2/3/2020

ADDENDUM NO. 1

PROJECT:	Washtenaw ISD – High Point School
DESCRIPTION:	Building Demolition
BID PACKAGE RELEASE NUMBER:	1
CLARK/AXIOM PROJECT NO:	2832/1004
BID PROPOSAL DUE DATE/TIME:	**UNCHANGED** **10:00 AM**, Thursday, February 6, 2020

The following clarifications and/or Changes made to the Contract Documents are hereby made part of the Contract Documents.

The general character of the Work clarified or revised by this Addendum shall be the same as required by the complete set of Contract Documents. All incidentals required in connection with the Work of this Addendum shall be included in the Scope of Work even though not specifically specified.

All bidders shall be held responsible to review the Addendum and to include in its Bid Proposal all Work reasonably inferred to be included in its Scope of Work.

Acknowledge receipt of this Addendum in the space provided on the Bid Proposal Form.

A. Division 00 – Bidding and Contract Requirement Modifications:

1. **Section 004126 – Bid Proposal Form** – Reissued
2. **Section 012300 – Alternates** – Reissued
    a. **Alternate 3** – Demolition of building to **EXCLUDE** asbestos requirements. Asbestos containing drywall to be removed by **OTHERS**.
3. **Pre-Bid Walkthrough Sign In Sheet**
4. **Pre-Bid RFI's**
    a. RFI .001 – Material Handling
    b. RFI .002 – Boiler Clarification
    c. RFI .003 – Universal Waste
    d. RFI .004 – Shoring Clarification
    e. RFI .005 – Tree Removal

B. Architect/Engineer Documentation:

1. Updated Specifications
    a. 312300 – Excavation and Fill

END OF SECTION

SECTION 004126
BID PROPOSAL FORM

BIDDER'S NAME:_____

PROJECT:	Washtenaw ISD – High Point School
CLARK PROJECT NO.:	19-2832
AXIOM PROJECT NO.:	19-1004
BID RELEASE NO.:	1
OWNER:	Washtenaw Intermediate School District 1819 South Wagner Road Ann Arbor, MI 48103
ARCHITECT:	TMP Architecture, Inc 1191 West Square Lake Road Bloomfield Hills, MI 48302 And Mitchell and Mouat Architecture 113 South Fourth Avenue Ann Arbor, MI 48104
CONSTRUCTION MANAGER:	Clark Construction Company 3535 Moores River Drive Lansing, MI 48901 And Axiom Construction Services Group, LLC 7789 E. M-36 Whitmore Lake, MI 48189
ATTENTION: TELEPHONE:	Tanner Rowe, Project Manager 517-898-2769

1. PROPOSAL

1.1. This offer has been prepared after our examination of the complete drawings and specifications, together with their related documents, and our examination of the conditions surrounding the construction of the proposed work including the availability of materials, equipment and labor. The undersigned submits the following offer to enter into a Contract with Washtenaw Intermediate School District and agrees to furnish all labor, material, equipment and service to complete the Work in accordance with the Contract Documents for:

A. **Bid Category No.: Description: 02 Building Demolition**

- Washtenaw ISD – High Point School Lump Sum Base Bid of:($_____)

_____Dollars

1.2. All appropriate sales taxes are included in the above Lump Sum Base Bid.

2. ADDENDA

2.1. The undersigned acknowledges receipt of the following Addenda and has included the cost thereof in the Lump Sum Base Bid:

No. 1, dated_____

3. TRADE HOURS

3.1. Total estimated trade hours required to perform the Work _____Trade Hours

3.2. The undersigned acknowledges that the estimated trade hours provided above are for Clark Construction Company scheduling purposes only and shall not be deemed a limit to trade hours required to perform the work and shall not be considered as a basis for claim.

4. BID SECURITY

4.1. Bid security in the amount of 5% of the proposal, shall accompany this proposal.

5. PERFORMANCE AND LABOR AND MATERIAL PAYMENT BOND

5.1. The undersigned confirms that the cost of required Bonds is included in the base bid amount.

6. REJECTION OF BID

6.1. The undersigned acknowledges the right of Washtenaw Intermediate School District to reject any or all bids and to waive any informality or irregularity in the bid.

7. PROJECT SCHEDULE

7.1. The undersigned acknowledges that it shall meet requirements of the Project Schedule (Section 003113).

8. EXTRA WORK

8.1. The undersigned agrees that:

A. A maximum of 15% overhead and profit will be allowed for Changes in the Work performed by the Trade Contractor.

B. A maximum of 5% overhead and profit will be allowed for Changes in the Work for any tier Subcontractor.

C. For changes involving both additional costs and credits to the Contract, the mark-up will be allowed on the net add only after all credits have been deducted from the additional work.

9. ALLOWANCES

9.1. General

A. Each Bidder for Bid Categories listed below, must include allowance amount in its base bid (Refer to "Allowances" section).

B. Allowances for specific materials (i.e., carpet, wall covering, etc.) shall cover the material cost only. All other costs including labor, overhead and profit and incidentals shall be included in the base bid.

C. Refer to bid Category and Allowance Specification Sections for allowance amount to include in base bid.

10. ALTERNATES

10.1. General

A. Each Bidder must furnish alternate pricing for the Work of its respective Bid Category for the following alternates.

B. Alternates shall not be included in the Lump Sum Base Bid.

C. Alternate price shall include all cost for labor, material, equipment, service, overhead and profit including any bonds and taxes as required in the Bid Documents to complete the Work of the Bid Category.

10.2. List of Alternates

A. **Alternate No.1:** Demolish modular building in its entirety.

Add/Deduct (Circle one) **$**_____

B. **Alternate No. 2:** Demolish the greenhouse in its entirety.

Add/Deduct (Circle one) **$**_____

C. **Alternate No. 3:** Demolition of building to **EXCLUDE** asbestos requirements. Asbestos containing drywall to entirely be removed by **OTHERS**.

Add/Deduct (Circle one) **$**_____

SECTION 004126
BID PROPOSAL FORM

BIDDER'S NAME:_____

LEGAL ADDRESS: _____

_____ZIP CODE:_____

CONTACT NAME: _____

TELEPHONE NO.: _____

FAX NO.: _____

EMAIL ADDRESS: _____

The Bidder declares the following legal status in submitting this Proposal: (Check one)

_____A Corporation organized and existing under the laws of the State of Michigan

_____A Partnership

_____Other

CONTRACT ACKNOWLEDGEMENT

Trade Contractor hereby acknowledges acceptance of the terms of the Contract Agreement and will enter into the Agreement with no modifications to the terms of the Agreement.

SIGNATURE

Respectfully submitted:

_____
SIGNATURE

BY:_____

TITLE:_____

DATE:_____

WITNESSED BY:_____

Federal Employer Identification No.:_____

State License No.:_____

SECTION 004126
BID PROPOSAL FORM

BIDDER'S NAME:_____

FAMILIAL RELATIONSHIP

1. GENERAL

1.1. Each Bidder shall complete, execute and submit with its Bid Proposal the following Familial Relationship Sworn Statement.

1.2. **SWORN STATEMENT**

Date:_____
School District: Washtenaw Intermediate School District
Project: High Point School

I/We disclose below any familial relationship that exists between the Owner or any employee of Bidder and any member of the Board of Education, Board of Directors or the Superintendent of (Washtenaw Intermediate School District)

Familial Relationships: ☐ None ☐ Listed Below

Bidder Employee/Position	Relationship	School District Associate/Position
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____
(Company Name)

By:_____
(Authorized signer)

_____
(Print or type Name and Title of Signer)

Address:_____

_____

Telephone:_____

Subscribed and sworn to before me

this ___day of_____, year

_____
(Signed by Notary Public)

My commission expires:_____

IRAN ECONOMIC SANTION ACT 517 OF 2012

1. On December 28, 2012, Governor Snyder signed Public Act 517 of 2012, commonly known as the "Iran Economic Sanctions Act" (the "Act"). The Act provides that beginning April 1, 2013 an "Iran Linked Business" is not eligible to submit a bid on a request for proposal with a "public entity." Under the Act, a "public entity" includes school districts and intermediate school districts. The Act also requires that a person that submits a bid in response to a public entity's request for proposal must certify to the public entity that it is not an Iran Linked Business. This requirement applies to **all** requests for proposals issued by a public entity, and not just to construction projects.

2. The Act defines an Iran Linked Business as: 1) a person engaging in investment activities in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran; or 2) a financial institution that extends credit to another person if that person will use the credit to engage in investment activities in the energy sector of Iran.

3. If the public entity determines, using credible information available to the public, that a person or entity has submitted a false certification, the public entity must provide written notice to the person or entity of its determination and of its intent not to enter into or renew the contract. The notice must include information on how to contest the determination. The notice must also specify that the individual or entity may become eligible for future contracts with the public entity if the activities that caused it to be an Iran Linked Business are ceased.

4. The Attorney General may bring a civil action against any individual or entity reported to have submitted a false certification. If the civil action results in a finding that certification was false, the person or entity will be responsible for a civil penalty of not more than $250,000.00 or two times the amount of the contract for which the false certification was made, whichever is greater. In addition to the fine the individual or entity will be responsible for the cost and reasonable attorney fees incurred by the public entity. An individual or entity who has submitted a false certification will be ineligible to bid on a request for proposal for 3 years from the date the certification was determined to be false.

SECTION 004126
BID PROPOSAL FORM
IRAN ECONOMIC SANCTION ACT 517 OF 2012

BIDDER CERTIFICATION FORM

1. Beginning April 1, 2013, an Iran linked business is not eligible to submit a bid on a request for proposal with a public entity.

2. Beginning April 1, 2013, a public entity shall require a person that submits a bid on a request for proposal with the public entity to certify that it is not an Iran linked business.

3. Pursuant to Michigan law, (the Iran Economic Sanctions Act, 2012 PA 517, MCL 129.311 et seq.), before accepting any bid or proposal, or entering into any contract for goods or services with an prospective Contractor, the contractor must first certify that it is not an "IRAN LINKED BUSINESS", as defined by law.

4. Each Contractor submitting a bid on this project shall include a letter with their bid certifying that they have full knowledge of the requirements and possible penalties under the law MCL 129.311 et seq. that the Contractor is NOT an "IRAN LINKED BUSINESS", as required by MCL 129.311 et seq., and as such that Contractor is legally eligible to submit a bid and be considered for a possible contract to supply goods and/or services to Adrian Public Schools.

I certify that I am a duly authorized representative of _____ and confirm that
(Name of Company)
neither I nor the company is an "Iran Linked Business"

Company Representative Name _____

Signature _____

Date _____

SECTION 012300
ALTERNATES

1. GENERAL

1.1. Drawings and General Provisions of the Contract, including General and Supplementary Conditions, Division 00 - Procurement and Contracting Requirements and Division 01-General Requirements Specifications and Addenda, apply to the Work of this Section.

1.2. Alternate Work shall include miscellaneous devices, accessories and other items incidental to or required for a complete installation whether or not indicated as part of the alternate.

1.3. Base Bid amounts shall be in accordance with the Bid Documents and shall not include additional or deducted costs for alternates.

1.4. Cost for Labor and Material Performance and Payment Bonds, if such bonds are required by the Contract Documents, shall be included in the cost of the alternate.

2. VOLUNTARY ALTERNATES

2.1. Bidders may propose alternative materials to those specified in the form of a Voluntary Alternate.

2.2. Proposals for voluntary alternates shall accompany the base Bid with additional cost to or cost to be deducted from the base Bid amount. Voluntary Alternate costs shall not be included in the base Bid amount.

3. SPECIFIED ALTERNATES

3.1. Alternates 1 and 2 material or Work to the base Bid is itemized and described in TMP's Project Manual Section 01 2300 Alternates. Alternate 3 is described in addendum 1.

3.2. Bidders shall carefully review the proposed alternate to be fully informed as to the material, incidental material and Work to be performed. Bidder shall not later than five (5) days prior to the Due Date for receipt of Bids, make written request for interpretation or correction of any ambiguity, inconsistency or error discovered.

3.3. Each Bidder shall submit with its Bid in the space provided on the Bid Form alternate Bids stating the additions to or deductions from the base Bid lump sum amount for substituting, omitting, adding, changing, or altering materials, equipment or construction from that indicated on the Drawings and/or Specifications.

3.4. The Owner reserve the right to waive any irregularities, to accept or reject in whole or in part, any or all alternates, which in its opinion serve the Owner's best interest.

END OF SECTION

CLARK Construction Company | AXIOM Construction Services Group, LLC

2832 - Washtenaw ISD - High Point School - Demolition Bid Pack 1

MEETING	Pre-Bid Walk Through	DATE	Monday, January 27, 2020
LOCATION	High Point School	TIME	2:00 PM

Name	Company	Email	Cell Phone
Mark C Morris	Bluestar Demo	mmorris@BluestarDemo	810-650-4666
Jake Koresky	Able Demolition	jake@abledemo.net	(586)997-3366
Tom Lantagne	Homrich	toml@homrich.com	734-732-9793
Curtis Johnson	Inner City Contracting	curtis@innercitycontracting.com	313-402-9178
Phil Emmons	MacKenzie Co.	pemmons@mackenzieco.com	(517) ~~627~~-8408
Gene Gutting	Pitsch Companies	gene@pitschco	616.262-2778
John Niemiec	E.T. MacKenzie Co	jniemiec@mackenzieco.com	734 216.0995
Vincent Howard	VIN-CON INC.	KETCHVIN@MSN.COM	313-356-7000
John Sens	SC Env Services	johnescenvironmental.com	517-202-1685
Jon Boran	Salenbien Excavating	Salenbien8@Gmail.Com	810 599 3227

CLARK Construction Company
Professional Construction Services
3535 Moores River Dr. • Lansing, MI 48911
517.372.0940 • fax: 517.372.0668 • www.clarkcc.com

Request for Information .001

Detailed, With No Comments

Washtenaw ISD High Point School | **Project # 19-2832** | **Clark Construction Company**
Tel: Fax:

RFI #: .001 **Date Created: 1/28/2020**

Answer Company	Answered By	Author Company	Authored By
		Clark Construction Company 3535 Moores River Drive Lansing, MI 48911	Tanner Rowe

Co-Respondent **Author RFI Number**

Subject	Discipline	Category
Pre Bid - Handling of Materials	Demolition	Clarification

Cc:	Company Name	Contact Name	Copies	Notes

Question **Date Required: 2/4/2020**

[1/28/2020 7:26 AM Clark Construction Company - Tanner Rowe]
There is asbestos containing material to remain in the building which includes non friable drywall joint compound. Does all building material need to be treated as asbestos containing material and removed from site in lined dumpsters?

Answer **Date Answered: 1/29/2020**

[1/31/2020 10:05 AM Clark Construction Company - Tanner Rowe]
All Drywall and Asbestos Joint Compound sampled as a layer pursuant to OSHA and has been re sampled and composited at less than 1% by PLM Analysis. As a drywall system, the drywall and joint compound is considered a system and is sampled as a composited material pursuant to NESHAP and result was less than 1%. So therefore, in accordance with NESHAP, the system is then considered less than 1% (<1%) and is now not considered an asbestos regulated material per NESHAP Disposal Requirements and can be disposed of as non asbestos construction waste debris with all building materials and does not require lined dumpsters. NESHAP does not regulate the material as <1%.

However pursuant to OSHA, as the materials was sampled as a layer, then the contractor must follow all asbestos licensing requirements and the contractor licensed with the state of Michigan including all workers must be asbestos trained and asbestos licensed with the State of Michigan. TEK MUST conduct perimeter air monitoring the entire time of demolition including perimeter down wind air monitoring during all demolition operations and waste load out procedures. Therefore, all workers (operators and ground guys), must Don Appropriate PPE (Respirators, Ty Vek disposable coveralls) and use wet methods during demolition activities.

-TEK Environmental & Consulting Services

CLARK Construction Company
Professional Construction Services
3535 Moores River Dr. • Lansing, MI 48911
517.372.0940 • fax: 517.372.0668 • www.clarkcc.com

Request for Information .002

Detailed, With No Comments

Washtenaw ISD High Point School	Project # 19-2832 Tel: Fax:	Clark Construction Company

RFI #: .002 **Date Created: 1/28/2020**

Answer Company	Answered By	Author Company	Authored By
		Clark Construction Company 3535 Moores River Drive Lansing, MI 48911	Tanner Rowe

Co-Respondent **Author RFI Number**

Subject	Discipline	Category
Pre Bid - Boiler Clarification	Demolition	Clarification

Cc:	Company Name	Contact Name	Copies	Notes

Question **Date Required: 2/4/2020**

[1/28/2020 7:31 AM Clark Construction Company - Tanner Rowe]
Which portions of the boilers contain asbestos?

Answer **Date Answered: 1/29/2020**

[1/31/2020 10:10 AM Clark Construction Company - Tanner Rowe]
All boilers were assumed to contain asbestos as boilers were in operation at the time of the survey however, a gasket , and refractory interior and door debris and brick was sampled found negative. Boilers are intact and internals were not accessible. However data proved non asbestos on materials sampled.

-TEK Environmental & Consulting Services

CLARK Construction Company
Professional Construction Services
3535 Moores River Dr. • Lansing, MI 48911
517.372.0940 • fax: 517.372.0668 • www.clarkcc.com

Request for Information .003

Detailed, With No Comments

Washtenaw ISD High Point School | **Project # 19-2832** | **Clark Construction Company**
Tel: Fax:

RFI #: .003 **Date Created: 1/28/2020**

Answer Company	Answered By	Author Company	Authored By
		Clark Construction Company 3535 Moores River Drive Lansing, MI 48911	Tanner Rowe

Co-Respondent **Author RFI Number**

Subject	Discipline	Category
Pre Bid - Universal Waste	Demolition	Clarification

Cc:	Company Name	Contact Name	Copies	Notes

Question **Date Required: 2/4/2020**

[1/28/2020 7:32 AM Clark Construction Company - Tanner Rowe]
Who is to handle universal waste?

Answer **Date Answered: 1/29/2020**

[1/31/2020 10:13 AM Clark Construction Company - Tanner Rowe]
All Universal Waste will be removed prior to demo with the exception of refrigerants. All refrigerants must removed by the demolition contractor prior to demolition following all state and federal regulations for proper reclamation, including but not limited to coolers/freezers, HVAC units, etc.

CLARK Construction Company
Professional Construction Services
3535 Moores River Dr. • Lansing, MI 48911
517.372.0940 • fax: 517.372.0668 • www.clarkcc.com

Request for Information .004

Detailed, With No Comments

Washtenaw ISD High Point School | **Project # 19-2832** | **Clark Construction Company**
Tel: Fax:

RFI #: .004 **Date Created: 1/31/2020**

Answer Company	Answered By	Author Company	Authored By
Clark Construction Company 3535 Moores River Drive Lansing, MI 48911	Tanner Rowe	Clark Construction Company 3535 Moores River Drive Lansing, MI 48911	Tanner Rowe

Co-Respondent **Author RFI Number**

Subject	Discipline	Category
Pre Bid - Shoring Clarification	Demolition	Clarification

Cc:	Company Name	Contact Name	Copies	Notes

Question **Date Required: 2/7/2020**

[1/31/2020 9:46 AM Clark Construction Company - Tanner Rowe]
Who is responsible for the shoring?

Answer **Date Answered: 1/31/2020**

[1/31/2020 9:46 AM Clark Construction Company - Tanner Rowe]
The demolition contractor is responsible for shoring of the gymnasium and pool areas to remain.

CLARK Construction Company
Professional Construction Services
3535 Moores River Dr. • Lansing, MI 48911
517.372.0940 • fax: 517.372.0668 • www.clarkcc.com

Request for Information .005

Detailed, With No Comments

Washtenaw ISD High Point School | **Project # 19-2832** | **Clark Construction Company**
Tel: Fax:

RFI #: .005 **Date Created: 1/31/2020**

Answer Company	Answered By	Author Company	Authored By
		Clark Construction Company 3535 Moores River Drive Lansing, MI 48911	Tanner Rowe

Co-Respondent **Author RFI Number**

Subject	Discipline	Category
Pre Bid - Tree Removal	Demolition	Clarification

Cc:	Company Name	Contact Name	Copies	Notes

Question **Date Required: 2/7/2020**

[1/31/2020 10:22 AM Clark Construction Company - Tanner Rowe]
Is the demolition contractor responsible for all of the tree removal?

Answer **Date Answered: 1/31/2020**

[1/31/2020 10:22 AM Clark Construction Company - Tanner Rowe]
No, the demolition contractor is only responsible for the building and within 5' of the building.

ADDENDUM

DATE: January 31, 2020

PROJECT: Washtenaw Intermediate School District

TMP PROJECT NO.: 19040 MaMA PROJECT NO.: 1909

ADDENDUM NO.: One (1) BID PACKAGE NO.: One (1)

The Bidding Documents are modified, supplemented or augmented as follows and this Addendum is hereby made a part of the proposed Contract Documents.

The following attachment is issued with this Addendum.

Attachment: Specification Section: 312300

ITEM NO. SPECIFICATION CHANGES

SC-1 Refer to Section TOC – TABLE OF CONTENTS (not reissued):

A. Added new section to the Table of Contents as follows:

"312300 Excavation and Fill"

SC-2 Refer to Section 312300 – EXCAVATION AND FILL (new):

A. Issued new specification section.

END OF ADDENDUM NO. 1 - BID PACKAGE NO.1

MITCHELL AND MOUAT ARCHITECTS 113 SOUTH FOURTH AVENUE ANN ARBOR, MICHIGAN 48104 PH 734.662.6070
TMP ARCHITECTURE, INC. 1191 WEST SQUARE LAKE ROAD BLOOMFIELD HILLS MICHIGAN 48302 PH 248.338.4561 FX 248.338.0223

SECTION 31 2300 – EXCAVATION AND FILL

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes the furnishing of, disposing, excavation, backfill, compaction, and spreading of general excavation and fill, trench excavation and backfill, and topsoil, of the project site.

1.03 REFERENCES

A. City of Ann Arbor Public Services Department Standard Specifications.

B. Michigan Department of Transportation's (MDOT) 2012 Standard Specifications for Construction.

C. AASHTO T180 - Moisture-Density Relations of Soils Using a 10-lb (4.54 kg) Rammer and an 18-inch (457 mm) Drop. [AASHTO Modified Proctor Test].

D. ANSI/ASTM C136 - Method for Sieve Analysis of Fine and Coarse Aggregates.

E. ASTM D2487 - Classification of Soils for Engineering Purposes.

F. ASTM D2922 - Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

G. ASTM D3017 - Test Methods for Moisture Content of Soil and Soil-Aggregate Mixtures.

1.04 SUBMITTALS

A. Materials Source: Submit name of imported materials suppliers. Provide materials from same source throughout the work. Change of source requires Engineer approval.

B. Tests and analysis of supplied soil material will be performed in intervals of 1000 cubic yards of supplied material.

C. If it is determined that materials do not meet specified requirements, change material and retest at no cost to Owner.

PART 2 PRODUCTS

2.01 MATERIALS

A. Granular Fill (Pipe bedding, and trench backfill under and near pavements and buildings): MDOT Class II or 2NS granular materials, in accordance with the MDOT 2012 Standard Specifications for Construction.

B. Structural Fill: Satisfactory soil materials are defined as those complying with ASTM D 2487, designated by group symbols as follows: GW, GP, GM, GC, SM, SW, SC, ML, CL, and SP.

GW: Well-graded gravels and gravel-sand mixtures, little or no fines.
GP: Poorly-graded gravels and gravel-sand mixtures, little or no fines.
GM: Silty gravels, gravel-sand-silt mixtures.
GC: Clayey gravels, gravel-sand-clay mixtures.

SM: Silty sands, sand-silt mixtures.
SW: Well-graded sands and gravelly sands, little or no fines.
SC: Clayey sands, sand-clay mixtures.
ML: Inorganic silts, very fine sands, rock flour, silty or clayey fine sands.
CL: Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
SP: Poorly-graded sands and gravelly sands, little or no fines.

C. Unsatisfactory soil materials are defined as those complying with ASTM D 2487, designated by group symbols as follows: MH, CH, OL, OH, and PT.

MH: Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts.
CH: Inorganic clays of high plasticity, fat clays.
OL: Organic silts and organic silty clays of low plasticity.
OH: Organic clays of medium to high plasticity.
PT: Peat, muck and other highly organic soils.

D. Re-use of Site Soils: Existing site soils may be reused for fill, if they are tested and pass the requirements for fill.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing site conditions are consistent with grading plan cut and fill indications.

B. Verify that survey benchmark and intended elevations for the work are as indicated. Any discrepancies are to be brought to the Engineer's attention prior to the commencement of grading activities.

3.02 PREPARATION

A. Identify required lines, levels, contours, and datum.

B. Stake and flag locations of known utilities.

C. Locate, identify, and protect utilities that remain from damage.

D. Protect above and below grade utilities that remain.

E. Protect plant life, lawns, and other features remaining as a portion of final landscaping.

F. Protect benchmarks, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

3.03 GENERAL EXCAVATION

A. Cut and grade to within 0.10 of a foot of finished subgrades. Compact resulting subgrades to 95 percent maximum density, as applicable. Smooth transition to be accomplished between existing grade areas and new grades with slopes not steeper than (1) vertical to (4) horizontal, unless otherwise shown. All excavation shall be performed as noted and per MDOT Specification 205 “Roadway Earthwork”.

3.04 GENERAL FILL

A. Fill areas to plan contours and elevations with unfrozen materials to within 0.10 of a foot of finished subgrade.

B. All fill soil under curbs, roadways, structures, walks and parking areas shall be compacted to maximum density as specified in MDOT Section 205, before succeeding layers are deposited. In areas to be topsoiled, fill shall be compacted to 95 percent maximum density. Maximum density determined by AASHTO T-180 (Modified Proctor). All filling work shall be performed as noted and per MDOT Section 205 for Roadway Related Earthwork for Structure Embankment. This section requires 100 percent maximum density for structure fills and 95 percent maximum density for roadway related fills.

C. Maintain allowable range of moisture content of fill materials to attain required compaction density. Contractor shall manipulate soil including disking as required to maintain required moisture range for compaction.

D. Winter grading per MDOT Specification 205.

3.05 SUBGRADE TOLERANCES

A. Finished grades are shown in the plan with solid contour lines and/or spot elevations. The subgrade elevations shall be as noted on the plan cross-sections and shall be constructed to plus or minus 0.10 foot. Subgrade in lawn areas to be 0.5 foot below finish grade.

3.06 INTERMEDIATE SITE GRADING

A. The Contractor shall perform all earthwork operations necessary related to intermediate site conditions resulting from the removal of site work items designated for removal. This includes all excavation, backfilling, removal of excess site excavated material, and importing to the site fill material as necessary to create maintainable intermediate site grades that can be stabilized. Intermediate slopes shall be no steeper than 2H to 1V and stabilized as directed in the soil erosion control specification, Section 31 2500.

3.07 TRENCH EXCAVATION

A. Excavate subsoil required for all proposed utility lines.

B. Trenches shall be of sufficient widths and depths to provide adequate room for construction and installation of the work to lines, grades, and dimensions called for on the plans.

C. Where the condition of the ground requires, the sides of the trench shall be securely held by bracing and sheeting which may be removed in units when the level of the backfill has reached a point where it is safe to pull the sheeting.

D. Sheeting, bracing and shoring shall not be left in place after the completion of the work. Where required to protect the work, adjacent structures or property, sheeting, bracing and shoring shall be left in place, but shall be cut off or left not less than two feet (2') below the established surface grade. Sheeting, bracing, or shoring so required to be left in place shall be considered as incidental to the work.

E. Do not interfere with 45° bearing splay of foundations.

F. Adequately protect any newly-laid concrete from injury resulting from ground water or sewage or from the handling of water or sewage. No drainage ditches shall be placed within the area to be occupied by any structure, except as permitted by the Engineer.

G. Hand trim excavation as necessary. Remove loose matter.

H. Remove lumped subsoil, boulders, and rocks.

I. Stockpile excavated material and remove excess or unsuitable material not being used from site, unless otherwise directed by the Engineer. Excavated material may be used in backfilling around pipes and other structures provided it is suited for such a purpose.

J. Due to the numerous existing, abandoned and to be abandoned utilities, the Contractor will be required to excavate ahead of their work to confirm actual utility crossing information and to probe for existing utilities. The plans also denote specific areas where exploratory excavation is required to confirm horizontal and vertical locations of existing utilities. The Contractor shall be required to make minor adjustments at no additional costs to proposed utility locations. The Contractor shall coordinate with the Construction Manager to accomplish installation of the proposed utilities regarding minor revisions. Where this may result in additional cost to the Contractor that could not be accounted for in his bid, the Contractor shall follow the Contract Amendment procedures for Owner's consideration of additional compensation.

K. In crossing over or under any main or lateral sewer, sewer connection, catch basin, water main, service connection, gas main, gas connection, conduit, or any underground improvement, the Contractor shall use all possible care in protecting the same from injury, damage or the free unobstructed continuous use of the same as far as possible, and the Contract work shall be performed in such a manner as will affect the least damage or interference with such improvements or the free and unobstructed use of the same.

3.08 SUBGRADE UNDERCUTTING

A. Where due to poor existing conditions, it is impossible to maintain alignment and grade properly, the Contractor shall, at its own expense, excavate below grade and refill the trench to the proper grade with a compacted 1-1/2" maximum size aggregate, such aggregate to consist of angular shaped, crushed stone or blast furnace slag containing sufficient smaller size aggregate to provide "keying" of the material together in order to insure that the pipe, when laid, will maintain correct alignment and grade.

3.09 UTILITY PIPE BEDDING

A. Place granular material at trench bottom, level materials in continuous layer not exceeding 4 inches compacted depth.

B. Maintain optimum moisture content of bedding material to attain required compaction density.

C. The remainder of the pipe bedding, free from large stones and lumps, shall be placed with care in 6-inch layers, to an elevation providing 12 inches of cover over the pipe. Each layer shall be thoroughly compacted by power tamping.

D. Completion of the pipe bedding and backfilling the remainder of the trench shall follow closely behind the laying of the pipe. In no case shall more than 100 lineal feet of trench remain open during construction. All sewer built during any work period shall be completely backfilled before work is completed for such period and before the crew leaves the site.

3.10 TRENCH BACKFILLING

A. Prior to backfilling, all underground utilities encountered shall be adequately protected by the use of supporting concrete or timber bents (to be left in place) of such a size and construction as to effectively prevent failure of the utility in settlement.

B. Backfill trenches to contours and elevations with unfrozen materials according to one of the following specified manners as determined by the location of the trench or the edge of trench nearest the existing pavement, roadway, sidewalk, driveway or parking areas.

Near or Under Proposed or Existing Pavement (Under or within a 1:1 influence line of the bottom of any pavement).

Granular Fill: Place and compact MDOT Class II or 2NS granular materials in continuous layers not exceeding 6 inches compacted depth with each layer compacted to not less than 95% of maximum unit weight at optimum moisture content per AASHTO-T180.

Open Space Areas (Outside a 1:1 influence of the bottom of any pavement)

Native Soil Fill: Place and compact material in continuous layers not exceeding 8 inches compacted depth with each layer compacted to 85% of maximum unit weight. This material is to be clean non-organic with unit weight exceeding 125 lbs/ft^3.

Utility Structure Backfill. Backfill (granular fill as specified in paragraph (i) above) shall not be placed against any portion of a structure until the structure has passed inspection and has been approved by the Engineer for backfilling. All trenches should be backfilled as soon as inspection is completed in order to avoid unnecessary risk or damage to the structure and also to reduce the risk of accidents involving the public.

C. Frozen backfill materials are not permitted under any circumstance whatsoever.

D. Wherever compaction is required, it shall be accomplished by suitable mechanical compaction equipment. If a bulldozer or other machine is used to place the backfill material, no material shall be pushed or dropped into the trench, but shall be placed on the sloping ends of the completed backfill, and allowed to roll in place to the bottom of the trench.

E. Contractor shall regrade the trench backfill as necessary during the life of the Contract.

F. Remove surplus fill materials from site.

3.11 FIELD QUALITY CONTROL

A. Field inspection will be performed by the Construction Manager.

B. Compaction testing will be performed in accordance with ASTM D2922 by an independent testing agency retained by the Owner or Construction Manager.

C. If tests indicate work does not meet specified requirements, remove work, replace at Contractor's expense.

D. Frequency of Tests: One (1) per 500 sq ft of lift and/or per cut surface. The testing grid to be shifted with each successive lift.

3.12 PROTECTION OF FINISHED WORK

A. Protect finished work from construction loading.

B. Reshape and re-compact fills subjected to vehicular traffic during construction.

END OF SECTION