 40920700	004, 40920	070005, 4092	2070006, 4	092070007	, 4092070	0008,		
				Blank		eporting							
Param	neter	U	nits	Resul	t	Limit	Analyz	zed	Qualifiers	_			
Mean Total Organic	Carbon	mg/kg		<	<31.1	250	02/20/14	09:27					
LABORATORY CON	NTROL S	AMPLE: 933090											
Param	neter	Ui	nits	Spike Conc.	LCS Resu		LCS % Rec	% Reo Limits		alifiers			
Mean Total Organic	Carbon	mg/kg		1000		1040	104	80	)-120		-		
MATRIX SPIKE & M	IATRIX S	PIKE DUPLICATE:	9330	91		933092							
				MS	MSD					a ( <b>B</b>			
Paramete	or		2070001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	חחם	Max RPD	Qual
Mean Total Organic			54400		45000	101000		104	91	50-150	6		Quai
incari iotal organic	Carbon	iiig/kg	34400	40000	40000	101000	55400	104	51	50-150	0	50	
MATRIX SPIKE & M	IATRIX S	PIKE DUPLICATE:	93309			933094							
		4000	2070002	MS Spiko	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramete	er		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	% Rec Limits	RPD		Qual
						-							



#### QUALIFIERS

#### Project: C7799-WING III WINGRA

Pace Project No.: 4092070

#### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

**DUP - Sample Duplicate** 

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

#### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

#### BATCH QUALIFIERS

Batch: WETA/21935

[WB] Results reported on dry weight basis per cited method.

Batch: WETA/21936

[WB] Results reported on dry weight basis per cited method.

#### ANALYTE QUALIFIERS

- 1q Analyte was detected in the associated leach blank at a concentration of 0.017 mg/L.
- 2q Negative detection value obtained for Method Blank (-0.0034 mg/kg).
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.



#### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch	
4092070001	 B6-S1	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070002	B6-S2	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070003	B7-S1	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070004	B7-S2	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070005	B8-S1	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070006	B8-S2	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070007	B9-S1	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070008	B9-S2	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070009	B10-S1	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070010	B10-S2	EPA 3541	OEXT/21331	EPA 8082	GCSV/10888	
4092070001	B6-S1	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070002	B6-S2	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070003	B7-S1	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070004	B7-S2	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070005	B8-S1	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070006	B8-S2	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070007	B9-S1	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070008	B9-S2	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070009	B10-S1	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070010	B10-S2	EPA 3050	MPRP/9841	EPA 6010	ICP/8655	
4092070001	B6-S1	EPA 3010	MPRP/9859	EPA 6010	ICP/8673	
4092070002	B6-S2	EPA 3010	MPRP/9859	EPA 6010	ICP/8673	
4092070003	B7-S1	EPA 3010	MPRP/9859	EPA 6010	ICP/8673	
4092070004	B7-S2	EPA 3010	MPRP/9859	EPA 6010	ICP/8673	
4092070005	B8-S1	EPA 3010	MPRP/9859	EPA 6010	ICP/8673	
4092070006	B8-S2	EPA 3010	MPRP/9859	EPA 6010	ICP/8673	
4092070007	B9-S1	EPA 3010	MPRP/9859	EPA 6010	ICP/8673	
4092070008	B9-S2	EPA 3010	MPRP/9862	EPA 6010	ICP/8675	
4092070009	B10-S1	EPA 3010	MPRP/9862	EPA 6010	ICP/8675	
4092070010	B10-S2	EPA 3010	MPRP/9862	EPA 6010	ICP/8675	
4092070001	B6-S1	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070002	B6-S2	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070003	B7-S1	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070004	B7-S2	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070005	B8-S1	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070006	B8-S2	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070007	B9-S1	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070008	B9-S2	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070009	B10-S1	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070010	B10-S2	EPA 7471	MERP/4109	EPA 7471	MERC/5332	
4092070001	B6-S1	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496	
4092070002	B6-S2	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496	
4092070003	B7-S1	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496	
4092070004	B7-S2	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496	
4092070005	B8-S1	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496	
4092070006	B8-S2	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496	



#### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: C7799-WING III WINGRA

Pace Project No.: 4092070

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4092070007	 B9-S1	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496
4092070008	B9-S2	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496
4092070009	B10-S1	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496
4092070010	B10-S2	EPA 3546	OEXT/21381	EPA 8270 by SIM	MSSV/6496
4092070001	B6-S1	ASTM D2974-87	PMST/9432		
4092070002	B6-S2	ASTM D2974-87	PMST/9432		
4092070003	B7-S1	ASTM D2974-87	PMST/9432		
4092070004	B7-S2	ASTM D2974-87	PMST/9432		
4092070005 4092070006	B8-S1 B8-S2	ASTM D2974-87 ASTM D2974-87	PMST/9432 PMST/9432		
4092070007	B9-S1	ASTM D2974-87 ASTM D2974-87	PMST/9432 PMST/9432		
4092070008	B9-S2	ASTM D2974-87	PMST/9432		
4092070009	B10-S1	ASTM D2974-87	PMST/9432		
4092070010	B10-S2	ASTM D2974-87	PMST/9432		
4092070001	B6-S1	EPA 9060 Modified	WETA/21935		
4092070001	B6-S1	EPA 9060 Modified	WETA/21936		
1092070002	B6-S2	EPA 9060 Modified	WETA/21935		
4092070002	B6-S2	EPA 9060 Modified	WETA/21936		
4092070003	B7-S1	EPA 9060 Modified	WETA/21935		
4092070003	B7-S1	EPA 9060 Modified	WETA/21936		
4092070004	B7-S2	EPA 9060 Modified	WETA/21935		
4092070004	B7-S2	EPA 9060 Modified	WETA/21936		
4092070005	B8-S1	EPA 9060 Modified	WETA/21935		
4092070005	B8-S1	EPA 9060 Modified	WETA/21936		
4092070006	B8-S2	EPA 9060 Modified	WETA/21935		
4092070006	B8-S2	EPA 9060 Modified	WETA/21936		
4092070007	B9-S1	EPA 9060 Modified	WETA/21935		
4092070007	B9-S1	EPA 9060 Modified	WETA/21936		
4092070008	B9-S2	EPA 9060 Modified	WETA/21935		
4092070008	B9-S2	EPA 9060 Modified	WETA/21936		
4092070009	B10-S1	EPA 9060 Modified	WETA/21935		
4092070009	B10-S1	EPA 9060 Modified	WETA/21936		
4092070010	B10-S2	EPA 9060 Modified	WETA/21935		
4092070010	B10-S2	EPA 9060 Modified	WETA/21936		

C019a(27Jun2006)

Version 6.0 06/14/06	a de la compara de la compa						special pricing and release of liability	special pricing an	
Present Not Present	Date/Time:	Received By:	ne:	Date/Time:	By:	Relinquished By:	Samples on HOLD are subject to	Samples on HO	
Cooler Custody Seal									Fax:
OK / Adjusted	Date/Time:	Received By:	ne:	Date/Time:	By:	Relinquished By:		œ.	Telephone:
Sample Receipt pH					by.		China the china and and and and and and and and and a	ערוענד	Email #2:
Receipt Temp = //07°C	ALL V LAL	WIDANKIL	USN FI	2-12	Vactor		Ng	hit Prelim Rush Res	Transn
10 × 602 × 10	Time:	Received By:	NEW I		A WALL	Relinquished	Date Needed: NORMAL	Date Net	
PACE Project No.	Date/Time:	Received By:	in Su	( Pate	Sand John	Relinquistrea	Rush Turnaround Time Requested - Prelims	h Turnaround T	Rus
4		XX	XX	XXX	A A	V 10.45	10 - 522 ·	Q B	0
		XX	XX	x x x	10.20 1	10	B10-51	9 B	8
		X X	XXX	XXX	400	10:01	9 - 52	K BG	K
		X X	XX	XXX		14:10	15-6		38
		XX	XX	XXX		W.K	75 1		×
		к Х		X		19:00			Ś
		XX	XXX	X		405:30			500
		K	XXX	XXX				1 L L L	S
		* *	* *	XX					20
3-4nz. a. A. 1-4nzo A	(1)	x	XXX	R	-5-	02-1 4/112	121	2 B	00
T	COMMENTS		R		<u>}</u>			1 13 6	8
LAB COMMENTS Profile #	CLIENT		CR		MATRIX				PACE LAB #
	Invoice To Phone:	TA L	D <u>C</u> A I	AH	GW = Ground Water SW = Surface Water WW = Waste Water all		Vour sample	EPA Level IV	
			ne=	1	g Water		On your sample	(Dillable) EPA Level III	П
	Invoice To Address:	Mr. Pb	<u> </u>			Matrix Codes	MS/MSD	Data Package Options	Data P
BULON	Invoice To Company:	,	5		ted	Regulatory	12 21		PO #:
	Invoice To Contact:				(CODE)"		ήŀ	Sampled By (Sign):	Sample
M MISN WUSSTY					NOI ,	PR	ERIC PAN	Sampled By (Print):	Sample
28 BO JOYATHAN CIRCLA	Mail To Address:				FILTERED?		W	State:	Project State:
IVER TECHNIL	Mail To Company:	anol G=NaOH	E=DI Water F=Methanol hiosulfate J=Other	l=Sodium T	m Bisulfate Sc		WINGRA	Name:	Project Name:
1=Rion	Mail To Contact:		odes C	*Preservatio		Ħ	7799-	Project Number:	Projec
	Quote #:		0 1			<u>`</u>	<b>v</b>		Phone:
HU9207/) of 40			3 4	www.pacelabs.com	//	٤	DONNIS IVERSON	Project Contact:	Projec
	0 WI: 920-469-2436	MN: 612-607-1700		Analytica	Face		VA0 502	Branch/Location:	Branc
Page 1 of /	- 12	BAN- 040 000 440			N N		IN HE RECH LLC		T

ORIGINAL

Pace Analytical"	Sampl	e Co	nditi	on Upon Receipt	Pace Analytical Services, Inc. 1241 Bellevue Street, Suite 9 Green Bay, WI 54302
/-	,				<b>1092070</b>
Client Name: Ivertec.	h		<b>.</b>		
Courier: Fed Ex UPS Client Pac	e Other	: U	al	tco	
Tracking #: <u>500131-1</u> Custody Seal on Cooler/Box Present: 🕅 yes		Soale	intact	4092070 Kives⊡ no	
Custody Seal on Samples Present:  yes	no	Seals	s intact:	: 🗂 yes 🗍 no	
Packing Material: ABubble Wrap ABub	ble Bac			-	
Thermometer Used $N/A$	Type	of Ice	Y Wet	Blue Dry None IA Samples of	n ice, cooling process has begun
Cooler Temperature Uncorr: ROI /Corr:			Bioto	gical Tissue is Frozen: 🗔 yes	
Temp Blank Present: Tyes Tyno				no	Person examining contents:
Temp should be above freezing to 6°C for all sample exc Frozen Biota Samples should be received $\leq$ 0°C.	cept Biota	a.		Comments:	Initials:
Chain of Custody Present:	☐∦Yes	□No	□n/A	1.	
Chain of Custody Filled Out:	- Yes	□No	⊡n/a	2.	
Chain of Custody Relinquished:	Tres	□No		3.	· · · · · · · · · · · · · · · · · · ·
Sampler Name & Signature on COC:	Xes	□No	□n/A	4	
Samples Arrived within Hold Time:	Pres	□No	□n/A	5.	
- VOA Samples frozen upon receipt	□Yes			Date/Time:	
Short Hold Time Analysis (<72hr):	□Yes	D'No.	□n/a	6.	
Rush Turn Around Time Requested:	□Yes	C)Ko		7	
Sufficient Volume:	Yes	□No	⊡n/A	8	
Correct Containers Used:	<b>₽</b> Yes	□No	⊡n/A	9.	
-Pace Containers Used:	<b>P</b> Yes	□No	□n/A		
-Pace IR Containers Used:	□Yes	□No	<b>DANIA</b>		
Containers Intact:	Yes	□No	□n/a	10	· · · · · · · · · · · · · · · · · · ·
Filtered volume received for Dissolved tests	□Yes		ØN/A	11.	a: Da i
Sample Labels match COC:	□Yes	₩	⊡n/A	12.005-IO Match	meg
-Includes date/time/ID/Analysis Matrix:	$\sim$				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	□Yes	□No	N/A	13. THNO3 TH2SO4	NaOH T NaOH +ZnAct
All containers needing preservation are found to be in					
compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	□Yes	□No			
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	□Yes	No		Initial when Lab Std #ID of completed preservative	Date/ Time:
Headspace in VOA Vials ( >6mm):	□ Yes	□No	N/A	14.	
Trip Blank Present:	□Yes	□No			
Trip Blank Custody Seals Present	□Yes	□No			
Pace Trip Blank Lot # (if purchased):					
<b>Client Notification/ Resolution:</b>					hed form for additional comments
Person Contacted:			_Uate/	Time:	
Comments/ Resolution:				·····	
Project Manager Review:	MT -	for	DM	Date:	2.13.14

.

# SECTION E: BIDDERS ACKNOWLEDGEMENT

## WINGRA CREEK PARKWAY, PHASE 3 CONTRACT NO. 6832

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.

- 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
-1	, that I have a second a second	and all a manage and all the lar Duran a seal

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

## WINGRA CREEK PARKWAY, PHASE 3 CONTRACT NO. 6832

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. On the date a contractor submits a bid to or completes negotiations with a state agency or local governmental unit, on a project (1) 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. The term "other construction business" means any business engaged in the erection, construction, remodeling, repairing, (2) 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) vears (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 Citv State Zip Code Name of Business Zip Code Street Address or P O Box City State 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)

# WINGRA CREEK PARKWAY, PHASE 3 CONTRACT NO. 6832

# **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
- DLASTERER
- 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:

# WINGRA CREEK PARKWAY, PHASE 3 CONTRACT NO. 6832

- 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.

Rev. 07/11/2014-6832specs.doc

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.

Principal	Date
Name of Surety	

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	
City of Madison, Wisconsin	

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:

# WINGRA CREEK PARKWAY, PHASE 3 CONTRACT NO. 6832

- 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 <u>SEE SPECIAL PROVISIONS</u>, 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 original 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.)

# WINGRA CREEK PARKWAY, PHASE 3 CONTRACT NO. 6832

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 pa that will accrue under this contract.	y the liability	Approved as to form:		
Finance Director		City Attorney		
Signed this day	y 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:

# WINGRA CREEK PARKWAY, PHASE 3 CONTRACT NO. 6832

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:	Quest	Oral
	Surety	Seal
	By	
City Attorney	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 NU	MBER: 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 AGE	ICY: 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:	<ul> <li>Time and one-half must be paid for all hours worked:</li> <li>over 10 hours per day on prevailing wage projects</li> <li>over 40 hours per calendar week</li> <li>Saturday and Sunday</li> <li>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;</li> <li>The day before if January 1, July 4 or December 25 falls on a Saturday;</li> <li>The day following if January 1, July 4 or December 25 falls on a Sunday.</li> <li>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.</li> <li>A DOT Premium (discussed below) may supersede this time and one-half requirement.</li> </ul>
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, whevenever 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 journeyperson'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

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS	<u>TOTAL</u> \$
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 Waterproofer	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		HOURLY			
<u>CODE</u>	TRADE OR OCCUPATION	BASIC RATE <u>OF PAY</u> \$	FRINGE <u>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	HOURLY BASIC RATE	HOURLY FRINGE <u>BENEFITS</u> \$		
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$		<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

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>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

## Page 6 of 28

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

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS \$	<u>TOTAL</u> \$
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 Mfgr's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfgr'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).	•	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	34.50	20.04	54.54
	ONLY.			

# HEAVY EQUIPMENT OPERATORS EXCLUDING SITE PREPARATION, UTILITY, PAVING LANDSCAPING WORK

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
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, Towe 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 r	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 Bidwel 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).	I	18.96	51.85

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
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.		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

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

	SKILLED TRADES			
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
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

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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			
	Frings Panofits Must Pa Baid On All Hours Worked			

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE		
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS	<u>TOTAL</u> \$	
201	Single Axle or Two Axle	<b>3</b> 0.00	¥ 15.00	45.00	
203	Three or More Axle	16.00	7.35	23.35	
204	Articulated, Euclid, Dumptor, 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	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS \$	<u>TOTAL</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

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u>	HOURLY FRINGE <u>BENEFITS</u>	<u>TOTAL</u>
		\$	<u>BEREI 115</u> \$	\$
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; Skin Rig; Telehandler; Traveling Crane (Bridge Type).		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 (Roted 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).		18.96	51.85

_ 0.0111				ago 12 01 20
CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE	HOURLY FRINGE	<u>TOTAL</u>
<u>CODE</u>	TRADE OR OCCUPATION	<u>OF PAY</u> \$	<u>BENEFITS</u> \$	\$
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 Chair 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.		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.		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.		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).

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS	<u>TOTAL</u> \$
103	Bricklayer, Blocklayer or Stonemason	32.01	17.35	49.36
105	Carpenter	30.48	15.90	46.38
107	<ul> <li>Cement Finisher</li> <li>Future Increase(s): Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16.</li> <li>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 &amp; 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.</li> </ul>	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	
<u>CODE</u>	TRADE OR OCCUPATION	BASIC RATE <u>OF PAY</u> \$	FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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	<ul> <li>Articulated, Euclid, Dumptor, Off Road Material Hauler</li> <li>Future Increase(s):</li> <li>Add \$1.75/hr on 6/1/14); Add \$1.25/hr on 6/1/15); Add</li> <li>\$1.30/hr on 6/1/16); Add \$1.25/hr on 6/1/17.</li> <li>Premium Increase(s):</li> <li>DOT PREMIUMS: 1) Pay two times the hourly basic</li> <li>rate on Sunday, New Year's Day, Memorial Day,</li> <li>Independence Day, Labor Day, Thanksgiving Day &amp;</li> <li>Christmas Day. 2) Add \$1.50/hr night work premium.</li> <li>See DOT'S website for details about the applicability of</li> <li>this night work premium at: http://www.dot.wi.gov/busine</li> <li>ss/civilrights/laborwages/pwc.htm.</li> </ul>	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				
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$	
301	<ul> <li>General Laborer</li> <li>Future Increase(s): Add \$1.60/hr on 6/1/2014.</li> <li>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:</li> <li>1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day &amp; 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).</li> </ul>	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	<ul> <li>Flagperson or Traffic Control Person</li> <li>Future Increase(s): Add \$1.60/hr on 6/1/2014.</li> <li>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 &amp; 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.</li> </ul>	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

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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 Ove 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/busine ss/civilrights/laborwages/pwc.htm.	36.72 r	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/busine ss/civilrights/laborwages/pwc.htm.		20.40	56.62

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE		
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
533	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, Vlbratory/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; 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. Future 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/busine ss/civilrights/laborwages/pwc.htm.	A	20.40	56.12

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
534	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 Sawer (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. 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/busine ss/civilrights/laborwages/pwc.htm.	35.46	20.40	55.86
535	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. 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/busine ss/civilrights/laborwages/pwc.htm.		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	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	<u>OF PAY</u> \$	<u>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	<b>S</b>	20.04	54.54

#### LOCAL STREET OR MISCELLANEOUS PAVING CONSTRUCTION

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			
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>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			
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$

201 Single Axle or Two Axle

45.00

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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	
<u>CODE</u>	TRADE OR OCCUPATION	BASIC RATE <u>OF PAY</u> \$	FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
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/busine ss/civilrights/laborwages/pwc.htm.	36.72	20.40	57.12
542	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. of 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/busine ss/civilrights/laborwages/pwc.htm.		20.40	56.62

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	<u>OF PAY</u> \$	<u>BENEFITS</u> \$	<u>TOTAL</u> \$
543	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; Gradal (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. 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/busine ss/civilrights/laborwages/pwc.htm.		20.40	56.12
544	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 Sawer (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.		19.79	53.75
545	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; 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.	30.32	18.46	48.78
546	Fiber Optic Cable Equipment.	26.69	16.65	43.34

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
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.	6	20.04	54.54

## HEAVY EQUIPMENT OPERATORS ASPHALT PAVEMENT OR OTHER WORK

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
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 Boon Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	35.12 1	18.46	53.58
552	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. on 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 of 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/busine ss/civilrights/laborwages/pwc.htm.		20.40	56.62

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
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 Mfgr.'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 Levele 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.	j r	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 Sawer (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/busine ss/civilrights/laborwages/pwc.htm.	35.17	20.40	55.57

556 Fiber Optic Cable Equipment.

## **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				
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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 FRINGE <u>BENEFITS</u> \$		
	TRADE OR OCCUPATION	BASIC RATE <u>OF PAY</u> \$		<u>TOTAL</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

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

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$		
	TRADE OR OCCUPATION			<u>TOTAL</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

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</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, Vlbratory/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, Tlmbco, 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.		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.	; ;	16.00	45.70	
*******	**************************************				