

\$2,687,000.00
CONTRACTOR'S OFFICE COPY

BID OF R. G. HUSTON CO., INC.

2021

PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS

FOR

HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT
DISTRICT - 2021

CONTRACT NO. 8569

PROJECT NO. 11189

MUNIS NO. 11189

IN

MADISON, DANE COUNTY, WISCONSIN

AWARDED BY THE COMMON COUNCIL
MADISON, WISCONSIN ON JULY 6, 2021

CITY ENGINEERING DIVISION
1600 EMIL STREET
MADISON, WISCONSIN 53713

<https://bidexpress.com/login>

**HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT
DISTRICT - 2021
CONTRACT NO. 8569**

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This Proposal, and Agreement have
been prepared by:

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

Christy Bachmann on behalf of:
Robert F. Phillips, P.E., City Engineer

RFP: JMW

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:	HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT DISTRICT - 2021
CONTRACT NO.:	8569
SBE GOAL	10%
BID BOND	5%
SBE PRE BID MEETING	See Pre Bid Meeting info below
PREQUALIFICATION APPLICATION DUE (2:00 P.M.)	JUNE 3, 2021
BID SUBMISSION (2:00 P.M.)	JUNE 10, 2021
BID OPEN (2:30 P.M.)	JUNE 10, 2021
PUBLISHED IN WSJ	MAY 27 & JUNE 3, 2021

SBE PRE BID MEETING: Small Business Enterprise Pre-Bid Meetings are not being held in person at this time. Contractors can schedule one-on-one phone calls with Juan Pablo Torres Meza in Affirmative Action to count towards good faith efforts. Juan Pablo can be reached at 608-261-9162 or by email, jtorresmeza@cityofmadison.com.

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

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

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

The process for submission of bids has not changed. Bids may be submitted on line through Bid Express or in person at 1600 Emil St. Please note that the doors at 1600 Emil St. are locked, but there is a sign with phone numbers on the door. Please call one of the numbers and staff will come to the door to get your bid. Until further notice, the bid openings will be closed to the public to support the guidance of social distancing as the City responds to responsively to COVID-19 impacts to services. The bids will be posted on line after the bid opening. If you have any questions, please call Alane Boutelle at 608-267-1197, or John Fahrney at 608-266-9091.

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2021 Edition, as supplemented and amended from time to time, forms a part of these contract documents as if attached hereto.

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

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

SECTION 102.1: PRE-QUALIFICATION OF BIDDERS

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

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

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

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

SECTION 102.4 PROPOSAL

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

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

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

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

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

SECTION 102.5: BID DEPOSIT (PROPOSAL GUARANTY)

All bids, sealed or electronic, must be accompanied with a Bid Bond (City of Madison form) 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.

MINOR DISCREPENCIES

Bidder is responsible for submitting all forms necessary for the City to determine compliance with State and City bidding requirements. Notwithstanding any language to the contrary contained herein, the City

may exercise its discretion to allow bidders to correct or supplement submissions after bid opening, if the minor discrepancy, bid irregularity or omission is insignificant and not one related to price, quality, quantity, time of completion or performance of the contract.

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

Building Demolition

- 101 Asbestos Removal
- 120 House Mover

- 110 Building Demolition

Street, Utility and Site Construction

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

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

Bridge Construction

- 501 Bridge Construction and/or Repair

Building Construction

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

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

State of Wisconsin Certifications

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

SECTION B: PROPOSAL

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

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

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

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

SECTION C: SMALL BUSINESS ENTERPRISE

Instructions to Bidders City of Madison SBE Program Information

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 ad hoc 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 ad hoc 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 www.cityofmadison.com/civil-rights/contract-compliance/targeted-business-enterprise-programs/targeted-business-enterprise.

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 access the Targeted Business Certification Application online at www.cityofmadison.com/civil-rights/contract-compliance/targeted-business-enterprise-programs/targeted-business-enterprise. 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.
- 2.4.1.11 Completion of Cover Page (page C-6), Summary Sheet (page C-7) and SBE Contact Reports (pages C-8 and C9) if applicable.

2.4.2 Reporting SBE Utilization and Good Faith Efforts

The Small Business Enterprise Compliance Report is to be submitted by the bidder 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 may be deemed non-responsible and the bidder ineligible for award of this contract. Notwithstanding any language to the contrary contained herein, the City may exercise its discretion to allow bidders to correct or supplement submissions after bid opening, if the minor discrepancy, bid irregularity or omission is insignificant and not one related to price, quality, quantity, time of completion, performance of the contract, or percentage of SBE utilization.

2.4.2.1 If the Bidder meets or exceeds 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 does not meet 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 separate Contact Report must be completed for each applicable SBE which is not utilized.)

2.5 Appeal Procedure

A bidder which does not achieve the established goal and is found non-responsible for failure to demonstrate a good faith effort to achieve such goal and subsequently denied eligibility for award of contract may appeal that decision to the Small Business Enterprises Appeals Committee. All appeals shall be made in writing, and shall be delivered to and received by the City Engineer no later than 4:30 PM on the third business day following the bidder's receipt of the written notification of ineligibility by the Affirmative Action Division Manager. Postmark not acceptable. The notice of appeal shall state the basis for the appeal of the decision of the Affirmative Action Division Manager. The Appeal shall take place in accordance with Madison General Ordinance 33.54.

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.

SECTION D: SPECIAL PROVISIONS

HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT DISTRICT - 2021 CONTRACT NO. 8569

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 102.11: BEST VALUE CONTRACTING

This Contract shall be considered a Best Value Contract if the Contractor's bid is equal to or greater than \$65,000 for a single trade contract; or equal to or greater than \$318,000 for a multi-trade contract pursuant to MGO 33.07(7).

ARTICLE 103 AWARD AND EXECUTION OF THE CONTRACT

The awarded Contractor shall completely execute the signing of all contract documents and submit them to City Engineering (Attn: Alane Boutelle, 1600 Emil Street, Madison, WI 53703) prior to **12:00 pm on Thursday, July 8, 2021**. Delays in turning in the required completed contract documents will not adjust the project completion date. Payment and Performance Bonds shall be dated no sooner than **Wednesday, July 7, 2021**.

ARTICLE 104 SCOPE OF WORK

This project generally consists of replacement of sanitary sewer main and laterals, storm sewer pipes and structures, asphalt pavement, curb and gutter, concrete sidewalk and driveway aprons. The limits of the project are on Helena St. from Walton Pl. to approximately 350 ft. east of Russell St., on Jenifer St. from Walton Pl. to Division St., and on Russell St. from Jenifer St. to Eastwood Dr.

The Contractor shall view the 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 105.12 COOPERATION BY THE CONTRACTOR

The Contractor shall use care around all existing trees, planter walls, plantings, fences, walls, buildings, utilities, street lights, traffic signals, and any other items that are to remain. A number of properties have significant landscaping, trees or other improvements immediately adjacent to the project area. Any items not specifically called out for removal are to remain. Damage to these items during construction, including any concrete residue, shall be repaired, remedied, or replaced at the Contractor's expense. No trees shall be cut without the approval of the Engineer and the City Forester; the abutting property owners shall be notified in accordance with the City's Administrative Procedure Memorandum No. 6-2.

The existing water main, services and hydrants are to remain and will remain in service throughout the duration of the project. The Contractor shall work carefully around these items, unless relocations are called for by the Engineer.

The Contractor shall coordinate their work with City crews as shown in the plans and defined in these special provisions. Notify City Traffic Engineering, Troy Vant (395-1975), once conduit and bases are installed and cured.

The contractor shall coordinate with all necessary utilities to have utility structures (manholes, handholes, valves, etc) adjusted as necessary. The contractor shall provide a minimum of 7 days notice to utilities prior to needing the structure adjustment. The Contractor shall also provide space for utility companies to work in order to resolve conflicts in the field.

The property owner at 406 Russell St. will be installing a new driveway, and has received approval from City zoning. The new apron will be installed with this project, which will require that MG&E relocate a pole, and AT&T will need to relocate a pedestal. The Contractor shall coordinate these relocation efforts with the utilities.

Due to potential conflicts with the long side services, MG&E will also replace the gas mains and services within the project limits. It is expected that the new gas mains will be under the sidewalks on both sides of the streets. MG&E expects to start work in this area around late July, and all of the work within the project limits will take approximately 8 weeks to complete. The Contractor shall coordinate with MG&E gas crews and shall help provide direction on areas of the project to prioritize.

A number of properties within the project limits are planning major projects at their homes starting in the summer of 2021. The Contractor shall coordinate with the contractors at these properties to maintain access to the properties and driveways. Known properties with projects planned are 409 Russell St., 1830 Jenifer St., and 1837 Helena St. Additionally, the property at 2017 Jenifer St. may have contractor work on completing the lateral replacement to the house, and the contractor shall coordinate with this contractor to complete this work, which may include covering/protecting the excavated area at the end of the lateral work.

Currently, there are not any identified Archaeology sites of interest within the project boundaries; however, due to the close proximity to the lake, there is a chance of finding archaeological materials. If any archaeological materials are found or unusual soils encountered during the project, it is recommended that all ground disturbing construction activities cease, and the Contractor shall consult with John Hodgson of Phase One Archaeology prior to continuing work. John Hodgson can be reached at phaseonearchaeology@gmail.com or Cell 608-334-1828.

SECTION 107.6 DUST PROOFING

The Contractor shall take all necessary steps to control dust arising from operations connected with this contract. When ordered by the Engineer, the Contractor shall dust proof the construction area by using power sweepers and water. Dust proofing shall be incidental with operations connected with this contract.

SECTION 107.7 MAINTENANCE OF TRAFFIC

All signing and barricading shall conform to Part VI of the Federal Highways Administrations "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 Traffic Control Plan, including all necessary phases, to Jeremy Nash, jnash@cityofmadison.com, five working days prior to the pre-construction 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 approval of a 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.

The project may be closed to through traffic at the project limits except Eastwood Dr. Traffic on Eastwood Dr. shall be maintained at all times.

A lane of traffic on Eastwood Dr. may be closed for up to eight (8) consecutive calendar days to complete the utility crossings and trench patching. One lane of traffic with a minimum width of twelve (12) feet of pavement shall be maintained on Eastwood Dr. at all times. A lane of traffic on Eastwood Dr. may be closed during off peak hours (7AM to 3:30PM) on one additional day to complete the paving work.

The Capital City Trail, which runs parallel to Eastwood Dr. shall be maintained at all times, with use of a temporary path crossing if needed. Maintaining this crossing will be paid under the appropriate bid item. Traffic on the Capital City Trail may be flagged for up to five (5) calendar days but this shall only occur on week days and not weekends and during off peak hours (9AM to 4PM).

Tubular markers used to separate traffic in opposite directions shall be per WISDOT S.D.D. 15C-11. Double yellow reflective pavement marking tape shall be used whenever tubular markers are being used to separate travel lanes. Yellow four (4) inch reflective pavement marking tape shall be used whenever tubular markers are used to separate a travel lane from a work zone.

Traffic Control shall be measured as a lump sum. Payment for the Traffic Control is full compensation for constructing, assembling, hauling, erecting, re-erecting, maintaining, restoring, and removing non permanent traffic signs, drums, barricades, and similar control devices, including arrow boards, for providing, placing, and maintaining work zone. Maintaining shall include replacing damaged or stolen traffic control devices. Temporary pavement markings, tubular posts and bases and electronic message boards shall be paid for as separate bid items. Traffic control to install temporary or permanent pavement markings shall be included in the Traffic Control Lump Sum Bid Item. If Contractor elects to complete a portion of the project in 2021 and the remaining portion in 2022, this item will be paid 50% with the 2021 work, and 50% with the 2022 work.

Contractor shall supply all necessary mounting hardware and supports for signing. This shall also include covering and uncovering any conflicting overhead signs during the project. Contractor shall display all signing so as to be easily viewed by all users. Contractor shall mount traffic control on posts or existing poles or drive posts whenever possible. Existing poles may be used with approval of Construction Engineer. Contractor shall inspect traffic control daily to ensure all traffic control remains in place during the project.

The traffic control plan may need to be altered as conditions change in the field or as unexpected conditions occur. This shall include relocating existing traffic control or providing additional traffic control. This should be considered incidental to providing traffic control for the project.

Type A warning lights shall be installed on all barricades used in the project per State of Wisconsin S.D.D. 15C2-4B. Contractor shall also place Type C warning lights on any barrels used to taper traffic or lane closures.

All temporary inlet or structure plating for traffic control phasing shall be considered incidental to the traffic control bid item.

Contractor shall place portable changeable message boards on Eastwood Dr at least one week in advance of the start of work, notifying the public of the start of construction. Contractor shall locate the portable changeable message boards as directed by the Engineer.

Contractor shall notify the City of Madison Police Department, Fire Department, Madison Metro, and Traffic Engineering 48 hours in advance of all switchovers of traffic lanes and closures of streets. Notifications must be given by 4:00 P.M. on Thursday for any such work to be done on the following

Monday. Notify Madison Metro one week prior to traffic switches, street closures, and reopening the road to through traffic for bus routing. Madison Metro contact is Tim Sobota (608) 261-4289.

Maintain sidewalk on one side of the street at all times and both sides whenever possible. When sidewalk must be closed for construction purposes, contractor shall ensure that sidewalk on opposite side of the street is open. Sidewalk closures shall be signed at the crosswalks prior to the closure. Sidewalk access to all businesses shall remain open from at least one end of a block at all times. Sidewalks shall be fully open during non-working hours except where necessary to enable sidewalk to cure. Maintaining Sidewalk is considered incidental to the contract.

Construction equipment and materials are not to be stored within the street right-of-way that is open to traffic during non-working hours.

Access shall be maintained to all commercial properties at all times. Access shall be maintained to the Jenifer St. market at all times, and no work or storage of materials shall impact access to Schoep's at any time. Maintaining access to commercial properties shall be considered incidental to the contract.

Contractor is responsible for obtaining and installing temporary no parking signs to facilitate traffic control plan or as necessary to complete the work within the contract. The contractor shall contact John Villareal with the City of Madison Parking Utility (608-267-8756) at least 3 working days prior to needing the signs. Contractor shall post signs in accordance with the City of Madison Police Department Guidelines for temporary no parking restrictions for construction or special events. The guidelines can be found at the link listed below. This shall be considered incidental to the traffic control lump sum bid item.

http://www.cityofmadison.com/business/pw/documents/guidelines_temporarynoparkingrestrictions.pdf

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 2 working days 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. The contractor shall notify The City of Madison Traffic Engineering Field Operations, 1120 Sayle Street, 266-4767 upon completion of final landscaping to have permanent signs reinstalled. The contractor shall expect a minimum of seven working days to have permanent signs reinstalled. The contractor shall leave in place all necessary traffic control until given notice by the construction engineer that permanent signing is in place and temporary traffic control may be removed.

Contact Jeremy Nash, City of Madison Traffic Engineering, at jnash@cityofmadison.com or 608-616-9098 for questions on this spec.

SECTION 108.2 PERMITS

The City of Madison has obtained a City of Madison Erosion Control Permit, has submitted a DNR Notice of Intent (NOI) to obtain coverage under a Construction Site General permit, and has submitted a DNR Sanitary Sewer Submittal.

The Contractor shall meet the conditions of the permits by 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 contract bid items or, if appropriate items are not included in the contract, shall be paid for as Extra Work. A copy of the permit is available at the City of Madison, Engineering Division office.

This permit covers trench dewatering to a maximum of 70 gallons/minute from the project, provided appropriate control measures are in place. The City's obtaining this permit 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.

BID ITEM 10911 – MOBILIZATION

If work under this contract is split between 2021 and 2022, this item will be paid 50% in 2021 and 50% in 2022 at similar timeframes of the approximate completion percentages of the total contract as indicated in the standard specifications. No additional compensation will be paid for remobilization.

If all work is completed in 2022, this item will be paid per the standard specifications.

SECTION 109.2 PROSECUTION OF WORK

The Contractor may begin work as early as **JULY 26, 2021**. Work may only proceed after the contract is fully signed and the start work letter is received. A portion of the work under this contract may be completed in 2021 with the remaining work completed in 2022, or all work under this contract may be completed in 2022.

If work is split between 2021 and 2022, all work shall be completed within **175 Calendar Days or by July 30, 2022, whichever is sooner**. The Contractor shall remove all equipment and materials from the site prior to the winter, and any disturbed areas in 2021 shall be temporarily patched and restored prior to demobilizing for the winter season. Any disturbed areas in the streets that are not fully restored with permanent base course, curb and gutter, and asphalt pavement (including surface pavement), shall be restored with a minimum patch of 6 inches of gradation no. 2 crushed aggregate and 2 inches of hot mix asphalt pavement. Disturbance of sidewalks or driveways that is not replacement with permanent concrete shall be restored with a minimum of 2 inches of hot mix asphalt or 4 inches of temporary concrete. The Contractor shall also maintain all temporary materials to ensure safe access and operations throughout the winter. All temporary patching and restoration of the site for the winter will be at the Contractor's expense; any cold weather protection required to complete permanent concrete work in 2021 will also be at the Contractor's expense, and no additional compensation will be provided for demobilizing from the site and re-mobilizing in the spring of 2022.

If the Contractor elects to complete all work under this contract in 2022, the completion will be **August 20, 2022**.

The Contractor shall notify the Engineer of their anticipated schedule for this project as soon as possible, and shall provide a minimum of 4 weeks' notice prior to their anticipated start date. If adequate notice is not provided, the start date may be delayed, and no additional compensation or time extensions will be granted for failure to provide the required notice.

BID ITEM 20218 – CRUSHED STONE (UNDISTRIBUTED)

An additional quantity of undistributed crushed stone has been included in the contract and shall be used in cases where soft or loose soil conditions are encountered during the installation of sanitary and storm sewer, as determined by the Construction Engineer. The soft or loose soil shall be removed by excavations cut (paid under BID ITEM 20101 as undercut) and crushed stone, gradation no. 2 compacted in accordance with S.D.D. 5.2.2, shall be placed in areas of excavation cut. The 6" of crushed stone bedding below sanitary and storm pipes shall not be included with this item and shall remain incidental to the pipe installation. Geotextile fabric shall be placed below and on the sides of the crushed stone and shall be paid for under the separate BID ITEM 20218.

BID ITEM 20322 – REMOVE CONCRETE CURB & GUTTER

There are a number of locations where existing terrace trees have grown over the existing curb. The Contractor shall coordinate with City Forestry on all of these locations to determine the best means for removing the curb and gutter without damaging the existing tree(s). If required by City Forestry, portions of curb in these locations may need to remain. In these circumstances the existing curb shall be punctured/broken sufficiently to allow for reasonable drainage characteristics. Additional sawcuts may also be required such that adjacent sections of curb and gutter can be fully removed. All additional sawcuts and work to promote drainage if curb is left in place will be included with this item. Curb that is directed to remain but is prepared and worked around as directed, will be still be measured and paid under this item.

BID ITEM 20336 – PIPE PLUG

With regard to the City of Madison Standard Specifications for Public Works Construction Article 203.2(c), any pipe found in a trench that is less than 10" in diameter while installing a sewer facility shall be considered incidental to the pipe being installed.

Any pipe plugs required to abandon or remove sewer access structure (pipes directly connected to the structure) shall be considered incidental to abandoning or removing the structure regardless of the size of the pipe being abandoned.

SECTION 210.1(d) STREET SWEEPING

When required, either by the erosion control plan or the Construction Engineer, the Contractor shall perform mechanical street sweeping on all streets or paved surfaces affected by construction equipment, hauling or related construction activities that result in mud tracking or siltation. Mechanical street sweeping shall be completed as directed by the Construction Engineer and shall remove all loose material to the satisfaction of the Construction Engineer. Depending on site conditions, construction activities, and hauling methods utilized by the Contractor mechanical street sweeping may be required multiple times throughout the day with an absolute minimum that all streets are clean at the end of the work day. Areas not accessible by mechanical street sweepers may require hand scraping with shovels.

ARTICLE 500 SEWER AND SEWER STRUCTURES GENERAL

The sewer designer for the project is Kyle Frank. He may be contacted at (608) 266-4098 or kfrank@cityofmadison.com.

Additional quantities of excavation cut, clear stone, and geotextile fabric (BID ITEMS 20101, 20218, and 20140) were included in contract and are to be used if soft and/or loose soil conditions are encountered or as determined by the Construction Engineer.

SANITARY SEWER GENERAL

This project shall include installing approximately 2,666 feet of new 8" PVC SDR-35, 700 feet of new 8" sanitary sewer pressure pipe, and 2,659 feet of new sanitary lateral.

ASTM D3034 SDR-35 sewer main and lateral as called for on the plan set shall be payable under Sanitary Sewer Main (Bid Item 50301) and Sanitary Lateral (Bid Item 50353). No additional compensation will be granted for ASTM D3034 SDR-26 pipe material

All new sanitary sewer access structures shall include Neenah R-1550 castings with the new City of Madison casting detail (see S.D.D. 5.7.16) of the City of Madison Standard Specifications for Public Works Construction. All new sewer main connections may be factory cored and shall be included in the structure. All existing main connections shall be field cored to accommodate existing conditions and shall be compensated under BID ITEM 50791 SANITARY SEWER TAP. All sewer main and/or laterals not slated for replacement that are damaged during the installation of a structure shall be replaced by the

Contractor and shall be considered incidental to the project. All benches and flowlines shall have a smooth trowel finish.

Contractors shall have a locator device on-site if they intend to start laying lateral pipe at the property line to minimize the amount of extra sidewalk removal. Each sanitary lateral shall have a maximum of 4 sidewalk squares removed and replaced. No additional compensation shall be awarded beyond this amount for the replacement of a sewer lateral. If laterals called for reinstatement on the plans are to be plugged under the direction of the engineer on-site, Contractors are required to use a sonde device to confirm that the laterals are not active.

All sanitary sewer laterals on this project were located by television inspection of the main and from City records.

It is advised that the Contractor visit the site prior to bidding to determine the type of trench protection that will be necessary for the sanitary sewer main installation.

STORM SEWER GENERAL

Storm sewer pipe work shall include installing approximately 2,850 feet of new storm sewer of various sizes ranging from 12" to 30" equivalent diameter.

Reconnection of existing pipes at new or existing structures, or new pipes at new or existing structures, shall be considered to be part of the work required to construct the new structure or to construct the new sewer pipe and shall not be rewarded with additional compensation. However, if the structure being removed is larger than the new structure, thus requiring additional pipe, the new pipe shall be paid under the appropriate bid item and the connection of the old pipe to the new pipe shall be accomplished with a concrete collar.

Where a new structure is to be constructed at an existing pipe, it is expected that the Contractor shall saw cut the existing pipe in the required location to accommodate the placement of the new structure. If the Contractor for his or her convenience deems it more suitable to remove the existing pipe to a full joint, the additional pipe and concrete collar required to reconnect to the new structure shall be the Contractor's responsibility and shall not be compensated.

Connection of new pipes to existing structures shall be accommodated with a Storm Sewer Tap – Bid Item 50792.

Precast structures are only allowed where field poured structures are not specifically called for, and no precast structures are allowed until ULO's are completed and approval of the design engineer has been received.

SECTION 502.1(c) DEWATERING

DESCRIPTION

This section describes dewatering the site during construction or working with the water on-site in a manner that allows the project to be constructed in accordance with the plans and specifications. This item includes the dewatering of groundwater, surface water runoff, and trench dewatering, both clean and potentially contaminated.

The contractor is responsible for all work, materials and equipment required to comply with permit conditions to dewater the site. At a minimum, pump water into a settling tank to settle solids prior to discharge into the storm sewer for clean water and into the designated sanitary sewer for potentially contaminated water.

Potentially contaminated zones of groundwater are marked on the construction plan set. Conform with the requirements of Section 205 of the Standard Specifications, pertinent parts of the Wisconsin

Administrative Code (Department of Natural Resources Environmental Investigation and Remediation of Environmental Contamination, Chapters NR 700-736), as shown on the construction plan set, and as supplemented herein. Comply with all permit requirements and applicable regulations, and monitor the discharge volume of potentially contaminated water generated as necessary to meet the permit requirements.

Discharge potentially contaminated water from the zones as indicated on the construction plan set or as directed by the Engineer to the sanitary sewer. For the purposes of this project suspended solids shall not be considered a type of contamination. Do not discharge contaminated groundwater without prior approval from the Environmental Consultant.

Obtain a *City of Madison Permit to Discharge to the Sanitary Sewer* compliant with all local ordinances and state statutes. The permit will require that the Contractor monitor the volume of total water discharged into the sanitary sewer and will determine the necessary reporting frequency. The contact for obtaining this permit is:

Megan Eberhardt
City of Madison Engineering
608.266-6432
meberhardt@cityofmadison.com

The City's Environmental Consultant will be responsible for obtaining the necessary approvals from the Madison Metropolitan Sewerage District (MMSD) for disposal of potentially contaminated groundwater. This approval will be issued at the same time as the *Permit to Discharge to the Sanitary Sewer*. Submit a dewatering plan to the City of Madison for approval with the application for *Permit to Discharge to the Sanitary Sewer*.

If free phase petroleum product, such as gasoline floating on the water, is observed during dewatering activities, terminate dewatering activities and notify the Engineer or the Environmental Consultant.

CONSTRUCTION

Subsection 205.3 of the standard specifications is supplemented with the following:

Water shall not be allowed in trenches while pipe is being laid.

No masonry shall be installed in water nor shall water be allowed to rise over masonry or concrete if there is danger of flotation or of setting up unequal pressures in the concrete until the concrete has set at least 24 hours and any danger of flotation has been removed.

Dewatering shall be done in a manner that assures safe working conditions and provides stable trench side slopes and trench bottom for adequate support of the pipe and appurtenances. Dewater sufficiently to minimize or eliminate groundwater pressures below the proposed trench bottom which otherwise may tend to cause boiling or a "quick" condition at the trench bottom. Where silty sands or other impervious soils are encountered at and/or below the pipe zone, the dewatering equipment must be adequate to relieve the groundwater pressure below the impervious soil layer and accomplish sufficient drainage of the impervious soils to provide a stable trench bottom.

Pump water from the dewatering operations directly to a minimum 1,500 gallon holding tank to allow for settlement of large solids. Periodically pump clean water from the top of the settling tank into the storm sewer system. Periodically pump potentially contaminated water from the top of the settling tank into the approved sanitary sewer. Provide a meter to measure the volume of potentially contaminated water discharged to the sewer system.

If free phase petroleum product, such as gasoline floating on the water, is observed during dewatering activities, terminate dewatering activities and notify the Engineer and the Environmental Consultant.

Notify the Engineer at least three (3) days in advance of any proposed changes to the dewatering plan.

Any flooding or erosion damage caused by dewatering operations is the responsibility of the contractor. If flooding or erosion damage occurs, take immediate steps to eliminate those conditions and to correct any damage. The control of all surface and subsurface water, ice, and snow are considered part of the dewatering. Erosion control shall be exercised at all times, including the placement of silt fences, sedimentation basins and any other devices necessary for proper control.

Dispose of all water removed so as not to endanger public health, private and public property or completed work. Only electrically driven pumps shall be used for dewatering. Provide sufficient mufflers or other noise reduction devices necessary to minimize the noise of the equipment. If ordered by the engineer, reduce noise to an acceptable level (as determined by the engineer) or supply an alternate system capable of meeting the noise requirements. This shall apply to any equipment utilized as part of the dewatering system.

Provide stand-by equipment to maintain continuous dewatering in the event of mechanical breakdown to part of the system.

The contractor is responsible for removal and/or abandonment of dewatering wells. Removal and/or abandonment shall conform to all state and local regulations.

METHOD OF MEASUREMENT

Dewatering of clean water will not be measured. Measure dewatering of potentially contaminated water in gallons and provide this information to the Engineer at the frequency determined by the *Permit to Discharge to the Sanitary Sewer*. This information will not be used as a basis for payment.

BASIS OF PAYMENT

Dewatering is incidental to the contract or paid under Type II Dewatering; therefore, this work will not be paid separately and shall be included with the trenching operations for the particular pipe being installed. Dewatering includes all work necessary for pumping, settling, and discharging water; for any permit fees required; for elimination and correction of any flooding or erosion damage caused by dewatering operations; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

No disposal fees are required by the City of Madison for discharge to the storm sewer system. The City of Madison will pay for any disposal fees for the discharge of water to the sanitary sewer system.

BID ITEM 50390 – SEWER ELECTRONIC MARKERS

With regard to the City of Madison Standard Specifications for Public Works Construction Latest Edition Section 503.3(c), each sanitary lateral shall have a minimum of two (2) electronic markers with the City providing the Contractor with the required number of electronic markers. For sanitary laterals, which only include the installation of a wye, a marker ball shall be installed directly above the wye connection to the main.

BID ITEM 50801 – UTILITY LINE OPENING (ULO)

The work under this item shall be completed in accordance with Article 508 of the Standard Specifications for Public Works Construction. It is the discretion of the Contractor to locate utilities by either a trench excavation or by a pothole technique. However, the Contractor shall not be compensated more than once for multiple utilities located within a maximum distance of five (5) feet long.

This contract includes 5 additional undistributed ULOs to be performed at the direction of the Engineer.

2 ULOs have been identified on the plans to be used for the purposes of soil sampling around the existing sanitary sewer on Russell St. in order to test for potential contamination. These ULOs shall be excavated to a depth below the existing sanitary sewer main, and the Contractor shall coordinate with Brynn Bemis 608-695-1385 or bbemis@cityofmadison.com, to take soil samples while the excavation is open.

SECTION 601.10 MATERIALS FURNISHED BY THE CITY OF MADISON

The following electrical materials will be furnished to the Contractor at the Traffic Operations Shop, 1120 Sayle Street. The Contractor shall notify the Traffic Operations Shop (Ed Smith at 266-9034) twenty four (24) hours prior to picking up any materials.

<u>ITEM</u>	<u>Quantity</u>
3/4"x19" Anchor Bolts for G Bases	2 sets of 4
1" x 40" Anchor Bolts for LB-3 Base	1 set of 4

BID ITEM 90001 – GEOSYNTHETIC REINFORCEMENT FABRIC

DESCRIPTION

Work under this item shall include all work, materials, equipment, and incidentals necessary to provide and install Mirafi RS580i, TerraTex HPG HM58, or an approved equal.

CONSTRUCTION METHODS

The Geosynthetic Reinforcement Fabric shall be installed in accordance with the manufacturer's recommendations, including the amount of overlap between rolls. In locations identified for undercut, a maximum of 12" of Undercut shall be removed, under the entire road area, and replaced with Breaker Run. Undercut and Breaker Run shall be paid for under the appropriate bid items. The Breaker Run shall be placed directly over the Geosynthetic Reinforcement Fabric in 8 to 12-inch loose lifts. In locations without undercut, the Geosynthetic fabric shall be placed under the Gradation No. 1 base course layer and shall extend to approximately 1 ft. beyond the back of curb, unless tree conflicts have minimized the excavation limits. Rubber-tired vehicles may be driven at low speeds, 10 mph or less, and in straight paths over the exposed Geosynthetic Reinforcement Fabric.

METHOD OF MEASUREMENT

The Geosynthetic Reinforcement Fabric shall be measured by the square yard, in place. Any overlap of the rolls, measured either longitudinally or transversely, shall be included in the pay quantity, and will only be paid once.

BASIS OF PAYMENT

Geosynthetic Reinforcement Fabric shall be measured as described above, which shall be full compensation for all work, materials, equipment and incidentals to complete the work as described above.

BID ITEM 90002 – 6" PRECAST PERVIOUS CONCRETE SIDEWALK

DESCRIPTION

This work shall consist of providing and installing precast pervious concrete panels. Typical panel dimensions shall be 6" thick and measure 5'x5', which shall be installed at the location indicated on the plans and per the detail drawing. The precast pervious concrete shall be installed per the manufacturer's specification, including any jointing and connection methods, fabrics or geogrids, and any finishing necessary to complete the installation. The precast concrete panels will shall have the following specifications at a minimum

Minimum 4,000 psi compression strength
(based off average flexural strengths of 500 psi per ASTM C78)

Infiltration rate of 500 inches/hour per ASTM C1701

Void Ratio depending on application range from 15-25%

Precast Concrete Panels shall be installed on a base of 1" clear stone, which will be paid separately, and, a 1"-1.5" leveling layer shall be used between the pervious concrete panels and the clear stone base. The leveling course shall consist of an open-graded #7 crushed aggregate, and the leveling layer is included with this bid item. Extend the open-graded leveling layer under the adjacent concrete sidewalk, as shown on the detail. Wrap the excavated area with geotextile fabric prior to placing clear stone base, which is included with this item.

The excavation cut necessary to install the panels and base material to the depths shown on the detail drawings has been included in the plan quantity for the excavation cut bid item.

METHOD OF MEASUREMENT

The precast pervious concrete sidewalk will be measured by the Square Foot acceptably installed.

BASIS OF PAYMENT

This item, measured as provided above, shall be paid for at the contract unit price for supplying and installing precast pervious concrete panels, which price shall be full compensation for furnishing all materials and preparation of subbase; for placing, finishing, jointing and expansion joints; preparation and installation of the level base course, and for all labor, tools, equipment and incidentals necessary to complete the work as described.

BID ITEM 90003 – 1" CLEAR STONE

DESCRIPTION

The work under this item shall consist of furnishing and installing 1" Clear Stone as the base material for the pervious concrete pavement. 1" Clear Stone shall be installed at the locations indicated on the plans and to the depths indicated on the detail drawings.

This item shall include all materials, equipment, labor, and incidentals necessary to complete the work. Work shall be completed in accordance with Section 310 Open Graded Base of the State of Wisconsin Standard Specifications.

MATERIALS

The Contractor shall use crushed aggregate at a gradation conforming to Section 310 of the State of Wisconsin Standard Specifications for 1" clear.

METHOD OF MEASUREMENT

1" Clear Stone Installed shall be measured by the Ton acceptably completed.

BASIS OF PAYMENT

1" Clear Stone Installed shall be measured as described above and shall be paid for at the contract price which shall be full compensation for all materials, equipment, labor, and incidentals required to complete the work as set forth in the description.

BID ITEM 90004 – INSTALL CARGO BIKE RACK

DESCRIPTION

This item includes all work, equipment, and incidentals necessary to install a Cargo Bike Rack at the location indicated on the plans. The bike rack will be provided by the City, and the Contractor shall pick up the bike rack from the Engineering Services Building (1600 Emil St.), bring it to the site, and install per the manufacturer's recommendations.

The Cargo Bike Rack to be installed with this project is the Cargo Bike Dock manufactured by Saris. The rack will come with an installation kit, and installation will include bolting the rack to the concrete pad where noted on the plans. Due to grades of the concrete pad, the Contractor may need to shim the bike rack for proper installation, which shall be considered incidental to this item.

Prior to installation, coordinate with Renee Callaway, City Pedestrian Bicycle Administrator, recallaway@cityofmadison.com or 608-266-6225, to confirm installation location of the bike rack.

METHOD OF MEASUREMENT

Install Cargo Bike Rack will be measured as Each acceptably installed.

BASIS OF PAYMENT

This item, measured as stated above, shall be paid at the contract unit price which includes all materials, equipment, work, hauling and incidentals necessary to complete the work as set forth in the description and as shown on the plans and details.

BID ITEM 90005 – INSTALL MULTI-STALL BIKE RACK

DESCRIPTION

This item includes all work, equipment, and incidentals necessary to install a Dero, 6-stall Campus Bike Rack at the location indicated on the plans. The bike rack will be provided by the City, and the Contractor shall coordinate with Chad Veinot, City Traffic Engineering, 608-267-1960 or cveinot@cityofmadison.com, to confirm the pickup time and location.

The Multi-stall Bike Rack shall be installed with stainless steel bolt anchoring system in accordance with the manufacturer's requirements, which will include bolting the bike rack to the concrete pad at the location indicated on the plans. Due to grades of the concrete pad, the Contractor may need to shim the bike rack for proper installation, which shall be considered incidental to this item.

Prior to installation, coordinate with Renee Callaway, City Pedestrian Bicycle Administrator, recallaway@cityofmadison.com or 608-266-6225, to confirm installation location of the bike rack.

METHOD OF MEASUREMENT

Install Multi-Stall Bike Rack will be measured as Each acceptably installed.

BASIS OF PAYMENT

This item, measured as stated above, shall be paid at the contract unit price which includes all materials, equipment, work, hauling and incidentals necessary to complete the work as set forth in the description and as shown on the plans and details.

BID ITEM 90006 – PROVIDE AND INSTALL SINGLE STALL BIKE RACK

DESCRIPTION

This work shall consist of the furnishing and installing bike racks at the locations shown on the plans and as herein provided.

MATERIALS

All bike racks shall be galvanized steel. Acceptable single stall bike racks are: "Bike Hitch" made by Dero, "Post & Ring" made by Saris, or approved equal. The contractor shall install the same style of rack for bike racks. More information regarding bike racks can be found on the City Traffic Engineering website at:

<http://www.cityofmadison.com/trafficEngineering/documents/MadisonBikeParking20100715.pdf>

CONSTRUCTION

Install bike racks with stainless steel bolt and anchor system according to manufacturer's instructions in locations shown on the plans. Install plastic shims under the base of the bike rack to elevate the anchoring location slightly above the sidewalk; coordinate shim placement with the Engineer.

Prior to installation, coordinate with Renee Callaway, City Pedestrian Bicycle Administrator, recallaway@cityofmadison.com or 608-266-6225, to confirm installation location of the bike rack.

METHOD OF MEASUREMENT

Bike racks shall be measured by the unit, each, installed and accepted in place.

BASIS OF PAYMENT

This item, measured as provided above, will be paid for at the contract unit price each, which shall be payment in full for furnishing, installing bike racks; and for furnishing all labor, tools, equipment and incidentals necessary to complete this item of work.

BID ITEM 90007 – TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS

DESCRIPTION

This bid item includes all work, materials, equipment and labor necessary to install Traffic Control Flexible Tubular Marker Posts. All work under this bid item shall be in accordance with Section 633 of the current edition of the WISDOT standard specs.

METHOD OF MEASUREMENT

Traffic Control Flexible Tubular Marker Posts shall be measured as set forth in Section 633.4 of the Wisconsin DOT Standard Specifications, which shall be measured on a per unit basis acceptably installed.

BASIS OF PAYMENT

Traffic Control Flexible Tubular Marker posts will be paid at the contract unit price, which shall be full compensation for all work as provided in the description.

BID ITEM 90008 – TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES

DESCRIPTION

This bid item includes all work, materials, equipment and labor necessary to install Traffic Control Flexible Tubular Marker Bases. All work under this bid item shall be in accordance with Section 633 of the current edition of the WISDOT standard specs.

METHOD OF MEASUREMENT

Traffic Control Flexible Tubular Marker Bases shall be measured as set forth in Section 633.4 of the Wisconsin DOT Standard Specifications, which shall be measured on a per unit basis acceptably installed.

BASIS OF PAYMENT

Traffic Control Flexible Tubular Marker posts will be paid at the contract unit price, which shall be full compensation for all work as provided in the description.

BID ITEM 90009 – MAINTAIN BIKE & PEDESTRIAN CROSSING

DESCRIPTION

This special provision describes maintaining an accessible crosswalk and bike path crossing the construction zone. The bike path adjacent to adjacent to Eastwood Dr., crossing Russell St., is a highly used path, and the contractor shall use all means necessary to maintain a crossing for this path.

The path shall alignment with the crossing location at all times. The path shall be a minimum of 10 ft. wide at all times, and the crossing width shall be a minimum of 8 ft. The Contractor shall install temporary orange construction fencing to guide path users to appropriate path and crossing locations and to close off any path locations or crossings that are not safe or not in use. The Construction fencing shall be a minimum of 4 ft. in height, shall extended completely to the ground, and metal post spacing shall be a maximum of 7 ft.

Proper signage shall also be provided to alert path users of the location of the temporary crossing as well as any required signage to alert vehicles of the pedestrian crossing, which may include temporary pavement markings to mark the crossing of the travel lane and/or temporary signage to identify the path crossing location.

Maintaining this crossing consists of maintaining a crosswalk on existing pavement, new pavement, or temporary surface material. Installation of permanent materials will be paid under the appropriate bid items, and installation of any temporary materials to maintain this crossing are included with this item. If required due to the location of the temporary cross walk, installation of a temporary ramp may be required to meet ADA guidelines, and shall be considered incidental to this bid item.

The Contractor may not use existing driveway aprons to provide this temporary access.

This item includes all work necessary to install, relocate, maintain, and remove the temporary crossing material as necessary for construction so that the bike and pedestrian crossing is maintained throughout construction.

MATERIALS

Furnish a hard temporary surface material consisting of hot mix asphaltic surface or any grade of concrete. Gravel, cold patch or rubber matting are not acceptable materials. The minimum asphalt thickness will be 2 Inches, and the minimum temporary concrete thickness will be 4 Inches, and the surface material shall be placed on a minimum of 3 Inches of select fill or gravel base course material.

CONSTRUCTION

Install, maintain, and remove temporary surface material at the primary bike and pedestrian crossing area indicated. Level and compact the surface prior to placing temporary surface material. The temporary crosswalk shall have a minimum clear width of 8 feet, and the path shall be a minimum of 10 ft. wide clear between the construction fencing; crossing location shall be located outside the immediate work area, as approved by the Engineer; and meet the requirements of the current Americans with Disabilities Act Accessibility Guidelines (ADAAG). The Contractor shall maintain the temporary crossing when disturbed by construction operations or utility trenches or as necessary to keep the access in compliance with ADAAG. Depending on the amount of disturbance to the temporary crossing material, maintaining that temporary access may require removing and relaying the material in the same location.

If new crossings of the existing roadway are required, the contractor shall remove and replace curb and gutter and/or provide temporary ramps over the curb with PVC pipes to maintain drainage through gutter.

MEASUREMENT

Maintain Bike & Pedestrian Crossing will be measured by the lump sum acceptably completed.

BASIS OF PAYMENT

This item, measured as provided above, will be paid for at the contract unit price which is full compensation for preparing the foundation; for furnishing, placing, maintaining, and removing temporary surface material; for reconstructing or relaying the temporary surface material; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

BID ITEM 90010 – DRIVEWAY APRON CURB

DESCRIPTION

This item includes all work, materials, forming and finishing necessary to install a curb along the driveway apron at the locations indicated on the plans. The curb cut at this location shall not be flared or tapered, but shall remain a vertical edge at the edge of the apron. The curb head along the street shall wrap into a curb head along the driveway apron with 1 ft. radius, and the curb height shall taper from the 6" height at the street down to match the sidewalk grade at the top of the apron. The driveway apron curb shall be poured monolithic with the driveway apron.

METHOD OF MEASUREMENT

Driveway Apron Curb shall be measured by the Linear Foot along the back of curb, acceptably installed.

BASIS OF PAYMENT

This item, measured as provided above, will be paid for at the contract unit price each, which shall be payment in full for all materials, forming, base preparation, labor, tools, equipment and incidentals necessary to complete this item of work.

BID ITEM 90011 – REMOVE MISCELLANEOUS UNDERGROUND OBSTRUCTION (UNDISTRIBUTED)

DESCRIPTION

This item shall include all work, equipment, hauling and incidentals necessary to miscellaneous underground obstructions. In the soil boring logs, it indicates that auger refusal was encountered due to an unmarked obstruction. When trenching or performing excavation work under this project, if an obstruction is found, the Contractor shall coordinate with Engineer to determine a means of either removing the obstruction an its entirety or a portion of the obstruction as necessary to complete the work. All work to remove the obstruction shall be performed in accordance with Part II of the Standard Specifications.

The Contractor shall use means to remove miscellaneous structures that are in line with current industry standards. During removal, the Contractor shall take care to ensure protection of any surrounding items that are to remain, including existing utilities, building faces, awnings, and other items that are to remain.

This item is intended to be used on only for miscellaneous underground concrete structures or other man-made structures similar soundness. This item is not intended to be used for rock or boulder removal, and removal of those items shall be in accordance with the Standard Specifications and appropriate bid items. Similarly, removal of concrete surface items such as sidewalks, driveways, pavement, etc. shall be in accordance with those appropriate bid items.

METHOD OF MEASUREMENT

Remove Miscellaneous Underground Obstruction shall be measured by the Cubic Yard acceptably removed.

BASIS OF PAYMENT

Remove Miscellaneous Underground Obstruction, measured as provided above, will paid at the contract unit price, which shall be full compensation for all work, equipment, hauling and incidentals necessary to complete the work as set forth in the description.

BID ITEM 90030 – 3'X6' STORM SAS

DESCRIPTION

This item includes all necessary work, materials, excavation, preparation, sawcut and removal of existing pipe, doweling, curing, and incidentals necessary to construct structures called out as "3X6 SAS" on storm sewer schedule.

Structure shall have two castings, one R-3067-7004-VB or R-3067-7004-V (whichever casting is called for on storm schedule) placed in line with curb and one R-1550-0054 centered over offset pipe.

It is intended that the structure shall be constructed on a 12" bed of compacted crushed stone.

This item shall be constructed in accordance with Part III, V, and VIII of the City of Madison Standard Specifications for Public Works Construction.

METHOD OF MEASUREMENT

3'X6' STORM SAS shall be measured as each completed unit. The contract price shall include furnishing all materials necessary to perform the work, including castings unless specified to include a salvaged casting; excavation; installation and removal of sheeting and bracing; disposal of surplus material from the excavation; backfilling the excavation and compaction of the backfill material; preparation of the foundation; construction of the structure, including connections; cleaning out the structure; restoring the site; and all other work incidental to the installation of sanitary sewer access structures.

BASIS OF PAYMENT

3'X6' STORM SAS shall be measured as described above which shall be full payment for all work, materials, and incidentals required to complete the work in accordance with the description

BID ITEM 90031 – RELOCATE WATER LATERAL SERVICE

DESCRIPTION

Work under this item shall include all labor, materials, and incidentals necessary to modify and relocate water lateral services as necessary to avoid conflicts with the proposed storm sewer construction. This work shall include, but not limited to, installation of windows to go beneath the proposed storm sewer, or offsets to go around the proposed storm sewer. It is anticipated that the length of pipe to be relocated would be limited to the immediate crossing of the storm sewer. The work will include new joints, piping matching existing size and material, valves and other materials to complete the work. Prior to construction, all ULOs and any necessary redesign shall be completed in order to avoid potential conflicts. All finished work must be inspected and approved by the Water Utility Construction Supervisor and shall conform to all relevant sections of the City of Madison Standards Specifications for Public Works Construction Latest Edition. This work shall include all labor, materials, excavation and disposal of materials an all incidentals necessary to perform the work.

Contact Jeff Belshaw (jbelshaw@madisonwater.org, (608) 261-9835 if water service relocation may be necessary for coordination.

METHOD OF MEASUREMENT

RELOCATE WATER LATERAL SERVICE shall be measured per each specific instance as identified in the field.

BASIS OF PAYMENT

RELOCATE WATER LATERAL SERVICE shall be paid for at the contract unit price, which shall be full compensation for all excavation, disposal of removed material, preparation of subgrade including subbase, furnishing materials, backfilling and trench restoration, insulation installation, fill, topsoil, and for all labor, tools, equipment and incidentals necessary to complete the work.

BID ITEM 90032 – RELOCATE WATER MAIN

DESCRIPTION

Work under this item shall include all labor, materials, and incidentals necessary to modify and relocate water main as necessary to avoid conflicts with the proposed storm sewer construction. This work shall include, but not limited to, installation of windows to go beneath the proposed storm sewer, or offsets to go around the proposed storm sewer. It is anticipated that the length of pipe to be relocated would be limited to the immediate crossing of the storm sewer. The work will include new joints, piping matching existing size, valves and other materials to complete the work. Prior to construction, all ULOs and any necessary redesign shall be completed in order to avoid potential conflicts. All finished work must be inspected and approved by the Water Utility Construction Supervisor and shall conform to all relevant sections of the City of Madison Standards Specifications for Public Works Construction Latest Edition. This work shall include all labor, materials, excavation and disposal of materials an all incidentals necessary to perform the work.

Contact Jeff Belshaw (jbelshaw@madisonwater.org, (608) 261-9835 if water main relocation may be necessary for coordination.

METHOD OF MEASUREMENT

RELOCATE WATER MAIN shall be measured per each specific instance as identified in the field.

BASIS OF PAYMENT

RELOCATE WATER MAIN shall be paid for at the contract unit price, which shall be full compensation for all excavation, disposal of removed material, preparation of subgrade including subbase, furnishing materials, backfilling and trench restoration, insulation installation, fill, topsoil, and for all labor, tools, equipment and incidentals necessary to complete the work.

BID ITEM 90040 – EXCAVATION AND HAULING OF CONTAMINATED SOIL

DESCRIPTION

General

Solven-contaminated soil may be encountered during excavation. This special provision describes excavating, loading, and hauling of contaminated soil to the Waste Management Deer Track Park Landfill. The City shall be responsible for all waste profiling and provide signed manifests to the Contractor to take with each load to the landfill. **Tipping fees shall be paid for by the City of Madison.**

Waste Management Deer Track Park Landfill
N6756 Waldmann Lane
Watertown, WI 53094
(t) 608.837.9031

Work shall be performed in accordance to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

Notice to the Contractor – Contaminated Soil Location(s)

The potential zone(s) of contaminated soils is shown on plans. It is expected that contaminated soils will be deeper than 4 feet deep. If contaminated soils—based on unusual odor, presence of cinders, staining, etc.—are encountered elsewhere on the project, notify the Environmental Consultant or Engineer. For more information regarding environmental contamination within the project limits, contact:

Brynn Bemis
City of Madison Engineering
210 Martin Luther King, Jr. Blvd., Rm 115
Madison, WI 53703
608.695.1385
bbemis@cityofmadison.com

Coordination

Coordinate work under this contract with the City of Madison Environment Consult:

Brynn Bemis
210 Martin Luther King Jr. Blvd., Rm 115
Madison, WI 53703
608.267.1986
608.695.1385 (cell)
bbemis@cityofmadison.com

The role of the Environmental Consultant will be limited to:

1. Obtaining the necessary landfill profile prior to start of construction, and providing hauling manifests to the Contractor.

2. Assisting with determining the location and limits of contaminated soil to be excavated based on soil analytical results, visual observations, and/or field screening instruments.
3. Coordinating response measures for unknown contamination encountered.
4. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify both the Environmental Consultant and Project Engineer at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

The environmental consultant will be responsible for obtaining the necessary landfill profile approval for potentially-contaminated soil. Do not transport materials offsite to a landfill for disposal without prior approval from the environmental consultant.

Health and Safety Requirements

Add the following to standard spec 107.1:

During excavation activities, there is a potential of encountering material contaminated with hazardous materials or petroleum-related products. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

CONSTRUCTION

Add the following to standard spec 205.3:

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated.

The environmental consultant will periodically evaluate soil excavated from contaminated areas to determine if the soil will require offsite bioremediation. The environmental consultant or Project Inspector will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment.

Directly load and haul soils designated by the environmental consultant to the WDNR approved landfill. Use loading and hauling practices that are appropriate to prevent any spills or releases of contaminated soils or residues. If contaminated soil must be stored overnight on site, it shall be placed on a plastic sheet and covered in plastic, or some other impermeable material.

Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids.

MEASUREMENT AND PAYMENT

The City will measure Excavation and Hauling of Contaminated Soil in tons of waste, documented by the weight tickets generated by the selected landfill. The landfill tipping fees will be paid for directly by the

City of Madison.



Scale: Reduced

Soil Boring Location Map
Russell Street Area
Madison, WI



Date: 10/2020
Job No. C20051-23



Legend

 Denotes Boring Location

Notes

1. Boring locations are approximate
2. Soil Borings performed by Badger State Drilling in 2011 and 2020
3. B1, B5A, B5B and B6 performed in 2020; B2-B5 performed in 2011 (as part of a previous City project)



LOG OF TEST BORING

Project Russell Street Area
 Location Jenifer: 60'W of Division, 8'N of Centerline
Madison, WI

Boring No. 1
 Surface Elevation (ft) 851±
 Job No. C20051-23
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	w	LL	PL	LI
					6.5 in. Asphalt Pavement/11 in. Base Course					
1	18	M	7		FILL: Loose Brown Sand with Little to Some Silt and Trace Gravel					
2	18	W	5							
3	18	W	8		Loose, Gray Silty Fine SAND (SM)					
4	18	W	14		Medium Dense, Gray SILT, Some Sand, Trace to Little Clay (ML)					
5	18	W	11		Stiff, Gray Laminated Lean and Silty CLAY, Occasional Sand Partings (CL/CL-ML)					
					End Boring at 15 ft	(1.25)				
					Borehole Backfilled with Bentonite Chips and Asphalt Patch					

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling ∇ 3.5' Upon Completion of Drilling 3.5'
 Time After Drilling _____ 15 Min.
 Depth to Water _____ 3.5' ∇
 Depth to Cave in _____ 4'

Start 11/5/20 End 11/5/20
 Driller BSD Chief MC Rig CME-55
 Logger GB Editor ESF
 Drill Method 2.25" HSA; Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Russell Street Area
 Location Jenifer: 310'NE of Walton, 6'SE of Centerline
Madison, WI

Boring No. 2
 Surface Elevation (ft) 852±
 Job No. C20051-23
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		q _u (qs) (tsf)	W	LL	PL	LI
				0	3 in. Asphalt Pavement/8 in. Concrete Pavement/8 in. Base Course					
1	12	M	9	9	Loose, Light Brown Fine to Medium SAND, Little to Some Silt (SP/SP-SM - Possible Fill)					
2	12	M	4	4	Loose to Very Loose at 4 ft					
3	18	W	15	15	Medium Dense, Gray Fine to Medium SAND, Trace to Little Silt and Gravel (SP/SP-SM)					
4	18	W	24	24	Stiff, Gray Lean CLAY (CL)					
5	18	W	9	9	End of Boring at 15 ft	(1.25)				
				15	Backfilled with Bentonite Chips					
				20	*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell Street and Helena Street.					
				25	Note: Previously identified as Boring 9 in CGC Report C11054-17 and drilled in 2011.					

WATER LEVEL OBSERVATIONS					GENERAL NOTES				
While Drilling	∇	5.0'	Upon Completion of Drilling	5'	Start	8/10/11	End	8/10/11	
Time After Drilling					Driller	BSD	Chief	BM	Rig CME-55
Depth to Water					Logger	MC	Editor	ESF	
Depth to Cave in					Drill Method	2.25" HSA; Autohammer			

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Russell Street Area
Russell: 110'NW of Jenifer, 6'NE of Centerline
 Location Madison, WI

Boring No. 3
 Surface Elevation (ft) 853±
 Job No. C20051-23
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		q _u (qa) (tsf)	W	LL	PL	LI
					X	8 in. Concrete Pavement/8 in. Base Course				
1	18	M	12			Medium Dense to Loose, Light Brown Fine to Medium SAND, Trace to Little Silt and Gravel (SP/SP-SM - Probable Fill)				
2	18	M	4			Loose to Very Loose, Dark Brown to Black Fine to Medium SAND, Some Silt and Clay (SM/SC)				
3	18	W	13	5		Medium Dense, Gray Fine to Medium SAND, Trace to Little Silt and Gravel (SP/SP-SM)				
4	18	W	14							
5	18	W	11	10		Stiff, Gray Lean CLAY (CL)				
				15		(1.25)				
					15	End of Boring at 15 ft				
					20	Backfilled with Bentonite Chips				
					25	Note: Previously identified as Boring 8 in CGC Report C11054-17 and drilled in 2011.				

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling ∇ 6.0' Upon Completion of Drilling 6'
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

Start 8/11/11 End 8/11/11
 Driller BSD Chief BM Rig CME-55
 Logger MC Editor ESF
 Drill Method 2.25" HSA; Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Russell Street Area
 Helena: 90'NE of Russell, 7'SE of Centerline
 Location Madison, WI

Boring No. 4
 Surface Elevation (ft) 852±
 Job No. C20051-23
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		q _u (qa) (tsf)	W	LL	PL	LI
1	18	M	13	0	2 in. Asphalt Pavement/8 in. Concrete Pavement/10 in. Base Course					
2	18	M	4	4	Medium Dense, Light Brown Fine to Medium SAND, Little to Some Silt and Gravel (SP-SM/SM - Possible Fill)					
3	18	W	10	10	Loose, Brown to Gray Fine to Coarse SAND, Trace to Little Silt and Gravel (SP/SP-SM)					
4	18	W	8	8	Loose to Medium Dense, Gray Fine to Medium SAND, Little Silt (SP-SM)					
5	18	W	10	15	Medium Stiff to Stiff, Gray Lean CLAY, Trace Sand (CL)	(0.75)				
				15	End of Boring at 15 ft					
				20	Backfilled with Bentonite Chips					
				25	Note: Previously identified as Boring 7 in CGC Report C11054-17 and drilled in 2011.					

WATER LEVEL OBSERVATIONS

While Drilling ∇ 4.0' Upon Completion of Drilling 4'
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

GENERAL NOTES

Start 8/11/11 End 8/11/11
 Driller BSD Chief BM Rig CME-55
 Logger MC Editor ESF
 Drill Method 2.25" HSA; Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Russell Street Area
Russell: 135'NW of Helena, 9'NE of Centerline
 Location Madison, WI

Boring No. 5
 Surface Elevation (ft) 853±
 Job No. C20051-23
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		q _s (qa) (tsf)	w	LL	PL	LI
					3 in. Asphalt Pavement/6 in. Concrete Pavement/8 in. Base Course					
1	18	M	12		Loose to Medium Dense, Light Brown Fine SAND, Trace to Little Silt and Gravel (SP/SP-SM - Probable Fill)					
2	18	M	8							
				5						
3	18	W	9		Soft, Dark Brown to Black Sandy Lean CLAY (CL - Possible Buried Topsoil)	(0.4)				
					Loose, Gray Fine to Medium SAND, Some Silt (SM)					
4	18	W	17		Medium Dense, Gray-Brown Sandy SILT with Clay Seams and Lenses (ML/CL)					
				10						
					Medium Dense, Brown Fine SAND, Little to Some Silt (SP/SP-SM)					
5	18	W	27							
				15						
					End of Boring at 15 ft					
					Backfilled with Bentonite Chips					
					Note: Previously identified as Boring 6 in CGC Report C11054-17 and drilled in 2011.					
				20						
				25						

WATER LEVEL OBSERVATIONS

While Drilling ∇ 6.0' Upon Completion of Drilling 6'
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

GENERAL NOTES

Start 8/11/11 End 8/11/11
 Driller BSD Chief BM Rig CME-55
 Logger MC Editor ESF
 Drill Method 2.25" HSA; Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Russell Street Area
Russell: 115'NW of Helena, 6'NE of Centerline
 Location Madison, WI

Boring No. 5A
 Surface Elevation (ft) 852±
 Job No. C20051-23
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	w	LL	PL	LI
1	0	M	54/8"	1.7	<div style="border: 1px solid black; padding: 2px;"> 2 in. Asphalt Pavement/7 in. Concrete Pavement/4 in. Base Course </div> <div style="border: 1px solid black; padding: 2px;"> FILL: Loose Brown Sand </div> <p style="text-align: center;">End Boring at 1.7 ft Due to Spoon Refusal on Presumed Concrete</p> <p style="text-align: center;">Borehole Backfilled with Bentonite Chips and Asphalt Patch</p>					
				5						
				10						
				15						
				20						
				25						

WATER LEVEL OBSERVATIONS

While Drilling NW Upon Completion of Drilling NW
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

GENERAL NOTES

Start 11/5/20 End 11/5/20
 Driller BSD Chief MC Rig CME-55
 Logger GB Editor ESF
 Drill Method 2.25" HSA, Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Russell Street Area
Russell: 118'NW of Helena, 6'NE of Centerline
 Location Madison, WI

Boring No. 5B
 Surface Elevation (ft) 852±
 Job No. C20051-23
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LI
1	0	M	53/6"	0	<div style="border: 1px solid black; padding: 2px;"> 2 in. Asphalt Pavement/7 in. Concrete Pavement/4 in. Base Course </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> FILL: Loose Brown Sand </div> <p style="margin-top: 5px;">End Boring at 1.5 ft Due to Spoon Refusal on Presumed Concrete</p> <p style="margin-top: 5px;">Borehole Backfilled with Soil Cuttings and Asphalt Patch</p>					
				5						
				10						
				15						
				20						
				25						

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling NW Upon Completion of Drilling NW
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

Start 11/5/20 End 11/5/20
 Driller BSD Chief MC Rig CME-55
 Logger GB Editor ESF
 Drill Method 2.25" HSA; Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Russell Street Area
Helena: 285'SW of Russell, 3'SE of Centerline
 Location Madison, WI

Boring No. 6
 Surface Elevation (ft) 852±
 Job No. C20051-23
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LI
					2 in. Asphalt Pavement/7 in. Concrete Pavement					
1	18	M	7		FILL: Loose Brown Fine Sand with Little to Some Silt and Trace Gravel to 3'					
2	18	M	3		Very Loose Brown Fine to Coarse Sand with Some Silt to 4.5'					
				5	Very Loose, Dark Brown to Black Organic SAND (OL)					
3	18	W	11		Medium Dense, Gray Sandy SILT (ML)					
4	18	W	11		Having Occasional Thin (<1/4 in.) Seams of Clay with Depth					
				10	Stiff, Gray Lean CLAY, Trace Sand (CL)					
5	18	W	11			(1.75)				
				15	End Boring at 15 ft					
					Borehole Backfilled with Bentonite Chips and Asphalt Patch					
				20						
				25						

WATER LEVEL OBSERVATIONS

While Drilling ∇ 6.0' Upon Completion of Drilling 6.5'
 Time After Drilling _____ 15 Min.
 Depth to Water _____ 6.5' ∇
 Depth to Cave in _____ 7'

GENERAL NOTES

Start 11/5/20 End 11/5/20
 Driller BSD Chief MC Rig CME-55
 Logger GB Editor ESF
 Drill Method 2.25" HSA; Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

CGC, Inc.

LOG OF TEST BORING
General Notes

DESCRIPTIVE SOIL CLASSIFICATION

Grain Size Terminology

Soil Fraction	Particle Size	U.S. Standard Sieve Size
Boulders	Larger than 12"	Larger than 12"
Cobbles	3" to 12"	3" to 12"
Gravel: Coarse.....	¾" to 3"	¾" to 3"
Fine	4.76 mm to ¾"	#4 to ¾"
Sand: Coarse.....	2.00 mm to 4.76 mm.....	#10 to #4
Medium	0.42 to mm to 2.00 mm	#40 to #10
Fine	0.074 mm to 0.42 mm.....	#200 to #40
Silt.....	0.005 mm to 0.074 mm.....	Smaller than #200
Clay	Smaller than 0.005 mm.....	Smaller than #200

Plasticity characteristics differentiate between silt and clay.

General Terminology

Physical Characteristics
 Color, moisture, grain shape, fineness, etc.
Major Constituents
 Clay, silt, sand, gravel
Structure
 Laminated, varved, fibrous, stratified, cemented, fissured, etc.
Geologic Origin
 Glacial, alluvial, eolian, residual, etc.

Relative Density

Term	"N" Value
Very Loose.....	0 - 4
Loose.....	4 - 10
Medium Dense.....	10 - 30
Dense.....	30 - 50
Very Dense.....	Over 50

Relative Proportions Of Cohesionless Soils

Proportional Term	Defining Range by Percentage of Weight
Trace.....	0% - 5%
Little.....	5% - 12%
Some.....	12% - 35%
And	35% - 50%

Consistency

Term	q _v -tons/sq. ft
Very Soft.....	0.0 to 0.25
Soft.....	0.25 to 0.50
Medium.....	0.50 to 1.0
Stiff.....	1.0 to 2.0
Very Stiff.....	2.0 to 4.0
Hard.....	Over 4.0

Organic Content by Combustion Method

Soil Description	Loss on Ignition
Non Organic.....	Less than 4%
Organic Silt/Clay.....	4 - 12%
Sedimentary Peat.....	12% - 50%
Fibrous and Woody Peat...	More than 50%

Plasticity

Term	Plastic Index
None to Slight.....	0 - 4
Slight.....	5 - 7
Medium.....	8 - 22
High to Very High ..	Over 22

The penetration resistance, N, is the summation of the number of blows required to effect two successive 6" penetrations of the 2" split-barrel sampler. The sampler is driven with a 140 lb. weight falling 30" and is seated to a depth of 6" before commencing the standard penetration test.

SYMBOLS

Drilling and Sampling

- CS – Continuous Sampling
- RC – Rock Coring: Size AW, BW, NW, 2"W
- RQD – Rock Quality Designation
- RB – Rock Bit/Roller Bit
- FT – Fish Tail
- DC – Drove Casing
- C – Casing: Size 2 ½", NW, 4", HW
- CW – Clear Water
- DM – Drilling Mud
- HSA – Hollow Stem Auger
- FA – Flight Auger
- HA – Hand Auger
- COA – Clean-Out Auger
- SS - 2" Dia. Split-Barrel Sample
- 2ST – 2" Dia. Thin-Walled Tube Sample
- 3ST – 3" Dia. Thin-Walled Tube Sample
- PT – 3" Dia. Piston Tube Sample
- AS – Auger Sample
- WS – Wash Sample
- PTS – Peat Sample
- PS – Pitcher Sample
- NR – No Recovery
- S – Sounding
- PMT – Borehole Pressuremeter Test
- VS – Vane Shear Test
- WPT – Water Pressure Test

Laboratory Tests

- q_v – Penetrometer Reading, tons/sq ft
- q_u – Unconfined Strength, tons/sq ft
- W – Moisture Content, %
- LL – Liquid Limit, %
- PL – Plastic Limit, %
- SL – Shrinkage Limit, %
- LI – Loss on Ignition
- D – Dry Unit Weight, lbs/cu ft
- pH – Measure of Soil Alkalinity or Acidity
- FS – Free Swell, %

Water Level Measurement
















- ▽ - Water Level at Time Shown
- NW – No Water Encountered
- WD – While Drilling
- BCR – Before Casing Removal
- ACR – After Casing Removal
- CW – Cave and Wet
- CM – Caved and Moist

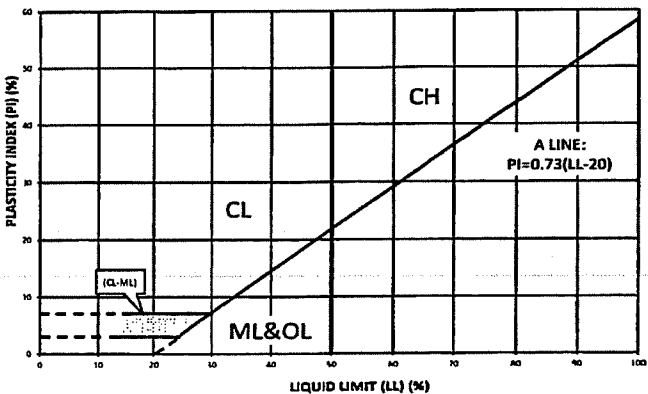
Note: Water level measurements shown on the boring logs represent conditions at the time indicated and may not reflect static levels, especially in cohesive soils.



Madison - Milwaukee

Unified Soil Classification System

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART		
COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size)		
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)	
	 GW	Well-graded gravels, gravel-sand mixtures, little or no fines
	 GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)	
	 GM	Silty gravels, gravel-sand-silt mixtures
	 GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)	
	 SW	Well-graded sands, gravelly sands, little or no fines
	 SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)	
	 SM	Silty sands, sand-silt mixtures
	 SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)		
SILTS AND CLAYS Liquid limit less than 50%	 ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
	 CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	 OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater	 MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
	 CH	Inorganic clays of high plasticity, fat clays
	 OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS	 PT	Peat and other highly organic soils

LABORATORY CLASSIFICATION CRITERIA	
GW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3
GP	Not meeting all gradation requirements for GW
GM	Atterberg limits below "A" line or P.I. less than 4
GC	Atterberg limits above "A" line or P.I. greater than 7
Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols	
SW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3
SP	Not meeting all gradation requirements for GW
SM	Atterberg limits below "A" line or P.I. less than 4
SC	Atterberg limits above "A" line with P.I. greater than 7
Limits plotting in shaded zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols	
<p>Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:</p> <p>Less than 5 percent GW, GP, SW, SP More than 12 percent GM, GC, SM, SC 5 to 12 percent Borderline cases requiring dual symbols</p>	
PLASTICITY CHART	
	



Legend

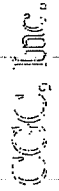
○ Denotes Boring Location (approximate)



Notes

1. Soil boring performed by Badger State Drilling in August 2011

SOIL BORING LOCATION PLAN
Clemens Avenue Area
Madison, Wisconsin



C11054-17

Date: 8/11

APPD: MNS

DWN: -



LOG OF TEST BORING

Project Clemons Avenue Area
Clemons: 180'NW of Rutledge, 6'NE of Centerline
 Location Madison, Wisconsin

Boring No. 1
 Surface Elevation (ft) 94.1*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYP P E	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL
					5	6" Concrete Pavement/8" Base Course Very Loose to Medium Dense, Light Brown Fine to Medium SAND, Trace to Little Silt and Gravel (SP/SP-SM) (Possible Fill)				
1		18	M	11						
2		18	M	3		Loose to Medium Dense, Gray Fine to Medium SAND, Some Silt and Gravel (SM)				
3		12	W	13						
4		6	W	6		End Boring at 15 ft Borehole backfilled with bentonite chips *Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.				
5		18	W	14						

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling ∇ 6.0' Upon Completion of Drilling 6'
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

Start 8/11/11 End 8/11/11
 Driller Badger Chief BM Rig CME-55
 Logger MC Editor ESF
 Drill Method 2 1/4" HSA

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Clemons Avenue Area
 Location Clemons: 60°SE of Jenifer, 6°NE of Centerline
Madison, Wisconsin

Boring No. 2
 Surface Elevation (ft) 93.9*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	w	LL	PL	LI
					X	6" Asphalt Pavement/10" Base Course				
1	18	M	6		.	Loose, Light Brown Fine SAND, Trace Silt and Gravel (SP) (Possible Fill)				
2	18	M	6		.		20.7		5.4	
3	18	W	28	5	-	Medium Dense, Light Brown Sandy SILT (ML)				
4	18	W	9		.	Loose, Gray Silty Fine SAND (SM)				
5	18	W	9		/				(1.75)	
15					End Boring at 15 ft					
20					Borehole backfilled with bentonite chips					
25					*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.					

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling ∇ 6.0' Upon Completion of Drilling 6'
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

Start 8/8/11 End 8/8/11
 Driller Badger Chief BM Rig CME-55
 Logger MC Editor ESF
 Drill Method 2 1/4" HSA

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Clemons Avenue Area
Clemons: 80'NW of Helena, 18'SW of Centerline
 Location Madison, Wisconsin

Boring No. 3
 Surface Elevation (ft) 94.9*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE P P E	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	w	LL	PL
					0	6" Asphalt Pavement/8" Base Course				
1		12	M		10	FILL: Dark Brown Sand with Silt and Gravel				
					12	Very Stiff, Light Gray-Brown Lean CLAY (CL)				
2		12	M		13	(3.75)				
					15	Loose to Dense, Gray to Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)				
3		15	M		23					
					25	End Boring at 15 ft				
4		4	W		8					
					10	Borehole backfilled with bentonite chips				
					15	*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.				
5		18	W		31					
					20					
					25					

WATER LEVEL OBSERVATIONS	GENERAL NOTES
While Drilling ∇ <u>8.0'</u> Upon Completion of Drilling <u>8'</u> Time After Drilling _____ Depth to Water _____ Depth to Cave in _____	Start <u>8/8/11</u> End <u>8/8/11</u> Driller <u>Badger</u> Chief <u>BM</u> Rig <u>CME-55</u> Logger <u>MC</u> Editor <u>ESF</u> Drill Method <u>2 1/4" HSA</u>
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.	



LOG OF TEST BORING

Project Clemons Avenue Area
 Location Walton: 165' SE of Helena, 6' NE of Centerline
Madison, Wisconsin

Boring No. 4
 Surface Elevation (ft) 94.5*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		q _u (tsf)	W	LL	PL	LI
					X	6" Concrete Pavement/8" Base Course				
1	18	M	15		.	Medium Dense, Light Brown Fine SAND, Trace to Little Silt (SP/SP-SM) (Possible Fill)				
2	18	M	8		.	Loose, Gray Silty Fine SAND to Sandy SILT (SM/ML)				
3	18	W	21	▽	.	Medium Dense, Light Brown Sandy SILT (ML)				
4	18	W	5		/	(1.0)				
5	18	W	16		/	(1.5)				
End Boring at 15 ft										
Borehole backfilled with bentonite chips										
*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.										

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling ▽ 6.0' Upon Completion of Drilling 6'
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

Start 8/11/11 End 8/11/11
 Driller Badger Chief BM Rig CME-55
 Logger MC Editor ESF
 Drill Method 2 1/4" HSA

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Clemons Avenue Area
Helena: 180'SW of Russell, 9'NW of Centerline
 Location Madison, Wisconsin

Boring No. 5
 Surface Elevation (ft) 95.5*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LI
				0	2" Asphalt Pavement/6" Concrete Pavement/6" Base Course					
1	18	M	10	10	FILL: Light Brown Fine Sand, Trace to Little Silt					
2	18	M	4	4	Loose, Dark Brown Sedimentary PEAT (PT)		53.4			14.6
3	18	W	8	8	Loose, Brown Fine to Medium SAND, Trace to Little Silt and Gravel (SP/SP-SM)					
4	18	W	9	9	Loose, Gray Sandy SILT (ML)	(1.75)				
5	18	W	9	9	Medium Stiff to Stiff, Gray Lean CLAY (CL)	(1.0)				
				15	End Boring at 15 ft					
					Borehole backfilled with bentonite chips					
					*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.					

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling ∇ 6.0' Upon Completion of Drilling 6'
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

Start 8/11/11 End 8/11/11
 Driller Badger Chief BM Rig CME-55
 Logger MC Editor ESF
 Drill Method 2 1/4" HSA

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Clemons Avenue Area
Russell: 135'NW of Helena, 9'NE of Centerline
 Location Madison, Wisconsin

Boring No. 6
 Surface Elevation (ft) 97.5*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE Rec (in.)	Moist	N	Depth (ft)		q _u (qa) (tsf)	W	LL	PL	LI
				0	X	3" Asphalt Pavement/6" Concrete Pavement/8" Base Course				
1	18	M	12	12	.	Loose to Medium Dense, Light Brown Fine SAND, Trace to Little Silt and Gravel (SP/SP-SM) (Probable Fill)				
2	18	M	8	8	.					
3	18	W	9	9	/	Soft, Dark Brown to Black Sandy Lean CLAY (CL) (Possible Buried Topsoil) (0.4)				
4	18	W	17	17	/	Loose, Gray Fine to Medium SAND, Some Silt (SM)				
				10	/	Medium Dense, Gray-Brown Sandy SILT with Clay Seams and Lenses (ML/CL)				
				15	.	Medium Dense, Brown Fine SAND, Little to Some Silt (SP/SP-SM)				
5	18	W	27	27	.					
15					End Boring at 15 ft					
20					Borehole backfilled with bentonite chips					
25					*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.					

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling ∇ <u>6.0'</u> Upon Completion of Drilling <u>6'</u> Time After Drilling _____ Depth to Water _____ Depth to Cave in _____	Start <u>8/11/11</u> End <u>8/11/11</u> Driller <u>Badger Chief</u> <u>BM</u> Rig <u>CME-55</u> Logger <u>MC</u> Editor <u>ESF</u> Drill Method <u>2 1/4" HSA</u>
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The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Clemons Avenue Area
Helena: 90'NE of Russell, 7'SE of Centerline
 Location Madison, Wisconsin

Boring No. 7
 Surface Elevation (ft) 96.4*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LI
				0	2" Asphalt Pavement/8" Concrete Pavement/10" Base Course					
1	18	M	13	1	Medium Dense, Light Brown Fine to Medium SAND, Little to Some Silt and Gravel (SP-SM/SM) (Possible Fill)					
2	18	M	4	4	Loose, Brown to Gray Fine to Coarse SAND, Trace to Little Silt and Gravel (SP/SP-SM)					
3	18	W	10	10	Loose to Medium-Dense, Gray Fine to Medium SAND, Little Silt (SP-SM)					
4	18	W	8	8	Medium Stiff to Stiff, Gray Lean CLAY, Trace Sand (CL)	(0.75)				
5	18	W	10	10		(1.75)				
End Boring at 15 ft										
Borehole backfilled with bentonite chips										
*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.										

WATER LEVEL OBSERVATIONS				GENERAL NOTES			
While Drilling	▽ 4.0'	Upon Completion of Drilling	4'	Start	8/11/11	End	8/11/11
Time After Drilling				Driller	Badger	Chief	BM Rig CME-55
Depth to Water				Logger	MC	Editor	ESF
Depth to Cave in				Drill Method	2 1/4" HSA		

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Clemons Avenue Area
Russell: 110'NW of Jenifer, 6'NE of Centerline
 Location Madison, Wisconsin

Boring No. 8
 Surface Elevation (ft) 95.6*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		q _u (qa) (tsf)	W	LL	PL	LI
				0	X	8" Concrete Pavement/8" Base Course				
1	18	M	12	12	.	Medium Dense to Loose, Light Brown Fine to Medium SAND, Trace to Little Silt and Gravel (SP/SP-SM) (Probable Fill)				
2	18	M	4	4	/	Loose to Very Loose, Dark Brown to Black Fine to Medium SAND, Some Silt and Clay (SM/SC)				
3	18	W	13	13	\	Medium Dense, Gray Fine to Medium SAND, Trace to Little Silt and Gravel (SP/SP-SM)				
4	18	W	14	14	.					
5	18	W	11	11	/	Stiff, Gray Lean CLAY (CL)				
				15		(1.25)				
				15		End Boring at 15 ft				
						Borehole backfilled with bentonite chips				
						*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.				
				20						
				25						

WATER LEVEL OBSERVATIONS	GENERAL NOTES
While Drilling ∇ <u>6.0'</u> Upon Completion of Drilling <u>6'</u> Time After Drilling _____ Depth to Water _____ Depth to Cave in _____	Start <u>8/11/11</u> End <u>8/11/11</u> Driller <u>Badger Chief</u> BM <u>BM</u> Rig <u>CME-55</u> Logger <u>MC</u> Editor <u>ESF</u> Drill Method <u>2 1/4" HSA</u>
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.	



LOG OF TEST BORING

Project Clemons Avenue Area
 Location Jenifer: 310'NE of Walton, 6'SE of Centerline
Madison, Wisconsin

Boring No. 9
 Surface Elevation (ft) 95.6*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TH R E E F E E T E R E C O R D E D I N C H	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL
					X	3" Asphalt Pavement/8" Concrete Pavement/8" Base Course				
1	12	M	9		.	Loose, Light Brown Fine to Medium SAND, Little to Some Silt (SP/SP-SM) (Possible Fill)				
2	12	M	4		.	Loose to Very Loose at 4 ft				
3	18	W	15		.	Medium Dense, Gray Fine to Medium SAND, Trace to Little Silt and Gravel (SP/SP-SM)				
4	18	W	24		.					
5	18	W	9		.	Stiff, Gray Lean CLAY (CL)				
					.	(1.25)				
					.	End Boring at 15 ft				
					.	Borehole backfilled with bentonite chips				
					.	*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.				

WATER LEVEL OBSERVATIONS	GENERAL NOTES
While Drilling ∇ <u>5.0'</u> Upon Completion of Drilling <u>5'</u> Time After Drilling _____ Depth to Water _____ Depth to Cave in _____	Start <u>8/10/11</u> End <u>8/10/11</u> Driller <u>Badger</u> Chief <u>BM</u> Rig <u>CME-55</u> Logger <u>MC</u> Editor <u>ESF</u> Drill Method <u>2 1/4" HSA</u>
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.	



LOG OF TEST BORING

Project Clemons Avenue Area
 Jenifer: 100'NE of Russell, 7'SE of Centerline
 Location Madison, Wisconsin

Boring No. 10
 Surface Elevation (ft) 96.0*
 Job No. C11054-17
 Sheet 1 of 1

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

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LI
					3" Asphalt Pavement/8" Concrete Pavement/8" Base Course					
1	18	M	4		Loose to Very Loose, Light Brown Fine SAND, Trace to Little Silt and Gravel (SP/SP-SM) (Possible Fill)					
2	18	M	8	▽	Loose, Brown Fine to Coarse SAND, Little Silt and Gravel (SP-SM)					
3	18	W	14		Medium Dense, Gray Fine to Medium SAND, Little Silt and Gravel (SP-SM)					
4	18	W	18		Medium Dense, Gray Sandy SILT (ML)					
5	18	W	10		Medium-Stiff/Loose to Medium Dense, Gray SILT and Lean CLAY, Trace Sand (ML/CL)	(0.8)				
					End Boring at 15 ft					
					Borehole backfilled with bentonite chips					
					*Elevation determined using an assumed datum of 100.0 ft referencing the top nut of a hydrant situated at the intersection of Russell St. and Helena St.					

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling ▽ 4.0' Upon Completion of Drilling 4'
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

Start 8/10/11 End 8/10/11
 Driller Badger Chief BM Rig CME-55
 Logger MC Editor ESF
 Drill Method 2 1/4" HSA

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

CGC, Inc.

LOG OF TEST BORING
General Notes

Descriptive Soil Classification

GRAIN SIZE TERMINOLOGY

Soil Fraction	Particle Size	U.S. Standard Sieve Size
Boulders	Larger than 12"	Larger than 12"
Cobbles	3" to 12"	3" to 12"
Gravel: Coarse	3/4" to 3"	3/4" to 3"
Fine	4.76 mm to 3/4"	#4 to 3/4"
Sand: Coarse	2.00 mm to 4.76 mm	#10 to #4
Medium	0.42 to mm to 2.00 mm	#40 to #10
Fine	0.074 mm to 0.42 mm	#200 to #40
Silt	0.005 mm to 0.074 mm	Smaller than #200
Clay	Smaller than 0.005 mm	Smaller than #200

Plasticity characteristics differentiate between silt and clay.

GENERAL TERMINOLOGY

Physical Characteristics
 Color, moisture, grain shape, fineness, etc.
 Major Constituents
 Clay, silt, sand, gravel
 Structure
 Laminated, varved, fibrous, stratified,
 cemented, fissured, etc.
 Geologic Origin
 Glacial, alluvial, eolian, residual, etc.

RELATIVE DENSITY

Term	"N" Value
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Over 50

RELATIVE PROPORTIONS OF OF COHESIONLESS SOILS

Proportional Term	Defining Range by Percentage of Weight
Trace	0%-5%
Little	5%-12%
Some	12%-35%
And	35%-50%

CONSISTENCY

Term	q _r -tons/sq. ft.
Very Soft	0.0 to 0.25
Soft	0.25 to 0.50
Medium	0.50 to 1.0
Stiff	1.0 to 2.0
Very Stiff	2.0 to 4.0
Hard	Over 4.0

ORGANIC CONTENT BY COMBUSTION METHOD

Soil Description	Loss on Ignition
Non Organic	Less than 4%
Organic Silt/Clay	4-12%
Sedimentary Peat	12-50%
Fibrous and Woody Peat	More than 50%

PLASTICITY

Term	Plastic Index
None to Slight	0-4
Slight	5-7
Medium	8-22
High to Very High	Over 22

The penetration resistance, N, is the summation of the number of blows required to effect two successive 6" penetrations of the 2" split-barrel sampler. The sampler is driven with a 140 lb. weight falling 30" and is seated to a depth of 6" before commencing the standard penetration test.

SYMBOLS

DRILLING AND SAMPLING

- CS--Continuous Sampling
- RC--Rock Coring: Size AW, BW, NW, 2"W
- RQD--Rock Quality Designator
- RB--Rock Bit
- FT--Fish Tail
- DC--Drove Casing
- C--Casing: Size 2 1/2", NW, 4", HW
- CW--Clear Water
- DM--Drilling Mud
- HSA--Hollow Stem Auger
- FA--Flight Auger
- HA--Hand Auger
- COA--Clean-Out Auger
- SS--2" Diameter Split-Barrel Sample
- 2ST--2" Diameter Thin-Walled Tube Sample
- 3ST--3" Diameter Thin-Walled Tube Sample
- PT--3" Diameter Piston Tube Sample
- AS--Auger Sample
- WS--Wash Sample
- PTS--Peat Sample
- PS--Pitcher Sample
- NR--No Recovery
- S--Sounding
- PMT--Borehole Pressuremeter Test
- VS--Vane Shear Test
- WPT--Water Pressure Test

LABORATORY TESTS

- q_r--Penetrometer Reading, tons/sq. ft.
- q_u--Unconfined Strength, tons/sq. ft.
- W--Moisture Content, %
- LL--Liquid Limit, %
- PL--Plastic Limit, %
- SL--Shrinkage Limit, %
- LI--Loss on Ignition, %
- D--Dry Unit Weight, lbs/cu. ft.
- pH--Measure of Soil Alkalinity or Acidity
- FS--Free Swell, %

WATER LEVEL MEASUREMENT

- ▽--Water Level at time shown
- NW--No Water Encountered
- WD--While Drilling
- BCR--Before Casing Removal
- ACR--After Casing Removal
- CW--Caved and Wet
- CM--Caved and Moist

Note: Water level measurements shown on the boring logs represent conditions at the time indicated and may not reflect static levels, especially in cohesive soils.

UNIFIED SOIL CLASSIFICATION SYSTEM

COARSE-GRAINED SOILS

(More than half of material is larger than No. 200 sieve size.)

GRAVELS More than half of coarse fraction larger than No. 4 sieve size	Clean Gravels (Little or no fines)	
	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
	GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
	Gravels with Fines (Appreciable amount of fines)	
	GM_u^d	Silty gravels, gravel-sand-silt mixtures
	GC	Clayey gravels, gravel-sand-clay mixtures
SANDS More than half of coarse fraction smaller than No. 4 sieve size	Clean Sands (Little or no fines)	
	SW	Well-graded sands, gravelly sands, little or no fines
	SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with Fines (Appreciable amount of fines)	
	SM_u^d	Silty sands, sand-silt mixtures
	SC	Clayey sands, sand-clay mixtures

FINE-GRAINED SOILS

(More than half of material is smaller than No. 200 sieve.)

SILTS AND CLAYS Liquid limit less than 50%	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit greater than 50%	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
	CH	Inorganic clays of high plasticity, fat clays
	OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS	PT	Peat and other highly organic soils

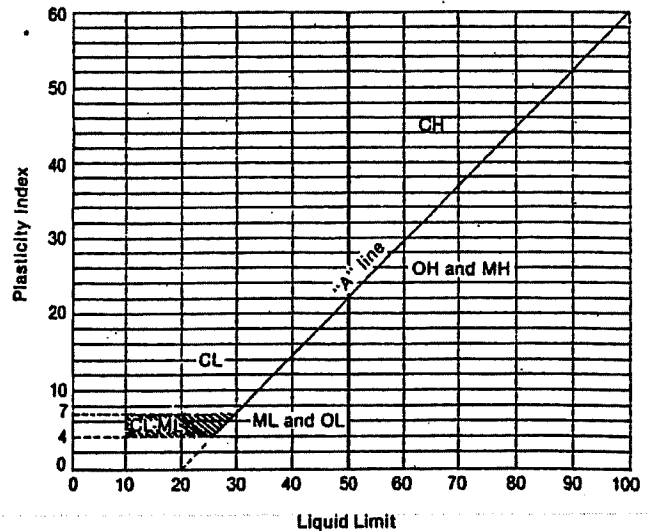
LABORATORY CLASSIFICATION CRITERIA

GW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
GP	Not meeting all gradation requirements for GW	
GM	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
GC	Atterberg limits above "A" line with P.I. greater than 7	
SW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 6; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
SP	Not meeting all gradation requirements for SW	
SM	Atterberg limits below "A" line or P.I. less than 4	Limits plotting in hatched zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols.
SC	Atterberg limits above "A" line with P.I. greater than 7	

Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:

Less than 5 per cent GW, GP, SW, SP
 More than 12 per cent GM, GC, SM, SC
 5 to 12 per cent Borderline cases requiring dual symbols

PLASTICITY CHART



For classification of fine-grained soils and fine fraction of coarse-grained soils.

Atterberg Limits plotting in hatched area are borderline classifications requiring use of dual symbols.

Equation of A-line: $PI = 0.73 (LL - 20)$



Department of Public Works
Engineering Division
Robert F. Phillips, P.E., City Engineer

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Madison, Wisconsin 53703
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engineering@cityofmadison.com
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Deputy City Engineer

Gregory T. Fries, P.E.

Deputy Division Manager

Kathleen M. Cryan

Principal Engineer 2

Christopher J. Petykowski, P.E.

John S. Fahrney, P.E.

Principal Engineer 1

Christina M. Bachmann, P.E.

Mark D. Moder, P.E.

Janet Schmidt, P.E.

Jim Wolfe, P.E.

Facilities & Sustainability

Bryan Cooper, Principal Architect

Mapping Section Manager

Eric T. Pederson, P.S.

Financial Manager

Steven B. Danner-Rivers

June 8, 2021

NOTICE OF ADDENDUM
ADDENDUM NO. 1
CONTRACT NO. 8569

HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT DISTRICT - 2021

Revise and amend the contract document(s) for the above project as stated in this addendum, otherwise, the original document shall remain in effect.

SPECIFICATIONS:

REMOVE: Bid Item 90002 – 6” Precast Pervious Concrete Sidewalk

INSERT:

BID ITEM 90002 – 6” PRECAST PERVIOUS CONCRETE SIDEWALK

DESCRIPTION

This work shall consist of providing and installing precast pervious concrete panels at the location indicated on the plans and per the details. Panels shall have a minimum thickness of 6” thick and have minimum plan dimensions of 2’x2’ and maximum dimensions of 5’x5’. The precast pervious concrete shall be installed per the manufacturer’s specification, including any jointing and connection methods, fabrics or geogrids, and any finishing necessary to complete the installation. The precast concrete panels will shall have the following specifications at a minimum

Minimum 4,000 psi compression strength
(based off average flexural strengths of 500 psi per ASTM C78)

Infiltration rate of 200 inches/hour per ASTM C1701

Void Ratio depending on application range from 15-25%

Precast Concrete Panels shall be installed on a base of 1” clear stone, which will be paid separately, and, a 1”-1.5” leveling layer shall be used between the pervious concrete panels and the clear stone base. The leveling course shall consist of an open-graded #7 crushed aggregate, and the leveling layer is included with this bid item. Extend the open-graded leveling layer under the adjacent concrete sidewalk, as shown on the detail. Wrap the

excavated area with geotextile fabric prior to placing clear stone base, which is included with this item.

The excavation cut necessary to install the panels and base material to the depths shown on the detail drawings has been included in the plan quantity for the excavation cut bid item.

METHOD OF MEASUREMENT

The precast pervious concrete sidewalk will be measured by the Square Foot acceptably installed.

BASIS OF PAYMENT

This item, measured as provided above, shall be paid for at the contract unit price for supplying and installing precast pervious concrete panels, which price shall be full compensation for furnishing all materials and preparation of subbase; for placing, finishing, jointing and expansion joints; preparation and installation of the level base course, and for all labor, tools, equipment and incidentals necessary to complete the work as described.

PROPOSAL:

See below for a summary of items that have been removed, added or revised. Refer to the proposal for updated quantities. See proposal on bidexpress.com.

ITEMS:

Action	Bid Item	Description
REMOVE	40201	HMA PAVEMENT 3 LT 58-28 S
MODIFY	40202	HMA PAVEMENT 4 LT 58-28 S

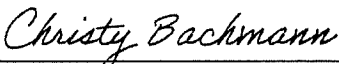
Please acknowledge this addendum on page E1 of the contract documents and/or in Section E: Bidder's Acknowledgement on Bid Express.

Electronic version of these documents can be found on the Bid Express web site at:

<http://www.bidexpress.com>

If you are unable to download plan revisions associated with the addendum, please contact the Engineering office at 608-266-4751 receive the material by another route.

Sincerely,



Robert F. Phillips, P.E.
City Engineer

RFP:JMW

SECTION E: BIDDERS ACKNOWLEDGEMENT

HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT
DISTRICT - 2021
CONTRACT NO. 8569

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.

- The undersigned having familiarized himself/herself with the Contract documents, including Advertisement for Bids, Instructions to Bidders, Form of Proposal, City of Madison Standard Specifications for Public Works Construction - 2021 Edition thereto, Form of Agreement, Form of Bond, and Addenda issued and attached to the plans and specifications on file in the office of the City Engineer, hereby proposes to provide and furnish all the labor, materials, tools, and expendable equipment necessary to perform and complete in a workmanlike manner the specified construction on this project for the City of Madison; all in accordance with the plans and specifications as prepared by the City Engineer, including Addenda Nos. 1 through 1 to the Contract, at the prices for said work as contained in this proposal. (Electronic bids submittals shall acknowledge addendum under Section E and shall not acknowledge here)
- 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.
- 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.
- 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).
- I hereby certify that all statements herein are made on behalf of R.G. HUSTON CO. INC. (name of corporation, partnership, or person submitting bid) a corporation organized and existing under the laws of the State of WISCONSIN a partnership consisting of _____; an individual trading as _____; of the City of _____ State of _____; that I have examined and carefully prepared this Proposal, from the plans and specifications and have checked the same in detail before submitting this Proposal; that I have fully authority to make such statements and submit this Proposal in (its, their) behalf; and that the said statements are true and correct.

[Signature]
SIGNATURE
BRAD HUSTON - PRESIDENT
TITLE, IF ANY



Sworn and subscribed to before me this 10th day of JUNE, 2021.

[Signature]
(Notary Public or other officer authorized to administer oaths)

My Commission Expires 1/10/24

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

DENNIS RICHARDSON
Notary Public
State of Wisconsin

Contract 8569 – R. G. Huston Co., Inc.

Section F: Best Value Contracting (BVC)

This section is a required document for the bid to be considered complete. There are two methods for completing the Best Value Contracting (BVC) form. Method one: The form can be filled out online and submitted to this site to be included with your electronic bid. Method two: The form can be downloaded from the site and submitted by hand to the City of Madison.

Method of Submittal for BVC (click in box below to choose) *

I will submit Bid Express fillable online form (BVC).

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.
- An exemption is granted in accordance with a time period of a "Documented Depression" as defined by the State of Wisconsin.

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 and FROST)
- IRON WORKER
- IRON WORKER (ASSEMBLER, METAL BLDGS)
- PAINTER and DECORATOR
- PLASTERER
- PLUMBER
- RESIDENTIAL ELECTRICIAN
- ROOFER and WATER PROOFER
- SHEET METAL WORKER
- SPRINKLER FITTER
- STEAMFITTER
- STEAMFITTER (REFRIGERATION)
- STEAMFITTER (SERVICE)
- TAPER and FINISHER
- TELECOMMUNICATIONS (VOICE, DATA and VIDEO) INSTALLER-TECHNICIAN
- TILE SETTER
-

~~Helena Street, Jenifer Street, and Russell~~
Street Assessment District - 2021 CONTRACT NO.
8569

Small Business Enterprise Compliance Report

Cover Sheet

This information **MUST** be submitted in a separate sealed envelope marked
"ENVELOPE NO. 2 - SBE COMPLIANCE REPORT".

Prime Bidder Information:

Company: R.G. Huston Company, Inc.

Address: 2561 Coffeytown Road
Cottage Grove, WI 53527

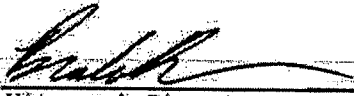
Telephone Number: (608) 255-9223

Fax Number: (608) 839-5936

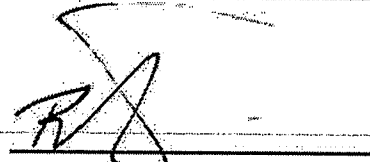
Contact Person/Title: Brad Huston, President

Prime Bidder Certification:

I, Brad Huston, President of R.G. Huston Company, Inc. certify that the information
contained in this SBE Compliance Report is true and correct to the best of my
knowledge and belief.



Witness' Signature



Bidder's Signature

6/10/2021

Date



Helena Street, Jenifer Street, and Russell Street Assessment District - 2021
CONTRACT NO. 8569

Small Business Enterprise Compliance Report

Summary Sheet

This information MUST be submitted in a separate sealed envelope marked

"ENVELOPE NO. 2 - SBE COMPLIANCE REPORT".

SBE SUBCONTRACTORS WHO ARE NOT SUPPLIERS

<u>Name(S) of SBEs Utilized</u>	<u>Type of Work</u>	<u>% of Total Bid Amount</u>
JR's Construction and Landscaping, Inc.	Landscaping	2%
Bullet Transit Co., Inc.	Trucking	3%

Subtotal SBE who are not suppliers: 5 %

SBE SUBCONTRACTORS WHO ARE SUPPLIERS

<u>Name(S) of SBEs Utilized</u>	<u>Type of Work</u>	<u>% of Total Bid Amount</u>
---------------------------------	---------------------	------------------------------

Subtotal SBE who are suppliers: _____ % X 0.6 = _____ % (discounted to 60%)

Total Percentage of SBE Utilization: 5 %

HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT DISTRICT - 2021

CONTRACT NO. 8569

DATE: 6/10/21

R. G. Huston Co., Inc.

Item	Quantity	Price	Extension
Section B: Proposal Page			
10701.0 - TRAFFIC CONTROL - LUMP SUM	1.00	\$5,000.00	\$5,000.00
10720.0 - TRAFFIC CONTROL SIGN - PORTABLE ARROW BOARD - DAYS	12.00	\$25.00	\$300.00
10721.0 - TRAFFIC CONTROL SIGN - PORTABLE CHANGEABLE MESSAGE - DAYS	7.00	\$60.00	\$420.00
10770.0 - MAINTAIN RESIDENTIAL DRIVEWAY ACCESS - EACH	7.00	\$790.00	\$5,530.00
10801.0 - ROOT CUTTING - CURB & GUTTER (UNDISTRIBUTED) - L.F.	200.00	\$11.00	\$2,200.00
10802.0 - ROOT CUTTING - SIDEWALK (UNDISTRIBUTED) - L.F.	100.00	\$11.00	\$1,100.00
10911.0 - MOBILIZATION - LUMP SUM	1.00	\$146,168.13	\$146,168.13
20101.0 - EXCAVATION CUT - C.Y.	6630.00	\$22.00	\$145,860.00
20130.0 - UNDERDRAIN - L.F.	2770.00	\$8.40	\$23,268.00
20140.0 - GEOTEXTILE FABRIC TYPE SAS (NON-WOVEN) (UNDISTRIBUTED) - S.Y.	1400.00	\$2.00	\$2,800.00
20219.0 - BREAKER RUN - TON	4300.00	\$6.80	\$29,240.00
20221.0 - TOPSOIL - S.Y.	4250.00	\$7.50	\$31,875.00
20303.0 - SAWCUT ASPHALT PAVEMENT - L.F.	230.00	\$1.75	\$402.50
20301.0 - SAWCUT CONCRETE PAVEMENT, FULL DEPTH - L.F.	50.00	\$2.75	\$137.50
20321.0 - REMOVE CONCRETE PAVEMENT - S.Y.	6650.00	\$2.50	\$16,625.00
20322.0 - REMOVE CONCRETE CURB & GUTTER - L.F.	5300.00	\$4.00	\$21,200.00
20323.0 - REMOVE CONCRETE SIDEWALK & DRIVE - S.F.	24250.00	\$2.60	\$63,050.00
20401.0 - CLEARING - I.D.	110.00	\$44.00	\$4,840.00
20402.0 - GRUBBING - I.D.	140.00	\$34.00	\$4,760.00
20504.0 - ADJUST VALVE CASTING - EACH	13.00	\$120.00	\$1,560.00
20701.0 - TERRACE SEEDING - S.Y.	4250.00	\$1.80	\$7,650.00
21063.0 - EROSION MATTING, CLASS I, TYPE A - ORGANIC - S.Y.	4250.00	\$2.40	\$10,200.00
30201.0 - TYPE 'A' CONCRETE CURB & GUTTER - L.F.	4780.00	\$16.11	\$77,005.80
30203.0 - TYPE 'X' CONCRETE CURB & GUTTER - L.F.	170.00	\$19.70	\$3,349.00
30208.0 - HAND FORMED CONCRETE CURB & GUTTER (UNDISTRIBUTED) - L.F.	450.00	\$40.91	\$18,409.50
30301.0 - 5" CONCRETE SIDEWALK - S.F.	16000.00	\$6.15	\$98,400.00
30302.0 - 7" CONCRETE SIDEWALK AND DRIVE - S.F.	12000.00	\$6.65	\$79,800.00
30340.0 - CURB RAMP DETECTABLE WARNING FIELD - S.F.	200.00	\$30.30	\$6,060.00
40101.0 - CRUSHED AGGREGATE BASE COURSE GRADATION NO. 1 - TON	2600.00	\$21.20	\$55,120.00
40102.0 - CRUSHED AGGREGATE BASE COURSE GRADATION NO. 2 OR NO. 3 - TON	3900.00	\$21.20	\$82,680.00
40202.0 - HMA PAVEMENT 4 LT 58-28 S - TON	1525.00	\$63.88	\$97,417.00
40231.0 - ASPHALT DRIVE & TERRACE (UNDISTRIBUTED) - S.Y.	50.00	\$38.30	\$1,915.00
40301.0 - FULL WIDTH GRINDING - S.Y.	310.00	\$8.59	\$2,662.90
40401.0 - 8 INCH CONCRETE PAVEMENT - S.Y.	55.00	\$100.51	\$5,528.05
60812.0 - PAVEMENT MARKING EPOXY, CROSSWALK, 6-INCH - L.F.	55.00	\$10.50	\$577.50
60816.0 - PAVEMENT MARKING EPOXY, CONTINENTAL CROSSWALK, 18- INCH - L.F.	60.00	\$18.75	\$1,125.00
90001.0 - GEOSYNTHETIC REINFORCEMENT FABRIC - S.Y.	9000.00	\$6.40	\$57,600.00
90002.0 - 6" PRECAST PERVIOUS CONCRETE SIDEWALK - S.F.	125.00	\$68.00	\$8,500.00
90003.0 - 1" CLEAR STONE - TON	24.00	\$33.00	\$792.00
90004.0 - INSTALL CARGO BIKE RACK - EACH	1.00	\$600.00	\$600.00
90005.0 - INSTALL MULTI-STALL BIKE RACK - EACH	1.00	\$600.00	\$600.00
90006.0 - PROVIDE AND INSTALL SINGLE STALL BIKE RACK - EACH	1.00	\$900.00	\$900.00

HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT DISTRICT - 2021

CONTRACT NO. 8569

DATE: 6/10/21

R. G. Huston Co., Inc.

Item	Quantity	Price	Extension
90007.0 - TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS - EACH	30.00	\$20.00	\$600.00
90008.0 - TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES - EACH	30.00	\$5.00	\$150.00
90009.0 - MAINTAIN BIKE & PEDESTRIAN CROSSING - LUMP SUM	1.00	\$6,725.00	\$6,725.00
90010.0 - DRIVEWAY APRON CURB - L.F.	6.00	\$30.30	\$181.80
90011.0 - REMOVE MISCELLANEOUS UNDERGROUND OBSTRUCTION (UNDISTRIBUTED) - C.Y.	15.00	\$173.00	\$2,595.00
20217.0 - CLEAR STONE - TON	750.00	\$17.00	\$12,750.00
21002.0 - EROSION CONTROL INSPECTION - EACH	5.00	\$525.00	\$2,625.00
21011.0 - CONSTRUCTION ENTRANCE - EACH	6.00	\$525.00	\$3,150.00
21013.0 - STREET SWEEPING - LUMP SUM	1.00	\$6,000.00	\$6,000.00
21032.0 - INLET PROTECTION, TYPE C - PROVIDE & INSTALL - EACH	8.00	\$125.00	\$1,000.00
21033.0 - INLET PROTECTION, TYPE C - MAINTAIN - EACH	15.00	\$80.00	\$1,200.00
21034.0 - INLET PROTECTION, TYPE C - REMOVE - EACH	8.00	\$40.00	\$320.00
21049.0 - INLET PROTECTION, RIGID FRAME - PROVIDE & INSTALL - EACH	72.00	\$300.00	\$21,600.00
21050.0 - INLET PROTECTION, RIGID FRAME - MAINTAIN - EACH	100.00	\$80.00	\$8,000.00
21051.0 - INLET PROTECTION, RIGID FRAME - REMOVE - EACH	72.00	\$40.00	\$2,880.00
50401.0 - 12 INCH TYPE I RCP STORM SEWER PIPE - L.F.	668.00	\$77.00	\$51,436.00
50741.0 - TYPE H INLET - EACH	44.00	\$2,260.00	\$99,440.00
20311.0 - REMOVE SEWER ACCESS STRUCTURE (STORM) - EACH	6.00	\$550.00	\$3,300.00
20313.0 - REMOVE INLET - EACH	12.00	\$350.00	\$4,200.00
20314.0 - REMOVE PIPE (STORM) - L.F.	221.00	\$30.00	\$6,630.00
20336.0 - PIPE PLUG (STORM) - EACH	33.00	\$175.00	\$5,775.00
20503.0 - ADJUST INLET - EACH	2.00	\$320.00	\$640.00
50202.0 - TYPE II DEWATERING (STORM) - LUMP SUM	1.00	\$100.00	\$100.00
50211.0 - SELECT BACKFILL FOR STORM SEWER - T.F.	2850.00	\$0.01	\$28.50
50402.0 - 15 INCH TYPE I RCP STORM SEWER PIPE - L.F.	606.00	\$80.00	\$48,480.00
50403.0 - 18 INCH TYPE I RCP STORM SEWER PIPE - L.F.	207.00	\$86.00	\$17,802.00
50404.0 - 21 INCH TYPE I RCP STORM SEWER PIPE - L.F.	225.00	\$93.00	\$20,925.00
50405.0 - 24 INCH TYPE I RCP STORM SEWER PIPE - L.F.	500.00	\$100.00	\$50,000.00
50419.0 - 19 INCH X 30 INCH TYPE I HERCP STORM SEWER PIPE - L.F.	316.00	\$126.00	\$39,816.00
50420.0 - 24 INCH X 38 INCH TYPE I HERCP STORM SEWER PIPE - L.F.	327.00	\$143.00	\$46,761.00
50455.0 - BEND - EACH	1.00	\$1,090.00	\$1,090.00
50499.0 - CONCRETE COLLAR - EACH	1.00	\$570.00	\$570.00
50723.0 - 3'X3' STORM SAS - EACH	14.00	\$3,330.00	\$46,620.00
50724.0 - 4'X4' STORM SAS - EACH	2.00	\$4,865.00	\$9,730.00
50725.0 - 5'X5' STORM SAS - EACH	3.00	\$5,095.00	\$15,285.00
50726.0 - 6'X6' STORM SAS - EACH	1.00	\$7,250.00	\$7,250.00
50792.0 - STORM SEWER TAP - EACH	6.00	\$1,035.00	\$6,210.00
50801.0 - UTILITY LINE OPENING (ULO) - EACH	13.00	\$575.00	\$7,475.00
70041.0 - RELOCATE HYDRANT (UNDISTRIBUTED) - EACH	1.00	\$3,000.00	\$3,000.00
70101.0 - FURNISH AND INSTALL STYROFOAM - L.F.	400.00	\$15.00	\$6,000.00
90030.0 - 3'X6' STORM SAS - EACH	4.00	\$5,220.00	\$20,880.00
90031.0 - RELOCATE WATER LATERAL SERVICE (UNDISTRIBUTED) - EACH	20.00	\$1,100.00	\$22,000.00
90032.0 - RELOCATE WATER MAIN (UNDISTRIBUTED) - EACH	5.00	\$4,400.00	\$22,000.00
21110.0 - TERRACE RAIN GARDEN - S.F.	750.00	\$21.00	\$15,750.00
20218.0 - CRUSHED STONE (UNDISTRIBUTED) - TON	500.00	\$19.25	\$9,625.00

HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT DISTRICT - 2021

CONTRACT NO. 8569

DATE: 6/10/21

R. G. Huston Co., Inc.

Item	Quantity	Price	Extension
20311.0 - REMOVE SEWER ACCESS STRUCTURE (SANITARY) - EACH	13.00	\$395.00	\$5,135.00
20314.0 - REMOVE PIPE (SANITARY) - L.F.	2091.00	\$31.00	\$64,821.00
20335.0 - ABANDON SEWER PIPE WITH SLURRY - C.Y.	0.40	\$8,800.00	\$3,520.00
20501.0 - ADJUST SEWER ACCESS STRUCTURE - EACH	3.00	\$320.00	\$960.00
50103.0 - RECONSTRUCT BENCH AND FLOWLINE(S) - EACH	2.00	\$1,100.00	\$2,200.00
50202.0 - TYPE II DEWATERING (SANITARY) - LUMP SUM	1.00	\$100.00	\$100.00
50212.0 - SELECT BACKFILL SANITARY SEWER - T.F.	5325.00	\$0.01	\$53.25
50225.0 - UTILITY TRENCH PATCH TYPE III - T.F.	22.00	\$146.00	\$3,212.00
50301.0 - 8" PVC SEWER PIPE (SDR 35) - L.F.	1966.00	\$130.00	\$255,580.00
50321.0 - 8" PVC PRESSURE SANITARY SEWER PIPE - L.F.	700.00	\$173.00	\$121,100.00
50353.0 - SANITARY SEWER LATERAL - L.F.	2000.00	\$35.00	\$70,000.00
50355.0 - SANITARY SEWER LATERAL - PRESSURE PIPE - L.F.	659.00	\$38.00	\$25,042.00
50356.0 - RECONNECT - EACH	75.00	\$2,400.00	\$180,000.00
50357.0 - RECONNECT - PRESSURE PIPE - EACH	26.00	\$2,560.00	\$66,560.00
50361.0 - WASTEWATER CONTROL - LUMP SUM	1.00	\$20,800.00	\$20,800.00
50390.0 - SEWER ELECTRONIC MARKERS - EACH	219.00	\$37.00	\$8,103.00
50701.0 - 4' DIA SAS - EACH	14.00	\$2,980.00	\$41,720.00
50771.0 - INTERNAL CHIMNEY SEAL - EACH	9.00	\$520.00	\$4,680.00
50791.0 - SANITARY SEWER TAP - EACH	6.00	\$1,650.00	\$9,900.00
50797.0 - EXTERNAL SEWER ACCESS STRUCTURE JOINT SEAL - EACH	14.00	\$240.00	\$3,360.00
90040.0 - EXCAVATION AND HAULING OF CONTAMINATED SOIL (UNDISTRIBUTED) - TON	100.00	\$30.00	\$3,000.00
60222.0 - FURNISH & INSTALL 3 INCH PVC (SCHEDULE 80) CONDUIT - L.F.	250.00	\$11.52	\$2,880.00
60224.0 - FURNISH & INSTALL 3 INCH PVC (SCHEDULE 40) CONDUIT - L.F.	10.00	\$6.92	\$69.20
60232.0 - FURNISH & INSTALL 2 INCH PVC (SCHEDULE 40) CONDUIT - L.F.	50.00	\$5.15	\$257.50
60261.0 - ELECTRICAL TRENCH - L.F.	440.00	\$6.77	\$2,978.80
60411.0 - CONSTRUCT TYPE "G" BASE - EACH	2.00	\$792.93	\$1,585.86
60702.0 - CONSTRUCT ELECTRICAL HANDHOLE TYPE 1 - EACH	4.00	\$959.60	\$3,838.40
60706.0 - CONSTRUCT ELECTRICAL HANDHOLE TYPE 5 - EACH	1.00	\$1,252.53	\$1,252.53
60230.0 - FURNISH & INSTALL 2 INCH PVC (SCHEDULE 80) CONDUIT - LF	60.00	\$5.81	\$348.60
60232.0 - FURNISH & INSTALL 2 INCH PVC (SCHEDULE 40) CONDUIT - LF	20.00	\$5.15	\$103.00
60234.0 - FURNISH & INSTALL 1 1/4 INCH PVC (SCHEDULE 40) CONDUIT - LF	100.00	\$3.89	\$389.00
60403.0 - CONSTRUCT LB-3 BASE - EACH	1.00	\$964.65	\$964.65
60421.0 - REMOVE STREET LIGHT BASE - EACH	1.00	\$360.00	\$360.00
60427.0 - REMOVE ELECTRICAL HANDHOLE - EACH	1.00	\$303.03	\$303.03
121 Items	Totals		\$2,687,000.00



Department of Public Works
Engineering Division
Robert F. Phillips, P.E., City Engineer
City-County Building, Room 115
210 Martin Luther King, Jr. Boulevard
Madison, Wisconsin 53703
Phone: (608) 266-4751
Fax: (608) 264-9275
engineering@cityofmadison.com
www.cityofmadison.com/engineering

Deputy City Engineer
Gregory T. Fries, P.E.

Deputy Division Manager
Kathleen M. Cryan

Principal Engineer 2
Christopher J. Petykowski, P.E.
John S. Fahrney, P.E.

Principal Engineer 1
Christina M. Bachmann, P.E.
Mark D. Moder, P.E.
Janet Schmidt, P.E.
James M. Wolfe, P.E.

Facilities & Sustainability
Bryan Cooper, Principal Architect

Mapping Section Manager
Eric T. Pederson, P.S.

Financial Manager
Steven B. Danner-Rivers

BIENNIAL BID BOND

R. G. Huston Co., Inc.

(a corporation of the State of Wisconsin)
(individual), (partnership), (hereinafter referred to as the "Principal") and
Travelers Casualty and Surety Company of America

a corporation of the State of Connecticut (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, Wisconsin (hereinafter referred to as the "City"), in the sum equal to the individual proposal guaranty amounts of the total bid or bids of the Principal herein accepted by the City, for the payment of which the Principal and the Surety hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of this obligation is that the Principal has submitted to the City certain bids for projects from the time period of February 1, 2020 through January 31, 2022.

If the Principal is awarded the contract(s) by the City and, within the time and manner required by law after the prescribed forms are presented for its signature, the Principal enters into (a) written contract(s) in accordance with the bid(s), and files with the City its bond(s) guaranteeing faithful performance and payment for all labor and materials, as required by law, or if the City rejects all bids for the work described, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

In the event the Principal shall fail to execute and deliver the contract(s) or the performance and payment bond(s), all within the time specified or any extension thereof, the Principal and Surety agree jointly and severally to pay to the City within ten (10) calendar days of written demand a total equal to the sum of the individual proposal guaranty amounts of the total bid(s) as liquidated damages.

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

This bond may be terminated by the Surety upon giving thirty (30) days written notice to the City of its intent to terminate this bond and to be released and discharged therefrom, but such termination shall not operate to relieve or discharge the Surety from any liability already accrued or which shall accrue before the expiration of such thirty (30) day period.

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

R. G. Huston Co., Inc.
COMPANY NAME

January 6, 2020

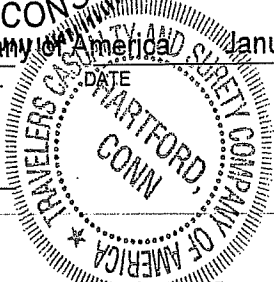
By: [Signature]
SIGNATURE AND TITLE



SURETY

Travelers Casualty and Surety Company of America
COMPANY NAME AFFIX SEAL DATE January 2, 2020

By: [Signature]
SIGNATURE AND TITLE



Dennis M. Barton, Attorney-in-Fact

This certifies that I have been duly licensed as an agent for the Surety in Wisconsin under National Provider No. 283633 for the year 2020 and appointed as attorney in fact with authority to execute this bid bond, which power of attorney has not been revoked.

January 2, 2020
DATE

[Signature]
AGENT SIGNATURE

20975 Swenson Drive - Suite 175
ADDRESS

Waukesha, Wisconsin 53186
CITY, STATE AND ZIP CODE

262-317-8044
TELEPHONE NUMBER

Note to Surety and Principal: Any bid submitted which this bond guarantees may be rejected if the Power of Attorney form showing that the Agent of Surety is currently authorized to execute bonds on behalf of Surety is not attached to this bond.



Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **DENNIS M BARTON** of **MILWAUKEE**

Wisconsin, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **3rd** day of **February**, 2017.



State of Connecticut

City of Hartford ss.

By:
 Robert L. Raney, Senior Vice President

On this the **3rd** day of **February**, 2017, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, 2021



Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **2nd** day of **January**, 2020



Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.

SECTION H: AGREEMENT

THIS AGREEMENT made this 7th day of July in the year Two Thousand and Twenty-One between R. G. HUSTON CO., INC. 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 JULY 6, 2021, 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:

HELENA STREET, JENIFER STREET, AND RUSSELL-STREET ASSESSMENT DISTRICT - 2021 CONTRACT NO. 8569

2. **Completion Date/Contract Time.** Construction work must begin within seven (7) calendar days after the date appearing on mailed written notice to do so shall have been sent to the Contractor and shall be carried on at a rate so as to secure full completion SEE SPECIAL PROVISIONS, the rate of progress and the time of completion being essential conditions of this Agreement.
3. **Contract Price.** The City shall pay to the Contractor at the times, in the manner and on the conditions set forth in said specifications, the sum of TWO MILLION SIX HUNDRED EIGHTY-SEVEN THOUSAND AND NO/100 (\$2,687,000.00) Dollars being the amount bid by such Contractor and which was awarded to him/her as provided by law.
4. **Affirmative Action.** In the performance of the services under this Agreement the Contractor agrees not to discriminate against any employee or applicant because of race, religion, marital status, age, color, sex, disability, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, gender identity, political beliefs, or student status. The Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this contract because of race, religion, color, age, disability, sex, sexual orientation, gender identity or national origin.

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

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

The Contractor further agrees that, for at least twelve (12) months after the effective date of this contract, it will notify the City Affirmative Action Division of each of its job openings at facilities in Dane County for which applicants not already employees of the Contractor are to be considered.

The notice will include a job description, classification, qualifications and application procedures and deadlines. The Contractor agrees to interview and consider candidates referred by the Affirmative Action Division if the candidate meets the minimum qualification standards established by the Contractor, and if the referral is timely. A referral is timely if it is received by the Contractor on or before the date started in the notice.

Articles of Agreement
Article I

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

Article II

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

Article III

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

Article V

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

Article VI

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

Article VII

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

1. Cancel, terminate or suspend this Contract in whole or in part.
2. Declare the Contractor ineligible for further City contracts until the Affirmative Action requirements are met.
3. Recover on behalf of the City from the prime Contractor 0.5 percent of the contract award price for each week that such party fails or refuses to comply, in the nature of liquidated damages, but not to exceed a total of five percent (5%) of the contract price, or ten thousand dollars (\$10,000), 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.)

5. **Substance Abuse Prevention Program Required.** Prior to commencing work on the Contract, the Contractor, and any Subcontractor, shall have in place a written program for the prevention of substance abuse among its employees as required under Wis. Stat. Sec. 103.503.
6. **Contractor Hiring Practices.**

Ban the Box - Arrest and Criminal Background Checks. (Sec. 39.08, MGO)

This provision applies to all prime contractors on contracts entered into on or after January 1, 2016, and all subcontractors who are required to meet prequalification requirements under MGO 33.07(7)(l), MGO as of the first time they seek or renew pre-qualification status on or after January 1, 2016. The City will monitor compliance of subcontractors through the pre-qualification process.

- a. **Definitions.** For purposes of this section, "Arrest and Conviction Record" includes, but is not limited to, information indicating that a person has been questioned, apprehended, taken into custody or detention, held for investigation, arrested, charged with, indicted or tried for any felony, misdemeanor or other offense pursuant to any law enforcement or military authority.

"Conviction record" includes, but is not limited to, information indicating that a person has been convicted of a felony, misdemeanor or other offense, placed on probation, fined, imprisoned or paroled pursuant to any law enforcement or military authority.

"Background Check" means the process of checking an applicant's arrest and conviction record, through any means.

- b. **Requirements.** For the duration of this Contract, the Contractor shall:

1. Remove from all job application forms any questions, check boxes, or other inquiries regarding an applicant's arrest and conviction record, as defined herein.
2. Refrain from asking an applicant in any manner about their arrest or conviction record until after conditional offer of employment is made to the applicant in question.
3. Refrain from conducting a formal or informal background check or making any other inquiry using any privately or publicly available means of obtaining the arrest or conviction record of an applicant until after a conditional offer of employment is made to the applicant in question.
4. Make information about this ordinance available to applicants and existing employees, and post notices in prominent locations at the workplace with information about the ordinance and complaint procedure using language provided by the City.
5. Comply with all other provisions of Sec. 39.08, MGO.

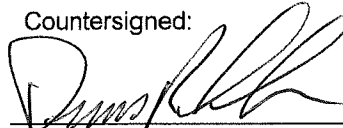
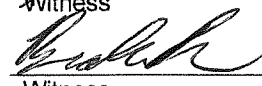
c. Exemptions: This section shall not apply when:

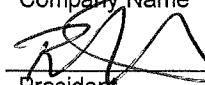

1. Hiring for a position where certain convictions or violations are a bar to employment in that position under applicable law, or
2. Hiring a position for which information about criminal or arrest record, or a background check is required by law to be performed at a time or in a manner that would otherwise be prohibited by this ordinance, including a licensed trade or profession where the licensing authority explicitly authorizes or requires the inquiry in question.

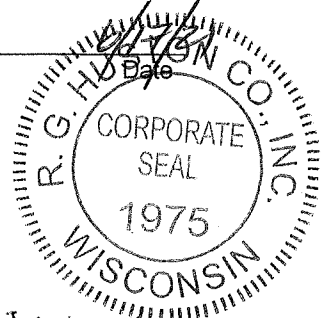
To be exempt, Contractor has the burden of demonstrating that there is an applicable law or regulation that requires the hiring practice in question, if so, the contractor is exempt from all of the requirements of this ordinance for the position(s) in question.

**HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT
DISTRICT - 2021
CONTRACT NO. 8569**

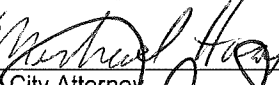


IN WITNESS WHEREOF, the Contractor has hereunto set his/her hand and seal and the City has caused this contract to be sealed with its corporate seal and to be executed by its Mayor and City Clerk on the dates written below.

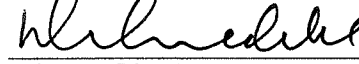
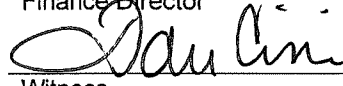
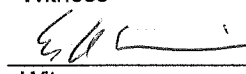
Countersigned:

 Witness _____ Date 6/17/21

 Witness _____ Date 6/17/21

R. G. HUSTON CO., INC.
 Company Name _____

 President _____ Date 6/17/21

 Secretary _____ Date 6/17/21



CITY OF MADISON, WISCONSIN
 Provisions have been made to pay the liability that will accrue under this contract.

Approved as to form:

 City Attorney _____ Date 7-20-2021

 Mayor _____ Date 7/27/21

 City Clerk _____ Date 7/14/21


 Finance Director _____ Date 7.16.2021

 Witness _____ Date 4/27/21

 Witness _____ Date 7.14.21

SECTION I: PAYMENT AND PERFORMANCE BOND

LET ALL KNOW BY THESE DOCUMENTS PRESENTED, that we R. G. HUSTON CO., INC. as principal, and Travelers Casualty and Surety Company of America Company of Hartford, Connecticut as surety, are held and firmly bound unto the City of Madison, Wisconsin, in the sum of TWO MILLION SIX HUNDRED EIGHTY-SEVEN THOUSAND AND NO/100 (\$2,687,000.00) 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:

**HELENA STREET, JENIFER STREET, AND RUSSELL STREET ASSESSMENT
DISTRICT - 2021
CONTRACT NO. 8569**

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 7th day of July, 2021

Countersigned:

[Signature]

R. G. HUSTON CO., INC.
Company Name (Principal)

[Signature]
President

Witness

[Signature]

Secretary

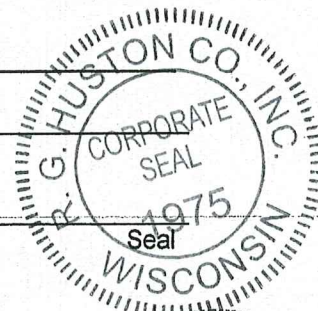
Approved as to form:

Michael Haas
City Attorney

Travelers Casualty and Surety Company of America

Surety
 Salary Employee Commission

By [Signature]
Attorney-in-Fact Todd Looker



This certifies that I have been duly licensed as an agent for the above company in Wisconsin under National Producer Number 6497947 for the year 2021, and appointed as attorney-in-fact with authority to execute this payment and performance bond which power of attorney has not been revoked.

July 7, 2021

Date

[Signature]
Agent Signature Todd Looker



**Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company**

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Todd Looker** of **MILWAUKEE Wisconsin**, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.
IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **3rd** day of **February**, 2017.



State of Connecticut

City of Hartford ss.

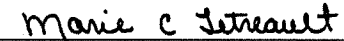
By: 
Robert L. Raney, Senior Vice President

On this the **3rd** day of **February**, 2017, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, 2021




Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

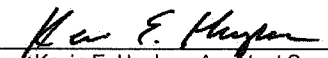
FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **7th** day of **July**, 2021




Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.**