# CERTIFIED POSITION(S) PAID THROUGH MEMORANDUM BILLING 2019-20 School Year

Recommended for Board of Education Approval on May 14, 2020

Em	nployee Name						Salary
Last Name	First Name	MI	Position	Building	Hours	Per Hour	Total
Extended School	ol Year 2020 (ESY	'20)					
Beidelman	Megan	C.	Instructor	OBHS	200	\$ 25.00	\$ 5,000.00
Biddle	Emily	N.	Instructor	WRES	200	\$ 25.00	\$ 5,000.00
Borders	Bobbi	J.	Instructor	OBHS	200	\$ 25.00	\$ 5,000.00
Castiglione	Donna	M.	Instructor	OOMS	200	\$ 45.00	\$ 9,000.00
Clark	Tiffany	R.	Instructor	OCES	200	\$ 25.00	\$ 5,000.00
Clowes	Lauren	N.	Instructor	OLMS	200	\$ 25.00	\$ 5,000.00
Cunningham	Maryann	R.	Instructor	JCES	200	\$ 35.00	\$ 7,000.00
Dariano	Lauren	Α.	Instructor	ACES	200	\$ 60.00	\$ 12,000.00
Eau Claire	Kelly	L.	Instructor	WCES	200	\$ 25.00	\$ 5,000.00
Evans	Stephanie	R.	Instructor	OOMS	200	\$ 25.00	\$ 5,000.00
Foster	Meaghan	M.	Instructor	OCES	200	\$ 25.00	\$ 5,000.00
Fratianne	Laura	K.	Instructor	TRES	200	\$ 45.00	\$ 9,000.00
Funk	Lauren	Α.	Instructor	TRES	200	\$ 25.00	\$ 5,000.00
Harden	Dana	Α.	Instructor	TRES	200	\$ 45.00	\$ 9,000.00
Harrington	Jill	R.	Instructor	ACES	200	\$ 45.00	\$ 9,000.00
Hehmeyer	Leslie	L.	Instructor	CES	200	\$ 25.00	\$ 5,000.00
Hughes	Melissa	Α.	Instructor	OLHS	200	\$ 45.00	\$ 9,000.00
McDowell	Heidi	L.	Instructor	AES	200	\$ 45.00	\$ 9,000.00
Mraz	Monica	Α.	Instructor	ACES	200	\$ 25.00	\$ 5,000.00
Reep	Shannon	J.	Instructor	OHMS	200	\$ 25.00	\$ 5,000.00
Romer	Catherine	Α.	Instructor	OSMS	200	\$ 25.00	\$ 5,000.00
Russell	Jenna	G.	Instructor	OMES	200	\$ 25.00	\$ 5,000.00
Smith	Emily	C.	Instructor	JCES	200	\$ 35.00	\$ 7,000.00
Stewart	Kirby	N.	Instructor	OBHS	200	\$ 25.00	\$ 5,000.00
Tilden	Jaclyn	Α.	Instructor	OCES	200	\$ 25.00	\$ 5,000.00
Wood	Melissa	L.	Instructor	OBMS	200	\$ 45.00	\$ 9,000.00
	ention Academy 20	)20 (SIA ':	-				
Bass	Christine	L.	Aide	OBMS	0.00	\$ -	\$ 1,200.00
Brekke	Lindsey	R.	Instructor	HES	0.00	\$ -	\$ 2,400.00
Cervi	Tammera	S.	Instructor	HES	0.00	\$ -	\$ 2,400.00
Evans	Stephanie	R.	Instructor	OOMS	0.00	\$ -	\$ 2,400.00
Fitzgerald	Colleen	Α.	Instructor	OLMS	0.00	\$ -	\$ 2,400.00
Gallmeyer	Kelly	N.	Instructor	OHS	0.00	\$ -	\$ 2,400.00
Johnson	Erin	M.	Administrative Liaison	OLHS	0.00	\$ -	\$ 3,000.00
Kelley	Alyssa	Α.	Instructor	TRES	0.00	\$ -	\$ 1,800.00
McLoughlin	Laura	S.	Instructor	OLMS	0.00	\$ -	\$ 2,400.00
Messmer	Rachel	Α.	Instructor	OOMS	0.00	\$ -	\$ 2,400.00
Morris	Stephen	R.	Instructor	OOMS	0.00	\$ -	\$ 2,400.00
Nagy	Keely	L.	Instructor	HES	0.00	\$ -	\$ 2,400.00
Spinosi	Rebecca	J.	Instructor	WCES	0.00	\$ -	\$ 2,400.00
Villio Welden	Molly	C.	Administrative Liaison	OLMS	0.00	\$ -	\$ 3,000.00
Walden	Brock	D.	Instructor	OHS	0.00	\$ -	\$ 2,400.00
White	Jessica	1.	Instructor	WCES	0.00	\$ -	\$ 2,400.00
Wortman	Clayton	J.	Aide	WCES	0.00	\$ -	\$ 600.00

# CLASSIFIED POSITION(S) PAID THROUGH MEMORANDUM BILLING 2019-20 School Year

Recommended for Board of Education Approval on May 14, 2020

Employee Name						Salary	
Last Name	First Name	MI	Position	Building	Hours	Per Hour	Total
Extended School Year 2020 (ESY '20)							
Buck	Sandra	Α.	Aide	OLMS	200.00	\$ 25.00	\$ 5,000.00
Kaufman	Jeanine	L.	Aide	OLMS	200.00	\$ 25.00	\$ 5,000.00
Summer Intervent	ion Academy 2020	(SIA '	20)			-	
Baltus	Sherry	E.	Aide	OOHS	0.00	\$ -	\$ 600.00
Bell	Elizabeth	K.	Aide	OOHS	0.00	\$ -	\$ 1,200.00
Bihler	Kristi	J.	Aide	JCES	0.00	\$ -	\$ 1,200.00
Brooks	Cameron		Aide	OSMS	0.00	\$ -	\$ 1,200.00
Buck	Sandra	Α.	Aide	OLMS	0.00	\$ -	\$ 600.00
Chambers	Gina	M.	Aide	FTES	0.00	\$ -	\$ 1,200.00
Dahlke	Jamie	L.	Aide	OHS	0.00	\$ -	\$ 1,200.00
Donnenwirth	Kathryn	M.	Aide	OLHS	0.00	\$ -	\$ 1,200.00
Gough	Deborah	Α.	Aide	OCES	0.00	\$ -	\$ 1,200.00
Hoskins	Faye	M.	Aide	OOMS	0.00	\$ -	\$ 1,200.00
Howell	Makenzie	J.	Aide	JCES	0.00	\$ -	\$ 1,200.00
Kaiser	Michele	R.	Aide	OSMS	0.00	\$ -	\$ 600.00
Kellow	Pamela		Aide	AES	0.00	\$ -	\$ 1,200.00
Kinkead	Amy	R.	Aide	OLMS	0.00	\$ -	\$ 600.00
Kitchen	Jessica	M.	Aide	OBMS	0.00	\$ -	\$ 1,200.00
Manchikanti	Lalitha		Aide	OBMS	0.00	\$ -	\$ 1,200.00
Mangine	Ellen	M.	Aide	OLMS	0.00	\$ -	\$ 1,200.00
Moore	Julie	Α.	Aide	OLHS	0.00	\$ -	\$ 600.00
Nagy	Jeff		Aide	HES	0.00	\$ -	\$ 1,200.00
Niemeyer	Stephanie	E.	Aide	HES	0.00	\$ -	\$ 1,200.00
Nip	Sau Kan Winifred		Aide	OLMS	0.00	\$ -	\$ 1,200.00
Pittroff	Catherine	E.	Aide	GOES	0.00	\$ -	\$ 1,200.00
Pollitt-Gore	Jamie	N.	Aide	OHS	0.00	\$ -	\$ 1,200.00
Rellinger	Melanie		Aide	OHS	0.00	\$ -	\$ 1,200.00
Rose	Amber		Aide	ACES	0.00	\$ -	\$ 1,200.00
Snopik	Claudina	R.	Aide	GOES	0.00	\$ -	\$ 1,200.00
Tsakalis	Emily		Aide	ISES	0.00	\$ -	\$ 600.00
Ward	Shellaina	L.	Aide	AES	0.00	\$ -	\$ 600.00

# CLASSIFIED SUBSTITUTES 2019-20 School Year

Recommended for Board of Education Approval on May 14 2020

Beachley, Madison

Gellner, Sarah

Intihar, Williams

Lamar, Michael

Miller, Joshuna

Miner, Ethan

Suozzi, Joseph

Teller, Samuel



# Quote

**ADDRESS** 

Olentangy Schools 7840 Graphics Way Lewis Center, OH 43035 United States QUOTE#

**DATE** 10/30/2019

DESCRIPTION		QTY	AMOUNT
INCubatoredu-License One time licensing fee	-	1	20,000.00
INCubatoredu License One time licensing fee	e-Additional School e for additional school(s).	3	30,000.00
INCubatoredu - Initial 2020 - 2021 School Yo Annually Renewable		4	20,000.00
	TOTAL	\$70	0,000.00

**Accepted Date** 

Accepted By



# Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price

**AGREEMENT** made as of the day of <u>in the year</u> signed by the Owner at the end of this Agreement

(In words, indicate day, month and year.)

**BETWEEN** the Owner:

(Name, legal status and address)

Olentangy Local School District Board of Education 7840 Graphics Way; Lewis Center, OH 43015

and the Construction Manager: (Name, legal status and address)

Robertson Construction Services, Inc. 1801 Thornwood Drive; Heath, OH 43056

for the following Project: (Name and address or location)

New Elementary #1, located on vacant parcel #418-240-01-068-000 / Peachblow Road, Lewis Center, Ohio 43035 (this is phase 1 of the Project described in the following paragraph). The approximately 82,000 SF building will be based upon a modification of the design used for Heritage Elementary School. The total budget for the Project is \$23.6 million. Funding for the Project will be provided through bonds sold following the successful passage of a bond issue on the March 2020 ballot; the Project is contingent upon passage of the bond issue on the March 2020 ballot.

The Owner is not participating in an Ohio School Facilities Commission classroom facilities program. The Construction Manager was selected by the Owner following the qualifications-based selection guidelines contained in Ohio Revised Code Sections 9.33, et seq., and the Ohio Administrative Code to provide construction management at risk services for a project including two (2) new elementary schools, one (1) new middle school, and related improvements, to be approached in phases as funding is available for each building included in the Project.

Services provided under this Agreement shall begin immediately and continue through design and construction of Elementary #1, subject to availability of funds, and the Owner's decision to continue to use the services of the Construction Manager for future phases of the Project.

The Architect:

(Name, legal status and address)

<u>Fanning/Howey Associates, Inc.</u> 4930 Bradenton Avenue; Dublin, OH 43017 This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AIA Document A201™–2007, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

# The Owner's Designated Representative:

(Name, address and other information)

Jeff Gordon, Director of Business Management and Facilities Olentangy Local School District
7840 Graphics Way; Lewis Center, OH 43035

Any submissions related to the Project that are required to be made to Owner must be submitted to Mr. Gordon. References to Owner in this context will be deemed to refer to the Owner's Designated Representative.

<u>In addition to the Owner's Designated Representative, the Owner has retained the services of an Owner's Representative:</u>

Bill O'Sullivan
Construction Analysis, LLC
283 Hopewell Drive; Powell, OH 43065

The Construction Manager's Designated Representative:

(Name, address and other information)

Clay Keith, Project Executive

The Architect's Designated Representative:

(Name, address and other information)

Bruce Runyon
Fanning/Howey Associates, Inc.
4930 Bradenton Avenue; Dublin, OH 43017
614.764.4661 (ext. 10450); brunyon@fhai.com

The Owner and Construction Manager agree as follows.

# **TABLE OF ARTICLES**

- 1 GENERAL PROVISIONS
- 2 CONSTRUCTION MANAGER'S RESPONSIBILITIES
- 3 OWNER'S RESPONSIBILITIES
- 4 COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES
- 5 COMPENSATION FOR CONSTRUCTION PHASE SERVICES
- 6 COST OF THE WORK FOR CONSTRUCTION PHASE
- 7 PAYMENTS FOR CONSTRUCTION PHASE SERVICES
- 8 INSURANCE AND BONDS
- 9 DISPUTE RESOLUTION
- 10 TERMINATION OR SUSPENSION
- 11 MISCELLANEOUS PROVISIONS
- 12 SCOPE OF THE AGREEMENT

**EXHIBIT A GUARANTEED MAXIMUM PRICE AMENDMENT** 

# **ARTICLE 1 GENERAL PROVISIONS**

# § 1.1 The Contract Documents

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to the execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract and are as fully a part of the Contract as if attached to this Agreement or repeated herein. Upon the Owner's acceptance of the Construction Manager's Guaranteed Maximum Price proposal, the Contract Documents will also include the documents described in Section 2.2.3 and identified in the Guaranteed Maximum Price Amendment and revisions prepared by the Architect and furnished by the Owner as described in Section 2.2.8. The Contract represents the entire

and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. If anything in the other Contract Documents, other than a Modification, is inconsistent with this Agreement, this Agreement shall govern.

#### § 1.2 Relationship of the Parties

The Construction Manager accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Construction Manager's skill and judgment in furthering the interests of the Owner; to furnish efficient construction administration, management services and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests. The Owner agrees to furnish or approve, in a timely manner, information required by the Construction Manager and to make payments to the Construction Manager in accordance with the requirements of the Contract Documents.

#### § 1.3 General Conditions

For the Preconstruction Phase, AIA Document A201TM 2007, A201TM 2017, General Conditions of the Contract for Construction, as modified, (hereafter, "A201-2017") shall apply only as specifically provided in this Agreement. For the Construction Phase, the general conditions of the contract shall be as set forth in A201 2007, A201-2017, which document is incorporated herein by reference. The term "Contractor" as used in A201 2007 A201-2017 shall mean the Construction Manager.

#### ARTICLE 2 CONSTRUCTION MANAGER'S RESPONSIBILITIES

The Construction Manager's Preconstruction Phase responsibilities are set forth in Sections 2.1 and 2.2. The Construction Manager shall provide all construction management services necessary for the proper management and construction of the Project subject to and in accordance with this Agreement. The Construction Manager's Construction Phase responsibilities are set forth in Section 2.3. The Owner and Construction Manager may agree, in consultation with the Architect, for the Construction Phase to commence prior to completion of the Preconstruction Phase, in which case, both phases will proceed concurrently. The Construction Manager shall identify a representative authorized to act on behalf of the Construction Manager with respect to the Project.

# § 2.1 Preconstruction Phase

§ 2.1.1 The Construction Manager shall provide a preliminary evaluation of the Owner's program, schedule and construction budget requirements, each in terms of the other. Construction Manager acknowledges that the plan for the Project is based upon the Contract Documents developed for previously constructed prototype elementary schools and agrees to work with the Owner and Architect to update and refine the documents for the Project consistent with the prior Contract Documents. The Preconstruction Phase will not include separate schematic design, design development, and construction document phases.

# § 2.1.2 Consultation

The Construction Manager shall schedule and conduct meetings with the Architect and Owner to discuss such matters as procedures, progress, coordination, and scheduling of the Work. The Construction Manager shall advise the Owner and the Architect on proposed site use and improvements, selection of materials, and building systems and equipment. The Construction Manager shall also provide recommendations consistent with the Project requirements to the Owner and Architect on constructability; availability of materials and labor; time requirements for procurement, installation and construction; and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions.

§ 2.1.3 When Project requirements in Section 3.1.1 have been sufficiently identified, Upon award, the Construction Manager shall prepare and periodically update a Project schedule and update as needed a Project schedule, in a format acceptable to the Owner, for the Architect's review and the Owner's acceptance. The Construction Manager shall obtain the Architect's approval for the portion of the Project schedule relating to the performance of the Architect's services. The Project schedule shall coordinate and integrate the Construction Manager's services, the Architect's services, other Owner consultants' services, and the Owner's responsibilities and identify items that could affect the Project's timely completion. The updated Project schedule shall include the following: submission of the Guaranteed Maximum Price proposal; components of the Work; times of commencement and completion required of each Subcontractor; ordering and delivery of products, including those that must be ordered well in advance of construction; and the occupancy requirements of the Owner.

#### § 2.1.4 Phased Construction

The Construction Manager shall provide recommendations with regard to accelerated or fast-track scheduling, procurement, or phased construction. The Construction Manager shall take into consideration cost reductions, cost information, constructability, provisions for temporary facilities and procurement and construction scheduling issues.

#### § 2.1.5 Preliminary Cost Estimates

§ 2.1.5.1 Based on the preliminary design and other design criteria prepared by the Architect, the Construction Manager shall prepare preliminary estimates of the Cost of the Work or the cost of program requirements using area, volume or similar conceptual estimating techniques for the Architect's review and Owner's approval. If the Architect or Construction Manager suggests alternative materials and systems, the Construction Manager shall provide cost evaluations of those alternative materials and systems. [Not Used.]

§ 2.1.5.2 As the Architect progresses with the preparation of the Schematic Design, Design Development and Construction Documents, the Construction Manager shall prepare and update, at appropriate intervals agreed to by the Owner, Construction Manager and Architect, completion of the Construction Documents after selection of the Construction Manager, the Construction Manager may, but is not required to, prepare and update estimates of the Cost of the Work of increasing detail and refinement and allowing for the further development of the design until such time as the Owner and Construction Manager agree on a Guaranteed Maximum Price for the Work. Such estimates shall be provided for the Architect's review and the Owner's approval. The Construction Manager shall inform the Owner and Architect when or components there; no construction cost estimates are required of the Construction Manager by this Agreement for the Project. If the Construction Manager chooses to prepare such estimates, the Construction Manager will inform Owner and Architect when its estimates of the Cost of the Work exceed or components thereof exceed, or are inconsistent with, the latest approved Project budget and make recommendations for corrective action. The Construction Manager will prepare such estimates at its sole cost.

# § 2.1.6 Subcontractors and Suppliers

The Construction Manager shall develop bidders' interest in the Project.

§ 2.1.6.1 The Construction Manager acknowledges the requirement imposed by Ohio Revised Code and Ohio Administrative Code sections that the Construction Manager establish criteria for the prequalification of prospective bidders on subcontracts and that such criteria shall follow the administrative code requirements and shall also include any specific criteria required by the Owner that are consistent with the scope and needs of the Project. The proposed criteria developed by the Construction Manager will be submitted to the Owner, through the Owner Representative, which the Owner shall approve or reject, in whole or in part. The approved prequalification criteria will be used by the Owner for any future analysis it may conduct concerning a prospective bidder's responsibility to perform a subcontract.

§ 2.1.6.2 The Construction Manager will complete the bidder prequalification process for each subcontract not later than 30 days before the Construction Manager intends to solicit bids for the subcontract, unless the Owner agrees otherwise upon request from the Construction Manager.

§ 2.1.6.3 To develop prospective bidder interest in the Project, including specifically those prospective bidders (if any) the Owner asks the Construction Manager to consider, the Construction Manager may place a notice on (1) the State Public Notice Website created under ORC 125.182, (2) the official website of the Owner, (3) other websites such as appropriate trade association websites, news media, or other public media websites, or (4) any combination of the foregoing.

§ 2.1.6.4 The Construction Manager will evaluate the qualifications of each prospective Bidder that timely submits its qualifications and notify each of them whether they are qualified. The Construction Manager will submit the names and qualifications of all of the qualified prospective Bidders to the Owner. The Construction Manager may submit the names of fewer than three (3) qualified prospective Bidders if the Construction Manager submits satisfactory documentation to the Owner that fewer than three qualified prospective Bidders are available.

§ 2.1.6.5 The Owner will review the list of prospective Bidders submitted by the Construction Manager and may rely on the Construction Manager's representations to verify that the prospective Bidders meet the pre-qualifications criteria. The Owner may eliminate any prospective Bidder it determines is not qualified and shall notify the

Construction Manager of its decision. The Construction Manager will promptly notify the prospective Bidder in writing of the Owner's decision to eliminate the prospective Bidder.

§ 2.1.6.6 If the Construction Manager receives a written objection from the eliminated prospective Bidder within 5 days after the eliminated Bidder receives notice of the Owner's decision, the Construction Manager will promptly deliver the eliminated prospective Bidder's written objection to the Owner. The Owner may respond to the objection through the Construction Manager.

§ 2.1.6.7 For any Work that the Construction Manager proposes to self-perform, the Construction Manager will notify the Owner and receive prior approval before submitting a sealed bid for the work before the time when bids for the work are to be received from other prospective Bidders, as required by Ohio law.

§ 2.1.7 The Construction Manager shall prepare, for the Architect's review and the Owner's acceptance, a procurement schedule for items that must be ordered well in advance of construction. The Construction Manager shall expedite and coordinate the ordering and delivery of materials that must be ordered well in advance of construction. If the Owner agrees to procure any items prior to the establishment of the Guaranteed Maximum Price, the Owner shall procure the items on terms and conditions acceptable to the Construction Manager. The Construction Manager will not unreasonably withhold its consent. Upon the establishment of the Guaranteed Maximum Price, the Owner shall assign all contracts for these items to the Construction Manager and the Construction Manager shall thereafter accept responsibility for them.

# § 2.1.8 Extent of Responsibility

The Construction Manager shall exercise reasonable care in preparing schedules and estimates. The Construction Manager, however, does not warrant or guarantee estimates and schedules except as may be included as part of the Guaranteed Maximum Price. The Construction Manager is not required to ascertain that the Drawings and Specifications are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Construction Manager shall promptly report to the Architect and Owner any nonconformity discovered by or made known to the Construction Manager as a request for information in such form as the Architect may require.

# § 2.1.9 Notices and Compliance with Laws

The Construction Manager shall comply with applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to its performance under this Contract, and with equal employment opportunity programs, and other programs as may be required by governmental and quasi governmental authorities for inclusion in the Contract Documents.

§ 2.1.10 Communications with Local and Government Officials. The Construction Manager shall assist the Owner and Architect in communications with and addressing local and government officials with jurisdiction over the Project. Because of the sensitive nature of these communications, the Construction Manager agrees and acknowledges that all communications will be at the direction of and in the discretion of the Owner.

# § 2.2 Guaranteed Maximum Price Proposal and Contract Time

§ 2.2.1 At a time to be mutually agreed upon by the Owner and the Construction Manager and in consultation with the Architect, which the parties anticipate will promptly follow the conclusion of the Construction Document Phase, the Construction Manager shall prepare a Guaranteed Maximum Price ("GMP") proposal for the Owner's review and acceptance. The Guaranteed Maximum Price in the proposal shall be the sum of the Construction Manager's estimate of the Cost of the Work, including contingencies described in Section 2.2.4, and the Construction Manager's Fee.

§ 2.2.2 To the extent that the Drawings and Specifications are anticipated to require further development by the Architect, the The Construction Manager shall provide in the Guaranteed Maximum Price for such further development work consistent with the Contract Documents and reasonably inferable therefrom. Such further development does provisions do not include such things as changes in scope, systems, kinds and quality of materials, finishes or equipment, all of which, if required, shall be incorporated by Change Order.

§ 2.2.3 The Construction Manager shall include with the Guaranteed Maximum Price proposal a written statement of its basis, which shall include the following:

- .1 A list of the Drawings and Specifications, including all Addenda thereto, and the Conditions of the Contract;
- .2 A list of the clarifications and assumptions made by the Construction Manager in the preparation of the Guaranteed Maximum Price proposal, including assumptions under Section 2.2.2, to supplement the information provided by the Owner and contained in the Drawings and Specifications;
- .3 A statement of the proposed Guaranteed Maximum Price, including a statement of the estimated Cost of the Work organized by trade categories or systems, <u>detailed description of any</u> allowances, contingency, and the Construction Manager's Fee; <u>such GMP statement will be in a format acceptable</u> to the Architect and Owner;
- The proposed construction schedule for the Project, including milestone dates for key components of the Project and the anticipated date of Substantial Completion upon which the proposed Guaranteed Maximum Price is based; and
- A date by which the Owner must accept the Guaranteed Maximum Price. mutually agreed to number of days for the Owner to review the Guaranteed Maximum Price and date by which the parties will agree upon the Guaranteed Maximum Price; and
- A list of subcontractors proposed to be used on the Project and a copy of each proposed subcontractor's proposal for its respective work on the Project, if the Construction Manager has solicited and received pricing for the Work at the time the GMP proposal is submitted.

# The Construction Manager's Fee includes the following items:

- Salaries or other compensation for employees at its principal and branch offices, including staff assisting on the project but assigned to the principal or branch offices, with the exception of those personnel included in the quoted Preconstruction Phase Services and those personnel assigned to the project site;
- .2 General and administrative expenses of the Construction Manager's principal and branch offices, other than its project field office;
- .3 Capital expenses;
- .4 Profit;
- .5 Except as covered by the Construction Manager's Contingency, costs due to negligence or breach of a contract of the Construction Manager, a contractor, or subcontractor, the correction of defective work, etc.;
- .6 All insurance costs, except the following, which are included in the Cost of the Work:
  - General liability insurance for Work on the Project
  - Subcontractor default insurance for subcontractors on the Project
  - Workers compensation insurance related to the Project;
- .7 All costs related to the commercial activity tax (CAT); and
- .8 All travel, lodging, and parking costs.
- § 2.2.4 In preparing the Construction Manager's Guaranteed Maximum Price proposal, the Construction Manager shall include its contingency for the Construction Manager's exclusive use to cover those costs considered reimbursable as the Cost of the Work but not included in a Change Order. <u>Use of the contingency will be consistent with the following:</u>
  - .1 Difference between the cost of a subcontractor bid and that estimated in the GMP;
  - .2 Costs due to a subcontractor's breach of a subcontract;
  - .3 Remediation of defective Work;
  - <u>.4</u> Additional costs required to complete the Work when the Construction Manager is not entitled to an increase in the GMP; and
  - .5 Cost of Work that is consistent with and reasonably inferable from the Contract Documents (items that would not be considered reasonably inferable include changers in scope or changes in the quality of materials, finishes or equipment from the specifications for the Work).
- § 2.2.5 The Construction Manager shall meet with the Owner and Architect to review the Guaranteed Maximum Price proposal. In the event that the Owner and Architect discover any inconsistencies or inaccuracies in the information presented, they shall promptly notify the Construction Manager, who shall make appropriate adjustments to the Guaranteed Maximum Price proposal, its basis, or both.

- § 2.2.6 If the Owner notifies the Construction Manager that the Owner has accepted the Guaranteed Maximum Price proposal in writing before the date specified in the Guaranteed Maximum Price proposal, the Guaranteed Maximum Price proposal shall be deemed effective without further acceptance from the Construction Manager. Following acceptance of a Guaranteed Maximum Price, the Owner and Construction Manager shall execute the Guaranteed Maximum Price Amendment amending this Agreement, a copy of which the Owner shall provide to the Architect. The Guaranteed Maximum Price Amendment shall set forth the agreed upon Guaranteed Maximum Price with the information and assumptions upon which it is based. Should the parties fail to reach a written agreement regarding the Guaranteed Maximum Price, the Owner shall be entitled to terminate this Agreement pursuant to Article 10 of this Agreement or the Owner may elect to change the project delivery method to the construction manager functioning in agency or advisory role, and this Agreement will be replaced with an appropriate form of Agreement.
- § 2.2.7 The Construction Manager shall not incur any cost to be reimbursed as part of the Cost of the Work prior to the commencement of the Construction Phase, unless the Owner provides prior written authorization for such costs.
- § 2.2.8 The Owner shall authorize the Architect to provide the revisions to the Drawings and Specifications to incorporate the <u>agreed upon agreed-upon</u> assumptions and clarifications contained in the Guaranteed Maximum Price Amendment. The Owner shall promptly furnish those revised Drawings and Specifications to the Construction Manager as they are revised. The Construction Manager shall notify the Owner and Architect of any inconsistencies between the Guaranteed Maximum Price Amendment and the revised Drawings and Specifications.
- § 2.2.9 The Construction Manager shall include in the Guaranteed Maximum Price all sales, consumer, <u>commercial activity</u>, use and similar taxes for the Work provided by the Construction Manager that are legally enacted, whether or not yet effective, at the time the Guaranteed Maximum Price Amendment is executed.

# § 2.3 Construction Phase

# § 2.3.1 General

- **§ 2.3.1.1** For purposes of Section 8.1.2 of A201–2007, A201-2017, the date of commencement of the Work shall mean the date of commencement of the Construction Phase.
- § 2.3.1.2 The Construction Phase shall commence upon the Owner's acceptance of the Construction Manager's Guaranteed Maximum Price proposal or the Owner's issuance of a Notice to Proceed, whichever occurs earlier.

### § 2.3.2 Administration

- § 2.3.2.1 Those portions of the Work that the Construction Manager does not customarily perform with the Construction Manager's own personnel shall be performed under subcontracts or by other appropriate agreements with the Construction Manager. The Owner may designate specific persons from whom, or entities from which, the Construction Manager shall obtain bids. The Construction Manager shall obtain bids from Subcontractors and from suppliers of materials or equipment fabricated especially for the Work and shall deliver such bids to the Architect. The Owner shall then determine, with the advice of the Construction Manager and the Architect, which bids will be accepted. The Construction Manager shall not be required to contract with anyone to whom the Construction Manager has reasonable objection. Notwithstanding the foregoing, the Construction Manager acknowledges and agrees that Ohio law imposes certain requirements upon the Construction Manager for establishing criteria for subcontractors, for obtaining the Owner's approval of the criteria, for prequalifying prospective Bidders for the work to be performed, for soliciting bids from prequalified prospective Bidders, for obtaining the Owner's approval of Subcontractors, and for the use of the State of Ohio Subcontract Form.
- § 2.3.2.2 If the Guaranteed Maximum Price has been established and when a specific bidder (1) is recommended to the Owner by the Construction Manager, (2) is qualified to perform that portion of the Work, and (3) has submitted a bid that conforms to the requirements of the Contract Documents without reservations or exceptions, but the Owner requires that another bid be accepted, then the Construction Manager may require that a Change Order be issued to adjust the Contract Time and the Guaranteed Maximum Price by the difference between the bid of the person or entity recommended to the Owner by the Construction Manager and the amount and time requirement of the subcontract or other agreement actually signed with the person or entity designated by the Owner.
- § 2.3.2.3 Subcontracts or other agreements shall conform to the applicable payment provisions of this Agreement, and shall not be awarded on the basis of cost plus a fee without the prior consent of the Owner. If the Subcontract is awarded on a cost plus cost-plus a fee basis, the Construction Manager shall provide in the Subcontract for the Owner

to receive the same audit rights with regard to the Subcontractor as the Owner receives with regard to the Construction Manager in Section 6.11 below.

- § 2.3.2.4 If the Construction Manager recommends a specific bidder that may be considered a "related party" according to Section 6.10, then the Construction Manager shall promptly notify the Owner in writing of such relationship and notify the Owner of the specific nature of the contemplated transaction, according to Section 6.10.2.
- § 2.3.2.5 The Construction Manager shall schedule and conduct meetings to discuss such matters as procedures, progress, coordination, scheduling, and status of the Work. The Construction Manager shall prepare and promptly distribute minutes to the Owner and Architect.
- § 2.3.2.6 Upon the execution of the Guaranteed Maximum Price Amendment, the Construction Manager shall prepare and submit to the Owner and Architect a <u>final</u> construction schedule for the Work and submittal schedule in accordance with Section 3.10 of A201 2007. A201-2017, which is to be based upon the schedule included with the GMP that has been reviewed and accepted by Owner.
- § 2.3.2.7 The Construction Manager shall record the progress of the Project. On a monthly basis, or otherwise as agreed to by the Owner, the Construction Manager shall submit written progress reports to the Owner and Architect, in a format acceptable to the Owner, showing percentages of completion and other information required by the Owner. The Construction Manager shall also keep, and make available to the Owner and Architect, a daily log containing a record for each day of weather, portions of the Work in progress, number of workers on site, identification of equipment on site, problems that might affect progress of the work, accidents, injuries, and other information required by the Owner.
- § 2.3.2.8 The Construction Manager shall develop a system of cost control for the Work, including regular monitoring of actual costs for activities in progress and estimates for uncompleted tasks and proposed changes. The Construction Manager shall identify variances between actual and estimated costs and report the variances to the Owner and Architect and shall provide this information in its monthly reports to the Owner and Architect, in a format acceptable to the Owner, in accordance with Section 2.3.2.7 above.

# § 2.4 Professional Services

Section 3.12.10 of A201 2007 A201-2017 shall apply to both the Preconstruction and Construction Phases.

#### § 2.5 Hazardous Materials

Section 10.3 of A201 2007 A201 2017 shall apply to both the Preconstruction and Construction Phases.

# **ARTICLE 3 OWNER'S RESPONSIBILITIES**

# § 3.1 Information and Services Required of the Owner

- § 3.1.1 The Owner shall provide information with reasonable promptness, regarding requirements for and limitations on the Project, including a written program which shall set forth the Owner's objectives, constraints, and criteria, including schedule, space requirements and relationships, flexibility and expandability, special equipment, systems, systems sustainability and site requirements.
- § 3.1.2 Prior to the execution of the Guaranteed Maximum Price Amendment, the Construction Manager may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. Thereafter, the Construction Manager may only request such evidence if (1) the Owner fails to make payments to the Construction Manager as the Contract Documents require, (2) a change in the Work materially changes the Contract Sum, or (3) the Construction Manager identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Construction Manager and Architect. The Owner's Fiscal Officer has signed the 5705.41 certificate at the end of this Agreement, which evidences encumbrance of funds by Owner to cover its obligations for payment to the Construction Manager based upon this Agreement for preconstruction phase services. Funds will be encumbered for the GMP amendment(s) at the time the amendment is finalized, approved by Owner, and signed by the parties.

- § 3.1.3 The Owner shall establish and periodically update the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Section 6.1.1, (2) the Owner's other costs, and (3) reasonable contingencies related to all of these costs. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Construction Manager and Architect. The Owner and the Architect, in consultation with the Construction Manager, shall thereafter agree to a corresponding change in the Project's scope and quality.
- § 3.1.4 Structural and Environmental Tests, Surveys and Reports. During the Preconstruction Phase, the Owner shall furnish the following information or services with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Construction Manager's performance of the Work with reasonable promptness after receiving the Construction Manager's written request for such information or services. The Construction Manager shall be entitled to rely on the accuracy of information and services furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.
- § 3.1.4.1 The Owner shall furnish tests, inspections and reports required by law and as otherwise agreed to by the parties, such as structural, mechanical, and chemical tests, tests for air and water pollution, and tests for hazardous materials.
- § 3.1.4.2 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; designated wetlands; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data with respect to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.
- § 3.1.4.3 The Owner, when such services are requested, shall furnish services of geotechnical engineers, which may include but are not limited to test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, seismic evaluation, ground corrosion tests and resistivity tests, including necessary operations for anticipating subsoil conditions, with written reports and appropriate recommendations.
- § 3.1.4.4 During the Construction Phase, the Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Construction Manager's performance of the Work with reasonable promptness after receiving the Construction Manager's written request for such information or services.

# § 3.2 Owner's Designated Representative

The Owner shall identify a representative authorized to act on behalf of the Owner with respect to the Project. The Owner's representative shall render decisions promptly and furnish information expeditiously, so as to avoid unreasonable delay in the services or Work of the Construction Manager. Except as otherwise provided in Section 4.2.1 of A201–2007, A201-2017, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 3.2.1 Legal Requirements. The Owner shall furnish all legal, insurance and accounting services, including auditing services, that may be reasonably necessary at any time for the Project to meet the Owner's needs and interests.

# § 3.3 Architect

The Owner shall retain an Architect to provide services, duties and responsibilities as described in AIA Document B133<sup>TM</sup> 2014, B103<sup>TM</sup> 2007, Standard Form of Agreement Between Owner and Architect, Construction Manager as Constructor Edition. Architect. The Owner shall provide the Construction Manager upon request with a copy of the executed agreement between the Owner and the Architect, and any further modifications to the agreement.

# ARTICLE 4 COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES § 4.1 Compensation

§ 4.1.1 For the Construction Manager's Preconstruction Phase services, the Owner shall compensate the Construction Manager as follows:

§ 4.1.2 For the Construction Manager's Preconstruction Phase services described in Sections 2.1 and 2.2:

(Insert amount of, or basis for, compensation and include a list of reimbursable cost items, as applicable.)

#### an amount not to exceed \$25,254.00

This amount includes the following:

Preconstruction Stage Fee (percentage based upon preconstruction staff costs)	<u>\$</u>
	0.00
Preconstruction Stage Personnel Costs Cap (see Section 4.2.1)	<u>\$</u>
	23,754.00
Preconstruction Stage Reimbursable Expenses Cap	<u>\$</u>
	<u>1,500.00</u>

- § 4.1.3 If the Preconstruction Phase services covered by this Agreement have not been completed within ( ) months of the date of this Agreement, through no fault of the Construction Manager, the Construction Manager's compensation for Preconstruction Phase services shall be equitably adjusted. The Preconstruction Phase services are anticipated to occur between February 14, 2020, and May 13, 2020, the current date scheduled for completion of the Construction Documents by the Architect; an early sitework bid package is planned for May 31, 2021.
- § 4.1.4 Compensation based on Direct Personnel Expense includes the direct salaries of the Construction Manager's personnel providing Preconstruction Phase services on the Project and the Construction Manager's costs for the mandatory and customary contributions and benefits related thereto, such as employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, employee retirement plans and similar contributions.

# § 4.2 Payments

- § 4.2.1 Unless otherwise agreed, payments for services shall be made monthly in proportion to services performed. performed and based upon, and limited to, the hourly rates and personnel stated in the Construction Manager's revised Pricing Proposal (Exhibit 1) up to the amounts stated in Section 4.1.2. Any amount not spent for each of these items will remain the property of the Owner.
- § 4.2.2 Payments are due and payable upon presentation of the Construction Manager's invoice. Amounts unpaid () days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Construction Manager. (Insert rate of monthly or annual interest agreed upon.)
- <u>%</u>in accordance with the Contract Documents.

### ARTICLE 5 COMPENSATION FOR CONSTRUCTION PHASE SERVICES

§ 5.1 For the Construction Manager's performance of the Work as described in Section 2.3, the Owner shall pay the Construction Manager the Contract Sum in current funds. funds for the Construction Manager's performance of the Contract. The Contract Sum is the Cost of the Work as defined in Section 6.1.1 plus the Construction Manager's Fee.

#### § 5.1.1 The Construction Manager's Fee:

(State a lump sum, percentage of Cost of the Work or other provision for determining the Construction Manager's Fee.)

Four Hundred Two Thousand and Zero Hundredths Dollars (\$402,000.00); this amount is based upon 2.0% of the estimated construction cost for the Project (Cost of the Work), but excluding the CM Contingency. The final CM fee amount will be based upon 2.0% of the final Cost of the Work, excluding any CM contingency expended.

§ 5.1.2 The method of adjustment of the Construction Manager's Fee for changes in the Work:

The Construction Manager's Fee will be adjusted as agreed to by the parties when there are significant changes to the Cost of the Work that result from Owner-requested changes. Any adjustment by increase or decrease will be documented in a writing signed by the parties that modifies this Agreement; the form of writing may be a change order

as described in Article 7 of the AIA Document A201-2017 General Conditions for the Project for the purpose of modifying the Construction Manager's Fee and the compensation to be paid for Construction Phase Services.

§ 5.1.3 Limitations, if any, on a Subcontractor's overhead and profit for increases in the cost of its portion of the Work:

As described in Article 7 of the AIA Document A201-2017 General Conditions for the Project.

§ 5.1.4 Rental rates for Construction Manager-owned equipment shall not exceed percent (—%) of the standard rate paid at the place of the Project.

# § 5.1.5 Unit prices, if any:

(Identify and state the unit price; state the quantity limitations, if any, to which the unit price will be applicable.)

Item Units and Limitations Price per Unit (\$0.00)
None at the time this Agreement is signed

# § 5.2 Guaranteed Maximum Price

§ 5.2.1 The Construction Manager guarantees that the Contract Sum shall not exceed the Guaranteed Maximum Price (GMP) set forth in the Guaranteed Maximum Price Amendment, as it is amended from time to time. To the extent the Cost of the Work exceeds the Guaranteed Maximum Price, the Construction Manager shall bear such costs in excess of the Guaranteed Maximum Price without reimbursement or additional compensation from the Owner. (Insert specific provisions if the Construction Manager is to participate in any savings.)

# § 5.2.1.1 The GMP Amendment will include:

- 1. The Contract Sum, Contract Times, Milestones, and other commercial terms relevant to the Construction Phase.
- 2. The Construction Phase Personnel Costs amount, including a detailed staffing model for the Construction Phase; unless the Project scope and anticipated timelines for the Project increase or decrease after the date of this Agreement, the Construction Phase Personnel Costs will be \$514,127.00, as stated on the Construction Manager's revised Proposal Form dated December 17, 2019 (refer to attached Proposal Form, labeled Exhibit 1, with exhibits from the Pricing Proposal).
- 3. The General Conditions Costs amount, including a detailed list of the items included in the General Conditions and the cost of each item; unless the Project scope and anticipated timelines for the Project increase or decrease after the date of this Agreement, the General Conditions Costs will be \$207,650.00, as stated on the Construction Manager's revised Proposal Form dated December 17, 2019 (refer to attached Proposal Form labeled Exhibit 1, with exhibits from the Pricing Proposal).
- 4. The proposed amount of the Construction Manager's Contingency will be based upon 1.5% of the Cost of the Work (including General Conditions Costs); unless the Project scope and anticipated timelines for the Project increase or decrease after the date of this Agreement, the Construction Manager's contingency will be \$295,470.00, as stated on the Construction Manager's Proposal Form dated December 17, 2019 (refer to attached Proposal Form, labeled Exhibit 1, with exhibits from the Pricing Proposal).

The parties will review the GMP proposal prepared by the Construction Manager and negotiate each of the items to be included in the GMP Amendment prior to signing the Amendment and agreeing upon the GMP for the Project or any portion of the Project. At the time when final costs are reconciled for the Project, if less amounts have been expended by the Construction Manager for the Cost of the Work, including Construction Phase Personnel Costs, General Conditions Costs or Construction Contingency Costs, all savings will remain with the Owner.

§ 5.2.2 The Guaranteed Maximum Price is subject to additions and deductions by Change Order as provided in the Contract Documents and the Date of Substantial Completion shall be subject to adjustment as provided in the Contract Documents.

§ 5.2.3 If the parties cannot agree on a Contract Sum for the Project, the Owner may terminate the Contract for convenience. If the Owner thereafter decides to pursue the Project using the construction manager/agent project-delivery method and to enter into a related construction management services agreement with the Construction Manager in an agency or advisor role, the Construction Manager's fee under that contract will be calculated based

upon the Cost of the Work times 2.0%. The Owner is not obligated to offer or to enter into a construction manager/agent contract with the Construction Manager for the Project.

# § 5.3 Changes in the Work

- § 5.3.1 The Owner may, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions. The Owner shall issue such changes in writing. The Architect may make minor changes in the Work as provided in Section 7.4 of AIA Document A201–2007, A201-2017, General Conditions of the Contract for Construction. The Construction Manager shall be entitled to an equitable adjustment in the Contract Time as a result of changes in the Work.
- § 5.3.2 Adjustments to the Guaranteed Maximum Price on account of changes in the Work subsequent to the execution of the Guaranteed Maximum Price Amendment may be determined by any of the methods listed in Section 7.3.3 of AIA Document A201–2007, A201-2017, General Conditions of the Contract for Construction.
- § 5.3.3 In calculating adjustments to subcontracts (except those awarded with the Owner's prior consent on the basis of cost plus a fee), the terms "cost" and "fee" as used in Section 7.3.3.3 of AIA Document A201–2007 A201-2017 and the term "costs" as used in Section 7.3.7-7.3.4 of AIA Document A201–2007 A201-2017 shall have the meanings assigned to them in AIA Document A201–2007 A201-2017 and shall not be modified by Sections 5.1 and 5.2, Sections 6.1 through 6.7, and Section 6.8 of this Agreement. Adjustments to subcontracts awarded with the Owner's prior consent on the basis of cost plus a fee shall be calculated in accordance with the terms of those subcontracts.
- § 5.3.4 In calculating adjustments to the Guaranteed Maximum Price, the terms "cost" and "costs" as used in the above-referenced provisions of AIA Document A201–2007 A201-2017 shall mean the Cost of the Work as defined in Sections 6.1 to 6.7 of this Agreement and the term "fee" shall mean the Construction Manager's Fee as defined in Section 5.1 of this Agreement.
- § 5.3.5 If no specific provision is made in Section 5.1.2 for adjustment of the Construction Manager's Fee in the case of changes in the Work, or if the extent of such changes is such, in the aggregate, that application of the adjustment provisions of Section 5.1.2 will cause substantial inequity to the Owner or Construction Manager, the Construction Manager's Fee shall be equitably adjusted on the same basis that was used to establish the Fee for the original Work, and the Guaranteed Maximum Price shall be adjusted accordingly.[Not Used.]

# ARTICLE 6 COST OF THE WORK FOR CONSTRUCTION PHASE

#### § 6.1 Costs to Be Reimbursed

- § 6.1.1 The term Cost of the Work shall mean costs necessarily incurred by the Construction Manager in the proper performance of the Work. Such costs shall be at rates not higher than the standard paid at the place of the Project except with prior consent of the Owner. The Cost of the Work shall include only the items set forth in Sections 6.1 through 6.7.
- § 6.1.2 Where any cost is subject to the Owner's prior approval, the Construction Manager shall obtain this approval prior to incurring the cost. The parties shall endeavor to identify any such costs prior to executing Guaranteed Maximum Price Amendment.

# § 6.2 Labor Costs

- **§ 6.2.1** Wages of construction workers directly employed by the Construction Manager to perform the construction of the Work at the site or, with the Owner's prior approval, at off-site workshops.
- **§ 6.2.2** Wages or salaries of the Construction Manager's supervisory and administrative personnel when stationed at the site with the Owner's prior approval.
- (If it is intended that the wages or salaries of certain personnel stationed at the Construction Manager's principal or other offices shall be included in the Cost of the Work, identify in Section 11.5, the personnel to be included, whether for all or only part of their time, and the rates at which their time will be charged to the Work.)
- § 6.2.3 Wages and salaries of the Construction Manager's supervisory or administrative personnel engaged at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of their time required for the Work.

- § 6.2.4 Costs paid or incurred by the Construction Manager for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, eustomary CM's standard benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Sections 6.2.1 through 6.2.3.
- § 6.2.5 Bonuses, profit sharing, incentive compensation and any other discretionary payments paid to anyone hired by the Construction Manager or paid to any Subcontractor or vendor, with the Owner's prior approval.

# § 6.3 Subcontract Costs

Payments made by the Construction Manager to Subcontractors in accordance with the requirements of the subcontracts.

# § 6.4 Costs of Materials and Equipment Incorporated in the Completed Construction

- **§ 6.4.1** Costs, including transportation and storage, of materials and equipment incorporated or to be incorporated in the completed construction.
- § 6.4.2 Costs of materials described in the preceding Section 6.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, if any, shall become the Owner's property at the completion of the Work or, at the Owner's option, shall be sold by the Construction Manager. Any amounts realized from such sales shall be credited to the Owner as a deduction from the Cost of the Work.

# § 6.5 Costs of Other Materials and Equipment, Temporary Facilities and Related Items

- **§ 6.5.1** Costs of transportation, storage, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Construction Manager at the site and fully consumed in the performance of the Work. Costs of materials, supplies, temporary facilities, machinery, equipment and tools that are not fully consumed shall be based on the cost or value of the item at the time it is first used on the Project site less the value of the item when it is no longer used at the Project site. Costs for items not fully consumed by the Construction Manager shall mean fair market value.
- § 6.5.2 Rental charges for temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Construction Manager at the site and costs of transportation, installation, minor repairs, dismantling and removal. The total rental cost of any Construction Manager-owned item may not exceed the purchase price of any comparable item. Rates of Construction Manager-owned equipment and quantities of equipment shall be subject to the Owner's prior approval.
- § 6.5.3 Costs of removal of debris from the site of the Work and its proper and legal disposal.
- **§ 6.5.4** Costs of document reproductions, facsimile transmissions and long-distance telephone calls, postage and parcel delivery charges, telephone service at the site and reasonable petty cash expenses of the site office.
- **§ 6.5.5** That portion of the reasonable expenses of the Construction Manager's supervisory or administrative personnel incurred while traveling in discharge of duties connected with the Work.
- § 6.5.6 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, subject to the Owner's prior approval.

#### § 6.6 Miscellaneous Costs

- § 6.6.1 Premiums for that portion of insurance and bonds required by the Contract Documents that can be directly attributed to this Contract. Self-insurance for either full or partial amounts of the coverages required by the Contract Documents, with the Owner's prior approval. The premium charge will be set forth as a line item in the Guaranteed Maximum Price (GMP).
- § 6.6.2 Sales, use or similar taxes imposed by a governmental authority that are related to the Work and for which the Construction Manager is liable.

- **§ 6.6.3** Fees and assessments for the building permit and for other permits, licenses and inspections for which the Construction Manager is required by the Contract Documents to pay.
- **§ 6.6.4** Fees of laboratories for tests required by the Contract Documents, except those related to defective or nonconforming Work for which reimbursement is excluded by Section 13.5.3-13.4.3 of AIA Document A201-2007 A201-2017 or by other provisions of the Contract Documents, and which do not fall within the scope of Section 6.7.3.
- **§ 6.6.5** Royalties and license fees paid for the use of a particular design, process or product required by the Contract Documents; the cost of defending suits or claims for infringement of patent rights arising from such requirement of the Contract Documents; and payments made in accordance with legal judgments against the Construction Manager resulting from such suits or claims and payments of settlements made with the Owner's consent. However, such costs of legal defenses, judgments and settlements shall not be included in the calculation of the Construction Manager's Fee or subject to the Guaranteed Maximum Price. If such royalties, fees and costs are excluded by the last sentence of Section 3.17 of AIA Document A201 2007 A201 2017 or other provisions of the Contract Documents, then they shall not be included in the Cost of the Work.
- § 6.6.6 Costs for electronic equipment and software, directly related to the Work with the Owner's prior approval.
- **§ 6.6.7** Deposits lost for causes other than the Construction Manager's negligence or failure to fulfill a specific responsibility in the Contract Documents.
- **§ 6.6.8** Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between the Owner and Construction Manager, Manager (or which have resulted from a breach of contract, negligence, recklessness, or willful misconduct by the Construction Manager), reasonably incurred by the Construction Manager after the execution of this Agreement in the performance of the Work and with the Owner's prior approval, which shall not be unreasonably withheld.
- § 6.6.9 Subject to the Owner's prior approval, expenses incurred in accordance with the Construction Manager's standard written personnel policy for relocation and temporary living allowances of the Construction Manager's personnel required for the Work.

# § 6.7 Other Costs and Emergencies

- § 6.7.1 Other costs incurred in the performance of the Work if, and to the extent, approved in advance in writing by the Owner.
- **§ 6.7.2** Costs incurred in taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property, as provided in Section 10.4 of AIA Document A201 2007. A201-2017.
- § 6.7.3 Costs If approved in advance and in writing by the Owner in its sole discretion, actual costs, without markup, costs of repairing or correcting damaged or nonconforming Work executed by the Construction Manager, Subcontractors or suppliers, provided that such damaged or nonconforming Work was not caused by negligence or failure to fulfill a specific responsibility of the Construction Manager and only to the extent that the cost of repair or correction is not recovered by the Construction Manager from insurance, sureties, Subcontractors, suppliers, or others.
- § 6.7.4 The costs described in Sections 6.1 through 6.7 shall be included in the Cost of the Work, notwithstanding any provision of AIA Document A201 2007 A201-2017 or other Conditions of the Contract which may require the Construction Manager to pay such costs, unless such costs are excluded by the provisions of Section 6.8.

#### § 6.8 Costs Not To Be Reimbursed

§ 6.8.1 The Cost of the Work shall not include the items listed below:

- 1 Salaries and other compensation of the Construction Manager's personnel stationed at the Construction Manager's principal office or offices other than the site office, except as specifically provided in Section 6.2, or as may be provided in Article 11;
- .2 Expenses of the Construction Manager's principal office and offices other than the site office;
- .3 Overhead and general expenses, except as may be expressly included in Sections 6.1 to 6.7;
- .4 The Construction Manager's capital expenses, including interest on the Construction Manager's capital employed for the Work;

- Except as provided in Section 6.7.3 of this Agreement, costs due to the negligence or failure of the Construction Manager, Subcontractors and suppliers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable to fulfill a specific responsibility of the Contract;
- **.6** Any cost not specifically and expressly described in Sections 6.1 to 6.7;
- 7 Costs, other than costs included in Change Orders approved by the Owner, that would cause the Guaranteed Maximum Price to be exceeded; and
- **.8** Costs for services incurred during the Preconstruction Phase.

# § 6.9 Discounts, Rebates and Refunds

§ 6.9.1 Cash discounts obtained on payments made by the Construction Manager shall accrue to the Owner if (1) before making the payment, the Construction Manager included them in an Application for Payment and received payment from the Owner, or (2) the Owner has deposited funds with the Construction Manager with which to make payments; otherwise, cash discounts shall accrue to the Construction Manager. Trade discounts, rebates, refunds and amounts received from sales of surplus materials and equipment shall accrue to the Owner, and the Construction Manager shall make provisions so that they can be obtained.

**§ 6.9.2** Amounts that accrue to the Owner in accordance with the provisions of Section 6.9.1 shall be credited to the Owner as a deduction from the Cost of the Work.

# § 6.10 Related Party Transactions

**§ 6.10.1** For purposes of Section 6.10, the term "related party" shall mean a parent, subsidiary, affiliate or other entity having common ownership or management with the Construction Manager; any entity in which any stockholder in, or management employee of, the Construction Manager owns any interest in excess of ten percent in the aggregate; or any person or entity which has the right to control the business or affairs of the Construction Manager. The term "related party" includes any member of the immediate family of any person identified above.

§ 6.10.2 If any of the costs to be reimbursed arise from a transaction between the Construction Manager and a related party, the Construction Manager shall notify the Owner of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If the Owner, after such notification, authorizes the proposed transaction, then the cost incurred shall be included as a cost to be reimbursed, and the Construction Manager shall procure the Work, equipment, goods or service from the related party, as a Subcontractor, according to the terms of Sections 2.3.2.1, 2.3.2.2 and 2.3.2.3. If the Owner fails to authorize the transaction, the Construction Manager shall procure the Work, equipment, goods or service from some person or entity other than a related party according to the terms of Sections 2.3.2.1, 2.3.2.2 and 2.3.2.3.

#### § 6.11 Accounting Records

The Construction Manager shall keep full and detailed records and accounts related to the eost Cost of the Work and exercise such controls as may be necessary for proper financial management under this Contract and to substantiate all costs incurred. The accounting and control systems shall be satisfactory to the Owner. The Owner and the Owner's auditors shall, during regular business hours and upon reasonable notice, be afforded access to, and shall be permitted to audit and copy, the Construction Manager's records and accounts, including complete documentation supporting accounting entries, books, correspondence, instructions, drawings, receipts, subcontracts, Subcontractor's proposals, purchase orders, vouchers, memoranda and other data relating to this Contract. The Construction Manager shall preserve these records for a period of three years after final payment, or for such longer period as may be required by law

### ARTICLE 7 PAYMENTS FOR CONSTRUCTION PHASE SERVICES

# § 7.1 Progress Payments

§ 7.1.1 Based upon Applications for Payment submitted to the Architect by the Construction Manager and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Construction Manager as provided below and elsewhere in the Contract Documents.

§ 7.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

# month

§ 7.1.3 Provided that an <u>approved Application</u> for Payment is received by the <u>Architect Owner's Treasurer</u> not later than the day of a <u>first day of the month</u>, the Owner shall make payment of the certified amount to the Construction Manager not later than the <u>day of the month</u>. 25 days following Owner's receipt of the Application for Payment. Applications for Payment are to be submitted to the Architect for review and approval; the Application for Payment will then be forwarded to the Owner's Representative for review and approval before being delivered to the Owner's <u>Treasurer for payment</u>. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than <u>25 (twenty-five</u>) days after the <u>Architect Owner</u> receives the <u>approved Application</u> for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 7.1.4 With each Application for Payment, the Construction Manager shall submit-maintain payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner or Architect to demonstrate that cash disbursements already made by the Construction Manager on account of the Cost of the Work equal or exceed progress payments already received by the Construction Manager, less that portion of those payments attributable to the Construction Manager's Fee, plus payrolls for the period covered by the present Application for Payment.

§ 7.1.5 Each Application for Payment shall be based on the most recent schedule of values submitted by the Construction Manager in accordance with the Contract Documents. The schedule of values shall allocate the entire Guaranteed Maximum Price among the various portions of the Work, except that the Construction Manager's Fee shall be shown as a single separate item. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect or Owner may require. This schedule, unless objected to by the Architect, Architect or Owner, shall be used as a basis for reviewing the Construction Manager's Applications for Payment.

§ 7.1.6 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment. The percentage of completion shall be the lesser of (1) the percentage of that portion of the Work which has actually been completed, or (2) the percentage obtained by dividing (a) the expense that has actually been incurred by the Construction Manager on account of that portion of the Work for which the Construction Manager has made or intends to make actual payment prior to the next Application for Payment by (b) the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values.

§ 7.1.7 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- .1 Take that portion of the Guaranteed Maximum Price properly allocable to completed Work as determined by multiplying the percentage of completion of each portion of the Work by the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values. Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.9 of AIA Document A201 2007; values.;
- Add that portion of the Guaranteed Maximum Price properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work, or if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing;
- Add the Construction Manager's Fee, less retainage on the Cost of the Work\* as required by applicable Ohio law until the Work is 50% complete of eight percent (8 %). The Construction Manager's Fee shall be computed upon the Cost of the Work at the rate stated in Section 5.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, shall be an amount that bears the same ratio to that fixed-sum fee as the Cost of the Work bears to a reasonable estimate of the probable Cost of the Work upon its completion;
- .4 Subtract retainage of <u>eight</u> percent (<u>8</u>%) from that portion of the Work that the Construction Manager self-performs;
- .5 Subtract the aggregate of previous payments made by the Owner;
- **.6** Subtract the shortfall, if any, indicated by the Construction Manager in the documentation required by Section 7.1.4 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the Owner's auditors in such documentation; and

Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document <u>A201–2007.A201-2017.</u>

\*The Cost of the Work on which retainage is withheld does not include the Construction Manager's General Conditions, personnel costs, or Fee.

§ 7.1.8 The Owner and Construction Manager shall agree upon (1) a mutually acceptable procedure for review and approval of payments to Subcontractors and (2) the percentage of retainage held on Subcontracts, and the Construction Manager shall execute subcontracts in accordance with those agreements. Notwithstanding the foregoing, the Construction Manager acknowledges the Ohio legal requirement that the retainage from subcontracts may not be greater than the retainage withheld by Owner from the Construction Manager as provided in this Agreement and Ohio law.

§ 7.1.9 Except with the Owner's prior approval, the Construction Manager shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 7.1.10 In taking action on the Construction Manager's Applications for Payment, the Architect shall be entitled to rely on the accuracy and completeness of the information furnished by the Construction Manager and shall not be deemed to represent that the Architect has made a detailed examination, audit or arithmetic verification of the documentation submitted in accordance with Section 7.1.4 or other supporting data; that the Architect has made exhaustive or continuous on-site inspections; or that the Architect has made examinations to ascertain how or for what purposes the Construction Manager has used amounts previously paid on account of the Contract. Such examinations, audits and verifications, if required by the Owner, will be performed by the Owner's auditors acting in the sole interest of the Owner.

# § 7.2 Final Payment

§ 7.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Construction Manager when

- .1 the Construction Manager has fully performed the Contract except for the Construction Manager's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201 2007, A201-2017, and to satisfy other requirements, if any, which extend beyond final payment;
- .2 the Construction Manager has submitted a final accounting for the Cost of the Work and a final Application for Payment; and
- .3 a final Certificate for Payment has been issued by the Architect.

The Owner's final payment to the Construction Manager shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

# Payment.

§ 7.2.2 The Owner's auditors will review and report in writing on the Construction Manager's final accounting within 30 days after delivery of the final accounting to the Architect by the Construction Manager. Based upon such Cost of the Work as the Owner's auditors report to be substantiated by the Construction Manager's final accounting, and provided the other conditions of Section 7.2.1 have been met, the Architect will, within seven days after receipt of the written report of the Owner's auditors, either issue to the Owner a final Certificate for Payment with a copy to the Construction Manager, or notify the Construction Manager and Owner in writing of the Architect's reasons for withholding a certificate as provided in Section 9.5.1 of the AIA Document A201 – 2007. A201-2017. The time periods stated in this Section supersede those stated in Section 9.4.1 of the AIA Document A201 – 2007. A201-2017. The Architect is not responsible for verifying the accuracy of the Construction Manager's final accounting.

§ 7.2.3 If the Owner's auditors report the Cost of the Work as substantiated by the Construction Manager's final accounting to be less than claimed by the Construction Manager, the Construction Manager shall be entitled to request mediation of the disputed amount without seeking an initial decision pursuant to Section 15.2 of A201–2007.

A201-2017. A request for mediation shall be made by the Construction Manager within 30 days after the Construction Manager's receipt of a copy of the Architect's final Certificate for Payment. Failure to request mediation within this 30-day period shall result in the substantiated amount reported by the Owner's auditors becoming binding on the

Construction Manager. Pending a final resolution of the disputed amount, the Owner shall pay the Construction Manager the amount certified in the Architect's final Certificate for Payment.

§ 7.2.4 If, subsequent to final payment and at the Owner's <u>written</u> request, the Construction Manager incurs costs described in Section 6.1.1 and not excluded by Section 6.8 to correct defective or nonconforming Work, the Owner shall reimburse the Construction Manager such costs and the Construction Manager's Fee applicable thereto on the same basis as if such costs had been incurred prior to final payment, but not in excess of the Guaranteed Maximum Price. If the Construction Manager has participated in savings as provided in Section 5.2.1, the amount of such savings shall be recalculated and appropriate credit given to the Owner in determining the net amount to be paid by the Owner to the Construction Manager.

#### ARTICLE 8 INSURANCE AND BONDS

For all phases of the Project, the Construction Manager and the Owner shall purchase and maintain insurance, and the Construction Manager shall provide bonds <u>before construction begins and subsequently provide replacement bonds in the full amount of the Agreement each time a GMP Amendment is signed, as set forth in Article 11 of AIA Document A201–2007.</u>A201-2017.

(State bonding requirements, if any, and limits of liability for insurance required in Article 11 of AIA Document A201–2007.) Document A201-2017.)

# Type of Insurance or Bond

Payment Bond required by Ohio law Performance Bond required by Ohio law

# Limit of Liability or Bond Amount (\$0.00)

Amount will be in accordance with OAC 153:1-4-02(A) Amount will be in accordance with OAC 153:1-4-02(A)

#### **ARTICLE 9 DISPUTE RESOLUTION**

§ 9.1 Any Claim between the Owner and Construction Manager shall be resolved in accordance with the provisions set forth in this Article 9 and Article 15 of A201–2007. A201-2017. However, for Claims arising from or relating to the Construction Manager's Preconstruction Phase services, no decision by the Initial Decision Maker shall be required as a condition precedent to mediation or binding dispute resolution, and Section 9.3 of this Agreement shall not apply.

**§ 9.2** For any Claim subject to, but not resolved by mediation pursuant to Section 15.3 of AIA Document A201–2007, A201-2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box. If the Owner and Construction Manager do not select a method of binding dispute resolution below, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.)

	Arbitrat	ion pursuant to	Section	15.4 of A	AIA Docu	ıment <del>A201</del>	2007
A20	1-2017						

Litigation in a court of competent jurisdiction in the county in which the Project is located; legal proceedings in the court will not commence until the parties have endeavored to resolve their Claim through informal discussions with the principals of each party, followed by non-binding mediation with a third party mediator acceptable to both parties; the parties will share equally the expenses of mediation. The parties each waive their right to remove any action related to this Agreement to a federal court.

[ ] Other: (Specify)

# § 9.3 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Section 15.2 of AIA Document A201 2007 A201-2017 for Claims arising from or relating to the Construction Manager's Construction Phase services, unless the parties appoint below another individual, not a party to the Agreement, to serve as the Initial Decision Maker. (If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

Bruce Runyon
Fanning/Howey Associates, Inc.
4930 Bradenton Avenue; Dublin, Ohio 43017

#### ARTICLE 10 TERMINATION OR SUSPENSION

#### § 10.1 Termination Prior to Establishment of the Guaranteed Maximum Price

§ 10.1.1 Prior to the execution of the Guaranteed Maximum Price Amendment, the Owner may terminate this Agreement upon not less than seven days' written notice to the Construction Manager for the Owner's convenience and without cause, and the Construction Manager may terminate this Agreement, upon not less than seven days' written notice to the Owner, for the reasons set forth in Section 14.1.1 of A201–2007-A201-2017.

§ 10.1.2 In the event of termination of this Agreement pursuant to Section 10.1.1, the Construction Manager shall be equitably compensated for Preconstruction Phase services performed prior to receipt of a notice of termination. In no event shall the Construction Manager's compensation under this Section exceed the compensation set forth in Section 4.1.

§ 10.1.3 If the Owner terminates the Contract pursuant to Section 10.1.1 after the commencement of the Construction Phase but prior to the execution of the Guaranteed Maximum Price Amendment, the Owner shall pay to the Construction Manager an amount calculated as follows, which amount shall be in addition to any compensation paid to the Construction Manager under Section 10.1.2:

- .1 Take the Cost of the Work incurred by the Construction Manager to the date of termination;
- .2 Add the Construction Manager's Fee computed upon the Cost of the Work to the date of termination at the rate stated in Section 5.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum Fee as the Cost of the Work at the time of termination bears to a reasonable estimate of the probable Cost of the Work upon its completion; and
- .3 Subtract the aggregate of previous payments made by the Owner for Construction Phase services.

The Owner shall also pay the Construction Manager fair compensation, either by purchase or rental at the election of the Owner, for any equipment owned by the Construction Manager which the Owner elects to retain and which is not otherwise included in the Cost of the Work under Section 10.1.3.1. To the extent that the Owner elects to take legal assignment of subcontracts and purchase orders (including rental agreements), the Construction Manager shall, as a condition of receiving the payments referred to in this Article 10, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Construction Manager, as the Owner may require for the purpose of fully vesting in the Owner the rights and benefits of the Construction Manager under such subcontracts or purchase orders. All Subcontracts, purchase orders and rental agreements entered into by the Construction Manager will contain provisions allowing for assignment to the Owner as described above.

If the Owner accepts assignment of subcontracts, purchase orders or rental agreements as described above, the Owner will reimburse or indemnify the Construction Manager for all costs arising under the subcontract, purchase order or rental agreement, if those costs would have been reimbursable as Cost of the Work if the contract had not been terminated. If the Owner chooses not to accept assignment of any subcontract, purchase order or rental agreement that would have constituted a Cost of the Work had this agreement not been terminated, the Construction Manager will terminate the subcontract, purchase order or rental agreement and the Owner will pay the Construction Manager the costs necessarily incurred by the Construction Manager because of such termination.termination, but only for work actually performed under said subcontract or purchase order on the Project or for restocking fees or other non-refundable costs incurred by Construction Manager to its subcontractors or suppliers in reliance on Owner approval.

#### § 10.2 Termination Subsequent to Establishing Guaranteed Maximum Price

Following execution of the Guaranteed Maximum Price Amendment and subject to the provisions of Section 10.2.1 and 10.2.2 below, the Contract may be terminated as provided in Article 14 of AIA Document A201–2007. A201-2017.

**§ 10.2.1** If the Owner terminates the Contract after execution of the Guaranteed Maximum Price Amendment, the amount payable to the Construction Manager pursuant to Sections 14.2 and 14.4 of A201–2007-A201-2017 shall not exceed the amount the Construction Manager would otherwise have received pursuant to Sections 10.1.2 and 10.1.3 of this Agreement.

§ 10.2.2 If the Construction Manager terminates the Contract after execution of the Guaranteed Maximum Price Amendment, the amount payable to the Construction Manager under Section 14.1.3 of A201–2007 A201-2017 shall not exceed the amount the Construction Manager would otherwise have received under Sections 10.1.2 and 10.1.3

above, except that the Construction Manager's Fee shall be calculated as if the Work had been fully completed by the Construction Manager, utilizing as necessary a reasonable estimate of the Cost of the Work for Work not actually completed.

# § 10.3 Suspension

The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2007. A201-2017. In such case, the Guaranteed Maximum Price and Contract Time shall be increased as provided in Section 14.3.2 of AIA Document A201–2007, A201-2017, except that the term "profit" shall be understood to mean the Construction Manager's Fee as described in Sections 5.1 and 5.3.5 of this Agreement.

# **ARTICLE 11 MISCELLANEOUS PROVISIONS**

§ 11.1 Terms in this Agreement shall have the same meaning as those in A201–2007. the modified A201-2017.

#### § 11.2 Ownership and Use of Documents

Section 1.5 of A201 2007 the modified A201-2017 shall apply to both the Preconstruction and Construction Phases.

# § 11.3 Governing Law

Section 13.1 of A201 2007 the modified A201-2017 shall apply to both the Preconstruction and Construction Phases.

# § 11.4 Assignment

The Owner and Construction Manager, respectively, bind themselves, their agents, successors, assigns and legal representatives to this Agreement. Neither the Owner nor the Construction Manager shall assign this Agreement without the written consent of the other, except that the Owner may assign this Agreement to a lender providing financing for the Project if the lender agrees to assume the Owner's rights and obligations under this Agreement. Except as provided in Section 13.2.2 of A201-2007, A201-2017, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

#### § 11.5 Other provisions:

11.5.1 MODIFICATION. No modification or waiver of any of the terms of this Agreement or of any other Contract Documents will be effective against a party unless set forth in writing and signed by or on behalf of a party. Under no circumstances will forbearance, including the failure or repeated failure to insist upon compliance with the terms of the Contract Documents, constitute the waiver or modification of any such terms. The parties acknowledge that no person has authority to modify this Agreement or the other Contract Documents or to waive any of its or their terms, except as expressly provided in this section.

11.5.2 CONSTRUCTION. The parties acknowledge that each party has reviewed this Agreement and the other Contract Documents and voluntarily entered into this Agreement. Accordingly, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party will not be employed in the interpretation of this Agreement, the other Contract Documents, or any amendments or exhibits to it or them.

11.5.3 APPROVALS. Except as expressly provided herein, the approvals and determinations of the Owner and Architect will be subject to the sole discretion of the respective party and be valid and binding on the Construction Manager, provided only that they be reasonable and made in good faith, i.e., honestly. If the Contractor challenges any such approval or determination, the Contractor will have the burden of proving that it was not made in good faith.

11.5.4 PARTIAL INVALIDITY. If any term or provision of this Agreement is found to be illegal, unenforceable, or in violation of any laws, statutes, ordinances, or regulations of any public authority having jurisdiction, then, notwithstanding such term or provision, this Agreement will remain in full force and effect and such term will be deemed stricken; provided this Agreement will be interpreted, when possible, so as to reflect the intentions of the parties as indicated by any such stricken term or provision.

11.5.5 ENTIRE AGREEMENT. This Agreement and the other Contract Documents constitute the entire agreement among the parties with respect to their subject matter and will supersede all prior and contemporaneous, oral or written, agreements, negotiations, communications, representations, and understandings with respect to such subject matter, and no person is justified in relying on such agreements, negotiations, communications, representations, or

understandings.

11.5.6 COUNTERPARTS. This Agreement may be executed in any number of counterparts each of which when so executed and delivered will be an original hereof, and it will not be necessary in making proof of this Agreement to produce or account for more than one counterpart hereof. This Agreement may be executed and delivered by facsimile or via electronic mail

11.5.7 WAGES OF CONTRACTOR'S SUPERVISORY AND ADMINISTRATIVE PERSONNEL. The Contractor will be reimbursed for supervisory and administrative personnel, as described in Section 6.2.2 of the Agreement, based on the hourly rates included in Exhibit 1 (the Construction Manager's revised Price Proposal), up to an amount fixed at the time of the GMP Amendment, except for subsequent change orders as provided in the Contract Documents.

11.5.8 LIQUIDATED DAMAGES. If the Construction Manager does not have its Work on the Project substantially complete by the Date for Substantial Completion, the Construction Manager shall pay the Owner (and the Owner may set off from sums coming due the Construction Manager) liquidated damages in the per diem amount stated in the following table per day for each day beyond the Date for Substantial Completion that the Work fails to be substantially complete. The Construction Manager acknowledges that such amount of liquidated damages represents a reasonable estimate of the actual damages that the Owner will incur if the Work is not substantially complete by the Date for Substantial Completion. The Liquidated Damages set forth in the table are to intended to compensate the Owner for any damages the Owner incurs if the Construction Manager fails to complete the Project (or any portion of the Project) by the Substantial Completion date for the Project or a specific portion of the Project, including, without limitation, on account of (1) any claims attributable to the Construction Manager that are brought by others including separate consultants and separate contractors or (2) any failure of the Construction Manager to timely, properly, and completely perform the Contract other than the failure to achieve the Milestones within their associated Contract Times.

Contract Sum	Liquidated Damages Per Day
Less than \$1,000,000.00	<u>\$500.00</u>
From \$1,000,000.01 to \$2,000,000.00	\$1,000.00
From \$2,000,000.01 to \$5,000,000.00	\$2,000.00
From \$5,000,000.01 to \$10,000,000.00	\$5,000.00
More than \$10,000,000.01	\$10,000.00

In addition to the foregoing liquidated damages and in recognition of the importance of the staffing proposed for the Project by Construction Manager, the Construction Manager agrees to pay the Owner the following per-person amount if any of these individuals remain employed by Construction Manager but cease to perform services for the Project in their originally assigned role:

Clay Keith, Project Executive	<u>\$25,000.00</u>
Ben Posey, Senior Project Manager	\$25,000.00
Tim Crowley, Project Superintendent	\$20,000.00

§ 11.5.9 Conflict of Interest. Except with the Owner's prior knowledge and consent, the Construction Manager will not engage in any activity or accept any employment, interest, or contribution that would reasonably appear to compromise the Construction Manager's professional judgment with respect to this Project.

§ 11.5.10 Non-Discrimination. Construction Manager and its consultants, if any, shall not discriminate against any employee or applicant for employment to be employed in the performance of this Agreement, with respect to the hire, tenure, terms, conditions, or privileges of employment or nay matter directly or indirectly related to employment, because of sex, race, color, religion, national origins, or ancestry. Breach of this covenant may be regarded as a material breach of this Agreement.

# § 11.5.11 Representations.

- 1. The Construction Manager represents and warrants that it is not subject to an unresolved finding for recovery under ORC Section 9.24. If this representation and warranty is found to be false, the Contract is void, and the Construction Manager shall immediately repay the Owner any funds paid under this Contract.
- 2. The Construction Manager hereby certifies that neither the Construction Manager nor any of its partners,

- officers, directors, shareholders, nor the spouses of any such persons, have made contributions in excess of the limitations specified in ORC Section 3517.13.
- 3. The Construction Manager, by signature on this Agreement, certifies that it is currently in compliance with, and will continue to adhere to, the requirements oft eh Ohio ethics laws and conflicts of interest laws and will take no action inconsistent with those laws.

#### ARTICLE 12 SCOPE OF THE AGREEMENT

§ 12.1 This Agreement represents the entire and integrated agreement between the Owner and the Construction Manager and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Construction Manager.

§ 12.2 The following documents comprise the Agreement:

- AIA Document (modified) A133-2009, Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price
- AIA Document A201-2007, (modified) A201-2017, General Conditions of the Contract for .2 Construction
- .3 AIA Document E201<sup>TM</sup>–2007, Digital Data Protocol Exhibit, if completed, or the following: N/A
- AIA Document E202<sup>TM</sup>–2008, Building Information Modeling Protocol Exhibit, if completed, or the following: N/A
- .5 Other documents:

(List other documents, if any, forming part of the Agreement.)

Exhibit A Guaranteed Maximum Price Amendment (AIA Document A133-2009 Exhibit A; unless the parties agree to use the State of Ohio GMP Amendment (CM at Risk Contract) Form)

Exhibit 1 Construction Manager's Revised Pricing Proposal dated December 7, 2019, with exhibits

Exhibit 2 Statement of Claim Form and Instructions

Exhibit 3 Payment and Performance Bonds, as prescribed by OAC 153:1-4-02

Exhibit 4 Ohio Sales Tax Exemption Certificate for Construction Contracts

Construction Manager acknowledges and agrees that the current versions of the State forms for Payment and Performance Bonds and for the Subcontract Agreement are required to be used for the Project. These forms are available on the Ohio Facilities Construction Commission's website.

This Agreement is entered into as of the day and year first written above.

OWNER (Signature) OLENTANGY LOCAL SCHOOL DISTRICT BOARD OF EDUCATION	CONSTRUCTION MANAGER (Signature) ROBERTSON CONSTRUCTION SERVICES
By: Jeff Gordon, Director of Business Management and Facilities  (Printed name and title)	By: Christian Robertson, President & CEO (Printed name and title)
<u>Date</u>	<u>Date</u>

**User Notes:** 

# CERTIFICATE OF FUNDS (ORC Section 5705.41)

The undersigned Treasurer for the Olentangy Local School District, located in Delaware County, Ohio, hereby certifies in connection with the preceding Agreement that the amount required to meet the obligations under the contract for the preconstruction services described in the Agreement, has been lawfully appropriated for the purpose, and is in the treasury or in process of collection to the credit of an appropriate fund, free from any outstanding obligation or encumbrance.

Date:	
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Treasurer/CFO Olentangy Local School District

# General Conditions of the Contract for Construction

# for the following PROJECT:

(Name and location or address)

New Elementary School #1 and Related Improvements

#### THE OWNER:

(Name, legal status and address)

Olentangy Local School District Board of Education
7840 Graphics Way; Lewis Center, Ohio 43015
Owner's Designated Representative: Jeff Gordon, Director of Business Management and Facilities

#### THE ARCHITECT:

(Name, legal status and address)

<u>Fanning/Howey Associates, Inc.</u>
<u>4930 Bradenton Avenue; Dublin, Ohio 43017</u>
Contact: Bruce Runyon

The Contractor is the CMR selected by the Owner following the required process outlined in the Ohio Revised Code and Ohio Administrative Code.

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- 13 MISCELLANEOUS PROVISIONS

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

For guidance in modifying this document to include supplementary conditions, see AIA Document A503™, Guide for Supplementary Conditions.

- TERMINATION OR SUSPENSION OF THE CONTRACT 14
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#### ARTICLE 1 GENERAL PROVISIONS

# § 1.1 Basic Definitions Definitions. The definitions in this Section 1.1 apply throughout the Contract Documents. § 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and eonsist of include the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not The Contract Documents also include the advertisement or invitation to bid, bid (also referred to as the legal notice published in the newspaper). Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

## § 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect and the Contractor each shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's and the Contractor's duties.

## § 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

## § 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

#### § 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

## § 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

## § 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

#### § 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

## § 1.1.9 SUBSTANTIAL COMPLETION

Substantial Completion is the stage in the progress of the Work when the Work is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy and utilize the Work for its intended use.

#### § 1.1.10 DATE FOR SUBSTANTIAL COMPLETION

The Date for Substantial Completion is the Date for Substantial Completion as set forth in the Owner-Contractor Agreement. The Date for Substantial Completion will only be changed or modified by Change Order, other Modification, or a Claim that is Finally Resolved, regardless of any dates in the Construction Schedule.

## § 1.1.11 FINALLY RESOLVED

Finally Resolved means that the Initial Decision Maker has made a decision on a Claim under Section 15.2.6.1 of these General Conditions and that any litigation regarding the Claim has been concluded.

## § 1.2 Correlation and Intent of the Contract Documents

- § 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. Contractor whether or not expressly shown or described. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; all and performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.
- § 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.
- § 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of 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.
- § 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

## § 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

## § 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

#### § 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

- § 1.5.1 The Unless otherwise indicated in the agreement between the Owner and the Design Professional, the Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.
- § 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

#### § 1.6 Notice

- § 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by registered mail, by overnight delivery, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.
- § 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

## § 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of If the parties intend to transmit Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203<sup>TM</sup> 2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data form, they shall endeavor to establish necessary protocols governing such transmission, unless already provided in the Agreement or the Contract Documents.

## § 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203<sup>TM</sup>\_2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202<sup>TM</sup>–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

#### ARTICLE 2 OWNER

#### § 2.1 General

- § 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative representative. The Owner's Designated Representative has only such authority as is expressly authorized by the Owner's Board through a resolution delegating authority related to the Project and as is permitted under the law of the State of Ohio. The Contractor is responsible for determining the limits of that authority. The Owner's Designated Representative for the Project is Jeff Gordon, Director of Business Management and Facilities for the Olentangy Local School District.
- § 2.1.2 The Owner shall furnish to the Contractor, prepare a Notice of Commencement for the Project, as required by the Ohio Revised Code and shall furnish to the Contractor a copy of the Notice of Commencement for the Project within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein. request.

## § 2.2 Evidence of the Owner's Financial Arrangements

- § 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements. The Owner will complete the certificate(s) of available resources required by the Ohio Revised Code as evidence of available funds to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.
- § 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due;

or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents. [Not Used.]

- § 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.[Not Used.]
- § 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information. All blueprints of a school facility that contain critical systems are considered confidential, this includes any plan that contains and information related to security, mechanical, electrical, plumbing, etc. All such information shall be considered confidential. A simple floor plan that does not contain this information is not covered under the exemption, and, therefore, the contractor may disclose this information upon written notice to the Owner.

#### § 2.3 Information and Services Required of the Owner

- § 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.
- § 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.
- § 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.
- § 2.3.4 The To the extent necessary for the Work and as requested by the Contractor, the Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.
- § 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.
- § 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

#### § 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly-fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

## § 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day three-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the or thereafter proceed without interruption to correct such default or neglect within fifteen (15) days of such notice, the Owner, without prejudice to its other remedies, may correct such deficiencies. If such default or neglect results in a threat to the safety of any person or property, the Contractor will immediately commence to correct such default or neglect upon receipt of written or oral notice thereof. In all such cases of default or neglect, an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the costs arising out of or related to the investigation and correction of such deficiencies, including the Owner's attorneys' and consultants' fees and expenses and other expenses and compensation for the Architect's additional services made necessary by such default, neglect or failure. The Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. above costs. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

#### ARTICLE 3 CONTRACTOR

#### § 3.1 General

- § 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.
- § 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents. Documents and comply with all rules, regulations and policies of the Owner and all applicable federal, State, and local codes, statutes, ordinances, and regulations bearing upon the performance of the Work on the Project. Without limiting the Contractor's obligation to know and follow the Owner's policies, the Contractor acknowledges that the Owner has a policy against citizens other than law enforcement officers, or others permitted specifically under its policy, carrying weapons or concealed otherwise onto its property.
- § 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

#### § 3.2 Review of Contract Documents and Field Conditions by Contractor

- § 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally carefully and diligently investigated the entire site and the surrounding area, including location, condition and layout of the site and utility locations, become thoroughly familiar with local conditions under which the Work is to be performed, including the generally occurring climatic conditions and carefully correlated personal observations and other information with requirements of the Contract Documents.
- § 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, Work and in addition to the reviews required by the Instructions to Bidders and by these General Conditions, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, to Section 2.3.4. In addition prior to performing each portion of its Work, the Contractor shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. it, including the Work of the other Contractors. These obligations are for the purpose of facilitating coordination and construction by the Contractor and the Contractor, and for verifying that field conditions, including the Work of other Contractors, are consistent with the information in the Contract Documents and ready for the Work. These obligations are not for the purpose of discovering errors, omissions, or inconsistencies-errors or omissions in the sizing, load bearing capacity or other

similar design information in the Contract Documents; however, the Contractor shall promptly report to the Architect and the Owner any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents. Nothing in this provision shall be construed to relieve the Contractor of its obligations related to proposing, bidding, preconstruction services or any other service required by the Contract Documents to review the Contract Documents.

- § 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but authorities; however, the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.
- § 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

## § 3.3 Supervision and Construction Procedures

- § 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. attention and consistent with the skill of a competent contractor. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and and, except as stated below, shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. The Contractor shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures. If the Contractor is instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required means, methods, techniques, sequences or procedures.
- § 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.
- § 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.
- §3.3.4 The Contractor will maintain readily accessible to the Architect and the Owner at the Project site, the following documents, all of which are "public records" within the meaning of the Ohio Public Records Act as it relates to the Architect and Owner only:
  - .1 A set of Drawings and Project Manuals, as approved by the appropriate Building Department.
  - .2 Unless otherwise specifically provided in the Contract Documents, a neat and legible set of As-Built Drawings and Project Manuals on which:
    - (1) The Contractor accurately record all approved changes made to the Drawings to show actual installation where installation varies from Work as originally shown, including the exact location and depth of underground utility lines. Any such changes must be noted by Change Order Number

- and drawn neatly in a contrasting color;
- (2) When Shop Drawings are used, the Contractor will cross-reference the corresponding sheet numbers on the As-Built Drawings and sections of the Specifications;
- (3) A daily log at the Project site in which it has recorded Project-related information, including, but not limited to, the weather, number of workers on site for each Contractor, identification of equipment, Work accomplished, problems encountered, and other similar relevant Project data;
- (4) As applicable to its Work, all Bulletins, Addenda, approved Shop Drawings, Product Data, Samples, manufacturers' installation, operating and/or maintenance instructions or requirements, certificates, warranties, Change Orders, Change Directives, other Modifications and complete back up data for all Change Orders, Change Directives and other Modifications;
- (5) All the Contractor's communications, including but not limited to letters, memoranda, e-mail, invoices and bills of lading, arising out of or related to the Project with the Architect, Owner and/or its subcontractors, materialmen and/or employees; and
- (6) The payroll reports for its employees and the employees of its Subcontractors working on the Project.
- Claims for the Contractor's failure to comply with the Ohio Public Records Act, if applicable, will be claims under Section 3.18.1.

Nothing in this section is meant to alter any provision of the Contract Documents that designate documents as confidential documents or information that cannot be released to a party other than provided by the Contract Documents.

## § 3.4 Labor and Materials

- § 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- § 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, which the Owner may withhold in its sole discretion, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.
- § 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them, only assign competent supervisors and workers to the Project, each of whom is fully qualified to perform the tasks assigned. If the Owner or Architect deems any employee of the Contractor or a Subcontractor unsatisfactory, the Contractor will transfer or require its Subcontractor to transfer such employee from the Project immediately and replace or require the prompt replacement of such employee with a competent employee. The Owner, however, has no obligation to do so.

## § 3.5 Warranty

- § 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- § 3.5.1.1 If the Contractor breaches any of its obligations under Section 3.5.1, the Contractor will pay the Owner for its damages and expenses, including but not limited to attorneys' and consultants' fees and expenses, subject to the waiver of damages set forth in Section 15.1.7 of these General conditions, arising out of or related to such breach, unless it is determined through litigation that Contractor had a good faith reason to dispute the breach of warranty Claim asserted by Owner. Notwithstanding anything in this agreement to the contrary, Section 15.1.8 of these General Conditions will not apply to such breach of warranty Claim.

## § 3.5.1.1 Additional Warranties. The Contractor gives the Owner the following additional warranties:

- .1 If the Contractor's Work includes all or part of the exterior roofing system, provided that the Architect has designed the roofing system to be weather tight, the Contractor warrants that the roofing system will be weather tight; and,
- If the Contractor's Work includes all or part of the exterior wall system, provided that the Architect has designed the wall system to be weather tight, the Contractor warrants that the wall system will be weather

Weather tight means the roofing and/or wall system does not permit any infiltration of water in any form that would have any adverse effect on the Owner's operations or the Project.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

#### § 3.6 Taxes

The Contractor shall pay sales, consumer, use use, commercial activity, and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect. The Contractor acknowledges that the Owner is a political subdivision of the State of Ohio or tax exempt organization and is exempt from state sales, use, and commercial activity taxes. Upon written request, the Owner will provide the Contractor with any applicable certificates of exemption.

## § 3.7 Permits, Fees, Notices and Compliance with Laws

- § 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.
- § 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders and all other requirements of public authorities applicable to performance of the Work.
- § 3.7.3 If the Contractor In addition to its other obligations under the Contract Documents, if the Contractor or any of its Subcontractors or Sub-subcontractors performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders lawful orders or all other requirements of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

#### § 3.7.4 Concealed or Unknown Conditions

#Except as provided herein, if the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14-21 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

## § 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

#### § 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and will not be chargeable against the allowance; and
- whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2. Section 3.8.2.1. The Contractor will obtain the Change Order before incurring any costs in excess of an allowance.
- § 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

### § 3.9 Superintendent

- § 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.
- § 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.
- § 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed will not replace the assigned Superintendent without the consent of the Owner, except with another Superintendent who is satisfactory to the Owner. If the Contractor proposes to change the Superintendent, the Contractor must submit to the Architect a written request for the change, including the justification for the change, the name and qualifications for the proposed replacement, and the time frame within which the change is proposed to take place. The Contractor will provide promptly any related additional information the Architect or Owner requests. Notwithstanding the provisions in this Section 3.9.3, should any of the key individuals identified in Section 11.5.8 of the AIA Document A133-2009 between Owner and Contractor be transferred to another project and remain in the employment of Contractor, the damages stated in Section 11.5.8 of the AIA Document A133-2009 apply.

# § 3.10 Contractor's Construction and Submittal Schedules

- § 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.
- § 3.10.2 The Contractor, Contractor shall prepare a submittal schedule promptly after being awarded the Contract Contract, and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule

shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

- § 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect. Architect, provided that the Contractor must comply with any orders under Section 3.10.4.
  - 1.1 Notice of Delays. The Contractor will give the Owner and the Architect verbal notice of any delay affecting its Work within 3 business days of the commencement of the delay. In addition, the Contractor will give the Owner and Architect written notice of the delay within 10 business days of the commencement of the delay with specific recommendations about how to minimize the effect of the delay. The written notice of the delay will state at the top of the first page of the notice in twelve point type or larger that it is a "NOTICE OF DELAY." A notice of a delay does not constitute the submission of a Claim. The Contractor acknowledges and agrees that these notice provisions are material terms of the Contract Documents and give the Owner the opportunity to take action to minimize the cost and/or effect of delays.
- § 3.10.4 If the Architect or the Owner determines that the performance of the Work has not progressed so that it is likely that the Contractor will not Substantially Complete its Work by its Date for Substantial Completion, unless due to delays for which Contractor is not responsible under this Agreement, the Owner has the right to order the Contractor to take corrective measures necessary to expedite the Work, including, without limitation: (i) working additional shifts or overtime; (ii) supplying additional manpower, equipment, and facilities; and (iii) other similar measures (collectively referred to as "Corrective Measures"). If the Owner orders the Contractor to take such corrective measures, the Contractor will take and continue such Corrective Measures until the Owner is satisfied that the Contractor is likely to Substantially Complete its Work by its Date for Substantial Completion.
  - .1 The Contractor will not be entitled to adjustment in the Contract Sum in connection with the Corrective Measures required by the Owner pursuant to this Section 3.10.4, unless the Contractor is able to establish that it is entitled to additional compensation under the terms of the Contract Documents; notwithstanding the foregoing, the Contractor may use available contingency funds within the GMP for Corrective Measures.

### § 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and maintain at the site for the Owner and the Architect the documents required by Section 3.3.4. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

or earlier when required by the Contract Documents.

#### § 3.12 Shop Drawings, Product Data and Samples

- § 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.
- § 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.
- § 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.
- § 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

- § 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.
  - .1 If the Shop Drawings or other submittals show variations from the requirements of the Contract Documents, the Contractor will specify such variations in the Contractor's letter of submittal to the Architect accompanying the submittal. Variations must be approved by Change Order.
  - .2 If the Contractor's Shop Drawings or its submittals do not contain sufficient information, and the Architect must perform more than two reviews with respect to any submittal, the Contractor will pay the additional costs and expenses incurred by the Owner as a result of such additional reviews by the Architect, and the Owner may withhold from sums due or coming due the Contractor amounts to cover such additional costs and expenses.
- § 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified reviewed and approved them for the purpose of determining and verifying materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated and checking and coordinating the information contained within such submittals with the requirements of the Work and of the Contract Documents.
- § 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.
- § 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof. thereof, unless such errors or omissions are due to the design prepared by the Architect.
- § 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice, the Architect's approval of a resubmission shall not apply to such revisions.
- § 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.
- § 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, professional who will comply with reasonable requirements of the Owner regarding qualifications and insurance and whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy adequacy, accuracy and completeness of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other

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appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

- § 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.
- § 3.12.11 Instructions. Unless otherwise expressly provided in the Contract Documents, the Contractor will provide typed or printed instructions covering the operation and maintenance of each item of equipment furnished in a notebook submitted to the Architect for review and transmittal to the Owner. The instructions, as applicable, must include the following:
  - .1 Any schematic piping and wiring diagrams;
  - .2 Any valve charts and schedules;
  - .3 Any lubrication charts and schedules;
  - Guides for troubleshooting:
  - .5 Pertinent diagrams and maintenance instructions for all equipment;
  - Manufacturer's data on all equipment;
  - Operating and maintenance instructions for all equipment;
  - Manufacturer's parts list;
  - Any testing procedures for operating tests; and
  - .10 Other instructions and materials as required by the Contract Documents.

The Contractor is responsible to provide two (2) copies of the above instruction books in the format acceptable to Owner on or before the Substantial Completion of its Work. The books will describe the information to be covered clearly and in detail and will be in form and content satisfactory to the Architect and the Owner.

§ 3.12.12 Testing Following Final Completion. The Contractor will participate in training sessions for the Owner's maintenance personnel. During the first twelve (12) months following Substantial Completion of each part of the Project, the Contractor (without additional compensation) will participate in tests scheduled by the Owner, which test the following building systems to the extent applicable to the Contractor's Work: air conditioning system (which must be conducted during the first full summer following the completion of the Project or at such earlier time as scheduled by the Owner), heating system (which must be conducted during the first full winter following the completion of the Project or at such earlier time as scheduled by the Owner), and such other systems, including the electrical system, plumbing system, fire protection system, communications systems, as reasonably requested by the Owner. The Owner will be advised when the testing will be conducted and may observe the testing. It is intended that the testing be a comprehensive series of operation tests designed to determine whether the systems are fully operational in accordance with the requirements of the Contract Documents. If it appears that any of the systems, including equipment and software, do not conform to the requirements of the Contract Documents, the Contractor will remedy the defective and/or non-conforming work as provided in Section 12.2.2.1 of these General Conditions.

§ 3.12.13 Manufacturer's Instructions or Requirements. Without waiving, modifying or relieving the Contractor from its other obligations under the Contract Documents, including its warranties and any performance specifications, the Contractor will furnish and install its Work in accordance with any applicable manufacturer's instructions or requirements. Prior to installation, the Contractor must review carefully the manufacturer's instructions and requirements, and if there is a conflict between such instructions or requirements and the Drawings and/or Specifications, the Contractor must request clarification from the Architect prior to commencing the Work.

#### § 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.§3.13.1 The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders and all other requirements of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.13.2 Signage. The Contractor and any entity for whom the Contractor is responsible will not erect any sign on the Project site without the prior written consent of the Owner, which may be withheld in the sole discretion of the Owner.

§ 3.13.3 Restricted Activities. Unless expressly permitted by the Contract Documents or by the Owner in writing, the Contractor will not interfere with the Owner's ongoing operations, will not permit any of its employees or its Subcontractor's or materialmen's employees to use any existing facilities on the Project site, including, without limitation, lavatories, toilets, entrances, and parking areas, and will not permit its employees or its Subcontractor's or materialmen's employees to bring any tobacco products, alcoholic beverages, controlled substances, or firearms onto the Project site or any other property owned or controlled by the Owner. Additionally, the Contractor will not permit its employees or its Subcontractor's or materialmen's employees to use any radios, tape or compact disc players, or sound amplification equipment that is audible outside of the immediate area where the Work is being performed.

§ 3.13.4 The Contractor must conspicuously post notice of the prohibitions listed in the preceding subparagraphs at the Project site in the same locations as OSHA notices are required to be posted, and shall verbally inform all of the Contractor's employees, and the employees of the Contractor's Subcontractors and materialmen, regardless of tier, of such prohibitions.

## § 3.14 Cutting and Patching

- § 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.
- § 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

#### § 3.15 Cleaning Up

- § 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.
- § 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor. The Architect's determination of the costs to be charged to the Contractor will be final and binding, subject to the Contractor's right to assert a Claim as provided in this Agreement.

## § 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

## § 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

#### § 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify indemnify, defend and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against any and all claims, costs, damages, losses, fines, penalties and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease all fees and charges of attorneys and other professionals and all court, arbitration or other

dispute resolution costs, arising out of or in connection with the Project, provided that any such claim, cost, damage, loss, fine, penalty, or expense is attributable to:

- .1 bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, acts, errors, or omissions of the Contractor or a person or entity for whom the Contractor may be liable;
- .2 infringement of patent rights or copyrights by the Contractor or a person or entity for whom the Contractor may be liable; or
- .3 a violation of law but only to the extent attributable to the Contractor or a person or entity for whom the Contractor may be liable.

## The Contractor's indemnification obligation under this Section 3.18:

- .1 Exists regardless of whether and to which the claim, damage, loss, fine, penalty, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to by a person or entity indemnified under Section 3.18. But nothing in this Section 3.18 obligates the Contractor to indemnify any person or entity from and against the consequences of that party's own negligence.
- .2 Do not extend to the liability of the Architect, the Architect's consultants, agents, representatives, or employees for negligent preparation or approval of Drawings, Specifications, Change Orders, opinions, and any other responsibility of the Architect, except to the extent covered by the Contractor's insurance.
- .3 In claims against a person or entity indemnified under Section 3.18 by any direct or indirect employee (or the survivor or personal representative of that employee) of the Contractor or a person or entity for whom the Contractor may be liable, the indemnification obligation under Section 3.18 will not be limited by a limitation on the amount or type of damages, compensation, or benefits payable under workers' compensation acts disability benefit acts, or other employee benefit acts.
- .4 Will not be limited by any insurance policy provided or required in connection with the Project.
- .5 Will not negate, abridge, or reduce other rights or obligations of indemnity that indemnity, which would otherwise exist as to a party or person described in this Section 3.18 person or entity indemnified under Section 3.18.
- .6 Will survive termination of the Contract and Contract Completion.

The Owner may deduct from the compensation and payment for preconstruction phase services or compensation for construction phase services or both the claims, damages, losses, fines, penalties, and expenses for which the Contractor is liable under Section 3.18. If those claims, damages, losses, fines, penalties, and expenses exceed the unpaid balance of the compensation to Contractor for preconstruction phase or construction phase services or both, the Contractor is responsible to immediately pay the difference to the Owner.

- § 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- § 3.19 Compliance with Demolition Laws. The Contractor will, at the Contractor's expense, fully comply with all statutes and regulations regarding notification and disposal of construction and demolition debris, including, without limitation, Ohio Revised Code Chapter 3714 and the regulations enacted thereunder.

## § 3.20 Underground Utility Facilities.

- § 3.20.1 The Contractor, at least two (2) working days prior to commencing construction in an area that may involve underground utility facilities, will give notice to the Architect and the Owner and to the registered underground utility protection services and the owners of underground utility facilities shown on the Drawings and Specifications.
- § 3.20.2 The Contractor will notify immediately the occupants of any premises near the Work and the Architect and the Owner as to any emergency that it may create or discover. The Contractor will notify immediately the operator of any underground utilities and the Architect and Owner of any break or leak in the lines of such operator or any dent, gouge, groove, or other damage to such lines or to their rating or cathodic protection, made or discovered in the course of

excavation.

#### § 3.21 Waivers of Claims

§ 3.21.1 Beginning with the second Application for Payment, as requested by the Architect, the Contractor will submit (a) a waiver of lien rights on account of payments made in the form acceptable to Architect and Owner for itself and each of its Subcontractors and Suppliers, regardless of tier, and (b) a complete list of its Subcontractors and Suppliers.

#### ARTICLE 4 ARCHITECT

## § 4.1 General

- **§ 4.1.1** The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.
- § 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

#### § 4.2 Administration of the Contract

- § 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction (1) during construction, and (2) until the date the Architect issues the final Certificate for Payment. for Payment, and (3) with the Owner's concurrence, from time to time during the one-year period for correction of Work described in Section 12.2 and for such additional periods as the Owner and Architect may agree. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents. Documents and as authorized by the Owner's Board.
- § 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise-agreed upon with the Owner, Owner (1) to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, (2) to endeavor to guard the Owner against defects and deficiencies in the Work, and (3) to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, except as provided in Section 3.3.1.
- § 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible Except as required by its duty of care owed to the Owner, the Architect (a) will not be responsible to the Owner for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect Documents, and (b) will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

#### § 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications-Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

- § 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.
- § 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions of or unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.
- § 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.
- **§ 4.2.9** The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue execute and distribute a final Certificate for Payment pursuant to Section 9.10.
- **§ 4.2.10** If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives such project representatives shall be consistent with these General Conditions.
- § 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.
- § 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.
- **§ 4.2.13** The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.
- **§ 4.2.14** The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information. If no agreement is made concerning the time within which an interpretation required of the Architect is to be furnished in compliance with this Section 4.2, then delay will not be recognized on account of failure by the Architect to furnish such interpretations until 10 days after written request is made for them, or such time as the Architect has indicated it needs to prepare a complete response, and the Contractor establishes the Architect's delay in responding delayed the Work.

#### ARTICLE 5 SUBCONTRACTORS

#### § 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

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

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14-20 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day-20-day period shall constitute notice of no reasonable objection. objection. Copies of all bids or other proposals from Subcontractors or Sub-subcontractors will, upon the request of the Owner or Architect, be submitted to the Owner and the Architect.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection. If the Contractor is a construction manager at risk responsible for performing the Work for the Project, the Contractor must use the State of Ohio form of subcontract, which may be found at www.ofcc.ohio.gov under "Documents."

§ 5.2.3 If the Owner or Architect has reasonable-objection to a person or entity proposed by the Contractor, the Contractor shall propose within 10 days another to whom the Owner or Architect has no reasonable-objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.objects to such substitute. The Owner, through the Architect, may require the Contractor to change any Subcontractor previously approved and, except as provided hereafter, the Contract Sum shall be increased or decreased by the difference in cost resulting from such change. If the Contractor is in default because of the Subcontractor's performance, then the Contractor will not be entitled to any adjustment in the Contract Sum and will remain liable to the Owner for any damages or losses caused by such default, subject to this Agreement..

#### § 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the

proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

## § 5.4 Contingent Assignment of Subcontracts

- § 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that
  - .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; Contractor in writing; and
  - .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract, effective as the date of the assignment.

- **§ 5.4.2** Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in <u>eost-direct costs incurred by the Subcontractor</u> resulting from the suspension.
- **§ 5.4.3** Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

### ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

## § 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

- § 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained and/or award separate contracts with Separate Contractors retained in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.
- § 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.
- **§ 6.1.3** The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.
- § 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

## § 6.2 Mutual Responsibility

- § 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.
- **§ 6.2.2** If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the

Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. Work, except as to defects not then reasonably discoverable. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

- § 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction. [Not Used.]
- **§ 6.2.4** The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.
- **§ 6.2.5** The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

## § 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible. The Architect's decision allocating the cost will be final and binding on the Contractor and the Owner.

#### ARTICLE 7 CHANGES IN THE WORK

## § 7.1 General

- § 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents. To be valid, all Changes involving an increase in the Contract Sum must have any required funding certificates attached to them.
- § 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.
- § 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

## § 7.2 Change Orders

- § 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:
  - .1 The change in the Work;
  - .2 The amount of the adjustment, if any, in the Contract Sum; and
  - .3 The extent of the adjustment, if any, in the Contract Time.
- § 7.2.2 Methods used in determining adjustments to the Contract Sum may include those listed in Section 7.3.3.
- § 7.2.3 The agreement on any Change Order constitutes a final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including but not limited to, all direct, indirect and cumulative costs associated with such change and any and all adjustments to the Contract Sum and the Contract Time.

#### § 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

- § 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.
- § 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:
  - .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
  - .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
  - .3 Cost Subject to a not-to-exceed amount, a cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
  - .4 As provided in Section 7.3.4. Section 7.3.4; or
- .5 Except where unit prices are applicable, that Contractor agrees and represents to the Owner for the Owner's reliance that all Change Order or Change Directive pricing submitted by the Contractor will be based on the Contractor's actual costs or the Contractor's reasonable estimate of what would be its actual costs plus permitted overhead and profit.
- § 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may preseribe, an itemized accounting together with appropriate supporting data. present a true and accurate itemized accounting of all labor and material with appropriate supporting data. If the Architect prescribes a format for such accounting, the Contractor must provide the accounting in such format. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:
  - Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
  - .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed:
  - .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
  - .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
  - .5 Costs of supervision and field office personnel directly attributable to the change; the change;
  - .6 total combined overhead and profit for the Contractor and its Subcontractors (all tiers) on any add Change Order will be a maximum of fifteen percent (15%) of the total cost of labor and material, including all labor and material provided by Subcontractors; and
  - .7 total combined overhead and profit for the Contractor and its Subcontractors (all tiers) on any deduct Change Order will be a maximum of ten percent (10%) of the total cost of labor and material, including all labor and material provided by Subcontractors.
- § 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.
- § 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.
- § 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.
- § 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. Architect plus the credit for overhead and profit. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

**User Notes:** 

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- § 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.
- § 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.
- § 7.3.11 Notwithstanding any of the preceding items in Section 7.3, the parties agree as follows:
  - .1 For changes within the GMP (with the exception of schedule increases through no fault of the Contractor), there will be no general conditions reduction on deduct change orders and there will be no general conditions add on add change orders.
    - The final CM fee amount will be based upon the stated fee percentage of the Cost of the Work excluding any CM contingency expended.
    - .b No fee will be charged on changes funded from the construction contingency.
  - .2 For changes to the GMP (with the exception of schedule increases through no fault of the Contractor):
    - <u>.a</u> There will be no mark-up for general conditions, with the exception of insurance costs resulting from the change.
    - .b The fee percentage applies.

## § 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time, writing conspicuously marked at the top of the order as a "MINOR CHANGE IN THE WORK". and shall be binding on the Owner and Contractor. The Contractor will carry out such written orders promptly.

#### ARTICLE 8 TIME

## § 8.1 Definitions

- § 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.
- § 8.1.2 The date of commencement of the Work is the date established in the Agreement.
- § 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.
- § 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

## § 8.2 Progress and Completion

- § 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.
- § 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

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§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

## § 8.3 Delays and Extensions of Time

- § 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then an Excusable Delay as provided in Section 15.1.6.3, then subject to the agreement of the Owner the Contract Time shall be extended for such reasonable time as the Architect may determine.
- § 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.
- § 8.3.3 This Section 8.3 does not preclude 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, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.
- § 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

#### § 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, Promptly after the award of the Contract, the Contractor shall submit a schedule of values to the Architect for the Architect's review and approval, before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, as required by the Architect. By submitting such schedule of values, the Contractor represents for the reliance of the Architect and the Owner that the allocation of the values to the portions of the Work is a fair and reasonable estimate of such allocation. Once approved, the Contractor will not change the allocations in the Schedule of Values without the Architect's further approval. The Architect may from time to time require the Contractor to adjust such schedule if the Architect determines it to be in any way unreasonable or inaccurate. The Contractor then will adjust the schedule of values as required by the Architect within ten (10) days. This schedule, with any adjustments approved by the Architect shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor must include a separate line item in its schedule of values for its Project Superintendent.

#### § 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the The Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, values for completed portions of the Work. The application shall be notarized, if required, and supported by all be notarized and be submitted with a properly completed Contractor's Payment Application Checklist, all the documentation required to be submitted with such Checklist, and any other supporting documentation required by the Contract Documents or by the Architect. The Application for Payment will be in the form and submitted with the number of copies of it and all related documents as required by the Contract Documents. The Contractor also will submit with its Application for Payment such other data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, requisitions from Subcontractors and material suppliers, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

- § 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.
- § 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.
- § 9.3.1.3 The Contractor will submit its Application for Payment to the Architect on AIA Documents G-702 and G-703 and Contractor's Payment Application Checklist and Certification on or before the day of the month agreed to with Owner. The Owner will issue payment to the Contractor within twenty-five (25) days from the date of Owner's Treasurer's receipt of the certified and approved Application for Payment.
- § 9.3.1.4 The Owner will withhold retainage from the amount set forth in the Application for Payment approved by the Architect, as provided in the Contract Documents.
- § 9.3.1.5 Documentation. Upon request, the Contractor immediately will supply the Owner and the Architect with such information as may be requested so as to verify the amounts due to the Contractor, including but not limited to original invoices for materials and equipment and documents showing that the Contractor has paid for such materials and equipment, and so as to verify that amounts due laborers, Subcontractors, and Material Suppliers have been paid to them. The failure to provide such information will be justification for withholding payment to the Contractor.
- § 9.3.1.6 Construction Retainage Account. The Owner and the Contractor agree that any interest-bearing account required in connection with this Agreement may be established at a bank or savings and loan association in the State of Ohio used by the Owner, or another fund selected by Owner, and that the depositary agent will be compensated for its services in accordance with the schedule approved by the Owner from income from the account or fund. If the costs to establish and maintain the account or fund will exceed the interest earned on the account or fund, the Contractor agrees that the Owner may retain the funds in a special cost center within the Owner's construction or permanent improvement fund.
- § 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.
- § 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that making a claim by reason of having provided labor, materials, and equipment relating to the Work. The Contractor agrees to bond off any lien filed against the remaining balance of the Contract Sum or property by providing a bond meeting the requirements of Ohio Revised Code, provided that the Owner's failure to pay Contractor is not the cause of the lien. The Contractor will do so within sixty (60) days of the filing of the lien.

## § 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, properly completed Application for Payment and Contractor's Payment Application Checklist and Certification, the documentation described in the Contractor's Payment Application Checklist and Certification and such other data substantiating the Contractor's right to payment as the Owner or Architect may require, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; Contractor, for such amount as the Architect determines is properly due; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire

Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

#### § 9.5 Decisions to Withhold Certification

- § 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of
  - defective Work not remedied; remedied or the Contractor is in default of the performance of any of its obligations under the Contract Documents including but not limited to: failure to provide sufficient skilled workers, failure to provide scheduling information as provided in Section 3.10.1, failure to prepare the Construction Schedule as provided in Section 3.10.1, failure to conform to the Project Construction Schedule and/or failure to coordinate is Work with the work of other contractors;
  - .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
  - **.3** failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
  - .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
  - .5 damage to the Owner or a Separate Contractor;
  - reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
  - .7 repeated failure to carry out the Work in accordance with the Contract Documents. Documents; or
  - .8 the Contractor is in default of the performance of any of its obligations under another contract it has with the Owner.
- § 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.
- § 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.
- § 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

## § 9.6 Progress Payments

- § 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, issue payment to the Contractor within twenty-five (25) days from the date of its receipt of the certified Application for Payment from the Architect, and shall so notify the Architect.
- § 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after promptly, within the time period required by Ohio law, pay each Subcontractor, upon receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner. Neither the Contractor nor its Subcontractors will withhold retainage from its Subcontractors or their sub-subcontractors beyond the retainage withheld by the Owner from the Contractor.
- § 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.
- § 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.
- § 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.
- § 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.
- § 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.
- § 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the Contract Sum and/or property against which the lien or other claim for payment has been asserted.

## § 9.7 Failure of Payment

If the Architect does not issue a 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 does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, Owner does not pay the Contractor the amount certified by the Architect within thirty (30) days after receipt of the certified Application of Payment for the Architect and approval by the Owner, then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

## § 9.8 Substantial Completion

- § 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.
- § 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. payment together with all required documents neatly bound and indexed. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When a specific manufacturer's warranty is required by the Specifications, the Contractor will state in writing to the Architect that all the manufacturer's requirements for the issuance of the warranty has been completed and that the Work is ready for the Architect's and Owner's inspection. All manufacturer's warranties required for the Work must commence as of the Date of Substantial Completion stated on the certificate issued by the Architect.
- § 9.8.3 Upon receipt of the Contractor's list, list and the documents required by Section 3.12.11 neatly bound and indexed, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Work is Substantially Complete, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.
- § 9.8.3.1 Time for Completion of Items on List and Remedies. The Contractor will complete all items on the list accompanying the Architect's Certificate of Substantial Completion within sixty (60) days of the Date of Substantial Completion shown in the Certificate. If the Contractor fails to do so, and upon fourteen (14) days written notice to the Contractor, the Owner in its discretion may perform the Work by itself or others and the cost thereof shall be charged against the Contractor. If the balance of the Contract Sum is insufficient, the Contractor will pay the Owner the balance on demand. The Contractor's warranties and obligations under the Contract Documents will remain in full force and effect and cover any remedial work even if performed by others. If more than one inspection by the Architect for purposes of evaluating corrected Work is required, and such additional inspection(s) is due to Contractor's failure to successfully complete the corrected Work, the Contractor will pay the additional costs and expenses incurred by the Owner as a result of more than one inspection by the Architect, and the Owner may withhold from sums due or coming due the Contractor amounts to cover such additional costs and expenses.
- § 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and consistent with Section 9.8.3.1 shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.
- § 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Upon receipt of the Certificate of Substantial Completion from the Architect and consent of the Contractor's surety, if any, the Owner will pay retainage applying to such Work or designated portion thereof. Such payment shall will be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

#### § 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, Contractor and/or with the Architect's approval, provided such occupancy or use is consented to by the insurer as required under Section 11.3.1.5 and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and

insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. In the event of a disagreement about such responsibilities, correction period, or commencement of warranties, the Architect will resolve the disagreement, and the Architect's decision will be final and binding, subject to the Contractor's right to assert a Claim as provided in this Agreement. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect. the Architect, which will be final and binding, subject to the Contractor's right to assert a Claim as provided in this Agreement.

- § 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.
- § 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

### § 9.10 Final Completion and Final Payment

- § 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, Payment and a properly completed Contractor's Payment Application Checklist, all the documentation required to be submitted with such Checklist, and any other supporting documentation required by the Contract Documents or by the Architect, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, including all required documents submitted, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled. Final Completion means that the Work is complete in accordance with the Contract Documents and the Contractor has submitted to the Architect all documents required to be submitted to the Architect for final payment.
- § 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.
  - .1 Unless otherwise provided in the Contract Documents, the final Application for Payment will be itemized, and the Contractor will ensure that the final Application for Payment transmitted to the Architect also is accompanied by the following additional documents, if not previously delivered to the Architect:
    - (1) Indicate amounts remaining in any allowances included in the Contract Sum, if any, that have not been approved by the Architect for use to perform Work, and subtract that amount from the Contract Sum (any unused allowances are to be returned to the Owner);
    - (2) Evidence that all Completion/Punchlist List items have been completed;
    - (3) Where applicable, keys and keying schedule;
    - (4) The documents, including as-built set of Drawings and Specifications, referred to in Section 3.3.4 not otherwise required by the Contract Documents to be delivered earlier; and

## (5) Other documents required by the Contract Documents.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

- § 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from
  - .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
  - .2 failure of the Work to comply with the requirements of the Contract Documents;
  - .3 terms of special warranties required by the Contract Documents; or
  - .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment, payment;
  - .5 any claims, damages, losses or expenses for indemnification under Section 3.18.1.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

#### PROTECTION OF PERSONS AND PROPERTY ARTICLE 10 § 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract, Contract, including compliance with OSHA and other state and federal regulations applicable to the Work. The Contractor's safety program must be written and a copy maintained at the Project site for inspection, upon request. Neither the Owner nor the Architect accept any responsibility or liability for the safety of the Contractor's employees or for enforcing the Contractor's safety program. Additionally, Contractor must comply with the Owner's rules, regulations, and policies including, but not limited to, the Owner's safety, health, and infection control policies and programs.

## § 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take all reasonable precautions for safety and health of, and shall provide reasonable protection to prevent damage, injury, or loss to

- employees on the Work and other persons who may be affected thereby; thereby, including the Owner's employees, employees of other contractors, their subcontractors, material suppliers, and persons on the site or adjoining property;
- the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; Sub-subcontractor and/or the Work of any other contractor and the materials and equipment to be incorporated in such Work; and
- other property at the site or adjacent thereto, such as 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, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards. The Contractor is responsible, at the Contractor's sole cost and expense, for all measures necessary to protect any property adjacent to the Project and improvements therein.

- § 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. The Contractor will not bring any hazardous materials onto the Project site unless expressly required by the Contract Documents.
- § 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the 10.2.1.3, except damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18. In the event of a dispute about who is responsible for damage and loss to such property, the issue will be submitted to the Architect and the Architect's decision will be final and binding on the respective parties, subject to the right of each party to assert a Claim as provided in this Agreement.
- § 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.
- § 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

## § 10.2.8 Injury or Damage to Person or Property

If either party the Contractor suffers injury or damage to person or property because of an act or omission of the other party, Owner, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter the Owner is legally responsible, the Contractor will submit a Statement of Claim Form for such injury or damage as required by Section 15.1.2.

## § 10.3 Hazardous Materials and Substances

- § 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the eondition.condition in writing.
- § 10.3.2 Upon receipt of the Contractor's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, Documents upon written request, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. Work in the affected area must be resumed immediately following the occurrence of any one of the following events: (i) the Owner causes remedial work to be performed that results in the hazardous substance being rendered harmless; or (ii) the Owner and the Contractor, by written agreement, decide to resume performance of the Work; or (iii) the Work may safely and lawfully proceed using appropriate protective measures, as determined by a competent person employed by the Owner. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the

Contractor's reasonable additional costs of shutdown, delay, and start-up. The term "rendered harmless" means that exposure levels of asbestos and polychlorinated biphenyl (PCB) are less than any applicable exposure standards set forth in OSHA regulations.

- § 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.[Not Used.]
- § 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are expressly required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.
- § 10.3.5 The Contractor shall reimburse. In addition to the Contractor's obligations in Section 3.18 and elsewhere in the Contract Documents, the Contractor shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.
- § 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred. Contractor assumes no liability for hazardous materials existing on the site or for hazardous materials brought to the site by Owner..

### § 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, without special instructions or authorization to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

#### **ARTICLE 11 INSURANCE AND BONDS**

## § 11.1 Contractor's Insurance and BondsCONTRACTOR'S LIABILITY INSURANCE

- § 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents. from and maintain in a company or companies approved by the Owner and licensed to do business in the State of Ohio such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:
  - Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;
  - Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
  - Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
  - Claims for damages insured by usual personal injury liability coverage;

- Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- Claims for bodily injury or property damage arising out of completed operations, which coverage shall be maintained for no less than two (2) years following final payment; and
- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.
- § 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located insurance required by Section 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.
- § 11.1.2.1 The minimum limits of liability for the required policies will be not less than the following, unless a greater amount is required by law:
  - .1 Commercial General Liability ("CGL"): Bodily injury (including death) and property damage with limits of \$1,000,000 each occurrence and \$2,000,000 aggregate. CGL shall include: (i) Premises-Operations, (ii) Explosion and Collapse Hazard, (iii) Underground Hazard, (iv) Independent Contractors' Protective, (v) Broad Form Property Damage, including Completed Operations, (vi) Contractual Liability, (vii) Products and Completed Operations, (viii) Personal Injury with Employment Exclusion deleted, (ix) Stopgap liability for a minimum \$100,000 limit; and (x) per project aggregate endorsement.
  - .2 Automobile Liability, covering all owned, non-owned, and hired vehicles used in connection with the Work: Bodily injury (including death) and property damage with a combined single limit of \$1,000,000 each accident.
- § 11.1.2.2 Such policies must be supplemented by an umbrella policy in the amount of \$1,000,000 each occurrence and aggregate for contracts with a Contract Sum of \$250,000 or less, \$2,000,000 each occurrence and aggregate for contracts with a Contract Sum greater than \$250,000 but less than or equal to \$500,000, \$3,000,000 each occurrence and aggregate for contracts with a Contract Sum greater than \$500,000 but less then or equal to \$1,000,000; and \$5,000,000 each occurrence and aggregate for contracts with a Contract Sum greater than \$1,000,000.
- § 11.1.2.3 Insurance policies must be written on an occurrence basis. Contractor's CGL Policy shall include an endorsement or equivalent form redefining "occurrence" to include faulty workmanship by subcontractors.
- § 11.1.2.4 Products and completed operations coverage will commence with the certification of the final Certificate for Payment to the Contractor and extend for not less than two years beyond that date.
- § 11.1.2.5 The Contractor will require all Subcontractors to provide Workers' Compensation, CGL, and Automobile Liability insurance with the same minimum limits specified herein, unless the Owner agrees to a lesser amount.
- § 11.1.2.6 All liability policies required in Section 11.1 must include an additional insured endorsement naming the Owner, the Owner's Board members and employees, the Owner's agents (specifically the Owner's Representative identified in the Agreement between Owner and Contractor), and the Architect and its employees. The CGL additional insured endorsement will be ISO 20 10 11 85 or the combination of ISO forms CG 2010 and CG2037 or their equivalent so that Completed Operations liability extends to the additional insureds.
- § 11.1.2.7 All liability policies required in Section 11.1 must be primary and non-contributory.
- § 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished. Certificates of insurance acceptable to the Owner evidencing insurance required by the Contract

shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

§ 11.1.3.1 The Contractor will furnish to the Owner, through the Architect, one copy of each of the Certificates of Insurance required herein. The Certificate of Insurance will specifically set forth evidence of all coverage required by Section 11.1.2. The form of certificate will be the form prescribed by the Architect, which will be the ACORD Form 25 (2009/09 or more recent) with AIA Document G-715 "Supplemental Attachment" attached thereto. The Contractor is required to furnish to the Owner copies of any endorsement that is subsequently issued amending coverage or limits.

§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage. In no event will any failure of the Owner to receive certified copies or certificates of policies required under Section 11.1 or to demand receipt of such certified copies or certificates prior to the Contractor's commencing the Work be construed as a waiver by the Owner or the Architect of the Contractor's obligations to obtain insurance pursuant to this Article 11. The obligation to procure and maintain any insurance required by this Article 11 is a separate responsibility of the Contractor and independent of the duty to furnish a certified copy or certificate of such insurance policies.

#### § 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall

be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

- § 11.1.5 If the Contractor fails to purchase and maintain, or require to be purchased and maintained, any insurance required under Section 11.1, the Owner may but is not obligated to, upon five (5) days written notice to the Contractor, purchase such insurance on behalf of the Contractor and shall be entitled to be reimbursed by the Contractor upon demand.
- § 11.1.6 When any required insurance, due to the attainment of a normal expiration date or renewal date, expires, the Contractor will supply the Owner with Certificates of Insurance and amendatory riders or endorsements that clearly evidence the continuation of all coverage in the same manner, limits of protection, and scope of coverage as was provided by the previous policy. In the event any renewal or replacement policy, for whatever reason obtained or required, is written by a carrier other than that with whom the coverage was previously placed, or the subsequent policy differs in any way from the previous policy, the Contractor will also furnish the Owner with a certified copy of the renewal or replacement policy unless the Owner provides the Contractor with prior written consent to submit only a Certificate of Insurance for such policy. All renewal and replacement certificates will be in form and substance satisfactory to the Owner and written by carriers acceptable to the Owner.
- § 11.1.7 Any aggregate limit under the Contractor's liability insurance will, by endorsement, apply to the Project separately.
- § 11.1.8 The Contractor will require each of its Subcontractors to (i) procure insurance reasonably satisfactory to the Owner and (ii) name the Owner and Architect, and any of their employees and agents, as additional insureds under the Subcontractor's CGL policy. The additional insured endorsement included on the Subcontractor's CGL policy will state that coverage is afforded the additional insureds with respect to claims arising out of operations performed by or on behalf of the Contractor. If the additional insureds have other insurance that is applicable to the loss, such other insurance will be on an excess or contingent basis. The amount of the insurer's liability under this insurance policy will not be reduced by the existence of such other insurance.

#### § 11.2 OWNER'S LIABILITY INSURANCE

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

## § 11.3 Waivers of Subrogation PROPERTY INSURANCE

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property. Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form as appropriate to the nature of the Project in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.3 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project. The Owner, Contractor, Subcontractors and Sub-subcontractors working on the Project will all be named insureds on the property insurance (also referred to as builder's risk insurance) purchased by Owner for the Project, as provided in Section 11.3.1.1.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

### § 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

### §11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.3.1.1 Property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss. Property insurance provided by the Owner does not cover any tools, apparatus, machinery, scaffolding, hoists, forms, staging, shoring, and other similar items commonly referred to as construction equipment that may be on the site and the capital value of which is not included in the Work, nor does such insurance cover any materials or equipment before these materials and equipment are physically incorporated into the Work. The Contractor must procure any insurance it requires on such construction equipment and materials and equipment. Any policy obtained by the Contractor under this Section 11.3 and related sections must include a waiver of subrogation in accordance with the requirements of Section 11.3.7. If the Work is located in a Special Flood Hazard Area, as defined by the Federal Emergency Management Agency, the Owner will provide an endorsement to the property insurance policy that provides coverage for physical loss or damage caused by flood.

§ 11.3.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance that will protect the interests of the Contractor, Subcontractors and Sub-subcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor in writing, then the Owner shall bear all reasonable costs properly attributable thereto.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

- § 11.3.1.3 If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles. Notwithstanding the foregoing, if the cause of any loss payment under such insurance is the fault of the Contractor or its subcontractors, then the Contractor will pay such deductible.
- § 11.3.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.
- § 11.3.1.5 Partial occupancy or use in accordance with Section 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.
- § 11.3.1.6 Damages to Other Property. The maintaining of such insurance as outlined in Section 11.1 in no way constitutes a waiver of the Contractor's legal liability for damage to any adjoining buildings or existing buildings or their contents or the Work and property of others on the site beyond the limits of insurance thus maintained. The Contractor will hold the Owner free and harmless from any injury and damage resulting from the negligent or faulty performance of the Contract by the Contractor or its Subcontractors or others under its control or direction.

## § 11.3.2 BOILER AND MACHINERY INSURANCE

The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds.

## § 11.3.3 LOSS OF USE INSURANCE

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

- § 11.3.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.
- § 11.3.5 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, the Owner shall waive all rights in accordance with the terms of Section 11.3.7 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.
- § 11.3.6 The Owner will maintain copies of the policies of insurance it is required to purchase and maintain hereunder at its offices and shall permit the Architect or the Contractor to inspect the policies during normal business hours and upon reasonable advance written notice.

## § 11.3.7 WAIVERS OF SUBROGATION

The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent of actual recovery of any insurance proceeds under any property insurance obtained pursuant to this Section 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner in good faith. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a

person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

- § 11.3.8 A loss insured under the Owner's property insurance shall be adjusted by the Owner in good faith and made payable to the Owner in good faith for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.3.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.
- § 11.3.9 If required in writing by a party in interest, the Owner in good faith shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received in good faith. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 7.
- § 11.3.10 The Owner in good faith shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved as provided in Sections 15.3 and 15.4. If the Owner and Contractor have selected arbitration as the method of binding dispute resolution, the Owner in good faith shall make settlement with insurers or, in the case of a dispute over distribution of insurance proceeds, in accordance with the directions of the arbitrators.

## § 11.4 PERFORMANCE BOND AND PAYMENT BOND

- § 11.4.1 Contractor will provide performance and payment bonds as required by Ohio law using the State forms available at www.ofcc.ohio.gov and will update the bonds to reflect the total Contract Sum with each GMP amendment.
- § 11.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.
- § 11.4.3 MATERIAL DEFAULT OR TERMINATION. If the Owner notifies the Contractor's surety that the Contractor is in material default or terminates the Contract, the surety will promptly and in not less than 21 days investigate the claimed material default or termination. If the Owner gives a notice of material default and then terminates the Contract, the surety must complete its investigation within 21 days of the notice of material default. As part of such investigation, the surety must visit the offices of the Contractor, Architect and Owner to review the available project records. If the surety proposes to take over the Work, the surety must do so no later than the expiration of such 21 day period or 10 days after the date the Owner terminates the Contract, whichever is later. If the Owner terminates the Work, and the surety proposes to provide a replacement contractor, the replacement contractor must be fully capable of performing the Work in accordance with the Contract Documents, including meeting all the requirements of the Contract Documents. If the Contractor is terminated, the replacement contractor will not be the Contractor. The surety will provide the Owner with the results of its investigation, including any written report or documents. This Section 11.4.3 is in addition to the Owner's rights under Section 14.2.2 and is not intended to create any rights of the surety, including but not limited to the right to takeover the Contractor's obligations.

# ARTICLE 12 UNCOVERING AND CORRECTION OF WORK § 12.1 Uncovering of Work

- § 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.
- § 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the

Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

#### § 12.2 Correction of Work

#### § 12.2.1 Before Substantial Completion

The In addition to the rights and remedies under Section 2.4.1, the Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

#### § 12.2.2 After Substantial Completion

- § 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly and in not more than 30 days after receipt of 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 discovery of the condition. During the one year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period 30 days after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.
- § 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.
- § 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.
- § 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.
- § 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.
- § 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

#### § 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made. <u>Any such acceptance must be in writing and executed by a representative of the Owner who has been expressly authorized to do so.</u>

#### ARTICLE 13 MISCELLANEOUS PROVISIONS

#### § 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.located.

#### § 13.2 Successors and Assigns

- § 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.
- § 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

#### § 13.3 Rights and Remedies

- § 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.
- § 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

#### § 13.4 Tests and Inspections

- § 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.
- § 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.
- § 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.
- § 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.
- § 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.
- § 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

#### § 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

#### ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

#### § 14.1 Termination by the Contractor

- § 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work. Work under direct or indirect contract with the Contractor, for any of the following reasons:
  - .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be
  - .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped; or
  - .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
  - The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2. Documents.
- § 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, Work under direct or indirect contract with the Contractor, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.
- § 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, profit, and costs incurred by reason of such termination.
- § 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work under contract with the Contractor because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

#### § 14.2 Termination by the Owner for Cause

- **§ 14.2.1** The Owner may terminate the Contract if the Contractor
  - .1 repeatedly-refuses or fails to supply enough properly skilled workers or proper materials;
  - .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
  - .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
  - otherwise is guilty of substantial breach of a provision of the Contract <del>Documents.</del> Documents, .4 including but not limited to failure to maintain the Construction Schedule or failure to correct defective and/or non-conforming Work.
- § 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety: surety as expressly stated in the applicable surety bond:
  - .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
  - .2 Accept assignment of subcontracts pursuant to Section 5.4; and
  - .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

- § 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.
- § 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other costs or damages incurred by the Owner and not expressly waived, including but not limited to the Owners' attorneys' and consultants' fees and expenses, arising our of or related to the termination, such excess shall be paid to the Contractor. If such eosts-costs, other costs, and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

#### § 14.3 Suspension by the Owner for Convenience

- § 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.
- § 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent
  - .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
  - .2 that an equitable adjustment is made or denied under another provision of the Contract.

#### § 14.4 Termination by the Owner for Convenience

- § 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.
- § 14.4.2 Upon receipt of <u>written</u> notice from the Owner of such termination for the Owner's convenience, the Contractor shall
  - .1 cease operations as directed by the Owner in the notice;
  - .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
  - .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
- § 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; executed and costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.termination.

#### ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

#### § 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The Contractor's Claims must be initiated by submitting the Statement of Claim Form ("Claim Form") included with the Contract Documents to the Architect and the Owner, properly completed in accordance with the instructions accompanying the Form and submitted within the 30 day period under Section 15.1.3. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

The Contractor acknowledges and agrees that the Owner and/or parties in privity of contract with the Owner may delay, interfere with and/or disrupt the Work of the Contractor. Pending final resolution of the Claim, the Contractor will continue performance of the Work as provided in Section 15.1.3.

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#### § 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2. As between the Owner and Contractor, the statute of limitations will commence as provided in current Ohio law.

#### § 15.1.2.1 ATTORNEY-CLIENT CONFIDENTIAL AND PRIVILEGED COMMUNICATIONS

The Contractor acknowledges and agrees that the Owner's legal counsel may from time to time provide legal services to the Project and that in doing so may communicate with the Architect. The Contractor agrees that to the extent they related to seeking or providing legal advice and are not for the purpose of preventing discovery of the underlying facts, such communications will be privileged communications and, if there is a Claim contemplated or pending, any written communications will be confidential work product.

#### § 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by Contractor shall be initiated by written notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21-The Contractor will submit all Claims as soon as possible and not later than 30 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Claim by the submission to the Initial Decision Maker and the Owner of a properly completed Claim Form. The Contractor has a right to bring Claims. The Contractor must give notice of its Claims within such thirty (30) day period. Such thirty (30) day period is a contractual limitation of action. Such contractual limitation of action is a material term of the Contract Documents as its provides the Owner with timely notice and information so that the Owner can attempt to mitigate any damages, exercise remedies available to it, and investigate the Claim during a near contemporaneous time period.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required. [Not Used.]

#### § 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Initial Decision Maker.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

#### § 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. the Contractor must submit the Claim Form as required by Section 15.1.3. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

#### § 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary. the Contractor must submit the Claim Form as required by Section 15.1.3

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably

anticipated, and had an adverse effect on the scheduled construction: the Contractor is prevented from completing any part of the Work within the Contract Time due to weather conditions and the Contractor wants additional time to complete the Work, the Contractor must initiate a Claim by submission of the Claim Form in accordance with Section 15.1.3. The Contractor's entitlement to additional time will be evaluated and substantiated as provided in Section 15.1.6.2.1..

§15.1.6.2.1 Weather Delays. When the Contractor is prevented from completing any part of the Work on the critical path within the Contract Time due to weather conditions, provided the Contractor properly initiates a Claim, the Contract Time will be extended by one (1) day for each work day lost due to weather that delays Work on the critical path in excess of those in the following table:

<u>Month</u>	Number of Workdays Lost Due To Weather
<u>January</u>	<u>8</u>
<u>February</u>	<u>8</u>
March	<u>7</u>
<u>April</u>	<u>6</u>
May	<u>5</u>
<u>June</u>	<u>4</u>
<u>July</u>	<u>4</u>
August	<u>4</u>
September	<u>5</u>
<u>October</u>	<u>6</u>
November	<u>6</u>
<u>December</u>	<u>6</u>

Lost workdays due to weather are to be reconciled on a weekly basis. Unused "Number of Workdays Lost Due to Weather" are to be accrued from month-to-month. Extensions to the Contract Time will only be considered if and when the actual total lost days due to weather exceed the total of all accrued unused anticipated lost days due to weather. Any work done on a workday shortened by weather is to be counted as a partial workday and not a total lost day.

§ 15.1.6.3 Excusable and Compensable Delays. The delays for which the Contractor is entitled to additional time are "Excusable Delays." The only Excusable Delays are delays which the Contractor establishes were: (a) caused by the Owner or those in privity of contract with the Owner, (b) physical damage to the Project over which the Contractor has no control, (c) labor disputes beyond the control of the Contractor, (d) work days lost due to weather conditions as provided under Section 15.1.5.2, and (e) concealed or unknown conditions under Section 3.7.4, including but not limited to delays due to the discovery of hazmat conditions or any other delay beyond the control of the Contractor as allowed under this Agreement.

The delays for which the Contractor is entitled to additional time and money are "Compensable Delays." The only Compensable Delays are the following Excusable Delays which the Contractor establishes were: (a) caused by the Owner or those in privity of contract with the Owner, (b) physical damage to the Project over which the Contractor has no control, and/or (c) concealed or unknown conditions under Section 3.7.4.

The provisions of Article 15 for claims and disputes do not apply to changes to the Project scope that may include both additional costs and time for performing increased or decreased scope of Work and that are addressed by the parties in a Change Order to this Agreement.

#### § 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

.1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

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damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.1.8 Settlement Offers. If the Contractor initiates a Claim, the Owner may make settlement offers to settle the Claim at any time up to the date of the trial. Such settlement offers shall be subject to Rule 408 (Compromise and Offers of Compromise) of the Ohio Rules of Evidence. If at any stage of the litigation, including any appeals, the Claim is dismissed or found to be without merit, or if the damages awarded to the Contractor or Owner on its Claim do not exceed the last settlement offer, the Contractor or Owner will be liable for the fees and expenses and willI reimburse the other party for all of its reasonable attorneys' fees and expenses, arising out of or related to such Claim since the date of such last settlement offer.

#### § 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, arising under Sections 10.3, 10.4, and 11.3.9, and 11.3.10, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days any further proceeding permitted under these General Conditions prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a Maker with no decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten-30 days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§15.2.2.1 Owner's Request for Documents. The Owner may request such documents and information from the Contractor as the Owner determines necessary to evaluate and comment upon the Claim. Upon receipt of such request from the Owner, the Contractor must provide all requested documents and information within ten (10) days. Such documents and information may include but not be limited to the Contractor's Project accounting records, estimate for the Project, daily job logs, and other information from which the Contractor's Project costs may be derived. The Contractor will provide the requested documents in the formats requested, which include both paper and electronic copies. If requested by the Owner, the electronic copies will be provided in native computer language. To the extent permitted by law, the Owner will keep the Project accounting records and estimate for the Project confidential. The Contractor's provision of the requested documents to the Owner in the format requested by the Owner is a condition precedent to any further proceeding under the Contract Documents. Contractor will provide the requested documents and information that are reasonably available within ten (10) days and will periodically provide additional documents and information as they become available.

Failure to provide the requested documents is a material breach of the Contract, and Contractor will indemnify Owner for all of Owner's costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to Contractor's failure to comply with this provision. If the Contractor fails to provide the requested documents, the Contractor will be precluded from presenting such documents in any subsequent dispute resolution proceedings, if the data was reasonably available at the time of the request.

- § 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.
- § 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part. If the Initial Decision Maker requests supporting data from a party and the party fails to provide it, the party thereafter will be precluded from presenting such data in any subsequent dispute resolution proceedings, if the data was reasonably available to it at the time of the request.
- § 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution, mediation, and if mediation is not successful in resolving the matter, litigation. Venue for such litigation will be exclusively in the county in which the Owner has its principal office. v
- § 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.
- § 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision. When a written decision of the Initial Decision Maker states that (1) the decision is final but subject to mediation and litigation and (2) the litigation is not initiated, then failure of the Contractor to initiate litigation within said 30-day period will result in the Initial Decision Maker's decision becoming final and binding upon the Owner and Contractor. If the Initial Decision Maker renders a decision after litigation has been initiated, such decision may be entered as evidence, but will not supersede the litigation proceedings unless the decision is acceptable to all parties concerned. Litigation will be considered "initiated" upon either the service of the original compliant on the Owner or, if litigation relating to the Project has already been filed, when a motion for leave to amend the complaint to add the claim has been filed.
- § 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.
- § 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

#### § 15.3 Mediation

- § 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, after initial decision by the Initial Decision Maker or 60 days after submission of the Claim to the Initial Decision Maker, shall be subject to mediation as a condition precedent to binding dispute resolution.litigation.
- § 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association ("AAA") in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to

the selection of the arbitrator(s) and agree upon a schedule for later proceedings: institution of a lawsuit. Neither party will submit a request for mediation to the AAA until the parties have been unable to agree on a neutral mediator and the party wishing to proceed with the mediation has provided notice to the other party of its intent to request mediation through the AAA and provided a minimum of 5 business days for the other party to respond.

- § 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision. [Not Used.]
- § 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place county where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

#### § 15.4 Arbitration - This Section is changed to LITIGATION

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Any Claim arising out of or related to the Contract, except Claims that are not otherwise disposed of under the Contract Documents, will, after decision by the Initial Decision Maker or 60 days after submission of the Claim to the Architect, be subject to litigation unless the parties agree in writing to arbitrate the Claims. Prior to litigation, the parties will endeavor to resolve disputes by mediation in accordance with the provisions of Section 15.3. Any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

may be decided by arbitration if the parties mutually agree in writing. There will be no mandatory arbitration of Claims.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

[Not Used.]

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

[Not Used.]

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

[Not Used.]

**User Notes:** 

#### § 15.4.4 Consolidation or Joinder

[Not Used.] § 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

**§ 15.4.4.2** Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

**§ 15.4.4.3** The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.







# Project:

Olentangy Local School District Elementary School No. 1



Proposal for GMP #1 Early Site

presented to:

**Olentangy Local School District** 

Monday, May 8, 2020

This document has important

is encouraged with respect to

its completion or modification.

AIA Document A201™-2017,

General Conditions of the Contract for Construction, is

adopted in this document by reference. Do not use with other

general conditions unless this

document is modified.

with an attorney

legal consequences. Consultation

## Guaranteed Maximum Price Amendment

This Amendment dated the day of in the year, date signed by Owner at the end of this Amendment is incorporated into the accompanying AIA Document A133TM 2019. A133<sup>TM</sup>–2009, Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price dated the day of in the year (the "Agreement") (In words, indicate day, month, and year.)

for the following **PROJECT**:

(Name and address or location)

New Elementary #1

#418-240-01-068-000 / Peachblow Road; Lewis Center, OH

THE OWNER:

(Name, legal status, and address)

Olentangy Local School District Board of Education 7840 Graphics Way; Lewis Center, OH 43035

THE CONSTRUCTION MANAGER:

(Name, legal status, and address)

Robertson Construction Services, Inc. 1801 Thornwood Drive; Heath, OH 43056

TABLE OF ARTICLES

- **A.1 GUARANTEED MAXIMUM PRICE**
- A.2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- INFORMATION UPON WHICH AMENDMENT IS BASED A.3
- CONSTRUCTION MANAGER'S CONSULTANTS, CONTRACTORS, DESIGN **A.4** PROFESSIONALS, AND SUPPLIERS

#### **GUARANTEED MAXIMUM PRICE** ARTICLE A.1

§ A.1.1 Guaranteed Maximum Price

Pursuant to Section 3.2.6 of the Agreement, the Owner and Construction Manager hereby amend the Agreement to establish a Guaranteed Maximum Price. As agreed by the Owner and Construction Manager, the Guaranteed Maximum Price is an amount that the Contract Sum shall not exceed. The Contract Sum consists of the Construction Manager's Fee plus the Cost of the Work, as that term is defined in Article 6 of the Agreement. The Guaranteed Maximum Price covered by this Amendment is for the following scope of work:

§ A.1.1.1 The Contract Sum for this GMP Amendment #1 is guaranteed by the Construction Manager not to exceed (\$ ), subject to additions and deductions by Change Order as provided in the Contract Documents. \$2,817,654.37

and thirty-seven cents

Init.

Two Million Eight Hundred Seventeen thousand Six Hundred Fifty-Four Dollars

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§ A.1.1.2 Itemized Statement of the Guaranteed Maximum Price. Provided below is an itemized statement of the Guaranteed Maximum Price organized by trade categories, including allowances; the Construction Manager's contingency; alternates; the Construction Manager's Fee; and other items that comprise the Guaranteed Maximum Price as defined in Section 3.2.1 of the Agreement.

(Provide itemized statement below or reference an attachment.)

- § A.1.1.3 The Construction Manager's Fee is set forth in Section 6.1.2 of the Agreement. \$55,248.12
- **§ A.1.1.4** The method of adjustment of the Construction Manager's Fee for changes in the Work is set forth in Section 6.1.3 of the Agreement.

#### § A.1.1.5 Alternates

§ A.1.1.5.1 Alternates, if any, included in the Guaranteed Maximum Price:

Item See exhibit A1.1.5.2 Price \$1,637,547.00

§ A.1.1.5.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Exhibit A. Upon acceptance, the Owner shall issue a Modification to the Agreement. (Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item N/A Price N/A Conditions for Acceptance
N/A

#### § A.1.1.6 Unit prices, if any:

(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item See exhibit A1.1.6 Units and Limitations Price per Unit (\$0.00)

## ARTICLE A.2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ A.2.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

- The date of execution of this Amendment.
- [X] Established as follows:

(Insert a date or a means to determine the date of commencement of the Work.)

Notice of Commencement to be issued May 15, 2020 with start of work on May 18, 2020

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of execution of this Amendment.

§ A.2.2 Unless otherwise provided, the Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work. The Contract Time shall be measured from the date of commencement of the Work.

#### § A.2.3 Substantial Completion

**§ A.2.3.1** Subject to adjustments of the Contract Time as provided in the Contract Documents, the Construction Manager shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

[ ] Not later than ( ) calendar days from the date of commencement of the Work.

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ſχ	1 В	v ine	10110	wing	date:	June	8,	2021

§ A.2.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Construction Manager shall achieve Substantial Completion of such portions by the following dates:

Portion of Work Substantial Completion Date

CMR General Conditions, Staff and Fee August 17, 2020 for GMP #1

**§ A.2.3.3** If the Construction Manager fails to achieve Substantial Completion as provided in this Section A.2.3, liquidated damages, if any, shall be assessed as set forth in Section 6.1.6 of the Agreement.

#### ARTICLE A.3 INFORMATION UPON WHICH AMENDMENT IS BASED

**§ A.3.1** The Guaranteed Maximum Price and Contract Time set forth in this Amendment are based on the Contract Documents and the following:

§ A.3.1.1 The following Supplementary and other Conditions of the Contract: N/A

Document Title Date Pages

§ A.3.1.2 The following Specifications:

(Either list the Specifications here, or refer to an exhibit attached to this Amendment.)

See exhibit A3.1.2

Section Title Date Pages

§ A.3.1.3 The following Drawings:

(Either list the Drawings here, or refer to an exhibit attached to this Amendment.)

See exhibit A3.1.2

Number Title Date

#### § A.3.1.4 The Sustainability Plan, if any: N/A

(If the Owner identified a Sustainable Objective in the Owner's Criteria, identify the document or documents that comprise the Sustainability Plan by title, date and number of pages, and include other identifying information. The Sustainability Plan identifies and describes the Sustainable Objective; the targeted Sustainable Measures; implementation strategies selected to achieve the Sustainable Measures; the Owner's and Construction Manager's roles and responsibilities associated with achieving the Sustainable Measures; the specific details about design reviews, testing or metrics to verify achievement of each Sustainable Measure; and the Sustainability Documentation required for the Project, as those terms are defined in Exhibit C to the Agreement.)

Title Date Pages

Other identifying information:

§ A.3.1.5 Allowances, if any, included in the Guaranteed Maximum Price: See exhibit A3.1.5 (*Identify each allowance.*)

Item Price

**§ A.3.1.6** Assumptions and clarifications, if any, upon which the Guaranteed Maximum Price is based: (*Identify each assumption and clarification.*)

See exhibit A3.1.6

**§ A.3.1.7** The Guaranteed Maximum Price is based upon the following other documents and information: (List any other documents or information here, or refer to an exhibit attached to this Amendment.)

See exhibit A3.1.7 for GMP Summary and Itemized costs

# ARTICLE A.4 CONSTRUCTION MANAGER'S CONSULTANTS, CONTRACTORS, DESIGN PROFESSIONALS, AND SUPPLIERS

§ A.4.1 The Construction Manager shall retain the consultants, contractors, design professionals, and suppliers, identified below: See exhibit A3.1.7

(List name, discipline, address, and other information.)

This Amendment to the Agreement entered into as of the day and year first written above.signed by Owner below.

OWNER (Signature)	CONSTRUCTION MANAGER (Signature)
Olentangy Local School District Board of Education	Robertson Construction Services, Inc.
By: Jeff Gordon, Director of Business Management and	
Facilities	By: Christian Robertson, President & CEO
(Printed name and title)	(Printed name and title)
<u>Date</u>	<u>Date</u>
(Printed name and title)	(Printed name and title)
CERTIFICAT (ORC Section	<u>CE OF FUNDS</u> on 5705.41)
The undersigned Treasurer for the Olentangy Local School Dis	
connection with the preceding GMP Amendment that the amount	•
preconstruction services described in the Amendment, has been	
in process of collection to the credit of an appropriate fund, fre	e from any outstanding obligation or encumbrance.
Date:	
Trea	asurer/CFO
Ole	ntangy Local School District

## **GMP Amendment A1.1: GMP Scopes of Work**

The following scope of services contains the extent of the work that Robertson intends to provide within the GMP Amendment for the Olentangy Local School District New Elementary No. 010:

## **General**:

Robertson Construction Services - Staff for 3 months

Robertson Construction Services - General Conditions for 3 months

Robertson Construction Services\_ - Fee for 3 months

Robertson Construction Services - Contingency for 3 months

## **Individual Bid Packages:**

Bid Package No. 01.0: Sitework and Utilities

Bid Package No. 02.0: Surveying

Bid Package No. 03.0: Concrete Reinforcement (Material only)

Bid Package No. 04.0: Doors, Frames and Hardware (Material Only)

Bid Package No. 06.0: Structural Steel

Remainder needed to complete building to be carried under future GMP No. 02.0

#### **GMP Amendment Exhibit A1.1.5.1: Schedule of Alternates**

The following Schedule of Alternates identifies the alternates that may be accepted by the Owner following execution of the GMP Amendment No. 01.0 Early Site for the Olentangy Local School District Elementary #1 School project:

#### **BUILDING AND CMR ALTERNATE SCHEDULE:**

- Alternate No. 01: Concrete Bus Pad at East Parking Lot
   Provide the material and labor to install a concrete bus pad (41'-0" by 284'-8") at the east
   parking lot as indicated on the Drawings (in lieu of Base Bid Heavy-Duty Asphalt).
   (\$4,000.00) Included as Part of GMP #1 Proposal for Site and Utility Contractor Only
- 2. Alternate No. 02: Geogrid Fabric Under all Heavy-Duty Asphalt Paving Provide and install geogrid reinforcing fabric under all heavy-duty asphalt paving as indicated on the drawings.

\$33,500.00 Included as Part of GMP #1 Proposal

- 3. Alternate No. 03: Additional Playground Equipment Provide and install the additional playground equipment as indicated on the drawings. (Part of GMP#2)
- 4. Alternate No. 04: Delete the Plywood from the Insulation under the Standing Seam Metal Roof

Delete the plywood from the roof insulation under the standing seam metal roof as specified in Section 07 41 13.16 and as noted on the drawings.

(Part of GMP#2)

5. Alternate No. 05: Additional Educational Casework Provide and install the additional educational casework noted as alternate as indicated on the drawings.

(Part of GMP#2)

Alternate No. 06: Additional Tack boards and New Tack strips
 Provide and install the additional tack boards and new tack strips noted as alternate as indicated on the drawings.

(Part of GMP#2)

#### GMP Amendment Exhibit A1.1.5.1: Schedule of Alternates

7. Alternate No. 07: SVT in lieu of VCT

Provide and install solid vinyl tile (SVT) flooring in lieu of Base Bid VCT flooring. All colors indicated are to replace VCT tile (regardless of differing size tile, pattern will remain the same, but "grow" to accommodate the larger SVT sizes) as noted on A8.00A and adjacent A8 series finish drawings. Refer to List of Finishes on A8.00A for SVT selections and manufacturer requirements. The SVT flooring shall meet ASTM F1700 classification, have a minimum total thickness of 0.120" (3.0 mm) and a minimum wear layer thickness of 32 mil (0.8 mm). A minimum of 20 year warranty period shall be provided for all SVT flooring.

(Part of GMP#2)

8. Alternate No. 08: Additional Chiller Sound Control Package

Provide and install the additional chiller sound control package for the chiller as indicated on the drawings and Section 23 05 01 and 23 64 27.

(Part of GMP#2)

9. Alternate No. 09: CAT 6A Cabling in lieu of CAT 6 Cabling (Part of GMP#2) Provide and install CAT 6A cabling as indicated on the drawings and as specified in Sections 27 13 13 and Section 27 15 13.

(Part of GMP#2)

10. Alternate No. 10: Stormwater Package Completion

Base Bid – Install structures, piping, and detention pond identified on site logistics plan COMPLETE WITH DRAINAGE SWAIL.

Alternate Pricing – Install the remainder to the site stormwater package complete per the Contract Documents and Scopes of Work

\$199,400.00 Included as Part of GMP #1 Proposal

11. Alternate No. 11: Site Sanitary

Base Bid – No Site Sanitary

Alternate Pricing – Install the site sanitary line complete per the Contract Documents and Scopes of Work

\$29,100.00 Included as Part of GMP #1 Proposal

12. Alternate No. 12: Waterline

Base Bid – No Site Waterline

Alternate Pricing – Install the Waterline complete per the Contract Documents and Scopes of Work

\$146,300.00 Included as Part of GMP #1 Proposal

13. Alternate No. 13: Balance of Site-Work

Base Bid – Install Building pad, temporary roads around building pad, temporary parking area, and Site access roadway from Peachblow, identified on site logistics plan.

Alternate Pricing – Install the remainder to the site-work package complete per the Contract Documents and Scopes of Work

\$279,500.00 Included as Part of GMP #1 Proposal

#### GMP Amendment Exhibit A1.1.5.1: Schedule of Alternates

14. Alternate No. 14: Doors & Hardware (Furnish Only)

Base Bid – Furnish submittals, fabrication, and delivery for hollow metal frames coordinated with the hardware schedule to the General Trades Contractor for installation

Alternate Pricing — Furnish doors & hardware to the General Trades Contractor for installation per the Contract Documents and Scopes of Work

\$163,920.00 Included as Part of GMP #1 Proposal

15. Alternate No. 15: Doors & Hardware (Preinstalled)

Base Bid – Furnish submittals, fabrication, and delivery for hollow metal frames coordinated with the hardware schedule to the General Trades Contractor for installation

Alternate Pricing – Furnish doors & hardware fully assembled in at the manufacturing facility to the General Trades Contractor for final installation compete per the Contract Documents and Scopes of Work

\$19,027.00 Included as Part of GMP #1 Proposal

16. Alternate No. 16: Structural Steel, Steel Joists, & Steel Decking

Base Bid – All detailing, shop drawings, etc. (complete submittals) necessary to release material for fabrication to meet the schedule

Alternate Pricing – Fabrication, delivery, erection, and any special inspections required to construct the contract documents.

\$762,800.00 Included as Part of GMP #1 Proposal

17. Alternate No. 17: Structural Steel Allowances

Provide and erect 2 tons of structural and /or miscellaneous steel (structural shapes, angels, plates, etc.) to be used as directed by the Architect. Connections to be field-welded if required.

Include an allowance for 3 additional penetrations of up to 4" diameter, as field determined, through STL Girders

Provide a minimum of three crane mobilizations for the project.

\$8,000 Included as Part of GMP #1 Proposal

#### **GMP Amendment A1.1.6: Schedule of Unit Prices**

The following Schedule of Unit Prices identifies the unit prices bid as part of the GMP Amendment No. 01.0 Early Site for the Olentangy Local School District Elementary #1 School project:

- Unit Price No. 01.0: Import and Install ODOT 304 Limestone \$39.00 Per Cubic Yard
- 2. Unit Price No. 02.0: Excavate and Export Off-site Unsuitable Soils \$22.00 Per Cubic Yard
- 3. Unit Price No. 03.0: Import and Install Structural Fill \$20.50 Per Cubic Yard
- 4. Unit Price No. 04.0: Excavate Unsuitable Soils & Place at an On-site location \$12.00 Per Cubic Yard
- 5. Unit Price No. 05.0: Cut and Place Borrow Material from an On-site location \$5.50 Per Cubic Yard

Please note that the above Unit Price amount(s) do not include any CMR Contingency or CMR Fee.

Robertson utilized the following documents to prepare GMP Amendment No. 01.0 Early Site for the Olentangy Local School District Elementary #1 School project:

Project Manual, prepared by Robertson Construction Services, dated March 5, 2020.

Technical Specifications, prepared by Fanning Howey Architects, dated February 28, 2020, which include:

#### **DIVISION 00 PROJECT MANUALS**

00 01 01	Project Title Page (F/H)
00 01 05	Certifications Page (F/H)
00 01 10	Table of Contents (F/H)
00 01 10	Table of Contents (RCS)
00 11 16	Notice to Bidders (RCS)
00 21 13	Instructions to Bidders (RCS)
00 26 00.00	Procurement Substitution Procedures (F/H)
00 26 00.01	Substitution Request Form (During Procurement) (F/H)
00 31 00	Available Project Information (F/H)
00 31 13	Tentative Construction Timeline (RCS)
00 31 14	Site Logistics Plan (RCS)
00 31 32	Geotechnical Data (F/H)
00 41 13	Bid Form (RCS)
00 45 00	Prequalification Form (RCS)
00 52 13	Subcontract Exhibit A – Robertson Subcontract Agreement (RCS)
00 73 19	Site Specific Safety Requirements (RCS)

## <u>DIVISION 01 GENERAL REQUIREMENTS</u> (Faning Howey Documents Unless Noted Otherwise)

01 10 00	Summary
01 11 00	Work Descriptions (RCS)
01 12 00	Bid Package Descriptions (RCS)
01 21 00	Allowances
01 23 00	Alternates
01 25 00 00	Substitution Procedures
01 25 00 01	Substitution Request Form
01 26 00 00	<b>Contract Modification Procedures</b>
01 26 00 54	Proposal Worksheet Detail
01 29 00	Payment Procedures
01 31 00 00	Project Management and Coordination
01 31 00 13	Coordination Certification
01 31 00 15	Request for Interpretation
01 32 00 00	<b>Construction Progress Documentation</b>
01 33 00 00	Submittal Procedures
01 33 00 03	AIA Document C106-2013

01 40 00	Quality Requirements
01 42 00	References
01 45 23 13	Concrete Floor Moisture Content and PH Testing
01 50 00	Temporary Facility and Controls
01 60 00	Product Requirements
01 73 00	Execution
01 74 00	Construction Waste Management and Disposal
01 77 00	Closeout Procedures
01 78 23	Operation and Maintenance Data
01 78 39	Project Record Documents
01 79 00	Demonstration and Training
	01 42 00 01 45 23 13 01 50 00 01 60 00 01 73 00 01 74 00 01 77 00 01 78 23 01 78 39

## **DIVISION 03 CONCRETE**

03 06 30 01	Concrete Schedule
03 06 30 02	Typical Slab Depression Legend
03 06 30 03	Concrete Mix Design Submittal
03 30 00	Cast-In-Place Concrete
03 41 13	Pre-cast Concrete Hollow Core Planks

#### **DIVISION 04 MASONRY**

04 20 00 00	Unit Masonry
04 20 00 01	Masonry Inspection Report
04 72 00	Cast Stone Masonry

#### **DIVISION 05 METALS**

05 12 00	Structural Steel Framing
05 21 00	Steel Joist Framing
05 31 00	Steel Decking
05 40 00	Cold-Formed Metal Framing (CFMF)
05 50 00	Metal Fabrications
05 51 00	Metal Stairs
05 52 13	Pipe and Tube Railings

#### **DIVISION 06 WOOD, PLASTICS, AND COMPOSITES**

06 10 00	Rough Carpentry
06 16 00	Sheathing
06 20 23	Interior Finish Carpentry
06 41 16	Plastic- Laminate-Faced Architectural Cabinets

#### **DIVISION 07 THERMAL AND MOISTURE PROTECTION**

07 21 53 Miscellaneous Thermal Insulation

07 25 00	Weather Barriers
07 27 23	Boardstock Air Barrier
07 41 13 16	Standing Seam Metal Roof Panel
07 41 13 23	Metal Composite Material Wall Panels
07 54 00	Thermoplastic Membrane Roofing
07 54 01	Induction Fastening System for Thermoplastic Membrane Roofing
07 71 00	Roof Specialties
07 72 00	Roof Accessories
07 81 00	Applied Fireproofing
07 81 23	Intumescent Fireproofing
07 84 13	Penetration Firestopping
07 84 43	Joint Firestopping
07 92 00	Joint Sealants
07 92 19	Acoustical Joint Sealants

#### **DIVISION 08 OPENINGS**

08 11 13	Hollow Metal Doors and Frames
08 13 16	Aluminum Doors
08 14 16	Flush Wood Doors
08 31 13	Access Doors and Frames
08 33 13	Coiling Counter Doors
08 41 13	Aluminum-Framed Entrances and Storefronts
08 51 13	Aluminum Windows
08 71 00 00	Door Hardware
08 80 00	Glazing

#### **DIVISION 09 FINISHES**

09 06 20 13	List of Finishes Exterior
09 21 16 00	Gypsum Board Assemblies
09 30 00	Tiling
09 51 13	Acoustical Panel Ceilings
09 65 13	Resilient Base and Accessories
09 65 16	Resilient Sheet Flooring
09 65 19	Resilient Tile Flooring
09 68 13	Tile Carpeting
09 75 19	Marble Window Stools
09 84 05	Abuse- Resistant Acoustical Panels
09 84 53	Sound Barrier Mullion Trim Cap
09 91 13	Exterior Painting
09 91 23 00	Interior Painting
09 93 00	Staining and Transparent Finishing
09 96 00	High-Performance Coatings

#### **DIVISION 10 SPECIALTIES**

10 11 00 Visual Display Units

10 12 00 00	Display Cases
10 13 00 16	Exterior Directories
10 14 16	Plaques
10 14 19	Dimensional Letter Signage
10 14 23 13	Exterior Panel Signage
10 14 23 16	Interior Panel Signage
10 14 26	Post and Panel Signage
10 14 53	Traffic Signage
10 21 13 19	Solid Polymer Toilet Compartments
10 21 23	Cubicles
10 22 33	Accordion Folding partitions
10 23 39	Operable Folding Panel Partitions
10 28 00	Toilet, Bath, and Laundry Accessories
10 44 13	Fire Extinguisher Cabinets
10 44 16	Fire Extinguishers
10 51 13	Metal Lockers
10 75 00	Flag Poles

#### **DIVISION 11 EQUIPMENT**

11 05 13	Common Motor Requirements for Equipment
10 13 13	Loading Dock Equipment
10 31 00	Residential Appliances
11 40 00	Food Service Equipment
11 51 23	Library Stack System
11 52 13	Front Projection Screens
11 58 00	Art Room Equipment
11 61 43	Stage Curtains
11 66 00	Athletic Equipment
11 68 00	Play Field Equipment and Structures
11 68 33	Athletic Field Equipment

#### **DIVISION 12 FURNISHINGS**

12 32 16	Manufactured Plastic-Laminate-Faced Casework
12 48 13	Entrance Carpet Tile
12 93 00	Site Furnishings and Amenities

## **DIVISION 21 FIRE PROTECTION**

21 05 01	Basic Fire Suppression Requirements
21 05 02	Agreement and Waiver for Use of Electronic Files
21 05 02 Δ	Flectronic Files- HEAPY Release Form to Contractors

21 05 04	Basic Fire Suppression Materials and Methods
21 05 05	Firestopping
21 05 07	Piping Materials and Methods for Fire Suppression
21 05 19	Gauges for Fire Suppression Piping
21 05 29	Hangers and Supports for Fire Suppression Piping
21 05 53	Identification on Fire Suppression Piping and Equipment
21 13 12	Fire Suppression Piping
21 13 13	Fire Suppression Sprinkler System

## **DIVISION 22 PLUMBING**

22 05 01	Basic Plumbing Requirements
22 05 02	Agreement and Waiver for Use of Electronic Files
22 05 02 A	Electronic Files- HEAPY Release Form to Contractors
22 05 04	Basic Plumbing Materials and Methods
22 05 05	Firestopping
22 05 07	Piping Materials and Methods
22 05 09	Excavation, Backfill and Surface Restoration
22 05 19	Meters and Gages for Plumbing Piping
22 05 23	General Duty Valves for Plumbing Piping
22 05 29	Hangers and Supports for Plumbing Piping and Equipment
22 05 30	Bases and Supports for Plumbing Equipment
22 05 53	Identification for Plumbing Piping, Valves and Equipment
22 07 19	Plumbing Piping Insulation
22 10 10	Facility Gas Piping
22 10 12	Interior Gas Piping
22 11 16	Interior Domestic Water Piping
22 11 19	Interior Domestic Water Piping Specialties
22 13 16	Interior Drainage and Vent Systems
22 13 19	Drainage Systems Specialties
22 33 00	Domestic Water Heater High Efficiency- Condensing
22 42 00	Plumbing Fixtures

## **DIVISION 23 MECHANICAL**

23 05 01	Basic HVAC Requirements
23 05 02	Agreement and Waiver for Use of Electronic Files
23 05 02 A	Electronic Files- HEAPY Release Form to Contractors
23 05 04	Basic HVAC Materials and Methods
23 05 05	Firestopping
23 05 07	Piping Materials and Methods
23 05 09	Excavation, Backfill and Surface Restoration
23 05 13	Electrical Requirements for HVAC Equipment
23 05 14	Adjustable Frequency Motor Controller
23 05 17	Expansion Loops for HVAC Piping Systems
23 05 19	Gages and Make-up Meters
23 05 23	General-Duty Valves for HVAC Piping
23 05 29	Hangers and Supports for HVAC Piping

23 05 30	Bases and Supports for HVAC Equipment
23 05 31	HVAC Equipment Drives
23 05 49	Vibration Control for HVAC
23 05 50	Flexible HVAC Pipe Connectors
23 05 53	Identification for HVAC Piping and Equipment
23 05 93	Testing, Adjusting, and Balancing for HVAC
23 07 13	Duct Insulation
23 07 16	HVAC Equipment Insulation
23 07 19	HVAC Piping Insulation
23 09 23	Building Automation System for HVAC
23 09 25	Instrumentation and Control Devices for HVAC
23 09 47	Control Power and Wiring for HVAC
23 09 93	Sequence of Operations for HVAC Controls
23 21 13	Hydronic Piping
23 21 14	Expansion Tanks (Pressurized Diaphragm- Bladder)
23 21 17	Glycol Solution Systems
23 21 23	Hydronic Pumps
23 23 00 B	Refrigerant Piping (Small System)
23 25 00	Water Treatment System
23 31 13	HVAC Ductwork
23 33 00	Air Duct Accessories
23 34 00	HVAC Fans
23 34 23	HVAC Gravity Roof Ventilators
23 36 16 B	Air Terminal Units (VAV Reheat and Shutoff) (Electronic)
23 37 00	Air Outlets and Inlets
23 41 00	Air Filters
23 52 20	Hot Water High Efficiency Condensing Boilers
23 64 23	Turbo-Core Water Chiller
23 64 27	Rotary- Screw Water Chillers (Air Cooled)
23 73 00	Modular Air-Handling Units
23 82 19	Fan Coil Units
23 82 39	Unit Heaters (Cabinet Propellers)

## **DIVISION 26 ELECTRICAL**

26 00 50	General Electrical Requirements
26 05 19	Low-voltage Electrical Power Conductors and Cables
26 05 26	Grounding and Bonding for Electrical Systems
26 05 29	Electrical Supports for Electrical Systems
26 05 33	Conduits and Boxes for Electrical Systems
26 05 43	Underground Ducts and Raceways for Electrical Systems
26 05 53	Identification for Electrical Systems
26 05 73	Power System Studies
26 09 23	Lighting Control Devices
26 22 00	Low-voltage Transformers
26 24 13	Switchboards

26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	<b>Enclosed Switches and Circuit Breakers</b>
26 28 17	Elevator Control Switch
26 29 13	Enclosed Controllers
26 33 23	Battery Inverter Equipment
26 51 00	Interior Lighting
26 56 00	Exterior Lighting

## **DIVISION 27 COMMUNICATIONS**

27 05 00	Basic Communications Requirements
27 05 02	CAD release Form
27 05 03	Technology System Warranties and Guarantee
27 05 04	Communication Systems Submittals
27 05 10	Agreement and Waiver for Use of BIM Files
27 05 20	Basic Communication Materials and Methods
27 05 25	Firestopping
27 05 26	Grounding and Bounding for Communication Systems
27 05 28	Pathways for Communication Systems
27 05 29	Hangers and Supports for Communication Systems
27 05 36	Cable Trays for Communication Systems
27 05 44	Sleeves and Seals for Communication Pathways
27 05 53	Identification
27 08 01	Communication Systems Cable Testing
27 08 02	Documentation and Closeout for Tech and Security Systems
27 11 00	Communications Equipment Room Fittings
27 13 13	Communications Copper Backbone Cabling
27 13 23	Communication Fiber Backbone Cabling
27 15 13	Communications Copper Horizontal Cabling
27 32 44	Emergency Responder Testing
27 41 19	Audio-Visual Equipment
27 51 21	Student Dining Audio Visual System
27 51 23	Central Sound System
27 51 35	GPS Satellite Clock System

# **DIVISION 28 SECURITY**

28 05 00	Basic Electronic Safety and Security Requirements- Master
28 05 20	Basic Electronic Safety and Security Materials and Methods
28 05 26	Grounding and Bounding for Electronic Safety and Security
28 05 28	Electronic Safety Security Systems Paths and Support Equipment
28 13 00	Access Control System- Master
28 13 33	Door Entry Video Intercom System- Master
28 16 00	Intrusion Detection System - Master
28 21 00	Video Surveillance Cameras- Master
28 23 00	Video Surveillance Systems- Master

28 31 11 Digital, Addressable Fire Alarm system

#### **DIVISION 31 EARTHWORK**

31 10 00	Site Clearing
31 20 00	Earth Moving

#### **DIVISION 32 EXTERIOR IMPROVEMENTS**

32 12 16	Asphalt Paving
32 13 13	Concrete Paving
32 13 73	Concrete Paving Joint Sealant
32 18 16	Playground Protective Surfacing
32 31 13	Chain Link Fences and Gates
32 92 00	Turf and Grasses
32 93 00	Plants

#### **DIVISION 33 UTILITIES**

33 05 10	<b>Utility Services</b>
33 49 00	Sub-drainage

Plans, prepared by Fanning Howey Architects, dated March 2, 2020 unless noted otherwise, which include the following drawings:

#### **GENERAL**

00	COVER SHEET
01	INDEX
02	SURVEY
G1.1	ILLUSTRATIVE SITE PLAN
G1.2	SITE ACCESS PLAN
G2.1	OVERALL GRADING PLAN
G2.2	FINE GRADING PLAN
G2.3	FINE GRADING PLAN
G2.4	PERIMETER DRAINAGE PLAN
G3.1	OVERALL LAYOUT PLAN
G3.2	ENLARGED LAYOUT PLAN
G3.3	ENLARGED LAYOUT PLAN
G3.4	SERVICE AND ENTRANCE LAYOUT PLAN
G3.5	PLAYGROUND LAYOUT PLAN
G4.1	DETAILS AND SECTIONS
G4.2	DETAILS AND SECTIONS

G4.3	DETAILS AND SECTIONS
	DETAILS AND SECTIONS
_	DEMOLITION PLAN
CIVIL	
SU1.01	COVER SHEET
SU1.02	
SU1.03	DEL-CO WATER NOTES AND DETAILS
SU1.04	DEL-CO WATER NOTES AND DETAILS
	EXISTING CONDITIONS
SU1.06	
SU1.07	COMPOSITE UTILITY PLAN
	GRADING PLAN
	GRADING PLAN
	BASIN DETAILS
	BASIN DETAILS
	STORM PROFILES
SU1.13	STORM PROFILES
	SANITARY PLAN & PROFILE
	WATERLINE PLAN & PROFILE
	WATERLINE PLAN & PROFILE
	WATERLINE PLAN & PROFILE
	SWPPP COVER SHEET
SU1.19	SWPPP NOTES & DETAILS
SU1.20	TEMPORARY SEDIMENT BASIN DETAILS
SU1.21	SWPPP PLAN- PHASE 1
SU1.22	SWPPP PLAN- PHASE 2
SU1.23	SWPPP PLAN- PHASE 3
SU1.24	SWPPP AMENDMENT LOG
LANDSCAPE	
L1.1	LANDSCAPE PLAN
ARCHITECTURAL	
A0.01	MASTER FLOOR PLAN
A0.02	CODE PLAN
A0.03	UL DETAILS
A0.04	UL DETIALS
A1.01	UNIT A- FIRST FLOOR ARCHITECTURAL PLAN
A1.02	UNIT B- FIRST FLOOR ARCHITECTURAL PLAN
A1.03	UNIT C- FIRST FLOOR ARCHITECTURAL PLAN
A1.04	UNIT D- FIRST FLOOR ARCHITECTURAL PLAN
A1.05 A1.06	UNIT E- FIRST FLOOR ARCHITECTURAL PLAN ENLARGED TOILET ROOM PLANS
AT.00	LINEARGED TOILET ROUIVI PLANS

A1.07	ENLARGED TOILET ROOM PLANS
A1.08	WALL TYPES
A1.09	TYPICAL DETAILS
A2.01	ROOF PLAN
A2.02	ROOF DETAILS
A3.01	BUILDING ELEVATIONS
A3.02	BUILDING ELEVATIONS
A4.01	BUILDING SECTIONS
A4.02	BUILDING SECTIONS
A5.01	WALL SECTIONS
A5.02	WALL SECTIONS
A5.03	WALL SECTIONS
A5.04	WALL SECTIONS
A5.05	WALL SECTIONS
A6.01	DOOR TYOES
A6.02	FRAME DETAILS
A6.03	FRAME DETAILS
A6.04	FRAME DETAILS
A6S.01	DOOR AND FRAME SCHEDULE
A7.00A	CASEWORK SCHEDULE AND LIST OF FINISHES
A7.00B	INTERIOR SIGN TYPES
A7.00C	EQUIPEMENT DETAILS
A7.01	UNIT A- FISRT FLOOR EQUIPMENT PLAN
A7.01	UNIT B- FISRT FLOOR EQUIPMENT PLAN
A7.02	UNIT C- FISRT FLOOR EQUIPMENT PLAN
A7.03 A7.04	UNIT D- FISRT FLOOR EQUIPMENT PLAN
_	
A7.05	UNIT E- FISRT FLOOR EQUIPMENT PLAN
A7.06	CASEWORK ELEVATIONS
A7.07	CASEWORK ELEVATIONS
A7.08	CASEWORK ELEVATIONS
A7.09	CASEWORK ELEVATIONS
A7.10	CASEWORK ELEVATIONS
A7.11	CASEWORK ELEVATIONS
A8.00A	LIST OF FINISHES
A8.00B	FLOOR TRANSITION DETAILS
A8.01	UNIT A- FIST FLOOR FINISH PLAN
A8.02	UNIT B- FIST FLOOR FINISH PLAN
A8.03	UNIT C- FIST FLOOR FINISH PLAN
A8.04	UNIT D- FIST FLOOR FINISH PLAN
A8.05	UNIT E- FIST FLOOR FINISH PLAN
A8.06	INETRIOR ELEVATIONS
A9.01	UNIT A- FIRST FLOOR REFLECTED CEILING PLAN
A9.02	UNIT B- FIRST FLOOR REFLECTED CEILING PLAN
A9.03	UNIT C- FIRST FLOOR REFLECTED CEILING PLAN
A9.04	UNIT D- FIRST FLOOR REFLECTED CEILING PLAN
A9.05	UNIT E- FIRST FLOOR REFLECTED CEILING PLAN
A10.01	VERTICAL CIRCULATION

FOOD SERVICE	
FS1.01	FOOD SERVICE EQUIPMENT PLAN
FS2.01	FOOD SERVICE MECHANICAL PLAN
FS3.01	FOOD SERVICE ELECTRICAL PLAN
FS4.01	FOOD SERVICE VENTILATOR DETAILS
FS4.02	FOOD SERVICE VENTILATOR DETAILS
FS5.01	WALK-IN COLLER FREEZER DETAILS
FS5.02	WALK-IN COLLER FREEZER DETAILS
FS6.01	FOOD SERVICE EQUIPMENT DETAILS
FS7.01	SERVING LINE DETAILS
STRUCTURAL	CENERAL CERLICIURAL INFORMATION
S0.01	GENERAL STRUCTURAL INFORMATION
S0.02	GENERAL STRUCTURAL INFORMATION
S1.01	UNIT A- FOUNDATION PLAN
S1.02	UNIT B- FOUNDATION PLAN
S1.03	UNIT C- FOUNDATION PLAN
S1.04	UNIT D- FOUNDATION PLAN
S1.05	UNIT E- FOUNDATION PLAN
S1.06	SLAB PLAN
S1.01	UNIT A- FOUNDATION PLAN
S1.02	UNIT B- FOUNDATION PLAN
S1.03	UNIT C- FOUNDATION PLAN
S1.04	UNIT D- FOUNDATION PLAN
S1.05	UNIT E- FOUNDATION PLAN
S2.01	FOUNDATION DETAILS
S2.02	FOUNDATION DETAILS
S3.01	WALL AND LINTEL PLAN
S4.01	WALL AND LINTEL DETAILS
S5.01	UNIT A- ROOF FRAMING PLAN
S5.02	UNIT B- ROOF FRAMING PLAN
S5.03	UNIT C- ROOF FRAMING PLAN
S5.04	UNIT D- ROOF FRAMING PLAN
S5.05	UNIT E- ROOF FRAMING PLAN
S5.06	MEZZANIN AND OP- WALL FRAMING PLAN
S6.01	COLUMN SCHEDULE AND DETAIL
S6.02	FRAMING ELEVATION AND DETAILS
S7.01	FRAMING DETAILS
S7.02	FRAMING DETAILS
\$7.03	FRAMING DETAILS
DILIMBING	
PLUMBING PO 01	LECEND AND INDEV
P0.01	LEGEND AND INDEX
P0.02	SCHEDULE AND DETAILS
P1.01	PLUMBING SITE PLAN
P2.01	UNIT A PLUMBING PLAN
P2.02	UNIT B PLUMBING PLAN
P2.03	UNIT C PLUMBING PLAN

P2.04 P2.05 P3.01 P4.01 P4.02 P4.03 P4.04	UNIT D PLUMBING PLAN UNIT E PLUMBING PLAN ENLARGED KITCHEN- MECHANICAL ROOM PLAN SOIL WASTE AND VENT DIAGRAM- UNITS A&B SOIL WASTE AND VENT DIAGRAM- UNIT B SOIL WASTE AND VENT DIAGRAM- UNIT C SOIL WASTE AND VENT DIAGRAM- UNITS D&E
MECHANICAL M0.01	LEGEND, INDEX AND GENERAL NOTES
M0.02	DETAILS
M0.03	DETAILS
M0.04	SCHEDULES
M0.05	SCHEDULES
M1.01	UNIT A HVAC PLAN
M1.02 M1.03	UNIT B HVAC PLAN
M1.03	UNIT C HVAC PLAN UNIT D HVAC PLAN
M1.05	UNIT E HVAC PLAN
M2.01	ENLARGED MECHANICAL ROOM PLANS
M3.01	CONTROLS, LEGEND & AH CONTROLS
M3.02	CONTROLS, CHILLERS, BOILERS & TERMINAL UNIT
ELECTRICAL	
E1.01	ELECTRICAL SYMBOL LEGEND
E1.02	ELECTRICAL DETAILS
E1.03	ELECTRICAL DETAILS
E2.01	SITE ELECTRICAL PLAN
E3.01	UNIT A- FIRST FLOOR FIRE ALARM PLAN
E3.02	UNIT B- FIRST FLOOR FIRE ALARM PLAN
E3.03	UNIT C- FIRST FLOOR FIRE ALARM PLAN
E3.04	UNIT D- FIRST FLOOR FIRE ALARM PLAN
E3.05	UNIT E- FIRST FLOOR FIRE ALARM PLAN
E4.01	UNIT A- FIRST FLOOR LIGHTING PLAN
E4.02	UNIT B- FIRST FLOOR LIGHTING PLAN
E4.03	UNIT C- FIRST FLOOR LIGHTING PLAN
E4.04	UNIT D- FIRST FLOOR LIGHTING PLAN
E4.05	UNIT E- FIRST FLOOR LIGHTING PLAN
E5.01	UNIT A- FIRST FLOOR POWER PLAN
E5.02	UNIT B- FIRST FLOOR POWER PLAN
E5.03	UNIT C- FIRST FLOOR POWER PLAN
E5.04 E5.05	UNIT D- FIRST FLOOR POWER PLAN UNIT E- FIRST FLOOR POWER PLAN
E6.01	FOOD SERVICE POWER PLAN
E6.02	MECHANICAL ROOM POWER PLAN
E7.01	ELECTRICAL SINGLE LINE DIAGRAM
E8.01	LUMINAIRE SCHEDULES
E8.02	PANELBOARD SCHEDULES
-5.02	

E8.03	PANELBOARD SCHEDULES
E8.04	PANELBOARD SCHEDULES
TECHNOLOGY	
T0.01	TECHNOLOGY LEGENDS AND NOTES
T0.02	TECHNOLOGY NOTES
T0.03	FACEPLATE DETAILS
T0.10	TECHNOLOGY SITE PLAN
T0.11	FIRST FLOOR CABLE PATHWAY PLAN
T1.01	UNIT A- FIRST FLOOR TECHNOLOGY PLAN
T1.02	UNIT B- FIRST FLOOR TECHNOLOGY PLAN
T1.03	UNIT C- FIRST FLOOR TECHNOLOGY PLAN
T1.04	UNIT D- FIRST FLOOR TECHNOLOGY PLAN
T1.05	UNIT E- FIRST FLOOR TECHNOLOGY PLAN
T1.06	UNIT C AND D- SECOND FLOOR TECHNOLOGY PLAN
T2.01	UNIT A- FIRST FLOOR SECURITY PLAN
T2.02	UNIT B- FIRST FLOOR SECURITY PLAN
T2.03	UNIT C- FIRST FLOOR SECURITY PLAN
T2.04	UNIT D- FIRST FLOOR SECURITY PLAN
T2.05	UNIT E- FIRST FLOOR SECURITY PLAN
T2.06	UNIT C AND D- SECOND FLOOR SECURITY PLAN
T3.01	TECHNOLOGY ROOMS AND ELEVATIONS
T4.01	TECHNOLOGY DETAILS
T4.02	TECHNOLOGY DETAILS
T4.03	TECHNOLOGY DETAILS
T4.04	TECHNOLOGY DETAILS
T4.05	TECHNOLOGY DETAILS
T4.06	TECHNOLOGY DETAILS
T4.07	TECHNOLOGY DETAILS

Addendum No. 01.0, prepared by Fanning Howey Architects, dated March 13, 2020

Addendum No. 02.0, prepared by Fanning Howey Architects, dated March 16, 2020

#### **GMP Amendment Exhibit A3.1.5: Schedule of Allowances**

The following Allowances are included within the GMP Amendment No. 01.0 Early Site for the Olentangy Local School District Elementary #1 School project:

- 1. **Allowance No. 01.0:** Provide and erect 2 tons of structural and /or miscellaneous steel (structural shapes, angels, plates, etc.) to be used as directed by the Architect. Connections to be field-welded if required.
  - i. \$8,000
- 2. Allowance No. 04.0: Temporary Access Road grading and maintenance.
  - i. \$79,600.00
- 3. \*\*\* Allowance for GMP 2\*\*\*: Costs for necessary shop drawings and concrete work that might be needed to keep work progressing prior to execution of GMP 02.0. All costs used will have prior approval from OLSD project team. Any funds used from this allowance will be credited towards cost of GMP 02.0.
  - i. \$250,000

## **GMP Amendment Exhibit A3.1.6: Assumptions & Clarifications**

The project is based on the following assumptions and clarifications for GMP Amendment No. 01.0 Early Site for the Olentangy Local School District Elementary #1 School project:

#### **General Exclusions:**

1. The following general scope items are not included as part of this GMP and are assumed to be by others or by Owner.

Design contingency

**Builders Risk Insurance** 

Professional Liability Insurance (Unless specifically called out for an individual trade)

Remediation and removal of any contaminated materials

**Building Permit** 

**Health Department Permit** 

**EPA/Storm Water Pollution Permit** 

**Utility Service Charges** 

Utility Consumption for Gas, Water or Electric

**Environmental Site Assessments** 

Geotechnical Site Investigation and soils testing

Material inspections & testing, including FF/FL testing on slabs

- 2. Any work associated with Tornado Shelters, which are not identified in the plans.
- 3. Any additional scope required from final building department permit approval that is not identified within the GMP documents. We have included specific items noted in email from Fanning Howey dated 4/16/2020.
- 4. Tap Fees, Utility Capacity Charges, Connection Charges, New Service Charges, or any other utility charge is not included.
- 5. Importing or exporting of soils from the site is excluded. It is assumed that all spoils from the site will be able to be utilized within the school property.
- 6. Custom colors of materials not specifically identified in the documents are not included.
- 7. Site utilities that may be needed, but not identified on drawings or Design Intent Statements are not included.
- 8. The pad mount transformer, meter, meter wiring and underground electrical service cable shall be supplied by Power Company serving the school.
- 9. Lime or Chemical stabilization of soils is specifically excluded from this GMP. Drying of soil will be done via disking if it is determined that optimum moisture can be achieved through this method as determined by Owners testing company. If soil moisture levels can't be achieved after three attempts of disking (per area) additional compensation will be required.
- 10. Mass rock and utility rock excavation, rock blasting, chipping, hammering or excavation of any rock is excluded.

## **GMP Amendment Exhibit A3.1.6: Assumptions & Clarifications**

- 11. Additional well points and subsurface dewatering is excluded.
- 12. Removing, handling, testing of any hazardous materials.
- 13. Removal and/or relocation of any utility poles or existing lines not indicated on the drawings. This will be by Owner or their utility company.
- 14. Any monitoring, venting, and/or otherwise handling of any methane gas encountered during the work of this GMP.
- 15. Costs for Testing and Inspections, including Code-Required Special Inspections to be paid for by Owner. Exclude costs for additional samples, tests, and inspections required by contractor beyond specified requirements, due to no fault of the contractor. Does not exclude participation and assistance to complete any special inspection requirements per General Conditions. Specific testing and testing reports included within specification sections as part of a submittal is included.
- 16. Foundation drainage has been excluded. We do have downspout drains and the required underdrains for the soft surface playground area and chiller maintenance yard areas shown on G2.4.
- 17. We have not included cost to double handle material as potentially described by the Delaware County Engineer in the revised Sequence of Construction.
- 18. We do not have a temporary water station included in this GMP.
- 19. We do not have temporary fencing included in this GMP. Temporary Fencing to be included as part of the General Trades package currently bidding.
- 20. We do not have a dedicated telephone line for a fax machine or computer in the field office included.
- 21. We do not have dumpsters included in this GMP.
- 22. Sanitary and water connection to the proposed mains is to be by others and not included as part of this GMP.
- 23. Pond Liners are excluded.

### **GMP Amendment Exhibit A3.1.6: Assumptions & Clarifications**

### **Clarifications:**

- This GMP does not represent the full and complete scope of work associated with the Olentangy Elementary School Elem No. 1. This GMP will be reliant upon future GMP 2 for remaining contracts and scope of work to be complete. This GMP only includes the following work:
  - a. Early Sitework and Utilities
  - b. Surveying
  - c. Concrete Rebar (Material Only)
  - d. Doors, Frames and Hardware (Material Only)
  - e. Structural Steel
- 2. Project is a non-prevailing wage and is sales tax exempt.
- 3. Project is based on the assumption that Olentangy Local Schools is successful with the Bond Passage vote from March 17, 2020 that has been delayed until April 28, 2020.
- 4. Project Notice To Proceed to be issued no later than May 15, 2020 based on Board Approval at the May 14, 2020 Board Meeting.
- 5. Schedule delays beyond our control may occur due to the current Coronavirus situation. We reserve the right to modify our schedule due to any changes or increases in the Federal or State mandated guidelines.
- 6. Commissioning is included as an active participant. Cost of the Commissioning Agent is by others.
- 7. Our GMP is based on the assumption that the building fire water service is sufficient to provide flow and pressure as required in Specification Division 21. We do not have any enhancements to the water system, such as pumps, storage, etc., to boost the water system.
- 8. The gas service and meter are being provided by others from the main service through the meter set and meter (our work starts at the house side of the meter). The primary electric service & transformer are being provided by others (our work starts at the secondary side of the transformer). Fiber Service, Telco Service, and cable TV service is not included (our work starts at the building Demark). These are all being provided by the others.
- 9. The storm and sanitary lines are to be brought to within five (5) feet of the building as part of the Sitework and Utilities Scope of Work. All storm and sanitary connections related to this GMP will be from five (5) foot outside the building.
- 10. All costs for testing to be paid by the Owner. RCS will coordinate with Architect or directly with Owner provided testing company for required inspections.
- 11. Background check requirements of construction personnel is not included as part of

### **GMP Amendment Exhibit A3.1.6: Assumptions & Clarifications**

this GMP. If Co-owners elect to set up a background check requirement for all construction staff, a mutually agreeable list of minimum requirements will need to be established. The cost of completing background checks is not included in the GMP.

- 12. Any tap fees, capacity charges, connection charges, new service charges, and/or utility charges of any kind for the building. Contractor trailer facilities are included as cost of the work.
- 13. It is our intention to install all anchor bolts via drill and epoxy method post footing placement.
- 14. The construction schedule that has been included in the round 1 bid documents is not the same as the round 2 bid documents. This is largely due to the delay of the Coronavirus Pandemic. There may be some acceleration required for the round 1 bidders to meet the schedule of the round 2 bidders.
- 15. Several trees included in the documents to remove have already been cut down by the District. The Site Contractor still needs to complete the removal of logs, branches, stumps, etc per the documents.
- 16. The temporary access road from Peachblow to the new North Road will be removed at the close of the project and graded and seeded per the specifications.
- 17. The driveway permit is included.
- 18. Erosion Control per sheets SU1.18 through SU1.24 will be installed, inspected and maintained by the Early Site Contractor while they are on site. Additional costs will be added as part of GMP #2 to maintain and remove Erosion Control provided in this GMP.
- 19. Preliminary dirt calculations indicate excess topsoil on site. This topsoil will be stockpiled on site at location to be defined. No spoils are to be removed from the site.
- 20. A 12' wide construction road will be installed as part of the early site package. The areas of the construction road that will be at landscape areas will remain in place and covered with 6" of topsoil to bring to final grade. Areas in pavement or concrete will be incorporated into the construction.
- 21. This GMP does not include foundation drains. This work will be provided by GMP contractors.
- 22. Storm Sewer is to be ADS N-12 pipe and the roof drains will be SDR-35 Pipe.
- 23. Temporary and permanent seeding is included with this GMP. No other landscape is included and will be by future GMP Contractor.
- 24. This GMP includes the following conduit sleeves:
  - a. Electrical Two (2) each 6" x 60' with concrete encasement and granular backfill

### **GMP Amendment Exhibit A3.1.6: Assumptions & Clarifications**

- b. Plumbing One (1) 4" X 60' sleeve with granular backfill
- c. Technology Three (3) each 6" x 20' sleeves with granular backfill
- 25. Per specification for doors and frames paragraph 2.3.D it states for a system performance to achieve an acoustical rating for door and frame assembly of minimum STC-40. However, floor plans do not indicate any acoustical wood doors. Acoustical wood doors are not included in GMP.
- 26. Structural Steel is included as shown on the Structural Drawings. We have not included Structural steel that is only shown in the Architectural Drawings.
- 27. Structural steel prime paint will be included for all members exposed to view upon building completion.
- 28. Metal deck will be secured to the structure by means of powder actuated fasteners.
- 29. Robertson Construction will require all personnel coming on site to abide by new COVID-19 Safety measures that have been put in place by Robertson Construction. This includes, but is not limited to Daily Temperature check to be submitted prior to coming on site, Health Safety Check forms to be completed on Monday, Wednesday and Friday or immediately upon coming to site, masks to be worn by all staff until further notice issued by Governor.

### **GMP Amendment Exhibit A3.1.7: Project Estimate**

Robertson assembled its costs within GMP Amendment No. 01.0 Early Site for the Olentangy Local School District Elementary School No. 01.0 project based on the following information:

- 1. Exhibit C1 GMP Summary Worksheet
- 2. Exhibit C2 Construction Stage Personnel and General Conditions Cost Development Worksheet

### Olentangy Local School District New Elementary No. 1 Exhibit A3.1.7 CM at Risk Worksheet

### Friday, May 8, 2020



						CMR	
						Implementation	Remaining
	Preliminary	Preliminary	GMP Amendment No. 01.0	GMP Amendment No. 02.0	GMP Amendment	Plan	Balance
	Agreement	Amendment	Early Site	Elem No.1 Building		June 27, 2019	
Contract Sum	\$0.00		\$2,817,654.37	\$0.00	\$2,817,654.37	\$20,100,000.00	\$17,282,345.63
Cost of the Work	\$0.00		\$2,721,582.51	\$0.00	\$2,721,582.51	\$18,680,753.00	\$15,959,170.49
Personnel Costs	\$0.00		\$96,204.51	\$0.00	\$96,204.51	\$498,539.00	\$402,334.49
General Conditions Costs	\$0.00		\$41,521.00	\$0.00	\$41,521.00	\$207,650.00	\$166,129.00
Subcontracted Work	\$0.00		\$2,583,857.00	\$0.00	\$2,583,857.00	\$0.00	(\$2,583,857.00)
Self-performed Work	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pre-Construction Services	\$25,254.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CMR Contingency (1.50%)	\$0.00		\$40,823.74	\$0.00	\$40,823.74	\$295,470.00	\$254,646.26
CMR Fee (2.00%)	\$0.00		\$55,248.12	\$0.00	\$55,248.12	\$402,000.00	\$346,751.88
NTP - CMR Services Start			May 18, 2020	August 17, 2020			
Calendar Days			90	295			
Substantional Completion Date			August 16, 2020	June 8, 2021			

Description of Self-Performed Work Self Performed Work N/A For GMP No. 01

Description of Subcontracted Work

Robertson Construction Services

CONTRACTOR		
Trucco		\$1,251,387
Hull Engineering		\$14,600
Spring Creek		\$53,332
Norwood Hardware		\$207,412
North Central Fabrication	on	\$807,126
		\$250,000
	Total Subcontracted Work	\$2,583,857

# Olentangy Local School District New Elementary Building No.1 GMP 01.0 Early Site Construction Stage Personnel & General Conditions Cost Development May 1, 2020

CONSTRUCTION STAGE PERSONNEL	HOURLY RATE	HOURS - MONTH	DURATION (Month)*	SUBTOTALS
Christian Robertson, Officer in Charge	\$0.00	0.0	0.0	\$0.00
Clay Keith, Project Executive	\$97.00	14.5	3.0	\$4,226.06
Ben Posey, Senior Project Manager	\$85.00	119.2	3.0	\$30,387.56
Tim Crowley, Project Superintendent	\$68.00	160.1	3.0	\$32,657.39
Sam Nasrollahi, Project Engineer	\$46.00	160.0	3.0	\$22,080.00
Remainder of RCS Staff	\$27,414.00	1.0	0.25	\$6,853.50
Scheduling Consultant	\$15,588.00	0.0	1.0	\$0.00

TOTAL CONSTRUCTION STAGE PERSONNEL

\$96,204.51

GENERAL CONDITIONS	UNIT COST	DURATION (Months)*	SUBTOTALS
Performance and Payment Bonds	\$120,700.00	1.0	\$25,026
Liability Insurance	\$40,200.00	1.0	\$6,477
Builder's Risk Insurance	\$0.00	0.0	\$0
Temporary Facilities - Trailers & Sanitary Facilities	\$1,181.43	3.0	\$3,544
Jobsite Trailer Utilities - (Monthly Expense)	\$200.00	3.0	\$600
Office and Janitorial Supplies/Furnishings & Equip.	\$120.71	3.0	\$362
Project Commmunications - Internet, Phones, & Photos	\$1,587.14	3.0	\$4,761
Office First Aid/Fire Protection/Safety/Signage	\$250.00	3.0	\$750
Project Site Progress & Final Cleaning	W/Trades	0.0	W/Trades
Dumpsters	W/Trades	0.0	W/Trades
Construction Fence/Access Points/ Wash out	W/Trades	0.0	W/Trades

TOTAL GENERAL CONDITIONS \$41,521

Planned Duration - 3.0 Months (All within GMP No. 01.0 Timeframe)

General Conditions: May 18, 2020 - August 17, 2020

Future GMP #2 to carry remainder of General Conditions and Staff

### LICENSE & TEMPORARY EASEMENT

This LICENSE & TEMPORARY EASEMENT (the "Instrument") is made and entered this day of February, 2020 (the "Effective Date") by and between **Kenney Asset Management LLC** (the "Grantor"), and the **the Board of Education of the Olentangy Local School District**, Delaware County, Ohio (the "Grantee").

### **RECITALS:**

- A. Grantor is the owner of a certain parcel of property situated in the Township of Berlin, Delaware County, Ohio and more particularly described in Volume 1064, Page 2344, of the Official Records, Delaware County, Ohio, (the "Developer Parcel"), a portion of which is shown on <a href="Exhibit A">Exhibit A</a>, attached hereto and made part hereof;
- B. Grantor intends to subdivide the Developer Parcel and, once subdivided, donate a subdivided portion of the Developer Parcel to the Grantee (the to-be-donated portion of the Developer Parcel, the "School Parcel"), which is also shown on Exhibit A;
- C. Grantee intends to construct a school and other associated improvements (the "Project") on the School Parcel.
- D. Grantor is willing to grant to the Grantee a license to enter upon the School Parcel prior to the donation to the Grantee so that the Grantee may begin construction of the Project and related activities.
- E. In connection with the construction of the Project, Grantee requires an easement for utilities across the Developer Parcel.
- F. In connection with the construction of the Project, Grantee requires access to the School Parcel from Peachblow Road through a portion of the Developer Parcel.
- G. Grantor is willing to grant to Grantee a temporary easement for Grantee to install a construction access drive from Peachblow Road to the School Parcel through the Developer Parcel (the location of the temporary easement, the "Easement Area") as depicted on Exhibit A.
- H. As part of the development of the Developer Parcel, it is anticipated that a permanent roadway will be constructed by Delaware County from Peachblow Road and run adjacent to the School Parcel (the "Permanent Roadway"), as depicted on Exhibit A.
- NOW, THEREFORE, in consideration of one dollar (\$1.00) and other good and valuable consideration, the parties hereby agree as follows:

- 1. Grantor hereby grants to Grantee, its agents, and assigns, an irrevocable license over, under, across, and upon the School Parcel for the purposes of constructing the Project and related activities (the "License"). Grantor further grants to Grantee, its agents, and assigns, a non-exclusive right of ingress and egress over, under, across, and upon the Easement Area for the purposes of accessing the School Parcel for the construction of the Project (the "Access Easement"). Grantor further agrees to grant to Grantee, its agents, assigns, and designees (including, without limitation, private entities and government authorities), non-exclusive (temporary and permanent) rights over, under, across, and upon the Developer Parcel, at locations to be mutually agreed (and not unreasonably withheld), at no cost to the District, for the purposes of running and maintaining utilities necessary for the Project (the "Utility Easement"). Notwithstanding the foregoing, Grantee shall be obligated to connect sewer for the Project to the Berlin Meadows Gravity #1 Sanitary extension Manhole A7 as depicted on "Public Sanitary Sewer Improvement Plan Berlin Meadows Gravity #1 Sanitary Extension Plans dated 3/5/2020" attached hereto as Appendix 1 and Grantor shall not be required to grant easements for sewer purposes that are inconsistent with Grantee's obligation to connect to the Berlin Meadows Gravity #1 Sanitary extension Manhole A7.
- 2. The rights herein granted to the Grantee include, without limitation as to the generality thereof, the right of the Grantee or its agents or assigns to enter upon the School Parcel, Developer Parcel, and the Easement Area with all necessary men, vehicles, and equipment for the purposes of constructing the Project and to construct, improve, widen, repair, replace, or remove driveways upon, across, or over the Easement Area, as necessary.
- 3. The License granted herein shall commence on the Effective Date of this Instrument and shall run until such date as the School Parcel is donated by the Grantor to the Grantee, at which point the License shall terminate. The Access Easement granted herein shall commence on the Effective Date and run until August 31, 2021, unless the Permanent Roadway is unavailable at that time; in which case a reasonable time extension will be granted. The Utility Agreement granted herein shall commence on the Effective Date and run with the land.
- 4. It is agreed that the right to enter upon the School Property, Developer Parcel, and the Easement Area shall be at Grantee's sole risk and that all activities carried out by Grantee or its agents on the School Property, Developer Parcel, and the Easement Area shall be performed in a safe manner with such care as is necessary to avoid injury to persons or property and in accordance with all applicable state, federal and local laws and regulations. Grantor reserves the right to cross the School Property with any utilities necessary for the development of the Developer Parcel. Prior to entering upon the School Property to install said utilities, Grantor and Grantee will agree upon a mutually acceptable location and timeline for the installation of said utilities on the School Property. Grantor acknowledges that once the school design phase commences, there may be cost associated with changing the design of the Project to accommodate the desired location of the utilities, and Grantor will pay such reasonable design costs. Grantor further acknowledges that once the construction process commences, there may be construction cost associated with changing the design of the Project to accommodate the desired location of the utilities, and Grantor will pay such reasonable construction costs. If Grantor enters upon the School Property for the purpose of installing said utilities, Grantor will restore the School Property to the same or similar condition as existed prior to Grantor's entry thereupon. The foregoing reservation of rights shall be further memorialized in the deed of transfer for the School Property from Grantor to Grantee.

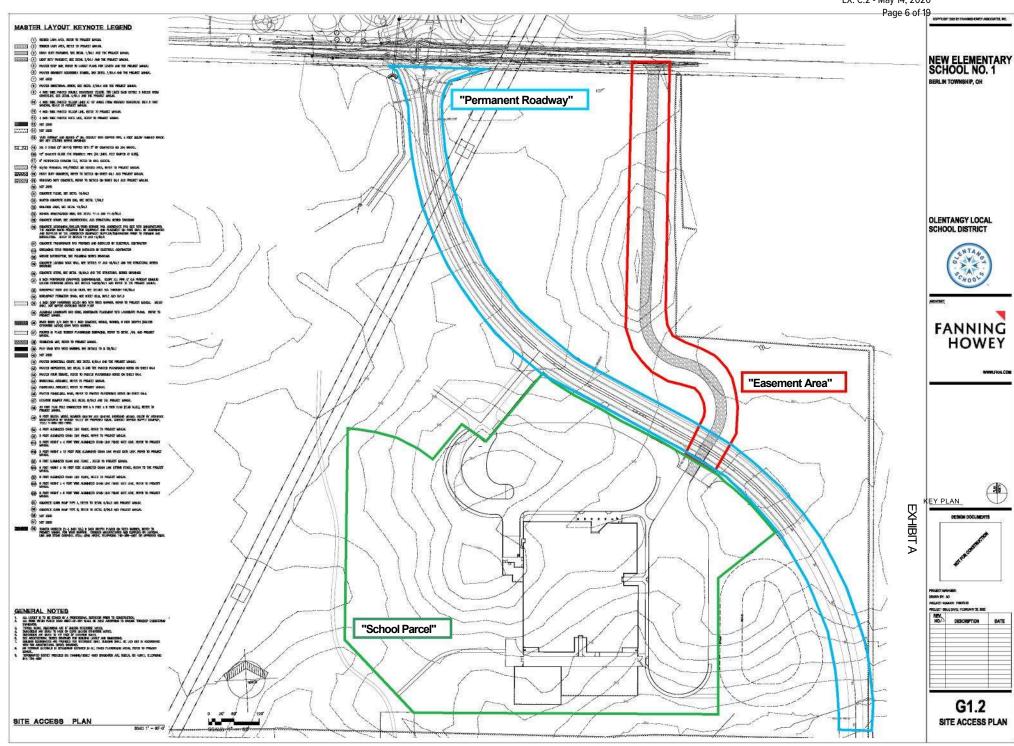
- 5. The parties agree that the deed of transfer for the School Property from Grantor to Grantee will include a reverter clause stating that should Grantee fail to construct an elementary school building on the School Property for the purpose of educating students within three years from the date of the deed, the School Property will be deeded back to Grantor.
- 6. Grantor reserves the right to use the Easement Area for any purpose not inconsistent with the rights granted to Grantee hereunder, provided that such use does not unreasonably interfere with the use of the Grantee for its intended purpose.
- 7. As soon as practicable following the termination of the Access Easement, Grantee will remove the construction access drive, and restore and repair the Easement Area to a condition as close as practicable to the condition which it was in at the time of execution of the Access Easement.
- 8. It is Grantor's intent that the donation of the School Property to Grantee be treated as a charitable contribution described under the Internal Revenue Code of 1986, as amended (the "Code"). The fair market value of the School Property shall be determined according to an appraisal obtained by Grantor at Grantor's expense prior to the recording of the deed of transfer for the School Property from Grantor to Grantee. In furtherance of the foregoing, Grantor and Grantee shall cooperate to execute any documentation, forms or acknowledgments as may be required under the Code or the Treasury Department regulations promulgated thereunder evidencing such charitable contribution.
- 9. The parties hereto acknowledge that Grantor has no obligation to construct or install; to contribute to the cost of; or otherwise participate in or cooperate with the installation of the Permanent Roadway. Further the parties hereto acknowledge that Grantor has no obligation to construct or install or to contribute to the cost of the extension of utilities to serve the School Parcel or the Project.
- 10. All terms, conditions, and covenants contained herein shall run with the land and be binding upon the parties and their respective heirs, executors, administrators, successors and assigns.
- 9. This Instrument and the rights and obligations of the parties hereunder shall be interpreted, construed and enforced in accordance with the laws of the State of Ohio. If any provision of this Instrument or the application thereof to any entity, person or circumstance shall be invalid or unenforceable to any extent, the remainder of this Instrument and the application of such provisions to other entities, person or circumstances shall not be affected thereby, and shall be enforced to the extent permitted by law. This Instrument contains the entire agreement of the parties as to the matters set forth herein. There are no oral representations, warranties or other statement whatsoever except as expressed herein. Failure or refusal to exercise any rights in this Instrument shall not be a waiver of any kind and no waiver is valid unless executed in writing by the parties and properly recorded. This Instrument may be executed in counterparts, each of which when assembled shall be deemed an original.

GRANTOR:		KENNEY ASSET MANAGEMENT LLC	
		By:	
		Its:	
STATE OF OHIO	`		
COUNTY OF	) SS )		
The foregoing instrument		ed and acknowledged before me this day of , the of Kenney Ass	
		Notary Public	

GRANTEE:		THE BOARD OF EDUCATION OF THE WARREN LOCAL SCHOOL DISTRICT		
		Its:		
STATE OF OHIO	) ) SS			
COUNTY OF				
	_	ed and acknowledged before me this, the	day of	
of Education of the Olentangy L	ocal School l	District, on behalf of said entity.	_	
		Notary Public		

This Instrument Was Prepared By:

Sean R. Lehman, Esq. Bricker & Eckler LLP 100 S. Third Street Columbus, Ohio 43215



RR SPIKE NORTH SIDE OF POWER POLE, EAST SIDE OF U.S. ROUTE 23, IN FRONT OF SPEEDWAY GAS STATION.

> NORTHING = 200139.949EASTING = 1819657.679ELEVATION = 921.76

- TOP OF FOUND CAPPED I.P ("STULTS") AT THE NORTHEAST CORNER OF PARCEL #41833001083000.

> NORTHING = 200160.892EASTING = 1820440.894ELEVATION = 931.07

BM 3 - TOP OF CAPPED ACD TRAVERSE PIN.

NORTHING = 200799.451EASTING = 1821248.395ELEVATION = 937.02

HORIZONTAL CONTROL POINTS (HC) BASED ON NAD83 OHIO STATE PLANE COORDINATE SYSTEM, SOUTH

STATE PLANE COORDINATES WERE ESTABLISHED USING 45 MINUTE STATIC OBSERVATIONS UTILIZING GLOBAL POSITIONING SYSTEM (GPS) PROCEDURES. THE GPS DATA WAS SUBMITTED TO THE NATIONAL GEODETIC SURVEY'S (NGS) ONLINE POSITIONING USER SERVICE RAPID-STATIC (OPUS-RS) SYSTEM FOR PROCESSING. THE SYSTEM USES THE CONTINUALLY OPERATING REFERENCE STATIONS (CORS) TO ESTABLISH THE GEODETIC LOCATIONS AND ARE BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD 83 (NSRS 2011 ADJ).

HC 12 1" IRON PIPE NORTHING = 199856.03EASTING = 1819364.26

HC 13 RAILROAD SPIKE NORTHING = 200021.59EASTING = 1819528.62

HC 15 NORTHING = 200210.78EASTING = 1819487.71

1" IRON PIPE (CAPPED BDM) EASTING = 1819670.73

### MISCELLANEOUS NOTES

DIMENSIONS SHOWN ARE EXPRESSED IN FEET AND DECIMAL PARTS THEREOF UNLESS OTHERWISE NOTED. MONUMENTS WERE FOUND AT POINTS WHERE INDICATED.

THERE IS NO OBSERVABLE EVIDENCE OF THIS SITE BEING USED AS A

ANY LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON VISIBLE ABOVE GROUND STRUCTURES AND/OR RECORD DRAWINGS PROVIDED TO THE SURVEYOR. LOCATIONS OF UNDER GROUND UTILITY LINES AND STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITY LINES AND STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES.

ALL BOUNDARY INFORMATION SHOWN HEREON WAS BASED ON RECORD INFORMATION ONLY AND SHOULD NOT BE CONSTRUED TO BE A BOUNDARY SURVEY AS DEFINED BY THE OHIO REVISED CODE.

### EXISTING UTILITY NOTES

THE IDENTITY AND LOCATION OF THE EXISTING UNDERGROUND UTILITY FACILITIES KNOWN TO BE LOCATED IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE PLANS BASED ON FIELD OBSERVATIONS. AS WELL AS AS-BUILT DRAWINGS PROVIDED BY DEL-CO AND DELAWARE COUNTY. DELAWARE COUNTY AND/OR THE DESIGN ENGINEER ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OF THE UNDERGROUND FACILITIES SHOWN ON THE PLANS. SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

THE CONTRACTOR SHALL CAUSE NOTICE TO BE GIVEN TO THE REGISTERED UNDERGROUND UTILITY PROTECTION SERVICES (TELEPHONE 800-362-2764 - TOLL FREE) AND THE OWNER'S OF UNDERGROUND UTILITY FACILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE REVISED CODE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

THE FOLLOWING UTILITY COMPANIES MAY HAVE FACILITIES LOCATED WITHIN THE PROJECT LIMITS:

WATER
DEL-CO WATER COMPANY, INC. 6658 OLENTANGY RIVER ROAD DELAWARE, OH 43015 P: 740.548.7746 F: 740.548.6203

**50 CHANNING STREET** 

DELAWARE, OH 43015

P: 740.833.2400

F: 740.833.2399

SANITARY DELAWARE COUNTY REGIONAL SEWER DISTRICT 50 CHANNING STREET STORM SEWER
DELAWARE COUNTY ENGINEER

DELAWARE, OH 43015 P: 740.833.2240 850 TECH CENTER DRIVE GAHANNA, OHIO 43230

P: 614.883.6829

TELEPHONE/CABLE FRONTIER COMMUNICATIONS 35 W OLENTANGY STREET POWELL, OHIO 43065 P: 740.383.0551

SUBURBAN NATURAL GAS COMPANY ELECTRIC 2626 LEWIS CENTER RD,
AMERICAN ELECTRIC POWER LEWIS CENTER, OHIO 43035 P: 740.548.2450

OHIO

**Utilities Protection** 

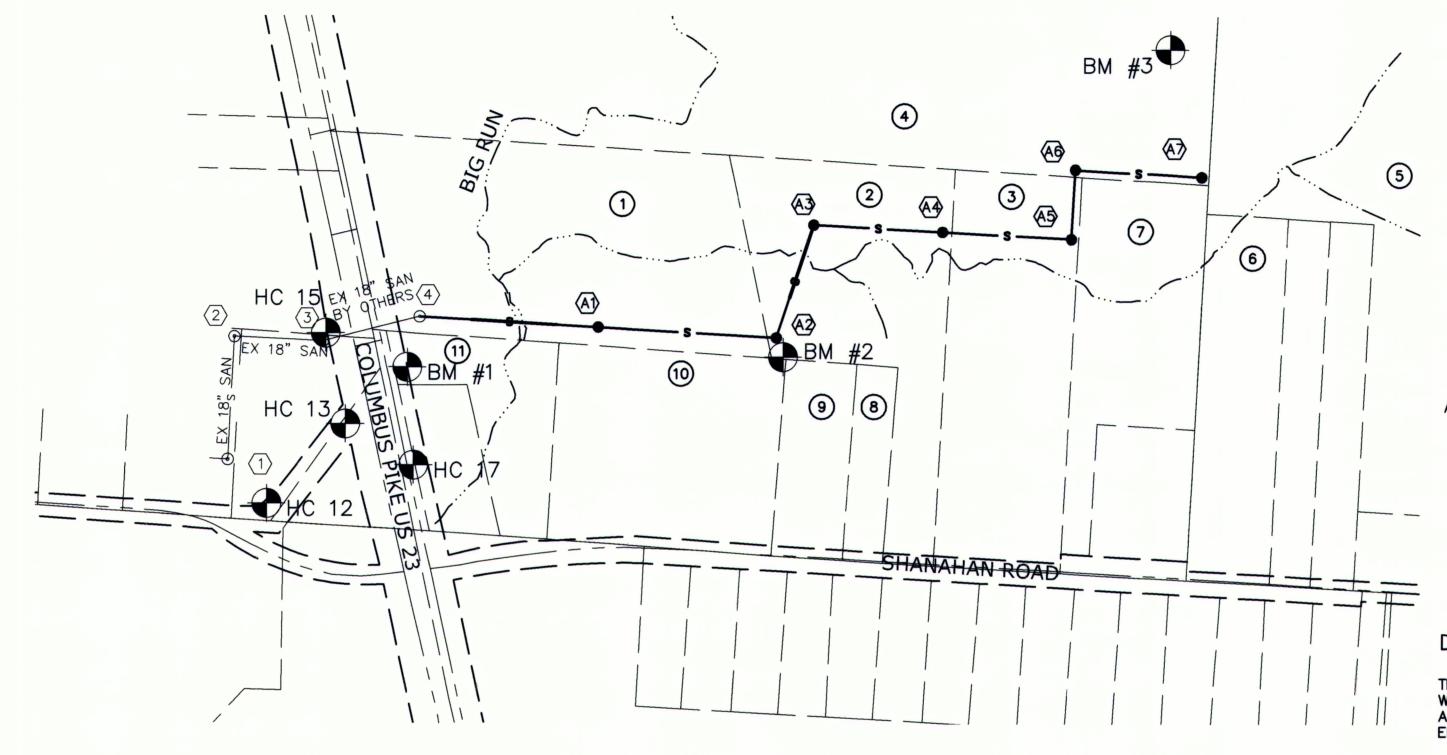
1-800-362-2764 Call Before You Dig

SERVICE

PUBLIC SANITARY SEWER IMPROVEMENT PLAN

# BERLIN MEADOWS GRAVITY #1 SANITARY EXTENSION

LOCATED IN BERLIN TOWNSHIP DELAWARE COUNTY, OHIO



INDEX MAP SCALE: 1" = 200'

### PROPERTY OWNERS

- NCJLT COMPANY LLC 5539 COLUMBUS PIKE LEWIS CENTER, OHIO 43035 PN 41833001075000 7.780 AC
- 303 SHANAHAN LLC 303 SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001086000 4.960 AC
- 371 SHANAHAN LLC 371 SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001087000 5.000 AC
- (4) B & N 2005 LLC COLUMBUS PIKE LEWIS CENTER, OHIO 43035 PN 41833001074000 37.662 AC
- TRIANGLE PROPERTIES INC 663 SHANAHAN RD LEWIS CENTER, OHIO 43035 PN 41833001094000 39.298 AC
- LOUISE & ROBERT L JONES 479 SHANAHAN RD LEWIS CENTER, OHIO 43035 PN 41833001090000 3.000 AC

- 7 DAVID & ELIZABETH STEPHENS 421 SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001088000 3.469 AC
- 8 273 SHANAHAN LLC 273 SHANAHAN ROAD LEWS CENTER, OHIO 43035 PN 41833001085000 0.800 AC
- 9 JACQUELINE RICE TRUSTEE 243 SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001084000 1.420 AC
- 10 MICHAEL G GILLIAM SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001083000 4.56 AC
- (11) SUPERAMERICA GROUP INC 5619 COLUMBUS PIKE LEWIS CENTER, OHIO 43035 PN 41833001082000 1.629 AC

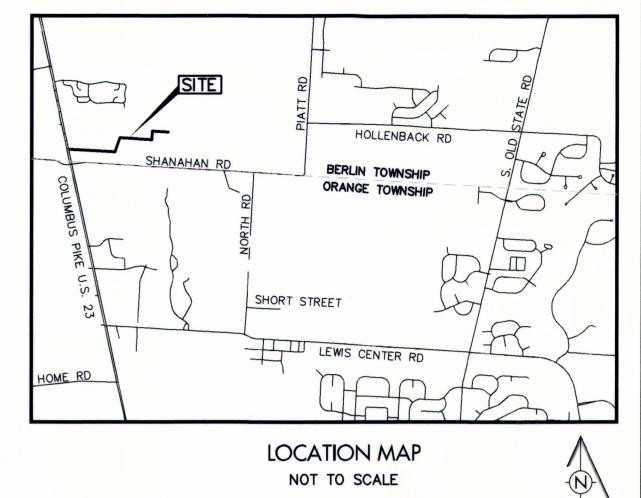
### SHEET INDEX

COVER SHEET GENERAL NOTES AND QUANTITIES GENERAL DETAILS TRIBUTARY MAP SANITARY SEWER PLAN AND PROFILE STORMWATER POLLUTION PREVENTION PLAN - COVER SHEET STORMWATER POLLUTION PREVENTION PLAN - SITE MAP STORMWATER POLLUTION PREVENTION PLAN - NOTES STORMWATER POLLUTION PREVENTION PLAN - DETAILS

### STANDARD DRAWINGS

THE FOLLOWING STANDARD DRAWINGS SHALL BE CONSIDERED A PART OF THIS PLAN:

> DCRSD Sa. S-1 DCRSD Sa. S-2 DCRSD Sa. S-3 DCRSD Sa. S-5 DCRSD Sa. S-7 DCRSD SA. S-8 DCRSD Sa. S-9 DCRSD Sa. S-17 DCRSD Sa. S-18 DCRSD Sa. S-11 DCRSD 5a. S-15



SURVEYOR

ADVANCED CIVIL DESIGN INC. ATTN: ANDY KRANER **422 BEECHER ROAD** GAHANNA, OH 43230 P: 614-944-5091 F: 614-428-7755 AKRANER@ADVANCEDCIVILDESIGN.COM

### PROJECT DEVELOPER AND OWNER:

METRO DEVELOPMENT LLC ATTN: JOE THOMAS 470 OLDE WORTHINGTON ROAD, SUITE 100 WESTERVILLE, OH 43082 P: 614-540-2410 F: 614-540-2406

**DELAWARE COUNTY APPROVAL:** 

THE DELAWARE COUNTY SIGNATURE ON THIS PLAN SIGNIFIES ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND LOCATION OF THE PROPOSED IMPROVEMENTS. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER WHO PREPARED AND CERTIFIED THESE PLANS.

DATE

3-5-2020

DATE

DELAWARE COUNTY COMMISSIONER DATE

DELAWARE COUNTY COMMISSIONER DATE

### **ENGINEER STATEMENT:**

DELAWARE COUNTY COMMISSIONER

THIS IS TO CERTIFY THAT GOOD ENGINEERING PRACTICES HAVE BEEN UTILIZED IN THE DESIGN OF THIS PROJECT AND THAT ALL OF THE MINIMUM STANDARDS FOR DELAWARE COUNTY HAVE BEEN MET, INCLUDING THOSE STANDARDS GREATER THAN MINIMUM WHERE, IN MY OPINION, THEY ARE NEEDED TO PROTECT THE SAFETY OF THE PUBLIC. ANY VARIANCES TO THE ABOVE STANDARDS ARE CONSISTENT WITH SOUND ENGINEERING PRACTICES AND ARE NOT DETRIMENTAL TO THE PUBLIC SAFETY AND CONVENIENCE. THESE VARIANCES HAVE BEEN LISTED HEREIN AND HAVE BEEN APPROVED BY THE DELAWARE COUNTY SANITARY ENGINEER.



EX. C.2 - May 14, 2020 **GRAPHIC SCALE** (IN FEET) 1 inch = 200 ft

RAWING SET STATUS: PRELIMINARY ENGINEERING SET AGENCY REVIEW SET CONSTRUCTION DOCUMENT SET

AS-BUILT DOCUMENT SET DESIGN MJG CMK

MARCH 5, 2020

VERTICAL:

### DCRSD GENERAL NOTES (REV. APRIL 2017)

GENERAL NOTES:

- THE CURRENT COUNTY OF DELAWARE REQUIREMENTS, TOGETHER WITH THE SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING ALL SUPPLEMENTS THERETO, AND THE DCRSD CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) AND STANDARD DRAWINGS SHALL GOVERN ALL MATERIALS. METHODS OF
- CONSTRUCTION AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS THAT ARE A PART OF THIS PLAN.

  2. APPROVAL OF THESE PLANS IS CONTINGENT UPON ALL REQUIRED SANITARY SEWER EASEMENTS BEING APPROVED BY THE DCRSD AND RECORDED WITH THE PROJECT FINAL PLAT OR AS DIRECTED BY THE SANITARY ENGINEER PRIOR TO
- 3. THE CONTRACTOR SHALL NOTIFY THE SANITARY ENGINEER'S OFFICE FORTY-EIGHT (48) HOURS PRIOR TO CONSTRUCTION.
- 4. ANY MODIFICATIONS TO THE WORK AS SHOWN ON THESE DRAWINGS SHALL HAVE PRIOR WRITTEN APPROVAL BY THE SANITARY ENGINEER.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL CALL, TOLL FREE, THE OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) FORTY-EIGHT (48) HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES. THE IDENTITY AND LOCATION OF THE EXISTING UNDERGROUND UTILITY FACILITIES KNOWN TO BE LOCATED IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE PLANS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UNDERGROUND UTILITY. THE COUNTY OF DELAWARE AND THE SANITARY ENGINEER ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THE UNDERGROUND FACILITIES SHOWN ON THE PLANS.
- 6. THE FOLLOWING UTILITIES AND/OR OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND DO NOT SUBSCRIBE TO A REGISTERED UNDERGROUND UTILITY PROTECTION SERVICE. (UTILITY OWNER-PROVIDE NAMES AND PHONE NUMBERS: TELEPHONE, WATER, STORM SEWERS, SANITARY SEWERS, ETC.).
- 7. THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROJECT SITE UNDER DEVELOPMENT, EXISTING RIGHTS-OF-WAY, CONSTRUCTION EASEMENTS AND PERMANENT EASEMENTS, AND SHALL NOT TRESPASS UPON OTHER PRIVATE PROPERTY WITHOUT THE WRITTEN CONSENT OF THE PROPERTY OWNER.
- 8. COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED, AND APPLICABLE OSHA REGULATIONS IS REQUIRED OF ALL CONTRACTORS ON THE PROJECT. EACH CONTRACTOR AND SUBCONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING, MAINTAINING, AND SUPERVISING ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.
- 9. THE TRACKING OF MUD, DIRT, AND DEBRIS UPON ANY PUBLIC ROADWAY IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM CONSTRUCTION OPERATIONS AND RESTORE ALL SURFACES, STRUCTURES, DITCHES, AND PROPERTY TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE SANITARY ENGINEER.
- 10. ANY TREES OR LANDSCAPING IN EXISTING EASEMENTS OR PUBLIC RIGHT-OF-WAY SHALL BE PROTECTED AND NOT IMPACTED BY CONSTRUCTION ACTIVITIES UNLESS PRIOR APPROVAL IS OBTAINED BY THE SANITARY ENGINEER. ANY TREES OR LANDSCAPING THAT ARE APPROVED TO BE REMOVED ARE REQUIRED TO BE REPLACED TO THE SATISFACTION OF THE SANITARY ENGINEER.
- 11. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS AND REQUIREMENTS.
- 12. WHERE IT IS ANTICIPATED THAT THE UTILITY WORK WILL CLOSE A STREET, THE CONTRACTOR SHALL INFORM RESIDENTS TO BE AFFECTED, THE COUNTY SHERIFF'S OFFICE OR LOCAL POLICE DEPARTMENT, THE FIRE DEPARTMENT, THE SANITARY ENGINEER, THE COUNTY ENGINEER, THE APPLICABLE SCHOOL DISTRICT, AND OTHER APPLICABLE ENTITIES AS TO THE EXTENT, NATURE, AND TIME OF THE ANTICIPATED WORK.
- 13. PROHIBITED CONSTRUCTION ACTIVITIES: THE FOLLOWING CONSTRUCTION ACTIVITIES ARE PROHIBITED ON THE PROJECT:
- USING ANY SUBSTANCE OTHER THAN WATER TO CONTROL DUST.
- TRACKING OF MUD, DIRT AND DEBRIS ONTO ANY PUBLIC ROADWAY.
- OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE PERMIT OR DISPOSING OF TREES AND STUMPS.
- PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS.
- DISCHARGING POLLUTANTS, SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE, AND OTHER HARMFUL WASTE INTO OR ALONGSIDE RIVERS, STREAMS, IMPOUNDMENTS, OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
- STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED FOR SAID PURPOSES.
   DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOODPLAINS, EVEN WITH THE
- PERMISSION OF THE PROPERTY OWNER.

   INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, WETLANDS,
- SURFACE WATERS, OR OUTSIDE THE EASEMENT AREA.
- PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF A STREAM.

  PENDOVAL OF TREES AND SUBJECT OR DAMAGING ASSETATION OUTSIDE THE LINE
- REMOVAL OF TREES AND SHRUBS, OR DAMAGING VEGETATION OUTSIDE THE LIMITS OF THE CONSTRUCTION AREA.
   DISPOSAL OF TREES, BRUSH AND OTHER DEBRIS IN STREAM CORRIDORS, WETLANDS, SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS.
- 14. SEDIMENT AND EROSION CONTROL. THE CONTRACTOR SHALL SUBMIT A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) TO THE SANITARY ENGINEER THAT HAS BEEN APPROVED BY THE GOVERNING STORM WATER AUTHORITY (I.E., DELAWARE COUNTY ENGINEER'S OFFICE, CITY OF POWELL, VILLAGE OF SUNBURY, ETC.) PRIOR TO THE PRE—CONSTRUCTION MEETING FOR THE SANITARY SEWER. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED AT THE DISCRETION OF THE SANITARY ENGINEER BEFORE AND/OR DURING CONSTRUCTION ACTIVITIES.

  SANITARY SEWER NOTES:
- 1. ALL SANITARY SEWERS SHALL BE SEPARATED A MINIMUM OF 10 FEET HORIZONTALLY AND 1.5 FEET VERTICALLY FROM ALL WATER MAINS.
- 2. WHEREVER A SANITARY SEWER MUST CROSS AN EXISTING WATER MAIN, THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 1.5 FEET MINIMUM, MEASURED BETWEEN THE OUTSIDE PIPE WALLS, BELOW THE BOTTOM OF THE WATER MAIN.
- 3. ALL GRAVITY SANITARY MAINS (8 INCHES THROUGH 15 INCHES) AND SERVICES (6 INCH) SHALL BE PVC PIPE MEETING THE REQUIREMENTS OF ASTM D-3034, SDR 35, CELL CLASS 12454, UNLESS OTHERWISE NOTED. PVC SEWER JOINTS SHALL MEET ASTM 3212 SPECIFICATIONS. FOR PIPE SIZES 18 INCHES AND LARGER, PVC PIPE SHALL CONFORM TO ASTM F 679, WITH A CELL CLASSIFICATION OF 12454. PIPE AND FITTINGS SHALL BE SDR 26 OR PS 115 FOR DEPTHS GREATER THAN 20 FEET. FOR PIPES WITH DEPTHS GREATER THAN 28 FEET, PLEASE SEE THE DISTRICT CMS.
- 4. THERE SHALL BE NO STORM OR CLEAN WATER CONNECTIONS TO THE SANITARY SEWER (ROOF DRAINS, FOOTER DRAINS, FITC.)
- 5. ALL SANITARY SEWER WYE FITTINGS SHALL HAVE A 10-FOOT MINIMUM SERVICE EXTENSION INSTALLED PRIOR TO THE SERVICE BEING CAPPED AND BACKFILL BEING PLACED OVER THE MAINLINE AND LATERAL SEWER.
- 6. TRENCH DAMS ARE REQUIRED FOR ALL SANITARY SERVICES AND SHALL BE CONSTRUCTED OF NATIVE CLAY OR IMPERVIOUS SOIL ACROSS AND ALONG THE TRENCH UPSTREAM OF THE MAIN LINE SEWER TO RETARD AND RESIST THE MOVEMENT OF GROUNDWATER THROUGH THE TRENCH BEDDING OR BACKFILL MATERIAL. COMPACT THE TRENCH DAMS TO 6 FEET IN LENGTH, AS MEASURED ALONG THE SERVICE CENTERLINE TO A LIMIT OF 36 INCHES ABOVE THE TOP OF
- 7. SEWER TRENCHES SHALL BE DE-WATERED TO 2 INCHES BELOW THE BELL OF PIPE PRIOR TO INSTALLATION OF PIPE.
- 8. THE CONTRACTOR SHALL PROVIDE AND INSTALL WYE POLES AT ALL WYE LOCATIONS AS CONSTRUCTED. WYE POLES SHALL EXTEND ABOVE THE EXISTING OR PROPOSED GRADE, WHICHEVER IS HIGHER, A MINIMUM OF 2 FEET.
- 9. ANY FIELD TILE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED AS DIRECTED BY THE SANITARY ENGINEER WITH PVC PIPE SPANNING THE TRENCH. THE TRENCH SHALL BE FILLED WITH COMPACTED GRANULAR BACKFILL.10. FINISH GRADE AT ALL SANITARY MANHOLES SHALL BE AT LEAST 6 INCHES BELOW TOP OF CASTING TO AVOID
- 11. ALL SANITARY SERVICES SHALL BE INSTALLED WITH A MINIMUM 2.08% SLOPE UNLESS OTHERWISE NOTED ON PLANS.
- 12. BACKFILL SHALL BE INSTALLED PER TYPICAL TRENCH DETAIL SA.S—2.

  13. SERVICE RISERS SHALL BE INSTALLED WHERE DEPTHS FROM THE WYE TO THE EXISTING OR PROPOSED ELEVATION EXCEEDS 12 FEET. THE TOPS OF RISERS SHALL BE NO MORE THAN 10 FEET BELOW EXISTING OR PROPOSED SURFACE
- 14. CONTRACTOR SHALL INSTALL PLUGS IN THE UPSTREAM AND DOWNSTREAM INVERTS OF THE CONNECTION MANHOLE. THE PLUGS SHALL BE INSPECTED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER RAINFALL EVENTS.
- 15. SANITARY SEWERS SHALL BE TESTED BY AIR TESTING METHOD. AIR TESTING SHALL BE MADE IN ACCORDANCE WITH ASTM F1417—92. ALLOWABLE LEAKAGE SHALL NOT EXCEED THE LIMITS AS SHOWN IN CMS ITEM 409.01. CONTRACTOR SHALL COOPERATE WITH THE SANITARY ENGINEER AND PROVIDE ALL NECESSARY EQUIPMENT TO PERFORM THE TESTING.
- 16. SANITARY MANHOLES SHALL BE TESTED USING VACUUM TEST METHODS PER CMS ITEM 409.02.

UNNECESSARY INFILTRATION INTO THE SANITARY SEWER SYSTEM.

ELEVATION, WHICHEVER IS HIGHER, UNLESS OTHERWISE NOTED.

- 17. WHEN PVC PIPE IS USED A DEFLECTION TEST SHALL BE PERFORMED. PIPE DEFLECTION SHALL NOT EXCEED 5 PERCENT IF TESTED AFTER 30 DAYS, OR 7.5 PERCENT IF TESTED AFTER 90 DAYS FROM THE TRENCH BEING BACKFILLED TO FINISH GRADE. THE METHOD OF TESTING SHALL BE SUBJECT TO THE APPROVAL OF THE SANITARY ENGINEER. IF RIGID BALLS OR MANDRELS ARE USED TO TEST THE PIPE DEFLECTION, NO MECHANICAL PULLING DEVICES SHALL BE USED. ANY LINES WHICH FAIL THE TEST MUST BE REPAIRED AND RETESTED BY THE CONTRACTOR AT NO COST TO THE DORSD.
- 18. ALL SANITARY MANHOLES SHALL BE STAMPED 'DELAWARE COUNTY REGIONAL SEWER DISTRICT'. ALL WATERTIGHT MANHOLES SHALL HAVE A T-GASKET AND CONCEALED PICK HOLES. ALL SANITARY MANHOLES SHALL BE NEENAH R-1760A WITH 'DELAWARE COUNTY REGIONAL SEWER DISTRICT" CAST IN THE MANHOLE.
- 19. THE FOLLOWING SET OF TOOLS AND SPARE PARTS SHALL BE DELIVERED TO THE SANITARY ENGINEER'S OFFICE PRIOR TO FINAL ACCEPTANCE OF THE PROJECT: FIVE (5) CONCRETE GRADE RINGS; ONE (1) MANHOLE LIFTING HOOK; AND ONE (1) COMPLETE MANHOLE CASTING (FRAME AND LID). AN ADDITIONAL SET OF SPARE PARTS SHALL BE PROVIDED FOR EVERY TEN (10) MANHOLES.

ESTIMATE OF QUANTITIES					
ITEM	UNIT	QUANTITY	DESCRIPTION		
201	AC	3.19	CLEARING & GRUBBING		
207	LF	2,062	PERIMETER FILTER FABRIC FENCE		
207	LF	1	CONSTRUCTION ENTRANCE		
207	LF	1	CONCRETE WASHOUT AREA		
207	LF	1	VEHICLE FUEL AREA		
659	SY	1,356	PERMANENT SEEDING AND MULCHING (RIPARIAN MIX)		
659	SY	15,474	PERMANENT SEEDING AND MULCHING		
659	SY	1,683	REPAIR PERMANENT SEEDING AND MULCHING (10%)		
SPEC	EA	1	SWPPP MAILBOX (NEAR JOB TRAILER IF POSSIBLE)		
604	EA	6	MANHOLE, TYPE "A"		
604	EA	1	MANHOLE, TYPE "A" W/OUTSIDE DROP		
604	EA	1	CONNECT TO EXISTING MANHOLE		
603	LF	105	15" SANITARY SEWER SDR-26 PVC (0'-12' DEEP)		
603	LF	47	15" SANITARY SEWER SDR-26 PVC (12'-16' DEEP)		
603	LF	213	15" SANITARY SEWER SDR-26 PVC (16'-20' DEEP)		
603	LF	182	15" SANITARY SEWER SDR-26 PVC (20'-24' DEEP)		
603	LF	95	15" SANITARY SEWER SDR-26 PVC (24'-28' DEEP)		
603	LF	90	15" SANITARY SEWER C-900 PVC (12'-16' DEEP)		
603	LF	46	15" SANITARY SEWER C-900 PVC (16'-20' DEEP)		
603	LF	423	15" SANITARY SEWER C-900 PVC (20'-24' DEEP)		
603	LF	267	15" SANITARY SEWER C-900 PVC (24-28' DEEP)		
603	LF	164	15" SANITARY SEWER C-900 PVC (28'-32' DEEP)		
603	LF	308	15" SANITARY SEWER C-900 PVC (32'-36' DEEP)		
603	EA	1	15"x6" WYE		
603	LF	17	6" HOUSE CONNECTION SERVICE		

\* QUANTITY LISTED REPRESENTS LENGTH OF PIPE NOT LENGTH OF TRENCH.

NOTES:
QUANTITIES LISTED ABOVE ARE ESTIMATES AND SUBJECT TO REVISION DURING CONSTRUCTION. THE CONTRACTOR IS DIRECTED TO VERIFY ALL QUANTITIES PRIOR TO PREPARING AND SUBMITTING HIS

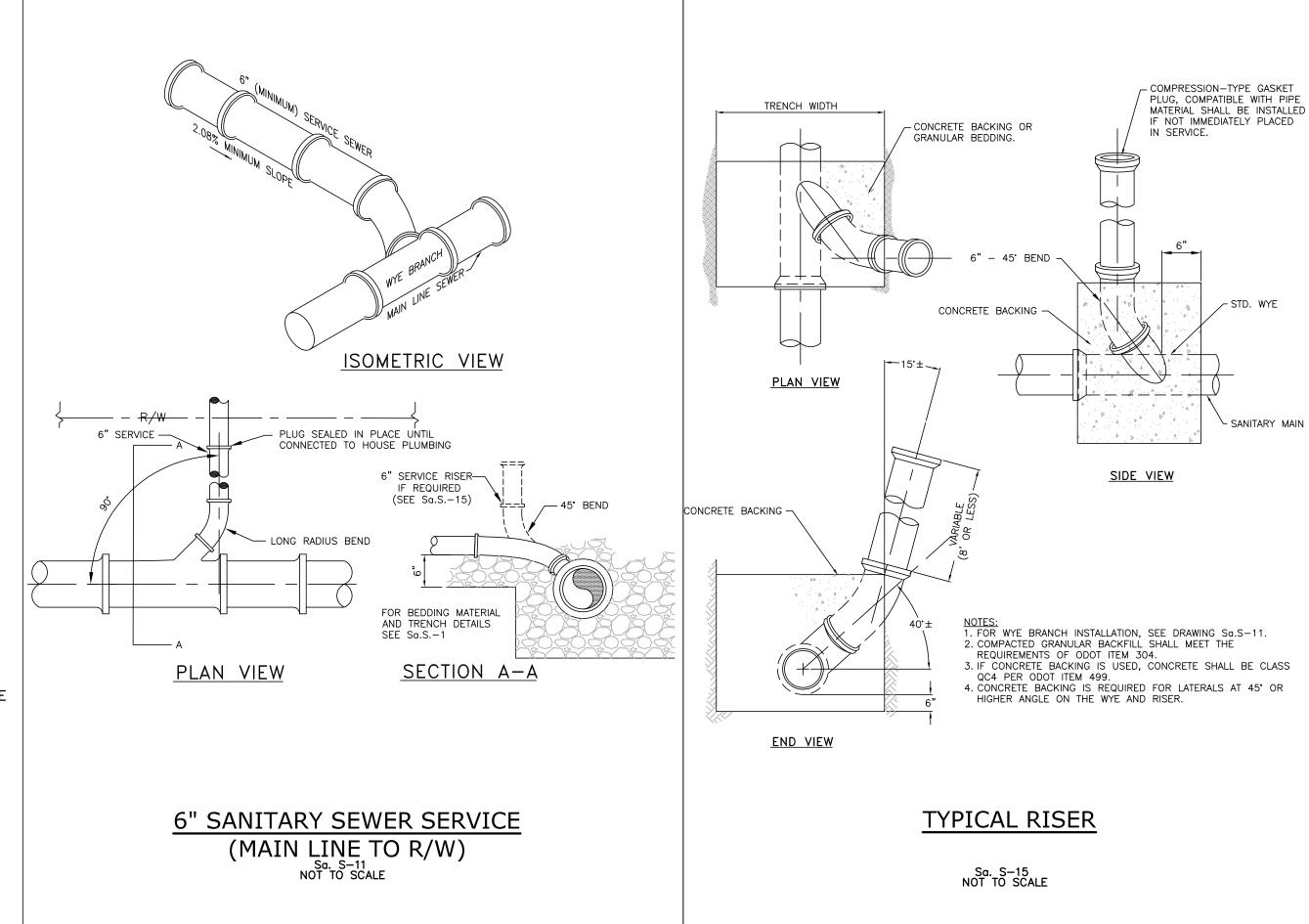
ALL ITEMS OF WORK CALLED FOR ON THIS PLAN FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS INDICATED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF SUCH WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS.

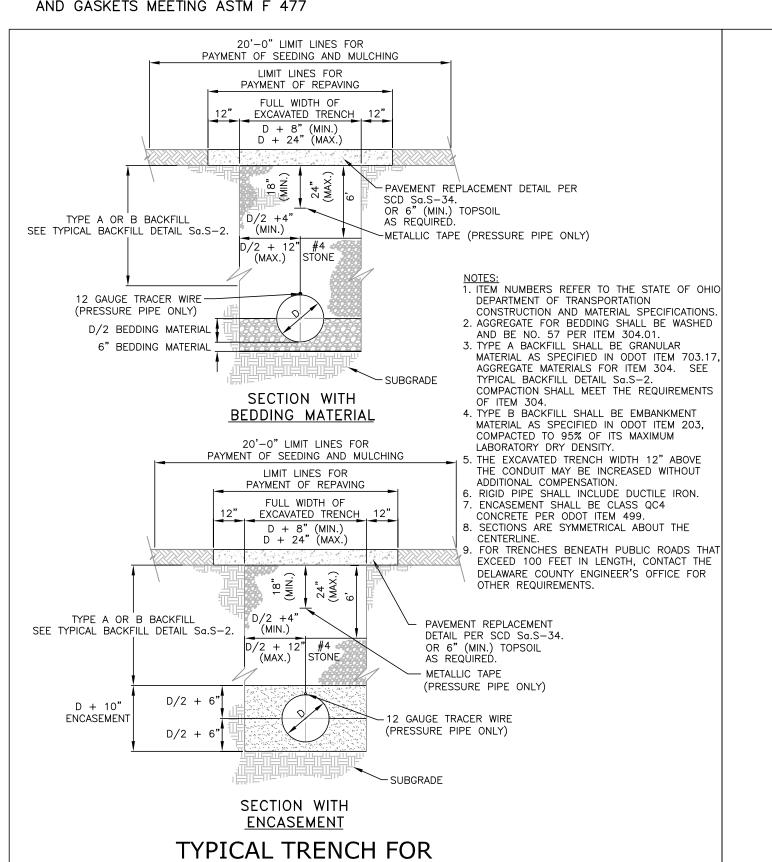
THE CONTRACTOR SHALL INCLUDE IN HIS BID THE ADJUSTMENT OF PROPOSED MANHOLE CASTINGS 3" TO 6" AS NECESSARY, BASED ON WALK-THROUGH COMMENTS.

ALTERNATE JACK AND BORE INSTALLATION REQUIRED FOR NORTH ROAD CROSSING IF SANITARY SEWER CONSTRUCTION IS NOT COMPLETED PRIOR TO PLACEMENT OF NORTH ROAD SURFACE COURSE, ODOT ITEM 448.

(1) 15 INCH GRAVITY SANITARY MAIN SHALL BE PVC PIPE MEETING THE REQUIREMENTS OF ASTM D2241, CLASS 160 SDR 26, CELL CLASS 12454 WITH JOINTS CONFORMING TO ASTM D3139.

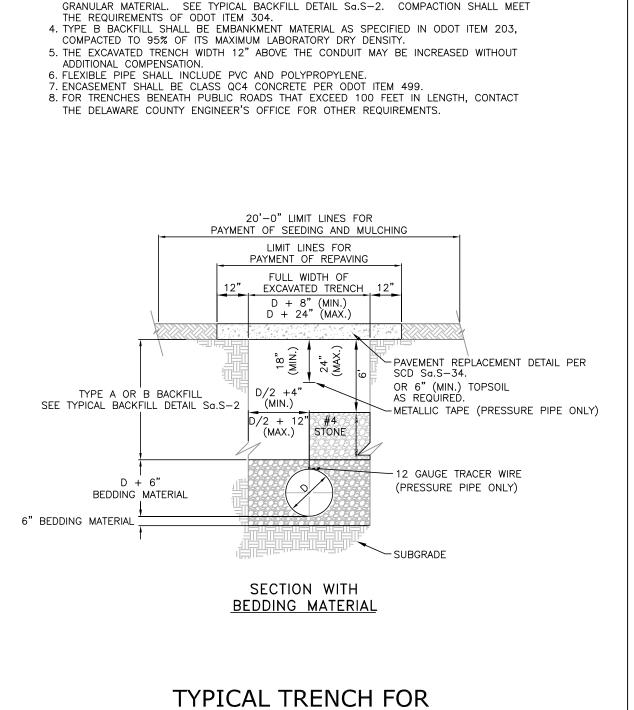
(2) FOR DEPTHS GREATER THAN 28 FEET, AWWA C-900 OR AWWA C-905 PIPE WITH A CELL CLASSIFICATION OF 12454, AS DEFINED BY ASTM D 1784, AND JOINTS MEETING ASTM D-3139 AND GASKETS MEETING ASTM F 477





RIGID PIPE

Sa. S-1 NOT TO SCALE



FLEXIBLE PIPE

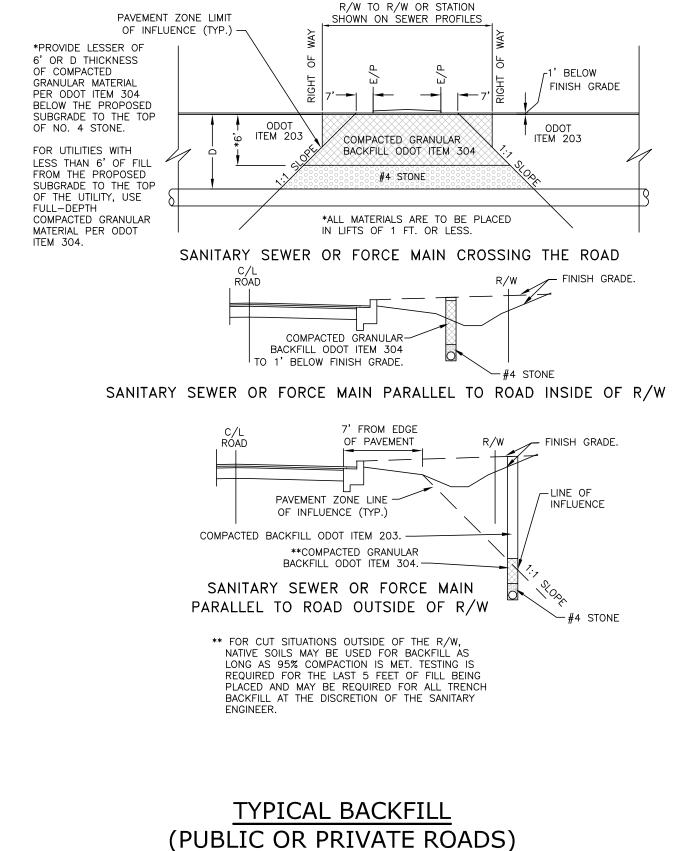
Sa. S-1 NOT TO SCALE

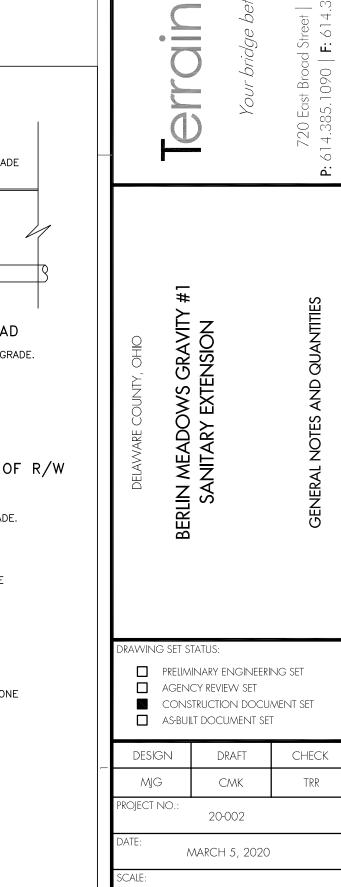
I. ITEM NUMBERS REFER TO THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION

AGGREGATE FOR BEDDING SHALL BE WASHED AND BE NO. 57 PER ITEM 304.01.

TYPE A BACKFILL SHALL BE GRANULAR MATERIAL AS SPECIFIED IN ODOT ITEM 703.17

CONSTRUCTION AND MATERIAL SPECIFICATIONS.





HORIZONTAL:

VERTICAL:

SHEET NO.:

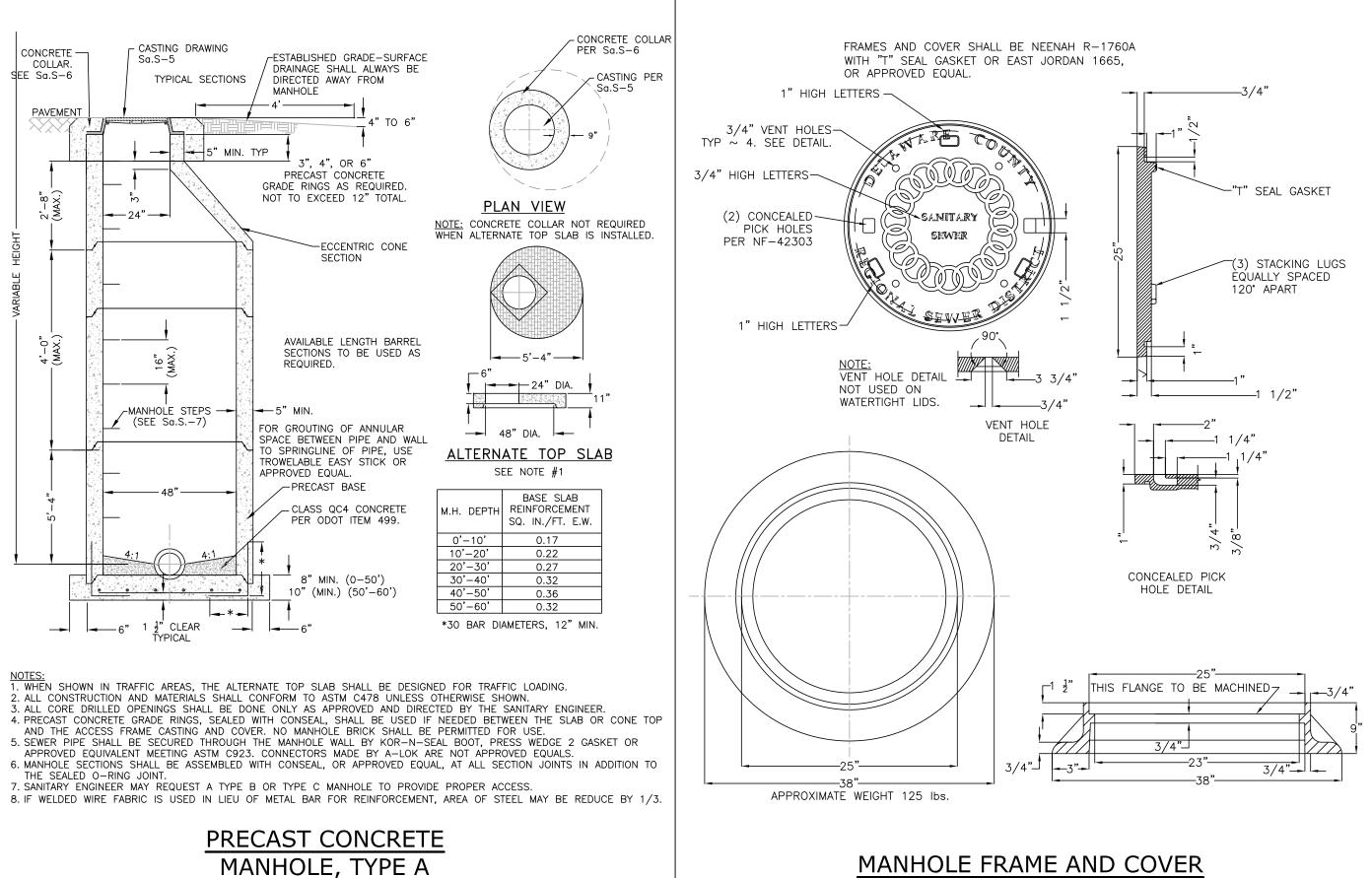
N/A

N/A

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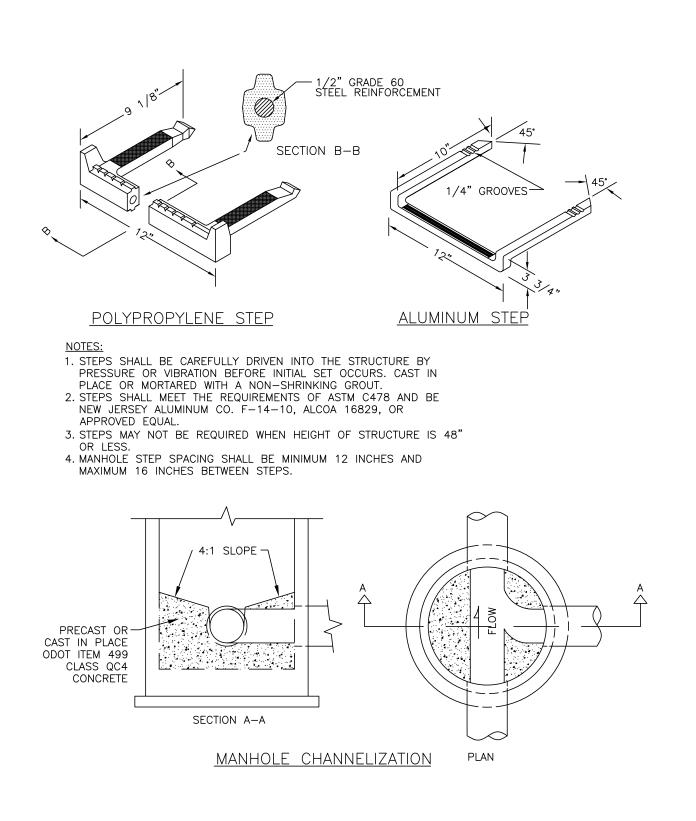
3/13

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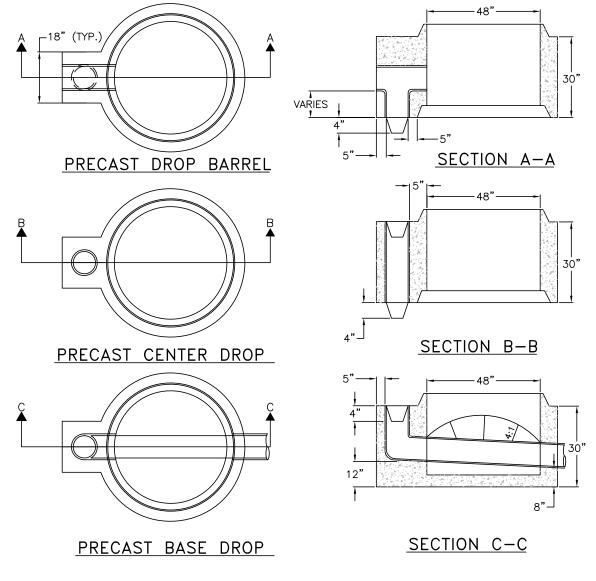


## CASTING

Sa. S-5 NOT TO SCALE



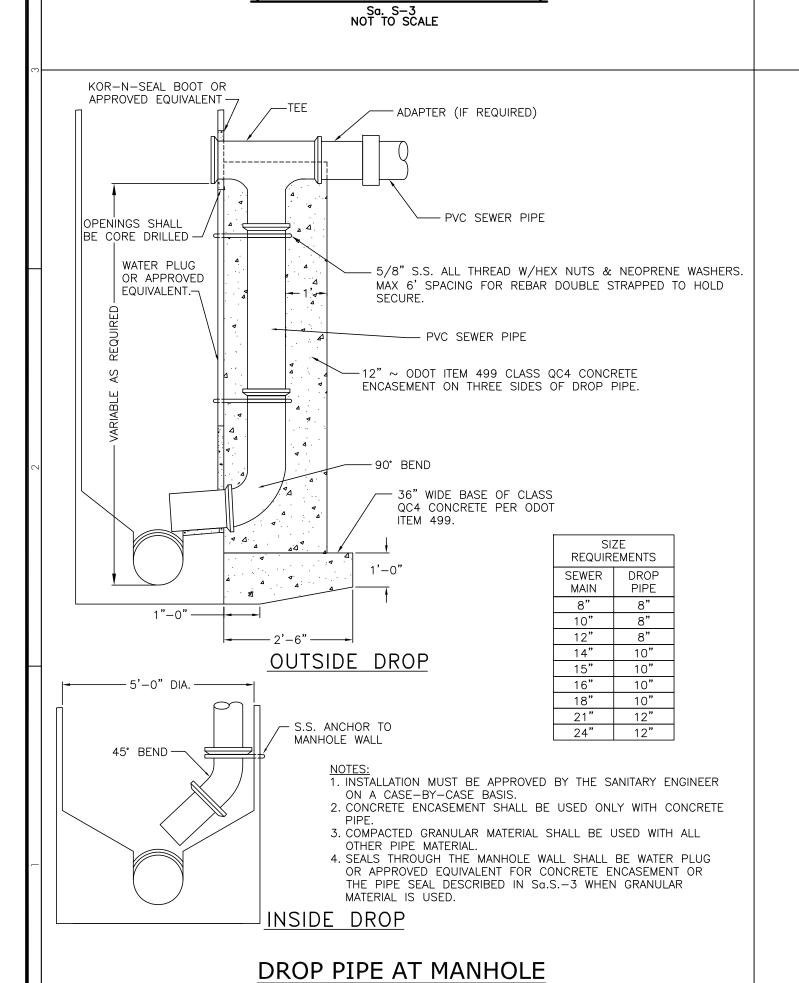
MANHOLE STEPS AND CHANNEL Sa. S-7 NOT TO SCALE



NEW DROP MANHOLE

1. FOR SECTIONS ABOVE THE DROP BARREL SECTION, SEE Sa.S.—3.
2. SEWER PIPE SHALL BE SECURED THROUGH THE MANHOLE WALL BY KOR-N-SEAL BOOT OR APPROVED EQUIVALENT MEETING ASTM C 923. 3. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO ASTM C 478-70 4. FOR MANHOLE STEP SPACING AND DETAILS, SEE Sa.S.-3 AND Sa.S.-7.

> DROP PIPE AT MANHOLE Sa. S-8 NOT TO SCALE



CASTING DRAWING

-MANHOLE STEPS -

1" CLEAR TYPICAL

(SEE Sa.S.-7)

TYPICAL SECTIONS

-ESTABLISHED GRADE-SURFACE

DIRECTED AWAY FROM

PRECAST CONCRETE GRADE RINGS AS REQUIRED.

NOT TO EXCEED 12" TOTAL.

-ECCENTRIC CONE SECTION

AVAILABLE LENGTH BARREL

SECTIONS TO BE USED AS

FOR GROUTING OF ANNULAR

SPACE BETWEEN PIPE AND WALL

- CLASS QC4 CONCRETE

PER ODOT ITEM 499.

8" MIN. (0-50')

10" (MIN.) (50'-60')

TO SPRINGLINE OF PIPE, USE

TROWELABLE EASY STICK OR

-PRECAST BASE

APPROVED EQUAL

NOTES:

1. WHEN SHOWN IN TRAFFIC AREAS, THE ALTERNATE TOP SLAB SHALL BE DESIGNED FOR TRAFFIC LOADING.

AND THE ACCESS FRAME CASTING AND COVER. NO MANHOLE BRICK SHALL BE PERMITTED FOR USE

3. ALL CORE DRILLED OPENINGS SHALL BE DONE ONLY AS APPROVED AND DIRECTED BY THE SANITARY ENGINEER.

5. SEWER PIPE SHALL BE SECURED THROUGH THE MANHOLE WALL BY KOR-N-SEAL BOOT, PRESS WEDGE 2 GASKET OR

PRECAST CONCRETE

MANHOLE, TYPE A

(24" PIPE AND SMALLER)

2. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO ASTM C478 UNLESS OTHERWISE SHOWN.

7. SANITARY ENGINEER MAY REQUEST A TYPE B OR TYPE C MANHOLE TO PROVIDE PROPER ACCESS.

PLAN VIEW

NOTE: CONCRETE COLLAR NOT REQUIRED WHEN ALTERNATE TOP SLAB IS INSTALLED.

ALTERNATE TOP SLAB

SEE NOTE #1

SQ. IN./FT. E.W.

M.H. DEPTH REINFORCEMENT

\*30 BAR DIAMETERS, 12" MIN.

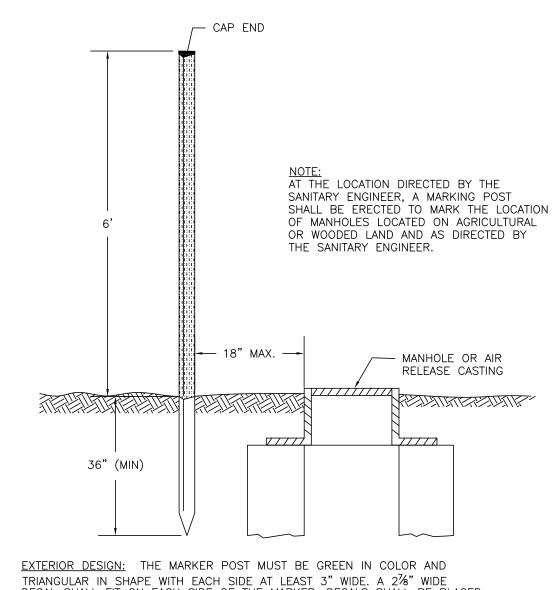
MANHOLE

CONCRETE -

COLLAR.

**PAVEMENT** 

EE Sa.S-6



TRIANGULAR IN SHAPE WITH EACH SIDE AT LEAST 3" WIDE. A 2%" WIDE DECAL SHALL FIT ON EACH SIDE OF THE MARKER. DECALS SHALL BE PLACED ON ALL THREE FLAT SIDES TO ENSURE THAT A WARNING MESSAGE CAN BE SEEN FROM ANY DIRECTION THE MARKER SHALL BE FLEXIBLE AND REBOUND IF HIT BY AN AUTOMOBILE. THE MARKER SHALL WITHSTAND A MINIMUM OF FIVE VEHICLE IMPACTS AT 45MPH. WEATHERING STABILITY: THE MARKING POST SHALL NOT SIGNIFICANTLY FADE OR BECOME BRITTLE WHEN EXPOSED TO ULTRAVIOLET LIGHT FOR A MINIMUM OF TEN YEARS. THE MARKING POST SHALL BE TEMPERATURE STABLE FROM  $-40^{\circ}$  TO  $+150^{\circ}$ . SOIL ANCHOR: SOIL ANCHORS SHALL BE GALVANIZED STEEL, 13" LONG (MIN.) AND HAVE PUNCH TABS WHICH LOCK INTO THE TRIANGULAR POST WHEN INSERTED IN THE ANCHOR. ANCHORS ARE TO BE INSTALLED FLUSH

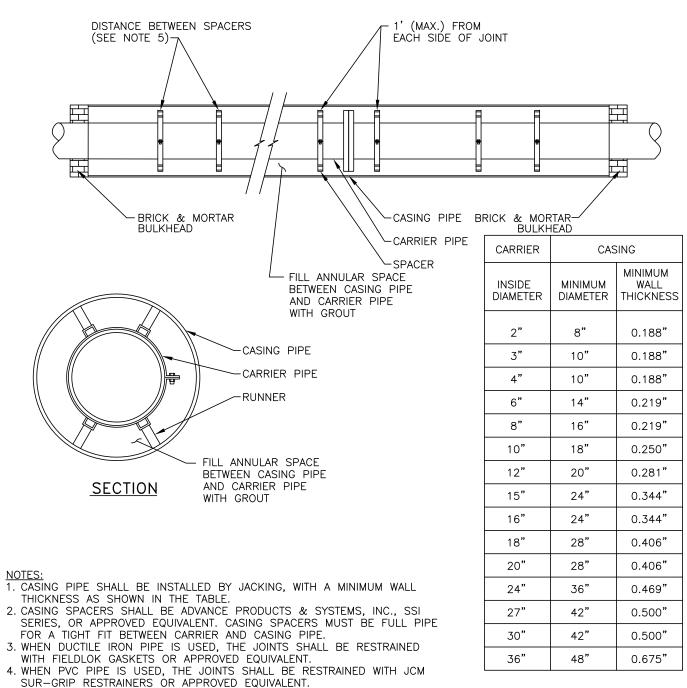
ACCEPTABLE MANUFACTURERS: RHINO TRIVIEW™ WITH SOIL ANCHOR OR

DECAL: DETAILS SHALL BE APPROVED BY THE SANITARY ENGINEER PRIOR TO

TYPICAL MANHOLE/AIR RELEASE LINE Sa. S-9 NOT TO SCALE

WITH THE GROUND SURFACE.

INSTALLATION.



I. CASING PIPE SHALL BE INSTALLED BY JACKING, WITH A MINIMUM WALL THICKNESS AS SHOWN IN THE TABLE. 2. CASING SPACERS SHALL BE ADVANCE PRODUCTS & SYSTEMS, INC., SSI SERIES, OR APPROVED EQUIVALENT. CASING SPACERS MUST BE FULL PIPE FOR A TIGHT FIT BETWEEN CARRIER AND CASING PIPE. 3. WHEN DUCTILE IRON PIPE IS USED, THE JOINTS SHALL BE RESTRAINED WITH FIELDLOK GASKETS OR APPROVED EQUIVALENT.

5. DIMENSIONS BETWEEN SPACERS FOR PVC PIPE SHALL BE 6 FEET MAXIMUM. DIMENSIONS BETWEEN SPACERS FOR DUCTILE IRON PIPE SHALL BE 8 FEET MAXIMUM. 6. FILL ANNULAR SPACE WITH GROUT MEETING THE REQUIREMENTS OF ODOT 7. THE QUANTITY OF RUNNERS IS IN ACCORDANCE WITH THE SIZE OF THE

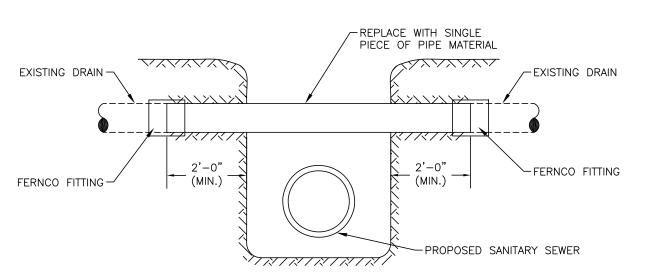
CARRIER PIPE AS FOLLOWS: TO 14" DIA. - 4 RUNNERS 16" TO 36" DIA. - 6 RUNNERS

38" TO 48" DIA. - 8 RUNNERS

CASING PIPE

MINIMUM ROAD AND CURB UNDERDRAIN REPLACEMENT MATERIAL SHALL BE: PERFORATED CONCRETE: ODOT ITEM 706.06 CONCRETE DRAIN TILE: ODOT ITEM 706.07 VITRIFIED CLAY: ODOT ITEM 706.08 PERFORATED PVC: ODOT ITEM 707.41 HEAVY DUTY CORRUGATED POLYETHYLENE SLOTTED DRAIN: ODOT ITEM 707.33

MINIMUM DRAIN TILE REPLACEMENT MATERIAL SHALL PVC: ASTM 2241, SDR 21 OR SDR 35 D3034. POLYETHYLENE: ODOT ITEM 707.33



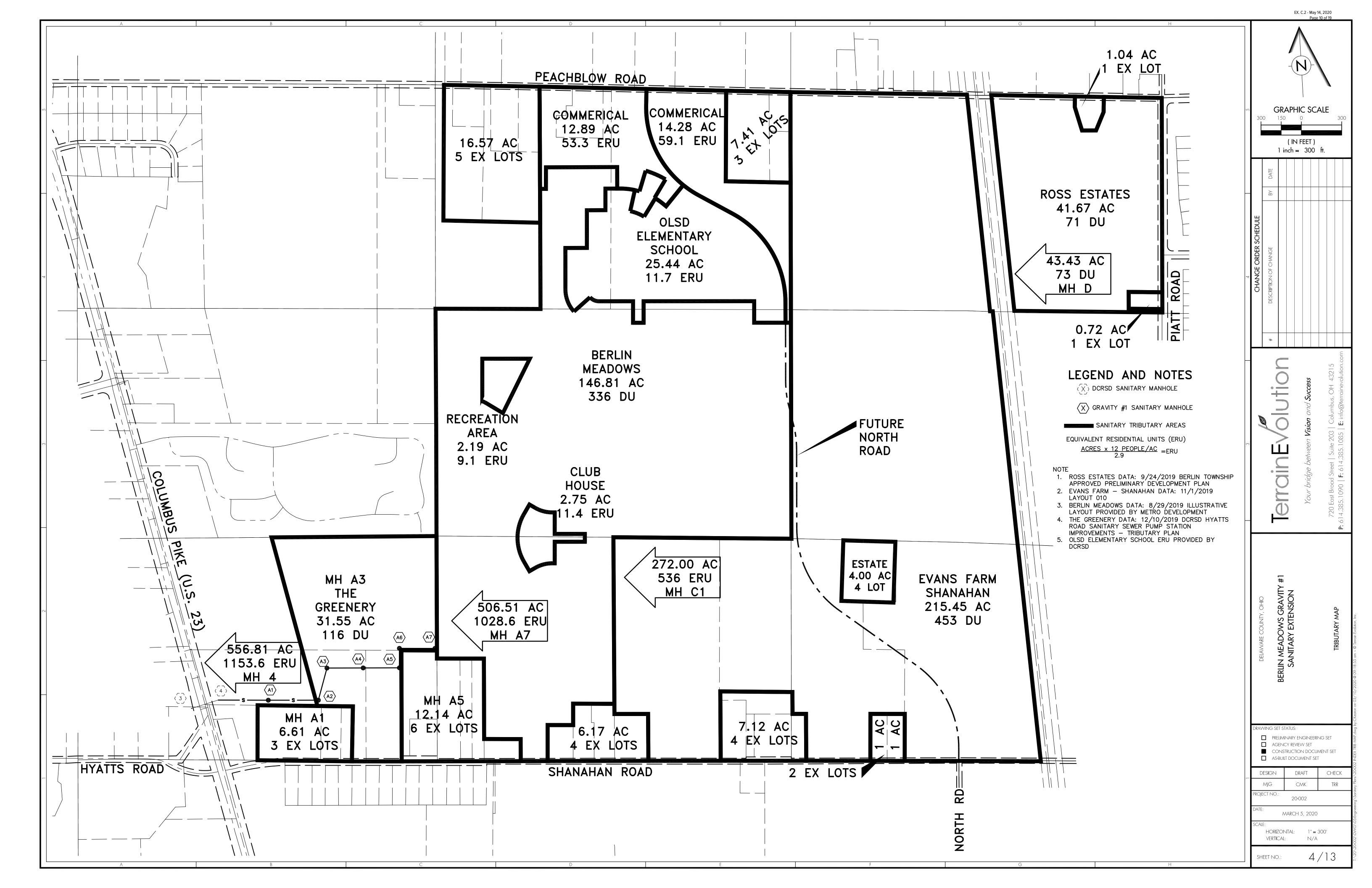
1. INSIDE DIAMETER OF REPLACEMENT PIPE SHALL BE EQUAL TO OR GREATER THAN INSIDE DIAMETER OF EXISTING TILE OR UNDERDRAIN.

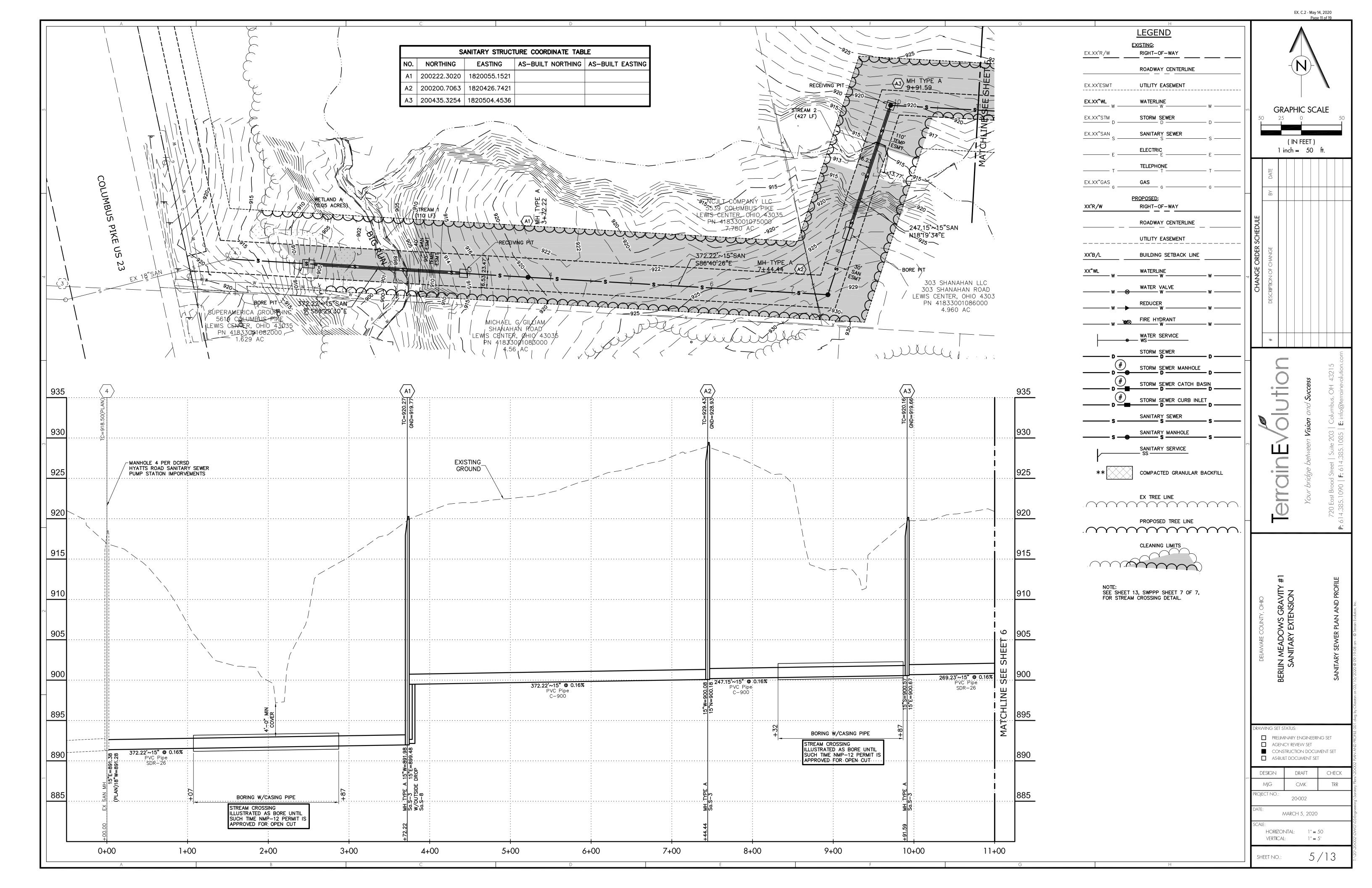
2. REPLACEMENT MATERIAL USED SHALL BE EQUAL TO OR BETTER THAN THE EXISTING TILE OR UNDERDRAIN AS DIRECTED BY THE SANITARY ENGINEER. 3. PROVIDE FERNCO FITTING OR APPROVED EQUIVALENT WHERE EXISTING TILE OR UNDERDRAIN HAS WATERTIGHT JOINTS. PROVIDE 30# FELT OR CONCRETE MORTAR OVER

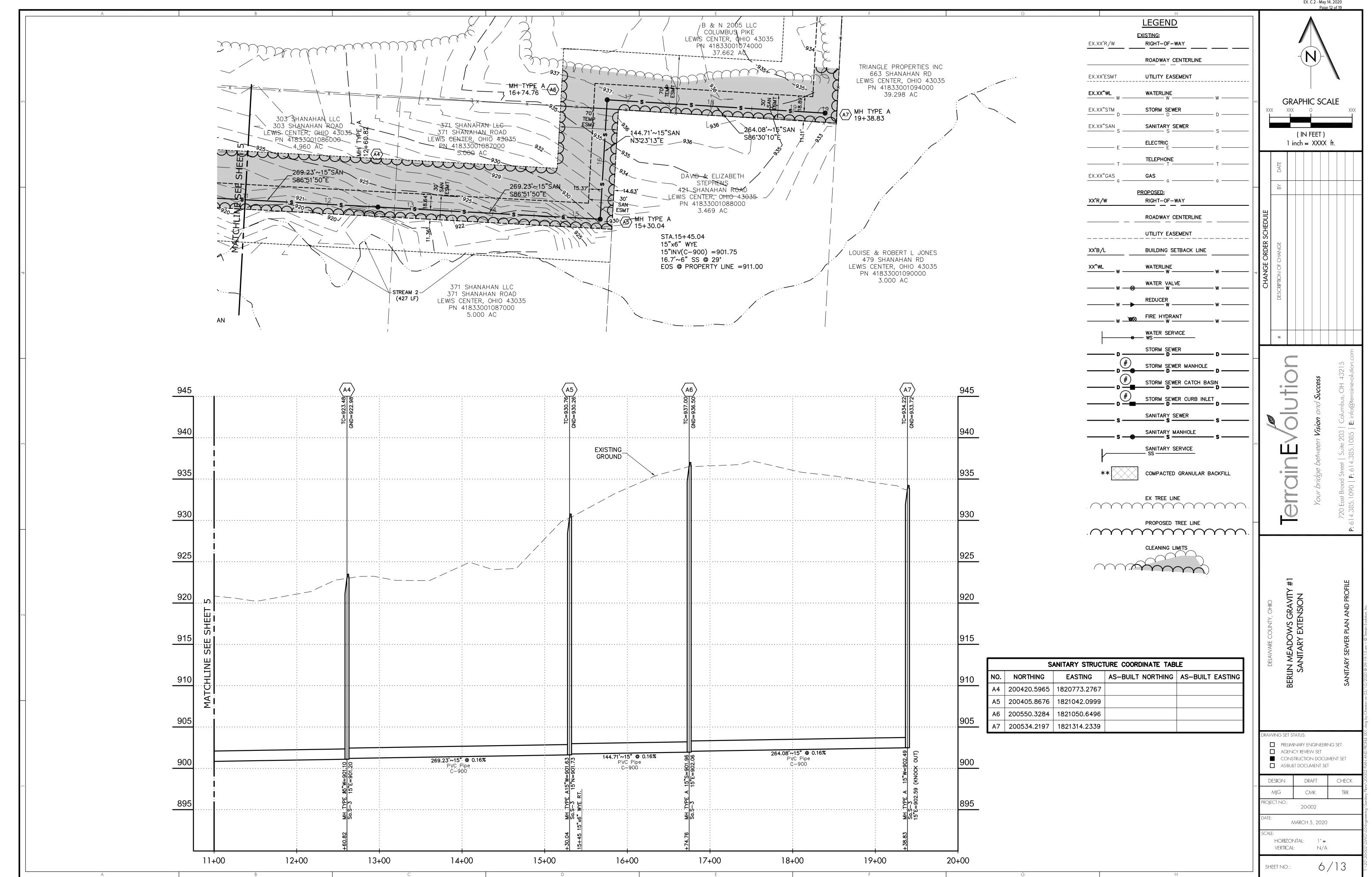
THE UPPER HALF OF THE JOINT WHERE OPEN JOINTS ARE ENCOUNTERED. 4. BACKFILL BETWEEN SANITARY SEWER PIPE AND REPLACEMENT TILE OR UNDERDRAIN SHALL BE GRANULAR BACKFILL.

5. SANITARY SEWER SHALL BE INSTALLED IN ACCORDANCE WITH DRAWINGS Sa.S-1 AND

DRAIN TILE AND UNDERDRAIN REPLACEMENT Sa. S-18 NOT TO SCALE







EX. C.2 - May 14, 2020

# BERLIN MEADOWS GRAVITY #1 SANITARY EXTENSION

LOCATED IN BERLIN TOWNSHIP DELAWARE COUNTY, OHIO

### **EXISTING UTILITY NOTES**

THE IDENTITY AND LOCATION OF THE EXISTING UNDERGROUND UTILITY FACILITIES KNOWN TO BE LOCATED IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE PLANS BASED ON FIELD OBSERVATIONS, AS WELL AS AS—BUILT DRAWINGS PROVIDED BY DEL—CO AND DELAWARE COUNTY. DELAWARE COUNTY AND/OR PRIVATE UTILITIES. THE DESIGN ENGINEER ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OF THE UNDERGROUND FACILITIES SHOWN ON THE PLANS. SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

THE CONTRACTOR SHALL CAUSE NOTICE TO BE GIVEN TO THE REGISTERED UNDERGROUND UTILITY PROTECTION SERVICES (TELEPHONE 800–362–2764 – TOLL FREE) AND THE OWNER'S OF UNDERGROUND UTILITY FACILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE REVISED CODE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

THE FOLLOWING UTILITY COMPANIES MAY HAVE FACILITIES LOCATED WITHIN THE PROJECT LIMITS:

WATER
DEL-CO WATER COMPANY, INC.
6658 OLENTANGY RIVER ROAD
DELAWARE, OH 43015
P: 740.548.7746
F: 740.548.6203

STORM SEWER
DELAWARE COUNTY ENGINEER
50 CHANNING STREET
DELAWARE, OH 43015

P: 740.833.2400 F: 740.833.2399

SANITARY
DELAWARE COUNTY
REGIONAL SEWER DISTRICT
50 CHANNING STREET
DELAWARE, OH 43015
P: 740.833.2240

ELECTRIC
AMERICAN ELECTRIC POWER
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230

TELEPHONE/CABLE FRONTIER COMMUNICATIONS 35 W OLENTANGY STREET POWELL, OHIO 43065

P: 614.883.6829

P: 740.383.0551

SUBURBAN NATURAL GAS COMPANY 2626 LEWIS CENTER RD, LEWIS CENTER, OHIO 43035 P: 740.548.2450



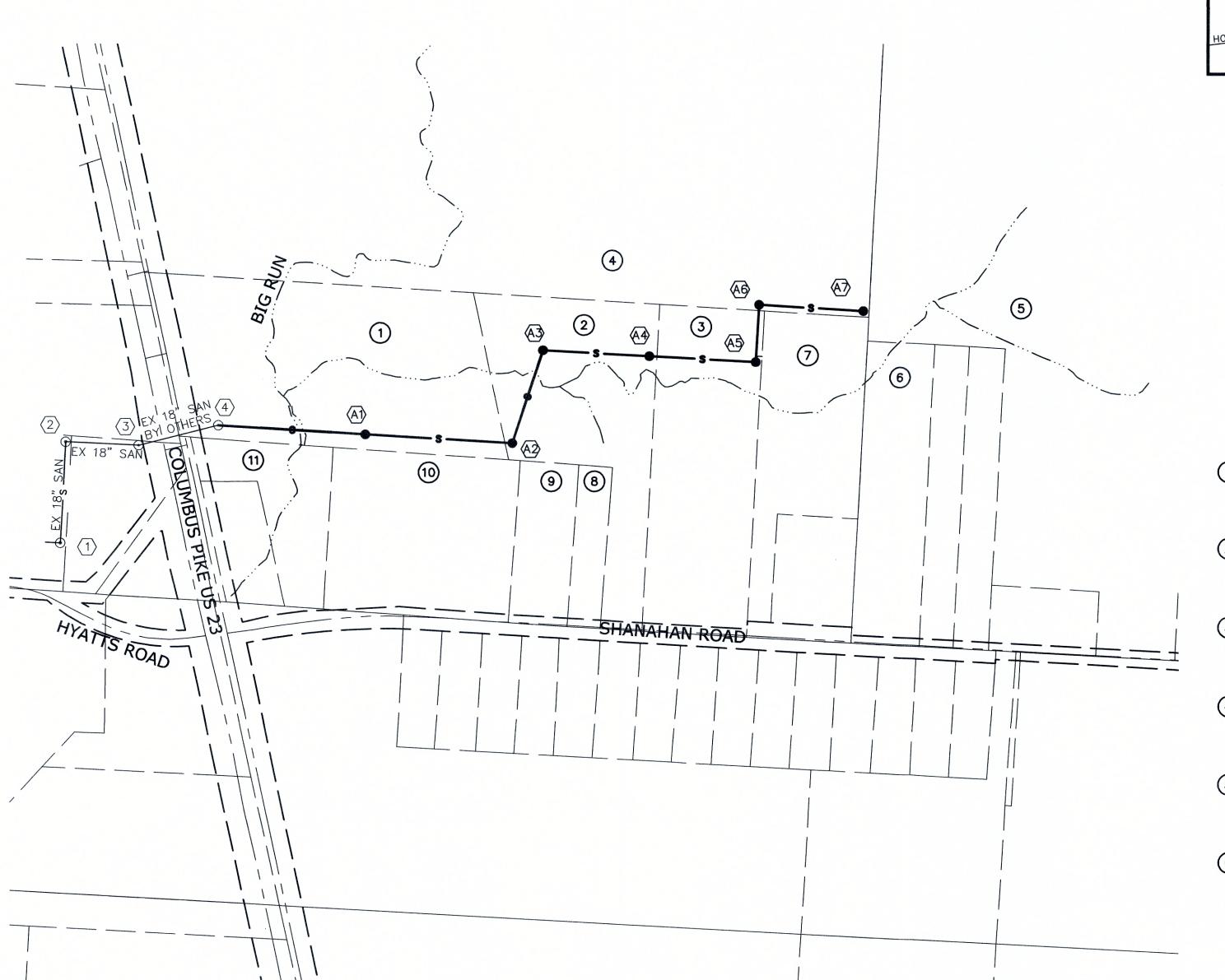
ESTIMATE OF QUANTITIES					
ITEM	UNIT	QUANTITY	DESCRIPTION		
207	LF	2,062	PERIMETER FILTER FABRIC FENCE		
207	LF	1	CONSTRUCTION ENTRANCE		
207	LF	1	CONCRETE WASHOUT AREA		
207	LF	1	VEHICLE FUEL AREA		
659	SY	1,356	PERMANENT SEEDING AND MULCHING (RIPARIAN MIX)		
659	SY	15,474	PERMANENT SEEDING AND MULCHING		
659	SY	1,683	REPAIR PERMANENT SEEDING AND MULCHING (10%)		
SPEC	EA	1	SWPPP MAILBOX (NEAR JOB TRAILER IF POSSIBLE)		

\* QUANTITY LISTED REPRESENTS LENGTH OF PIPE NOT LENGTH OF TRENCH.

NOTES:

QUANTITIES LISTED ABOVE ARE ESTIMATES AND SUBJECT TO REVISION DURING CONSTRUCTION. THE CONTRACTOR IS DIRECTED TO VERIFY ALL QUANTITIES PRIOR TO PREPARING AND SUBMITTING HIS BID.

ALL ITEMS OF WORK CALLED FOR ON THIS PLAN FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS INDICATED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF SUCH WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS.



INDEX MAP

SCALE: 1" = 200'

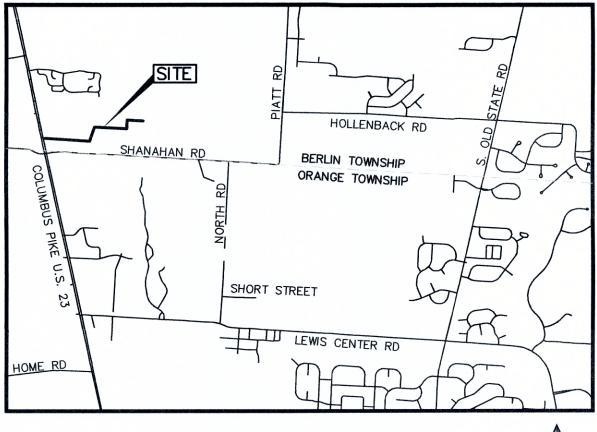
SHEET INDEX

STORMWATER POLLUTION PREVENTION PLAN - COVER SHEET

STORMWATER POLLUTION PREVENTION PLAN - SITE MAP

STORMWATER POLLUTION PREVENTION PLAN - NOTES

STORMWATER POLLUTION PREVENTION PLAN - DETAILS



NOT TO SCALE

### SURVEYOR

ADVANCED CIVIL DESIGN INC.
ATTN: ANDY KRANER
422 BEECHER ROAD
GAHANNA, OH 43230
P: 614-944-5091
F: 614-428-7755
AKRANER@ADVANCEDCIVILDESIGN.COM

### PROJECT DEVELOPER AND OWNER:

METRO DEVELOPMENT LLC
ATTN: JOE THOMAS
470 OLDE WORTHINGTON ROAD, SUITE 100
WESTERVILLE, OH 43082
P: 614-540-2410
F: 614-540-2406

- NCJLT COMPANY LLC 5539 COLUMBUS PIKE LEWIS CENTER, OHIO 43035 PN 41833001075000 7.780 AC
- 303 SHANAHAN LLC 303 SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001086000
- 371 SHANAHAN LLC 371 SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001087000 5.000 AC

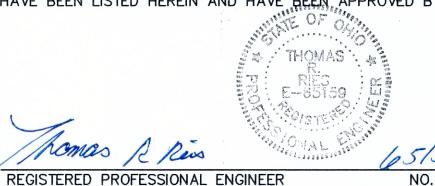
4.960 AC

- B & N 2005 LLC
  COLUMBUS PIKE
  LEWIS CENTER, OHIO 43035
  PN 41833001074000
- 37.662 AC

  TRIANGLE PROPERTIES INC
  663 SHANAHAN RD
  LEWIS CENTER, OHIO 43035
  PN 41833001094000
  39.298 AC
- 6 LOUISE & ROBERT L JONES 479 SHANAHAN RD LEWIS CENTER, OHIO 43035 PN 41833001090000 3.000 AC

- 7 DAVID & ELIZABETH STEPHENS 421 SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001088000 3.469 AC
- 8 273 SHANAHAN LLC 273 SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001085000 0.800 AC
- JACQUELINE RICE TRUSTEE 243 SHANAHAN ROAD LEWIS CENTER, OHIO 43035 PN 41833001084000 1.420 AC
- MICHAEL G GILLIAM
  SHANAHAN ROAD
  LEWIS CENTER, OHIO 43035
  PN 41833001083000
  4.56 AC
- SUPERAMERICA GROUP INC 5619 COLUMBUS PIKE LEWIS CENTER, OHIO 43035 PN 41833001082000 1.629 AC

THIS IS TO CERTIFY THAT GOOD ENGINEERING PRACTICES HAVE BEEN UTILIZED IN THE DESIGN OF THIS PROJECT AND THAT ALL MINIMUM STANDARDS, AS DELINEATED IN THE DELAWARE COUNTY "DESIGN, CONSTRUCTION, & SURVEY STANDARDS MANUAL" HAVE BEEN MET, INCLUDING THOSE STANDARDS GREATER THAN MINIMUM WHERE, IN MY OPINION, THEY ARE NEEDED TO PROTECT THE SAFETY OF THE PUBLIC. ANY VARIANCES TO THE ABOVE STANDARDS ARE CONSISTENT WITH SOUND ENGINEERING PRACTICES AND ARE NOT DETRIMENTAL TO THE PUBLIC SAFETY AND CONVENIENCE. THESE VARIANCES HAVE BEEN LISTED HEREIN AND HAVE BEEN APPROVED BY THE DELAWARE COUNTY ENGINEER.



159 4-28.2020 DATE

SWP3 SHEET NO 1/7

GRAPHIC SCALE
200 100 0 20

(IN FEET)
1 inch = 200 ft.

EX. C.2 - May 14, 2020

CHANGE ORDER SCHEDULE

# DESCRIPTION OF CHANGE

ur bridge between Vision and Success
st Broad Street | Suite 203 | Columbus, OH 4321.

#1 Your br

BERLIN MEADOWS GRAVITY #1
SANITARY EXTENSION

AWING SET STATUS:

PRELIMINARY ENGINEERING SET

☐ AGENCY REVIEW SET
☐ CONSTRUCTION DOCUMENT SET
☐ AS-BUILT DOCUMENT SET

DESIGN DRAFT CHEC

MJG CMK TRR

PROJECT NO.:
20-002

DATE:
MARCH 5, 2020

SCALE:

HORIZONTAL: 1" = 200'

N/A

SHEET NO.:

VERTICAL:

SWP3 SHEET NO 3/7

9/13

SHEET NO.:

UNLESS OTHERWISE NOTED, STANDARDS AND SPECIFICATION ESTABLISHED IN THE LATEST EDITION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF SOIL & WATER CONSERVATION, MANUAL ENTITLED "RAINWATER & LAND DEVELOPMENT: OHIO'S STANDARDS FOR STORMWATER MANAGEMENT & DEVELOPMENT & URBAN STREAM PROTECTION" SHALL GOVERN THE STORMWATER POLLUTION PREVENTION AND EROSION & SEDIMENT CONTROL INSTALLATION, INSPECTION, & MAINTENANCE FOR THIS PROJECT.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION AND SEDIMENT RUNOFF FROM THE SITE ALONG WITH PROPER MAINTENANCE AND INSPECTION TO MAINTAIN COMPLIANCE WITH THE NPDES GENERAL PERMIT FOR STORM DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. ADDITIONALLY, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE CURRENT STORMWATER POLLUTION PREVENTION PLAN IMMEDIATELY AVAILABLE OR POSTED ON SITE.

PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA, ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE MADE BY THE ENGINEER.

THE CONTRACTOR SHALL PLACE INLET PROTECTION FOR THE SEDIMENTATION CONTROL IMMEDIATELY AFTER CONSTRUCTION OF THE CATCH BASINS OR INLETS THAT ARE NOT TRIBUTARY TO A SEDIMENT BASIN OR DAM. INLET PROTECTION NOT REQUIRED FOR STORM SEWER DISCHARGING INTO A SEDIMENT BASIN OR LAKE PROVIDED STORM SEWERS ARE CLEANED AND BASINS/LAKES ARE DREDGED TO THE SATISFACTION OF THE GOVERNING JURISDICTIONAL AGENCIES PRIOR TO ACCEPTANCE.

IT MAY BECOME NECESSARY TO REMOVE PORTIONS OF SEDIMENTATION CONTROLS DURING CONSTRUCTION TO FACILITATE THE GRADING OPERATIONS IN CERTAIN AREAS. HOWEVER, THE CONTROLS SHALL BE REPLACED UPON GRADING OR DURING ANY INCLEMENT WEATHER.

COMPACTED SOIL IS REQUIRED AT ALL CATCH BASINS TO PREVENT PIPING. IF PIPING AROUND STRUCTURES IS OBSERVED THE STRUCTURE WILL BE REQUIRED TO BE UNEARTHED AND CORRECTIVE MEASURES TAKEN.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT NO SOLID OR LIQUID WASTE IS DISCHARGED INTO STORM WATER RUNOFF, UNTREATED SEDIMENT-LADEN RUNOFF SHALL NOT FLOW OFF OF SITE WITHOUT BEING DIRECTED THROUGH A CONTROL PRACTICE. CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE INTO OR ALONGSIDE RIVERS, STREAMS, OR CREEKS OR INTO NATURAL OR MANMADE CHANNELS OR SWALES LEADING THERETO.

CONCRETE WASH WATER AND SURPLUS CONCRETE SHALL BE CONFINED TO APPROVED AREAS: AFTER SOLIDIFYING, THESE WASTE MATERIALS SHALL BE REMOVED FROM THE SITE.

THE COST FOR TEMPORARY CHANNELS, SEDIMENT DAMS, SEDIMENT BASINS, AND OTHER APPURTENANT EARTH MOVING OPERATIONS SHALL BE INCLUDED IN THE PRICE BID FOR EROSION AND SEDIMENTATION CONTROL QUANTITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT OFF-SITE TRACKING OF SEDIMENTS BY VEHICLES AND EQUIPMENT IS MINIMIZED. ALL SUCH OFF-SITE SEDIMENT SHALL BE CLEANED

WEEKLY STREET CLEANING IS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT. THIS INCLUDES POWER SWEEPING, POWER CLEANING, AND MANUAL (IF NECESSARY) REMOVAL OF DIRT OR MUD IN THE STREET GUTTERS.

THE NPDES PERMIT HOLDER SHALL PROVIDE QUALIFIED PERSONNEL TO CONDUCT SITE INSPECTIONS ENSURING PROPER FUNCTIONALITY OF THE EROSION AND SEDIMENTATION CONTROLS. ALL EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSPECTED ONCE EVERY SEVEN CALENDAR DAYS OR WITHIN 24 HOURS OF A 1/2 INCH STORM EVENT OR GREATER. RECORDS OF THE SITE INSPECTIONS SHALL BE KEPT AND MADE AVAILABLE TO JURISDICTIONAL AGENCIES, THE ENGINEER, AND/OR THE OWNER UPON REQUEST.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SEDIMENTATION AND EROSION CONTROL FEATURES ON THIS PROJECT. ANY SEDIMENT OR DEBRIS THAT HAS REDUCED THE EFFICIENCY OF A CONTROL SHALL BE REMOVED IMMEDIATELY. SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE IT AT NO COST TO THE OWNER.

ANY TRAPPED SEDIMENT OR DEBRIS REMOVED DURING CLEANING OF OR REMOVAL OF INSTALLATIONS SHALL BE PLACED IN AREAS NOT SUBJECT TO EROSION AND PERMANENTLY STABILIZED.

ADDITIONAL EROSION AND SEDIMENT CONTROL SHALL BE REQUIRED AS DIRECTED BY JURISDICTIONAL AGENCIES. THE ENGINEER. AND/OR THE OWNER.

### SITE DATA

OWNER:

METRO DEVELOPMENT, LLC ATTN: JOE THOMAS

470 OLDE WORTHINGTON ROAD, SUITE 100

WESTERVILLE, OHIO 43082 P: 614-540-2400

**DEVELOPER:** SAME AS OWNER

PLANS PREPARED BY: TERRAIN EVOLUTION, INC. 720 E. BROAD STREET, SUITE 203

COLUMBUS, OH 43215

P: 614-385-1090

F: 614-385-1085

DEVELOPMENT TYPE: LINEAR SANITARY SEWER INFRASTRUCTURE IMPROVEMENTS

PROJECT DESCRIPTION:

PROJECT CONSTRUCTION CONSISTS OF ±1,960 LF SANITARY SEWER

N/A SITE ACREAGE:

DISTURBED ACREAGE: 4.39 AC. ±

EXISTING - UNDEVELOPED LAND & FARM FIELDS LAND USE: PROPOSED - UNDEVELOPED LAND & FARM FIELDS

SITE DRAINS TO: BIG RUN & UNNAMED STREAM TRIBUTARY TO OLENTANGY RIVER

EXISTING - 0% - 50% **AVERAGE SLOPES:** PROPOSED - 0% - 50%

SOILS: GwC2, GwB, LyE2, LsA & LyD2

RUNOFF CURVE NUMBER EXISTING = 77

SWP3 MEASURES: FILTER FENCE SHALL BE USED AS PRIMARY MEANS OF SEDIMENT CONTROL. EROSION SHALL BE PREVENTED BY

APPLYING TEMPORARY & PERMANENT SEEDING AND MULCHING.

STORMWATER MANAGEMENT: N/A

CRITICAL AREAS:

OEPA GENERAL PERMIT #: OHC 000005 OEPA FACILITY PERMIT #:

### CONSTRUCTION SEQUENCE

- 1. INSTALL CONSTRUCTION ENTRANCE AS NOTED PER THESE PLANS
- . CLEARING AND GRUBBING 3. WITHIN 7 DAYS OF CLEANING AND GRUBBING INSTALL PERIMETER SEDIMENT CONTROLS AT
- ALL LOCATIONS SHOWN PER THESE PLANS, INCLUDING ANY ADDITIONAL RELEASE POINTS FOR STORMWATER RUNOFF FROM THE DEVELOPMENT ONTO ADJACENT PROPERTY 4. INSTALL SANITARY SEWERS
- 5. PERFORM ROUGH GRADING
- 6. PERMANENTLY STABILIZE/SEED & MULCH OR SOD DISTURBED AREAS.
- . CONTACT OWNER TO INSPECT SITE & VERIFY STABILIZATION HAS BEEN ACHIEVED 8. UPON ACCEPTANCE OF STABILIZATION, REMOVE COLLECTED SEDIMENT FROM THE BASIN(S)
- 9. REMOVE TEMPORARY BASIN RELEASE STRUCTURES & INSTALL PERMANENT STORMWATER
- CONTROL STRUCTURES 10. REMOVE REMAINING SEDIMENT CONTROLS

### CONSTRUCTION ENTRANCE

A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF STONE UNDERLAIN WITH A GEOTEXTILE FABRIC LOCATED AT POINTS OF INGRESS/EGRESS. THE PRACTICE IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC.

- A CONSTRUCTION ENTRANCE IS APPLICABLE WHERE:
- CONSTRUCTION TRAFFIC LEAVES ACTIVE CONSTRUCTION AREAS AND ENTERS PUBLIC ROADWAYS OR AREAS UNCHECKED BY EFFECTIVE SEDIMENT CONTROLS
- AREAS WHERE FREQUENT VEHICLE AND EQUIPMENT ACCESS IS EXPECTED AND LIKELY TO CONTRIBUTE SEDIMENT TO RUNOFF, SUCH AS AT THE ENTRANCE TO INDIVIDUAL BUILDING

CONSTRUCTION ENTRANCES ADDRESS AREAS THAT CONTRIBUTE SIGNIFICANT AMOUNTS OF MUD TO RUNOFF BY PROVIDING A STABLE AREA FOR TRAFFIC. ALTHOUGH THEY ALLOW SOME MUD TO BE REMOVED FROM CONSTRUCTION VEHICLE TIRES BEFORE THEY ENTER A PUBLIC ROADS, THEY SHOULD NOT BE THE ONLY PRACTICE RELIED UPON TO MANAGE OFF-SITE TRACKING. SINCE MOST MUD IS FLUNG FROM TIRES AS THEY REACH HIGHER SPEEDS, RESTRICTING TRAFFIC TO STABILIZED CONSTRUCTION ROADS, ENTRANCES AND AWAY FROM MUDDY AREAS IS

IF A CONSTRUCTION ENTRANCE IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF MUD FROM WHEELS OR THERE IS AN ESPECIALLY SENSITIVE TRAFFIC SITUATION ON ADJACENT ROADS, WHEEL WASH AREAS MAY BE NECESSARY. THIS REQUIRES AN EXTENDED WIDTH PAD TO AVOID CONFLICTS WITH TRAFFIC, A SUPPLY OF WASH WATER AND SUFFICIENT DRAINAGE TO ASSURE RUNOFF IS CAPTURED IN A SEDIMENT POND OR TRAP.

PROPER INSTALLATION OF A CONSTRUCTION ENTRANCE REQUIRES A GEOTEXTILE AND PROPER DRAINAGE TO INSURE CONSTRUCTION SITE RUNOFF DOES NOT LEAVE THE SITE. THE USE OF GEOTEXTILE UNDER THE STONE HELPS TO PREVENT POTHOLES FROM DEVELOPING AND WILL SAVE THE AMOUNT OF STONE NEEDED DURING THE LIFE OF THE PRACTICE. PROPER DRAINAGE MAY INCLUDE CULVERTS TO DIRECT WATER UNDER THE ROADWAY OR WATER BARS TO DIRECT MUDDY WATER OFF THE ROADWAY TOWARD SEDIMENT TRAPS OR PONDS.

DESIGN CRITERIA
THE AREA OF THE ENTRANCE MUST BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE GEOTEXTILE WILL THEN BE PLACED THE FULL WIDTH AND LENGTH OF THE ENTRANCE.

STONE SHALL BE PLACED TO A DEPTH OF AT LEAST SIX (6) INCHES. ROADS SUBJECT TO HEAVY DUTY LOADS SHOULD BE INCREASED TO A MINIMUM OF TEN (10) INCHES. SURFACE WATER SHALL BE CONVEYED UNDER THE ENTRANCE, THROUGH CULVERTS, OR DIVERTED VIA WATER BARS OR MOUNTABLE BERMS (MINIMUM 5:1 SLOPES) SO AS TO CONVEY SEDIMENT LADEN RUNOFF TO SEDIMENT CONTROL PRACTICES OR TO ALLOW CLEAN WATER TO PASS BY

THE STABILIZED CONSTRUCTION ENTRANCE SHALL MEET THE SPECIFICATIONS INCLUDED IN THE DETAIL ON THESE PLANS.

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANING OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED

### COMMON PROBLEMS/CONCERNS

MUD IS ALLOWED TO ACCUMULATE AND IS TRACKED ON TO PUBLIC RIGHT-OF-WAYS. THE ENTRANCE AND ASSOCIATED CONSTRUCTION ROADS MAY NEED DRESSING WITH ADDITIONAL

2. SOFT DEPRESSION AREAS DEVELOP IN ENTRANCE AREA. STONE MAY NOT HAVE BEEN UNDERLAIN WITH GEOTEXTILE OR INSUFFICIENT STONE BASE HAS BEEN PROVIDED.

### **CLEARING & GRUBBING**

CLEARING AND GRUBBING IS THE REMOVAL OF TREES, BRUSH AND OTHER UNWANTED MATERIAL IN ORDER TO DEVELOP LAND FOR OTHER USES OR PROVIDE ACCESS FOR SITE WORK. CLEARING GENERALLY DESCRIBES THE CUTTING AND REMOVAL OF ABOVE GROUND MATERIAL WHILE GRUBBING IS THE REMOVAL OF ROOTS, STUMPS, AND OTHER UNWANTED MATERIAL BELOW

CLEARING AND GRUBBING INCLUDES THE PROPER DISPOSAL OF MATERIALS AND THE IMPLEMENTATION OF BEST MANAGEMENT PRACTICES IN ORDER TO MINIMIZE EXPOSURE OF SOIL TO EROSION AND CAUSING DOWNSTREAM SEDIMENTATION.

THIS PRACTICE MAY BE APPLIED ANYWHERE EXISTING TREES AND OTHER MATERIAL MUST BE REMOVED FOR DEVELOPMENT TO OCCUR. THE POTENTIAL FOR EROSION AND SEDIMENTATION INCREASES AS: THE VEGETATION REMOVED; AREA DISTURBED OR WATERCOURSES ENCOUNTERED INCREASES.

### <u>SITE ASSESSMENT, SELECTION, & MARKING</u>

SITES SHOULD BE ASSESSED TO DETERMINE AREAS TO BE LEFT UNDISTURBED AS WELL AS TREES OR VEGETATED AREAS TO BE SAVED. THESE AREAS NEED TO BE CLEARLY MARKED ON PLANS AND IN THE FIELD. LAND CLEARING ACTIVITIES SHOULD NOT BEGIN UNTIL THE SITE ASSESSMENT AND THE FIELD MARKING IS CONCLUDED.

### TIMING AND PHASING

LARGE-SCALE SITES SHOULD BE CLEARED IN PHASES, WITH INITIATION OF EACH PHASE DELAYED UNTIL ACTUAL CONSTRUCTION IS SCHEDULED FOR THAT AREA OF THE SITE.

### EROSION, SEDIMENT AND STREAM INSTABILITY POTENTIAL

CLEARING IN SOME AREAS SHOULD BE AVOIDED OR DELAYED DUE TO THE POTENTIAL FOR DESTABILIZATION. CLEARED SITES ON HEAVY SOILS AND STEEP SLOPES ARE SUBJECT TO EXCESSIVE EROSION AND MAY REQUIRE ADDITIONAL PRACTICES TO KEEP THE SOIL IN PLACE. LAND CLEARING DURING DRY OR FROZEN TIMES WILL DECREASE COMPACTION AND POTENTIAL WATER QUALITY PROBLEMS FROM RUNOFF.

STREAM CORRIDORS SHOULD BE LEFT INTACT UNTIL PLANS HAVE BEEN MADE TO IMMEDIATELY RESTORE STABLE CONDITIONS. THESE AREAS ARE SUBJECT TO RAPID EROSION ONCE VEGETATION IS REMOVED AND SOON BECOME A SOURCE OF SEDIMENT DOWNSTREAM. ALTERNATIVELY NATURALLY VEGETATED STREAM CORRIDORS HELP PROTECT WATER RESOURCES FROM POLLUTION GENERATED DURING GRUBBING AND GRADING OPERATIONS.

TIMBER SALVAGE
THE CONTRACTOR SHALL DEVELOP PLANS SPECIFYING THE KIND AND LOCATION OF TIMBER TO BE SALVAGED, THE LOCATION OF HAUL ROADS AND SKID TRAILS, LOCATION AND WIDTH OF NATURAL BUFFER ZONES AROUND WATER BODIES, AND THE LOCATION AND METHODS OF STREAM CROSSINGS. THE METHOD OF DISPOSING OF ALL MATERIAL THAT WILL NOT BE SALVAGED SHOULD ALSO BE SPECIFIED. PLANS SHOULD ALSO INCLUDE THE BEST MANAGEMENT PRACTICES THAT WILL BE USED TO PROTECT THE CLEARED AREA FROM EROSION.

THE PLAN SHALL IDENTIFY LOCATIONS AND MEANS OF PROTECTION FOR HEALTHY TREES FOLLOWING SPECIFICATIONS IN THE TREE AND NATURAL AREA PRESERVATION PRACTICE OF THE RAINWATER & LAND DEVELOPMENT MANUAL. WHERE POSSIBLE, THE CONTRACTOR SHALL PRESERVE A NATURAL BUFFER/FILTER STRIP ADJACENT TO ALL WATER BODIES AND AVOID CLEARING TO THE WATER BODIES' EDGE.

- 1. WHERE IT IS NECESSARY TO CLEAR TO THE WATER'S EDGE, APPROPRIATE SEDIMENT CONTROL SHOULD BE USED AND SEEDING AND OTHER STABILIZATION SHOULD BE INITIATED WITHIN 2DAYS OF WORK BECOMING IDLE.
- 2. PHASE WORK SO THAT ONLY PART OF THE SITE IS BEING CLEARED AT ANY GIVEN TIME.
- THIS WILL REDUCE THE AMOUNT OF TIME SOIL IS EXPOSED TO EROSIVE FORCES. FOLLOW EXAMPLES IN THE PHASED DISTURBANCE PRACTICE.
- 3. INSTALL EARTH DIVERSIONS TO INTERCEPT AND DIVERT RUNOFF TO STABLE OUTLETS AND APPROPRIATE SEDIMENT PONDS.
- 4. ALL DEBRIS SHOULD BE KEPT OUT OF SURFACE WATER RESOURCES. IF POSSIBLE, LEAVE MULCH OR VEGETATION ON THE GROUND TO DECREASE RUNOFF AND POTENTIAL RUNOFF. SEE THE "DISPOSAL OPTIONS" SECTION, BELOW.
- EXPOSED AREAS NOT PLANNING FOR IMMEDIATE EARTHWORK SHOULD BE TEMPORARILY SEEDED TO PREVENT FURTHER EROSION AT THE SITE. SEE THE TEMPORARY SEEDING PRACTICE. ADDITIONAL STABILIZATION OR SEDIMENT CONTROL PRACTICES MAY BE NECESSARY TO KEEP SOIL ON THE SITE.

GRUBBING REMOVES ROOTS AND STUMPS BY DIGGING OR PUSHING OVER WITH EARTH MOVING EQUIPMENT. GRUBBING SHOULD BE CAREFULLY MONITORED NEAR LAKES AND STREAMS TO PROTECT THE WATER'S EDGE. REMOVING ROOT SYSTEMS NEAR THE BANKS OF STREAMS AND LAKES MAKE CAUSE THE AREA TO BECOME UNSTABLE AND ERODE. IF POSSIBLE, AVOID GRUBBING AT ALL NEAR THE WATER'S EDGE.

### WHERE TREES AND STUMPS ARE REMOVED IN SEPARATE OPERATIONS, TREES MAY BE USED

- FOR COMMERCIAL PURPOSES SUCH AS LUMBER, FIREWOOD, OR MULCH. 2. TREES AND STUMPS MAY BE REMOVED IN ONE OPERATION. THIS METHOD LEAVES MATERIALS THAT CAN BE USEFUL IN STREAM RESTORATION AND STABILIZATION (E.G. ROOTWADS, VANES). BE CERTAIN THAT SUFFICIENT TRUNK IS LEFT FOR EFFECTIVE ANCHORING IN THE BANK. TOPS OF TREES SHOULD BE REMOVED AND CHIPPED FOR MULCH.
- 3. OPERATING HEAVY EQUIPMENT TOO CLOSE TO TREES WILL RESULT IN DAMAGE OR LOSS DUE TO SOIL DISRUPTION, COMPACTION AND TRUNK DAMAGE. IT IS RECOMMENDED THAT ALL HEAVY EQUIPMENT OPERATIONS BE LIMITED TO OUTSIDE THE DRIP LINE OF ALL TREES TO BE PRESERVED. THE DRIP LINE IS THE AREA FROM THE TRUNK OF THE TREE OUTWARD TO A POINT AT WHICH THERE IS NO LONGER ANY OVERHANGING VEGETATION.
- 4. IN FORESTED WETLANDS, SHALLOW-ROOTED SPECIES ARE PROTECTED BY EACH OTHER FROM POTENTIAL WIND DAMAGE. WHENEVER TREES ARE REMOVED FROM A FORESTED WETLAND, THE POSSIBILITY OF BLOW DOWNS OR WINDTHROW INCREASES. SHALLOW ROOTED SPECIES ARE ALSO PROTECTED BY EDGE TREES. WHICH SHIELD THE PREVAILING WIND SIDE OF THE WOODLOT. IT IS HELPFUL TO LEAVE AS MANY EDGE TREES AS POSSIBLE ON THE PREVAILING WIND SIDE OF THE CLEARED AREA.

WHERE POSSIBLE, ALL STUMPS, ROOTS, LOGS, BRUSH, LIMBS, TOPS AND OTHER DEBRIS RESULTING FROM THE CLEARING OR THINNING OPERATION SHOULD BE DISPOSED OF BY PROCESSING THROUGH A CHIPPING MACHINE. THE CHIPS CAN THEN BE UTILIZED AS MULCH (SEE MULCHING PRACTICE). AS PART OF A SITE STABILIZATION OR FINAL LANDSCAPING PLAN. ORGANIC MATERIAL MAY ALSO BE DISPOSED OF AT AN APPROVED COMPOSTING FACILITY.

NOTE THAT TREETOPS, STUMPS AND FIELD STONE WHICH ARE CLEARED AND PILED/WINDROWED IN SUITABLE AREAS CAN IMPROVE HABITAT FOR WILDLIFE SUCH AS RABBITS, RACCOONS, SNAKES, SALAMANDERS, TOADS AND FROGS.

LAND CLEARING ITSELF REQUIRES NO MAINTENANCE EXCEPT MAINTENANCE OF THE EQUIPMENT USED IN THE LAND CLEARING OPERATION. TREE PROTECTION THAT UTILIZES FENCING AND SIGNAGE SHOULD BE MAINTAINED THROUGHOUT THE CLEARING STAGES. IT IS ALSO IMPORTANT TO MAINTAIN ALL OTHER TEMPORARY AND PERMANENT PRACTICES THAT ARE USED IN CONJUNCTION WITH THE LAND CLEARING TO PREVENT SOIL EROSION AND SEDIMENTATION.

### COMMON PROBLEMS/CONCERNS

1. CLEARING OF AREAS PLANNED FOR PRESERVATION MAY OCCUR AND DESIRABLE SPECIES MAY BE DAMAGED, THEREFORE PRESERVATION AREAS SHOULD BE WELL MARKED. 2. DURING CONSTRUCTION, NATURALLY VEGETATED BANKS OF STREAM AND LAKES MAY

BECOME DESTABILIZED. CLEARLY MARK AREAS WHERE NATURAL VEGETATION MUST BE

MAINTAINED, AND IMMEDIATELY IMPLEMENT STABILIZATION PLANS OF DENUDED AREAS. 3. AS LARGE AREAS ARE DISTURBED, SITE EROSION POTENTIAL DRASTICALLY INCREASES UNTIL COVER IS RE-ESTABLISHED. ESTABLISH TEMPORARY SEEDINGS AS SOON AS CLEARING/GRUBBING AND GRADING ACTIVITIES STOP OR BECOME IDLE.

### DUST CONTROL

<u>DESCRIPTION</u>
DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FROM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS. TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE.

DUST CONTROL MEASURES ARE REQUIRED IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY TO OCCUR IF PREVENTATIVE MEASURES ARE NOT TAKEN.

### PLANNING CONSIDERATIONS

CONSTRUCTION ACTIVITIES INEVITABLY RESULT IN THE EXPOSURE AND DISTURBANCE OF SOIL. FUGITIVE DUST RESULTS FROM BOTH CONSTRUCTION ACTIVITIES AND AS A RESULT OF WIND EROSION OVER THE EXPOSED EARTH SURFACES. LARGE QUANTITIES OF DUST ARE TYPICALLY GENERATED IN HEAVY CONSTRUCTION ACTIVITIES, SUCH AS ROAD CONSTRUCTION AND SUBDIVISION, COMMERCIAL OR INDUSTRIAL DEVELOPMENT, WHICH INVOLVE DISTURBING SIGNIFICANT AREAS OF THE SOIL SURFACE. RESEARCH OF CONSTRUCTION SITES HAS ESTABLISHED AN AVERAGE DUST EMISSION RATE OF 1.2 TONS/ACRE/MONTH FOR ACTIVE CONSTRUCTION. EARTH-MOVING ACTIVITIES COMPRISE THE MAJOR SOURCE OF CONSTRUCTION DUST EMISSIONS, BUT TRAFFIC AND GENERAL DISTURBANCE OF THE SOIL ALSO GENERATE SIGNIFICANT DUST EMISSIONS.

PLANNING FOR DUST CONTROL INVOLVES LIMITING THE AMOUNT OF SOIL DISTURBANCE AT ANY ONE TIME AS A KEY OBJECTIVE. THEREFORE, PHASED CLEARING AND GRADING OPERATIONS (MINIMIZE DISTURBANCE-PHASING) AND THE UTILIZATION OF OTHER STABILIZATION PRACTICES CAN SIGNIFICANTLY REDUCE DUST EMISSIONS. UNDISTURBED VEGETATIVE BUFFERS (MINIMUM 50-FOOT WIDTHS) LEFT BETWEEN GRADED AREAS AND PROTECTED AREAS CAN ALSO BE VERY HELPFUL IN DUST CONTROL BY PROVIDING WINDBREAKS AND NON-EROSIVE AREAS.

### **DESIGN CRITERIA**

A NUMBER OF MEASURES CAN BE UTILIZED TO LIMIT DUST EITHER DURING OR BETWEEN CONSTRUCTION STAGES OR ONCE CONSTRUCTION IS COMPLETE. GENERALLY THE SAME METHODS THAT ARE USED TO LIMIT EROSION BY LIMITING EXPOSURE OF SOILS TO RAINFALL CAN BE USED TO LIMIT DUST INCLUDING: STABILIZING EXPOSED SOILS WITH MULCH, VEGETATION OR PERMANENT COVER. ADDITIONAL METHODS PARTICULAR TO DUST CONTROL INCLUDE MANAGING VEHICLES AND CONSTRUCTION TRAFFIC, ROAD TREATMENT AND TREATMENT OF EXPOSED SOIL WITH CHEMICAL STABILIZERS.

### VEGETATIVE COVER

ROUGH GRADED SOILS

THE MOST EFFECTIVE WAY TO PREVENT DUST FROM EXPOSED SOIL IS TO PROVIDE A DENSE COVER OF VEGETATION. IN AREAS SUBJECT TO LITTLE OR NO CONSTRUCTION TRAFFIC, VEGETATIVE STABILIZATION REDUCES DUST DRASTICALLY. TIMELY TEMPORARY AND PERMANENT SEEDINGS MUST BE UTILIZED TO ACCOMPLISH THIS.

MULCH WHEN PROPERLY APPLIED, MULCH OFFERS A FAST, EFFECTIVE MEANS OF CONTROLLING DUST. MULCHING IS NOT RECOMMENDED FOR AREAS WITHIN HEAVY TRAFFIC PATHWAYS. BINDERS OR TACKIFIERS SHOULD BE USED TO TACK ORGANIC MULCHES.

### LEAVING THE SOIL IN A TEMPORARY STATE OF ROUGH GRADE, WHERE CLODS RATHER THAN FLATTENED SOILS PREDOMINATE THE SURFACE, CAN REDUCE THE AMOUNT OF DUST GENERATED FROM AREAS DURING PERIODS OF HIGHER WINDS. THIS MUST BE BALANCED BY THE NEED TO

REACH A STAGE WHERE THE SOIL CAN BE STABILIZED AND MAY BE ONLY BE NECESSARY WHEN HIGH WINDS ARE PREDICTED.

THIS IS THE MOST COMMONLY USED DUST CONTROL PRACTICE. THE SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND IS REPEATED AS NEEDED. IT OFFERS FAST PROTECTION FOR HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHOULD BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION. WETTING AGENTS ARE ALSO AVAILABLE TO INCREASE THE EFFECTIVENESS OF WATERING AND MUST FOLLOW MANUFACTURERS INSTRUCTIONS.

### CHEMICAL STABILIZERS/WETTING AGENTS

MANY PRODUCTS OF THIS TYPE ARE AVAILABLE AND ARE USUALLY MOST EFFECTIVE ON TYPICAL MINERAL SOILS, BUT MAY NOT BE ON PREDOMINANTLY ORGANIC SOILS SUCH AS MUCK. USERS ARE ADVISED TO PAY ATTENTION TO THE LIMITATIONS AND INSTRUCTIONS REGARDING EACH PRODUCT. THE FOLLOWING TABLE LISTS VARIOUS ADHESIVES AND PROVIDES CORRESPONDING INFORMATION ON MIXING APPLICATIONS:

DUST CONTROL ADHESIVES					
ADHESIVE	WATER DILUTION (ADHESIVE:WATER)	NOZZLE TYPE	APPLICATION RATE (GAL/ACRE)		
LATEX EMULSION	12.5:1	FINE	235		
RESIN IN WATER	4:1	FINE	300		
ACRYLIC EMULSION (NO TRAFFIC)	7:1	COARSE	450		
ACRYLIC EMULSION (TRAFFIC)	3.5:1	COARSE	350		

STONE CAN BE USED TO STABILIZE ROADS OR OTHER AREAS DURING CONSTRUCTION USING CRUSHED STONE OR COARSE GRAVEL. RESEARCH HAS SHOWN THE ADDITION OF BENTONITE TO LIMESTONE ROADS (NOT IGNEOUS GRAVEL) HAS SHOWN BENEFITS IN REDUCING DUST.

WHERE DUST IS A KNOWN PROBLEM, EXISTING WINDBREAK VEGETATION SHOULD BE PRESERVED. MAINTAINING EXISTING ROWS OF TREES OR CONSTRUCTING A WIND FENCE. SEDIMENT FENCE, OR SIMILAR BARRIER CAN HELP TO CONTROL AIR CURRENTS AND BLOWING SOIL. PLACE BARRIERS PERPENDICULAR TO PREVAILING AIR CURRENTS AT INTERVALS OF ABOUT 15 TIMES THE BARRIER HEIGHT.

### CALCIUM CHLORIDE

THIS CHEMICAL MAY BE APPLIED BY MECHANICAL SPREADER AS LOOSE, DRY GRANULES OR FLAKES AT A RATE THAT KEEPS THE SURFACE MOIST BUT NOT SO HIGH AS TO CAUSE WATER POLLUTION OR PLANT DAMAGE. LIQUID APPLICATION OF A 35% CALCIUM CHLORIDE SOLUTION IS COMMON. NOTE: APPLICATION RATES SHOULD BE STRICTLY IN ACCORDANCE WITH SUPPLIERS' SPECIFIED RATES.

PAVED AREAS THAT HAVE ACCUMULATED SEDIMENT FROM CONSTRUCTION SITES SHOULD BE

### CLEANED DAILY, OR AS NEEDED, UTILIZING A STREET SWEEPER OR BUCKET-TYPE LOADER OR

MOST DUST CONTROL MEASURES, SUCH AS APPLICATIONS OF WATER OR ROAD TREATMENTS WILL REQUIRE MONITORING AND REPEAT APPLICATIONS AS NEEDED TO ACCOMPLISH GOOD

### COMMON PROBLEMS/CONCERNS

VEGETATION IS REMOVED FROM LARGE AREAS OF THE CONSTRUCTION SITE AND LEFT BARREN FOR LONG PERIODS OF TIME.

2. CONTINUOUS, SCHEDULED MONITORING OF THE CONSTRUCTION SITE CONDITIONS IS NOT

### GRADE TREATMENT / SURFACE ROUGHENING

CONTROL.

DESCRIPTION
GRADE TREATMENT OR SURFACE ROUGHENING CREATES HORIZONTAL DEPRESSIONS IN THE SOIL SURFACE THAT HELP TO REDUCE EROSION BY REDUCING RUNOFF VELOCITY AND INCREASING INFILTRATION. THESE DEPRESSIONS AID IN THE ESTABLISHMENT OF VEGETATIVE COVER AND PROVIDE LOCALIZED TRAPPING OF SEDIMENTS. GRADE TREATMENT IS TYPICALLY CREATED BY OPERATING TILLAGE IMPLEMENTS ON THE CONTOUR OR BY RUNNING TRACKED EQUIPMENT UP AND DOWN A SLOPE WITHOUT FINE GRADING THE SURFACE.

### <u>CONDITIONS WHERE PRACTICE APPLIES</u>

- . ALL SLOPES STEEPER THAN 3:1 REQUIRE GRADE TREATMENT, EITHER STAIR-STEP GRADING, GROOVING, FURROWING, OR TRACKING IF THEY ARE TO BE STABILIZED WITH VEGETATION. 2. AREAS WITH GRADES LESS STEEP THAN 3:1 SHOULD HAVE THE SOIL SURFACE LIGHTLY
- ROUGHENED AND LOOSE TO A DEPTH OF TWO (2) TO FOUR (4) INCHES PRIOR TO SEEDING. 3. AREAS THAT HAVE BEEN GRADED AND WILL NOT BE SEEDED IMMEDIATELY MAY BE ROUGHENED TO REDUCE RUNOFF VELOCITY UNTIL SEEDING TAKES PLACE.
- 4. SLOPES WITH A STABLE ROCK FACE DO NOT REQUIRE ROUGHENING OR STABILIZATION.

A GRADING PLAN SHOULD BE DEVELOPED TO ESTABLISH DRAINAGE AREAS, DIRECT DRAINAGE PATTERNS, AND DECREASE RUNOFF VELOCITIES. THE PLAN SHOULD COORDINATE THE GRADING WITH THE EROSION/SEDIMENTATION CONTROL PLAN AND THE STORMWATER MANAGEMENT PLAN. GRADING SHOULD BE DONE IN STAGES ACCORDING TO THE IMPLEMENTATION SCHEDULE, THUS LIMITING THE AMOUNT OF SURFACE AREA LEFT IN A DISTURBED, UNSTABLE CONDITION. WHEN GRADING, LEAVE A NATURAL BUFFER BETWEEN THE DISTURBED AREAS AND THE WATER BODY (50 FT. MINIMUM RECOMMENDED). IF A NATURAL BUFFER CANNOT BE LEFT, CONSTRUCT A BERM OR INSTALL OTHER APPROPRIATE SEDIMENT CONTROL BMPS (E.G. SEDIMENT TRAP, SILT FENCE) ADJACENT TO THE WATER BODY.

PREVENT DIFFERENTIAL SETTLEMENT, FILL SHOULD BE FREE OF OBJECTIONABLE MATERIALS SUCH AS LOGS, ROCKS AND STUMPS. FROZEN FILL OR ORGANIC (MUCK) MATERIALS SHOULD

SPOIL AND TOPSOIL PILES SHALL NOT BE LOCATED IN OR NEAR DRAINAGEWAYS AND SHALL BE

STABILIZED AS SOON AS POSSIBLE BY SEEDING AND MULCHING. PLACING PILES ADJACENT TO

PRIOR TO PLACING FILL, TOPSOIL AND ORGANIC MATERIALS SHOULD BE REMOVED. TO

CHANNEL BANKS WHERE IT MAY CREATE BANK FAILURE OR RESULT IN DEPOSITION OF SEDIMENT DOWNSTREAM SHOULD BE AVOIDED. GRADED AREAS WITH SMOOTH, HARD SURFACES GIVE A FALSE IMPRESSION OF "FINISHED GRADING" AND A JOB WELL DONE. IT IS DIFFICULT TO ESTABLISH VEGETATION ON SUCH SURFACES DUE TO REDUCED WATER INFILTRATION AND THE POTENTIAL FOR EROSION. ROUGH

SLOPE SURFACES WITH UNEVEN SOIL AND ROCKS LEFT IN PLACE MAY APPEAR UNATTRACTIVE

OR UNFINISHED AT FIRST, BUT ENCOURAGE WATER INFILTRATION, SPEED THE ESTABLISHMENT

OF VEGETATION, AND DECREASE RUNOFF VELOCITY. ROUGH LOOSE SOIL SURFACES GIVE LIME, FERTILIZER AND SEED SOME NATURAL COVERAGE. NICHES IN THE SURFACE PROVIDE MICROCLIMATES THAT GENERALLY PROVIDE A COOLER AND MORE FAVORABLE MOISTURE LEVEL THAN HARD FLAT SURFACES, THEREBY AIDING SEED

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DRAFT CHECK DESIGN CMK TRR 20-002 MARCH 5, 2020

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VERT**I**CAL:

DESIGN CRITERIA
GRADE TREATMENT IS TO BE PERFORMED ONLY AFTER ALL CUTS AND FILLS ARE MADE AND BROUGHT TO THE FINAL SHAPE AND GRADE.

THERE ARE DIFFERENT METHODS FOR ACHIEVING A ROUGHENED SOIL SURFACE ON A SLOPE, AND THE SELECTION OF AN APPROPRIATE METHOD DEPENDS UPON THE TYPE OF SLOPE. GRADING METHODS INCLUDE STAIR-STEP GRADING, GROOVING, AND TRACKING.

THIS METHOD SHOULD BE DONE ON SLOPES STEEPER THAN 3:1 WITH MATERIAL SOFT ENOUGH TO BE BULLDOZED AND WHICH WILL NOT BE MOWED. THE VERTICAL CUT SHOULD BE LESS THAN THE HORIZONTAL DISTANCE AND SHOULD NOT EXCEED TWO (2) FEET IN SOFT MATERIAL AND THREE (3) FEET IN ROCKY MATERIAL. THE HORIZONTAL POSITION OF THE "STEP" SHOULD BE SLOPED TOWARD THE VERTICAL UP-HILL WALL.

THIS METHOD CAN BE DONE ON ANY AREA, WHICH CAN SAFELY ACCOMMODATE DISKS, TILLERS, SPRING HARROW, OR THE TEETH OF A FRONT-END LOADER BUCKET. IN AREAS, WHICH WILL NOT BE MOWED, USE EQUIPMENT TO CREATE GROOVES PERPENDICULAR TO THE SLOPE. GROOVES SHOULD NOT BE LESS THAN THREE (3) INCHES DEEP, NOR MORE THAN FIFTEEN (15) INCHES APART. IN CUTS, FILLS, AND AREAS THAT WILL BE MOWED, GROOVES SHOULD BE LESS THAN TEN (10) INCHES APART AND NOT LESS THAN ONE (1) INCH DEEP.

THIS METHOD IS DONE BY RUNNING TRACKED MACHINERY (SUCH AS BULLDOZERS) UP AND DOWN SLOPES TO LEAVE HORIZONTAL DEPRESSIONS IN THE SOIL. BACK-BLADING SHOULD NOT BE DONE DURING THE FINAL GRADING OPERATION.

TRACKING OR ROUGHENING WITH TRACKED MACHINERY IS NOT RECOMMENDED ON CLAYEY SOILS. UNLESS OTHER ALTERNATIVES ARE UNAVAILABLE, DUE TO ITS LIKELIHOOD OF CAUSING COMPACTION OF THE SURFACE SOIL. SANDY SOILS DO NOT COMPACT SEVERELY, AND MAY BE TRACKED. IN NO CASE IS TRACKING AS EFFECTIVE AS THE OTHER ROUGHENING METHODS DESCRIBED. TO ROUGHEN WITH TRACKED MACHINERY, OPERATE THE EQUIPMENT UP AND DOWN THE SLOPE, TO LEAVE HORIZONTAL DEPRESSIONS IN THE SOIL, WITH AS FEW PASSES OF THE MACHINERY AS POSSIBLE TO MINIMIZE COMPACTION.

FACTORS TO BE CONSIDERED IN CHOOSING A METHOD ARE SLOPE STEEPNESS, MOWING REQUIREMENTS, AND WHETHER THE SLOPE IS FORMED BY CUTTING OR FILLING.

- DISTURBED AREAS, WHICH WILL NOT REQUIRE MOWING, MAY BE STAIR-STEP GRADED,
- TRACKED, GROOVED, OR LEFT ROUGH AFTER FILLING. 2. STAIR-STEP GRADING IS PARTICULARLY APPROPRIATE IN SOILS CONTAINING LARGE AMOUNTS OF SOFT ROCK. EACH "STEP" CATCHES MATERIAL SHED FROM ABOVE. AND
- PROVIDES A LEVEL SITE WHERE VEGETATION CAN BECOME ESTABLISHED 3. AREAS THAT WILL BE MOWED (THESE AREAS SHOULD HAVE SLOPES 3:1 OR FLATTER) MAY HAVE SMALL FURROWS LEFT BY DISCING, HARROWING, RAKING, OR SEED-PLANTING
- MACHINERY OPERATED ON THE CONTOUR. AVOID EXCESSIVE COMPACTING OF THE SOIL SURFACE WHEN SCARIFYING. TRACKING WITH BULLDOZER TREADS IS PREFERABLE TO NOT ROUGHENING AT ALL, BUT IS NOT AS EFFECTIVE AS OTHER FORMS OF ROUGHENING, AS THE SOIL SURFACE MAY BE COMPACTED AND RUNOFF INCREASED.

ROUGHENED AREAS SHALL BE SEEDED AND MULCHED WITHIN SEVEN (7) DAYS OF LAST DISTURBANCE TO OBTAIN OPTIMUM SEED GERMINATION AND SEEDLING GROWTH.

- COMMON PROBLEMS/CONCERNS

  1. SEVERE COMPACTION DUE TO EQUIPMENT OPERATION RESULTS IN UNSUITABLE SEEDBED AND POOR VEGETATION ESTABLISHMENT.
- ROUGH AREAS DIFFICULT TO MOW CAUSED BY CUTTING GROOVES TOO DEEP OR EXCESSIVE EROSION FROM GROOVES NOT BEING ON THE CONTOUR.
- GROOVING DONE PERPENDICULAR, RATHER THAN PARALLEL TO SLOPE RESULTS IN ACCELERATED EROSION.

### **TOPSOILING**

TOPSOILING OCCURS DURING GRADING OPERATIONS AS THE UPPER MOST ORGANIC LAYER OF SOIL IS STRIPPED AND STOCKPILED FROM AREAS BEING GRADED AND SUBSEQUENTLY REPLACED ON THE NEWLY GRADED AREAS. TOPSOIL PROVIDES A MORE SUITABLE GROWING MEDIUM THAN SUBSOIL OR ON AREAS WITH POOR MOISTURE, LOW NUTRIENT LEVELS, UNDESIRABLE PH, OR IN THE PRESENCE OF OTHER MATERIALS THAT WOULD INHIBIT ESTABLISHMENT OF VEGETATION. REPLACING TOPSOIL HELPS PLANT GROWTH BY IMPROVING THE WATER HOLDING CAPACITY AND NUTRIENT CONTENT AND CONSISTENCY OF THE SOILS.

THIS PRACTICE APPLIES ANYWHERE A GOOD STAND OF VEGETATION IS DESIRED (E.G. TURF, ORNAMENTAL PLANTS, AND / OR VEGETATIVE COVER), ESPECIALLY IN AREAS WHERE HIGH-QUALITY TURF IS DESIRABLE TO WITHSTAND INTENSE USE OR MEET AESTHETIC REQUIREMENTS, ALTHOUGH IT MAY NOT BE APPROPRIATE FOR AREAS WITH SLOPES GREATER

### THIS PRACTICE IS ESPECIALLY APPLICABLE TO AREAS WHERE:

- EXISTING SOIL STRUCTURE, PH, OR NUTRIENT BALANCE CANNOT BE EASILY IMPROVED WITH SOIL AMENDMENTS TO BE A SUITABLE GROWTH MEDIUM.
- EXISTING SOILS ARE TOO SHALLOW TO PROVIDE ADEQUATE ROOTING DEPTH OR;
- THE EXISTING SOIL CONTAINS SUBSTANCES TOXIC TO THE DESIRED VEGETATION.

### PLANNING CONSIDERATIONS

TOPSOIL IS THE UPPER LAYER OF NATURAL SOIL (A HORIZON), WHICH IS TYPICALLY DARKER AND MORE FERTILE THAN THE SUBSOIL DUE TO INCREASED AMOUNTS OF ORGANIC MATERIAL. THIS LAYER IS TYPICALLY VERY EVIDENT AS A PERSON EXCAVATES THROUGH SOIL HORIZONS. PROJECT SITES WILL HAVE VARYING DEGREES OF TOPSOIL RESOURCES PRIOR TO CONSTRUCTION, WITH SOME HISTORICALLY ERODED SITES HAVING LIMITED TOPSOIL RESOURCES. THESE SITES MAY HAVE LESS JUSTIFICATION FOR MOVING, STOCKPILING AND RE-SPREADING THE TOP HORIZON OF SOIL. IF IN QUESTION, ASSISTANCE BY A TRAINED SOILS PROFESSIONAL SHOULD BE SOUGHT TO DETERMINE THE EXTENT OF TOPSOIL RESOURCES ON THE PROJECT

TOPSOILING WILL ALSO ADD TIME TO GRADING OPERATIONS AND MAY INCREASE THE EXPOSURE TIME OF DENUDED AREAS. ADDITIONALLY, DEPENDING ON THE ORIGINAL VEGETATIVE COVER, TOPSOIL OFTEN CONTAINS WEED SEEDS THAT MAY COMPETE WITH DESIRABLE SPECIES.

IN SITE PLANNING, THE OPTION OF TOPSOILING SHOULD BE COMPARED WITH THAT OF PREPARING A SEEDBED IN SUBSOIL. THE CLAY CONTENT OF SUBSOIL DOES PROVIDE HIGH MOISTURE AVAILABILITY AND DETERS LEACHING OF NUTRIENTS. WHEN ADJUSTED FOR OPTIMAL PH AND NUTRIENT AVAILABILITY, SUBSOIL MAY PROVIDE AN ADEQUATE GROWTH MEDIUM THAT IS GENERALLY FREE OF WEEDS. TOPSOILING MAY NOT BE REQUIRED TO ESTABLISH LESS DEMANDING, LOWER MAINTENANCE PLANTS, ALTHOUGH RUNOFF WILL BE INCREASED DUE TO THE LACK OF TOPSOIL FROM THE SITE.

IF TOPSOILING IS PLANNED, LOCATIONS FOR TOPSOIL STOCKPILES MUST BE DETERMINED WHERE DRAINAGE AND SITE WORK WILL NOT BE ENCUMBERED. CONSTRUCTION SCHEDULING MUST BE ADJUSTED TO ALLOW SUFFICIENT TIME FOR MOVING, STOCKPILING AND SPREADING TOPSOIL BETWEEN GRADING AND RE-VEGETATION OPERATIONS.

### TOPSOILING SPECIFICATIONS

- DETERMINE THE DEPTH AND SUITABILITY OF TOPSOIL AT THE SITE PRIOR TO STRIPPING TOPSOIL, INSTALL APPROPRIATE DOWNSLOPE EROSION AND
- SEDIMENTATION CONTROLS SUCH AS SEDIMENT TRAPS AND BASINS.
- REMOVE THE SOIL MATERIAL NO DEEPER THAN WHAT THE COUNTY SOIL SURVEY DESCRIBES AS "SURFACE SOIL" (E.G. A OR AP HORIZON).
- CONSTRUCT STOCKPILES IN ACCESSIBLE LOCÁTIONS THAT DO NOT INTERFERE WITH NATURAL DRAINAGE. INSTALL APPROPRIATE SEDIMENT CONTROLS IMMEDIATELY ADJACENT TO THE STOCKPILE OR INSTALL SEDIMENT TRAPS/BASINS DOWNSTREAM OF THE STOCKPILE.

STOCKPILE SIDE SLOPES SHALL NOT EXCEED A RATIO OF 2:1. 5. IF TOPSOIL IS STORED FOR MORE THAN 21 DAYS, IT SHOULD BE TEMPORARY SEEDED, OR

- 1. PRIOR TO APPLYING TOPSOIL, THE TOPSOIL SHOULD BE PULVERIZED. 2. TO ENSURE BONDING, GRADE THE SUBSOIL AND ROUGHEN THE TOP THREE TO FOUR (3-4)
- INCHES BY DISKING. 3. DO NOT APPLY WHEN SITE IS WET, MUDDY, OR FROZEN, BECAUSE IT MAKES SPREADING
- DIFFICULT, CAUSES COMPACTION PROBLEMS, AND INHIBITS BONDING WITH SUBSOIL. 4. APPLY TOPSOIL EVENLY TO A DEPTH OF AT LEAST FOUR (4) INCHES AND COMPACT
- SLIGHTLY TO IMPROVE CONTACT WITH SUBSOIL. 5. AFTER SPREADING, GRADE AND STABILIZE WITH SEEDING OR APPROPRIATE VEGETATION.

TOPSOIL STOCKPILES SHOULD BE STABILIZED WITH TEMPORARY VEGETATION AND PROVIDED SUFFICIENT SEDIMENT CONTROLS. SEDIMENT CONTROLS WILL NEED REGULAR INSPECTION AND APPROPRIATE REPAIRS AS NEEDED.

- 1. CARE MUST BE TAKEN NOT TO APPLY TOPSOIL TO SUBSOIL IF THE TWO SOILS HAVE CONTRASTING TEXTURES. CLAYEY TOPSOIL OVER SANDY SUBSOIL IS A PARTICULARLY POOR COMBINATION, AS WATER MAY CREEP ALONG THE JUNCTION BETWEEN THE SOIL LAYERS, LEADING TO SLOUGHING OF THE TOPSOIL. SANDY TOPSOIL OVER CLAY SUBSOIL IS EQUALLY LIKELY TO FAIL.
- 2. IF TOPSOIL AND SUBSOIL ARE NOT PROPERLY BONDED, WATER WILL NOT INFILTRATE THE SOIL PROFILE EVENLY AND IT WILL BE DIFFICULT TO ESTABLISH VEGETATION. TOPSOILING OF STEEP SLOPES IS HIGHLY DISCOURAGED, UNLESS GOOD BONDING OF SOILS CAN BE
- 3. TOPSOIL SHOULD NOT BE APPLIED IN EXCESSIVELY WET/MOIST CONDITIONS.

### TEMPORARY SEEDING

TEMPORARY SEEDINGS ESTABLISH TEMPORARY COVER ON DISTURBED AREAS BY PLANTING APPROPRIATE RAPID GROWING ANNUAL GRASSES OR SMALL GRAINS. TEMPORARY SEEDING PROVIDES EROSION CONTROL ON AREAS IN BETWEEN CONSTRUCTION OPERATIONS. GRASSES, WHICH ARE QUICK GROWING, ARE SEEDED AND USUALLY MULCHED TO PROVIDE PROMPT, TEMPORARY SOIL STABILIZATION. IT EFFECTIVELY MINIMIZES THE AREA OF CONSTRUCTION SITE PRONE TO EROSION AND SHOULD BE USED EVERYWHERE THE SEQUENCE OF CONSTRUCTION ALLOWS VEGETATION TO BE ESTABLISHED.

SELECT THE APPROPRIATE PLANTS FROM THE LISTED BELOW IN THE SPECIFICATIONS. CHOOSE VARIETIES OF TALL FESCUE THAT ARE ENDOPHYTE FREE OR HAVE NON-TOXIC ENDOPHYTES. SEEDING RATES FOR DORMANT SEEDINGS ARE INCREASED BY FIFTY PERCENT (50%). SEE THE PERMANENT SEEDINGS NOTES & SPECIFICATIONS FOR MORE INFORMATION OF DORMANT

THE LENGTH OF TIME THE AREA WILL REMAIN IDLE AND THE SEASON IN WHICH SEEDING OCCURS SHOULD INFLUENCE THE SELECTION OF SEEDING SPECIES. FOR AREAS REMAINING IDLE FOR OVER A YEAR, A MIXTURE CONTAINING PERENNIAL RYEGRASS IS RECOMMENDED. CEREAL GRAINS (RYE, OATS, & WHEAT) ARE INCLUDED IN SOME OF THE MIXTURES AS COVER CROPS. THESE ARE ANNUAL PLANTS THAT WILL DIE AFTER PRODUCING SEED. REALIZE THAT OATS WILL NOT CONTINUE TO GROW OVER WINTER AS WHEAT AND RYE DO.

TEMPORARY SEEDING IS BEST DONE ON A PREPARED SOIL SEEDBED OF LOOSE PULVERIZED SOIL. HOWEVER, SEEDINGS SHOULD NO BE DELAYED IF ADDITIONAL GRADING OPERATIONS ARE NOT POSSIBLE. AT A MINIMUM, REMOVE LARGE ROCK OR DEBRIS THAT WILL INTERFERE WITH SEEDING OPERATIONS. IF THE GROUND HAS BECOME CRUSTED, A DISK OR A HARROW SHOULD BE USED TO LOOSEN THE SOIL. OVERALL, THE BEST SOIL CONDITIONS WILL EXIST IMMEDIATELY AFTER GRADING OPERATIONS CEASE, WHEN SOILS REMAIN LOOSE AND MOIST.

A SOIL TEST IS NECESSARY TO ADEQUATELY PREDICT THE NEED FOR LIME AND FERTILIZER. SEEDINGS THAT ARE EXPECTED TO BE LONG LASTING (OVER 1-3 MONTHS), SHOULD HAVE LIME AND FERTILIZER APPLIED AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST. FERTILIZER CAN BE BROADCAST AND WORKED INTO THE TOP INCH OF SOIL AT THE RATE OF 6 LBS/1000 S.F. OR 250 POUNDS PER ACRE OF 10-10-10 OR 12-12-12.

AREAS FAILING TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT EROSION SHALL BE RE-SEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED.

SEEDING PERFORMED DURING HOT AND DRY SUMMER MONTHS SHALL BE WATERED AT A RATE OF ONE INCH (1") PER WEEK.

### COMMON PROBLEMS/CONCERNS

- 1. INSUFFICIENT TOPSOIL OR INADEQUATELY TILLED, LIMED, AND/OR FERTILIZED SEEDBED
- RESULTS IN POOR ESTABLISHMENT OF VEGETATION. 2. AN OVERLY HIGH SEEDING RATE OF NURSE CROP (OAT, RYE OR WHEAT) IN THE SEED
- MIXTURE RESULTS IN OVER COMPETITION WITH THE PERENNIALS. 3. SEEDING OUTSIDE OF SEEDING DATES RESULTS IN POOR VEGETATION ESTABLISHMENT AND A
- DECREASE IN PLANT HARDINESS. 4. AN INADEQUATE RATE OF MULCH RESULTS IN POOR GERMINATION AND FAILURE.
- TEMPORARY SEEDING SPECIFICATIONS

- 1. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.
- 2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR TWENTY-ONE (21) DAYS OR GREATER. THESE IDLE AREAS SHALL BE SEEDED WITHIN SEVEN (7) DAYS AFTER GRADING.
- 3. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
- 4. SOIL AMENDMENTS TEMPORARY VEGETATION SEEDING RATES SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. BASE RATES FOR LIME AND FERTILIZER SHALL BE USED. 5. SEEDING METHOD - SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER,
- DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

### MULCHING TEMPORARY SEEDING

- 1. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH, WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES ON FAVORABLE, VERY FLAT SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.
- MATERIALS: STRAW — IF STRAW IS USED, IT SHALL BE UNROTTED SMALL—GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE OR 90 LBS/1,000 S.F. (2-3 BALES)
- HYDROSEEDERS IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LBS/ACRE OR 46 LBS/1,000 S.F.
- OTHER OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TON/AC. 3. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. ANCHORING METHODS:
- MECHANICAL A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT LEFT TO A LENGTH OF APPROXIMATELY 6
- INCHES. MULCH NETTING — NETTING SHALL BE USED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES.

- SYNTHETIC BINDERS SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC). DCA-70. PETROSET, TERRA TRACK OR EQUIVALENT MAY BE USED AT RATES RECOMMENDED BY THE
- WOOD-CELLULOSE FIBER WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WT. OF 750 LB./AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. / 100 GAL.

### SPECIES SELECTION & APPLICATION RATE

TEMPORARY SEEDING SHALL BE SELECTED AND APPLIED TO REQUIRED AREAS USING THE DATA IN THE TABLE BELOW:

TEMPORARY SEEDING

CEEDING DATES	CDECIEC	SEEDING RATE		
SEEDING DATES	SPECIES	LBS/1000 S.F.	LBS/ACRE	
MARCH 1 TO AUGUST 15  AUGUST 16 TO OCTOBER 31  AUGUST 16 TO OCTOBER 31  AUGUST 1 TO OCTOBER 31  AUGUST 1 TO OCTOBER 31  OATS TALL FESCUE ANNUAL RYEGRASS PERENNIAL RYEGRASS ANNUAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS WHEAT TALL FESCUE ANNUAL RYEGRASS PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS ANNUAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS	3.00	128		
	TALL FESCUE	1.00	40	
	ANNUAL RYEGRASS	1.00	40	
	PERENNIAL RYEGRASS	1.00	40	
	TALL FESCUE	1.00	40	
AUGUST 15	ANNUAL RYEGRASS	1.00	40	
	ANNUAL RYEGRASS	1.25	55	
	PERENNIAL RYEGRASS	3.25	142	
	CREEPING RED FESCUE	0.40	17	
	KENTUCKY BLUEGRASS	0.40	17	
	RYE	3.00	112	
	TALL FESCUE	1.00	40	
	ANNUAL RYEGRASS	1.00	40	
	WHEAT	3.00	120	
	TALL FESCUE	1.00	40	
	ANNUAL RYEGRASS	1.00	40	
	PERENNIAL RYEGRASS	1.00	40	
	TALL FESCUE	1.00	40	
	ANNUAL RYEGRASS	1.00	40	
	ANNUAL RYEGRASS	1.25	40	
	PERENNIAL RYEGRASS	3.25	40	
	CREEPING RED FESCUE	0.40	40	
	KENTUCKY BLUEGRASS	0.40		
NOVEMBER 1 TO FEBRUARY 29	USE MULCH ONLY OR DORM	ANT SEEDING		

### **MULCHING**

### A PROTECTIVE LAYER OF MULCH, USUALLY STRAW, APPLIED TO BARE SOIL IS USED TO ABATE EROSION BY SHIELDING IT FROM RAINDROP IMPACT. MULCH ALSO HELPS ESTABLISH VEGETATION BY CONSERVING MOISTURE AND CREATING FAVORABLE CONDITIONS FOR SEEDS TO GERMINATE.

MULCHING SHOULD BE USED LIBERALLY THROUGHOUT CONSTRUCTION TO LIMIT THE AREAS THAT ARE BARE AND SUSCEPTIBLE TO EROSION. MULCHING CAN BE USED IN CONJUNCTION WITH SEEDING TO ESTABLISH VEGETATION OR BY ITSELF TO PROVIDE EROSION CONTROL WHEN THE SEASON DOES NOT ALLOW GRASS TO GROW.

### **MAINTENANCE**

ADDITIONAL MULCHING IS NECESSARY TO COVER EXPOSED SOIL CONDITIONS WHEN OBSERVED DURING ROUTINE MAINTENANCE INSPECTIONS.

### COMMON PROBLEMS/CONCERNS

- THE APPLICATION OF SYNTHETIC BINDERS MUST BE CONDUCTED IN SUCH A MANNER AS TO NOT BE INTRODUCED INTO WATERCOURSES. 2. WEATHER CONSIDERATIONS MUST BE ADDRESSED TO ENSURE THE APPLICATION OF
- SYNTHETIC BINDERS ARE NOT WASHED AWAY AND INTRODUCED INTO WATERCOURSES. 3. THE USE OF A MULCH COVER IS NOT RECOMMENDED FOR AREAS, WHICH WILL EXHIBIT HIGHER VELOCITIES THAN 3.5 FEET/SECOND. AN EROSION CONTROL MATTING IS RECOMMENDED FOR AREAS WHICH WILL EXHIBIT HIGHER VELOCITIES.
- 4. AREAS WHICH HAVE BEEN MULCHED SHOULD BE INSPECTED AND MAINTAINED IF NECESSARY EVERY SEVEN (7) DAYS OR WITHIN TWENTY-FOUR (24) HOURS OF A RAIN EVENT GREATER THAN OR EQUAL TO 0.5 INCHES TO ENSURE ADEQUATE PROTECTION.

### PERMANENT SEEDING

PERENNIAL VEGETATION IS ESTABLISHED ON AREAS THAT WILL NOT BE RE-DISTURBED FOR PERIODS LONGER THAN TWELVE (12) MONTHS. PERMANENT SEEDING INCLUDES SITE PREPARATION, SEEDBED PREPARATION, PLANTING SEED, MULCHING, IRRIGATION AND MAINTENANCE.

PERMANENT VEGETATION IS USED TO STABILIZE SOIL, REDUCE EROSION, PREVENT SEDIMENT POLLUTION, REDUCE RUNOFF BY PROMOTING INFILTRATION, AND PROVIDE STORMWATER QUALITY BENEFITS OFFERED BY DENSE GRASS COVER.

VEGETATION CONTROLS EROSION BY REDUCING THE VELOCITY AND THE VOLUME OF OVERLAND FLOW AND PROTECTS BARE SOIL SURFACE FROM RAINDROP IMPACT. A HEALTHY, DENSE TURF PROMOTES INFILTRATION AND REDUCES THE AMOUNT OF RUNOFF. THE ESTABLISHMENT OF QUALITY VEGETATION REQUIRES SELECTION OF THE RIGHT PLANT MATERIALS FOR THE SITE, ADEQUATE SOIL AMENDMENTS, CAREFUL SEEDBED PREPARATION, AND MAINTENANCE.

SOIL COMPACTION
STORM WATER QUALITY AND THE AMOUNT OF RUNOFF BOTH VARY SIGNIFICANTLY WITH SOIL COMPACTION. NON-COMPACTED SOILS IMPROVE STORMWATER INFILTRATION BY PROMOTING DENSE VEGETATIVE GROWTH; HIGH SOIL INFILTRATION & LOWER RUNOFF RATES; POLLUTANT FILTRATION, DEPOSITION & ABSORPTION; AND BENEFICIAL BIOLOGIC ACTIVITY IN THE SOIL.

CONSTRUCTION ACTIVITY CREATES HIGHLY COMPACTED SOILS THAT RESTRICT WATER INFILTRATION AND ROOT GROWTH. THE BEST TIME FOR IMPROVING SOIL CONDITION IS DURING THE ESTABLISHMENT OF PERMANENT VEGETATION. IT IS HIGHLY RECOMMENDED THAT SUBSOILERS, PLOWS, OR OTHER IMPLEMENTS ARE SPECIFIED AS PART OF FINAL SEEDBED PREPARATION. USE DISCRETION IN SLIP-PRONE AREAS.

VEGETATION CANNOT BE EXPECTED TO STABILIZE SOIL THAT IS UNSTABLE DUE TO ITS TEXTURE, STRUCTURE, WATER MOVEMENT OR EXCESSIVELY STEEP SLOPE. THE FOLLOWING MINIMUM SOIL CONDITIONS ARE NEEDED FOR THE ESTABLISHMENT AND MAINTENANCE OF A LONG-LIVED VEGETATIVE COVER. IF THESE CONDITIONS CANNOT BE MET, SEE THE STANDARDS AND SPECIFICATIONS FOR TOPSOILING. 1. SOILS MUST INCLUDE ENOUGH FINE-GRAINED MATERIAL TO HOLD AT LEAST A MODERATE

AMOUNT OF AVAILABLE MOISTURE.

2. THE SOIL MUST BE FREE FROM MATERIAL THAT IS TOXIC OR OTHERWISE HARMFUL TO PLANT GROWTH.

1. EXPECT EMERGENCE WITHIN FOUR (4) TO TWENTY-EIGHT (28) DAYS AFTER SEEDING, WITH LEGUMES TYPICALLY FOLLOWING GRASSES. CHECK PERMANENT SEEDLINGS WITHIN FOUR (4) TO SIX (6) WEEKS AFTER PLANTING, LOOKING FOR: VIGOROUS SEEDLINGS

UNIFORM GROUND SURFACE COVERAGE WITH AT LEAST 30% GROWTH DENSITY

• UNIFORMITY WITH LEGUMES AND GRASSES WELL INTERMIXED

• GREEN, NOT YELLOW, LEAVES. PERENNIALS SHOULD REMAIN GREEN THROUGHOUT THE SUMMER, AT LEAST AT THE PLANT BASES

PERMANENT SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST ONE (1) FULL YEAR FROM THE TIME OF PLANTING. INSPECT THE SEEDING FOR SOIL EROSION OR PLANT LOSS DURING THIS FIRST YEAR. REPAIR BARE AND SPARSE AREAS. FILL GULLIES. RE-FERTILIZE, RE-SEED, AND RE-MULCH IF REQUIRED. CONSIDER NO-TILL PLANTING. A MINIMUM OF 70% GROWTH DENSITY, BASED ON A VISUAL INSPECTION, MUST EXIST FOR AN ADEQUATE PERMANENT VEGETATIVE PLANTING.

• IF STAND IS INADEQUATE OR PLANT COVER IS PATCHY, IDENTIFY THE CAUSE OF FAILURE AND TAKE CORRECTIVE ACTION: CHOICE OF PLANT MATERIALS, LIME AND FERTILIZER QUANTITIES, POOR SEEDBED PREPARATION, OR WEATHER. IF VEGETATION FAILS TO GROW, HAVE THE SOIL TESTED TO DETERMINE WHETHER PH IS IN THE CORRECT RANGE OR NUTRIENT DEFICIENCY IS A PROBLEM.

• DEPENDING ON STAND CONDITIONS, REPAIR WITH COMPLETE SEEDBED PREPARATION, THEN OVER-SEED OR RE-SEED.

• IF IT IS THE WRONG TIME OF YEAR TO PLANT DESIRED SPECIES, OVER-SEED WITH SMALL GRAIN COVER CROP TO THICKEN THE STAND UNTIL TIMING IS RIGHT TO PLANT PERENNIALS OR USE TEMPORARY SEEDING. 3. SATISFACTORY ESTABLISHMENT MAY REQUIRE RE-FERTILIZING THE STAND IN THE SECOND

• DO NOT FERTILIZE COOL SEASON GRASSES IN LATE MAY THROUGH JULY (I.E. KENTUCKY

BLUEGRASS, ORCHARDGRASS, PERRENIAL RYEGRASS, SMOOTH BROME, FESCUES, TIMOTHY,

REED CANARYGRASS AND GARRISON GRASS) • GRASS THAT LOOKS YELLOW MAY BE NITROGEN DEFICIENT. IN LIEU OF A SOIL TEST, AN APPLICATION OF 50 LBS OF N-P-K PER ACRE IN EARLY SPRING WILL HELP COOL

SEASON GRASSES COMPETE AGAINST WEEDS OR GROW MORE SUCCESSFULLY DO NOT USE NITROGEN FERTILIZER IF THE STAND CONTAINS MORE THAN 20 PERCENT

4. CONSIDER MOWING AFTER PLANTS REACH A HEIGHT OF SIX (6) TO EIGHT (8) INCHES. MOW GRASSES TALL, AT LEAST THREE (3) INCHES IN HEIGHT AND MINIMIZE COMPACTION DURING THE MOWING PROCESS. VEGETATION ON STRUCTURAL PRACTICES SUCH AS EMBANKMENTS AND GRASS-LINED CHANNELS NEED TO BE MOWED ONLY TO PREVENT WOODY PLANTS FROM INVADING THE STAND.

### COMMON PROBLEMS/CONCERNS

1. INSUFFICIENT TOPSOIL OR INADEQUATELY TILLED, LIMED, AND/OR FERTILIZED SEEDBED -RESULTS IN POOR ESTABLISHMENT OF VEGETATION.

2. UNSUITABLE SPECIES OR SEEDING MIXTURE - RESULTS IN COMPETITION WITH THE

3. NURSE CROP RATE TOO HIGH IN THE MIXTURE - RESULTS IN COMPETITION WITH THE PERENNIALS.

4. SEEDING DONE AT THE WRONG TIME OF YEAR - RESULTS IN POOR ESTABLISHMENT OF VEGETATION, ALSO PLANT HARDINESS IS SIGNIFICANTLY DECREASED. 5. MULCH RATE INADEQUATE - RESULTS IN POOR GERMINATION AND FAILURE

### PERMANENT SEEDING SPECIFICATIONS

SUBSOILER, PLOW, OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY. SUBSOILING SHOULD BE DONE WHEN THE SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING SHALL NOT BE DONE ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.

2. THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.

TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.

SEEDBED PREPARATION

1. LIME — AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 POUNDS PER 1,000-SQ. FT. OR 2 TONS PER ACRE.

2. FERTILIZER - FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN PLACE OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 25 POUNDS PER 1,000-SQ.

3. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE—SPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR SEEDBED PREPARATION SHOULD BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE THE FOLLOWING SECTION ON DORMANT SEEDING.

SEEDINGS SHOULD NOT BE MADE FROM OCTOBER 1 THROUGH NOVEMBER 20. DURING THIS PERIOD, THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER. 2. THE FOLLOWING METHODS MAY BE USED FOR "DORMANT SEEDING": • FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, ADD THE REQUIRED

AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOVEMBER 20, AND BEFORE MARCH 15. BROADCAST THE SELECTED SEED MIXTURE. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING. • FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDBED, LIME AND FERTILIZE, APPLY THE SELECTED SEED MIXTURE, MULCH AND ANCHOR.

 APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRO-SEEDER (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED. • WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR

LIGHT DRAG. ON SLOPING LAND, SEEDING OPERATIONS SHOULD BE ON THE CONTOUR

INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.

WHERE FEASIBLE.

APPLIED AT 6 TONS PER ACRE.

(6) INCHES

I. MULCH MATERIAL SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. DORMANT SEEDING SHALL BE MULCHED. 100% OF THE GROUND SURFACE SHALL BE COVERED WITH AN APPROVED MATERIAL. 2. MATERIALS

• STRAW - IF STRAW IS USED IT SHALL BE UNROTTED SMALL-GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR 90 POUNDS (TWO TO THREE BALES) PER 1,000 S.F. THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY APPLIED SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000-SQ.-FT. SECTIONS AND SPREAD TWO 45-LB. BALES OF STRAW IN EACH SECTION

• HYDROSEEDERS - IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE APPLIED AT 2,000 LBS/ACRE OR 46 LBS/1,000 S.F. • OTHER - OTHER ACCEPTABLE MULCHES INCLUDE ROLLED EROSION CONTROL MATTINGS OR

BLANKETS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS

3. STRAW AND MULCH ANCHORING METHODS — STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. • MECHANICAL - A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY, BE LEFT LONGER THAN SIX

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PRELIMINARY ENGINEERING SET ■ AGENCY REVIEW SET CONSTRUCTION DOCUMENT SET AS-BUILT DOCUMENT SET

DRAFT CHECK

VERT**I**CAL: N/A

SHEET NO.:

### PERMANENT SEEDING (CONT'D)

- MULCH NETTING NETTING SHALL BE USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES
- ASPHALT EMULSION ASPHALT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURER OR AT THE RATE OF 160 GALLONS PER ACRE
- SYNTHETIC BINDERS SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUIVALENT MAY BE USED AT RATES SPECIFIED BY THE
- MANUFACTURER • WOOD CELLULOSE FIBER - WOOD CELLULOSE FIBER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER WITH THE MIXTURE CONTAINING A MAXIMUM OF 50 POUNDS CELLULOSE PER 100 GALLONS OF WATER.

PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY WEATHER OR ON ADVERSE SITE CONDITIONS, WHICH REQUIRE ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH.

IRRIGATION RATES SHALL BE MONITORED TO PREVENT EROSION AND DAM\FS20 AGE TO SEEDED AREAS FROM EXCESSIVE RUNOFF

### SPECIES SELECTION & APPLICATION RATE

PERMANENT SEEDING SHALL BE SELECTED AND APPLIED TO REQUIRED AREAS USING THE DATA IN THE TABLE BELOW:

PERMANENT SEEDING					
CEED MIV	SEED	DING RATE			
SEED MIX	LBS/ACRE	LBS/1000 S.F.	NOTES		
	GENER	RAL USE			
CREEPING RED FESCUE	20-40	0.50-1.00	FOR CLOSE MOWING &		
DOMESTIC RYEGRASS	10-20	0.25-0.50	FOR WATERWAYS WITH		
KENTUCKY BLUEGRASS	20-40	0.50-1.00	VELOCITY < 2.0 FT/SEC		
TALL FESCUE	40-50	1.00-1.25			
TURF-TYPE (DWARF) FESCUE	90	2.25			
	STEEP BANKS	OR CUT SLOPES			
TALL FESCUE	40-50	1.25			
CROWN VETCH	10-20	3.25	DO NOT SEED LATER		
TALL FESCUE	20-30	0.40	THAN AUGUST		
FLAT PEA	20-25	3.25	DO NOT SEED LATER		
TALL FESCUE	20-30	0.40	THAN AUGUST		
	ROAD DITCHE	S AND SWALES			
TALL FESCUE	40-50	1.25			
TURF-TYPE (DWARF) FESCUE	90	3.25			
TALL FESCUE	5	1.00			
	LA\	WNS			
KENTUCKY BLUEGRASS	100-120	2.00			
PERENNIAL RYEGRASS	100-120	2.00			
KENTUCKY BLUEGRASS	100-120	2.00	FOR SHADED AREAS		
CREEPING RED FESCUE	100-120	1.00-1.50	TON SHADED ANEAS		
RIPARIAN SEED MIX					
GRASSES, SEDGES AND RUSHES	40	0.92	EARTH SOURCE, INC. MIDWESTER RIPARIAN MIX		
FORBES	34	0.78	(WS2) OR APPROVED EQUAL		
NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED.					

### **ROCK CHECK DAMS**

CHECK DAMS ARE SMALL ROCK DAMS CONSTRUCTED IN SWALES, GRASSED WATERWAYS OR DIVERSIONS. THEY REDUCE THE VELOCITY OF CONCENTRATED FLOWS, THEREBY REDUCING EROSION WITHIN THE SWALE OR WATERWAY. WHILE THIS PRACTICE OFTEN TRAPS SOME SEDIMENT, ITS TRAPPING EFFICIENCY IS EXTREMELY POOR, THUS, IT SHOULD NOT BE USED AS A PRIMARY SEDIMENT-TRAPPING PRACTICE.

THIS PRACTICE IS LIMITED TO USE IN SMALL OPEN CHANNELS WHERE IT IS NECESSARY TO SLOW THE VELOCITY OF FLOWS IN ORDER TO PREVENT EROSION. APPLICATIONS INCLUDE TEMPORARY SWALES WHICH, BECAUSE OF THEIR SHORT LENGTH OF SERVICE, ARE NOT PRACTICAL TO RECEIVE A NON-ERODIBLE LINING OR SWALES WHICH NEED PROTECTION DURING THE ESTABLISHMENT OF GRASS LININGS. THIS PRACTICE IS LIMITED TO SMALL, OPEN CHANNELS WITH A DRAINAGE AREA LESS THAN TEN (10) ACRES WITH THE OBJECT TO PROTECT LIVE STREAMS.

ROCK CHECK DAMS ARE PREFERRED OVER STRAW BALE DAMS FOR THEIR EFFECTIVENESS AT FILTRATION AND MINIMAL MAINTENANCE REQUIREMENTS.

ROCK CHECK DAMS SHALL BE PLACED WHERE STANDING WATER OR EXCESSIVE SILTATION ARE MINIMIZED OR WHERE VEGETATIVE LINING DEATH IS INSIGNIFICANT.

ROCK CHECK DAMS SHOULD BE CONSIDERED WHERE THE DITCH OR SWALE WILL NOT BE MOWED AFTER CONSTRUCTION IS COMPLETE.

FOR INCREASED SEDIMENT CONTROL SMALLER AGGREGATE AND OR FILTER FABRIC ON THE UPSTREAM SIDE MAY BE USED. ALTHOUGH, IT SHOULD BE NOTED THAT INCREASED PONDING AND THE SUBSEQUENT INCREASE IN HEIGHT OF WATER BEHIND THE CHECK DAM RAISES THE EROSION POTENTIAL DOWNSTREAM. SEE THE DETAIL & SPECIFICATIONS (INCLUDED IN THESE PLANS) FOR ADDITIONAL DESIGN GUIDELINES.

SEDIMENT SHALL BE REMOVED FROM BEHIND THE CHECK DAM ONCE IT ACCUMULATES TO ONE-HALF OF THE ORIGINAL HEIGHT OF THE CHECK DAM.

REMOVAL OF THE CHECK DAM CAN BE PERFORMED BY HAND OR MECHANICAL MEANS. STONE AND SEDIMENT SHOULD BE REMOVED AND THE AREA GRADED AND SEEDED.

### COMMON PROBLEMS/CONCERNS

1. IF THE SWALE/DITCH IS TO BE MOWED, THE ROCKS THAT REMAIN (AFTER REMOVAL OF THE CHECK DAM) MAY POSE A SAFETY OR MAINTENANCE PROBLEM.

### <u>SLOPE DRAINS</u>

A PIPE OR CHUTE PLACED ON A SLOPE TO CONVEY SURFACE RUNOFF DOWNSLOPE WITHOUT CAUSING EROSION. SLOPE DRAINS PROVIDE A TEMPORARY OUTLET FOR EITHER A DIVERSION OR

### TERRACED SLOPE.

SLOPE DRAINS ARE USED WHEREVER A TEMPORARY OUTLET IS NEEDED FOR A DIVERSION, TERRACE OR EMBANKMENT. SLOPE DRAINS ARE USEFUL ALONG ROAD FILLS OR OTHER LONG FILLS WHERE SURFACE FLOW DOWN THE EMBANKMENT WOULD CAUSE SIGNIFICANT DAMAGE. THIS PRACTICE MAY BE NECESSARY WHERE DRAINAGE CANNOT EASILY BE DIRECTED TO THE ENDS OF A SECTION OF FILL. THE MAXIMUM ALLOWABLE DRAINAGE AREA FOR THIS PRACTICE

<u>DESIGN CRITERIA</u>
THE SLOPE DRAIN SHALL BE DESIGNED FOR NON-PRESSURE FLOW, AND A MINIMUM 10 YEAR FREQUENCY EVENT. THE INLET SHALL BE PROTECTED FROM SCOURING. IN LIEU OF DESIGN COMPUTATIONS. THE FOLLOWING TABLE MAY BE USED FOR SIZING THE DRAIN:

SLOPE DRAIN SIZING				
PIPE DIAMETER (INCHES)	MAXIMUM DRAINAGE AREA (ACRES)			
12	0.50			
18	1.50			
21	2.50			
24	3.50			

OUTLET - WHEN THE DRAINAGE AREA IS DISTURBED, THE SLOPE DRAIN SHALL EITHER HAVE INLET PROTECITION, OR THE DRAIN OUTLET SHALL BE DIRECTED INTO A SEDIMENT TRAPPING DEVICE. A HARD ARMORED APRON SHALL BE PROVIDED BELOW THE OUTLET WHERE CLEAN WATER IS DISCHARGED INTO A STABILIZED AREA OR CHANNEL.

- THE SLOPE DRAIN SHALL BE CONSTRUCTED ON A MINIMUM SLOPE OF 3 PERCENT.
- 2. ALL POINTS ALONG THE TOP OF THE DIKE/EARTHFILL FOR THE STORAGE AREA SHALL BE AT LEAST ONE (1) FOOT HIGHER THAN THE TOP OF THE INLET PIPE.
- 3. THE PIPE DRAIN MAY BE CONSTRUCTED OF CORRUGATED METAL OR PVC PIPE. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT. FLEXIBLE TUBING MAY BE USED, PROVIDED RIGID PIPE IS USED FOR THE INLET, THE FLEXIBLE TUBING IS OF THE SAME DIAMETER AS THE INLET, AND PIPE CONNECTIONS ARE MADE WITH METAL STRAPPING OR WATERTIGHT CONNECTING COLLARS. THE FLEXIBLE PIPE SHALL BE CONSTRUCTED WITH HOLD DOWN APPARATUS SPACED ON 10 FOOT CENTERS FOR ANCHORING THE PIPE.
- 4. THE ENTRANCE TO THE PIPE SHALL BE A HOODED TYPE. 5. THE SOIL AROUND AND/OR UNDER THE PIPE SHALL BE PLACED IN FOUR (4) INCH LAYERS
- AND HAND COMPACTED TO THE TOP OF THE EARTH DIKE. 6. A RIPRAP APRON SHALL BE INSTALLED AT THE PIPE OUTLET WHERE CLEAN WATER IS

### COMMON PROBLEMS/CONCERNS

- PIPING OF SOIL MATERIAL APPEARS AROUND THE PIPE OUTLET CARE SHOULD BE TAKEN TO ADEQUATELY COMPACT THE FILL MATERIAL AROUND AND BENEATH THE PIPE STRUCTURE TO PREVENT THE FLOW OF WATER.
- 2. SCOURING OF FILL MATERIAL OCCURS AROUND THE PIPE ENTRANCE A VORTEX MAY OCCUR AT THE PIPE ENTRANCE DURING HIGH FLOW CONDITIONS. ARMORING OF THE ENTRANCE OR THE INSTALLATION OF AN ANTI-VORTEX DEVICE MAY BE NECESSARY TO PREVENT THE FAILURE OF THE EARTH FILL/DIKE.

### TEMPORARY DIVERSION

- A TEMPORARY DIVERSION IS A DIKE AND/OR CHANNEL CONSTRUCTED TO:
- . DIRECT SEDIMENT-LADEN RUNOFF TO A SETTLING BASIN 2. ROUTE CLEAN RUNOFF AWAY FROM DISTURBED AREAS
- . DIVERT RUNOFF TO REDUCE THE EFFECTIVE LENGTH OF THE SLOPE 4. DIRECT RUNOFF AWAY FROM STEEP CUT OR FILL SLOPES

DISCHARGED INTO A STABILIZED AREA OR DRAINAGEWAY.

THIS PRACTICE APPLIES TO CONSTRUCTION AREAS WHERE RUNOFF MUST BE REDIRECTED IN ORDER TO PREVENT OFFSITE SEDIMENTATION, EROSION OR FLOODING OF WORK AREAS. TEMPORARY DIVERSIONS ARE PARTICULARLY APPLICABLE TO PREVENT FLOW FROM DAMAGING

TEMPORARY DIVERSIONS ARE APPROPRIATE FOR DRAINAGE AREAS LESS THEN 10 ACRES.

### PLANNING CONSIDERATIONS

ERODIBLE OR UNSTABLE AREAS.

T IS IMPORTANT THAT DIVERSIONS ARE PROPERLY DESIGNED. CONSTRUCTED. AND MAINTAINED SINCE THEY CONCENTRATE WATER FLOW AND MAY INCREASE EROSION POTENTIAL. PARTICULAR CARE MUST BE TAKEN IN PLANNING DIVERSION GRADES. TOO MUCH SLOPE CAN RESULT IN EROSION IN THE DIVERSION CHANNEL OR AT THE OUTLET. A CHANGE OF SLOPE FROM A STEEPER GRADE TO A FLATTER MAY CAUSE DEPOSITION TO OCCUR, REDUCING CARRYING CAPACITY, AND INCREASING CHANCES OF OVERTOPPING & FAILURE.

IT IS USUALLY LESS COSTLY TO EXCAVATE A CHANNEL AND FORM A DIKE USING THE SPOILS THAN TO BUILD DIVERSIONS BY OTHER METHODS. WHERE SPACE IS LIMITED, IT MAY BE NECESSARY TO BUILD THE DIKE BY HAULING IN DIKING MATERIAL. USE GRAVEL TO ARMOR THE DIVERSION DIKE WHERE VEHICLES MUST CROSS FREQUENTLY.

BUILD AND STABILIZE DIVERSIONS AND OUTLETS OR DOWNSTREAM SEDIMENT FACILITIES BEFORE INITIATING OTHER LAND-DISTURBING ACTIVITIES.

THESE STRUCTURES GENERALLY HAVE A LIFE EXPECTANCY OF 18MONTHS OR LESS, BUT CAN BE PROLONGED WITH PROPER MAINTENANCE.

SEE THE DETAIL & SPECIFICATIONS (INCLUDED IN THESE PLANS) FOR ADDITIONAL DESIGN GUIDELINES.

INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY STORM EVENT. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION DIKE AS NEEDED. CAREFULLY CHECK OUTLETS AND MAKE NECESSARY REPAIRS IMMEDIATELY.

WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE DIKE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND STABILIZE ALL DISTURBED AREAS WITH VEGETATION OR OTHER EROSION CONTROL PRACTICE.

- COMMON PROBLEMS/CONCERNS 1. SEDIMENTATION RESULTS IN CHANNEL GRADE DECREASING OR REVERSING, LEADING TO
- OVERTOPPING REALIGN OR DEEPEN THE CHANNEL TO MAINTAIN GRADE 2. LOW POINT IN DIKE WHERE DIVERSION CROSSES A NATURAL DEPRESSION RESULTS IN
- OVERTOPPING OF THE DIKE BUILD UP THE DIKE. 3. EROSION IN CHANNEL BEFORE VEGETATION IS ESTABLISHED RESULTS IN UNEVEN CHANNEL
- GRADE, MAY LEAD TO BREACH OF DIKE REPAIR CHANNEL AND INSTALL SOD OR SYNTHETIC LINER. 4. IF SEEPAGE OR POOR DRAINAGE IN CHANNEL RESULTS IN POOR VEGETATION
- ESTABLISHMENT, IT MAY BE NECESSARY TO RE-GRADE IN ORDER TO CREATE POSITIVE DRAINAGE OR TO INSTALL SUBSURFACE DRAINS OR STONE CHANNEL BOTTOM.
- 5. VEHICLE CROSSINGS RESULT IN RUTTING AND INCREASED EROSION MAINTAIN THE DIKE HEIGHT, FLATTEN THE SIDE SLOPES, PROTECT THE DIKE WITH GRAVEL OR HARD SURFACE AT THE CROSSING POINT.
- 6. EXCESSIVE VELOCITY AT THE OUTLET RESULTS IN EROSION INSTALL OR REPAIR ROCK
- OUTLET PROTECTION. 7. EXCESSIVE GRADE IN CHANNEL RESULTS IN GULLY EROSION — REPAIRS CHANNEL, AND INSTALL AN EROSION RESISTANT LINING OR REALIGN TO REDUCE THE GRADE.

### DEWATERING MEASURES

DEWATERING MEASURES PROVIDE A STABLE AREA FOR RECEIVING AND TREATING WATER PUMPED FROM EXCAVATION OR WORK AREAS PRIOR TO BEING RELEASED OFF THE SITE. THESE PRACTICES REDUCE SEDIMENT IMPACTS TO DOWNSTREAM WATER RESOURCES.

DEWATERING MEASURES ARE USED WHENEVER WATER, EITHER SURFACE OR SUBSURFACE, PREVENTS OR HINDERS CONSTRUCTION ACTIVITIES AND HAS THE POTENTIAL OF CONTRIBUTING SEDIMENT TO STREAMS. THIS PRACTICE IS APPROPRIATE FOR ANY KIND OF PUMPING USED IN CONJUNCTION WITH CONSTRUCTION ACTIVITIES.

### PLANNING CONSIDERATIONS

CONSTRUCTION ACTIVITIES OFTEN REQUIRE THAT WATER BE PUMPED FROM AN AREA TO FACILITATE WORK. THIS WATER OFTEN HAS LARGE AMOUNTS OF SUSPENDED SEDIMENTS. RATHER THAN DISCHARGE THIS WATER DIRECTLY TO A STREAM, A MEANS TO SETTLE OR REMOVE SEDIMENT MUST BE PROVIDED.

A DEWATERING PLAN SHOULD BE PREPARED UTILIZING GROUND WATER CONDITIONS AND SOILS INFORMATION TO PREDICT AREAS WHERE DEWATERING WILL LIKELY OCCUR. PLANS SHOULD INCLUDE THE LENGTH OF TIME DEWATERING WILL OCCUR, THE METHOD OF DEWATERING (PUMPING, SIPHON, ETC.), THE DISCHARGE POINT(S), METHODS TO CONTROL SEDIMENT IMPACTS AND THE CONTENTS OF A WRITTEN LOG TO BE KEPT ON-SITE. THESE PLANS MAY NEED TO BE APPROVED BY LOCAL AUTHORITIES PRIOR TO CONSTRUCTION.

ALL DEWATERING DISCHARGES WITH SUSPENDED SOLIDS SHOULD PASS THROUGH A PRACTICE TO REMOVE SEDIMENTS. WHILE VEGETATED FILTER AREAS MAY BE SUFFICIENT FOR SOME SITUATIONS (E.G. SHORT DURATION LOW PUMPING RATES) MANY WILL NEED ADDITIONAL MEASURES. SUCH AS SEDIMENT TRAPS, FILTER BAG OR FLOCCULATION. ALL STRUCTURES MUST HAVE ADEQUATE OUTLET PROTECTION TO PREVENT GULLY EROSION. PLEASE NOTE THAT THE OHIO ENVIRONMENTAL PROTECTION AGENCY WILL FIND TURBID DISCHARGES TO THE STREAM RESULTING FROM ANY DEWATERING ACTIVITY A VIOLATION OF OHIO REVISED CODE 6111.04 INDEPENDENT OF THE METHODS EMPLOYED. THEREFORE EVEN IF ONE METHOD IS SELECTED, ADDITIONAL MEASURES MAY BE REQUIRED TO FULLY TREAT TURBID WATER.

THE PARTICLE SIZE DISTRIBUTION, THAT IS THE RELATIVE PROPORTION OF SANDS. SILTS AND CLAYS, OF A SOIL THAT IS SUSPENDED WILL DETERMINE THE DIFFICULTY OF REMOVING SEDIMENTS. SOILS WITH COARSER PARTICLE SIZE DISTRIBUTIONS (LARGE PROPORTION OF SAND) WILL BE EASIER TO SETTLE OUT WITH FILTER STRIPS AND SETTLING PONDS. FINER PARTICLE SIZE DISTRIBUTIONS (PREDOMINANTLY SILT AND CLAYS) WILL BE INCREASINGLY DIFFICULT AND MAY NEED A SERIES OF MEASURES.

GROUND WATER LOWERING - OFTEN DEWATERING WELLS ARE ESTABLISHED TO LOWER THE GROUND WATER TABLE FOR UTILITY INSTALLATION OR CONSTRUCTION. GENERALLY, THIS WATER IS FREE FROM SUSPENDED SOLIDS AND MAY BE DISCHARGED TO WATERS OF THE STATE PROVIDED THE WATER IS NOT CONTAMINATED.

MEASURES SHOULD BE TAKEN TO ENSURE THE DISCHARGE FROM THE DEWATERING WELLS DOES NOT FLOW OVER DISTURBED AREAS AND SUSPEND SEDIMENTS. RESULTING IN CONTAMINATED DISCHARGE. WATERWAYS ESTABLISHED TO TRANSPORT DEWATERING FLOW SHOULD BE PROTECTED FROM EROSION FROM THE POINT OF DISCHARGE ALL THE WAY TO WATERS OF THE STATE. EXTENDING HOSES TO WATERS OF THE STATE WILL ENSURE THE DISCHARGE REMAINS FREE FROM SUSPENDED SOLIDS. THIS PRACTICE IS RECOMMENDED FOR DISCHARGES OF SHORT DURATION.

WATER PUMPED FROM WELLS IS ABOUT 55°F, WHICH MAY CAUSE THERMAL IMPACTS IN SOME SITUATIONS. HIGH PUMPING RATES NEAR SMALL STREAMS IN SUMMER WILL HAVE MAJOR CHANGES IN STREAM METABOLISM, I.E., THROW OFF SPAWNING. WHERE THIS POTENTIAL OCCURS, GROUNDWATER SHOULD NOT BE DISCHARGED DIRECTLY TO THE STREAM BUT ROUGHED THROUGH SETTLING PONDS OR OTHER SHALLOW HOLDING PONDS.

THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WATER, REQUIRES A WATER WITHDRAW REGISTRATION FOR THE DEWATERING ACTIVITIES IN THE EVENT THE FACILITY HAS THE CAPACITY OF PUMPING IN EXCESS OF 100,000 GALLONS PER DAY. THIS REGISTRATION MUST BE SUBMITTED TO ODNR WITHIN 90 DAYS FOLLOWING THE COMPLETION OF THE PROJECT. A WATER WITHDRAW REGISTRATION CAN BE OBTAINED BY CONTACTING ODNR, DIVISION OF WATER, AT 614-265-6735. ASSISTANCE REGARDING PROPER WELL INSTALLATION AND ABANDONMENT IS ALSO AVAILABLE.

VEGETATED FILTER AREAS - DENSELY VEGETATED AREAS MAY OFFER SUFFICIENT CONDITIONS TO TREAT SHORT DURATION DISCHARGES PROVIDED THAT: FLOW IS NOT CHANNELIZED DIRECTLY TO A WATER RESOURCE AND THE AREA ENCOURAGES INFILTRATION, SLOW OVERLAND FLOW AND SETTLING. A MINIMUM OF 100 FEET IS REQUIRED TO UTILIZE A VEGETATED AREA. DENSE GRASS OR AREAS WITH NATURAL DEPRESSIONS WILL PROVIDE THE BEST CONDITIONS. CRITICAL AREAS LIKE WETLANDS (E.G. VERNAL POOLS) OR AREAS WITH SENSITIVE VEGETATION THAT WILL BE DAMAGED (SMOTHERING) BY SEDIMENTATION SHOULD NOT BE USED.

SEDIMENT TRAP OR BASIN - IN MOST CASES, CONTAMINATED DISCHARGE SHOULD BE DIRECTED TO A SEDIMENT TRAP WHERE THE SUSPENDED SOLIDS CAN SETTLE /FILTER OUT PRIOR TO THE DISCHARGE TO WATERS OF THE STATE. SEDIMENT TRAPS SHOULD HAVE SUFFICIENT STORAGE TO RECEIVE AL L THE DISCHARGED WATER FROM PUMPING AND DETAIN THIS WATER A MINIMUM OF 24 HOURS. THE SEDIMENT STORAGE VOLUME IS DIRECTLY RELATED TO THE PUMPING CAPACITY AND THE AMOUNT OF TURBIDITY. THE SEDIMENT POND SHOULD BE DESIGNED TO OPTIMIZE THE AMOUNT OF TRAVEL TIME THROUGH THE IMPOUNDMENT. THE SEDIMENT POND SHOULD NOT BE MORE THAN FOUR (4) FEET DEEP WITH THE DISTANCE BETWEEN THE INTAKE AND OUTLET MAXIMIZED TO THE EXTENT PRACTICAL.

PUMP INTAKES - PUMP INTAKES SHOULD WITHDRAW WATER FROM THE SURFACE OF THE TRENCH OR WORK AREA IN ORDER NOT TO RE-SUSPEND OR CONTINUALLY MIX WATER. CONTINUALLY DRAWING WATER FROM THE FLOOR OF THE AREA WILL DRAW THE MUDDIEST WATER AND INCREASE THE AMOUNT OF SEDIMENT THAT MUST BE REMOVED.

GEOTEXTILE FILTER BAGS - FILTER BAGS ARE AN INCREASINGLY COMMON WAY TO REMOVE SEDIMENT FROM DEWATERING DISCHARGE. DISCHARGE IS PUMPED INTO A FILTER BAG CHOSEN FOR THE PREDOMINANT SEDIMENT SIZE. FILTER BAGS ARE MANUFACTURED PRODUCTS MADE TYPICALLY FROM WOVEN MONOFILAMENT POLYPROPYLENE TEXTILE (COARSE MATERIALS, E.G. SANDS) OR NON-WOVEN GEOTEXTILE (SILTS/CLAYS). THEY ARE SINGLE USE PRODUCTS THAT MUST BE REPLACED WHEN THEY BECOME CLOGGED OR HALF FULL OF SEDIMENT.

WHILE THEY MAY BE USEFUL, THEY ARE GENERALLY HIGH FLOW PRODUCTS, WHICH HAVE LIMITED ABILITY TO TREAT FINE-GRAINED SEDIMENTS. GRAVITY DRAINED FILTER BAGS SHOULD APPLY THE FOLLOWING:

- THEY SHOULD PLACE OUTSIDE OF A VEGETATED FILTER AREA AND NOT IN CLOSE. PROXIMITY TO THE STREAM OR WATER RESOURCE
- THEY MUST SIT ON A RELATIVELY FLAT GRADE SO THAT WATER LEAVING THE BAG DOES. NOT CAUSE ADDITIONAL EROSION. PLACING THE BAG ON A FLAT BED OF AGGREGATE WILL MAXIMIZE THE FLOW AND USEFUL SURFACE AREA OF THE BAG
- THEY SHOULD BE USED IN CONJUNCTION WITH A LARGE VEGETATIVE BUFFER OR A SECONDARY POND OR BARRIER

ENHANCED TREATMENT THROUGH MULTIPLE PRACTICES — THE NEED FOR FURTHER REDUCTION IN TURBIDITY WILL LIKELY REQUIRE MORE THAN ONE TREATMENT MEASURE. THE FOLLOWING ARE DEVICES OR MEASURES THAT WHEN USED IN SEQUENCE WITH OTHERS WILL REDUCE TURBIDITY.

FILTER BAGS (GRAVITY FLOW) ARE HIGHLY VARIABLE DEPENDING ON THE PORE SIZE AND FLOW RATE. TYPICALLY FILTER BAGS ARE LIMITED TO REMOVING LARGE PARTICLES (SMALL SANDS AND LARGE SILTS).

SEDIMENT TRAPS, WEIR TANKS, FILTER BOXES ARE EFFECTIVE FOR THE REMOVAL OF LARGE PARTICLES SUCH AS SAND. THEIR EFFECTIVENESS INCREASES AS DETENTION TIMES INCREASE. SAND MEDIA FILTERS ARE EFFECTIVE FOR REMOVAL OF SMALLER PARTICLES SUCH AS SAND AND LARGE SILTS. THESE OFTEN HAVE THE ABILITY TO BACK-FLUSH AND THUS MAINTAIN EFFECTIVENESS AND FLOW RATE.

SOME COMMERCIALLY AVAILABLE ADDITIVES ARE AVAILABLE FOR FURTHER DECREASING TURBIDITY. CHITOSAN AND CHITIN BASED ADDITIVES HAVE BEEN SHOWN TO SIGNIFICANTLY INCREASE THE EFFECTIVENESS OF FILTRATION AND SETTLING. CHITOSAN (POLY-D-GLUCOSAMINE) IS A LOW-TOXICITY PRODUCT EXTRACTED FROM CHITIN (POLY-N-ACETYL-D-GLUCOSAMINE), A BY-PRODUCT OF THE SHELLFISH INDUSTRY. OTHER PRODUCTS SUCH AS ANIONIC POLYACRYLAMIDE (ANIONIC PAM) ARE COMMERCIALLY AVAILABLE TO INCREASE SETTLING. OFTEN THESE ARE UTILIZED THROUGH WET OR DRY DOSING MECHANISMS OR AS WATER RUNS OVER A GEL BLOCK UPSTREAM OF A SETTLING OR FILTRATION PRACTICE. EACH PRODUCT SHOULD BE UTILIZED WITHIN THE MANUFACTURERS SPECIFICATIONS AND TAILORED TO THE SOIL AND SITE CONDITIONS.

PARTICULATE FILTER UNITS UTILIZING CARTRIDGES OR ENCLOSED FILTER BAGS CAN REMOVE

SMALLER PARTICLES DEPENDING ON THE FILTER SIZE. THIS TYPE OF MEASURE IS USUALLY NECESSARY TO TREAT CLAYS. FILTERS MAY NEED TO BE CHANGED DAILY OR MORE

AN EXAMPLE OF AN ENHANCED TREATMENT MIGHT INCLUDE: DEWATERING A TRENCH WITH A TRASH PUMP TO A SETTLING TANK OR PIT THEN PUMPING FROM THE SETTLING PRACTICE TO A SAND MEDIA FILTER OR TO A PARTICULATE FILTER.

- COMPLETE SETTLING OF SOLIDS WITHIN THE SEDIMENT BASIN DOES NOT OCCUR PRIOR TO DISCHARGE. THE LENGTH TO WIDTH RATIO OF THE POND MUST BE INCREASED TO LENGTHEN TRAVEL TIME THROUGH THE STRUCTURE. IN ADDITION, A FLOCCULENT MAY BE NECESSARY TO PROMOTE SETTLEMENT.
- 2. WATER DISCHARGED FROM SUBSURFACE/GROUND WATER PUMPING MAYBE SIGNIFICANTLY LOWER IN TEMPERATURE THAN THAT OF THE RECEIVING STREAM. THE WATER WILL NEED PRE-CONDITIONED IN ORDER TO MINIMIZE THE BIOLOGICAL AFFECTS ON THE STREAM.

- . A DE-WATERING PLAN SHALL BE DEVELOPED PRIOR TO THE COMMENCEMENT OF ANY PUMPING ACTIVITIES.
- 2. THE DE-WATERING PLAN SHALL INCLUDE ALL PUMPS AND RELATED EQUIPMENT NECESSARY FOR THE DEWATERING ACTIVITIES AND DESIGNATE AREAS FOR PLACEMENT OF PRACTICES. OUTLETS FOR PRACTICES SHALL BE PROTECTED FROM SCOUR EITHER BY RIPRAP PROTECTION, FABRIC LINER, OR OTHER ACCEPTABLE METHOD OF OUTLET PROTECTION.
- 3. WATER THAT IS NOT DISCHARGED INTO A SETTLING/TREATMENT BASIN BUT DIRECTLY INTO WATERS OF THE STATE SHALL BE MONITORED HOURLY. DISCHARGED WATER SHALL BE WITHIN 5 DEGREES (5°F) ± OF THE RECEIVING WATERS.
- 4. SETTLING BASINS SHALL NOT BE GREATER THAN FOUR (4) FEET IN DEPTH. THE BASIN SHALL BE CONSTRUCTED FOR SEDIMENT STORAGE AS OUTLINED IN THE RAINWATER & LAND DEVELOPMENT MANUAL, CHAPTER 6. THE INLET AND OUTLET FOR THE BASIN SHALL BE LOCATED AT THE FURTHEST POINTS OF THE STORAGE. A FLOATING OUTLET SHALL BE USED TO ENSURE THAT SETTLED SOLIDS DO NOT RE-SUSPEND DURING THE DISCHARGE PROCESS. THE SETTLING BASIN SHALL BE CLEANED OUT WHEN THE STORAGE HAS BEEN REDUCED BY 50% OF ITS ORIGINAL CAPACITY.
- 5. ALL NECESSARY NATIONAL, STATE AND LOCAL PERMITS SHALL BE SECURED PRIOR TO DISCHARGING INTO WATERS OF THE STATE.

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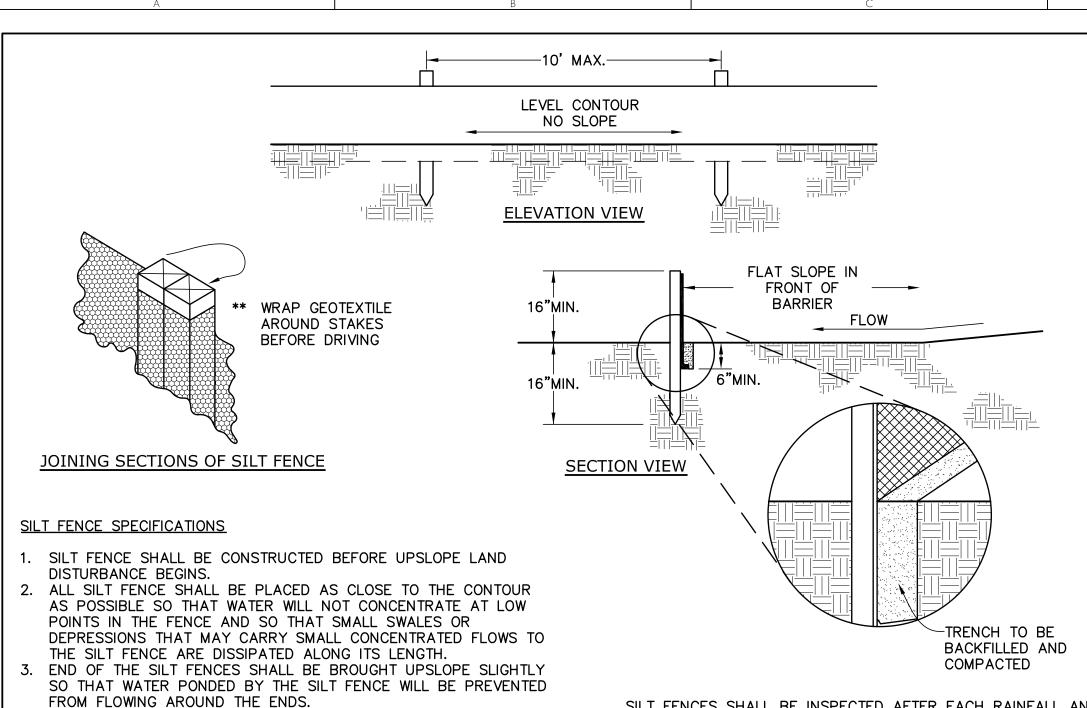
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MARCH 5, 2020

HORIZONTAL: N/AVERTICAL: N/A

SHEET NO.:

SWP3 SHEET NO 6/7



SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVIEWED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS. IF DAMAGED, THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.

### CRITERIA FOR SILT FENCE MATERIALS

- 1. FENCE POST THE LENGTH SHALL BE A MINIMUM OF 32 INCHES. WOOD POSTS WILL BE 2-BY-2-IN. NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS AND OTHER VISIBLE IMPERFECTIONS, THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND, WHERE POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.
- 2. SILT FENCE FABRIC-SEE CHART BELOW:

MIN. CRITERIA FOR SILT FENCE FABRIC (ODOT, 2002)				
FABRIC PROPERTIES	VALUES	TEST METHOD		
MINIMUM TENSILE STRENGTH	120 LBS	ASTM D 4632		
MAXIMUM ELONGATION @ 60 LBS	50%	ASTM D 4632		
MINIMUM PUNCTURE STRENGTH	50 LBS	ASTM D 4833		
MINIMUM TEAR STRENGTH	40 LBS	ASTM D 4533		
APPARENT OPENING SIZE	≤ 0.84 mm	ASTM D 4751		
MINIMUM PERMITTIVITY	1x10-2 SEC1	ASTM D 4491		
UV EXPOSURE STRENGTH RETENTION	70%	ASTM G 4355		

9.	SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE SPLICED	
	TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM OF 6-IN.	
	OVERLAP PRIOR TO DRIVING INTO THE GROUND, (SEE DETAILS).	
10.	MAINTENANCE-SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY	
AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF		
OVERTOPS THE SILT FENCE. FLOWS UNDER THE FABRIC OR		

4. SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA

DAYS FROM THE INSTALLATION OF THE SILT FENCE.

INCHES ABOVE THE ORIGINAL GROUND SURFACE.

ADEQUATELY UNIFORM TRENCH DEPTH.

BOTH SIDES OF THE FABRIC.

5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET

7. THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED

BE MADE WITH A TRENCHER, CABLE LAYING MACHINE, SLICING

MACHINE, OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN

DOWNSLOPE SIDE OF THE GEOTEXTILE. A MINIMUM OF 8 INCHES

OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS

TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON

MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-INCH DEEP

8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE

TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL

6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16

(OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF

VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7

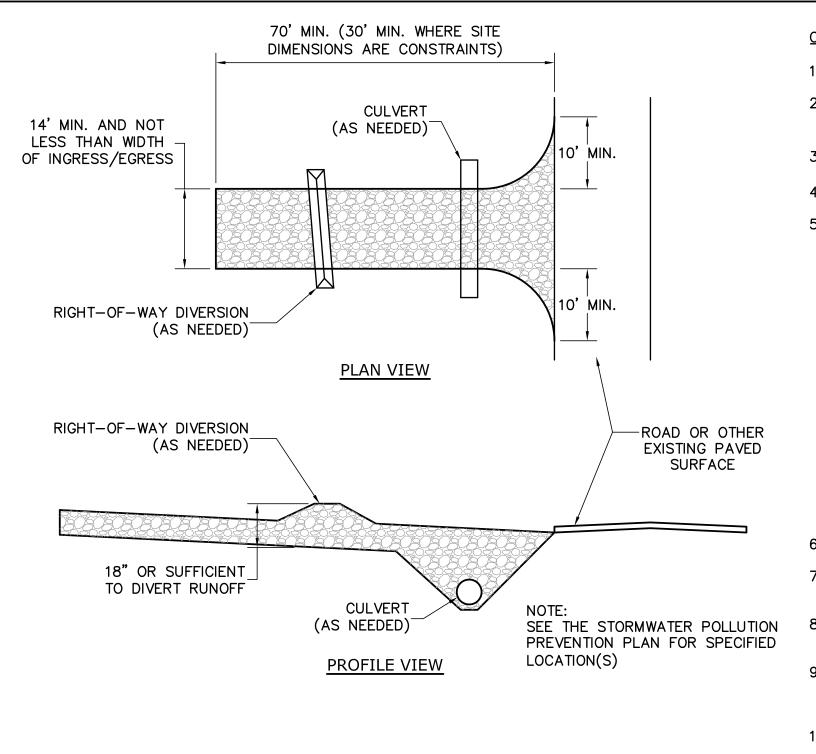
AVAILABLE.

AROUND THE FENCE ENDS, OR IN ANY OTHER WAY ALLOWS A CONCENTRATED FLOW DISCHARGE, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.

SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSITS REACHES APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE SILT FENCE.

### SILT FENCE BARRIER DETAIL

NOT TO SCALE



CONSTRUCTION ENTRANCE

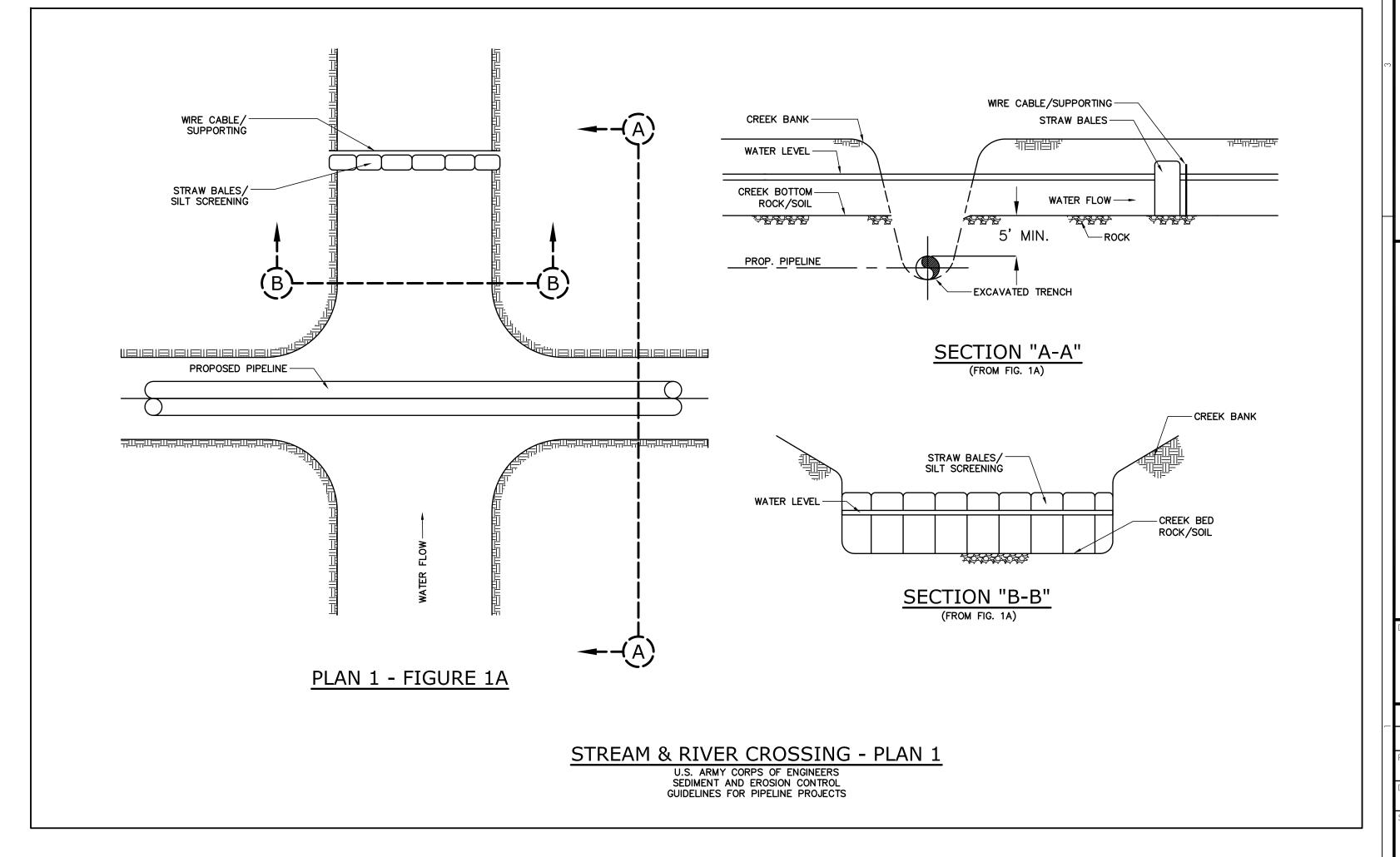
NOT TO SCALE

### CONSTRUCTION ENTRANCE SPECIFICATIONS

- 1. STONE SIZE ODOT # 2 (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE
- EQUIVALENT. 2. LENGTH — THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).
- 3. THICKNESS THE STONE LAYER SHALL BE AT LEAST SIX (6) INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST TEN (10) INCHES FOR HEAVY DUTY USE.
- 4. WIDTH THE ENTRANCE SHALL BE AT LEAST FOURTEEN (14) FEET WIDE, BUT NOT LESS THAN
- THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 5. GEOTEXTILE — A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

GEOTEXTILE SPECIFICATIONS FOR CONSTRUCTION ENTRANCE		
FABRIC PROPERTIES	VALUES	
MINIMUM TENSILE STRENGTH	200 LBS	
MINIMUM PUNCTURE STRENGTH	80 PSI	
MINIMUM TEAR STRENGTH	50 LBS	
MINIMUM BURST STRENGTH	320 PSI	
MINIMUM ELONGATION	20%	
EQUIVALENT OPENING SIZE	EOS < 0.6 mm	
PERMITTIVITY	1x10-3 CM/SEC	

- 6. TIMING THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.
- 7. CULVERT A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
- 8. WATER BAR A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
- 9. MAINTENANCE TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
- 10. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
- 11. REMOVAL THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.



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SWP3 SHEET NO 7/7

MARCH 5, 2020 HORIZONTAL: N/A VERTICAL: N/A

SHEET NO.:

### **SERVICE AGREEMENT**

This Service Agreement ("Agreement") is made this 14<sup>th</sup> day of May 2020, by and between Construction Analysis, LLC ("Provider"), an Independent Contractor, whose principal office is addressed below, and the Olentangy Local School District Board of Education ("Owner"). Provider was selected by Owner to provide owner's representative services for Elementary 1, 2 and Middle School 6 to be constructed by Owner. Provider and Owner agree as follows:

### **ARTICLE 1. ASSIGNMENT**

Provider may be engaged from time to time to furnish Owner with its services on a project-by project basis. The status of the Provider shall be that of an Independent Contractor.

### ARTICLE 2. PROVIDER'S RESPONSIBILITY

Provider accepts the relationship of trust and confidence established between it and Owner and agrees to furnish reasonable skill and judgment and to perform its Services in an expeditious and economical manner consistent with the interests of the Owner. Provider is solely responsible for the reporting, payment, notification, and other requirements or obligations relating to applicable federal, state and local taxes, licenses, insurance and/or benefits associated with the provisions of this Agreement, consistent with Provider's status as an Independent Contractor.

### **ARTICLE 3. SERVICE OF THE PROVIDER**

Provider and Owner shall execute an Amendment to this Agreement with respect to each project for which the Provider is engaged, setting forth the specific terms and conditions of engagement for the project.

### **ARTICLE 4. TIME OF PERFORMANCE**

This Agreement shall be in effect for a one year term beginning on the date written above, or as modified by Amendment to this Agreement for a specific project.

### **ARTICLE 5. COMPENSATION**

Provider shall be compensated for its Services on the basis of services to be rendered. Determination of compensation will be as enumerated in each Amendment to this Agreement for a specific project. In addition, Owner will reimburse Provider for all reasonable out-of-pocket and travel expenses related to the conduct of Provider's Services as stipulated in the Amendment to this Agreement for a specific project. Compensation for Services is contingent upon funds being available for any Services requested and encumbered for the specific Amendment adding those Services to the scope of this Agreement.

### **ARTICLE 6. MODIFICATION AND TERMINATION**

This Agreement may be modified or amended only by written instrument signed by the parties hereto. This Agreement may be terminated by either party upon thirty (30) days written notice.

Following termination of this Agreement by Owner or Provider, Provider will be reimbursed for its reasonable expenditures made in good faith in accordance with the terms of the Amendment to this

Agreement for a specific project that have been incurred but not reimbursed as of the date of termination and will be paid all amounts properly payable for services satisfactorily performed prior to such date.

### **ARTICLE 7. INSURANCE**

Provider will obtain and maintain in force during the term of this Agreement professional liability insurance with a limit of liability in the minimum amount of \$500,000. Evidence of such insurance is to be furnished to the Board upon request. Provider will maintain other commercial general liability and automobile liability coverage as appropriate to the services to be provided.

### **ARTICLE 8. INDEMNIFICATION**

Owner shall hold harmless Provider, successors and assigns, from all claims, losses, expenses and damages, including but not limited to attorney's fees, arising out of or resulting from the performance of Services, except those that result from Provider's willful misconduct or gross negligence.

### **ARTICLE 9. DISPUTE RESOLUTION**

The parties will attempt to resolve any claims or controversy arising out of or related to this Agreement, or the breach thereof, through informal discussions and then through non-binding mediation, conducted by an independent third party acceptable to both of them. If the parties are unable to resolve the claim or controversy through these means, then either party may file suit in the Court of Common Pleas for Delaware County, Ohio. Both parties waive the right to file a lawsuit in or remove a lawsuit to federal court.

### **ARTICLE 10. MISCELLANEOUS PROVISIONS**

All notices and other communication under this Agreement shall be mailed by certified mail return receipt requested, and shall be deemed to have been given when received by the party to whom sent at the addresses set forth below.

This Agreement shall be governed by Ohio law.

Owner

In Witness Whereof, the parties hereto have executed this Agreement as of the date first written above.

Address	7840 Graphics Way Lewis Center, OH 43035
Signed:	Jeff Gordon. Director of Business Management & Facilities
Provider Address	Construction Analysis, LLC 283 Hopewell Dr. Powell, OH 43065
Signed:	William O'Sullivan, President

Olentangy Local School District Board of Education

This First Amendment to Service Agreement, dated May 14, 2020, amends the Service Agreement dated May 14, 2020, by and between Construction Analysis, LLC ("Provider") and the Olentangy Local School District Board of Education ("Owner") to include Owner's Representative services by Provider for Elementary 1, 2 and Middle School 6 Project ("Project"), as described in this Amendment. The Owner plans to use the construction manager at risk delivery method for the Project.

The following sections of the Agreement are supplemented as follows for the Project:

### ARTICLE 3. SERVICE OF THE PROVIDER

Provider will serve as an agent of the Owner to provide assistance on the Elementary and Middle School Project. Such assistance as requested by the Owner includes:

- Attending meetings with the Project Team, Owner or others as requested by the Owner
- Reviewing and monitoring the Construction Manager's procedures
- Reviewing and monitoring construction progress for compliance with the project schedule and with the contract requirements based on regular, but not daily, site visits, and advising the Owner of corrective action alternatives if a schedule update indicates that the original schedule may not be met
- Review the Construction Manager's development of any GMP proposals for the Project
- Comment and advise Owner relative to proposed estimate details, trade scope assignments, value management, constructability and allowances
- Review the Construction Manager's monthly cost reports
- Assist with the review of change orders, including advising on the impact of the change order to the construction budget and schedule
- Assist with the review of the Construction Manager's applications for payment

Provider will provide other specific assistance as requested by the Owner relative to the construction of the Elementary and Middle School project consistent with the Provider's part-time involvement with the Project. Any recommendations are made solely for the benefit of the Owner, and may or may not be acted upon by the Owner at its discretion.

Under no circumstances will the Provider be authorized to:

- Bind the Owner to any authorizations under, modifications of, or amendments to any contract or make settlements on behalf of the Owner
- Approve any invoices or pay applications
- Take control or charge of or be responsible for the quality control, means, methods, techniques, sequences, procedures, or safety precautions or programs in connection with any professional service or work
- Assume any responsibilities of the Owner, Architect, Consultants, Construction Manager, trade contractors, or material and equipment suppliers

The Owner, Architect, Consultants, Construction Manager, Contractors, and all other entities involved in the project shall remain solely responsible for all aspects of their work. Nothing in this Agreement shall cause Provider to be responsible for creating, implementing, monitoring, or enforcing safety programs for any entity on the Project.

### **ARTICLE 4. TIME OF PERFORMANCE**

This Amendment will remain in effect for the durations defined in ARTICLE 5 -- COMPENSATION.

### **ARTICLE 5. COMPENSATION**

Provider shall be compensated on a lump sum basis in the total amount of \$235,000 for services on the Elementary 1,2 and Middle School 6 Project as follows:

- Project preparation and planning services at \$13,500 through 6/30/20
- Eight (8) months at \$6,500 per month from 7/1/20 through 2/28/21
- Twenty (20) months at \$7,800 per month from 3/1/21 through 10/31/22
- Three (3) months at \$4,500 per month from 11/1/22 through 1/31/23
- Routine "out-of-pocket" expenses, including travel to the project site, are included in the above rate (printing of contract documents is excluded).
- Payment to be made monthly based on invoice from Provider

Provider acknowledges and agrees that payment for services described in the Agreement and this Amendment for the Project are contingent upon passage of a bond issue to fund the Project.

### **ARTICLE 10. MISCELLANEOUS PROVISIONS**

Provider is not subject to any findings for recovery by the Ohio Auditor of State's Office or, if Provider is subject so any such findings for recovery, Provider has taken or is taking all necessary steps to address such findings.

Provider is aware of and in compliance with applicable ethical requirements for contracts with a public school district.

Provider will comply with Ohio Revised Code Section 153.59, which prohibits discrimination in the hiring of employees.

In witness whereof, the parties hereto have executed this Amendment effective as of the date stated at the beginning of this Amendment.

OWNE	R: Olentangy Local School District Board of Education	PRO	VIDER: Construction Analysis, LLC
By:		By:	
_	Jeff Gordon		William O'Sullivan
	Director of Business Management &		President
	Facilities		