

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR

VILLAGE OF LAKE ORION

DEPARTMENT OF PUBLIC WORKS

2026 STREET IMPROVEMENTS
Contracts A and B



BIDS DUE:

Tuesday, August 18, 2026

Time: 2:00 p.m.

Village Clerk's Office

21 E. Church St.

Lake Orion, MI 48362

PRE-BID MEETING:

Tuesday, August 11, 2026

Time: 10:00 a.m.

Online meeting

Login information to be provided

ENGINEER

NOWAK & FRAUS ENGINEERS

46777 WOODWARD AVENUE

PONTIAC, MI 48342

(248) 332-7931

NFE Job No. P230

CONTRACT DOCUMENTS

2026 STREET IMPROVEMENTS

Contracts A and B

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**VILLAGE OF LAKE ORION
ADVERTISEMENT FOR BIDS**

The Village of Lake Orion is seeking bids for paving and minor drainage improvements to local streets as shown herein, in two contracts A and B. Proposals will be received at the office of the Village Clerk of the Village of Lake Orion (21 E. Church St., Lake Orion, Michigan 48362) **or virtually** via www.bidnetdirect.com up until **2:00 p.m., local time, Tuesday, August 18, 2026**, and immediately thereafter publicly opened and read for the:

**2026 STREET IMPROVEMENTS
Contracts A and B**

The approximate major work item quantities involved in Contract A consist principally of the following:

<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
HMA Base, Crushing and Shaping	SY	4,745
HMA Surface, Remove	SY	6,230
HMA, 5EL	Ton	1,235
HMA, 4EL	Ton	1,080
Aggregate Shoulder, Modified (2" and 4")	SY	1,015

The approximate major work item quantities involved in Contract B consist principally of the following:

<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
HMA Base, Crushing and Shaping	SY	13,260
HMA, 5EL	Ton	1,950
HMA, 4EL	Ton	1,675
Aggregate Shoulder, Modified (2" and 4")	SY	2,270

An online pre-bid meeting will be held at **10:00 a.m. Tuesday, August 11, 2026**. Representatives of the OWNER and ENGINEER will be present to discuss the project and receive questions from prospective bidders, who are encouraged to attend and participate in the discussion. ENGINEER shall transmit to all Bidders of record such addenda as ENGINEER considers necessary to provide clarification, in response to questions arising therein. Oral statements shall not be relied upon and shall not be considered as legally effective or binding. Bidder questions received after the date of the pre-bid meeting will not be considered.

Starting Tuesday, July 28, 2026, Bidding Documents must be obtained online from the Michigan Inter-Governmental Trade Network (MITN) website via BidNet Direct www.bidnetdirect.com. For questions about MITN, refer to [Purchasing & Bidding | Lake Orion, MI](#). **All information regarding the bidding for this project must be obtained on the BidNet Direct/MITN website only.**

A certified check or a satisfactory surety bid bond for a sum not less than five (5) percent of the amount of the proposal will be required with each proposal as a guarantee of good faith and same to be subject to the conditions stipulated in the Instructions to Bidders. **A pdf version of this Certified Check or Bid Bond must be included with your Electronic Bid Submission Response.** The successful bidder will be required to furnish the original certified bid check, satisfactory performance, labor and material, and maintenance and guarantee bonds in the amount of 100% of the project prior to award.

The bidder will be required to comply with Michigan statutory prohibitions against discrimination in employment and with employment opportunities for Village of Lake Orion residents.

No proposal once submitted may be withdrawn for at least 90 days after the actual opening of the bids.

The Village of Lake Orion reserves the right to accept any bid, to reject any or all bids, and to waive any informality in any bid should it consider same to be in the best interest of the Village.

ATTENTION

Contract A is partially funded through the State of Michigan Transportation Economic Development Fund. All work shall conform to the Michigan Department of Transportation (MDOT) 2020 Standard Specifications (MDOT 2020). Contractor and Subcontractors must comply with the laws to be observed specified in Section 107 of MDOT 2020. Bids will be awarded to the lowest responsive, responsible bidder. This municipality is an equal opportunity employer; businesses owned by women and minorities are strongly encouraged to bid.

**BY THE ORDER OF:
DARWIN D.P. McCLARY, VILLAGE MANAGER
VILLAGE OF LAKE ORION**

INSTRUCTIONS TO BIDDERS

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INSTRUCTION TO BIDDERS

1. PROPOSALS TO BE RECEIVED

The Village of Lake Orion invites bids or proposals on the form attached hereto, all blanks of which must be appropriately filled in, either electronically or in hard copy format. Bids will be received at the time and place, and in the manner stated in the Advertisement for Bids.

Bidders must register as a vendor on the BidNet Direct / Michigan Intergovernmental Trade Network (MITN) bid system AT NO COST in order to view the Village of Lake Orion bid opportunities. For questions about MITN, refer to [Purchasing & Bidding | Lake Orion, MI](#).

Each BID must be submitted on the forms provided by the Owner, either electronically via BidNet Direct / MITN or on paper; if submitted in paper format, bids must be submitted in a sealed envelope addressed to the Village Clerk plainly marked on the outside as

“Proposal for (job title as stated in Advertisement)”

and the envelope should bear on the outside the name of the BIDDER, his address, and his license number (if applicable). If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the Village Clerk, Village of Lake Orion, 21 E. Church St., Lake Orion, MI 48362.

All blank spaces for bid prices must be filled in, in ink or typewritten, and the bid form must be fully executed when submitted and not modified in any way.

Bids will be received electronically via BidNet/MITN OR during regular business hours at the place and up to the time stated in the Advertisement or up to the time extended by official notification. Bids may be delivered in person or mailed, but their delivery is the bidder's entire responsibility. Any bid received after the stated hour, even through the mail, will be returned unopened to the bidder.

No bidder may withdraw a bid within 90 days after the actual date of the opening thereof. Should there be reason why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Village of Lake Orion, herein after also referred to as the Village, and the BIDDER.

2. LOCATION OF THE WORK

Refer to the project plans. Local streets in the Village of Lake Orion, generally west of M-24 between Lake Street and the northerly Village limit.

3. INSPECTION OF THE SITE

It is expected that each bidder will make a personal examination of the entire site of the proposed work and of its surroundings. It will be assumed that each bidder, before offering his proposal, has obtained firsthand information concerning any probable interference and the available facilities for transporting, handling, and storing construction equipment and materials, and concerning other conditions which may affect his work.

4. CONFORMITY TO PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS

Proposals must be made in full conformity to all the conditions as set forth in the Plans, Specifications, and any Addendum for the work now on file in the office of the Village Manager. The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the Village or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his BID.

5. BASIS ON WHICH PROPOSALS ARE SOLICITED

A. PROPOSAL SOLICITATION

Proposals may be solicited on the basis of unit prices, lump sum, or a combination of both. The proposal will clearly state which basis is used.

The lump sum price, when applied to the project, or the unit prices, when applied to the several demolition or salvage items, are to make up the total price for the entire work, exclusive of those things which are to be done or furnished by the Village, finished and complete in every particular, according to the Plans and Specifications appertaining to such work, which have been approved by the Village Council and are now on file in the office of the village Manager.

Where Proposals are solicited on the basis of unit prices for certain construction units, which are clearly set forth in the Form of Proposal, the Bidder shall state a unit price for each and every item listed in the Proposal and such prices shall be extended and totaled. If during the review of the Proposals, the Village finds any errors in any extension or total, the Village will make the necessary corrections and award the Contract on the basis of such corrections, since the unit prices shall govern. Any proposal which does not contain a unit price for each item listed will be deemed incomplete and will not be considered in the award of the Contract.

The unit price for each of the several items in the Proposal shall be such that the whole of the unit prices will represent a balanced bid. Any Proposal, in which the unit prices bid for

any of the several items are deemed by the Village to be manifestly unbalanced, will be subject to instant rejection.

B. STATEMENT OF QUANTITIES

The quantities indicated in the proposal show the Engineer's estimate of the construction quantities involved in the job, and bids will be computed, tested, and compared by the quantities given in the proposal. Although estimated carefully and with as much accuracy as is practicable beforehand, these quantities are not to be taken as defining or limiting the amount of work to be done under the Contract, but rather as information furnished to bidders concerning the approximate extent of the several items and as a basis for comparing bids. The Village may increase or decrease the original contract price without renegotiation of the Unit Prices.

C. MATERIALS TO BE FURNISHED BY THE VILLAGE

The Village will furnish to the Contractor, delivered at the site: **NONE**. The Contractor will receive and be responsible for all these materials from the time of their delivery to him until the time when they are received back by the Village as part of the completed and accepted structure.

D. EXTRA WORK

All extra work that may be required of the Contractor will be estimated and paid for under provisions of the General Conditions, contained within this document, which govern such work.

E. ALTERNATES

When the Proposal so provides, a price shall be stated for each listed alternate. Unsolicited alternates are not to be submitted and, if so, will not be considered in the award of the Contract and may cause the entire bid to be rejected.

Selection of whether to award the Contract on the basis of the Base Bid or utilizing one or more of the Alternates will be made on the basis of value engineering and the Village's need to keep project costs within the project budget. The Village reserves full right to make this selection. After making such selection, the award shall be made on the basis of the lowest responsive bid utilizing the Alternates selected, and evaluated in accordance with the provisions of the Purchasing Ordinance of the Village, in accordance with Article 15 of the Instructions to Bidders.

F. LEGAL CONDITIONS

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the contract throughout.

G. PERMITS AND LICENSES

Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR unless otherwise stated in the SUPPLEMENTAL GENERAL CONDITIONS.

H. UTILITIES

Unless otherwise provided in these Specifications, the Contractor shall make his own arrangements for electricity, gas, water and sewer services for use during the construction of the work and shall pay for all connections, extensions, and services.

6. FORM OF PROPOSAL and PRICING SHEET (Pages 12 through 18)

All proposals must be made in the form attached hereto.

All prices stated in the Proposal must be plainly expressed in figures only, and in the proper space or spaces provided. Prices shall be filled in, in ink or typewritten. Any corrections shall be initialed by the Bidder.

All information called for on the Proposal must be furnished to enable a fair comparison of the bids to be made.

The place of residence and phone number of each bidder, or the official address and phone number in the case of a firm or company, with County and State, must be given with the signature.

When bidder's drawings and/or specifications are required to be submitted, they shall be in sufficient detail to fully and distinctly show and describe the equipment which the bidder proposes to furnish, including the kind and quality of the material and workmanship that will be used in the various parts. If any general drawings, specifications, catalogs or any other literature are submitted which contain information or data not pertaining to the particular equipment proposed to be furnished, appropriate notations to that effect must be made.

Any stipulation or qualification contrary to the Contract requirements made by the bidder in or accompanying his proposal as a condition for the acceptance of the Contract will not be considered in the award of the Contract and may cause the rejection of the entire Proposal.

7. LEGAL STATUS OF BIDDER

The legal status of the bidder, that is, as a corporation, a partnership, or an individual, must be stated in the proposal. A corporation bidder must name the state in which its articles of incorporation are held, and must give the title of the official having authority under the by-laws to sign contracts. A partnership bidder must give the full names and addresses of all partners.

8. AGENCY

Anyone signing a proposal as agent of another or others must submit with the proposal legal evidence of his or her authority to do so.

9. BID DEPOSIT

When the Advertisement states that security is required with the Proposal to ensure the acceptance and execution of the Contract and Bonds, no bid will be considered complete unless so guaranteed.

Each proposal must be accompanied by a certified check of guaranty or a bid bond in an amount **not less than five percent (5%)** of the total price, drawn upon a solvent bank to the order of the Village Treasurer of the Village of Lake Orion, or if a bond, executed by a surety company acceptable to the Village, as a guarantee of good faith on the part of the bidder and subject to the conditions stipulated in the proposal form.

A single certified check or guaranty (bidder's) bond may serve to cover two or more alternative proposals when such alternative proposals are submitted by the same bidder.

10. INTENTIONALLY LEFT BLANK

11. STATEMENT OF BIDDER'S QUALIFICATIONS

It is the intention of the Village to award the Contract for this job to a Contractor whose construction skill and financial resources are fully equal to the task of prosecuting the work in a satisfactory manner and of bringing it to completion within the time limit specified. With this end in view, the Form of Proposal calls for a statement of bidder's experience and ability in this particular class of work, and for references concerning his/her business standing and capacity. Contractor shall list the names, addresses and phone numbers of references. The mere ability to offer bonds will not be taken as sufficient evidence of responsibility on the part of the bidder. If Contract is awarded to a foreign company, a certificate of authority to do business in this State must accompany the executed Contract.

The low BIDDER shall supply the names, addresses and phone numbers of major material SUPPLIERS and SUBCONTRACTORS when requested to do so by the VILLAGE.

12. PAYMENTS

Partial payments will be made to the Contractor during the satisfactory progress of the work, calculated at the rate of ninety percent (90%) of the dollar amount of the work completed, until fifty percent (50%) of the established contract amount is in place. After fifty percent (50%) of the work is in place, additional retainage shall not be withheld unless the Contractor's progress is unsatisfactory, all in accordance with Article 13 of the General Conditions hereof and Act 524 of 1980.

13. TIME OF COMPLETION

This work to be done under the proposed Contract is to begin on or before the date stipulated in the Notice to Proceed and must be completed within **120 calendar days**, unless the date for completion is extended by the Contract Documents. Time shall be considered to be of the essence of this Contract.

14. RIGHT TO ACCEPT, TO REJECT, AND TO WAIVE DEFECTS

The Village reserves the right to accept any proposal, to reject any or all proposals, and to waive any defect or irregularity in any proposal if it appears advantageous to the Village to do so. In particular, any alteration, erasure, or interlineation in the Form of Contract in the Specifications which are attached hereto and made a part, specifically, of these Instructions, or of the Form of Proposal, shall render the accompanying proposal irregular and subject to rejection by the Village of Lake Orion. In case any explanations, additions or alterations are to be offered, they shall be indicated on separate sheets attached to the proposal and referred to therein. Proposals which are clearly unbalanced will also be considered as irregular, and will be subject to instant rejection by the Village of Lake Orion.

15. AWARD OF CONTRACT

The Contract will be awarded to the qualified Bidder submitting the lowest responsive Bid complying with the conditions of the Invitation for Bids. The Bidder's qualification and responsiveness shall be determined by the Village of Lake Orion. The Bidder to whom the award is made will be notified at the earliest possible date. The Village reserves the right to reject all bids and not award the Contract, at its sole discretion.

16. OBLIGATION TO EXECUTE CONTRACT

The Bidder whose proposal is accepted will be required to execute the Contract, in the form attached hereto, and to furnish sureties as hereafter specified, within ten days (Sundays and legal holidays excepted), after receiving notice of acceptance of bid and preparation Contract forms is completed, and in case of the successful bidder's refusal or failure to do so, shall be considered to have abandoned all their rights and interests in the award, and their certified check or guaranty (bidder's) bond may be declared to be forfeited to the Village as liquidated damages and not a penalty, and the Contract may be awarded to another.

17. BONDS

The successful bidder will be required to execute surety bonds, with sureties acceptable to the Village. One such bond shall be a Performance Bond in the amount of 100 percent of the Contract Price on the form attached as pages 25 and 26 of the specifications. Another such bond shall be a Labor and Material Bond in the amount of 100 percent of the Contract Price on the form attached as pages 27 and 28 of the specifications. The Contractor shall also provide a Maintenance Bond in the amount of 100 percent of the Contract Price on the form attached as pages 29 and 30 of the specifications.

18. INDEMNIFICATION AND INSURANCE

To the fullest extent permitted by law, the successful bidder agrees to defend, pay on behalf of, indemnify, and hold harmless the VILLAGE OF LAKE ORION, its elected and appointed officials, employees, consultants, and volunteers and others working on behalf of the VILLAGE OF LAKE ORION against any and all claims, demands, suits, or loss, including all costs connected therewith, and for any damages which may be asserted, claimed or recovered against or from the VILLAGE OF LAKE ORION, its elected and appointed officials, employees, consultants, volunteers or others working on behalf of the VILLAGE OF LAKE ORION, by reason of personal injury, including bodily injury and death, and/or property damage, including loss of use thereof, which arises out of or is in any way connected or associated with this contract.

The successful bidder shall purchase and maintain in a company or companies licensed to do business in the State of Michigan, such insurance as will protect him from claims set forth below which may arise out of or result from the contractor's operations under the contract, whether such operations be by himself or any subcontractor or by anyone directly or indirectly employed by any of them, or by anyone whose acts are associated with the project by any of them, may be liable.

a. Workers Compensation Insurance: The contractor shall procure and maintain during the life of the contract, Workers Compensation Insurance, including Employer's Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

b. Commercial General Liability Insurance: The contractor shall procure and maintain during the life of this contract, Commercial General Liability Insurance on an "Occurrence Basis" with the limits of liability not less than **\$1,000,000**, per occurrence and not less than **\$2,000,000** aggregate combined single limit, Personal Injury, Bodily Injury and Property Damage. Coverage shall include the following, per MDOT 2020:

- i. Underground damage to facilities due to drilling and excavating with mechanical equipment; and
- ii. Collapse or structural damage to structures due to blasting or explosion, excavation, tunneling, pile driving, cofferdam work, or the moving of demolition of buildings.

c. Motor Vehicle Liability: The contractor shall procure and maintain during the life of the contract, Motor Vehicles Liability Insurance per MDOT 2020, including Michigan No-Fault coverage, with limits of not less than:

- i. Bodily Injury Liability: Each Person **\$500,000**
 Each Occurrence..... **\$1,000,000**
- ii. Property Damage Liability: Each Occurrence..... **\$1,000,000**
- iii. Combined Single Limit for Bodily Injury and Property Damage Liability:
 Each Occurrence..... **\$2,000,000**

Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles.

d. Umbrella Policy: The Contractor may meet the requirements of paragraphs **b** and **c** above through an umbrella policy.

e. Owner's and Contractor's Protective Liability: The contractor shall procure and maintain during the life of this contract, a separate Owner's and Contractor's Protective Liability insurance coverage of not less than **\$2,000,000**, per occurrence and/or aggregate, combined single limit, Personal Liability, Bodily Injury, and Property Damage. The "Named Insured" on said coverage shall be **the State of Michigan; the Michigan State Transportation Commission; the Michigan Department of Transportation and its officials, agents and employees; and the Village of Lake Orion and its elected and appointed officials, employees, and consultants.**

f. Cancellation Notice: The Contractor must ensure that all insurance policies and binders include an endorsement in which the insurer agrees to notify all insured parties (the "Named Insured" listed in paragraph **e** above) in writing at least 30 days before there is a cancellation or material change in coverage. The Contractor must stop operations if any insurance is canceled or reduced below the specified limits and must not resume operations until new insurance is in force. Notice to the Village of Lake Orion shall be sent to Village of Lake Orion, Village Clerk, 21 East Church Street, Lake Orion, MI 48362.

19. PRE-BID MEETING

An online pre-bid meeting will be held on **Tuesday, August 11, 2026 at 10:00 a.m. local time.** Login information to be provided.

20. NON-DISCRIMINATION PROVISION

Pursuant to the requirements of 1976, P.A. 453 (Michigan Civil Rights Act) and 1976, P.A. 220 (Michigan Handicapped Rights Act), the bidder and any subcontractors agree not to discriminate against any 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 race, color, religion, national origin, age, sex, height, weight, marital status, or due to a handicap that is unrelated to the person's ability to perform the duties of a particular job or position. The Bidder agrees to comply with the Village of Lake Orion Human Rights Ordinance and Title VI Non-Discrimination Plan; information may be found at [DEI & Title VI Compliance | Lake Orion, MI](#). The Bidder must include this provision in any subcontracts associated with the project work.

FORM OF PROPOSAL

To the Honorable Village Manager
Village of Lake Orion, Michigan

Ladies and Gentlemen:

Having carefully examined the site of the proposed work, and being fully informed in regard to the conditions to be met in the prosecution and completion of the work, and having read and examined the Instructions to Bidders, Agreement, Bonds, General Conditions, Plans and Specifications pertaining to this work, and agreeing to be bound accordingly, the undersigned proposes to furnish all the materials, labor, tools, power, transportation and construction equipment necessary for the satisfactory and complete construction of the **2026 Street Improvements, Contracts A and B** in full accordance with and conformity to the specifications for this work now on file in the office of the Village Department of Public Works at the prices proposed on the enclosed Pricing Sheet(s), below.

The undersigned acknowledges that he has made his own independent investigation and has satisfied himself as to the conditions of the work, including soil and subsurface conditions.

The undersigned agrees that, in case any additions, deductions or deletions in the amount of work contemplated are made, the named unit prices for the various classes of work shall be used to allow for such additions, deductions or deletions.

The undersigned hereby agrees that if this Proposal shall be accepted by the said Village of Lake Orion, he will, within ten days after receiving notice of such acceptance and delivery of Contract forms thereof at the address given below (Sundays and legal holidays excepted), enter into contract, in the attached form, to construct the said work according to said plans and specifications and to furnish therefor all necessary equipment, tools and building appliances, materials, labor, power and transportation as aforesaid at and for the prices named in the foregoing paragraph; to furnish to the said Village and to the State of Michigan such sureties for the faithful performance of such Contract and for the payment of all materials used therein and for all labor expended thereon as shall be approved and accepted by the said Village; and to furnish to the said Village of Lake Orion a Maintenance Bond.

And the undersigned hereby agrees that, in case he shall fail to fulfill his obligations under the foregoing proposal and agreement, the said Village of Lake Orion may, at its option, determine that the undersigned has abandoned his rights and interests in such contract and that the certified check or bidder's bond accompanying this proposal has been forfeited to the said Village as liquidated damages and not as a penalty; but, otherwise the said certified check or bidder's bond shall be returned to the undersigned upon the execution of such contract and the acceptance of Bonds.

The undersigned states that he currently owns or intends to rent the following equipment that will be used in work covered by this proposal:

List of Equipment Owned

List of Intended Rental Equipment

The undersigned states that he has done work similar in character to that covered by this proposal at the following named times and places, to wit:

The undersigned refers the said Village to the following named parties for information concerning his experience, skill and business standing:

NAME, COMPANY AND PHONE NUMBER (List at least three references):

Dated and signed at _____, MI on _____
(City) (Date)

By: _____

Title: _____

Telephone#: _____ Fax#: _____

Federal Tax I.D. Number (_____)

CERTIFICATIONS

IF A CORPORATION

I, _____, certify that I am the _____ of the corporation named as Contractor herein; that _____, who signed this Agreement on behalf of the Contractor, was then _____ of said corporation; that said Agreement was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Corporate Seal

Signature

IF A PARTNERSHIP

I, _____, certify that I am a partner in the partnership named as Contractor herein, and that I have authority to sign for and on behalf of this partnership consisting of the following partners:

NAME AND ADDRESS:

Signature

IF A SOLE PROPRIETORSHIP

I, _____, certify that I am the sole owner and proprietor.

Signature

Submitted By:

Contractor Name, hereinafter called "Bidder" to the Village of Lake Orion, Oakland County, Michigan (hereinafter called "Village")

Authorized Representative

Title of Authorized Representative

Company Address

Contact Phone Number

Contact Email Address

Addendum Addendum Addendum
1 2 3

The Bidder acknowledges any associated bid addenda (acknowledge with an "x"):

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The Bidder agrees to perform all work required in accordance with the contract documents, under the following submitted unit prices:

Signature of Authorized Representative

Date

Item Code	Item Description	Estimated Quantities	Unit	Unit Price	Proposal Amount
1027060	_ Reimbursed Permit Fees	1	Dlr	2,500	\$ 2,500.00
1500001	Mobilization, Max. 5%	1	Lsum		\$
2017011	_ Pavt, Rem, Modified	179	Syd		\$
2040055	Sidewalk, Rem	132	Syd		\$
5010005	HMA Surface, Rem	6,228	Syd		\$
8130010	Riprap, Plain	133	Syd		\$
2050043	Subgrade Undercutting, Type IV, 21AA	82	Cyd		\$
2080020	Erosion Control, Inlet Protection, Fabric Drop	28	Ea		\$
2080036	Erosion Control, Silt Fence	6,614	Ft		\$
2050016	Excavation, Earth	24	Cyd		\$
3020026	Aggregate Base, 10 inch	100	Syd		\$
3050010	Material, Surplus and Unsuitable, Rem, LM	32	Cyd		\$
4030306	Dr Structure, Tap, 6 inch	3	Ea		\$
3050002	HMA Base Crushing and Shaping	4,744	Syd		\$
4027001	_ Sewer, CPE, 6 inch, Tr Det _	38	Ft		\$
5010002	Cold Milling HMA Surface	157	Syd		\$
4027001	_ Trench Drain, Type 1	10	Ft		\$
4030005	Dr Structure Cover, Adj, Case 1	11	Ea		\$
8252145	Sanitary Structure Cover, Adj, Case 1	19	Ea		\$
5012036	HMA, 5EL	1,235	Ton		\$
5010001	Pavt, Cleaning	1	Lsum		\$
6030090	Saw Cut, Intermediate	372	Ft		\$
8027001	_ Valley Gutter, Conc, Modified	103	Ft		\$
5012024	HMA, 4EL	1,081	Ton		\$
3077011	_ Shld, Cl II, _ inch, Modified	1,014	Syd		\$
8027001	_ Curb and Gutter, Conc, Det F5, Modified	15	Ft		\$
8030010	Detectable Warning Surface	95	Ft		\$
8030030	Curb Ramp Opening, Conc	108	Ft		\$
8030044	Sidewalk, Conc, 4 inch	883	Sft		\$
8032002	Curb Ramp, Conc, 6 inch	564	Sft		\$
8110044	Pavt Mrkg, Ovly Cold Plastic, 18 inch, Stop Bar	158	Ft		\$
8110126	Pavt Mrkg, Regular Dry, 4 inch, Yellow	1,971	Ft		\$

28-Jul-26

[Return to TOC](#)

Pricing Sheet

8110153	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	520	Ft		\$
4037050	_ Dr Structure Cover, WM, Modified	13	Ea		\$
8127051	_ Traffic Control and Maitenance	1	Lsum		\$
4030210	Dr Structure, 48 inch dia	3	Ea		\$
8167011	_ Surface Restoration	712	Lsum		\$
4027002	_ Trench Drain, Type 2	334	Ft		\$
8507051	_ Audio Visual Record of the Construction Influence Area	1	Lsum		\$
BASE BID Total Construction Cost:					\$
Item Code	Alternate - Item Description	Estimated Quantities	Unit	Units Price	Proposal Amount
	Treat Clare, Axford and Andrews as crush & shape w/ 4" overlay				
3050002	HMA Base Crushing and Shaping	5,902	Syd		\$
5010001	Pavt, Cleaning	-1	Lsum		\$
5012024	HMA, 4EL	1,202	Ton		\$
6030090	Saw Cut, Intermediate	-66	Ft		\$
BASE BID with ALTERNATES Total Construction Cost with Alternates:					\$

The Village of Lake Orion reserves the right to increase or decrease any quantity or delete any item(s) of work as it deems in the best interest of the Village, there will be no adjustments to unit prices in the event of increase, decrease or deletions.

The Bidder acknowledges that he has not received nor relied upon any representations or warranties of any nature whatsoever from the Village of Lake Orion its officers, employees or agents and that if he is awarded this contract, he shall enter into this Contract solely as the result of his own independent business judgment.

The Bidder acknowledges that he has made his own independent investigation and has satisfied himself as to the conditions of the work, including soil and subsurface conditions.

The Bidder agrees that, in case any additions, deductions or deletions in the amount of work contemplated are made, the above named unit prices for the various classes of work shall be used to allow for such additions, deductions or deletions.

The Bidder attaches hereto a (certified check), (bidder's bond), in the sum of:

_____ Dollars (\$) as required in the Instructions to Bidders.

Submitted By:

<i>Contractor Name, hereinafter called "Bidder" to the Village of Lake Orion, Oakland County, Michigan (hereinafter called "Village")</i>
<i>Authorized Representative</i>
<i>Title of Authorized Representative</i>
<i>Company Address</i>
<i>Contact Phone Number</i>
<i>Contact Email Address</i>

<i>Addendum</i>	<i>Addendum</i>	<i>Addendum</i>
1	2	3

The Bidder acknowledges any associated bid addenda (acknowledge with an "x"):

--	--	--

The Bidder agrees to perform all work required in accordance with the contract documents, under the following submitted unit prices:

<i>Signature of Authorized Representative</i>	<i>Date</i>
---	-------------

Item Code	Item Description	Estimated Quantities	Unit	Unit Price	Proposal Amount
1027060	_ Reimbursed Permit Fees	1	Dlr	\$3,000.00	\$ 3,000.00
1500001	Mobilization, Max. 5%	1	Lsum		\$
2017011	_ Pavt, Rem, Modified	16	Syd		\$
2040055	Sidewalk, Rem	64	Syd		\$
2050016	Excavation, Earth	22	Cyd		\$
2080020	Erosion Control, Inlet Protection, Fabric Drop	16	Ea		\$
2080036	Erosion Control, Silt Fence	7,872	Ft		\$
3050002	HMA Base Crushing and Shaping	13,257	Syd		\$
3050010	Material, Surplus and Unsuitable, Rem, LM	88	Cyd		\$
3077011	_ Shld, Cl II, _ inch, Modified	2,270	Syd		\$
4027001	_ Sewer, CPE, 6 inch, Tr Det _	92	Ft		\$
4027001	_ Trench Drain, Type 1	40	Ft		\$
4030005	Dr Structure Cover, Adj, Case 1	3	Ea		\$
4030210	Dr Structure, 48 inch dia	2	Ea		\$
4030306	Dr Structure, Tap, 6 inch	8	Ea		\$
4037050	_ Dr Structure Cover, WM, Modified	5	Ea		\$
5012024	HMA, 4EL	1,677	Ton		\$
5012036	HMA, 5EL	1,948	Ton		\$
8027001	_ Valley Gutter, Conc, Modified	64	Ft		\$
8030010	Detectable Warning Surface	30	Ft		\$
8030030	Curb Ramp Opening, Conc	36	Ft		\$
8030044	Sidewalk, Conc, 4 inch	304	Sft		\$
8032002	Curb Ramp, Conc, 6 inch	291	Sft		\$
8110044	Pavt Mrkg, Ovly Cold Plastic, 18 inch, Stop Bar	111	Ft		\$
8110153	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	276	Ft		\$
8127051	_ Traffic Control and Maintenance	1	Lsum		\$
8167011	_ Surface Restoration	182	Lsum		\$
8252145	Sanitary Structure Cover, Adj, Case 1	9	Ea		\$
8507051	_ Audio-Visual Record of Construction Area	1	Lsum		\$
				BASE BID	\$
				Total Construction Cost:	

The Village of Lake Orion reserves the right to increase or decrease any quantity or delete any item(s) of work as it deems in the best interest of the Village, there will be no adjustments to unit prices in the event of increase, decrease or deletions.

The Bidder acknowledges that he has not received nor relied upon any representations or warranties of any nature whatsoever from the Village of Lake Orion its officers, employees or agents and that if he is awarded this contract, he shall enter into this Contract solely as the result of his own independent business judgment.

The Bidder acknowledges that he has made his own independent investigation and has satisfied himself as to the conditions of the work, including soil and subsurface conditions.

The Bidder agrees that, in case any additions, deductions or deletions in the amount of work contemplated are made, the above named unit prices for the various classes of work shall be used to allow for such additions, deductions or deletions.

The Bidder attaches hereto a (certified check), (bidder's bond), in the sum of:

_____ Dollars (\$) as required in
the Instructions to Bidders.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____
_____ as Principal,
and _____ as Surety, are
hereby held and firmly bound unto the Village of Lake Orion, Michigan, as OWNER in the
penal sum of:
_____ Dollars (\$ _____)

for the payment of which, well and truly to be made, we hereby jointly and severally
bind

ourselves, successors and assigns. Signed, this _____ day of _____, 20 _____.

The Condition of the above obligation is such that whereas the Principal has
submitted to the Village of Lake Orion, Michigan, a certain BID, attached hereto and
hereby made a part hereof to enter into a contract in writing, for the

2026 Street Improvements, Contracts A and B

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

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

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

_____(L.S)
Principal

_____(L.S.)
Surety

By:_____

IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 540 as amended) and be authorized to transact business in the State of Michigan.

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 20_____, by and between the Village of Lake Orion, Oakland County, Michigan, party of the first part, hereafter called the Village, and _____, Michigan, party of the second part, hereinafter called the Contractor:

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

- 1. The CONTRACTOR shall commence and complete the construction of:

2026 Street Improvements, Contracts A and B

in full conformance with the Contract Documents as enumerated in Article 6 of this Agreement.

2. The CONTRACTOR shall furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein, excepting those things which are specifically stipulated in the contract documents to be furnished or done by the Village.

3. The CONTRACTOR shall commence the work required by the CONTRACT DOCUMENTS on or before the date stipulated in the NOTICE TO PROCEED and will complete the same within **the time specified in Article 13 of the Instructions to Bidders**, unless the date for completion is extended otherwise by the CONTRACT DOCUMENTS. Time shall be considered to be of the essence of this Contract.

4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the contract price of:

Contract A _____ (\$ _____)

Contract B _____ (\$ _____)

unless the contract price is duly changed by the contract documents.

5. The VILLAGE shall pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT DOCUMENTS.

- 6. The term "CONTRACT DOCUMENTS" means and includes the following:
 - A. AGREEMENT
 - B. BID BOND

- C. PERFORMANCE BOND
- D. LABOR AND MATERIAL BOND
- E. MAINTENANCE BOND
- F. CHANGE ORDER (Pursuant to General Conditions, Section 9)
- G. ADDENDA:
 - No. _____, dated _____, 20____.
 - No. _____, dated _____, 20____.
 - No. _____, dated _____, 20____.
- H. ADVERTISEMENT
- I. INSTRUCTIONS TO BIDDERS
- J. BIDDER'S PROPOSAL (Incl. final Compliance Plan as accepted by OWNER)
- K. GENERAL CONDITIONS (Incl. SUPPLEMENTAL GENERAL CONDITIONS and SPECIAL CONDITIONS (if any))
- L. SPECIFICATIONS (Incl. SUPPLEMENTAL SPECIFICATIONS and SPECIAL PROVISIONS (if any))
- M. PLANS (As listed in Schedule of Drawings)
- N. NOTICE OF AWARD
- O. NOTICE TO PROCEED

This agreement, together with other documents enumerated in this ARTICLE 6, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, forms the Contract between the parties hereto. In the event that any provision in any component part of this Contract conflicts with any provision of any other component part, the provision of the component part first enumerated in this ARTICLE 6 shall govern, except as otherwise specifically stated.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in three (3) copies, each of which shall be deemed an original, on the date first above written.

**CONTRACT AGREEMENT BETWEEN THE VILLAGE OF LAKE ORION
AND CONTRACTOR**

2026 Street Improvements, Contracts A and B

CONTRACTOR: _____

In witness whereof, the parties have executed this agreement the day and year last written below.

WITNESSES:

1) _____ By: _____
2) _____ Its: _____

VILLAGE OF LAKE ORION

WITNESSES:

1) _____
2) _____

VILLAGE MANAGER

By: _____
Darwin D. P. McClary Date

WITNESSES:

1) _____
2) _____

CLERK / TREASURER

By: _____
Sonja Stout Date

CERTIFICATIONS

IF A CORPORATION

I, _____, certify that I am the _____ of the corporation named as Contractor herein; that _____, who signed this Agreement on behalf of the Contractor, was then _____ of said corporation; that said Agreement was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.*

Corporate Seal

Signature

* Attach copy of corporate resolution verifying authorization of individuals named above.

IF A PARTNERSHIP

I, _____, certify that I am a partner in the partnership named as Contractor herein, and that I have authority to sign for and on behalf of this partnership consisting of the following partners:

NAME AND ADDRESS:

Signature

IF A SOLE PROPRIETORSHIP

I, _____, certify that I am the sole owner and proprietor.

Signature

BOND FOR FAITHFUL PERFORMANCE

KNOW ALL MEN BY THESE PRESENTS, That _____

_____ as principal, and

_____, as surety, are held and
firmly bound unto the Village of Lake Orion, Michigan, a Municipal Corporation, in the
sum of:

good and lawful money of the United States of America, to be paid to said Village of Lake Orion, its legal representatives and assigns, for which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, and each and every one of them, jointly and severally, firmly by these presents.

Sealed with our Seals and dated this _____ day of _____ A.D. 20 _____.

WHEREAS, the above named principal has entered into a certain written contract with the Village of Lake Orion, dated this _____ day of _____ A.D. 20 _____, wherein the said principal covenanted and agreed as follows, to-wit:

TO COMMENCE AND COMPLETE the:

2026 Street Improvements, Contracts A and B

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS such that if the above named principal or their legal representatives or successors, shall in all things well and truly keep and perform the covenants, conditions, and agreements in the manner and form and at the time agreed upon to be kept and performed as provided by said contract, and plans, drawings, and specifications, referred to in said contract, and as may be required by the changes, alterations, and modifications thereof, as provided in said contract, then the above obligation shall be void; otherwise to remain in full force and effect.

This bond is given upon the express condition that any changes, alterations, or modifications that may be hereafter ordered or made in the construction and complete installation of the work herein referred to, or the placing of an inspector or superintendent thereon by the Village of Lake Orion shall not operate to discharge or release the surety or sureties thereon.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be
executed by their respective authorized officers this _____ day of _____ A.D.
20 _____.

Signed, Sealed and Delivered in the Presence of:

_____	_____ (L.S.)
_____	_____ (L.S.)
_____	_____ (L.S.)

**LABOR AND MATERIAL BOND TO THE
VILLAGE OF LAKE ORION, MICHIGAN**

KNOW ALL MEN BY THESE PRESENTS, That _____

_____ as principal, and _____

_____, as surety, are held
and firm bound unto the Village of Lake Orion, Michigan, a Municipal Corporation, in the
sum of:

good and lawful money of the United States of America, pursuant to Michigan State
Public Act 213 of 1963, to be paid to the Village of Lake Orion, Michigan, for the use and
benefit of all subcontractors, and persons, firms and corporations who shall furnish
materials, supplies and perform labor entering into the work of:

2026 Street Improvements, Contracts A and B

for which payment well and truly to be made, we bind ourselves, our heirs, executors,
administrators, successors and assigns, and each and every one of them jointly and
severally, firmly by these presents.

Sealed with our Seals and dated this _____ day of _____ A.D. 20____.

WHEREAS, the above named principal has entered into a certain written contract
with the Village of Lake Orion, dated this _____ day of _____ A.D. 20____,
wherein the said principal covenanted and agreed as follows, to wit:
TO COMMENCE AND COMPLETE the:

2026 Street Improvements, Contracts A and B

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above named principal, legal representatives, or successors shall pay or cause to be paid to all subcontractors, persons, firms, and corporation, as the same may become due and payable, all indebtedness which may arise from said principal to a subcontractor or party performing labor or furnishing materials and supplies, or any subcontractor to any person, firm or corporation on account of any labor performed or materials and supplies furnished in connection with the contract, construction and work herein referred to, then this obligation shall be void; otherwise to remain in full force and effect.

This bond is given upon the express condition that any changes, alterations, or modifications that may be hereafter ordered or made in the construction and complete installation of the work herein referred to, or the placing of an inspector or superintendent thereon by the Village of Lake Orion shall not operate to discharge or release the surety or sureties thereon.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this _____ day of _____ A.D. 20 ____.

Signed, Sealed and Delivered in the Presence of:

_____	_____ (L.S.)
_____	_____ (L.S.)
_____	_____ (L.S.)

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, That _____
_____, as principal, and _____
_____, as surety, are held
and firm bound unto the Village of Lake Orion, Michigan, a Municipal Corporation, in the
sum of:

good and lawful money of the United States of America, pursuant to Michigan State Public
Act 213 of 1963, to be paid to the Village of Lake Orion, Michigan, for the use and benefit of
all subcontractors, and persons, firms and corporations who shall furnish materials, supplies
and perform labor entering into the work of:

2026 Street Improvements, Contracts A and B

for which payment well and truly to be made, we bind ourselves, our heirs, executors,
administrators, successors and assigns, and each and every one of them jointly and
severally, firmly by these presents.

Sealed with our Seals and dated this _____ day of _____ A.D. 20 ____.

WHEREAS, the above named principal has entered into a certain written contract with
the Village of Lake Orion, dated this _____ day of _____ A.D. 20 ____, wherein the
said principal covenanted and agreed as follows, to wit:

TO COMMENCE AND COMPLETE construction of:

2026 Street Improvements, Contracts A and B

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that by and under
said contract, the above named principal has agreed with the Village of Lake Orion that for a
period of **TWO** year(s) from the date of payment of Final Estimate, to keep in good order
and repair all the work, done under said contract, excepting only such part or parts of said
work as may have been disturbed without the consent or approval of the principal after the
final acceptance of the work, and that whenever directed so to do by the Village Engineer of

the Village of Lake Orion by notice served in writing, either personally or by mail, on the principal at:

_____ or _____
_____ legal representative, or successors, or on the surety at: _____

_____ WILL PROCEED at once to make such repairs as directed by said Village Engineer; and in case of failure so to do within one week from the date of service of such notice, or within reasonable time not less than one week, as shall be fixed in said notice, then the Village of Lake Orion shall have the right to purchase such materials and employ such labor and equipment as may be necessary for the purpose, and to undertake, do and make such repairs, and charge the expense thereof to, and receive same from said principal or surety. If any repair is necessary to be made at once to protect life and property, then and in that case, the Village may take immediate steps to repair or barricade such defects without notice to the contractor. In such accounting the Village shall not be held to obtain the lowest figures for the doing of the work or any part thereof, but all sums actually paid therefore shall be charged to the principal or surety. In this connection the judgment of the Village Engineer is final and conclusive. If the said principal for a period of **TWO** year(s) from the date of payment of Final Estimate, shall keep said work so constructed under said contract in good order and repair, excepting only such part or parts of said work which may have been disturbed without the consent or approval of said principal after the final acceptance of the same, and shall, whenever notice is given as hereinbefore specified, at once proceed to make repair as in said notice directed, or shall reimburse said Village of Lake Orion for any expense incurred by making such repairs, should the principal or their surety do so as hereinbefore specified, then the above obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this _____ day of _____ A.D. 20 ____.

Signed, Sealed and Delivered in the Presence of:

_____	_____ (L.S.)
_____	_____ (L.S.)
_____	_____ (L.S.)

GENERAL CONDITIONS

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GENERAL CONDITIONS

Article 1 - DEFINITIONS

- 1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:
- 1.2 ADDENDA - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS by additions, deletions, clarifications or corrections.
- 1.3 BID - The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed. (See 1.8)
- 1.4 BIDDER - Any person, firm or corporation submitting a BID for the WORK.
- 1.5 BONDS - Bid, Performance, Labor and Material, and Maintenance Bonds and other instruments of security, furnished by the CONTRACTOR and their surety in accordance with the CONTRACT DOCUMENTS.
- 1.6 CHANGE ORDER - A written order to the CONTRACTOR authorizing an addition, deletion or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.
- 1.7 VILLAGE/OWNER - The Village of Lake Orion, Michigan, or its properly authorized representatives; and whenever the term "Village Council", "Village Clerk", "Director of Finance", "Village Engineer", or "Engineer", is used, it shall be understood to mean the Council, Village Manager, Clerk, Director of Finance, or Engineer of the said Village.
- 1.8 LEFT BLANK INTENTIONALLY
- 1.9 CONTRACT DOCUMENTS - The Contract, including ADVERTISEMENT, INSTRUCTIONS TO BIDDERS, FORM OF PROPOSAL, BID BOND, AGREEMENT, LABOR & MATERIAL BOND, PERFORMANCE BOND, MAINTENANCE BOND, GENERAL CONDITIONS, SUPPLEMENTAL GENERAL CONDITIONS, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, PLANS, SPECIFICATIONS, ADDENDA, and any other documents specifically set forth in the Agreement.
- 1.10 CONTRACT PRICE - The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.

- 1.11 CONTRACT TIME - The number of calendar days or the completion date stated in the CONTRACT DOCUMENTS for the completion of the WORK in the CONTRACT DOCUMENTS; or the number of calendar days from the date established in the NOTICE TO PROCEED to the DATE stated in the CONTRACT DOCUMENTS for the completion of all of the WORK of the TOTAL CONTRACT; or both.
- 1.12 CONTRACTOR - The person, firm or corporation with whom the VILLAGE has executed the Agreement, or its legal representatives.
- 1.13 ENGINEER - The Village Engineer and/or the person, firm or corporation named as such in the CONTRACT DOCUMENTS.
- 1.14 FIELD ORDER - A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.
- 1.15 NOTICE OF AWARD - The written notice of the acceptance of the BID from the VILLAGE to the successful BIDDER.
- 1.16 NOTICE TO PROCEED - Written communication issued by the VILLAGE to the CONTRACTOR authorizing them to proceed with the WORK and establishing the date of commencement of the WORK in accordance with the CONTRACT DOCUMENTS.
- 1.17 OPEN TO TRAFFIC - That date as certified by the ENGINEER, when the WORK (PROJECT) or any section thereof is in a suitable condition for safe travel. The term "SUITABLE CONDITION FOR SAFE TRAVEL" shall be construed to mean that all work, INCLUDING the Leveling Course of Bituminous Material and all Concrete Work are complete. The PROJECT, or any portion thereof may be designated as "Accepted for Traffic" prior to completion of the whole project, and shall be opened to traffic as may be directed by the ENGINEER. In general, the term "OPEN TO TRAFFIC" shall be in accordance with Section 107.21 of the MDOT 2020 Standard Specifications for Construction.
- 1.18 **THIS SECTION IS LEFT INTENTIONALLY LEFT BLANK.**
- 1.19 PROJECT - The undertaking to be performed as provided in the CONTRACT DOCUMENTS.
- 1.20 RESIDENT PROJECT REPRESENTATIVE - The authorized representative of the VILLAGE who is assigned to the PROJECT site or any part thereof.
- 1.21 SHOP DRAWINGS - All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, SUPPLIER or distributor, which illustrate how specific portions of the

WORK shall be fabricated or installed.

- 1.22 SPECIFICATIONS - A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship (may include SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS).
- 1.23 SUBCONTRACTOR - An individual, firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the WORK at the site.
- 1.24 SUPPLIER - Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.
- 1.25 WORK - All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.
- 1.26 WORK ORDER - A written order to the CONTRACTOR causing a change in WORK involving the authorization to undertake additional work at existing contract unit prices or at new contract unit prices for new items of work.
- 1.27 WRITTEN NOTICE - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at their last given address, or delivered in person to said party or their authorized representative on the WORK.

Article 2 - PLANS AND SPECIFICATIONS

The location of the structures, roads, systems, utilities, appurtenances and improvements which are to be built, reconstructed, rehabilitated or made under this Contract, and the character, form and dimensions of their various parts, are shown in the accompanying drawings, specifications and details in the Contract Document cited in the Instructions to Bidders.

These drawings constitute the Plans according to which the work of this Contract is to be done. Additional drawings may be prepared by the Village Engineer and supplied to the Contractor during the progress of the work, as the Village Engineer may deem to be necessary or expedient. All such additional drawings, made in elaboration or explanation of the original drawings, are to be considered as part and parcel of the Plans and shall be respected and followed as such by the Contractor.

The Plans are supplemented and explained by a set of technical specifications, which are appended hereto, and which describe and define the quality of materials and the character of workmanship which are to enter into the work of this Contract. These are the Specifications which are referred to in Article 1, and elsewhere in this Contract. Additional specifications in further elaboration or explanation of the work to be done may be prepared by the Village Engineer and supplied to the Contractor during the progress of the work, as the Village Engineer may deem to be necessary or expedient. Such additional specifications are to be considered as part and parcel of the specifications under this Contract, and shall be respected and followed as such by the Contractor.

Both Plans and Specifications are considered as essential parts of this Contract, and are intended to be cooperative. They shall be construed as supplementary each to the other, and any work called for in the Plans and not particularly mentioned in the Specifications, or described in the Specifications and not specially shown on the Plans, is to be regarded as included under this Contract the same as if fully set forth in the Specifications and exhibited on the Plans. Wherever figures or definite dimensions are given on the Plans or in the Specifications, these shall have precedence over dimensions taken by scaling.

In case any inconsistency, omission, or conflict shall be discovered in the Specifications or Plans, or if in any place the meaning of either or both shall be obscure or uncertain or in dispute, the Village Engineer shall decide as to the true intent and the Village Engineer's decision shall be final and binding. Any such inconsistencies, omissions, or conflict noted should be called to the attention of the Engineer, and a decision on the same obtained in advance.

Article 3 – PRE-CONSTRUCTION MEETING

A pre-construction meeting will be held prior to the beginning of any work. The Engineer will schedule the meeting as soon as possible after acceptable executed contract documents are received from the Contractor.

Notice of the meeting will be made to the Owner, the Contractor, and to the following entities, contingent upon their interest in the project:

- a) Utility Companies
- b) County Road Commission
- c) Michigan Dept. of Transportation
- d) Michigan Dept. of Labor - Safety Division
- e) Other State, Local and County Agencies

The purpose of the pre-construction meeting is to discuss particular procedures and potential problem areas. The Contractor is given updates on the conditions of the proposed construction and what is expected as to proper notification in the event of damage to existing utilities.

The Contractor shall submit in writing at the pre-construction meeting the following information:

- a) Schedule of Construction
- b) Sources of Materials-Additions or Changes from Original Submission
- c) List of Sub-Contractors-Additions or Changes from Original Submission
- d) The Designated Safety Officer on the Job including all Phone Numbers
- e) Superintendent for the Project including all Phone Numbers
- f) Foreman in Charge on the Job Site including all Phone Numbers
- g) Emergency Phone Numbers for Contractor

As noted above, the Contractor is required to submit an outline of the proposed order of work and to indicate the schedule for completion of the major categories of the work consistent with the period of time specified under Time of Completion.

Approval by the Engineer and Owner of any construction schedule indicating completion of the work in less time than allotted by the Contract shall not be construed as an acknowledgment, either express or implied, that the work can be completed within the time shown on this schedule and shall not under any circumstances give rise to a cause of action for damages by the Contractor.

The Contractor's schedule of construction shall indicate a critical path for completing the work consistent with the period of time specified under Time of Completion. The schedule shall indicate the numbers and types of crews that will be employed at various times on the project.

Article 4 – TESTING AND SAMPLING

- a) Where called for in the specifications, samples of materials in the quantity named shall be submitted to Engineer for approval. Where tests are required, they shall be made at the expense of the Contractor, except as otherwise called for in the specifications. For materials covered by ASTM or Federal Specifications, or with the specifications of well-known or recognized technical and/or trade organizations, unless otherwise stipulated, required tests are to be made by the manufacturer, and their certificate therefore submitted to the Engineer.
- b) The Engineer and/or the Owner shall determine which materials are required by the specifications to be factory inspected or to have chemical or physical analysis or other inspection or test. The Contractor shall furnish to the Engineer and/or Owner two copies of orders for all materials requiring such inspection or test as soon as placed. Such orders shall contain complete information, including that as to quantity, quality, dimensions, sizes, capacities and types, and shall contain proper reference to the applicable specifications by title, number and paragraph, and shall show the name and address of the producing factory but need not contain prices or contractual terms.

- c) All materials and workmanship (if not otherwise designated by the specifications) shall be subject to inspection, examination and test by the Engineer and/or Owner at any and all times during the manufacture or construction, and at any and all places where such manufacture or construction is carried on. The Engineer and/or Owner shall have the right to reject defective material and workmanship or require its correction. Rejected workmanship shall be satisfactorily corrected, and rejected material shall be satisfactorily replaced with proper material without charge therefore, and Contractor shall promptly segregate and remove the rejected material from the premises by the contractor who was responsible for the defects in the material. If Contractor fails to proceed at once with replacement of rejected material and correction of defective workmanship, the Owner may, by contract or otherwise, replace such material and correct such workmanship and charge the cost thereof to the Contractor, or may immediately terminate the contract.
- d) The Contractor shall furnish promptly, without additional charge, all reasonable facilities, labor and materials necessary for the safe and convenient conduct of all inspections and tests that may be required by the Engineer. All inspections and tests by the Engineer and/or Owner shall be performed in such a manner as not to delay the work unnecessarily. Special, full size, and performance tests shall be as described in the specifications. Contractor shall be charged with any additional cost of inspection when material or workmanship is not ready at the time inspection is requested by the Contractor.
- e) Should it be considered necessary or advisable by the Engineer and/or Owner any time before final acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall on request promptly furnish all necessary facilities, labor and material. If such work is found to be defective or nonconforming in any material respect, due to the fault of the Contractor or their subcontractor, Contractor shall defray all the expenses of such examination and of satisfactory reconstruction, and be responsible for any resulting delay. If, however, such work is found to meet requirements of the contract, the actual cost involved in the examination and replacement shall be allowed the Contractor, and they shall, in addition, if completion of the work has been delayed thereby, be granted a suitable extension of time on account of the additional work involved.
- f) Inspection of material and finished articles to be incorporated in the work at the site may be made at place of production, manufacture or shipment stated in the specifications; and such inspections and acceptance, unless otherwise stated in the specifications, shall be final, except as regards latent defects, departures from specific requirements of the contract and the specifications and drawings made a part thereof, damage or loss in transit, fraud or such gross mistakes as amount to fraud. Subject to requirements contained in the preceding sentence, inspection of material and workmanship for final acceptance as a whole or in part shall be made at the site.

Article 5 - SHOP DRAWINGS

- 5.1 The CONTRACTOR shall provide SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER's approval of any SHOP DRAWINGS shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The approval of any SHOP DRAWING which substantially deviates from the requirement of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.
- 5.2 When submitted for the ENGINEER'S review, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that they have reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.
- 5.3.1 Portions of the WORK requiring a SHOP DRAWING or sample submission shall not begin until the SHOP DRAWING or submission has been approved by the ENGINEER. A copy of each approved SHOP DRAWING and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

Article 6 – ERRORS AND CORRECTIONS IN DRAWINGS AND SPECIFICATIONS

Contractor shall examine and check all drawings and specifications furnished by Owner for dimensions, quantities, and coordination with other parts of the work on this or related contracts and shall notify the Engineer, in writing, of any and all errors, omissions or discrepancies they may discover by examining and checking of same. Contractor shall not be allowed to take advantage of any such error, omission or discrepancy, as full instructions will be furnished by the Engineer, and Contractor shall carry out such instructions as if originally specified. In no case shall Contractor proceed with the work in uncertainty, and any work done by Contractor after discovery of any error, omission or discrepancy, until authorized, will be at the Contractor's risk and responsibility. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any minor omissions in the specifications or plans.

Article 7- MATERIALS AND WORKMANSHIP

It is mutually understood that all materials and workmanship furnished under this Contract shall be of the highest quality, to the end that a good and substantial and workmanlike job may be produced. The Contractor shall bring only first class materials to the work, and they shall furnish suitable tools and equipment and shall employ competent labor to perform the work to be done. Any materials or labor or tools or equipment that shall not, in the judgment of the Engineer, be suitable or competent to produce the desired result, may be ordered from the work by the Engineer, and such materials or labor or tools or equipment shall be promptly substituted

therefor by the Contractor as will meet with the approval of the Engineer. Wherever a brand or name is given, it is for the purpose of defining or establishing a type or quality of material only.

7.1 Defective Materials

Any materials or fabricated articles furnished by the Contractor to be used in this work which shall not, in the judgment of the Engineer, be equal to the requirements of the Plans and Specifications, may be rejected by the Engineer; and such rejected materials or articles shall not be used, but shall be immediately removed by the Contractor from the site of the work.

7.2 Stored Materials

Materials and equipment distributed, stored or placed upon or near the site of the work shall be at all times so disposed as not to interfere with work being prosecuted directly by the Village or by other Contractors the Village employs or with street drainage, or with fire hydrants or with access thereto, and not to unreasonably inconvenience the public from access to or use of their property.

7.3 Property Rights in Surplus Materials

All excess materials excavated during the progress of the work and not required for backfilling, all timber except tree stumps cut from the right-of-way, and all other materials which have been encountered and handled during construction operations, and which constitute a disposable surplus at the end of the construction period, shall be the property of the Contractor, unless otherwise directed by the Village or its Engineer. Such materials shall be hauled and neatly piled, or hauled and dumped at the places designated by the Engineer, at no extra compensation.

7.4 Water Supply

Water for construction purposes may be taken from the Village water system from a hydrant approved by the Village and subject to the rules of the Oakland County Water Resources Commissioner's office.

Article 8 - SUPERINTENDENCE BY CONTRACTOR

- 8.1 Except where the Contractor is an individual and gives their personal superintendence to the work, the Contractor shall provide a competent superintendent, satisfactory to the Village and the Engineer, on the work at all times during working hours with full authority to act for the Contractor. Any orders by the Engineer given to and received by said superintendent shall be deemed to have been given to and received by the Contractor. The Contractor shall also provide an adequate staff for the proper coordination and expediting of

their work. The Contractor shall maintain a complete set of plans and specifications at the site.

8.2 The Contractor may set up and establish an office on or near the site. On certain large projects, the Engineer may direct the Contractor to set up an office.

8.3 The Contractor shall lay out their own work and they shall be responsible for all work executed by them under the Contract. They shall verify all figures and elevations before proceeding with the work and will be held responsible for any error resulting from their failure to do so.

8.4 Disorderly Employees

Disorderly, intemperate, or incompetent persons must not be employed, retained, or allowed upon the work site. Any foreman or workman who refuses or neglects to comply with the directions of the Engineer in the matter of personal conduct shall, at the request of the Engineer, be promptly discharged and shall not thereafter be re-employed without the consent of the Engineer.

8.5 Relation to Other Contractors

The Contractor shall so conduct their operations as not to interfere with or injure the work of other Contractors or work personnel employed by the Village on adjoining or related work, and they shall promptly make good any injury or damage which may be done to such work by them or their employees or agents. Should a contract for adjoining work be awarded to another Contractor, and should the work on any one of these contracts interfere with that of the other, the Engineer shall decide which Contractor shall cease work for the time being and which shall continue or whether the work on both contracts shall continue at the same time and in what manner. In case the territory of one contract should be the necessary means of access to another contract, the Engineer shall have power to grant reasonable privileges with respect to the transportation or movement of men, animals, appliances or materials as they may adjudge to be necessary or expedient and in the best interests of the Village. Any decision which the Engineer may make as to the method and time of conducting work or the use of territory shall not be made the basis of any claim for damages, but an extension of time may be claimed, if justified by the circumstances, the same as in the case of other delays caused by the acts of the Village. Any difference of opinion or conflict of interest which may arise between this Contractor and other Contractors or work personnel of the Village in regard to adjoining work shall be determined and adjusted by the Engineer.

8.6 Time and Sequence of Work

In general, it is the intention and understanding that the Contractor shall have control over the sequence or order of execution of the several parts of the work to be done under this Contract, and over the methods of accomplishing the required results, except as some particular sequence or method may be distinctly demanded by the Plans and Specifications or by the express provisions of this Contract; the Engineer may, however, make such reasonable requirements as may, in their judgement, be necessary for the proper and effective protection of work partially or wholly completed, and to these requirements, the Contractor shall strictly conform.

8.7 Sunday, Holiday, Night Work and Hours of Operation

No Sunday or Holiday work shall be done except in case of emergency or to protect from damage or injury any work that has already been done, and then only with the written consent of the Engineer, and only to such an extent as he may judge to be necessary.

Ordinarily, no night work shall be carried on which will require the presence of the Engineer or an inspector, except with the written permission of the Engineer. Night work is permissible in an emergency to the extent required to meet the emergency, but the Contractor shall notify the Engineer, as far as possible in advance, of their intentions to carry on such emergency work and of the time and place of doing it.

Work hours of operation will be in accordance with Village ordinances.

Article 9 - ENGINEERING SUPERVISION

The work covered by this Contract will be executed under the engineering supervision of the Village Engineer, who shall have authority to inspect all materials and workmanship entering into the work, to furnish all instructions and information regarding the Plans and Specifications that may be necessary, to supply supplementary or additional plans or specifications as they may deem expedient, and to point out to the Contractor any disregard of any of the provisions of the Contract; but the right of final acceptance or condemnation of the work will not be waived at any time during its progress.

The Engineer will set suitable stakes and marks showing the locations and elevations of various parts of the work and the Contractor shall provide such labor and assistance as the said Engineer may require in setting the same. The Contractor shall take due and proper precautions for the preservation of these stakes and marks, and shall see to it that the work at all times proceeds in accordance therewith. The Engineer may provide for the inspection of any or all materials or workmanship used or intended to be used under this Contract, by assistants under their direction or otherwise, as they may deem to be advisable or expedient; but no inspection shall relieve the Contractor of their fundamental obligation to fully respect all the requirements of their Contract. Such inspection may cover any or all parts of the work, and may extend to and include the preparation or manufacture of any materials or fabricated

articles intended to be incorporated in the work. The Contractor shall furnish, upon request therefor by the Engineer, such samples for examination or testing as the Engineer may prescribe. The Contractor shall furnish such labor and assistance as may be necessary for the proper handling of materials in all inspections and tests that may be required.

The Engineer and their duly authorized agents and employees may, at any time and for any purpose, enter upon the work and upon the premises occupied by the Contractor, and the Contractor shall provide proper and safe facilities by which the Engineer may have access to such parts of the work as may be required.

Article 10 - VILLAGE'S RIGHT TO COMPLETE; SUSPENSION OR TERMINATION

It is agreed that the Village has the right, when it shall become satisfied that the work provided for in this Contract will not be completed within the time limit, to furnish additional labor and material if necessary and render such other assistance as it may deem advisable, for the completion of said Contract, at the expense of the Contractor, and may retain the same out of the Contract price, or recover the same by legal proceedings.

It is agreed that the Village Manager has the right to determine finally all questions as to proper performance of this Contract, or any part or portion thereof, and in case of improper, dilatory or imperfect performance thereof, to suspend the work at any time and to order the partial or entire reconstruction of the same, and if at any time the said Contractor shall abandon the work of this Contract or become habitually negligent of their obligations under it, or shall fail to prosecute the work with reasonable diligence, so that the time of final completion of the work shall be unnecessarily and intolerably delayed, or if they shall violate any of the provisions of the Contract, then and in such case the Village Manager may declare this Contract forfeited and may, at address given in the proposal, notify them to discontinue all work under this Contract, or any part thereof, and thereupon they shall discontinue such work, or such part thereof, and shall cease to have any right to the possession of the ground; and the Village shall thereupon have the right to complete the work or any part thereof by Contract or otherwise, as it may elect, and for that purpose to take possession and make use of such materials, tools, building appliances, and equipment as may be found upon the work, and to charge the expense thereof to the Contractor. Power is hereby given the Village Manager to determine all such questions under this Contract, according to the true intent and meaning thereof.

All expenses charged under this provision shall be deducted and paid by the Village of Lake Orion out of any monies then due to the Contractor under this Contract, or any part thereof, and in such accounting the Village of Lake Orion shall not be held to obtain the lowest figures for the work of completing the contract, or any part thereof, or for insuring its proper completion, but all sums actually paid therefor shall be charged to the Contractor and in case such expenses shall exceed the said sums, the Contractor shall pay the amount of the excess to the Village of Lake Orion.

Article 11 - ASSIGNMENT OF CONTRACT

It is agreed that the Contractor shall not assign or transfer this Contract, or subcontract any part of the work embraced in it, except with the written consent of the Village Manager to do so.

It is further agreed that all parts of the work which may be performed by a subcontractor shall conform to the Plans and Specifications and be subject to all provisions of this Contract exactly as if performed by the Contractor and their immediate employees and work personnel. No such letting of the work shall, in any way, diminish or weaken the responsibility of the Contractor for all parts of the work or lessen their obligation under this Contract.

It is likewise agreed that the Contractor shall not assign, either legally or equitably, any of the monies payable to him under this Contract, or his claim thereto, except with the written consent of the Village Manager.

Article 12 - EXTRA WORK AND MODIFICATION

It is agreed that the said Contractor shall do such incidental or extra work in connection with this Contract as the Village Manager may especially order in writing. If such extra work or any part thereof be of such character that it may be definitely covered by construction items for which unit prices are named in the proposal of this Contract, then and in that case the Village will pay, and the Contractor will accept as full compensation for such extra work, or such part thereof, the amount computed by applying the unit prices to the quantities of extra work falling under the several items. Also, such extra work may be paid for at prices mutually agreed upon at the time by the Village and the Contractor. But if such extra work, or any part thereof, be of a kind which may not be definitely covered by the regular pay items of this contract, and if no price therefor has been mutually agreed upon in advance, or if the work is of such a nature that it cannot be estimated with fair exactness in advance, then the Village will pay, and the Contractor will accept as full compensation for such, an amount equal to the actual and necessary net cost in money to the Contractor for labor and materials actually used therein or expended thereon, plus fifteen percent (15%) of such net cost for superintendence, power, the use of tools, and plant, liability insurance, and all overhead and incidental expenses.

During the progress of any extra work which is to be paid for on the basis of net cost plus fifteen percent (15%), the Contractor will furnish to the Village Engineer, at the end of each day, suitable time slips showing the name of and the number of hours worked by each work person employed thereon, the nature of work performed by them, and their rate of pay, together with suitable and adequate memoranda of the materials used therein, showing the character and amount of each such material, the source from which it was purchased, and the price paid or to be paid therefor.

The Village may, at its discretion, furnish to the Contractor any materials or supplies or transportation required for extra work, and the Contractor shall not be entitled to any allowance or percentage on account of materials or supplies or transportation so furnished.

It is agreed that all extra work that may be ordered and performed under the provisions of this article shall be done by the Contractor in an effective and workmanlike manner, and shall be subject to the same restrictions and liabilities as those which apply to the general work of this Contract; and the Contractor will be responsible for the maintenance and protection of such extra work until the time of the final acceptance of the entire job by the Village.

And it is further agreed that no claim against the Village on account of extra work shall be valid unless such extra work has been previously ordered in writing by the Village Manager, and unless such claim has been presented for payment as soon as practicable after the completion of such extra work and before the making up of the final estimate.

When it becomes necessary in the prosecution of any work or improvement under contract to make minor alterations or modifications of such contract or the plans and specifications thereof, such alterations, changes or modifications shall be made only on the written order of the Village Manager.

No such order shall be made until the price to be paid for the work or material or both and the credits, if any, to be allowed by the Village under the altered and modified Contract shall have been agreed upon in writing and signed by the Contractor and by the Village Manager.

Article 13 - DISPUTED CLAIMS FOR EXTRA COMPENSATION

If any inconsistency, omission, or conflict is discovered in either the plans or the specifications, or if in any place the meaning of either the plans or the specifications, or both, is obscure, or uncertain, or in dispute, the Engineer will decide as to the true intent.

In case the Contractor deems extra compensation is due for work or materials not clearly covered in the contract, or not ordered by the Engineer as extra work, or due to changed or altered conditions, the Contractor shall notify the Engineer in writing of the Contractor's intention to make claim for such extra compensation before beginning work on which the Contractor intends to base a claim and shall afford the Engineer every facility for keeping actual cost of the work. The Contractor and the Engineer shall compare records and bring them into agreement at the end of each day. Failure on the part of the Contractor to give such notification or to afford the Engineer proper facilities for keeping strict account of actual cost will constitute a waiver of the claim for such extra compensation except that consideration will be given to claims to the extent that they are substantiated by Village records. The determination of extra compensation made by the Village, where the Contractor has failed to give proper notice of their claim for extra compensation as provided herein or has failed to afford the Engineer proper facilities for keeping strict account of actual costs, shall be final and binding on the Contractor. The filing of such notice by the Contractor and the monitoring of

cost by the Engineer for said notice of claim, shall not in any way be construed to establish the validity of the claim. When the extra work in question has been completed, the Contractor shall file the claim for extra compensation with the Engineer.

Such claims shall be filed with the Engineer in accordance with the MDOT 2020 Standard Specifications for Construction. A written decision will be given to the Contractor in a timely manner, regarding the approval, partial approval, or disapproval of the Contractor's claim for extra compensation. The Village will determine procedures for reviewing the Contractor's claim.

Article 14 - EXTENSION OF TIME

It is agreed that if the Contractor shall be unavoidably delayed in beginning or fulfilling this Contract by reason of excessive storms or floods, or by acts of Providence, or by general strikes, or by court injunction, or by stopping of the work by the Village because of any emergency or public necessity, or by reason of extra work ordered by the Village Engineer, or by any act, neglect, delay, or default on the part of the Village, the Contractor shall have no valid claim for damages on account of any such cause or delay, but he shall be, in such case, entitled to such extensions or advancement of the time period specified in the Agreement as the Village Engineer shall adjudge to be just and reasonable; provided, however, that formal claim for such extension shall be made in writing by the Contractor within a week after the date upon which such alleged cause of delay shall have occurred. The closing down of the work during the winter season on account of cold weather shall not be taken as entitling the Contractor to any extension of time within the meaning of this Article.

In case the Contractor shall be delayed in the fulfillment of his obligations under this Contract, from any cause whatsoever, and in case the Village shall acquiesce in the Contractor's prosecution and completion of the work, or any part of it, after the date at which it should have been finished, such acquiescence shall not operate as a waiver of any of the Village's rights under this Contract, nor shall it invalidate or in any way weaken the Contractor's bonds.

Article 15 - LIQUIDATED DAMAGES

It is expressly covenanted and agreed by and between the parties hereto that time is and shall be considered as of the essence of the Contract, and in the event that said Contractor shall fail in the due performance of the entire work to be performed under this Contract, by and at the time herein mentioned and referred to in the Agreement, or within some other certain date subsequent to this to which the time limit for completion of the work may have been advanced under provisions of Article 11, the said Contractor shall pay unto the Village as and for liquidated damages, and not as a penalty, the sum of **One Thousand Dollars (\$ 1,000.00)** for each and every calendar day that the said Contractor shall be in default.

Said sum of **One Thousand Dollars (\$ 1,000.00)** per day, in view of the difficulty of estimating such damages with exactness, is agreed upon as the damages which will be suffered

by the Village by reason of such default. It is also understood and agreed by the parties to this Contract that the liquidated damages hereinbefore mentioned are in lieu of the actual damages arising from such breach of this Contract; which said sum the Village shall have the right to deduct from any monies in its possession, otherwise due, or to become due to said Contractor, or to sue for and recover compensation for damages for non-performance of this Contract at the time stipulated herein and provided for. (See also any Special Provisions for Liquidated Damages.)

Said liquidated damages are in addition to any actual damages which the Village may recover under the provisions of the contract and are assessed in accordance with Section 108.10 of the MDOT 2020 Standard Specifications for Construction.

Article 16 - PAYMENTS TO THE CONTRACTOR

16.1 Contractor's Obligation Prior to Payment

It is agreed that before the Contractor shall demand partial or final estimates or payments, the Village may require them to furnish the Village satisfactory evidence that all persons that have supplied labor or materials for the work embraced under this Contract have been fully paid for the same; and that in case such evidence be not furnished as aforesaid, such sums as the Village may deem necessary to meet the lawful claims of the persons aforesaid be retained by the Village from any monies that may be due or become due to them under this Contract until such liabilities shall be fully discharged and evidence thereof be furnished to the Village. The Contractor agrees to make prompt settlement for all repair expenses made by the Village as a result of the Contractor's work. Consent of the Contractor's surety will be required prior to final payment.

16.2 Village's Obligation to Pay

It is agreed that, in consideration of the faithful and entire performance by the Contractor of their obligations under this Contract, the Village shall pay to them, at the times and in the manner stipulated, the total sum as determined by calculations from the unit prices in the proposal, but diminished by such amount as the Village may lawfully retain as liquidated damages under the provisions of Article 12 herein; and the Contractor shall accept the payment of such sum as full compensation for their work under this Contract.

16.3 Progress Estimates and Payments

Progress payments shall comply with Act No. 524 Public Acts of 1980. At about the first of each month, during which satisfactory progress has been made toward the final completion of the work, the Engineer will make up an estimate of the amount and value of the work which has been done under this Contract since the date of the

last preceding estimate, and will report such estimate in writing to the Village Director of Finance. Such estimates shall not be required to be made by strict measurements, or with exactness, but may be made either wholly or in part by appraisement or estimation or by a consideration of accounts for labor and materials, and it shall be sufficient if it is approximate only. Any error or inaccuracy which may occur in any progress estimate may be allowed for or corrected in any subsequent estimate.

Following the rendering of such estimate by the Engineer, and as soon as practicable thereafter, the Village will pay to the Contractor on account a sum equal to ninety percent (90%) of the Contract price of such work. The remaining ten percent (10%) will be retained until work is fifty percent (50%) in place. After the work is fifty percent (50%) in place, additional retainage shall not be withheld unless the Village determines that the Contractor is not making satisfactory progress, or for other specific cause relating to the Contractor's performance under the Contract. If the Village so determines, the Village may retain not more than ten percent (10%) of the dollar value of work more than fifty percent (50%) in place.

The Director of Finance may require the Contractor, before the payment of any estimate, to file an affidavit showing the unpaid bills for materials or supplies of any kind furnished for this work.

The progress estimates and payments thus provided for will include all extra work which may be done under the provisions of this Contract on the same basis as other work is included, all such extra work being regarded herein as essentially a part of this Contract, and not merely supplementary to it.

Disputes under this provision may be submitted to the decision of an agent, at the option of the Village, pursuant to Section 4 of Act 524 of 1980. (MCLA 125.1564).

16.4 Measurement

Due and proper measurements will be taken by the Engineer during the progress of the work, and their estimates, based upon such measurements, shall be final and conclusive evidence of the amount of work performed under this Contract.

16.5 Final Estimate and Payment

As soon as practicable after the satisfactory completion of all the work included under this Contract, the Engineer will make final inspection of all the work and will make up a final estimate of the amount due to the Contractor under the terms of this Contract. At this time the Contractor shall file with the Director of Finance an affidavit stating that all bills have been paid in full for all materials, supplies and labor of every kind that have been furnished for this work, or stating the balance

due for such materials, supplies and labor (see sample at end of General Conditions). The Contractor shall file with the Village Engineer the Contractor's Declaration found at the end of the General Conditions, stating that all claims for extra payments have been satisfactorily settled and there will be no further claims. Consent of the Contractor's surety shall also be filed. The Engineer will then certify this estimate to the Village Director of Finance and the Contractor will be paid the amount of said estimate, less the amounts previously paid; excepting that the Village may, at its option, reserve such amount as it may deem necessary to meet the undischarged obligations of the Contractor for materials or labor expended upon this work until such obligation shall have been paid.

Article 17 - WARRANTY MAINTENANCE

If, at any time during a two-year period from the date of payment of the final estimate, the need of any repair or replacement becomes apparent, the Village will at once notify the Contractor in writing, either personally or by mail at the address given in the proposal; and if within one week after such notification the Contractor has not made the necessary repairs, the Village may proceed to do the required work and to charge the cost thereof against the Contractor, excepting that in the case of a repair necessary to be made at once to protect life and property, then and in that case the Village may take immediate steps to repair or barricade such defects without notice to the Contractor.

Following the performance of any such repair work by the Village, and as soon as practicable thereafter, an itemized statement of the cost of such work will be sent to the Contractor by the Village. In such accounting the Village shall not be held to obtain the lowest figures for the doing of the work or any part thereof, but all sums actually paid therefor shall be charged to the Contractor.

Article 18 - MICHIGAN NON-DISCRIMINATION STATUTE

It is agreed that the Contractor and their subcontractors will not 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 race, color, religion, national origin, age, sex, height, weight, or marital status; or because of a handicap that is unrelated to the individual's ability to perform the duties of a particular job or position. The Contractor further agrees to comply with the Village of Lake Orion Human Rights Ordinance and Title VI Non-Discrimination Plan; information may be found at [DEI & Title VI Compliance | Lake Orion, MI](#). Breach of this covenant may be regarded as a material breach of the Contract.

Article 19 - LABOR LAWS AND ORDINANCES

The Contractor shall obey and abide by all laws of the State of Michigan relating to the employment of labor on public work, and all the charter provisions and ordinances of the Village of Lake Orion regulating or in respect to public improvements.

Article 20 - PATENTS, PATENT RIGHTS, AND TRADEMARKS

The Contractor shall indemnify, protect, defend and save the Village of Lake Orion, including all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and their board members, employees, volunteers and others working on behalf of the Village, harmless against all claims or actions brought against the Village by reason of any actual or alleged infringement upon patent, trademark or service mark right in any article, material, process, machine or appliance used by him in this work.

Article 21 - WORK WITHIN RAILROAD, PRIVATE, STATE OR COUNTY RIGHTS-OF-WAY

All construction work within railroad, private, State or County highway rights-of-way shall be performed by the Contractor in accordance with the requirements of the rights-of-way agreement and of the railroad or highway department having jurisdiction; including procedures of excavating, backfilling, removing and replacing pavement, maintaining and safeguarding traffic, inspection procedures of jacking pipes and encasing pipes under railroads and highways, etc. All required construction permits and surety bonds shall be furnished by the Contractor before commencing work. At the conclusion of the work, the Contractor shall furnish a written statement from the railroads and highway departments that work in rights-of-way under their jurisdiction has been completed to their satisfaction.

Article 22 - PROTECTION AND SAFETY

22.1 Protection Against Accident

The Contractor shall put up and shall maintain during the continuance of the work such barriers, lights and other protective devices and watchmen, when necessary, as will effectively prevent any accident in consequence of their work, and they shall be liable for all accidents and damages occasioned in any way by their acts or neglect, or by the acts or neglect of their agents, employees, or workmen.

22.2 Responsibility for Damage to Work

The Contractor shall assume full responsibility for loss or damage to the work during the entire construction period resulting from caving earth and from storms, floods, frosts, and other adverse weather conditions, and from all other causes whatsoever not directly due to the acts or neglect of the Village, and shall turn the finished work over to the Village in good condition and repair at the time of the final estimate.

This responsibility of the Contractor shall cover all these elements included as extra work under this Contract in exactly the same manner as the regular work is covered.

22.3 Responsibility for Adjoining Structures

The Contractor shall have full responsibility for the protection of all property, driveways, buildings, fences, and other structures, and their foundations, along (or near) the line of the work, and shall indemnify, defend and save harmless the Village of Lake Orion, including all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and their board members, employees, volunteers and others working on behalf of the Village, against all damages or alleged damages to any such structure arising out of their work.

No driveway shall be entirely closed to travel, even temporarily, except with the written consent of the Engineer, previously obtained. Highways must be suitably posted during the period in which construction work is in progress in them, and the Contractor shall be responsible for this precaution. Suitable bridges must be built across trenches at highway crossings to facilitate travel, and this same requirement shall apply likewise to private roadways.

22.4 Responsibility for Water Courses

The Contractor shall maintain in continuous and effective service all drains and water courses touched during the progress of the work. If it should become necessary, temporarily, to divert or obstruct the flow of any such water course or drain, written consent must first be obtained from the Engineer, and the Contractor shall assume full responsibility for the consequences.

22.5 Responsibility for Utilities

Certain underground structures and utilities have been shown as an aid to the Contractor, but the Village does not guarantee their location or that other underground structures or utilities may not be encountered. It shall be the responsibility of the Contractor to make all arrangements with the owners of the respective utilities for the establishment of their location, prior to beginning the construction.

The Contractor shall assume full responsibility for the protection of all utilities, water, sewer, gas, telephone, or any other, either public or private, along or near the line of work, and will be held responsible for any damages to such utilities arising from their operations. If for the Contractor's convenience they desire that any portion of the utilities be moved to facilitate their operations, they shall make all necessary arrangements with the owner of the respective utilities, and pay all costs resulting from this work.

In cases where utilities, water, sewer, gas, telephone or any other, either public or private, are directly in the line of the structures being constructed, such as those being within the permissible limits of a sewer excavation or pavement excavation, and the Village deems it necessary that the said utility be moved, the said company or companies, agents or superintendents will be notified by the Village Engineer to remove the same within a specified time. The Contractor shall not interfere with said utility or any portion thereof until the expiration of the time specified in said notice. The Contractor will not be held responsible for any costs resulting from this work.

In all cases where there is a dispute between the Contractor and the owner of the respective utility as to necessity of moving or repairing same within Village-owned right of way, the Village Engineer shall make the final decision in the matter, which decision shall be binding on the respective parties, and order the respective parties to proceed accordingly.

22.6 Protection of Trees and Shrubbery

The Contractor shall take ample precautions to protect all trees and ornamental shrubbery from injury by work personnel, teams, or other agencies connected with their work. Such trees or shrubbery shall be surrounded by protective posts or fencing before construction work begins if, in the judgment of the Engineer, such precautions are necessary.

22.7 Protection of Reference Points

The Contractor shall carefully preserve monuments, bench marks, reference points and stakes and, in case of willful or careless destruction, they shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

22.8 Removal of Water

The Contractor shall provide all necessary pumps, pipes, drains, ditches, dikes, and other means for adequately protecting the work from damage by water, and he shall so protect it during the entire construction period. No direct payment will be made to the Contractor for removing or pumping water, or for any of the means employed in protecting the work against damage by water, but compensation therefor shall be considered as being included in the unit prices fixed in this Contract for the several structures.

Water pumped or delivered from trenches and excavations shall be disposed of in such manner as will not injure the public health, nor damage public or private property, nor injure any work complete or in progress.

22.9 Dust Control

The Contractor shall apply water or dust palliative, or both, for the alleviation or prevention of dust nuisance caused by their operations. Dust control operations shall be performed by the Contractor at the time ordered by the Engineer, but failure of the Engineer to issue such order will not relieve the Contractor of their responsibility.

Such dust control materials shall be applied as often as is necessary to control the dust. The use of road oils and waste oils to control dust is prohibited unless authorized by the Engineer.

No direct payment will be made for any such work performed or material used to control dust under this Contract.

22.10 Control of Noise

The Contractor shall eliminate noise to as great an extent as possible at all times. Air compressors shall be equipped with silencers, and the exhaust of all gasoline motors and other power equipment shall be provided with mufflers. In the vicinity of hospitals, libraries and schools, special precautions shall be taken to avoid noise and other nuisance, and the Contractor shall require strict observances of all pertinent ordinances and regulations. Any blasting permitted in such locations shall be done with reduced charges.

22.11 Erosion Control

The Contractor shall comply with all applicable requirements of Part 91, Soil Erosion and Sedimentation Control of the Natural Resources and Environmental Protection Act, 1994 PA 451 as amended by 1995 PA 60 and 1996 PA 173, MCL 324.9101 et. seq., for all PROJECT work performed under this contract. Also, should the local agency determine that the construction operation is in violation of the act and cites the Village, the Contractor shall take immediate action, as directed by the Village, to ensure compliance with the Act.

22.12 First Aid

The Contractor shall at all times provide a satisfactory first aid kit at the job site. Emergency phone numbers for police, doctors, and emergency vehicles shall also be kept in the first aid kit.

22.13 Ventilation and Safety in Gas

Positive and approved means shall be provided by the Contractor for the detection of gas in existing sewers. If gas is encountered and cannot be removed by natural ventilation, then ventilating equipment of sufficient capacity and suitable type to adequately and quickly dilute the gas shall be promptly installed and operated. In all work where gas is present, no flame or other open light shall be used on the work. The Contractor shall be required to enforce a "no smoking" ban on all work personnel present.

22.14 Sanitary Regulations

The Contractor shall provide for their employees an abundant and convenient supply of drinking water, taken from the Village water system or from some other safe and wholesome source, and shall give orders against the use for drinking purposes of any other water in the neighborhood known to be prejudicial to the health of the workers.

The Contractor shall provide at convenient points, properly secluded from observation, a sufficient number of sanitary conveniences, and shall maintain them strictly without nuisance and without offense to the public or to residents in the vicinity of the work. The number, location, character and conditions of maintenance of these utilities must at all times be such as will meet the approval of the Engineer.

Article 23 - "OR EQUAL" CLAUSE

Whenever, in any of the Contract Documents an article, material, or equipment is defined by describing a proprietary product or by using the name of a manufacturer or vendor, the term "or equal", if not inserted, shall be implied. The specific article, material or equipment mentioned shall be understood as indicating the type, function, minimum standard of design, efficiency and quality desired, and shall not be construed in such manner as to exclude manufacturers' products of comparable quality, design and efficiency. The Contractor shall comply with the requirements of the Contract Documents relative to an Owner's approval of material and equipment before they are incorporated in the work.

Article 24 - CLEANING UP

Upon completion of the actual work of construction, the Contractor shall clean up and leave in neat condition all the premises which they have occupied during the construction period. Before the time of the final estimate, the Contractor shall remove from the premises all surplus excavation, debris, and rubbish, and all unused materials, together with all tools and equipment, or shall deposit them at such points and in such manner as the Engineer may require.

Before leaving the grounds, they shall replace or put in good repair all fences, telephone poles and lines, roadways, and other property that may have been damaged by them during the progress of the work. Damage to crops within the limits of the right-of-way or street will be paid by the Village, but the Contractor must assume responsibility for all damages outside of this right-of-way.

Article 25 – USE OF COMPLETED PORTIONS OF THE WORK

The Owner may, at any time during the progress of the work, after written notice to the Contractor, take over and place in service any completed portions of the work which are ready for service, although the entire work of the Contract is not fully completed, and notwithstanding the time for completion of the entire work or such portions may not have expired. In such event, the Contractor will be relieved of maintenance of said portion, except as covered by his guarantee of same. The use of any portion of the work by the Owner under the provisions of this section, shall not constitute final acceptance of the work and shall not be construed to be a final estimate for such work, the date of final estimate shall be the date of final estimate for the entire project covered under this Contract.

Article 26 – CONTRACTOR’S RIGHT TO STOP WORK

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 them, or if the Owner should fail to pay to the Contractor within sixty days of its maturity and presentation any sum certified by the Engineer, provided no appeal is taken, the Contractor may, upon seven days' written notice to the Owner and the Engineer, stop work or terminate this contract, and shall receive from the Owner payment in full for all the work executed, as determined from the prices contained in the approved detailed estimate as computed by the Engineer, but no claim for extra compensation or damages shall be made or allowed because of such termination of the contract.

Article 27 – NO WAIVER OF CONTRACT

Neither acceptance of the whole or any part of the work by the Owner or their Engineer, or any of its agents, nor any order, measurements or certificate by the Engineer, nor any order by Owner for payment of money, nor any payment for the whole or any part of the work by Owner, nor any extension of time, nor any possession taken by the Owner or its agents, shall operate as a waive for any portion of the contract or any power therein provided; nor shall any waiver of any breach of contract be held to be a waiver of any other or subsequent breach.

Article 28 - PROGRESS SCHEDULE

The CONTRACTOR shall submit a Progress Schedule to the Village for review and approval prior to the pre-construction meeting.

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period of _____

to _____ A.D., 20 _____, performed any work, furnished any material, sustained any loss, damage or delay for any reason, including soil conditions encountered or created, or otherwise done anything for which I shall ask, demand, sue for, or claim compensation from the Village of Lake Orion or his agents, in addition to the regular items set forth in the contract named or numbered **2026 Street Improvements, Contracts A and B** and dated _____ A.D., 20 _____, for _____

executed between myself and the Village of Lake Orion, and in the Change Orders for work issued by the Village in writing as provided thereunder, except as I hereby make claim for additional compensation and/or extension of time as set forth on the itemized statement attached hereto.

There (is) (is not) an itemized statement attached.

Date: _____

By: _____

Title: _____

CONTRACTOR'S AFFIDAVIT

STATE OF MICHIGAN)

)SS

COUNTY OF)

The undersigned _____, hereby represents that on _____, he (it) was awarded a contract by the Village of Lake Orion, hereinafter called the Owner, to provide construction services in accordance with the terms and conditions of Contract **2026 Street Improvements, Contracts A and B** and the undersigned further represents that the subject work has now been accomplished and the said contract has now been completed.

The undersigned hereby warrants and certifies that all of his (its) indebtedness arising by reason of the said contract has been fully paid or satisfactorily secured; and that all claims from subcontractors and others for labor and material used in accomplishing the said project, as well as all other claims arising from the performance of the said contract, have been fully paid or satisfactorily settled. The undersigned further agrees that, if any such claim should hereafter arise he (it) shall assume responsibility for the same immediately upon request to do so by the Owner.

The undersigned, for a valuable consideration, the receipt of which is hereby acknowledged, does further hereby waive, release and relinquish any and all claims or right of lien which the undersigned now has or may hereafter acquire upon the subject premises for labor and material used in accomplishing said project owned by the Owner.

This affidavit is freely and voluntarily given with full knowledge of the facts, on this _____ day of _____ A.D. 20 ____.

Contractor: _____

By: _____

Title: _____

Subscribed and sworn and to before me, a Notary Public in and for _____ County, Michigan, on this day of _____ A.D. 20 ____.

Notary Public
My Commission expires: _____

VILLAGE OF LAKE ORION

NOTICE TO BIDDERS

JOB SITE SAFETY

1 of 1

NFE:WES

07/23/26

Neither the professional activities of the Engineer, nor the presence of the Engineer or its employees and consultants, shall relieve the Contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the work of construction in accordance with the Contract Documents and any health or safety precautions required by any regulatory agencies. The Engineer and its personnel have no authority to exercise any control over any construction Contractor or other entity or their employees in connection with their work or any health or safety precautions. The Contractor agrees that the Contractor is solely responsible for job site safety.

VILLAGE OF LAKE ORION

NOTICE TO BIDDERS

SITE VISITATION

1 of 1

NFE: WES

07/23/26

The Bidder is advised that it is expected that prior to submitting a proposal, each bidder will make a personal examination of the entire site of the proposed work. The Bidder is advised that locations feature limited public rights-of-way, narrow existing road widths, steep topography, and a long dead-end accessed via an existing bridge with potential weight limitation.

SUPPLEMENTAL SPECIFICATIONS

2026 STREET IMPROVEMENTS, CONTRACTS A AND B

[GENERAL](#)

[SCOPE OF THE PROJECT](#)

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[DEWATERING](#)

[STREET CLEANLINESS – DUST CONTROL – PROJECT CLEANUP](#)

SUPPLEMENTAL SPECIFICATIONS

GENERAL

All work performed under this Contract shall be constructed in accordance with, and by means and methods outlined in the **2020 Michigan Department of Transportation Standard Specifications for Construction** (MDOT 2020) except as otherwise modified herein.

The purpose of these Supplemental Specifications is to cover special items of work not covered elsewhere on the Contract Drawings or in the Standard Specifications, to correct conflicts which may exist in the Specification or to otherwise amend standard specifications and/or details. These Supplemental Specifications take precedence over all other parts of the Contract Documents, unless there is a Special Provision provided. The order of precedence for Contract Documents is:

1. Special Provisions
2. Supplemental Specifications
3. Project Construction Plans
4. Standard Plans and Details
5. Standard Specifications

SCOPE OF THE PROJECT

The scope of the work is to construct pavement and minor drainage improvements on Village-owned local roads in the south half of Section 2, west of M-24, in the Village of Lake Orion. Work is divided into two divisions, Contract A being partially funded through the State of Michigan Transportation Economic Development Fund and Contract B being wholly funded by the Village of Lake Orion.

The work to be performed under Contract A, totaling approximately ___ centerline feet, consists of:

- Hot mix asphalt paving and as needed storm sewer and underdrain along Clare Street from Lake Street southerly to end, along Axford Street from Lake Street to West Flint Street, and along Andrews Street from Lake Street to West Flint Street, including concrete curb ramps, structure adjustments, permanent pavement markings and riprap at south end of Clare Street.
- Hot mix asphalt base crushing, shaping and paving along Grove Street from Lake Street southerly to end, along North Shore Drive from Lake Street to West Church Street, and along Lake Street from Darling Drive westerly to end of road including drainage improvements and structure adjustments.
- Removing HMA surface and HMA overlay along West Flint Street from North Shore Drive to M-24 including drainage improvements, structure adjustments, permanent pavement markings;
- and all together with necessary related work.

The work to be performed under Contract B, totaling approximately ___ centerline feet, consists of:

- Hot mix asphalt base crushing, shaping and paving along Hill Street; Church Street and Shadbolt Street west of M-24; Beebe Street; S. Andrews Street south of Lake Street; N Andrews Street north of Flint Street; N. Axford Street north of Flint Street; and North Shore Drive north of Church Street, including drainage improvements, structure adjustments permanent pavement markings;
- and all together with necessary related work.

The Village of Lake Orion reserves the right to accept any bid, to reject any or all bids, and to waive any informality in any bid should it consider same to be in the best interest of the Village. The two Contracts may be awarded separately, if the Village considers it to be in the best interest of the Village.

SUPPLEMENTAL SPECIFICATIONS

UTILITY COORDINATION

The Contractor shall cooperate and coordinate construction activities with the Owners of utilities as stated in Section 104.08 of the 2020 MDOT Standard Specifications for Construction. In addition, for the protection of underground utilities, the Contractor shall follow the requirements in Section 107.12 of the 2020 MDOT Standard Specifications for Construction. Contractor delay claims, resulting from a utility, will be determined based upon Section 108.09 of the 2020 MDOT Standard Specifications for Construction.

The following public utilities may have facilities located within the right-of-way:

Electric - Distribution:	Telephone:
DTE Energy	AT&T
1530 Trombly Street	54 N. Mill Street
Detroit, MI 48211	Pontiac, MI 48342
Contact: Laura Toporowski 630-336-2020	Contact: Matt Silwa 248-877-0762
Gas:	Cable Television:
Consumers Energy	Comcast Cable
4600 Coolidge Hwy	25626 Telegraph Rd
Royal Oak, MI 48073	Southfield, MI 48033
Contact: Ernie Martyniuk 248-433-5868	Contact: Michael Marlow 248-809-2765
Water Main & Sanitary Sewer:	
Village of Lake Orion DPW	Oakland County W.R.C.
21 E. Church St.	1 Public Works Dr
Lake Orion, MI 48362	Waterford, MI 48328
Contact: Sam Hicks 248-693-8391 Ext. 106	Contact: Rick DeVisch 248-858-4939

Contractor shall contact MISS DIG at 1-800-482-7171 or 811 a minimum of three full working days, excluding Saturdays, Sundays, and holidays prior to beginning each excavation in areas where public utilities have not been previously located. Members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility Owners who may not be a part of the "Miss Dig" alert system.

The Owners of Public Utilities will not be required by the Village to move additional poles or structures in order to facilitate the operation of construction equipment unless it is determined by the Engineer that such poles or structures constitute a hazard to the public or are extraordinarily dangerous to the Contractor's operation.

Determining the existence and location of underground and overhead utilities and their protection shall be the responsibility of the Contractor. The structure and utility information shown on the plans indicate approximate locations and type of facilities as disclosed by the various utility company records. No guarantee is given or implied to the completeness or accuracy thereof.

There will be no compensation for delays in construction due to the failure of the Contractor to properly coordinate conflicts with utility companies.

PROGRESS CLAUSE and WORK HOURS

The Engineer anticipates that construction can begin no earlier than 10 calendar days after the Award or

SUPPLEMENTAL SPECIFICATIONS

as directed by the Engineer. Date of Award is dependent upon:

- Approval of Bid Tabulation and Engineer's recommendation of Award by Michigan Department of Transportation's Office of Economic Development, and
- Award of Contract by Village Council.

In no case shall any work commence prior to formal Notice of Award.

After Award and prior to the start of work, Contractor will be required to attend a preconstruction meeting and to submit a detailed Progress Schedule for approval by the Engineer. The progress schedule shall include, as a minimum, the starting and completion dates of all items of work, as well as the date the project is to be completed. The completion date for this project shall be one hundred twenty (120) calendar days from the effective date of the Notice to Proceed. The Contractor shall schedule their work such that no more than five (5) business days will elapse between major items of work. It is the intent of this provision that a continuous flow of operations will be maintained from start to finish.

Failure by the Contractor to meet the above requirements and dates will result in the Contractor being assessed liquidated damages in accordance with subsection 108.10.C.1 and Section 108.10.C.2. of the MDOT 2020 Standard Specifications for Construction.

Allowable work hours will be controlled by local ordinances and are from 7:00 AM to 7:00 PM. Work hours may only be extended with the prior approval of the Owner. No work shall be performed on Sundays and holidays, unless special permission is granted by the Owner.

PUBLIC AND PRIVATE UTILITIES

The Contractor must provide adequate protection for water, sewer, gas, telephone, TV, cable, fiber optics, drainage, or any other public or private utilities encountered. The Contractor will be held responsible for any damages to such utilities arising from his or her operation. When construction operations may impact existing drainage facilities, the Contractor shall make necessary provisions to maintain the integrity of the drainage facility and of flow. In all cases where permits or inspection fees are required by utilities in connection with changes to or temporary support of their conduits, the Contractor shall secure such permits and pay all inspection fees.

TREE REMOVAL & TREE PROTECTION

All trees shall be protected from damage during construction. Any tree or branch damaged by the Contractor during the progression of work shall be neatly trimmed and painted with an approved pruning dressing to prevent long-term damage. There will be no separate measurement and payment for all work required to protect trees and/or branches from damage, or to trim and dress those branches damaged during construction.

TRIMMING TREE ROOTS

Trees shall be protected from damage from the construction operations. In areas of repair where existing tree roots have caused the surface to uplift and where directed by the Engineer, the Contractor shall trim the tree roots to a level of 6" below the subbase of the pavement. Tree root trimming shall be done with a power root or stump grinder in a neat fashion so as to minimize damage to the tree. No tearing or breaking of the roots with power equipment or hand tools will be allowable. All neatly trimmed roots shall be swept clean and painted with an approved pruning dressing prior to final grading and pavement placement.

SUPPLEMENTAL SPECIFICATIONS

Payment of this item shall be included in **_Pavt, Rem, Modified**.

CONCRETE MIXTURE REQUIREMENTS

All concrete furnished on this Project for the miscellaneous concrete pavements, concrete curb and gutter, sidewalks, drive approaches and driveway shall be MDOT Grade P1, 6 sack with partial slag cement replacement unless otherwise noted.

Description: Provide Portland cement concrete mixtures for the project that are resistant to excessive expansion caused by alkali-silica reactivity (ASR). Materials shall comply with Division 9 of the 2020 Michigan Department of Transportation Standard Specifications for Construction.

FORMS

Forms shall be of wood or metal, straight and free from warp, and of sufficient strength to resist springing during the process of depositing concrete against them unless otherwise approved prior to construction. The forms shall be the full depth of the concrete. Gaps between forms, overlapping forms, or forms not providing a straight edge will not be accepted.

Fixed forms shall be firmly staked to the required line and grade. Sidewalk forms shall provide for a transverse slope of 1/4 inch per foot towards the roadway unless otherwise specified.

All form work and materials shall be considered included in the respective concrete pay item.

CURING

Within one (1) hour after finishing, the concrete shall be coated with a uniform layer of membrane curing compound. The curing compound shall be applied at the rate of one (1) gallon per 200 square feet of pavement or sidewalk. Membrane curing compound for curing concrete shall conform to the requirement of Section 903 of MDOT 2020. White compound shall be used on finish concrete. This work is considered to be included in the respective concrete pay item.

CURE TIME

The use of Ground Granulated Blast Furnace Slag (GGBFS) in concrete will retard the cure time. The Contractor can expect new concrete to take up to 7 days or more to reach the compressive strength required to open it to traffic. The Contractor shall take into consideration any additional time which may be required and adjust their bid prices accordingly. No additional compensation will be made, nor claim for time extension granted, on account of concrete cure time.

CONCRETE PROTECTION

It is the responsibility of the Contractor to protect the placed concrete from vandalism, traffic, or other markings or damage.

Contractor shall take such precautions as are necessary to protect the concrete from damage caused by rain.

If concrete is being poured when rain commences, the Contractor shall stop pouring immediately and cover all concrete placed during that working day.

SUPPLEMENTAL SPECIFICATIONS

If freshly placed concrete is rained on, the Engineer may retain sufficient funds for an adequate length of time to assure that no deterioration has resulted in the surface quality of the concrete, or take other measures they may deem necessary to assure a quality job. These measures may include the retention of the full value of the concrete in questions for a specified time, up to the duration of the Maintenance and Guarantee Bond, or the complete rejection of the damaged concrete and subsequent order to remove and replace same at no additional cost to the Owner.

Damaged concrete will be removed and replaced at no cost to the Owner. Epoxy, or other patching methods will not be accepted as a means of correcting these damages.

SOIL EROSION AND SEDIMENTATION CONTROL

Description: Prior to beginning any work, the Contractor shall provide and maintain throughout the duration of the project, soil erosion and sedimentation control (SESC) measures as provided in these specifications and accompanying drawings, or in the absence of specific requirements he shall provide soil erosion and sedimentation control measures in accordance with Part 91 of Act 451 of the Public Acts of 1994, as amended, and the Oakland County Soil Erosion and Sedimentation Control Program.

Soil erosion control measures shall be maintained by the Contractor weekly and at every storm event, within 24 hours.

Payment: Payment for these items shall be as described below. As is implied in the item description, this shall cover costs of labor, materials and equipment required to install, repair and maintain any SESC throughout the project duration as well as Contractor’s costs in securing the permit.

Pay Item	Pay Unit
Erosion Control, Inlet Protection, Fabric Drop	Each
Erosion Control, Silt Fence	Feet

DEWATERING

Any dewatering necessary to construct this project shall be considered incidental to the project. All costs for dewatering shall be included in the unit bid price for the affected work. The dewatering outlet shall be approved by the Project Engineer and the receiving property shall be protected from erosion.

STREET CLEANLINESS – DUST CONTROL – PROJECT CLEANUP

The Contractor shall clean and keep clean the street, the work area and public or private property occupied by him, from waste materials, refuse, mud, etc., resulting from his operations. Trucks hauling excavated materials, cement, sand, stone or other loose materials from or to the site shall be tight so that no spillage will occur on adjacent streets. Before trucks start away from the site, their loads shall be trimmed. Should the Contractor be negligent of his duties in maintaining the proper street cleanliness, the Owner will take necessary steps to perform such cleaning and shall charge the Contractor for all the costs.

Dust control shall be included as a part of the Project and shall mandate the use of calcium chloride, water wagons or power vacuums, or combinations of these efforts. Such dust control shall apply directly to the work site and any other thoroughfare used by the Contractor’s or his supplier’s hauling operations. The Owner, or Engineer, may direct that affected streets shall be power vacuumed once a day. Dust control measures will not be measured and paid for separately, in accordance with Section 107.15 of the 2020 MDOT Standard Specifications for Construction.

SUPPLEMENTAL SPECIFICATIONS

Contractor shall perform project cleanup as an ongoing operation, in accordance with Section 209 of the 2020 MDOT Standard Specifications for Construction. The cost of this work will be included in the contract unit price for other relevant pay items.

SPECIAL PROVISIONS

VILLAGE OF LAKE ORION 2026 STREET IMPROVEMENTS, CONTRACTS A AND B

[TRAFFIC CONTROL AND MAINTENANCE](#)

[MOBILIZATION](#)

[PAVEMENT REMOVAL, MODIFIED](#)

[TRENCH DRAIN](#)

[PLASTIC PIPE FOR STORM SEWER](#)

[ADJUSTING GATE VALVE STRUCTURES](#)

[AGGREGATE SHOULDER, MODIFIED](#)

[RESTORATION](#)

[AUDIO-VISUAL RECORDING OF THE CONSTRUCTION AREA](#)

[REIMBURSED PERMIT FEES](#)

[USE OF VILLAGE WATER](#)

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

TRAFFIC CONTROL AND MAINTENANCE

NFE: WES

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GENERAL

Traffic shall be maintained by the Contractor throughout the project in accordance with Section 104.07, 104.11, and 812 of the Standard Specifications for Construction, the 2011 Michigan Manual on Uniform Traffic Control Devices, as revised/amended, and any supplemental specifications in this proposal. The Contractor shall coordinate with MDOT in submitting for and procuring a ROW permit for traffic control signage to be located in the right-of-way of M-24 adjacent to the project CIA.

Notification: The Contractor shall submit a traffic control plan for approval by the Engineer in consultation with Village Administration and local emergency response agencies (police, fire). The Contractor shall notify the Village of Lake Orion Department of Public Works, the Village of Lake Orion Police Department, the Orion Township Fire Department, the Road Commission for Oakland County (RCOC), MDOT’s Oakland TSC, and other emergency response units at least 72 business hours before implementing any road closures, lane closures, detours, or major traffic shifts.

Construction Influence Area (CIA): The Construction Influence Area includes the following areas as applicable: Rights-of-way of W. Flint Street, W. Shadbolt Street, and W. Church Street all west of M-24; Lake Street, Grove Street, North Shore Drive, Clare Street, Axford Street, Andrews Street, Beebe Street and Hill Street; including rights-of-way to the furthest placed advanced construction warning signs, on all intersecting crossroads within and adjacent to the CIA limits. Work being performed is located within the Village of Lake Orion on Village-owned local streets, but temporary traffic controls and associated traffic impacts will affect public rights-of-way within the Village of Lake Orion and Orion Township as well as MDOT ROW for M-24.

Traffic Restrictions – General

Traffic restrictions shall be performed in accordance will applicable MDOT Traffic and Safety Maintaining Traffic Typical. Maintaining local traffic and emergency access within the Construction Influence Area shall conform to all requirements of the Village of Lake Orion Police Department and Orion Township Fire Department.

Equipment and material staging areas must be located within a public road right-of-way or other public property in proximity to the project limits. The Contractor must have prior approval of the Village Department of Public Works before staging areas may be utilized, and all equipment and materials shall be stored beyond the clear zone of the traveled roadway. Any additional signs or devices required to protect the motoring public from stored equipment or material will be at the Contractor’s expense.

Mail delivery services shall be maintained throughout construction including the use of temporary gang mailboxes. The cost for these temporary mailboxes shall be at the Contractor’s expense.

The Contractor shall implement all traffic maintenance, including lane closures, according to applicable MDOT Typical Traffic Control Typical, the suggested sequence and phasing of events, and the 2011

VILLAGE OF LAKE ORION
SPECIAL PROVISION FOR
TRAFFIC CONTROL AND MAINTENANCE

NFE: WES

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Michigan Manual on Uniform Traffic Control Devices (MMUTCD), and as subsequently revised/amended.

The Contractor shall maintain access to all businesses, homes and intersecting streets at all times, unless otherwise noted herein. Alternating business drives may be closed if a business has more than one drive that operates bi-directionally. No more than two consecutive side streets may be closed at a time, unless otherwise noted herein and/or as directed by the Engineer.

Traffic Restrictions – Phasing

The phasing of the work shall be implemented in general accordance with the narratives provided below:

Generally, the following streets and street segments must maintain one-way traffic, except for intervals not exceeding 15 minutes in duration, during standard working hours:

- North Shore Drive from W. Flint Street to northwestly end
- Axford Street from Flint Street to Church Street
- Andrews Street from Flint Street to Church Street
- Andrews Street from south dead end to Lake Street
- Lake Street from North Shore Drive to easterly end
- Flint Street

After standard work hours, two-way traffic must be provided at all times for

- North Shore Drive from Church Street to northwesterly end
- Andrews Street from south end to Lake Street
- Flint Street from Lake Street to M-24

The following streets and street segments may be completely closed to traffic during standard work hours, if correctly phased to allow access to and from adjacent side streets:

- Lake Street from west end to North Shore Drive
- Grove Street
- Clare Street
- S. North Shore Drive from Lake Street to Flint Street
- Axford Street from Lake Street to Flint Street
- Andrews Street from Lake Street to Flint Street
- Beebe Street
- W. Shadbolt Street
- W. Church Street
- Axford Street from Church Street to north end
- Hill Street

After standard work hours, one-way access at least must be restored for each of these streets.

The Contractor may be allowed to adjust his planned phasing and sequence after obtaining prior

VILLAGE OF LAKE ORION
SPECIAL PROVISION FOR
TRAFFIC CONTROL AND MAINTENANCE

NFE: WES

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approval by the Engineer upon consultation with Village Administration and local emergency response agencies (police, fire).

Measurement and Payment

Traffic shall be maintained throughout the project as described. All traffic control measures, such as plastic drums, type III barricades, and temporary signage shall be in accordance with the 2011 Michigan Manual on Uniform Traffic Control Devices (MMUTCD).

This item of work shall include preparing a traffic control plan for approval by the Village, maintenance of US mail delivery (temporary gang mailboxes), any and all traffic control and warning devices, and traffic regulators provided and/or rented to complete the proposed work. No consideration shall be given to any attempt or request to include any other items of work other than traffic control and warning devices. Procurement of a right-of-way permit from MDOT will be paid under **_Reimbursed Permit Fees.**

The Contractor shall furnish, erect, maintain and remove all traffic control devices, including lights, signs, plastic drums, lighted arrow boards (type B solar) and barricades required to protect the construction area and the public.

Measurement and Payment:

The cost of all work for warning signs, barricades, traffic control and warning devices, and traffic regulators shall be paid as:

Pay Item	Pay Unit
_Traffic Control and Maintenance	Lump Sum

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

MOBILIZATION

NFE: WES

1 OF 1

07/23/26

- a. **Description:** The item “Mobilization” shall consist of the costs of preparatory work and operations for the Project as outlined in Section 110 of the MDOT 2020 Standard Specifications for Construction and any other incidental project-specific costs that are not covered in other pay items. Each Bidder shall enter, in the “Unit Price” column of the Proposal, his Lump Sum bid amount for this item, up to a maximum amount equal to five percent (5%) of the Total Base Bid.
- b. **Materials:** None specified
- c. **Construction:** None specified
- d. **Measurement and Payment:** Payment for mobilization will be made as a lump sum amount. The bid amount for this item will be included in the first monthly payment to the Contractor.

Pay Item	Pay Unit
<u>Mobilization, Max 5%</u>	Lump Sum

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

PAVEMENT REMOVAL, MODIFIED

NFE: WES

1 OF 1

07/23/26

- a. **Description:** This work shall be done in accordance with Section 204 of the 2020 MDOT Standard Specifications, except as herein provided. Work includes Trimming Tree Roots as described in the Supplemental Specifications.
- b. **Materials:** None specified.
- c. **Construction:** Remove miscellaneous structures and materials as specified on the plans or as directed by the Engineer in accordance with Section 204 of the 2020 MDOT Standard Specifications, except as herein provided.
- d. **Measurement and Payment:** Payment for this contract item includes saw cutting, and removal/disposal of all unsuitable pavement and soil as described above and at the depth and locations noted on the plans or as directed by the Engineer. This item is also to include any tree root trimming necessary to install proposed pavement and base. Pay item shall include labor, materials and necessary equipment.

Pay Item	Pay Unit
_Pavt, Rem, Modified	Square Yard

Pavement Removal, Modified will be used for removal and disposal of existing material within the proposed limits to allow for the proposed pavement section to be constructed as noted on the plans or as directed by the Engineer, including sawcutting full depth and removal of integral curb and concrete pavement to allow construction of trench drain or replacement of heavily damaged sections of existing curb. Any damage to such structures not a part of the work shall be repaired and/or replaced at the Contractor's expense.

The existing base material and condition at Pavement Core B-7 is a mixture of broken concrete, aggregate and dirt contaminated with other materials. It is expected that areas requiring **_Pavt, Rem, Modified** will be exposed and clarified after completion of **HMA Surface, Rem** on Flint Street. Any suitable material that is removed may be salvaged, crushed and used as Aggregate Base or Aggregate Shoulder.

VILLAGE OF LAKE ORION
SPECIAL PROVISION FOR
TRENCH DRAIN, TYPE ____

NFE: WES

1 OF 1

07/23/26

- a. **Description:** This work consists of furnishing and installing a trench drain in accordance with manufacturer recommendations at the location(s) shown on the plans.
- b. **Materials:** The trench drain system shall consist of a nominal 5-inch-wide grate slotted into HDPE 6" diameter smooth interior corrugated pipe encased in concrete over the length shown on the plans. The system shall contain an end outlet w/ connection to the proposed 6-inch diameter outlet pipe as shown on the plans. The grate shall be made of coated ductile iron, shall be able to be bolted onto the frame, and shall be rated for HS-25 loading.
- c. **Construction:** The trench drain system shall be installed in accordance with manufacturer recommendations, including encasement within concrete where adjacent to other pavement replacement included for the project. Concrete encasement cross section shall be in accordance with detail Type 1 or Type 2 per Project details.
- d. **Measurement and Payment:** The completed work, as described, will be measured and paid for using the following pay item:

Pay Item	Pay Unit
_Trench Drain, Type ____	Foot

VILLAGE OF LAKE ORION
SPECIAL PROVISION FOR
PLASTIC PIPE FOR STORM SEWER

NFE: WES

1 OF 1

07/23/26

- a. **Description:** This work consists of furnishing and installing dual-wall smooth-lined corrugated plastic pipe (CPE) for storm sewer, and shall be completed in accordance with section 402 of the Standard Specifications for Construction, except as modified by this special provision.
- b. **Materials:** The materials shall meet the requirements specified in subsection 402.02 of the Standard Specifications for Construction.

Furnish High Density Polyethylene (HDPE) or Polyvinyl Chloride (PVC) pipe in diameter as specified on the plans and meeting minimum requirements for schedule 80 or equivalent.

- c. **Construction:** Work shall be performed as specified in subsection 402.03 of the 2020 Michigan Department of Transportation Standard Specifications for Construction, except that minimum cover requirements shall be in accordance with manufacturer recommendations and as shown on plans .
- d. **Measurement and Payment:** The completed work, as described, will be measured and paid for using the following pay item:

Pay Item	Pay Unit
<u>Sewer, CPE, 6 inch, Tr Det</u>	Foot

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

ADJUSTING GATE VALVE STRUCTURES

NFE: WES

1 OF 1

07/23/26

- a. **Description:** This work consists of adjusting the structure cover of water main system gate valves in paved areas.
- b. **Materials:** None specified.
- c. **Construction:** Construction will be in accordance with Section 403 of the MDOT 2020 Standard Specifications for Construction. Work will be the same as for **Dr Structure Cover, Adj, Case 1**.
- d. **Measurement and Payment:** The completed work, as described, will be measured and paid for using the following pay item:

Pay Item	Pay Unit
_Dr. Structure Cover, WM, Modified.....	Each

VILLAGE OF LAKE ORION
SPECIAL PROVISION FOR
AGGREGATE SHOULDER, MODIFIED

NFE: WES

1 OF 1

07/23/26

- a. **Description:** This work shall be done in accordance with Section 307 of the 2020 MDOT Standard Specifications, except as herein provided.
- b. **Materials:** Suitable material generated from **HMA Surface, Rem** on Flint Street or as identified in Section 307.
- c. **Construction:** For this project, trenching shall consist of removing vegetation (typically turf) to 2' back from the proposed edge of pavement; where adjacent material consists of existing aggregate or paved driveway aprons, no trenching will be required. Contractor shall properly dispose of stripped turf from trenching operations.

It is anticipated the average maximum thickness of aggregate shoulder will be 4" at the pavement edge for all streets treated with **HMA Base, Crushing and Shaping**, tapered to <1" at shoulder edge to match existing, approximately 2' from pavement edge. For Clare Street, Axford Street and Andrews Street in Contract A, it is anticipated the average maximum thickness of aggregate shoulder will be 2" at the pavement edge tapered to <1" at shoulder edge to match existing, approximately 2' from pavement edge.

Shoulder material shall be compacted in accordance with Section 307.

- d. **Measurement and Payment:** Payment for this contract item includes trenching as described above and constructing aggregate shoulders over trenched areas or existing aggregate surfaces. Pay item shall include labor, materials and necessary equipment, including loading and hauling crushed material from streets within the Contract A or Contract B project limits.

Pay Item	Pay Unit
_Shld, Cl __ , __ inch, Modified.....	Square Yard

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

RESTORATION

NFE: WES

1 OF 2

07/23/26

Restoration work shall be done in accordance with the Michigan Department of Transportation 2020 Standard Specifications for Construction, Section 816, except as modified herein:

- a. **Description:** Restoration shall consist of, but not be limited to, providing all labor, materials, and equipment necessary for the preparation of the foundation for placing topsoil, seeding, fertilizing and mulching all areas to be restored and the placement of seed, fertilizer, mulch and watering as required. Hydroseeding may be utilized at the discretion of the Contractor.
- b. **Materials:** Topsoil shall be screened and free of all rocks, roots, and foreign debris and shall meet the following requirements:
- It shall be fertile, friable, and representative of productive soils, capable of sustaining vigorous plant growth and shall be free of clay lumps, subsoil, weeds, or other foreign matter.
 - Acidity range shall be between pH 5.0 and 7.5.
 - Organic content shall be not less than 5% and not greater than 30%.
 - Clay content shall range between 5% and 25%.

All seed and fertilizer shall be supplied by the Contractor as part of the Project.

Seed

Name	Proportion	Purity	Germination
Baron Bluegrass	35%	95%	80%
Pennlawn Fescue	40%	97%	80%
Perennial Rye	25%	97%	90%

A statement of dealer guarantee of mixture, composition and purity, and germination percentages shall be furnished to the inspector. Weed content shall be 0.50 of 1%.

Fertilizer

Fertilizer shall be commercial, meeting the following chemical analysis: 20% nitrogen, 10% phosphorous, 10% potash, and shall conform to applicable fertilizing laws. It shall be delivered to the site in unopened containers that bear the manufacturer's statement of chemical analysis. Storage shall be in weatherproof locations to insure dryness and effectiveness. Verification of the amount of fertilizer placed must be provided to the Village in the form of tickets prior to placement.

- c. **Construction:** Restoration work includes placement of screened topsoil (3" depth), seed, fertilizer, and mulch at designated rates. Thoroughly water entire area upon initial placement. A minimum of two additional waterings as directed by the Engineer shall be required.

In general, restoration will be required in all areas disturbed by the Contractor's operations. All

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

RESTORATION

NFE: WES

2 OF 2

07/23/26

areas disturbed by the Contractor beyond the normal construction limits of the project shall be restored according to this special provision at the direction of the Engineer. No additional payment will be made for restoration beyond the normal construction limits.

Rates of Application: In those areas where restoration is required, the following rates of application will apply.

Topsoil.....	Screened.....	3 In
Seed.....		220 lb/Ac (5 lb/1000 sf)
Fertilizer.....	Chemical Fertilizer Nutrient, Class A.....	176 lb/Ac (4 lb/1000 sf)
Mulch.....	Mulch.....	2 Ton/Ac (90 lb/1000 sf)

- 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
Surface Restoration	Lump Sum

Acceptance: The Engineer will delay final acceptance of completed restoration work until the surface restoration is fully established. During this time, the Engineer will inspect the surface restoration at their discretion. The Engineer will not accept surface restoration if less than 90% of the surface restoration area is well established, weed free, growing, and contains the species required by the seeding mixture and will require the Contractor to replace defective areas.

The Engineer will not pay for corrective action required for delayed acceptance including removal and replacement of failed surface restoration.

Restoration work will be paid according to the following schedule:

Initial Placement: 80%
Final Acceptance: 100%

Water applications required to establish growth will NOT be paid for separately.

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

AUDIO-VISUAL RECORD OF THE CONSTRUCTION AREA

NFE: WES

1 OF 2

07/23/26

- A. The Contractor must be a video professional actively engaged in recording of construction routes, for various municipalities. Recordings of the job site must be completed and presented to the Village at the pre-construction meeting.
- B. To preclude the possibility of tampering or editing in any manner, all recordings must, by electronic means, display continuously and simultaneously generated transparent digital information to include the date and time of recording, as well as the corresponding engineering stationing numbers. The date information will contain the month, day and year. For example 5-11-24, and be placed directly below the time information. The time information shall consist of hours, minutes and seconds, separate by colons. For example 12:35:18. This transparent information will appear on the extreme upper left-hand third of the screen.

The engineering stationing numbers must be continuous, accurate and correspond to the project stationing and must include the standard engineering symbols. For example, 4 + 84. This transparent information must appear in the lower half of the viewing screen.

Below the engineering stationing, periodic transparent, alpha/numeric information will appear. This information will consist of the name of the project, name of area covered, direction of travel, viewing side, etc.

- C. Recorded coverage shall include all surface features located within the zone of influence of construction supported by appropriate audio description. Audio description shall be made simultaneously with video coverage. Such coverage shall include but not be limited to all existing driveways, sidewalks, curbs, ditches, roadways, landscaping, trees, culverts, headwalls, and retaining walls, or buildings located within such zone of influence.
- D. Recording will be in DVD format or other electronic format.
- E. Houses and buildings shall be identified visually and audibly by house number, when visible, in such a manner that structures of proposed system, i.e., manholes on a sewer system, and gate wells and hydrants on a water system can be located by references. In all instances however, location shall be identified by audio or visual means at intervals not to exceed 100 LF in the general direction of travel, and at each house repeating the number several times during coverage.
- F. The rate of speed in the general direction of travel of the conveyance used during recording shall not exceed 48 feet per minute. Panning rates and zoom-in rates shall be controlled sufficiently such that during playback will produce clarity of the object viewed.

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

AUDIO-VISUAL RECORD OF THE CONSTRUCTION AREA

NFE: WES

2 OF 2

07/23/26

- G. All recording shall be done during times of good visibility. No recording shall be done during periods of visible precipitation, or when more than 10% of the ground area is covered with snow, unless otherwise authorized by the engineer.
- H. The owner shall have the authority to reject all or any portion of the recording not conforming to specifications.
- I. The owner shall have the authority to designate what areas may be omitted or added for audio-video coverage.
- J. Areas which lie within the zone of influence of construction and which are accessible by conventional wheeled vehicles shall be recorded on both sides of the right-of-way, easement or street.
- K. In some instances, recording will be required in areas not accessible by conventional wheeled vehicles. Such coverage shall be obtained by walking or special conveyance approved by the project engineer.
- L. Should parked vehicles obscure the view of any portion of the area which would be disturbed by construction, the video professional will tape those areas by foot and include them at the end of the project videos obtained by wheeled means.

Measurement and Payment:

The cost of all work for all work for Audio-Visual Recording shall be paid as:

Pay Item	Pay Unit
_ Audio-Visual Record of the Construction Area.....	Lump Sum

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

REIMBURSED PERMIT FEES

NFE: WES

1 OF 1

07/23/26

- a. **Description:** This special provision describes the way the reimbursement for permit fees, as stated in section 107 of the Standard Specifications for Construction, will be paid.
- b. **Materials:** None Specified.
- c. **Construction:** None Specified.
- 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
_Reimbursed Permit Fees	Dlr

Reimbursed Permit Fees includes the reimbursement for the eligible permit fees with supporting receipts or other proof of payment documentation from the Contractor. Other costs associated with required permitting that are non-eligible for reimbursement include insurance, bonding (not associated with inspection fees), and general adherence to all permit conditions, which are included in other pay items and shall not be paid for separately. Below is a list of required permits for the project:

Oakland County Water Resources Commissioner - Soil Erosion Control Permit \$_____

Permit has been applied for. Permit must be secured by Contractor prior to start of construction, including submittal of any necessary insurance and bonding.

Michigan Department of Transportation, Oakland TSC – Right of Way Permit \$_____

Permit is required for all temporary traffic controls which will be required to be installed within the M-24 public right-of-way, including, but not limited to: placement of temporary traffic control devices. Permit must be secured by Contractor prior to start of construction, including submittal of any necessary insurance and bonding.

Village of Lake Orion DPW – Temporary Water Connection (no fee)

For bid comparison purposes, an estimated dollar figure has been included on the bid sheet. Actual permit fees will be verified as described above for payment.

VILLAGE OF LAKE ORION

SPECIAL PROVISION FOR

USE OF VILLAGE WATER

1 of 1

NFE: JCK
Revised: WES

03/07/2018
7/23/26

- a. **Description:** The water distribution system is owned by the Village of Lake Orion, and is available for use by the Contractor. The Contractor MUST apply for and have a permit for water use in the possession of the individual taking the water from the Village system. Unauthorized use will not be permitted. The Lake Orion Police have been instructed to halt unauthorized use of Village water.
- b. **Materials:** None specified
- c. **Construction:** Ensure connection to and use of Village water system are in compliance with Village DPW requirements. The Contractor is advised to contact the Village of Lake Orion DPW to ascertain the procedures for obtaining a permit and for metering the water usage.
- d. **Measurement and Payment:** The permit for water use is the Contractor's responsibility. Application and coordination with the Village is incidental to the project and shall not be paid for separately.

APPENDIX

Testing Engineers & Consultants, Inc.

Nowak & Fraus Engineers
48680 Van Dyke Avenue, Suite 200
Shelby Township, Michigan 48317

GEOTECHNICAL INVESTIGATION

FOR

Village of Lake Orion
2026 Pavement Program
C.I.P. Treatment Area "A"
Lake Orion, Michigan

TEC Report: 65596

By:

Testing Engineers & Consultants, Inc.
1343 Rochester Road
P.O. Box 249
Troy, Michigan 48099-0249
(248) 588-6200

March 23, 2026



60 Years

Testing Engineers & Consultants, Inc.

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www.testingengineers.com

Engineering Client Success

TEC Report: 65596
Date Issued: March 23, 2026

Ms. Wendy E. Spence, P.E.
Nowak & Fraus Engineers
48680 Van Dyke Avenue, Suite 200
Shelby Township, Michigan 48317

Re: Geotechnical Investigation For
Village of Lake Orion
2026 Pavement Program
C.I.P. Treatment Area "A"
Lake Orion, Michigan

Dear Ms. Spence:

Please find enclosed the results of a geotechnical investigation performed at the above referenced site. This geotechnical report presents our field and laboratory results; engineering analysis; and our recommendations for design of pavements, as well as important construction considerations.

As you may know, Testing Engineers & Consultants, Inc. (TEC) has sixty years of experience in Quality Control Testing and Construction Inspection. We would be pleased to provide these services on this project.

Should you have any questions regarding this report, please let us know. It has been a pleasure to be of service to you.

Respectfully submitted,

TESTING ENGINEERS & CONSULTANTS, INC.

Carey J. Suhan, P.E.,
Vice President & Principal

CJS
Enclosure

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CONSULTING ENGINEERS & FULL-SERVICE PROFESSIONAL TESTING AND INSPECTION
OFFICES IN ANN ARBOR, DETROIT, AND TROY
FOUNDED IN 1966



Testing Engineers & Consultants, Inc.

Ms. Wendy E. Spence, P.E.
Nowak & Fraus Engineers
March 23, 2026

TEC Report: 65596

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APPENDIX

TEST BORING LOCATION PLAN

LOGS OF TEST BORINGS

SIEVE ANALYSIS RESULTS

PHOTOGRAPHS OF CORES

GENERAL NOTES FOR SOIL CLASSIFICATION

Testing Engineers & Consultants, Inc.

Ms. Wendy E. Spence, P.E.
Nowak & Fraus Engineers
March 23, 2026

TEC Report: 65596

1.0 INTRODUCTION

This report presents the results of a geotechnical investigation for the proposed pavement rehabilitation of seven streets in the Village of Lake Orion. Authorization to perform this investigation was given by Ms. Carol Thurber, P.E. through a signed copy of TEC Proposal 060-25-369 on February 10, 2026.

The purpose of this investigation was to obtain information necessary to determine basic engineering properties of soils at the site through a series of test borings and laboratory tests performed on the soil samples obtained during the field investigation. This information has been evaluated to provide the general recommendations for pavement requirements and other geotechnical information.

2.0 FIELD INVESTIGATION

Ten test borings were drilled on the site at the locations shown on the Test Boring Location Plan. The locations are accurate to within a short distance of the locations shown on the location plan included in the appendix. The test borings were located as follows:

Boring No. 1	403 North Shore Drive
Boring No. 2	116 North Shore Drive
Boring No. 3	Church Street, North of 175 North Axford Street
Boring No. 4	84 North Axford Street
Boring No. 5	West Shadbolt Street, 90' West of Beebe Street
Boring No. 6	325 West Flint Street
Boring No. 7	176 West Flint Street
Boring No. 8	Lake Street, 70' West of South Andrews Street
Boring No. 9	152 South Andrews Street
Boring No. 10	440-450 North Shore Drive

The test borings were drilled on February 24, 2025, with truck-mounted auger equipment to a depth of 5 feet below the existing grade.

Drilling methods and standard penetration tests were performed in general accordance with the current ASTM D1452 and D1586 procedures, respectively. These procedures specify that a standard 2-inch O.D. split-barrel sampler be driven by a 140-pound hammer with a free fall of 30 inches. The number of hammer blows required to drive the split-barrel sampler through

Testing Engineers & Consultants, Inc.

Ms. Wendy E. Spence, P.E.
Nowak & Fraus Engineers
March 23, 2026

TEC Report: 65596

2.0 FIELD INVESTIGATION (Cont'd)

three successive 6-inch increments is recorded on the Test Boring Log. The first 6-inch increment is used for setting the sampler firmly in the soil and the sum of the hammer blows for the second and third increments is referred to as the "Standard Penetration Index" (N). N values were obtained with an automatic trip hammer.

From the standard penetration test a soil sample is recovered in the liner sampler tubes that are located inside the split-barrel sampler. Upon recovery of a soil sample, the liner tubes are removed from the split-barrel sampler and placed in a container which is sealed to minimize moisture losses during transportation to the laboratory. Standard penetration tests are usually made at depths of 2 ½, 5, 7 ½ and 10 feet and at 5-foot depth intervals thereafter. These parameters may vary for a given project depending on the nature of the subsoils and the geotechnical information required.

In addition, pavement cores were taken at the boring locations using a diamond-tipped core barrel. The thicknesses of the cores are shown on the boring logs in the appendix. Photographs of the cores are also included in the appendix.

3.0 LABORATORY TESTING

The laboratory testing consisted of determining the unconfined compressive strength, the natural bulk density and the natural moisture content of the soil samples recovered in the liner sampler tubes. In the unconfined compression tests, the compressive strength of the soil is determined by axially loading a soil sample until failure is observed or 15% strain, whichever occurs first. The above referenced test data are recorded on the boring logs. Some test results may deviate from the norm because of variations in texture, imperfect samples, presence of pebbles and/or sand streaks, etc. The results are still reported although they may not be relevant.

The particle size distribution of eleven granular soil samples was also determined. The distribution provides soil classification information, subgrade support parameters, and estimates of the permeability and permeability-related behavior of the granular soils. The results are included in the appendix.

In addition to the above tests, the Atterberg Limits of one fine-grained soil sample were determined. The Atterberg Limits are water contents at which cohesive fine-grained soils

Testing Engineers & Consultants, Inc.

Ms. Wendy E. Spence, P.E.
Nowak & Fraus Engineers
March 23, 2026

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3.0 LABORATORY TESTING (Cont'd)

change behavior. They are used for soil classification, and they have been correlated to several important engineering properties of a soil. As such, they can be used to obtain inexpensive estimates of fine-grained soil behavior. The Atterberg Limits are included on the corresponding boring log shown in the appendix.

Samples taken in the field are retained in our laboratory for 60 days and are then destroyed unless special disposition is requested by the client. Samples retained over a long period of time are subject to moisture loss and are then no longer representative of the conditions initially encountered.

4.0 GENERAL SUBSURFACE CONDITIONS

4.1 Subsoil Conditions

The soil conditions encountered in the borings are presented on the individual boring logs. Each log presents the soil types encountered at that location as well as laboratory test data, ground water data, and other pertinent information. Descriptions of the various soil consistencies, relative densities and particle sizes are given in the Appendix. Definitions of the terms and symbols utilized in this report may be found in ASTM D653.

North Shore Drive

The HMA pavement thickness ranged from approximately 2 to 3 inches at Boring Nos. 1, 2, and 10.

At Boring No. 1, the pavement was underlain by frozen brown gravelly medium to fine sand fill with some silt extending to a depth of approximately 14 inches. This was followed by dense, frozen, moist brown fine sand fill with trace amounts of gravel and clay to a depth of 3 feet. From 3 feet to the terminating depth of 5 feet, the soils consisted of firm, moist brown clay fill containing some silt and sand.

At Boring No. 2, the pavement was underlain by moist dark brown medium to coarse sand and gravel fill extending from 3 inches to 10 inches below the pavement surface. From 10 inches to 3 feet, the soils consisted of medium compact, moist brown fine sand fill with trace amounts of clay and gravel. From 3 feet to the terminating depth of 5 feet, the soils consisted of loose, moist brown fine sand fill.

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Nowak & Fraus Engineers
March 23, 2026

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4.1 Subsoil Conditions (Cont'd)

At Boring No. 10, the pavement was underlain by medium compact, moist brown fine sand fill containing some gravel and clay to a depth of 3 feet. From 3 feet to the terminating depth of 5 feet, the soils consisted of soft, moist brown clay fill with some silt and trace amounts of gravel.

Church Street

The HMA pavement thickness was approximately 3¼ inches at Boring No. 3. The pavement was underlain by moist dark brown gravelly medium to fine sand fill with some silt extending to a depth of approximately 11 inches. From 11 inches to 3 feet, the soils consisted of compact, frozen brown fine sand fill with some clay and trace amounts of gravel. From 3 feet to the terminating depth of 5 feet, the soils consisted of loose, moist brown fine sand fill.

North Axford Street

The HMA pavement thickness was approximately 3 inches at Boring No. 4. The pavement was underlain by moist dark brown gravelly medium to fine sand fill with some silt extending to a depth of approximately 11 inches. From 11 inches to 3 feet, the soils consisted of medium compact, moist brown fine sand fill. From 3 feet to the terminating depth of 5 feet, the soils consisted of loose, moist brown fine sand fill with some clay and trace amounts of gravel.

West Shadbolt Street

The HMA pavement thickness was approximately 3¾ inches at Boring No. 5. The pavement was underlain by moist dark brown medium to coarse sand and gravel fill extending to a depth of approximately 11 inches. From 11 inches to 3 feet, the soils consisted of firm, moist brown clay fill with some silt. From 3 feet to the terminating depth of 5 feet, the soils consisted of plastic, moist brown clay fill with some silt.

West Flint Street

The HMA pavement thickness was approximately 3¾ inches at Boring No. 6. The pavement was underlain by concrete extending to a depth of approximately 12¾ inches. Underlying this was medium compact, moist brown fine sand fill with some clay and trace amounts of gravel to a depth of 3 feet. From 3 feet to the terminating depth of 5 feet, the soils consisted of loose, moist brown fine sand fill.

The HMA pavement thickness was approximately 3¼ inches at Boring No. 7. The pavement was underlain by broken concrete extending to a depth of approximately 10 inches.

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March 23, 2026

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4.1 Subsoil Conditions (Cont'd)

Underlying this was medium compact, moist brown fine sand fill with some clay and trace of gravel to a depth of 3 feet. From 3 feet to the terminating depth of 5 feet, the soils consisted of loose, moist brown fine sand fill.

Lake Street

The HMA pavement thickness was approximately 3¼ inches at Boring No. 8. The pavement was underlain by moist dark brown gravelly medium to fine sand fill with some silt extending to a depth of approximately 9 inches. From 9 inches to 3 feet, the soils consisted of compact, frozen brown and dark brown sand fill with some clay and gravel. From 3 feet to the terminating depth of 5 feet, the soils consisted of loose, moist brown fine sand fill.

South Andrews Street

The HMA pavement thickness was approximately 3½ inches at Boring No. 9. The pavement was underlain by moist dark brown gravelly medium to fine sand fill with some silt extending to a depth of approximately 9 inches. From 9 inches to 3 feet, the soils consisted of medium compact, moist brown fine clayey sand fill with some gravel. From 3 feet to the terminating depth of 5 feet, the soils consisted of loose, moist brown sand fill with trace amounts of gravel.

Standard penetration values range from 5 to 54 blows per foot with unconfined compressive strength of 580 to 2,880 pounds per square foot (psf). Bulk densities range from 100 to 141 pounds per cubic foot with moisture contents of 5 to 21 percent of the dry weight of the soil.

4.2 Ground Water Observations

Water level readings were taken in the bore holes during and after the completion of drilling. These observations are noted on the respective Test Boring Logs. Ground water was not encountered during drilling or upon completion of drilling and removal of the augers in any of the borings.

5.0 ANALYSIS AND RECOMMENDATIONS

5.1 Proposed Project

The proposed project consists of the rehabilitation of seven streets as part of the Village of Lake Orion 2026 Pavement Program, located within C.I.P. Treatment Area "A". The treatment methods being considered include overlay (1.5" to 2"), mill and overlay (1.5" to 2"), edge milling with overlay, and crush and shape with full depth overlay (4") for the worst sections.

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5.2 Ground Water Conditions

The position of water levels found in test borings may vary somewhat depending on seasonal precipitation. At the level encountered in the borings, it should present no significant problems for design or reconstruction of pavements. Any surface or seepage water in excavations to remove unsuitable soils can be removed by directly pumping from low points in the excavation.

5.3 Recommended Earthwork Operations

At Boring No. 10 on North Shore Drive, the pavement thickness was only 2 inches. At the other streets paved with HMA, the pavement thickness was 3 to 3.8 inches.

At Boring Nos. 2 and 5, the material beneath the HMA pavement consisted of approximately 7 inches of medium to coarse sand and gravel fill with thicknesses of 7 inches. The material closely resembles a 21AA aggregate base but is too fine passing the ½ inch sieve.

At Boring Nos. 1, 3, 4, 8, and 9, the material beneath the pavement consisted of moist brown gravelly medium to fine sand fill with some silt, with thicknesses ranging from approximately 5.5 to 11 inches. This material cannot be classified as an adequate aggregate base, as it does not comply with MDOT 21AA requirements. In addition, the silt content of 19 percent is outside acceptable limits.

At Boring Nos. 6, 7 and 10, the material beneath the pavement consisted of approximately 2 to 2.8 feet of medium compact, moist brown fine sand with some clay and a trace to some gravel. At Boring Nos. 6 and 7 this was underlying concrete pavement. This material cannot be classified as an adequate aggregate base under the HMA at Boring No. 10.

Where undercuts are made, the subgrade below the pavement cross section at Boring No. 7 is sand with some clay. This boring is on W. Flint Street. The moisture content at the time of drilling was several percentage points above the anticipated optimum moisture content. Where the moisture contents are high, the subgrade will likely fail under proofroll or construction traffic. Any areas that exhibit excessive yielding and pumping during proofrolling should be stabilized by aeration, drying and compaction if weather conditions are favorable, or if not, by removal and replacement of the unstable materials with compacted engineered fill. At the other borings, the subgrade is loose to compact fine sand with some clay and trace of gravel or clayey sand. The moisture contents at the time of drilling were generally slightly below to a few percentage points above the anticipated moisture contents. The subgrade should remain stable under proofroll operations and construction traffic.

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5.3 Recommended Earthwork Operations (Cont'd)

Engineered backfill required for construction excavations or fill required to achieve desired grades should preferably consist of clean and well graded granular soils. The on-site granular materials generally contain a significant amount of silt and/or clay and should be used for balancing and grading the site. Fill should be placed in uniform layers not more than 9 inches in thickness with the soils in each layer compacted to MDOT requirements. Fill should be at approximately the optimum moisture content during placement and compaction. Furthermore, frozen material must not be used as fill and fill should not be placed on frozen ground.

5.4 Pavement Recommendations

The streets are primarily residential. They are narrow, two-lane roads, with the exception of Flint Street. Flint Street consists of two lanes plus parallel parking on each side. Flint Street has a concrete curb, and the north end of N. Shore Drive has concrete curb and gutter.

The pavement is in fair to poor condition. At all of the streets there are longitudinal and transverse cracks. In many areas there is alligator cracking or fatigue distress. N. Shore Drive appears to have more fatigue cracking than the other streets. Based on our findings, the existing HMA pavement thickness appears to be relatively thin at most locations, which has likely contributed to its deterioration and failure over time. The underlying aggregate base generally consists of fine to coarse sand with varying amounts of silt and gravel. In addition, the fill contains relatively high percentages of silt and clay. It has likely become contaminated with silt and clay particles over time and should not be considered an adequate base.

Milling and edge milling of the existing asphalt could be considered. However, milling would need to include the entire HMA cross section due to its thin profile. A conventional overlay could also be performed, however raising the pavement surface by approximately 2 inches would require adjustment of driveways, manholes, and other existing structures. Furthermore, reflective cracking would likely occur soon after placement of the overlay. If an overlay is considered, full-depth repairs of the fatigue cracking areas would be required.

The crush and shape process would be a viable option particularly where the aggregate base is somewhat suitable which is generally along all the streets with the exception of W. Flint Street. In this process, the existing asphalt is ground or crushed, compacted and covered with multiple layers of HMA. This process with a 4 inch HMA surface will restore the pavement for approximately a 15 year design life. However, this again would entail the adjustment of driveways and manholes.

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March 23, 2026

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5.4 Pavement Recommendations (Cont'd)

In the area of Boring No. 10, which is located in a low area near the west end of N. North Shore Drive and is understood to hold water, the asphalt pavement is only 2 inches thick with no distinct aggregate base, so we recommend total reconstruction. Alternatively, if grades could be raised sufficiently, it could be overlaid to create more of a full-depth HMA pavement. Again, with any overlay, reflective cracking would occur.

At Boring Nos. 6 and 7, which are located on W. Flint Street, the HMA pavement is underlain by 8.5 and 6.3 inches of concrete. The concrete was broken up at Boring No. 7. We recommend that the HMA pavement be removed above the concrete and replaced with new asphalt pavement. At Boring No. 7, where the concrete pavement is broken, we recommend total reconstruction (total removal of HMA and concrete pavement).

At Boring Nos. 7 and 10, and any other areas of total reconstruction, the following section is recommended for reconstruction.

- 2 inch bituminous concrete top course (MDOT 5EL2)
- 2 inch bituminous concrete leveling course (MDOT 4EL)
- 10 inches untreated aggregate (MDOT 21AA)
- Expected design life – 20 years

For any overlays, the same top course and leveling course may be used.

For the above the top course mix, the percentage of reclaimed asphalt pavement (RAP) should be limited to 20 percent.

Air entrained MDOT P1 grade concrete with partial slag cement replacement is recommended for new curb and gutter, mainline pavement at intersections and drive approaches or miscellaneous flatwork. If a high-performance concrete pavement is desired, MDOT P1M concrete is recommended. TEC recommends that the proposed concrete mixes effectively mitigate the potential for ASR reactivity utilizing a combination of methods such as partial slag cement substitution, use of low alkali Portland cement, and verification testing of the ASR expansion potential of the proposed fine aggregates and/or combinations of cementitious materials.

The pavement should be properly crowned and shaped in order to provide effective surface drainage and prevent water ponding. A 1.5 percent minimum slope is recommended. Edge drains along the perimeter of the pavement and finger drains around catch basins are recommended to prevent water from infiltrating the subgrade. All drains should be connected to storm sewer or other outlets.

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Nowak & Fraus Engineers
March 23, 2026

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5.4 Pavement Recommendations (Cont'd)

The pavement recommendations presented above are intended to provide a serviceable pavement for an extended period of time. However, all pavements show deterioration with time and require regular maintenance such as occasional repairs of cracks and pot holes. The need for such maintenance efforts is not necessarily indicative of premature pavement failure.

The serviceable life of the pavement can be substantially reduced if maintenance and minor repair is not performed in a timely manner.

6.0 DESIGN REVIEW AND FIELD MONITORING

The evaluations and recommendations presented in this report relative to site preparation and existing pavements have been formulated on the basis of assumed and provided data relating to the location, type and finished grades for the proposed pavement and adjacent areas. Any significant change in this data should be brought to our attention for review and evaluation with respect to the prevailing subsoil conditions.

When the plans are finalized, a consultation should be arranged with us for a review to verify that the evaluations and recommendations have been properly interpreted.

Soil conditions at the site could vary from those generalized on the basis of test borings made at specific locations. It is therefore recommended that Testing Engineers & Consultants, Inc. be retained to provide soil engineering services during the site preparation and pavement phases of the proposed project. This is to observe compliance with the design concepts, specifications and recommendations. Also, this provides opportunity for design changes to be made in the event that subsurface conditions differ from those anticipated prior to the start of construction.



Spencer N. Litvin
Staff Engineer



Gary E. Putt, P.E.
Senior Project Engineer



Carey J. Suhan, P.E.
Vice President & Principal

SNL/GEP/CJS

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Testing Engineers & Consultants, Inc.

Ms. Wendy E. Spence, P.E.
Nowak & Fraus Engineers
March 23, 2026

TEC Report: 65596

APPENDIX

Test Boring Location Plan

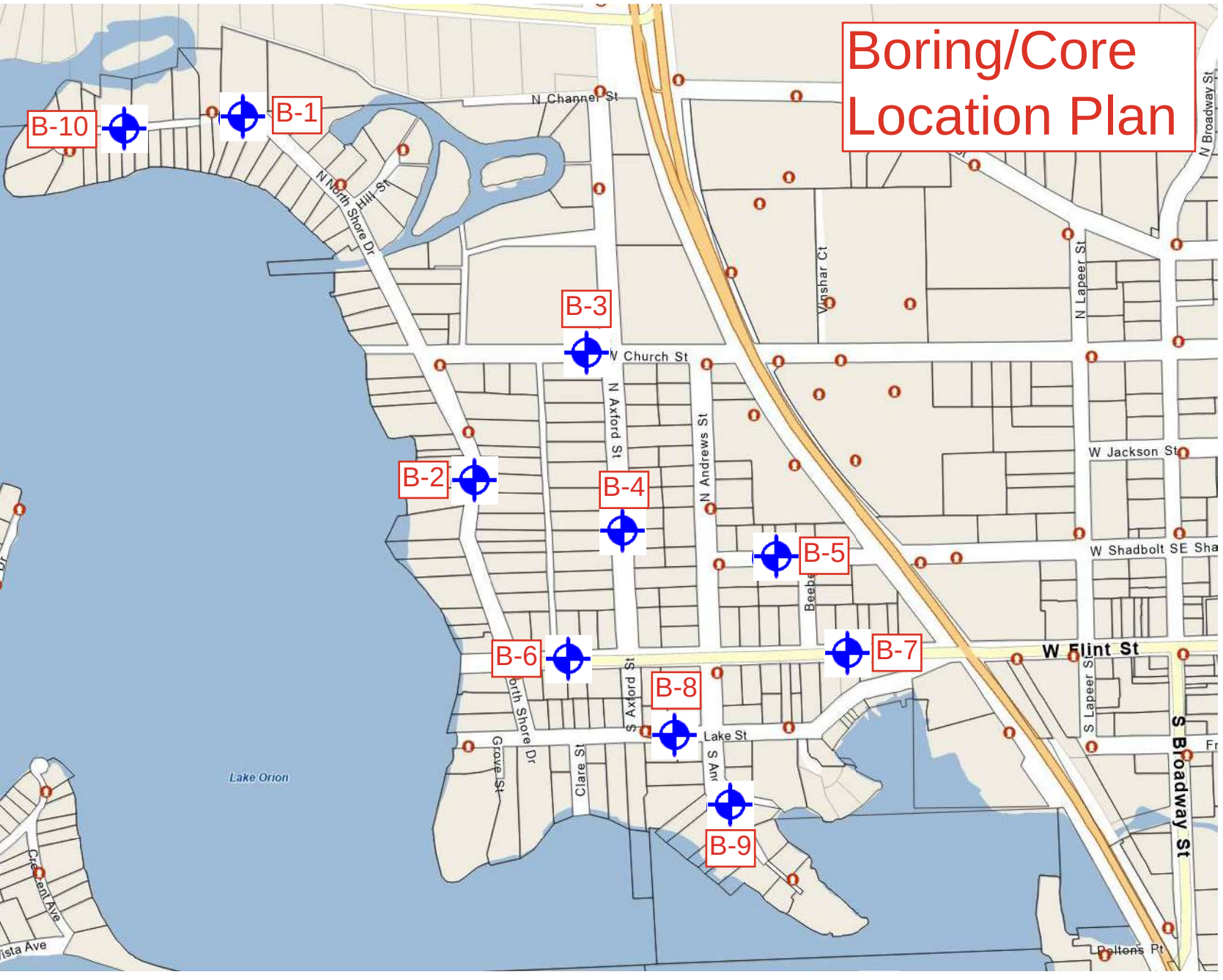
Logs Of Test Borings

Sieve Analysis Results

Photographs Of Cores

General Notes For Soil Classification

Boring/Core Location Plan





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 Fax (248) 588-6232

Boring No.: 1

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	31 38 16	.25 1.17 3	ASPHALT (3") Frozen Brown Gravelly Medium To Fine Silt-FILL	6.9	123	
5.0	LS	4 5 7	5	Dense Frozen Moist Brown Fine Sand With Trace Of Clay & Gravel-FILL Firm Moist Brown Clay With Some Silt & Sand-FILL	11.2		
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" I.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push
 RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 1



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Boring No.: 2

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	5 8 8	.25 .83 3	ASPHALT (3") Moist Dark Brown Medium To Coarse Sand & Gravel-FILL (7")	6.5	103	
5.0	LS	3 4 4	5	Medium Compact Moist Brown Fine Sand With Trace Of Clay & Gravel-FILL Loose Moist Brown Fine Sand-FILL	9.1	111	
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
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 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push
 RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 2



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Boring No.: 3

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	13 20 24	.27 .92 3	ASPHALT (3 1/4") Moist Dark Brown Gravelly Medium To Fine Sand With Some Silt-FILL (7 3/4")	11.6	100	
5.0	LS	4 3 4	5	Compact Frozen Brown Fine Sand With Some Clay & Trace Of Gravel-FILL Loose Moist Brown Fine Sand-FILL	4.5		
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

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LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

w - H₂O, % of dry weight
d - Bulk Density, pcf
qu - Unconfined Compression, psf
DP - Direct Push
RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 3



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Boring No.: 4

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	8 11 11	.25 .92 3	ASPHALT (3") Moist Dark Brown Gravelly Medium To Fine Sand With Some Silt-FILL (8")	11.2		
5.0	LS	3 3 2	5	Medium Compact Moist Brown Fine Sand-FILL Loose Moist Brown Fine Sand With Some Clay & Trace Of Gravel-FILL	10.8	125	
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" I.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push
 RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 4



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Boring No.: 5

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	6 8 9	.31 .92 3	ASPHALT (3 3/4") Moist Dark Brown Medium To Coarse Sand & Gravel-FILL (7 1/4")	14.2	125	2880
5.0	LS	3 5 7	5	Firm Moist Brown Clay With Some Silt-FILL Plastic Moist Brown Clay With Some Silt-FILL LL=20 PL=14 PI=6	10.7	137	1480
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" I.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push
 RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 5



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Boring No.: 6

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
0.0			.31				
0.31			1.06	ASPHALT (3 3/4")	8.8	109	
2.5	LS	4 7 12	3	CONCRETE (9")			
5.0	LS	2 3 3	5	Medium Compact Moist Brown Fine Sand With Some Clay & Trace Of Gravel-FILL	4.9	100	
5.0				Loose Moist Brown Fine Sand-FILL			
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" I.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push
 RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 6



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Boring No.: 7

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	8 10 9	.27 .83 3	ASPHALT (3 1/4") Broken CONCRETE (6 3/4")	12.7	138	990
5.0	LS	3 3 4	5	Medium Compact Moist Brown Fine Sand With Some Clay & Trace Of Gravel-FILL Loose Moist Brown Fine Sand-FILL	11.7		
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" I.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push
 RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 7



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Boring No.: 8

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	11 9 31	27 .75 3	ASPHALT (3 1/4") Moist Dark Brown Gravelly Medium To Fine Sand With Some Silt-FILL (5 3/4")	8.7		
5.0	LS	5 8 8	5	Compact Frozen Brown & Dark Brown Sand With Some Clay & Gravel-FILL Loose Moist Brown Fine Sand-FILL	7.1		
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance

SS - 2" I.D. Split Spoon Sample

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ST - Shelby Tube Sample

AS - Auger Sample

w - H₂O, % of dry weight

d - Bulk Density, pcf

qu - Unconfined Compression, psf

DP - Direct Push

RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 8



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Boring No.: 9

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	7 9 8	3	ASPHALT (3 1/2") Moist Dark Brown Well Graded Sandy Gravel With Trace Of Silt-FILL (5 1/2")	8.4		
5.0	LS	3 3 4	5	Medium Compact Moist Brown Fine Clayey Sand With Some Gravel-FILL Loose Moist Brown Sand With Trace Of Gravel-FILL	9.0		
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
SS - 2" I.D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

w - H₂O, % of dry weight
d - Bulk Density, pcf
qu - Unconfined Compression, psf
DP - Direct Push
RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 9



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1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249

(248) 588-6200 or (313) T-E-S-T-I-N-G

Fax (248) 588-6232

Boring No.: 10

Job No.: 65596

Project: Village of Lake Orion 2026 Pavement Program, C.I.P. Treatment Area "A"

Client: Nowak & Fraus Engineers

Location: Lake Orion, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Started: 2/24/2026

Ground Surface Elevation:

Completed: 2/24/2026

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.17	ASPHALT (2")			
2.5	LS	4 6 6	3	Medium Compact Moist Brown Fine Sand With Some Gravel & Clay-FILL	11.7		
5.0	LS	2 3 5	5	Soft Moist Brown Clay With Some Silt & Trace Of Gravel-FILL	13.1	141	580
7.5				Bottom of Boring at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" I.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push
 RC - Rock Core

Water Encountered: None

At Completion: None

Boring No. 10

Testing Engineers and Consultants, Inc.

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Respectfully Submitted:
Testing Engineers and Consultants, Inc.

AGGREGATE ANALYSIS					
Sieve No.	Total Weight Retained	Total Percent Retained	Total Percent Passing	Specification Range	SAMPLE DATA
3"					Initial Sample Weight (g) 236.0
2-1/2"					Weight After Wash (g) 197.3
1-1/2"					Loss in Weight (g) 38.7
1"					Loss by Wash (%) 16.4%
3/4"		0.0	100.0		
1/2"	5.7	2.4	97.6		
3/8"	5.7	2.4	97.6		
#4	10.7	4.5	95.5		
#10	18.8	8.0	92.0		
#20	31.3	13.3	86.7		
#30	38.1	16.1	83.9		
#40	50.3	21.3	78.7		Tested By: N. Piotrowski
#100	154.9	65.6	34.4		Reviewed By: Tousif Siddiqui
#200	197.3	83.6	16.4		
Total Sample	236.0	100.0	0.0		
Test Method: ASTM C117/C136 X AASHTO T11/T27 MTM 108/109					
Remarks:					
Respectfully Submitted Testing Engineers and Consultants, Inc.					

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Photograph #1: Core No. 1



Photograph #2: Core No. 2

	Testing Engineers and Consultants, Inc. 1343 Rochester Road Troy, MI 48083	Village of Lake Orion 2026 Pavement Program C.I.P. Area "A"	TEC Project #: 65596	Core Photographs (1 of 5)
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Photograph #3: Core No. 3



Photograph #4: Core No. 4

 Testing Engineers and Consultants, Inc. 1343 Rochester Road Troy, MI 48083	Village of Lake Orion 2026 Pavement Program C.I.P. Area "A"	TEC Project #: 65596	Core Photographs (2 of 5)
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Photograph #5: Core No. 5



Photograph #6: Core No. 6

 Testing Engineers and Consultants, Inc. 1343 Rochester Road Troy, MI 48083	Village of Lake Orion 2026 Pavement Program C.I.P. Area "A"	TEC Project #: 65596	Core Photographs (3 of 5)
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Photograph #7: Core No. 7



Photograph #8: Core No. 8

 Testing Engineers and Consultants, Inc. 1343 Rochester Road Troy, MI 48083	Village of Lake Orion 2026 Pavement Program C.I.P. Area "A"	TEC Project #: 65596	Core Photographs (4 of 5)
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Photograph #9: Core No. 9



Photograph #10: Core No. 10

	Testing Engineers and Consultants, Inc. 1343 Rochester Road Troy, MI 48083	Village of Lake Orion 2026 Pavement Program C.I.P. Area "A"	TEC Project #: 65596	Core Photographs (5 of 5)
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Testing Engineers & Consultants, Inc.

Ms. Wendy E. Spence, P.E.
Nowak & Fraus Engineers
March 23, 2026

TEC Report: 65596

SOIL DESCRIPTIONS

In order to provide uniformity throughout our projects, the following nomenclature has been adopted to describe soil characteristics:

CONSISTENCY AND RELATIVE DENSITY

COHESIVE SOILS			GRANULAR SOILS	
UNCONFINED COMPRESSIVE STRENGTH, PSF	"N" VALUES	CONSISTENCY	"N" VALUES	RELATIVE DENSITY
Below 500	0 – 2	Very Soft	0 – 4	Very Loose
500 – 1,000	3 – 4	Soft	5 – 10	Loose
1,000 – 2,000	5 – 8	Plastic	11 – 30	Medium Compact
2,000 – 4,000	9 – 15	Firm	31 – 50	Compact
4,000 – 8,000	16 – 30	Stiff	50+	Dense
8,000 – 16,000	31 – 50	Ex. Stiff		
Over 16,000	51+	Hard		

Material Types By Particle Size

BOULDERS

COBBLES

GRAVEL

COARSE SAND

MEDIUM SAND

ASTM D2487

Stones Over 12" In Diameter

Stones 3" To 12" In Diameter

#4 To 3" Diameter

#10 To #4 Sieves

#40 To #10 Sieves

Testing Engineers & Consultants, Inc.

Ms. Wendy E. Spence, P.E.
Nowak & Fraus Engineers
March 23, 2026

TEC Report: 65596

SOIL DESCRIPTIONS (Cont'd)

Material Types By Particle Size

FINE SAND

SILT

CLAY

PEAT

MARL

SWAMP BOTTOM DEPOSITS

ASTM D2487

#200 To #40 Sieves

Minus #200 Sieve Material,
Fairly Non-Plastic, Falls Below
"A"-Line

Minus #200 Sieve Material Plastic
Material That Has A Tendency To
Stick Together, Can Be Rolled
Into Fine Rods When Moistened;
Falls Above "A"-Line

Black Organic Material
Containing Partially Decayed
Vegetable Matter

Fresh Water Deposits Of Calcium
Carbonate, Often Containing
Percentages Of Peat, Clay
& Fine Sand

Mixtures Of Peat, Marl,
Vegetation & Fine Sand
Containing Large Amounts Of
Decayable Organic Material