PUBLIC IMPROVEMENT REQUEST FOR PROPOSAL

RFP# 26-12

INGALLS KINGSLEY WATER MAIN PROJECT

City of Ann Arbor

ENGINEERING UNIT/PUBLIC SERVICES AREA

Due Date: February 26, 2026 by 2:00 p.m. (local time)

Issued By:

City of Ann Arbor
Procurement Unit
301 E. Huron Street
Ann Arbor, MI 48104

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General Decision Number: MI20260001 01/02/2026

SECTION I - GENERAL INFORMATION

A. OBJECTIVE

The purpose of this Request for Proposal (RFP) is to select a firm to provide construction services for the Ingalls Kinglsey Water Main Project

B. BID SECURITY

Each bid must be accompanied by a certified check or Bid Bond by a surety licensed and authorized to do business within the State of Michigan, in the amount of 5% of the total of the bid price.

Proposals that fail to provide a bid security upon proposal opening will be deemed non-responsive and will not be considered for award.

C. QUESTIONS AND CLARIFICATIONS / DESIGNATED CITY CONTACTS

All questions regarding this Request for Proposal (RFP) shall be submitted via e-mail. Questions will be accepted and answered in accordance with the terms and conditions of this RFP.

All questions shall be submitted on or before February 13, 2026 at 5:00 p.m. (local time), and should be addressed as follows:

Scope of Work/Proposal Content questions shall be e-mailed to Igor Kotlyar, Project Manager, ikotlyar@a2gov.org

RFP Process and Compliance questions shall be e-mailed to Colin Spencer, Buyer - CSpencer@a2gov.org

Should any prospective bidder be in doubt as to the true meaning of any portion of this RFP, or should the prospective bidder find any ambiguity, inconsistency, or omission therein, the prospective bidder shall make a written request for an official interpretation or correction by the due date for questions above.

All interpretations, corrections, or additions to this RFP will be made only as an official addendum that will be posted to a2gov.org and MITN.info and it shall be the prospective bidder's responsibility to ensure they have received all addenda before submitting a proposal. Any addendum issued by the City shall become part of the RFP, and must be incorporated in the proposal where applicable.

D. PRE-PROPOSAL MEETING

A pre-proposal conference for this project will be held on **Wednesday, February 11, 2026 at 11:00am at Ann Arbor City Hall, 4th Floor Conference Room, located at 301 East Huron**

Street, Ann Arbor, Michigan 48107. A virtual meeting option is available and a link to the meeting can be received by emailing Igor Kotlyar, Project Manager, at ikotlyar@a2gov.org.

Attendance at this conference is highly recommended. Administrative and technical questions regarding this project will be answered at this time. The pre-proposal conference is for information only. Any answers furnished will not be official until verified in writing by the Financial Service Area, Procurement Unit. Answers that change or substantially clarify the proposal will be affirmed in an addendum.

E. PROPOSAL FORMAT

To be considered, each firm must submit a response to this RFP using the format provided in Section III. No other distribution of proposals is to be made by the prospective bidder. An official authorized to bind the bidder to its provisions must sign the proposal. Each proposal must remain valid for at least one hundred and twenty (120) days from the due date of this RFP.

Proposals should be prepared simply and economically providing a straightforward, concise description of the bidder's ability to meet the requirements of the RFP. No erasures are permitted. Mistakes may be crossed out and corrected and must be initialed in ink by the person signing the proposal.

F. SELECTION CRITERIA

Responses to this RFP will be evaluated using a point system as shown in Section III. A selection committee comprised primarily of staff from the City will complete the evaluation.

If interviews are desired by the City, the selected firms will be given the opportunity to discuss their proposal, qualifications, past experience, and their fee proposal in more detail. The City further reserves the right to interview the key personnel assigned by the selected bidder to this project.

All proposals submitted may be subject to clarifications and further negotiation. All agreements resulting from negotiations that differ from what is represented within the RFP or in the proposal response shall be documented and included as part of the final contract.

G. SEALED PROPOSAL SUBMISSION

All proposals are due and must be delivered to the City on or before February 26, 2026 by 2:00 p.m. (local time). Proposals submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile **will not** be considered or accepted.

Each respondent should submit in a sealed envelope

- **one (1) original proposal**
- **one (1) additional proposal copy**
- **one (1) digital copy of the proposal preferably on a USB/flash drive as one file in PDF format**

Proposals submitted should be clearly marked: **"RFP No. 26-12 – Ingalls Kinglsey Water Main Project"** and list the bidder's name and address.

Proposals must be addressed and delivered to:
City of Ann Arbor
c/o Customer Service
301 East Huron Street
Ann Arbor, MI 48107

All proposals received on or before the due date and time will be publicly opened and recorded on the due date. No immediate decisions will be rendered.

Hand delivered proposals may be dropped off in the Purchasing drop box located in the Ann Street (north) vestibule/entrance of City Hall which is open to the public Monday through Friday from 8am to 5pm (except holidays). The City will not be liable to any prospective bidder for any unforeseen circumstances, delivery, or postal delays. Postmarking on the due date will not substitute for receipt of the proposal.

Bidders are responsible for submission of their proposal. Additional time will not be granted to a single prospective bidder. However, additional time may be granted to all prospective bidders at the discretion of the City.

A proposal may be disqualified if the following required forms are not included with the proposal:

- **Attachment B – General Declarations**
- **Attachment D - Prevailing Wage Declaration of Compliance**
- **Attachment E - Living Wage Declaration of Compliance**
- **Attachment G - Vendor Conflict of Interest Disclosure Form**
- **Attachment H - Non-Discrimination Declaration of Compliance**

Proposals that fail to provide these forms listed above upon proposal opening may be deemed non-responsive and may not be considered for award.

H. DISCLOSURES

Under the Freedom of Information Act (Public Act 442), the City is obligated to permit review of its files, if requested by others. All information in a proposal is subject to disclosure under this provision. This act also provides for a complete disclosure of contracts and attachments thereto.

I. TYPE OF CONTRACT

A sample of the Construction Agreement is included as Attachment A. Those who wish to submit a proposal to the City are required to review this sample agreement carefully. **The City will not entertain changes to its Construction Agreement.**

For all construction work, the respondent must further adhere to the City of Ann Arbor General Conditions. The General Conditions are included herein. Retainage will be held as necessary based on individual tasks and not on the total contract value. The Contractor shall provide the required bonds included in the Contract Documents for the duration of the Contract.

The City reserves the right to award the total proposal, to reject any or all proposals in whole or in part, and to waive any informality or technical defects if, in the City's sole judgment, the best interests of the City will be so served.

This RFP and the selected bidder's response thereto, shall constitute the basis of the scope of services in the contract by reference.

J. NONDISCRIMINATION

All bidders proposing to do business with the City shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the Section 9:158 of the Ann Arbor City Code. Breach of the obligation not to discriminate as outlined in Attachment G shall be a material breach of the contract. Contractors are required to post a copy of Ann Arbor's Non-Discrimination Ordinance attached at all work locations where its employees provide services under a contract with the City.

K. WAGE REQUIREMENTS

The Attachments provided herein outline the requirements for payment of prevailing wages or of a "living wage" to employees providing service to the City under this contract. The successful bidder must comply with all applicable requirements and provide documentary proof of compliance when requested.

Pursuant to Resolution R-16-469 all public improvement contractors are subject to prevailing wage and will be required to provide to the City payroll records sufficient to demonstrate compliance with the prevailing wage requirements. Use of Michigan Department of Transportation Prevailing Wage Forms (sample attached hereto) or a City-approved equivalent will be required along with wage rate interviews.

For laborers whose wage level are subject to federal, state and/or local prevailing wage law the appropriate Davis-Bacon wage rate classification is identified based upon the work including within this contract. **The wage determination(s) current on the date 10 days before proposals are due shall apply to this contract.** The U.S.

Department of Labor (DOL) has provided explanations to assist with classification in the following resource link: www.sam.gov.

For the purposes of this RFP the Construction Type of Heavy and Highway will apply.

L. CONFLICT OF INTEREST DISCLOSURE

The City of Ann Arbor Purchasing Policy requires that the consultant complete a Conflict of Interest Disclosure form. A contract may not be awarded to the selected bidder unless and until the Procurement Unit and the City Administrator have reviewed the Disclosure form and determined that no conflict exists under applicable federal, state, or local law or administrative regulation. Not every relationship or situation disclosed on the Disclosure Form may be a disqualifying conflict. Depending on applicable law and regulations, some contracts may awarded on the recommendation of the City Administrator after full disclosure, where such action is allowed by law, if demonstrated competitive pricing exists and/or it is determined the award is in the best interest of the City. A copy of the Conflict of Interest Disclosure Form is attached.

M. COST LIABILITY

The City of Ann Arbor assumes no responsibility or liability for costs incurred by the bidder prior to the execution of an Agreement. The liability of the City is limited to the terms and conditions outlined in the Agreement. By submitting a proposal, bidder agrees to bear all costs incurred or related to the preparation, submission, and selection process for the proposal.

N. DEBARMENT

Submission of a proposal in response to this RFP is certification that the Respondent is not currently debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also agreement that the City will be notified of any changes in this status.

O. PROPOSAL PROTEST

All proposal protests must be in writing and filed with the Purchasing Manager within five (5) business days of any notices of intent, including, but not exclusively, divisions on prequalification of bidders, shortlisting of bidders, or a notice of intent to award. Only bidders who responded to the solicitation may file a bid protest. The bidder must clearly state the reasons for the protest. If any bidder contacts a City Service Area/Unit and indicates a desire to protest an award, the Service Area/Unit shall refer the bidder to the Purchasing Manager. The Purchasing Manager will provide the bidder with the appropriate instructions for filing the protest. The protest shall be reviewed by the City Administrator or designee, whose decision shall be final.

Any inquiries or requests regarding this procurement should be only submitted in writing to the Designated City Contacts provided herein. Attempts by the bidder to initiate contact with anyone other than the Designated City Contacts provided herein that the bidder believes can influence the procurement decision, e.g., Elected Officials, City Administrator, Selection Committee Members, Appointed Committee Members, etc., may lead to immediate elimination from further consideration.

P. SCHEDULE

The following is the schedule for this RFP process.

Activity/Event	Anticipated Date
Pre-Proposal Conference	February 11, 2026, 11:00 a.m. (Local Time)
Written Question Deadline	February 13, 2026, 5:00 p.m. (Local Time)
Addenda Published (if needed)	Week of February 16, 2026
Proposal Due Date	February 26, 2026, 2:00 p.m. (Local Time)
Selection/Negotiations	February/March 2026
Expected City Council Authorizations	April 2026

The above schedule is for information purposes only and is subject to change at the City's discretion.

Q. IRS FORM W-9

The selected bidder will be required to provide the City of Ann Arbor an IRS form W-9.

R. RESERVATION OF RIGHTS

1. The City reserves the right in its sole and absolute discretion to accept or reject any or all proposals, or alternative proposals, in whole or in part, with or without cause.
2. The City reserves the right to waive, or not waive, informalities or irregularities in terms or conditions of any proposal if determined by the City to be in its best interest.
3. The City reserves the right to request additional information from any or all bidders.
4. The City reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested within RFP.
5. The City reserves the right to determine whether the scope of the project will be entirely as described in the RFP, a portion of the scope, or a revised scope be implemented.
6. The City reserves the right to select one or more contractors or service providers to perform services.
7. The City reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a

proposal indicates acceptance by the firm of the conditions contained in this RFP, unless clearly and specifically noted in the proposal submitted.

8. The City reserves the right to disqualify proposals that fail to respond to any requirements outlined in the RFP, or failure to enclose copies of the required documents outlined within the RFP.

S. IDLEFREE ORDINANCE

The City of Ann Arbor adopted an idling reduction Ordinance that went into effect July 1, 2017. The full text of the ordinance (including exemptions) can be found at: www.a2gov.org/idlefree.

Under the ordinance, No Operator of a Commercial Vehicle shall cause or permit the Commercial Vehicle to Idle:

(a) For any period of time while the Commercial Vehicle is unoccupied; or

(b) For more than 5 minutes in any 60-minute period while the Commercial Vehicle is occupied.

In addition, generators and other internal combustion engines are covered

(1) Excluding Motor Vehicle engines, no internal combustion engine shall be operated except when it is providing power or electrical energy to equipment or a tool that is actively in use.

T. ENVIRONMENTAL COMMITMENT

The City of Ann Arbor recognizes its responsibility to minimize negative impacts on human health and the environment while supporting a vibrant community and economy. The City further recognizes that the products and services the City buys have inherent environmental and economic impacts and that the City should make procurement decisions that embody, promote and encourage the City's commitment to the environment.

The City strongly encourages potential vendors to bring forward tested, emerging, innovative, and environmentally preferable products and services that are best suited to the City's environmental principles. This includes products and services such as those with lower greenhouse gas emissions, high recycled content, without toxic substances, those with high reusability or recyclability, those that reduce the consumption of virgin materials, and those with low energy intensity.

As part of its environmental commitment, the City reserves the right to award a contract to the most responsive and responsible bidder, which includes bids that bring forward products or services that help advance the City's environmental commitment. In addition, the City reserves the right to request that all vendors report their annual greenhouse gas emissions, energy consumption, miles traveled, or other relevant criteria in order to help the City more fully understand the environmental impact of its procurement decisions.

U. MAJOR SUBCONTRACTORS

The Bidder shall identify each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over $50,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor. The Bidder shall not change or replace a subcontractor without approval by the City.

V. LIQUIDATED DAMAGES

A liquidated damages clause, as given on page C-2, Article III of the Contract, provides that the Contractor shall pay the City as liquidated damages, and not as a penalty, a sum certain per day for each and every day that the Contractor may be in default of completion of the specified work, within the time(s) stated in the Contract, or written extensions.

Liquidated damages clauses, as given in the General Conditions, provide further that the City shall be entitled to impose and recover liquidated damages for breach of the obligations under Chapter 112 of the City Code.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

SECTION II - SCOPE OF WORK

Please see the plan set for more details.

SECTION III - MINIMUM INFORMATION REQUIRED

PROPOSAL FORMAT

The following describes the elements that should be included in each of the proposal sections and the weighted point system that will be used for evaluation of the proposals.

Bidders should organize Proposals into the following Sections:

A. Qualifications, Experience and Accountability
B. Workplace Safety
C. Workforce Development
D. Social Equity and Sustainability
E. Schedule of Pricing/Cost
F. Authorized Negotiator
G. Attachments

Bidders are strongly encouraged to provided details for all of the information requested below within initial proposals. Backup documentation may be requested at the sole discretion of the City to validate all of the responses provided herein by bidders. False statements by bidders to any of the criteria provided herein will result in the proposal being considered non-responsive and will not be considered for award.

Pursuant to Sec 1:324.5 of the City Code which sets forth requirements for evaluating public improvement bids, Bidders should submit the following:

A. Qualifications, Experience and Accountability - 20 Points

1. Qualifications and experience of the bidder and of key persons, management, and supervisory personnel to be assigned by the bidder.

2. References from individuals or entities the bidder has worked for within the last five (5) years including information regarding records of performance and job site cooperation.

3. A statement from the bidder as to any major subcontractors it expects to engage including the name, work, and amount.

B. Workplace Safety – 20 Points

1. Provide evidence of a bidder's safety program (link to information on bidder's publicly available web-site preferred) and evidence of a safety-training program for employees addressing potential hazards of the proposed job site. Bidders must

identify a designated qualified safety representative responsible for bidder's safety program who serves as a contact for safety related matters.

2. Provide the bidder's Experience Modification Rating ("EMR") for the last three consecutive years. Preference within this criterion will be given to an EMR of 1.0 or less based on a three-year average.

3. Evidence that all craft labor that will be employed by the bidder for the project has, or will have prior to project commencement, completed at least an authorized 10-hour OSHA Construction Safety Course.

4. For the last three years provide a copy of any documented violations and the bidder's corrective actions as a result of inspections conducted by the Michigan Occupational Safety & Health Administration (MIOSHA), U.S. Department of Labor – Occupational Safety and Health Administration (OSHA), or any other applicable safety agency.

C. Workforce Development – 20 Points

1. Documentation as to bidder's pay rates, health insurance, pension or other retirement benefits, paid leave, or other fringe benefits to its employees.

2.. Documentation that the bidder participates in a Registered Apprenticeship Program that is registered with the United States Department of Labor Office of Apprenticeship or by a State Apprenticeship Agency recognized by the USDOL Office of Apprenticeship. USDOL apprenticeship agreements shall be disclosed to the City in the solicitation response.

3. Bidders shall disclose the number of non-craft employees who will work on the project on a 1099 basis, and the bidders shall be awarded points based on their relative reliance on 1099 work arrangements with more points assigned to companies with fewer 1099 arrangements. Bidders will acknowledge that the City may ask them to produce payroll records at points during the project to verify compliance with this section.

D. Social Equity and Sustainability – 20 Points

1. A statement from the bidder as to what percentage of its workforce resides in the City of Ann Arbor and in Washtenaw County, Michigan. The City will consider in evaluating which bids best serve its interests, the extent to which responsible and qualified bidders employ individuals in either the city of the county. The Washtenaw County jurisdiction is prioritized for evaluation purposes for this solicitation.

2. Evidence of Equal Employment Opportunity Programs for minorities, women, veterans, returning citizens, and small businesses.

3. Evidence that the bidder is an equal opportunity employer and does not discriminate on the basis of race, sex, pregnancy, age, religion, national origin, marital status, sexual orientation, gender identity or expression, height, weight, or disability.

4. The bidder's environmental record, including findings of violations and penalties imposed by government agencies.

E. Schedule of Pricing/Cost – 20 Points

Company:

Project: Ingalls Kingsley Water Main project

File #: 2025-012 **RFP #: 26-12**

ITEM NUMBER	LEGEND	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
	General				
01000.00	General Conditions, Max. $ 150,000	LS	1	$	$
01001.00	Project Supervision, Max. $ 100,000	LS	1	$	$
01002.00	Project Clean-Up and Restoration	LS	1	$	$
01003.00	Digital Audio Visual Coverage	LS	1	$	$
01021.00	Erosion Control, Inlet Protection, Fabric Drop	Ea	50	$	$
01030.00	Tree Protection Fence	Ft	2,000	$	$
01040.00	Minor Traffic Control, Max. $ 50,000	LS	1	$	$
01041.00	Traffic Regulator Control	LS	1	$	$
01050.00	Sign, Type B, Temp, Prismatic, Furn & Oper	Sft	1,500	$	$
01051.00	Sign, Type B, Temp, Prismatic, Special, Furn & Oper	Sft	200	$	$
01052.00	Temporary "No Parking" Sign	Ea	60	$	$
01070.00	Sign, Portable, Changeable Message, Furn & Oper	Ea	4	$	$
01080.00	Plastic Drum, High Intensity, Lighted, Furn & Oper	Ea	60	$	$
01081.00	Channelizer Cone, High Intensity, 42 In., Furn & Oper	Ea	100	$	$
01091.00	Barricade, Type III, High Intensity, Lighted, Furn & Oper	Ea	50	$	$
01100.00	Pedestrian Type II Barricade, Temp, Furn & Oper	Ea	30	$	$
01101.00	Pedestrian Channelizer Device, Furn & Oper	Ea	50	$	$
01102.00	Temporary Pedestrian Ramp, Furn & Oper	Ea	10	$	$
01103.00	Temporary Pedestrian Mat, Furn & Oper	Ft	150	$	$
	Removals				
02000.01	Tree, Rem, 6 In. - 12 In.	Ea	3	$	$
02020.00	HMA, Any Thickness, Rem	Syd	12,000	$	$
02025.00	Concrete Pavt, Any Thickness, Rem	Syd	650	$	$
02030.00	Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	2,250	$	$
02040.00	Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Sft	5,300	$	$
	Earthwork				
03001.00	Machine Grading, Kingsley-Ingalls	Syd	13,000	$	$
03022.00	Subgrade Undercutting, Type III	Cyd	100	$	$
03030.01	Exploratory Excavation, SD-TD-1, (0-10' Deep)	Ea	10	$	$
	Sanitary Sewer				
04014.01	6 In., SDR 26 PVC Sanitary Service Lead, SD-TD-2	Ft	100	$	$
04060.00	Sanitary Structure Cover	Ea	17	$	$
04061.00	Sanitary Structure Cover, Adjust	Ea	17	$	$
	Sewer and Manhole Rehab				
	Storm and Drainage				
06000.01	12 In., CL IV RCP Storm Sewer, SD-TD-1	Ft	1,024	$	$
06050.01	Storm Manhole, 48 In. Dia. (0-8' deep)	Ea	4	$	$
06060.01	Storm Inlet-Junction, 36 In. Dia., (0-8' deep)	Ea	1	$	$
06060.02	Storm Inlet-Junction, 36 In. Dia., Additional Depth	Ft	0	$	$
06070.01	Storm Single Inlet, 24 In. Dia., (0-8' deep)	Ea	21	$	$
06070.02	Storm Single Inlet, 24 In. Dia., Additional Depth	Ft	2	$	$
06080.01	Storm High Capacity Inlet, 48 In. Dia., (0-8' deep)	Ea	8	$	$
06080.02	Storm High Capacity Inlet, 48 In. Dia., Additional Depth	Ft	0	$	$
06100.01	Storm Manhole Over Existing ("Doghouse"), 48 In. Dia.	Ea	4	$	$
06110.03	Storm Sewer Pipe, 12 In. Dia., Abandon	Ft	500	$	$
06120.03	Storm Sewer Pipe, 12 In. Dia., Rem	Ft	400	$	$
06130.00	Storm Sewer Structure, Abandon	Ea	1	$	$
06140.00	Storm Sewer Structure, Rem	Ea	13	$	$
06150.00	Storm Sewer Drop Structure, Rem	Ea	16	$	$
06160.01	Storm Structure Cover	Ea	10	$	$
06160.02	Storm Structure Cover, Adjust	Ea	10	$	$
06181.02	Underdrain, Subbase, 6 In.	Ft	1,200	$	$
	TOTAL THIS PAGE (BF-1)				$

E. Schedule of Pricing/Cost – 20 Points

Company:

Project: Ingalls Kingsley Water Main project

File #: 2025-012 **RFP #: 26-12**

ITEM NUMBER	LEGEND	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
	Water Mains				
07000.01	4 In., PC 350 DIP w/polywrap, SD-TD-1	Ft	13	$	$
07000.02	6 In., PC 350 DIP w/polywrap, SD-TD-1	Ft	121	$	$
07000.03	8 In., PC 350 DIP w/polywrap, SD-TD-1	Ft	214	$	$
07000.05	12 In., PC 350 DIP w/polywrap, SD-TD-1	Ft	3,450	$	$
07010.03	6 In. 22.5° DIP Bend	Ea	2	$	$
07011.02	8 In. 45° DIP Bend	Ea	4	$	$
07011.03	8 In. 22.5° DIP Bend	Ea	4	$	$
07011.04	8 In. 11.25° DIP Bend	Ea	1	$	$
07013.02	12 In. 45° DIP Bend	Ea	33	$	$
07013.03	12 In. 22.5° DIP Bend	Ea	12	$	$
07013.04	12 In. 11.25° DIP Bend	Ea	3	$	$
07020.02	8 In. X 4 In. DIP Reducer	Ea	1	$	$
07020.03	8 In. X 6 In. DIP Reducer	Ea	8	$	$
07020.07	12 In. X 4 In. DIP Reducer	Ea	2	$	$
07020.08	12 In. X 6 In. DIP Reducer	Ea	8	$	$
07020.09	12 In. X 8 In. DIP Reducer	Ea	2	$	$
07030.06	8 In. X 8 In. X 8 In. DIP Tee	Ea	3	$	$
07030.11	12 In. X 12 In. X 4 In. DIP Tee	Ea	1	$	$
07030.13	12 In. X 12 In. X 8 In. DIP Tee	Ea	6	$	$
07030.15	12 In. X 12 In. X 12 In. DIP Tee	Ea	9	$	$
07050.70	Gate Valve in Box, 4 In.	Ea	1	$	$
07050.04	Gate Valve in Box, 12 In.	Ea	1	$	$
07060.01	Gate Valve in Well, 6 In.	Ea	1	$	$
07060.02	Gate Valve in Well, 8 In.	Ea	3	$	$
07060.04	Gate Valve in Well, 12 In.	Ea	13	$	$
07080.00	Excavate & Backfill For Water Service Tap and Lead	Ft	950	$	$
07090.00	Water Structure Cover	Ea	2	$	$
07091.00	Water Structure Cover, Adjust	Ea	2	$	$
07100.00	Fire Hydrant Assembly, Complete	Ea	6	$	$
07101.00	Fire Hydrant, Extension	Ft	2	$	$
07102.00	Fire Hydrant Assembly, Rem	Ea	6	$	$
07110.01	Sacrificial Anode, 17-pound	Ea	10	$	$
07110.02	Sacrificial Anode, 32-pound	Ea	6	$	$
07120.00	Gate Box, Adjust	Ea	1	$	$
07121.00	Curb Box, Adjust	Ea	20	$	$
07130.01	Temporary Water Main Line Stop, 8 In. or less	Ea	12	$	$
07131.00	Temporary Water Main Line Stop, Additional Rental Day	Ea	10	$	$
07140.01	Water Main Pipe, 4 In. Dia., Abandon	Ft	484	$	$
07140.02	Water Main Pipe, 6 In. Dia., Abandon	Ft	3,120	$	$
07140.03	Water Main Pipe, 8 In. Dia., Abandon	Ft	38	$	$
07160.01	Gate Valve in Box, 4 In. Dia., Abandon	Ea	3	$	$
07160.02	Gate Valve in Box, 6 In. Dia., Abandon	Ea	10	$	$
07170.01	Gate Valve in Box, 4 In. Dia., Rem	Ea	3	$	$
07170.02	Gate Valve in Box, 6 In. Dia., Rem	Ea	2	$	$
07170.05	Gate Valve in Box, 12 In. Dia., Rem	Ea	1	$	$
07190.02	Gate Valve in Well, 6 In. Dia., Rem	Ea	4	$	$
	Streets, Driveways, & Sidewalks				
08000.00	Subbase, CIP	Cyd	200	$	$
08010.02	Aggregate Base, 6 In., 21AA, CIP	Syd	250	$	$
08010.03	Aggregate Base, 8 In., 21AA, CIP	Syd	12,500	$	$
08010.70	DS_Aggregate Base Conditioning	Syd	6,000	$	$
08070.14	HMA, 4EL	Ton	2,650	$	$
08071.00	HMA Approach	Ton	10	$	$
08100.03	Conc Pavt With Integral Curb, Non-Reinf, 8 In.	Syd	571	$	$
08110.00	Conc, Curb or Curb & Gutter, All Types	Ft	2,250	$	$
08120.03	Conc, Driveway Opening, Type M, High Early	Ft	400	$	$
	TOTAL THIS PAGE (BF-2)				$

E. Schedule of Pricing/Cost – 20 Points

Company:

Project: Ingalls Kingsley Water Main project

File #: 2025-012 **RFP #: 26-12**

ITEM NUMBER	LEGEND	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
	Streets, Driveways, & Sidewalks (Continued)				
08131.01	Conc, Sidewalk, Drive Approach, or Ramp, 6 In.	Sft	3,336	$	$
08132.01	Conc, Sidewalk, Drive Approach, or Ramp, 6 In., High Early	Sft	1,284	$	$
08140.00	Brick Pavers, Sidewalk, Rem and Reinstall	Sft	5,136	$	$
08150.00	Detectable Warning Surface	Ft	170	$	$
08190.02	Pavt Mrkg, Polymer Cement Surface, Bike, Small Sym	Ea	4	$	$
08190.03	Pavt Mrkg, Polymer Cement Surface, Bike Thru Arrow Sym	Ea	4	$	$
08190.06	Pavt Mrkg, Polymer Cement Surface, Bike Lane Green	Sft	733	$	$
08190.71	DS_Pavt Mrkg, Polymer Cement Surface, 6 In., Dotted, White	Ft	83	$	$
08190.72	DS_Pavt Mrkg, Polymer Cement Surface, 24 inch, Stop Bar	Ft	10	$	$
08200.05	Pavt Mrkg, Polyurea, 12 In., Cross Hatching, White	Ft	9	$	$
08200.07	Pavt Mrkg, Polyurea, 12 In., Crosswalk	Ft	1,335	$	$
08200.09	Pavt Mrkg, Polyurea, 24 In., Stop Bar	Ft	181	$	$
08200.13	Pavt Mrkg, Polyurea, 6 In., White	Ft	143	$	$
08200.14	Pavt Mrkg, Polyurea, 6 In., Yellow	Ft	4,546	$	$
08251.00	Recessing Pavt Mrkg, Longit	Ft	4,546	$	$
08252.00	Recessing Pavt Mrkg, Transv	Sft	3,045	$	$
08300.00	Monument Box, Adjust	Ea	9	$	$
	Lighting and Electrical				
09011.01	Conduit, Schedule 80 PVC, 2 In., Qty 2	Ft	500	$	$
09030.01	Handhole Assembly, 17 In. X 30 In. x 18 In.	Ea	6	$	$
	Landscaping				
10051.00	Irrigation System, Protection and Preserving	LS	1	$	$
10060.00	Turf Restoration	Syd	952	$	$

TOTAL THIS PAGE (BF-3)	$
TOTAL FROM PAGE BF-1	$
TOTAL FROM PAGE BF-2	$
TOTAL BASE BID	$

F. AUTHORIZED NEGOTIATOR / NEGOTIATIBLE ELEMENTS (ALTERNATES)

Include the name, phone number, and e-mail address of persons(s) in your organization authorized to negotiate the agreement with the City.

The proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the bidder wishes to quote alternate items for consideration by the City, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

If the Bidder takes exception to the time stipulated in Article III of the Contract, Time of Completion, page C-2, it is requested to stipulate its proposed time for performance of the work.

Consideration for any proposed alternative items or time may be negotiated at the discretion of the City.

G. ATTACHMENTS

General Declaration, Legal Status of Bidder, Conflict of Interest Form, Living Wage Compliance Form, Prevailing Wage Compliance Form and the Non-Discrimination Form should be completed and returned with the proposal. These elements should be included as attachments to the proposal submission.

PROPOSAL EVALUATION

1. The selection committee will evaluate each proposal by the above-described criteria and point system. The City reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested for evaluation. A proposal with all the requested information does not guarantee the proposing firm to be a candidate for an interview if interviews are selected to be held by the City. The committee may contact references to verify material submitted by the bidder.

2. The committee then will schedule interviews with the selected firms if necessary. The selected firms will be given the opportunity to discuss in more detail their qualifications, past experience, proposed work plan (if applicable) and pricing.

3. The interview should include the project team members expected to work on the project, but no more than six members total. The interview shall consist of a presentation of up to thirty minutes (or the length provided by the committee) by the

bidder, including the person who will be the project manager on this contract, followed by approximately thirty minutes of questions and answers. Audiovisual aids may be used during the oral interviews. The committee may record the oral interviews.

4. The firms interviewed will then be re-evaluated by the above criteria and adjustments to scoring will be made as appropriate. After evaluation of the proposals, further negotiation with the selected firm may be pursued leading to the award of a contract by City Council, if suitable proposals are received.

The City reserves the right to waive the interview process and evaluate the bidder based on their proposal and pricing schedules alone.

The City will determine whether the final scope of the project to be negotiated will be entirely as described in this RFP, a portion of the scope, or a revised scope.

Work to be done under this contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents.

Any proposal that does not conform fully to these instructions may be rejected.

PREPARATION OF PROPOSALS

Proposals should have no plastic bindings but will not be rejected as non-responsive for being bound. Staples or binder clips are acceptable. Proposals should be printed double sided on recycled paper.

Each person signing the proposal certifies that they are a person in the bidder's firm/organization responsible for the decisions regarding the fees being offered in the Proposal and has not and will not participate in any action contrary to the terms of this provision.

ADDENDA

If it becomes necessary to revise any part of the RFP, notice of the addendum will be posted to Michigan Inter-governmental Trade Network (MITN) www.mitn.info and/or the City of Ann Arbor web site www.A2gov.org for all parties to download.

Each bidder should acknowledge in its proposal all addenda it has received on the General Declarations form provided in the Attachments section herein. The failure of a bidder to receive or acknowledge receipt of any addenda shall not relieve the bidder of the responsibility for complying with the terms thereof. The City will not be bound by oral responses to inquiries or written responses other than official written addenda.

SECTION IV - ATTACHMENTS

Attachment A – Sample Standard Contract

Attachment B – General Declarations

Attachment C - Legal Status of Bidder

Attachment D – Prevailing Wage Declaration of Compliance Form

Attachment E – Living Wage Declaration of Compliance Form

Attachment F – Living Wage Ordinance Poster

Attachment G – Vendor Conflict of Interest Disclosure Form

Attachment H – Non-Discrimination Ordinance Declaration of Compliance Form

Attachment I – Non-Discrimination Ordinance Poster

Sample Certified Payroll Report Template

ATTACHMENT A
SAMPLE STANDARD CONTRACT

If a contract is awarded, the selected contractor will be required to adhere to a set of general contract provisions which will become a part of any formal agreement. These provisions are general principles which apply to all contractors of service to the City of Ann Arbor such as the following:

CONTRACT

THIS CONTRACT is between the CITY OF ANN ARBOR, a Michigan Municipal Corporation, 301 East Huron Street, Ann Arbor, Michigan 48104 ("City") and _____ _____("Contractor")

_____

(An individual/partnership/corporation, include state of incorporation) (Address)

Based upon the mutual promises below, the Contractor and the City agree as follows:

ARTICLE I - Scope of Work

The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the project titled **[Insert Title of Bid and Bid Number**] in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, all of which are incorporated as part of this Contract:

Non-discrimination and Living Wage Declaration of Compliance Forms (if applicable)
Vendor Conflict of Interest Form
Prevailing Wage Declaration of Compliance Form (if applicable)
Bid Forms
Contract and Exhibits
Bonds
General Conditions
Standard Specifications
Detailed Specifications
Plans
Addenda

ARTICLE II - Definitions

Administering Service Area/Unit means **[Insert Name of Administering Service Unit]**

Project means **[Insert Title of Bid and Bid Number]**

Supervising Professional means the person acting under the authorization of the manager of the Administering Service Area/Unit. At the time this Contract is executed, the Supervising Professional is: [**Insert the person's name**] whose job title is [**Insert job**

title]. If there is any question concerning who the Supervising Professional is, Contractor shall confirm with the manager of the Administering Service Area/Unit.

Contractor's Representative means _____ [**Insert name**] whose job title is [**Insert job title**].

ARTICLE III - Time of Completion

(A) The work to be completed under this Contract shall begin immediately on the date specified in the Notice to Proceed issued by the City.

(B) The entire work for this Contract shall be completed within _____ ( ) consecutive calendar days.

(C) Failure to complete all the work within the time specified above, including any extension granted in writing by the Supervising Professional, shall obligate the Contractor to pay the City, as liquidated damages and not as a penalty, an amount equal to $_____ for each calendar day of delay in the completion of all the work. If any liquidated damages are unpaid by the Contractor, the City shall be entitled to deduct these unpaid liquidated damages from the monies due the Contractor.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

ARTICLE IV - The Contract Sum

Choose one only.

(A) The City shall pay to the Contractor for the performance of the Contract, the lump sum price as given in the Bid Form in the amount of:

_____Dollars ($_____)

Or

(A) The City shall pay to the Contractor for the performance of the Contract, the unit prices as given in the Bid Form for the estimated bid total of:

_____Dollars ($_____)

(B) The amount paid shall be equitably adjusted to cover changes in the work ordered by the Supervising Professional but not required by the Contract Documents. Increases or decreases shall be determined only by written agreement between the City and Contractor.

ARTICLE V - Assignment

This Contract may not be assigned or subcontracted any portion of any right or obligation under this contract without the written consent of the City. Notwithstanding any consent by the City to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises and performances, however described, as are required of it under this contract unless specifically released from the requirement, in writing, by the City.

ARTICLE VI - Choice of Law

This Contract shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this Contract, the Contractor and the City agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this Contract. The parties stipulate that the venue referenced in this Contract is for convenience and waive any claim of non-convenience.

Whenever possible, each provision of the Contract will be interpreted in a manner as to be effective and valid under applicable law. The prohibition or invalidity, under applicable law, of any provision will not invalidate the remainder of the Contract.

ARTICLE VII - Relationship of the Parties

The parties of the Contract agree that it is not a Contract of employment but is a Contract to accomplish a specific result. Contractor is an independent Contractor performing services for the City. Nothing contained in this Contract shall be deemed to constitute any other relationship between the City and the Contractor.

Contractor certifies that it has no personal or financial interest in the project other than the compensation it is to receive under the Contract. Contractor certifies that it is not, and shall not become, overdue or in default to the City for any Contract, debt, or any other obligation to the City including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this Contract.

ARTICLE VIII - Notice

All notices given under this Contract shall be in writing, and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the Contract Documents or other address the Contractor may specify in writing. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; or (2) three days after mailing certified U.S. mail.

ARTICLE IX - Indemnification

To the fullest extent permitted by law, Contractor shall indemnify, defend and hold the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney's fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this Contract, by the Contractor or anyone acting on the Contractor's behalf under this Contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City's sole negligence. The provisions of this Article shall survive the expiration or earlier termination of this contract for any reason.

ARTICLE X - Entire Agreement

This Contract represents the entire understanding between the City and the Contractor and it supersedes all prior representations, negotiations, agreements, or understandings whether written or oral. Neither party has relied on any prior representations in entering into this Contract. No terms or conditions of either party's invoice, purchase order or other administrative document shall modify the terms and conditions of this Contract, regardless of the other party's failure to object to such form. This Contract shall be binding on and shall inure to the benefit of the parties to this Contract and their permitted successors and permitted assigns and nothing in this Contract, express or implied, is intended to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Contract. This Contract may be altered, amended or modified only by written amendment signed by the City and the Contractor.

ARTICLE XI – Electronic Transactions

The City and Contractor agree that signatures on this Contract may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this Contract. This Contract may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

[Signatures on next page]

[INSERT CONTRACTOR NAME HERE]

By: _____

Name: _____

Title: _____

Date: _____

CITY OF ANN ARBOR

By: _____

Name: Milton Dohoney Jr.

Title: City Administrator

Date: _____

Approved as to substance:

By: _____

Name: Jordan Roberts

Title: Public Services Area Administrator

Date: _____

Approved as to form:

By: _____

Name: Atleen Kaur

Title: City Attorney

Date: _____

(Signatures continue on following page)

CITY OF ANN ARBOR

By: _____

Name: _____

Title: Mayor

Date: _____

By: _____

Name: _____

Title: City Clerk

Date: _____

PERFORMANCE BOND

(1) _____ of _____ (referred to as "Principal"), and _____, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for $, the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.

(2) The Principal has entered a written Contract with the City entitled _____ _____, for RFP No. _____ and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq.

(3) Whenever the Principal is declared by the City to be in default under the Contract, the Surety may promptly remedy the default or shall promptly:
(a) complete the Contract in accordance with its terms and conditions; or
(b) obtain a bid or bids for submission to the City for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, arrange for a Contract between such bidder and the City, and make available, as work progresses, sufficient funds to pay the cost of completion less the balance of the Contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth in paragraph 1.

(4) Surety shall have no obligation to the City if the Principal fully and promptly performs under the Contract.

(5) Surety agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder, or the specifications accompanying it shall in any way affect its obligations on this bond, and waives notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work, or to the specifications.

(6) Principal, Surety, and the City agree that signatures on this bond may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this bond. This bond may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

SIGNED AND SEALED this _____ day of _____, 202_.

_____	_____
(Name of Surety Company)	(Name of Principal)
By _____	By _____
(Signature)	(Signature)
Its _____	Its _____
(Title of Office)	(Title of Office)
Approved as to form:	Name and address of agent:
_____	_____
Atleen Kaur, City Attorney	_____
	_____

LABOR AND MATERIAL BOND

(1) _____

of _____(referred to as "Principal"), and _____, a corporation duly authorized to do business in the State of Michigan, (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for the use and benefit of claimants as defined in Act 213 of Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq., in the amount of

$ _____, for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.

(2) The Principal has entered a written Contract with the Cityentitled _____

_____

_____

____, for RFP No. _____; and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963 as amended;

(3) If the Principal fails to promptly and fully repay claimants for labor and material reasonably required under the Contract, the Surety shall pay those claimants.

(4) Surety's obligations shall not exceed the amount stated in paragraph 1, and Surety shall have no obligation if the Principal promptly and fully pays the claimants.

(5) Principal, Surety, and the City agree that signatures on this bond may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this bond. This bond may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

SIGNED AND SEALED this _____ day of _____, 202_

_____	_____
(Name of Surety Company)	(Name of Principal)
By _____	By _____
(Signature)	(Signature)
Its _____	Its _____
(Title of Office)	(Title of Office)

Approved as to form:

Atleen Kaur, City Attorney

Name and address of agent:

GENERAL CONDITIONS

Section 1 - Execution, Correlation and Intent of Documents

The contract documents shall be signed in 2 copies by the City and the Contractor.

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed below in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

(1) Addenda in reverse chronological order; (2) Detailed Specifications; (3) Standard Specifications; (4) Plans; (5) General Conditions; (6) Contract; (7) Bid Forms; (8) Bond Forms; (9) Bid.

Section 2 - Order of Completion

The Contractor shall submit with each invoice, and at other times reasonably requested by the Supervising Professional, schedules showing the order in which the Contractor proposes to carry on the work. They shall include the dates at which the Contractor will start the several parts of the work, the estimated dates of completion of the several parts, and important milestones within the several parts.

Section 3 - Familiarity with Work

The Bidder or its representative shall make personal investigations of the site of the work and of existing structures and shall determine to its own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved, and all other factors affecting the work proposed under this Contract. The Bidder to whom this Contract is awarded will not be entitled to any additional compensation unless conditions are clearly different from those which could reasonably have been anticipated by a person making diligent and thorough investigation of the site.

The Bidder shall immediately notify the City upon discovery, and in every case prior to submitting its Bid, of every error or omission in the bidding documents that would be identified by a reasonably competent, diligent Bidder. In no case will a Bidder be allowed the benefit of extra compensation or time to complete the work under this Contract for extra expenses or time spent as a result of the error or omission.

Section 4 - Wage Requirements

Under this Contract, the Contractor shall conform to Chapter 14 of Title I of the Code of the City of Ann Arbor as amended; which in part states "...that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of

subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. At the request of the City, any contractor or subcontractor shall provide satisfactory proof of compliance with the contract provisions required by the Section.

Pursuant to Resolution R-16-469 all public improvement contractors are subject to prevailing wage and will be required to provide to the City payroll records sufficient to demonstrate compliance with the prevailing wage requirements. A sample Prevailing Wage Form is provided in the Appendix herein for reference as to what will be expected from contractors. Use of the Prevailing Wage Form provided in the Appendix section or a City-approved equivalent will be required along with wage rate interviews.

Where the Contract and the Ann Arbor City Ordinance are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used.

If the Contractor is a “covered employer” as defined in Chapter 23 of the Ann Arbor City Code, the Contractor agrees to comply with the living wage provisions of Chapter 23 of the Ann Arbor City Code. The Contractor agrees to pay those employees providing Services to the City under this Contract a “living wage,” as defined in Section 1:815 of the Ann Arbor City Code, as adjusted in accordance with Section 1:815(3); to post a notice approved by the City of the applicability of Chapter 23 in every location in which regular or contract employees providing services under this Contract are working; to maintain records of compliance; if requested by the City, to provide documentation to verify compliance; to take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee or person contracted for employment in order to pay the living wage required by Section 1:815; and otherwise to comply with the requirements of Chapter 23.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision covering subcontractor’s employees who perform work on this contract.

Section 5 - Non-Discrimination

The Contractor agrees to comply, and to require its subcontractor(s) to comply, with the nondiscrimination provisions of MCL 37.2209. The Contractor further agrees to comply with the provisions of Section 9:158 of Chapter 112 of Title IX of the Ann Arbor City Code, and to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity.

Section 6 - Materials, Appliances, Employees

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary or used for the execution and completion of the work. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of the highest quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among its employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned.

Adequate sanitary facilities shall be provided by the Contractor.

Section 7 - Qualifications for Employment

The Contractor shall employ competent laborers and mechanics for the work under this Contract. For work performed under this Contract, employment preference shall be given to qualified local residents.

Section 8 - Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringements of any patent rights and shall hold the City harmless from loss on account of infringement except that the City shall be responsible for all infringement loss when a particular process or the product of a particular manufacturer or manufacturers is specified, unless the City has notified the Contractor prior to the signing of the Contract that the particular process or product is patented or is believed to be patented.

Section 9 - Permits and Regulations

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work. These include but are not limited to City building permits, right-of-way permits, lane closure permits, right-of-way occupancy permits, and the like. The City shall secure and pay for easements shown on the plans unless otherwise specified.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the contract documents are at variance with those requirements, it shall promptly notify the Supervising Professional in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the work.

Section 10 - Protection of the Public and of Work and Property

The Contractor is responsible for the means, methods, sequences, techniques and procedures of construction and safety programs associated with the work contemplated by this contract. The Contractor, its agents or sub-contractors, shall comply with the "General Rules and Regulations for the Construction Industry" as published by the Construction Safety Commission of the State of Michigan and to all other local, State and National laws, ordinances, rules and regulations pertaining to safety of persons and property.

The Contractor shall take all necessary and reasonable precautions to protect the safety of the public. It shall continuously maintain adequate protection of all work from damage, and shall take all necessary and reasonable precautions to adequately protect all public and private property from injury or loss arising in connection with this Contract. It shall make good any damage, injury or loss to its work and to public and private property resulting from lack of reasonable protective precautions, except as may be due to errors in the contract documents, or caused by agents or

employees of the City. The Contractor shall obtain and maintain sufficient insurance to cover damage to any City property at the site by any cause.

In an emergency affecting the safety of life, or the work, or of adjoining property, the Contractor is, without special instructions or authorization from the Supervising Professional, permitted to act at its discretion to prevent the threatened loss or injury. It shall also so act, without appeal, if authorized or instructed by the Supervising Professional.

Any compensation claimed by the Contractor for emergency work shall be determined by agreement or in accordance with the terms of Claims for Extra Cost - Section 15.

Section 11 - Inspection of Work

The City shall provide sufficient competent personnel for the inspection of the work.

The Supervising Professional shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for access and for inspection.

If the specifications, the Supervising Professional's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Supervising Professional timely notice of its readiness for inspection, and if the inspection is by an authority other than the Supervising Professional, of the date fixed for the inspection. Inspections by the Supervising Professional shall be made promptly, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Supervising Professional, it must, if required by the Supervising Professional, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Supervising Professional, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to be in accordance with the contract documents, the City shall pay the cost of re-examination and replacement. If the work is not in accordance with the contract documents, the Contractor shall pay the cost.

Section 12 - Superintendence

The Contractor shall keep on the work site, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Supervising Professional. The superintendent will be responsible to perform all on-site project management for the Contractor. The superintendent shall be experienced in the work required for this Contract. The superintendent shall represent the Contractor and all direction given to the superintendent shall be binding as if given to the Contractor. Important directions shall immediately be confirmed in writing to the Contractor. Other directions will be confirmed on written request. The Contractor shall give efficient superintendence to the work, using its best skill and attention.

Section 13 - Changes in the Work

The City may make changes to the quantities of work within the general scope of the Contract at any time by a written order and without notice to the sureties. If the changes add to or deduct from the extent of the work, the Contract Sum shall be adjusted accordingly. All the changes shall be

executed under the conditions of the original Contract except that any claim for extension of time caused by the change shall be adjusted at the time of ordering the change.

In giving instructions, the Supervising Professional shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Supervising Professional, and no claim for an addition to the Contract Sum shall be valid unless the additional work was ordered in writing.

The Contractor shall proceed with the work as changed and the value of the work shall be determined as provided in Claims for Extra Cost - Section 15.

Section 14 - Extension of Time

Extension of time stipulated in the Contract for completion of the work will be made if and as the Supervising Professional may deem proper under any of the following circumstances:

(1) When work under an extra work order is added to the work under this Contract;

(2) When the work is suspended as provided in Section 20;

(3) When the work of the Contractor is delayed on account of conditions which could not have been foreseen, or which were beyond the control of the Contractor, and which were not the result of its fault or negligence;

(4) Delays in the progress of the work caused by any act or neglect of the City or of its employees or by other Contractors employed by the City;

(5) Delay due to an act of Government;

(6) Delay by the Supervising Professional in the furnishing of plans and necessary information;

(7) Other cause which in the opinion of the Supervising Professional entitles the Contractor to an extension of time.

The Contractor shall notify the Supervising Professional within 7 days of an occurrence or conditions which, in the Contractor's opinion, entitle it to an extension of time. The notice shall be in writing and submitted in ample time to permit full investigation and evaluation of the Contractor's claim. The Supervising Professional shall acknowledge receipt of the Contractor's notice within 7 days of its receipt. Failure to timely provide the written notice shall constitute a waiver by the Contractor of any claim.

In situations where an extension of time in contract completion is appropriate under this or any other section of the contract, the Contractor understands and agrees that the only available adjustment for events that cause any delays in contract completion shall be extension of the required time for contract completion and that there shall be no adjustments in the money due the Contractor on account of the delay.

Section 15 - Claims for Extra Cost

If the Contractor claims that any instructions by drawings or other media issued after the date of the Contract involved extra cost under this Contract, it shall give the Supervising Professional written notice within 7 days after the receipt of the instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property. The procedure shall then be as provided for Changes in the Work-Section l3. No claim shall be valid unless so made.

If the Supervising Professional orders, in writing, the performance of any work not covered by the contract documents, and for which no item of work is provided in the Contract, and for which no unit price or lump sum basis can be agreed upon, then the extra work shall be done on a Cost-Plus-Percentage basis of payment as follows:

(1) The Contractor shall be reimbursed for all reasonable costs incurred in doing the work, and shall receive an additional payment of 15% of all the reasonable costs to cover both its indirect overhead costs and profit;

(2) The term "Cost" shall cover all payroll charges for employees and supervision required under the specific order, together with all worker's compensation, Social Security, pension and retirement allowances and social insurance, or other regular payroll charges on same; the cost of all material and supplies required of either temporary or permanent character; rental of all power-driven equipment at agreed upon rates, together with cost of fuel and supply charges for the equipment; and any costs incurred by the Contractor as a direct result of executing the order, if approved by the Supervising Professional;

(3) If the extra is performed under subcontract, the subcontractor shall be allowed to compute its charges as described above. The Contractor shall be permitted to add an additional charge of 5% percent to that of the subcontractor for the Contractor's supervision and contractual responsibility;

(4) The quantities and items of work done each day shall be submitted to the Supervising Professional in a satisfactory form on the succeeding day, and shall be approved by the Supervising Professional and the Contractor or adjusted at once;

(5) Payments of all charges for work under this Section in any one month shall be made along with normal progress payments. Retainage shall be in accordance with Progress Payments-Section 16.

No additional compensation will be provided for additional equipment, materials, personnel, overtime or special charges required to perform the work within the time requirements of the Contract.

When extra work is required and no suitable price for machinery and equipment can be determined in accordance with this Section, the hourly rate paid shall be 1/40 of the basic weekly rate listed in the Rental Rate Blue Book published by Dataquest Incorporated and applicable to the time period the equipment was first used for the extra work. The hourly rate will be deemed to include all costs of operation such as bucket or blade, fuel, maintenance, "regional factors", insurance, taxes, and the like, but not the costs of the operator.

Section 16 - Progress Payments

The Contractor shall submit each month, or at longer intervals, if it so desires, an invoice covering work performed for which it believes payment, under the Contract terms, is due. The submission shall be to the City's Finance Department - Accounting Division. The Supervising Professional will, within 10 days following submission of the invoice, prepare a certificate for payment for the work in an amount to be determined by the Supervising Professional as fairly representing the acceptable work performed during the period covered by the Contractor's invoice. To insure the proper performance of this Contract, the City will retain a percentage of the estimate in accordance with Act 524, Public Acts of 1980. The City will then, following the receipt of the Supervising Professional's Certificate, make payment to the Contractor as soon as feasible, which is anticipated will be within 15 days.

An allowance may be made in progress payments if substantial quantities of permanent material have been delivered to the site but not incorporated in the completed work if the Contractor, in the opinion of the Supervising Professional, is diligently pursuing the work under this Contract. Such materials shall be properly stored and adequately protected. Allowance in the estimate shall be at the invoice price value of the items. Notwithstanding any payment of any allowance, all risk of loss due to vandalism or any damages to the stored materials remains with the Contractor.

In the case of Contracts which include only the Furnishing and Delivering of Equipment, the payments shall be; 60% of the Contract Sum upon the delivery of all equipment to be furnished, or in the case of delivery of a usable portion of the equipment in advance of the total equipment delivery, 60% of the estimated value of the portion of the equipment may be paid upon its delivery in advance of the time of the remainder of the equipment to be furnished; 30% of the Contract Sum upon completion of erection of all equipment furnished, but not later than 60 days after the date of delivery of all of the equipment to be furnished; and payment of the final 10% on final completion of erection, testing and acceptance of all the equipment to be furnished; but not later than l80 days after the date of delivery of all of the equipment to be furnished, unless testing has been completed and shows the equipment to be unacceptable.

With each invoice for periodic payment, the Contractor shall enclose a Contractor's Declaration - Section 43, and an updated project schedule per Order of Completion - Section 2.

Section 17 - Deductions for Uncorrected Work

If the Supervising Professional decides it is inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

Section 18 - Correction of Work Before Final Payment

The Contractor shall promptly remove from the premises all materials condemned by the Supervising Professional as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the City and shall bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement.

If the Contractor does not remove the condemned work and materials within l0 days after written notice, the City may remove them and, if the removed material has value, may store the material

at the expense of the Contractor. If the Contractor does not pay the expense of the removal within 10 days thereafter, the City may, upon 10 days written notice, sell the removed materials at auction or private sale and shall pay to the Contractor the net proceeds, after deducting all costs and expenses that should have been borne by the Contractor. If the removed material has no value, the Contractor must pay the City the expenses for disposal within 10 days of invoice for the disposal costs.

The inspection or lack of inspection of any material or work pertaining to this Contract shall not relieve the Contractor of its obligation to fulfill this Contract and defective work shall be made good. Unsuitable materials may be rejected by the Supervising Professional notwithstanding that the work and materials have been previously overlooked by the Supervising Professional and accepted or estimated for payment or paid for. If the work or any part shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good the defect in a manner satisfactory to the Supervising Professional. The judgment and the decision of the Supervising Professional as to whether the materials supplied and the work done under this Contract comply with the requirements of the Contract shall be conclusive and final.

Section 19 - Acceptance and Final Payment

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Supervising Professional will promptly make the inspection. When the Supervising Professional finds the work acceptable under the Contract and the Contract fully performed, the Supervising Professional will promptly sign and issue a final certificate stating that the work required by this Contract has been completed and is accepted by the City under the terms and conditions of the Contract. The entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 30 days after the date of the final certificate.

Before issuance of final certificates, the Contractor shall file with the City:

(1) The consent of the surety to payment of the final estimate;
(2) The Contractor's Affidavit in the form required by Section 44.

In case the Affidavit or consent is not furnished, the City may retain out of any amount due the Contractor, sums sufficient to cover all lienable claims.

The making and acceptance of the final payment shall constitute a waiver of all claims by the City except those arising from:

(1) unsettled liens;
(2) faulty work appearing within 12 months after final payment;
(3) hidden defects in meeting the requirements of the plans and specifications;
(4) manufacturer's guarantees.

It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

Section 20 - Suspension of Work

The City may at any time suspend the work, or any part by giving 5 days notice to the Contractor in writing. The work shall be resumed by the Contractor within 10 days after the date fixed in the

written notice from the City to the Contractor to do so. The City shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this Contract as a result of the suspension.

If the work, or any part, shall be stopped by the notice in writing, and if the City does not give notice in writing to the Contractor to resume work at a date within 90 days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work suspended and will be entitled to the estimates and payments for all work done on the portions abandoned, if any, plus 10% of the value of the work abandoned, to compensate for loss of overhead, plant expense, and anticipated profit.

Section 21 - Delays and the City's Right to Terminate Contract

If the Contractor refuses or fails to prosecute the work, or any separate part of it, with the diligence required to insure completion, ready for operation, within the allowable number of consecutive calendar days specified plus extensions, or fails to complete the work within the required time, the City may, by written notice to the Contractor, terminate its right to proceed with the work or any part of the work as to which there has been delay. After providing the notice the City may take over the work and prosecute it to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any excess cost to the City. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the work, any materials, appliances and plant as may be on the site of the work and useful for completing the work. The right of the Contractor to proceed shall not be terminated or the Contractor charged with liquidated damages where an extension of time is granted under Extension of Time - Section 14.

If the Contractor is adjudged a bankrupt, or if it makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of its insolvency, or if it persistently or repeatedly refuses or fails except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payments to subcontractors or for material or labor, or persistently disregards laws, ordinances or the instructions of the Supervising Professional, or otherwise is guilty of a substantial violation of any provision of the Contract, then the City, upon the certificate of the Supervising Professional that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor 3 days written notice, terminate this Contract. The City may then take possession of the premises and of all materials, tools and appliances thereon and without prejudice to any other remedy it may have, make good the deficiencies or finish the work by whatever method it may deem expedient, and deduct the cost from the payment due the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of finishing the work, including compensation for additional managerial and administrative services exceeds the unpaid balance of the Contract Sum, the Contractor and its surety are liable to the City for any excess cost incurred. The expense incurred by the City, and the damage incurred through the Contractor's default, shall be certified by the Supervising Professional.

Section 22 - Contractor's Right to Terminate Contract

If the work should be stopped under an order of any court, or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it, then the Contractor may, upon 7 days written notice to the City, terminate this Contract and recover from the City payment for all acceptable work executed plus reasonable profit.

Section 23 - City's Right To Do Work

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the City, 3 days after giving written notice to the Contractor and its surety may, without prejudice to any other remedy the City may have, make good the deficiencies and may deduct the cost from the payment due to the Contractor.

Section 24 - Removal of Equipment and Supplies

In case of termination of this Contract before completion, from any or no cause, the Contractor, if notified to do so by the City, shall promptly remove any part or all of its equipment and supplies from the property of the City, failing which the City shall have the right to remove the equipment and supplies at the expense of the Contractor.

The removed equipment and supplies may be stored by the City and, if all costs of removal and storage are not paid by the Contractor within 10 days of invoicing, the City upon 10 days written notice may sell the equipment and supplies at auction or private sale, and shall pay the Contractor the net proceeds after deducting all costs and expenses that should have been borne by the Contractor and after deducting all amounts claimed due by any lien holder of the equipment or supplies.

Section 25 - Responsibility for Work and Warranties

The Contractor assumes full responsibility for any and all materials and equipment used in the construction of the work and may not make claims against the City for damages to materials and equipment from any cause except negligence or willful act of the City. Until its final acceptance, the Contractor shall be responsible for damage to or destruction of the project (except for any part covered by Partial Completion and Acceptance - Section 26). The Contractor shall make good all work damaged or destroyed before acceptance. All risk of loss remains with the Contractor until final acceptance of the work (Section 19) or partial acceptance (Section 26). The Contractor is advised to investigate obtaining its own builders risk insurance.

The Contractor shall guarantee the quality of the work for a period of one year. The Contractor shall also unconditionally guarantee the quality of all equipment and materials that are furnished and installed under the contract for a period of one year. At the end of one year after the Contractor's receipt of final payment, the complete work, including equipment and materials furnished and installed under the contract, shall be inspected by the Contractor and the Supervising Professional. Any defects shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. Any defects that are identified prior to the end of one year shall also be inspected by the Contractor and the Supervising Professional and shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. The Contractor shall assign all manufacturer or material supplier warranties to the City prior to final payment. The assignment shall not relieve the Contractor of its obligations under this paragraph to correct defects.

Section 26 - Partial Completion and Acceptance

If at any time prior to the issuance of the final certificate referred to in Acceptance and Final Payment - Section 19, any portion of the permanent construction has been satisfactorily completed, and if the Supervising Professional determines that portion of the permanent construction is not required for the operations of the Contractor but is needed by the City, the Supervising Professional shall issue to the Contractor a certificate of partial completion, and immediately the City may take over and use the portion of the permanent construction described in the certificate, and exclude the Contractor from that portion.

The issuance of a certificate of partial completion shall not constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates if the Contractor has failed to complete it in accordance with the terms of this Contract. The issuance of the certificate shall not release the Contractor or its sureties from any obligations under this Contract including bonds.

If prior use increases the cost of, or delays the work, the Contractor shall be entitled to extra compensation, or extension of time, or both, as the Supervising Professional may determine.

Section 27 - Payments Withheld Prior to Final Acceptance of Work

The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to the extent reasonably appropriate to protect the City from loss on account of:

(1) Defective work not remedied;

(2) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor;

(3) Failure of the Contractor to make payments properly to subcontractors or for material or labor;

(4) Damage to another Contractor.

When the above grounds are removed or the Contractor provides a Surety Bond satisfactory to the City which will protect the City in the amount withheld, payment shall be made for amounts withheld under this section.

Section 28 - Contractor's Insurance

(1) The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself and the City from all claims for bodily injuries, death or property damage that may arise under this Contract; whether the act(s) or omission(s) giving rise to the claim were made by the Contractor, any subcontractor, or anyone employed by them directly or indirectly. Prior to commencement of any work under this contract, Contractor shall provide to the City documentation satisfactory to the City, through City-approved means (currently myCOI), demonstrating it has obtained the required policies and endorsements. The certificates of insurance endorsements and/or copies of

policy language shall document that the Contractor satisfies the following minimum requirements. Contractor shall add registration@mycoitracking.com to its safe sender's list so that it will receive necessary communication from myCOI. When requested, Contractor shall provide the same documentation for its subcontractor(s) (if any).

Required insurance policies include:

(a) Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:

Bodily Injury by Accident - $500,000 each accident
Bodily Injury by Disease - $500,000 each employee
Bodily Injury by Disease - $500,000 each policy limit

(b) Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 04 13 or current equivalent. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements specifically for the following coverages: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further there shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy. The following minimum limits of liability are required:

$1,000,000	Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined.
$2,000,000	Per Project General Aggregate
$1,000,000	Personal and Advertising Injury
$2,000,000	Products and Completed Operations Aggregate, which, notwithstanding anything to the contrary herein, shall be maintained for three years from the date the Project is completed.

(c) Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 10 13 or current equivalent. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy. Further, the limits of liability shall be $1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.

(d) Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of $1,000,000.

(2) Insurance required under subsection (1)(b) and (1)(c) above shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute

with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City for any insurance listed herein.

(3) Insurance companies and policy forms are subject to approval of the City Attorney, which approval shall not be unreasonably withheld. Documentation must provide and demonstrate an unconditional and un-qualified 30-day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number(s); name of insurance company(s); name and address of the agent(s) or authorized representative(s); name(s), email address(es), and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which may be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified Contractor shall furnish the City with satisfactory certificates of insurance and endorsements prior to commencement of any work. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) and all required endorsements to the City. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies and endorsements to the Administering Service Area/Unit at least ten days prior to the expiration date.

(4) Any Insurance provider of Contractor shall be authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-authorized insurance companies are not acceptable unless approved in writing by the City.

(5) City reserves the right to require additional coverage and/or coverage amounts as may be included from time to time in the Detailed Specifications for the Project.

(6) The provisions of General Condition 28 shall survive the expiration or earlier termination of this contract for any reason.

Section 29 - Surety Bonds

Bonds will be required from the successful bidder as follows:

(1) A Performance Bond to the City of Ann Arbor for the amount of the bid(s) accepted;
(2) A Labor and Material Bond to the City of Ann Arbor for the amount of the bid(s) accepted.

Bonds shall be executed on forms supplied by the City in a manner and by a Surety Company authorized to transact business in Michigan and satisfactory to the City Attorney.

Section 30 - Damage Claims

The Contractor shall be held responsible for all damages to property of the City or others, caused by or resulting from the negligence of the Contractor, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. The Contractor must restore all property injured including sidewalks, curbing, sodding, pipes, conduit, sewers or other public or private property to not less than its original condition with new work.

Section 31 - Refusal to Obey Instructions

If the Contractor refuses to obey the instructions of the Supervising Professional, the Supervising Professional shall withdraw inspection from the work, and no payments will be made for work performed thereafter nor may work be performed thereafter until the Supervising Professional shall have again authorized the work to proceed.

Section 32 - Assignment

Neither party to the Contract shall assign the Contract without the written consent of the other. The Contractor may assign any monies due to it to a third party acceptable to the City.

Section 33 - Rights of Various Interests

Whenever work being done by the City's forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Supervising Professional, to secure the completion of the various portions of the work in general harmony.

The Contractor is responsible to coordinate all aspects of the work, including coordination of, and with, utility companies and other contractors whose work impacts this project.

Section 34 - Subcontracts

The Contractor shall not award any work to any subcontractor without prior written approval of the City. The approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the subcontractor. The statement shall contain all information the City may require.

The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and all other contract documents applicable to the work of the subcontractors and to give the Contractor the same power to terminate any subcontract that the City may exercise over the Contractor under any provision of the contract documents.

Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the City.

Section 35 - Supervising Professional's Status

The Supervising Professional has the right to inspect any or all work. The Supervising Professional has authority to stop the work whenever stoppage may be appropriate to insure the proper execution of the Contract. The Supervising Professional has the authority to reject all work and materials which do not conform to the Contract and to decide questions which arise in the execution of the work.

The Supervising Professional shall make all measurements and determinations of quantities. Those measurements and determinations are final and conclusive between the parties.

Section 36 - Supervising Professional's Decisions

The Supervising Professional shall, within a reasonable time after their presentation to the Supervising Professional, make decisions in writing on all claims of the City or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents.

Section 37 - Storing Materials and Supplies

Materials and supplies may be stored at the site of the work at locations agreeable to the City unless specific exception is listed elsewhere in these documents. Ample way for foot traffic and drainage must be provided, and gutters must, at all times, be kept free from obstruction. Traffic on streets shall be interfered with as little as possible. The Contractor may not enter or occupy with agents, employees, tools, or material any private property without first obtaining written permission from its owner. A copy of the permission shall be furnished to the Supervising Professional.

Section 38 - Lands for Work

The Contractor shall provide, at its own expense and without liability to the City, any additional land and access that may be required for temporary construction facilities or for storage of materials.

Section 39 - Cleaning Up

The Contractor shall, as directed by the Supervising Professional, remove at its own expense from the City's property and from all public and private property all temporary structures, rubbish and waste materials resulting from its operations unless otherwise specifically approved, in writing, by the Supervising Professional.

Section 40 - Salvage

The Supervising Professional may designate for salvage any materials from existing structures or underground services. Materials so designated remain City property and shall be transported or stored at a location as the Supervising Professional may direct.

Section 41 - Night, Saturday or Sunday Work

No night or Sunday work (without prior written City approval) will be permitted except in the case of an emergency and then only to the extent absolutely necessary. The City may allow night work which, in the opinion of the Supervising Professional, can be satisfactorily performed at night. Night work is any work between 8:00 p.m. and 7:00 a.m. No Saturday work will be permitted unless the Contractor gives the Supervising Professional at least 48 hours but not more than 5 days notice of the Contractor's intention to work the upcoming Saturday.

Section 42 - Sales Taxes

Under State law the City is exempt from the assessment of State Sales Tax on its direct purchases. Contractors who acquire materials, equipment, supplies, etc. for incorporation in City projects are not likewise exempt. State Law shall prevail. The Bidder shall familiarize itself with the State Law and prepare its Bid accordingly. No extra payment will be allowed under this Contract for failure of the Contractor to make proper allowance in this bid for taxes it must pay.

Section 43

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period _____, 20___, to _____, 20 , performed any work, furnished any materials, sustained any loss, damage or delay, or otherwise done anything in addition to the regular items (or executed change orders) set forth in the Contract titled _____, for which I shall ask, demand, sue for, or claim compensation or extension of time from the City, except as I hereby make claim for additional compensation or extension of time as set forth on the attached itemized statement. I further declare that I have paid all payroll obligations related to this Contract that have become due during the above period and that all invoices related to this Contract received more than 30 days prior to this declaration have been paid in full except as listed below.

There is/is not (Contractor please circle one and strike one as appropriate) an itemized statement attached regarding a request for additional compensation or extension of time.

_____ _____
Contractor Date

By _____
(Signature)

Its _____
(Title of Office)

Past due invoices, if any, are listed below.

Section 44

CONTRACTOR'S AFFIDAVIT

The undersigned Contractor,_____, represents that on _____, 20___, it was awarded a contract by the City of Ann Arbor, Michigan to_____ under the terms and conditions of a Contract titled _____. The Contractor represents that all work has now been accomplished and the Contract is complete.

The Contractor warrants and certifies that all of its indebtedness arising by reason of the Contract has been fully paid or satisfactorily secured; and that all claims from subcontractors and others for labor and material used in accomplishing the project, as well as all other claims arising from the performance of the Contract, have been fully paid or satisfactorily settled. The Contractor agrees that, if any claim should hereafter arise, it shall assume responsibility for it immediately upon request to do so by the City of Ann Arbor.

The Contractor, for valuable consideration received, does further waive, release and relinquish any and all claims or right of lien which the Contractor now has or may acquire upon the subject premises for labor and material used in the project owned by the City of Ann Arbor.

This affidavit is freely and voluntarily given with full knowledge of the facts.

_____ _____
Contractor Date

By _____
(Signature)

Its _____
(Title of Office)

Subscribed and sworn to before me, on this _____ day of _____, 20__
_____ , _____ County, Michigan
Notary Public
_____ County, MI
My commission expires on:

STANDARD SPECIFICATIONS

All work under this contract shall be performed in accordance with the Public Services Department Standard Specifications in effect at the date of availability of the contract documents stipulated in the Bid. All work under this Contract which is not included in these Standard Specifications, or which is performed using modifications to these Standard Specifications, shall be performed in accordance with the Detailed Specifications included in these contract documents.

Standard Specifications are available online:

http://www.a2gov.org/departments/engineering/Pages/Engineering-and-Contractor-Resources.aspx

DETAILED SPECIFICATIONS

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
PROJECT SCHEDULE AND PAYMENT

Complete the entirety of work under this Contract in accordance with, and subject to, the scheduling requirements outlined below, and all other requirements of the Contract Documents.

1. The Engineer anticipates that construction can begin on or after **May 1, 2026**, and only upon receipt of the fully executed Contract and Notice to Proceed. Appropriate time extensions may be granted if the Notice to Proceed is delayed beyond this date.

2. This project requires water main, storm sewer improvements, concrete curb and gutter, concrete curb ramps and sidewalk, aggregate base, hot mix asphalt (HMA) paving, turf establishment, and pavement markings on E. Kingsley Street between Detroit St. and N. Ingalls St. and N. Ingalls Street between E. Kingsley St. and E. Huron St. The entire project must be completed no later than **October 15, 2026**.

3. The work shall be sequenced to minimize the impact on residents and traffic.

   a. Phase 1 of the Ingalls Kingsley Water Main project is the complete water main and storm sewer installation, road construction (including pavement markings) and restoration on E. Kingsley Street between Detroit St. and N. State St.

   b. Phase 2 of the Ingalls Kingsley Water Main project is the complete work in the E. Kingsley Street between N. State St. and N. Ingalls St. and N. Ingalls Street between E. Kingsley St. and Catherine St. including water main and storm sewer installation. road construction (including pavement markings) and restoration.

   c. Phase 3 of the Ingalls Kingsley Water Main project is the complete water main installation, stormwater improvements, road construction (including pavement markings) and restoration on N. Ingalls Street between Catherin St. and E. Huron St.

Each new phase of work is to begin after the previous phase substantially completed and open to vehicular and pedestrian traffic, unless approved by the Engineer. Substantial completion includes all items except landscaping restoration and maintenance. This phasing of work shall form the basis for bidding of the project. The Contractor may submit an alternative project phasing for Owner review that adheres to the general requirements previously identified.

The City expects to furnish the Contractor with two (2) copies of the Contract, for its execution, on or before **March 5, 2026**. The Contractor shall properly execute both copies of the Contract and return them, with the required Bonds and Insurance documentation, to the City by **March 12, 2026**. City Council approval to award a contract for this project is expected on **April 20, 2026**. The Contractor shall not begin the work before the applicable date(s) as described herein without approval from the Project Engineer, and in no case before the receipt of the fully executed Contract and Notice to Proceed.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
PROJECT SCHEDULE AND PAYMENT

Time is of the essence in the performance of the work of this contract. The Contractor is expected to mobilize sufficient personnel and equipment and work throughout all authorized hours to complete the project by the final completion date. Should the Contractor demonstrate that they must work on some Sundays in order to maintain the project schedule, they may do so between the hours of 9:00 a.m. and 5:00 p.m. with prior approval from the City. There will be no additional compensation due to the Contractor for work performed on Sundays.

Prior to the start of any construction, the Contractor shall submit a detailed schedule of work for the Engineer's review and approval. Work shall not be started until a schedule is approved in writing by the Engineer. The proposed schedule must fully comply with the scheduling requirements contained in this Detailed Specification. The Contractor shall update the approved work schedule upon request by the Engineer and present it to the Engineer within seven days of said request.

The Contractor shall organize, coordinate, and diligently execute the work at the locations shown on the plans and as described below. For this Contract, the “Start of Work” definition is the date when the detour signs become effective, and all required temporary traffic control and SESC measures are in place and ready for use. The Engineer will consider individual streets or phases ready for opening to traffic once all concrete work is complete, utility structures covers are raised to finished grade and placement of the HMA top course is complete. Within 10 days of opening the street to traffic the Contractor will complete all work, which includes, but is not limited to, minor slope restoration, clean-up, street cleaning, utility structure cleaning, the removal of all temporary traffic control and SESC devices and detour signs, and other necessary work and as directed by the Engineer. Failure to complete work in a timely manner may result in the suspension of active project work or a delay in starting subsequently planned project work.

Failure to open to traffic or complete all work as specified within the time specified, including time extensions granted thereto as determined by the Engineer, will entitle the City to deduct from the payments due the Contractor, **$1,500.00** in Liquidated Damages, and not as a penalty, for delays in the completion of the work for each calendar day the work remains incomplete.

Assessment of Liquidated Damages will occur until the required work is complete in the current construction season. If, with the Engineer’s approval, work extends beyond the seasonal suspension period (November 15 through April 15), the City will not assess Liquidated Damages until the Contractor resumes and completes the work in the following construction season.

The following workday, hour and other work restrictions are imposed by the City of Ann Arbor.

Contractor operations shall be limited by local municipality work time, noise, and dust ordinance:

- Monday through Friday: 7:00 am – 8:00 p.m.
- Saturday: 7:00 a.m.– 8:00 p.m.; Give notice to Engineer no less than 48 hours and no more than 5 days in advance.
- Sunday: Only with written approval from the City of Ann Arbor

Perform no work during the following Holiday periods unless approved in advance by the Engineer:

- Memorial Day - 3:00 p.m. Friday, May 22, 2026, through 7:00 a.m. Tuesday, May 26, 2026.
- Juneteenth - 3:00 p.m. Wednesday, June 18, 2026, through 7:00 a.m. Monday, June 22, 2026.
- Independence Day - 3:00 p.m. Thursday, July 2, 2026, through 7:00 a.m. Monday, July 6, 2026.
- Labor Day - 3:00 p.m. Friday, September 4, 2026, through 7:00 a.m. Tuesday, September 8, 2026

Perform no work during the following scheduled University of Michigan home football game dates unless approved in advance by the Engineer:

- September 7, 2026
- September 12, 2026
- September 19, 2026
- Other home games TBA

Working in the Rain

The Contractor shall not work in the rain unless authorized in writing by the Engineer. The Engineer may delay or stop the work due to threatening weather conditions.

The Contractor shall not be compensated for unused materials or downtime due to rain, or the threat of rain.

The Contractor is solely responsible for repairing all damages to the work and to the site, including road infrastructures, road subgrades, and any adjacent properties, which are caused as a result of working in the rain.

Working in the Dark

The Contractor shall not work in the dark except as approved by the Engineer and only when lighting for night work is provided as detailed elsewhere in this contract.

The Engineer may stop the work or may require the Contractor to defer certain work to another day if, in the Engineer's opinion, the work cannot be completed within the remaining daylight hours or if inadequate daylight is present to either properly perform or inspect the work.

The Contractor will not be compensated for unused materials or downtime when delays or work stoppages are directed by the Engineer for darkness and/or inadequate remaining daylight reasons.

The Contractor is solely responsible for repairing all damages to the work and to the site, including road infrastructures, road subgrades, and any adjacent properties resulting from working in the dark.

If the construction Contract is not completed within the specified period(s) including any extensions of time granted thereto, at the sole discretion of the City of Ann Arbor, this Contract may be terminated with no additional compensation due to the Contractor, and the Contractor may be forbidden to bid on future City of Ann Arbor projects for a period of at least three (3) years. If the Engineer elects to terminate the Contract, Contract items paid for on a Lump Sum basis shall be paid up to a maximum percentage equal to the percentage of the Contract work that has been completed.

The City's decision to add or delete work, change the construction limits, or the City's contribution to a delay of the construction shall not entitle the Contractor to receive additional compensation, nor shall it relieve the Contractor of any responsibility for completion of work.

Include any/all efforts to organize, coordinate, and schedule the project work in the contract unit price bid for the pay item **General Conditions, Max $___**.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
COORDINATION AND COOPERATION WITH OTHERS
AND
WORK BY OTHERS

AA/IVK 1/29/2026

The Contractor shall be aware of other road construction work projects within the City of Ann Arbor. The Contractor shall also be aware that other projects may be constructed within the City by other agencies or contractors that may affect work under this contract. The Contractor shall directly coordinate his/her work with individual City Departments/Divisions/Units.

The Contractor is hereby notified that the City of Ann Arbor Field Services Unit may be installing traffic control conduits, traffic signal sensors, and the like, at various locations.

No additional compensation will be paid to the Contractor, and no adjustments to contract unit prices will be made, due to delays and/or the failure of others in the performance of their work, nor for delays due to the encountering of existing utilities that are, or are not, shown on the Plans.

The Contractor shall not receive a time extension due to reasonable work delays resulting from other projects within the area. Refer to the Proposal for information on the required completion date and associated penalties.

The following Utility Owners, and others not listed specifically, may have overhead and/or underground facilities located within the Right-of-Way/Public Easements:

The City of Ann Arbor
University of Michigan (UM)
Michigan Department of Transportation (MDOT)
The Ride
AT&T
Comcast
DTE Energy - Detroit Edison Company (Edison)
DTE Energy - Michigan Consolidated Gas Company (Michcon)
Fiber Link Inc.
Light Core (Century Tel)
MCI Communications

On all projects:

"3 Working Days before you Dig - Call MISS DIG - Toll Free" Phone No. 1-800-482-7171.

The Owners of public or private utilities which will not interfere with the completed project and which do not present a hazard to the public or an extraordinary hazard to the Contractor's operations will not be required to move their facilities on or from the street right-of-way.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions, Maximum, $_____".

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
QUANTITIES AND UNIT PRICES

Contract Drawings / Plans

Offerors/proposers shall carefully check and review all Drawings, plans, and specifications, and advise the Engineer of any errors or omissions discovered. The Drawings/Plans may be supplemented by such additional Drawings/Plans and sketches as may be necessary or desirable as the work progresses. The Contractor shall perform all work shown on any additional or supplemental Drawings/Plans issued by the Engineer.

Offeror/proposer shall carefully examine the Schedule of Pricing/Cost Form, preliminary layouts, specifications, and the work sites until it is satisfied as to all local conditions affecting the contract and the detailed requirements of construction. The submission of the proposal shall be considered prima facie evidence that the Offeror/Proposer has made such examination and is satisfied as to the conditions to be encountered in performing the work and all requirements of the contract.

Quantities and Unit Prices

Quantities as given are approximate and are estimated for bidding purposes. Quantities are not guaranteed and may vary by any amount. While it is the City's intent to complete the project substantially as drawn and specified herein, quantities may be changed or reduced to zero for cost savings or other reasons. **The City reserves the right to change the quantities, delete work, or add work, and no adjustment in unit price will be made for any change in any quantity.**

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
SOIL BORING, PAVEMENT SECTION AND GEOTECHNICAL DATA

Description

Data pertaining to existing soil borings and pavement sections which may be included in these Contract Documents are provided to help the Engineer and Contractor determine the soil conditions existing within the construction area. The City in no way guarantees existing conditions to be the same as shown in the data. The Contractor is solely responsible for any/all conclusions it may draw from the data.

CITY OF ANN ARBOR

DETAILED SPECIFICATION
FOR
GATE VALVE IN BOX, 4 IN.

IVK 1 of 1 1/29/2026

a. Description. This work will consist of providing all labor, material, and equipment required to furnish and install 4-inch gate valve in box where shown and as detailed on the plans in accordance with the City of Ann Arbor 2025 Public Services Standard Specifications, except as modified herein, or as directed by the Engineer.

b. Materials.

Gate valves will be resilient wedge type, operate right with a 2-inch square opening nut, push-on by push-on only with restrained gaskets and meet the requirements of the City of Ann Arbor 2025 Public Services Standard Specifications, including AWWA C509 or C515.

Approved gate valves are as follow:
1. American Flow Control Series 2500 Single Resilient Wedge with push-on ends
2. Clow Model 2638 Resilient Wedge Valve, F-6112
3. EJIW FlowMaster Resilient Wedge Valve, Tyton x Tyton
4. Mueller Series A-2361-61 Resilient Wedge Valve SL x SL for Field Lok gaskets
5. US Pipe USP1-61 Resilient Wedge Valve SLxSL for Field Lok gaskets

Valves boxes will be size D, screw type 3-piece, 5-1/4-shaft and a #6 base and meet the requirements of the City of Ann Arbor 2025 Public Services Standard Specifications.

Approved valves boxes are as follows:
1. EJ 8560 Series
2. Tyler Union 6860, 32U (Heavy Duty)

c. Construction. The Contractor will install pipe fittings in accordance with the City of Ann Arbor 2025 Public Services Standard Specifications.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the contract unit price using the following pay items:

Pay Item	**Pay Unit**
DS_Gate Valve in Box, 4 In	Each

Payment for **DS_Gate Valve in Box, 4 In.** will be measured by each unit completely installed and will include all costs for labor, material, and equipment required to complete the work, including furnishing and installing gate valve and box with cover and adjusting the box and cover to final grade.

Payment for excavation and backfill will be included in payment for other water main pay items.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
AGGREGATE BASE CONDITIONING

Description

This work consists of conditioning aggregate base as shown on the plans in the areas where the existing aggregate base is to remain in place. Perform this work in accordance with section 302 of the Michigan Department of Transportation (MDOT) 2020 Standard Specifications for Construction and as directed by the Engineer and described herein.

Materials

All aggregate used for conditioning must meet the gradation and physical properties for Class 21AA dense-graded aggregate per sections 302.02 and 902 of the MDOT 2020 Standard Specifications for Construction. Provide ONLY crushed limestone material unless otherwise approved by the Engineer.

Construction

Condition aggregate base in accordance with section 302 of the Michigan Department of Transportation (MDOT) 2020 Standard Specifications for Construction and as directed by the Engineer. Construct aggregate base to the line and grade shown in the contract. This work may include redistribution of existing aggregate within the project site, removal of excess aggregate, and providing additional aggregate as dictated by the proposed line and grade, and as directed by the Engineer.

Compact the layer of aggregate base to at least 98 percent of the maximum unit weight at a moisture content no greater than optimum for aggregate base under hot mix asphalt (HMA)pavement (HMA).

Measurement and Payment

Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
DS_Aggregate Base, Conditioning	Square Yard

Measure **DS_Aggregate Base, Conditioning** area in place by the unit square yard and pay for it at the contract unit price, which price includes the costs for all labor, equipment, and materials necessary to complete the work including providing additional aggregate and removing access aggregate from the project site.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
PAVEMENT MARKING, POLYMER CEMENT

a. Description.

This work consists of installing a polymer cement surface system (PCSS) on a prepared substrate in accordance with these specifications the plans, and/or as directed by the Engineer. Complete this work in accordance with this special provision, FHWA-MUTCD Interim Approval for Optional Use of Green-Colored Pavement for Bike Lanes (IA-14), PAVE-900 Series pavement marking standard plans, and as shown on the plans, and as directed by the Engineer.

b. Materials.

Provide materials in accordance with the standard specifications and as specified herein.

Select pavement marking material system in the approved FHWA white color for symbols or other colors as specified for use in bike lanes from one of the following or approved equal:

Ennis-Flint PPG., CycleGripMMAX
Pavement Surface Coatings LLC, Endurablend
GAF Materials LLC, StreetBond SB Pro

Ensure all materials are shipped to the job site in sturdy containers plainly marked per section 920 of the Standard Specifications for Construction and the contract.

Provide technical data regarding material type and application rate from the marking manufacturer to the Engineer prior to starting work.

c. Construction.

1. Place the marking material in accordance with this special provision and the manufacturer's recommendations.

2. Surface preparation requirements depend on surface conditions.

Prepare new hot mix asphalt (HMA) surfaces open to traffic for 10 days or less, with no oil drips, residue, debris, or temporary or permanent markings, by cleaning the marking area with compressed air.

Prepare new Portland cement concrete (PCC) surfaces and PCC surfaces free of oil drips, residue, and debris, temporary, or permanent markings, by removing the curing compound from the area required for pavement markings.

Prepare existing HMA or PCC surfaces that do not have existing markings, but may have oil drip areas, debris, or both, by scarifying the marking area using non-milling grinding teeth or shot blasting. The Engineer will allow the use of water blasting to scarify the marking area on PCC surfaces.

Prepare existing HMA or PCC surfaces with existing markings by completely removing the markings.

Conduct griding, scarifying, sandblasting, shot blasting, or other operations in such a manner that the finished pavement surface is not damaged and does not exhibit a pattern that will mislead or misdirect the road user. Use vacuum-type equipment or equivalent to collect and contain debris generated by this operation.

When surface preparation is complete, broom the pavement surface, and follow with compressed air cleaning to remove all residue and debris resulting from the preparation work. Control and minimize airborne dust and similar debris generated by surface preparation and cleanup to prevent a hazard to motor vehicle operation or nuisance to adjacent property.

Do not damage transverse and longitudinal joint sealers on HMA and PCC surfaces when performing removal and cleaning work.

Weather Limitations:

Follow manufacturer recommended pavement and air temperatures. Place PCSS only when all the following conditions are met:

- The pavement surface is dry.
- Ambient and substrate temperatures are 50° F and rising and expected to remain above 50° F for 6 hours
- There is no forecast of temperatures below 35° F within 24 hours from the time of placement.
- The weather is not foggy or rainy. When rain appears imminent, all placement operations shall cease, and the work shall not resume until the threat of rain has passed.

When the ambient temperature is below 50° F, but will remain above 40° F during

paving and the substrate temperatures are 50° F and rising, place the PCSS with the approval of Engineer and add manufacturer approved accelerators to the mix.

Take care when placing the PCSS if the substrate temperature exceeds 130° F. Closely monitor application temperatures of the substrate above 130° F for performance during the course of application. Any observable defects occurring as a result of extreme temperature should be cause for immediate halting of placement operations.

Where the ambient paving air temperature is going to exceed 90° F consider use of cold water and ice for the blending operation. Where the provision of cold water or replacing the part of the water requirement with ice is not possible, then use a retarder with the mix.

Curing and Opening to Traffic:

The Contractor shall take care to protect the PCSS surface markings from traffic until the area is sufficiently cured. Curing time will vary depending on ambient and surface temperatures. Do not open the PCSS to traffic until it has reached sufficient compressive strength and vehicular traffic will not damage the surface. Obtain approval for opening from a representative of the manufacturer, the installer, or the Engineer. The Contractor at its expense shall correct any damage to the PCSS surface resulting from failure to protect it or open it to traffic without approval or proper cure.

d. Measurement and Payment.

The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
DS_Pavt Mrkg, Polymer Cement Surface, 6 In., Dotted, White	Foot
DS_Pavt Mrkg, Polymer Cement Surface, 24 inch, Stop Bar	Foot

APPENDIX

GEOTECHNICAL INVESTIGATION REPORT

2025 Water Main and Resurfacing Projects

S. Huron Parkway, Arbordale/Sherwood Streets,
Ingalls/Kingsley Streets, & Packard Street

City of Ann Arbor Project Nos.
2025-009, 2025-011, 2025-012, & 2025-013
MSG Project No.: 401.2300021.013

October 2025

Prepared for:

City of Ann Arbor
301 E. Huron, 4th Floor
Ann Arbor, Michigan 48104

Prepared by:

The Mannik & Smith Group, Inc.
2365 Haggerty Road South
Canton, Michigan 48188

October 27, 2025

Mr. Jacob Dykman
City of Ann Arbor
301 E. Huron, 4th Floor
Ann Arbor, Michigan 48107

RE: **Geotechnical Investigation Report**
2025 Water Main and Resurfacing Projects
S. Huron Parkway, Arbordale/Sherwood Streets, Ingalls/Kingsley Streets, & Packard Street
Ann Arbor, Michigan
City Of Ann Arbor Project Nos. 2025-009, 2025-011, 2025-012, & 2025-013
MSG Project No.: 401.2300021.013

Dear Mr. Dykman:

This report presents the results of our geotechnical investigation for the proposed water main replacement and pavement resurfacing projects along S. Huron Parkway, Arbordale and Sherwood Streets, Ingalls and Kingsley Streets, and Packard Street. This geotechnical investigation was performed in general accordance with our contract with the City of Ann Arbor fully executed on May 2, 2023 as well as the proposals associated with these projects numbered 401.2300021.013 and dated July 9, 2025. This report presents our geotechnical recommendations and construction considerations for the project.

We trust that this report addresses your current project needs. We appreciate the opportunity to work with you on this very important project. Please contact us if you have any questions or if we can be of further assistance.

Sincerely,
The Mannik & Smith Group, Inc.

Kevin D. Brown, PE
Geotechnical Engineer

Ibraheem Shunnar, PE
Principal

2365 Haggerty Road South, Canton, Michigan 48188 Tel: 734.397.3100 Fax: 734.397.3131 www.MannikSmithGroup.com

EXECUTIVE SUMMARY

The Mannik & Smith Group, Inc., (MSG) was retained by the City of Ann Arbor to conduct a geotechnical investigation to support the proposed water main replacement and pavement resurfacing projects along S. Huron Parkway, Arbordale and Sherwood Streets, Ingalls and Kingsley Streets, and Packard Street in Ann Arbor, Michigan.

The current subsurface investigation consisted of performing a total of thirty-nine (39) soil borings. The locations were designated as SB-2026-108 to SB-2026-132 and SB-2026-139 to SB-2026-154. Details of the soil boring investigation are highlighted in Table 2.1-1.

The soil profile at each of the sites are summarized below:

- **S. Huron Parkway (Ann Arbor Project No. 2025-009):** Surficial materials consisted of 6 inches of topsoil or 5 to 10 inches of pavement over 5 to 9 inches of base material. Stratum 1, consisting of medium stiff to hard clay, was encountered below the surface material in all borings and extended to depths ranging between 8.5 and 20 feet below grade. Stratum 2, consisting of medium dense sand, was encountered below Stratum 1 in boring SB-2026-128 and extended to a depth of 10 feet below grade.
- **Arbordale/Sherwood Streets (Ann Arbor Project No. 2025-011):** Surficial materials included 3 to 5.5 inches of asphalt over 5 to 8 inches of aggregate. Stratum 1, consisting of soft to hard clay, was encountered below the surface material and extended to the explored depths of 10 feet below grade.
- **Ingalls/Kingsley Streets (Ann Arbor Project No. 2025-012):** Surficial materials included 3 to 8.5 inches of pavement over 8 to 12 inches of base material at all borings except at SB-2026-144, where 4 inches of brick was encountered over 12 inches of sand. Stratum 1, consisting of soft to very stiff clay, was encountered below the surface material in soil borings SB-2026-139, SB-2026-140, SB-2026-141, SB-2026-143, SB-2026-153, and SB-2026-154 and extended to depths of 3.5 feet below grade. Stratum 2, consisting of loose to very dense sand and gravel, was encountered below the surface material or Stratum 1 in all borings and extended to a depth of 10 feet below grade.
- **Packard Street (Ann Arbor Project No. 2025-013):** Surficial materials included 4 to 7 inches of asphalt over 8 to 10 inches of aggregate. Stratum 1, consisting of loose to medium dense sand or very dense gravel, was encountered below the surface material and extended to depths ranging between 3.5 and 6.5 feet below grade. Stratum 2, consisting of soft to hard clay, was encountered below the surface material or Stratum 1 in all borings except SB-2026-121 and extended to depths of 10 feet below grade.

Based on the observed subsurface conditions, the anticipated invert of the proposed water main may be between 5 and 10 feet below existing grades. At this depth, the bearing soils at each project site consist of medium stiff to stiff lean clay or loose to medium dense sand. This material is suitable for support of the water main, provided the bearing subgrade is properly prepared.

Based on our review of the subsurface soil conditions, we have developed design soil profiles for this project, see Section 4.1 for additional details. Based upon our review of the existing soil conditions in the project areas, the pavement design may use an estimated modulus for subgrade reaction of 120 pci for clay soils and 175 pci for compacted native medium dense sands. For a subgrade composed of well-compacted engineered fill, a modulus of subgrade reaction of 200 pci may be used.

Groundwater was encountered in boring SB-2026-128 at a depth of 10 feet below grade; groundwater was not encountered during or after drilling operations in any remaining borings. Excavations will likely be situated above the long-term groundwater level. In cohesive soils, significant problems associated with groundwater seepage into the excavation are not anticipated. The Contractor should be prepared to address general water infiltration (i.e., pumping water from prepared sumps).

This summary briefly discusses major findings covered within the body of the report. The intent of this executive summary is to provide a general summary. The report must be read carefully in its entirety before using any recommendations described herein.

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APPENDICES

1.0 INTRODUCTION

1.1 General

The Mannik & Smith Group, Inc., (MSG) was retained by the City of Ann Arbor to conduct a geotechnical investigation to support the proposed water main replacement and pavement resurfacing projects along S. Huron Parkway, Arbordale and Sherwood Streets, Ingalls and Kingsley Streets, and Packard Street in Ann Arbor, Michigan. The approximate site locations are depicted as Figure 1 in Appendix A. This geotechnical investigation was completed in general accordance with our contract with the City of Ann Arbor fully executed on May 2, 2023, as well as our proposal and agreement for professional services dated July 9, 2025.

1.2 Project Information and Site Conditions

For the S. Huron Parkway segment, the project limits are between Washtenaw Avenue and Platt Road, or about 2,000 feet. Huron Parkway is currently an asphalt surfaced (with the exception of approximately 300 feet south of Washtenaw Avenue, where the roadway is concrete surfaced), five-lane, two-way road with a center turn lane. The roadway has concrete curbs and sidewalks on either side of the road. The ground surface elevation along varies from 793± to 805± feet. This project also includes parking lot and driveway areas associated with Arlington Place Condominiums.

For the Arbordale and Sherwood Streets segment, the project limits along Arbordale Street are between W. Stadium Boulevard and Pauline Boulevard, or about 2,750 feet; the project limits along Sherwood Street are bounded by Arbordale Street on both ends, or about 800 feet. Arbordale Street and Sherwood Street are currently asphalt surfaced, two-lane roads with concrete curbs and sidewalks on either side of the roads. The ground surface elevation along the streets varies from 914± to 940± feet.

For the Ingalls and Kingsley Streets segment, the project limits along Ingalls Street are between W. Huron Street and Kingsley Street, or about 1,300 feet; the project limits along Kingsley Street are between Detroit Street and Ingalls Street, or about 1,800 feet. Ingalls Street is currently an asphalt surfaced, two-lane, one-way road with concrete curbs and sidewalks on either side of the road; the ground surface elevation varies from 870± to 878± feet. Kingsley Street is currently an asphalt surfaced road with concrete curbs and sidewalks on either side of the road. Kingsley Street is a two-lane, one-way road with a section of two-way road between State Street and Detroit Street. The ground surface elevation varies from 827± to 869± feet. At the intersection of Kingsley and State Street, the pavement is surfaced with brick.

For the Packard Road segment, the project limits are between Chesterfield Drive and Cascade Drive, or about 650 feet. Packard Road is currently an asphalt surfaced, five-lane, two-way road with a center turn lane. The roadway has concrete curbs and sidewalks on either side of the road. The ground surface elevation varies from 802± to 812± feet.

2.0 SUBSURFACE INVESTIGATION

2.1 Field Exploration

The current subsurface investigation consisted of performing a total of forty-one (41) soil borings. The locations were designated as SB-2026-108 to SB-2026-132 and SB-2026-139 to SB-2026-154. Details of the soil boring investigation are highlighted in Table 2.1-1.

Table 2.1-1 Summary of Field Investigation

Project (Project Number)	Location ID	Boring Depth (ft)	Pavement Core
S. Huron Parkway (2025-009)	SB-2026-124, SB-2026-125	20	Yes
	SB-2026-126 to SB-2026-129	10	Yes
	SB-2026-130	10	No
	SB-2026-131, SB-2026-132	10	Yes
Arbordale/Sherwood Streets (2025-011)	SB-2026-108 to SB-2026-18	10	Yes
Ingalls/Kingsley Streets (2025-012)	SB-2026-139 to SB-2026-154*	10	Yes
Packard Street (2025-013)	SB-2026-119 to SB-2026-123*	10	Yes

*Borings SB-2026-121 and SB-2026-144 terminated at 6.5 feet upon possible obstruction

The number of borings, the approximate locations, and the boring depths were determined by City engineers. The boring locations were field located by MSG. Boring locations were adjusted in the field to avoid conflicts with existing utilities. Surveying of the boring locations was not performed; however, the approximate boring locations were field marked by MSG personnel by measuring from existing site features. Elevations were estimated from these locations using Google Earth™. Soil Boring Location Maps are presented in Figure 2A to 2E in Appendix A.

The drilling operations were performed on various days between August 26 and October 21, 2025. All borings were advanced using a track-mounted Geoprobe 7822DT drill rig and were advanced by hydraulically pushing 3.25-inch diameter steel casing into the soil using techniques outlined in ASTM D6282. Upon completion, the boreholes were backfilled using soil cuttings and bentonite chips. Pavement cores were capped with cold asphalt patch.

During drilling operations, Standard Penetration Test (SPT) and soil sampling were conducted in accordance with ASTM D1586 procedures ("Standard Method for Penetration Tests and Split Barrel Sampling of Soils"). The SPT and soil sampling were completed at 2.5-foot intervals for the first 10 feet and at 5-foot intervals to boring termination.

Soil samples were recovered using a split-spoon sampling procedure in general accordance with ASTM D1586 Standard ("Standard Method for Penetration Tests and Split Barrel Sampling of Soils"). All collected samples were labeled with the soil boring designation and a unique sample number. The samples were sealed in glass jars in the field to protect the soil and maintain the soil's natural moisture content. All samples were transferred to MSG's laboratory for further analysis and testing. The soil samples collected from this investigation will be retained in our laboratory for a period of 30 days after the date of submission of the final report, after which they will be discarded unless we are notified otherwise.

Whenever possible, groundwater level observations made during the drilling operations and are shown in the Soil Boring Logs. Prior to backfilling, each open borehole was observed again for groundwater. During drilling, the depth at which free water was observed, where drill cuttings became saturated or where saturated samples were collected, was indicated as the groundwater level during drilling. In particular, in pervious soils (granular soils), water levels are considered relatively reliable when solid or hollow-stem augers are used for drilling. However, in cohesive soils, groundwater observations are not necessarily indicative of the static water table due to low permeability rates of the soils and due to the sealing off of natural paths of groundwater during drilling operations. It should be noted that seasonal variations and recent rainfall conditions may influence the groundwater table significantly.

Soil boring logs are included in Appendix B. Also included in Appendix B are General Soil Sample Notes, and a Boring/Well Log Key that illustrates the soil classification criteria and terminology used on the Soil Boring Logs.

2.2 Laboratory Testing

Each sample recovered from the borings was examined and visually classified. This examination was performed to verify conditions identified within field boring logs, to select samples for further laboratory evaluation, and to perform visual-manual classification of samples not subject to further laboratory testing. During the examination process, the geotechnical engineer finalized the soil boring logs.

Representative soil samples were subjected to laboratory tests consisting of a pocket penetrometer test, sieve analysis (ASTM D422) and unconfined compressive strength (ASTM D2166). A brief description of each test performed by MSG is provided in Laboratory Test Procedures in Appendix C.

All soil samples were classified in general accordance with the Unified Soil Classification System (USCS). The USCS group symbol determined from the visual-manual classification is shown in parentheses at the end of the sample description for each layer shown on the Soil Boring Logs. The results of the soil classification and the laboratory test results will be included on the Soil Boring Logs and Soil Laboratory Test Data, which are presented in Appendices B and C, respectively.

3.0 SUBSURFACE CONDITIONS

3.1 Subsurface Classification

The following sections describe the subsurface conditions in terms of major soil strata for the purposes of geotechnical exploration. The soil boundaries indicated are inferred from non-continuous sampling and observations of the drilling operations and/or sampling resistance. The subsurface conditions discussed in the following sections and those shown on the boring logs represent an evaluation of the subsurface conditions based on interpretation of the field and laboratory data using normally accepted geotechnical engineering judgement and common engineering practice standards. The subsurface conditions described herein may vary beyond the boring locations and at various times of the year. A generalized soil profile of the subsurface conditions encountered across the site, beginning at the ground surface and extended downward, is as follows:

3.1.1 S. HURON PARKWAY (2025-009)

Surficial Material

In general, asphalt was encountered at boring locations SB-2026-126 to SB-2026-129, SB-2026-131, and SB-2026-132 with a thickness ranging between 5 and 8.5 inches. Concrete with a thickness of 10 inches was encountered at soil boring locations SB-2026-124 and SB-2026-125. Base material with a thickness ranging between 5 and 9 inches was encountered below the pavement section. At SB-2026-130, topsoil with a thickness of 6 inches was encountered at the surface. The thickness of the pavement and base material at each location is depicted in Table 3.1.1-1 below. Photos of cores are included in Appendix D.

Table 3.1.1-1 Pavement Section Material Thickness

Location ID	Asphalt (in)	Concrete (in)	Aggregate (in)
SB-2026-124	-	10.0	8.0
SB-2026-125	-	10.0	8.0
SB-2026-126	8.5	-	8.0
SB-2026-127	5.0	-	6.0
SB-2026-128	5.0	-	5.0
SB-2026-129	8.0	-	6.0
SB-2026-130	-	-	-
SB-2026-131	6.5	-	6.0
SB-2026-132	6.0	-	9.0

Stratum 1 – Clay (CL)

Clay material with variable amounts of sand and gravel was encountered below the surface material at all soil boring locations and extended to depths ranging between 8.5 and 20 feet below grade. The clay in this stratum was typically encountered as follows:

- Medium stiff to stiff up to depths ranging from 3.5 to 8.5 feet below grade; the standard penetration number ranged from 5 to 13 and averaged 9.
- Stiff to hard up to depths ranging from 18.5 to 20 feet below grade; the standard penetration number ranged from 15 to 30 and averaged 20.

Stratum 2 – Sand (SP)

Medium dense sand with gravel was encountered at SB-2026-128 below Stratum 1. This material extended to the termination depth of the boring at 10 feet below ground surface. The standard penetration number was 20.

3.1.2 ARBORDALE AND SHERWOOD STREETS (2025-011)

Surficial Material

In general, asphalt was encountered at all soil boring locations with a thickness ranging between 3 and 5.5 inches. Aggregate base material with a thickness ranging between 5 and 8 inches was encountered below the pavement section at all soil boring locations. The thickness of the pavement and base material at each location is depicted in Table 3.1.2-1 below. Photos of cores are included in Appendix D.

Table 3.1.2-1 Surficial Material Thickness

Location ID	Asphalt (in)	Aggregate (in)
SB-2026-108	3.0	6.0
SB-2026-109	3.0	6.0
SB-2026-110	3.0	6.0
SB-2026-111	5.5	6.0
SB-2026-112	4.5	8.0
SB-2026-113	3.0	8.0
SB-2026-114	3.0	5.0
SB-2026-115	4.0	5.0
SB-2026-116	5.0	5.0
SB-2026-117	4.5	8.0
SB-2026-118	3.5	6.0

Stratum 1 – Clay (CL)

Clay material with variable amounts of sand and gravel was encountered below the surface material at all soil boring locations and extended to depths of 10 feet below grade. The clay in this stratum was typically encountered as follows:

- Soft to stiff up to depths ranging from 3.5 to 8.5 feet below grade; the standard penetration number ranged from 4 to 11 and averaged 7.
- Stiff to hard up to depths of 10 feet below grade; the standard penetration number ranged from 10 to 37 and averaged 20.

3.1.3 INGALLS AND KINGSLEY STREETS (2025-012)

In general, asphalt was encountered at all the soil borings with a thickness ranging between 3 and 4 inches, with the exception of soil boring SB-2026-144, where 4 inches of brick was encountered. Concrete with a thickness ranging between 2 and 5 inches was encountered below the asphalt at SB-2026-142, SB-2026-143, SB-2026-146, SB-2026-151, SB-2026-152, SB-2026-153, and SB-2026-154. Aggregate was encountered at all soil boring locations with a thickness ranging between 8 and 12 inches, with exception of soil boring SB-2026-144, where 12 inches of sand was encountered below the brick. The thickness of the pavement and base material at each location is depicted in Table 3.1.3-1 below. Photos of cores are included in Appendix D.

Table 3.1.3-1 Surficial Material Thickness

Location ID	Asphalt (in)	Concrete (in)	Aggregate (in)
SB-2026-139	3.0	-	8.0
SB-2026-140	3.5	-	12.0
SB-2026-141	3.5	-	8.0
SB-2026-142	3.5	5.0	8.0
SB-2026-143	3.0	5.0	8.0
SB-2026-144*	-	-	-
SB-2026-145	3.5	-	8.0
SB-2026-146	3.5	2.0	8.0
SB-2026-147	4.0	-	8.0
SB-2026-148	3.5	-	8.0
SB-2026-149	4.0	-	8.0
SB-2026-150	3.5	-	8.0
SB-2026-151	4.0	3.0	8.0
SB-2026-152	3.5	3.0	8.0
SB-2026-153	3.5	3.0	8.0
SB-2026-154	4.0	3.0	8.0

* At SB-2026-144: 4 inches of brick over 12 inches of sand

Stratum 1 – Clay (CL)

Clay material with variable amounts of sand and gravel was encountered below the surface material at soil boring locations SB-2026-139, SB-2026-140, SB-2026-141, SB-2026-143, SB-2026-153, and SB-2026-154 and extended to depths of 3.5 feet below grade. The clay in this stratum was typically encountered as follows:

- Soft to medium stiff in borings SB-2026-141 and SB-2026-143 up to depths of 3.5 feet below grade; the standard penetration number ranged from 3 to 5 and averaged 4.
- Stiff to very stiff in borings SB-2026-139, SB-2026-140, SB-2026-153, and SB-2026-154 up to depths of 3.5 feet below grade; the standard penetration number ranged from 15 to 20 and averaged 17.

Stratum 2 – Sand/Gravel (SP, SW, SC, GP)
Sand and gravel was encountered below the surface material or Stratum 1 in all borings and extended to depths ranging from 6.5 to 10 feet below the surface. This stratum was typically encountered as follows:

- Loose sand and gravel up to depths generally ranging from 3.5 to 6 feet; the loose sand extended to 10 feet in borings SB-2026-142 and SB-2026-143. The standard penetration number ranged from 2 to 10 and averaged 7.
- Medium dense to very dense sand in all borings except SB-2026-142 and SB-2026-143 to a depth of 10 feet; the standard penetration number ranged from 11 to 65 and averaged 25.

3.1.4 PACKARD STREET (2025-013)

In general, asphalt was encountered at all the soil boring locations with a thickness ranging between 4 and 7 inches. Aggregate base material with a thickness ranging between 8 and 10 inches was encountered below the pavement section at all soil boring locations. The thickness of the pavement and base material at each location is depicted in Table 3.1.4-1 below. Photos of cores are included in Appendix D.

Table 3.1.4-1 Surficial Material Thickness

Location ID	Asphalt (in)	Concrete (in)	Aggregate (in)
SB-2026-119	6.5	-	10.0
SB-2026-120	5.0	-	10.0
SB-2026-121	4.0	-	10.0
SB-2026-122	6.0	-	10.0
SB-2026-123	7.0	-	8.0

Stratum 1 – Sand/Gravel (SW, GP)
Sand and gravel was encountered below the surface material in borings SB-2026-121 and SB-2026-123 and extended to depths ranging from 3.5 feet to 6.5 feet below the surface. This stratum was typically encountered as follows:

- Loose to medium dense sand up to depths ranging from 3.5 to 6 feet; the standard penetration number ranged from 7 to 1 and averaged 12.
- Very dense gravel in boring SB-2026-121 to a depth of 6.5 feet; the standard penetration number was 50+ over 6 inches.

Stratum 2 – Clay (CL)
Clay material with variable amounts of sand and gravel was encountered below the surface material and Stratum 1 at all soil boring locations except SB-2026-121 and extended to depths of 10 feet below grade. The clay in this stratum was typically encountered as follows:

- Soft to stiff up to depths ranging from 6 to 10 feet below grade; the standard penetration number ranged from 6 to 14 and averaged 9.
- Stiff to hard up to depths of 10 feet below grade; the standard penetration number ranged from 17 to 36 and averaged 22.

3.2 Groundwater Observations

Groundwater was encountered in boring SB-2026-128 at a depth of 10 feet below grade; groundwater was not encountered during or after drilling operations in any remaining borings. However, the lack of groundwater encountered in the borings is not necessarily an indicator of the actual water levels due to the presence of cohesive soils and their inherent property of low permeability. Typically, the level where the soil color changes from brown to gray is generally

indicative of the long-term groundwater level. This color change from brown to gray was observed in two soil borings, SB-2026-124 and SB-2026-125, at a depth of about 13.5 feet, which may indicate the depth of the long-term groundwater. As this color change was not observed in any of the remaining borings, we conclude the long-term water table is generally below the depth of the remaining explored borings.

Water levels (or lack thereof) reported are accurate only for the time and date the borings were drilled. The borings were backfilled and sealed the same day that they were completed. Long-term monitoring of the boreholes was not included as part of the scope of our subsurface investigation.

It should be noted that the elevation of the natural groundwater table, and the elevation and quantity of the perched groundwater, is likely to vary throughout the year depending on the amount of precipitation, runoff, evaporation and percolation in the area, as well as on the water level in the surface water bodies in the vicinity affecting the groundwater flow pattern. Long-term monitoring with monitoring wells or piezometers such is necessary to accurately assess the groundwater levels and fluctuation patterns at the site.

4.0 ANALYSES AND RECOMMENDATIONS

The following sections discuss in detail the results of our analyses and geotechnical recommendations for the design and construction of the water main replacement and resurfacing projects along S. Huron Parkway, Arbordale and Sherwood Streets, Ingalls and Kingsley Streets, and Packard Street.

4.1 Design Soil Profile and Soil Modulus

Based on our review of the subsurface soil conditions, we have developed the following design soil profiles for each area of this project. These soil profiles will be used in the completion of the analysis.

Table 4.1-1 Soil Profile (S. Huron Parkway - 2025-009)

Layer No	Soil Description	Depth (ft)	Total Unit Weight (pcf)	Cohesion (psf)	Friction Angle (deg)
1a	Medium stiff to stiff clay	1.0-8.5	130	1000	0
1b	Stiff to hard clay	8.5-18.5	135	2500	0
2	Medium dense sand	18.5-20.0	125	0	30

Table 4.1-2 Soil Profile (Arbordale/Sherwood - 2025-011))

Layer No	Soil Description	Depth (ft)	Total Unit Weight (pcf)	Cohesion (psf)	Friction Angle (deg)
1a	Medium stiff to stiff clay	1.0-6.0	130	750	0
1b	Stiff to hard clay	6.0-10.0	135	2500	0

Table 4.1-3 Soil Profile (Ingalls/Kingsley - 2025-012)

Layer No	Soil Description	Depth (ft)	Total Unit Weight (pcf)	Cohesion (psf)	Friction Angle (deg)
1	Soft to medium stiff clay	1.0-3.5	125	500	0
2a	Loose sand and gravel	3.5-6.0	120	0	28
2b	Med. dense sand	6.0-10.0	125	0	30

Table 4.1-4 Soil Profile (Packard Street - 2025-013)

Layer No	Soil Description	Depth (ft)	Total Unit Weight (pcf)	Cohesion (psf)	Friction Angle (deg)
1	Loose to med. dense sand	1.0-3.5	120	0	28
2a	Medium stiff to stiff clay	3.5-6.0	130	1000	0
2b	Stiff to hard clay	6.0-10.0	135	2500	0

Based on the observed subsurface conditions, the anticipated invert of the proposed water main may be between 5 and 10 feet below existing grades. At this depth, the bearing soils at each project site consist of medium stiff to stiff lean clay or loose to medium dense sand. This material is suitable for support of the water main, provided the bearing subgrade is properly prepared. All loose soils should be compacted in place, and any soft clays should be removed and replaced with compacted engineered fill.

Based upon our review of the existing soil conditions in the project areas, the pavement design may use an estimated modulus for subgrade reaction of 120 pounds per cubic inch (pci) for clay soils. Where native sand soils were encountered near the surface, an estimated modulus for subgrade reaction of 175 pci may be used on sand soils compacted in place. For a subgrade composed of well-compacted engineered fill, a modulus of subgrade reaction of 200 pci may be used. The recommended modulus for subgrade reaction assumes the soil conditions encountered in the borings are representative of the soil conditions within the proposed pavement areas. This also assumes site preparation recommendations presented in Section 4.2 is followed to provide subgrade conditions suitable for pavement support.

4.2 Site Preparation

Before proceeding with construction, surface soils, vegetation, topsoil, root systems, refuse, asphalt, concrete including any existing abandoned buried foundations, and other deleterious materials should be stripped from the proposed construction areas. The bearing soils should be observed by a geotechnical engineer and visually checked for suitability as a bearing soil. Depending on the time of year of construction and the Contractor's Means and Methods at controlling surface water, it may be possible that additional site subgrade material within development/construction areas will be considered unsuitable and/or unstable and will be required to be stripped during site preparation activities.

Cohesive soils are moisture sensitive and could become unstable if proper site water controls are not implemented and/or if they are subject to construction traffic. Every effort should be taken to minimize disturbance during compaction or over excavation. Where possible, free-standing water should be diverted away from the construction perimeters or pumped out using a sump to accommodate the proper compaction techniques.

Generally, areas exposed by stripping operations on which subgrade preparations are to be performed should be compacted in place to 98 percent of Standard Proctor or 95 percent of Modified Proctor Maximum Dry Density (MDD) within 2 percent of the Optimum Moisture Content (OMC). Soft, loose, or saturated soils that are difficult to compact may require an undercut and replacement with engineered fill for stabilization. The on-site Geotechnical Engineer or their designated representative should determine required undercut depths if necessary.

Existing utilities or underground structures in conflict with the proposed construction location should be removed and relocated or abandoned in place. If abandoned in place, it is recommended that the utility pipe be filled with cement grout to mitigate the potential for collapse in the future. Should the utility lines be removed from the site, the resultant trench excavations should be backfilled with well-compacted granular material, placed, and compacted in accordance with the recommendations of Section 4.3.

4.3 Fill Placement and Engineered Fill Requirements

All new fill should consist of inorganic soil that is free from all deleterious materials and construction debris. Fill materials should not be placed in a frozen condition or upon frozen subgrades. Proper drainage should be maintained during and after fill placement to prevent water from impacting compaction efforts or long-term fill integrity. All fine-grained fill soils should be checked for plasticity index and liquid limit before placement. Cohesive fill materials should have a liquid limit less than 40 percent and plasticity index less than 20 percent (i.e., non-expansive). On site clay soils observed appear to be suitable for re-use as fill.

Coarse crushed granular material is recommended as fill for utility trench backfill, undercut areas, and as aggregate base material. The granular material shall consist of natural aggregate materials that meet the gradation requirements of MDOT 21AA or engineer approved equivalent. Typical lift thickness utilized for this material is 8 inches. In utility trenches, granular backfill material should extend at least two pipe diameters above the pipe's crown. As an alternative to imported granular fill, excavated soil material may be recompacted back in place so long as the excavated soil material is determined to be suitable. If a working platform for construction is needed, and prior to footing excavation, it is recommended that at least 6 inches of granular base material meeting the gradation requirements MDOT 21AA aggregate.

Fill should be compacted to 98 percent of the Standard Proctor or 95 percent of Modified Proctor MDD and should be compacted within 2 percent of OMC. Fill materials should be placed in horizontal lifts and adequately keyed into stripped and scarified subgrade soils and adjacent fill. A qualified geotechnical consultant should be retained to monitor fill placement in order to assure compaction requirements are achieved. Soil density testing should be performed during fill placement activities to assure proper fill compaction. Areas that do not achieve compaction requirements after initial placement should be recompacted to meet project requirements.

The actual lift thickness suitable for fill placement is dependent upon the soil type, compaction equipment, and the compaction specification. In general, fill should be placed in a 9-inch loose lift thickness (8-inch compacted); assuming appropriately weighted and ballasted compaction equipment is utilized. In confined areas where hand operated compaction equipment is required, 4-inch and 6-inch loose lift thickness should be utilized for hand operated vibratory plate compactors and hand operated vibratory drum rollers weighing at least 1,000 pounds, respectively. Sand fills should be compacted using smooth vibratory rollers. Clay fills should be compacted using a sheep foot compactor. The geotechnical engineer, as part of the construction monitoring, should review the equipment utilized for compaction to confirm suitability relative to the specified loose lift thickness. If necessary, the geotechnical engineer will recommend a revised lift thickness suitable to the equipment performing compaction.

To minimize corrosion of existing metallic utilities, topsoil, organic soils, existing fill soils, and mixtures of sand and clay should not be placed adjacent to metallic utilities. In addition, buried utilities of different metallic materials should be electrically isolated from each other to minimize galvanic corrosion.

4.4 Lateral Earth Pressures

Lateral earth pressures (horizontal stresses) are developed during soil displacements (strains). Lateral earth pressure for design is determined utilizing an earth pressure coefficient to relate horizontal stress to vertical stress. Three separate earth pressure coefficients are used to determine lateral earth pressure: at-rest; active; and passive.

Applied horizontal stress can be determined by multiplying the appropriate earth pressure coefficient by the applied vertical stress. Earth pressure coefficients are a direct function of the internal friction of a soil. Laboratory testing to determine internal friction angles for soil was not performed. However, index laboratory and field data obtained can be

utilized to approximate earth pressure coefficients based upon empirical relationships. Lateral earth pressure coefficients for soils encountered during this investigation are provided in Table 4.4-1.

Table 4.4-1 Recommended Lateral Earth Parameters

Soil Parameters	Engineered Granular Soil	Existing Soils			
		Loose Sand	M. Dense Sand	Soft Clay	Stiff Clay
Total Unit Weight (pcf)	125	120	125	125	130
Internal Friction Angle (°)	30.0	28	30.0	20.0	25.0
At-rest Pressure Coefficient, K_o	0.50	0.55	0.50	0.65	0.6
Active Pressure Coefficient, K_a	0.30	0.35	0.30	0.50	0.4
Passive Pressure Coefficient, K_p	3.0	2.8	3.0	2.0	2.5
Concrete/Soil Friction Coefficient	0.5	0.5	0.5	0.0	0.0
Concrete/Soil Adhesion Factor	0.0	0.0	0.0	0.2	0.2

For retaining walls, to minimize lateral earth pressures, MSG recommends the zone adjacent to any walls be backfilled with granular fill. To provide effective drainage, a zone of free-draining gravel (similar to MDOT 6AA gravel) should be used directly adjacent to the walls with a minimum thickness of 18 inches. This granular zone should drain to weepholes or a pipe drainage system to prevent hydrostatic pressures from developing against the walls.

The type of backfill beyond the free-draining granular zone will govern the magnitude of the pressure to be used for structural design. Clean granular soil is recommended as the backfill material against retaining structures to minimize lateral earth pressure. Lateral earth pressure coefficients for engineered fill are provided in Table 4.4-1.

The coefficients of friction between concrete and soil subgrade were also provided in the table above. These coefficients can be used for evaluating the factor of safety against sliding of foundations. The recommended minimum safety factor against sliding is 1.5. Passive pressure resistance of the top 3 feet below final grade should generally be neglected in designing the retaining walls to resist sliding failure due to the freeze-thaw cycle that can significantly weaken soils and the potential for the material to be removed at a future date for installation of utilities or other construction-related activities.

Any additional lateral earth pressure due to surcharge loading conditions including, but not limited to, floor loads, column loads, sloping backfill, traffic loading, and construction loads, should be incorporated into the wall design. MSG should be retained to perform other detailed geotechnical evaluations for retaining walls, as necessary, including but not limited to, settlement and global stability. A detailed geotechnical evaluation and structural design of retaining walls is beyond the scope of this report.

5.0 CONSTRUCTION CONSIDERATIONS

5.1 Groundwater Control

Groundwater was encountered in boring SB-2026-128 at a depth of 10 feet below grade; groundwater was not encountered during or after drilling operations in any remaining borings. We anticipate the long-term groundwater table is situated at a depth below the explored soil borings. Perched water may be possible in utility trenches or above clay layers. Typically, the groundwater elevation fluctuates and is higher during the winter and spring and lower in summer and early fall. It should be noted that groundwater seepage will have a significant impact on construction activities.

Excavations will likely be situated above the long-term groundwater level. In cohesive soils, significant problems associated with groundwater seepage into the excavation are not anticipated. The Contractor should be prepared to address general water infiltration (i.e., pumping water from prepared sumps). However, if there are water-bearing granular layers encountered during construction, there may be more groundwater infiltrating the excavation than the boring logs indicate. Special dewatering procedures in this case could include, but are not limited to, downhole pumps in slotted casings or well points. The loss of fines through dewatering should be carefully monitored to protect against the settlement of surrounding structures and utilities to remain in place. A temporary earth retention system may be used to limit groundwater pathways through the granular fill soils that allow infiltration into the excavations. The use of steel sheeting embedded in the clay layer can cut off groundwater flow to reduce infiltration. It would then be feasible to control groundwater by standard sump pit and pumping techniques.

The amount and type of dewatering required during construction will be further impacted by the weather, groundwater levels at the time of construction, the effectiveness of the Contractor's techniques in preventing surface water runoff from entering open excavations, and their ability to lower the groundwater table. The final design of any temporary earth support structures for excavations, as well as the associated dewatering and groundwater control plan, will be completed by the Contractor.

5.2 Excavations and Slope

Familiarity with applicable local, state and federal safety regulations, including current OSHA excavation and trench safety is vital. Therefore, it should be a requisite for both the Owner and Contractor with the Contractor by and large being responsible for the safety of the site. Activities at the site, such as utilities or building demolition and site preparation, may require excavations at significant depths below the ground surface. Slope height, slope inclination, and excavation depth (including utility trench excavations) should in no case exceed those specified in local, state, or federal safety (OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926 Subpart P) regulations. Such regulations are strictly enforced and, if not followed, the Owner, Contractor, or earthwork or utility Subcontractors could be liable for substantial penalties.

The overburden soils encountered during our investigation were generally composed of medium stiff cohesive soil and loose to medium dense sand. Based upon the data obtained, we anticipate OSHA will classify site clay soils as Type B soil, which will require maximum temporary excavation slopes of 1(H):1(V). Loose sand where encountered will classify as Type C soil, which will require maximum temporary excavation slopes of 1.5(H):1(V). Flatter slopes will be required if seepage conditions occur during construction are encountered. However, due to the location of the excavations, the bore pit excavations are anticipated to be vertical, requiring temporary shoring.

If any excavation, including a utility trench, is extended to a depth of more than 20 feet, OSHA requires that a Professional Engineer design the side slopes of such excavations. However, we recommend that any excavation extending to a depth of more than 5 feet below existing grade, requiring temporary shoring, or extending into bedrock be done under the supervision of a qualified engineer.

6.0 GENERAL QUALIFICATIONS AND LIMITATIONS

The evaluations, conclusions and recommendations in this report are based on our interpretation of the field and laboratory data obtained during the geotechnical investigation, our understanding of the project and our experience during previous work, with similar sites and subsurface conditions. Data used during this exploration included:

- Forty-one (41) soil borings performed during this investigation;

- Observations of the project site by our staff;
- Results of laboratory soil testing; and,
- Results of the geotechnical analyses.

The subsurface conditions discussed in this report and those shown on the boring logs represent an estimate of the subsurface conditions based on interpretation of the boring data using normally accepted geotechnical engineering judgments. Although individual test borings are representative of the subsurface conditions at the boring locations on the dates shown, they are not necessarily indicative of subsurface conditions at other locations or at other times. MSG is not responsible for independent conclusions, opinions, or recommendations made by others based upon information presented in this report.

We strongly recommend the final project plans and specifications be reviewed by MSG's geotechnical engineer to confirm that the geotechnical aspects are generally consistent with the recommendations of this report. In particular, the specifications for excavation and pavement construction should be prepared and/or reviewed by MSG's Geotechnical Engineer of Record. In addition, we recommend site subgrade preparation, fill compaction activities, and installation activities should be monitored by MSG's geotechnical engineer or his/her representative.

This report and evaluation reflect only the geotechnical aspects of the subsurface conditions at the site. Review and evaluation of environmental aspects of subsurface conditions are beyond the scope of this report.

APPENDIX A

FIGURE 1 – SITE LOCATION MAP
FIGURE 2A – SOIL BORING LOCATION MAP (SB-2026-108 TO SB-2026-118)
FIGURE 2B – SOIL BORING LOCATION MAP (SB-2026-119 TO SB-2026-123)
FIGURE 2C – SOIL BORING LOCATION MAP (SB-2026-124 TO SB-2026-132)
FIGURE 2D – SOIL BORING LOCATION MAP (SB-2026-139 TO SB-2026-154)

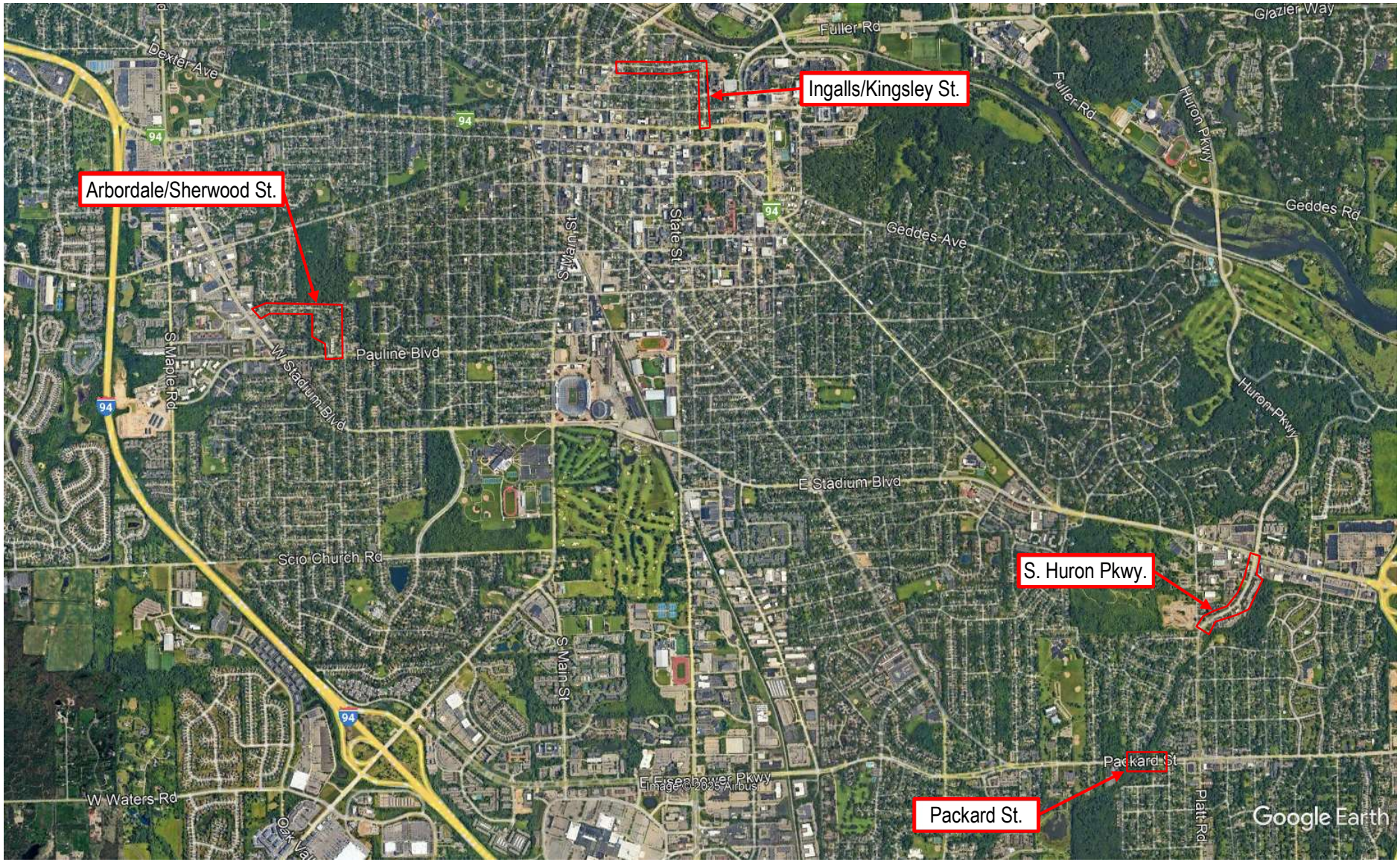

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Figure 1: Site Location Map
2025 Water Main and Resurfacing Projects
S. Huron Pkwy., Arbordale/Sherwood St., Ingalls/Kingsley St., & Packard St.
Ann Arbor, Michigan
MSG Project Number: 401.2300021.013

No Scale
Map Adapted from
Google Earth 2025 ®

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Figure 2A: Soil Boring Location Map (S. Huron Pkwy.)
2025 Water Main and Resurfacing Projects
S. Huron Pkwy., Arbordale/Sherwood St., Ingalls/Kingsley St., & Packard St.
Ann Arbor, Michigan
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No Scale
Map Adapted from
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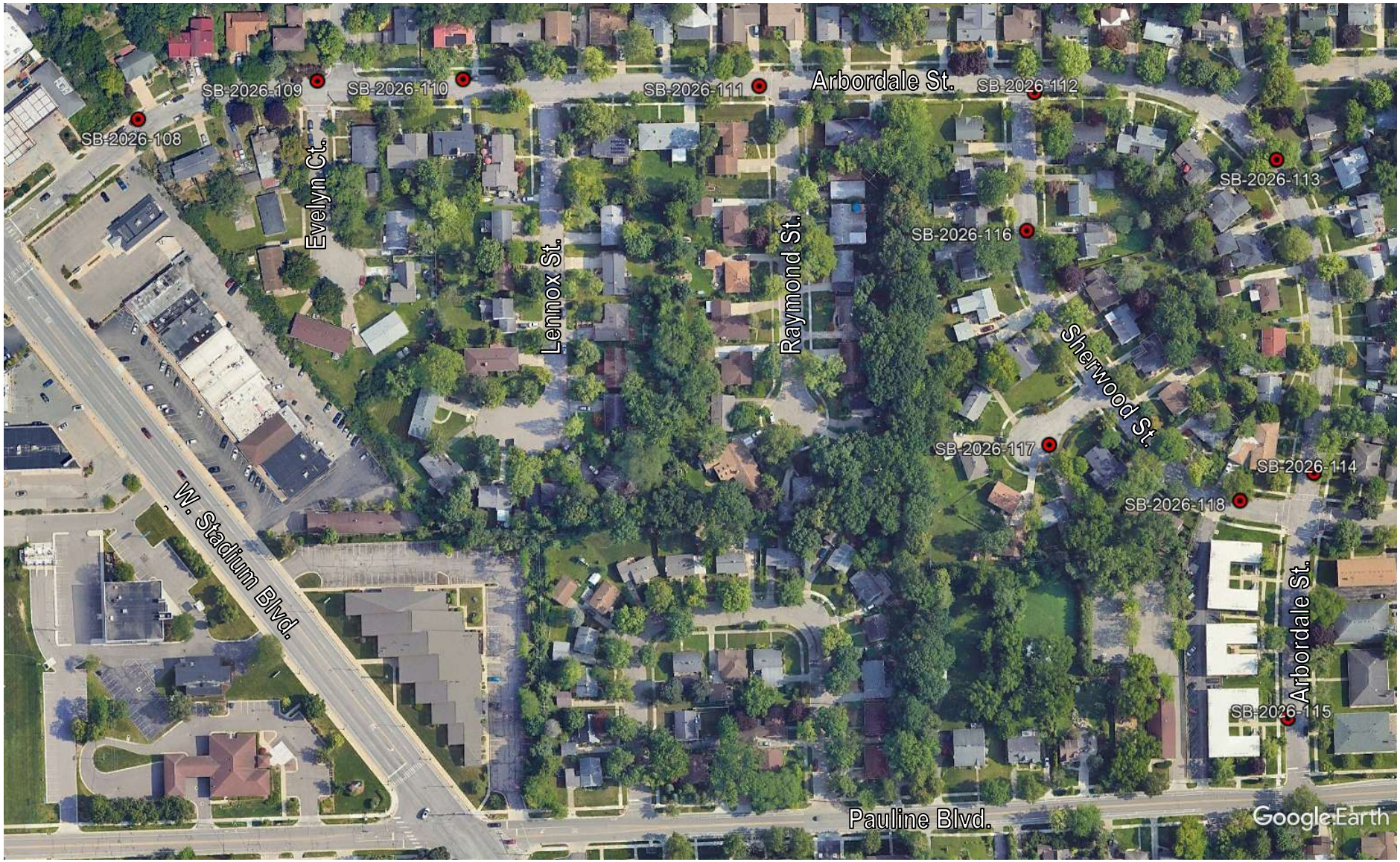

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Figure 2B: Soil Boring Location Map (Arbordale/Sherwood St.)
2025 Water Main and Resurfacing Projects
S. Huron Pkwy., Arbordale/Sherwood St., Ingalls/Kingsley St., & Packard St.
Ann Arbor, Michigan
MSG Project Number: 401.2300021.013

No Scale
Map Adapted from
Google Earth 2025 ®

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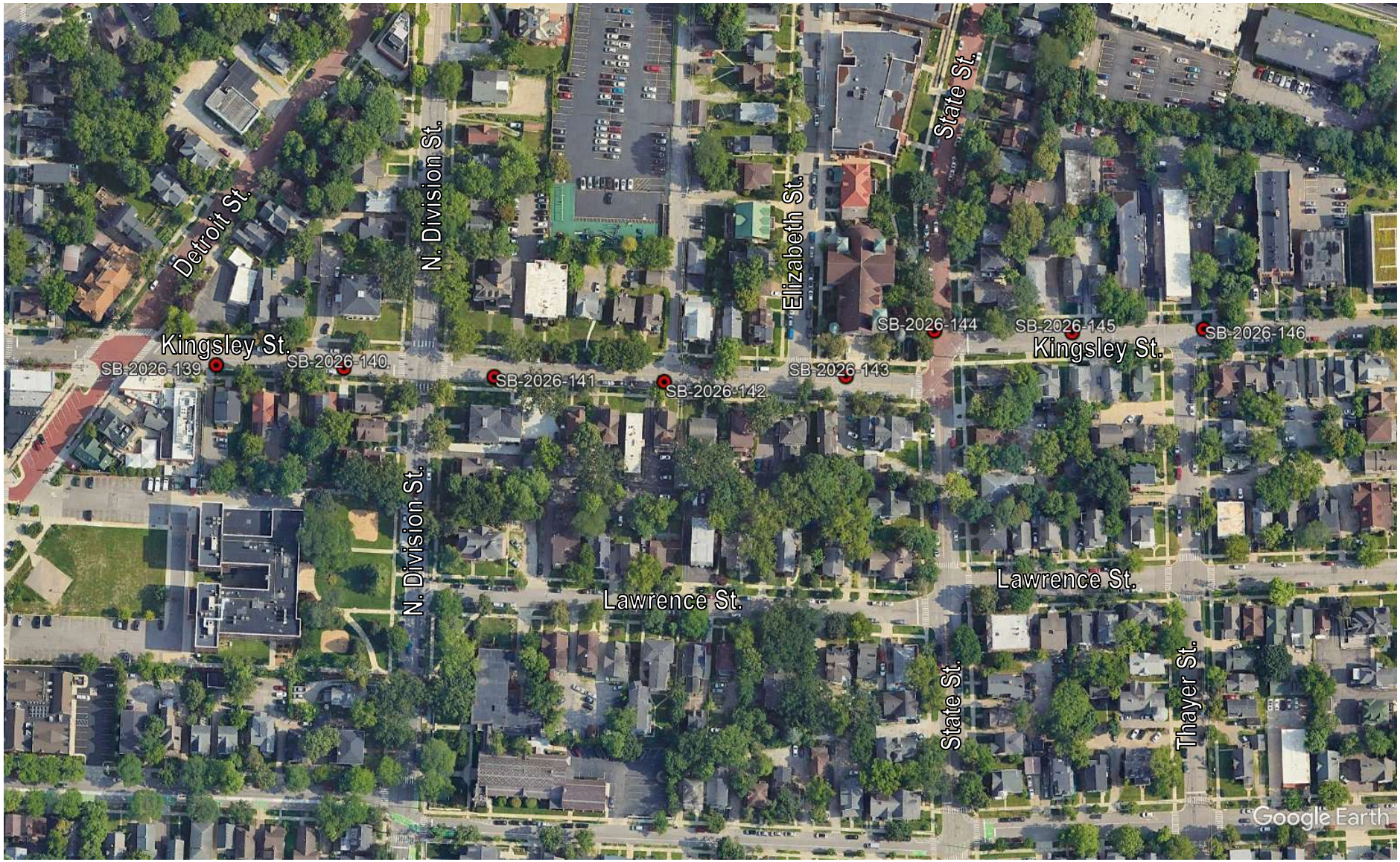

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Figure 2C: Soil Boring Location Map (Ingalls/Kingsley St.)
2025 Water Main and Resurfacing Projects
S. Huron Pkwy., Arbordale/Sherwood St., Ingalls/Kingsley St., & Packard St.
Ann Arbor, Michigan
MSG Project Number: 401.2300021.013

No Scale
Map Adapted from
Google Earth 2025 ®

N

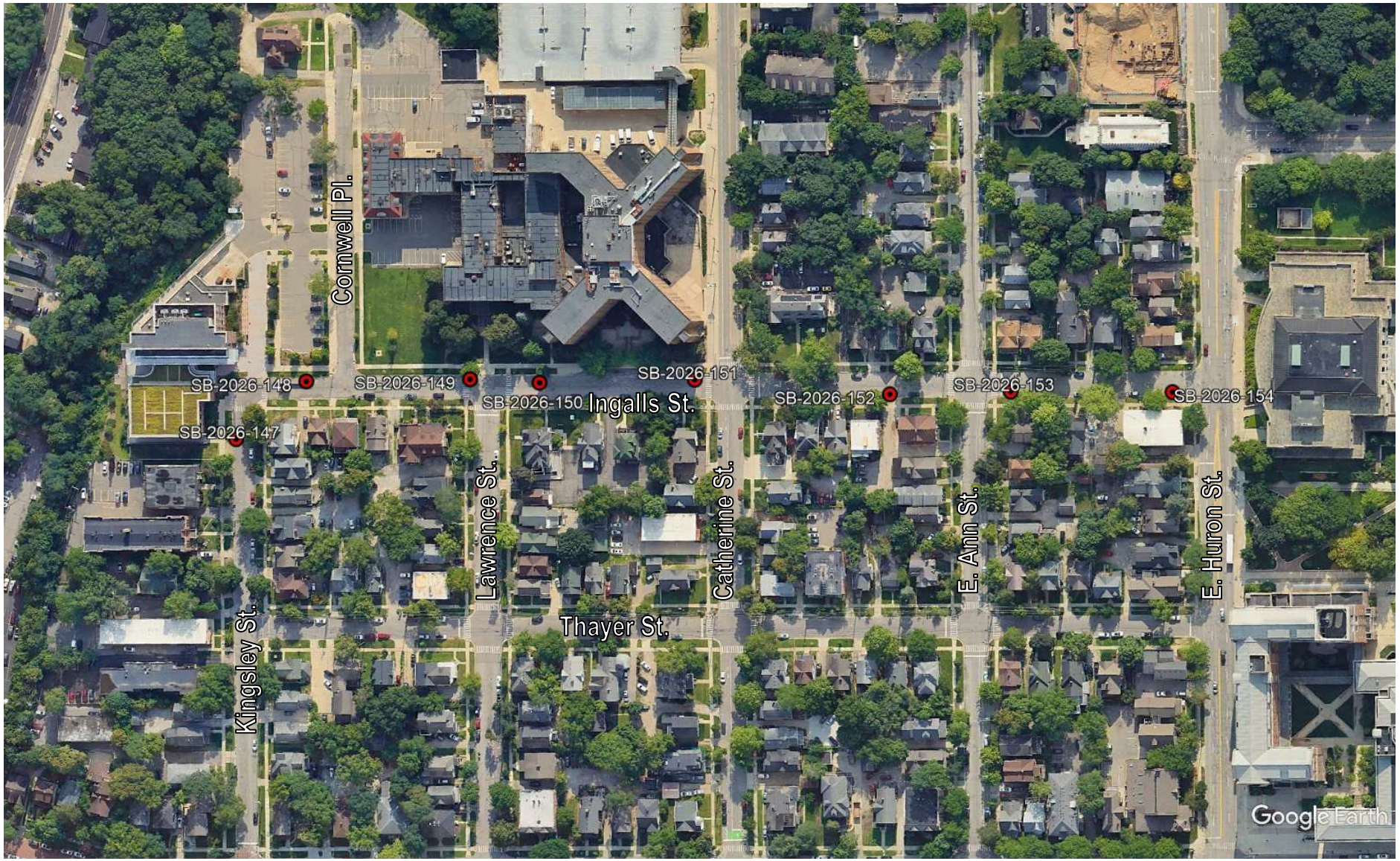

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Figure 2D: Soil Boring Location Map (Ingalls/Kingsley St.)
2025 Water Main and Resurfacing Projects
S. Huron Pkwy., Arbordale/Sherwood St., Ingalls/Kingsley St., & Packard St.
Ann Arbor, Michigan
MSG Project Number: 401.2300021.013

No Scale
Map Adapted from
Google Earth 2025 ®

N

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Canton, Michigan 48188
Tel: 734-397-3100
Fax: 734-397-3131
www.MannikSmithGroup.com

Figure 2E: Soil Boring Location Map (Packard St.)
2025 Water Main and Resurfacing Projects
S. Huron Pkwy., Arbordale/Sherwood St., Ingalls/Kingsley St., & Packard St.
Ann Arbor, Michigan
MSG Project Number: 401.2300021.013

No Scale
Map Adapted from
Google Earth 2025 ®

N

APPENDIX B

Soil Boring Logs

GENERAL SOIL SAMPLE NOTES

Unless noted, all terms utilized herein refer to the Standard Definitions presented in ASTM D653.

Standard Penetration Test (ASTM D1586): A 2.0-inch outside-diameter (O.D.), 1-3/8-inch inside-diameter (I.D.) split barrel sampler is driven into undisturbed soil by means of a 140-pound weight falling freely through a vertical distance of 30 inches. The sampler is normally driven three successive 6-inch increments. The total number of blows required for the final 12 inches of penetration is the Standard Penetration Resistance (N).

COHESIVE SOILS

Consistency	Approximate Range of N	Unconfined Compressive Strength (psf)
Very Soft	0 – 1	Below 500
Soft	2 – 4	500 – 1,000
Medium Stiff	5 – 8	1,000 – 2,000
Stiff	9 – 15	2,000 – 4,000
Very Stiff	16 – 30	4,000 – 8,000
Hard	31 – 50	8,000 – 16,000
Very Hard	Over 50	Over 16,000

COHESIONLESS SOILS

Density Classification	Approximate Range of N
Very Loose	0 – 4
Loose	5 – 10
Medium Dense	11 – 30
Dense	31 – 50
Very Dense	Over 50

CLASSIFICATION

The major soil constituent is the principal noun, i.e. sand, silt, gravel. The second major soil constituent and other minor constituents are reported as follows:

Second Major Constituent (percent by weight)	Minor Constituents (percent by weight)
Trace – 1% to 11%	Trace – 1% to 11%
Adjective – 12% to 35% (clayey, silty, etc.)	Little – 12% to 22%
	Some – 23% to 33%
And – Over 35%	

PARTICLE SIZES

Boulders		- Greater than 12 inches (305 mm)
Cobbles		- 3 inches (76.2 mm) to 12 inches (305 mm)
Gravel:	Coarse	- ¾ inches (19.05 mm) to 3 inches (76.2 mm)
	Fine	- No.4 (4.75 mm) to ¾ inches (19.05 mm)
Sand:	Coarse	- No. 10 (2.00 mm) to No. 4 (4.75 mm)
	Medium	- No. 40 (0.425 mm) to No. 10 (2.00 mm)
	Fine	- No. 200 (0.074 mm) to No. 40 (0.425 mm)
Silt		- 0.005 mm to 0.074 mm
Clay		- Less than 0.005 mm

If clay content is sufficient so that clay dominates soil properties, clay becomes the principal noun with the other major soil constituent as modifier: i.e., silty clay. Other minor soil constituents may be included in accordance with the classification breakdown for cohesionless soils: i.e., silty clay, trace sand, little gravel.

If sand particle size is greater than 11% by weight of the total sample weight, the adjective (i.e., fine, medium or coarse) is added to the soil description for the sand portion of the sample, provided sand is the major or second major constituent.

SAMPLE DESIGNATIONS

AS	Auger Sample - directly from auger flight	ST	Shelby Tube Sample - 3-inch diameter unless otherwise noted
BS	Miscellaneous Samples - Bottle or Bag	PS	Piston Sample - 3-inch diameter unless otherwise noted
MC	Macro-Core Sample - 2.25-inch O.D., 1.75-inch I.D., 5 feet long polyethylene liner	RC	Rock Core - NX core unless otherwise noted
LB	Large-Bore (Micro-Core) Sample - 1-inch diameter, 2 feet long polyethylene liner	CS	CME Continuous Sample - 5 feet long, 3-inch diameter unless otherwise noted
SS	Split Spoon Sample - 1-inch or 2-inch O.D.	HA	Hand Auger
LS	Split Spoon (SS) Sampler with 3 feet long liner insert	DP	Drive Point
NR	No Recovery	CM	Coring Machine

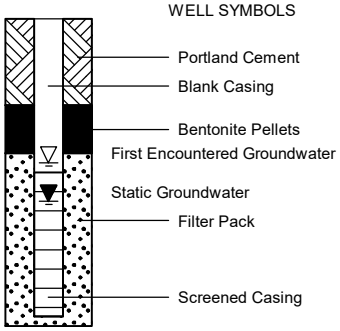
MAJOR DIVISIONS					TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 15% FINES	GW		WELL-GRADED GRAVELS WITH OR WITHOUT SAND
			GP		POORLY-GRADED GRAVELS WITH OR WITHOUT SAND
		GRAVELS WITH 15% OR MORE FINES	GM		SILTY GRAVELS WITH OR WITHOUT SAND
			GC		CLAYEY GRAVELS WITH OR WITHOUT SAND
	SANDS MORE THAN HALF COARSE FRACTION IS FINER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LESS THAN 15% FINES	SW		WELL-GRADED SANDS WITH OR WITHOUT GRAVEL
			SP		POORLY-GRADED SANDS WITH OR WITHOUT GRAVEL
		SANDS WITH 15% OR MORE FINES	SM		SILTY SANDS WITH OR WITHOUT GRAVEL
			SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS		ML		INORGANIC SILTS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			OL		ORGANIC SILTS OR CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		MH		INORGANIC SILTS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			CH		INORGANIC CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			OH		ORGANIC SILTS OR CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
HIGHLY ORGANIC SOILS			PT		PEAT AND OTHER HIGHLY ORGANIC SOILS

SYMBOLS KEY

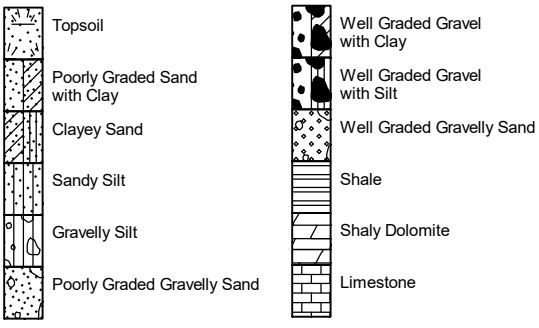
SAMPLE TYPES

- Grab Sample
- Rock Core
- Split Spoon sample, 1 inch or 2 inch outer-diameter.
- Shelby Tube sample - 3 inch diameter unless otherwise noted.

WELL SYMBOLS



OTHER MATERIAL SYMBOLS



Mannik Smith GROUP

BORING / WELL LOG KEY

The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
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www.manniksmithgroup.com

BOREHOLE NUMBER SB-2026-108

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-10-2025 **COMPLETED** 09-10-2025
POSITION N: 281448.7 ft E: 13284039.7 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 915.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY JR **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.2 ASPHALT - 3 INCHES 914.8	GB-1			
		0.8 AGGREGATE - 6 INCHES (Poorly-graded SAND with silt and gravel) 914.2				
		Sandy Lean CLAY (CL): medium stiff; brown; moist.	SPT SS-1	78	4-3-3 (6)	1.00
			SPT SS-2	67	3-3-3 (6)	1.00
5	910	6.0 909.0				
		Lean CLAY (CL): stiff to very stiff; brown; moist to damp. - Qu = 15417 psf	SPT SS-3	67	4-6-7 (13)	1.50
			SPT SS-4	72	4-12-12 (24)	4.50
10	905	10.0 905.0 Terminated at 10.00 ft. Reached Target Depth.				
15	900					
20	895					
25	890					

N Value
Moisture Content (%)
Plastic/Liquid Limit (%)
Fines Content (%)
20 40 60 80

LEGEND:

- ▽ AT TIME OF DRILLING
- ▼ AT END OF DRILLING
- ▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-109

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-10-2025 **COMPLETED** 09-10-2025
POSITION N: 281503.3 ft E: 13284289.3 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 918.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY JR **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.2 ASPHALT - 3 INCHES 917.8	GB-1			
		0.8 AGGREGATE - 6 INCHES 917.2				
		Sandy Lean CLAY (CL): stiff to very stiff; brown; damp.	SPT SS-1	33	12-9-5 (14)	2.00
		- At 3.5 ft to 5 ft: medium stiff	SPT SS-2	33	4-4-4 (8)	1.00
5	913	- Qu = 13297 psf	SPT SS-3	72	5-8-4 (12)	4.00
			SPT SS-4	67	6-9-11 (20)	4.00
10	908	10.0 908.0 Terminated at 10.00 ft. Reached Target Depth.				
15	903					
20	898					
25	893					

N Value
Moisture Content (%)
Plastic/Liquid Limit (%)
Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-110

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-10-2025 **COMPLETED** 09-10-2025
POSITION N: 281507.5 ft E: 13284492.4 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 923.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY JR **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.2 ASPHALT - 3 INCHES 922.8	GB-1			
			0.8 AGGREGATE - 6 INCHES 922.2				
			Sandy Lean CLAY (CL): stiff to very stiff; brown; damp.	SPT SS-1	67	5-6-9 (15)	3.00
				SPT SS-2	44	6-12-14 (26)	4.00
5	918			SPT SS-3	72	5-10-10 (20)	2.00
			- Qu = 4010 psf	SPT SS-4	67	6-10-11 (21)	2.50
10	913		10.0 913.0 Terminated at 10.00 ft. Reached Target Depth.				
15	908						
20	903						
25	898						

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ **AT TIME OF DRILLING**
▼ **AT END OF DRILLING**
▼ **AFTER DRILLING**

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BOREHOLE NUMBER SB-2026-111

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-10-2025 **COMPLETED** 09-10-2025
POSITION N: 281501.1 ft E: 13284905.5 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 929.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY JR **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.5 ASPHALT - 5.5 INCHES 928.5				
			1.0 AGGREGATE - 6 INCHES 928.0	GB-1			
			Sandy Lean CLAY (CL): very stiff to hard; brown; damp.	SPT SS-1	72	12-12-12 (24)	4.00
				SPT SS-2	67	12-12-15 (27)	4.50
5	924			SPT SS-3	78	10-15-18 (33)	4.50
				SPT SS-4	67	13-15-20 (35)	4.50
10	919		10.0 919.0 Terminated at 10.00 ft. Reached Target Depth.				
15	914						
20	909						
25	904						

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-112

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-26-2025 **COMPLETED** 08-26-2025
POSITION N: 281495.1 ft E: 13285289.3 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 930.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.4 ASPHALT - 4.5 INCHES 929.6	GB-1			
		1.0 AGGREGATE - 8 INCHES 929.0				
		Sandy Lean CLAY (CL): stiff; brown; damp.	SPT SS-1	78	6-3-6 (9)	1.00
			SPT SS-2	89	6-6-5 (11)	2.00
5	925	- Qu = 4866 psf	SPT SS-3	78	3-3-6 (9)	2.00
			SPT SS-4	72	5-7-8 (15)	2.00
10	920	10.0 920.0 Terminated at 10.00 ft. Reached Target Depth.				
15	915					
20	910					
25	905					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ **AT TIME OF DRILLING**
▼ **AT END OF DRILLING**
▽ **AFTER DRILLING**

The Mannik & Smith Group, Inc.
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BOREHOLE NUMBER SB-2026-113

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-26-2025 **COMPLETED** 08-26-2025
POSITION N: 281404.2 ft E: 13285627.6 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 932.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.2 ASPHALT - 3 INCHES 931.8	GB-1			
		0.9 AGGREGATE - 8 INCHES (Well-graded GRAVEL with sand) 931.1				
		Sandy Lean CLAY (CL): medium stiff; brown; damp.	SPT SS-1	83	2-3-3 (6)	1.00
		3.5 928.5				
		Sandy Lean CLAY (CL): very stiff to hard; brown; moist.	SPT SS-2	78	7-8-12 (20)	4.50
5	927		SPT SS-3	67	8-9-12 (21)	4.50
		- Qu = 7935 psf	SPT SS-4	67	8-10-12 (22)	4.50
10	922	10.0 922.0				
		Terminated at 10.00 ft. Reached Target Depth.				
15	917					
20	912					
25	907					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-114

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-26-2025 **COMPLETED** 08-26-2025
POSITION N: 280969.6 ft E: 13285682.9 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 931.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.2 ASPHALT - 3 INCHES 930.8	GB-1			
		0.7 AGGREGATE - 5 INCHES 930.3				
		Sandy Lean CLAY (CL): stiff to very stiff; brown; damp.	SPT SS-1	89	5-5-5 (10)	2.00
			SPT SS-2	89	6-7-10 (17)	2.50
5	926	- Qu = 12801 psf	SPT SS-3	72	6-8-10 (18)	4.00
			SPT SS-4	83	4-6-8 (14)	3.75
10	921	10.0 921.0 Terminated at 10.00 ft. Reached Target Depth.				
15	916					
20	911					
25	906					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
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BOREHOLE NUMBER SB-2026-115

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-26-2025 **COMPLETED** 08-06-2025
POSITION N: 280628.7 ft E: 13285649.2 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 937.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.3 ASPHALT - 4 INCHES 936.7				
			0.8 AGGREGATE - 5 INCHES (Well-graded GRAVEL with sand) 936.2	GB-1			
			Sandy Lean CLAY (CL): soft to medium stiff; brown; moist.	SPT SS-1	78	2-2-2 (4)	
				SPT SS-2	67	4-3-4 (7)	1.00
5	932		6.0 931.0				
			Lean CLAY (CL): very stiff to hard; brown; damp. - Qu = 10955 psf	SPT SS-3	89	6-8-12 (20)	4.25
				SPT SS-4	83	6-10-12 (22)	4.50
10	927		10.0 927.0 Terminated at 10.00 ft. Reached Target Depth.				
15	922						
20	917						
25	912						

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
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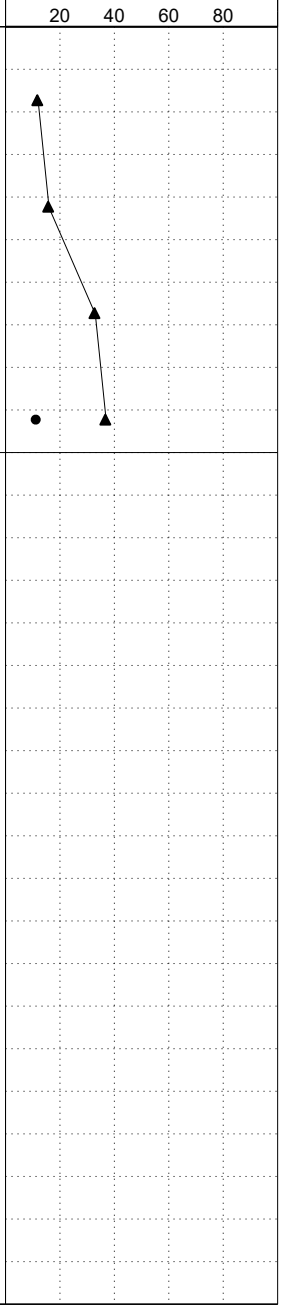
BOREHOLE NUMBER SB-2026-116

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-10-2025 **COMPLETED** 09-10-2025
POSITION N: 281303.0 ft E: 13285280.0 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 933.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY JR **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.4 ASPHALT - 5 INCHES 932.6	GB-1			
		0.8 AGGREGATE - 5 INCHES 932.2				
		Sandy Lean CLAY (CL): stiff to very stiff; brown; moist.	SPT SS-1	67	4-5-7 (12)	2.00
			SPT SS-2	78	6-7-9 (16)	2.50
5	928	6.0 927.0				
		Lean CLAY (CL): hard; brown; moist.	SPT SS-3	72	10-15-18 (33)	4.50
		- Qu = 13848 psf	SPT SS-4	78	12-16-21 (37)	4.50
10	923	10.0 923.0				
		Terminated at 10.00 ft. Reached Target Depth.				
15	918					
20	913					
25	908					



LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
ph: (734) 397-3100 fax: (734) 397-3131
www.manniksmithgroup.com

BOREHOLE NUMBER SB-2026-117

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-26-2025 **COMPLETED** 08-26-2025
POSITION N: 281005.6 ft E: 13285315.0 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 936.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.4 ASPHALT - 4.5 INCHES 935.6	GB-1			
		1.0 AGGREGATE - 8 INCHES (Poorly-graded SAND with gravel) 935.0				
		Sandy Lean CLAY (CL): medium stiff to stiff; brown; moist.	SPT SS-1	89	2-2-3 (5)	1.00
			SPT SS-2	78	6-6-8 (14)	2.00
5	931	6.0 930.0				
		Lean CLAY (CL): very stiff to hard; brown; moist. - Qu = 12943 psf	SPT SS-3	67	7-10-12 (22)	4.50
			SPT SS-4	78	6-10-10 (20)	4.50
10	926	10.0 926.0 Terminated at 10.00 ft. Reached Target Depth.				
15	921					
20	916					
25	911					

N Value
Moisture Content (%)
Plastic/Liquid Limit (%)
Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-118

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-26-2025 **COMPLETED** 08-26-2025
POSITION N: 280930.3 ft E: 13285580.1 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 930.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** AMN
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.3 ASHPALT - 3.5 INCHES 929.7	GB-1			
		0.8 AGGREGATE - 6 INCHES 929.2				
		Sandy Lean CLAY (CL): medium stiff to stiff; brown; moist.	SPT SS-1	78	2-4-3 (7)	
		3.5 926.5				
		Lean CLAY (CL): stiff to very stiff; brown; moist.	SPT SS-2	89	5-6-6 (12)	4.00
5	925		SPT SS-3	89	7-5-7 (12)	4.00
		- Qu = 9787 psf	SPT SS-4	78	5-5-5 (10)	4.00
10	920	10.0 920.0				
		Terminated at 10.00 ft. Reached Target Depth.				
15	915					
20	910					
25	905					

N Value
Moisture Content (%)
Plastic/Liquid Limit (%)
Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-119

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-05-2025 **COMPLETED** 09-05-2025
POSITION N: 272202.7 ft E: 13302558.1 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 803.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.5 ASPHALT - 6.5 INCHES 802.5	GB-1			
		1.4 AGGREGATE - 10 INCHES (Well-graded GRAVEL with sand) 801.6	SPT SS-1	56	25-10-4 (14)	1.00
		Lean CLAY (CL): medium stiff to stiff; brown; moist.				
5	798		SPT SS-2	50	2-3-4 (7)	1.00
		- Qu = 7294 psf	SPT SS-3	72	3-3-4 (7)	1.00
			SPT SS-4	83	4-4-7 (11)	2.00
10	793	10.0 793.0 Terminated at 10.00 ft. Reached Target Depth.				
15	788					
20	783					
25	778					

GRAPHIC LOG

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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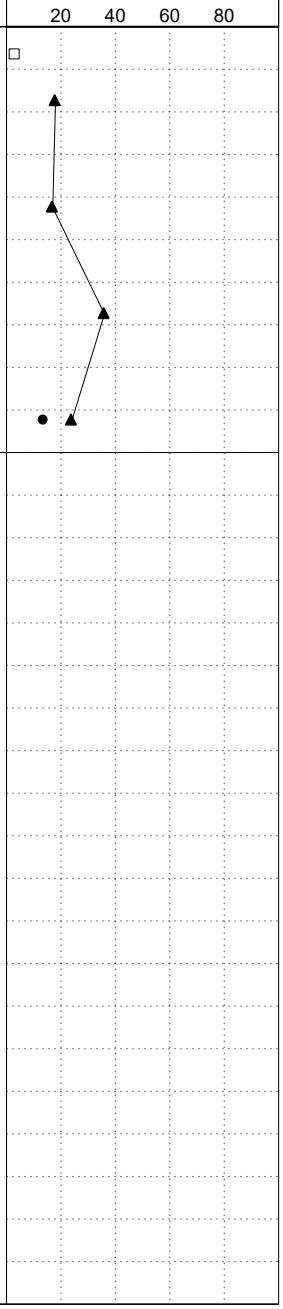
BOREHOLE NUMBER SB-2026-120

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-05-2025 **COMPLETED** 09-05-2025
POSITION N: 272182.8 ft E: 13302579.5 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 803.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.4 ASPHALT - 5 INCHES 802.6	GB-1			
		1.2 AGGREGATE - 10 INCHES (Poorly-graded SAND with gravel) 801.8	SPT SS-1	72	6-8-10 (18)	2.75
		Lean CLAY (CL): very stiff to hard; brown; moist.				
5	798		SPT SS-2	72	7-8-9 (17)	3.00
			SPT SS-3	56	14-17-19 (36)	2.00
		- Qu = 10238 psf	SPT SS-4	67	8-10-14 (24)	4.00
10	793	10.0 793.0 Terminated at 10.00 ft. Reached Target Depth.				
15	788					
20	783					
25	778					



LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-121

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-05-2025 **COMPLETED** 09-05-2025
POSITION N: 272188.8 ft E: 13302727.0 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 805.0 ft **FINAL DEPTH** 6.5 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
		0.3 ASPHALT - 4 INCHES — 804.7	GB-1		
		1.2 AGGREGATE - 10 INCHES — 803.8			
		Well-graded SAND with silt (SW-SM): medium dense; brown; moist.	SPT SS-1	67	4-8-9 (17)
			SPT SS-2	72	9-6-6 (12)
5	800	6.0 — 799.0			
		6.5 Poorly-graded GRAVEL (GP): very dense; gray; moist. — 798.5	SPT SS-3	100	50/6" (R)
		Terminated at 6.50 ft. Refusal.			
10	795				
15	790				
20	785				
25	780				

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)

20 40 60 80

N=R

LEGEND:

▽ **AT TIME OF DRILLING**
▼ **AT END OF DRILLING**
▼ **AFTER DRILLING**

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BOREHOLE NUMBER SB-2026-122

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-05-2025 **COMPLETED** 09-05-2025
POSITION N: 272215.7 ft E: 13302833.1 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 808.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.5 ASPHALT - 6 INCHES 807.5				
			1.3 AGGREGATE-10 INCHES (Poorly-graded GRAVEL with sand) 806.7	GB-1			
			Sandy Lean CLAY (CL): medium stiff to stiff; brown; moist.	SPT SS-1	78	7-4-4 (8)	1.00
				SPT SS-2	67	2-4-6 (10)	1.50
5	803		6.0 802.0				
			Lean CLAY (CL): very stiff; brown; moist.	SPT SS-3	78	6-8-12 (20)	3.00
				SPT SS-4	67	8-10-11 (21)	3.50
10	798		10.0 798.0 Terminated at 10.00 ft. Reached Target Depth.				
15	793						
20	788						
25	783						

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ **AT TIME OF DRILLING**
▼ **AT END OF DRILLING**
▽ **AFTER DRILLING**

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BOREHOLE NUMBER SB-2026-123

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-08-2025 **COMPLETED** 09-08-2025
POSITION N: 272173.4 ft E: 13302908.6 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 811.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.6 ASPHALT - 7 INCHES 810.4	GB-1			
			1.2 AGGREGATE - 8 INCHES 809.8	SPT SS-1	78	10-4-3 (7)	
			Poorly-graded SAND with silt and gravel (SP-SM): loose; brown; moist.				
			3.5 807.5	SPT SS-2	56	4-3-3 (6)	
5	806		Lean CLAY (CL): medium stiff; brown; moist.				
			6.0 805.0	SPT SS-3	61	6-8-9 (17)	4.50
			Lean CLAY (CL): very stiff to hard; brown; moist. - Qu = 10130 psf				
			10.0 801.0	SPT SS-4	72	8-10-12 (22)	4.50
10	801		Terminated at 10.00 ft. Reached Target Depth.				
15	796						
20	791						
25	786						

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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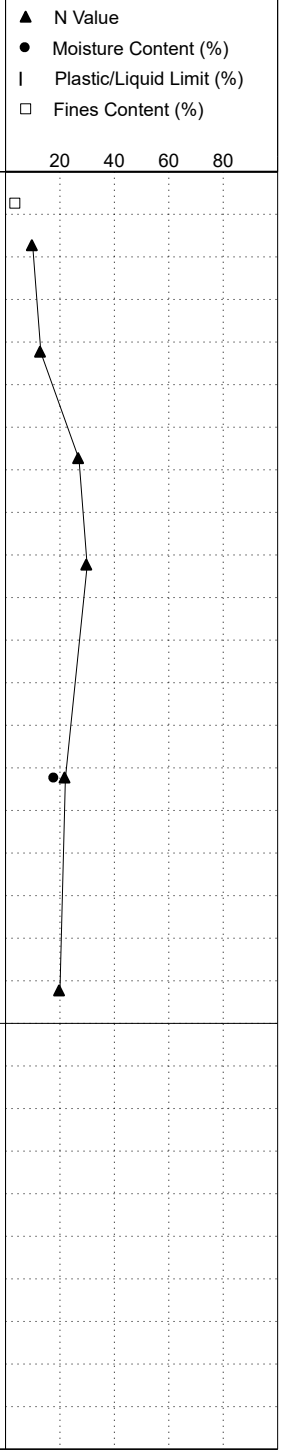
BOREHOLE NUMBER SB-2026-124

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-09-2025 **COMPLETED** 09-09-2025
POSITION N: 276352.4 ft E: 13304957.5 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 797.0 ft **FINAL DEPTH** 20.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.8 CONCRETE - 10 INCHES 796.2	GB-1			
		1.5 AGGREGATE - 8 INCHES (Well-graded GRAVEL with sand) 795.5				
		Lean CLAY (CL): stiff to very stiff; brown; moist.	SPT SS-1	72	20-5-5 (10)	2.25
			SPT SS-2	78	5-5-8 (13)	2.50
5	792	6.0 791.0				
		Lean CLAY (CL): very stiff to hard; brown; moist.	SPT SS-3	67	8-12-15 (27)	4.50
			SPT SS-4	56	6-12-18 (30)	4.50
10	787					
		13.5 783.5				
		Lean CLAY (CL): stiff to very stiff; gray; moist. - Qu = 4642 psf	SPT SS-5	78	8-10-12 (22)	2.50
15	782					
			SPT SS-6	78	8-7-13 (20)	1.50
20	777	20.0 777.0				
		Terminated at 20.00 ft. Reached Target Depth.				
25	772					



LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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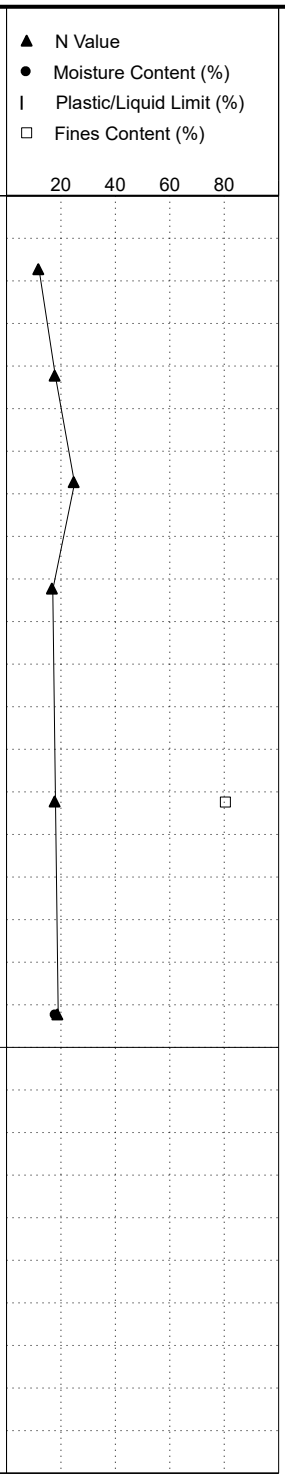
BOREHOLE NUMBER SB-2026-125

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-08-2025 **COMPLETED** 09-08-2025
POSITION N: 276246.6 ft E: 13304953.8 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 798.0 ft **FINAL DEPTH** 20.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.8 CONCRETE - 10 INCHES 797.2	GB-1			
		1.5 AGGREGATE - 8 INCHES 796.5				
		Sandy Lean CLAY (CL): stiff to very stiff; brown; moist.	SPT SS-1	72	7-5-7 (12)	2.50
			SPT SS-2	67	7-8-10 (18)	4.00
5	793					
			SPT SS-3	78	7-10-15 (25)	3.50
			SPT SS-4	83	5-7-10 (17)	2.50
10	788					
		13.5 784.5				
		Lean CLAY with sand (CL): stiff to very stiff; gray; moist.	SPT SS-5	78	6-9-9 (18)	1.50
15	783					
		- Qu = 4327 psf	SPT SS-6	83	5-8-11 (19)	1.50
		20.0 778.0				
20	778	Terminated at 20.00 ft. Reached Target Depth.				
25	773					



LEGEND:

- ▽ AT TIME OF DRILLING
- ▼ AT END OF DRILLING
- ▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-126

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-08-2025 **COMPLETED** 09-08-2025
POSITION N: 276087.2 ft E: 13304913.3 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 799.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.7 ASPHALT - 8.5 INCHES 798.3	GB-1			
			1.4 AGGREGATE - 8 INCHES (Poorly-graded SAND with gravel) 797.6	SPT SS-1	67	8-4-5 (9)	
			Lean CLAY (CL): stiff; brown; moist.				
			3.5 795.5				
5	794		Lean CLAY (CL): very stiff to hard; brown; moist.	SPT SS-2	72	6-8-9 (17)	4.50
			- Qu = 12888 psf	SPT SS-3	56	8-12-15 (27)	4.50
				SPT SS-4	83	5-10-18 (28)	4.00
10	789		10.0 789.0 Terminated at 10.00 ft. Reached Target Depth.				
15	784						
20	779						
25	774						

N Value
Moisture Content (%)
Plastic/Liquid Limit (%)
Fines Content (%)
20 40 60 80

LEGEND:

- ▽ AT TIME OF DRILLING
- ▼ AT END OF DRILLING
- ▼ AFTER DRILLING

The Mannik & Smith Group, Inc.
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BOREHOLE NUMBER SB-2026-127

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 10-21-2025 **COMPLETED** 10-21-2025
POSITION N: 276008.2 ft E: 13305107.3 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 792.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RS **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.4 ASPHALT - 5 INCHES 791.6				
			0.9 AGGREGATE - 6 INCHES 791.1				
			Sandy Lean CLAY (CL): medium stiff to stiff; brown; moist.	SPT SS-1	67	5-4-4 (8)	1.50
			3.5 788.5				
			Lean CLAY (CL): medium stiff; brown; moist.	SPT SS-2	100	3-3-2 (5)	1.00
5	787			SPT SS-3	100	3-3-4 (7)	1.00
				SPT SS-4	100	2-3-5 (8)	1.00
10	782		10.0 782.0				
			Terminated at 10.00 ft. Reached Target Depth.				
15	777						
20	772						
25	767						

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ **AT TIME OF DRILLING**
▼ **AT END OF DRILLING**
▼ **AFTER DRILLING**

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BOREHOLE NUMBER SB-2026-128

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-09-2025 **COMPLETED** 09-09-2025
POSITION N: 275814.4 ft E: 13305025.1 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 789.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.4 ASPHALT - 5 INCHES 788.6	GB-1			
		0.8 AGGREGATE - 5 INCHES 788.2				
		Lean CLAY (CL): medium stiff to stiff; brown; moist.	SPT SS-1	78	4-5-6 (11)	1.50
			SPT SS-2	67	2-2-3 (5)	1.00
5	784	- Qu = 4836 psf	SPT SS-3	67	10-4-5 (9)	1.00
		8.5 780.5				
		Poorly-graded SAND with silt and gravel (SP-SM): medium dense; brown; damp to wet.	SPT SS-4	56	9-10-10 (20)	
10	779	10.0 ▽ 779.0				
		Terminated at 10.00 ft. Reached Target Depth.				
15	774					
20	769					
25	764					

N Value
Moisture Content (%)
Plastic/Liquid Limit (%)
Fines Content (%)
20 40 60 80

LEGEND:

▽ **AT TIME OF DRILLING** 10.00 ft
▼ **AT END OF DRILLING**
▼ **AFTER DRILLING**

The Mannik & Smith Group, Inc.
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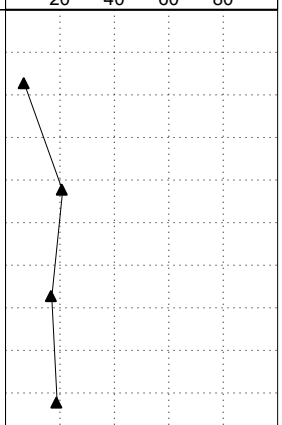
BOREHOLE NUMBER SB-2026-129

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 10-21-2025 **COMPLETED** 10-21-2025
POSITION N: 275709.8 ft E: 13304756.2 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 803.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RS **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.7 ASPHALT - 8 INCHES 802.3				
			1.2 AGGREGATE - 6 INCHES 801.8				
			Lean CLAY (CL): medium stiff to stiff; brown; moist.	SPT SS-1	94	5-2-5 (7)	1.50
			3.5 799.5				
			Lean CLAY (CL): very stiff; brown; moist.	SPT SS-2	100	7-9-12 (21)	3.50
5	798			SPT SS-3	100	7-7-10 (17)	3.00
				SPT SS-4	100	5-8-11 (19)	2.50
10	793		10.0 793.0				
			Terminated at 10.00 ft. Reached Target Depth.				
15	788						
20	783						
25	778						



LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-130

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 09-09-2025 **COMPLETED** 09-09-2025
POSITION N: 275564.8 ft E: 13304728.6 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 801.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.5 TOPSOIL - 6 INCHES 800.5 Lean CLAY with sand (CL): stiff to very stiff; brown; moist.	SPT SS-1	67	10-6-6 (12)	3.75
				SPT SS-2	78	9-9-9 (18)	4.00
5	796		- Qu = 15214 psf	SPT SS-3	72	8-7-8 (15)	4.00
				SPT SS-4	56	6-6-10 (16)	4.00
10	791		10.0 791.0 Terminated at 10.00 ft. Reached Target Depth.				
15	786						
20	781						
25	776						

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ **AT TIME OF DRILLING**
▼ **AT END OF DRILLING**
▼ **AFTER DRILLING**

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BOREHOLE NUMBER SB-2026-131

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 10-21-2025 **COMPLETED** 10-21-2025
POSITION N: 275240.5 ft E: 13304290.7 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 805.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RS **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.5 ASPHALT - 6.5 INCHES 804.5				
			1.0 AGGREGATE - 6 INCHES 804.0				
			Lean CLAY (CL): stiff to very stiff; brown; moist.	SPT SS-1	94	5-5-6 (11)	1.75
				SPT SS-2	100	6-6-10 (16)	3.00
5	800			SPT SS-3	100	6-10-12 (22)	4.00
				SPT SS-4	100	6-9-12 (21)	4.00
10	795		10.0 795.0 Terminated at 10.00 ft. Reached Target Depth.				
15	790						
20	785						
25	780						

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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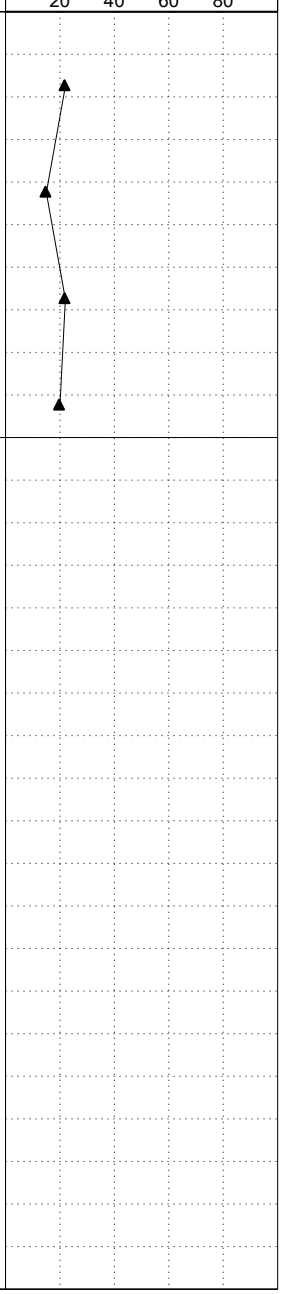
BOREHOLE NUMBER SB-2026-132

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 10-21-2025 **COMPLETED** 10-21-2025
POSITION N: 275035.9 ft E: 13303899.0 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 794.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RS **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
			0.5 ASPHALT - 6 INCHES 793.5				
			1.2 AGGREGATE - 9 INCHES 792.8				
			Silty SAND (SM): medium dense; brown; moist.	SPT SS-1	78	25-15-7 (22)	
			3.5 790.5				
			Lean CLAY (CL): stiff to very stiff; brown; moist.	SPT SS-2	100	7-7-8 (15)	2.25
5	789			SPT SS-3	100	6-10-12 (22)	4.00
				SPT SS-4	100	5-9-11 (20)	4.00
10	784		10.0 784.0				
			Terminated at 10.00 ft. Reached Target Depth.				
15	779						
20	774						
25	769						



LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-139

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-29-2025 **COMPLETED** 08-29-2025
POSITION N: 286611.3 ft E: 13291658.1 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 830.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.2 ASPHALT - 3 INCHES 829.8	GB-1			
		0.9 AGGREGATE - 8 INCHES (Well-graded GRAVEL with sand) 829.1				
		Lean CLAY (CL): very stiff; brown; moist.	SPT SS-1	72	7-10-7 (17)	2.50
		3.5 826.5				
5	825	Poorly-graded SAND with gravel (SP): dense to very dense; brown; moist.	SPT SS-2	50	20-30-30 (60)	
			SPT SS-3	67	15-15-17 (32)	
			SPT SS-4	56	18-20-18 (38)	
10	820	10.0 820.0				
		Terminated at 10.00 ft. Reached Target Depth.				
15	815					
20	810					
25	805					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)

20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-140

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-29-2025 **COMPLETED** 08-29-2025
POSITION N: 286608.5 ft E: 13291832.6 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 833.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.3 ASPHALT - 3.5 INCHES (832.7)	GB-1			
		AGGREGATE - 12 INCHES				
		1.3 (831.7) Lean CLAY (CL): very stiff; brown; moist.	SPT SS-1	67	10-10-10 (20)	3.50
		3.5 (829.5) Well-graded SAND with silt and gravel (SW-SM): medium dense; brown; moist.	SPT SS-2	56	20-12-10 (22)	
5	828		SPT SS-3	67	12-12-12 (24)	
			SPT SS-4	61	14-12-15 (27)	
10	823	10.0 (823.0) Terminated at 10.00 ft. Reached Target Depth.				
15	818					
20	813					
25	808					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-141

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-29-2025 **COMPLETED** 08-29-2025
POSITION N: 286597.9 ft E: 13292038.5 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 838.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
			0.3 ASPHALT - 3.5 INCHES 837.7	GB-1		
			1.0 AGGREGATE - 8 INCHES 837.0			
			Sandy Lean CLAY (CL): medium stiff; brown; moist.	SPT SS-1	56	2-2-3 (5)
			3.5 834.5			
5	833		Well-graded SAND with silt and gravel (SW-SM): dense; brown; moist.	SPT SS-2	56	13-13-20 (33)
				SPT SS-3	72	20-20-20 (40)
				SPT SS-4	67	15-18-22 (40)
10	828		10.0 828.0 Terminated at 10.00 ft. Reached Target Depth.			
15	823					
20	818					
25	813					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)

20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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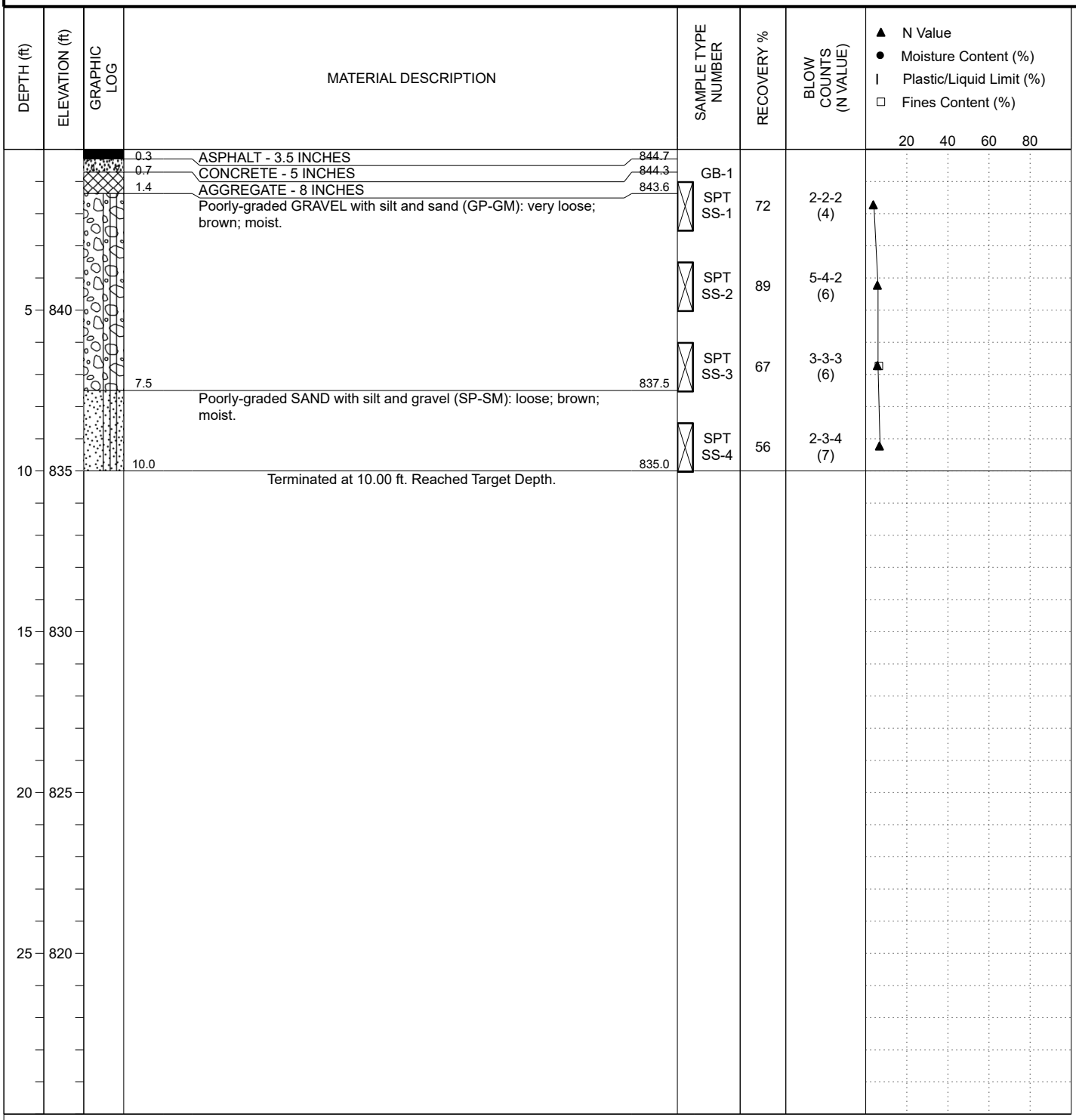
BOREHOLE NUMBER SB-2026-142

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-29-2025 **COMPLETED** 08-29-2025
POSITION N: 286593.0 ft E: 13292270.9 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 845.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.



LEGEND:

▽ **AT TIME OF DRILLING**
▼ **AT END OF DRILLING**
▼ **AFTER DRILLING**

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BOREHOLE NUMBER SB-2026-143

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-29-2025 **COMPLETED** 08-29-2025
POSITION N: 286602.3 ft E: 13292519.4 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 846.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
		0.2 ASPHALT - 3 INCHES — 845.8	GB-1		
		0.7 CONCRETE - 5 INCHES — 845.3			
		1.3 AGGREGATE - 8 INCHES — 844.7			
		Lean CLAY (CL): soft; brown; moist.	SPT SS-1	78	1-2-1 (3)
		3.5 — 842.5			
5	841	Well-graded GRAVEL with silt and sand (GW-GM): loose; brown; moist.	SPT SS-2	67	4-4-6 (10)
			SPT SS-3	56	3-5-4 (9)
			SPT SS-4	67	3-4-6 (10)
10	836	10.0 — 836.0			
		Terminated at 10.00 ft. Reached Target Depth.			
15	831				
20	826				
25	821				

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-144

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-29-2025 **COMPLETED** 08-29-2025
POSITION N: 286665.1 ft E: 13292640.0 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 842.0 ft **FINAL DEPTH** 6.5 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
			0.3 BRICK - 4 INCHES 841.7 SAND FILL -12 INCHES	GB-1		
			1.3 840.7 Well-graded SAND with silt and gravel (SW-SM): very loose to medium dense; brown; moist.	SPT SS-1	89	4-2-2 (4)
				SPT SS-2	78	7-10-9 (19)
5	837					
			6.5 835.5 Terminated at 6.50 ft. Refusal.	SPT SS-3	50	50/6" (R)
10	832					
15	827					
20	822					
25	817					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)

20 40 60 80

N=R

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-145

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-27-2025 **COMPLETED** 08-27-2025
POSITION N: 286664.4 ft E: 13292828.4 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 851.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
			0.3 ASPHALT - 3.5 INCHES 850.7	GB-1		
			1.0 AGGREGATE - 8 INCHES 850.0			
			Well-graded SAND with silt and gravel (SW-SM): medium dense; brown; moist.	SPT SS-1	61	5-6-5 (11)
5	846			SPT SS-2	56	10-10-15 (25)
				SPT SS-3	67	11-12-12 (24)
				SPT SS-4	78	11-6-10 (16)
10	841		10.0 841.0 Terminated at 10.00 ft. Reached Target Depth.			
15	836					
20	831					
25	826					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-146

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-27-2025 **COMPLETED** 08-27-2025
POSITION N: 286670.3 ft E: 13293008.0 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 859.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
		0.3 ASPHALT - 3.5 INCHES 858.7			
		0.5 CONCRETE - 2 INCHES 858.5	GB-1		
		1.1 AGGREGATE - 8 INCHES 857.9			
		Poorly-graded SAND with silt and gravel (SP-SM): very loose; brown; moist.	SPT SS-1	78	2-2-2 (4)
			SPT SS-2	56	2-2-2 (4)
5	854				
		6.0 853.0			
		Poorly-graded SAND with silt and gravel (SP-SM): medium dense to dense; brown; moist.	SPT SS-3	67	3-5-7 (12)
			SPT SS-4	61	12-20-20 (40)
10	849	10.0 849.0			
		Terminated at 10.00 ft. Reached Target Depth.			
15	844				
20	839				
25	834				

N Value
Moisture Content (%)
Plastic/Liquid Limit (%)
Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-147

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-27-2025 **COMPLETED** 08-27-2025
POSITION N: 286680.8 ft E: 13293237.9 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 868.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
			0.3 ASPHALT - 4 INCHES 867.7	GB-1		
			1.0 AGGREGATE - 8 INCHES 867.0			
			Poorly-graded SAND with gravel (SP): medium dense; brown; moist.	SPT SS-1	67	8-9-7 (16)
			3.5 864.5			
5	863		Well-graded SAND with silt and gravel (SW-SM): medium dense to dense; brown; moist.	SPT SS-2	67	10-8-7 (15)
				SPT SS-3	50	12-18-22 (40)
			8.5 859.5			
			NO RECOVERY	SPT SS-4	0	15-30-35 (65)
10	858		10.0 858.0			
			Terminated at 10.00 ft. Reached Target Depth.			
15	853					
20	848					
25	843					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-148

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-27-2025 **COMPLETED** 08-27-2025
POSITION N: 286587.9 ft E: 13293320.3 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 872.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
		0.3 ASPHALT - 3.5 INCHES 871.7	GB-1		
		1.0 AGGREGATE - 8 INCHES 871.0			
		Silty SAND with gravel (SM): loose; brown; moist.	SPT SS-1	89	4-4-6 (10)
		3.5 868.5			
5	867	Poorly-graded SAND with silt (SP-SM): medium dense; brown; moist.	SPT SS-2	61	15-12-12 (24)
			SPT SS-3	56	12-10-10 (20)
			SPT SS-4	56	12-13-13 (26)
10	862	10.0 862.0 Terminated at 10.00 ft. Reached Target Depth.			
15	857				
20	852				
25	847				

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-149

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-28-2025 **COMPLETED** 08-28-2025
POSITION N: 286364.9 ft E: 13293331.0 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 875.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
			0.3 ASPHALT - 4 INCHES 874.7	GB-1		
			1.0 AGGREGATE - 8 INCHES (Well-graded GRAVEL with sand) 874.0			
			Silty SAND with gravel (SM): loose; brown; damp.	SPT SS-1	72	2-4-6 (10)
			3.5 871.5			
5	870		Well-graded SAND with silt and gravel (SW-SM): medium dense; brown; moist.	SPT SS-2	78	10-8-12 (20)
				SPT SS-3	67	12-11-16 (27)
				SPT SS-4	50	12-12-14 (26)
10	865		10.0 865.0 Terminated at 10.00 ft. Reached Target Depth.			
15	860					
20	855					
25	850					

N Value
Moisture Content (%)
Plastic/Liquid Limit (%)
Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-150

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-28-2025 **COMPLETED** 08-28-2025
POSITION N: 286270.1 ft E: 13293329.7 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 876.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
			0.3 ASPHALT - 3.5 INCHES 875.7	GB-1		
			1.0 AGGREGATE - 8 INCHES 875.0			
			Poorly-graded SAND with silt and gravel (SP-SM): loose; brown; moist.	SPT SS-1	83	4-4-4 (8)
			3.5 872.5			
			Silty SAND (SM): medium dense; brown; moist.	SPT SS-2	89	8-10-10 (20)
5	871			SPT SS-3	72	10-10-15 (25)
				SPT SS-4	56	10-12-12 (24)
10	866		10.0 866.0 Terminated at 10.00 ft. Reached Target Depth.			
15	861					
20	856					
25	851					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)

20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-151

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-28-2025 **COMPLETED** 08-28-2025
POSITION N: 286058.6 ft E: 13293341.3 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 876.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
		0.3 ASPHALT - 4 INCHES 875.7			
		0.6 CONCRETE - 3 INCHES 875.4	GB-1		
		1.2 AGGREGATE - 8 INCHES 874.8	SPT SS-1	72	2-1-1 (2)
		Silty SAND with gravel (SM): very loose; brown; moist.			
		3.5 872.5	SPT SS-2	67	5-5-7 (12)
5	871	Poorly-graded SAND with silt (SP-SM): medium dense; brown; moist.	SPT SS-3	89	7-7-8 (15)
			SPT SS-4	67	10-8-8 (16)
10	866	10.0 866.0 Terminated at 10.00 ft. Reached Target Depth.			
15	861				
20	856				
25	851				

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ **AT TIME OF DRILLING**
▼ **AT END OF DRILLING**
▼ **AFTER DRILLING**

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BOREHOLE NUMBER SB-2026-152

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-28-2025 **COMPLETED** 08-28-2025
POSITION N: 285791.9 ft E: 13293330.7 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 876.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)
			0.3 ASPHALT - 3.5 INCHES 875.7			
			0.5 CONCRETE - 3 INCHES 875.5	GB-1		
			1.2 AGGREGATE - 8 INCHES 874.8			
			Silty SAND with gravel (SM): loose; brown; moist.	SPT SS-1	78	3-2-5 (7)
			3.5 872.5			
			Well-graded SAND with silt (SW-SM): medium dense; brown; moist.	SPT SS-2	78	6-7-8 (15)
5	871			SPT SS-3	72	12-6-7 (13)
				SPT SS-4	67	13-6-6 (12)
10	866		10.0 866.0 Terminated at 10.00 ft. Reached Target Depth.			
15	861					
20	856					
25	851					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)

20 40 60 80

LEGEND:

▽ **AT TIME OF DRILLING**
▼ **AT END OF DRILLING**
▽ **AFTER DRILLING**

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BOREHOLE NUMBER SB-2026-153

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-28-2025 **COMPLETED** 08-28-2025
POSITION N: 285627.5 ft E: 13293340.2 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 877.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.3 ASPHALT - 3.5 INCHES 876.7				
		0.5 CONCRETE - 3 INCHES 876.5	GB-1			
		1.2 AGGREGATE - 8 INCHES (Silty GRAVEL with sand) 875.8				
		Sandy Lean CLAY (CL): stiff to very stiff; brown; moist.	SPT SS-1	78	4-8-10 (18)	1.50
		3.5 873.5				
5	872	Poorly-graded SAND with gravel (SP): medium dense to dense; brown; moist.	SPT SS-2	67	7-9-10 (19)	
			SPT SS-3	67	14-11-13 (24)	
			SPT SS-4	61	14-16-20 (36)	
10	867	10.0 867.0				
		Terminated at 10.00 ft. Reached Target Depth.				
15	862					
20	857					
25	852					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

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BOREHOLE NUMBER SB-2026-154

CLIENT City of Ann Arbor
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan
DATE STARTED 08-28-2025 **COMPLETED** 08-28-2025
POSITION N: 285406.9 ft E: 13293347.2 ft (NAD 1983 Michigan South (Intl Feet))
DRILLING CONTRACTOR The Mannik & Smith Group Inc.
SURFACE ELEVATION 878.0 ft **FINAL DEPTH** 10.0 ft
DRILLING METHOD Direct Push
LOGGED BY RD **CHECKED BY** CGG
EQUIPMENT Geoprobe 7822DT **Operator** JDF
REMARKS Coord. & Elev. Estimated from Google Earth.

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)
		0.3 ASPHALT - 4 INCHES 877.7				
		0.6 CONCRETE - 3 INCHES 877.4	GB-1			
		1.2 AGGREGATE - 8 INCHES 876.8	SPT SS-1	50	5-8-7 (15)	3.00
		Sandy Lean CLAY (CL): stiff to very stiff; brown; moist.				
		3.5 874.5	SPT SS-2	67	8-7-7 (14)	
5	873	Poorly-graded SAND with gravel (SP): medium dense; brown; moist.	SPT SS-3	78	10-12-12 (24)	
			SPT SS-4	78	12-12-16 (28)	
10	868	10.0 868.0 Terminated at 10.00 ft. Reached Target Depth.				
15	863					
20	858					
25	853					

▲ N Value
● Moisture Content (%)
I Plastic/Liquid Limit (%)
□ Fines Content (%)
20 40 60 80

LEGEND:

▽ AT TIME OF DRILLING
▼ AT END OF DRILLING
▼ AFTER DRILLING

APPENDIX C

SOIL LABORATORY TEST DATA

LABORATORY TEST PROCEDURES

A brief description of the most common laboratory tests performed at the Geotechnical Engineering Laboratory at the Mannik Smith Group is provided in the following sections.

DESCRIPTION OF SOILS (VISUAL-MANUAL PROCEDURE) (ASTM D2488)
The visual classification of soil samples are performed in accordance with ASTM D2488 standard. Our engineers use this test method to describe each soil sample using visual examination and simple manual tests. Visual classification helps grouping similar soil samples so that only a minimum number of laboratory tests are required for positive soil classification.

POCKET PENETROMETER
In the pocket penetrometer test, the unconfined compressive strength of a cohesive soil sample is estimated by measuring the resistance of the sample to the penetration of a small, calibrated spring-loaded cylinder. The maximum capacity of the penetrometer is 4.5 tons per square foot.

NATURAL MOISTURE CONTENT (ASTM D2216)
Natural moisture content represents the ratio of the weight of water in a given amount of soil to the weight of solid particles. Natural moisture content is expressed as a percentage (%). In this test method the water content is measured in the laboratory by noting the weight loss after drying the soil at specific temperature for 24 hours.

ATTERBERG LIMITS (ASTM D4318)
The Atterberg Limits test is performed in accordance with ASTM D4318. Liquid Limit (LL), Plastic Limit (PL) and Plasticity Index (PI) of the soil sample are determined using this test method. The Liquid Limit is the moisture content at which the soil begins to behave as a liquid material and starts to flow. The Plastic Limit is the moisture content at which the soil changes from plastic to semi-solid stage. The Plasticity Index (PI = LL - PL) is the range of moisture content at which the soil is in a plastic stage. Typically, a soil's potential for volume change increases with increase of plasticity indices.

PARTICLE SIZE ANALYSIS (ASTM D421, D422 and D1140)
These tests are performed to determine the partial soil particle size distribution. The soil sample is prepared according to ASTM D421 test method. The amount of material finer than the openings on the No. 200 sieve (0.075 mm) is determined by wash sieve method according to ASTM D1140. The hydrometer test is used to determine particle size distribution of material finer than 0.075 mm according to ASTM D422 test method.

STANDARD PROCTOR COMPACTION TEST (ASTM D698)
The Standard Proctor compaction test is used to determine maximum dry density and optimum moisture content of the soil sample. In this test, the soil is compacted in the Proctor mold in three lifts of equal volume using a standard effort by the free falling of a 5.5 lb rammer from 12 inches above soil surface. The test procedure is repeated on samples at several different moisture contents and a parabolic graph showing the relationship between moisture content and dry density of the soil is established. The maximum dry unit weight of the compacted sample and the respective moisture content is reported as maximum dry density and optimum moisture content of the soil sample.

MODIFIED PROCTOR COMPACTION TEST (ASTM D1557)
Modified Proctor compaction is similar to the Standard Proctor test. In this test, the soil is compacted in the Proctor mold in five lifts of equal volume using a standard effort by the free falling of a 10 lb rammer from 18 inches above the soil surface. The maximum dry unit weight of the compacted sample and the respective moisture content is reported as maximum dry density and optimum moisture content of the soil sample.

LABORATORY CALIFORNIA BEARING RATIO (ASTM D1883)
The CBR value is the ratio of forces required for 0.1-inch penetration of a 2-inch diameter circular plunger at the rate of 0.05 inch/min into a compacted soil sample compared to the same penetration in a certain standard crushed stone.

LOSS ON IGNITION TEST (LOI) (ASTM D2974)
LOI tests are performed on peat or suspected organic soils. An oven-dried sample is ignited in a furnace at 440°C (Method C) or 750°C (Method D). The ash content of the soil sample is determined as a percentage of the weight of the oven-dried sample. The organic content is the loss of weight due to ignition and reported as a percentage of the weight of the oven-dried sample.

ONE-DIMENSIONAL CONSOLIDATION TEST (ASTM D2435)
The consolidation test data is used to estimate the magnitude and rate of both differential and total settlement of a structure. A one-dimensional consolidation test is performed in a consolidation ring that does not allow lateral displacement of the sample. The sample is subjected to various vertical loading and unloading cycles. The deformation of the sample due to loading and unloading is recorded and used for the plotting a void ratio-applied pressure graph. The pre-consolidation pressure for the soil can also be determined from this test.

UNCONFINED COMPRESSION TEST ON ROCK SAMPLES (ASTM D7012)

In the unconfined compression test, the unconfined compressive strength (q_u) of a rock sample is estimated by measuring the resistance of the sample in compression when an axial loading is applied to the cylindrical specimen (with a height to diameter ratio of approximately 2) to reach the failure condition.

UNCONFINED COMPRESSION TEST ON SOIL SAMPLES (ASTM D2166)

In the unconfined compression test, the unconfined compressive strength (q_u) of a cohesive soil sample is estimated by measuring the resistance of the sample in compression when an axial loading is applied to the cylindrical specimen (with a height to diameter ratio of 2 to 2.5) to reach the failure condition or 15 percent (%) of axial deformation, whichever is secured first.

UNCONSOLIDATED-UNDRAINED (UU) TRIAXIAL COMPRESSION TEST (ASTM D2850)

Triaxial Shear tests are used to determine the shear strength of soil samples under various loading conditions. The test is performed on a relatively undisturbed sample extruded from a Shelby tube. In this test method, fluid flow is not permitted into or out of the soil specimen as the load is applied (undrained condition), therefore pore pressure builds up in the sample. The compressive strength of a soil is determined in terms of the total stress. The various confining pressures help determining the shear strength of the soil at different depths.

CONSOLIDATED-UNDRAINED (CU) TRIAXIAL COMPRESSION TEST (ASTM D4767)

The shear characteristics of cohesive samples (collected from relatively undisturbed sample extruded from a Shelby tube) are measured in this test under undrained conditions. This test represents field conditions where fully consolidated soils under one set of stresses are subjected to a sudden change in stress without sufficient time for further consolidation (undrained condition). The data from this test is used to analyze the shear strength parameters of the soil at different depths. The compressive strength of a soil is reported in terms of the effective stress.

WATER SOLUBLE SULFATE, RESISTIVITY AND PH

To evaluate the corrosion potential of the site, MSG performs sulfates (Ohio DOT Supplement 1122), resistivity (ASTM G187), and pH tests (ASTM D4972) on select soil samples.

SPECIFIC GRAVITY (ASTM D854)

Specific gravity is defined as the ratio of the unit weight of soil solids only to unit weight of water at a specific temperature. MSG performs specific gravity tests for soils according to ASTM D854 test procedure.

PERMEABILITY (ASTM D2434 and ASTM D5084)

This test method covers laboratory measurements of the hydraulic conductivity (the coefficient of permeability) of water-saturated granular and cohesive materials. MSG performs multiple methods for permeability tests according to ASTM D2434 and ASTM D5084.

DIRECT SHEAR TEST (ASTM D3080)

The direct shear tests are performed to determine the maximum and residual shear strength. A horizontal load is applied at a constant rate of strain. The soil sample is placed in a box where the lower half of the box is mounted on rollers and is pushed forward at a uniform rate by a motorized apparatus. The upper half of the box bears against a steel proving ring, the deformation of which is shown on a dial gauge indicating the shear force. The various information that can be obtained from the results includes the maximum (peak) shear strength and the ultimate (residual) shear strength.

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SUMMARY OF LABORATORY RESULTS

AASHTO R18

CLIENT City of Ann Arbor **PROJECT NAME** 2025 Water Main and Resurfacing Projects

PROJECT NUMBER 401.2300021.013 **PROJECT LOCATION** Ann Arbor, Michigan

Boring No. / Sample No.	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Bulk Density (pcf)	Satur-ation (%)	Specific Gravity
SB-2026-108 / GB-1	0.5	NP	NP	NP	19	6	SP-SM				
SB-2026-108 / SS-3	6.0							8.8	145.1		
SB-2026-109 / SS-3	6.0				9.525	65		12.3	137.7		
SB-2026-110 / SS-4	8.5							13.8	126.0		
SB-2026-112 / SS-3	6.0				19	65		12.5	145.3		
SB-2026-113 / GB-1	0.5	NP	NP	NP	25	0	GW				
SB-2026-113 / SS-4	8.5							12.3	129.9		
SB-2026-114 / SS-3	6.0				19	64		11.7	134.5		
SB-2026-115 / GB-1	0.5	NP	NP	NP	25	1	GW				
SB-2026-115 / SS-3	6.0							12.8	137.3		
SB-2026-116 / SS-4	8.5							11.5	135.2		
SB-2026-117 / GB-1	0.5	NP	NP	NP	19	2	SP				
SB-2026-117 / SS-3	6.0							14.0	136.1		
SB-2026-118 / SS-4	8.5							11.5	137.3		
SB-2026-119 / GB-1	0.5	NP	NP	NP	25	1	GW				
SB-2026-119 / SS-3	6.0							13.2	140.3		
SB-2026-120 / GB-1	0.5	NP	NP	NP	19	3	SP				
SB-2026-120 / SS-4	8.5							13.7	139.5		
SB-2026-121 / SS-1	1.0	NP	NP	NP	19	11	SW-SM				
SB-2026-122 / GB-1	0.5	NP	NP	NP	25	3	GP				
SB-2026-123 / SS-1	1.0	NP	NP	NP	19	7	SP-SM				
SB-2026-123 / SS-3	6.0							15.1	132.1		
SB-2026-124 / GB-1	0.5	NP	NP	NP	19	4	GW				
SB-2026-124 / SS-5	13.5							17.9	132.3		
SB-2026-125 / SS-5	13.5				9.525	81					
SB-2026-125 / SS-6	18.5							18.1	135.0		
SB-2026-126 / GB-1	0.5	NP	NP	NP	25	3	SP				
SB-2026-126 / SS-3	6.0							16.6	131.6		
SB-2026-128 / SS-3	6.0							17.4	132.7		
SB-2026-128 / SS-4	8.5	NP	NP	NP	25	11	SP-SM				
SB-2026-130 / SS-3	6.0				9.525	87		15.6	129.1		
SB-2026-139 / GB-1	0.5	NP	NP	NP	19	2	GW				
SB-2026-140 / SS-3	6.0	NP	NP	NP	19	8	SW-SM				
SB-2026-141 / SS-3	6.0	NP	NP	NP	19	11	SW-SM				
SB-2026-142 / SS-3	6.0	NP	NP	NP	25	7	GP-GM				
SB-2026-143 / SS-3	6.0	NP	NP	NP	25	9	GW-GM				
SB-2026-144 / SS-1	1.0	NP	NP	NP	19	12	SW-SM				
SB-2026-145 / SS-3	6.0	NP	NP	NP	19	9	SW-SM				
SB-2026-146 / SS-3	6.0	NP	NP	NP	25	6	SP-SM				
SB-2026-147 / SS-3	6.0	NP	NP	NP	25	8	SW-SM				
SB-2026-148 / SS-1	1.0	NP	NP	NP	19	17	SM				
SB-2026-148 / SS-3	6.0	NP	NP	NP	25	12	SP-SM				
SB-2026-149 / GB-1	0.5	NP	NP	NP	25	0	GW				

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SUMMARY OF LABORATORY RESULTS

AASHTO R18

CLIENT City of Ann Arbor **PROJECT NAME** 2025 Water Main and Resurfacing Projects

PROJECT NUMBER 401.2300021.013 **PROJECT LOCATION** Ann Arbor, Michigan

Boring No. / Sample No.	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Bulk Density (pcf)	Satur-ation (%)	Specific Gravity
SB-2026-149 / SS-3	6.0	NP	NP	NP	25	11	SW-SM				
SB-2026-150 / SS-3	6.0	NP	NP	NP	19	18	SM				
SB-2026-151 / SS-1	1.0	NP	NP	NP	19	12	SM				
SB-2026-152 / SS-3	6.0	NP	NP	NP	9.525	9	SW-SM				
SB-2026-153 / GB-1	0.5	NP	NP	NP	25	18	GM				
SB-2026-154 / SS-3	6.0	NP	NP	NP	19	5	SP				

GRAIN SIZE DISTRIBUTION

The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
ph: (734) 397-3100 fax: (734) 397-3131
www.manniksmithgroup.com

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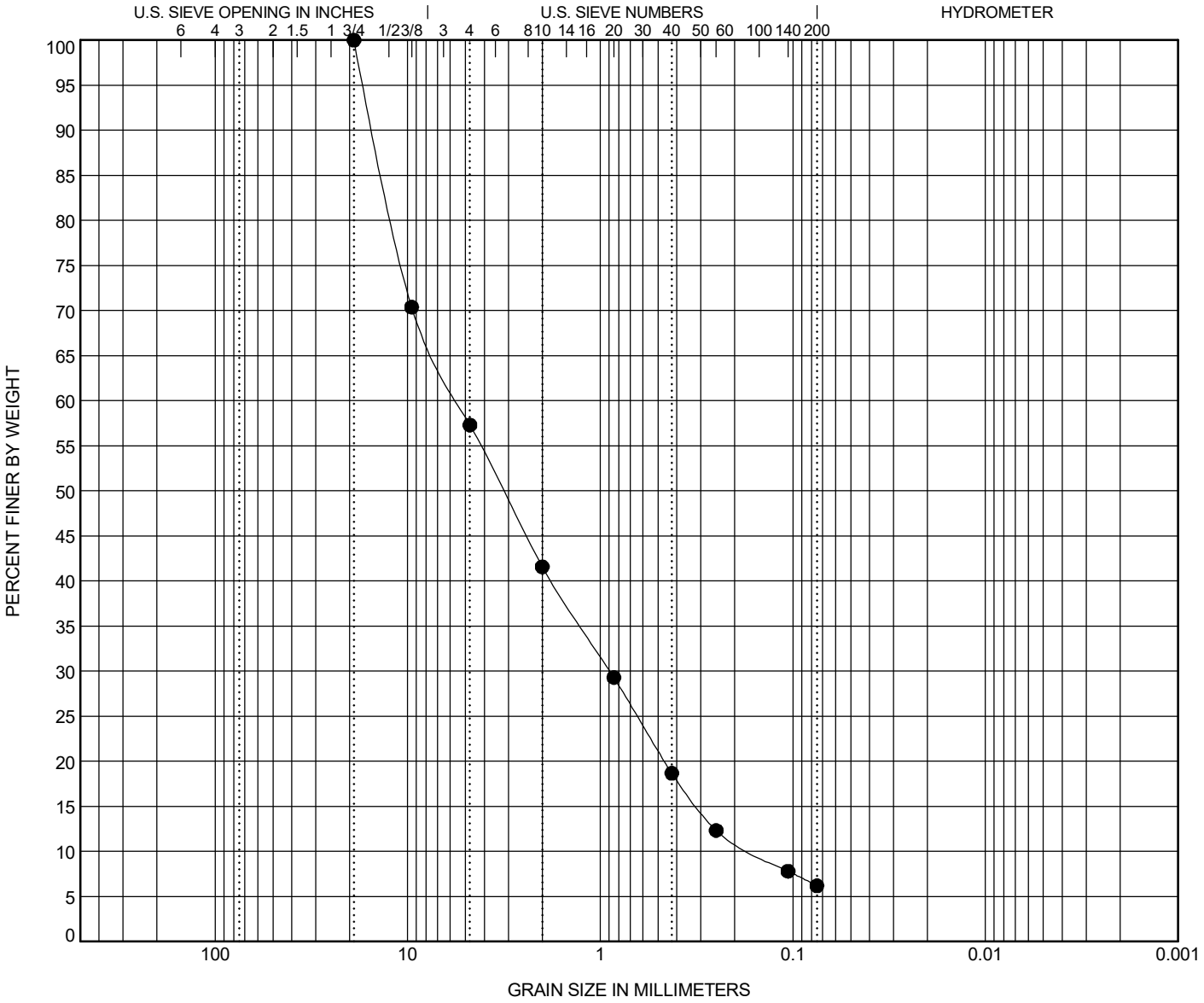
PROJECT NUMBER 401.2300021.013 **PROJECT LOCATION** Ann Arbor, Michigan



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-108 / GB-1**	**0.5**	**POORLY GRADED SAND with SILT and GRAVEL (SP-SM)**	**NP**	**NP**	**NP**	**0.91**	**34.15**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-108 / GB-1**	**0.5**	**19**	**5.48**	**0.892**	**0.16**	**42.7**	**51.1**	**6.2**	

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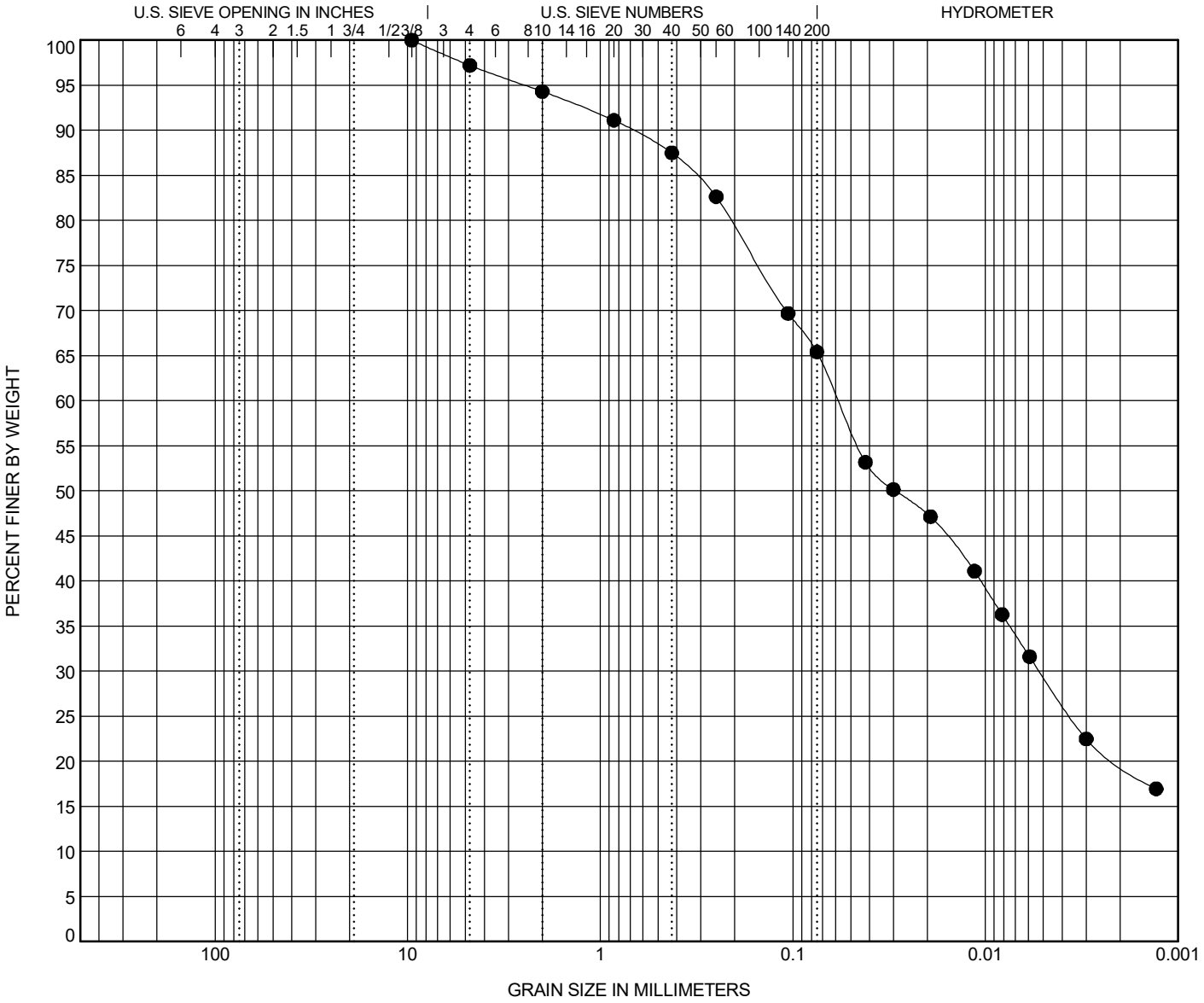

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-109 / SS-3**	**6.0**						

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-109 / SS-3**	**6.0**	**9.525**	**0.058**	**0.005**		**2.8**	**31.8**	**45.6**	**19.8**

GRAIN SIZE - GINT STD US LAB.GDT - 10/6/25 14:02 - W:\PROJECTS\2023\401.2300001-00199\401.2300021.000\ADMIN\13 BUNDLE\GEOTECH\LAB\013 LAB TESTING WATER MAIN.GPJ

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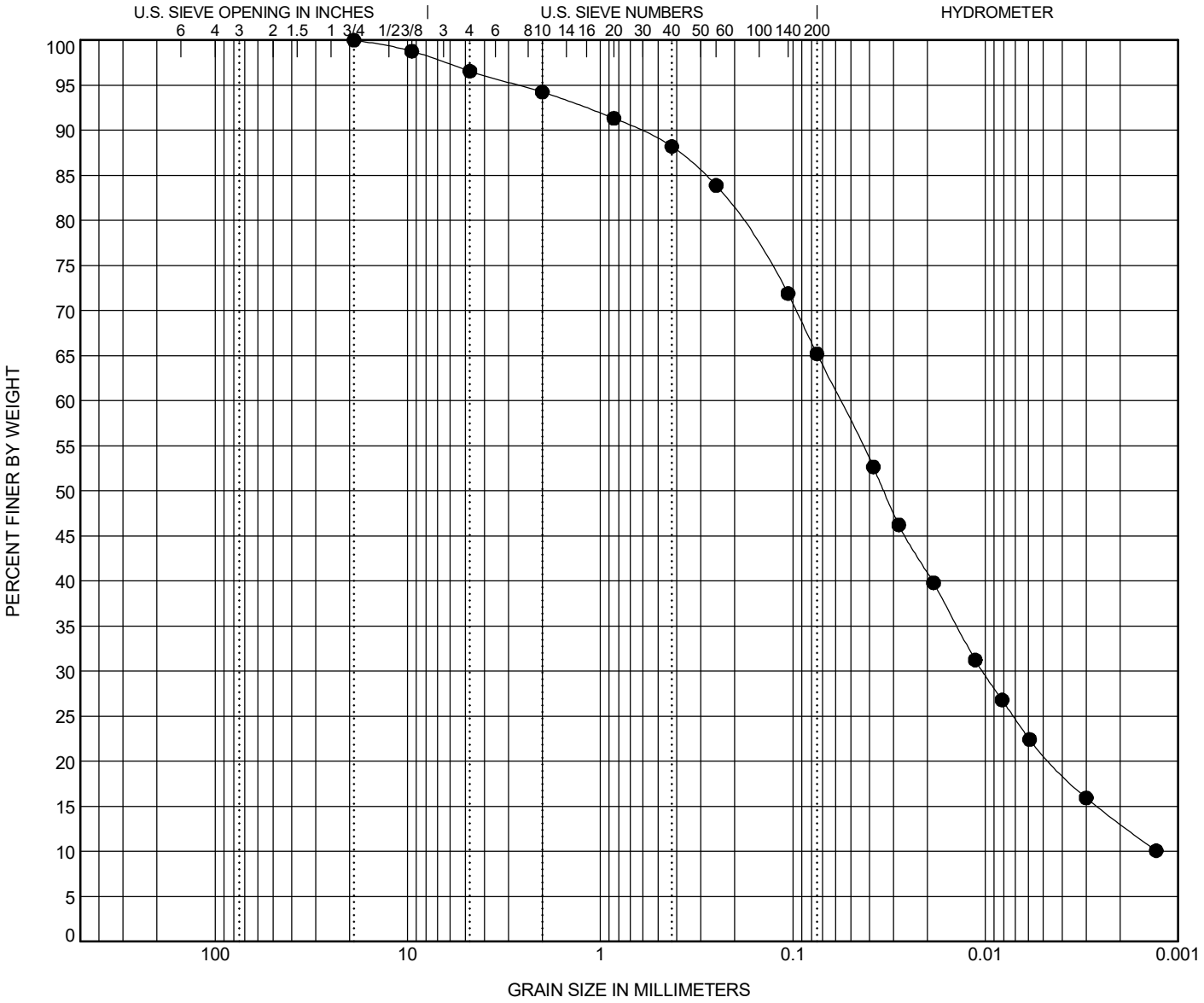

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-112 / SS-3**	**6.0**						

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-112 / SS-3**	**6.0**	**19**	**0.057**	**0.01**		**3.4**	**31.4**	**52.1**	**13.1**

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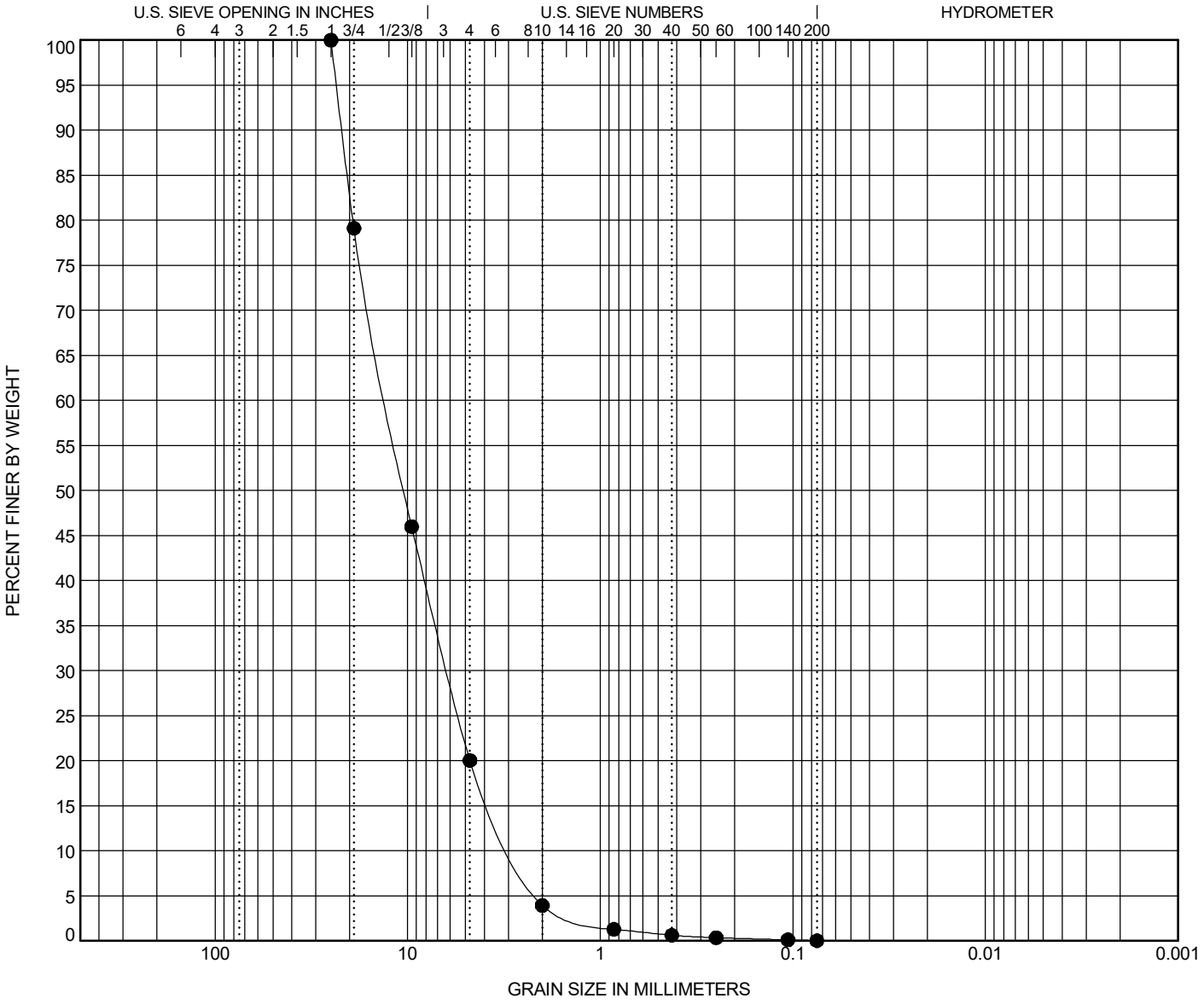

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-113 / GB-1**	**0.5**	**WELL-GRADED GRAVEL with SAND (GW)**	**NP**	**NP**	**NP**	**1.09**	**4.61**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-113 / GB-1**	**0.5**	**25**	**12.754**	**6.204**	**2.769**	**80.0**	**20.0**	**0.0**	

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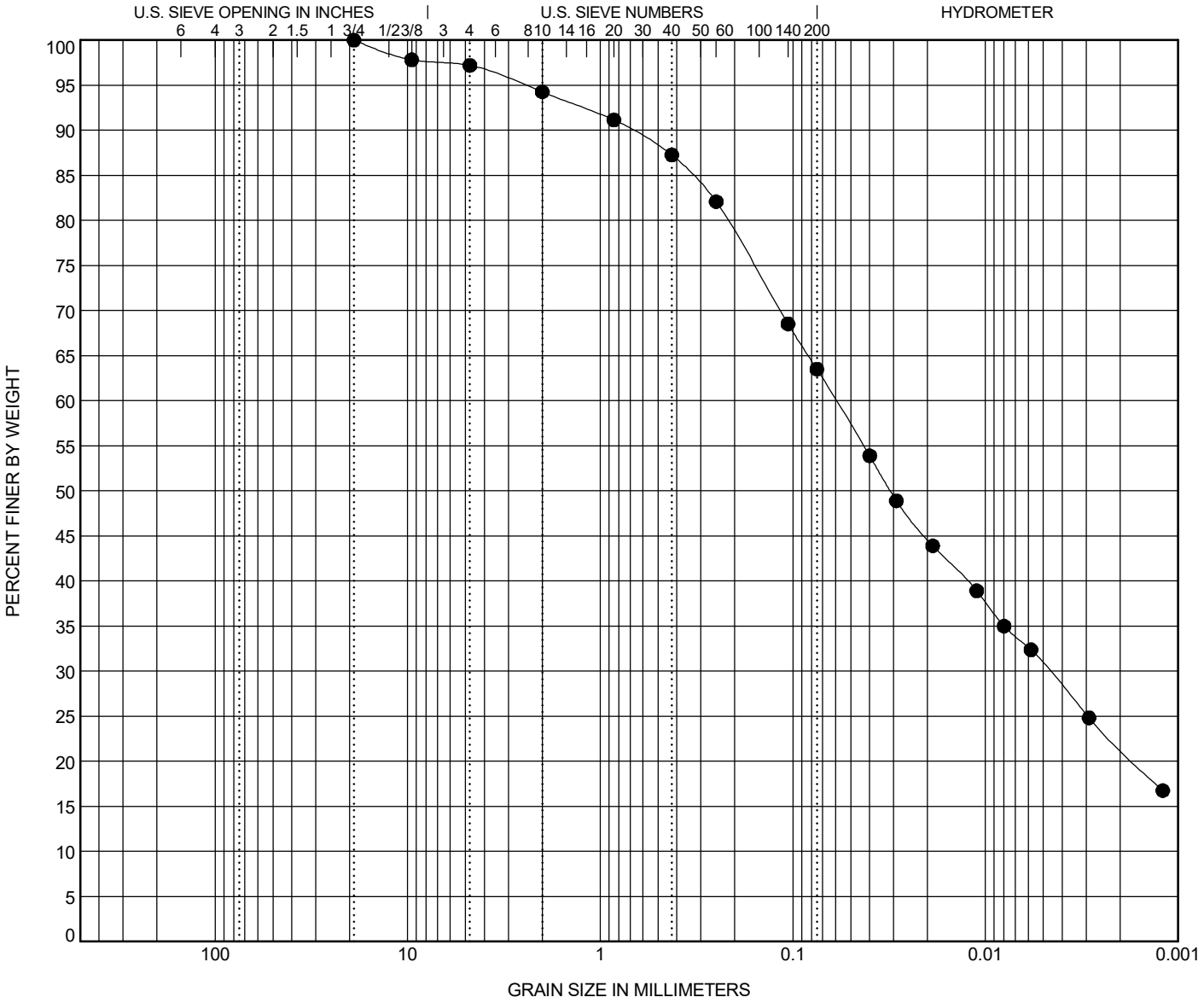

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-114 / SS-3**	**6.0**						

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-114 / SS-3**	**6.0**	**19**	**0.06**	**0.005**		**2.8**	**33.7**	**42.1**	**21.4**

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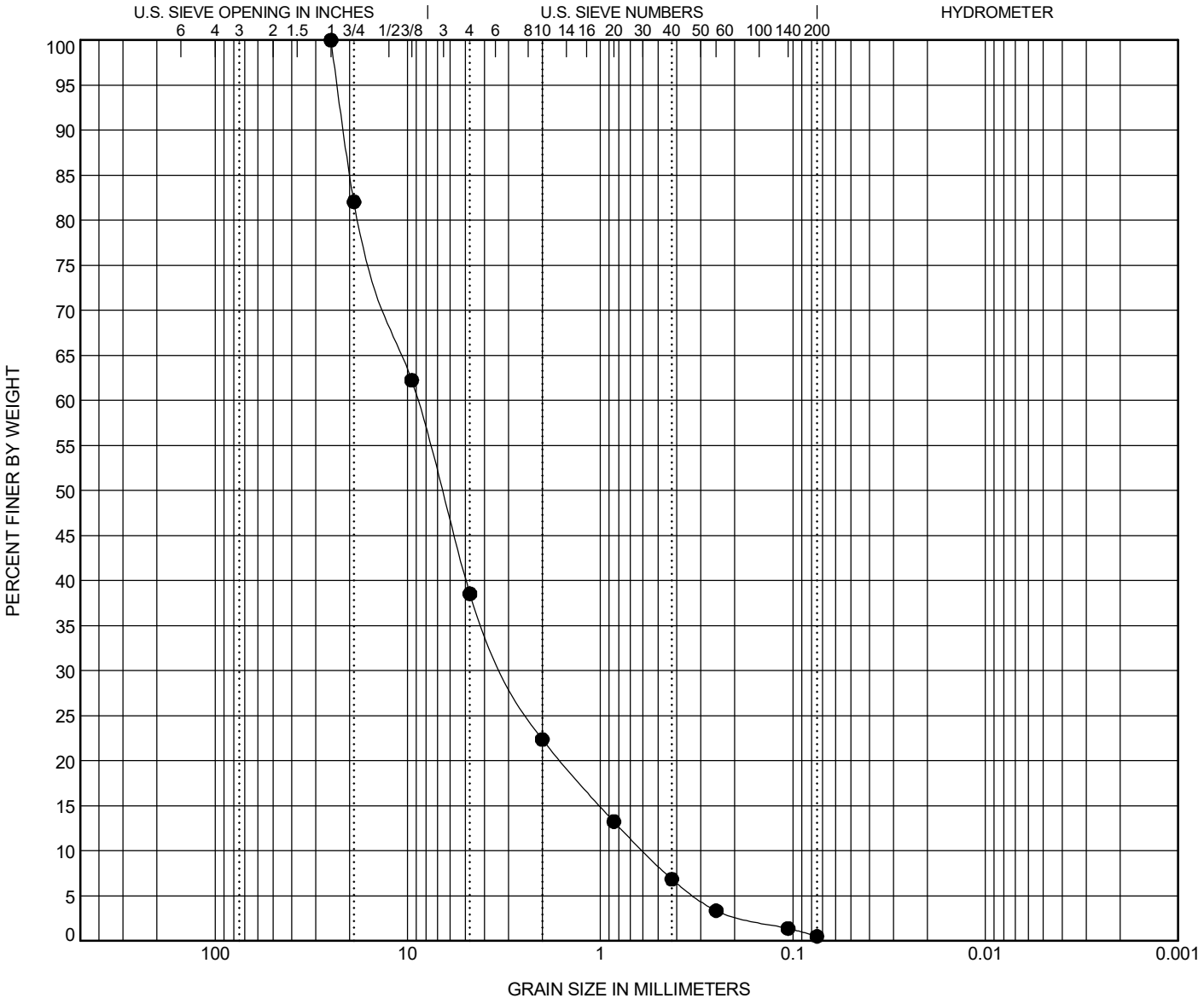

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-115 / GB-1**	**0.5**	**WELL-GRADED GRAVEL with SAND (GW)**	**NP**	**NP**	**NP**	**1.70**	**14.93**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-115 / GB-1**	**0.5**	**25**	**8.918**	**3.008**	**0.597**	**61.5**	**38.0**	**0.5**	

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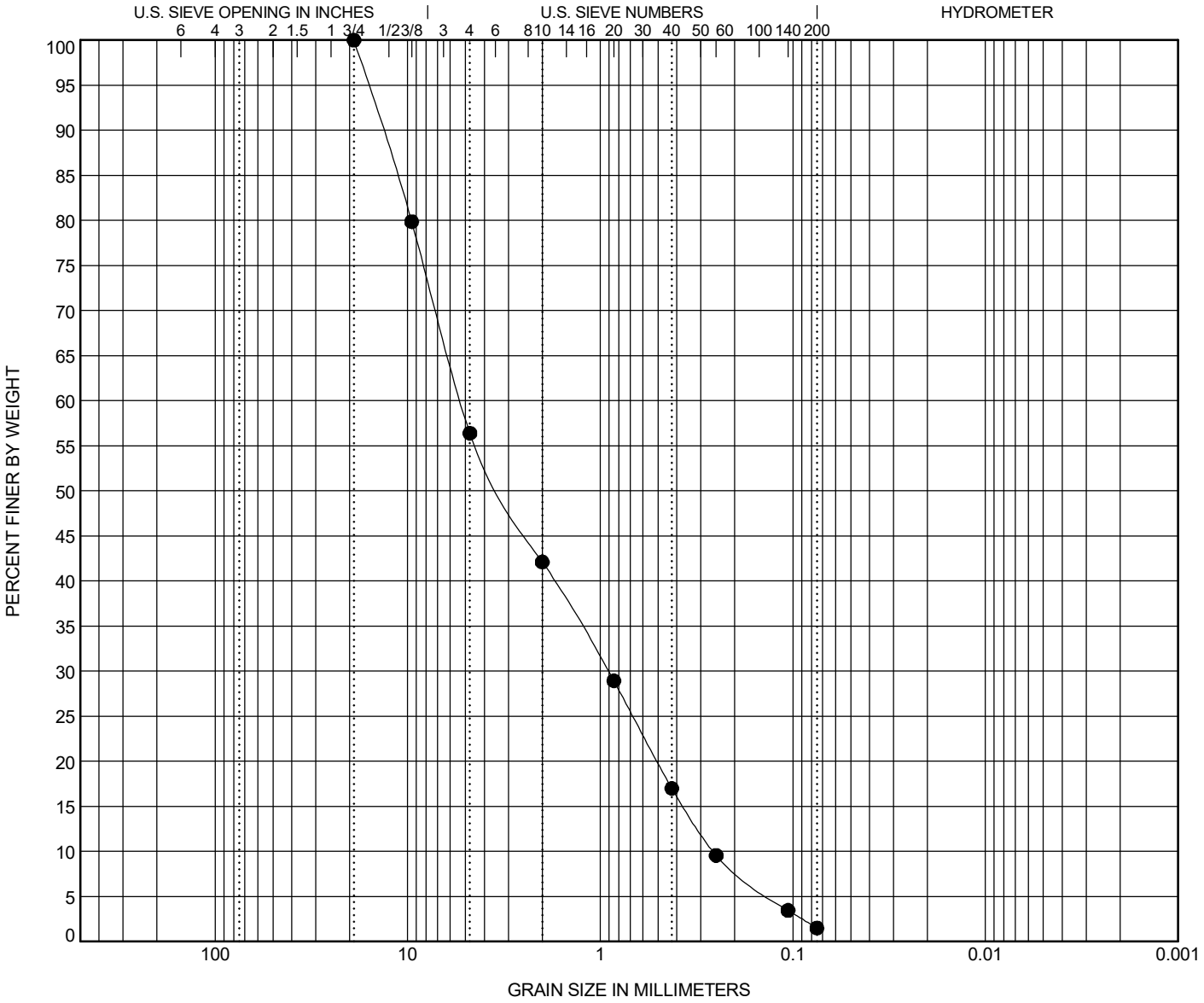

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-117 / GB-1**	**0.5**	**POORLY GRADED SAND with GRAVEL (SP)**	**NP**	**NP**	**NP**	**0.61**	**20.49**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-117 / GB-1**	**0.5**	**19**	**5.285**	**0.91**	**0.258**	**43.6**	**54.9**	**1.5**	

GRAIN SIZE DISTRIBUTION

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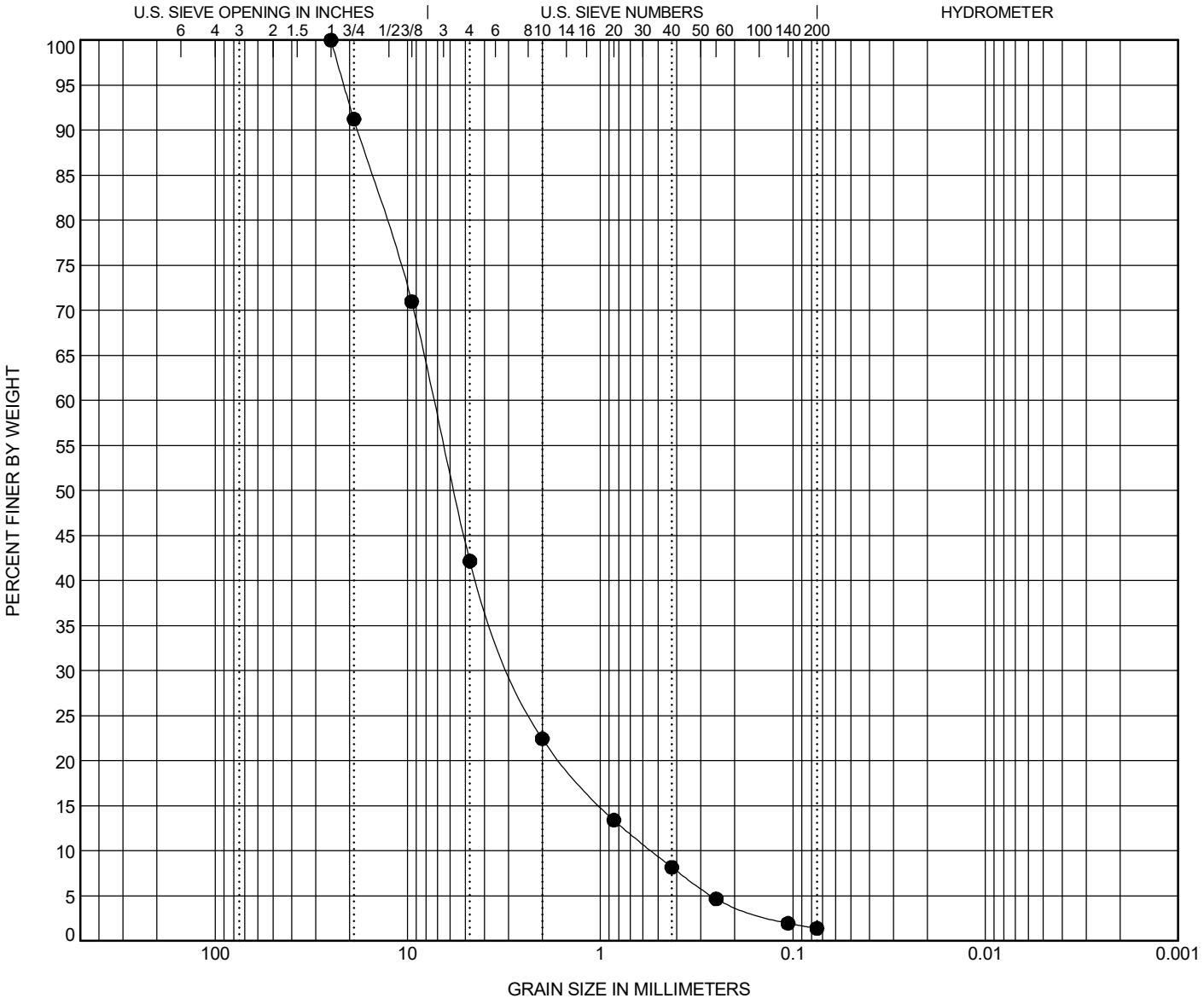

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-119 / GB-1**	**0.5**	**WELL-GRADED GRAVEL with SAND (GW)**	**NP**	**NP**	**NP**	**1.96**	**13.51**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-119 / GB-1**	**0.5**	**25**	**7.307**	**2.785**	**0.541**	**57.8**	**40.8**	**1.4**	

GRAIN SIZE DISTRIBUTION

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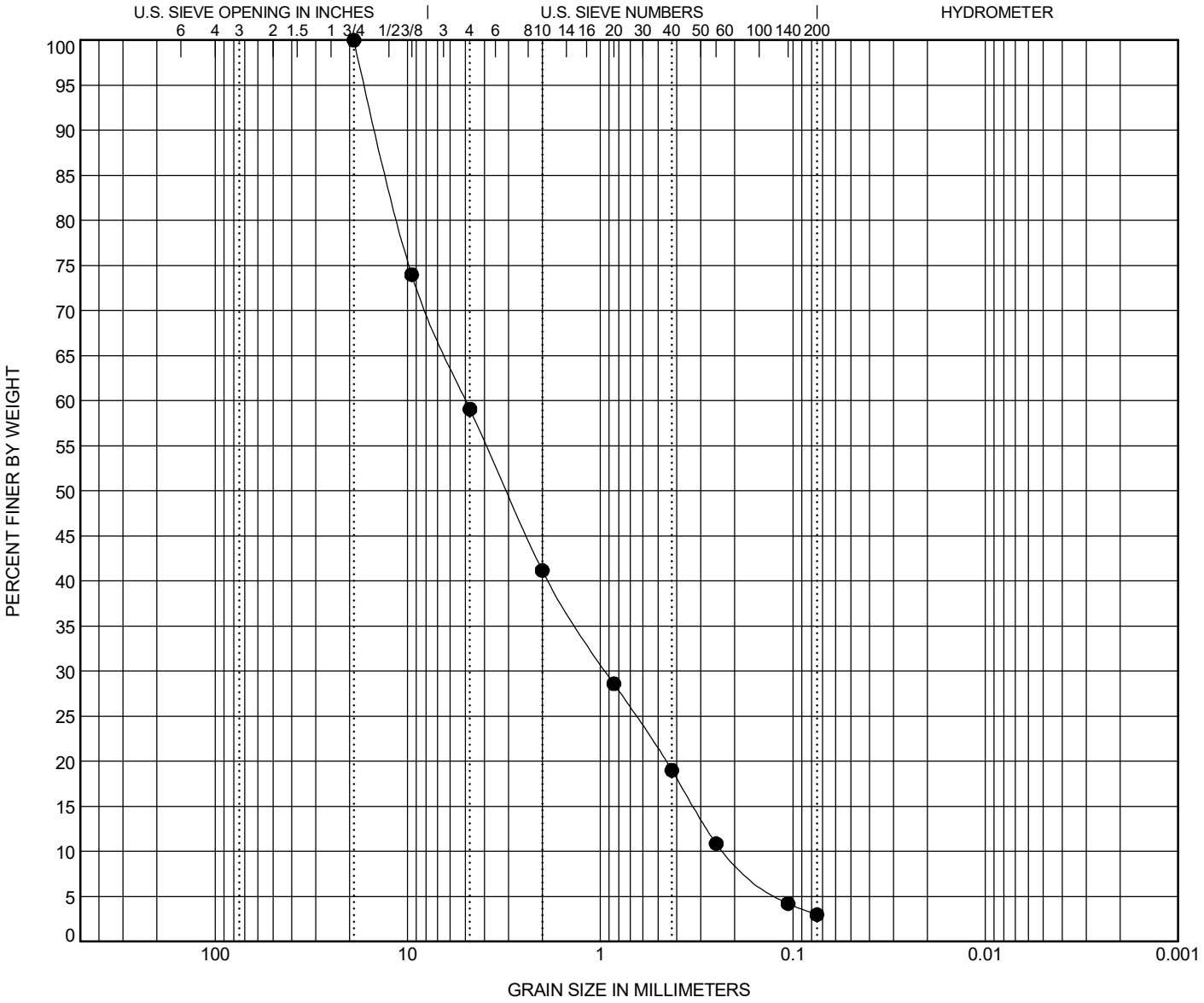

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-120 / GB-1**	**0.5**	**POORLY GRADED SAND with GRAVEL (SP)**	**NP**	**NP**	**NP**	**0.79**	**22.20**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-120 / GB-1**	**0.5**	**19**	**4.958**	**0.934**	**0.223**	**40.9**	**56.1**	**3.0**	

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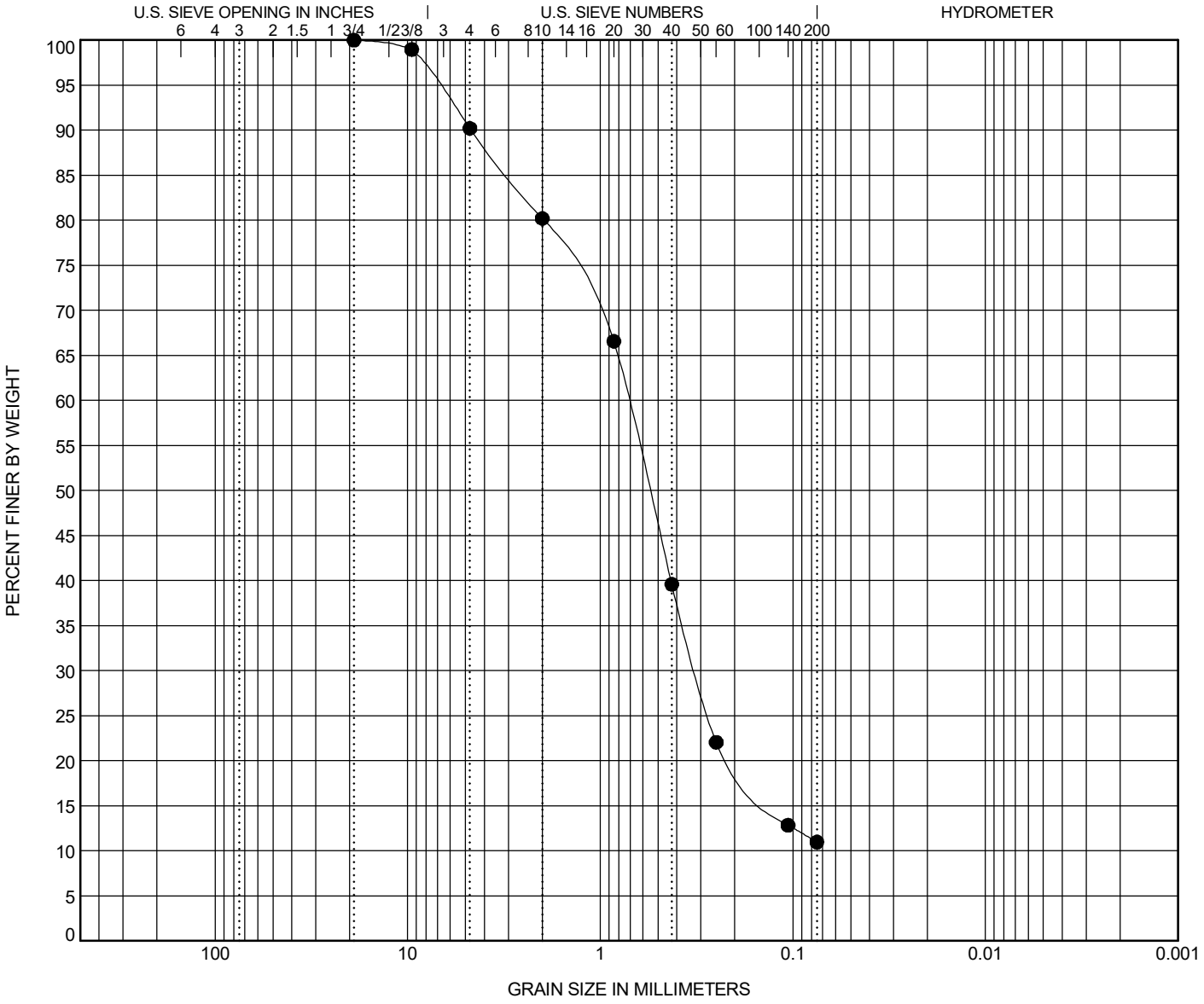

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-121 / SS-1**	**1.0**	**WELL-GRADED SAND with SILT (SW-SM)**	**NP**	**NP**	**NP**	**2.25**	**11.48**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-121 / SS-1**	**1.0**	**19**	**0.718**	**0.318**		**9.8**	**79.2**	**11.0**	

GRAIN SIZE DISTRIBUTION

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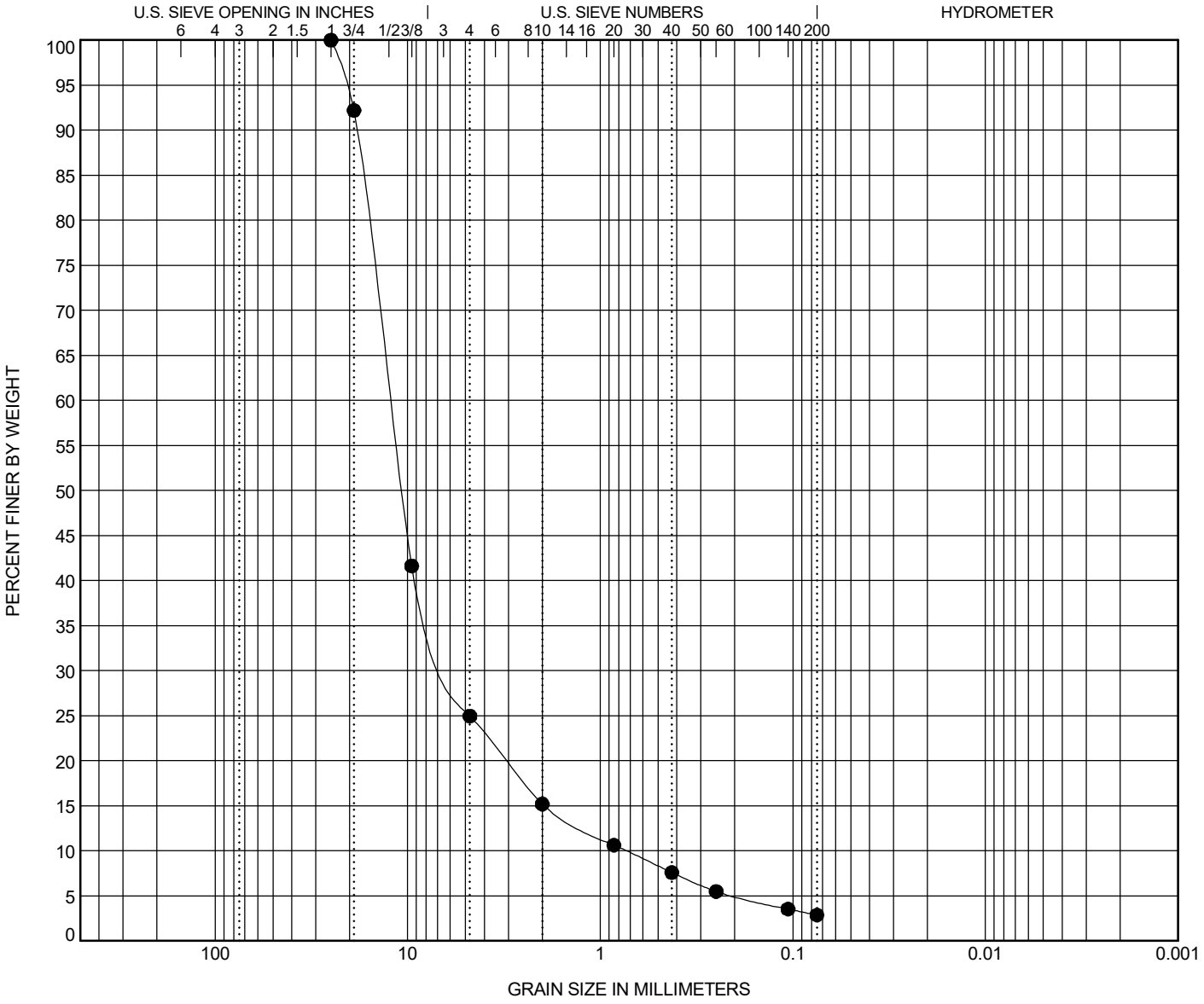
PROJECT NUMBER 401.2300021.013 **PROJECT LOCATION** Ann Arbor, Michigan



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● **SB-2026-122 / GB-1 0.5**	**POORLY GRADED GRAVEL with SAND (GP)**	**NP**	**NP**	**NP**	**3.81**	**16.63**

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-122 / GB-1 0.5**	**25**	**12.24**	**5.861**	**0.736**	**75.0**	**22.1**	**2.9**	

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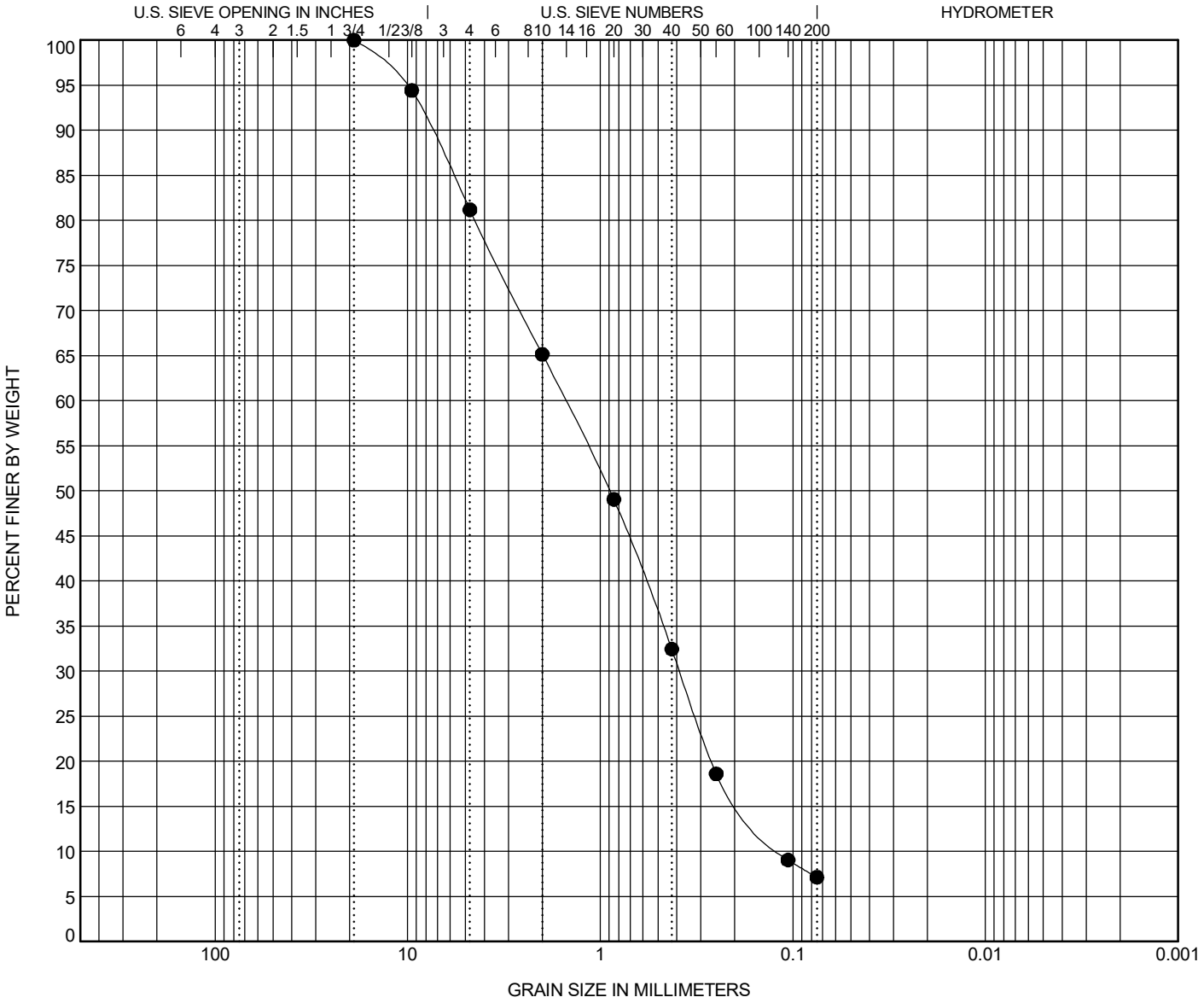

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-123 / SS-1**	**1.0**	**POORLY GRADED SAND with SILT and GRAVEL (SP-SM)**	**NP**	**NP**	**NP**	**0.85**	**13.17**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-123 / SS-1**	**1.0**	**19**	**1.52**	**0.387**	**0.115**	**18.8**	**74.1**	**7.1**	

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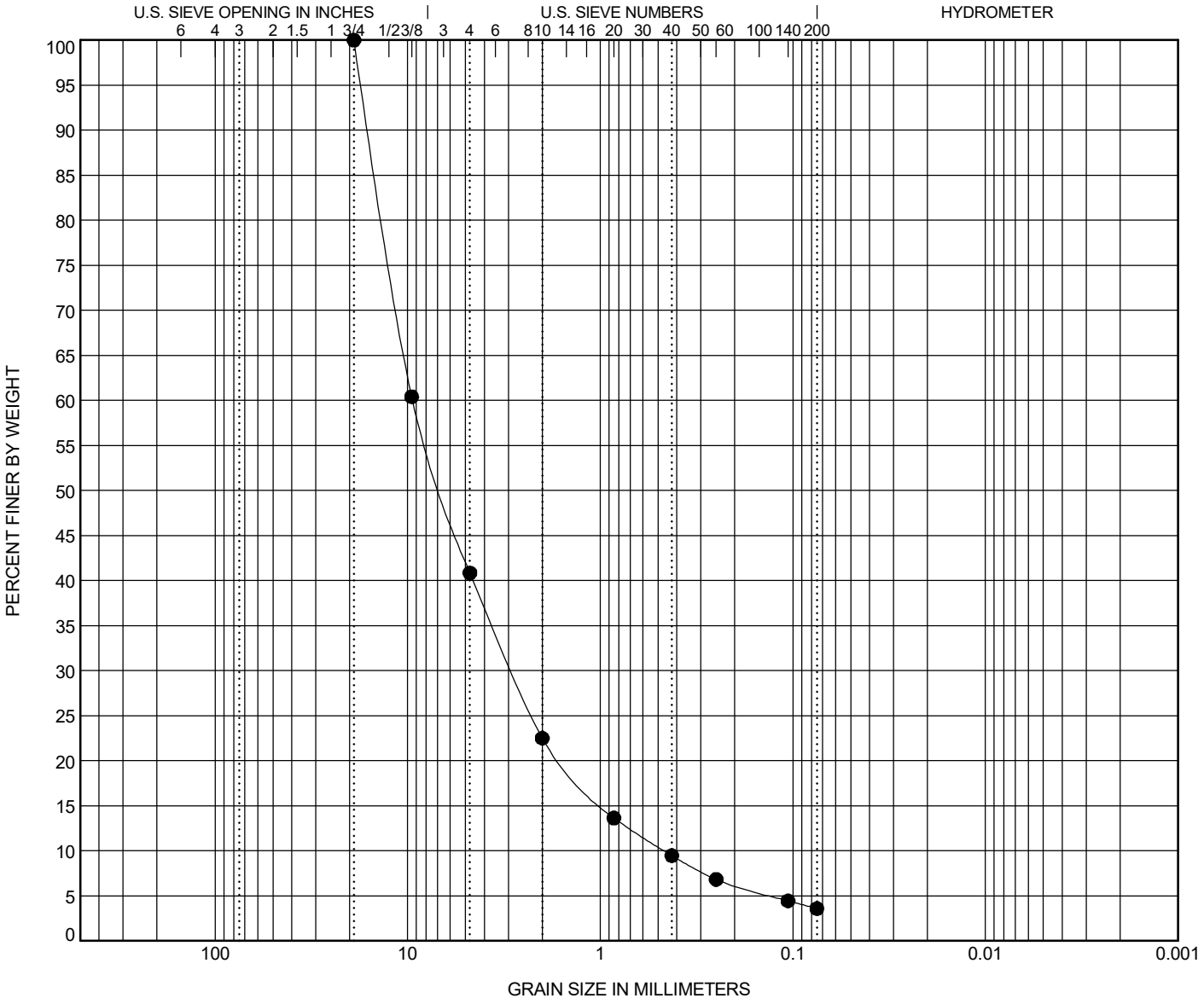

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-124 / GB-1**	**0.5**	**WELL-GRADED GRAVEL with SAND (GW)**	**NP**	**NP**	**NP**	**1.86**	**20.23**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-124 / GB-1**	**0.5**	**19**	**9.385**	**2.847**	**0.464**	**59.1**	**37.3**	**3.6**	

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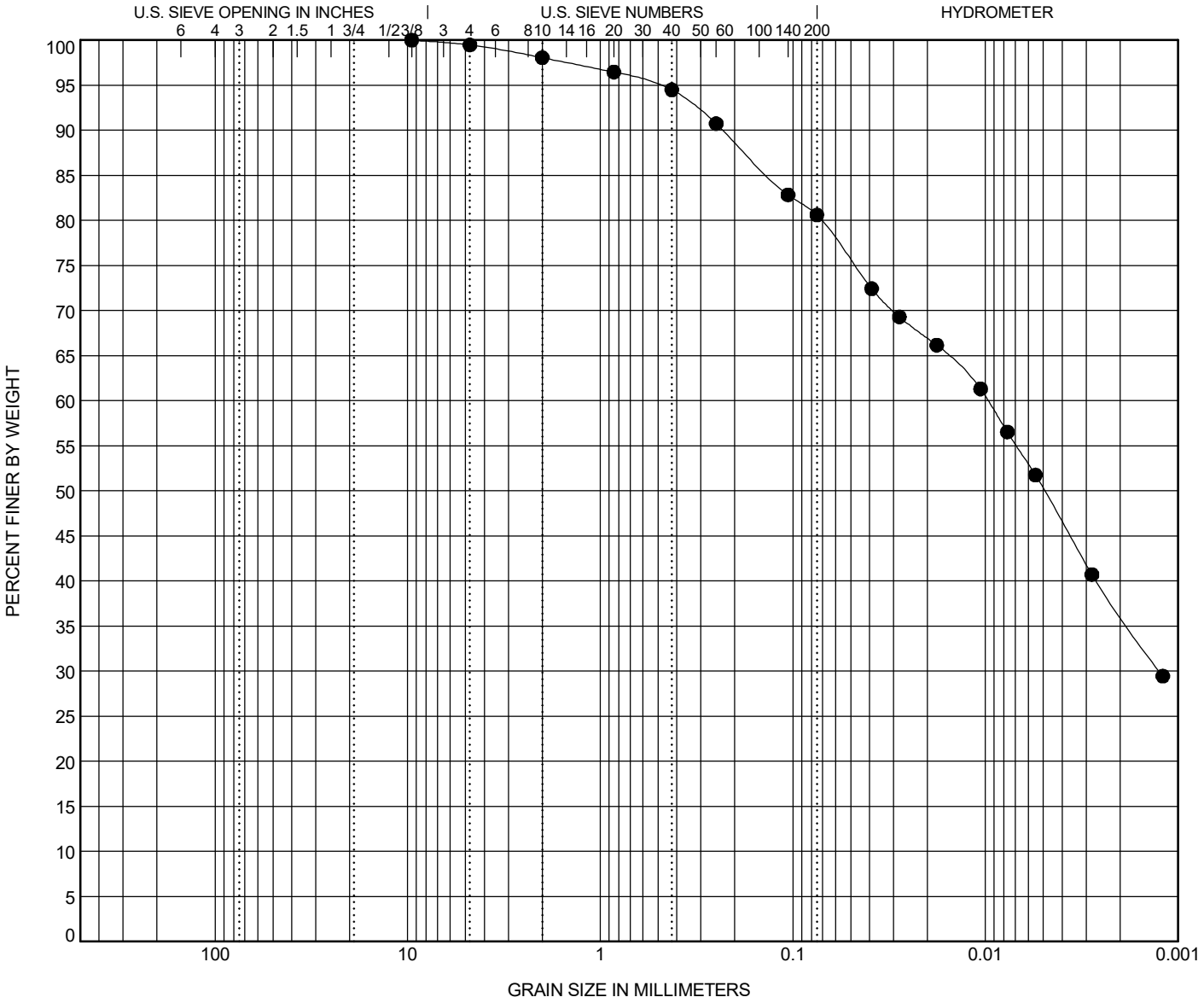

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	**SB-2026-125 / SS-5 13.5**						

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SB-2026-125 / SS-5 13.5**	**9.525**	**0.01**	**0.001**		**0.5**	**18.9**	**44.4**	**36.3**

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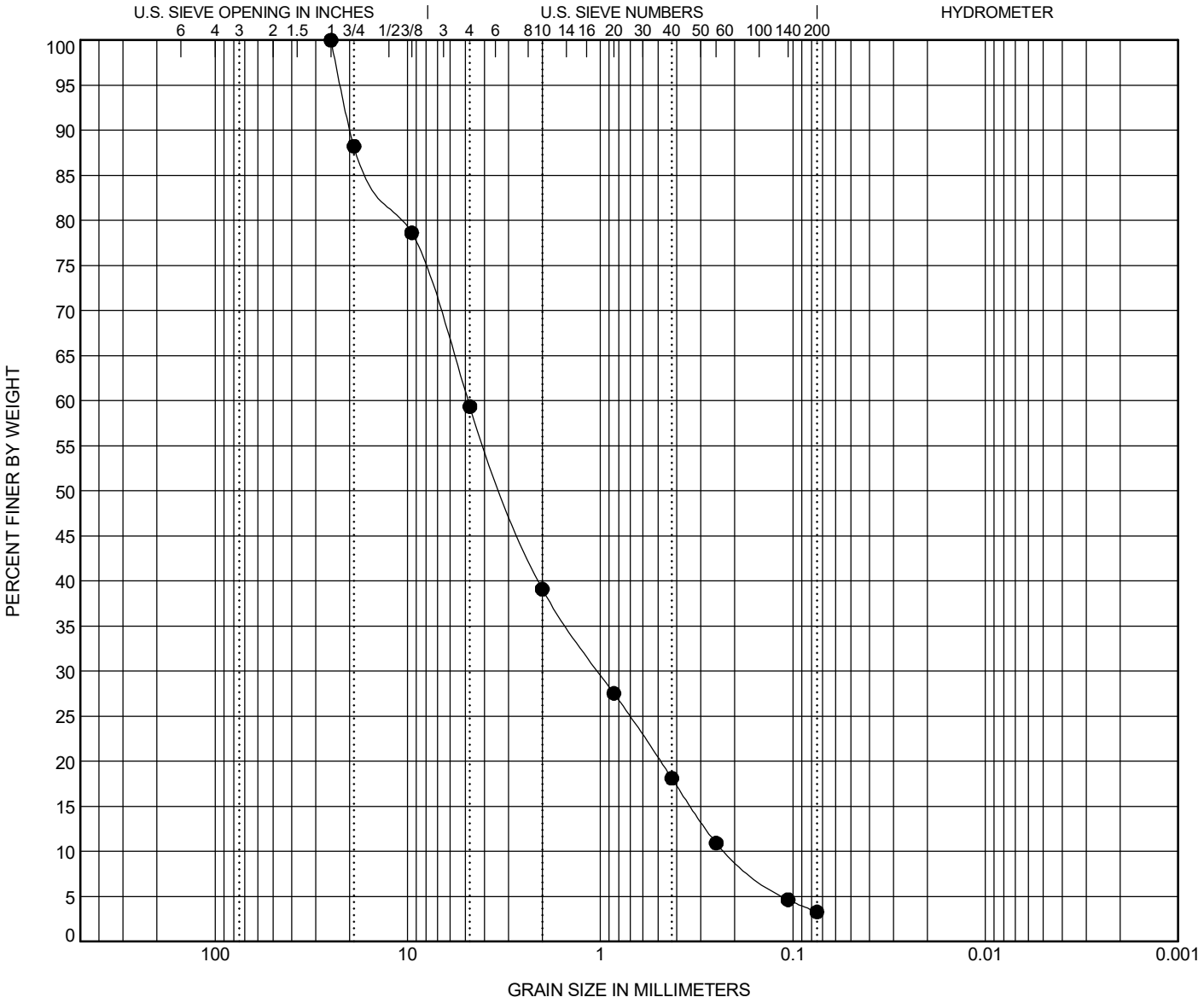

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-126 / GB-1**	**0.5**	**POORLY GRADED SAND with GRAVEL (SP)**	**NP**	**NP**	**NP**	**0.97**	**22.08**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-126 / GB-1**	**0.5**	**25**	**4.862**	**1.019**	**0.22**	**40.6**	**56.1**	**3.3**	

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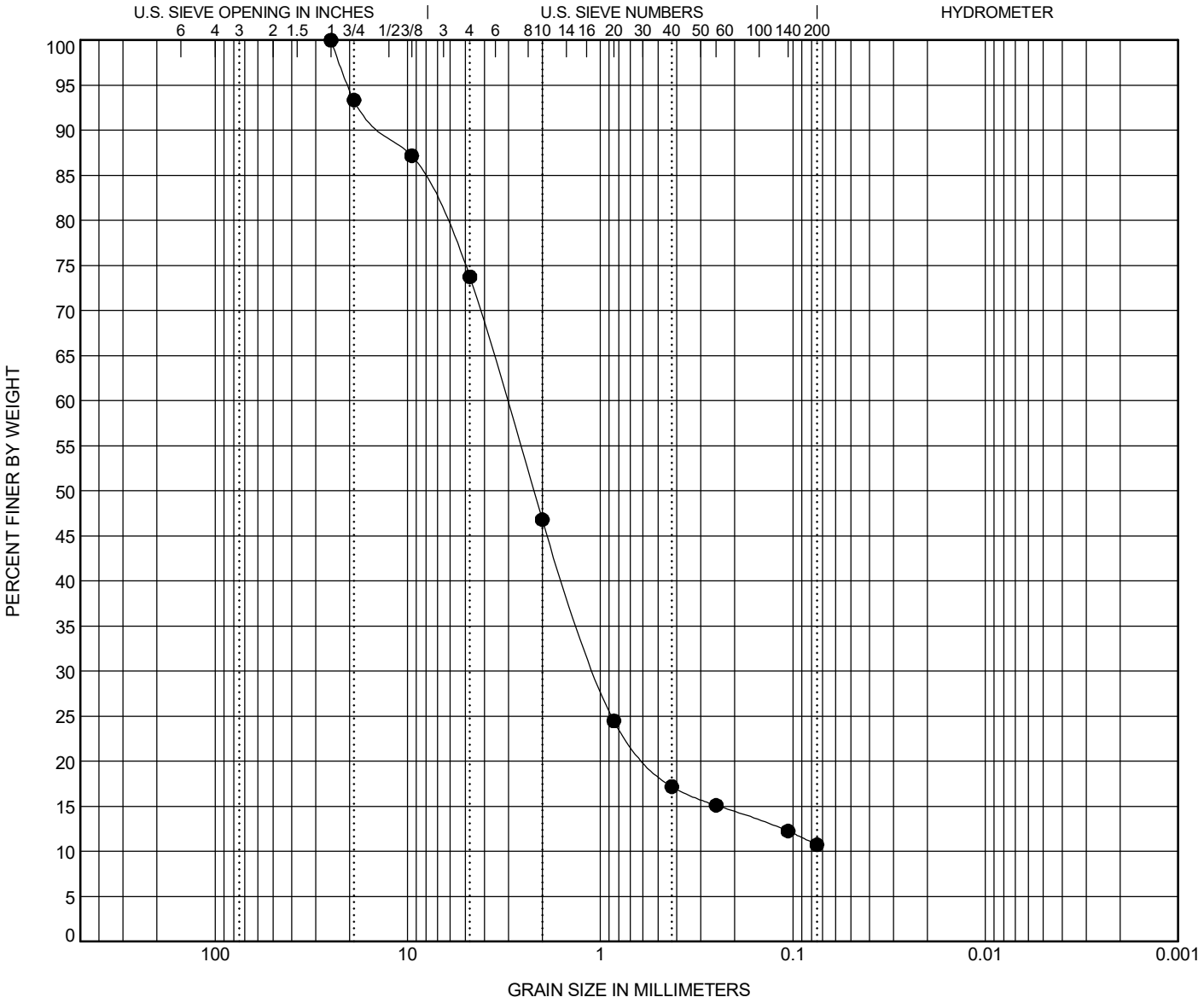

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-128 / SS-4**	**8.5**	**POORLY GRADED SAND with SILT and GRAVEL (SP-SM)**	**NP**	**NP**	**NP**	**5.70**	**48.24**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-128 / SS-4**	**8.5**	**25**	**3.054**	**1.05**		**26.2**	**63.0**	**10.7**	

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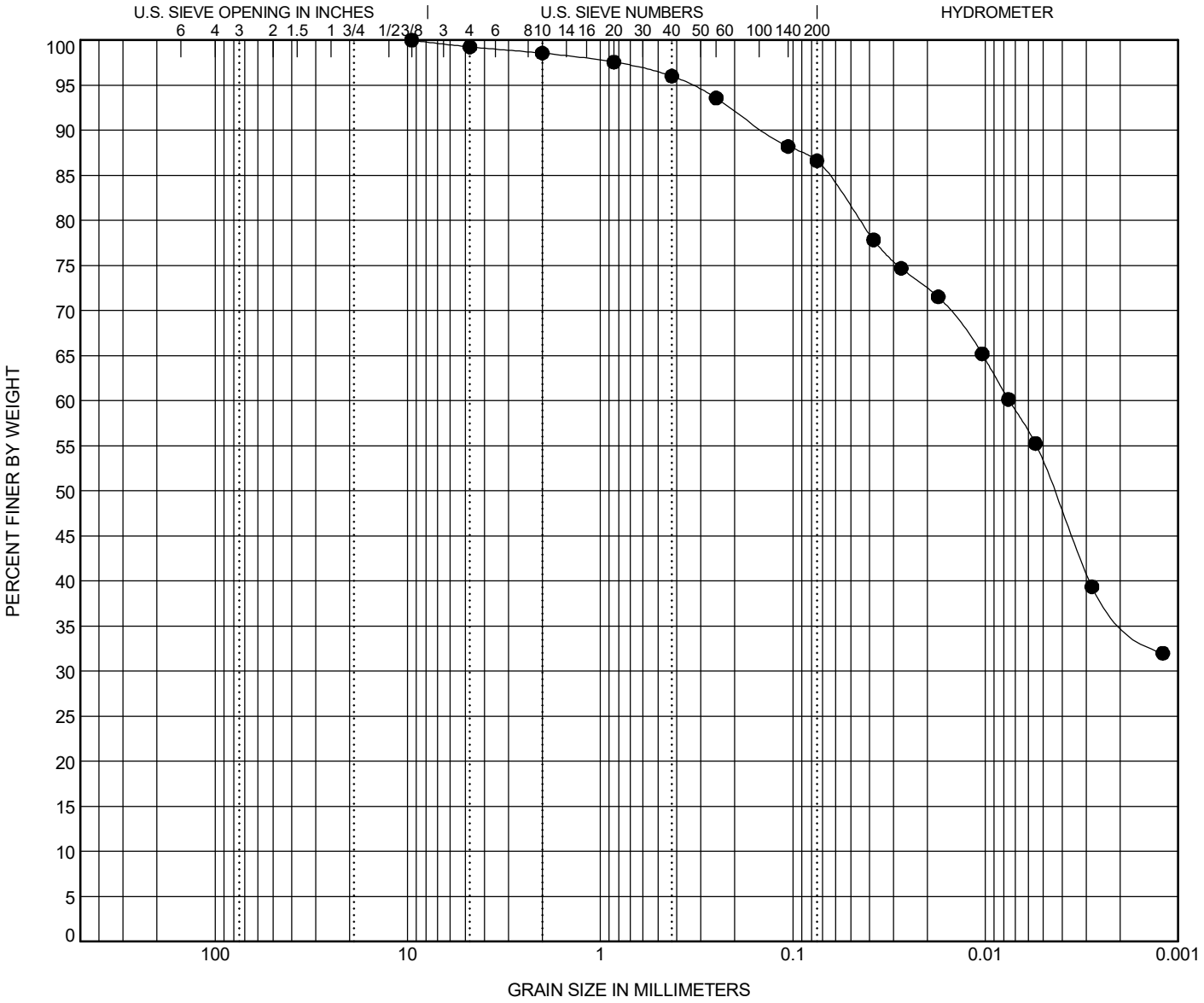

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-130 / SS-3**	**6.0**						

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-130 / SS-3**	**6.0**	**9.525**	**0.008**			**0.7**	**12.6**	**50.2**	**36.4**

GRAIN SIZE DISTRIBUTION

The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
ph: (734) 397-3100 fax: (734) 397-3131
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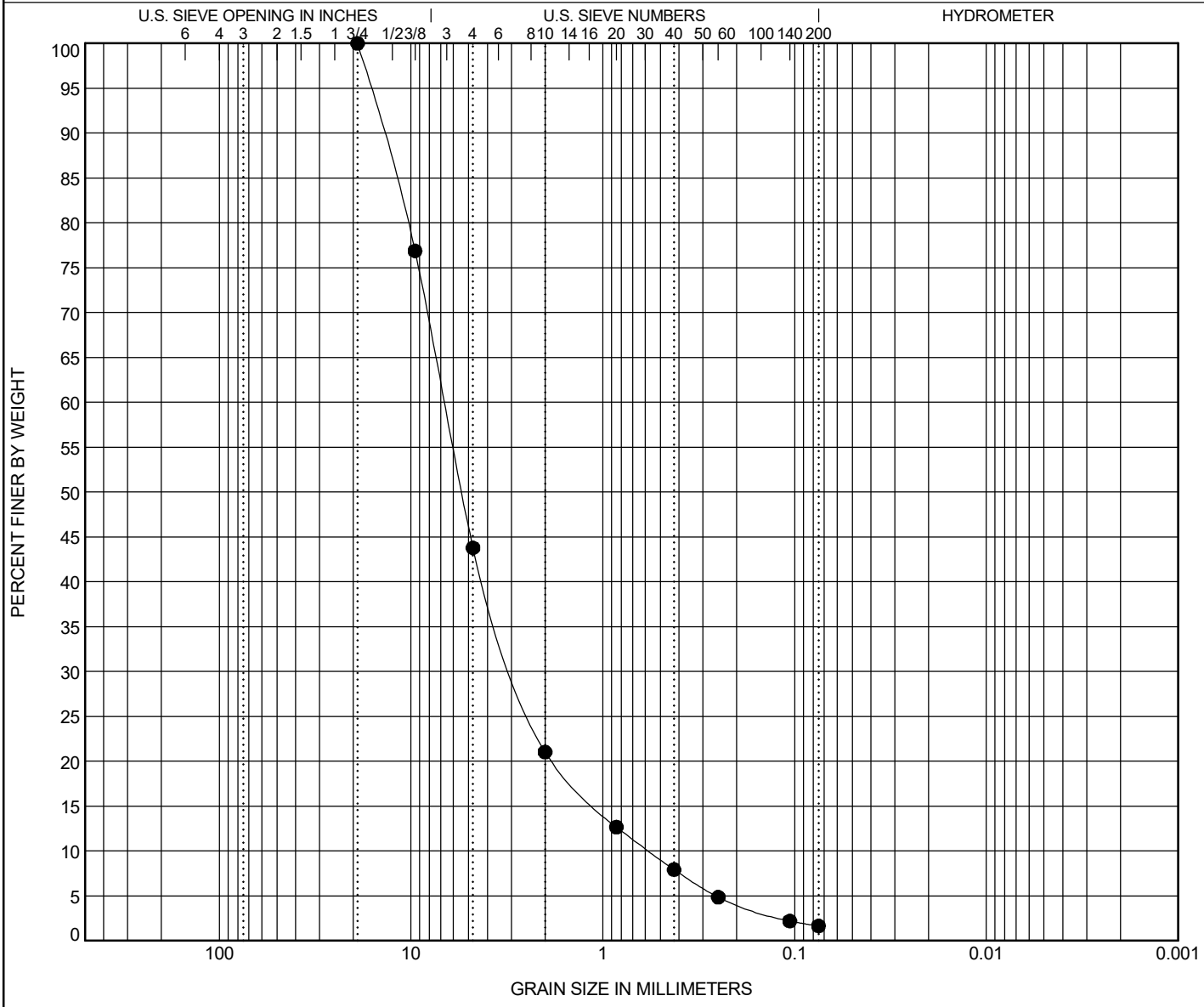
AASHTO R18

CLIENT City of Ann Arbor **PROJECT NAME** 2025 Water Main and Resurfacing Projects

PROJECT NUMBER 401.2300021.013 **PROJECT LOCATION** Ann Arbor, Michigan



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-139 / GB-1**	**0.5**	**WELL-GRADED GRAVEL with SAND (GW)**	**NP**	**NP**	**NP**	**2.06**	**11.61**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-139 / GB-1**	**0.5**	**19**	**6.679**	**2.812**	**0.575**	**56.2**	**42.1**	**1.7**	

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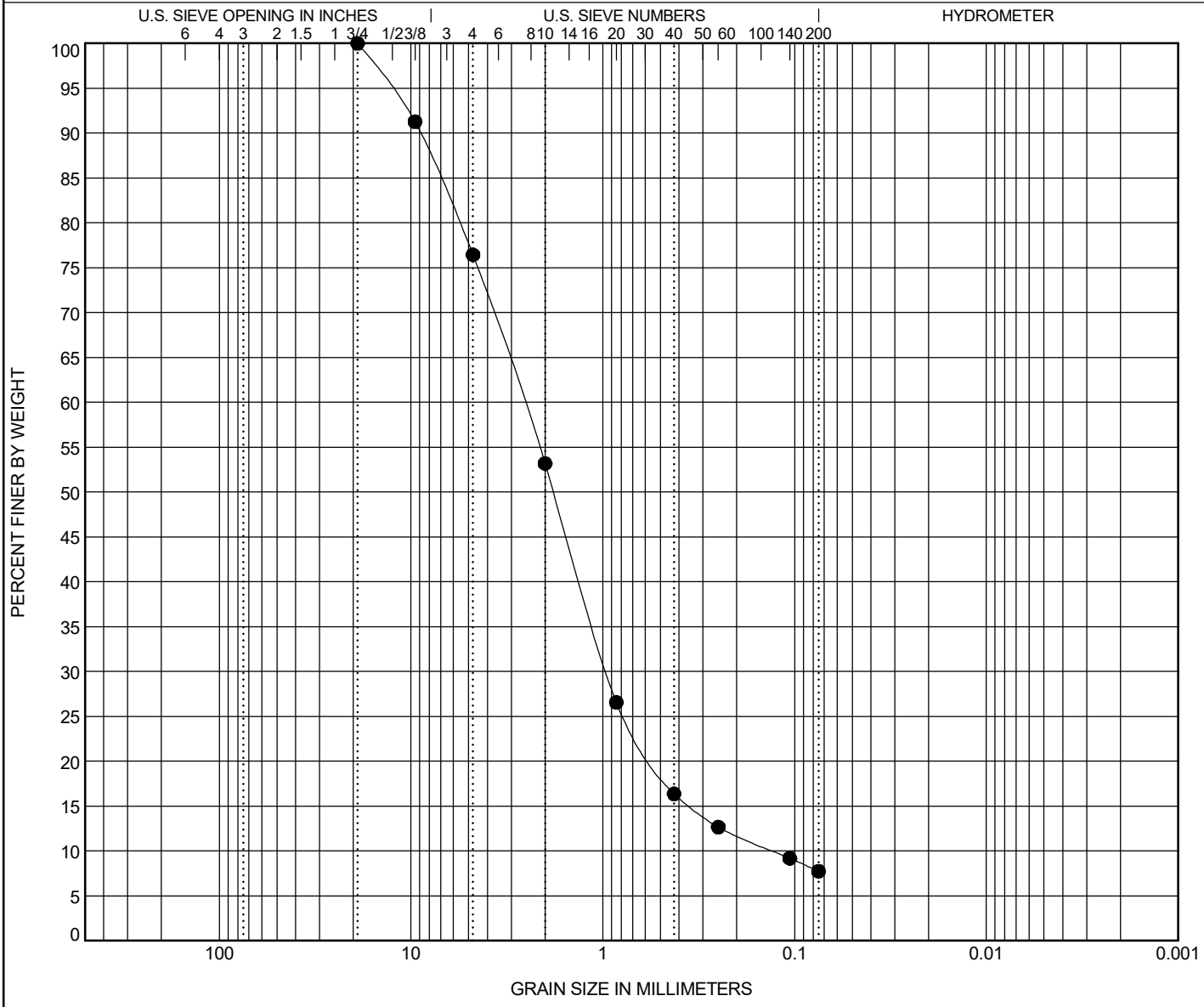

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-140 / SS-3**	**6.0**	**WELL-GRADED SAND with SILT and GRAVEL (SW-SM)**	**NP**	**NP**	**NP**	**2.71**	**19.95**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-140 / SS-3**	**6.0**	**19**	**2.576**	**0.949**	**0.129**	**23.6**	**68.7**	**7.8**	

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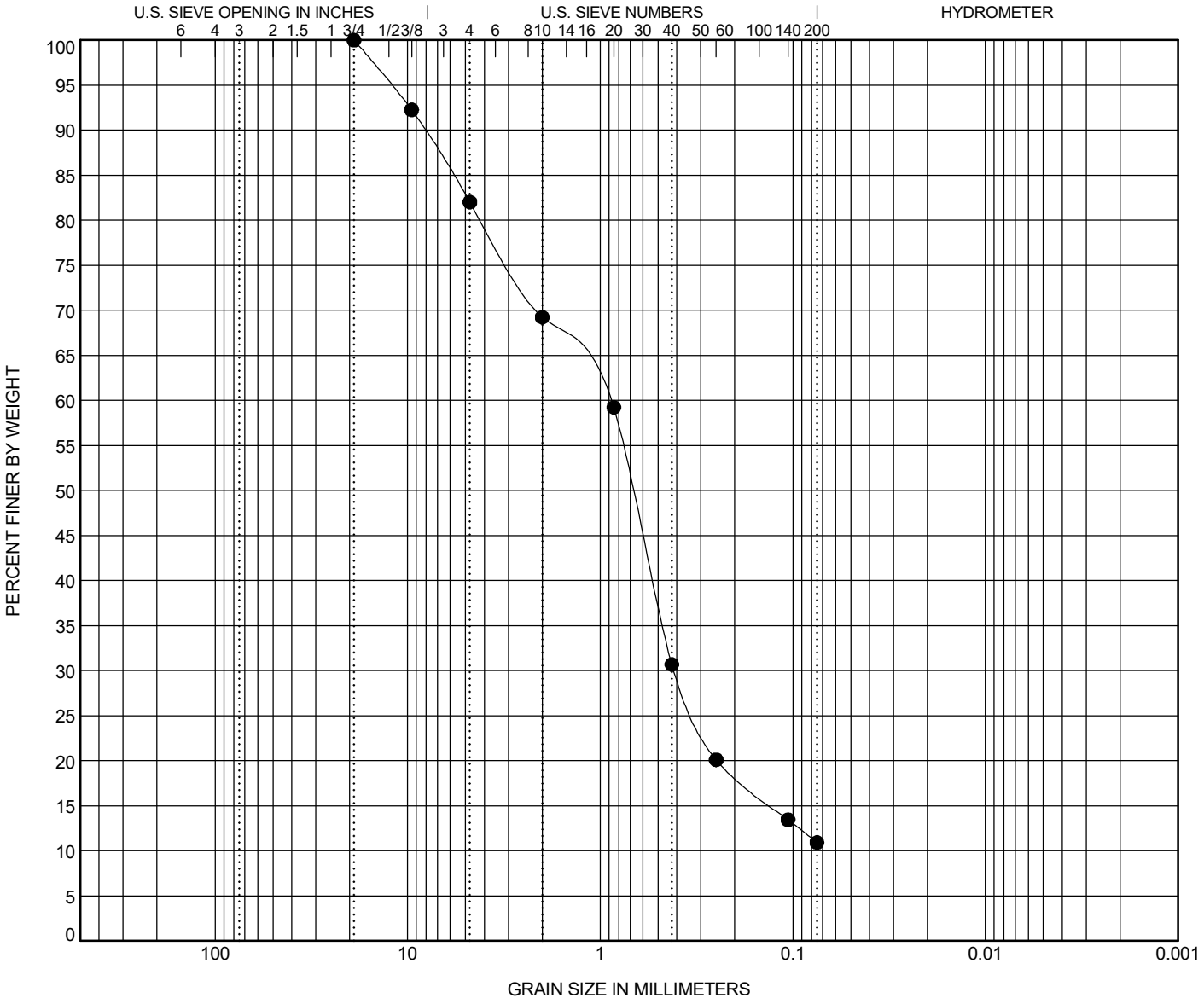
PROJECT NUMBER 401.2300021.013

PROJECT LOCATION Ann Arbor, Michigan



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-141 / SS-3**	**6.0**	**WELL-GRADED SAND with SILT and GRAVEL (SW-SM)**	**NP**	**NP**	**NP**	**2.81**	**13.74**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-141 / SS-3**	**6.0**	**19**	**0.907**	**0.41**		**18.0**	**71.1**	**10.9**	

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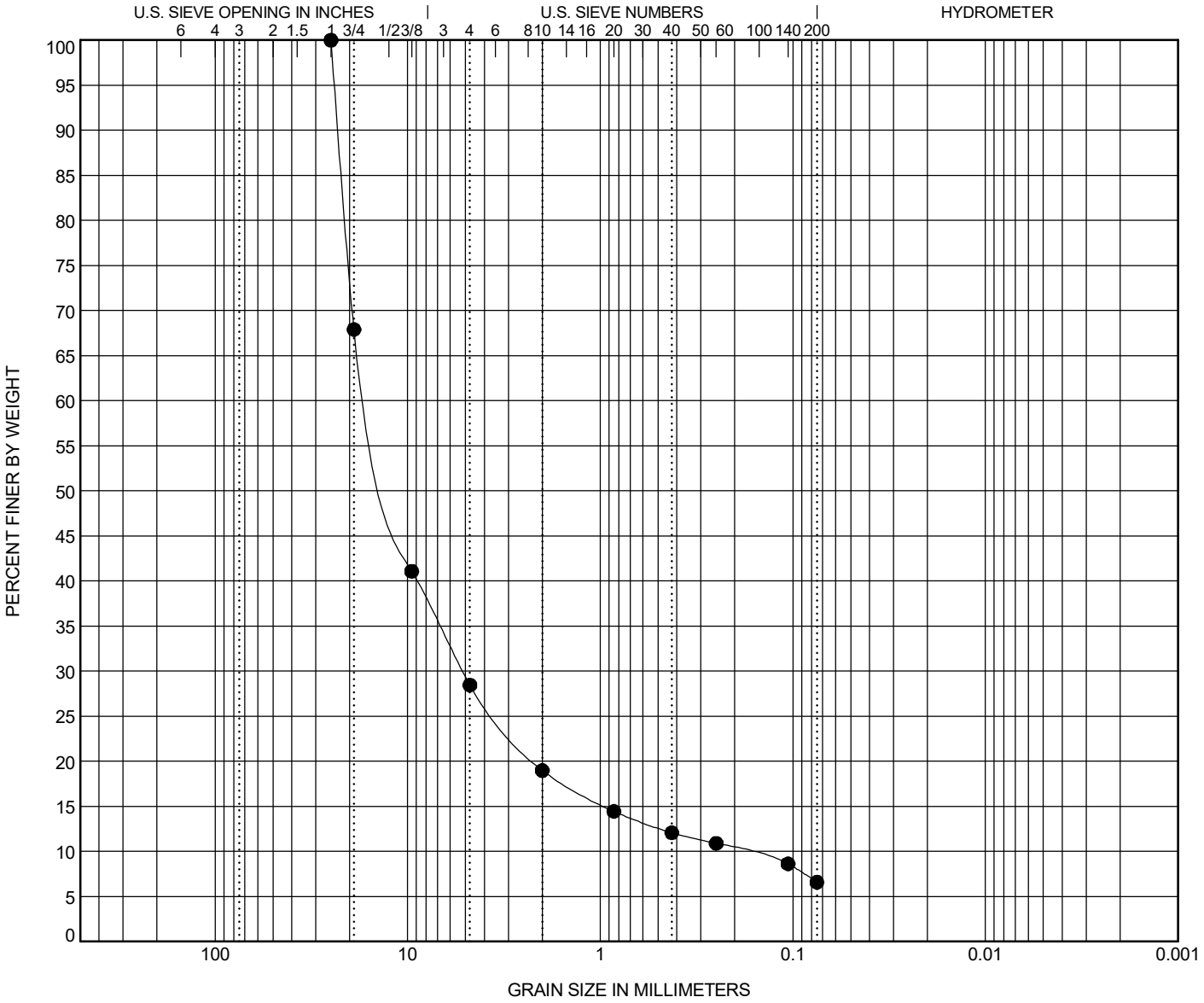

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-142 / SS-3**	**6.0**	**POORLY GRADED GRAVEL with SILT and SAND (GP-GM)**	**NP**	**NP**	**NP**	**9.72**	**87.41**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-142 / SS-3**	**6.0**	**25**	**15.499**	**5.169**	**0.177**	**71.5**	**21.9**	**6.6**	

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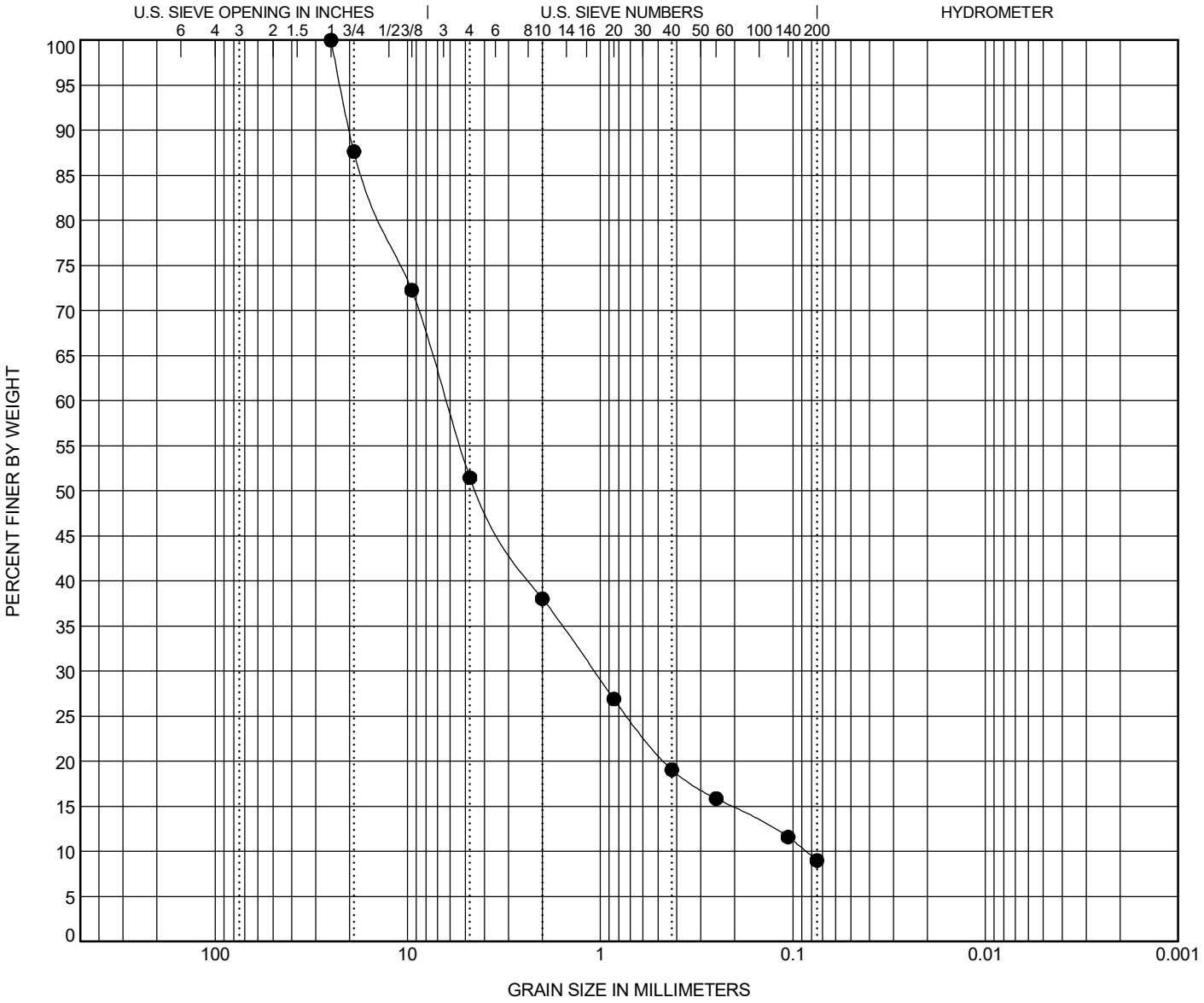

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	**SB-2026-143 / SS-3**	**6.0**	**WELL-GRADED GRAVEL with SILT and SAND (GW-GM)**	**NP**	**NP**	**NP**	**2.15**	**73.88**

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SB-2026-143 / SS-3**	**6.0**	**25**	**6.319**	**1.078**	**0.086**	**48.5**	**42.4**	**9.0**	

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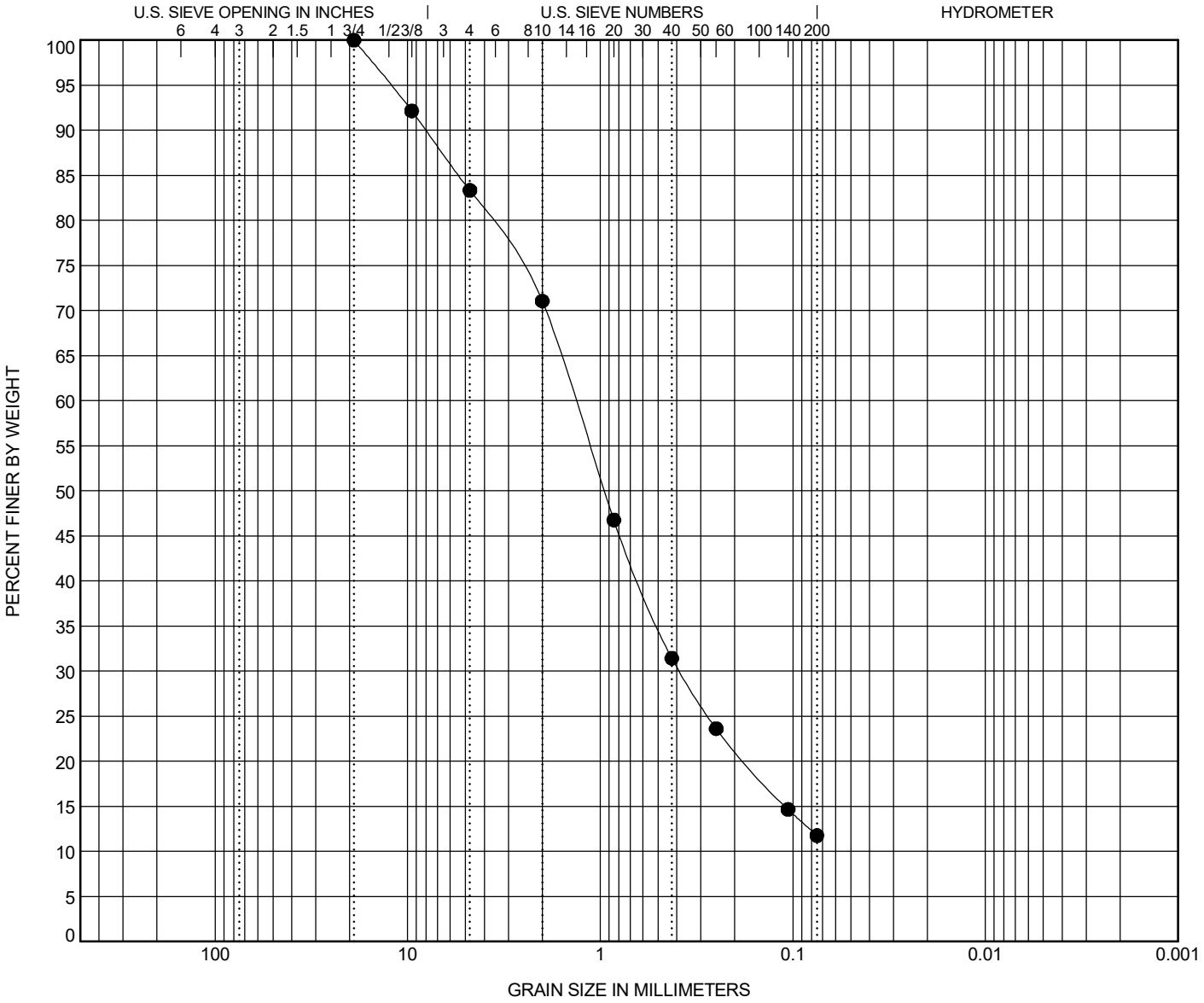

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-144 / SS-1**	**1.0**	**WELL-GRADED SAND with SILT and GRAVEL (SW-SM)**	**NP**	**NP**	**NP**	**1.81**	**22.32**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-144 / SS-1**	**1.0**	**19**	**1.354**	**0.385**		**16.7**	**71.6**	**11.8**	

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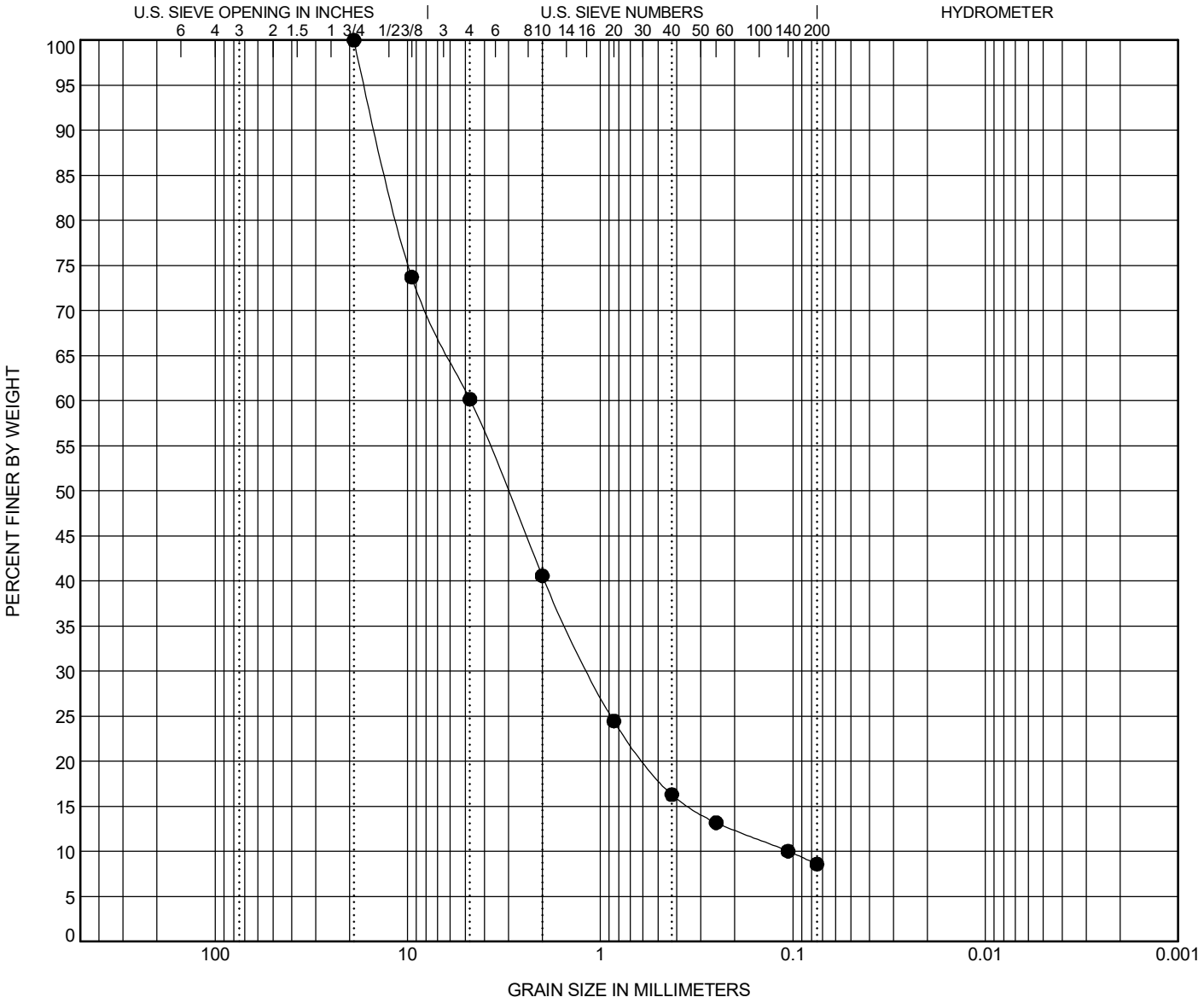
PROJECT NUMBER 401.2300021.013 **PROJECT LOCATION** Ann Arbor, Michigan



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-145 / SS-3**	**6.0**	**WELL-GRADED SAND with SILT and GRAVEL (SW-SM)**	**NP**	**NP**	**NP**	**2.63**	**44.93**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-145 / SS-3**	**6.0**	**19**	**4.714**	**1.14**	**0.105**	**39.8**	**51.6**	**8.6**	

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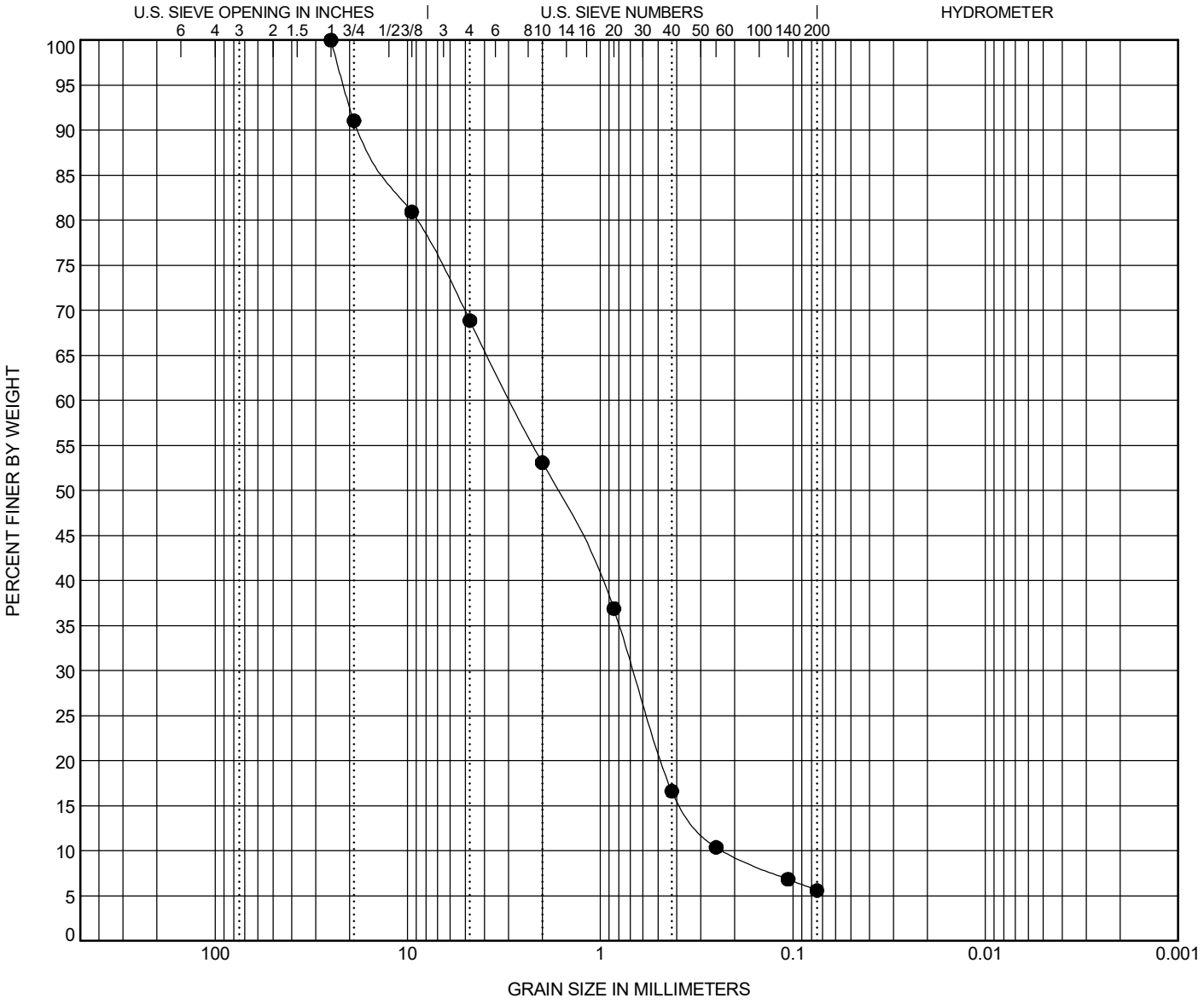

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-146 / SS-3**	**6.0**	**POORLY GRADED SAND with SILT and GRAVEL (SP-SM)**	**NP**	**NP**	**NP**	**0.68**	**12.83**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-146 / SS-3**	**6.0**	**25**	**2.919**	**0.671**	**0.228**	**31.1**	**63.3**	**5.6**	

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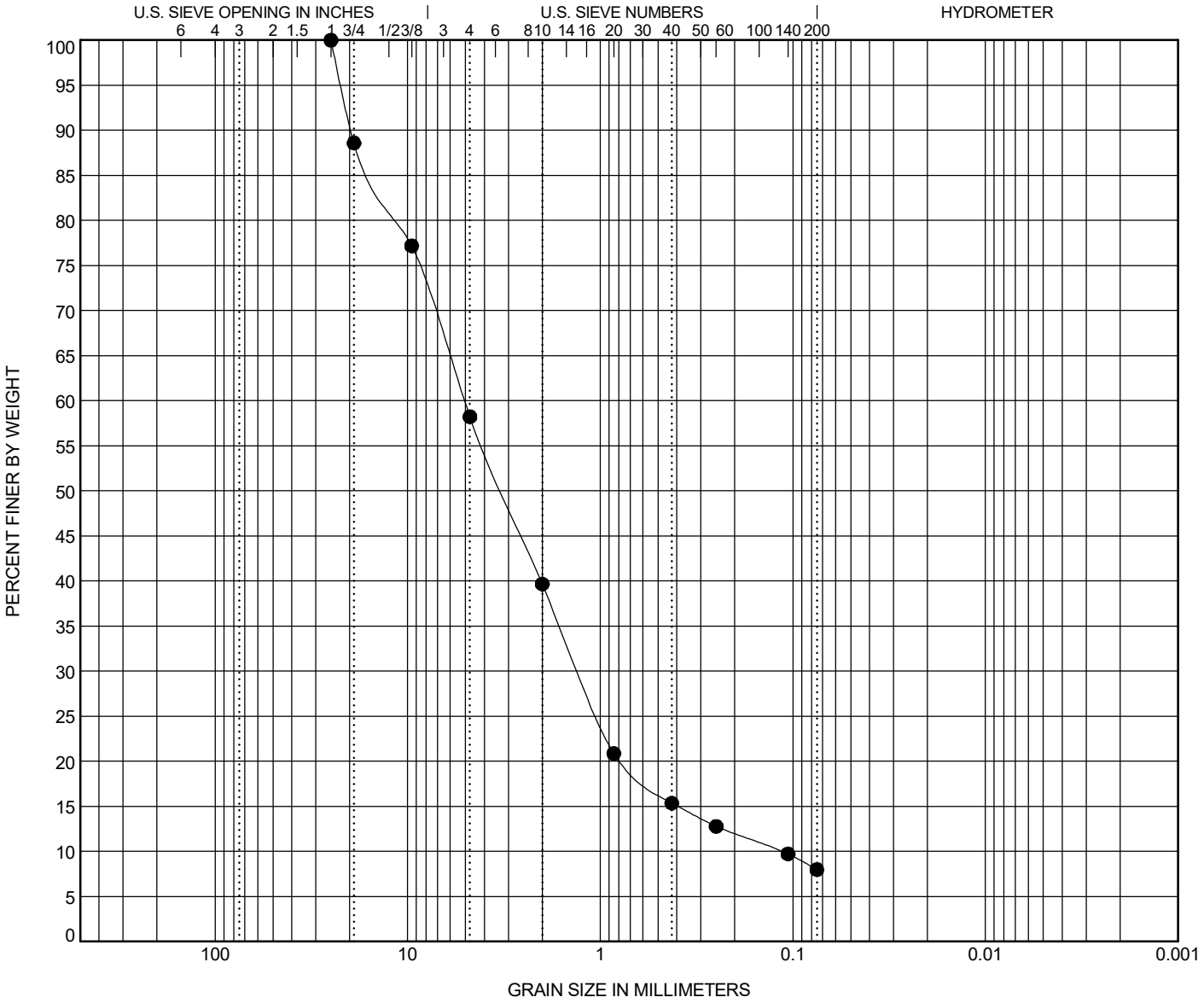

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-147 / SS-3**	**6.0**	**WELL-GRADED SAND with SILT and GRAVEL (SW-SM)**	**NP**	**NP**	**NP**	**2.87**	**44.39**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-147 / SS-3**	**6.0**	**25**	**5.068**	**1.288**	**0.114**	**41.8**	**50.2**	**8.0**	

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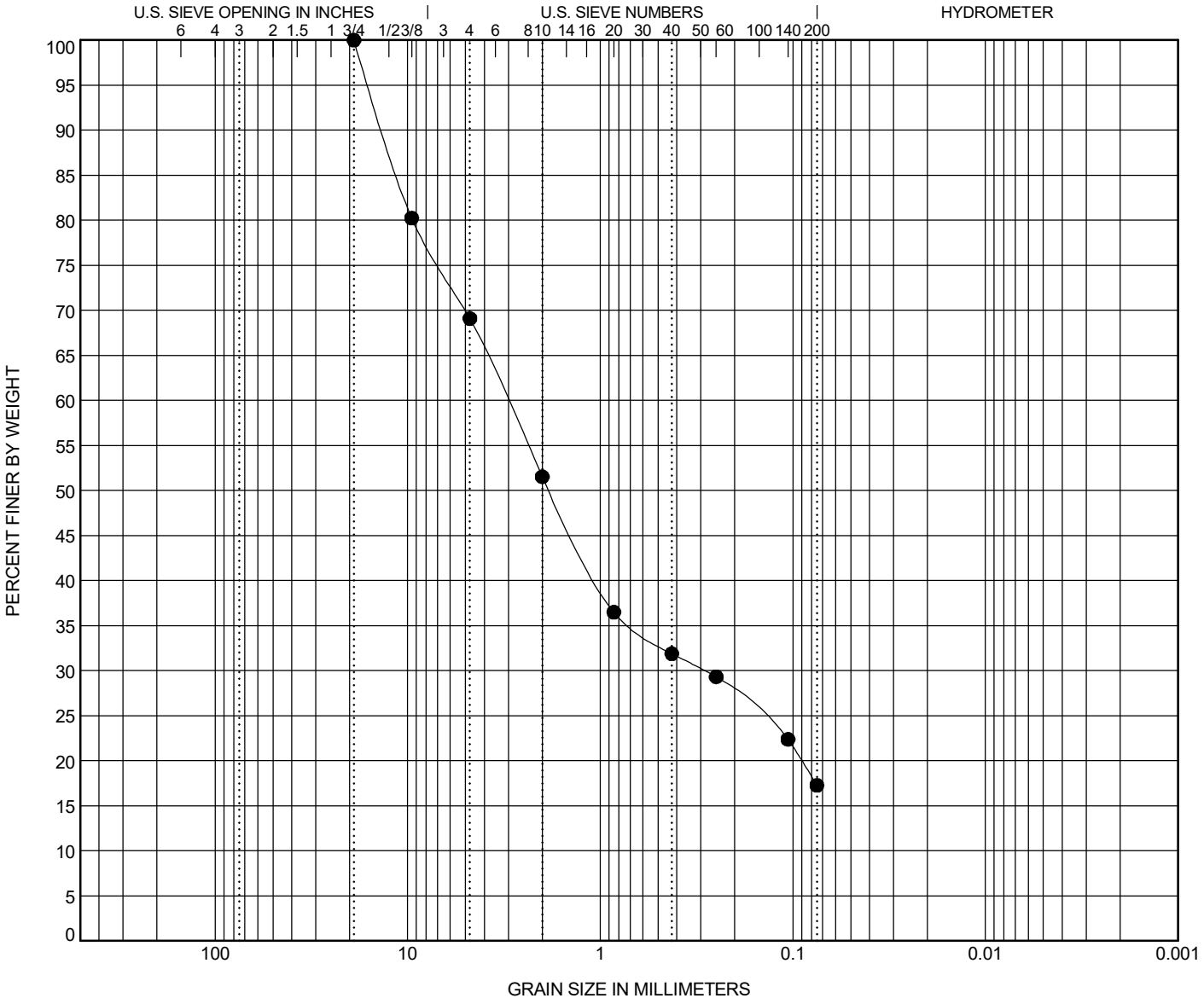

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-148 / SS-1**	**1.0**	**SILTY SAND with GRAVEL (SM)**	**NP**	**NP**	**NP**		

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-148 / SS-1**	**1.0**	**19**	**3.034**	**0.287**		**30.9**	**51.8**	**17.3**	

GRAIN SIZE DISTRIBUTION

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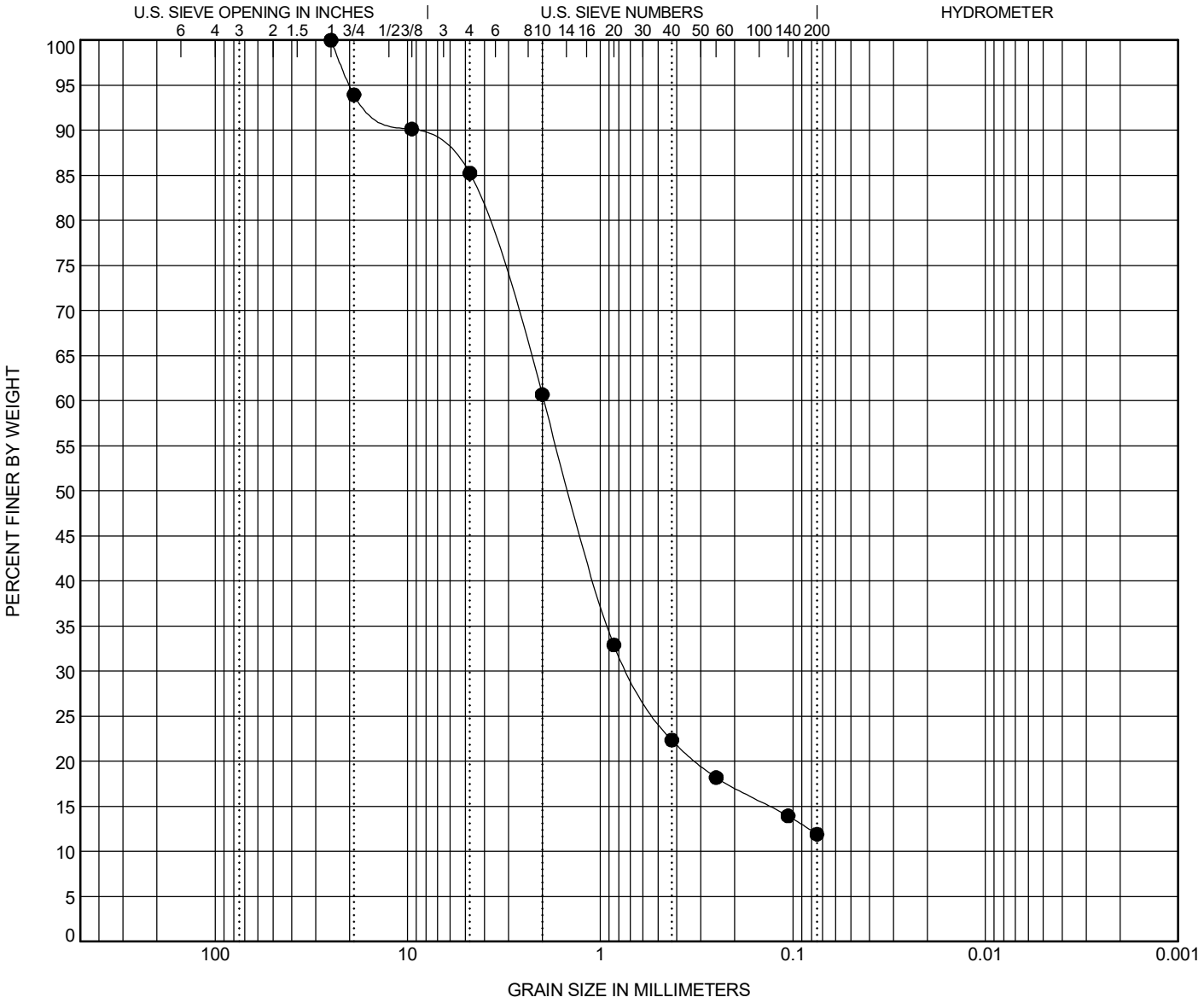

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-148 / SS-3**	**6.0**	**POORLY GRADED SAND with SILT (SP-SM)**	**NP**	**NP**	**NP**	**4.65**	**36.19**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-148 / SS-3**	**6.0**	**25**	**1.958**	**0.702**		**14.7**	**73.3**	**11.9**	

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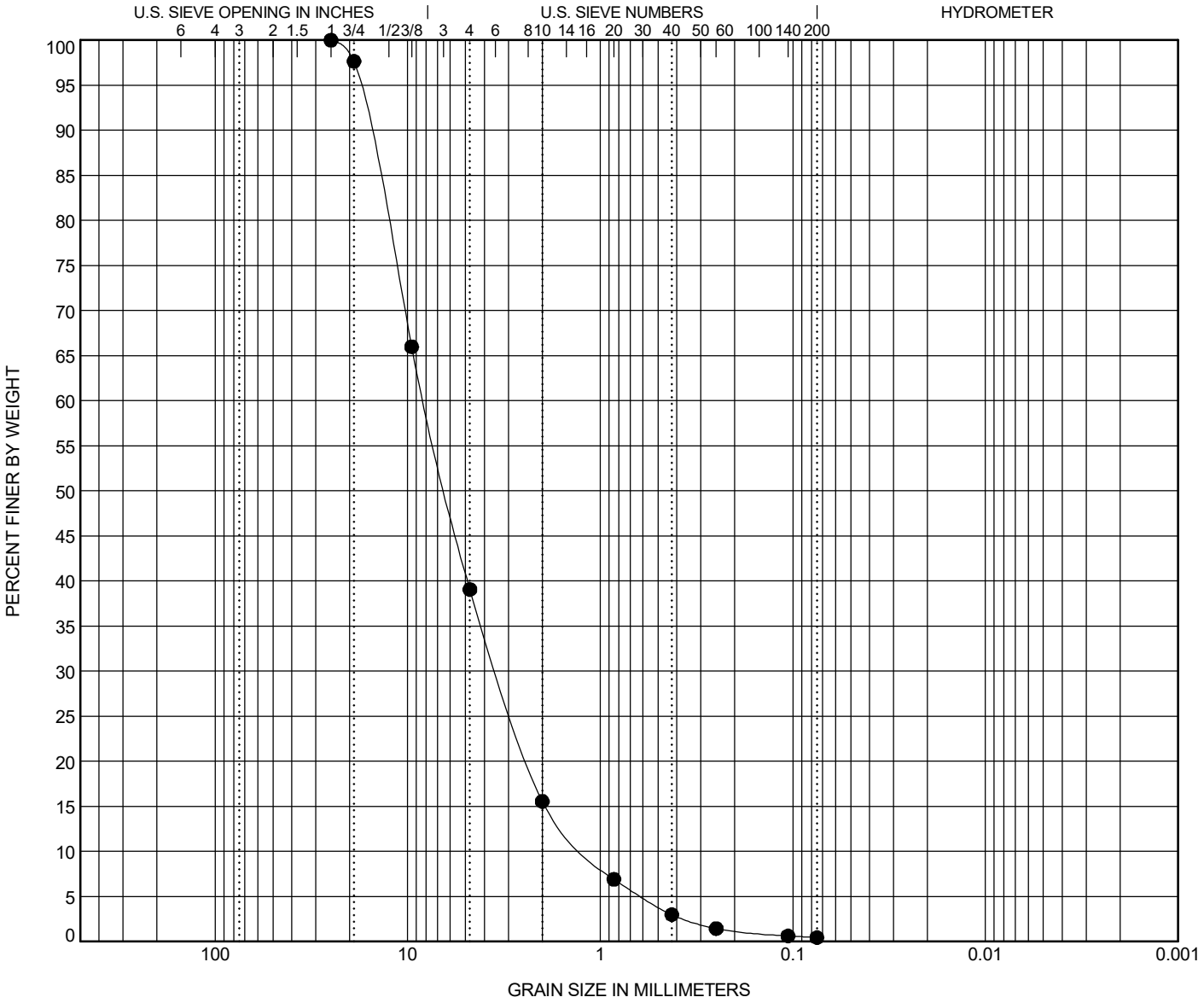

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-149 / GB-1**	**0.5**	**WELL-GRADED GRAVEL with SAND (GW)**	**NP**	**NP**	**NP**	**1.23**	**7.08**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-149 / GB-1**	**0.5**	**25**	**8.159**	**3.402**	**1.153**	**60.9**	**38.6**	**0.5**	

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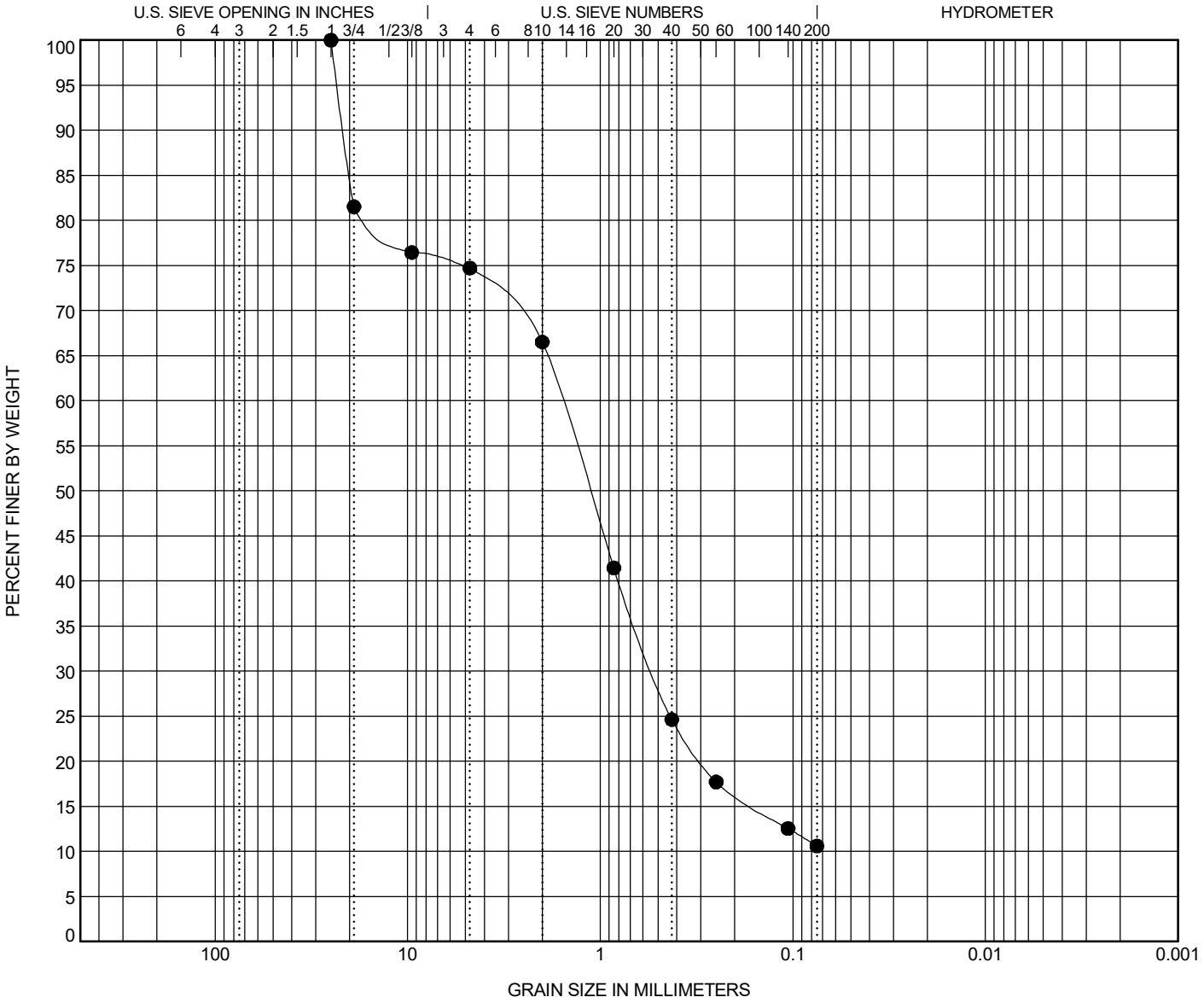

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-149 / SS-3**	**6.0**	**WELL-GRADED SAND with SILT and GRAVEL (SW-SM)**	**NP**	**NP**	**NP**	**2.61**	**23.79**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-149 / SS-3**	**6.0**	**25**	**1.601**	**0.53**		**25.3**	**64.1**	**10.6**	

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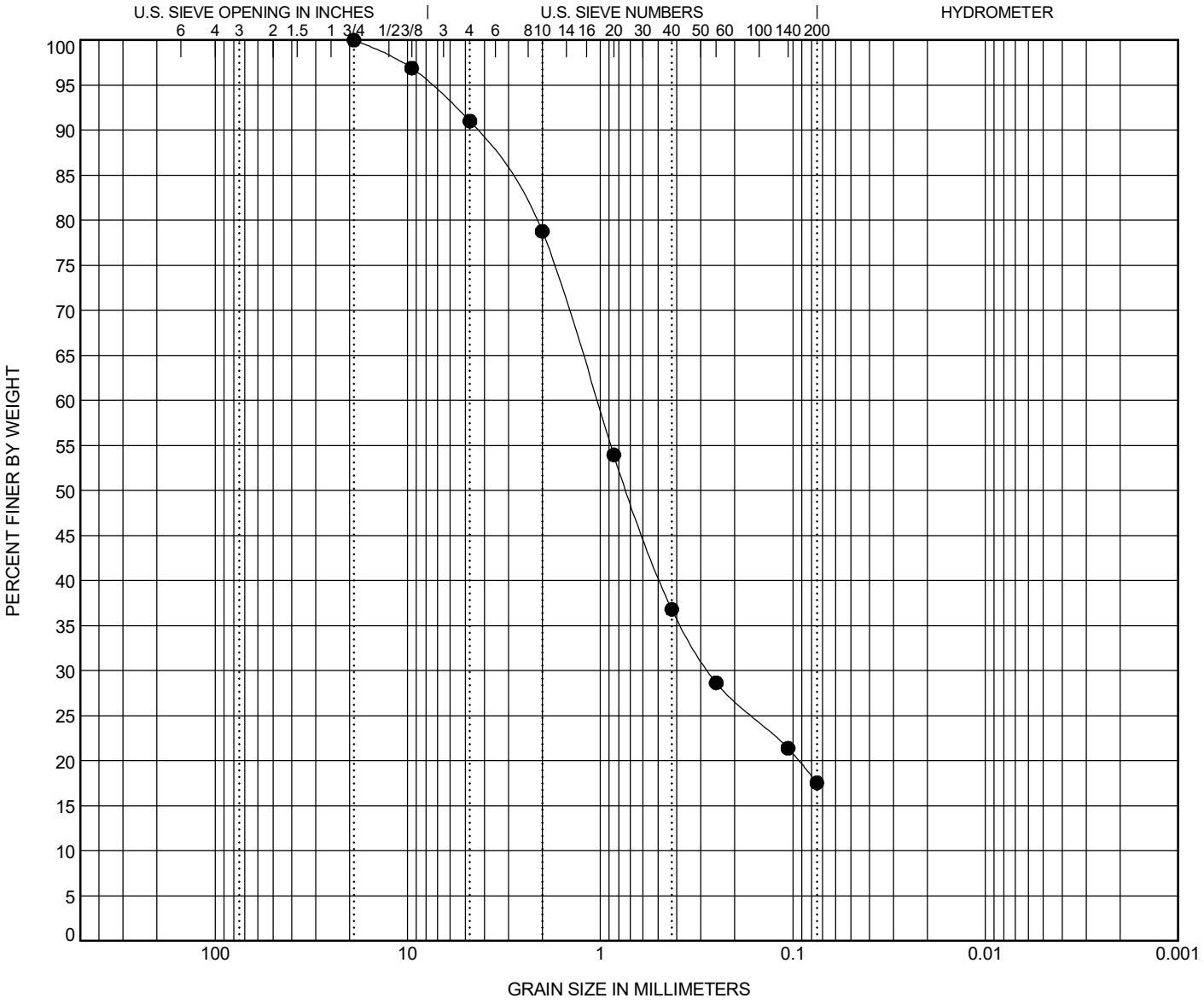

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-150 / SS-3**	**6.0**	**SILTY SAND (SM)**	**NP**	**NP**	**NP**		

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-150 / SS-3**	**6.0**	**19**	**1.047**	**0.273**		**9.0**	**73.5**	**17.6**	

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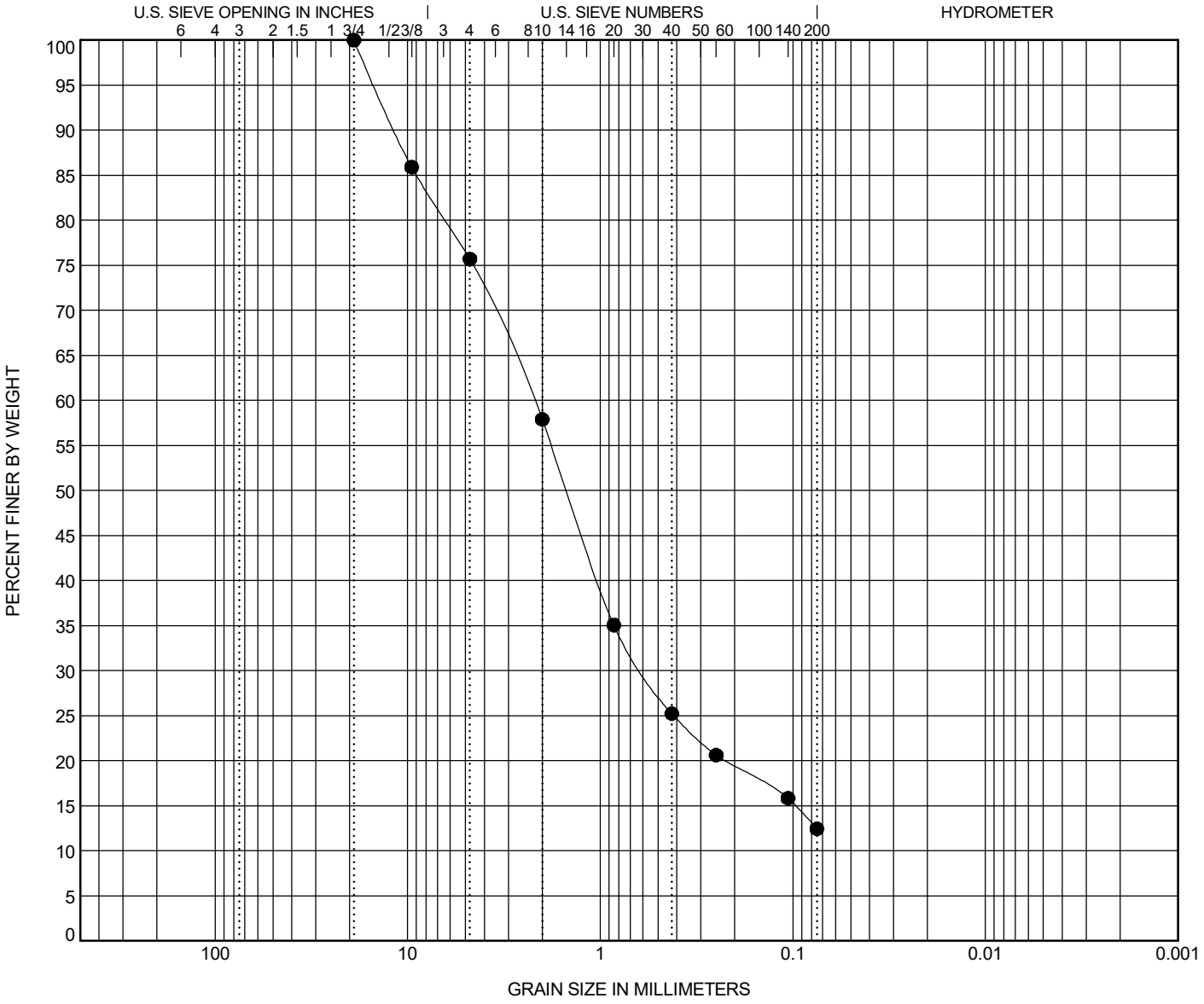

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-151 / SS-1**	**1.0**	**SILTY SAND with GRAVEL (SM)**	**NP**	**NP**	**NP**	**2.73**	**37.86**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-151 / SS-1**	**1.0**	**19**	**2.214**	**0.594**		**24.3**	**63.3**	**12.4**	

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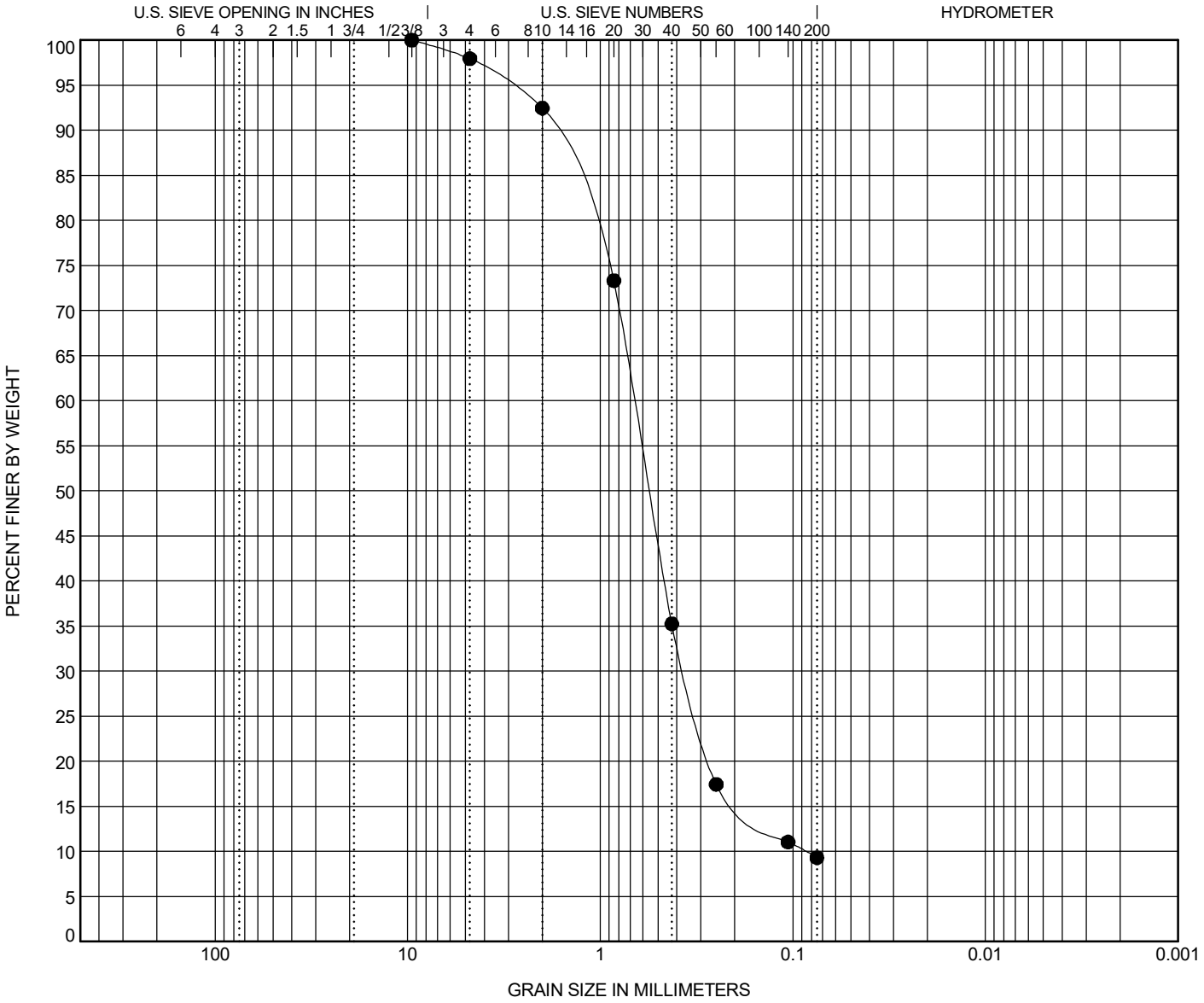

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-152 / SS-3**	**6.0**	**WELL-GRADED SAND with SILT (SW-SM)**	**NP**	**NP**	**NP**	**2.30**	**7.75**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-152 / SS-3**	**6.0**	**9.525**	**0.667**	**0.363**	**0.086**	**2.0**	**88.6**	**9.3**	

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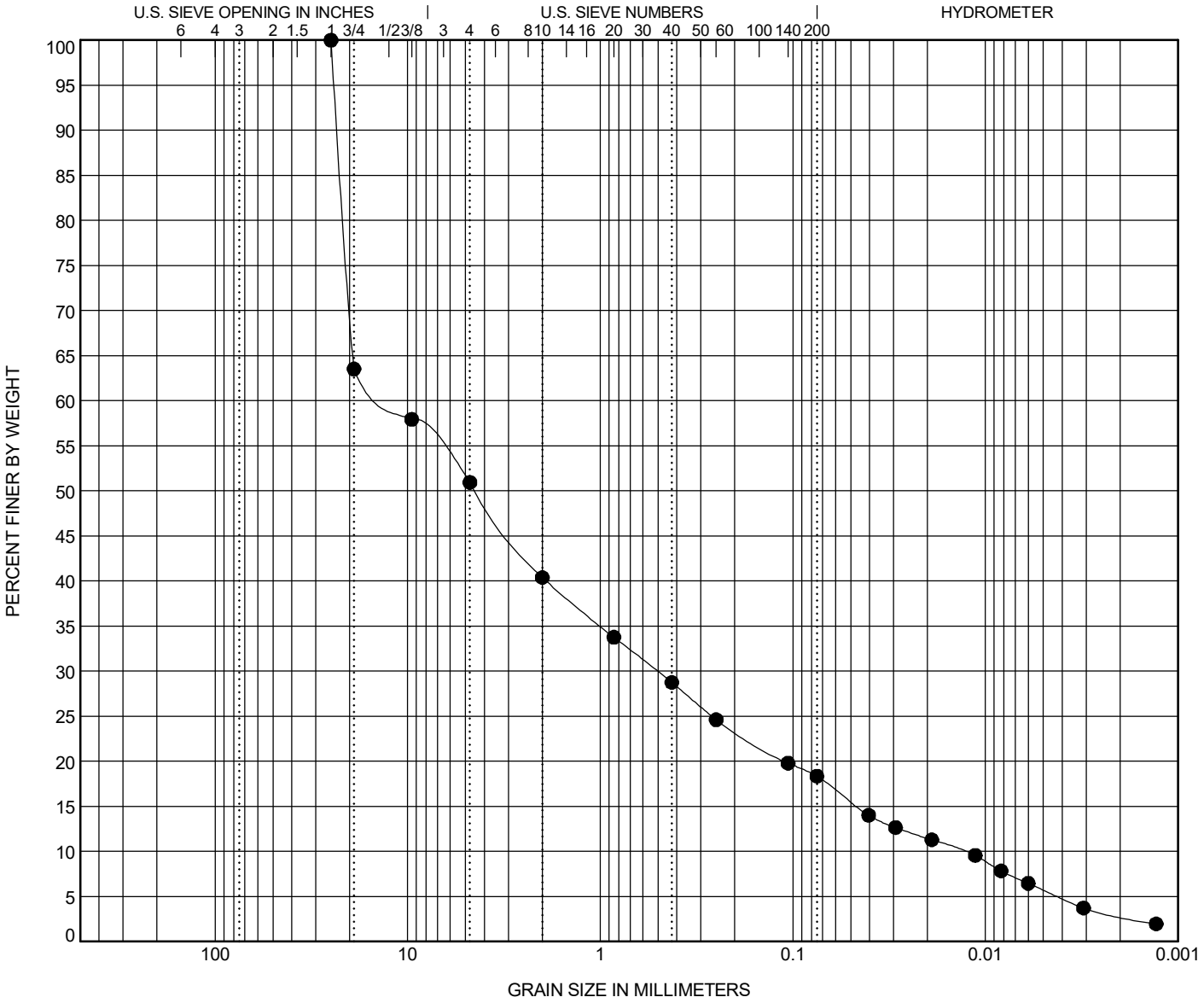

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-153 / GB-1**	**0.5**	**SILTY GRAVEL with SAND (GM)**	**NP**	**NP**	**NP**	**1.61**	**953.92**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-153 / GB-1**	**0.5**	**25**	**12.281**	**0.505**	**0.013**	**49.1**	**32.6**	**15.5**	**2.8**

GRAIN SIZE DISTRIBUTION

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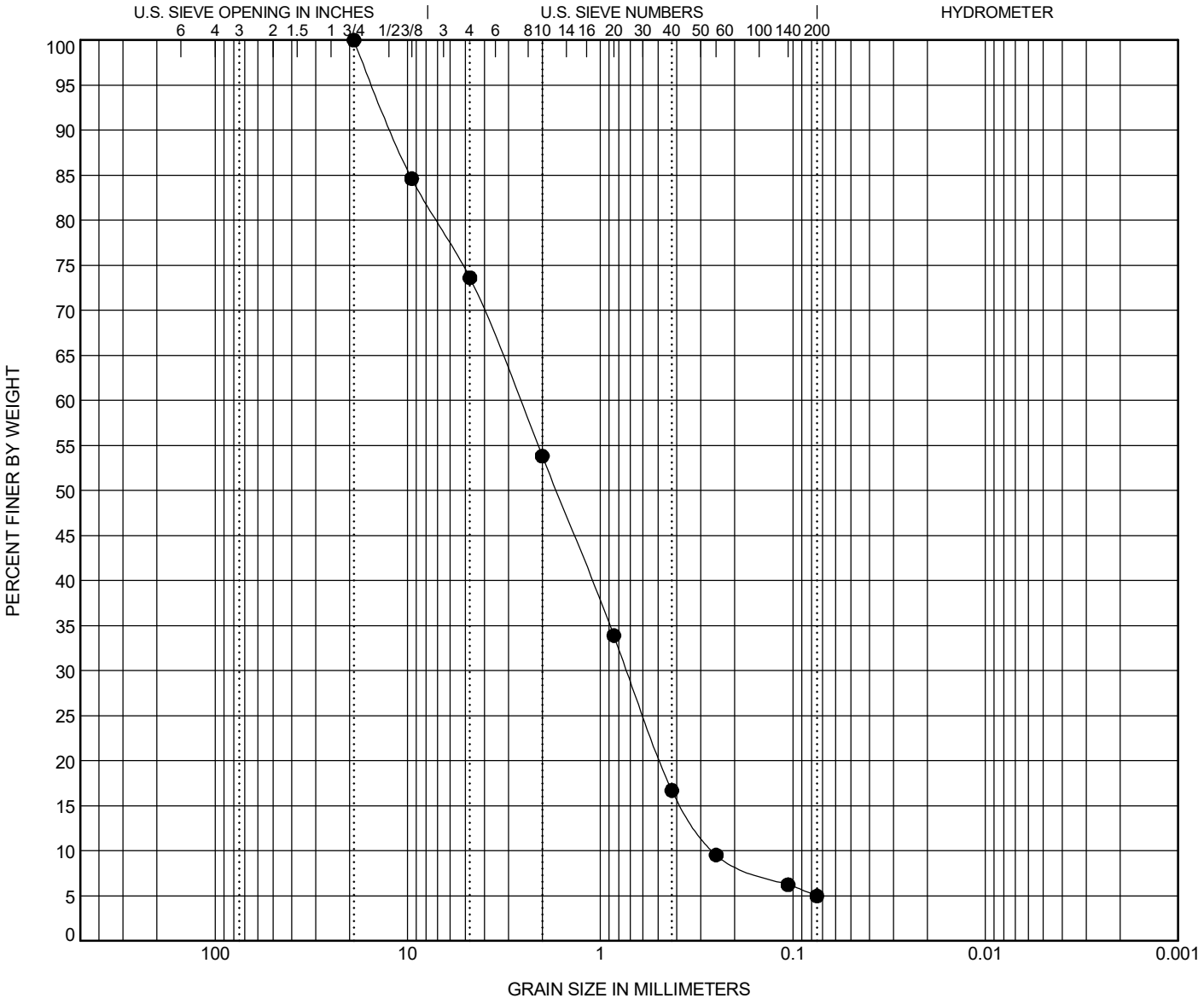
AASHTO R18

CLIENT City of Ann Arbor **PROJECT NAME** 2025 Water Main and Resurfacing Projects

PROJECT NUMBER 401.2300021.013 **PROJECT LOCATION** Ann Arbor, Michigan



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **SB-2026-154 / SS-3**	**6.0**	**POORLY GRADED SAND with GRAVEL (SP)**	**NP**	**NP**	**NP**	**0.78**	**10.13**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SB-2026-154 / SS-3**	**6.0**	**19**	**2.619**	**0.726**	**0.259**	**26.4**	**68.6**	**5.0**	

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PROJECT NAME 2025 Water Main and Resurfacing Projects

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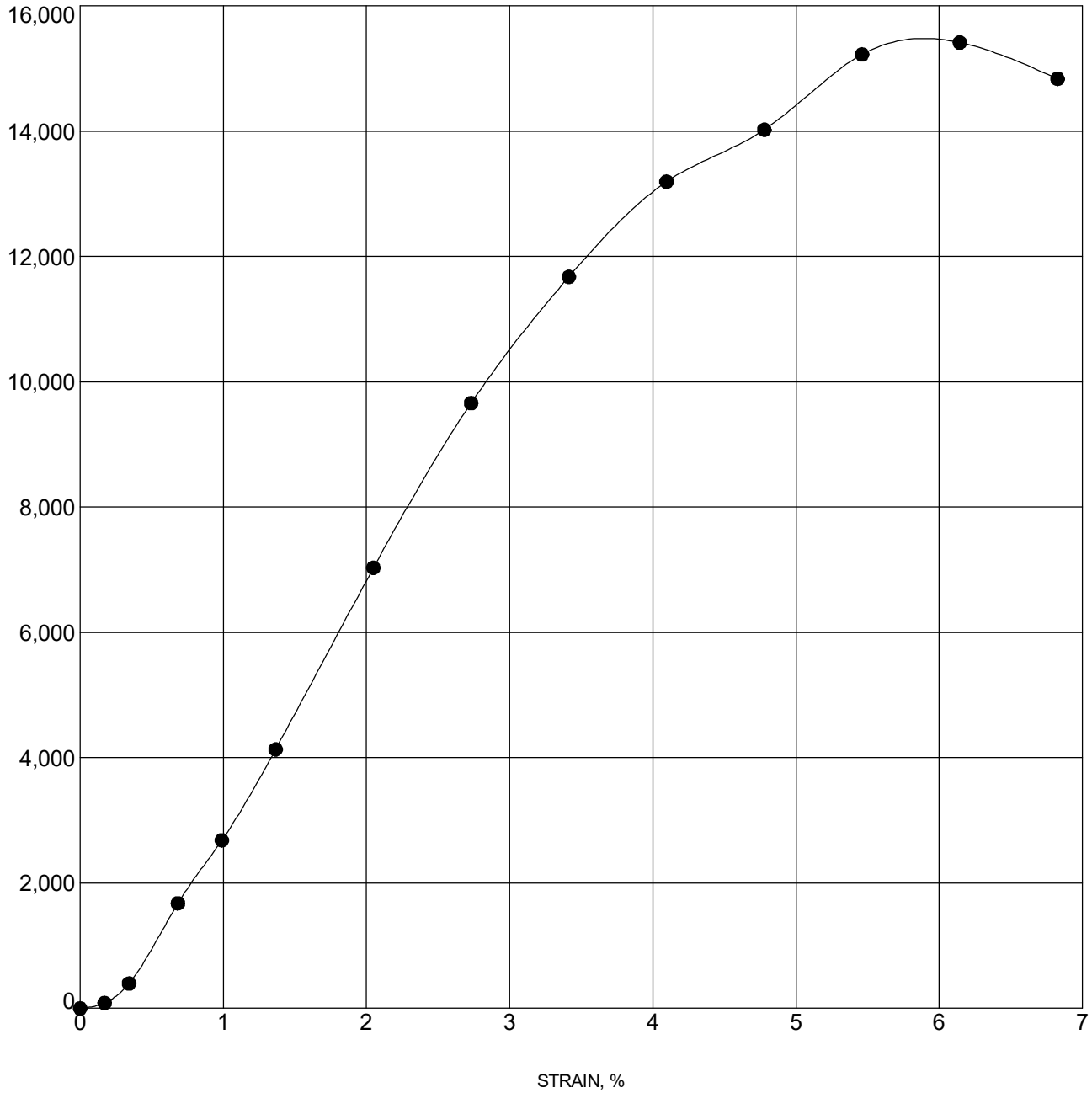
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-108 / SS-3 6.0**		**15417**	**133.4**	**8.8**

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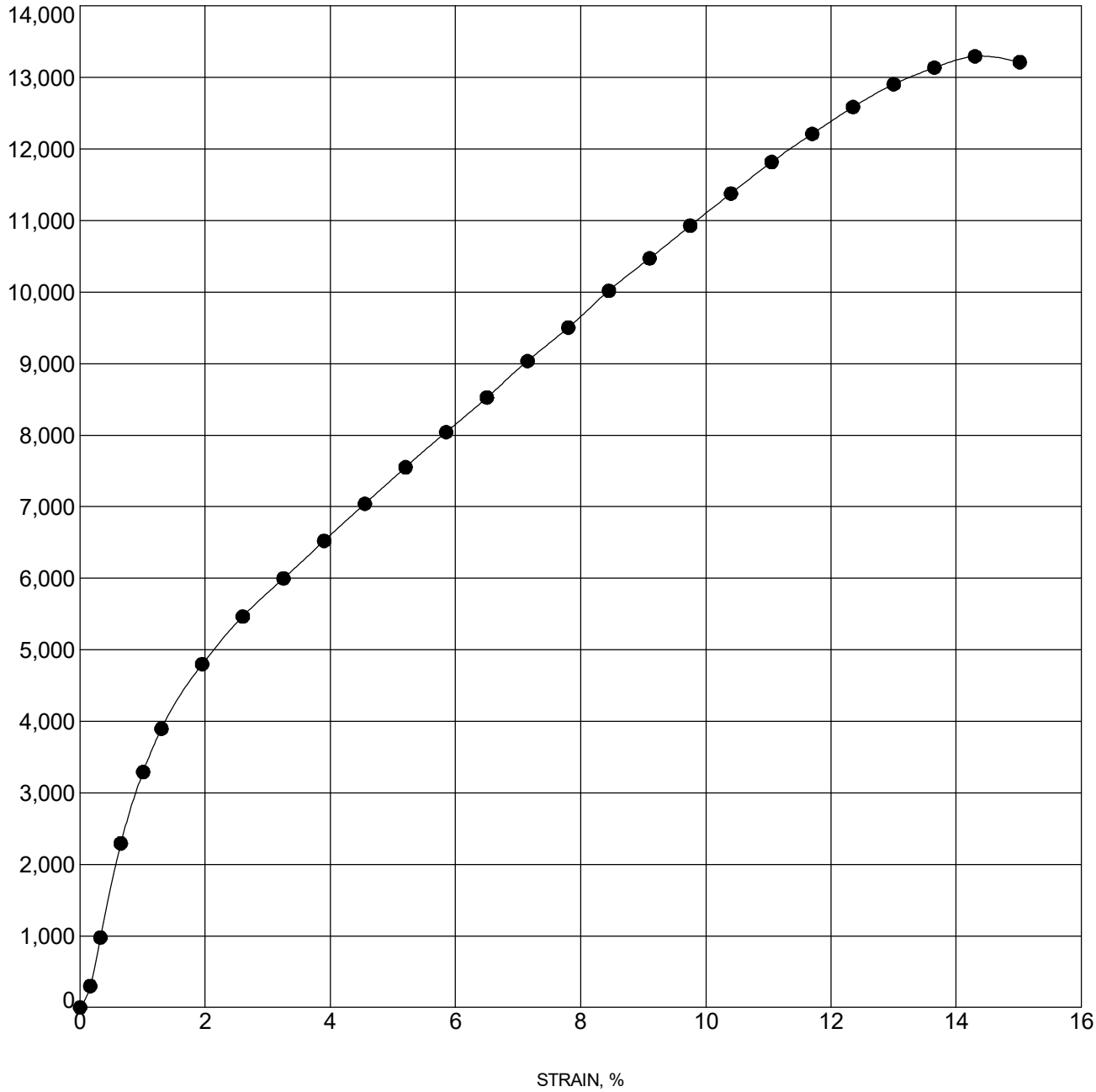
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-109 / SS-3 6.0**		**13297**	**122.6**	**12.3**

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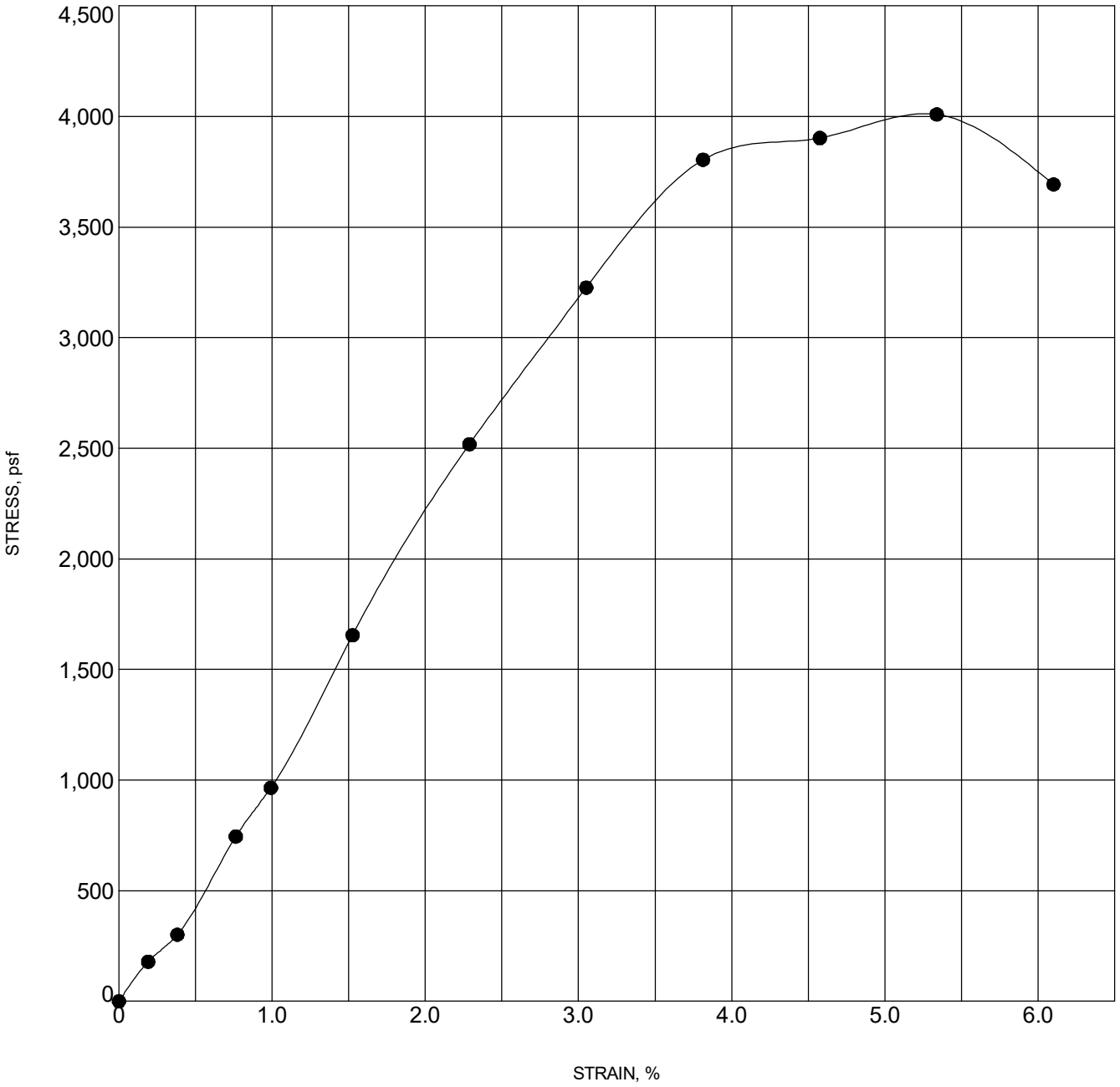
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-110 / SS-4 8.5**		**4010**	**110.7**	**13.8**

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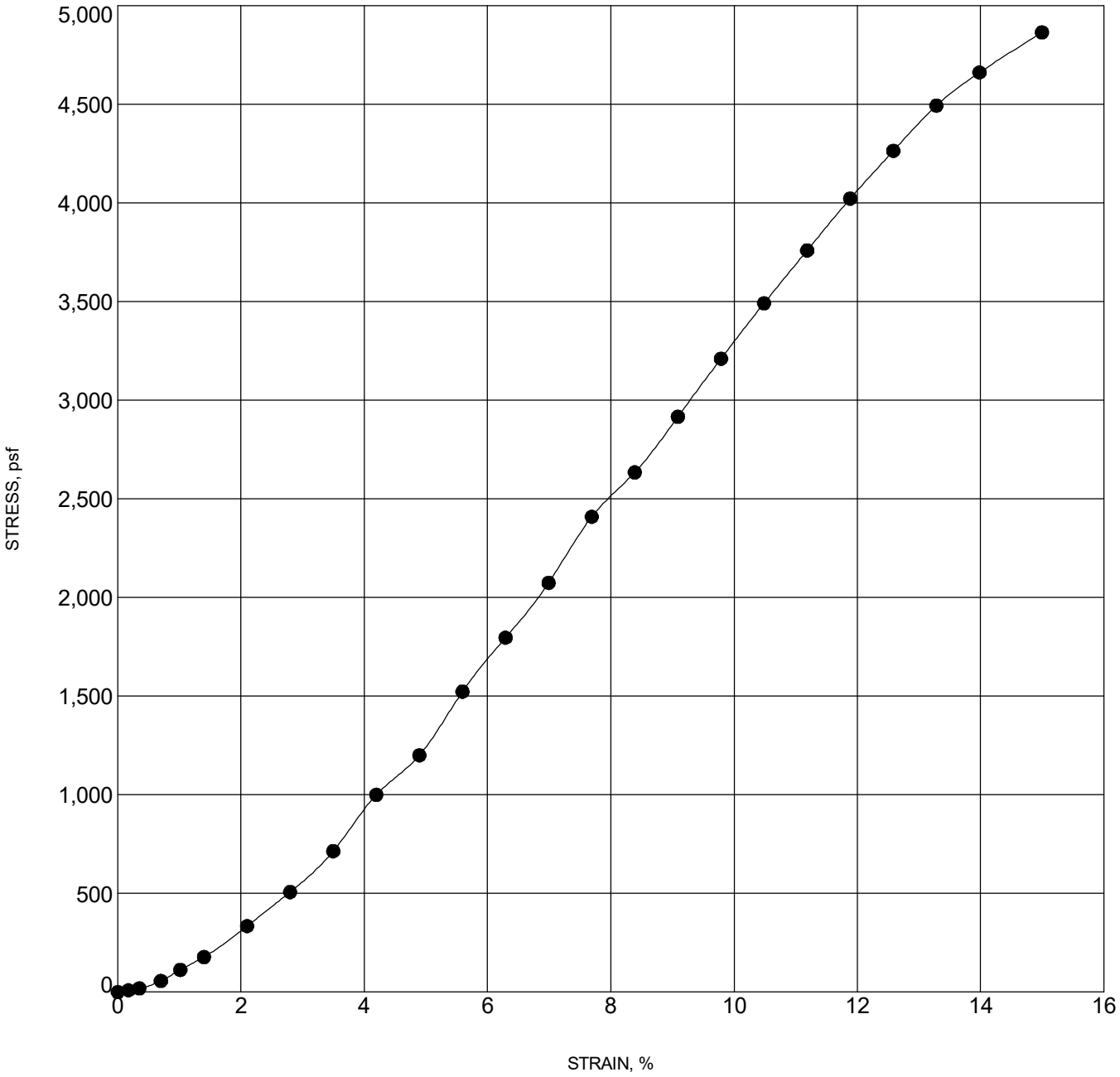
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-112 / SS-3 6.0**		**4866**	**129.2**	**12.5**

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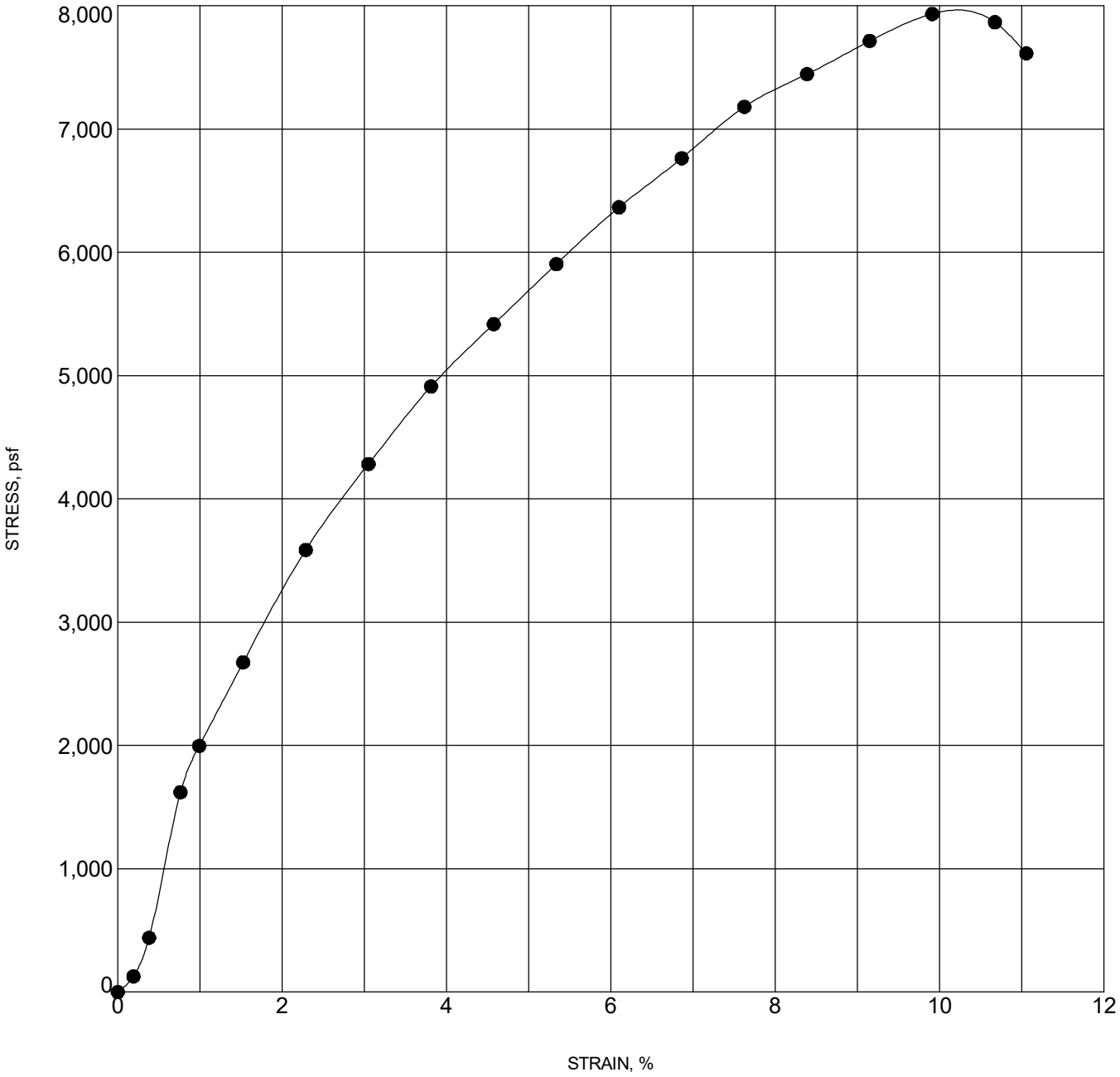
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-113 / SS-4 8.5**		**7935**	**115.7**	**12.3**

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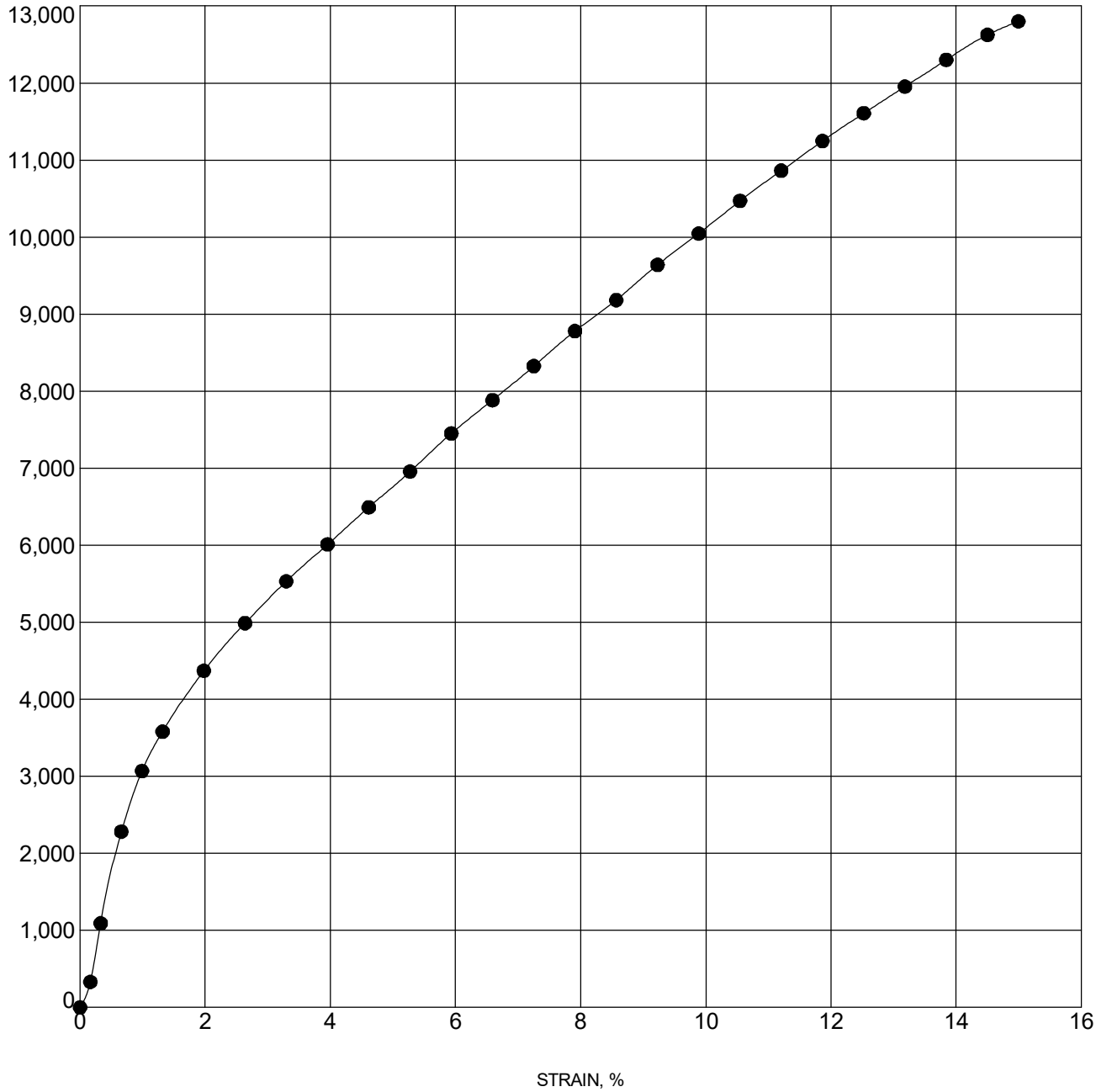
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-114 / SS-3 6.0**		**12801**	**120.4**	**11.7**

UNCONFINED COMPRESSION TEST

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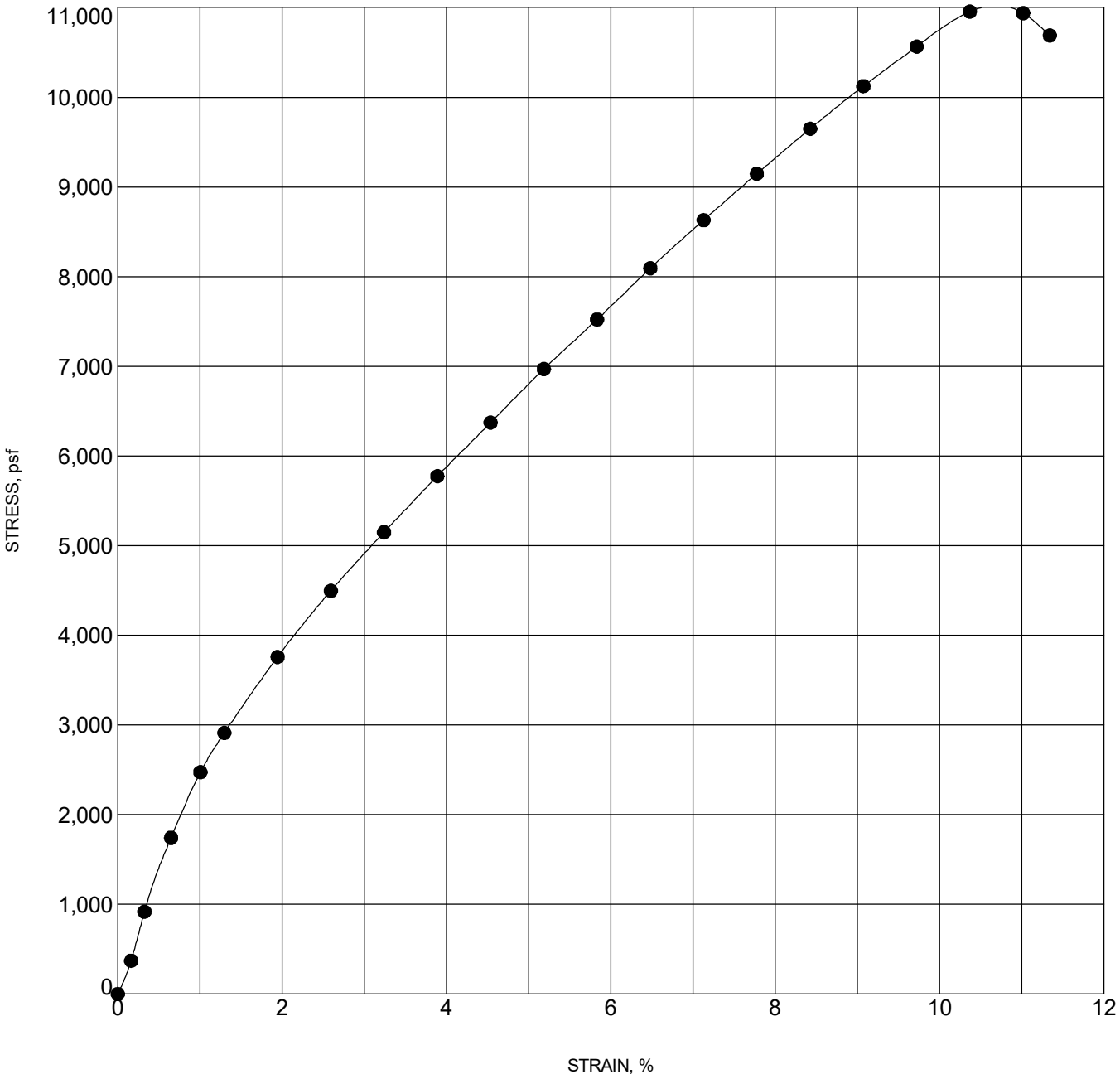

Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-115 / SS-3 6.0**		**10955**	**121.7**	**12.8**

UNCONFINED COMPRESSION TEST

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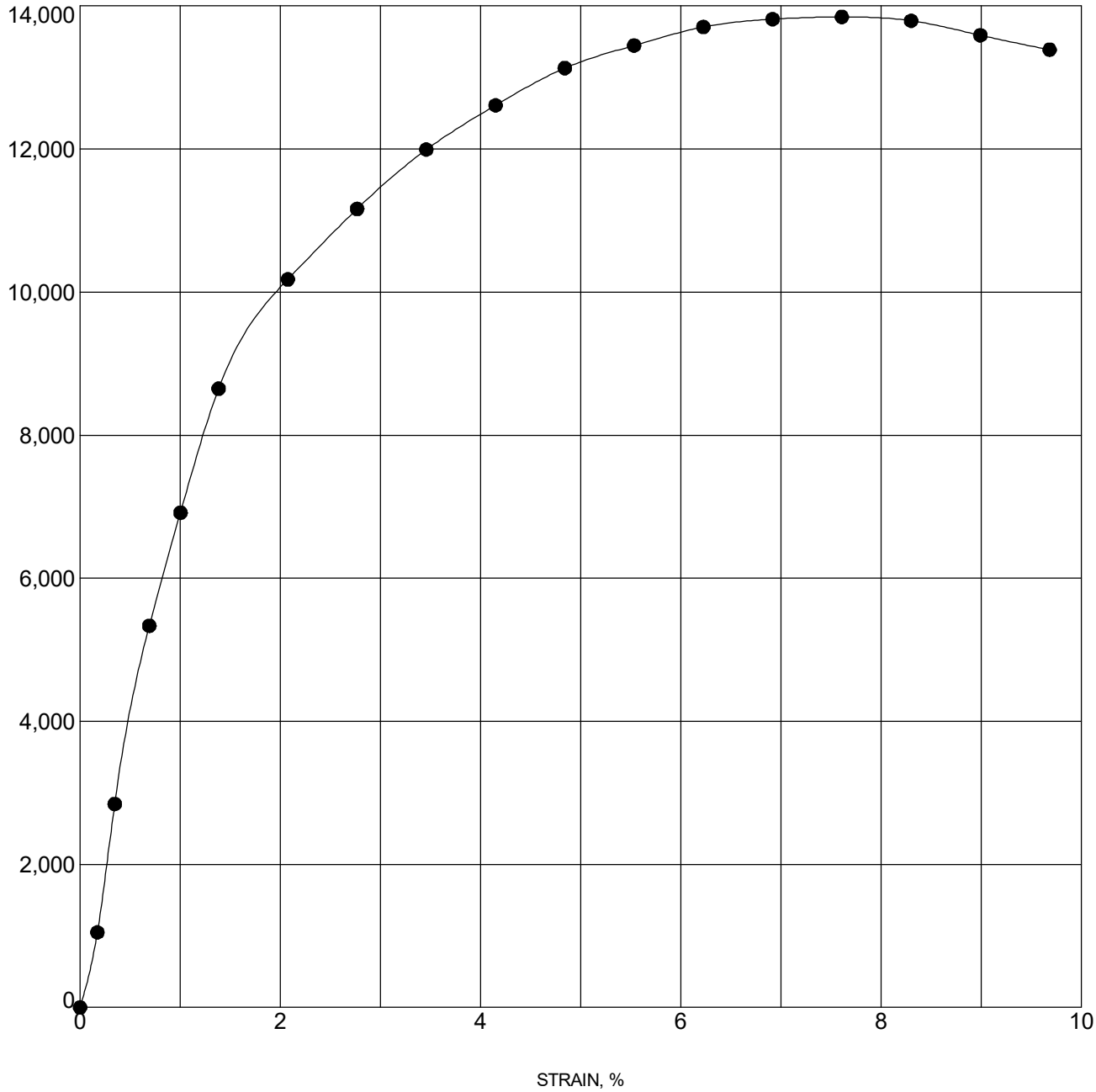

Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-116 / SS-4 8.5**		**13848**	**121.3**	**11.5**

UNCONFINED COMPRESSION TEST

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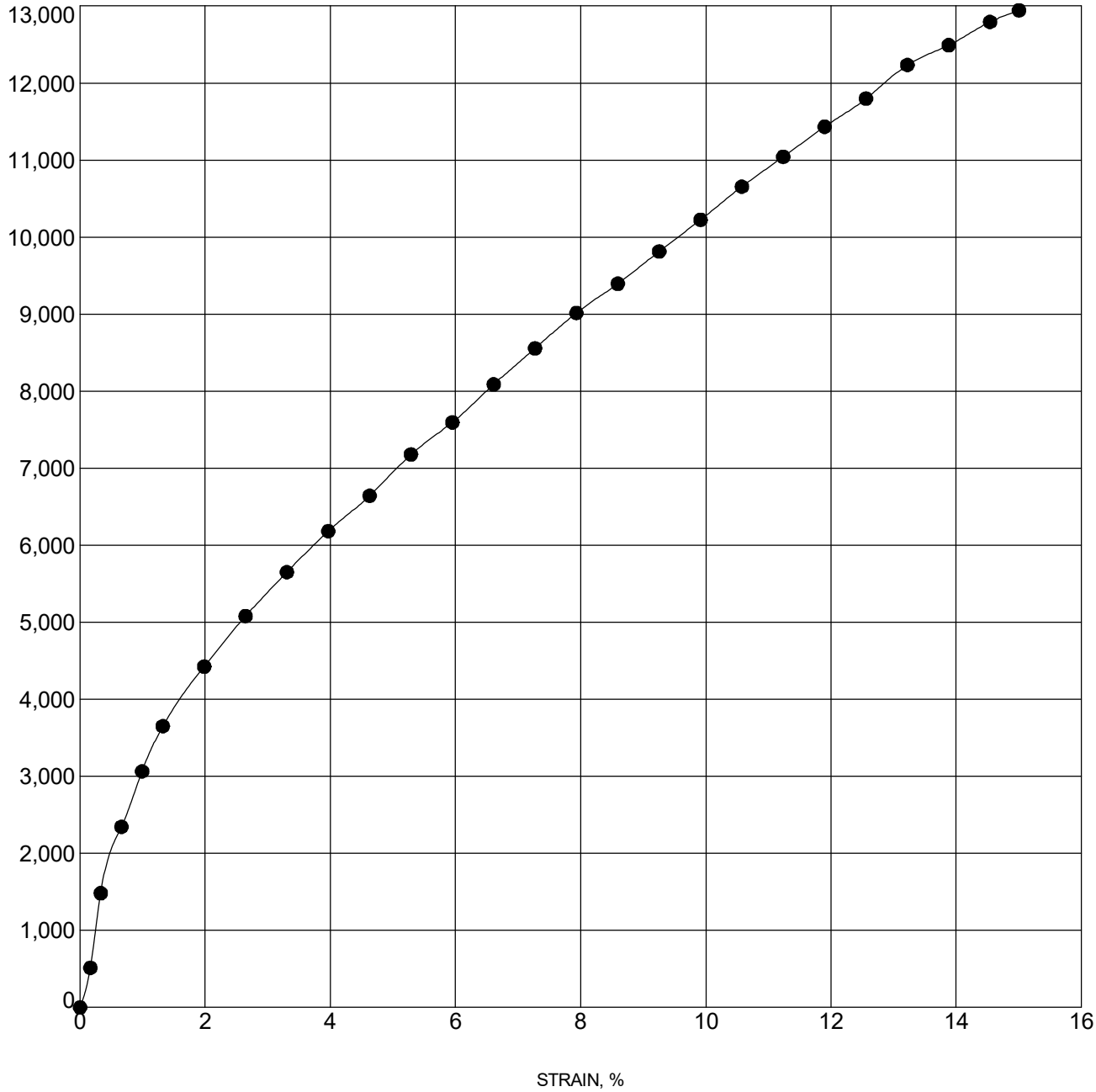

	Specimen Identification	Classification	UCS (psf)	γ_d	MC%
●	**SB-2026-117 / SS-3 6.0**		**12943**	**119.3**	**14.0**

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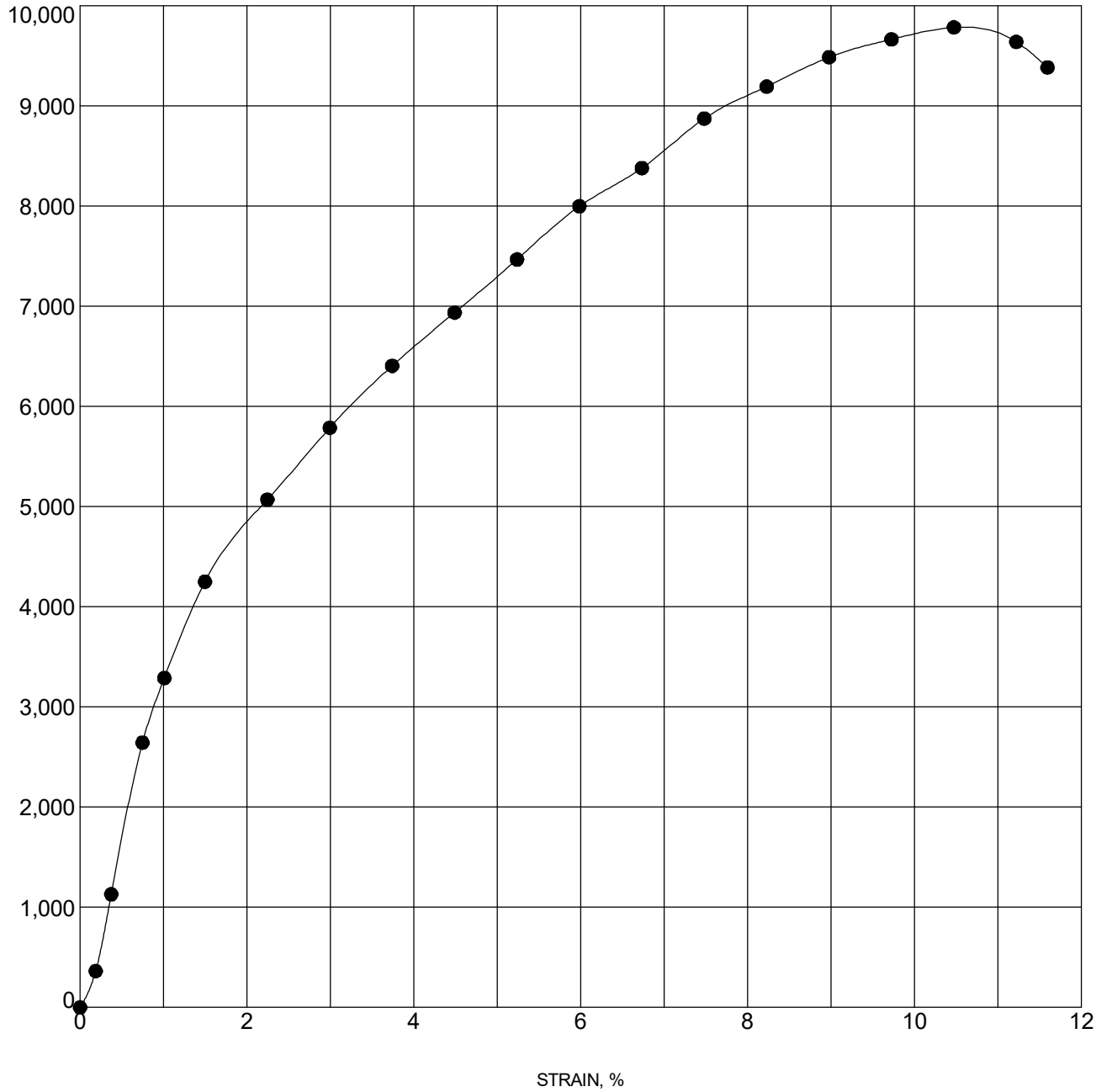
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-118 / SS-4 8.5**		**9787**	**123.2**	**11.5**

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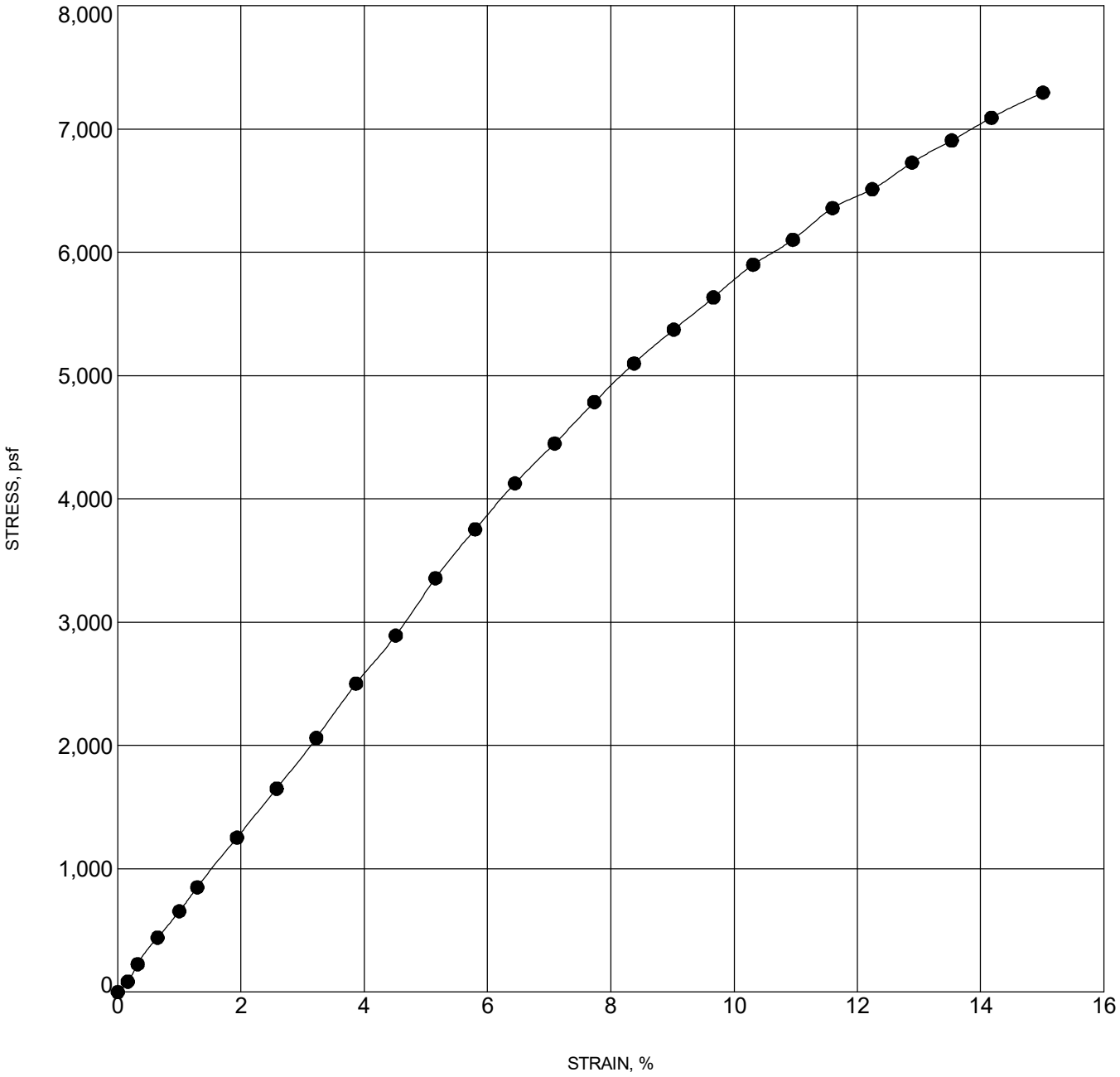
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-119 / SS-3 6.0**		**7294**	**123.9**	**13.2**

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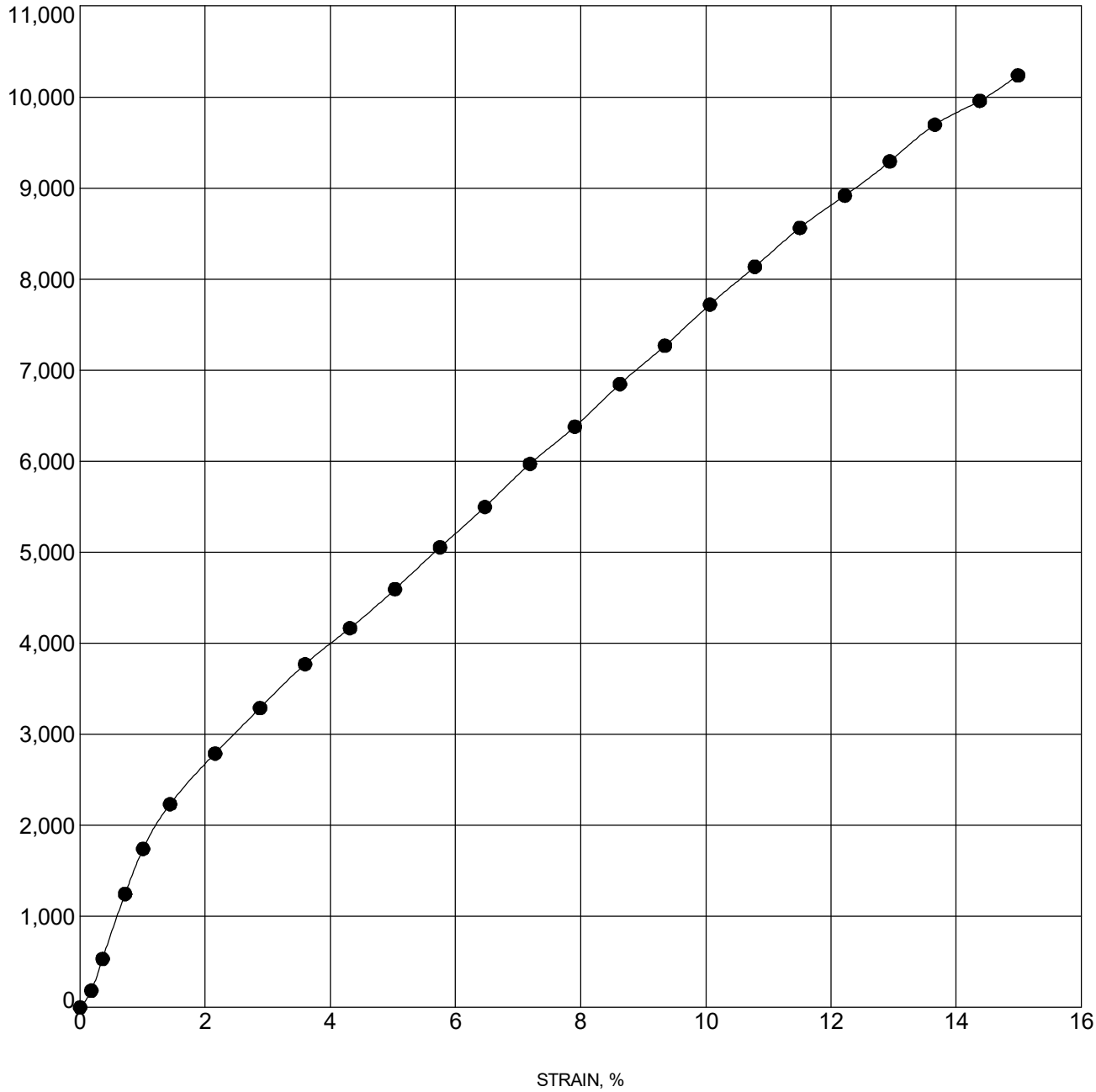
PROJECT LOCATION Ann Arbor, Michigan



	Specimen Identification	Classification	UCS (psf)	γ_d	MC%
●	**SB-2026-120 / SS-4 8.5**		**10238**	**122.7**	**13.7**

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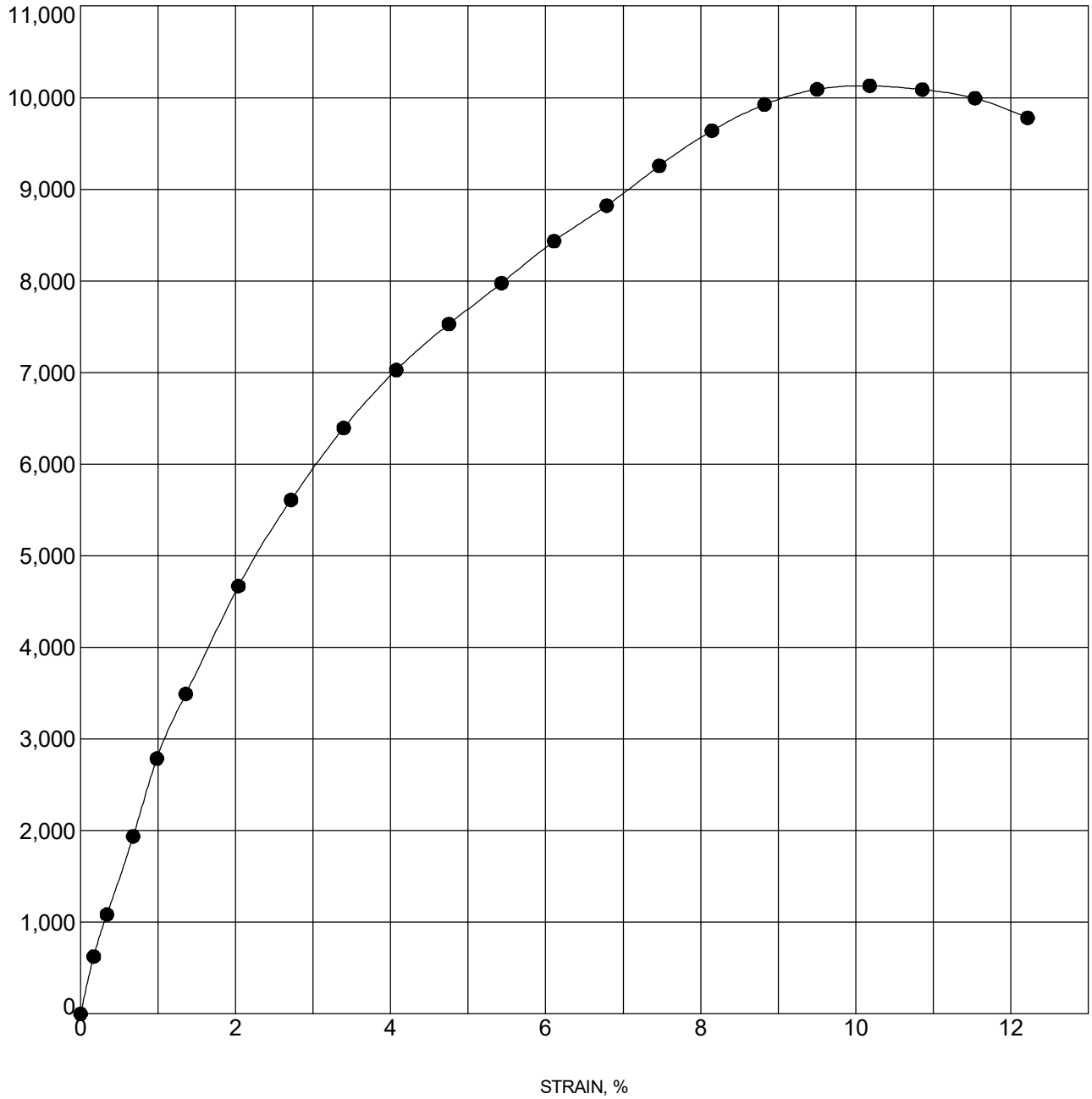
PROJECT NAME 2025 Water Main and Resurfacing Projects
PROJECT NUMBER 401.2300021.013
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-123 / SS-3 6.0**		**10130**	**114.8**	**15.1**

UNCONFINED COMPRESSION TEST

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CLIENT City of Ann Arbor

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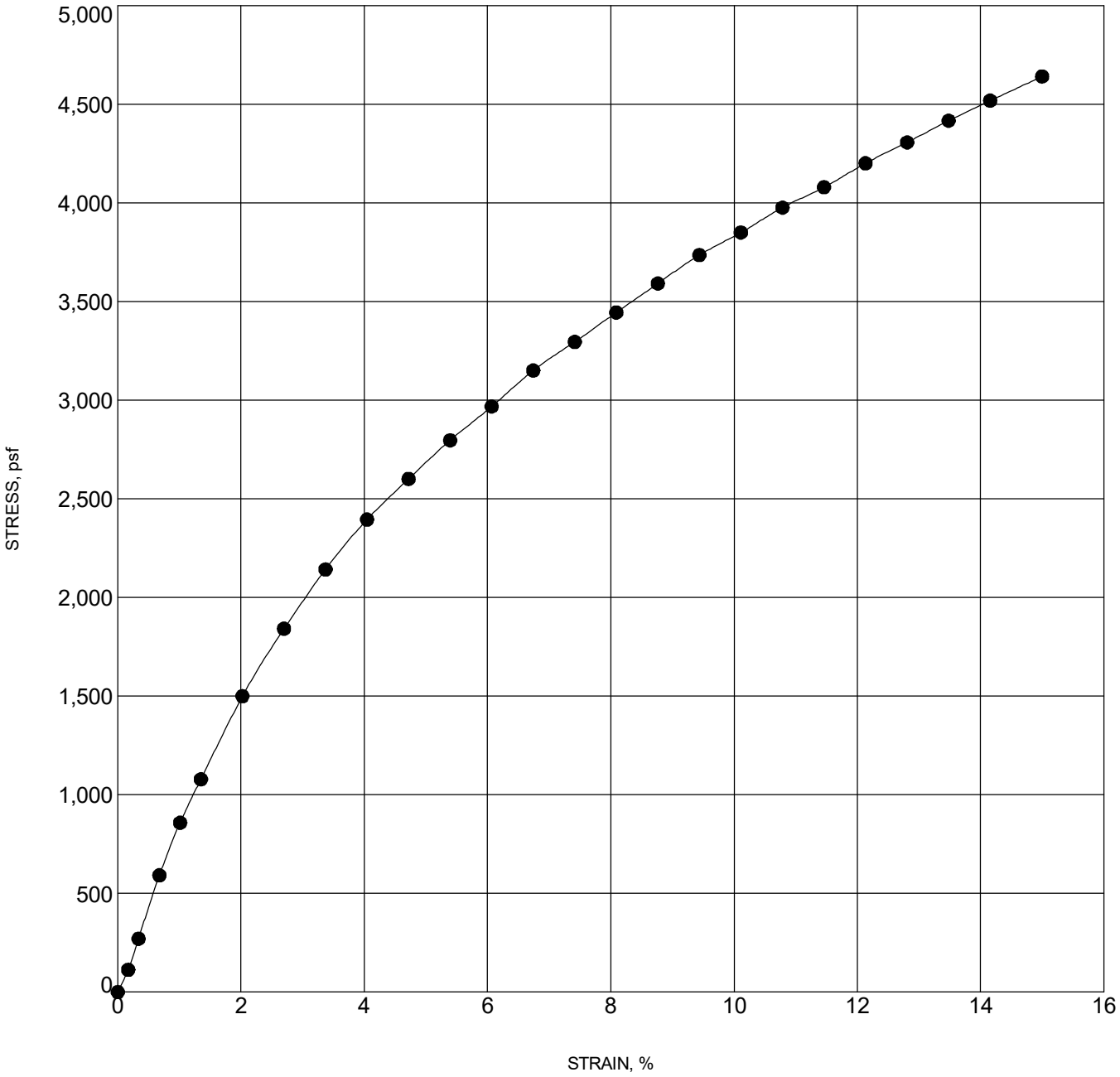

Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-124 / SS-5 13.5**		**4642**	**112.2**	**17.9**

UNCONFINED COMPRESSION TEST

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CLIENT City of Ann Arbor

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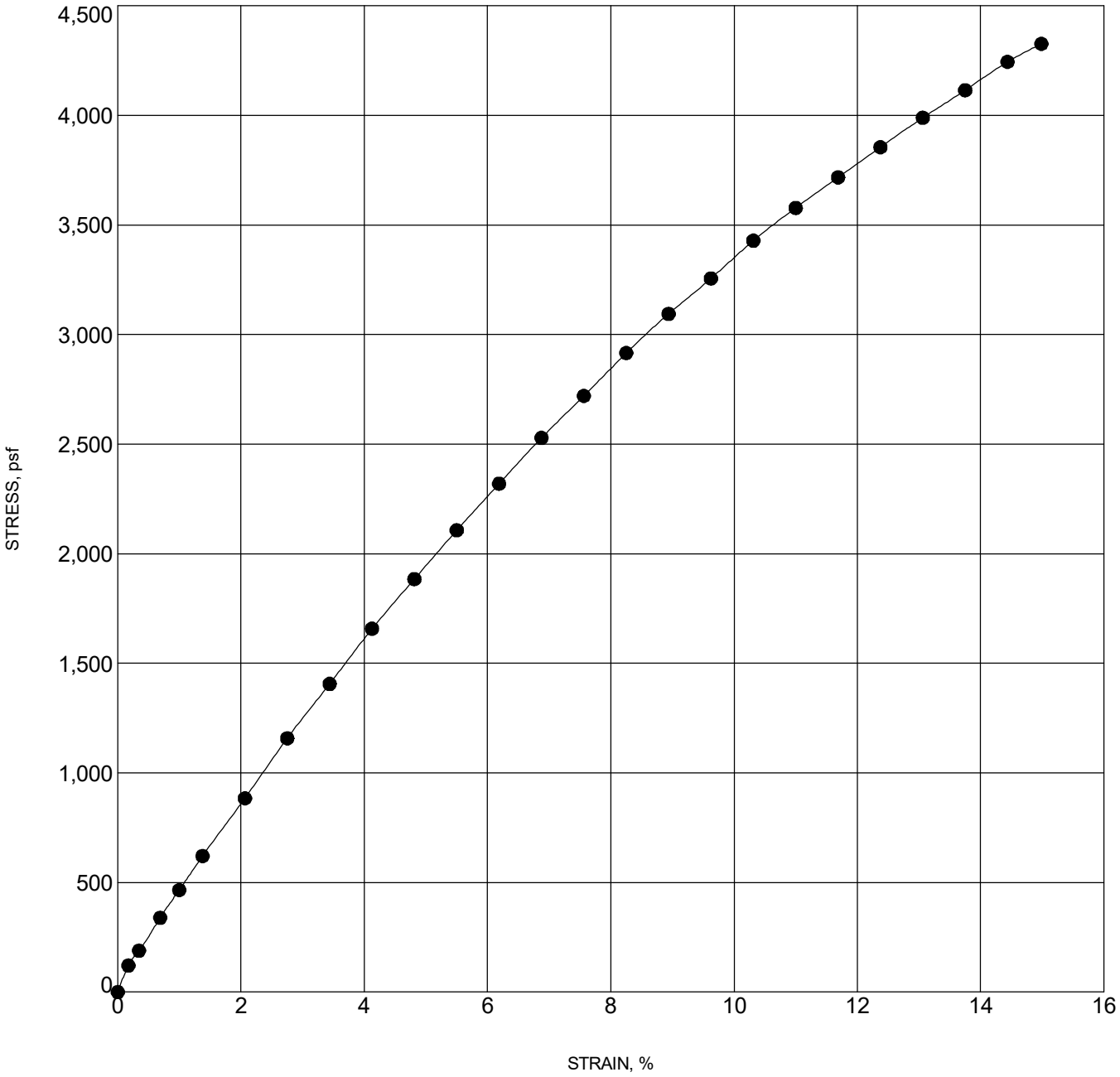
PROJECT LOCATION Ann Arbor, Michigan



	Specimen Identification	Classification	UCS (psf)	γ_d	MC%
●	**SB-2026-125 / SS-6 18.5**		**4327**	**114.4**	**18.1**

UNCONFINED COMPRESSION TEST

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CLIENT City of Ann Arbor

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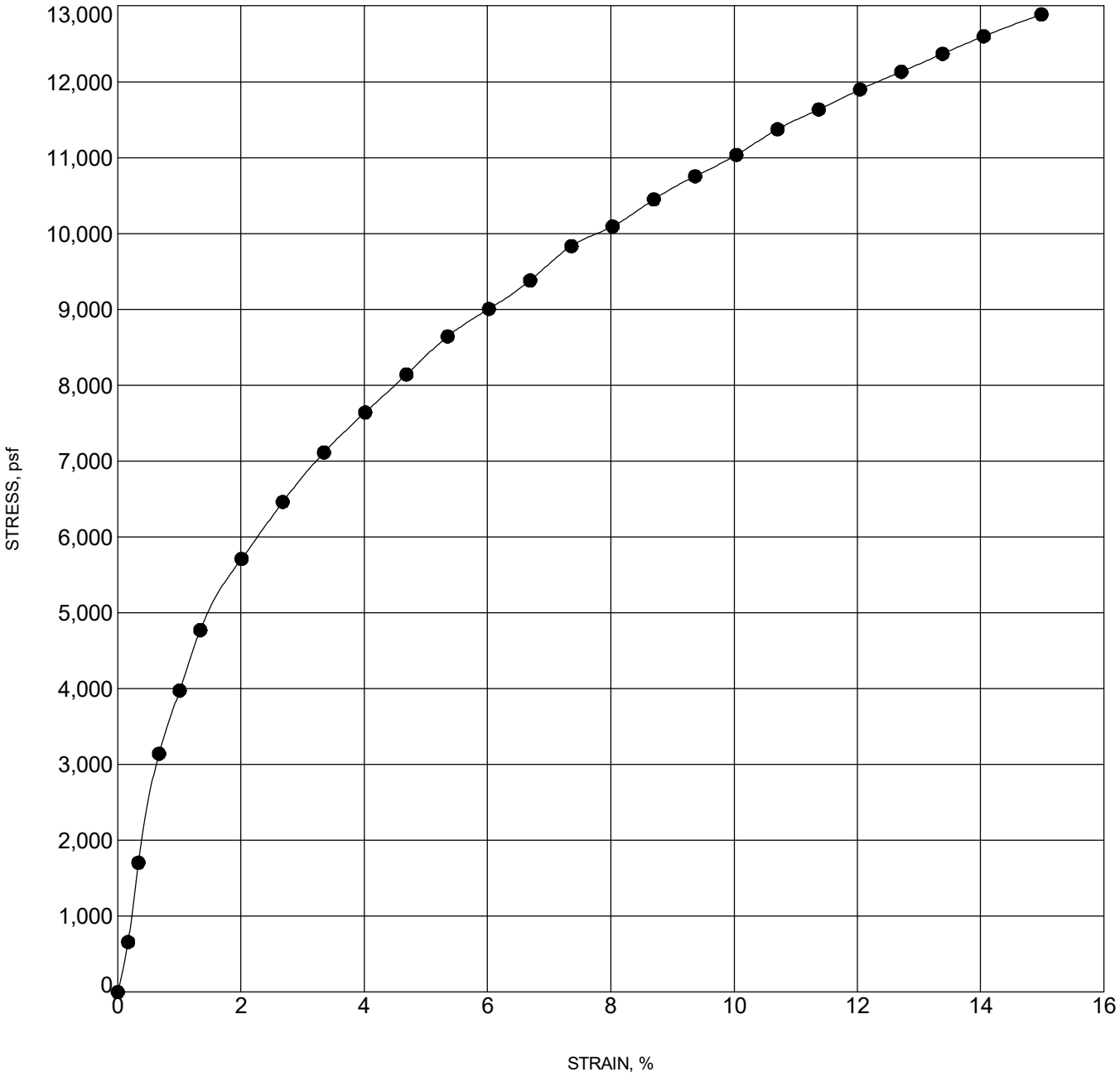
PROJECT LOCATION Ann Arbor, Michigan



Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-126 / SS-3 6.0**		**12888**	**112.9**	**16.6**

UNCONFINED COMPRESSION TEST

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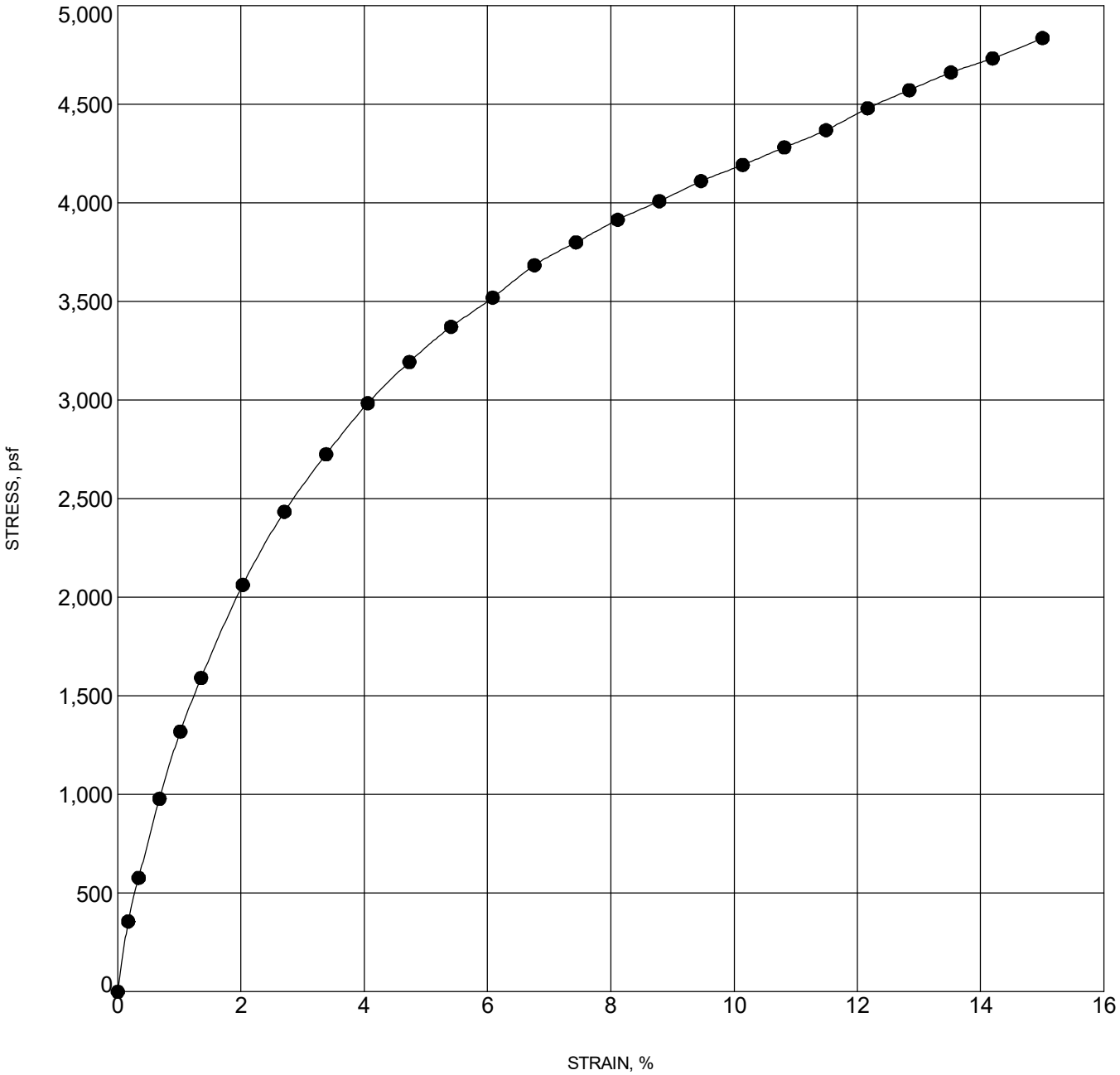

Specimen Identification	Classification	UCS (psf)	γ_d	MC%
● **SB-2026-128 / SS-3 6.0**		**4836**	**113.1**	**17.4**

UNCONFINED COMPRESSION TEST

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CLIENT City of Ann Arbor

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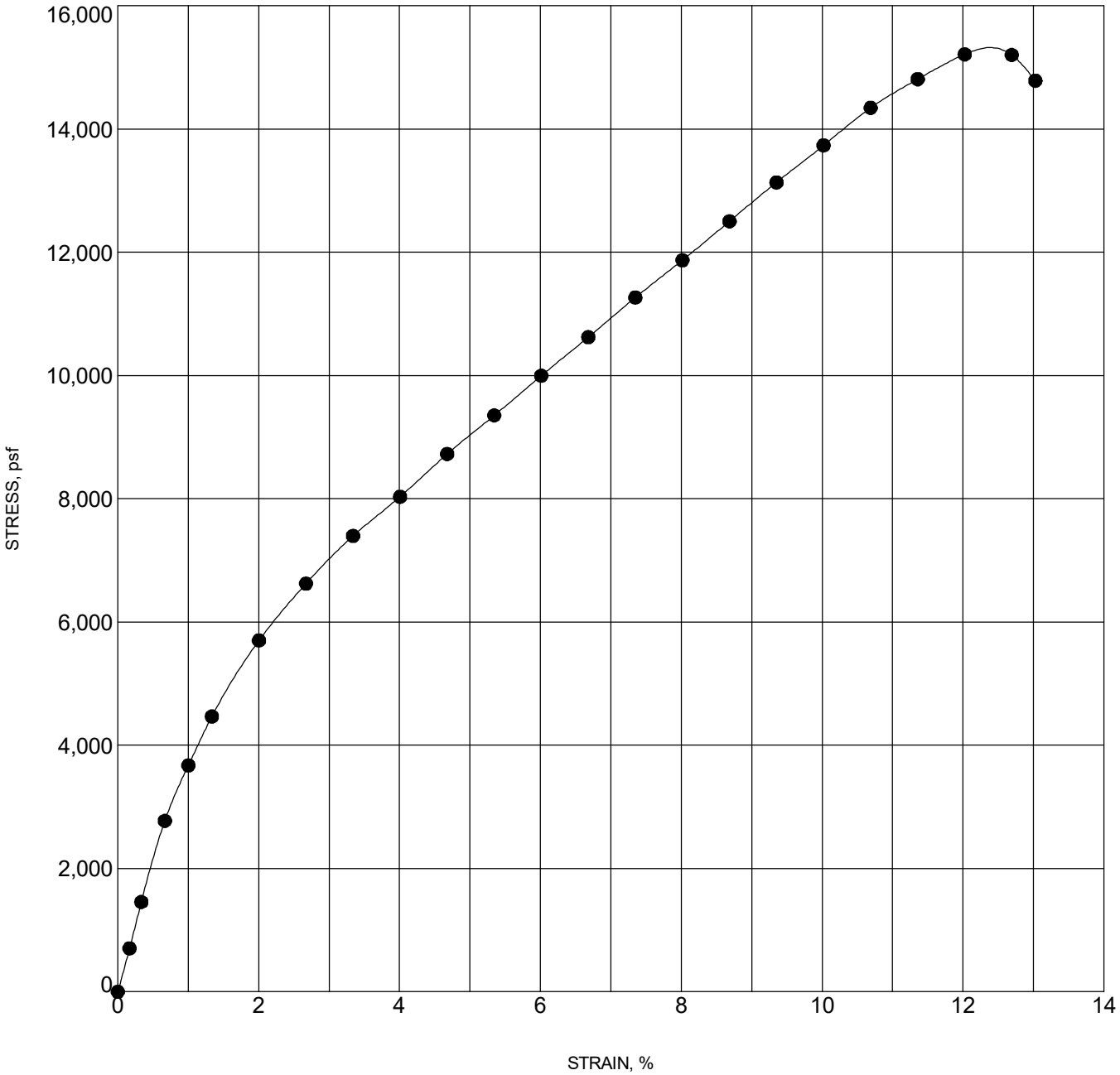

	Specimen Identification	Classification	UCS (psf)	γ_d	MC%
●	**SB-2026-130 / SS-3 6.0**		**15214**	**111.7**	**15.6**

APPENDIX D

PAVEMENT CORE PHOTOGRAPHS

Photo 1: SB-2026-108 (Arbordale St.): 3-inch Asphalt

Photo 2: SB-2026-109 (Arbordale St.): 3-inch Asphalt (1-inch unrecoverable)

Photo 3: SB-2026-110 (Arbordale St.): 3-inch Asphalt

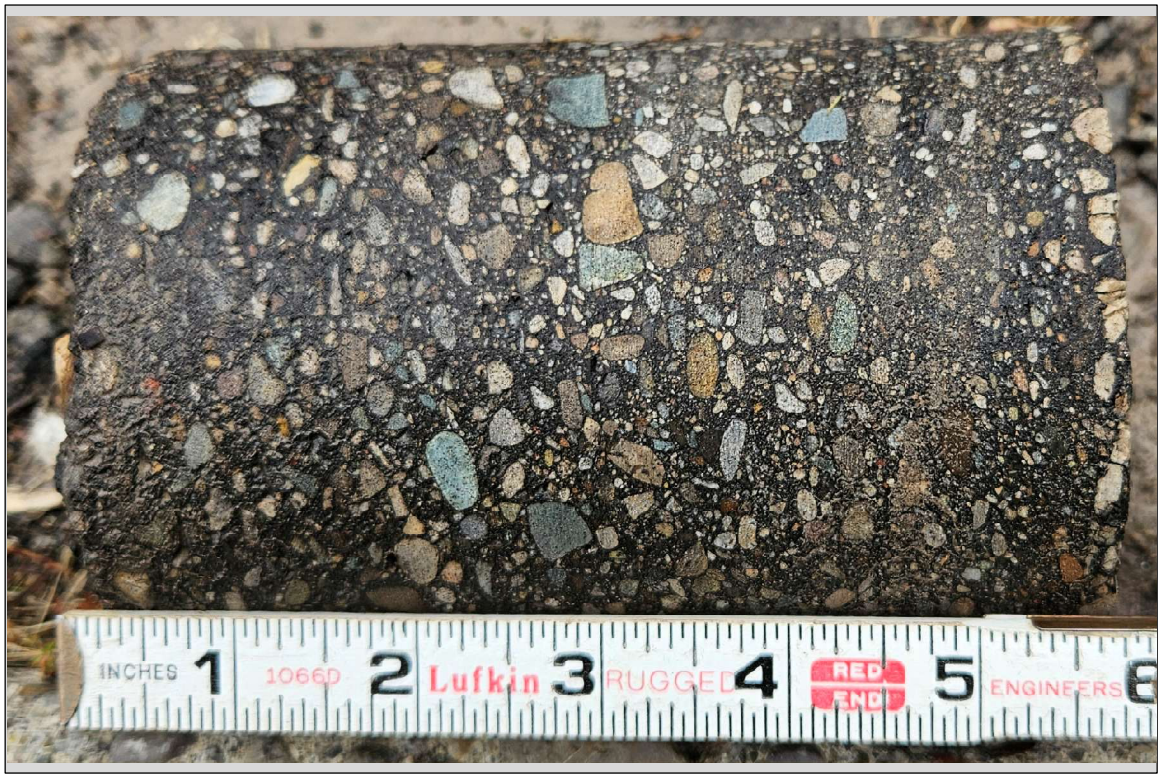

Photo 4: SB-2026-111 (Arbordale St.): 5.5-inch Asphalt

Photo 5: SB-2026-112 (Arbordale St.): 4.5-inch Asphalt

Photo 6: SB-2026-113 (Arbordale St.): 3-inch Asphalt

Photo 7: SB-2026-114 (Arbordale St.): 3-inch Asphalt

Photo 8: SB-2026-115 (Arbordale St.): 4-inch Asphalt

Photo 9: SB-2026-116 (Sherwood St.): 5-inch Asphalt

Photo 10: SB-2026-117 (Sherwood St.): 4.5-inch Asphalt

Photo 11: SB-2026-118 (Sherwood St.): 3.5-inch Asphalt

Photo 12: SB-2026-119 (Packard St.): 6.5-inch Asphalt

Photo 13: SB-2026-120 (Packard St.): 5-inch Asphalt

Photo 14: SB-2026-121 (Packard St.): 4-inch Asphalt

Photo 15: SB-2026-122 (Packard St.): 6-inch Asphalt

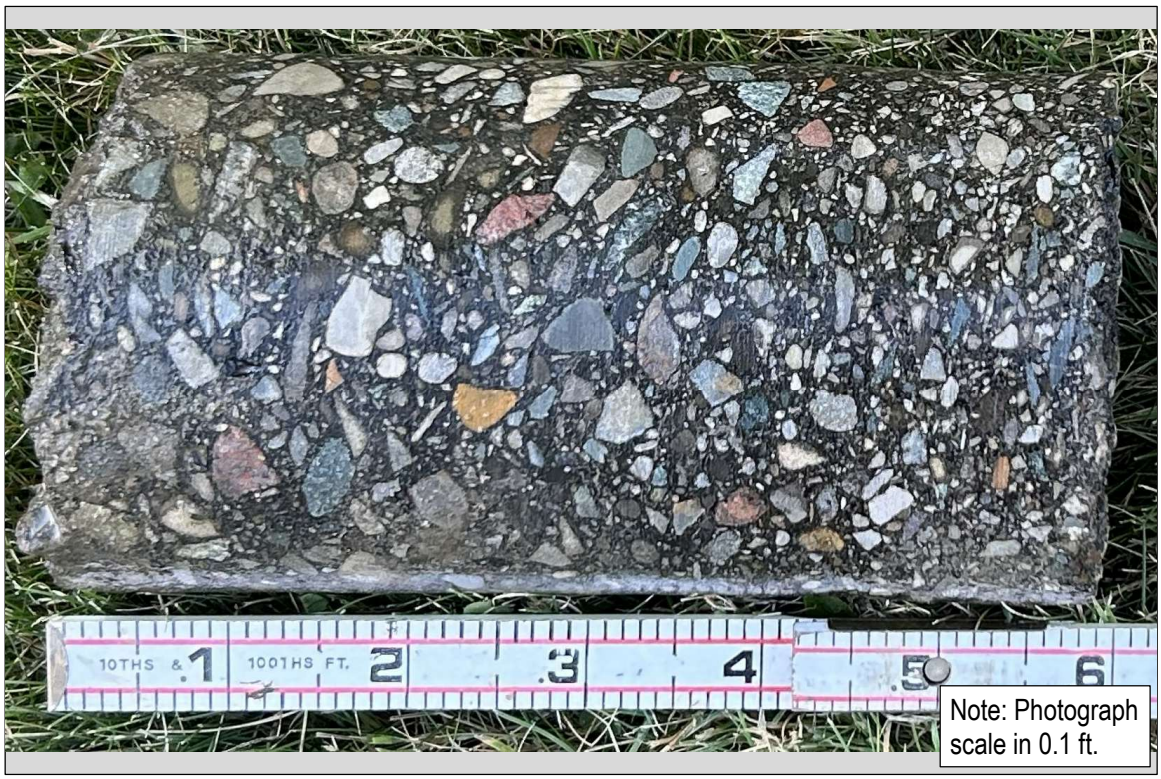

Photo 16: SB-2026-123 (Packard St.): 7-inch Asphalt

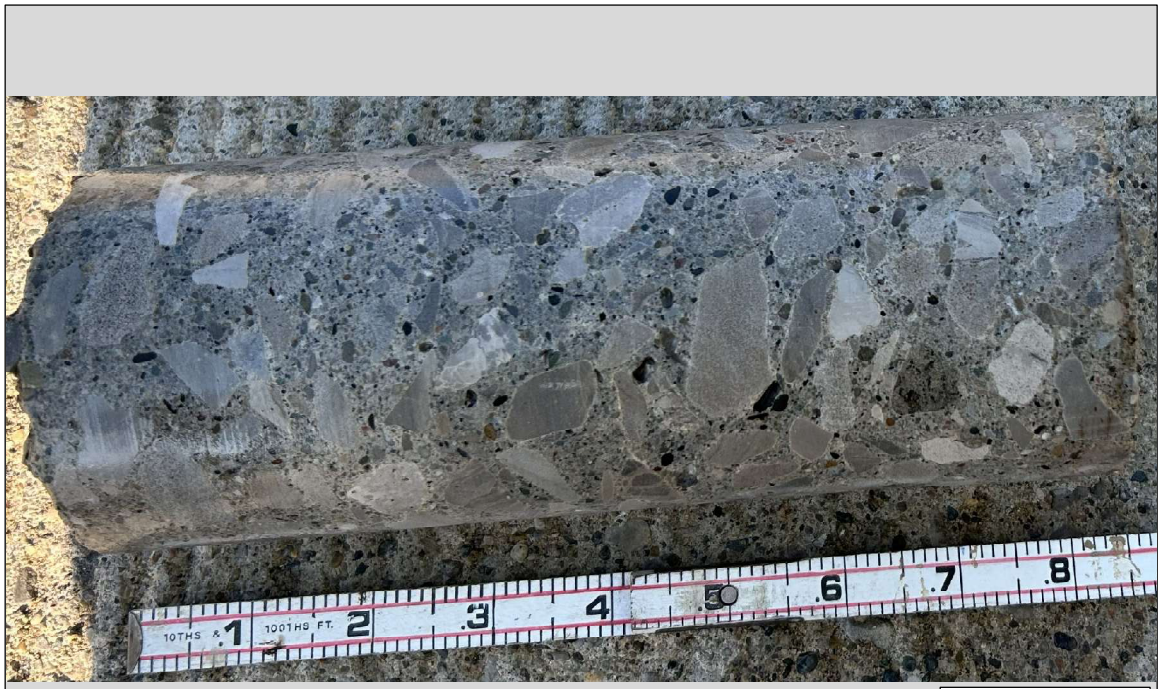

Photo 17: SB-2026-124 (S. Huron Pkwy.): 10-inch Concrete

Photo 18: SB-2026-125 (S. Huron Pkwy.): 10-inch Concrete

Photo 19: SB-2026-126 (S. Huron Pkwy.): 8.5-inch Asphalt

Photo 20: SB-2026-127 (S. Huron Pkwy., Arlington Square): 5-inch Asphalt

Photo 21: SB-2026-128 (S. Huron Pkwy., Arlington Place): 5-inch Asphalt

Photo 22: SB-2026-129 (S. Huron Pkwy.): 8-inch Asphalt

Photo 23: SB-2026-131 (S. Huron Pkwy.): 6.5-inch Asphalt

Photo 24: SB-2026-132 (S. Huron Pkwy.): 6-inch Asphalt

Photo 25: SB-2026-139 (Kingsley St.): 3-inch Asphalt

Photo 26: SB-2026-140 (Kingsley St.): 3.5-inch Asphalt

Note: Photograph scale in 0.1 ft.

Photo 27: SB-2026-141 (Kingsley St.): 3.5-inch Asphalt

Note: Photograph scale in 0.1 ft.

Photo 28: SB-2026-142 (Kingsley St.): 3.5-inch Asphalt, 5-inch Concrete (non-recoverable)

Photo 29: SB-2026-143 (Kingsley St.): 3-inch Asphalt, 5-inch Concrete (non-recoverable)

Photo 30: SB-2026-144 (Kingsley St. & State St.): 4-inch Brick

Photo 31: SB-2026-145 (Kingsley St.): 3.5-inch Asphalt

Photo 32: SB-2026-146 (Kingsley St.): 3.5-inch Asphalt, 2-inch Concrete

Note: Photograph scale in 0.1 ft.

Photo 33: SB-2026-147 (Kingsley St.): 4-inch Asphalt

Note: Photograph scale in 0.1 ft.

Photo 34: SB-2026-148 (Ingalls St.): 3.5-inch Asphalt

Photo 35: SB-2026-149 (Ingalls St.): 4-inch Asphalt

Photo 36: SB-2026-150 (Ingalls St.): 3.5-inch Asphalt

Photo 37: SB-2026-151 (Ingalls St.): 4-inch Asphalt, 3-inch Concrete (non-recoverable)

Photo 38: SB-2026-152 (Ingalls St.): 4-inch Asphalt, 3-inch Concrete (non-recoverable)

Photo 39: SB-2026-153 (Ingalls St.): 3.5-inch Asphalt, 3-inch Concrete (non-recoverable)

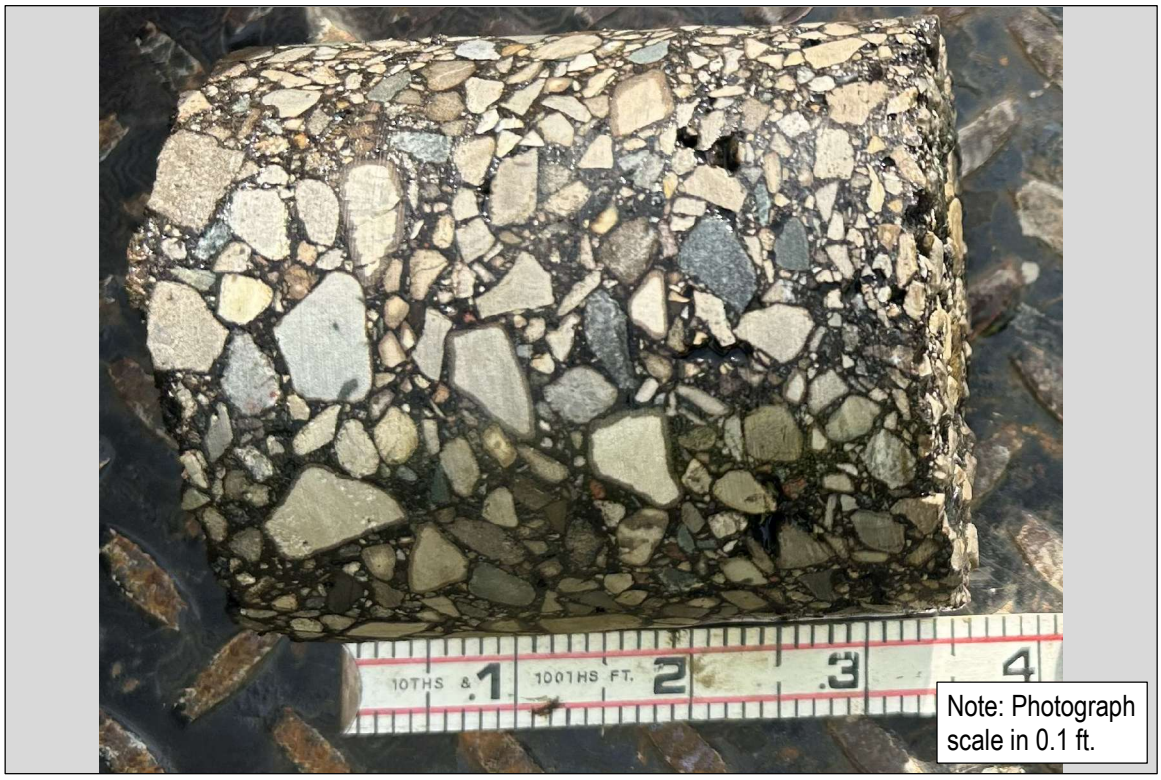

Photo 40: SB-2026-154 (Ingalls St.): 4-inch Asphalt, 3-inch Concrete (non-recoverable)

"General Decision Number: MI20260001 01/02/2026

Superseded General Decision Number: MI20250001

State: Michigan

Construction Types: Highway (Highway, Airport & Bridge xxxxx
and Sewer/Incid. to Hwy.)

Counties: Michigan Statewide.

Modification Number	Publication Date
0	01/02/2026

CARP0004-004 06/01/2019

REMAINDER OF STATE

	Rates	Fringes
CARPENTER (Piledriver).....	$ 27.62	20.59

CARP0004-005 06/01/2018

LIVINGSTON (Townships of Brighton, Deerfield, Genoa, Hartland,
Oceola & Tyrone), MACOMB, MONROE, OAKLAND, SANILAC, ST. CLAIR
AND WAYNE COUNTIES

	Rates	Fringes
CARPENTER (Piledriver).....	$ 30.50	27.28

ELEC0017-005 06/01/2025

STATEWIDE

	Rates	Fringes
Line Construction		
Groundman/Driver.....	$ 33.32	33%+7.40
Journeyman Signal Tech, Communications Tech, Tower Tech & Fiber Optic Splicers.	$ 49.26	33%+7.40
Journeyman Specialist.....	$ 56.65	33%+7.40
Operator A.....	$ 41.71	33%+7.40
Operator B.....	$ 38.98	33%+7.40

Classifications

Journeyman Specialist: Refers to a crew of only one person working alone.
Operator A: Shall be proficient in operating all power equipment including: Backhoe, Excavator, Directional Bore and Boom/Digger truck.
Operator B: Shall be proficient in operating any 2 of the above mentioned pieces of equipment listed under Operator A.

ENGI0324-003 06/01/2025

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
GROUP 1	$ 55.42	28.25
GROUP 2	$ 56.42	28.25
GROUP 3	$ 53.92	28.25
GROUP 4	$ 54.92	28.25
GROUP 5	$ 52.42	28.25
GROUP 6	$ 53.42	28.25
GROUP 7	$ 52.15	28.25
GROUP 8	$ 53.15	28.25
GROUP 9	$ 51.70	28.25
GROUP 10	$ 52.70	28.25
GROUP 11	$ 50.97	28.25
GROUP 12	$ 51.97	28.25
GROUP 13	$ 50.61	28.25
GROUP 14	$ 51.61	28.25
GROUP 15	$ 49.97	28.25
GROUP 16	$ 46.77	28.25
GROUP 17	$ 32.29	15.40
GROUP 18	$ 35.78	28.25

FOOTNOTE:

Paid Holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Engineer when operating combination of boom and jib 400' or longer

GROUP 2: Engineer when operating combination of boom and jib 400' or longer on a crane that requires an oiler

GROUP 3: Engineer when operating combination of boom and jib 300' or longer

GROUP 4: Engineer when operating combination of boom and jib 300' or longer on a crane that requires an oiler

GROUP 5: Engineer when operating combination of boom and jib 220' or longer

GROUP 6: Engineer when operating combination of boom and jib 220' or longer on a crane that requires an oiler

GROUP 7: Engineer when operating combination of boom and jib 140' or longer

GROUP 8: Engineer when operating combination of boom and jib 140' or longer on a crane that requires an oiler

GROUP 9: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level)

GROUP 10: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level) on a crane that requires an oiler

GROUP 11: Engineer when operating combination of boom and jib 120' or longer

GROUP 12: Engineer when operating combination of boom and jib 120' or longer on a crane that requires an oiler

GROUP 13: Crane operator; job mechanic and 3 drum hoist and excavator

GROUP 14: Crane operator on a crane that requires an oiler

GROUP 15: Hoisting operator; 2 drum hoist and rubber tired backhoe

GROUP 16: Forklift and 1 drum hoist

GROUP 17: Compressor or welder operator

GROUP 18: Oiler

ENGI0324-004 06/01/2025

AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN

AREA 2: ANTRIM, BENZIE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE AND WEXFORD COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
AREA 1		
GROUP 1	$ 55.02	28.25
GROUP 2	$ 52.15	28.25
GROUP 3	$ 50.61	28.25
GROUP 4	$ 46.77	28.25
GROUP 5	$ 32.29	15.40
GROUP 6	$ 35.78	28.25
AREA 2		
GROUP 1	$ 55.02	28.25
GROUP 2	$ 52.15	28.25
GROUP 3	$ 50.61	28.25
GROUP 4	$ 46.77	28.25
GROUP 5	$ 32.29	15.40
GROUP 6	$ 35.78	28.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: $1.50 additional to the group 1 rate. Crane operator with main boom and jib 400' or longer: $3.00 additional to the group 1 rate.
PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: Crane Operator with main boom & jib 400', 300', or 220' or longer.

GROUP 2: Crane Operator with main boom & jib 140' or longer, Tower Crane; Gantry Crane; Whirley Derrick.

GROUP 3: Regular Equipment Operator, Crane, Dozer, Loader, Hoist, Straddle Wagon, Mechanic, Grader and Hydro Excavator.

GROUP 4: Air Tugger (single drum), Material Hoist Pump 6"" or over, Elevators, Brokk Concrete Breaker.

GROUP 5: Air Compressor, Welder, Generators, Conveyors

GROUP 6: Oiler and fire tender

ENGI0324-005 09/01/2025

AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKE, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Underground construction (including sewer))		
AREA 1:		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25
GROUP 5	$ 30.35	12.10
AREA 2:		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25
GROUP 5	$ 30.35	12.10

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backfiller tamper; Backhoe; Batch plant operator (concrete); Clamshell; Concrete paver (2 drums or larger); Conveyor loader (Euclid type); Crane (crawler, truck type or pile driving); Dozer; Dragline; Elevating grader; Endloader; Gradall (and similar type machine); Grader; Mechanic; Power shovel; Roller (asphalt); Scraper (self-propelled or tractor drawn); Side boom tractor (type D-4 or equivalent and larger); Slip form paver; Slope paver; Trencher (over 8 ft. digging capacity); Well drilling rig; Concrete pump with boom operator; Hydro Excavator

GROUP 2: Boom truck (power swing type boom); Crusher; Hoist; Pump (1 or more - 6-in. discharge or larger - gas or diesel- powered or powered by generator of 300 amperes or more - inclusive of generator); Side boom tractor (smaller than type D-4 or equivalent); Tractor (pneu-tired, other than backhoe or front end loader); Trencher (8-ft. digging capacity and smaller);Vac Truck and End dump operator;

GROUP 3: Air compressors (600 cfm or larger); Air compressors (2 or more-less than 600 cfm); Boom truck (non-swinging, non- powered type boom); Concrete breaker (self-propelled or truck mounted - includes compressor); Concrete paver (1 drum-1/2 yd. or larger); Elevator (other than passenger); Maintenance person; Pump (2 or more-4-in. up to 6-in. discharge-gas or diesel powered - excluding submersible pumps); Pumpcrete machine (and similar equipment); Wagon drill (multiple); Welding machine or generator (2 or more-300 amp. or larger - gas or diesel powered)

GROUP 4: Boiler; Concrete saw (40 hp or over); Curing machine (self-propelled); Farm tractor (with attachment); Finishing machine (concrete); Hydraulic pipe pushing machine; Mulching equipment; Pumps (2 or more up to 4-in. discharge, if used 3 hours or more a day, gas or diesel powered - excluding submersible pumps); Roller (other than asphalt); Stump remover; Trencher (service); Vibrating compaction equipment, self-propelled (6 ft. wide or over); Sweeper (Wayne type); Water wagon and Extend-a boom forklift

Group 5: Fire Person, Oiler

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* ENGI0324-006 06/01/2025

GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW, WAYNE, ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON,

EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
Power equipment operators: (AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION)		
GROUP 1	$ 46.21	25.25
GROUP 2	$ 45.06	25.25
GROUP 3	$ 38.33	25.25
GROUP 4	$ 37.77	25.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Paver Operator (5 bags or more); Slip Form Paver; Asphalt Paver (self propelled); Shovel (Excavator) installing utilities over 20 feet in depth.

Group 2: Asphalt plant operator; crane operator (does not include work on bridge construction projects when the crane operator is erecting structural components); Dragline operator; Shovel (Excavator) operator; Locomotive operator; Elevating grader operator; Pile driving operator; Roller operator (asphalt); Blade grader operator; Trenching machine operator (ladder or wheel type); Auto-grader; Self-propelled or tractor-drawn scraper; Conveyor loader operator (Euclid type); Bulldozer; Hoisting engineer; Tractor operator; Finishing machine operator (asphalt); Mechanic; Pump operator (6-in. discharge or over, gas, diesel powered or generator of 300 amp. or larger); Shouldering or gravel distributing machine operator (self-propelled); Backhoe (with over 3/8 yd. bucket); Side boom tractor (type D-4 or equivalent or larger); Tube finisher (slip form paving); Gradall (and similar type machine); Asphalt planner (self- propelled); Batch plant (concrete-central mix); Slurry machine (asphalt); Concrete pump (3 in. and over); Roto-mill; Swinging boom truck (over 12 ton capacity); Hydro demolisher (water blaster); Farm-type tractor with attached pan; Vacuum truck operator; Batch Plant (concrete dry batch); Concrete Saw Operator (40h.p. or over; Tractor Operator (farm type); Finishing

Machine Operator (concrete); Grader Operator (self-propelled fine grade or form (concrete); tractor operator (farm type with attachment); Wagon Drill operator; Boom or winch hoist truck operator.

GROUP 3: Screening plant operator; Washing plant operator; Crusher operator; Backhoe (with 3/8 yd. bucket or less); Side boom tractor (smaller than D-4 type or equivalent); Sweeper (Wayne type and similar equipment); Greese Truck; Air Compressor Operator (600 cu.ft. per min or more); Air Compressor Operator (two or more, less than 600 cfm); End Loader operator (1 yard Capacity and over); Side boom tractor (type D or equivalent or larger; Endloader operator *under 1 yard capacity; Trencher (service).

GROUP 4: Boiler fire tender; Concrete Breaker; Oiler; Fire tender; Trencher (service); Flexplane operator; Cleftplane operator; Roller operator (other than asphalt); Curing equipment operator (self-propelled); Power bin operator; Plant drier operator (asphalt); Vibratory compaction equipment operator (6 ft. wide or over); Guard post driver operator (power driven); All mulching equipment; Stump remover; Concrete pump (under 3-in.); Mesh installer (self-propelled); End dump;Skid steer.

ENGI0324-007 05/01/2025

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
Compressor, welder and forklift	$ 43.30	25.00
Crane operator, main boom & jib 120' or longer	$ 49.77	25.00
Crane operator, main boom & jib 140' or longer	$ 50.07	24.60
Crane operator, main boom & jib 220' or longer	$ 50.66	25.00
Mechanic with truck and tools	$ 48.90	25.00
Oiler and fireman	$ 41.76	25.00
Regular operator	$ 47.12	25.00

ENGI0324-008 10/01/2023

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Sewer Relining)		
GROUP 1	$ 37.37	15.44
GROUP 2	$ 35.33	15.44

SEWER RELINING CLASSIFICATIONS

GROUP 1: Operation of audio-visual closed circuit TV system, including remote in-ground cutter and other equipment used in connection with the CCTV system

GROUP 2: Operation of hot water heaters and circulation systems, water jetters and vacuum and mechanical debris removal systems

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ENGI0325-012 05/01/2025

	Rates	Fringes
Power equipment operators - gas distribution and duct installation work:		
GROUP 1	$ 39.78	25.25
GROUP 2	$ 36.05	25.25

SCOPE OF WORK: The construction, installation, treating and reconditioning of pipelines transporting gas vapors within cities, towns, subdivisions, suburban areas, or within private property boundaries, up to and including private meter settings of private industrial, governmental or other

premises, more commonly referred to as ""distribution work,"" starting from the first metering station, connection, similar or related facility, of the main or cross country pipeline and including duct installation.

Group 1: Backhoe, crane, grader, mechanic, dozer (D-6 equivalent or larger), side boom (D-4 equivalent or larger), trencher(except service), endloader (2 yd. capacity or greater).

GROUP 2: Dozer (less than D-6 equivalent), endloader (under 2 yd. capacity), side boom (under D-4 capacity), backfiller, pumps (1 or 2 of 6-inch discharge or greater), boom truck (with powered boom), tractor (wheel type other than backhoe or front endloader). Tamper (self-propelled), boom truck (with non-powered boom), concrete saw (20 hp or larger), pumps (2 to 4 under 6-inch discharge), compressor (2 or more or when one is used continuously into the second day) and trencher(service). Oiler, hydraulic pipe pushing machine, grease person and hydrostatic testing operator.

IRON0008-007 06/01/2024

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector	$ 23.70	6.95
IRONWORKER		
General contracts $10,000,000 or greater	$ 39.91	32.32
General contracts less than $10,000,000	$ 39.91	32.32

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0025-002 06/01/2025

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA,

WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector		
ALLEGAN, ANTRIM, BARRY, BENZIE, BRANCH, CALHOUN, CHARLEVOIX, EATON, EMMET, GRAND TRAVERSE, HILLSDALE, IONIA, KALAMAZOO, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN AND WEXFORD COUNTIES:	$ 28.80	27.43
Bay, Genesee, Lapeer, Livingston (east of Burkhardt Road), Macomb, Midland, Oakland, Saginaw, St. Clair, The University of Michigan, Washtenaw (east of U.S. 23) & Wayne...	$ 30.02	28.13
IRONWORKER		
Ornamental and Structural...	$ 36.55	35.93
Reinforcing...	$ 36.55	32.87

IRON0055-005 07/01/2022

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
IRONWORKER		
Pre-engineered metal buildings...	$ 23.59	19.35
All other work...	$ 33.00	27.20

IRON0292-003 06/01/2020

BERRIEN AND CASS COUNTIES:

	Rates	Fringes
IRONWORKER (Including pre-engineered metal building erector)...	$ 31.75	22.84

LABO0005-006 10/01/2022

	Rates	Fringes
Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)		
Levels A, B or C	$ 17.45	12.75
class b	$ 18.64	12.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 16.45	12.75
class a	$ 17.64	12.90
Zone 10		
Laborers - hazardous waste abatement: (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - Zone 11)		
Levels A, B or C	$ 25.18	12.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 22.58	12.90
Laborers - hazardous waste abatement: (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (except the city of Portland); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES		

- Zone 9)
     Levels A, B or C.....$ 21.88 13.26
     Work performed in
     conjunction with site
     preparation not requiring
     the use of personal
     protective equipment;
     Also, Level D.....$ 20.80 12.90
Laborers - hazardous waste
abatement: (ARENAC, BAY,
CLARE, GLADWIN, GRATIOT,
HURON, ISABELLA, MIDLAND,
OGEMAW, ROSCOMMON, SAGINAW
AND TUSCOLA COUNTIES - Zone 8)
     Levels A, B or C.....$ 23.74 12.95
     Work performed in
     conjunction with site
     preparation not requiring
     the use of personal
     protective equipment;
     Also, Level D.....$ 20.80 12.90
Laborers - hazardous waste
abatement: (CLINTON, EATON
AND INGHAM COUNTIES; IONIA
COUNTY (City of Portland);
LIVINGSTON COUNTY (west of
Oak Grove Rd., including the
City of Howell) - Zone 6)
     Levels A, B or C.....$ 26.33 12.95
     Work performed in
     conjunction with site
     preparation not requiring
     the use of personal
     protective equipment;
     Also, Level D.....$ 24.64 12.90
Laborers - hazardous waste
abatement: (GENESEE, LAPEER
AND SHIAWASSEE COUNTIES -
Zone 7)
     Levels A, B or C.....$ 24.20 13.80
     Work performed in
     conjunction with site
     preparation not requiring
     the use of personal
     protective equipment;
     Also, Level D.....$ 23.20 13.80
Laborers - hazardous waste
abatement: (HILLSDALE,
JACKSON AND LENAWEE COUNTIES
- Zone 4)

Levels A, B or C.....$ 27.13 14.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 24.17 12.90

Laborers - hazardous waste abatement: (LIVINGSTON COUNTY (east of Oak Grove Rd. and south of M-59, excluding the city of Howell); AND WASHTENAW COUNTY - Zone 3)
Levels A, B or C.....$ 29.93 14.20
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 28.93 14.20

Laborers - hazardous waste abatement: (MACOMB AND WAYNE COUNTIES - Zone 1)
Levels A, B or C.....$ 29.93 16.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 28.93 16.90

Laborers - hazardous waste abatement: (MONROE COUNTY - Zone 4)
Levels A, B or C.....$ 31.75 14.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 31.75 14.90

Laborers - hazardous waste abatement: (OAKLAND COUNTY and the Northeast portion of LIVINGSTON COUNTY bordered by Oak Grove Road on the West and M-59 on the South - Zone 2)
Level A, B, C.....$ 29.93 16.90
Work performed in conjunction with site

preparation not requiring
the use of personal
protective equipment;
Also, Level D.....$ 28.93 16.90
Laborers - hazardous waste
abatement: (SANILAC AND ST.
CLAIR COUNTIES - Zone 5)
Levels A, B or C.....$ 26.21 16.62
Work performed in
conjunction with site
preparation not requiring
the use of personal
protective equipment;
Also, Level D.....$ 24.75 16.35

LABO0259-001 09/01/2025

AREA 1: MACOMB, OAKLAND AND WAYNE COUNTIES
AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONROE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW AND WEXFORD COUNTIES

	Rates	Fringes
Laborers - tunnel, shaft and caisson:		
AREA 1		
GROUP 1	$ 30.13	22.75
GROUP 2	$ 32.13	22.75
GROUP 3	$ 28.13	22.75
GROUP 4	$ 23.97	16.93
GROUP 5	$ 24.22	16.93
GROUP 6	$ 24.55	16.93
GROUP 7	$ 17.83	16.93
AREA 2		
GROUP 1	$ 32.13	17.95
GROUP 2	$ 34.40	17.95
GROUP 3	$ 28.00	17.45
GROUP 4	$ 29.57	16.93

GROUP 5	$ 25.76	16.93
GROUP 6	$ 26.07	16.93
GROUP 7	$ 25.57	16.93

SCOPE OF WORK: Tunnel, shaft and caisson work of every type and description and all operations incidental thereto, including, but not limited to, shafts and tunnels for sewers, water, subways, transportation, diversion, sewerage, caverns, shelters, aquafers, reservoirs, missile silos and steel sheeting for underground construction.

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Tunnel, shaft and caisson laborer, dump, shanty, hog house tender, testing (on gas) and watchman

GROUP 2: Manhole, headwall, catch basin builder, bricklayer tender, mortar machine and material mixer

GROUP 3: Air tool operator (jackhammer, bush hammer and grinder), first bottom, second bottom, cage tender, car pusher, carrier, concrete, concrete form, concrete repair, cement invert laborer, cement finisher, concrete shoveler, conveyor, floor, gasoline and electric tool operator, gunite, grout operator, welder, heading dinky person, inside lock tender, pea gravel operator, pump, outside lock tender, scaffold, top signal person, switch person, track, tugger, utility person, vibrator, winch operator, pipe jacking, wagon drill and air track operator and concrete saw operator (under 40 h.p.)

GROUP 4: Tunnel, shaft and caisson mucker, bracer, liner plate, long haul dinky driver and well point

GROUP 5: Tunnel, shaft and caisson miner, drill runner, key board operator, power knife operator, reinforced steel or mesh (e.g. wire mesh, steel mats, dowel bars, etc.)

GROUP 6: Dynamite and powder

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0334-001 09/01/2025

	Rates	Fringes

Laborers - open cut:

ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES:		
GROUP 1	$ 29.98	22.75
GROUP 2	$ 31.98	22.75
GROUP 3	$ 28.14	22.75
GROUP 4	$ 23.71	16.72
GROUP 5	$ 24.17	16.72
GROUP 6	$ 22.00	16.72
GROUP 7	$ 17.84	16.72
ZONE 2 - LIVINGSTON COUNTY (east of M-151 (Oak Grove Rd.)); MONROE AND WASHTENAW COUNTIES:		
GROUP 1	$ 32.10	17.45
GROUP 2	$ 34.10	17.45
GROUP 3	$ 30.10	17.45
GROUP 4	$ 25.10	16.72
GROUP 5	$ 25.25	16.72
GROUP 6	$ 22.55	16.72
GROUP 7	$ 22.11	16.72
ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (west of M-151 Oak Grove Rd.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES:		
GROUP 1	$ 30.29	17.45
GROUP 2	$ 32.29	17.45
GROUP 3	$ 28.29	17.45
GROUP 4	$ 23.30	16.72
GROUP 5	$ 23.44	16.72
GROUP 6	$ 20.74	16.72
GROUP 7	$ 22.23	16.72
ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT AND HURON COUNTIES; IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); IOSCO,		

ISABELLA, KALAMAZOO,
KALKASKA, KENT,
LAKE,LEELANAU, MANISTEE,
MASON, MECOSTA, MIDLAND,
MISSAUKEE, MONTCALM,
MONTMORENCY, MUSKEGON,
NEWAYGO, OCEANA, OGEMAW,
OSCEOLA, OSCODA, OTSEGO,
OTTAWA, PRESQUE ISLE,
ROSCOMMON, SAGINAW, ST.
JOSEPH, TUSCOLA, VAN BUREN
AND WEXFORD COUNTIES:

GROUP 1	$ 28.72	18.45
GROUP 2	$ 30.72	18.45
GROUP 3	$ 26.72	18.45
GROUP 4	$ 22.33	16.72
GROUP 5	$ 22.45	16.72
GROUP 6	$ 19.67	16.72
GROUP 7	$ 22.30	16.72

ZONE 5 - ALGER, BARAGA,
CHIPPEWA, DELTA,
DICKINSON, GOGEBIC,
HOUGHTON, IRON,
KEWEENAW, LUCE, MACKINAC,
MARQUETTE, MENOMINEE,
ONTONAGON AND SCHOOLCRAFT
COUNTIES:

GROUP 1	$ 29.98	22.75
GROUP 2	$ 30.09	19.45
GROUP 3	$ 26.09	19.45
GROUP 4	$ 22.56	16.72
GROUP 5	$ 22.64	16.72
GROUP 6	$ 19.99	16.72
GROUP 7	$ 22.45	16.72

SCOPE OF WORK:

Open cut construction work shall be construed to mean work which requires the excavation of earth including industrial, commercial and residential building site excavation and preparation, land balancing, demolition and removal of concrete and underground appurtenances, grading, paving, sewers, utilities and improvements; retention, oxidation, flocculation and irrigation facilities, and also including but not limited to underground piping, conduits, steel sheeting for underground construction, and all work incidental thereto, and general excavation. For all areas except the Upper Peninsula, open cut construction work shall also be construed to mean waterfront work, piers, docks, seawalls, breakwalls, marinas and all incidental

work. Open cut construction work shall not include any structural modifications, alterations, additions and repairs to buildings, or highway work, including roads, streets, bridge construction and parking lots or steel erection work and excavation for the building itself and back filling inside of and within 5 ft. of the building and foundations, footings and piers for the building. Open cut construction work shall not include any work covered under Tunnel, Shaft and Caisson work.

OPEN CUT LABORER CLASSIFICATIONS

GROUP 1: Construction laborer

GROUP 2: Mortar and material mixer, concrete form person, signal person, well point person, manhole, headwall and catch basin builder, headwall, seawall, breakwall and dock builder

GROUP 3: Air, gasoline and electric tool operator, vibrator operator, driller, pump person, tar kettle operator, bracer, rodder, reinforced steel or mesh person (e.g., wire mesh, steel mats, dowel bars, etc.), welder, pipe jacking and boring person, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger person and directional boring person

GROUP 4: Trench or excavating grade person

GROUP 5: Pipe layer (including crock, metal pipe, multi-plate or other conduits)

GROUP 6: Grouting man, audio-visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and appurtenances

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0465-001 06/01/2025

LABORER: Highway, Bridge and Airport Construction

AREA 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA AND VAN BUREN COUNTIES

AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON AND WEXFORD COUNTIES

AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES

	Rates	Fringes
LABORER (AREA 1)		
GROUP 1	$ 35.51	14.45
GROUP 2	$ 31.96	14.45
GROUP 3	$ 35.82	14.45
GROUP 4	$ 35.90	14.45
GROUP 5	$ 36.11	14.45
GROUP 6	$ 36.41	14.45
LABORER (AREA 2)		
GROUP 1	$ 33.37	14.45
GROUP 2	$ 30.03	14.45
GROUP 3	$ 33.81	14.45
GROUP 4	$ 34.16	14.45
GROUP 5	$ 34.03	14.45
GROUP 6	$ 34.37	14.45
LABORER (AREA 3)		
GROUP 1	$ 32.62	14.45
GROUP 2	$ 33.83	14.45
GROUP 3	$ 33.12	14.45
GROUP 4	$ 33.56	14.45
GROUP 5	$ 33.18	14.45
GROUP 6	$ 33.61	14.45
LABORER (AREA 4)		
GROUP 1	$ 33.52	13.45
GROUP 2	$ 33.73	13.45
GROUP 3	$ 34.02	13.45
GROUP 4	$ 34.46	13.45
GROUP 5	$ 34.08	13.45
GROUP 6	$ 34.51	13.45

LABORER CLASSIFICATIONS

GROUP 1: Asphalt shoveler or loader; asphalt plant misc.; burlap person; yard person; dumper (wagon, truck, etc.); joint filling laborer; miscellaneous laborer; unskilled laborer; sprinkler laborer; form setting laborer; form stripper; pavement reinforcing; handling and placing (e.g., wire mesh, steel mats, dowel bars); mason's tender or bricklayer's tender on manholes; manhole builder; headwalls, etc.; waterproofing,(other than buildings) seal coating and slurry mix, shoring, underpinning; pressure grouting; bridge pin and hanger removal; material recycling laborer; horizontal paver laborer (brick, concrete, clay, stone and asphalt); ground stabilization and modification laborer; grouting; waterblasting; top person; railroad track and trestle laborer; carpenters' tender; guard rail builders' tender; earth retention barrier and wall and M.S.E. wall installer's tender; highway and median installer's tender(including sound, retaining, and crash barriers); fence erector's tender; asphalt raker tender; sign installer; remote control operated equipment.

GROUP 2: Mixer operator (less than 5 sacks); air or electric tool operator (jackhammer, etc.); spreader; boxperson (asphalt, stone, gravel); concrete paddler; power chain saw operator; paving batch truck dumper; tunnel mucker (highway work only); concrete saw (under 40 h.p.) and dry pack machine; roto-mill grounds person.

GROUP 3: Tunnel miner (highway work only); finishers tenders; guard rail builders; highway and median barrier installer; earth retention barrier and wall and M.S.E. wall installer's (including sound, retaining and crash barriers); fence erector; bottom person; powder person; wagon drill and air track operator; diamond and core drills; grade checker; certified welders; curb and side rail setter's tender.

GROUP 4: Asphalt raker

GROUP 5: Pipe layers, oxy-gun

GROUP 6: Line-form setter for curb or pavement; asphalt screed checker/screw man on asphalt paving machines.

LABO1076-005 04/01/2025

MICHIGAN STATEWIDE

	Rates	Fringes
LABORER (DISTRIBUTION WORK)		
Zone 1	$ 28.41	13.45
Zone 2	$ 24.55	13.45
Zone 3	$ 23.55	13.45
Zone 4	$ 22.92	13.45
Zone 5	$ 22.95	13.45

DISTRIBUTION WORK - The construction, installation, treating and reconditioning of distribution pipelines transporting coal, oil, gas or other similar materials, vapors or liquids, including pipelines within private property boundaries, up to and including the meter settings on residential, commercial, industrial, institutional, private and public structures. All work covering pumping stations and tank farms not covered by the Building Trades Agreement. Other distribution lines with the exception of sewer, water and cable television are included.

Underground Duct Layer Pay: $.40 per hour above the base pay rate.

Zone 1 - Macomb, Oakland and Wayne
Zone 2 - Monroe and Washtenaw
Zone 3 - Bay, Genesee, Lapeer, Midland, Saginaw, Sanilac, Shiawassee and St. Clair
Zone 4 - Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft
Zone 5 - Remaining Counties in Michigan

PAIN0022-002 07/01/2008

HILLSDALE, JACKSON AND LENAWEE COUNTIES; LIVINGSTON COUNTY (east of the eastern city limits of Howell, not including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
PAINTER	$ 25.06	14.75

FOOTNOTES: For all spray work and journeyman rigging for spray work, also blowing off, $0.80 per hour additional (applies only to workers doing rigging for spray work on off the floor work. Does not include setting up or moving

rigging on floor surfaces, nor does it apply to workers engaged in covering up or tending spray equipment. For all sandblasting and spray work performed on highway bridges, overpasses, tanks or steel, $0.80 per hour additional. For all brushing, cleaning and other preparatory work (other than spraying or steeplejack work) at scaffold heights of fifty (50) feet from the ground or higher, $0.50 per hour additional. For all preparatorial work and painting performed on open steel under forty (40) feet when no scaffolding is involved, $0.50 per hour additional. For all swing stage work-window jacks and window belts-exterior and interior, $0.50 per hour additional. For all spray work and sandblaster work to a scaffold height of forty (40) feet above the floor level, $0.80 per hour additional. For all preparatorial work and painting on all highway bridges or overpasses up to forty (40) feet in height, $0.50 per hour additional. For all steeplejack work performed where the elevation is forty (40) feet or more, $1.25 per hour additional.

PAIN0312-001 06/01/2018

EXCLUDES: ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); INCLUDES: Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, St. Joseph, Van Buren

	Rates	Fringes
PAINTER		
Brush and roller	$ 23.74	13.35
Spray, Sandblast, Sign Painting	$ 24.94	13.35

PAIN0845-003 05/10/2018

CLINTON COUNTY; EATON COUNTY (does not include the townships of Bellevue and Olivet); INGHAM COUNTY; IONIA COUNTY (east of Hwy. M 66); LIVINGSTON COUNTY (west of the eastern city limits of Howell, including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); AND SHIAWASSEE COUNTY (Townships of Bennington, Laingsbury and Perry):

	Rates	Fringes

PAINTER.....$ 25.49 13.74

PAIN0845-015 05/10/2018

MUSKEGON COUNTY; NEWAYGO COUNTY (except the Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OCEANA COUNTY; OTTAWA COUNTY (except the townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-018 05/10/2018

ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); IONIA COUNTY (west of Hwy. M-66); KENT, MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OSCEOLA COUNTY (south of Hwy. #10); OTTAWA COUNTY (Townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

FOOTNOTES: Lead abatement work: $1.00 per hour additional.

PAIN1011-003 06/02/2022

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
PAINTER	$ 24.66	14.99

FOOTNOTES: High pay (bridges, overpasses, watertower): 30 to 80 ft.: $.65 per hour additional. 80 ft. and over: $1.30 per hour additional.

PAIN1474-002 06/01/2010

HURON COUNTY; LAPEER COUNTY (east of Hwy. M-53); ST. CLAIR, SANILAC AND TUSCOLA COUNTIES:

	Rates	Fringes
PAINTER	$ 23.79	12.02

FOOTNOTES: Lead abatement work: $1.00 per hour additional. Work with any hazardous material: $1.00 per hour additional. Sandblasting, steam cleaning and acid cleaning: $1.00 per hour additional. Ladder work at or above 40 ft., scaffold work at or above 40 ft., swing stage, boatswain chair, window jacks and all work performed over a falling height of 40 ft.: $1.00 per hour additional. Spray gun work, pick pullers and those handling needles, blowing off by air pressure, and any person rigging (setting up and moving off the ground): $1.00 per hour additional. Steeplejack, tanks, gas holders, stacks, flag poles, radio towers and beacons, power line towers, bridges, etc.: $1.00 per hour additional, paid from the ground up.

PAIN1803-003 06/01/2025

ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE, MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES; OSCEOLA COUNTY (north of Hwy. #10); OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW AND WEXFORD COUNTIES:

	Rates	Fringes
PAINTER		
Work performed on water, bridges over water or moving traffic, radio and powerline towers, elevated tanks, steeples, smoke stacks over 40 ft. of falling heights, recovery of lead-based paints and any work associated with industrial plants, except maintenance of industrial		

plants	$ 29.23	19.11
All other work, including maintenance of industrial plant	$ 29.35	19.05

FOOTNOTES: Spray painting, sandblasting, blowdown associated with spraying and blasting, water blasting and work involving a swing stage, boatswain chair or spider: $1.00 per hour additional. All work performed inside tanks, vessels, tank trailers, railroad cars, sewers, smoke stacks, boilers or other spaces having limited egress not including buildings, opentop tanks, pits, etc.: $1.25 per hour additional.

PLAS0514-001 06/01/2023

ZONE 1: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, SAGINAW, WASHTENAW AND WAYNE COUNTIES

ZONE 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1	$ 33.00	18.51
ZONE 2	$ 31.50	18.51

PLUM0190-003 05/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA,

MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
Plumber/Pipefitter - gas distribution pipeline:		
Welding in conjunction with gas distribution pipeline work	$ 33.03	20.19
All other work:	$ 24.19	12.28

TEAM0007-004 06/01/2025

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER		
AREA 1		
Euclids, double bottoms and lowboys	$ 33.55	.75 + a+b
Trucks under 8 cu. yds.	$ 33.40	.75 + a+b
Trucks, 8 cu. yds. and over	$ 33.40	.75 + a+b
AREA 2		
Euclids, double bottoms and lowboys	$ 33.65	.75 + a+b
Trucks under 8 cu. yds.	$ 33.50	.75 + a+b
Trucks, 8 cu. yds. and over	$ 33.50	.75 + a+b

Footnote:
a. $470.70 per week
b. $68.70 daily

TEAM0247-004 04/01/2013

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, SAGINAW, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
Sign Installer		
AREA 1		
GROUP 1	$ 21.78	11.83
GROUP 2	$ 25.27	11.8375
AREA 2		
GROUP 1	$ 22.03	11.83
GROUP 2	$ 25.02	11.8375

FOOTNOTE:

a. $132.70 per week, plus $17.80 per day.

SIGN INSTALLER CLASSIFICATIONS:

GROUP 1: performs all necessary labor and uses all tools required to construct and set concrete forms required in the installation of highway and street signs

GROUP 2: performs all miscellaneous labor, uses all hand and power tools, and operates all other equipment, mobile or otherwise, required for the installation of highway and street signs

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TEAM0247-010 04/01/2018

AREA 1: LAPEER AND SHIAWASSEE COUNTIES

AREA 2: GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER (Underground construction)		
AREA 1		
GROUP 1	$ 23.82	19.04
GROUP 2	$ 23.91	19.04
GROUP 3	$ 24.12	19.04
AREA 2		
GROUP 1	$ 24.12	19.04
GROUP 2	$ 24.26	19.04
GROUP 3	$ 24.45	19.04

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

SCOPE OF WORK: Excavation, site preparation, land balancing, grading, sewers, utilities and improvements; also including but not limited to, tunnels, underground piping, retention, oxidation, flocculation facilities, conduits, general excavation and steel sheeting for underground construction. Underground construction work shall not include any structural modifications, alterations, additions and repairs to buildings or highway work, including roads, streets, bridge construction and parking lots or steel erection.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Truck driver on all trucks (EXCEPT dump trucks of 8 cubic yards capacity or over, pole trailers, semis, low boys, Euclid, double bottom and fuel trucks)

GROUP 2: Truck driver on dump trucks of 8 cubic yards capacity or over, pole trailers, semis and fuel trucks

GROUP 3: Truck driver on low boy, Euclid and double bottom

SUMI2002-001 05/01/2002

	Rates	Fringes
FLAG PERSON	$ 10.10	0.00
LINE PROTECTOR (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 26.63	14.45
LINE PROTECTOR (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 25.03	14.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1	$ 35.51	14.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2	$ 31.96	14.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1	$ 33.37	14.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2	$ 30.03	14.45

WORK CLASSIFICATIONS:

PAVEMENT MARKER GROUP 1: Drives or operates a truck mounted striper, grinder, blaster, groover, or thermoplastic melter for the placement or removal of temporary or permanent pavement markings or markers.

PAVEMENT MARKER GROUP 2: Performs all functions involved for the placement or removal of temporary or permanent pavement markings or markers not covered by the classification of Pavement Marker Group 1 or Line Protector.

LINE PROTECTOR: Performs all operations for the protection or removal of temporary or permanent pavement markings or markers in a moving convoy operation not performed by the classification of Pavement Marker Group 1. A moving convoy operation is comprised of only Pavement Markers Group 1 and Line Protectors.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within

the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the

collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter

d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.

Washington, DC 20210.

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END OF GENERAL DECISION
"

"General Decision Number: MI20260074 01/02/2026

Superseded General Decision Number: MI20250074

State: Michigan

Construction Type: Heavy

County: Washtenaw County in Michigan.

Heavy, Includes Water, Sewer Lines and Excavation (Excludes Hazardous Waste Removal; Coal, Oil, Gas, Duct and other similar Pipeline Construction)

Modification Number	Publication Date
0	01/02/2026

CARP0687-006 06/01/2025

	Rates	Fringes
CARPENTER, Includes Form Work	$ 42.44	31.43

ELEC0252-009 06/01/2025

	Rates	Fringes
ELECTRICIAN	$ 56.05	27.25%+15.25

ENGI0325-019 09/01/2025

POWER EQUIPMENT OPERATORS: Underground Construction (Including Sewer)

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backhoe/ Excavator, Boring Machine, Bulldozer, Crane, Grader/ Blade, Loader, Roller, Scraper, Trencher (over 8 ft. digging capacity)

GROUP 2: Trencher (8-ft digging capacity and smaller)

GROUP 3: Boom Truck (non-swinging, non- powered type boom)

GROUP 4: Broom/ Sweeper, Fork Truck, Tractor, Bobcat/ Skid Steer /Skid Loader

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ENGI0326-008 06/01/2025

EXCLUDES UNDERGROUND CONSTRUCTION

	Rates	Fringes
OPERATOR: Power Equipment		
GROUP 1	$ 51.29	25.35
GROUP 2	$ 49.79	25.35
GROUP 3	$ 48.29	25.35
GROUP 4	$ 47.99	25.35
GROUP 5	$ 47.17	25.35
GROUP 6	$ 46.31	25.35
GROUP 7	$ 45.34	25.35
GROUP 8	$ 43.63	25.35
GROUP 9	$ 35.29	25.35

FOOTNOTES: Tower cranes: to be paid the crane operator rate determined by the combined length of the mast and the boom.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Crane with boom & jib or leads 400' or longer

GROUP 2: Crane with boom & jib or leads 300' or longer

GROUP 3: Crane with boom & jib or leads 220' or longer

GROUP 4: Crane with boom & jib or leads 140' or longer

GROUP 5: Crane with boom & jib or leads 120' or longer

GROUP 6: Regular crane operator

GROUP 7: Backhoe/Excavator, Bobcat/Skid Loader, Boring Machine, Broom/Sweeper, Bulldozer, Grader/Blade, Loader, Roller, Scraper, Tractor, Trencher

GROUP 8: Forklift

GROUP 9: Oiler

IRON0025-006 06/01/2025

	Rates	Fringes
IRONWORKER		
Reinforcing	$ 36.55	33.37
Structural	$ 36.55	35.93

LABO0334-009 06/01/2025

EXCLUDES OPEN CUT CONSTRUCTION

	Rates	Fringes
Landscape Laborer		
GROUP 1	$ 29.93	9.10
GROUP 2	$ 27.71	9.10

LANDSCAPE LABORER CLASSIFICATIONS

GROUP 1: Landscape specialist, including air, gas and diesel equipment operator, lawn sprinkler installer and skidsteer (or equivalent)

GROUP 2: Landscape laborer: small power tool operator, material mover, truck driver and lawn sprinkler installer tender

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LABO0334-018 09/01/2022

SCOPE OF WORK:
OPEN CUT CONSTRUCTION: Excavation of earth and sewer, utilities, and improvements, including underground piping/conduit (including inspection, cleaning, restoration, and relining)

	Rates	Fringes
LABORER		
(1) Common or General	$ 25.20	12.95
(2) Mason Tender-Cement/Concrete	$ 22.11	12.95
(4) Grade Checker	$ 25.50	12.95
(5) Pipelayer	$ 22.90	12.75
(524.20) Pipelayer	$ 25.65	12.95
(7) Landscape	$ 19.59	12.95

LABO0499-020 08/01/2025

EXCLUDES OPEN CUT CONSTRUCTION

	Rates	Fringes
LABORER		
GROUP 1	$ 38.11	15.45
GROUP 2	$ 38.33	15.45
GROUP 3	$ 38.47	15.45

LABORER CLASSIFICATIONS

GROUP 1: Common or General; Grade Checker

GROUP 2: Mason Tender - Cement/Concrete

GROUP 3: Pipelayer

PAIN0022-005 07/01/2008

	Rates	Fringes
PAINTER		
Brush & Roller	$ 25.06	14.75
Spray	$ 25.86	14.75

PLAS0514-002 06/01/2023

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 32.23	22.11

PLUM0190-010 06/01/2021

	Rates	Fringes
PLUMBER	$ 44.31	23.70

TEAM0007-006 06/01/2025

	Rates	Fringes
TRUCK DRIVER		
Dump Truck under 8 cu. yds.; Tractor Haul Truck	$ 33.40	.75 + a+b
Dump Truck, 8 cu. yds. and over	$ 33.50	.75 + a+b
Lowboy/Semi-Trailer Truck	$ 33.65	.75+ a+b

FOOTNOTE:
a. $470.70 per week.
b. $68.70 daily.

SUMI2010-072 11/09/2010

	Rates	Fringes
TRUCK DRIVER: Off the Road Truck	$ 20.82	3.69

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually.   Additional information on contractor requirements and worker protections

under Executive Order 13658 is available at
www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications
and wage rates that have been found to be prevailing for the
type(s) of construction and geographic area covered by the wage
determination. The classifications are listed in alphabetical
order under rate identifiers indicating whether the particular
rate is a union rate (current union negotiated rate), a survey
rate, a weighted union average rate, a state adopted rate, or a
supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than
""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was
prevailing for that classification in the survey. Example:
PLUM0198-005 07/01/2024. PLUM is an identifier of the union
whose collectively bargained rate prevailed in the survey for
this classification, which in this example would be Plumbers.
0198 indicates the local union number or district council
number where applicable, i.e., Plumbers Local 0198. The next
number, 005 in the example, is an internal number used in
processing the wage determination. The date, 07/01/2024 in the
example, is the effective date of the most current negotiated
rate.

Union prevailing wage rates are updated to reflect all changes
over time that are reported to WHD in the rates
in the collective bargaining agreement (CBA) governing the
classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for
those classifications, but that 100% of the data reported for
the classifications reflected union rates. EXAMPLE:
UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a
weighted union average rate. OH indicates the State of Ohio.
The next number, 0010 in the example, is an internal number
used in producing the wage determination. The date, 01/01/2024
in the example, indicates the date the wage determination was

updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION
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ATTACHMENT B
GENERAL DECLARATIONS

City of Ann Arbor
Guy C. Larcom Municipal Building
Ann Arbor, Michigan 48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including City Nondiscrimination requirements and Declaration of Compliance Form, Living Wage requirements and Declaration of Compliance Form, Prevailing Wage requirements and Declaration of Compliance Form, Vendor Conflict of Interest Form, Notice of Pre-Bid Conference, General Information, Bid, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans (if applicable) and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this Bid is one part.

In accordance with these bid documents, and Addenda numbered _____, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:320 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting requirements stated in the City Code provisions cited. Bidder certifies that the statements contained in the City Prevailing Wage and Living Wage Declaration of Compliance Forms are true and correct. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.

The Bidder declares that it has become familiar with the City Conflict of Interest Disclosure Form and certifies that the statement contained therein is true and correct.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Bid shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Bid, or if this Bid is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

SIGNED THIS _____ DAY OF _____, 202_.

_____	_____
Bidder's Name	Authorized Signature of Bidder
_____	_____
Official Address	(Print Name of Signer Above)
_____	_____
Telephone Number	Email Address for Award Notice

ATTACHMENT C
LEGAL STATUS OF BIDDER

(The bidder shall fill out the appropriate form and strike out the other three.)

Bidder declares that it is:

* A corporation organized and doing business under the laws of the State of _____, for whom _____, bearing the office title of _____, whose signature is affixed to this Bid, is authorized to execute contracts.

NOTE: If not incorporated in Michigan, please attach the corporation's Certificate of Authority

• A limited liability company doing business under the laws of the State of _____, whom _____ bearing the title of _____ whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.

* A partnership, organized under the laws of the state of _____ and filed in the county of _____, whose members are (list all members and the street and mailing address of each) (attach separate sheet if necessary):

_____

_____

_____

_____

_____

* An individual, whose signature with address, is affixed to this Bid: __ _____
(initial here)

Authorized Official

_____ **Date** _____**,** 202_

(Print) Name _____ Title _____

Company:

_____

Address:

_____

Contact Phone ( ) _____ Fax ( ) _____

Email _____

ATTACHMENT D
PREVAILING WAGE DECLARATION OF COMPLIANCE

The "wage and employment requirements" of Section 1:320 of Chapter 14 of Title I of the Ann Arbor City Code mandates that the city not enter any contract, understanding or other arrangement for a public improvement for or on behalf of the city unless the contract provides that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. Where the contract and the Ann Arbor City Code are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used. Further, to the extent that any employees of the contractor providing services under this contract are not part of the class of craftsmen, mechanics and laborers who receive a prevailing wage in conformance with section 1:320 of Chapter 14 of Title I of the Code of the City of Ann Arbor, employees shall be paid a prescribed minimum level of compensation (i.e. Living Wage) for the time those employees perform work on the contract in conformance with section 1:815 of Chapter 23 of Title I of the Code of the City of Ann Arbor.

At the request of the city, any contractor or subcontractor shall provide satisfactory proof of compliance with this provision.

The Contractor agrees:

(a) To pay each of its employees whose wage level is required to comply with federal, state or local prevailing wage law, for work covered or funded by this contract with the City,

(b) To require each subcontractor performing work covered or funded by this contract with the City to pay each of its employees the applicable prescribed wage level under the conditions stated in subsection (a) or (b) above.

(c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.

(d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the wage and employment provisions of the Chapter 14 of the Ann Arbor City Code. The undersigned certifies that he/she has read and is familiar with the terms of Section 1:320 of Chapter 14 of the Ann Arbor City Code and by executing this Declaration of Compliance obligates his/her employer and any subcontractor employed by it to perform work on the contract to the wage and employment requirements stated herein. The undersigned further acknowledges and agrees that if it is found to be in violation of the wage and employment requirements of Section 1:320 of the Chapter 14 of the Ann Arbor City Code it shall has be deemed a material breach of the terms of the contract and grounds for termination of same by the City.

_____
Company Name

_____
Signature of Authorized Representative Date

_____
Print Name and Title

_____
Address, City, State, Zip

_____
Phone/Email address

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500

ATTACHMENT E
LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than $10,000 for any twelve-month contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than $10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than $10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the Living Wage Ordinance. If this exemption applies to your company/non-profit agency please check here [___] *No. of employees__*

The Contractor or Grantee agrees:

(a) To pay each of its employees whose wage level is not required to comply with federal, state or local prevailing wage law, for work covered or funded by a contract with or grant from the City, no less than the Living Wage. The current Living Wage is defined as $17.08/hour for those employers that provide employee health care (as defined in the Ordinance at Section 1:815 Sec. 1 (a)), or no less than $19.04/hour for those employers that do not provide health care. The Contractor or Grantor understands that the Living Wage is adjusted and established annually on April 30 in accordance with the Ordinance and covered employers shall be required to pay the adjusted amount thereafter to be in compliance with Section 1:815(3).

Check the applicable box below which applies to your workforce

[___] Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage without health benefits

[___] Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage with health benefits

(b) To post a notice approved by the City regarding the applicability of the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.

(c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.

(d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.

(e) To take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee covered by the Living Wage Ordinance or any person contracted for employment and covered by the Living Wage Ordinance in order to pay the living wage required by the Living Wage Ordinance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services or agrees to accept financial assistance in accordance with the terms of the Living Wage Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Living Wage Ordinance, obligates the Employer/Grantee to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract or grant of financial assistance.

Company Name	Street Address
Signature of Authorized Representative Date	City, State, Zip
Print Name and Title	Phone/Email address

Attachment F

CITY OF ANN ARBOR
LIVING WAGE ORDINANCE

RATE EFFECTIVE APRIL 30, 2025 - ENDING APRIL 29, 2026

$17.08 per hour
If the employer provides health care benefits*

$19.04 per hour
If the employer does **NOT** provide health care benefits*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than $10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

ENFORCEMENT

The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than $500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed $.50 an hour for an average work week; and the employer cost or contribution must equal no less than $1/hr for the average work week.

The Law Requires Employers to Display This Poster Where Employees Can Readily See It.

For Additional Information or to File a Complaint contact
Colin Spencer at 734/794-6500 or cspencer@a2gov.org

ATTACHMENT G

Vendor Conflict of Interest Disclosure Form

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

Conflict of Interest Disclosure*	
Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest.	( ) Relationship to employee _____ ( ) Interest in vendor's company ( ) Other (please describe in box below)

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below:		
Vendor Name	**Vendor Phone Number**	
Signature of Vendor Authorized Representative	**Date**	**Printed Name of Vendor Authorized Representative**

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500, procurement@a2gov.org

ATTACHMENT H

DECLARATION OF COMPLIANCE

Non-Discrimination Ordinance

The "non discrimination by city contractors" provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager

The Contractor agrees:

(a) To comply with the terms of the City of Ann Arbor's Non-Discrimination Ordinance and contract compliance administrative policy, including but not limited to an acceptable affirmative action program if applicable.

(b) To post the City of Ann Arbor's Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.

(c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.

(d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract.

_____
Company Name

_____
Signature of Authorized Representative Date

_____
Print Name and Title

_____
Address, City, State, Zip

_____
Phone/Email Address

Questions about the Notice or the City Administrative Policy, Please contact:
Procurement Office of the City of Ann Arbor
(734) 794-6500

ATTACHMENT I

CITY OF ANN ARBOR NON-DISCRIMINATION ORDINANCE

Relevant provisions of Chapter 112, Nondiscrimination, of the Ann Arbor City Code are included below. You can review the entire ordinance at www.a2gov.org/humanrights.

Intent: It is the intent of the city that no individual be denied equal protection of the laws; nor shall any individual be denied the enjoyment of his or her civil or political rights or be discriminated against because of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight.

Discriminatory Employment Practices: No person shall discriminate in the hire, employment, compensation, work classifications, conditions or terms, promotion or demotion, or termination of employment of any individual. No person shall discriminate in limiting membership, conditions of membership or termination of membership in any labor union or apprenticeship program.

Discriminatory Effects: No person shall adopt, enforce or employ any policy or requirement which has the effect of creating unequal opportunities according to actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight for an individual to obtain housing, employment or public accommodation, except for a bona fide business necessity. Such a necessity does not arise due to a mere inconvenience or because of suspected objection to such a person by neighbors, customers or other persons.

Nondiscrimination by City Contractors: All contractors proposing to do business with the City of Ann Arbor shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All city contractors shall ensure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon any classification protected by this chapter. All contractors shall agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of any applicable protected classification. All contractors shall be required to post a copy of Ann Arbor's Non-Discrimination Ordinance at all work locations where its employees provide services under a contract with the city.

Complaint Procedure: If any individual believes there has been a violation of this chapter, he/she may file a complaint with the City's Human Rights Commission. The complaint must be filed within 180 calendar days from the date of the individual's knowledge of the allegedly discriminatory action or 180 calendar days from the date when the individual should have known of the allegedly discriminatory action. A complaint that is not filed within this timeframe cannot be considered by the Human Rights Commission. To file a complaint, first complete the complaint form, which is available at www.a2gov.org/humanrights. Then submit it to the Human Rights Commission by e-mail (hrc@a2gov.org), by mail (Ann Arbor Human Rights Commission, PO Box 8647, Ann Arbor, MI 48107), or in person (City Clerk's Office). For further information, please call the commission at 734-794-6141 or e-mail the commission at hrc@a2gov.org.

Private Actions For Damages or Injunctive Relief: To the extent allowed by law, an individual who is the victim of discriminatory action in violation of this chapter may bring a civil action for appropriate injunctive relief or damages or both against the person(s) who acted in violation of this chapter.

THIS IS AN OFFICIAL GOVERNMENT NOTICE AND
MUST BE DISPLAYED WHERE EMPLOYEES CAN READILY SEE IT.

Michigan Department
Of Transportation
CP-347 (04/10)

MICHIGAN DEPARTMENT OF TRANSPORTATION
CERTIFIED PAYROLL
COMPLETION OF CERTIFIED PAYROLL FORM FULFILLS THE MINIMUM MDOT PREVAILING WAGE REQUIREMENTS

(1) NAME OF CONTRACTOR / SUBCONTRACTOR (CIRCLE ONE) (2) ADDRESS

(3) PAYROLL NO. (4) FOR WEEK ENDING (5) PROJECT AND LOCATION (6) CONTRACT ID

(a) EMPLOYEE INFORMATION	(b) WORK CLASSIFICATION	(c) Hour Type	(d) DAY AND DATE HOURS WORKED ON PROJECT	(e) TOTAL HOURS ON PROJECT	(f) PROJECT RATE OF PAY	(g) PROJECT RATE OF FRINGE PAY	(h) GROSS PROJECT EARNED / GROSS WEEKLY EARNED	(i) TOTAL WEEKLY HOURS WORKED ALL JOBS	(j) DEDUCTIONS FICA	FEDERAL	STATE		OTHER	TOTAL DEDUCT	(k) TOTAL WEEKLY WAGES PAID FOR ALL JOBS
NAME:				0			$0.00								
														$0.00	$0.00
ETH/GEN: ID #:	GROUP/CLASS #:	S		0											
NAME:				0			$0.00								
														$0.00	$0.00
ETH/GEN: ID #:	GROUP/CLASS #:	S		0											
NAME:				0			$0.00								
														$0.00	$0.00
ETH/GEN: ID #:	GROUP/CLASS #:	S		0											
NAME:				0			$0.00								
														$0.00	$0.00
ETH/GEN: ID #:	GROUP/CLASS #:	S		0											
NAME:				0			$0.00								
														$0.00	$0.00
ETH/GEN: ID #:	GROUP/CLASS #:	S		0											
NAME:				0			$0.00								
														$0.00	$0.00
ETH/GEN: ID #:	GROUP/CLASS #:	S		0											
NAME:				0			$0.00								
														$0.00	$0.00
ETH/GEN: ID #:	GROUP/CLASS #:	S		0											
NAME:				0			$0.00								
														$0.00	$0.00
ETH/GEN: ID #:	GROUP/CLASS #:	S		0											
NAME:				0			$0.00								
														$0.00	$0.00
ETH/GEN: ID #:	GROUP/CLASS #:	S		0											

Date _____

I, _____ _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____; that during the payroll period commencing on the
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,
all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Start. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

_____

_____

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ – in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ – Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.