



**ROOFTOP SOLAR PHOTOVOLTAIC ARRAY 2020
(Revised June 2020)**

REQUEST FOR PROPOSALS

ROOFTOP SOLAR PHOTOVOLTAIC ARRAY 2020

(Revised June 2020)

FOR
CHARTER TOWNSHIP OF MERIDIAN

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CHARTER TOWNSHIP OF MERIDIAN
SOLAR PHOTOVOLTAIC ARRAY 2020
(Revised June 2020)

ADVERTISEMENT FOR BID

Sealed proposals will be received by the Charter Township of Meridian, Ingham County, Michigan, at the Meridian Township Municipal Building, Clerk's Office, 5151 Marsh Road, Okemos, Michigan, 48864-1198, Ph. 517. 853.4000, up to **10:30 am, local time on Thursday, August 6, 2020** from qualified solar photovoltaic (PV) providers to design and build a turnkey installation of up to two 20kW solar photovoltaic arrays to be located at Meridian Township South Fire Station, at 3711 Okemos Road, Okemos, MI and the Meridian Township Marketplace on the Green at 1995 Central Park Drive, Okemos, MI, after which time, proposals will be publicly opened and read aloud.

There will be a pre-bid meeting (site walk) on **Thursday, July 23, 2020 at 10:00 am** to be held at the Meridian Township South Fire Station, 3711 Okemos Road, Okemos, MI 48864. There will be no site walk of the Marketplace on the Green, as this site is under construction. Technical questions will be addressed at this meeting to the extent possible. The pre-bid meeting will be your only opportunity to visit the sites, due to construction activity.

Bids are solicited on unit price basis. The work involves the following major bid items:

Design & Construction of up to two 20kW solar photovoltaic arrays, preferably roof-mounted, at the following locations: Meridian Township South Fire Station, 3711 Okemos Road, Okemos, MI and Meridian Township Marketplace on the Green, 1995 Central Park Drive, Okemos, MI to include furnishing engineered drawings, materials, tools, equipment (including hoisting and lifting equipment) and labor to install and monitor two (2) grid-interconnected (grid-tied) solar PV arrays.

The Contractor is responsible for all project permitting and utility interconnection requirements. Contractors shall have demonstrated experience designing, planning, scheduling, permitting and constructing complete solar electric systems, have relationships with knowledge of local utilities, providing project financial analysis and rebate support, providing system monitoring and maintenance, and have established on-site safety standards.

Prevailing wage rates are required for this contract. Meridian Township policy requires vendors contracting with the Township over \$50,000 to pay employees and sub-contractors, directly upon the site of work, at least the prevailing wages and fringe benefits as determined and published by the United States Department of Labor for the Ingham County area.

Proposals shall include the furnishing of stamped drawings (of the roof-mount or ground-mount system prepared by a licensed engineer, along with load calculations), all labor, material, and equipment to complete the project.

Work on the project shall commence within ten days after issuing the Notice to Proceed, and be complete by **November 1, 2020**. Completion is defined as being constructed, tested, placed in service and the site restored. All quotes are to be F.O.B., Okemos and/or Haslett, Michigan. All purchases are exempt from all taxes, including state and federal taxes. Exemption certificates will be furnished upon request.

SOLAR PHOTOVOLTAIC ARRAY 2020
Advertisement for Bid

Each proposal shall be accompanied by a certified check or a bid bond by a recognized surety company similar to a U.S. Government Standard form bid bond, in the amount of five percent (5%) of the bid, payable to the Charter Township of Meridian, Ingham County, Michigan as security for the acceptance of the contract.

Insurance and bonds are required from the successful bidder for this project, please see pages G-2 thru G-4 for those requirements. Please note Owner/Contractors Protective Liability is required for all our contracts.

The contract documents may be examined at the following locations:

- Meridian Charter Township, Dept of Public Works, 5151 Marsh Road, Okemos, MI 48864
- MITA (Michigan Infrastructure & Transportation Association)
- Builders Exchange of Lansing & Central MI, 1240 E. Saginaw St., Lansing, MI 48906-5522
- Construction Assoc of MI, 43636 Woodward, Bloomfield Hills, MI 48302
- Dodge Data & Analytics, 2521 E. Michigan Avenue, Lansing, MI 48912-4010

Copies of the contract documents for the work may be obtained from the Department of Public Works & Engineering at 5151 Marsh Road, Okemos, Michigan. Questions regarding this contract may be addressed to Meridian Township Department of Public Works & Engineering, 517.853.4440, or dpw@meridian.mi.us.

In submitting this bid, it is understood that the right is reserved by the owner to reject any or all bids, to award the Contract to other than the low bidder, to award separate contracts for each project and/or phase, to waive irregularities and/or formalities, and in general, to make award in any manner deemed by it, in its sole discretion, to be in the best interest of the Owner.

INSTRUCTIONS TO BIDDERS

1. PROPOSALS

Proposals must be made upon the forms provided, without modifications or changes and all other data submitted as required.

The proposal must be enclosed in a sealed envelope marked "Bid Proposal", including the name of contract as listed in the Advertisement, clearly indicating the name and address of the bidder, and filed at the place and by the time specified in the Advertisement.

2. BASIS OF PROPOSALS

Proposals may be submitted for any one or all of the projects or phases as may be applicable.

Proposals are solicited on the basis of unit prices for the entire work of the contract.

The right is reserved by the Meridian Township (also referred to as "Owner") to reject any and all bids, to award the Contract to other than the low bidder, to award separate contracts for each project and/or phase, to waive irregularities and/or formalities, and in general, to make award in any manner deemed by it, in its sole discretion, to be in the best interest of the Owner.

3. BID DEPOSITS

Each proposal shall be accompanied by a certified check, or bid bond from a recognized surety company, in the amount of five percent (5%) of the total amount of the bid, payable to the order of the Owner, to be forfeited to the Owner in case of failure on the part of the successful bidder to enter into the attached form of Contract to do the work covered by such Proposal at the price and within the time stated therein. The bid deposit of all except the successful bidder will be returned within four weeks after opening of bids. The bid deposit of the successful bidder will be returned within 48 hours after the executed Contract has been finally approved by the Owner.

4. QUALIFICATION OF BIDDERS

It is the intention of the Owner to award the Contract(s) to contractor(s) fully capable, both financially and as regards experience to perform and complete all work in a satisfactory manner. Evidence of such competency must be furnished, including a listing of similar projects which the bidder has satisfactorily undertaken and completed.

5. INTERPRETATION OF DOCUMENTS

If the bidder is in doubt as to the true meaning of any part of the plans, specifications or Contract Documents, he may submit to the Engineer a written request for an interpretation thereof. Any interpretation made in response to such query will be mailed or duly delivered to each prospective bidder. The Owner will not be responsible for any other explanation or interpretation of the Contract Documents.

INSTRUCTIONS TO BIDDERS

6. REQUIREMENT OF SIGNING BIDS

Bids which are not signed by the individual making them shall have attached thereto a power of attorney evidencing authority to sign the bid in the name of the person for whom it is signed.

Bids, which are signed by a partnership, shall be signed by all of the partners or by an attorney-in-fact. If signed by an attorney-in-fact, there shall be attached to the bid a power of attorney evidencing authority to sign the bid, executed by the partners.

Bids which are signed for a corporation shall have the correct corporate name thereof and the signature of the president or other authorized officers of the corporation manually written below the corporate name following the word "By". If such a bid is manually signed by an officer other than the president of the corporation, a certified copy of a resolution of the board of directors evidencing the authority of such official to sign the bid shall be attached to it. Such a bid shall also bear the attested signature of the secretary of the corporation and the impression of the corporate seal.

7. EXECUTION OF AGREEMENT

The bidder to whom an award is made will be required to enter into the written contract included herein, within ten (10) calendar days after being notified of the acceptance of his bid and receipt by him of the copies of the documents to be executed. In case of failure to comply with this requirement, he may be considered to have abandoned all his rights and interests in the award and his certified check or amount of bidder's bond may be declared to be forfeited to the Owner and the Contract may be awarded to another bidder.

8. INSURANCE (Ref. General Conditions – Sec 2)

The contractor will be required to carry Worker's Compensation Insurance, Bodily Injury and Property Damage, Builder's Risk Insurance and Owner's Protective Liability in the amounts specified in the General Conditions. Certificates of such insurance must be attached to each copy of the executed Contract Documents.

9. BONDS (Ref. General Conditions-GC.1)

The successful bidder will be required to furnish for each set of executed Contract Documents and conformed copies thereof an original completed Performance Bond, and Labor and Material Bond with surety acceptable to the Owner as set forth in the General Conditions.

INSTRUCTIONS TO BIDDERS

10. BIDDER'S RESPONSIBILITY FOR EXAMINING PLANS AND SITE

At the time of opening bids, each bidder will be presumed to have made a personal investigation of the site of the work and of existing structures, and to have read and be thoroughly familiar with the plans, specifications and Contract Documents (including all addenda). He shall determine to his own satisfaction the conditions to be encountered, the nature of the ground, difficulties involved in completing the Contract and all factors affecting the work proposed under this Contract.

The bidder to whom this contract is awarded will not be entitled to any additional compensation by reason of his failure to fully acquaint himself with the conditions at the site or by his failure to fully examine the plans, specifications and Contract Documents.

11. NON-DISCRIMINATION IN EMPLOYMENT

The Contractor shall adhere to all applicable Federal, State and local laws, ordinances, rules and regulations prohibiting discrimination with regards to employees and applicants for employment. The contractor and his/her subcontractors shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions or privileges of employment, including a benefit plan or system or a matter directly or indirectly related to employment, because of race, color, religion, national origin, sex, age, height, weight, condition of pregnancy, marital status, physical or mental limitation, disability, source of income, familial status, educational association, sexual orientation, gender identity or expression, or HIV status. Breach of this section shall be regarded as a material breach of this Contract.

**ROOFTOP SOLAR PHOTOVOLTAIC ARRAY
(Revised June 2020)
SCOPE OF WORK & PROJECT DESCRIPTION**

SCOPE OF WORK

Meridian Township Department of Public Works is soliciting proposals from qualified solar PV providers to design and build a turnkey installation of two 20kW grid-tied rooftop solar photovoltaic arrays at one or two locations to increase its percentage of electricity from renewable energy sources.

The project locations include the Meridian Township Marketplace on the Green located at 1995 Central Park Drive, Okemos, and/or the Meridian Township South Fire Station located at 3711 Okemos Road, Okemos, MI 48864.

Meridian's Climate Sustainability Plan includes a goal of obtaining 50% of its electricity from renewable energy by 2025 and 100% by 2035. The goals of this installation for Meridian Township are : 1) To be a leader in sustainability; 2) To reduce climate change; 3) To save Meridian Township money; and 4) To spread awareness of renewable energy in Meridian Township.

The contractor is responsible for project permitting and utility interconnection requirements. The goal of this proposal is to identify a solar partner with the necessary experience to ensure a fully managed and well executed process.

The successful bidder will have demonstrated experience designing, planning, scheduling, permitting, constructing, and interconnection of a solar photovoltaic array system. Contractor must have worked with Consumers Energy regulations, provide project financial analysis and have established on-site safety standards.

PROJECT DESCRIPTION

The project site is located at the Meridian Township Marketplace on the Green and/or Meridian Township South Fire Station.

1. Description of Site:
 - A. The Meridian Township Marketplace on the Green (the new Farmers Market) is located at 1995 Central Park Place, Okemos, MI 48864 and is currently under construction. It will be 14,650 sf building with a sloped metal roof. Site and roof plans are included as Exhibit A.
 - B. The second site is the Meridian Township South Fire Station, located at 3711 Okemos Road, Okemos, MI 48864. This is a 6,905 SF building with a sloped roof built in 1990. Existing site and roof plans are included as Exhibit B.

ROOFTOP SOLAR PHOTOVOLTAIC ARRAY
Scope of Work & Project Description (Cont'd.)

2. Desired System Size: Each solar system shall be comprised of an array of photovoltaic panels and electrical equipment components generating equal to (or a maximum of) 20kW DC output to conform to the net metering Category 1 standard through Consumers Energy.
3. Description of Desired Solar System: The grid-tied solar system shall be a roof mount, non-penetrating array , unless ground-mount is deemed desirable.
4. Project Financing: A cash purchase.
5. System Ownership Information: Meridian Township will be the owner of the solar array and all its components.
6. Operation & Maintenance (O&M): Ongoing O& M is not included in this bid proposal. Please include O&M costs as a separate line item for extended service. The selected Company may enter into a separate O&M service contract with Meridian Township at Meridian Township's discretion.
7. Monitoring: Meridian Township requires that a monitoring solution be provided as part of this system. At minimum, monitoring should provide an online platform for observing electrical energy generation on a daily, monthly, and annual basis. Providing solar insolation data and/or real-time weather data is preferred, but not required. If possible, we would like the monitoring to be incorporated into our current website, which is:
<https://monitoringpublic.solaredge.com/solaredge-web/p/site/public?name=Meridian%20Township#/dashboard>

PROPOSAL

TO: Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48864

RE: ROOFTOP SOLAR PHOTOVOLTAIC ARRAY (Revised June 2020)

Board of Trustees:

The undersigned, as a bidder, hereby declares that these bids are made in good faith, without fraud or collusion with any person or persons bidding on the same Contract, that he has read and examined the Advertisement, Instruction to Bidders, Proposal, Contract, General Conditions, Specifications, Special Provisions and Plans and understands all of the same; that he or his representative has made personal investigation at the site and has informed himself fully with regard to the conditions to be met in the execution of the Contract.

In submitting this bid, it is understood that the right is reserved by the Owner to reject any or all bids, to award the Contract to other than the low bidder, to award separate contracts for each project and/or phase, to waive irregularities and/or formalities, and in general, to make award in any manner deemed by it, in its sole discretion, to be in the best interest of the Owner.

It is further understood and agreed by the undersigned that any qualifying statement or conditions made to this proposal as originally published, as well as any interlineation, erasures, omissions or entered wording obscure as to its meaning, may cause the bid to be declared irregular and may be cause for rejection of the bid.

The undersigned agrees to start work within ten (10) days of issuance of the Notice to Proceed. The undersigned further agrees to complete all work covered by this Proposal to the point of use of the project by the Owner by the completion date stated in the Advertisement or within the number of calendar days stated in the Advertisement; and that for all days thereafter until final acceptance, there will be charged, as liquidated damages, the sum of five hundred dollars (\$500.00) per calendar day per project for each and every day thereafter until final acceptance.

The undersigned hereby proposes to perform everything required to be performed and to furnish all labor, materials, tools, equipment and all utility and transportation services necessary to complete in a workmanlike manner all the work to be done under this Contract, including addenda thereto, for the sums set forth in the following Bidding Schedule:

ROOFTOP SOLAR PHOTOVOLTAIC ARRAY 2020
(Revised June 2020)

PROPOSAL

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
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1. Engineering Services for Design & Drawings		L.S.	\$ _____	\$ _____
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Submit pricing for up to two (2) solar arrays, whether the same location or separate locations.

2. Marketplace on the Green Rooftop Mounted (including modules, equipment, labor, permitting, shipping and monitoring)	1 ea.		\$ _____	\$ _____
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3. South Fire Station Rooftop Mounted (including modules, equipment, labor, permitting, shipping and monitoring)	1 ea.		\$ _____	\$ _____
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4. Optional: -Operation & Maintenance Service (9 years extended warranty)	L.S.		\$ _____	\$ _____
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TOTAL BASE BID: _____

Give the name of the Owners and dates of other projects which the Bidder has constructed or has had responsible charge of construction:

NAME

DATE

The Bidder acknowledges that his bid is in accordance with the information contained in Addendum No. ____, ____, ____, ____.

The Bidder is hereby reminded that the Pay Items listed under the Bidding Schedule are the only items for which he will receive payment under this Contract. In the event that lesser or greater quantities of specific Pay Items are required to complete the work and place the system in operation, the total amount bid for the specific item will be adjusted by the unit price bid to the actual quantities utilized. In the event that an error is made in extending the unit prices, the Bidder is hereby notified that the unit prices as bid, will govern in determining the Total Base Bid. It is expressly understood and agreed that the Total Base Bid is the basis for establishing the amount of Bid Security on this Proposal and for comparison of bids only and is not to be constructed as a lump sum Proposal.

The undersigned attaches hereto a certified check or bidder's bond in the sum of not less than five percent (5%) of the Total Base Bid as required by the Advertisement and Instructions to Bidders and the undersigned agrees that in case he shall fail to fulfill his obligations under this Proposal and/or shall fail to furnish bonds, as specified, the Owner may, at its option determine that the certified check or amount of said certified check or bidder's bond accompanying this Proposal has been forfeited to the Owner, but otherwise the said certified check or bidder's bond shall be returned to the undersigned upon the execution of the Contract and acceptance of the bond.

The undersigned further agrees that this proposal shall be effective for a period of sixty (60) days from the date established for opening of all bids.

Date _____ Company Name _____

By _____ Address _____
Signature

_____ Print Name _____

Title _____ Company Phone _____

Email _____

Phone: _____

ROOFTOP SOLAR PHOTOVOLTAIC ARRAY 2020

(Revised June 2020)

CONTRACT

THIS CONTRACT, dated _____, by and between

_____, hereinafter called the "CONTRACTOR", and

Meridian Charter Township, 5151 Marsh Road, Okemos, MI 48864, hereinafter called the "OWNER".

WITNESSETH, that the CONTRACTOR and the OWNER for the consideration herein agree as follows:

ARTICLE I. SCOPE OF WORK.

The CONTRACTOR shall perform everything required to be performed and shall provide and furnish all labor, materials, necessary tools, expendable equipment and all utility and transportation services required to perform and complete in a workmanlike manner all the work required for constructing the project as described in the Advertisement and Proposal and for performing all related work for the OWNER, required by and in strict accordance with the plans and specifications, including any and all addenda, and other Contract Documents mentioned and made a part hereof.

ARTICLE II. THE CONTRACT PRICE.

The OWNER shall pay for constructing the project complete with all labor, materials, equipment, appurtenances, surface restoration and related work in strict accord with the Plans and Specifications, ready for use, the unit prices as listed in the Proposal and herein made a part of this Contract. Payment shall be made to the CONTRACTOR in accordance with and subject to the conditions specified under General Conditions.

ARTICLE III. TIME.

Time is of the essence in the performance of this contract. The CONTRACTOR agrees to start work within ten (10) days of issuance of the Notice to Proceed and to fully complete the work so as to permit use of the project by the OWNER by the completion date stated in the Advertisement or within the number of calendar days listed in the Advertisement.

ARTICLE IV. DELAYS AND DAMAGES.

If the CONTRACTOR refuses or fails to prosecute the work, or any separate part thereof, with such diligence as will insure its substantial completion, ready for use by the OWNER by the completion date stated in the Advertisement or within the number of consecutive calendar days stated in the Advertisement, or any extension thereof, or fails to complete said work within such time, the OWNER may, by written notice to the CONTRACTOR, terminate the CONTRACTOR's right to proceed with the work or such part of the work as to which there has been delay. In such event, the OWNER may take over the work and prosecute the same to completion by contract or otherwise, and the CONTRACTOR and his sureties shall be liable to the OWNER for any excess cost occasioned thereby. If the CONTRACTOR's right to proceed is so terminated, the OWNER will take possession of and utilize in completing work such materials, appliances, and plant as may be on the site of the work and necessary therefore.

If the OWNER does not terminate the right of the CONTRACTOR to proceed, the CONTRACTOR shall continue to work, in which event the actual damages for the delay will be impossible to determine and in lieu thereof the CONTRACTOR shall pay the OWNER the sum of five hundred dollars (\$500.00) per day as fixed, agreed, and liquidated damages for each calendar day of delay until the work is substantially completed, ready for operation and the CONTRACTOR and his sureties shall be liable for the amount thereof. However, the right of the CONTRACTOR to proceed shall not be terminated or the CONTRACTOR charged with liquidated damages because of any delays in the completion of the work due to unforeseeable causes beyond control and without the fault or negligence of the CONTRACTOR, including, but not restricted to acts of God, or of the public enemy, acts of the OWNER, fires, floods, epidemics, quarantine restrictions, delays of subcontractors due to such causes, if the CONTRACTOR shall, within ten (10) days from the beginning of any such delay (unless the OWNER shall grant a further period of time prior to the date of final settlement of the Contract) notify the OWNER in writing of the cause of delay and extend the time for completing the work when, in OWNER's judgement, the finding of fact justify such an extension and OWNER's findings of fact thereon shall be final and conclusive on the parties thereto. In no event shall bankruptcy or labor disputes, or the like, either of CONTRACTOR or any of its subcontractors or suppliers, be considered as an unforeseeable cause beyond the control and without the fault or negligence of the CONTRACTOR.

ARTICLE V. COMPONENT PARTS OF THIS CONTRACT.

This Contract consists of the following component parts, all of which are as fully a part of the Contract as if herein set out verbatim, or, if not attached:

- | | |
|----------------------------|------------------------------|
| 1. Advertisement | 8. General Specifications |
| 2. Instructions to Bidders | 9. Standard Specifications |
| 3. Proposal | 10. Technical Specifications |
| 4. Addenda | 11. Special Provisions |
| 5. Contract | 12. Plans |
| 6. Bonds and Insurance | 13. Notice of Award |
| 7. General Conditions | 14. Notice to Proceed |

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in three (3) original counterparts the day and year first above written.

CONTRACTOR

WITNESS:

By: _____

Title: _____

Date: _____

CHARTER TOWNSHIP OF MERIDIAN
OWNER

WITNESS:

BY: _____

Derek N. Perry

TITLE: Deputy Township Manager
Director of Public Works & Engineering

DATE: _____

**ROOFTOP SOLAR PHOTOVOLTAIC ARRAY 2020
(Revised June 2020)
NOTICE OF AWARD**

Date: _____

TO: _____

ADDRESS: _____

CONTRACT: _____

You are notified that your Bid dated _____ for the above Contract has been considered. You are the apparent Successful Bidder and have been awarded a Contract for _____.

The Contract Price of your Contract is: \$ _____

Three copies of each of the proposed Contract Documents and two sets of drawings accompany this Notice of Award.

You must comply with the following conditions within 10 days of the date you receive this Notice of Award.

1. Deliver to the OWNER **three** fully executed counterparts of the Contract Documents. (Each of the Contract Documents must bear your signature on page C-3.)
2. Deliver with the executed Contract Documents the Contract security (Bonds and Insurance) as specified in General Conditions (GC).
3. If not listed as the owner, president, or partner, we need a letter (on letterhead) stating the person signing contract, has permission to sign the contract.

Failure to comply with these conditions within the time specified will entitle OWNER to consider your Bid in default, to annul this Notice to Award and to declare your Bid security forfeited.

Within ten days after you comply with the above conditions, OWNER will return to you one fully executed counterpart of the Contract Documents.

CHARTER TOWNSHIP OF MERIDIAN

By: _____

Derek N. Perry, Deputy Manager
Director of Public Works & Engineering

ROOFTOP SOLAR PHOTOVOLTAIC ARRAY 2020
(Revised June 2020)

NOTICE TO PROCEED

Date: _____

TO: _____

ADDRESS: _____

CONTRACT:

You are notified that the Contract Times under the above Contract will commence to run on _____
_____. In accordance with Article III of the Contract, the date of
Completion is _____.

Deliver to **OWNER** an acknowledged copy of this Notice to Proceed.

CHARTER TOWNSHIP OF MERIDIAN

By: _____

Derek N. Perry, Deputy Township Manager
Director of Public Works & Engineering

ACKNOWLEDGEMENT OF ACCEPTANCE OF NOTICE TO PROCEED

CONTRACTOR acknowledges acceptance of this Notice to Proceed this _____
day of _____, 2020.

By: _____

Title: _____

GENERAL CONDITIONS

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GENERAL CONDITIONS

GC.1 CONTRACT SECURITY

The Contractor shall furnish a surety bond, by a duly authorized surety company satisfactory to the Owner, in an amount equal to 100 percent (100%) of the Contract price as security for the faithful performance of this Contract. The Contractor shall also furnish a separate surety bond, by a duly authorized surety company satisfactory to the Owner, in an amount equal to 100 percent (100%) of the Contract price as security for the payment of all persons performing labor and/or furnishing materials.

The surety company writing the bid, performance, labor and material, and maintenance bond shall be: 1) acceptable to the Owner, 2) be listed in the Federal Register as published by the U.S. Department of Treasury under most recently revised Circular 570; 3) have an A.M. Best Company's Insurance reporting rating of no less than A- (Excellent); and 4) authorized to do business in the State of Michigan by the Michigan Department of Licensing & Regulatory Affairs Office of Financial and Insurance Regulations. Upon request, the Contractor shall submit evidence of such insurance.

GC.2 CONTRACTORS' AND SUBCONTRACTORS' INSURANCE

The Contractor shall not commence work under this Contract until he/she has obtained all the insurance required under this section and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his/her subcontract until all similar insurance required of the subcontractor has been so obtained and approved. Contractors and subcontractors are required to file with the Owner completed certificates of insurance, as evidence that they carry adequate insurance to comply with the requirement of this section. New Certificates of Insurance shall be furnished to the Owner at the renewal date of all policies named on these certificates.

A. Policies, Coverages and Endorsements

The Contractor agrees to maintain, or to cause its personnel providing services under this Contract to maintain, at its sole cost and expense or the cost and expense of his personnel, the following insurance policies, with the specified coverages and limits, to protect and insure the Owner and Contractor against any claim for damages arising in connection with Contractors responsibilities or the responsibilities of Contractors personnel under this Contract and all extensions and amendments thereto.

1. **Commercial General Liability**

- | | | |
|----|-------------------|-------------|
| a. | General Aggregate | \$2,000,000 |
| b. | Each Occurrence | \$1,000,000 |

Such insurance shall include, but not be limited to, coverage for:
Comprehensive form, Premises-operations, Explosion and collapse hazard,
Underground hazard, Products/completed operations hazard, Contractual
insurance, Broad form property damage, Independent contractor,
Personal injury

2. **Workers' Compensation & Employer' Liability** (if applicable)

- | | | |
|----|---------------------------|-------------------------|
| a. | Medical & Indemnity | Statutory Requirements |
| b. | Bodily Injury by Accident | \$500,000 Each Accident |
| c. | Bodily Injury by Disease | \$500,000 Each Employee |
| d. | Bodily Injury by Disease | \$500,000 Policy Limit |
| e. | Employers Liability | \$500,000 |

GENERAL CONDITIONS

GC.2 CONTRACTORS' AND SUBCONTRACTORS' INSURANCE

A. Policies, Coverages and Endorsements (Cont'd.)

3. **Automobile Liability**

Including hired and non-owned

Automobiles \$1,000,000 (Combined Single Limit)

Such insurance shall include, but not be limited to, coverage for:

Comprehensive form, Owned vehicles, Hired vehicles, Non-owned vehicles

B. Builder's Risk Insurance (Fire and Extended Coverage)

Until the project is completed and accepted by the Owner, the Contractor is required to maintain Builder's Risk Insurance (fire and extended coverage) on a 100 percent completed value basis on the insurable portion of the project for the benefit of the Owner, the Contractor, and subcontractors as their interests may appear.

C. Owner's Protective Liability

The Contractor shall procure and shall maintain during the life of this Contract Owner's/Contractor's Protective Liability Insurance, listing the Owner as the named insured. The minimum limit of liability shall be not less than \$1,000,000.00 per occurrence/aggregate.

D. Insured Parties

All policies shall contain a provision naming the Owner (and its officers, agents and employees) as Additional Insured parties on the original policy and all renewals or replacements during the term of this Contract.

E. Acceptable Insurance Companies

All insurance companies required by this section shall be: 1) acceptable to the Owner; 2) authorized to do business in the State of Michigan by the Michigan Department of Licensing & Regulatory Affairs Office of Financial and Insurance Regulations, and 3) have an A.M. Best Company's Insurance reporting rating of no less than A- (Excellent). Upon request, the Contractor shall submit evidence of such insurance.

F. Indemnification and Hold Harmless

The Contractor shall, at its own expense, protect, defend, indemnify and hold harmless the Owner and its elected and appointed officers, employees, and agents from all claims, damages, costs, lawsuits and expenses, including, but not limited to, all costs for administrative proceedings, court costs and attorney fees that they may incur as a result of any acts, omissions, or negligence of the Contractor, its subcontractors, sub-subcontractors or any of their officers, employees, or agents. This includes but is not limited to injury or death to any person or persons, including the contractors employees, and damage to property. The furnishing by the Contractor of any insurance required by this Contract, or the acceptance or approval thereof by the Owner as provided in this Contract, or otherwise, shall not diminish the Contractor's obligation to fully indemnify the Owner, its elected and appointed officers, employees, and agents as required in this section.

The Contractor shall not cancel or reduce the coverage of any insurance required by this section without providing 30-day prior written notice to the Owner. All such insurance must include an endorsement whereby the insurer shall agree to notify the Owner immediately of any reduction by the Contractor. The Contractor shall cease operations on the occurrence of any such cancellation or reduction, and shall not resume operations until new insurance is in force.

GENERAL CONDITIONS

GC.3 QUALIFICATION FOR EMPLOYMENT

The Contractor shall employ competent laborers and mechanics for the work under this Contract, and shall comply with all applicable regulations of the United States Department of Labor and any other agencies having jurisdiction.

GC.4 PREVAILING WAGE REQUIREMENT

Meridian Township policy requires vendors contracting with the Township over \$50,000 to pay employees and sub-contractors, directly upon the site of work, at least the prevailing wages and fringe benefits as determined and published by the United States Department of Labor for the Ingham County area. Contractors shall furnish proof satisfactory to the Township that the Prevailing Wage provisions are being complied with as part of each progress payment submission.

GC.5 PROGRESS SCHEDULE

The Contractor, if requested by the Owner, immediately after being awarded the Contract, shall prepare and submit to the Owner and its representative an estimated progress schedule for the work in relation to the entire project. This schedule shall indicate the dates for the starting and completion of the various stages of construction. If the Contractor chooses to work overtime, he will be backcharged for inspection. Overtime is any Township recognized holiday and/or any time other than 8:00 a.m. to 5:00 p.m., local time, Monday through Friday.

GC.6 ACCIDENT PREVENTION

Precaution shall be exercised at all times for the protection of persons (including employees) and property, and hazardous conditions shall be guarded against or eliminated. The Contractor is entirely responsible for all aspects of job safety and shall execute the work under this Contract in strictest conformance with all state and local safety codes, rules and regulations.

GC.7 CONTRACT PRICE SCHEDULE

The Contractor, if requested by the Owner, shall submit to the Owner a cost breakdown for the various items of the work. The schedule shall be prepared in a manner acceptable to the Owner as to both form and completeness and supported by data as necessary to substantiate its correctness.

GC.8 PAYMENT TO CONTRACTOR

The Contractor shall submit semi-monthly, or at longer intervals, if he so desires, an invoice covering work previously performed for which he believes payment, under the Contract terms, is due, and shall deliver said invoice to the Owner. Each request for payment shall be accompanied by a statement certifying that all bills for labor and materials have been paid up for all previous pay requests. Contractors shall furnish proof satisfactory to the Township that the Prevailing Wage provisions are being complied with as part of each progress payment submission.

GENERAL CONDITIONS

GC.8 PAYMENT TO CONTRACTOR (Cont'd.)

Each progress payment request shall be paid within one of the following time periods, whichever is later:

- A. Thirty (30) days after the Owner has certified that the work is in place in the portion of the facility covered by the applicable request for payment in accordance with the documents.
- B. Fifteen (15) days after the Owner has received the funds with which to make the progress payment from a department or agency of the federal or state government, if any funds for the facility are to come from either of these sources.

To assure proper performance of the Contract by the Contractor, the Owner shall retain ten percent (10%) of the dollar value of all work in place until the work is fifty percent (50%) in place. After the work is fifty percent (50%) in place, additional retainage shall not be withheld unless the Owner determines that the Contractor is not making satisfactory progress, or for other specific cause relating to the Contractor's performance under the Contract. In the event of such a determination the Owner may retain up to but not to exceed ten percent (10%) of the dollar value of the work more than fifty percent (50%) in place.

Any funds retained by the Owner shall not exceed the prorated share of the Owner's matching requirement if the project is funded, in part, with federal or state funds. Any retained funds shall not be commingled with other funds of the Owner and shall be deposited in an interest-bearing account in a regulated financial institution.

At any time after ninety-four percent (94%) of the work under the Contract is in place and at the request of the Contractor, the Owner shall release the retainage plus interest, only if the Contractor provides to the Owner an irrevocable letter of credit in the amount of the retainage plus interest, issued by a bank authorized to do business in the State of Michigan, containing terms mutually acceptable to the Contractor and Owner.

Retainage shall be released to the Contractor together with the final progress payment.

Owner and Contractor agree that disputes concerning retainage, at the option of the Owner, shall be submitted to the decision of the agent as provided in Section 4 of Act 524 of the Michigan Public Acts of 1980 (MCLA 125.1564; MSA 5.2949 (104)) and that interest earned on retainage shall be released to the Contractor together with the final progress payment except as provided in said Section 4 of 1980 PA 524.

The final progress payment request by the Contractor shall include:

- A. A final invoice in a form satisfactory to the Owner.
- B. A sworn statement certifying that all bills for labor and materials have been paid by the Contractor.
- C. A sworn statement waiving any further claims (other than the final payment, retainage and interest, if any) by the Contractor against the Owner.
- D. A certificate from Contractor's bonding company approving issuance of final payment.

GENERAL CONDITIONS

GC.8 PAYMENT TO CONTRACTOR (Cont'd.)

All payments shall take due account of additions to or deductions from the Contract price as herein provided.

The acceptance by the Contractor of payment on the final progress payment request shall be conclusive evidence of Contractor's acceptance and approval of estimates, accounting and deductions, and of full payment by the Owner for all work, labor, materials and services done or furnished hereunder, and a full satisfaction, discharge, release and waiver of all claims and demands of or on behalf of the Contractor, its agents or employees against the Owner arising out of this agreement.

GC.9 SUBCONTRACTING

The Contractor shall not award any work to any subcontractor, supplier, manufacturer or fabricator without prior written approval of the Owner, which approval will not be given until the Contractor submits a written statement to the Owner concerning the proposed award to the subcontractor. Said statement shall contain such information as the Owner may require.

The Contractor shall be as fully responsible to the Owner for the acts and omissions of his subcontractors and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him. All sub-contracts entered into by the Contractor shall contain the provision with respect to the prevailing wage requirement. Which states all contractors and sub-contractors engaged in the performance of service or work for the Township to, at the request of the Township, furnish proof satisfactory to the Township that the prevailing wage provisions are being complied with.

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

Nothing contained in this Contract shall create any contractual relation between any subcontractor and the Owner.

GC.10 ASSIGNMENTS

The Contractor shall not assign the whole or any part of this Contract or any monies due or to become due hereunder without written consent of the Owner. In case the Contractor assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to prior liens of all persons, firms and corporations for services rendered or materials supplied for the performance of the work called for in this Contract.

GC.11 EXTRAS

Except as otherwise herein provided, no charge for any extra work or materials will be allowed unless the same has been ordered in writing by the Owner and the price stated in such order.

GENERAL CONDITIONS

GC.12 CHANGES IN WORK/PAYMENT ADJUSTMENTS

Adjustments, if any, in the amounts to be paid by the Contractor by reason of changes in, additions to, or deductions from the work to be performed or the materials to be furnished under this Contract, shall be made on the basis of the acceptable unit prices or lump sums submitted by the Contractor covering such changes, additions or deductions.

Failing an acceptable lump sum or unit price basis for extra work caused by changes or additions, the Contractor may be directed to proceed with extra work on the basis of actual total cost of:

- A. Labor, including foremen (including fringe benefits);
- B. Materials entering permanently into the work;
- C. The ownership or rental cost of construction plant and equipment during the time of use on the extra work at a rate not to exceed AGC rates;
- D. Power and consumable supplies for the operation of power equipment;
- E. Insurance;
- F. Social Security and unemployment contributions.

To the cost of the six items above, there shall be added a fixed fee, to be agreed upon but not to exceed fifteen percent (15%) of the actual cost of the work. The single fee shall be compensation to both the Contractor and/or subcontractor to cover the cost of supervision, overhead, bond, profit and any other general expenses.

Failing an acceptable lump sum or unit price basis for adjustment for any decrease in work caused by changes or deductions, the amount of such adjustment may be determined on a similar basis to that described for extra work, with the Contractor furnishing all pertinent cost data from his/her books and records that may be available and necessary for determination of the amount of adjustment.

All changes in, additions to, or deductions from the work specified shall be made only by written order by the Owner or by an authorized representative of the Owner. No claim for extra work will be allowed, unless ordered in writing as above stated, and the claim therefore presented in writing by the Contractor on or before the fifth (5th) day of the month following that in which the work was done.

GC.13 TIME OF MAKING CLAIMS

If the Contractor shall claim compensation or extension of time for any losses, damages, or delays sustained by reason of the acts of the Owner or its agents or other causes, he/she shall make a written statement of the nature of the loss, damage, or delay sustained to the Owner, within ten (10) days after the sustaining of such loss, damage, or delay. At the time of delivery and as a part of the Contractor's Declaration as hereinafter provided, the Contractor shall file with the Owner an itemized statement of the details and amounts of the loss, damage, or delay, and unless the statement shall be made as thus required, the Contractor's claim for compensation or extension of time shall be forfeited and invalidated, and he/she shall not be entitled to payment or extension of time on account of any such loss, damage or delay.

GENERAL CONDITIONS

GC.14 MATERIALS, SERVICES, AND FACILITIES

It is understood that except as otherwise specifically stated in the Contract documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature and all construction facilities whatsoever necessary to execute, complete, and deliver the work within the specified time.

Any work necessary to be performed after regular working hours, or Sundays and legal holidays, shall be performed without additional expense to the Owner.

GC.15 TERMINATION FOR BREACH

In the event that any of the provisions of this Contract are violated by the Contractor or by any of his subcontractors, the Owner may serve written notice upon the Contractor and the Surety of its intention to terminate the Contract, such notice to contain the reasons for terminating the Contract, and unless within ten (10) days after the serving of such notice upon the Contractor, the violation shall cease and satisfactory arrangements for correction be made, the Contract shall cease and terminate. In the event of a termination of the Contract, the Owner shall immediately serve notice thereof upon the Surety and the Contractor, and the Surety shall have the right to take over and perform the Contract. However, if the Surety does not commence performance thereof within 30 days from the date of mailing said Notice of Termination to such Surety, the Owner may take over the work and prosecute the same to completion by contract for the account and at the expense of the Contractor. The Contractor and his Surety shall be liable to the Owner for any excess cost incurred by the Owner in completing the work, and Owner may take possession of and utilize in completing the work, all materials, appliances and plants as may be on the site of the work and necessary therefore.

GC.16 OWNER'S RIGHT TO WITHHOLD CERTAIN AMOUNTS AND MAKE APPLICATION THEREOF

The Owner may withhold a sufficient amount of any payment otherwise due to the Contractor to cover:

- A. Payments that may be past due and payable for just claims for labor, materials, or equipment furnished in and about the performance of the work on the project under this Contract.
- B. For defective work not remedied.
- C. For failure of the Contractor to make proper payments to his subcontractors.

The Owner shall disburse and shall have the right to act as agent for the Contractor in disbursing such funds as have been withheld pursuant to this paragraph to the party or parties who are entitled to payment therefrom. Any payment so made by the Owner shall be considered as a payment made under the Contract by the Owner to the Contractor. The Owner will render to the Contractor a proper accounting of all funds disbursed in behalf of the Contractor.

GC.17 SUPERINTENDENCE

The Contractor shall give his/her personal superintendence to the work or have a competent foreman or superintendent, satisfactory to the Owner, on the worksite at all times during work progress, with authority to act for the Contractor.

GENERAL CONDITIONS

GC.18 NOTICE AND SERVICE THEREOF

Where in any of the Contract documents there is any provision in respect to the giving of any notice, such notice shall be deemed to have been given; as to the Owner, when written notice shall be delivered to the Owner, or shall have been placed in United States mails with first-class postage pre-paid addressed to the chief executive officer of the Owner at the place where the bids or proposals for the Contract were opened; as to the Contractor, when a written notice shall be delivered to the chief representative of the Contractor, at the site of the project or by mailing such written notice in the United States mails with first-class postage pre-paid addressed to the Contractor at the place stated in the papers prepared by him to accompany his proposal as to the address of his permanent place of businesses; as to the Surety, when a written notice is placed in the United States mails with first-class postage pre-paid addressed to the Surety at the home office of such Surety or to its agent or agents who executed bonds in behalf of such surety.

GC.19 COMPLIANCE WITH LAW, APPLICABLE LAW, AND VENUE

The Contractor shall comply with all applicable Federal, State, County, and Municipal laws, ordinances, rules and regulations.

This contract shall be construed according to the laws of the State of Michigan.

The venue for the bringing of any legal or equitable action under this contract shall be the County of Ingham, of the State of Michigan. In the event that any action is brought under this Contract in Federal Court, the venue for such action shall be the Federal Judicial District of Michigan, Western District, Southern Division.

GC.20 PERMITS

The Township will secure and pay for the Building Permit from the Meridian Township Building Department. All other permits or licenses which may be needed for prosecution of the work are to be obtained by the Contractor at the Contractor's expense.

GC.21 ROYALTIES AND PATENTS

The Contractor shall pay for all royalties and patents, and shall defend all suits or claims for infringement on any patent right, and shall save and hold the Owner harmless from loss on account thereof.

GC.22 INSPECTIONS

The Owner and its representative shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide facilities for such access and for inspection.

The Owner and/or its representative shall have the right to reject materials and workmanship which are defective, or require their correction. Work on the project may be ordered terminated until correction is made. Rejected workmanship shall be satisfactorily corrected, and rejected materials shall be removed from the premises without charge to the Owner. If the Contractor does not correct condemned work and remove rejected materials within a reasonable time, fixed by written notice, the Owner may remove them and charge the expense to the Contractor.

GENERAL CONDITIONS

GC.22 INSPECTIONS (Cont'd.)

Should it be considered necessary or advisable by the Owner at any time before final acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall on request promptly furnish all necessary facilities, labor and materials. If the work is found to be defective in any material respect, due to fault of the Contractor or his/her subcontractors, he/she shall defray all the expenses of examination and of satisfactory reconstruction. If, however, the work is found to meet the requirements of the Contract, the actual cost of labor and material necessarily involved in the examination and replacement, plus 15 percent (15%) shall be allowed the Contractor.

GC.23 CORRECTION OF WORK AFTER FINAL PAYMENT

Neither the final payment nor any provision in the Contract documents nor partial or entire occupancy of the premises by the Owner shall relieve the Contractor of the responsibility for negligence or faulty materials or workmanship within the extent and period provided by law, and, upon written notice, he/she shall repair any defects due thereto and pay for any damage due to other work resulting therefrom, which shall appear within **one year** after date of completion and acceptance.

GC.24 PROTECTION OF WORK

The Contractor shall continuously maintain adequate protection of all his/her work from damage and shall protect the Owner's and adjacent property from injury arising in connection with this Contract, and shall be responsible for all damage and/or injury caused by or arising out of his operations.

GC.25 USE OF JOB SITE

The Contractor shall confine his/her equipment apparatus, the storage of materials and operations of his/her workmen to limits indicated by law, ordinances, permits or directions of the Owner and shall not encumber the premises with his materials.

GC.26 "OR EQUAL" CLAUSE

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

GENERAL CONDITIONS

GC.27 PLANS AND SPECIFICATIONS

The Contractor shall keep on the worksite a copy of the drawings and specifications and shall at all times give the Owner access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like affect as if shown or mentioned in both. In case of difference between drawings and specifications the specifications shall govern. In any case of discrepancy in the figures, drawings or specifications, the matter shall be immediately submitted to the Owner, without whose decision said discrepancy shall not be adjusted by the Contractor, save only at his/her own risk and expense.

The Owner shall furnish from time to time such detail drawings and other information as he/she may consider necessary, unless otherwise provided. The Contractor shall keep such drawings at the site of the work.

GC.28 OWNER'S RIGHT TO DO WORK

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Owner three (3) days after given written notice to the Contractor and his/her Surety may, without prejudice to any other remedy the Owner may have, make good such deficiencies and may deduct the cost thereof from the payment due to the Contractor.

GC.29 CLEANING UP

The Contractor shall at all times keep the premises free from accumulations of waste material or rubbish caused by his/her employees or work, and at the completion of the work he/she shall remove all his/her rubbish from and about the work and all his/her tools, equipment, scaffolding and surplus materials and shall leave his/her work clean and ready for use. In case of dispute, the Owner may remove the rubbish and surplus materials and charge the cost to the several Contractors in proportion to the amounts as shall be determined to be just.

GC.30 REPORTS, RECORDS AND DATA

The Contractor and each of his/her subcontractors shall submit to the Owner such schedules of quantities, costs, progress schedules, payrolls, reports, estimates, records, and other data as the Owner may request concerning work performed or to be performed under this Contract.

GC.31 NON-DISCRIMINATION IN EMPLOYMENT

The Contractor shall adhere to all applicable Federal, State and local laws, ordinances, rules and regulations prohibiting discrimination with regards to employees and applicants for employment. The Contractor and his/her subcontractors shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions or privileges of employment, including a benefit plan or system or a matter directly or indirectly related to employment because of race, color, religion, national origin, sex, age, height, weight, condition of pregnancy, marital status, physical or mental limitation, disability, source of income, familial status, educational association, sexual orientation, gender identity or expression, or HIV status. Breach of this section shall be regarded as a material breach of this Contract.

GENERAL CONDITIONS

GC.32 DEFINITIONS

The following terms as used in these Contract documents are respectively defined as follows:

- (a) "Contractor" The person, firm or corporation to whom the within Contract is awarded by the Owner and who is subject to the terms hereof.
- (b) "Subcontractor" A person, firm or corporation other than a Contractor, supplying labor and materials or labor for work at the site of the project.
- (c) "Project" The total construction proposed by the Owner to be constructed in part or in whole pursuant to the within Contract.
- (d) "Work on the Project" Work to be performed, including work normally done, at the location of the project.
- (e) "Surety" Any person, firm or corporation that has executed, as surety, the Contractor's performance and/or labor and material bonds securing the attached Contract.
- (f) "Owner" The Charter Township of Meridian, the public body or authority for whom the work is to be performed and as identified in the advertisement and proposal.
- (g) "Engineer" The Director of Public Works and Engineering for the Charter Township of Meridian or his authorized representative.

GENERAL SPECIFICATIONS

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GS.1 DEFINITION

The Contractor shall furnish all materials specified herein and shown on the plans and required to be incorporated in the work of the Contract. He shall furnish all labor, construction equipment, tools, supplies and facilities required to construct the elements designated by the Contract documents and shall construct all of the designated elements complete and in full conformance with the requirements of these documents. He shall comply with all regulatory provisions of the Contract, General Conditions and the Specifications.

GS.2 SEQUENCE OF WORK

The Contractor shall, if requested by the Owner, before commencing work, submit to the Engineer a complete schedule of all work to be conducted. All work shall be conducted in accordance with such schedule as is approved by the Engineer.

No work will be allowed at the site prior to 7:00 a.m. nor after 7:00 p.m., or dusk, of any working day. No work will be allowed on Sundays with the exception of work necessitated by an emergency.

GENERAL SPECIFICATIONS

GS.3 ELEVATIONS

All the elevations shown on the plans or referred to herein are in feet above mean sea level datum as established by the United States Geological Survey, unless otherwise noted. The Contractor shall verify all the existing structure locations and elevations at points of connection or possible interference between his work and the existing structures and shall report at once to the Engineer any interference's or discrepancies discovered.

GS.4 QUALITY OF MATERIALS AND EQUIPMENT FURNISHED

All materials and equipment furnished by the Contractor hereunder shall be new and conform to specifications herein.

Materials, supplies and equipment, whether furnished by the Contractor or the Owner, shall be stored at the site of the work in such manner as not to interfere with traffic, convenience to public or other Contractors on the site or in the vicinity. The Contractor shall be responsible for any damage caused to new or existing structures by reason of such storage or handling of materials, supplies or equipment.

Flammable materials in portable containers are not to be stored overnight on the site. This includes, but is not limited to, gasoline and diesel fuel for use in construction machinery. Portable containers suitably protected, will be allowed overnight at the site, if confined to permanent tanks which are a normal part of the construction machinery.

Where the Contractor is required to do work within rights of way under the jurisdiction of governmental bodies, he shall meet the requirements of said governmental bodies for work and storage within their jurisdiction. Such requirements must be met as a minimum requirement, and if the specifications given herein impose further limitation on the work, they shall also be met as the required work standard.

The Contractor's attention is directed to the Ingham County Road Commission permit specifications, Section 5. Restoration and Maintenance of Right-Of-Way (e.) for dust control requirements.

GS.5 CARE OF EXISTING STRUCTURES

The Contractor shall be solely responsible for any damage to any existing underground services or structures, or to structures and roadway above ground caused by his operations or those of his subcontractors and suppliers.

GS.6 CARE OF NEW STRUCTURES

The Contractor shall use every reasonable precaution to prevent injury to the new structures being constructed hereunder. He shall be responsible to correct all injury or damage resulting from his operations and/or occurring while the work is under his supervisory control. He shall furnish and install such guards, coverings and other protection as may be needed to insure that the structures remain undamaged prior to completion of the entire work.

In the event damage does occur to the finished portions of the work, or to the work in progress, the Contractor shall take such corrective action and measures as may be necessary to repair the damage to the satisfaction of the Engineer.

GENERAL SPECIFICATIONS

GS.7 EXISTING PUBLIC UTILITIES

Existing public utilities and underground structures such as pipelines, electric conduits and sewers are shown on the drawings from available information.

The Contractor shall conduct his operations so as not to damage any existing utility whether or not shown on the plans. The Contractor shall correct, at his own expense, any injury that may be caused by him during his operations or injury caused during the operations of his subcontractors or suppliers.

The Contractor shall be responsible for coordinating repair, relocation or repair of existing public and private utilities with the appropriate utility or owner. No extra payment will be allowed for repairs.

If the Contractor desires, or is required by the utility companies, to relocate any power or telephone poles to facilitate his work, any expense encountered from such relocation shall be borne by the Contractor.

GS.8 PROTECTION OF TREES AND SHRUBS

All trees and shrubs encountered along the route of the project shall be protected from damage by the Contractor and saved from harm resulting from any of his operations or operations of his subcontractors and suppliers.

Only those trees and shrubs marked for removal on the plans shall be removed. All others will be saved from damage by tunneling or by slightly adjusting the alignment of the project as directed by the Engineer.

GS.9 CONTRACTOR'S OFFICE

The Contractor shall establish and maintain, at his own expense, office headquarters at the site of the work and such storage space and the like as may be required.

Telephone service shall be provided, if requested by the Owner. At the office headquarters shall be kept a complete set of plans and specifications including all shop plans.

GS.10 SAFETY PRECAUTIONS

During the progress of the work, the Contractor shall maintain adequate facilities for the protection and safety of all persons and property. The Contractor and all his subcontractors and suppliers shall comply with the "Construction Health and Safety Standards" as published by the Construction Safety Standards Commission of the State of Michigan and to all other local, state and federal laws, ordinances, rules and regulations pertaining to safety of persons or property.

GS.11 SANITARY REQUIREMENTS

The Contractor shall provide adequate sanitary facilities for all persons employed on this Project. The sanitary facilities shall conform in every way to the requirements of the "Construction Health and Safety Standards" as published by the Construction Safety Standards Commission of the State of Michigan.

GENERAL SPECIFICATIONS

GS.12 UTILITIES

The Contractor shall make all necessary arrangements for the provision of all utility services required to prosecute the work under this Contract. The Contractor shall pay the costs for such connections and service. Where the Owner has utility service at the site, the Contractor may obtain service by connection to the Owner's service, subject to reasonable regulation of its use and satisfactory agreement as to charges. In the event that the Contractor's use of any or all of the Owner's utility services causes the Owner to have an inadequate supply of such service, the Contractor shall disconnect said service and provide his own separate supply at no cost to the Owner.

All utility services shall be inspected by and meet the requirements of the applicable local codes and governmental bodies.

GS.13 PUMPING AND DRAINAGE

Adequate pumping and drainage facilities shall be provided and water from whatever sources entering the work during any stage of construction shall be removed promptly and disposed of. All pumping and drainage shall be done with no damage to property or structures and without interference with the right of the public, owners of private property, pedestrians, vehicular traffic, or the work of other contractors. Dewatering shall be done in such a manner that the soil under or adjacent to existing structures shall not be disturbed, removed or displaced.

The overloading or obstructing of existing drainage facilities shall not be permitted, and the Contractor shall be solely responsible for damages caused to such existing drainage facilities by his operations.

GS.14 WINTER CONSTRUCTION

The Engineer shall have authority over approving the prosecution of work which is proposed to be done during the winter months. The Contractor shall provide adequate weather protection, temporary heating and take any other measures which are necessary to insure that work performed during the winter months is properly installed and protected against damage from freezing.

Reference is made in the Detail Specifications to the requirement for performing concrete construction and masonry construction in cold weather.

GS.15 USE OF FACILITIES BEFORE FINAL COMPLETION

The Owner shall have the right to make use of, during the construction period, such portions of completed and acceptably tested facilities as he may find practicable. Such use by the Owner shall not relieve the Contractor from responsibility for any defective work which may be subsequently discovered.

GENERAL SPECIFICATIONS

GS.16 TEST OF MATERIALS

All laboratory tests, except as otherwise noted, are to be made at the expense of the Contractor as specified in the Detailed Specifications. The Contractor shall furnish satisfactory containers for taking and shipping samples. The name of the laboratory making the test must be submitted by the Contractor to the Engineer for approval.

In all cases "laboratory" refers to an independent laboratory of recognized standing. Acceptance of materials tested shall be based upon compliance with the specifications hereinafter stated for the various items. Where no particular tests are specified, the tests shall be those normally made for determination of the fitness of the particular material. Certificates of tests shall be furnished by the testing laboratory or producer, in triplicate, to the Engineer.

The Owner may require, at its own option and expense, additional mill and/or shop inspection by competent parties. The Owner may require, at its own option and expense, additional field inspection by a qualified inspector.

All materials failing to meet the requirements of the specifications, as determined by test or otherwise, shall be rejected and not used in the work. The cost of testing materials which fail to meet requirements shall be paid by the Contractor. All follow-up testing required shall also be paid by the Contractor. Materials, if rejected at the site, shall be immediately removed therefrom and shall not be used in the work.

GS.17 OTHER WORK

The Contractor shall cooperate with other Contractors on the site or adjoining work to the end that the entire Project may proceed with the utmost harmony and with a minimum of delay.

Where the work under this Contract is to involve work completed under other contracts or existing facilities or structures, the Contractor shall investigate the condition of such other work or facility to determine its suitability for incorporation into the work of this Contract. Any defect or discrepancy in other work of facility making it unsuitable for proper execution of this Contract shall be immediately reported to the Owner who shall order such adjustments in the work of the project as necessary for proper completion, and unless such defect or discrepancy is reported promptly, the Contractor shall be solely responsible for any adjustments in the work as shall be found necessary to properly complete the work on this project.

GS.18 LINES AND GRADES

General control lines and grades will be established by the Owner. The Contractor shall notify the Engineer no less than 48 hours prior to requiring such control. The Contractor shall furnish all stakes and labor for driving them and rodmen to assist the Owner in this work. The Contractor shall carefully preserve the general control lines and grades established by the Engineer. The cost of replacement of stakes which are damaged or lost shall be borne by the Contractor.

Construction lines and grade shall be transferred and set by the Contractor from the control lines and grades established by the Engineer, and the Contractor shall furnish necessary instruments and competent personnel for performing such work, and he shall be responsible for the accuracy of the transferred line and grade. The Owner will check the work at intervals as he deems necessary and the Contractor shall make correction of error, if any, at his own expense, as may be required for the proper function and performance of the structure and installed equipment.

GENERAL SPECIFICATIONS

GS.19 COMPLETE WORK REQUIRED

It is the intent of the Contract documents to provide that the Project to be constructed under this Contract will be complete and ready for use. Any minor items not specifically called for on the plans or specifications, but which are clearly necessary, are to be included.

GS.20 PROPERTY MARKERS

The Contractor shall take precautions not to move or destroy any monuments or stakes marking the boundaries of property along or near the work. A licensed surveyor shall reestablish property irons in the proper location if disturbed. Buried property irons shall be extended 1/2" diameter rods. The Contractor shall pay for reestablishment.

GS.21 RECORDS AND MEASUREMENTS

The Contractor shall keep careful records showing measured overall length of underground facilities installed and distances of such from any available line as may be designated by the Engineer. Such records shall be turned over to the Engineer as the work progresses and the records must be accurate and complete.

GS.22 GUARANTEE

The Contractor shall guarantee and shall secure from the manufacturer of each item of manufactured equipment used in the project a written guarantee that all materials and equipment furnished by him shall be first class and free from defects, and the guarantor agrees that he will, upon notice and without delay, make good or repair without expense to the Owner the whole or any part of the equipment furnished by him hereunder, which within a year from date of acceptance of that portion of completed work incorporating such equipment shall fail or develop unfitness for the purpose for which it is intended as a result of any defect in design, material, workmanship, erection or construction.

MERIDIAN TOWNSHIP
TECHNICAL SPECIFICATIONS

ROOFTOP SOLAR PHOTOVOLTAIC ARRAY

- 15.01 Design Guidelines**
- 15.02 Code Specifications**
- 15.03 Material Specifications**
- 15.04 Contractor Responsibilities**
- 15.05 Warranties**
- 15.06 System Monitoring**
- 15.07 Operation and Maintenance of System**

15.01 DESIGN GUIDELINES

Contractor should consider the following guidelines when designing the solar system.

1. General

The contractor shall develop a design for a new photovoltaic system.

- A. The system shall be a grid-interactive array that interacts with the project site utility (Consumers Energy) grid.
- B. The system interconnection will be coordinated with the project site utility and designed to shut down in the event of an outage, until the utility power is restored.
 - 1) The system shall qualify for and be enrolled into Consumers Energy Net Metering Category 1-20 kilowatts (kW) and less.
 - 2) Coordination of interconnection agreement is the responsibility of the selected contractor.
- C. The anticipated system nameplate capacity should be equal to 20 kW or less.

2. Rooftop Solar

It is the responsibility of the Contractor to assess the building structural integrity, roof condition and shading limitations and identify optimized installation location.

- A. Mounting system shall be free from roof penetrations. Mounting system design needs to meet applicable local building code requirements with respect to snow, wind, and earthquake factors, if applicable. Solar system installation should not void the roof warranty.
- B. Conduit penetrations shall be minimized.
- C. System shall be fixed tilt with an orientation that maximizes annual savings.
- D. All roof access points shall be securely locked at the end of each day.
- E. System layout shall meet local fire department, code and ordinance requirements for roof access.

15.02 CODE SPECIFICATIONS

All power generation and transmission equipment must be UL listed for its designed use. Construction must comply with current adopted State Building Code, which includes: International Building Code, National Electric Code (NEC) and State Fire Marshall (if applicable).

- 1. Modules:** System modules shall be UL1703 listed, and California Energy Commission (CEC)-listed.

**MERIDIAN TWP TECHNICAL SPECIFICATIONS
ROOFTOP SOLAR PHOTOVOLTAIC ARRAY**

15.02 CODE SPECIFICATIONS (CONT'D.)

2. **Inverters:** Shall be UL 1741 listed and must be CEC-listed with an efficiency of 95% or higher.
3. **Other applicable codes and standards:**
 - A. UL 1703 - "Flat-Plate Photovoltaic Modules and Panels"
 - B. AMSE PTC 50 (solar PV performance)
 - C. ANSI Z21.83 (solar PV performance and safety)
 - D. NFPA 853 (solar PVs near buildings)
 - E. NFPA 70 (electrical components)
 - F. IEEE 929-2000-"Recommended Practice for Utility interface of Photovoltaic Systems"
 - G. IEEE 1262 "Recommended Practice for Qualifications of Photovoltaic Modules"
 - H. IEEE 1547 (interconnections)
 - I. All applicable State Building Codes and requirements

15.03 MATERIAL SPECIFICATIONS

Materials are not limited to following:

1. **Modules**
 - A. Provide all labor, material, and equipment necessary to install all major equipment for the rooftop solar photovoltaic array which meets capacity requirements described in contract documents.
 - B. Modules must be UL or ETL certified and listed components, including mounting systems.
 - C. Modules must be certified to UL 1703 - "Flat-Plate Photovoltaic Modules and Panels"
 - D. Quantity to be provided based on total rated capacity described in contract documents.
2. **DC optimizers**

Provide all labor, material and equipment necessary to install DC-Optimizers, producing module level DC-optimization, or equivalent.
3. **Mounting Systems**
 - A. Provide all labor, equipment and material necessary to install a non-penetrating roof racking system that meets requirements described in contract documents.
 - B. Racking system shall be a fixed tilt.
 - C. Racking system shall be comprised of UL or ETL certified and listed components.
4. **Balance of system equipment (BOS)**
 - A. Provide all labor, material and equipment necessary to install all mounting and wiring systems used to integrate the solar modules into the structural and electrical systems of the project site. The wiring systems include all disconnects for the DC and AC sides of the inverter as required by the electrical code and utility, ground-fault protection, and overcurrent protection for the solar modules.
 - B. All Balance of Systems (wiring, component wiring, conduits, and connections) must be suited for conditions for which they are to be installed.
 - C. System shall be supplied with lockable DC and AC disconnect switches.

**MERIDIAN TWP TECHNICAL SPECIFICATIONS
ROOFTOP SOLAR PHOTOVOLTAIC ARRAY**

15.03 MATERIAL SPECIFICATIONS (Cont'd.)

5. Inverters

- A. Provide all labor, material, and equipment necessary to install inverters.
- B. Inverters must comply with the following requirements:
 - 1) IEEE 929-2000 - Recommended Practice for Utility Interface of Photovoltaic Systems
 - 2) UL 1741 - "Standard for Static Inverters and Charge Controllers for use in Photovoltaic Systems"
 - 3) Inverters shall be non-islanding type designed to shut down on loss of utility power.
 - 4) Inverters shall be installed in all-weather enclosures (NEMA 4 or 3R) suitable for exterior location, if mounted on exterior.
 - 5) Inverters shall be located in an easily accessible, weather-protected area, and not be subject to direct rain or sun, preferably located indoors.
 - 6) As far as practical, the AC output of all inverters located in one building shall be connected to the same distribution panel.

6. Meters

- A. Provide all labor, material, and equipment necessary to install revenue grade meter complete with industry standard capacity for communication with Ethernet, cellular or other common output capabilities.
- B. Provide Ethernet connection to the Meridian Township's network for the purposes of metering, monitoring, and data collection of solar production.

7. Structural Requirements

- A. All structures and structural elements, including array structures, shall be designed in accordance with all applicable Michigan Building Codes and standards pertaining to the installation of such structures.
- B. The contractor shall provide structural calculations, stamped by a licensed professional structural engineer in good standing with the State of Michigan, or as required by the AHJ.
- C. All structural components, including array structures, shall be designed in a manner commensurate with attaining a minimum 30-year design life. Particular attention shall be given to the prevention of corrosion at the connections between dissimilar metals.
- D. The structural design should provide for easy and cost-effective repair or replacement of the roof.
- E. Any roof penetrations must be designed and constructed in collaboration with the roofing professional or manufacturer responsible for the roof and roofing material warranty for the specific site, to ensure that the existing roof warranty is not invalidated by the installation of the photovoltaic system.
- F. For rooftop installations, industry standard or code required safety zone from the roof edge to the photovoltaic system must be maintained. A three foot (3') clear path of travel must be maintained to and around all rooftop equipment.

MERIDIAN TWP TECHNICAL SPECIFICATIONS ROOFTOP SOLAR PHOTOVOLTAIC ARRAY

15.04 CONTRACTOR RESPONSIBILITIES

The final design package and documents shall include the following, but are not all required in the proposal stage:

1. Description of the solar photovoltaic array system.
2. Construction documents and engineering calculations that are signed and sealed by a licensed architect or engineer.
3. Layout drawing of installation site providing location of all equipment.
4. Equipment details and specifications
5. Schedule for equipment procurement and installation.
6. Description of how Consumers Energy grid-interconnection requirement will be met.
7. Description of controls, monitors, and instrumentation to be used for the solar photovoltaic array system.
8. Equipment and installation manuals.
9. Safety plan.
10. Quality control plan.
11. Operations and Maintenance manuals for system operations and performance monitoring over the life of the contract.
12. Web-based monitoring.
13. Close out report, including the following information: system nameplate size, the overall installed cost of the system, and estimated annual kilowatt hour (kWh) production.
14. Attendance at a minimum of two pre-and/or post construction meetings, open houses, and/or tours during 2020.

The Contractor shall take out all required electrical and building/structural permits, arrange for all necessary inspections, and shall pay all fees and expenses in connection with the same as part of the work under this contract.

15.05. WARRANTIES

The contractor's standard system warranty **minimum** coverage should cover modules, inverter, racking and workmanship.

1. **Modules:** 25-year Power Output & 10 Workmanship Limited Warranty
2. **Inverter:** 10-Year Limited Warranty, and provide a price and/or plan for inverter replacement in year 11 and beyond
3. **Racking:** 10-Year Limited Warranty priority
4. **Workmanship:** 18 Month Limited Warranty

15.06 SYSTEM MONITORING

Monitoring of system performance and providing public education and outreach is an important element of this proposal. Meridian Township will favor a proposal that includes a turnkey monitoring system that can be integrated into the Meridian Township computer system for display on the Meridian Township website. The system should display and analyze historical and live solar electricity generation data. Additionally, the regularly collected data should reflect, but not be limited, to the following:

1. Average and accumulated output (kWh/kW and total kWh)
2. Capacity factor
3. Air quality emissions averted (and real world equivalents conversion)

If possible, we would like the monitoring to be incorporated into our current website, which is:

<https://monitoringpublic.solaredge.com/solaredge-web/p/site/public?name=Meridian%20Township#/dashboard>

**MERIDIAN TWP TECHNICAL SPECIFICATIONS
ROOFTOP SOLAR PHOTOVOLTAIC ARRAY**

15.07 OPERATION AND MAINTENANCE OF SYSTEM

The Contractor is asked to provide a price for an extended warranty and O&M service. The anticipated operation and maintenance services include:

1. Maintaining online monitoring/platform.
2. Performance monitoring, notification, and troubleshooting - must have personnel available to notify Meridian Township of an outage or issue with system production.
3. Corrective maintenance to mitigate any risk to the system or minimize downtime.
4. Preventative maintenance and inspections to identify and fix problems before they occur, including infrared photography for hot spots, manufacturer recommended maintenance, hardware torque checks, and array cleanings.

Prior to system start-up, Contractor shall supply Meridian Township two copies of all Component Product Data and Component Operation and Maintenance manuals. The information shall be sufficient for Meridian Township to evaluate and ensure appropriate Operation and Maintenance is being completed over the life of the system. Examples of components include solar panels, conduit, inverter, net metering equipment, etc. Project as-builts that detail location of all above and underground utilities and components shall be submitted within 30 days of system start-up.

**ROOFTOP SOLAR RPHOTOVOLTAIC ARRAY 2020
(Revised June 2020)**

SPECIAL PROVISIONS

(These Special Provisions are in addition to those in the General and Technical Specifications in the event of a conflict.)

ADDITIONAL ITEMS DUE WITH PROPOSAL

1. **Cover/Transmittal Letter:** Cover letter must summarize key provisions of the proposal and must include name, address, phone number and email of the contact for the Contractor.
2. **Executive Summary:** Include key provisions of the proposal, including understanding of Meridian Township goals, pricing, contractor's role on project, brief description of proposed system, relevant experience of company, and key timeline dates.
3. **Company Profile:** Years in business, description of company's background, applicable state licensing, OSHA background and safety protocol, insurance, quality assurance/quality control documentation.
4. **Project Experience:** Include projects completed in the last 3 years similar in scope and size to the proposed project. Include project name, system size, location, and brief 2-3 sentence project description. Highlight company's permitting and interconnection experience with local utility. Also, include three (3) project references with direct client phone numbers.
5. **Project Team:** Organization chart and bios (length of time with firm, key projects) of key team members, capability to perform work/workload capacity. Please only profile individual that will directly be working on this project. Clearly identify the project manager.
6. **Technical Solution/Scope of Work:** Describe your technical approach to the design and construction of the solar project including:
 - a) Technical Approach, Design, Equipment, Installation
 - 1) Panel, inverter, racking specifications
 - 2) Equipment and workmanship warranties
 - b) Exhibits showing proposed layouts and system single line diagrams
 - c) PVSYST Report, or equivalent, indicating kWh production of the proposed system on an annual basis.
 - d) A description of the equipment and services to be provided.
 - e) Site evaluation, including shading calculations.
 - f) Proposed monitoring system/solution
 - g) Operations & Maintenance Plan providing detail of proposed services and frequency of services offered for the project. Please price Operations & Maintenance plan separately from cash purchase option.
7. **Production Assurances:** Provide at least a 90% kWh state guarantee for year 1, degrading by a maximum of 0.7%/year for 20 years.
8. **Financial Savings Projection:** Present year 1 and 20 year financial savings, including accounting for Renewable Energy Credits as a line item.

**ROOFTOP SOLAR PHOTOVOLTAIC ARRAY 2020
SPECIAL PROVISIONS**

ADDITIONAL ITEMS DUE WITH PROPOSAL (Cont'd.)

9. **Price Proposal:** Provide a cash purchase price for the system on page P-2.
10. **Safety:** Please include a brief description of the safety practices of your firm, as well as, the OSHA Reporting Indicators for the last three (3) years.
11. **Proposed Schedule:** Identify key project milestones and include any necessary review periods for Meridian Township.
12. Supplemental support services (maintenance, site restoration if ground-mount, etc.) and associated fees (if applicable).

EVALUATION/SELECTION CRITERIA

Meridian Township will evaluate proposals according to the evaluation criteria below:

- | | | |
|----|--|-----------|
| a) | Proposal Cost Effectiveness | 50 points |
| b) | Technical Approach/Implementation Schedule | 30 points |
| c) | Company Qualifications/Project Experience | 20 points |

Points will be awarded based on the relative merit of the information provided in the proposal. Selection based on a total number of points awarded by the Owner. Result of this step will be the identification of the selection of a proposal for award of contract.

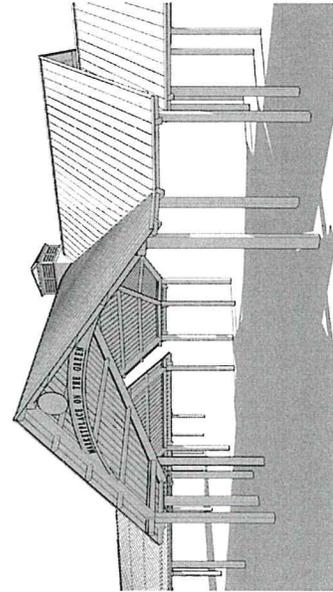
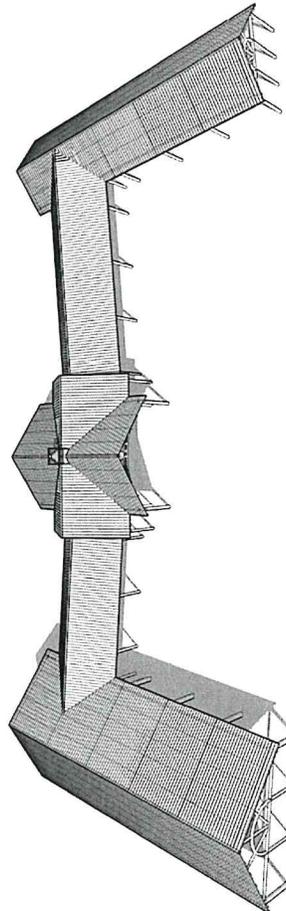
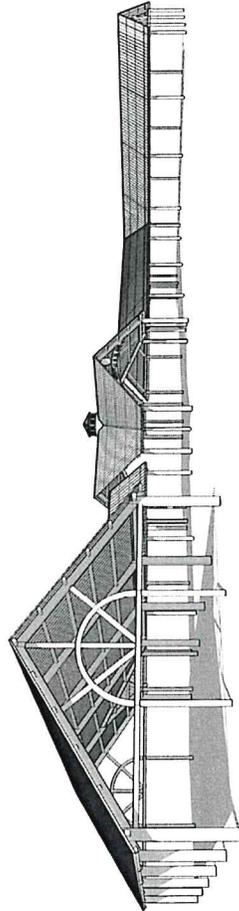
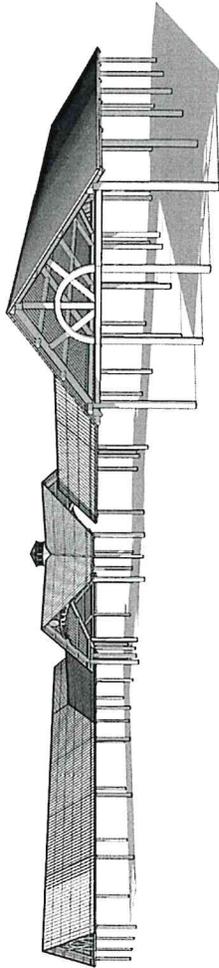
Meridian Township may elect to conduct interviews with selected respondents to ask questions or for more detail on the proposed project. Meridian Township reserves the right to seek supplemental information from any bidder at any time after official proposal opening and before award. This will be limited to clarification or more detail on information included in the original proposal.

PROPOSAL/WORK SCHEDULE

The schedule for this proposal is as indicated below. It may be modified at the discretion of Meridian Township. An addendum will be issued in the event of any scheduling changes.

<u>Project Milestone</u>	<u>Date Time</u>
Bids Advertised	_____
MANDATORY Site Walk/Pre-Bid Conference	_____
Questions/Request for Information Due	_____
Answers to Questions Distributed	_____
Proposal Due	_____
Approval	_____
Notice of Award	_____
Completion/System Operation Date	_____

Work Hours: Complete discussion of this issue will be made with the successful bidder.



GENERAL NOTES:

1. PROPER BRACING OF MEMBERS DURING INSTALLATION MUST BE PERFORMED UNTIL COMPLETE.
2. ANY MODIFICATIONS TO THE PROPOSED SHELTER NEED TO HAVE PRIOR CONSENT FROM A LICENSED ENGINEER.
3. THE INSTALLATION OF THE SHELTER SHALL BE PERFORMED BY SOMEONE OF EXPERIENCE AND COMPETENCE. IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO PROPERLY ASSEMBLY THE SHELTER AS SHOWN IN THIS DOCUMENT AND TO CONSTRUCT SHELTER FOUNDATIONS AS SPECIFIED IN SUPPLEMENTAL ENGINEERING DOCUMENTS.
4. READ AND UNDERSTAND INSTALLATION INSTRUCTIONS THOROUGHLY BEFORE PROCEEDING WITH THE INSTALLATION PROCESS.
5. ALWAYS USE THE INSTALLATION INSTRUCTIONS THAT HAVE SHIPPED WITH THE SHELTER AS THESE ARE THE MOST CURRENT. POSSIBLE CHANGES IN MATERIAL QUANTITIES, LENGTHS, PART LABELS, ETC. MAY HAVE BEEN NECESSARY DURING FINAL SHOP DRAWINGS, EVEN AFTER SEALED ENGINEERING.
6. SHOULD THERE BE ANY ERROR IN MANUFACTURING OR INSTALLATION, COVERWORX SHOULD BE NOTIFIED AS SOON AS POSSIBLE. ABSOLUTELY NO FIELD REPAIRS WILL BE HONORED WITHOUT PRIOR AUTHORIZATION OF PROCESS AND COST BY COVERWORX MANAGEMENT.

STEEL & HARDWARE SHOP NOTES:

1. ALL STEEL IS TO BE ASTM A-36 EXCEPT STEEL TUBES.
2. STEEL TUBES SHALL BE ASTM A-500 GRADE B.
3. ALL WELDING IS TO BE DONE IN ACCORDANCE WITH THE LATEST AWS STANDARDS AND ALL WELDS ARE TO DEVELOP FULL STRENGTH OF COMPONENT PARTS. (E7081 ELECTRODES).
4. ALL BOLTS TO BE ASTM A-325.
5. ALL BOLTED CONNECTIONS SHOULD FOLLOW THE "TURN-OF-NUT PRETENSIONING" METHOD AS OUTLINED IN THE AISC SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO MAKE SURE ALL AISC REQUIREMENTS ARE MET.
6. ALL STEEL FRAMEWORK WILL RECEIVE A CORROSION PROTECTIVE ZINC-RICH EPOXY PRIMER FOLLOWED BY A TGIC POLYESTER POWDER COAT. ELECTRO-STATICALLY APPLIED AND CURED AT 400°F.

11800 East 9 Mile Road
Warren, MI 48099
Office: (586) 466-1086
Fax: (586) 466-1087
Toll Free: (800) 857-4118
Email: info@coverworx.com
www.CoverWorx.com



PROJECT: Meridian Farmers Market
Meridian Twp., MI
DRAWING: GENERAL NOTES

PROJECT # 91522-19
DRAWN BY: RH
DATE: 10-29-19
SHEET: S1

FRAMING	Item	Size	Quantity
COLUMN (C1)	16" x 6" x 5/16" x 14'-6 1/2"	4	
COLUMN (C2)	16" x 6" x 5/16" x 14'-6 1/2"	7	
COLUMN (C3)	8" x 6" x 3/16" x 12'-4"	4	
COLUMN (C4)	8" x 6" x 3/16" x 13'-4"	4	
COLUMN (C5)	8" x 6" x 3/16" x 13'-3 7/8"	25	
COLUMN (C6)	12" x 6" x 3/16" x 15'-5 1/4"	8	
COLUMN (C7)	12" x 6" x 3/16" x 14'-2 3/4"	4	
RAFTER TAIL (T1)	10" x 6" x 3/16" x 1'-7 1/4"	12	
RAFTER TAIL (T2)	10" x 6" x 3/16" x 2'-0"	25	
RAFTER TAIL (T3)	10" x 6" x 3/16" x 1'-9 3/4"	8	
RAFTER BEAM (RA1)	14" x 6" x 1/4" x 26'-6"	4	
RAFTER BEAM (RA2)	14" x 6" x 1/4" x 26'-6"	7	
RAFTER BEAM (RA3)	14" x 6" x 1/4" x 11'-7 5/8"	1	
RAFTER BEAM (RA4) LUR	10" x 6" x 3/16" x 15'-1 1/2"	4 (2 each)	
RAFTER BEAM (RA5)	10" x 6" x 3/16" x 14'-10 1/4"	21	
RAFTER BEAM (RA6)	10" x 6" x 3/16" x 14'-10 1/4"	4	
RAFTER BEAM (RA7)	12" x 6" x 1/4" x 20'-9 1/4"	8	
VALLEY BEAM (V1) LUR	10" x 6" x 3/16" x 23'-4 1/4"	2 (1 each)	
VALLEY BEAM (V2) LUR	10" x 6" x 3/16" x 23'-4 1/4"	2 (1 each)	
VALLEY BEAM (V3) LUR	12" x 6" x 3/16" x 23'-4 1/4"	4 (2 each)	
RIDGE BEAM (RD1)	7" x 5" x 3/16" x 19'-2 1/2"	5	
RIDGE BEAM (RD2)	7" x 5" x 3/16" x 1'-7 3/4"	2	
RIDGE BEAM (RD3)	7" x 5" x 3/16" x 1'-7 3/4"	2	
RIDGE BEAM (RD4)	7" x 5" x 3/16" x 11'-10 1/4"	1	
RIDGE BEAM (RD5)	7" x 5" x 3/16" x 9'-3 1/2"	2	
RIDGE BEAM (RD6)	7" x 5" x 3/16" x 19'-3 1/2"	8	
RIDGE BEAM (RD7)	7" x 5" x 3/16" x 1'-7 3/4"	7	
RIDGE BEAM (RD8)	7" x 5" x 3/16" x 19'-1 1/2"	2	
RIDGE BEAM (RD9)	7" x 5" x 3/16" x 11'-9"	1	
RIDGE BEAM (RD9)	7" x 5" x 3/16" x 25'-3"	4	
COMPRESSION RING (CR1)	8 1/2" x 8 1/2" x 1'-6"	2	
COMPRESSION RING (CR2)	8 1/2" x 8 1/2" x 1'-6"	4	
COMPRESSION RING (CR3)	9 1/2" x 9 1/2" x 1'-5 1/2"	1	
COMPRESSION RING (CR4)	8 1/2" x 8 1/2" x 1'-1"	12	
COMPRESSION RING (CR5)	8 1/2" x 8 1/2" x 1'-1"	2	
COMPRESSION RING (CR6)	12 1/2" x 1'-6" x 1'-1"	1	
COMPRESSION RING (CR7)	8 1/2" x 8 1/2" x 1'-3"	4	
COMPRESSION RING (CR8)	1'-6" x 1'-6" x 1'-3"	1	
HEADER BEAM (HD1)	8" x 6" x 3/16" x 14'-3"	4	
HEADER BEAM (HD2)	8" x 6" x 3/16" x 16'-2"	2	
HEADER BEAM (HD3)	8" x 6" x 3/16" x 8'-1"	2	
HEADER BEAM (HD4)	8" x 6" x 3/16" x 8'-0"	4	
HEADER BEAM (HD5)	8" x 6" x 3/16" x 9'-4"	2	
HEADER BEAM (HD6)	8" x 6" x 3/16" x 9'-4" x 4'-9"	2	
SUNBURST (SB1)	8" x 4" x 3/16" x 7'-2 3/8"	4	
SUNBURST (SB2)	8" x 4" x 3/16" x 4'-7 1/2"	4	
SUNBURST (SB3)	8" x 4" x 3/16" x 7'-5"	4	
SUNBURST (SB4)	8" x 4" x 3/16" x 6'-9 1/2"	2	
SUNBURST (SB5)	8" x 4" x 3/16" x 3'-9 1/4"	4	
SUNBURST (SB6)	8" x 4" x 3/16" x 2'-9"	4	
SUNBURST (SB7)	8" x 4" x 3/16" x 3'-11 3/4"	2	
SUNBURST (SB8)	8" x 4" x 3/16" x 3'-10 3/4"	2	

FRAMING	Item	Size	Quantity
PURLIN (PA1)	8" x 6" x 3/16" x 19'-4"	26	
PURLIN (PA2) LUR	8" x 6" x 3/16" x 1'-8"	20 (10 ea.)	
PURLIN (PA3) LUR	8" x 6" x 3/16" x 6'-6 3/4"	4 (2 ea.)	
PURLIN (PA4) LUR	8" x 6" x 3/16" x 9'-5"	4 (2 ea.)	
PURLIN (PA5) LUR	8" x 6" x 3/16" x 7'-5 3/4"	8 (4 ea.)	
PURLIN (P1)	6" x 4" x 1/8" x 19'-4"	98	
PURLIN (P2)	6" x 4" x 1/8" x 1'-9"	76	
PURLIN (P3) LUR	6" x 4" x 1/8" x 4'-11 1/2"	4 (2 ea.)	
PURLIN (P4) LUR	6" x 4" x 1/8" x 11'-5 1/2"	2 (1 ea.)	
PURLIN (P5) LUR	6" x 4" x 1/8" x 15'-0 1/4"	2 (1 ea.)	
PURLIN (P6) LUR	6" x 4" x 1/8" x 7'-11 1/2"	4 (2 ea.)	
PURLIN (P7) LUR	6" x 4" x 1/8" x 4'-2 1/4"	4 (2 ea.)	
PURLIN (P8) LUR	6" x 4" x 1/8" x 6'-5 1/2"	4 (2 ea.)	
PURLIN (P9)	6" x 4" x 1/8" x 9'-6"	8	
PURLIN (P10) LUR	6" x 4" x 1/8" x 11'-2 1/4"	2 (1 ea.)	
PURLIN (P11) LUR	6" x 4" x 1/8" x 15'-5 1/2"	2 (1 ea.)	
PURLIN (P12) LUR	6" x 4" x 1/8" x 5'-11 1/2"	8 (4 ea.)	
PURLIN (P13) LUR	6" x 4" x 1/8" x 12'-4 3/4"	8 (4 ea.)	
PURLIN (P14) LUR	6" x 4" x 1/8" x 16'-10 1/2"	8 (4 ea.)	
PURLIN (P15) LUR	6" x 4" x 3/16" x 21'-4 1/2"	8 (4 ea.)	
ARCH TEXT LATTICE	24'-0" x 1'-8"	2	
MEDALLION PLATE	3'-0"	2	
ACCESS COVER PLATE	18" x 7" x 4 1/2"	36	
1 1/4" TEK SCREW (Frame Color)	12-24 x 1 1/4" TEK 5	72	
CUPOLA - FRAME	5'-0" x 5'-0" x 6'-3"	1	
CUPOLA - LOUVERS w/ (32) Tek 4.5 Screws	2'-1 1/2" x 1'-9"	8	

11800 East 9 Mile Road
Warren, MI 48099
Office: (586) 466-1086
Fax: (586) 466-1087
Tel: (586) 800 652-5118
Email: info@coverworx.com
www.CoverWorx.com

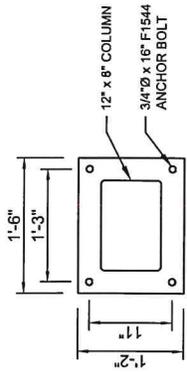


A Division of Ross & Barr Inc.

PROJECT: Meridian Farmers Market
DRAWN BY: RH
DATE: 10-29-19
SHEET: S2

Meridian Farmers Market
Meridian Twp., MI

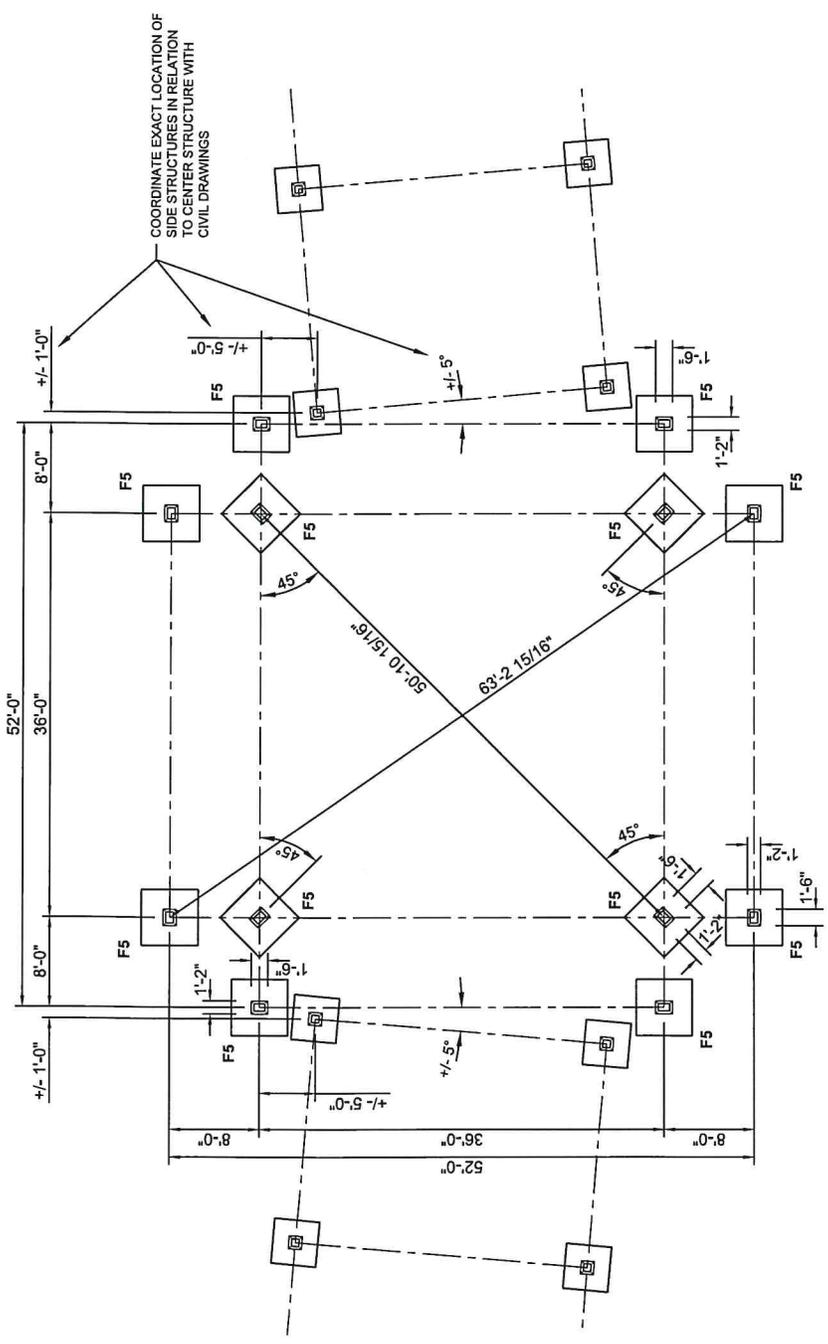
CONTENTS & QUANTITIES



F5 BASE PLATE ANCHOR LAYOUT
SCALE: 3/4" = 1'-0"

MARK	DEPTH 'A'	WIDTH 'B'	REINFORCING
F1	x'-x"	x'-x"	(X) #6 BARS E.W. TOP & BOT.
F2	x'-x"	x'-x"	(X) #6 BARS E.W. TOP & BOT.
F3	x'-x"	x'-x"	(X) #6 BARS E.W. TOP & BOT.
F4	x'-x"	x'-x"	(X) #6 BARS E.W. TOP & BOT.
F5	x'-x"	x'-x"	(X) #6 BARS E.W. TOP & BOT.

* SEE PAGE S8 FOR FOOTING & ANCHOR DETAILS



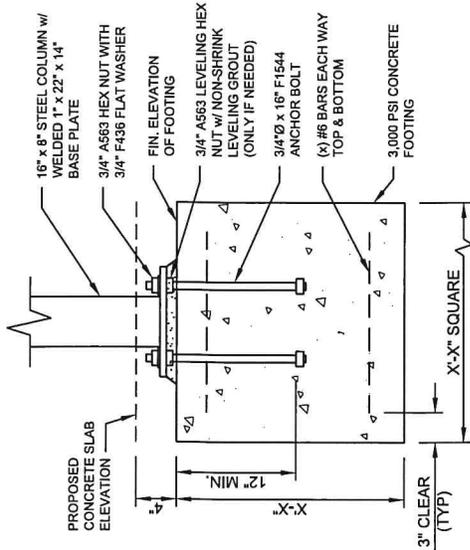
56' x 56' CENTER CROSS GABLE
FOOTING LAYOUT PLAN
SCALE: NTS



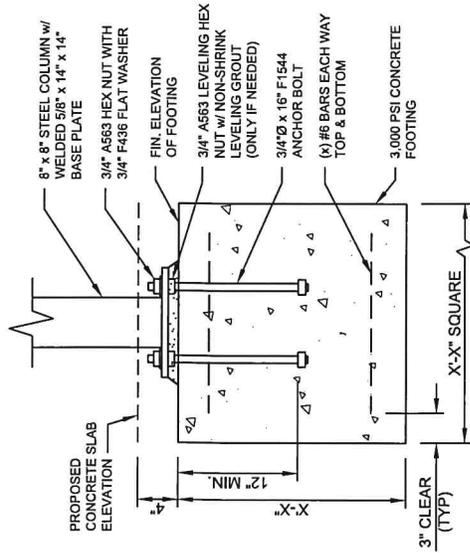
COVERWORX
 Recreational Architecture
 A Division of Ross & Barr Inc.

11800 East 9 Mile Road
 Warren, MI 48099
 Office: (586) 466-1088
 Fax: (586) 466-1089
 Toll Free: (800) 857-6118
 Email: info@coverworx.com
 www.CoverWorx.com

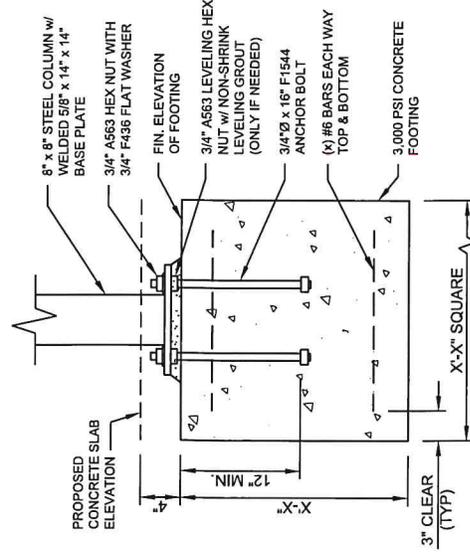
PROJECT:	Meridian Farmers Market Meridian Twp., MI	PROJECT #	91522-19
DRAWING:	56' x 56' CENTER CROSS GABLE FOOTING LAYOUT PLAN	DRAWN BY:	RH
		DATE:	10-29-19
		SHEET:	S5



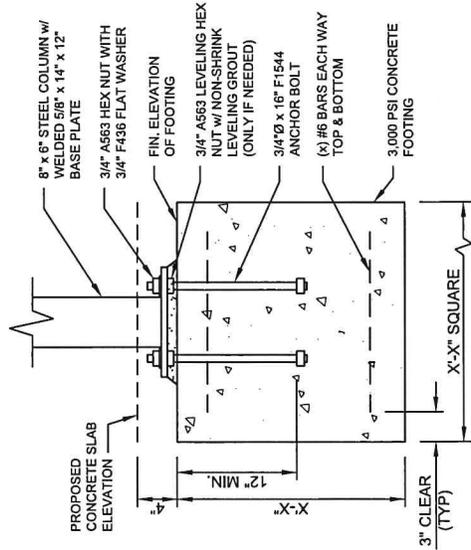
F1 FOOTING DETAIL
SCALE: 1" = 1'-0"



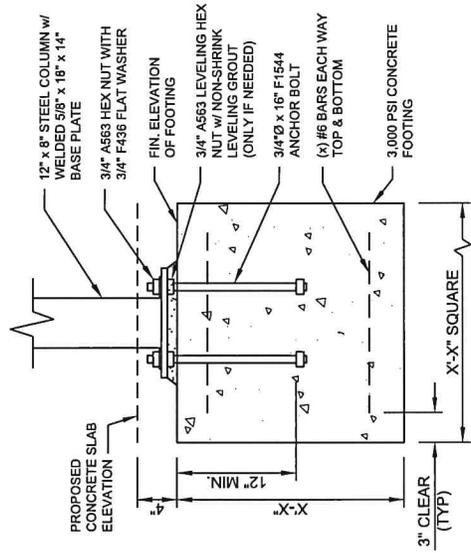
F2 FOOTING DETAIL
SCALE: 1" = 1'-0"



F3 FOOTING DETAIL
SCALE: 1" = 1'-0"



F4 FOOTING DETAIL
SCALE: 1" = 1'-0"

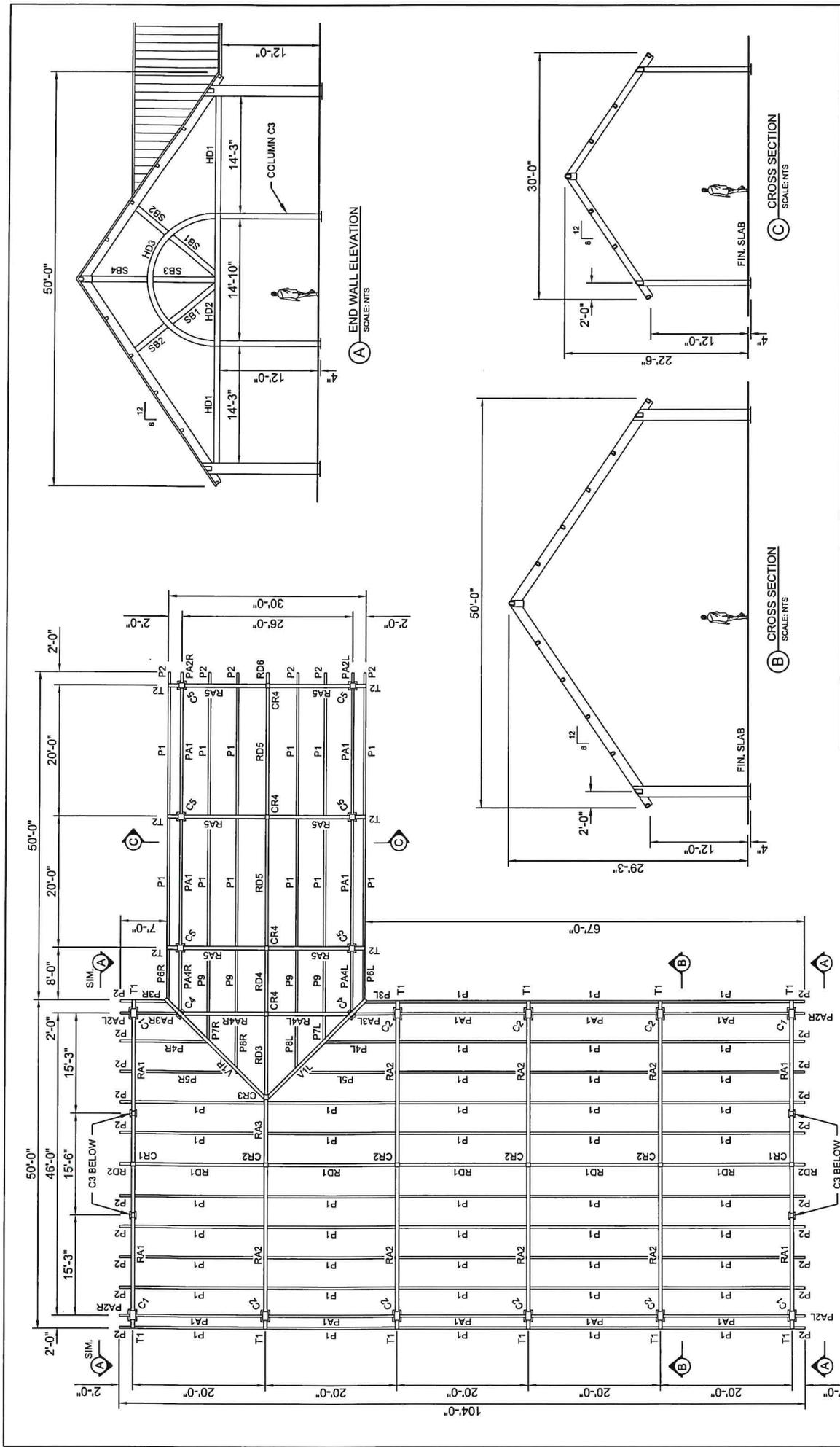


F5 FOOTING DETAIL
SCALE: 1" = 1'-0"

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Email: info@coverworx.com
www.coverworx.com

PROJECT:	Meridian Farmers Market Meridian Twp., MI
DRAWING:	BASE PLATE & FOOTING DETAILS
PROJECT #	91522-19
DRAWN BY:	RH
DATE:	10-29-19
SHEET:	S6

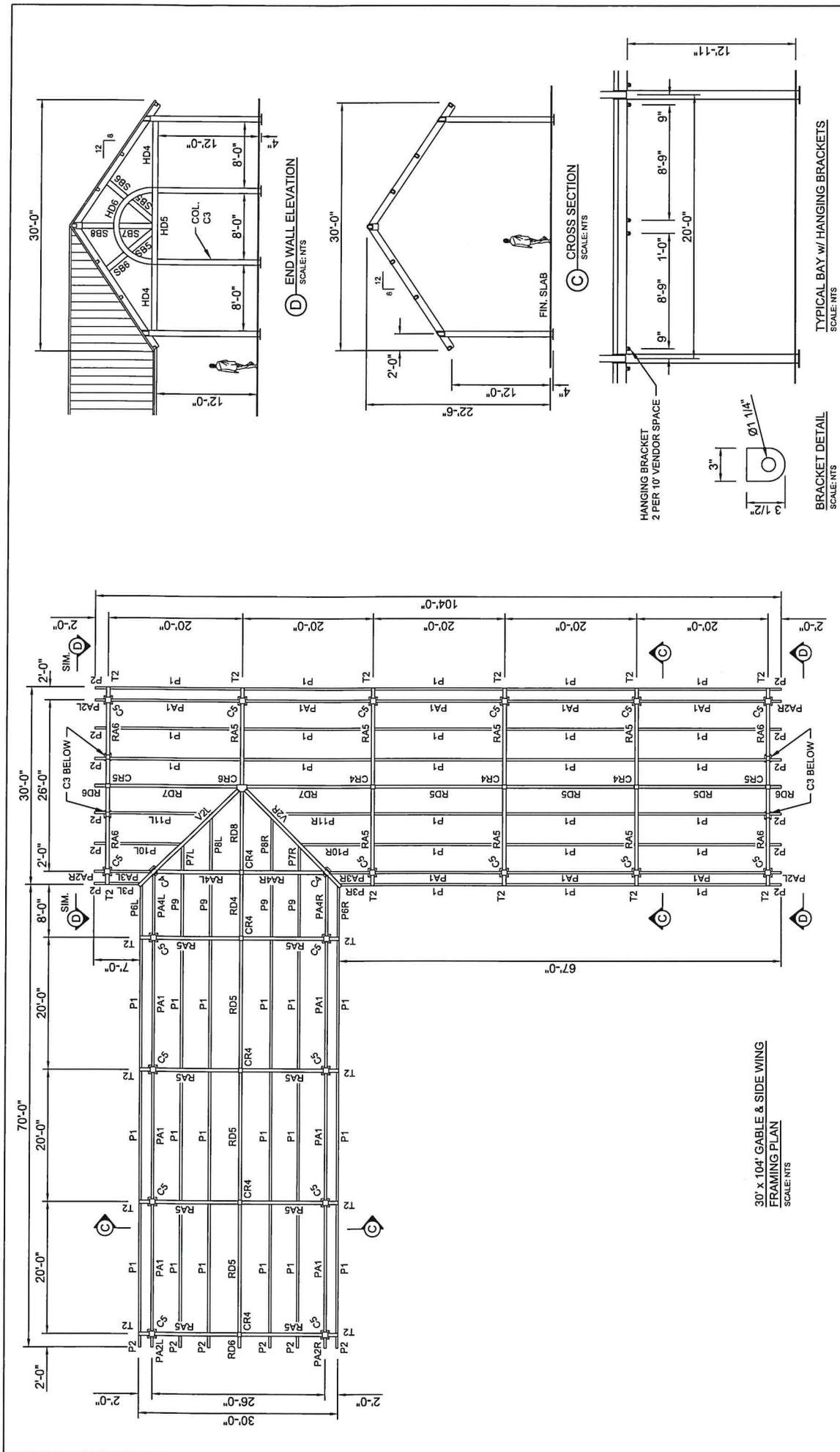


PROJECT:	Meridian Farmers Market Meridian Twp., MI	PROJECT #	91522-19
DRAWING:	50' x 104' GABLE & SIDE WING FRAMING PLAN & SECTIONS	DRAWN BY:	RH
		DATE:	10-29-19
		SHEET:	S7

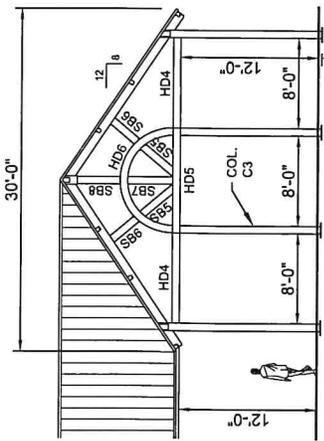
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Fax: (586) 466-1118
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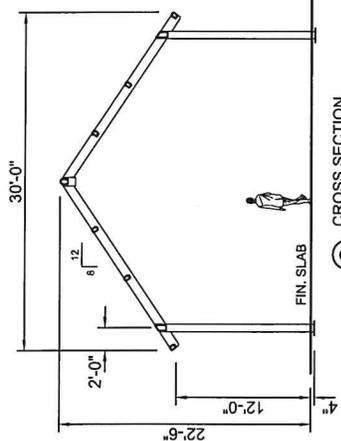
50' x 104' GABLE & SIDE WING
FRAMING PLAN
SCALE: NTS



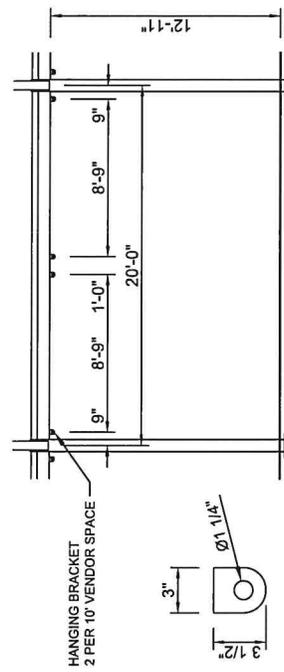
30' x 104' GABLE & SIDE WING
FRAMING PLAN
SCALE: NTS



END WALL ELEVATION
SCALE: NTS



CROSS SECTION
SCALE: NTS

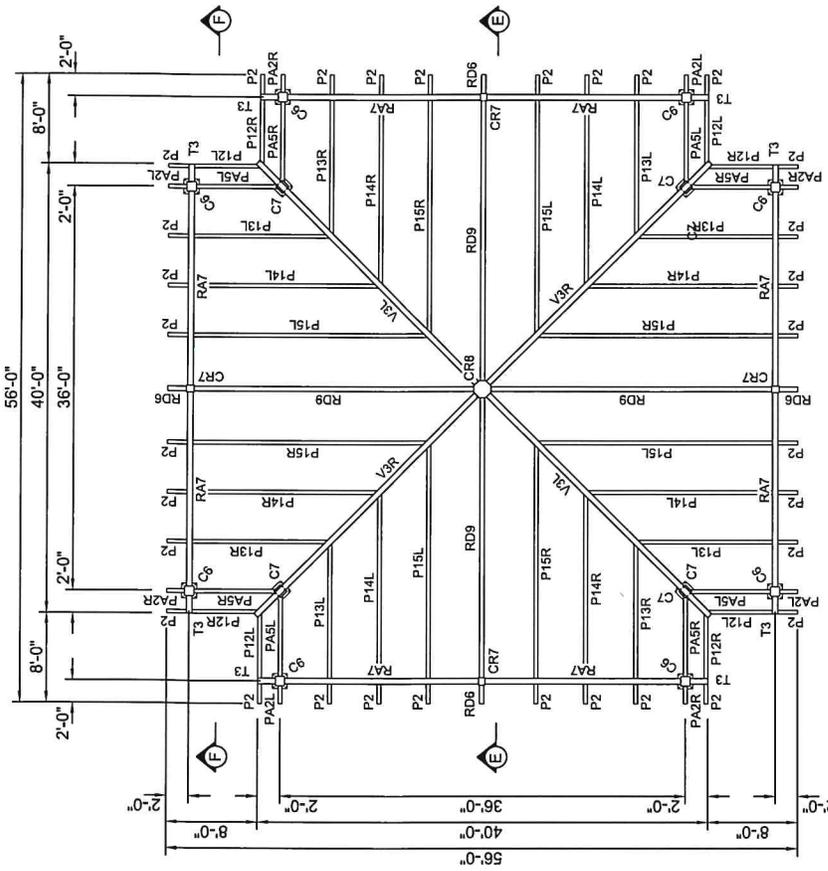
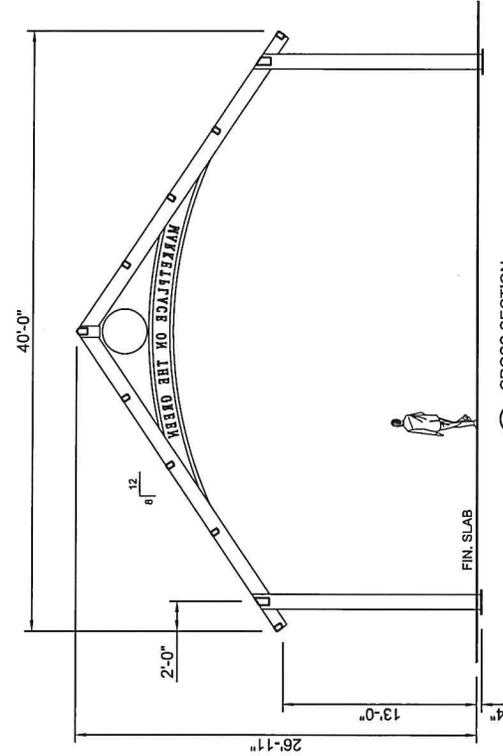
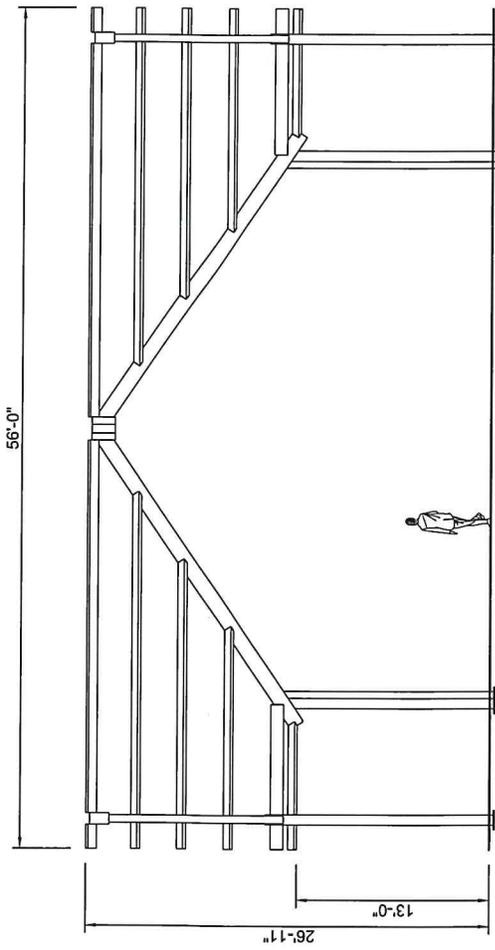


BRACKET DETAIL
SCALE: NTS

TYPICAL BAY W/ HANGING BRACKETS
SCALE: NTS

PROJECT:	11800 East 9 Mile Road Warren, MI 48099 Office: (586) 466-1088 Fax: (586) 466-1089 Toll Free: (800) 657-4118 Email: info@coverworx.com www.CoverWorx.com	PROJECT #	91522-19
DRAWING:	30' x 104' GABLE & SIDE WING FRAMING PLAN & SECTIONS	DRAWN BY:	RH
		DATE:	10-29-19
		SHEET:	S8





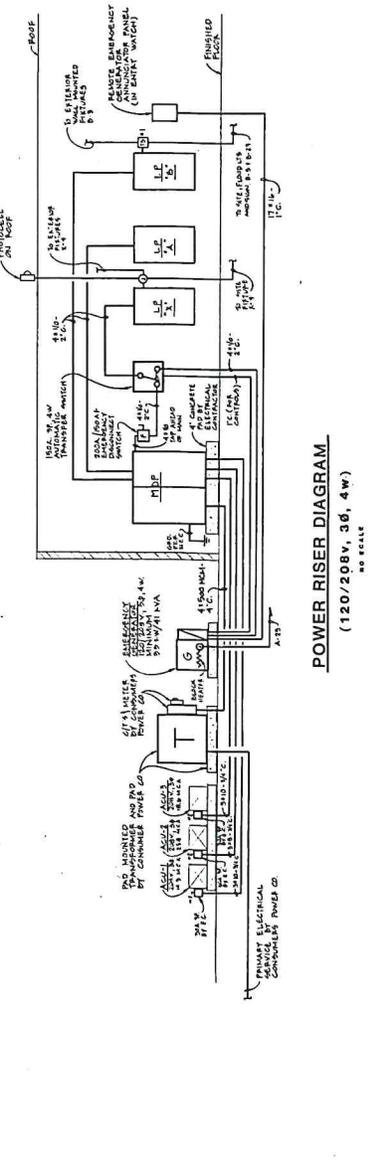
PROJECT:	Meridian Farmers Market Meridian Twp., MI	PROJECT #:	91522-19
DRAWING:	56' x 56' CENTER CROSS GABLE FRAMING PLAN & SECTIONS	DRAWN BY:	RH
		DATE:	10-29-19
		SHEET:	S9

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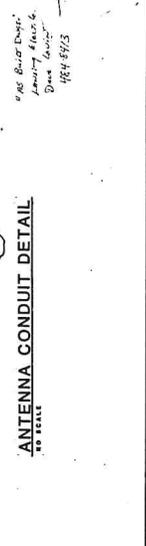
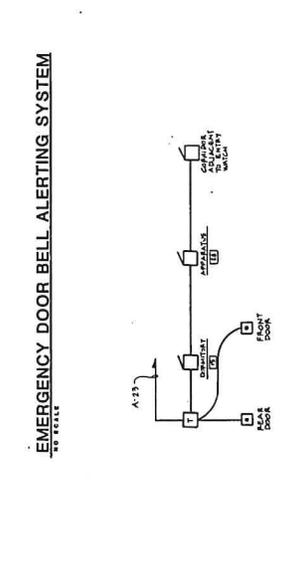
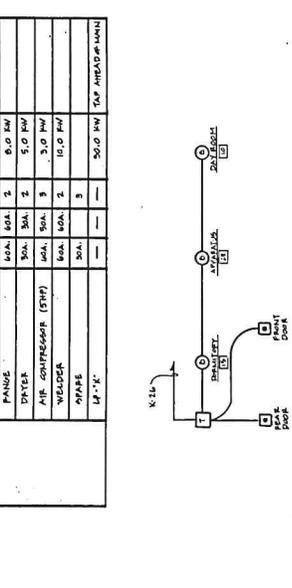
3000 TOWN CENTER & SUITE 1818, SOUTHFIELD, MICHIGAN 48075
 COULLARD/DUNN/PETERSON AND ARGENTA ARCHITECTS-ENGINEERS
 TELEPHONE (313) 354-8441

TYPE	LAWS	DESCRIPTION	MANUFACTURER
"A"	2-8000A MAY/20/M/1	8" x 16" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"B"	2-8000A MAY/20/M/1	Same as Type "A", except 4'-0" long and 180 watt energy saving ballast.	MELBARK
"C"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"D"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"E"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"F"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"G"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"H"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"I"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"J"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"K"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"L"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"M"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"N"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"O"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"P"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"Q"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"R"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"S"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"T"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"U"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"V"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"W"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"X"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"Y"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK
"Z"	2-8000A MAY/20/M/1	2 1/2" x 4" long identical fluorescent fixture, reflector providing 81 uplight, 180 watt energy saving ballast.	MELBARK



MAIN DISTRIBUTION PANEL SCHEDULE

PANEL DESIGNATION	ITEM SERVED	SWITCH	FUSES	POLES	CONNECTED LOAD	REMARKS
MAIN DISTRIBUTION PANEL (120/208V, 3Ø, 4W)	MAIN SWITCH	400A	600A	3	75.0 KW	
L1	DRYER	30A	100A	1	24.0 KW	
L2	WELDER	60A	100A	1	25.0 KW	
L3	WELDER	60A	100A	1	25.0 KW	
L4	WELDER	60A	100A	1	25.0 KW	
L5	WELDER	60A	100A	1	25.0 KW	
L6	WELDER	60A	100A	1	25.0 KW	
L7	WELDER	60A	100A	1	25.0 KW	
L8	WELDER	60A	100A	1	25.0 KW	
L9	WELDER	60A	100A	1	25.0 KW	
L10	WELDER	60A	100A	1	25.0 KW	
L11	WELDER	60A	100A	1	25.0 KW	
L12	WELDER	60A	100A	1	25.0 KW	
L13	WELDER	60A	100A	1	25.0 KW	
L14	WELDER	60A	100A	1	25.0 KW	
L15	WELDER	60A	100A	1	25.0 KW	
L16	WELDER	60A	100A	1	25.0 KW	
L17	WELDER	60A	100A	1	25.0 KW	
L18	WELDER	60A	100A	1	25.0 KW	
L19	WELDER	60A	100A	1	25.0 KW	
L20	WELDER	60A	100A	1	25.0 KW	
L21	WELDER	60A	100A	1	25.0 KW	
L22	WELDER	60A	100A	1	25.0 KW	
L23	WELDER	60A	100A	1	25.0 KW	
L24	WELDER	60A	100A	1	25.0 KW	
L25	WELDER	60A	100A	1	25.0 KW	
L26	WELDER	60A	100A	1	25.0 KW	
L27	WELDER	60A	100A	1	25.0 KW	
L28	WELDER	60A	100A	1	25.0 KW	
L29	WELDER	60A	100A	1	25.0 KW	
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L83	WELDER	60A	100A	1	25.0 KW	
L84	WELDER	60A	100A	1	25.0 KW	
L85	WELDER	60A	100A	1	25.0 KW	
L86	WELDER	60A	100A	1	25.0 KW	
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L89	WELDER	60A	100A	1	25.0 KW	
L90	WELDER	60A	100A	1	25.0 KW	
L91	WELDER	60A	100A	1	25.0 KW	
L92	WELDER	60A	100A	1	25.0 KW	
L93	WELDER	60A	100A	1	25.0 KW	
L94	WELDER	60A	100A	1	25.0 KW	
L95	WELDER	60A	100A	1	25.0 KW	
L96	WELDER	60A	100A	1	25.0 KW	
L97	WELDER	60A	100A	1	25.0 KW	
L98	WELDER	60A	100A	1	25.0 KW	
L99	WELDER	60A	100A	1	25.0 KW	
L100	WELDER	60A	100A	1	25.0 KW	

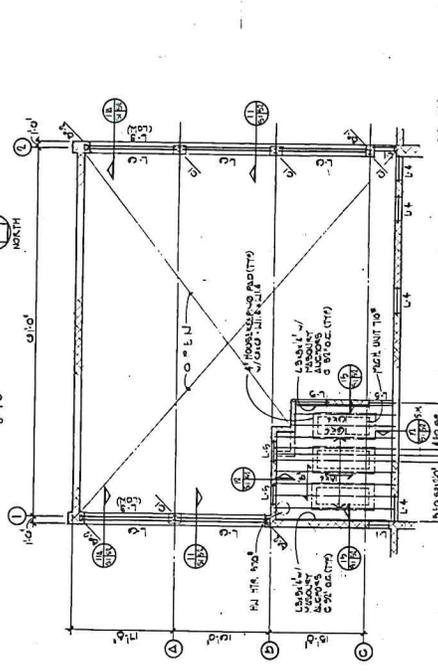
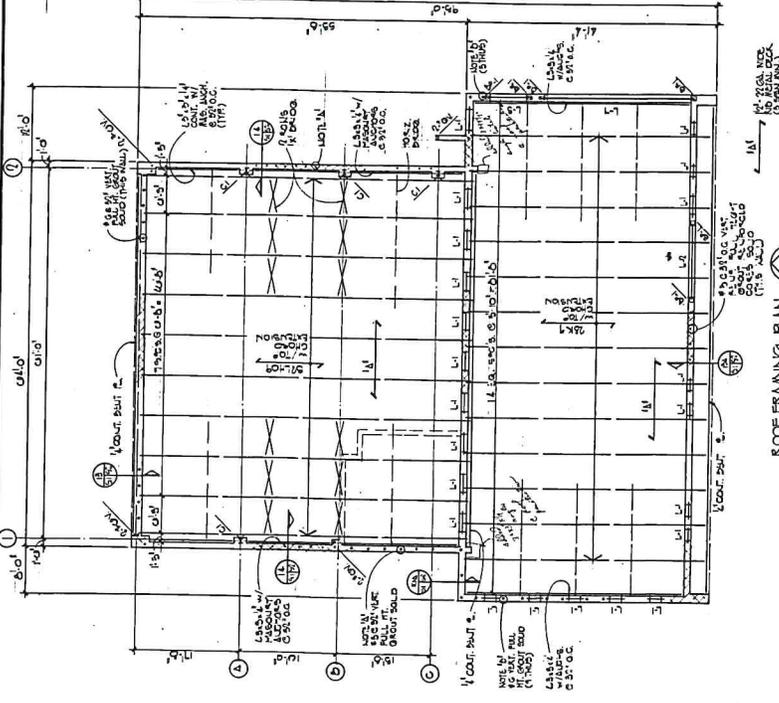
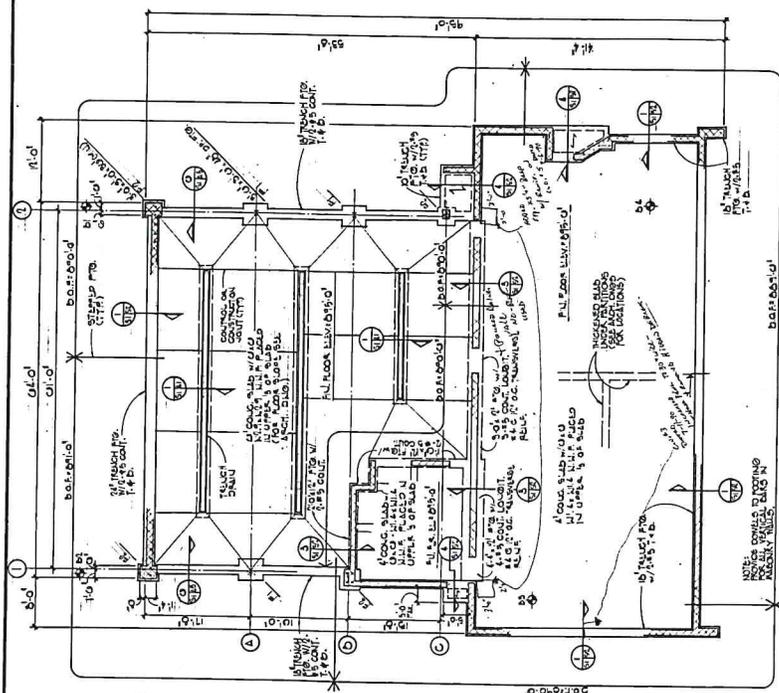


APX B (2)

DATE	ISSUED FOR	BY

COULLARD/DUNDON/PETERSON AND ARGENTA ARCHITECTS-ENGINEERS
3000 TOWN CENTER • SUITE 1018, BOUTHFIELD, MICHIGAN 48078
TELEPHONE (313) 354-8444

AS BUILT COPY
FILED IN 89-360
DRAWING NO.



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Questions:
 Visit: ConsumersEnergy.com
 Call us: 800-805-0490

Amount Due: \$1,730.71
 Please pay by: **February 24, 2020**

In case of an emergency, call us immediately day or night at 1-800-477-5050.

MERIDIAN TOWNSHIP
 5151 MARSH RD
 OKEMOS MI 48864-1104

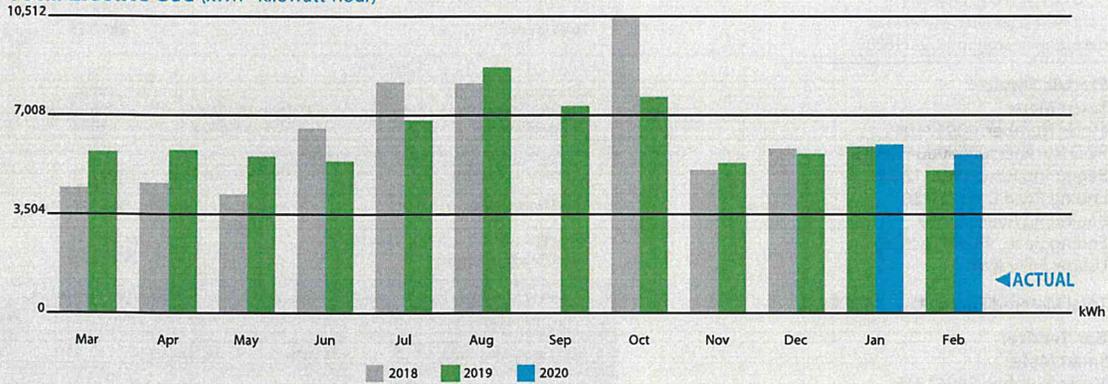
▶ **Thank You** - We received your last payment of \$1,669.02 on January 09, 2020

▶ **Service Address:**
 3711 OKEMOS RD
 OKEMOS MI 48864-3929

February Energy Bill

Service dates: December 27, 2019 - January 26, 2020 (31 days)

Total Electric Use (kWh - kilowatt-hour)



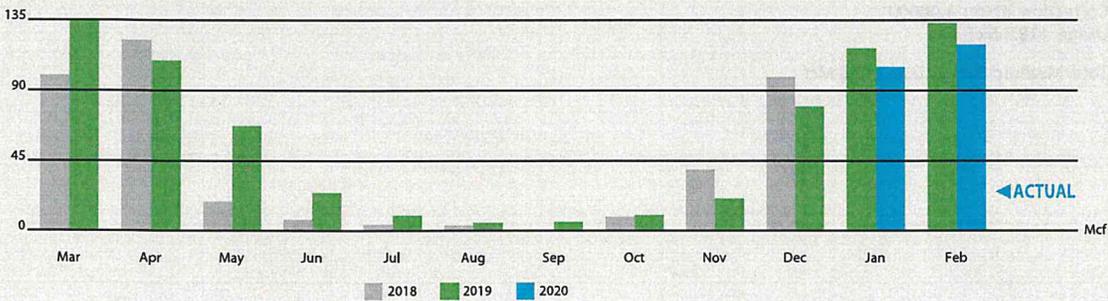
February 2020 Electric Use: 5,632 kWh
 February 2019 use: 5,066 kWh

Cost per day: \$27.34

kWh per day: 182

Prior 12 months electric use: 75,709 kWh

Total Natural Gas Use (Mcf - thousand cubic feet)



February Natural Gas Use: 118.8 Mcf
 February 2019 use: 133 Mcf

Cost per day: \$28.49

Mcf per day: 3.832

Prior 12 months of gas use: 688 Mcf

Fold, detach and mail this portion with your check made payable to Consumers Energy. Please write your account number on your check.



You can pay your bill by mail, by phone or online
 See reverse side for more information

Account: 1000 0785 5065

Service Address:
 MERIDIAN TOWNSHIP
 3711 OKEMOS RD
 OKEMOS MI 48864-3929

PAYMENT CENTER
 PO BOX 740309
 CINCINNATI OH 45274-0309

Amount Due: \$1,730.71
 Please pay by: **February 24, 2020**
 Enclosed:

I 100007855065 000001730712 0000 2056 8 000000000000 H



Need to talk to us? Visit ConsumersEnergy.com
or call **800-805-0490**
Hearing/speech impaired: Call 7-1-1

Service Address:
3711 OKEMOS RD; OKEMOS MI
48864-3929
Account: **1000 0785 5065**

Account Information

Bill Month: February
Service dates: 12/27/2019 - 01/26/2020
Days Billed: 31
Portion: 01 02/20

Programs:
Selected Due Date

Rate Information

Elec Gen Sec Rate GSD Com
Rate: 1120
Billing Demand: 15.0
Historical Max kW: 22.0
Power Factor: 0.96
Gas Gen Serv Rate GS-2 - Com Cust Choice
Rate: 278

Meter Information

Your next scheduled meter read
date is on or around 02/25/2020

Electric Service:

Smart Meter
Meter Number: 40057104
POD Number: 0000000612305
Beginning Read Date: 12-27
Ending Read Date: 01-26
Beginning Read: 87657
Ending Read: 93289 (Actual)
Usage: 5632 kWh

Total Metered Energy Use: 5632 kWh

Gas Service:

Smart Meter
Meter Number: 94061815
POD Number: 0000000612306
Beginning Read Date: 12-27
Ending Read Date: 01-26
Beginning Read: 83915
Ending Read: 85103 (Actual)
Differential: 1188
Constant: 0.1
Correction factor: 1.00000
Usage: 118.8 Mcf

Total Metered Energy Use: 118.8 Mcf

February Energy Bill

Invoice: 201629053346

Account Summary

Last Month's Account Balance	\$1,669.02
Payment on January 09, 2020	\$1,669.02-
Balance Forward	\$0.00

Payments applied after Jan 27, 2020 are not included.

Electric Charges

Power Supply Capacity kW	15@17.140000	\$257.10
Cap. Tax Reform Credit	15@ 0.160000-	\$2.40-
Energy	5632@ 0.040994	\$230.88
PSCR	5632@ 0.002110-	\$11.88-
System Access		\$30.00
Delivery Capacity kW	15@ 1.150000	\$17.25
Distribution	5632@ 0.029722	\$167.39
Dist. Tax Reform Credit	5632@ 0.000564-	\$3.18-
Energy Efficiency		\$154.54
Power Plant Securitization	5632@ 0.001213	\$6.83
Low-Income Assist Fund		\$0.92

Total Electric **\$847.45**

Natural Gas Charges

Customer Charge		\$81.86
Gas Distribution	118.8@ 2.449100	\$290.95
Energy Efficiency	118.8@ 0.306700	\$36.44

CenterPoint Energy Services 888/200-3788

Supplier Charge CP6 118.8@ 3.990000 **\$474.01**

Total Natural Gas **\$883.26**

Total Electric and Natural Gas Charges **\$1,730.71**
Total Energy Charges **\$1,730.71**

Amount Due:

\$1,730.71

by February 24, 2020

If you pay after the due date, a 2% late payment charge
will be added to your next bill.

Please make any inquiry or complaint about this bill before the due date listed on the front.
Visit ConsumersEnergy.com/aboutmybill for details about the above charges.

Consumers Energy is regulated by the Michigan Public Service Commission, Lansing, Michigan

Ways to pay your energy bill:



Auto-pay
Checking or savings

Auto-pay
Discover® MasterCard®
or Visa®
(Eligibility varies)



eLockbox
via ACH

Secure electronic
payment with
emailed remittance



Same-day payment
ConsumersEnergy.com

Discover® MasterCard®
or eCheck



Same-day payment
866-329-9593

Discover® MasterCard®
or eCheck



By mail
Check, money order

Consumers Energy
Payment Center
P.O. Box 740309
Cincinnati, OH 45274-0309



In person
Cash, check, card
or money order

Varies by authorized
payment location
Fee may apply

For more information, visit ConsumersEnergy.com/waystopay