

**Contract Documents For
Township of Copley
Copley Township Parking Lot Construction**

February 2023

Prepared by:



520 South Main Street, Suite 2531
Akron, Ohio 44311
Phone (330) 572-2100
Fax (330) 572-2101

BID OPENING

COPLEY TOWNSHIP PARKING LOT CONSTRUCTION BID OPENING

Copley Township will be hold a public bid opening on Friday, February 24th at 10:00 AM at Copley Town Hall, 1540 S. Cleveland-Massillon Road, Copley, OH 44321.

Copley Township is seeking bids related to the construction of a public parking lot on land leased from Copley-Fairlawn Middle School. Copies of construction documents can be shared with any interested party by contacting Copley Township at 330-666-0108 or visiting Copley Town Hall.

CERTIFICATE OF OWNER' S FISCAL OFFICER

Date: _____

ATTEST:

I, Linda Peiffer, Fiscal Officer, of the Township of Copley, hereby certify that money to finance this Contract has been appropriated for the purpose of the construction from those funds allocated to the COPLEY TOWNSHIP PARKING LOT CONSTRUCTION. At present these funds are in the accounts of the Township of Copley established for the construction of this project. Funds totaling the amount of this contract are present in these amounts as of this date and are free from encumbrances.

Township of Copley

INFORMATION FOR AND INSTRUCTIONS TO BIDDERS

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INFORMATION FOR AND INSTRUCTIONS TO BIDDERS

Note: The information and requirements set forth in "Information For and Instructions To Bidders" are neither inclusive nor exclusive and a bidder shall not claim lack of notice because information or requirements are stated in the body of the Contract or specifications and not included herein.

Information as to time and place of receiving proposals, the requirements of the bidders' bid bond or certified check, the methods of obtaining Contract Documents and other pertinent facts is given in the Advertisement for Bids bound herein.

1. SITE VISIT

All bidders shall visit the site for the purpose of reviewing the conditions and to resolve any questions in the bid documents.

2. GENERAL

- a) Each bidder shall review the "Information For and Instructions to Bidders" general conditions, specifications, drawings and addenda in order to assume the responsibility of complying with all requirements.
- b) Each bidder shall visit the site to become familiar with existing conditions and the limitations and peculiarities under which this work will be performed. Failure to make this examination of the site will in no way relieve any Contractor from the necessity of furnishing materials or performing labor necessary and required to complete the work with the true intent of the drawings and specifications. No adjustments in the Contract will be made based on insufficient data or incorrect assumptions in regard to the nature, conditions or character of this work to be done under this Contract.
- c) The Contractor shall assume all risks resulting from any damages and claims which may arise from this Contract and shall "hold harmless" the Owner and Engineer from such claims and damages.

3. TECHNICAL DIVISION OF SPECIFICATIONS

Unless otherwise noted, construction materials and methods shall comply with the latest edition of the Ohio Department of Transportation (ODOT) Construction and Material Specifications, and all applicable OSHA requirements set forth for this type of construction.

4. PROPOSALS

Sealed proposals for this work will be received at the Office of the Copley Township Fiscal Officer, Copley Township Administrative Office at 1540 S. Cleveland-Massillon Road, Copley, Ohio 44321, until 10:00 a.m., local time of the day set in the Advertisement for Bids at which hour the bids will be publicly opened and read. Each proposal must contain the full name of the party or parties making the proposal and of all persons interested therein.

No withdrawal or modification of the proposal will be permitted after it has been submitted.

Prices shall be entered in the space provided in the Form of Proposal in the Project Manual.

Failure to have performed satisfactorily any Contract previously awarded to the bidder by the owner be considered sufficient cause for the rejection of the bid. Persons bidding for the first time must submit written documentation proving sufficient financial and performance capabilities.

The proposal, with all papers contained therein, must be deposited unmutilated and without any change in the items or conditions which are stipulated in the proposal. This requirement shall not operate to debar a bidder from filing with the submitted proposal a separate statement of any desired effect, which statement will be considered on its merits. Exceptions must be listed separately and will be evaluated as such.

Signature to Proposal - If the bid is made by a firm or partnership, the name and place of residence of each member of the firm or partnership must be given. If made by a corporation, the person signing shall state under the laws of what state the corporation was chartered and the same and title of officer, or officers, having authority under the by-laws or regulations to sign contracts. Anyone signing a proposal as agent must file with it legal evidence of authority to do so.

5. AFFIDAVITS

Each bidder who is a foreign corporation, that is, a corporation not chartered in Ohio but licensed to do business in Ohio, is required to submit with the bid an affidavit duly executed by an authorized officer of the corporation stating that said corporation has, in accordance with the Provisions of the Revised Code of the State of Ohio, obtained a certificate authorizing it to do business in the State of Ohio.

Each bid shall be accompanied by a properly executed non-collusion affidavit using the form provided in the documents.

6. BID GUARANTY AND CONTRACT BOND

Each proposal shall be accompanied by an approved Bid Guaranty in accordance with Section 153.571 of the Ohio Revised Code. The Bid Guaranty shall be in the form of a bond in the sum of 100% of the amount of the bid, or a certified check, cashier's check, or letter of credit payable to the Copley Township, Ohio in the sum of 10% of the total amount of the bid. If the bidder is awarded the Contract and subsequently fails to enter into the Contract and fails to furnish the required documents within ten (10) days after notice of acceptance of the proposal is made, the Bid Guaranty shall be forfeited and the bonding company liable for a sum equal to ten percent (10%) of the total amount of the bid.

Where the Bid Guaranty is in the form of a certified check, cashier's check, or letter of credit, the bidder shall, after notice of acceptance of the proposal is made, and at the time of entering into the Contract, provide a Contract Bond in the sum of 100% of

the amount of the Contract for the faithful performance and completion of the contract.

The bond shall be executed by a satisfactory surety, guaranty or trust company or companies, authorized to do business in the State of Ohio and having an Ohio agent with authority to execute said bond. The bonding company shall furnish a copy of Power of Attorney, bearing the seal of the particular type of bond to be furnished.

The sufficiency of the security offered shall be determined by the Owner and in the event such is declared unsatisfactory by the Owner, the Contractor shall immediately furnish a new bond meeting the Owner's requirements.

7. CHANGES DURING BIDDING

During the bidding period, bidders may be furnished an addendum for changes, interpretation, or alterations of the plans and specifications. These changes or corrections, if any, shall be included in the work covered by the bid and shall become a part of the Contract Documents.

If any prospective bidder is in doubt as to the true meaning of any part of the plans or specifications or any other Contract Documents, the bidder may submit to the A & E a written request for an interpretation.

Any interpretation of the plans and specifications or Contract Documents will be made by addenda, copies of which will be mailed or delivered to each prospective bidder who has obtained a copy of the Contract Documents.

The Owner will not be responsible for any other interpretation. Failure of the bidder to receive any addenda or interpretations shall not relieve the bidder of any responsibility as all such addenda shall be on file in the office of the Owner and the A & E. In addition, addenda may be obtained from eblueprint.com. No addenda will be issued in the last three (3) calendar days immediately preceding the bid due date.

8. CERTIFICATE OF APPROPRIATIONS

The Contract, or any agreement subsidiary thereto, shall not be binding or of any force unless the Owner shall endorse thereon a certificate that there remains unexpended or in the process of collection and unapplied, an appropriation or fund applicable thereto and sufficient to pay the estimated expenses of completing this Contract or subsidiary agreement, as certified by the officers making the same.

9. COMPARISON OF PROPOSALS AND BASIS OF AWARD

The award will be based on a comparison of the relative merits of each offering. The Owner reserves the explicit right to select the successful bidder on the basis of the lowest and/or best bid considering the pertinent factors. Each bidder is invited to include with the proposal such additional information or data as the bidder may desire to substantiate the quality and merits of the offering. "Front loading" or unbalanced bids may be rejected. Bid award will be based on the Base Bid Grand Total.

10. NOTICE OF AWARD AND CONTRACT

Award and execution will be made as soon as practical following the date on which the proposals are opened. Failure to award and execute a Contract within this time will invalidate the entire bid procedures and all bids submitted, unless the time for awarding and executing the Contract is extended by mutual consent of the Owner, or the Owner's representative, and the bidder whose proposal the Owner accepts and with whom the Owner subsequently awards and executes a Contract. The best bid and Bid Guaranty will be retained until a Contract is signed.

Notification of award will be sent to the successful bidder at which time the bidder will have ten (10) days to enter into a Contract.

If the successful bidder is a corporate body the bidder shall furnish at the time of execution of the Contract a resolution of the directors of the corporation, sealed with the corporation seal, and authorizing the officer signing to execute the Contract on behalf of the corporation. A copy of the above documents shall be attached to each copy of the Contract.

11. SUBCONTRACTORS LIST AND OTHER MANUFACTURERS

With the proposal, each bidder shall submit a list of Subcontractors that the bidder intends to employ on the work together with pertinent qualifications thereof.

With the proposal, each bidder shall submit a list of components and devices, other than incidental hardware, etc., which the bidder intends to use as part of the equipment and which is not of the bidders own manufacturer.

This list shall be considered as part of this proposal and shall not be subject to change except with the consent of the Owner.

12. NOTICE TO PROCEED

The Contractor, after execution of the Contract and upon request, is entitled to a notice to proceed from the Owner or the Owner's representative.

13. DOCUMENTS

The following documents are required with the proposal:

- a) Bidders Qualifications (BQ-1 thru BQ-3)
- b) Form of Proposal (including signature sheet with acknowledgment of addenda) (FP-1 thru FP-3)
- c) Bid Guaranty and Contract Bond (BG-1 thru BG-3 or B-1)
- d) Non-Collusion Affidavit (NC-1)
- e) Personal Property Tax Affidavit (Tax-1)
- f) Affidavit of authority to do business in the State of Ohio (FC-1)

- g) Subcontractor List (SUB-1)
- h) Material and Equipment List (ME-1)
- j) Completed State EEO Forms (EEO-1)

The following additional documents are required prior to the Owner executing the Contract:

- a) Contract (C-1 thru C-3)
- b) Contract Performance Bond including power of attorney, certificate of authority to do business in Ohio for Bonding Company, and financial statement for Bonding Company. (PB-1)
- c) Labor and Materialman's Bond (LM-1 thru LM-3)
- d) Certificate of Insurance
- e) Workman's Compensation Certificate

The Contract shall be executed in duplicate.

14. TIME OF COMPLETION / WORK LIMITATIONS

The Owner requires the work in this Contract to be completed in accordance with the following schedule and conditions:

All construction work is to be started within 30 days of the issuance of the Notice to Proceed and substantially completed by within 60 of the contractor beginning work. Any work required with weather limitations, such as seeding and mulching and asphalt, is to be completed by 60 days after Notice to Proceed. Contractor must work continuously to minimize the duration of construction.

Refer to the Maintenance of Traffic requirements in the plans.

Liquidated Damages as specified in the Form of Proposal shall be paid by the Contractor for each and every day of delay beyond the time stipulated in the proposal, including any interim completion dates.

15. BIDDERS QUALIFICATION

The bidder shall submit with their proposal, satisfactory evidence of qualifications and experience showing that they have a practical knowledge and experience record for the project as specified. Only those bidders having adequate financial and performance experience, in the opinion of the Engineer, shall be considered, and the Engineer's judgment shall be final. Experience and qualifications shall include evidence of the following:

- a) Show complete and satisfactory evidence of experience in the fabrication and installation of the work as specified.
- b) No bid will be considered from any bidder that is not actively engaged in the fabrication and installation of the items of work specified in the project.
- c) Subcontractors shall also list their experience and qualifications under "Bidders Qualifications".

16. STANDARDS-SUBSTITUTIONS

With the proposal, each bidder shall submit a list of any substitution of devices, component parts, or materials which the bidder proposes for consideration where such device, component part or material is not specified.

17. WAGES

"Prevailing Wages" are required on this project. Bidder shall obtain current prevailing wage rates from the State of Ohio Department of Commerce, division of labor & Worker Safety, Wage and Hour Bureau. A certified payroll report which clearly identifies the hourly wage, the overtime wages and fringe benefits paid shall be submitted with pay requests.

18. PAYMENT

Payment shall be based on the percentage of work completely installed and approved in accordance with the Contractor's bid prices and schedule of values. The Contractor will be paid for the actual quantity of items installed per the plans. Items described by "as-directed" and quantities beyond the plan quantities must be pre-approved prior to installation. **Lien waivers will be required for all subcontractors and suppliers prior to the release of the retainer and final payment.**

BIDDER'S QUALIFICATIONS
(PROVIDE COPY FOR EACH SUB-CONTRACTOR)

The signatory of this proposal guarantees the truth and accuracy of all statements and of all answers to interrogatories hereinafter made.

1. How many years have you been in business as a General Contractor under your present business name?
2. How many years have you been a principal officer of a general contracting firm under another name?
3. What projects of a similar nature has your organization completed?

(Note: Fill out each blank completely)

Name of Owner and Location	Name and Phone Number of person in Responsible Charge as Reference	Class of Work	Amount of Contract	Date of Completion

BIDDER'S QUALIFICATIONS
(PROVIDE COPY FOR EACH SUB-CONTRACTOR)

1. Have you, or your Company, or any organization of which you have been a responsible officer or agent, ever failed to complete any work awarded to you? If so, where and why?
2. The work awarded or to be awarded will have the personal supervision of whom? Attach resume.
3. Explain approximately your plan and layout for performing the proposed work.

BIDDER'S QUALIFICATIONS
(PROVIDE COPY FOR EACH SUB-CONTRACTOR)

1. What equipment do you own that is available for the proposed work?

Quantity	Description Size, Capacity, Etc.	Condition	Years of Service

1. At what places are the principal items of the equipment located?

Signature

Date

CONTRACT FORM OF PROPOSAL

COPLEY TOWNSHIP - COPLEY CIRCLE PARKING LOT

INSTRUCTIONS: Please complete the BID SCHEDULE legibly using ink pen. The BIDDER shall complete the UNIT COST and TOTAL COST prices for all items in the BID SCHEDULE. For UNIT PRICE ITEMS the TOTAL shall be equal to the QUANTITY multiplied by the UNIT COST. The amount bid for each item shall be based on the completely installed cost of each item including ancillary fittings, testing, inspection, surface restoration, materials, and labor as per plan and as required to provide complete installation or operating systems as appropriate.

Item Number	Description	Quantity	Unit	Unit Cost	Total Cost
Site Prep and Earthwork					
1	Clearing, Grubbing, Ballfield Removal	1	LS		
2	Earthwork	1	LS		
3	Stump Removal	6	EA		
4	Fence Removal	120	LF		
5	Strip, Stockpile, and re-spread of topsoil	1360	CY		
6	4" Pipe Removal	170	LF		
7	Catch Basin Removal	1	EA		
8	Full Depth Sawcut	45	LF		
9	Butt Joint	450	SF		
10	Subgrade Compaction	3725	SY		
				Subtotal	
Erosion Control					
11	Silt Fence	410	LF		
12	Seeding and Stabilization	1	LS		
13	SWPPP Maintenance	1	LS		
				Subtotal	
Drainage					
14	Underground Storage	1	LS		
15	8" PVC SDR 26 Pipe	285	LF		
16	24" CMP Pipe	55	LF		
17	Yard Drain	1	EA		
18	ODOT 2-2B Catch Basin	2	EA		
19	Outlet Control Structure	1	EA		
20	Adjust Existing Rim to Grade	2	EA		
				Subtotal	
Pavement					
21	304 - Aggregate Base - 8"	776	CY		
22	441 - Asphalt Concrete Intermediate Course - 3" (Drive and Parking Area)	294	CY		
23	441 - Asphalt Concrete Surface Course - 1.5"(Drive and Parking Area)	145	CY		
24	441 - Asphalt Concrete Surface Course - 1.5" (Overlay Area)	15	CY		
25	441 - Asphalt Concrete Intermediate Course - 1.5" (Overlay Area)	15	CY		
26	204-Subgrade Removal and Replacement with ODOT 304 as directed	60	CY		

27	407 - Tack Coat	750	GAL		
28	Portland Cement Concrete Pavement, 4000 psi 5"	10	SY		
29	304 - Aggregate Base - 4"	2	CY		
30	Crushed Aggregate	100	CY		
				Subtotal	
Landscape & Site Fixtures					
31	Proposed 6' Fence and Gate	390	LF		
32	ADA Signage	2	EA		
33	Bollard	11	EA		
34	Pavement Marking	1	LS		
35	One Way Signage	1	EA		
36	Landscaping	1	LS		
				Subtotal	
Incidentals					
37	Survey Layout	1	LS		
38	Maintenance of Traffic	1	LS		
39	Mobilization	1	LS		
40	Parking Lot Lighting Design Build	1	LS		
				Subtotal	
	Contingency		LS		\$ 40,000
Project Total					
Grand Total in Writing					

Project award will be based on the lowest and best bid as determined by Copley Township. Criteria utilized to rank the bids includes, but not limited to: price, previous work experience with Copley Township, references, and bidders qualifications.

**FORM OF PROPOSAL
TOWNSHIP OF COPLEY
COPLEY TOWNSHIP PARKING LOT CONSTRUCTION**

*** * * * * PLEASE INITIAL AND ACKNOWLEDGE RECEIPT OF ADDENDA * * * * ***

Addendum No.	Initial:	Addendum No.:	Initial:
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

The undersigned further agrees to commence work within ten (10) days from the date of Notice to Proceed from the Owner that such work can be started, and to proceed with all possible energy and dispatch in giving preference to such portions of the work as the Owner may require, in order to comply with all of the terms of the Contract within agreed time frame. Failure to complete this work within the agreed time frame, including any interim completion dates, shall require the contractor to forfeit and pay liquidated damages to the Owner in the amount of \$500.00 per day for each and every day beyond the stipulated time.

(Signature in writing of the bidder or bidders or authorized officer or agent with business address.)

	Company

	Authorized Signature Date
Witness _____	Name _____
Date _____	Title _____
	Address _____

	Email _____
	phone _____

BID GUARANTY FORM 2
CONSENT OF SURETY

(To be completed only if certified check or cashier's check is used)

(Name of Surety Company)

(Address)

KNOW ALL MEN BY THESE PRESENTS, that we _____
(Name of Bidder)

as Principal and _____, and having its principal office at _____

_____ are held firmly bound unto the Township of Copley,
Ohio

(Complete Address of Surety Company)

hereby jointly and severally and binding our heirs, successors, administrators, executors, legal
representatives and assigns by these presents.

THE CONDITIONS OF THIS OBLIGATION are such that whereas the above named Principal submits the
herewith proposal for construction of the project titled "COPLEY TOWNSHIP PARKING LOT
CONSTRUCTION" in conformance with the Information for and Instructions to Bidders, we the above named
Surety, will meet all the stipulations and will execute the Surety Bond as hereinafter, to the above named
Principal in event he should be awarded a contract and in the amount of one hundred percent (100%) of the
total bid price for performing the work and guaranteeing its performance in conformity with the plans and
specifications to the Township of Copley, Ohio.

WITNESS OUR SIGNATURES, this ____ day of _____ 20__.

ATTEST:

Witness

(Contractor - Principal)

Signature

Seal

ATTEST:

Witness

(Title)

(Name of Surety Company)

(Signature)

BID GUARANTY AND
CONTRACT BOND

(Section 153.571 Ohio Revised Code)
(Used if 10% Bid Guaranty Check is not Submitted)

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned

(Name and Address)

as Principal and _____

(Name of Surety)

_____ as Surety, are hereby held and firmly bound unto the
Township of Copley and Summit County, hereinafter called the Obligee, in the penal sum
of the dollar amount of the bid submitted by the Principal to the Obligee on

to undertake the project known as: _____

The penal sum referred to herein shall be the dollar amount of the Principal's bid to
the Obligee, incorporating any additive or deductive alternate proposals made by the
Principal on the date referred to above to the Obligee, which are accepted by the Obligee.
In no case shall the penal sum exceed the amount of

_____ Dollars (\$_____)

**(If the above line is left blank, the penal sum will be the full amount of the Principal's
bid, including alternates. Alternatively, if completed, the amount stated must not be less
than the full amount of the bid, including alternates in dollars and cents. A percentage is
not acceptable.)** For the payment of the penal sum well and truly to be made, we hereby
jointly and severally bind ourselves, our heirs, executors, administrators, successors and
assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above named principal has submitted a bid on the above referred project:

NOW THEREFORE, if the Obligee accepts the bid of the Principal and the Principal fails to enter into a proper Contract in accordance with the bid, plans, details, specifications and bills of material; and in the event the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid and such larger amount for which the Obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event the Obligee does not award the Contract to the next lowest bidder and resubmits the project for bidding, the Principal will pay the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission of printing new contract documents, required advertising and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be void, otherwise to remain in full force and effect. If the Obligee accepts the bid of the Principal and the Principal within ten days after the awarding of the Contract, enters into a proper Contract in accordance with the bid, plans, details, specifications, and bills of material, which said Contract is made a part of this bond the same as though set forth herein; and

IF THE SAID Principal shall well and faithfully perform each and every condition of such Contract; and indemnify the Obligee against all damage suffered by failure to perform such Contract according to the provisions thereof and in accordance with the plans, details, specifications, and bills of material therefor; and shall pay all lawful claims of subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing or completing of said Contract; we agreeing and assenting that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void; otherwise, the same shall remain in full 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 SAID Surety hereby stipulates and agrees that no modifications, omissions or additions, in or to the terms of said Contract or in or to the plans and specifications therefore shall in any way affect the obligations of said Surety on this bond, and it does hereby waive notice of any such modifications, omissions or additions to the terms of the Contract or to the work or to the specifications.

PRINCIPAL

BY: _____

TITLE: _____

SURETY COMPANY ADDRESS

Street

City, State, Zip

SURETY AGENT'S ADDRESS

Agency Name

BY: _____
Attorney-in-Fact

Street

City, State, Zip

NON-COLLUSION AFFIDAVIT

This affidavit shall be filled out and executed by the bidder; if the bid is made by a corporation, then this shall be completed by the properly authorized agent.

The name of the individual swearing to the affidavit should always appear on the line marked "Name of Affiant". The affiant's capacity, when a partner or officer of a corporation, should be inserted on lines marked "Affiant". The affiant should sign their individual name at the end, not partnership nor corporation name, and swear to said affidavit before a Notary Public, who must attach their seal.

STATE OF _____ COUNTY OF _____

(Name of Affiant)

_____ being duly sworn, do depose and say that

(Affiant)

resides at _____

and that _____

(Give names of all persons, firms or corporations interested in this bid)

is or are the only person interested in the profits of any Contract which may result from the herein contained proposal; that the said proposal is made without any connection or interests in the profits thereof with any other person making any other bid or proposal for said work; that the said proposal in all respects fair, and without collusion or fraud; and also that no, employee therein or any officer representing the Owner, is directly or indirectly interested therein; and that all the statements made in this proposal are true.

Subscribed and sworn to this _____ day of _____ before me

Notary Public

CONTRACTOR/MANUFACTURER/VENDOR
AFFIDAVIT OF COMPLIANCE WITH
OHIO REVISED CODE, SECTION 5719.042*

To: Township of Copley
1540 S. Cleveland-Massillon Road
Copley, Ohio 44321

Date _____

State of Ohio
County of Summit

I, _____, hereby make oath that:

1. I am the _____ of _____
(Authorized Representative)
_____, the firm that submitted the attached bid.
2. At the time the bid was submitted, the firm named above (was/was not) charged with delinquent personal property taxes on the general tax list of personal property in Summit County, Ohio.
3. (If Applicable) The amount of due and unpaid delinquent personal property taxes is \$ _____ and penalties and interest on the same are \$ _____.

Contractor

By (Authorized Representative)

Sworn to before me and subscribed in my presence at _____
this _____ day of _____ A.D., _____.

Notary Public

My Commission expires _____, 20____

*Sworn statement required by Ohio Revised Code as to the status of bidder's (company's) personal property taxes.

BIDDER'S AFFIDAVIT: FOREIGN CORPORATION*

The undersign certifies that _____ is a foreign corporation incorporated in the State of _____, whose principal place of business is and is required to obtain authorization to transact business in the State of Ohio.

The undersigned bidder further certifies that said authorization has been obtained and is in effect and the bidder has a designated statutory agent upon whom process against bidder corporation may be served within the State of Ohio. The designated

statutory agent is _____
(name and address)

Process served upon the designated statutory agent named above shall be effective service, unless the Owner has been informed, by certified mail or its equivalent (return receipt), of a change in the agent upon whom process can be served.

Date

Signed

Title

Note: This statement is to be reproduced on the bidder's letterhead, signed by the authorized bid signatory, notarized and submitted with the bid.

*Any corporation that is not incorporated in the State of Ohio is a foreign corporation.

SUBCONTRACTOR LIST

The Subcontractor list on this page shall be completed by each bidder. If awarded the Contract, the Contractor shall be held to the listing as submitted, when approved by the A & E.

If the bidder is not subcontracting the item, write in "Self". (The bidder is cautioned in the use of Subcontractors to particularly regard the "Bidders Qualifications" hereinafter). Additional sheets may be submitted, supplementing the above information and elaborating on the method used to handle this project.

SUBCONTRACT		NAME, ADDRESS AND PHONE NO. OF SUBCONTRACTOR

MATERIAL AND EQUIPMENT LIST

The material and equipment list on this page shall be completed by each bidder. It is the intent of this listing that the Contractor should list specifically, the component parts and accessories which this Contractor proposes to furnish and which is not of this Contractors own manufacture. This listing shall include the following items:

Item No.	Item	Manufacture and Type

EQUAL OPPORTUNITY EMPLOYMENT
ASSURANCE OF COMPLIANCE

_____ (hereinafter called "BIDDER") hereby agrees that it will comply with Title VI of the Civil Rights Act of 1964 (P.S. 88-352) and the regulation, no person in the United States shall, on the ground of race, color, creed, sexual orientation or gender identity, or national origin be excluded from employment by the BIDDER and hereby gives assurance that it will immediately take any measure to effectuate this agreement.

This ASSURANCE is given in consideration of and for the purpose of complying with the Equal Opportunity Employment section in the Instructions to BIDDERS and to generally qualify the BIDDER for award of the contract. The BIDDER recognizes and agrees that such contracts or purchase agreement will be extended in reliance on the representations and agreements made in this assurance, and that the OWNER shall reserve the right to seek judicial enforcement of this assurance. This assurance is binding on the BIDDER, its successors, transfers, and assignees. Furthermore, the person whose signature appears below is authorized to sign this assurance on behalf of the BIDDER.

DATE

SIGNATURE

TITLE

FIRM

NOTICE OF AWARD

To:

Project Description: COPLEY TOWNSHIP PARKING LOT CONSTRUCTION

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids and Information for Bidders.

You are hereby notified that your BID has been accepted for the amount of:

\$

You are required by the Information for Bidders to execute the two original copies of the Contract and furnish the required CONTRACTOR'S Performance BOND, Payment BOND and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____, _____.

TOWNSHIP OF COPLEY, OHIO

By: _____

Title: _____

Receipt of the above NOTICE OF AWARD is hereby acknowledged

this the _____ day of _____, _____.

By: _____

Title: _____

(email to DNEUMEYER@GPDGROUP.COM or fax to 330-572-2496)

CONTRACT
FOR THE

TOWNSHIP OF COPLEY, OHIO
COPLEY TOWNSHIP PARKING LOT CONSTRUCTION

THIS AGREEMENT, made and entered into this _____ day of _____ in the year Two Thousand and _____, by and between the TOWNSHIP OF COPLEY, OHIO, hereinafter called the "Party of the First Part" or "First Party" and _____ of the City of _____, County of _____, and State of _____, hereinafter called the "Party of the Second Part" or the "Contractor".

WITNESSETH: That the said party of the second part has agreed and by these presents does agree with the said party of the first part for the consideration herein written and contained in the proposal and other penalty expressed in a bond therein contained, to provide and/or install at _____ own proper cost and expense, all the necessary labor, superintendence, tools, materials and equipment of every description, and to carry out and complete to a good, firm and substantial workmanlike manner the design, construction, testing, completion, and supervision to complete delivery to the First Party as herein specified or required for the completion of the Contract , all in accordance with the plans on file in the office at the First Party, also in accordance with the specifications for this Contract as herein set forth, subject to such changes as may be made, from time to time, in accordance with the provisions therein, and also in full accord and compliance with the following:

Article 1: The Contractor agrees to begin work and prosecute the same with reasonable speed and diligence so as to insure the completion of the work of the Contract in accordance with the date stipulated in the proposal and to the satisfaction of the First Party.

Article 2: The Party of the First Part agrees to pay, and the Contractor agrees to accept as full compensation for all work done, for all labor and equipment furnished, for all costs and expenses incurred, furnished or suffered, in the full and complete performance of all acts and requirements incidental and necessary for the completion of the work of this Contract in accordance with the terms, conditions and provisions thereof, except EXTRA WORK, which shall be paid for under subsidiary agreement executed as provided in the Project Manual and except as may otherwise in this Contract be specifically provided, a sum equal to the following:

Article 3: If the Contractor shall fail to comply with any of the terms, conditions, provisions, or stipulations of this Contract according to the true intent and meaning thereof, then the Party of the First Part may avail itself of any or all remedies provided in that behalf of the Contract, and shall have the right and power to proceed in accordance with the provisions thereof.

Article 4: It is hereby agreed by the parties to this Agreement that the provisions contained in the "Advertisement", in "Information For and Instruction to Bidders", in the "Proposal", in the "Specifications", in the "General and Special Conditions", in the "Bond", in the "Drawings", shall constitute integral parts of the Agreement and collectively that they shall comprise and be known as the Contract.

Name and Address of each person, firm or company interested in the Contract:

IN WITNESS WHEREOF: The parties hereunto affixed their hands and seals the day and year first mentioned above.

The Township of Copley

By _____	by _____
Janice Marshall, Township Administrator Date	Finance/Clerk Date

_____ Witness Print Date	_____ Witness Print Date
----------------------------------	----------------------------------

_____ Witness Signature Date	_____ Witness Signature Date
--------------------------------------	--------------------------------------

CONTRACTOR

By _____
Authorized Individual Print

Title

Authorized Signature Date

Witness Print

Witness Signature Date

(If the Contractor is a corporation, there shall be attached a sealed resolution of the Directors empowering the officer signing to so act in behalf of the corporation.)

(To be executed in triplicate.)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____
_____, as Principal and _____, as
Sureties, are hereby held and firmly bound unto the Township of Copley, Ohio, in the penal sum of _____ Dollars
(\$ _____), for the payment which, well and truly to be made, we hereby jointly and
severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above named Principal did
on the _____ day of _____, 20____, enter into a contract with the Township of Copley, Ohio,
for the " _____ " which said contract is made a part of this bond the same as
though set forth herein;

Now, if the said Principal, _____, shall well and faithfully do and perform
the things agreed by the Principal to be done and performed according to the terms of said contract; and shall
pay all lawful claims of subcontractors, materialmen, and laborers, for labor performed and materials furnished
in the carrying forward, performing, or completing of said contract; we agreeing and assenting that this
undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the Obligee
herein; then this obligation shall be void; otherwise the same shall remain in full 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 said Surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of
said contract or in or to the plans or specifications thereof shall in any way affect the obligations of said Surety
on its bond.

PROVIDE FURTHER, that no final settlement between the Township of Copley, Ohio and the Contractor shall
abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Signed this day of _____, 20_____.

Witness of Principal

PRINCIPAL: _____

By _____

Title: _____

SURETY: _____

Witness of Attorney-in-Fact

By: _____

Attorney-in-Fact
(Must be in Ohio)

(Facsimile signatures are not acceptable)

SUBCONTRACTOR and/or MATERIALMEN FINAL UNCONDITIONAL WAIVER OF LIEN

To All Whom it May Concern:

In consideration of the sum of _____
and other valuable consideration in hand paid, the receipt whereof is hereby acknowledged, the undersigned does hereby waive, release, and relinquish any and all liens or claims, or right to lien or claim, for labor or materials, or both, furnished to date hereof, for premises and/or project known and described as:

Project Name

County: _____

State: _____

Subcontractor or Supplier

Trade or Materials

Authorized Agent (print)

Authorized Agent (signature)

Sworn before me and subscribed in my presence this _____ day of _____, 20_____.

Notary Public (signature and seal)

LABOR AND MATERIALMEN'S BOND

KNOW ALL MEN BY THESE PRESENTS, That we, _____, as Principal, and _____, as Surety, are held and firmly bound unto the Township of Copley, Ohio (hereinafter called the Obligee) in the penal sum of _____ (\$ _____) lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, said Principal has entered into a certain contract with said Obligee, dated _____, 20__, (hereinafter called the Contract) for _____ which contract and the specifications for said work shall be deemed a part hereof as fully as if set out herein.

NOW, THEREFORE, THE CONDITIONS OF THE OBLIGATION ARE SUCH that if said Principal and all subcontractors to whom any portion of the work provided for in said contract is sublet and all assignees of said Principal of such subcontractors, shall promptly make payment for all labor performed, services rendered, and materials furnished in the prosecution of the work provided for in said contract, or in any amendment or extension of, or addition to said contract, then the above obligation shall be void; otherwise to remain in full force and effect. PROVIDED, however, that this bond is subject to the following conditions and limitations.

- a. All persons who have performed labor, rendered services, or furnished materials or machinery as aforesaid, shall have a direct right of action against the Principal and Surety on this bond, which right of action shall be asserted in proceedings instituted in the State in which such labor was performed, services rendered or materials furnished under said contract in more than one State, then in any such States). Insofar as shall be asserted in a proceeding instituted in the name of the Obligee to the use and benefit of the person instituting such action and of all other persons having claims hereunder, and any other person having a claim hereunder, shall have the right to be made a party of such proceeding (but not later than one (1) year after the complete performance of said Contract and final settlement thereof) and to have such claim adjudicated in such action and judgment rendered thereon.
- b. The surety shall not be liable hereunder for any damages or compensation recoverable under any workers' compensation or employer's liability statute.
- c. In no event shall the Surety be liable for a greater sum than the penalty of this bond, or subject to any suit, action or proceeding thereon that is instituted later than one year after the complete performance of said Contract and final settlement thereof.
- d. As used herein, the term "person" refers to any person, firm, or corporation who has furnished materials or machinery to be used on or incorporated in the work or the prosecution thereof provided for in said contract or in any amendment or extension of or addition to said contract, and/or to any person engaged in the prosecution of the work provided for in said contract, or any amendment or extension of or addition to said contract, who is an agent, servant or employee of the Principal, or of any subcontractor, or of any assignee of said Principal, or of any subcontractor, and also anyone so engaged who performs the work of laborer or of a mechanic regardless of any contractual relationship between the principal of any subcontractor, or any assignee of said principal or of said Contractor, and such laborer or mechanic, but shall not include office employees not regularly stationed at the site of the work.

LABOR AND MATERIALMEN'S BOND

The said Surety, for value received, hereby stipulates and agrees that no charge, extension of time, alteration or addition to the terms of this contract or to the work to be performed thereunder or the specification accompanying the same, shall in any way effect its obligations on this bond and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

SIGNED, SEALED AND DELIVERED IN TRIPLICATE THIS ____ day of _____, 20__.

INDIVIDUAL PRINCIPALS SIGN HERE

In the presence of:

_____	_____ (Seal)
_____	_____ (Seal)
_____	_____ (Seal)
_____	_____ (Seal)

(Corporate Principals Sign here)

Attest:

_____ By: _____

(Surety Sign Here)

Attest:

_____ By: _____

Approved this ____ day of _____, 20__.

By: _____
Obligee Attorney-in-fact

INSTRUCTIONS

1. The full name and residence of each individual party of the bond must be inserted in the first paragraph.
2. If the principal is a partnership, the full names of all partners must be inserted in the first paragraph which must recite they are the partners composing the partnership (to be named) and all partners must execute the bond as individuals.
3. The State of incorporation of each corporate party to the bond must be inserted in the first paragraph and bond must be executed under the corporate seal of said party attested by its secretary or other appropriate officer.
4. The date of the bond must not be prior to the date of the contract.
5. Attorney-in-Fact must be in Ohio.



FINAL PROJECT DOCUMENTATION

PROJECT:
Copley Township
Parking Lot
Construction

OWNER:
Township of
Copley

PROJECT NO.:

CONTRACTOR:

Before the final retainer can be processed, it is required that the enclosed forms and any related sign-offs and documents be submitted and documented in accordance with the provisions of the contract.

The list of the enclosed forms is as follows

1. Certificate of Substantial Completion (to be submitted at time of substantial completion).
2. Contractor's Certification of Completion
3. Consent of Surety Company for Final Payment
4. Affidavit of Final Acceptance Date and Correction Period
5. Contractor's Affidavit of Prevailing Wage

Please specify the project to which the documents apply and forward to the Township of Copley, attn.: Linda Peiffer. Submit items 2-5 along with the Final Pay Estimate.

CERTIFICATE OF SUBSTANTIAL COMPLETION

To: Township of Copley

Project Title: Copley Township Parking Lot Construction

Project No.:

Contractor:

Date of Substantial Completion: _____

Note here portions or parts of project not included in this certificate, otherwise this certificate shall be for entire project:

The work performed under this contract has been inspected by authorized representatives of the Owner, Contractor, and Engineer-Architect, and the Project (or specified part of the Project, as indicated above) is hereby declared to be substantially completed on the above date.

A tentative list of items to be completed or corrected is appended hereto. This list may not be exhaustive, and the failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work in accordance with the contract documents.

GPD Group
Engineer/Architect

By: _____
Authorized Representative Date

The Contractor accepts the above Certificate of Substantial Completion and agrees to complete and correct the items on the tentative list within the indicated in the contract documents or as otherwise agreed.

Contractor

By: _____
Authorized Representative Date

The Owner accepts the project or specified part of the project as substantially complete and will assume full possession of the project or specified area of the project as of the date of substantial completion and assume the responsibility for heat, utilities, security, and insurance under the contract documents shall be as set forth under "Remarks" below.

Owner

By: _____
Authorized Representative Date

Remarks: (attach additional sheet, if necessary)

CONTRACTOR'S CERTIFICATION OF COMPLETION AND PAYMENT

To: Township of Copley

Project Title: Copley Township Parking Lot Construction

Project No.:

From:

Date:

This is to certify that I _____ am an authorized official of _____ working in the capacity of _____ and have been properly authorized by said firm or corporation to sign the following statements pertaining to the subject contract:

I know of my own personal knowledge, and do hereby certify, that the work of the contract described above has been performed, and materials used and installed in every particular, in accordance with, and in conformity to, the contract drawings and specifications.

The contract work is now complete in all parts and requirements.

I understand that neither the determination by the Engineer-Architect that the work is complete, nor the acceptance thereof by the Owner, shall operate as a bar to claim against the Contractor under the terms of the guarantee provisions of the contract documents.

All previous progress payments received on account of the work have been applied on account to discharge Contractor's obligations associated with prior applications for payment.

By: _____

Title: _____

Signature: _____

CONSENT OF SURETY FOR FINAL PAYMENT

Project Name: Copley Township Parking Lot Construction

Owner: Township of Copley

Project No.:

Amount of Original Contract:

Amount of Final Contract:

In accordance with the provisions of the above-named contract between the Owner and the Contractor, the following named surety:

On the Payment Bond of the following named Contractor

Hereby approves of final payment to the Contractor, and further agrees that said final payment to the Contractor shall not relieve the Surety Company named herein of any of its obligations to the following named Owner as set forth in said Surety Company's bond:

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand and seal this

_____ day of _____, 20____.

Signature of Authorized Representative
ATTACH POWER OF ATTORNEY

Title: _____

**CONSENT OF SURETY FOR REDUCTION OF OR PARTIAL RELEASE OF
RETAINAGE**

In accordance with the provisions of the above-named contract between the Owner and the Contractor, the following named surety:

On the Bond of the following named Contractor:

Hereby approves a reduction of/or partial release of retainage to the Contractor as set forth below:

\$ _____ Amount to be released

\$ _____ Amount to be retained

The Surety Company hereby agrees that such reduction of/or partial release of retainage to the Contractor shall not relieve said surety company of any of its obligations to the following named Owner as set forth in said Surety Company's bond:

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand and seal this
_____ day of _____, 20____.

Signature of Authorized Representative
ATTACH POWER OF ATTORNEY

Title: _____

AFFIDAVIT OF CORRECTION PERIOD UNDER SURETY BOND

STATE OF Ohio)
) ss:
COUNTY OF Summit)

_____ being of lawful age and first duly sworn, deposes and states as follows:

1. I am President of
2. I have personal knowledge of the factual assertions contained in this Affidavit.
3. That _____ was awarded the contract for:

By the Township of Copley.

4. The date of final acceptance of the work by Owner under the Contract is _____.
(date)
5. Under the Contract, all correction of the work is to be completed within two (2) years from the date of the final acceptance by Owner of the work.
6. The correction period under the Contract will continue through and include _____.
(date)

FURTHER AFFIANT SAYETH NAUGHT _____
Signature

SURETY ACKNOWLEDGEMENT OF CORRECTION PERIOD COVERED UNDER
BOND NO. _____

By: _____
(Signature)

Date: _____

(Typed or printed name)

*Attach Power of Attorney

Bond Number _____

CONSTRUCTION PAYMENT BOND

CONTRACTOR: _____
(Name and Address)

SURETY: _____
(Name and Principal Place of Business)

OWNER: The Township of Copley, 1540 S. Cleveland-Massillon Road, Copley, Ohio 44321

CONTRACT: _____

BOND AMOUNT: _____

CONTRACTOR AS PRINCIPAL

Company: _____
(Corp. Seal)

Signature: _____

Name and Title: _____

SURETY

Company: _____
(Corp. Seal)

Signature: _____

Name and Title: _____

CONTRACTOR AS PRINCIPAL

Company: _____
(Corp. Seal)

Signature: _____

Name and Title: _____

SURETY

Company: _____
(Corp. Seal)

Signature: _____

Name and Title: _____

IN WITNESS WHEREOF, this instrument is executed in _____ (number) counterparts, each one of which shall be deemed an original, this the ____ day of _____, 20__.

1. The CONTRACTOR and the surety, jointly and severally, bind themselves, their heirs, executors administrators, successors and assigns to the OWNER to pay for labor, materials, services, and equipment furnished for use in the performance of the Construction contract which is incorporated herein by reference.
2. With respect to the OWNER, this obligation shall be null and void if the CONTRACTOR:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2 Defends, indemnifies and holds harmless the OWNER from all claims, demands, liens or suits by any person or entity who furnished labor, materials, services, or equipment for use in the performance of the Construction contract, provided the OWNER

has promptly notified the CONTRACTOR and the surety at the address described in Paragraph 12) of any claims, demands, liens or suits to the CONTRACTOR and the Surety, and provided there is not OWNER Default.

3. With respect to Claimants, this obligation shall be null and void if the CONTRACTOR promptly makes payment, directly or indirectly, for all sums due.
4. The Surety shall have no obligation to Claimants under this Bond until:
 - 4.1 Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under

- this Bond and with substantial accuracy, the amount of the claim.
- 4.2 Claimants who do not have a direct contract with the CONTRACTOR:
- 4.2.1 Have furnished written notice to the CONTRACTOR and sent a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor, last furnished materials, services or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
- 4.2.2 Have either received a rejection in whole or in part from the CONTRACTOR, or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR has indicated the claim will be paid directly or indirectly; and
- 4.2.3 Not having been paid within the above 30 days, have sent a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.
5. If a notice required by Paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety that is sufficient compliance.
6. When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
- 6.1 Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
- Pay or arrange for payment of any undisputed amounts
7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
8. Amounts owed by the OWNER to the CONTRACTOR under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any Construction Performance Bond by the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Construction Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond, subject to the OWNER's priority to use the funds for the completion of the work.
9. The Surety shall not be liable to the OWNER, Claimants or others for obligations of the CONTRACTOR that are unrelated to the Construction Contract. The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the work or part of the work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Subparagraph 4.1 or Clause 4.2 (iii), or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
12. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the OWNER or the CONTRACTOR, however accomplished shall be sufficient compliance as of the date received at the address shown on the signature page.
13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory bond and not as a common law bond.
14. Upon request by any person or entity appearing to be a potential beneficiary of his Bond, the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made.
15. DEFINITIONS
- 15.1 CLAIMANT: An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and

engineering services required for performance of the work of the CONTRACTOR and the CONTRACTOR's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

- 15.2 CONSTRUCTION CONTRACT: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.
- 15.3 OWNER DEFAULT: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Construction Contract or to perform and complete or comply with the other terms thereof.
- 15.4 BOND AMOUNT: The Construction Contract amount identified on the signature page of this document.

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____, as Principal, and _____, a _____ organized under the laws of the State of Ohio, with principal office at _____ as Surety, are held and firmly bound unto the _____ (hereinafter called the Obligee) in the penal sum of _____ (\$ _____) Dollars for the payment of which, well and truly to be made, we do hereby bind ourselves, our heirs, executives, administrators, successors, and assigns, jointly and severally, firmly by these presents:

DATED this _____, day of _____, 20____.

WHEREAS, said Principal has entered into a certain contract with the Obligee above named for _____ and,

WHEREAS, the work called for under said contract has now been completed and accepted by said Obligee:

NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, That if said Principal shall, for a period of one year from and after the _____ day of _____, 20____, indemnify the Obligee against any loss or damage directly arising by reason of any defect in the material or workmanship which may be discovered within the period aforesaid, then this obligation shall be void; otherwise to remain in full force and virtue in law.

PROVIDED, HOWEVER, that in the event of any default on the part of said Principal, written statement of the particular facts showing such default and the date thereof shall be delivered to the Surety by registered mail, at _____, Ohio, promptly and in any event within ten (10) days after the Obligee or his representative shall learn of such default, and that no claim, suit, or action by reason of any default of the Principal shall be brought hereunder after the expiration of thirty days from the end of the maintenance period as herein set forth.

(Principal)

(Seal)

(Title)

(Surety Name)

By: _____
Obligee Attorney-in-fact

NOTICE TO PROCEED

To: _____ Date: _____

Project: COPLEY TOWNSHIP PARKING LOT
CONSTRUCTION

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 20__ on or before _____, 20__ and you are to complete the WORK within 60 consecutive calendar days thereafter. The date of completion of all WORK is therefore _____, 20__

TOWNSHIP OF COPLEY

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED

is hereby acknowledged:

this _____ Day of _____, 20__

(Contractor)

By: _____

Title: _____

**REVISED CODE '1311.252
NOTICE OF COMMENCEMENT OF A
PUBLIC IMPROVEMENT**

State of Ohio,)
) SS:
County of Summit)

_____ (the "Affiant"), being first duly sworn, says that:

1. Affiant is the _____ of the Township of Copley, 1540 S. Cleveland-Massillon Road, Copley, Ohio 44321
2. The Public authority will be commencing a public improvement identified as follows:
Copley Township Parking Lot Construction.
3. The following lists the name, address, and trade of each of the principal contractors working on this public improvement:

<u>NAME</u>	<u>ADDRESS</u>	<u>TRADE</u>	<u>DATE OF FIRST EXECUTED CONTRACT FOR THE PUBLIC IMPROVEMENT</u>
-------------	----------------	--------------	---

4. The following lists the names and addresses of the sureties for all of those principal Contractors:

<u>PRINCIPAL CONTRACTOR</u>	<u>NAME OF SURETY</u>	<u>ADDRESS OF SURETY</u>
---------------------------------	-----------------------	--------------------------

5. For the purpose of serving an affidavit pursuant to Revised Code 1311.26, service may be made upon the following representative of the Public Authority: Township of Copley at 1540 S. Cleveland-Massillon Road, Copley, Ohio 44321.

FURTHER AFFIANT SAYETH NAUGHT.

Signature

SWORN TO before me and subscribed in my presence this _____ Day of _____,
20__.

Notary Public

{Seal}

CONTRACT CHANGE ORDER

ORDER NO.
DATE

CONTRACT FOR

OWNER

Township of Copley

To _____

(Contractor)

You are hereby requested to comply with the following changes from the contract plans and specifications:

Description of Changes (Supplemental Plans and Specifications Attached)	DECREASE in Contract Price	INCREASE in Contract Price
<div style="text-align: right; margin-right: 50px;">TOTALS</div> <div style="text-align: right; margin-right: 50px;">NET CHANGE IN CONTRACT PRICE</div>	<div style="text-align: right; margin-right: 50px;">\$ _____</div> <div style="text-align: right; margin-right: 50px;">\$ _____</div>	<div style="text-align: right; margin-right: 50px;">\$ _____</div> <div style="text-align: right; margin-right: 50px;">\$ _____</div>

JUSTIFICATION:

The amount of the Contract will be (Decreased) (Increased) By The Sum Of: _____ Dollars (\$ _____).

The Contract Total Including this and previous Change Orders Will Be: _____ Dollars (\$ _____).

The Contract Period Provided for Completion Will Be (Increased) (Decreased) (Unchanged): _____ Days.

This document will become a supplement to the contract and all provisions will apply hereto.

Requested _____ (Owner) _____ (Date)

Recommended _____ (Owner's Architect/Engineer) _____ (Date)

Accepted _____ (Contractor) _____ (Date)

GENERAL CONDITIONS

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GENERAL CONDITIONS

ARTICLE 1

CONTRACT DOCUMENTS

1.1 Definitions

1.1.1 The Contract Documents

The Contract Documents consist of the Agreement, the Conditions of the Contract (General and Special Conditions), the Proposal, Information For and Instructions to Bidders, the Drawings, the Specifications, all Addenda issued prior to execution of the Contract, and all Modifications thereto. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a written interpretation issued by the Engineer pursuant to Sub-paragraph 1.2.5, or (4) a written order for a minor change in the Work issued by the Engineer pursuant to Paragraph 12.3. A Modification may be made only after execution of the Contract.

1.1.2 The Contract

The Contract Documents form the Contract. The Contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification as defined in Subparagraph 1.1.1.

1.1.3 The Work

The term Work includes all labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in such construction.

1.1.4 The Project

The project is the total construction designed by the Engineer of which the Work performed under the Contract Documents may be the whole or a part.

1.2 Execution, Correlation, Intent and Interpretations

1.2.1 By executing the Contract, the Contractor represents that he has visited the site, familiarized himself with the location conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents.

1.2.2 The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. The intention of the Documents is to

include all labor, materials, equipment and other items as provided in Subparagraph 4.4.1 necessary for the proper execution and completion of the Work. It is not intended that Work not covered under any heading, section, branch, class or trade of the Specifications shall be supplied unless it is required elsewhere in the Contract Documents or is reasonably inferable therefrom as being necessary to produce the intended results. Words, which have well-known technical or trade meanings are used herein in accordance with such recognized meanings.

- 1.2.3 The organization of the Specifications into divisions, sections, and articles, and the arrangement of the Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.
- 1.2.4 Written interpretations necessary for the proper execution or progress of the Work, in the form of drawings or otherwise will be issued with reasonable promptness by the Engineer and in accordance with any schedule agreed upon. Either party to the Contract may make written request to the Engineer for such interpretations. Such interpretations shall be consistent with and reasonably inferable from the Contract Documents, and may be affected by Field Order.

1.3 Copies Furnished and Ownership

- 1.3.1 Unless otherwise provided in the Contract Documents, the Contractor will be furnished, free of charge, one (1) copy of the Drawings and Specifications.
- 1.3.2 All Drawings, Specifications and copies thereof furnished by the Engineer are and shall remain his property. They are not to be used on any other project.

ARTICLE 2

ENGINEER

2.1 Definition

- 2.1.1 The Engineer is the person or organization identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Engineer means the Engineer or his authorized representative.
- 2.1.2 Nothing contained in the Contract Documents shall create any contractual relationship between the Engineer and the Contractor.

2.2 Administration of the Contract

- 2.2.1 The Engineer will provide general administration of the Contract, including performance of the functions hereinafter described.

- 2.2.2 The Engineer will be the Owner's representative during the furnishing and installation and until final payment. The Engineer will have authority to act on behalf of the Owner to the extent provided in the Contract Documents, unless otherwise modified by written instrument, which will be shown to the Contractor. The Engineer will advise and consult with the Owner, and all of the Owner's instructions to the Contractor shall be issued through the Engineer.
- 2.2.3 The Engineer shall at all times have access to the Work wherever it is in preparation and progress. The Contractor shall provide facilities for such access so the Engineer may perform his functions under the Contract Documents.
- 2.2.4 The Engineer will make periodic visits to the site to familiarize himself generally with the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. On the basis of his on-site observations as the Engineer, he will keep the Owner informed of the progress of the Work and will endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor. The Engineer will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Engineer will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and he will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.
- 2.2.5 Based on such observations and the Contractor's Applications for Payment, the Engineer will determine the amounts owing to the Contractor and will issue Certificates for Payment in such amounts, as provided in Paragraph 9.4.
- 2.2.6 The Engineer will be, in the first instance, the interpreter of the requirements of the Contract Documents and the judge of the performance hereunder by both the Owner and Contractor. The Engineer will, within a reasonable time, render such interpretations, as he may deem necessary for the proper execution or progress of the Work.
- 2.2.7 Claims, disputes and other matters in question between the Contractor and the Owner relating to the execution or progress of the Work or the interpretation of the Contract Documents shall be referred initially to the Engineer for decision, which he will render in writing within a reasonable time.
- 2.2.8 All interpretations and decisions of the Engineer shall be consistent with the intent of the Contract Documents. In his capacity as interpreter and judge, he will exercise his best efforts to ensure faithful performance by both the Owner and the Contractor and will not show partiality to either.
- 2.2.9 Any claim, dispute or other matter that has been referred to the Engineer except any which have been waived by the making or acceptance of final payment as provided in Subparagraph 9.7.5 shall be subject to arbitration upon the written demand of either party. However, no demand for arbitration of any such claim, dispute or other matter may be made until the earlier of:

- 2.2.9.1 The date on which the Engineer has rendered his written decision, or the tenth day after the parties have presented their evidence to the Engineer or has been given a reasonable opportunity to do so if the Engineer has not rendered his written decision by that date.
- 2.2.10 If a decision of the Engineer is made in writing and states that it is final but subject to appeal, no demand for arbitration of a claim, dispute or other matter covered by such decision may be made later than thirty days after the date on which the party making the demand received the decision. The failure to demand arbitration within said thirty days' period will result in the Engineer's decision becoming final and binding upon the Owner and the Contractor. If the Engineer renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but will not supersede any arbitration proceedings unless the decision is acceptable to the parties concerned.
- 2.2.11 The Engineer will have authority to reject Work, which does not conform to the Contract Documents. Whenever, in his reasonable opinion, he considers it necessary or advisable to ensure the proper implementation of the intent of the Contract Documents, he will have authority to require special inspection or testing of the Work in accordance with Subparagraph 7.8.2, whether or not such Work be then fabricated, installed or completed. However, neither the Engineer's authority to act under this Subparagraph 2.2.11, nor any decision made by him in good faith either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the A & E to the Contractor, any Subcontractor, any of their agents or employees, or any other person performing any of the Work.
- 2.2.12 The Engineer will review Shop Drawings and Samples as provided in Subparagraphs 4.13.1 through 4.13.8 inclusive.
- 2.2.13 The Engineer will prepare Change Orders in accordance with Article 12 and will have authority to order minor changes in the Work as provided in Subparagraph 12.3.1.
- 2.2.14 The Engineer will conduct inspections to determine the dates of Substantial Completion and Final Completion, will receive and review written guarantees and related documents required by the Contract and assembled by the Contractor and will issue a final Certificate for Payment.
- 2.2.15 The duties, responsibilities and limitations of authority of the Engineer as the Owner Representative during construction as set forth in Articles 1 through 14 inclusive of these General Conditions will not be modified or extended without written consent of the Owner, the Contractor and the Engineer.
- 2.2.16 The Engineer will not be responsible for the acts or omissions of the Contractor, any Subcontractors, or any of their agents or employees, or any other persons performing any of the Work.
- 2.2.17 In case of the termination of the employment of the Engineer, the Owner shall appoint an Engineer against whom the Contractor makes no reasonable objection,

whose status under the Contract Documents shall be that of the former Engineer.
Any dispute in connection with such appointment shall be subject to arbitration.

ARTICLE 3

OWNER

3.1 Definition

- 3.1.1 The Owner is the person or organization identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Owner means the Owner or his authorized representative.

3.2 Information and Services Required of the Owner

- 3.2.1 The Owner shall furnish all surveys describing the physical characteristics, legal limits and utility locations for the site of the Project, either directly or through the Engineer.
- 3.2.2 The Owner shall secure and pay for easements for permanent structures or permanent changes in existing facilities.
- 3.2.3 Information or services under the Owner's control shall be furnished by the Owner with reasonable promptness to avoid delay in the orderly progress of the work.
- 3.2.4 The Owner shall issue instructions to the Contractor through the Engineer.
- 3.2.5 The foregoing is in addition to other duties and responsibilities of the Owner enumerated herein and especially those in respect to Payment and Insurance in Articles 9 and 11 respectively.

3.3 Owner's Right to Stop the Work

- 3.3.1 If the Contractor fails to correct defective Work or persistently fails to supply materials or equipment in accordance with the Contract Documents, the Owner may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

3.4 Owner's Right to Carry Out the Work

- 3.4.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, or fails to perform any provision of the Contract, the Owner may, after seven days' written notice to the Contractor and without prejudice to any other remedy he may have, make good such deficiencies. In such case, an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor, the cost of correcting deficiencies, including the cost of the Engineer additional services made necessary by such default, neglect or failure. The Engineer must approve both such action and the amount charged to the Contractor. If the payments then or thereafter due the Contractor are not

sufficient to cover such payment, the Contractor shall pay the difference to the Owner.

ARTICLE 4

CONTRACTOR

4.1 Definition

- 4.1.1 The Contractor is the person or organization identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Contractor means the Contractor or his authorized representative.

4.2 Review of Contract Documents

- 4.2.1 The Contractor shall carefully study and compare the Contract Documents and shall at once report to the Engineer any error, inconsistency or omission he may discover. The Contractor shall not be liable to the Owner or the Engineer for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents. The Contractor shall do no Work without Drawings, Specifications or Modifications.

4.3 Supervision and Construction Procedures

- 4.3.1 The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.

4.4 Labor and Materials

- 4.4.1 Unless otherwise specifically noted, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, transportation, and other facilities and services necessary for the proper execution and completion of the Work.
- 4.4.2 The Contractor shall, at all times, enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him.

4.5 Warranty

- 4.5.1 The Contractor warrants to the Owner and the A & E that all materials and equipment furnished under this Contract will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not so conforming to these standards may be considered defective. If required by the Engineer, the

Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

4.6 Taxes

4.6.1 The Contractor shall pay all sales, consumer use and other similar taxes required by law, except as the Owner is exempted and specifically noted.

4.7 Permits, Fees and Notices

4.7.1 The Contractor shall secure and pay for all permits, governmental fees and licenses necessary for the proper execution and completion of the Work, which are applicable at the time, the bids are received. It is not the responsibility of the Contractor to make certain that the Drawings and Specifications are in accordance with applicable laws, statutes, building codes and regulations.

4.7.2 The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the Work. If the Contractor observes that any of the Contract Documents are at variance therewith in any respect, he shall promptly notify the Engineer in writing, and any necessary changes shall be adjusted by appropriate modification. If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Engineer, he shall assume full responsibility therefore and shall bear all costs attributable thereto.

4.8 Cash Allowances

4.8.1 Not Applicable

4.9 Superintendent

4.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during the progress of the Work. The superintendent shall be satisfactory to the Engineer and shall not be changed except with the consent of the Engineer unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ. The superintendent shall represent the Contractor and all communications given to the superintendent shall be as binding as if given to the Contractor. Important communications will be confirmed in writing. Other communication will be so confirmed on written request in each case.

4.10 Responsibility for Those Performing the Work

4.10.1 The Contractor shall be responsible to the Owner for the acts and omissions of all his employees and all Subcontractors, their agents and employees, and all other persons performing any of the Work under a contract with the Contractor.

4.11 Contractor's Construction Schedules

- 4.11.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Engineer information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised bi-weekly, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.
 - 4.11.2 The Contractor shall prepare and keep current, for the Engineer's approval, a schedule of submittals which is coordinated with the Contractor's construction schedule and allows the Engineer reasonable time to review submittals.
 - 4.11.3 The contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Engineer.
- 4.12 Drawings and Specifications at the Site
- 4.12.1 The Contractor shall maintain, at the site for the Owner, one copy of all Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders and other Modifications, in good order and marked to record all changes made during construction. These shall be available to the Engineer. The Drawings, marked to record all changes made during construction, shall be delivered to the Engineer for the Owner upon completion of the Work.
- 4.13 Shop Drawings and Samples
- 4.13.1 Shop Drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are prepared by the Contractor or any Subcontractor, manufacturer, supplier or distributor, and which illustrate some portion of the Work.
 - 4.13.2 Samples are physical examples furnished by the Contractor to illustrate materials, equipment or workmanship, and to establish standards by which the Work will be judged.
 - 4.13.3 The Contractor shall review, stamp with his approval and submit four copies (2-Owner, 1-Engineer, 1-Contractor), with reasonable promptness and in orderly sequence so as to cause no delay in the Work or in the work of any other contractor, all Shop Drawings and Samples required by the Contract Drawings or subsequently by the Engineer as covered by Modifications. Shop Drawings and Samples shall be properly identified as specified, or as the Engineer may require. At the time of submission, the Contractor shall inform the Engineer in writing of any deviation in the Shop Drawings or Samples from the requirements of the Contract Documents.
 - 4.13.4 By approving and submitting Shop Drawings and Samples, the Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers, and similar data, or will do so, and that he has checked and coordinated each Shop Drawing and Sample with the requirements of the Work and of the Contract Documents.

- 4.13.5 The Engineer will review and approve Shop Drawings and Samples with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the Project and with the information given in the Contract Documents. The Engineer approval of a separate item shall not indicate approval of an assembly in which the item functions.
- 4.13.6 The Contractor shall make any corrections required by the Engineer and shall resubmit the required number of corrected copies of Shop Drawings or new Samples until approved. The Contractor shall direct specific attention in writing or on resubmitted Shop Drawings to revisions other than the corrections requested by the Engineer on previous submissions.
- 4.13.7 The Engineer's approval of Shop Drawings or Samples shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has informed the Engineer in writing of such deviation at the time of submission and the Engineer has given written approval to the specific deviation, nor shall the Engineer's approval relieve the Contractor from responsibility for errors or omissions in the Shop Drawings or Samples.
- 4.13.8 No portion of the Work requiring a Shop Drawing or Sample submission shall be commenced until the submission has been approved by the Engineer. All such portions of the Work shall be in accordance with approved Shop Drawings and Samples.
- 4.14 Use of Site
 - 4.14.1 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with any materials or equipment.
- 4.15 Cutting and Patching of Work
 - 4.15.1 The Contractor shall do all cutting, fitting or patching of his Work that may be required to make its several parts fit together properly, and shall not endanger any Work by cutting, excavating or otherwise altering the Work or any part of it.
- 4.16 Cleaning Up
 - 4.16.1 The Contractor, at all times, shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work, he shall remove all his waste materials and rubbish from and about the Project as well as all his tools, construction equipment, machinery and surplus materials, and shall clean all glass surfaces and leave the Work "broom-clean" or its equivalent, except as noted otherwise.
 - 4.16.2 If the Contractor fails to clean up, the Owner may do so and the cost thereof shall be charged to the Contractor as provided in Paragraph 3.4.

4.17 Communications

- 4.17.1 The Contractor shall forward all communications to the Owner through the Engineer.

4.18 Indemnification

- 4.18.1 The Contractor shall indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses, including attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself, including the loss or use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone, for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.
- 4.18.2 In any and all claims against the Owner or the A & E or any of their agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 4.18 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor of any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefit acts.
- 4.18.3 The obligations of the Contractor under this Paragraph 4.18 shall not extend to the liability of the Engineer, his agents or employees arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (2) the giving of or the failure to give directions or instructions by the A & E, his agents or employees provided such giving or failure to give is the primary cause of the injury or damage.

ARTICLE 5

SUBCONTRACTORS

5.1 Definition

- 5.1.1 A Subcontractor is a person or organization that has a direct contract with the Contractor to perform any of the Work at the site. The term Subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Subcontractor or his authorized representative.
- 5.1.2 A Sub-subcontractor is a person or organization that has a direct or indirect contract with a Subcontractor to perform any of the Work at the site. The term

Sub-subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Sub-subcontractor or an authorized representative thereof.

- 5.1.3 Nothing contained in the Contract Documents shall create any contractual relation between the Owner or the Engineer and any Subcontractor or Sub-subcontractor.

5.2 Award of Subcontracts and Other Contracts for Portions of the Work

- 5.2.1 Unless otherwise specified in the Contract Documents or in the Information For and Instructions to Bidders, the Contractor, as soon as practicable after the award of the Contract, shall furnish to the Engineer in writing for acceptance by the Owner and the Engineer, a list of the names of the Subcontractors proposed for the principal portions of the Work. The Engineer shall promptly notify the Contractor in writing if either the Owner or the Engineer, after due investigation, has reasonable objection to any Subcontractor on such list and does not accept him. Failure of the Owner or the Engineer to make objection promptly to any Subcontractor on the list shall constitute acceptance of such Subcontractor.
- 5.2.2 The Contractor shall not contract with any Subcontractor or any person or organization (including those who are to furnish materials or equipment fabricated to a special design) proposed for portions of the Work designated in the Contract Documents or in the Information For and Instructions to Bidders, or, if none is so designated, with any Subcontractor proposed for the principal portions of the Work who has been rejected by the Owner and the Engineer. The Contractor will not be required to contract with any Subcontractor or person or organization against whom has a reasonable objection.
- 5.2.3 If the Owner or Engineer refuses to accept any Subcontractor or person or organization on a list submitted by the Contractor in response to the requirements of the Contract Documents or the Information For and Instructions to Bidders, the Contractor shall submit an acceptable substitute and the Contract Sum shall be increased or decreased by the difference in cost occasioned by such substitution and an appropriate Change Order shall be issued; however, no increase in the Contract Sum shall be allowed for any such substitution unless the Contractor has acted promptly and responsively in submitting for acceptance any list or lists of names as required by the Contract Documents or the Information For and Instructions to Bidders.
- 5.2.4 If the Owner or the Engineer requires a change of any proposed Subcontractor or person or organization previously accepted by them, the Contract Sum shall be increased or decreased by the difference in cost occasioned by such change and an appropriate Change Order will be issued.
- 5.2.5 The Contractor shall not make any substitution for any Subcontractor or person or organization that has been accepted by the Owner and the Engineer, unless the substitution is acceptable to the Owner and the Engineer.

5.3 Subcontractual Relations

- 5.3.1 All work performed for the Contractor by a Subcontractor shall be pursuant to an appropriate agreement between the Contractor and the Subcontractor (and where appropriate between Subcontractors and Sub-subcontractors), which shall contain provisions that:
- 5.3.1.1 preserve and protect the rights of the Owner and the Engineer under the Contract with respect to the Work to be performed under the subcontract so that the subcontracting thereof will not prejudice such rights;
 - 5.3.1.2 require that such Work be performed in accordance with the requirements of the Contract Documents;
 - 5.3.1.3 require submission to the Contractor of applications for payment under each subcontract to which the Contractor is a party in reasonable time to enable the Contractor to apply for payment in accordance with Article 9.
 - 5.3.1.4 require that all claims for additional costs, extensions of time, damages or delays or otherwise with respect to subcontracted portions of the Work shall be submitted to the Contractor (via any Subcontractor or Sub-subcontractor where appropriate) in sufficient time so that the Contractor may comply in the manner provided in the Contract Documents for like claims by the Contractor upon the Owner;
 - 5.3.1.5 waive all rights the contracting parties may have against one another for damages caused by fire or other perils covered by the property insurance described in the Special Conditions, except such rights as they may have to the proceeds of such insurance if held by the Owner as trustee as described in the Special Conditions; and
 - 5.3.1.6 obligate each Subcontractor specifically to consent to the provisions of this Paragraph 5.3.

5.4 Payments to Subcontractors

- 5.4.1 The Contractor shall pay each Subcontractor upon receipt of payment from the Owner, an amount equal to the percentage of completion allowed to the Contractor on account of such Subcontractor's Work, less the percentage retained from payments to the Contractor. The Contractor shall also require each Subcontractor to make similar payments to his Subcontractors.
- 5.4.2 If the Engineer fails to issue a Certificate for Payment for any cause which is the fault of the Contractor and not the fault of a particular Subcontractor, the Contractor shall pay that Subcontractor on demand made at any time after the Certificate for Payment should otherwise have been issued, for his Work to the extent completed, less the retained percentage.

- 5.4.3 The Contractor shall pay each Subcontractor a just share of any insurance moneys received by the Contractor under Article 11, and he shall require each Subcontractor to make similar payments to his Subcontractors.
- 5.4.4 The Engineer may, on request and at his discretion, furnish to any Subcontractor, if practicable, information regarding percentages of completion certified to the Contractor on account of Work done by such Subcontractors.
- 5.4.5 Neither the Owner nor the Engineer shall have any obligation to pay or to see to the payment of any moneys to any Subcontractor except as may otherwise be required by law.

ARTICLE 6

SEPARATE CONTRACTS

6.1 Owner's Right to Award Separate Contracts

- 6.1.1 The Owner reserves the right to award other contracts in connection with other portions of the Project under these or similar conditions of the Contract.

6.2 Mutual Responsibility of Contractors

- 6.2.1 The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall properly connect and coordinate his Work with theirs.
- 6.2.2 If any part of the Contractor's Work depends for proper execution or results upon the work of any other separate contractor, the Contractor shall inspect and promptly report to the Engineer any apparent discrepancies or defects in such work that renders it unsuitable for such proper execution and results. Failure of the Contractor so to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper to receive his Work, except as to defects which may develop in the other separate contractor's work after the execution of the Contractor's Work.
- 6.2.3 Should the Contractor cause damage to the work or property of any separate contractor on the Project, the Contractor shall, upon due notice, settle with such other contractor by agreement or arbitration, if he will so settle. If such separate Contractor sues the Owner or initiates an arbitration proceeding on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor who shall defend such proceedings at the Owner's expense, and if any judgment or award against the Owner arises therefrom, the Contractor shall pay or satisfy it and shall reimburse the Owner for all attorneys' fees and court or arbitration costs which the Owner has incurred.

6.3 Cutting and Patching Under Separate Contracts

- 6.3.1 The Contractor shall be responsible for any cutting, fitting and patching that may be required to complete his Work except as otherwise specifically provided in the Contract Documents. The Contractor shall not endanger any work of any other contractors by cutting, excavating or otherwise altering any work and shall not cut or alter the work of any other contractor except with the written consent of the Engineer.
 - 6.3.2 Any costs caused by defective or ill-timed work shall be borne by the party responsible, therefore.
- 6.4 Owner's Right to Clean Up
 - 6.4.1 If a dispute arises between the separate contractors as to their responsibility for cleaning up as required by Paragraph 4.16, the Owner may clean up and charge the cost thereof to the several contractors as the Engineer shall determine to be just.

ARTICLE 7

MISCELLANEOUS PROVISIONS

- 7.1 Governing Law
 - 7.1.1 The Contract shall be governed by the law of the place where the Project is located.
- 7.2 Successors and Assigns
 - 7.2.1 The Owner and the Contractor each bind himself, his partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to him hereunder, without the previous written consent of the Owner.
- 7.3 Written Notice
 - 7.3.1 Written notice shall be deemed to have duly been served if delivered in person to the individual or member of the firm or to an office of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to him who gives the notice.
- 7.4 Claims for Damages
 - 7.4.1 Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the other party or any of his

employees, agents or others for whose acts he is legally liable, claim shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

7.5 Performance Bond and Labor and Material Payment Bond

7.5.1 The Owner shall have the right to require the Contractor to furnish bonds covering the faithful performance of the Contract and the payment of all obligations arising hereunder if and as required in the Information For and Instructions to Bidders or elsewhere in the Contract Documents.

7.6 Rights and Remedies

7.6.1 The duties and obligations imposed by the Contract Documents and the rights and remedies available hereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

7.7 Royalties and Patents

7.7.1 The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Engineer.

7.8 Tests

7.8.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any Work to be inspected, tested or approved, the Contractor shall give the Engineer timely notice of its readiness and of the date arranged so the Engineer may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests and approvals unless otherwise provided.

7.8.2 If after the commencement of the Work, the Engineer determines that any Work requires special inspection, testing or approval which Subparagraph 7.8.1 does not include, he will, upon written authorization from the Owner, instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give notice as in Subparagraph 7.8.1. If such special inspection or testing reveals a failure of the Work to comply (1) with the requirements of the Contract Documents, or (2) with respect to the performance of the Work, with laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, the Contractor shall bear all costs thereof, including the Engineer additional services made necessary by such

failure; otherwise the Owner shall bear such costs, and an appropriate Change Order shall be issued.

7.8.3 Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered by him to the Engineer.

7.8.4 If the Engineer wishes to observe the inspections, tests or approvals required by this Paragraph 7.8, he will do so promptly, and where practicable, at the source of supply.

7.8.5 Neither the observations of the Engineer in his administration of the construction contract, nor inspection, tests or approvals by persons other than the Contractor shall relieve the Contractor from his obligations to perform the Work in accordance with the Contract Documents.

7.9 Interest

7.9.1 Any moneys not paid when due to either party under this Contract shall bear interest at the legal rate at the place of the Project.

7.10 Mediation

7.10.1 All claims, disputes and other matters in question arising out of, or relating to, this Contract or the breach thereof, except for claims which have been waived by the making or acceptance of final payment as provided by Subparagraph 9.7.5, shall be decided by mediation by the American Arbitration Association unless the parties mutually agree otherwise.

7.10.2 Notice of the demand for mediation shall be filed in writing with the other party to the Contract and with the American Arbitration Association, and a copy shall be filed with the Engineer. The demand for mediation shall be made within the time limits specified in Subparagraphs 2.2.9 and 2.2.10 where applicable, and in all other cases within a reasonable time after the claim, dispute or other matter in question has arisen, and in no event shall it be made after the date when institution or legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

7.10.3 The Contractor shall carry on the Work during any mediation proceedings, unless otherwise agreed by him and the Owner in writing.

TIME

8.1 Definitions

8.1.1 The Contract Time is the period of time allotted in the Contract Documents for completion of the work.

- 8.1.2 The date of commencement of the Work is the date established in a notice to proceed. If there is no notice to proceed, it shall be the date of the Agreement or such other date as may be established therein.
- 8.1.3 The date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Engineer when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner may occupy the Work or designated portion thereof for the use for which it is intended.
- 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day.
- 8.2 Progress and Completion
 - 8.2.1 All time limits stated in the Contract Documents are of the essence of the Contract.
 - 8.2.2 The Contractor shall begin the Work on the date of commencement as defined in Subparagraph 8.1.2. He shall carry the Work forward expeditiously with adequate forces and shall complete it within the Contract Time.
 - 8.2.3 If a date or time of completion is included in the Contract, it shall be the Date of Substantial Completion as defined in Subparagraph 8.1.3, including authorized extensions thereto, unless otherwise provided.
- 8.3 Delays and Extensions of Time
 - 8.3.1 If the Contractor is delayed at any time in the progress of the Work by any act or neglect of the Owner or the Engineer, or by any employee of either, or by any separate contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the Contractor's control, or by delay authorized by the Owner pending arbitration, or by any cause which the Engineer determines may justify the delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Engineer may determine.
 - 8.3.2 All claims for extension of time shall be made in writing to the Engineer no more than seven days after the occurrence of the delay; otherwise, they shall be waived. In the case of continuing cause of delay, only one claim is necessary.
 - 8.3.3 If no schedule or agreement is made stating the dates upon which written interpretations as set forth in Subparagraph 1.2.4 shall be furnished, then no claim for delay shall be allowed on account of failure to furnish such interpretations until fifteen days after demand is made for them, and not then unless such claim is reasonable.
 - 8.3.4 This Paragraph 8.3 does not exclude the recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 Contract Sum

- 9.1.1 The Contract Sum is stated in the Agreement and is the total amount payable by the Owner to the Contractor for the performance of the Work under the Contract Documents.

9.2 Schedule of Values

- 9.2.1 Before the first Application for Payment, the Contractor shall submit to the Engineer a schedule of values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Engineer may require. This schedule, unless objected to the Engineer, shall be used as a basis for reviewing the Contractor's Application for Payment.

9.3 Progress Payments and Retainage

- 9.3.1 At least ten days before each progress payment falls due, the Contractor shall submit to the Engineer an itemized Application for Payment, supported by such data substantiating the Contractor's right to payment as the Owner or the Engineer may require.
- 9.3.2 At the time for payment to the Contractor, the Owner shall review for approval a full, accurate, and detailed estimate of the various kinds of labor performed and materials furnished under the Contract with the amount due for each and the aggregate amount. This estimate shall include the amounts of the preceding estimate, and the amount of labor and materials furnished since the last estimate.
- 9.3.3 If the payments are to be made on account of materials or equipment not incorporated in the Work but delivered and suitably stored at the site, or at some other location agreed upon in writing, such payments shall be conditioned upon submission by the Contractor of bills of sale or such other procedures satisfactory to the Owner to establish the Owner's title to such materials or equipment or otherwise protect the Owner's interest including applicable insurance and transportation to the site.
- 9.3.4 The Contractor warrants and guarantees that title to all Work, materials and equipment covered by an Application for Payment, whether incorporated in the Project or not, will pass to the Owner upon receipt of such payment by the Contractor, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this Article 9 as "liens"; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor or by any other person performing the Work at the site of furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is

retained by the seller or otherwise imposed by the Contractor or such other person.

- 9.3.5 The Contractor shall be paid an amount equal to 92% of the estimated value of all work completed up to 50% of the contract value, excluding change orders.

9.4 Certificates for Payment

- 9.4.1 If the Contractor has made Application for Payment as above, the Engineer will, with reasonable promptness but not more than seven days after the receipt of the Application, issue a Certificate for Payment to the Owner, with a copy to the Contractor, for such amount as he determines to be properly due, or state in writing his reasons for withholding a Certificate as provided in Subparagraph 9.5.1.

- 9.4.2 The issuance of a Certificate for payment will constitute a representation by the Engineer to the Owner, based on his observations at the site as provided in Subparagraph 2.2.4 and the data comprising the Application for Payment, that the Work has progressed to the point indicated; that, to the best of his knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent tests required by the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific qualifications stated in his Certificate); and that the Contractor is entitled to payment in the amount certified. In addition, the Engineer's final Certificate for Payment will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth in Subparagraph 9.7.2 have been fulfilled. However, by issuing a Certificate for Payment, the Engineer shall not thereby be deemed to represent that he has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work or that he has reviewed the construction means, methods, techniques, sequences or procedures, or that he has made any examination to ascertain how or for what purpose the Contractor has used the moneys previously paid on account of the Contract Sum.

- 9.4.3 After the Engineer has issued a Certificate for Payment, the Owner shall make payment in the manner provided in the Agreement.

- 9.4.4 No certificate for a progress payment, nor any progress payment, nor any partial or entire use of occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

9.5 Payments Withheld

- 9.5.1 The Engineer may decline to approve an Application for Payment and may withhold his Certificate in whole or in part, to the extent necessary reasonably to protect the Owner, if in his opinion he is unable to make representations to the Owner as provided in Subparagraph 9.4.2. The Engineer may also decline

to approve any Application for Payment or, because of subsequently discovered evidence or subsequent inspections, he may nullify the whole or any part of any Certificate for Payment previously issued, to such extent as may be necessary in his opinion to protect the Owner from loss because of:

- 9.5.1.1 defective Work not remedied;
- 9.5.1.2 third party claims filed or reasonable evidence indicating probable filing of such claims;
- 9.5.1.3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- 9.5.1.4 reasonable doubt that the Work can be completed for the unpaid balance of the Contract Sum;
- 9.5.1.5 damage to another contractor;
- 9.5.1.6 reasonable doubt that the Work will not be completed within the Contract Time; or,
- 9.5.1.7 unsatisfactory prosecution of the Work by the Contractor.

9.5.2 When the above grounds in Subparagraph 9.5.1 are removed, payment shall be made for amounts withheld because of them.

9.6 Failure of Payment

- 9.6.1 If the Engineer should fail to issue any Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner should fail to pay the Contractor within seven days after the date established in the Agreement any amount certified by the Engineer or awarded by arbitration, then the Contractor may, upon seven additional days' written notice to the Owner and the Engineer, stop the Work until payment of the amount owing has been received.
- 9.6.2 Payment on Application for Payment certified by the Engineer and approved by the Owner shall be made within thirty (30) days of the date of such approval. If the Owner should fail to make payment within this time, there shall be allowed to the Contractor, in addition to any other remedies available by law, interest on such moneys. The rate of such interest shall be the average of the prime interest rate established at the commercial banks in the city of over one hundred thousand population that is nearest the construction site.
- 9.6.3 Payment of retained moneys shall be made within thirty (30) days from date of authorization for payment. If not made, there shall be allowed to the Contractor, in addition to other remedies allowed by law, interest on the retained moneys. This interest shall be in addition to any interest earned in the escrow account. Interest rate shall be determined as in Sub-paragraph 9.6.2.

9.7 Substantial Completion and Final Payment

- 9.7.1 When the Contractor determines that the Work or a designated portion thereof acceptable to the Owner is substantially complete, the Contractor shall prepare for submission to the Engineer a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Engineer, on the basis of an inspection, determines that the Work is substantially complete, he will then prepare a Certificate of Substantial Completion which shall establish the Date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for maintenance, heat, utilities and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them in such Certificate.
- 9.7.2 Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the A & E will promptly make such inspection and, when he finds the Work acceptable under the Contract Documents and the Contract fully performed, he will promptly issue a final Certificate for Payment stating that to the best of his knowledge, information and belief, and on the basis of his observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, and noted in said final Certificate, is due and payable.
- 9.7.3 Neither the final payment nor the remaining retained percentage shall become due until the Contractor submits to the Engineer (1) an Affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or his property might in any way be responsible, have been paid or otherwise satisfied, (2) consent of surety, if any, to final payment and (3), if required by the Owner, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Owner. If any Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify him against any such lien. If any such lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.
- 9.7.4 If, after Substantial Completion of the Work final completion thereof is materially delayed through no fault of the Contractor, and the Engineer so confirms, the Owner shall, upon certification by the Engineer and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than the retainage stipulated in the Contract Documents and, if bonds have been furnished as required in Subparagraph

7.5.1, the written consent of the surety to the payment of the balance due for the portion of the Work fully completed and accepted shall be submitted by the Contractor to the Engineer prior to certification of such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

9.7.5 The making of final payment shall constitute a waiver of all claims by the Owner except those arising from:

9.7.5.1 unsettled liens;

9.7.5.2 faulty or defective Work appearing after Substantial Completion;

9.7.5.3 failure of the Work to comply with the requirements of the Contract Documents; or

9.7.5.4 terms of any special guarantee required by the Contract Documents.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 Safety Precautions and Programs

- 10.1.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

10.2 Safety of Persons and Property

- 10.2.1 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:
 - 10.2.1.1 all employees on the Work and all other persons who may be affected thereby;
 - 10.2.1.2 all the Work and all materials and equipment to be incorporated therein, whether in storage on or off site, under the care, custody or control of the Contractor or any of his Subcontractors or Sub-subcontractors; and
 - 10.2.1.3 other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- 10.2.2 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. He shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.
- 10.2.3 When the use of storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.
- 10.2.4 All damage or loss to any property referred to in Clause 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, any Subcontractor, any Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, shall be remedied by the Contractor, except damage or loss attributable to faulty Drawings or Specifications or to the acts or omissions of the Owner or Engineer or anyone employed by either of them or for whose acts either of them may be liable, and not attributable to the fault of negligence of the Contractor.
- 10.2.5 When an estimate is allowed on account of material delivered to the site of the Work or other approved location for storage, such material becomes the

property of the Owner under the Contract; however, if such material or equipment is stolen, damaged, or destroyed by casualty before being used, the Contractor will be responsible for its replacement.

- 10.2.6 The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated in writing by the Contractor to the Owner and the Engineer.

10.3 Emergencies

- 10.3.1 In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 12 for Changes in the Work.

ARTICLE 11

INSURANCE

11.1 Contractor's Liability Insurance

- 11.1.1 The Contractor shall purchase and maintain 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 by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- 11.1.1.1 claims under workmen's compensation, disability benefit and other similar employee benefit acts;
- 11.1.1.2 claims for damages because of bodily injury, occupational sickness or disease or death of his employees;
- 11.1.1.3 claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;
- 11.1.1.4 claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person; and
- 11.1.1.5 claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

- 11.1.2 The insurance required by Subparagraph 11.1.1 shall be written for not less than any limits of liability specified in the Contract Documents, or required by

law, whichever is greater, and shall include contractual liability insurance as applicable to the Contractor's obligations under Paragraph 4.18.

- 11.1.3 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These Certificates shall contain a provision that coverage afforded under the policies will not be canceled until at least fifteen days prior to written notice has been given to the Owner.

11.2 Owner's Liability Insurance

- 11.2.1 The Owner at his option, shall be responsible for purchasing and maintaining his own liability insurance and, may purchase and maintain such insurance as will protect him against claims, which may arise from operations under the Contract.

11.3 Loss of Use Insurance

- 11.3.1 The Owner, at his option, may purchase and maintain such insurance as will insure him against loss of use of his property due to fire or other hazards, however caused.

ARTICLE 12

CHANGES IN THE WORK

12.1 Change Orders

- 12.1.1 The Owner, without invalidating the Contract, may order Changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and the Contract Time being adjusted accordingly. All such Changes in the Work shall be authorized by Change Order, and shall be executed under the applicable conditions of the Contract Documents.
- 12.1.2 A Change Order is a written order to the Contractor signed by the Owner and the Engineer, issued after the execution of the Contract, authorizing a Change in the Work or an adjustment in the Contract Sum or the Contract Time. Alternatively, the Change Order may be signed by the Engineer alone, provided he has written authority from the Owner for such procedure and that a copy of such written authority is furnished to the Contractor upon request. A Change Order may also be signed by the Contractor if he agrees to the adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time may be changed only by Change Order.
- 12.1.3 The cost or credit to the Owner resulting from a Change in the Work shall be determined in one or more of the following ways:

- 12.1.3.1 by mutual acceptance of a lump sum properly itemized;

12.1.3.2 by unit prices in the Contract Documents or subsequently agreed upon; or

12.1.3.3 by cost and mutually acceptable fixed or percentage fee.

12.1.4 If none of the methods set forth in Subparagraph 12.1.3 is agreed upon, the Contractor, provided he receives a Change Order, shall promptly proceed with the Work involved. The cost of such Work shall then be determined by the Engineer on the basis of the Contractor's reasonable expenditures and savings, including, in the case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. In such cases and also under Clause 12.1.3.3 above, the Contractor shall keep and present, in such form as the Engineer may prescribe, an itemized accounting together with appropriate supporting data. Pending final determination of cost to the Owner, payments on account shall be made on the Engineer's Certificate for Payment. The amount of credit to be allowed by the Contractor to the Owner for any deletion or change, which results in a net decrease in cost will be, the amount of the actual net decrease as confirmed by the Engineer. When both additions and credits are involved in any one change, the allowance for overhead and profit shall be figured on the basis of net increase, if any.

12.1.5 Should concealed conditions encountered in the performance of the Work below the surface of the ground be set at variance with the conditions indicated by the Contract Documents or should unknown physical conditions below the surface of the ground of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, be encountered, the Contract Sum shall be equitably adjusted by Change Order upon claim by either party made within twenty days after the first observance of the conditions.

12.1.6 If the Contractor claims that additional costs involved because of (1) any written interpretation issued pursuant to Subparagraph 1.2.4, (2) any order by the Owner to stop the Work pursuant to Paragraph 3.3 where the Contractor was not at fault, or (3) any written order for a minor change in the Work issued pursuant to Paragraph 12.3, the Contractor shall make such claim as provided in Paragraph 12.2.

12.2 Claims for Additional Cost

12.2.1 If the Contractor wishes to make a claim for an increase in the Contract Sum, he shall give the A & E written notice thereof within seven days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed in accordance with Subparagraph 10.3.1. No such claim shall be valid unless so made. If the Owner and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the Engineer. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

12.3 Minor Changes in the Work

- 12.3.1 The Engineer shall have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes may be effected by Field Order or by other written order. Such changes shall be binding on the Owner and the Contractor.

12.4 Field Orders

- 12.4.1 The Engineer may issue written Field Orders which interpret the Contract Documents in accordance with Subparagraph 1.2.4 or which order minor changes in the Work in accordance with Paragraph 12.3 without change in Contract Sum or Contract Time. The Contractor shall carry out such Field Orders promptly.

ARTICLE 13

UNCOVERING AND CORRECTION OF WORK

13.1 Uncovering of Work

- 13.1.1 If any Work should be covered contrary to the request of the Engineer, it must, if required by the Engineer, be uncovered for his observation and replaced, at the Contractor's expense.
- 13.1.2 If any other Work has been covered which the Engineer has not specifically requested to observe prior to being covered, the Engineer may request to see such Work and it shall be uncovered by the Contractor. If such Work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall be, by appropriate Change Order, charged to the Owner. If such Work be found not in accordance with the Contract Documents, the Contractor shall pay such costs unless it be found that this condition was caused by a separate contractor employed as provided in Article 6, and in that event the Owner shall be responsible for the payment of such costs.

13.2 Correction of Work

- 13.2.1 The Contractor shall promptly correct all Work rejected by the Engineer as defective or as failing to conform to the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all cost of correcting such rejected Work, including the cost of the Engineer additional services thereby made necessary.
- 13.2.2 If, within one year after Date of Substantial Completion or within such longer period of time as may be prescribed by law or by the terms of any applicable

special guarantee required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovering of the condition.

- 13.2.3 All such defective or non-conforming Work under Subparagraphs 13.2.1 and 13.2.2 shall be removed from the site if necessary, and the Work shall be corrected to comply with the Contract Documents without cost to the Owner.
- 13.2.4 The Contractor shall bear the cost of making good all work of separate contractors destroyed or damaged by such removal or correction.
- 13.2.5 If the Contractor does not remove such defective or non-conforming Work within a reasonable time fixed by written notice from the Engineer, the Owner may remove it and may store the materials or equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten days thereafter, the Owner may, upon ten additional days' written notice, sell such Work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor including compensation for Engineer's additional services. If such costs of sale do not cover all costs, which the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.
- 13.2.6 If the Contractor fails to correct such defective or non-conforming Work, the Owner may correct it in accordance with Paragraph 3.4.

13.3 Acceptance of Defective or Non-conforming Work

- 13.3.1 If the Owner prefers to accept defective or non-conforming Work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect an appropriate reduction in the Contract Sum, or, if the amount is determined after final payment, it shall be paid by the Contractor.

ARTICLE 14

TERMINATION OF THE CONTRACT

14.1 Termination by the Contractor

- 14.1.1 If the Work is stopped for a period of thirty days under an order of any court or other public authority having jurisdiction, or as a result of an act of government such as a declaration of a national emergency making material unavailable,

through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, or if the Work should be stopped for a period of thirty days by the Contractor for the Engineer's failure to issue a Certificate of Payment as provided in Paragraph 9.6 or for the Owner's failure to make payment thereon as provided in Paragraph 9.6, then the Contractor may, upon seven days' written notice to the Owner and the Engineer, terminate the Contract and recover from the Owner payment for all Work executed and for any proven loss sustained upon any materials, equipment, tools, construction equipment and machinery, including reasonable profit and damages.

14.2 Termination by the Owner

- 14.2.1 If the Contractor is adjudged bankrupt, or if he makes a general assignment for the benefit of his creditors, or if a receiver is appointed on account of his insolvency, or if he persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he fails to make prompt payment to Subcontractors or for materials or labor, or any public authority having jurisdiction or otherwise is guilty of a substantial violation of a provision of the Contract Documents, then the Owner, upon certification by the Engineer that sufficient cause exists to justify such action, may, without prejudice to any right or remedy and after giving the Contractor and his surety, if any, seven days' written notice, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method he may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished.
- 14.2.2 If the unpaid balance of the Contract Sum exceeds the costs of finishing the Work, including compensation for the Engineer's additional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor shall pay the difference to the Owner. The costs incurred by the Owner as herein provided shall be certified by the Engineer.

SPECIAL CONDITIONS

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SPECIAL CONDITIONS

ARTICLE 1

DEFINITIONS AND STANDARDS

1.1 Definitions

- | | | |
|-------|------------------------|--|
| 1.1.1 | Owner | Township of Copley, Ohio acting through their duly authorized representative. |
| 1.1.2 | Engineer | Architects-Engineers, the firm of Glaus, Pyle, Schomer, Burns And DeHaven, employed for this work and as representative of the Owner and as further defined in the General Conditions. |
| 1.1.3 | Contract | All covenants, terms and stipulations contained in all the Contract Documents. |
| 1.1.4 | Contractor | The party of the second part entering into Contract with the Owner for performance of this work or his properly authorized agent. |
| 1.1.5 | Approved Equal | Approved by the A & E. |
| 1.1.6 | Work | Labor or materials or both. |
| 1.1.7 | Substantial Completion | The date of substantial completion of the project is the date when the construction is sufficiently completed, in accordance with the plans and specifications, as modified by any change orders agreed to by the parties, so that the Owner may use the facility. |

1.2 Standards

All equipment, materials and labor required to complete the work specified in the Contract Documents shall be in strict accordance with the applicable requirements of the latest editions and interim amendments of the following standards:

- | | | |
|-------|------|--|
| 1.2.1 | ASTM | The American Society for Testing Materials |
| 1.2.2 | AIA | The American Institute of Architects |
| 1.2.3 | ASME | The American Society of Mechanical Engineers |
| 1.2.4 | IEEE | Institute of Electrical and Electronic Engineers |
| 1.2.5 | NEMA | National Electrical Manufacturers Association |

1.2.6	AWS	American Welding Society
1.2.7	NEC	National Electric Code
1.2.8	NESC	National Electric Safety Code
1.2.9	ANSI	American National Standards Institute
1.2.10	AASHTO	American Association of State Highway Officials
1.2.11	SAE	Society of Automotive Engineers
1.2.12	IPCEA	Insulated Power Cable Engineers Association
1.2.13	APE	American Petroleum Institute
1.2.14	AWWA	American Water Works Association
1.2.15	UL	Underwriters' Laboratories
1.2.16	ACI	American Concrete Institute
1.2.17	ODOT	State of Ohio Department of Transportation Construction and Material Specifications
1.2.18	AISC	American Institute of Steel Construction
1.2.19	AISI	American Iron and Steel Institute
1.2.20	SSPC	Steel Structures Painting Council
1.2.21	NBFU	National Board of Fire Underwriters
1.2.22	NFPA	National Fire Protection Association
1.2.23	OSHA	Occupational Safety and Health Association
1.2.24	EPA OEPA	Environmental Protection Agency Ohio Environmental Protection Agency
1.2.25	ODOH	Ohio Department of Health
1.2.26	DOT	Department of Transportation
1.2.27	DOT	Ohio Building Code

ARTICLE 2

LIQUIDATED DAMAGES

See "TIME OF COMPLETION" in the Information for and Instructions to Bidders Section and Form of Proposal Section of the Contract Documents/Specifications.

ARTICLE 3

3.1 The Contractor agrees that he will comply with the provisions of:

- 3.1.1 Executive Order 11246, September 24, 1965, relating to equal employment opportunities and with applicable rules, regulations and procedures prescribed pursuant thereto.
- 3.1.2 Title VI of the Civil Rights Act of 1964 (78 Stat. 25; Public Law 88-352), providing that no person in the United States shall, because of race, color, or national origin, be excluded from participating in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance (Sec. 601), and to the implementing regulation issued by the Secretary of the Interior with the approval of the President (43 CFR Part 17).

ARTICLE 4

FEDERAL REGULATIONS

4.1 Social Security Act

- 4.1.1 The Contractor shall be and remain an independent contractor with respect to all services performed hereunder and agrees to and does hereby accept full and exclusive liability for the payment of any and all contributions or taxes for social security, unemployment insurance, or old age retirement benefits, pensions, or annuities now or hereafter imposed under any State or Federal law which are measured by the wages, salaries, or other remuneration paid to persons employed by the Contractor on work performed under the terms of this Contract, and further agrees to obey all lawful rules and regulations and to meet all lawful requirements which are now or hereafter may be issued or promulgated under said respective laws by any duly authorized State or Federal officials; and each said Contractor also agrees to indemnify and save harmless the Owner, from any such contributions or taxes or liability therefore.

ARTICLE 5

SCOPE OF WORK

5.1 Scope of Work for All Divisions

- 5.1.1 The work described in the specifications consists of furnishing all of the labor, appliances, and services necessary to complete the work shown or reasonably inferred on the drawings and/or described in the specifications, and all materials and equipment to be incorporated at the construction for a complete and operable installation for the Owner's use. All excess materials, containers, etc. shall be removed from the job site at the completion of the work.

ARTICLE 6

TEMPORARY FACILITIES, USE OF SITE AND SITE CONDITIONS

6.1 Field Facilities

6.1.1 The Contractor shall be responsible for the following:

- 6.1.1.1 Provide and maintain an adequate number of portable fire extinguishers.
- 6.1.1.2 Temporary sanitary facilities for the use of all personnel in compliance with all Local and State of Ohio Health Codes. Remove the facilities at the completion of work.
- 6.1.1.3 Provide a lockable field office complete with desks, cabinets, plan rack, laydown table, electric and telephone (land line or cellular) service.
- 6.1.1.4 Provide a lockable storage trailer or shed for the storage and protection of construction materials.
- 6.1.1.5 Provide temporary electric power as needed.
- 6.1.1.6 Containerized drinking water and paper supply for the use of construction personnel.
- 6.1.1.7 Dumpster/trash or roll off box container for the collection and disposal of demolition and construction waste.

6.2 Watchman

- 6.2.1 The Contractor shall provide the services of a watchman if such becomes necessary to protect the work, or to protect the public from hazardous conditions arising from the work.

6.3 Dust, Unnecessary Noise and Burning

- 6.3.1 The movement and use of machinery and equipment and the handling of materials and conduct of the work shall be such as to avoid and eliminate unnecessary noise, dirt, and dust.

6.3.2 No burning of refuse or other materials shall be permitted on the site.

6.4 Existing Structures

6.4.1 The Contract Documents indicate the existing structures insofar as they have been determined, but the information is not guaranteed to be correct or complete. Unless otherwise indicated in the Contract Documents or unless otherwise taken care of by the Owner thereof, all utilities and all structures of any nature, whether below or above ground, that may be affected by the work, shall be protected and maintained by the Contractor and shall not be disturbed or damaged during the progress of the work; provided that should the Contractor disturb, disconnect or damage any utility or any structure, all expenses of whatever nature arising from such disturbance or the replacement or repair thereof shall be borne by the Contractor.

6.5 Use of Premises

6.5.1 Roads shall be used by the Contractors and Suppliers as directed by the Engineer. Damage of the grounds, resulting from hauling, storage of materials, or other activity connected with the work, shall be repaired by the Contractor at his expense, to the satisfaction of the Engineer.

6.6 Handling of Materials

6.6.1 The Contractor shall make his own arrangements for the handling of materials. The Owner will not accept deliveries for or sign for Contractor's equipment. This will be the sole responsibility of the Contractor. Shipment will only be received during normal working hours.

6.7 Protecting Work and Materials

6.7.1 Materials and Equipment stored at the site or elsewhere shall be protected at all times from physical injury and from weather, dirt and water. Housing platforms and racks shall be used for the proper storage of such materials. The Contractor shall take all precautions to protect all work from any condition of weather.

ARTICLE 7

OTHER OPERATIONS

7.1 The Contractor shall coordinate his work and schedule with the Owners operation and personnel on the site.

ARTICLE 8

CLEAN UP

8.1 Cleaning Up

- 8.1.1 The Contractor shall be responsible for the collection and removal of rubbish, debris, cartons, etc., in accordance with the General Conditions, Article 4.16 and 6.4.
- 8.1.2 At the completion of the work, the Contractor shall remove all rubbish that has accumulated, and shall leave the work area clean.

ARTICLE 9

MISCELLANEOUS PROVISIONS

9.1 State, Federal and Local Taxes

- 9.1.1 Materials purchased for use of consumption in connection with the proposed work will be exempt from the State of Ohio Sales Tax as provided for in Section 5739.02 of the Revised Code of Ohio and also from the state of Ohio Use Tax, Section 5741.01. Purchases by the Contractor of expendable items such as form lumber, tools, oils, greases, fuel or equipment rentals are subject to the application of the Ohio Sales or Use Tax.

9.2 Drawings

- 9.2.1 The drawings accompanying this specification indicate the general arrangement expected. The Engineer may request material revision to the detailed design drawings submitted by the Contractor to secure better access, operation or maintenance. Where such changes affect the cost of the work, the price shall be adjusted as indicated.

9.3 Standards-Substitutions

- 9.3.1 Those articles, devices, materials, forms of construction, fixtures, etc., named in the specifications to denote the kind and quality required, whether or not the word "or equal" is used, shall be known as "Standards" and all proposals shall be based on the same. Where the bidder is required to name a supplier or subcontractor in his proposal, no deviation will be permitted from such listings.

ARTICLE 10

GUARANTEES

10.1 Guarantees

- 10.1.1 The Contractor shall provide guarantees in accordance with the General Conditions, Articles 9.3.4 and 13.2.2.

- 10.1.2 The attention of all bidders is directed to the conditions that the Contractor and his Surety will be held responsible to the Owner that all items of equipment installed under this Contract fully meet the design and in actual operation satisfactorily perform the functions for which installed. Further, that the Owner may withhold final payment until such performance and operation is demonstrated.

10.2 Personnel Protection

- 10.2.1 The Contractor shall agree not to solicit or recruit the Owner's personnel during the term of this Contract. The Contractor shall agree that any former employee of the Owner that becomes employed by the Contractor during the term of this Contract shall not be used on this project.

ARTICLE 11

INSURANCE LIMITS

11.1 Public Liability, Property Damage and Automobile Insurance

- 11.1.1 The Contractor shall take out and maintain during the life of this Contract, at his own expense, such insurance as prescribed herein and in the General Conditions, Article 11.
- 11.1.2 Certificates of insurance shall be submitted to the Owner through the Engineer in accordance with the minimum limits described.

11.2 Builder's Risk Insurance (Property Insurance)

- 11.2.1 The Contractor shall take out and maintain during the life of the Contract, comprehensive builder's risk insurance with extended coverage and coverage for vandalism and malicious mischief in an amount equal to the Contract price. The insurance shall protect the Owner and the Contractor, and shall include coverage, for damage or loss to the work and to appurtenances, all materials, supplies, equipment, construction plant, and temporary structures arising from fire, explosion, wind, earthquake, smoke, aircraft and lightning. No exclusions shall be authorized except that the policy may be made subject to the standard nuclear clause. The policy of insurance or certified copy thereof shall be delivered to the Owner prior to the commencement of construction.

CONTRACTORS PROJECT INSURANCE

Project:

Owner: Township of Copley

Date: Start of work to Final Completion

The Contractor is hereby instructed to include the following insurance for this project.

A. CONTRACTOR'S LIABILITY INSURANCE

1. Workers' Compensation

State and Employers Liability
Employer's Liability

Statutory
\$500,000
\$500,000 - Each Accident
\$500,000 - Disease, Policy limit
\$500,000 - Disease, Each employee

2. General Liability (including Premises-Operations; Independent Contractors' Protective; Products and Completed Operations; Broad Form Property Damage):

- (a) Bodily Injury:
\$1,000,000 - Each Occurrence
\$2,000,000 - Aggregate
- (b) Property Damage
\$1,000,000 - Each Occurrence
\$2,000,000 - Aggregate
- (c) Products and Completed Operations Insurance shall be maintained for a minimum period of 3 years after final payment and the Contractor shall continue to provide evidence of such coverage to the Owner on an annual basis during the aforementioned period.
- (d) Property Damage Liability Insurance shall include coverage for the following hazards:
X (Explosion)
C (Collapse)
U (Underground)
- (e) Contractual Liability (Hold Harmless Coverage):
Bodily Injury
\$1,000,000 - Each Occurrence
Property Damage:
\$1,000,000 - Each Occurrence
- (f) Personal Injury
\$2,000,000 - Aggregate

- (g) If the General Liability policy includes a General Aggregate, such General Aggregate shall be not less than \$2,000,000. Policy shall be endorsed to have General Aggregate apply to this Project only.

3. Umbrella Excess Liability
\$1,000,000 Over primary insurance
\$10,000 Retention
4. Automobile Liability (owned, non-owned, hired):
\$1,000,000 Combined Single Limit for bodily injury and property damage liability
5. Other Insurance:
- | Coverage: | Amount: |
|--|---|
| Automobile Liability - Non-Owned & Hire Car | Included in above Auto Liability Limits |
| Broad Form General Liability Coverage | Included in General Liability Limits |
| Uninsured & Under Insured Motorists Coverage | At Contractor's discretion |

B. PROPERTY INSURANCE

The Contractor shall purchase the following:

All-Risk

In the names of the Owner, Architect/Engineer, Contractor, Subcontractor and Sub-subcontractors as their interests may appear with limits as follows:

Amount equal to the Contract Sum for the Work.

C. OTHER INSTRUCTIONS RELATED TO INSURANCE

The Township of Copley shall be named as additional insured in regards to the Contractor's auto, general and umbrella liability insurance policies.

ARTICLE 12

PAYMENT PROCEDURE

12.1 Payment Procedure

- 12.1.1 The Contractor shall submit for payment on standard Application for Payment forms furnished by the Engineer, or such other forms as may be designated by the Owner. The

payment forms shall reflect a detailed schedule of values equaling the amounts shown on the bid forms on the Form of Proposal and must be approved by the Engineer.

- 12.1.2 Application for Payments shall be due in the office of the Engineer at the first of the month, and shall be acted upon within seven days. After approval by the Owner, payment shall be made within thirty days of certification by the Engineer.

ARTICLE 13

WAGE RATES

13.1 Wage Rates

- 13.1.1 "Prevailing Wages" are required on this project.

Supplemental Specification – Parking Lot Lighting Design Build

General

All lighting work shall conform to the following codes and standards:

- A. National Electric Code, NEC 2017
- B. ODOT Traffic Engineering Manual, TEM, Section 1100 Highway Lighting
- C. ODOT Construction and Materials Specifications Manual, C&MS 2019

Points of Contact

Point(s) of contact for coordination of lighting work are:

Greg Tracy
Copley Township
Service Director
330-666-0365 x1115

Lighting Design Parameters

A. General Description of Work:

1. The CONTRACTOR shall provide permanent LED lighting for parking lot per the layout in the improvement plans.
2. All lighting equipment shall be new at the time of installation, unless noted otherwise.
3. The CONTRACTOR shall ground all structures. The grounding system shall ground all metal items and appurtenances on all structures, including any and all decorative items. The grounding system shall include parallels for redundancy. The grounding system shall be constructed in accordance with ODOT SCD HL-50.21, with additional items as needed to provide a complete and acceptable grounding system.
4. All disturbed surfaces are to be restored in accordance with Copley Township standards.
5. The CONTRACOR shall submit to the Township plans for review and approval, stamped by a professional engineer registered in the State of Ohio.
6. The CONTRACTOR shall be responsible for any necessary permits through the Summit County Building Department.

B. Power Service:

1. The power service shall be coordinated with the First Energy by the CONTRACTOR.
2. The power service for lighting shall be 240/120V, 3-wire, single phase, located and sized as required throughout the project limits, quantity and location determined by the CONTRACTOR.
3. All enclosures shall be painted black to match the finish of the decorative light poles.

C. Pedestrian Level Lighting:

1. The township has purchased the light poles and luminaires for the CONTRACTOR to install. The CONTRACTOR team shall coordinate with the township for pick up.

Equipment Requirements

A. General:

1. The township will supply light poles and luminaires.
2. All decorative light pole foundations shall comply with ODOT SCD HL-20.11, with a **30" exposed height from the ground to the top of the foundation**. Anchor bolt patterns and mounting requirements shall be coordinated with selected manufacturer's pole specifications.
3. The lighting shall be laid out per the parking lot improvement plans.

Circuit Requirements

A. General:

1. Underground circuitry is to be installed. The lighting infrastructure shall be installed in a minimum 2" conduit
2. All conduits shall be Schedule 80 PVC.
3. The location of underground conduit and lighting cable shall be marked by the use of continuous underground warning / marking tape buried in the trench above the conduit in accordance with C&MS 625.20 and 725.22.
4. Circuit conductors shall be sized using a 5% maximum allowable voltage drop.
5. Pull boxes shall comply with ODOT C&MS 625.11 and 725.08, ODOT SCDs and the TEM.
6. Pull boxes shall be Portland cement concrete. Pull boxes for 2" lighting circuits shall be 24"x 24", with a cover rated for a 22,500 pound load. Pull boxes shall be spaced at a maximum of 200 feet, and at all road crossings.
7. Pull box lids shall have the word 'LIGHTING' in capital letters, attached or embossed into the lid.

Record-Drawing Plans

A. General: At the completion of the work, prior to final acceptance of the construction, the CONTRACTOR shall furnish the City Record-Drawing construction plans.

Record-Drawing plans shall be submitted in the following methods:

- Half Size (11x17) PDF Images
- Half Size (11x17) plans

Survey

The CONTRACTOR will be provided the existing and proposed plans in AutoCAD format to assist in the design

Payment

All the above work shall be considered inclusive of the LUMP SUM bid price of PARKING LOT LIGHTING, DESIGN BUILD

PREVAILING WAGE RATES

Go to: www.com.ohio.gov/laws/BidPacketPreparation.aspx

May 19, 2022

Ms. Sara Harville, P.E.
Project Manager
CESO
175 Montrose West Avenue, Suite 400
Akron, Ohio 44321

Re: Geotechnical Subsurface Exploration Report
Proposed Parking Lot
3550 Copley Road
Akron, Summit County, Ohio
PSI Project Number: 0142-2554

Dear Ms. Harville:

Per your request, Professional Service Industries, Inc. (PSI) is pleased to submit this Geotechnical Engineering Services Report for the above referenced project. The results of this exploration, together with our recommendations, are to be found in the accompanying report.

After the plans and specifications are complete, PSI should review the final design and specifications in order to verify that the earthwork and recommendations are properly interpreted and implemented. **It is considered imperative that the geotechnical engineer and/or its representative be present during earthwork operations and pavement installations to observe the field conditions with respect to the design assumptions and specifications. PSI will not be held responsible for interpretations and field quality control observations made by others.**

If you have any questions pertaining to this report, please contact our office at (216) 447-1335. PSI would be pleased to continue providing geotechnical services throughout the implementation of the project, and we look forward to working with you and your organization on this and future projects.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

A handwritten signature in blue ink, appearing to read "St. A. Pell".

Stephanie A. Pell, E.I.
Project Engineer

A handwritten signature in blue ink, appearing to read "A. Veeramani".

A. Veeramani, P.E.
Director/Principal Consultant

Geotechnical Subsurface Exploration Report



For the Proposed

**Parking Lot
3550 Copley Road
Akron, Summit County, OH**

A handwritten signature in blue ink, appearing to read "St. A. Pell".

**Stephanie A. Pell, E.I.
Project Engineer**

Prepared for

**CESO
175 Montrose West Avenue, Suite 400
Akron, OH 44321**

A handwritten signature in blue ink, appearing to read "A. Veeramani".

**A. Veeramani, P.E.
Director/Principal Consultant**

Prepared by

**Professional Service Industries, Inc.
5555 Canal Road
Cleveland, OH 44125**

PSI Project No. 0142-2554

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GENERAL NOTES & USCS SOIL CLASSIFICATION CHART

1 PROJECT INFORMATION

1.1 PROJECT AUTHORIZATION

This report presents the results of a geotechnical subsurface exploration and evaluation conducted for CESO in connection with the proposed new Parking Lot located at 3550 Copley Road in the City of Akron, Summit County, Ohio. PSI's services for this project were performed in accordance with PSI Proposal No. 0142-371451, dated April 15, 2022. Authorization to perform this exploration and analysis was in the form of a Project Authorization Form signed on April 22, 2022 by Mr. Jeff Tibbitts, Senior VP of Operations at CESO.

1.2 PROJECT DESCRIPTION

Based on the provided information, it is understood the proposed project will include the construction of a new parking lot at 3550 Copley Road in the City of Akron, Summit County, Ohio. The new parking lot will be located south of the existing building structure and will have 85 spaces with an access driveway constructed from Copley Road. Additionally, a detention basin will be constructed north of the proposed parking lot.

No traffic information was available at the time of this report submittal. However, it is understood that the parking lot will be used mainly for car parking. Based on the limited information provided, the assumed design 18-kip ESAL's of 25,000 and 100,000 are planned for the Flexible Standard Duty Pavement areas and Heavy-Duty Pavement areas, respectively, for this submittal.

No grading or topographic information was available at the time of this report. However, based on topographic information obtained from the Summit County GIS and site observations, the site is slightly sloped from south to north, with an elevation difference of about 6 feet (1055' MSL to 1049' MSL). It is anticipated that maximum cut/fill operations of less than 2 feet will be required for the proposed construction.

The geotechnical recommendations presented in this report are based on the available project information, the proposed parking lot location on the site, and the subsurface materials described in this report. If any of the information we have been given or have assumed is incorrect, please contact us so that we may amend the recommendations presented accordingly. PSI will not be responsible for the implementation of its recommendations when it is not notified of changes in the project.

1.3 PURPOSE AND SCOPE OF SERVICES

The purpose of this study was to explore the subsurface conditions at the site and to prepare recommendations for site preparation, pavement installation, and other construction considerations. Our scope for this service included a project site reconnaissance, drilling and sampling four (4) test borings, completing a laboratory testing program, and submitting an engineering analysis and evaluation of the subsurface materials.

For each boring, Standard Penetration Tests (SPT) were performed and 18-inch split spoon samples were obtained semi-continuously in general conformance with ASTM standards. PSI visually classified the soil encountered in the test borings. The results of the visual classifications, the SPT blow counts, and water level observations are presented in the attached Boring Logs. The soil samples will be stored in our laboratory for further analysis, if requested. Unless notified otherwise, the samples will be disposed of after 60 days.

The scope of services for the geotechnical exploration did not include an environmental assessment for the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater or air, on or below or around this site. Any statements in this report or on the boring logs regarding odors, colors or unusual or suspicious items or conditions are strictly for the information of the Client. PSI's scope also did not include any service to investigate or detect the presence of moisture, mold or other biological contaminants in or around any structure, or any service that was designed or intended to prevent or lower the risk of the occurrence or the amplification of the same. The Client should be aware that mold is ubiquitous to the environment, with mold amplification occurring when building materials are impacted by moisture. The Client should also be aware that site conditions are outside of PSI's control, and that mold amplification will likely occur, or continue to occur, in the presence of moisture. As such, PSI cannot and shall not be held responsible for the occurrence or reoccurrence of mold amplification.

2 SITE AND SUBSURFACE CONDITIONS

2.1 SITE LOCATION AND DESCRIPTION

The proposed new parking lot located at 3550 Copley Road in the City of Akron, Summit County, Ohio. The new parking lot will be located south of the existing building structure (Lat: 41.098331 & Long: -81.643528).

The proposed construction area is currently covered with gravel, trees, grass and a baseball field. No grading or topographic information was available at the time of this report. However, based on topographic information obtained from the Summit County GIS and site observations, the site is slightly sloped from south to north, with an elevation difference of about 6 feet (1055' MSL to 1049' MSL). Surface drainage was fair at the time of the field drilling operations. PSI recommends that any existing utility lines be checked and marked prior to construction activities.

2.2 SUBSURFACE CONDITIONS

The surface and subsurface conditions at the site were explored with a total of four (4) test borings. The test borings were each drilled to depths of approximately 10 to 20 feet below the existing surface grades. The approximate boring locations are shown on the Boring Location Plan presented in the *Appendix* of this report. The locations for the test borings were selected by PSI and located in the field relative to existing site features and based on site accessibility and the presence of below ground utilities.

The borings were advanced utilizing 3¼ inch inside diameter, hollow-stem auger drilling methods. Soil samples were routinely obtained during the drilling process. Selected soil samples were later tested in the laboratory to obtain soil material properties for the pavement recommendations. Drilling, sampling, and laboratory testing was accomplished in general accordance with ASTM procedures.

The types of subsurface materials encountered in the test borings have been visually classified. The results of the visual classifications, Standard Penetration Tests, moisture contents and water level observations are presented on the boring logs in the *Appendix* of this report. Representative samples of the soils were placed in sample jars and are now stored in the laboratory for further analysis, if requested. Unless notified to the contrary, all samples will be disposed of after 60 days following the date of this report.

The surface of the site at test boring locations B-1, B-2 and B-4 was covered with 12 to 14 inches of topsoil. The surface of the site at test boring location B-3 was covered with 12 inches of gravel. The type and thickness of the surface materials may be varying throughout the site.

The surface material at test boring location B-3 was underlain by fill materials and extended to a depth of about 6 feet below the surface grade. The fill materials consisted primarily of lean clay with varying amounts of sand, gravel and cinders. The fill materials exhibited moisture contents of about 20 to 23 percent. However, the depth and engineering characteristics of the fill materials, such as composition, strength, and compressibility are variable.

Underlying the topsoil or fill materials, natural soils were encountered at all test boring locations, extending to depths of approximately 10 to 17.5 feet below the surface grade. The natural soils consisted of lean clay, sandy silty clay and silty sand with varying amounts of gravel. The natural soils exhibited moisture contents ranging from 6 to 28 percent. The natural cohesive soils exhibited a soft to stiff consistency, and the natural granular soils exhibited a loose to dense relative density, based on the Standard Penetration Tests.

The area's bottommost formation at test boring location B-4 consisted of extremely soft, gray, highly weathered shale and encountered at the depth of about 17.5 feet below the existing surface grade.

The subsurface description is of a generalized nature provided to highlight the major strata encountered. The boring logs included in the *Appendix* should be reviewed for specific information at the individual boring locations. The stratifications shown on the boring logs represent the conditions only at the actual test positions. Variations may occur and should be expected between the boring locations. The stratifications represent the approximate boundary between the subsurface materials, and the transition may be gradual or not clearly defined.

2.3 GROUNDWATER LEVEL MEASUREMENTS

Groundwater was encountered in test boring location B-3 at a depth of 6 feet below the existing surface grade during the field drilling operations, and at a depth of 7 feet below the existing surface grade after the field drilling operations. Groundwater was not encountered in any of the other test boring locations. However, it should be noted that groundwater levels will fluctuate seasonally as a function of precipitation and other hydrogeological factors. Therefore, at a time of year different from the time of drilling, there may be a considerable change in the water table, or the occurrence of water where not previously encountered. Furthermore, the water levels in the boreholes often are not representative of the actual groundwater level because the boreholes remain open for a relatively short time. Therefore, we recommend that the contractor determine the actual groundwater levels at the time of construction to evaluate groundwater impact on the construction procedures.

3 EVALUATION AND RECOMMENDATIONS

3.1 SITE PREPARATION AND EARTHWORK CONSTRUCTION

Prior to placing engineered fill on this site, general site area clearing should be carried out. All existing grass, gravel, topsoil, excessively wet soils, highly organic soils, and soft/loose or obviously compressible materials, should be completely removed from the proposed construction areas. **Additionally, the unsuitable fill material, as evidenced at test boring location B-3, should be removed to a depth of 18 inches below the proposed pavement subgrade elevation, and replaced with compacted engineered fill.** The precise extent of required cut and fill should be

determined in the field by a representative of PSI following observation of the exposed subgrades and proof rolling operations.

Following the site clearing, stripping and undercutting, and prior to placing engineered fill, the exposed subgrades should be critically proof rolled with a loaded 15-ton tandem-axle dump truck until the grade offers a relatively unyielding surface. Areas of excessive yielding, as observed by a PSI representative, should be excavated and backfilled with compacted engineered fill and/or the unstable soils can be stabilized by choking the exposed bearing surface with crushed limestone or similar coarse aggregate. After the existing subgrade materials are excavated to design grade, proper control of subgrade compaction and the placement and compaction of new fill materials should be observed and tested by a representative of PSI.

It is recommended that the site preparation, proof rolling, and earthwork activities be performed during a period of dry weather, which can significantly reduce the required extent of soil stabilization, drainage and surface repairs.

During site preparation, fill piles, burn pits, trash pits or other isolated disposal areas may be encountered. All too frequently such buried material occurs in isolated areas outside boring locations. Any such material encountered during site work or pavement construction should be excavated, removed from the site, and backfilled with compacted structural fill.

3.2 ENGINEERED FILL

Materials selected for use as structural fill should not contain more than 5 percent by weight of organic matter, waste construction debris, or other deleterious materials. Fill materials should have a standard Proctor maximum dry density of greater than 110 pounds per cubic foot (pcf), an Atterberg Liquid Limit of less than 40, a Plasticity Index of less than 15, and a maximum particle size of 3 inches or less. Structural fill should consist of non-expansive materials. Pyritic and/or potentially expansive materials, such as mine tailings, shales and slag should not be used as structural fill.

Based on the results of the boring explorations, the on-site fill soils are suitable for reuse as engineered fill. If the on-site soils are used for fill, close moisture content control will be required to achieve the recommended degree of compaction. PSI anticipates that disking and aerating the soils during a warm, dry period may be necessary to lower the moisture content. If engineered fill placement must proceed during a wet or cool time of the year, it may likely be infeasible to re-use the on-site soils as engineered fill and imported fill materials would be required. If wet or cool season earthwork is necessary, we recommend the use of imported fill materials such as ODOT No. 304 or 411 crushed aggregate.

Representative samples of the proposed fill materials should be collected at least one week prior to the start of the filling operations. The samples should be tested to determine the maximum dry density, optimum moisture content, particle size distribution and plasticity characteristics. These tests are needed to determine if the material is acceptable as structural fill and for quality control during the compaction process.

Fill materials should be placed and compacted in individual lifts of 8 inches or less loose measurement. Within small excavations such as in utility trenches, around manholes, or behind retaining walls, we recommend the use of smaller, hand or remote-guided equipment. Loose lift thicknesses of 4 inches or less are recommended when using such equipment.

We recommend that structural fill be compacted to a minimum of 98 percent of the maximum dry density and within ± 2 percent of the optimum moisture content, as determined by ASTM D-698. A representative of PSI should observe fill placement operations and perform density tests concurrently to indicate if the specified compaction is being achieved.

3.3 PAVEMENT RECOMMENDATIONS

Pavement design will include proper preparation of subgrade sectors, careful design of the pavement area drainage systems and utilization of an aggregate base course with asphalt concrete or concrete surface course. Preparation of pavement subgrades should be in accordance with recommendations outlined in the *Site Preparation* and *Engineered Fill* sections of the report. Careful attention will be required in fine grading the subgrade surfaces in order to eliminate undulations and depressions that would tend to collect water.

No traffic information was available at the time of this report. However, for this pavement design, we estimated 18-kip ESAL's of 25,000 and 100,000 for the planned Light-Duty Pavement areas and Heavy-Duty Pavement areas, respectively. Based on the estimated traffic information and CBR value of 4, the pavement design parameters for the proposed development are as follows:

Design Parameters		
	Flexible Pavement	Rigid Pavement
Reliability:	80%	80%
Overall Deviation:	0.49	0.39
Design Life (Years):	20	20
Initial Serviceability:	4.5	4.2
Terminal Serviceability:	2.5	2.5
Design CBR	4	--
Subgrade Modulus (k, pci)	--	75

Flexible Pavement

The recommended pavement thickness values are shown in Tables 1 and 2. These design thicknesses assume that a properly prepared subgrade has been achieved.

Table 1: Flexible Pavement Sections (20-Year Design Life)		
Layer	Light-Duty*	Heavy-Duty
Surface Course (ODOT #448 Type 1)	1.5 inches	1.5 inches
Intermediate Course (ODOT #448 Type 2)	2.5 inches	3.0 inches
Aggregate Base Course (ODOT #304)	6.0 inches	8.0 inches

*Parking spaces only

For parking stalls that allow free movement through them (i.e., no parking block or curbs), we recommend installing the heavy-duty asphalt section. Allowances for proper drainage and proper material selection of base materials are most important for performance of asphaltic pavements. Ruts and birdbaths in asphalt pavement allow for quick deterioration of the pavement primarily due to saturation of the underlying base and subgrade.

Rigid Pavement

The use of concrete for paving has become more prevalent in recent years due to the long-term maintenance cost benefits of concrete compared to asphaltic pavements. Should concrete pavement be utilized, the concrete should be properly reinforced and jointed, and should have a 28-day flexural strength of no less than 650 psi and should be air entrained. Expansion joints should be sealed with a polyurethane sealant so that moisture infiltration into the subgrade soils and resultant concrete deterioration at the joints is reduced.

Table 2: Rigid Pavement Sections

Rigid (Concrete) Pavement	Light-Duty*	Heavy-Duty
Reinforced Concrete	5.0 inches	6.0 inches
Aggregate Base Course (ODOT #304)	4.0 inches	6.0 inches

**Parking spaces only*

The portions of the site where rigid (PCC) pavements are recommended include the entrance/exit driveway aprons and the dumpster pad enclosure area. A heavy-duty pavement section is recommended for lanes designated for delivery trucks. Crushed aggregate base materials should be compacted to at least 98 percent of the standard Proctor (ASTM D 698) maximum dry density near optimum moisture content. The use of Portland cement concrete (PCC) for paving has become more prevalent in recent years based on material costs for concrete vs. bituminous and the long-term maintenance cost benefits of concrete compared to bituminous pavements. If PCC pavement is utilized, the concrete should be properly jointed, have proper load-transfer mechanisms installed, and should have a minimum 28-day compressive strength of 4,000 psi. Expansion and construction joints should be sealed with a polyurethane sealant so that moisture infiltration into the subgrade soils and resultant concrete deterioration at the joints is minimized. Concrete pavement at least 8 inches thick is recommended for the trash dumpster pad and entrance/exit aprons due to the high wheel and impact loads that this area receives.

Design for drainage is of the utmost importance to minimize detrimental effects that may shorten the service life of the pavements. The pavement should be crowned or sloped in order to promote effective surface drainage and reduce the risk of water ponding. We recommend a minimum slope of 1.5 percent. In addition, the subgrade should be similarly sloped to promote effective subgrade drainage. We recommend “stub” or “finger” drains be provided around catch-basins and in other low areas of the proposed pavements to limit the accumulation of water on the frost susceptible subgrade soils. Subsurface edge drains should be provided at curbs. Where no curbs are proposed, ditches should be provided, and the pavement base course should be daylighted through the ditch side slope to facilitate drainage of the base course.

If fill material is needed to establish the required pavement grade, fill placement and compaction must be performed in accordance with the procedures outlined in the Site Preparation section of this report. The edges of compacted fill should extend a minimum 2 feet beyond the edges of the pavement, or a distance equal to the depth of fill beneath the pavement, whichever is greater.

All materials to be employed and field operations required in connection with the contemplated pavement structures should follow recommendations and procedural details as per the Ohio Department of Transportation, Asphalt Institute, and/or American Concrete Institute.

4 CONSTRUCTION CONSIDERATIONS

4.1 GROUNDWATER CONTROL AND DRAINAGE

Groundwater was encountered in test boring location B-3 at a depth of 6 feet below the existing surface grade during the field drilling operations, and at a depth of 7 feet below the existing surface grade after the field drilling operations. Groundwater was not encountered in any of the other test boring locations. However, groundwater and/or seepage could be encountered during excavation and construction. Accordingly, a gravity drainage system, sump pump or other conventional dewatering procedure, as deemed necessary by the field conditions, should be implemented throughout construction such that the groundwater is always controlled and maintained at an elevation of at least 2 feet below the excavation bottom. Every effort should be made to keep the excavations dry if water is encountered.

A permanent perimeter and lateral underdrain system should be installed within the pavement areas. It is important to provide "positive" site drainage across and off the pavement areas. The new pavement surface needs to provide positive drainage to the sites existing storm water inlets or discharge points and water should not be allowed to collect or pond in landscaped areas adjacent to pavement areas.

Clean gravel, free from clay or foreign debris, shall be placed first along the bottom of the excavated subgrade trench. To prevent migration of fines into the clean gravel, the gravel should be wrapped in a non-woven filter fabric. Compaction of the clean gravel should be visually inspected to provide an unyielding surface.

A 4-inch diameter ADS Drain Guard with sock shall be installed within the excavated trench to a minimum depth of 42 inches below the top of the pavement. A granular material should then be backfilled and compacted to at least 95 percent maximum dry unit weight according to ASTM D 698 and within 2 percent of the optimum moisture content. The granular material around the drainage members is to terminate in direct contact with the aggregate base course of the pavement. Compaction of the granular fill should be performed using mechanical rammer or tampers to avoid overstressing the ADS Drain Guard. Infiltration of water into excavations, ponding of water on finished subgrade, or softening or damaging of the bearing materials due to rain or water accumulation should be prevented.

4.2 EXCAVATIONS

In Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, Part 1926, Subpart P." This document was issued to better ensure the safety of workers entering trenches or excavations. It is mandated by this federal regulation that all excavations, whether they be utility trenches, basement excavations or foundation excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced. If they are not followed closely, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person" as defined in "CFR Part 1926," should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or

excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our Client. PSI is not assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred. If the excavations are left open and exposed to the elements for a significant length of time, desiccation of the clays may create minute shrinkage cracks which could allow large pieces of clay to collapse or slide into the excavation.

Materials removed from the excavation should not be stockpiled immediately adjacent to the excavation, inasmuch as this load may cause a collapse of the embankment.

4.3 WEATHER CONSIDERATIONS

The soils encountered at this site are known to be sensitive to disturbances caused by construction traffic and to changes in moisture content. During wet weather periods, increases in the moisture content of the soil can cause significant reduction in the soil strength and support capabilities. Care should be exercised during the grading operations at the site. Due to the fine-grained nature of the surficial soils, the traffic of heavy equipment, including heavy compaction equipment, may very well create pumping and a general deterioration of those soils in the presence of water. Therefore, the grading should, if possible, be performed during a dry season. A layer of crushed stone may be required to allow the movement of construction traffic over the site during the rainy season. The contractor should maintain positive site drainage and if wet/pumping conditions occur, the contractor will be responsible to over excavate the wet soils and replace them with a properly compacted engineered fill. During wet seasons, limestone stabilization may be required to place engineered fill.

5 GEOTECHNICAL RISK

The concept of risk is an important aspect of the geotechnical evaluation. The primary reason for this is that the analytical methods used to develop geotechnical recommendations do not comprise an exact science. Site exploration identifies actual subsurface conditions only at those points where samples are taken. A geotechnical report is based on conditions that existed at the time of the subsurface exploration. The analytical tools which geotechnical engineers use are generally empirical and must be used in conjunction with engineering judgment and experience. Therefore, the solutions and recommendations presented in the geotechnical evaluation should not be considered risk-free and, more importantly, are not a guarantee that the interaction between the soils and the proposed structure will perform as planned. The engineering recommendations presented in the preceding sections constitute PSI's professional estimate of those measures that are necessary for the proposed structure to perform according to the proposed design based on the information generated and referenced during this evaluation, and PSI's experience in working with these conditions.

6 REPORT LIMITATIONS

The recommendations submitted in this report are based on the available subsurface information obtained by PSI and design details furnished by CESO for the proposed project. If there are any revisions to the plans for the proposed project, or if deviations from the subsurface conditions noted in this report are encountered during construction, PSI should be retained to determine if changes in the recommendations are required. If PSI is not retained to perform these functions, PSI will not be responsible for the impact of those conditions on the geotechnical recommendations for the project.

The Geotechnical Engineer warrants that the findings, recommendations, specifications, or professional advice contained herein, have been presented after being prepared in accordance with generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics and engineering geology. No other warranties are implied or expressed.

After the plans and specifications are complete, it is recommended that PSI be provided the opportunity to review the final design and specifications, in order to verify that the earthwork and recommendations are properly interpreted and implemented. At that time, it may be necessary to submit supplementary recommendations. This report has been prepared for the exclusive use of CESO for the specific application to the proposed new Parking Lot located at 3550 Copley Road in the City of Akron, Summit County, Ohio.

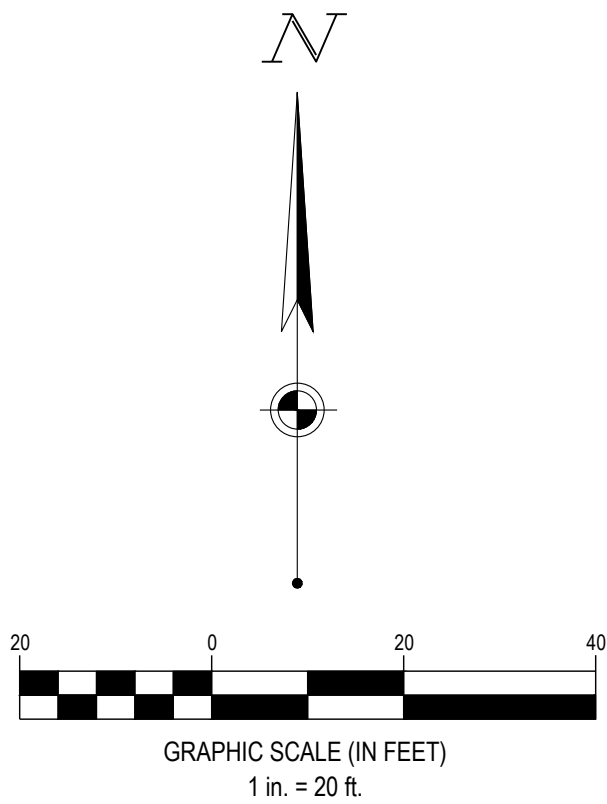
APPENDICES

BORING LOCATION PLAN

BORING LOGS

GRAIN SIZE GRAPH

GENERAL NOTES & USCS SOIL CLASSIFICATION CHART



NO. DATE REVISION DESCRIPTION

COPLEY TOWNSHIP
COPLEY TOWNSHIP
PARKING LOT
1540 S. CLEVELAND MASSILLON ROAD
COPLEY, OH 44321

CONCEPT

ISSUE:
CONCEPT
DATE:
4/11/2022
JOB NO.: 760658
DESIGN: JAG
DRAWN: JAG
CHECKED: SJH
SHEET NO.
1.0


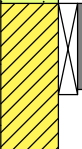
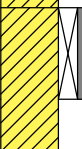
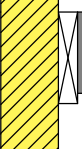

DATE STARTED: 5/2/22		DRILL COMPANY: PSI, Inc.		BORING B-1	
DATE COMPLETED: 5/2/22		DRILLER: TS LOGGED BY: SP			
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BENCHMARK: N/A		DRILLING METHOD: Hollow Stem Auger			
ELEVATION: 1053 ft		SAMPLING METHOD: 2-in SS			
LATITUDE: 41.098267°		HAMMER TYPE: Automatic		BORING LOCATION:	
LONGITUDE: -81.643675°		EFFICIENCY: 93%			
STATION: N/A OFFSET: N/A		REVIEWED BY: AV			
REMARKS:					


Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ■ PL + LL				Additional Remarks	
									STRENGTH, tsf ▲ Qu * Qp						
	0					13" Topsoil									
				1	17	Soft, Moist, Brown Mottled Gray, Lean CLAY with Sand , Trace Gravel	CL	WH-1-3 N=4	24	◎	*	×		LL = 21 PL = 14 Fines=55.7%	
1050				2	18	Stiff, Moist, Brown, Sandy SILTY CLAY , Trace Gravel	CL-ML	3-4-5 N=9	11	◎	×	■	+		*
5				3	18			4-5-5 N=10	12	◎	×	*			
1045				4	18	▼ @ 8.5 ft; Trace Rock Fragments		6-7-8 N=15	14		◎		>>*		
10															

	Professional Service Industries, Inc.	PROJECT NO.: 0142-2554
	5555 Canal Road	PROJECT: Parking Lot
	Cleveland, OH 44125	LOCATION: 3550 Copley Road
	Telephone: (216) 447-1335	Akron, Summit County, Ohio

The stratification lines represent approximate boundaries. The transition may be gradual.

DATE STARTED: 5/2/22		DRILL COMPANY: PSI, Inc.		BORING B-2	
DATE COMPLETED: 5/2/22		DRILLER: TS LOGGED BY: SP			
COMPLETION DEPTH: 10.0 ft		DRILL RIG: ATV CME-55		<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">Water</div> <div style="display: flex; flex-direction: column; gap: 5px;"> <div>▽ While Drilling N/A</div> <div>▼ Upon Completion N/A</div> <div>▽ Caved Depth 8 feet</div> </div> </div>	
BENCHMARK: N/A		DRILLING METHOD: Hollow Stem Auger			
ELEVATION: 1055 ft		SAMPLING METHOD: 2-in SS			
LATITUDE: 41.098128°		HAMMER TYPE: Automatic		BORING LOCATION:	
LONGITUDE: -81.643244°		EFFICIENCY: 93%			
STATION: N/A OFFSET: N/A		REVIEWED BY: AV			
REMARKS:					

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft @				Additional Remarks
										<div style="display: flex; justify-content: space-between; font-size: 0.8em;"> × Moisture ▣ PL </div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> 0 25 50 + </div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> ▲ Qu * Qp </div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> 0 2.0 4.0 </div>				
	0					12" Topsoil								
				1	17	Soft, Moist, Brown Mottled Gray, Lean CLAY with Sand , Trace Gravel	CL	WH-1-2 N=3	28	⊙	*	×		
				2	18	Stiff, Moist, Brown, Lean CLAY with Sand , Trace Gravel, Trace Rock Fragments		5-7-8 N=15	16		⊙		>>*	
1050	5			3	16		CL	2-4-8 N=12	12		⊙	*		
				4	18	▼ @ 8 ft; Interbedded Sand Seams		3-5-6 N=11	13		⊙		>>*	
1045	10													

	Professional Service Industries, Inc. 5555 Canal Road Cleveland, OH 44125 Telephone: (216) 447-1335		PROJECT NO.: 0142-2554 PROJECT: Parking Lot LOCATION: 3550 Copley Road Akron, Summit County, Ohio

The stratification lines represent approximate boundaries. The transition may be gradual.

DATE STARTED: 5/3/22		DRILL COMPANY: PSI, Inc.		BORING B-3											
DATE COMPLETED: 5/3/22		DRILLER: JJ LOGGED BY: SP													
COMPLETION DEPTH: 10.0 ft		DRILL RIG: Truck D-50		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="3" style="width: 30px; text-align: center; vertical-align: middle;">Water</td> <td style="text-align: center;">▽</td> <td>While Drilling</td> <td style="text-align: right;">6 feet</td> </tr> <tr> <td style="text-align: center;">▼</td> <td>Upon Completion</td> <td style="text-align: right;">7 feet</td> </tr> <tr> <td style="text-align: center;">▽</td> <td>Caved Depth</td> <td style="text-align: right;">N/A</td> </tr> </table>		Water	▽	While Drilling	6 feet	▼	Upon Completion	7 feet	▽	Caved Depth	N/A
Water	▽	While Drilling	6 feet												
	▼	Upon Completion	7 feet												
	▽	Caved Depth	N/A												
BENCHMARK: N/A		DRILLING METHOD: Hollow Stem Auger		BORING LOCATION:											
ELEVATION: 1049 ft		SAMPLING METHOD: 2-in SS													
LATITUDE: 41.0986°		HAMMER TYPE: Automatic													
LONGITUDE: -81.643855°		EFFICIENCY: 94%													
STATION: N/A OFFSET: N/A		REVIEWED BY: AV													
REMARKS:															

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	STANDARD PENETRATION TEST DATA N in blows/ft ☉ × Moisture ■ PL ■ LL STRENGTH, tsf ▲ Qu * Qp				Additional Remarks		
									0	25	50	0	2.0	4.0	
	0					12" Gravel									
				1	15	FILL: Medium Stiff to Stiff, Moist, Brown, Lean CLAY with Sand, Trace Gravel, Trace Cinders		2-3-4 N=7	23	☉	*	×			
1045				2	15			5-7-7 N=14	20	☉	×	*			
5				3	14	Loose, Wet, Brown, SILTY SAND, Trace Gravel, Trace Clay	SM	4-4-4 N=8	16	☉	×				
1040				4	9			1-4-5 N=9	16	☉	×				
10															

	Professional Service Industries, Inc. 5555 Canal Road Cleveland, OH 44125 Telephone: (216) 447-1335		PROJECT NO.: 0142-2554 PROJECT: Parking Lot LOCATION: 3550 Copley Road Akron, Summit County, Ohio

The stratification lines represent approximate boundaries. The transition may be gradual.

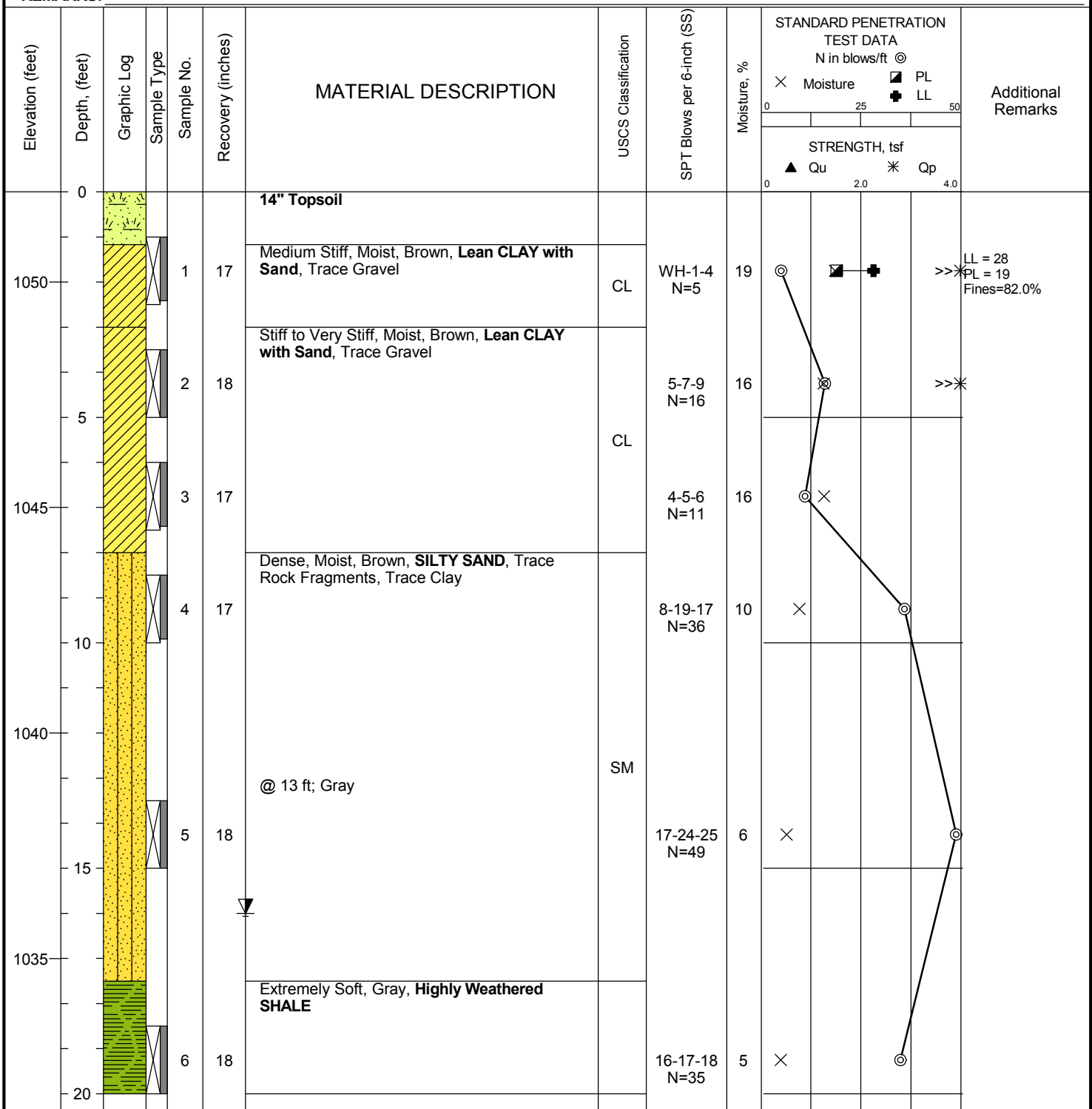
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 DATE COMPLETED: 5/2/22
 COMPLETION DEPTH: 20.0 ft
 BENCHMARK: N/A
 ELEVATION: 1052 ft
 LATITUDE: 41.098471°
 LONGITUDE: -81.643353°
 STATION: N/A
 REMARKS:

DRILL COMPANY: PSI, Inc.
 DRILLER: TS
 DRILL RIG: ATV CME-55
 DRILLING METHOD: Hollow Stem Auger
 SAMPLING METHOD: 2-in SS
 HAMMER TYPE: Automatic
 EFFICIENCY: 93%
 REVIEWED BY: AV

BORING B-4

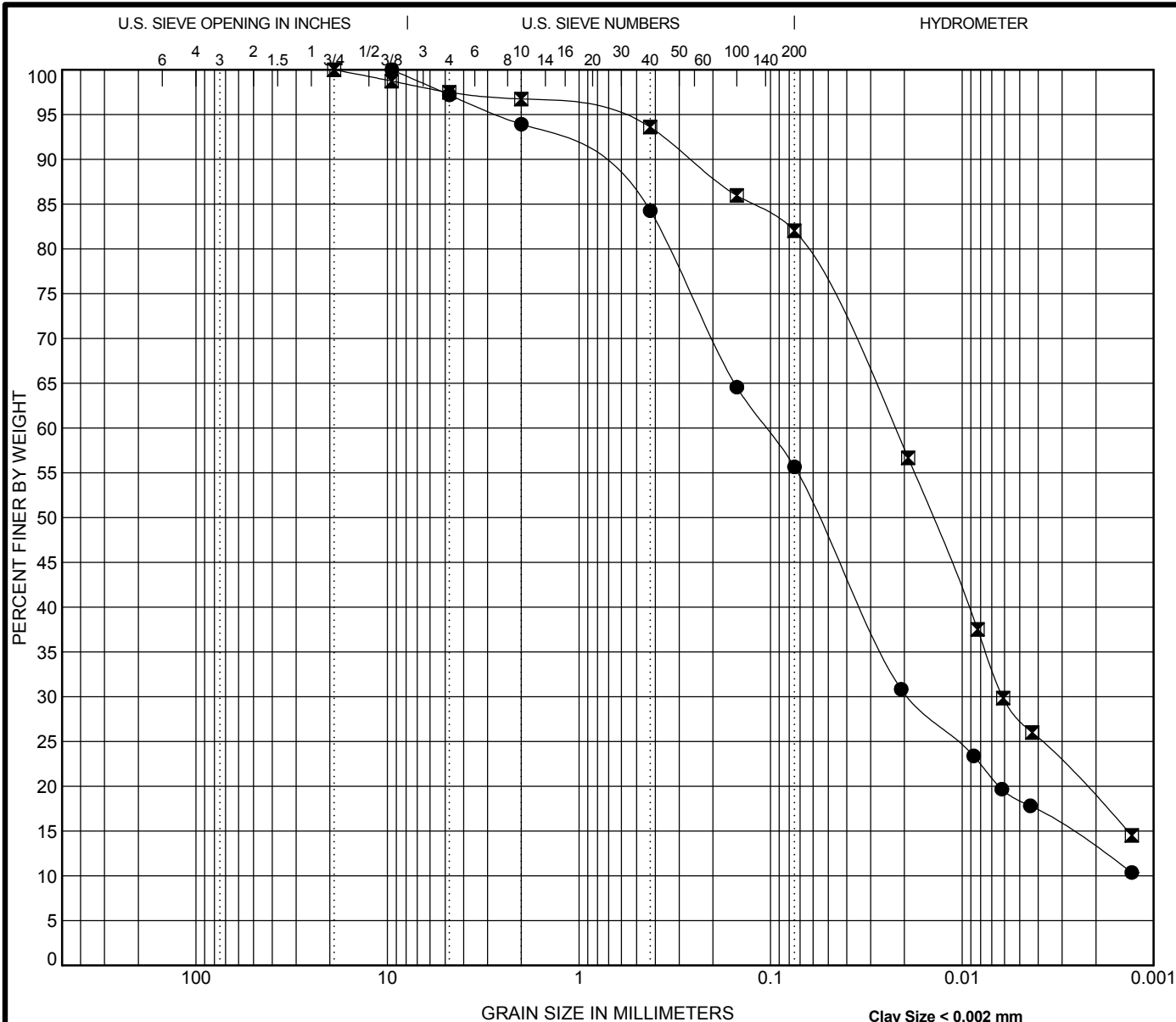
Water
 While Drilling: N/A
 Upon Completion: N/A
 Caved Depth: 16 feet

BORING LOCATION:



Professional Service Industries, Inc.
 5555 Canal Road
 Cleveland, OH 44125
 Telephone: (216) 447-1335

PROJECT NO.: 0142-2554
 PROJECT: Parking Lot
 LOCATION: 3550 Copley Road
 Akron, Summit County, Ohio



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification			Classification			LL	PL	PI	Cc	Cu
●	B-1	4.3	SANDY SILTY CLAY			21	14	7		
✕	B-4	1.8	LEAN CLAY with SAND			28	19	9		

Specimen Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-1	4.3	9.5	0.105	0.019		2.8	41.5	42.7	13.0
✕	B-4	1.8	19	0.023	0.006		2.5	15.4	63.4	18.7



Professional Service Industries, Inc.
 5555 Canal Road
 Cleveland, OH 44125
 Telephone: (216) 447-1335
 Fax: (216) 642-7008

GRAIN SIZE DISTRIBUTION

Project: Parking Lot
 PSI Job No.: 0142-2554
 Location: 3550 Copley Road
 Akron, Summit County, Ohio



GENERAL NOTES

SAMPLE IDENTIFICATION

The Unified Soil Classification System (USCS), AASHTO 1988 and ASTM designations D2487 and D-2488 are used to identify the encountered materials unless otherwise noted. Coarse-grained soils are defined as having more than 50% of their dry weight retained on a #200 sieve (0.075mm); they are described as: boulders, cobbles, gravel or sand. Fine-grained soils have less than 50% of their dry weight retained on a #200 sieve; they are defined as silts or clay depending on their Atterberg Limit attributes. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size.

DRILLING AND SAMPLING SYMBOLS

SFA: Solid Flight Auger - typically 4" diameter flights, except where noted.	SS: Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.
HSA: Hollow Stem Auger - typically 3 1/4" or 4 1/4" I.D. openings, except where noted.	ST: Shelby Tube - 3" O.D., except where noted.
M.R.: Mud Rotary - Uses a rotary head with Bentonite or Polymer Slurry	BS: Bulk Sample
R.C.: Diamond Bit Core Sampler	PM: Pressuremeter
H.A.: Hand Auger	CPT-U: Cone Penetrometer Testing with Pore-Pressure Readings
P.A.: Power Auger - Handheld motorized auger	

SOIL PROPERTY SYMBOLS

N: Standard "N" penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2-inch O.D. Split-Spoon.
N ₆₀ : A "N" penetration value corrected to an equivalent 60% hammer energy transfer efficiency (ETR)
Q _u : Unconfined compressive strength, TSF
Q _p : Pocket penetrometer value, unconfined compressive strength, TSF
w%: Moisture/water content, %
LL: Liquid Limit, %
PL: Plastic Limit, %
PI: Plasticity Index = (LL-PL), %
DD: Dry unit weight, pcf
▽, ▽, ▿: Apparent groundwater level at time noted

RELATIVE DENSITY OF COARSE-GRAINED SOILS

Relative Density	N - Blows/foot
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	50 - 80
Extremely Dense	80+

ANGULARITY OF COARSE-GRAINED PARTICLES

Description	Criteria
Angular:	Particles have sharp edges and relatively plane sides with unpolished surfaces
Subangular:	Particles are similar to angular description, but have rounded edges
Subrounded:	Particles have nearly plane sides, but have well-rounded corners and edges
Rounded:	Particles have smoothly curved sides and no edges

GRAIN-SIZE TERMINOLOGY

Component	Size Range
Boulders:	Over 300 mm (>12 in.)
Cobbles:	75 mm to 300 mm (3 in. to 12 in.)
Coarse-Grained Gravel:	19 mm to 75 mm (3/4 in. to 3 in.)
Fine-Grained Gravel:	4.75 mm to 19 mm (No.4 to 3/4 in.)
Coarse-Grained Sand:	2 mm to 4.75 mm (No.10 to No.4)
Medium-Grained Sand:	0.42 mm to 2 mm (No.40 to No.10)
Fine-Grained Sand:	0.075 mm to 0.42 mm (No. 200 to No.40)
Silt:	0.0075 mm to 0.075 mm
Clay:	<0.0075 mm (< 3/16 mm)

PARTICLE SHAPE

Description	Criteria
Flat:	Particles with width/thickness ratio > 3
Elongated:	Particles with length/width ratio > 3
Flat & Elongated:	Particles meet criteria for both flat and elongated

RELATIVE PROPORTIONS OF FINES

Descriptive Term	% Dry Weight
Trace:	< 5%
With:	5% to 12%
Modifier:	>12%



GENERAL NOTES

(Continued)

CONSISTENCY OF FINE-GRAINED SOILS

<u>Q_u - TSF</u>	<u>N - Blows/foot</u>	<u>Consistency</u>
0 - 0.25	0 - 2	Very Soft
0.25 - 0.50	2 - 4	Soft
0.50 - 1.00	4 - 8	Firm (Medium Stiff)
1.00 - 2.00	8 - 15	Stiff
2.00 - 4.00	15 - 30	Very Stiff
4.00 - 8.00	30 - 50	Hard
8.00+	50+	Very Hard

MOISTURE CONDITION DESCRIPTION

<u>Description</u>	<u>Criteria</u>
Dry:	Absence of moisture, dusty, dry to the touch
Moist:	Damp but no visible water
Wet:	Visible free water, usually soil is below water table

RELATIVE PROPORTIONS OF SAND AND GRAVEL

<u>Descriptive Term</u>	<u>% Dry Weight</u>
Trace:	< 15%
With:	15% to 30%
Modifier:	>30%

STRUCTURE DESCRIPTION

<u>Description</u>	<u>Criteria</u>	<u>Description</u>	<u>Criteria</u>
Stratified:	Alternating layers of varying material or color with layers at least ¼-inch (6 mm) thick	Blocky:	Cohesive soil that can be broken down into small angular lumps which resist further breakdown
Laminated:	Alternating layers of varying material or color with layers less than ¼-inch (6 mm) thick	Lensed:	Inclusion of small pockets of different soils
Fissured:	Breaks along definite planes of fracture with little resistance to fracturing	Layer:	Inclusion greater than 3 inches thick (75 mm)
Slickensided:	Fracture planes appear polished or glossy, sometimes striated	Seam:	Inclusion 1/8-inch to 3 inches (3 to 75 mm) thick extending through the sample
		Parting:	Inclusion less than 1/8-inch (3 mm) thick

SCALE OF RELATIVE ROCK HARDNESS

<u>Q_u - TSF</u>	<u>Consistency</u>
2.5 - 10	Extremely Soft
10 - 50	Very Soft
50 - 250	Soft
250 - 525	Medium Hard
525 - 1,050	Moderately Hard
1,050 - 2,600	Hard
>2,600	Very Hard

ROCK BEDDING THICKNESSES

<u>Description</u>	<u>Criteria</u>
Very Thick Bedded	Greater than 3-foot (>1.0 m)
Thick Bedded	1-foot to 3-foot (0.3 m to 1.0 m)
Medium Bedded	4-inch to 1-foot (0.1 m to 0.3 m)
Thin Bedded	1¼-inch to 4-inch (30 mm to 100 mm)
Very Thin Bedded	½-inch to 1¼-inch (10 mm to 30 mm)
Thickly Laminated	1/8-inch to ½-inch (3 mm to 10 mm)
Thinly Laminated	1/8-inch or less "paper thin" (<3 mm)

ROCK VOIDS

<u>Voids</u>	<u>Void Diameter</u>
Pit	<6 mm (<0.25 in)
Vug	6 mm to 50 mm (0.25 in to 2 in)
Cavity	50 mm to 600 mm (2 in to 24 in)
Cave	>600 mm (>24 in)

GRAIN-SIZED TERMINOLOGY

(Typically Sedimentary Rock)	
<u>Component</u>	<u>Size Range</u>
Very Coarse Grained	>4.76 mm
Coarse Grained	2.0 mm - 4.76 mm
Medium Grained	0.42 mm - 2.0 mm
Fine Grained	0.075 mm - 0.42 mm
Very Fine Grained	<0.075 mm

ROCK QUALITY DESCRIPTION



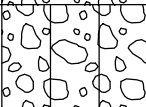


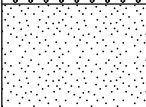
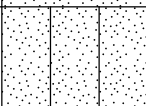
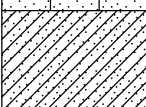
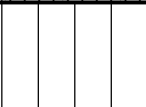
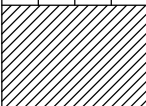
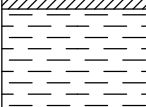
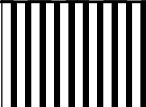

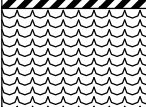
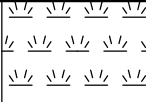
<u>Rock Mass Description</u>	<u>RQD Value</u>
Excellent	90 - 100
Good	75 - 90
Fair	50 - 75
Poor	25 - 50
Very Poor	Less than 25

DEGREE OF WEATHERING

Slightly Weathered:	Rock generally fresh, joints stained and discoloration extends into rock up to 25 mm (1 in), open joints may contain clay, core rings under hammer impact.
Weathered:	Rock mass is decomposed 50% or less, significant portions of the rock show discoloration and weathering effects, cores cannot be broken by hand or scraped by knife.
Highly Weathered:	Rock mass is more than 50% decomposed, complete discoloration of rock fabric, core may be extremely broken and gives clunk sound when struck by hammer, may be shaved with a knife.

SOIL CLASSIFICATION CHART

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

